



Telecommunication 4.0

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China Mobile



China Mobile Overview



Part of the Dow Jones Sustainability Indices for **10 consecutive years**

53rd in Fortune 500

21st in BrandZ Top 100



Total connections **1.633B**

Mobile subscribers **925M**



Personal mobile market share **60%**

Household market share **41.5%**

Corporate market share **38.5%**



4G Transforms Our Life



World's Largest 4G Network

2.41M 4G base stations
≥ 99% population coverage



World's Largest Fixed Network

157M broadband connections
≥100 Mbps



World's Largest IoT Network

551M connections
0.2M NB-IoT base stations

Lifestyle Transformation



Mobile payment



Video call



Fixed network



Smart parking



Video Website



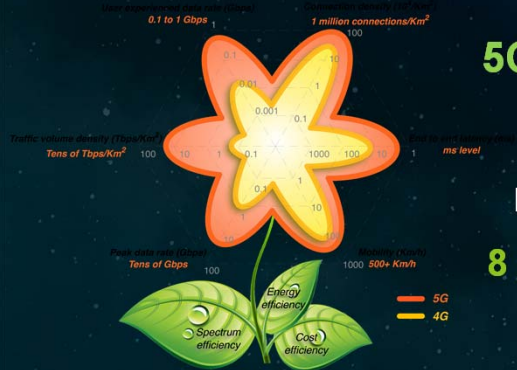
Intelligent lamp



Smart bike



China Mobile's Effort in 5G



5G Requirements

Proposed 5G flower

8 KPIs accepted by ITU

5G Ecosystem



O-RAN Alliance

17 5G Trial and Demonstration Cities
Xiong'an 5G Trial Network

"5G Device Forerunner Initiative"
"5G Network Pilot Plan"

5G Key Technologies & Standardization



1000+ patents

1500+ standard contributions

SBA, 3D-MIMO, CU-DU split, etc.

