

①Throughput improved by AI ②Maximizing capabilities of AI and robots 6G networks integrating AI and robots

Background and Technical Challenges

- ① Conventional transmission uses pilot signals for channel estimation, requiring non-data signals and leaving room to improve frequency efficiency.
- ② Toward the 2030s, rapidly advancing AI and robotics will derive new network requirements and accelerated 6G R&D and standardization.

AI,ロボットと協調した6G通信の実現 ～パートナーとも協力した研究開発、標準化活動を推進～

We are advancing research, development, and standardization efforts with partners to realize 6G networks that collaborate seamlessly with AI and robotics.

6Gを推進する意義 6G Values

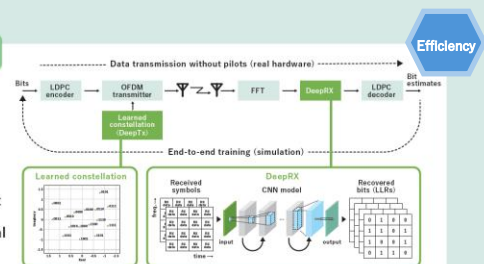
6G実現に向けて5つの価値を軸に研究開発を実施
Defined five core values for realizing 6G



① AI-native Air Interface

AIを活用し、
実証実験にて
スループット
最大18%向上

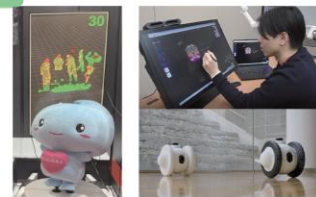
Improved throughput
by up to 18%
using AI in a PoC trial



② 6G Harmonized Intelligence プロジェクト

AI,ロボットの可能性を
極限まで引き出す6Gの挑戦

NW for AI:
The 6G Challenge to
Unlock AI's Full
Potential



NW for AI

R&D Goals and Outcomes

- ① AI eliminates pilot signals, boosting data capacity.
- ② 6G provides a network foundation for human-AI/robot collaboration, based on defined communication needs.

Key Technologies

01 Core Technologies

- ① A new transmission method with which AI optimizes the wireless interface.
- ② 6G network technology that transforms human-centric networks, maximizes AI capabilities, and enables seamless collaboration between humans and AI.

02 Key Differentiators

- ① Removing pilot signals from conventional communications can increase throughput by up to 18%.
- ② Applying deep insights gained from cross-disciplinary collaboration to 6G R&D and standardization.

Use Cases Communication Services

R&D phase Research

Technology Schedule FY27-29

Commercialization Schedule TBD

【Exhibitors】

R&D Innovation Division , NTT DOCOMO, INC.

【Co-exhibitors】

NTT Laboratories, Nokia, SK Telecom Co., Ltd.
Pixie Dust Technologies, Inc., Yukai Engineering, Inc., Asratec Corp.

【Contact】

6G-Tech Department Radio Access Technology Group
Radio Standardization Group

【Related Links】

<https://www.youtube.com/watch?v=20qsqOBxh0M&t=27s>
<https://www.youtube.com/watch?v=gERbNC7uxUo&t=435s>