

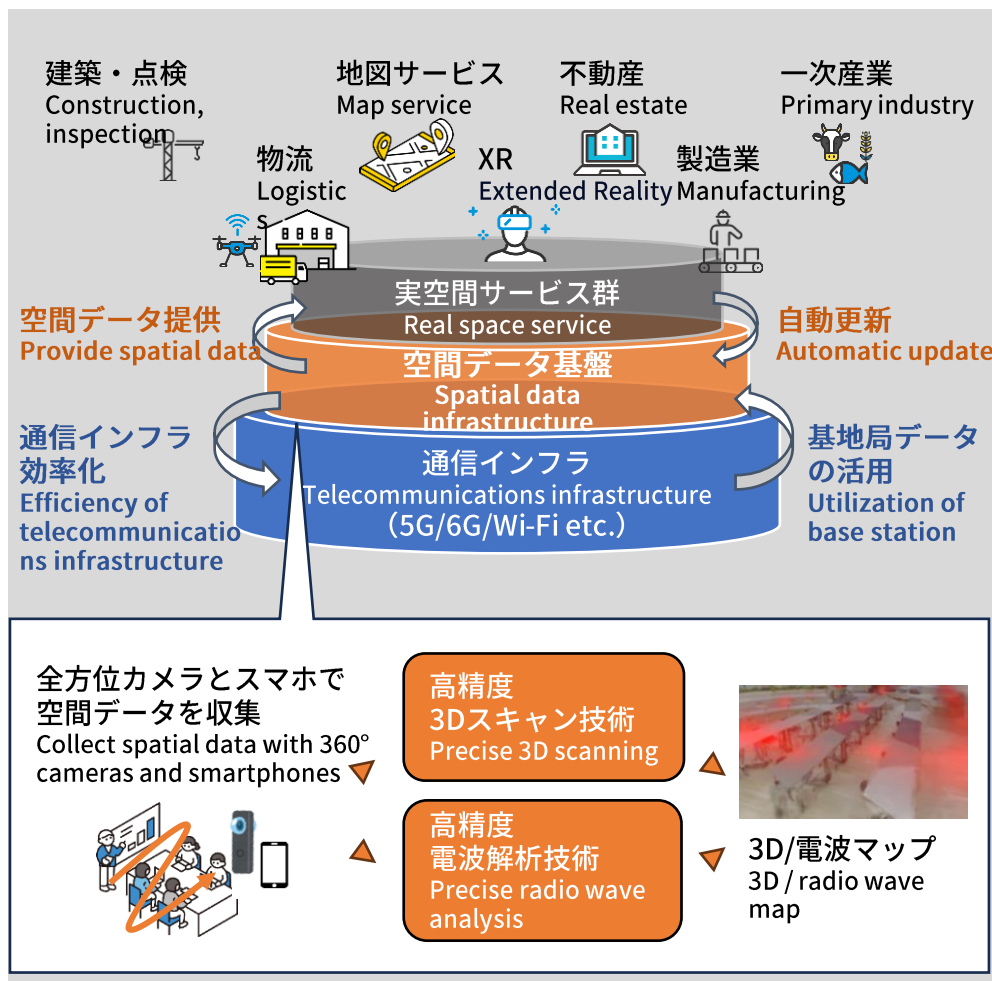
IOWN INTEGRAL

NTT R&D FORUM 2024

BUSINESS

β01-02

Spatial data infrastructure
~ Precise 3D scanning at low cost ~
Create accurate 3D models for efficient facility
management and improved radio wave quality
#Productivity Improvement



///Technical Issue

Conventional 3D scanning requires expensive LiDAR sensors, making it difficult to introduce.

///Research Goal

By realizing accurate 3D scanning at low cost, we improve the quality of radio waves and reduce implementation costs in various sectors.

---Technology

- High-precision 3D map generation employing Gaussian Splatting and AI.
- High-density radio wave map generation by simultaneously estimating position and measuring radio waves.

---Novelty

- 360° camera and 3D reconstruction technology based on AI enable inexpensive and highly accurate 3D scanning.
- High-precision radio wave maps are generated by combining with actual radio wave measurements.

---Applicable Business

- In the telecommunications field, precise understanding of radio wave status and optimal area design. (During FY2025)
- In the building and construction field, progress management at construction sites. (During FY2025)
- In the infrastructure maintenance field, facility inspection and maintenance. (During FY2025)