5G + Verticals



5G Joint Innovation Center

22 Global Open Labs

500+ Partners



R&D Landscape of China Mobile



R&D Expenditure

3% of Revenue



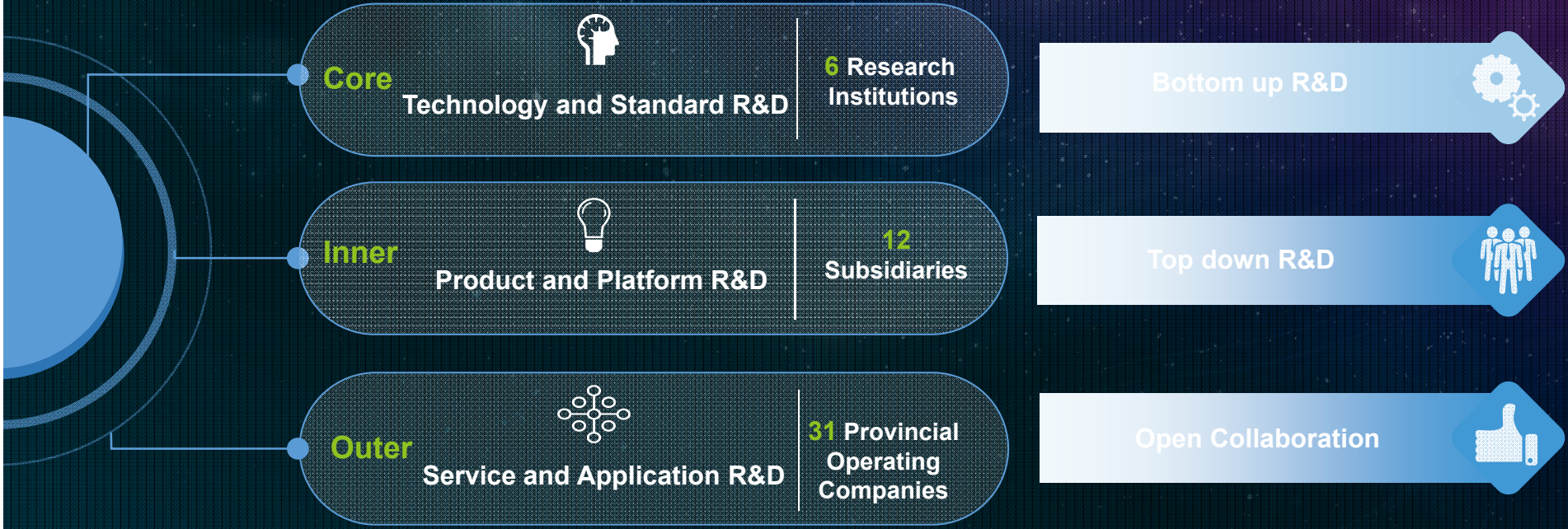
R&D Staff

10,000 +



National Key Labs

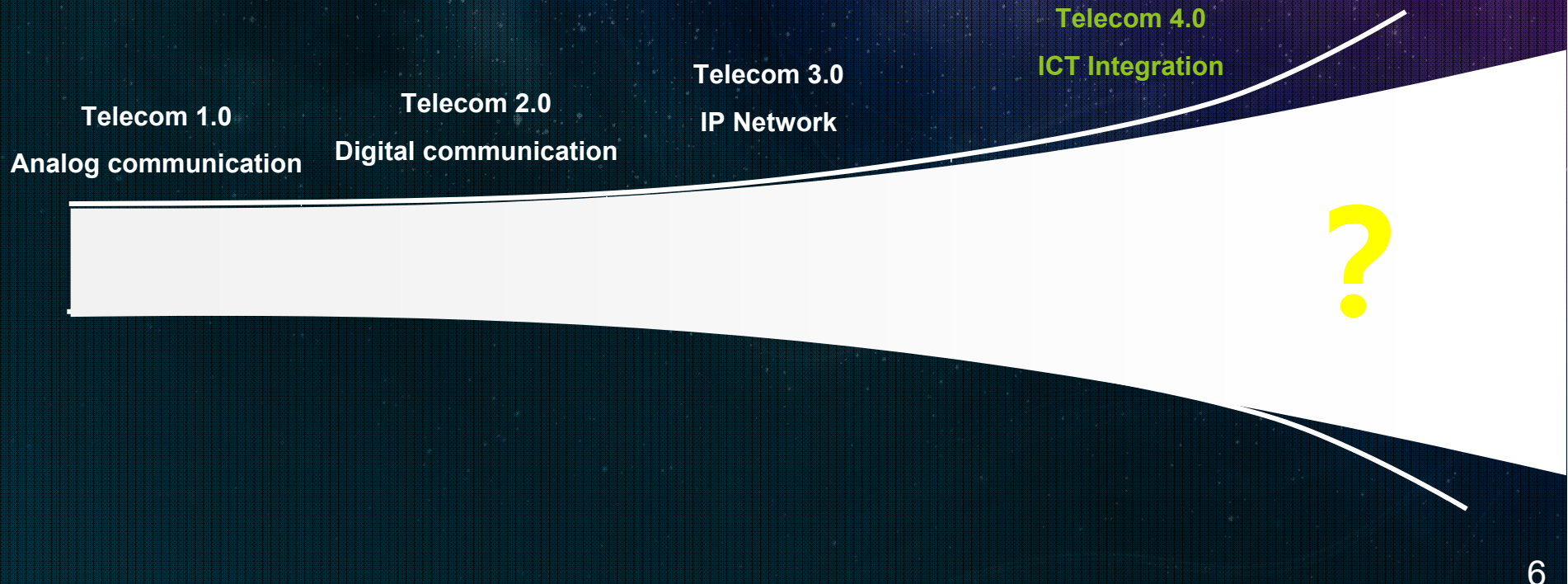
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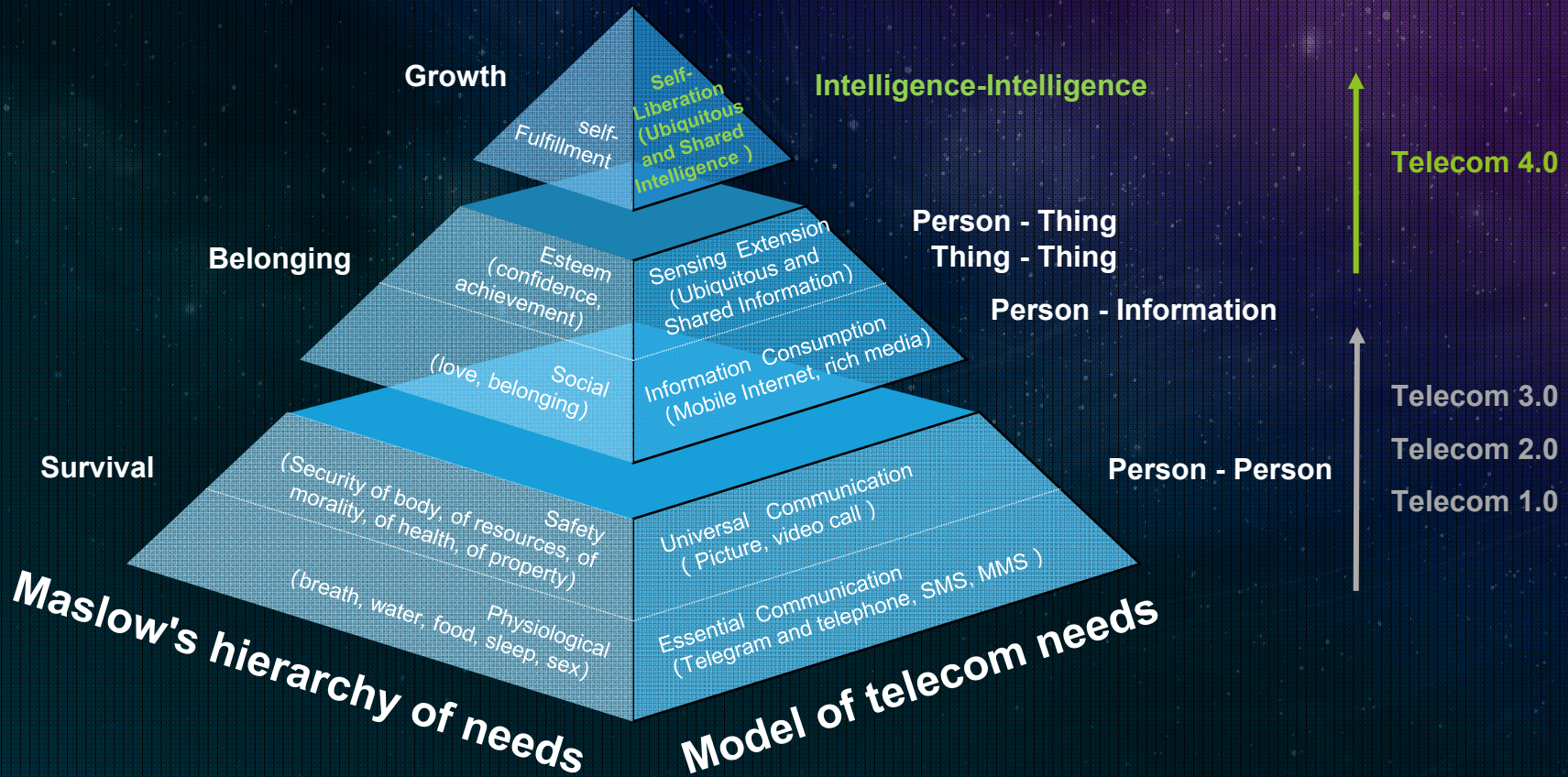
From Telecom 1.0 to 4.0 Dedicated to Revolutionary Evolution

Support our pursuit for better life
Promote social and economic development





Maslow Model for Telecommunication





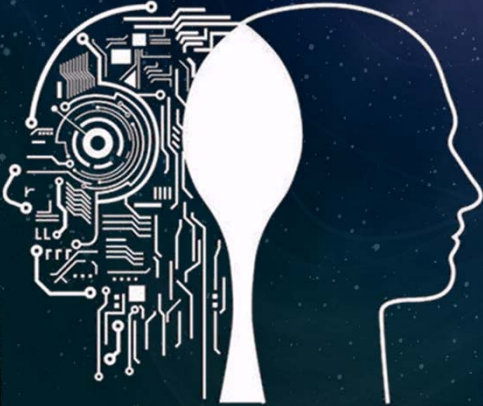
Digital Twin

Ubiquitous Information



Digital World

Interaction



Abstraction



Ubiquitous Sensing



Physical World



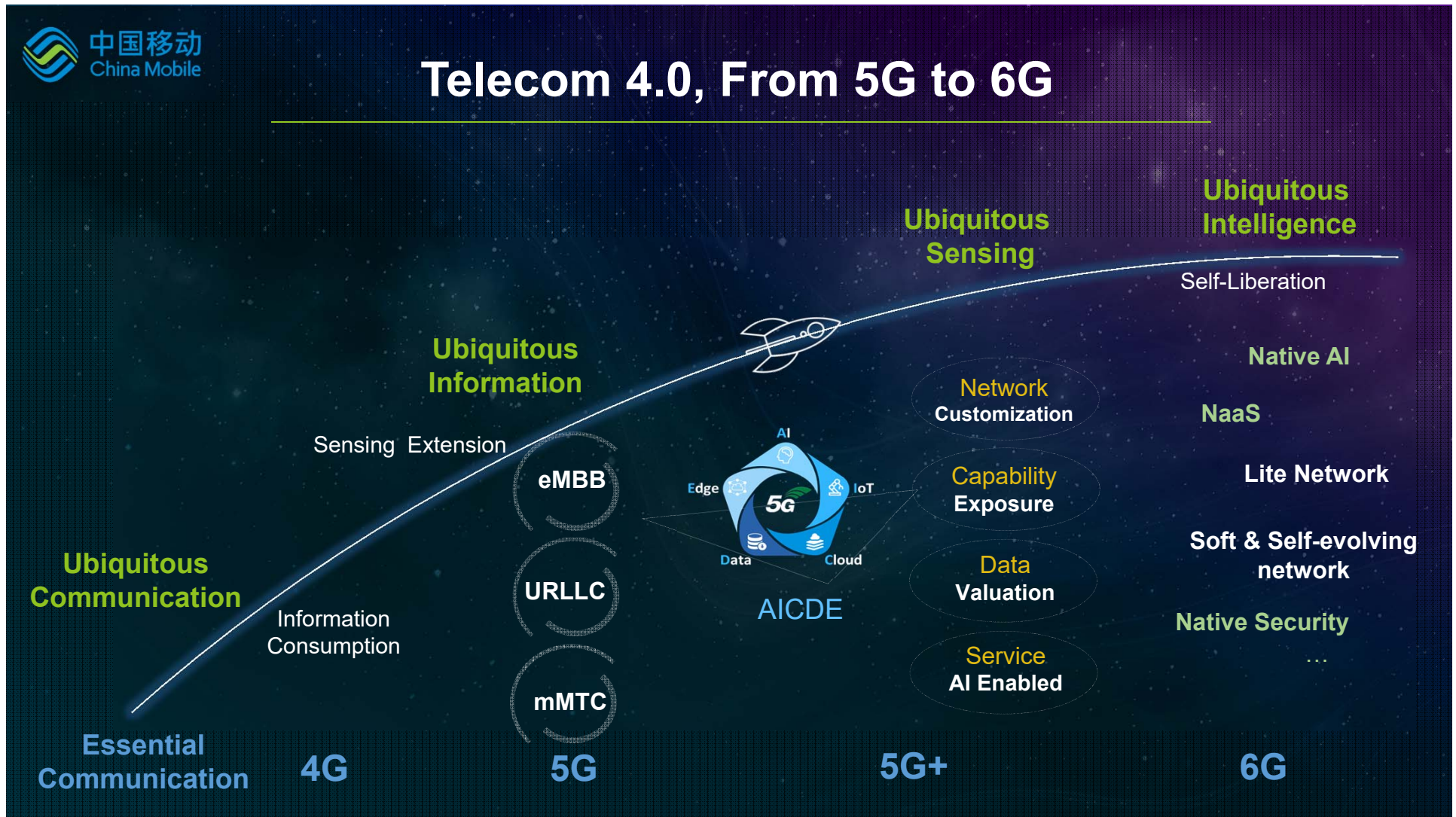


Pervasive Intelligent World





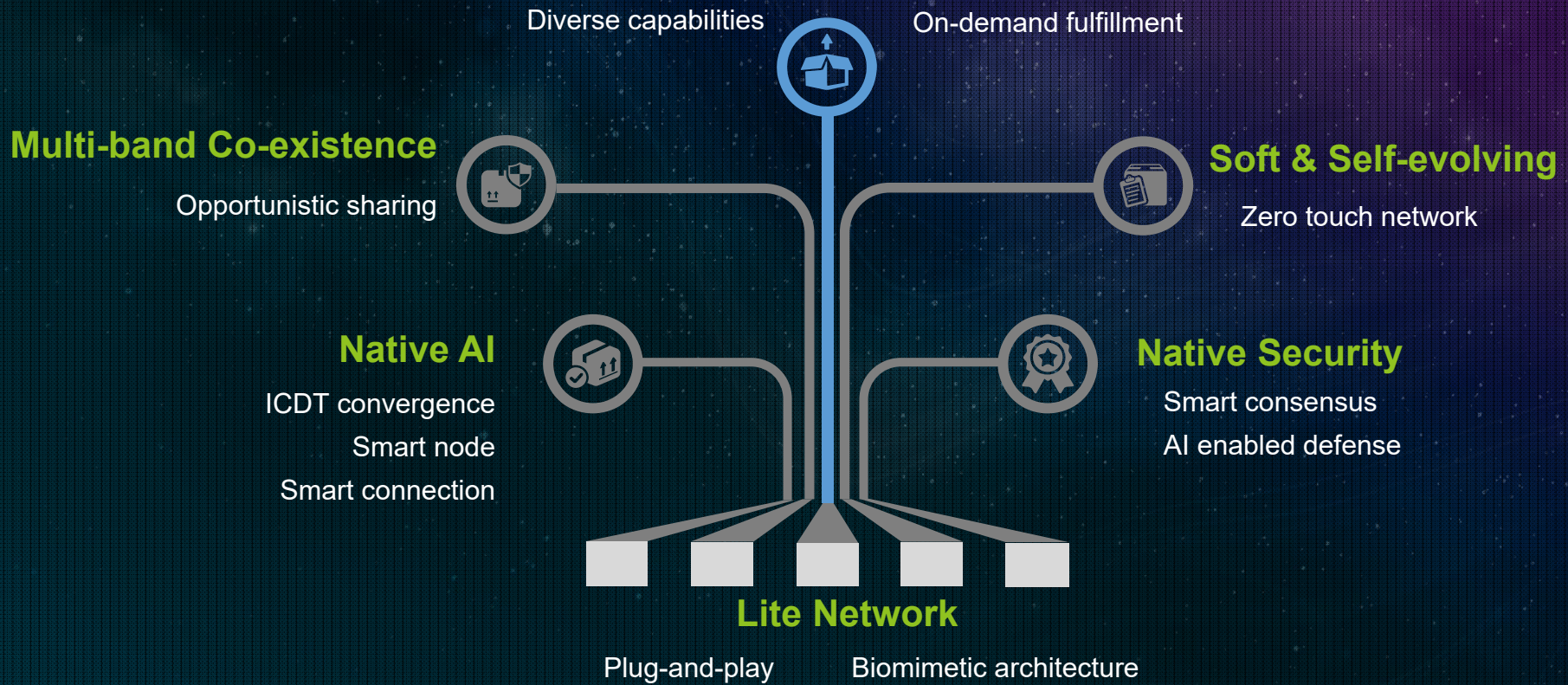
Telecom 4.0, From 5G to 6G





Technical Features

Network as a Service (NaaS)

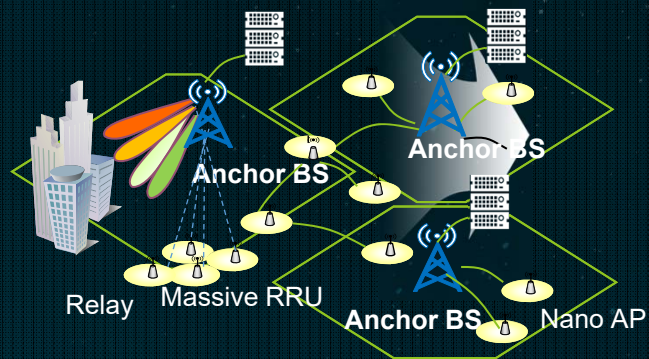


Lite Network: Inspiration of an Anthill

1947



Inspire



Cellular Network

2019



Inspire

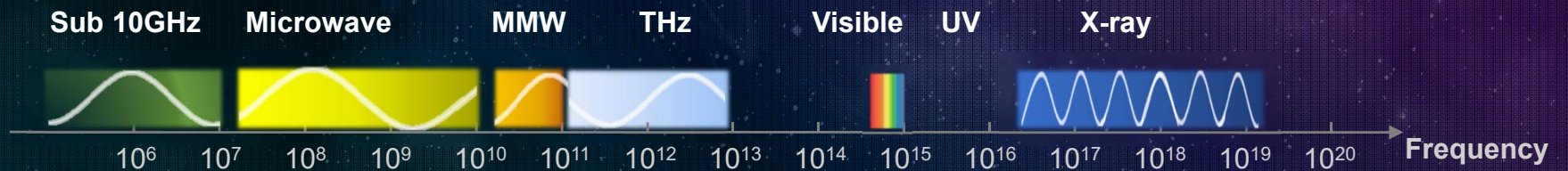


- 3D topology
- Efficient
- Rapid deployment
- ...

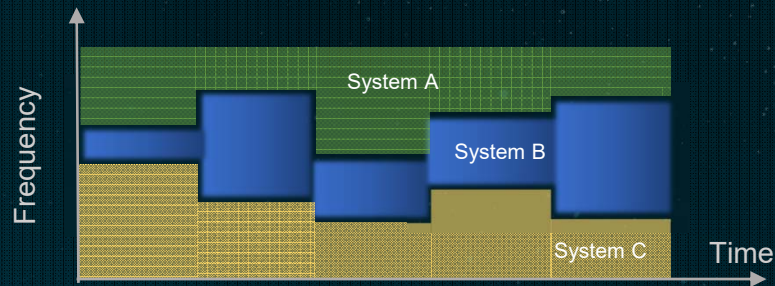
Anthill Network?

Multi-band Co-existence

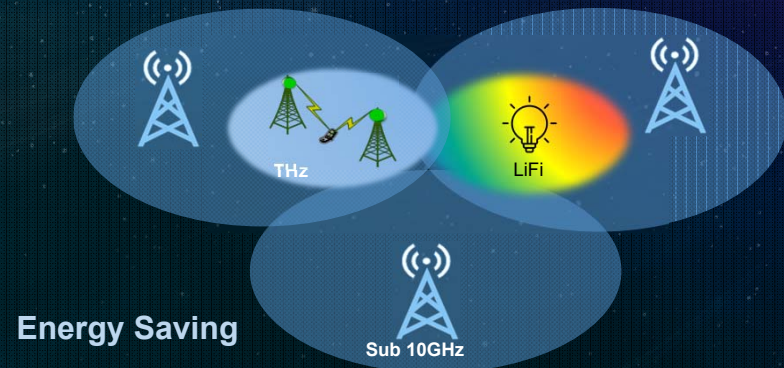
Spectrum sensing



Opportunistic sharing



On-demand activation



Soft & Self-evolving Network

Fully software-defined

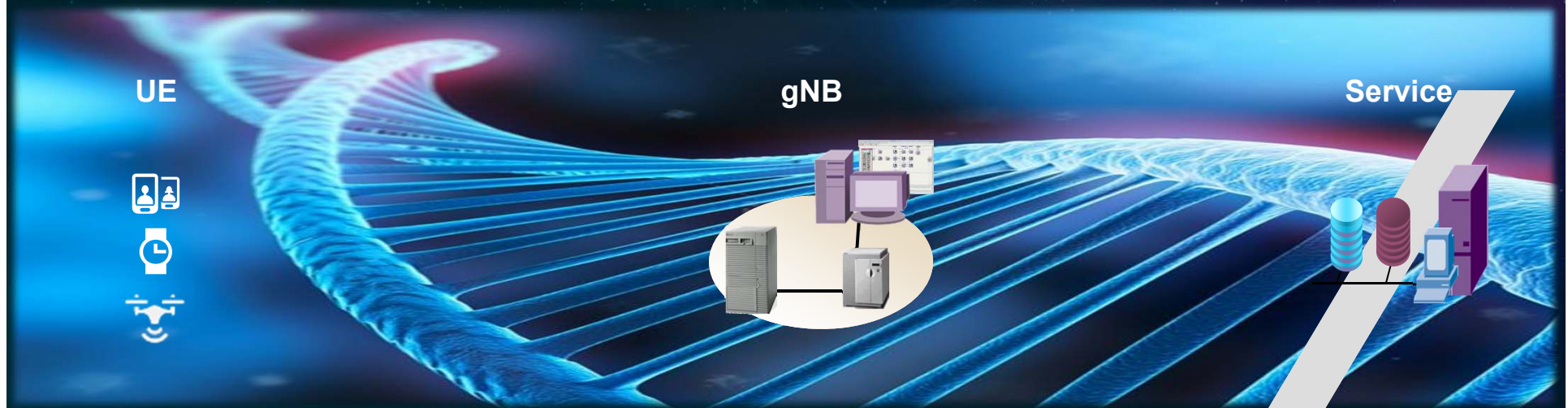
- Open air-interface & softwarized terminals
- Flexible, fast SW & HW extension
- Agile development iterations

E2E forward-compatibility

- Self-learning-based new features & functionalities enablement
- Auto upgrade of E2E NW

Beyond “cellular”

- User-centric network auto-configuration
- Meshed terminals with routing capability

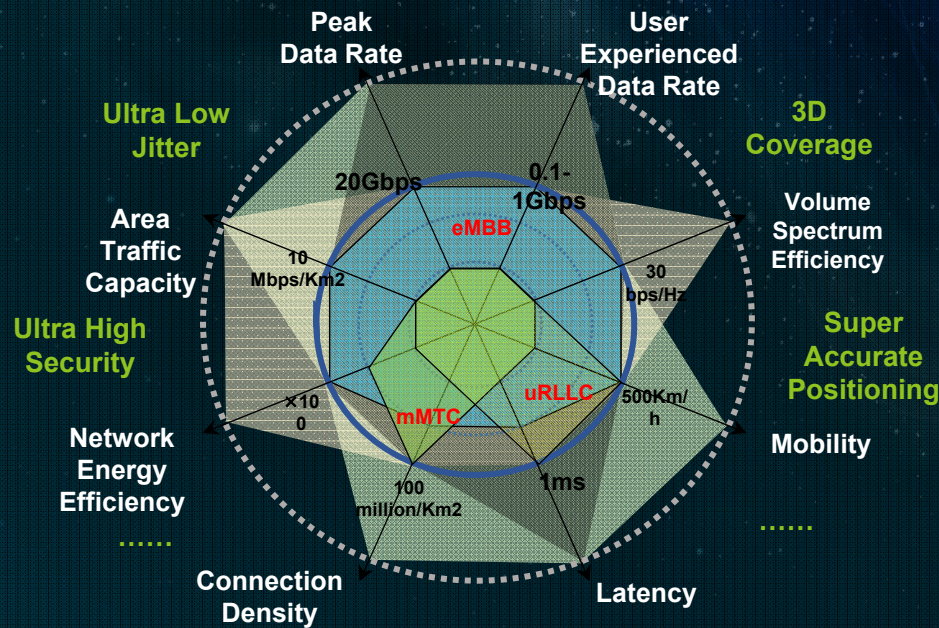




Network as a Service (NaaS)

Embedded network intelligence, beyond simple connectivity

Diverse capabilities



On-demand fulfillment



Native Security

Smart Consensus

Safeguard data and information security based on consensus achieved by connected smart entities



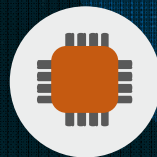
AI enabled Defense

Proactive in-depth defense, based on AI and Big Data technology



Trust Enhancement

Infrastructure with active immunity via trustworthy computing technology



Ubiquitous Cooperation

Collaborative security assessment and resolution across terminal, edge, network, and cloud.

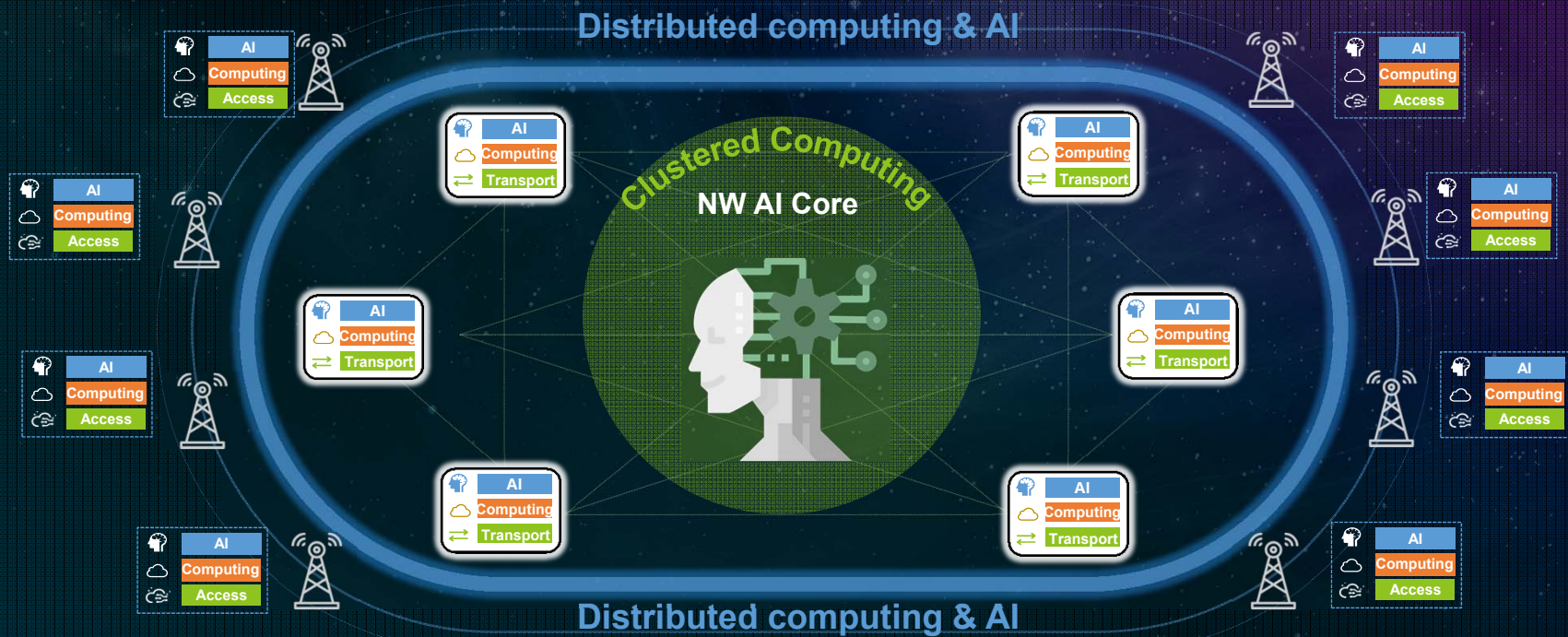


AI



Native AI

Pervasive network AI capabilities: AI embedded core, transport, access, etc.





Thanks!