

IOWN INTEGRAL

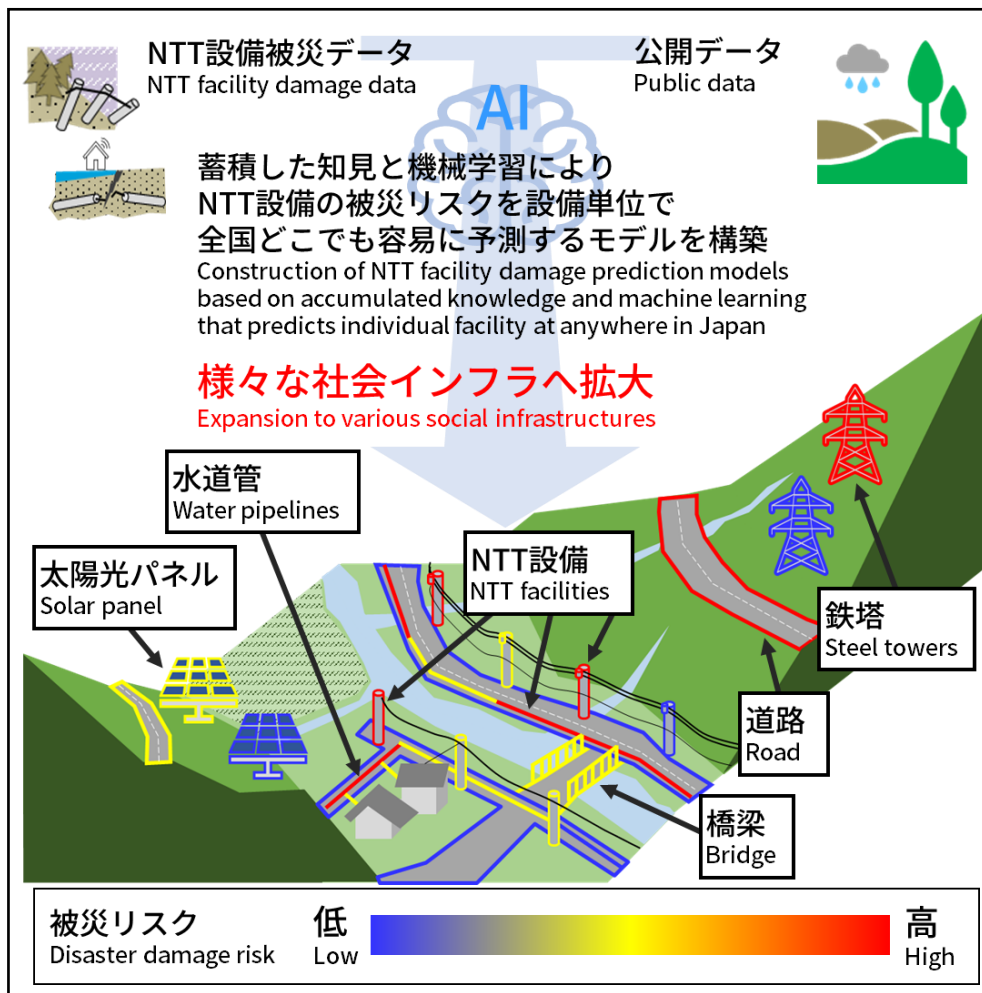
NTT R&D FORUM 2024

RESEARCH
y10-14

Damage prediction technologies for social infrastructures

By infrastructure operators to take effective
measures, a sustainable society is realized

#Business Resilience #Regional Revitalization #Productivity Improvement



///Technical Issue

Efficient measures for lifeline are essential since the severity of disasters are increasing, however wide area damage prediction is difficult.

///Research Goal

By implementing effective measures, reduce losses of hundreds of billions of yen without interruption of lifelines even in the event of a large-scale disaster.

---Technology

- Utilizing NTT's nationwide facility damage data
- Identification and utilization of effective factors for disaster damage prediction through machine learning that adds accumulated knowledge to facility data and public data (rainfall, elevation, etc.)

---Applicable Business

In the water supply industry, transportation industry (roads), and education industry (disaster prevention), quantified disaster damage risks can be used in a variety of ways, such as assessing the safety of existing facilities in normal times, assessing the risk of disaster when building infrastructures, planning disaster measures, and conducting efficient inspections, selecting evacuation and material transportation routes in the event of a disaster (Established in FY 2025).

---Novelty

- Using NTT's nationwide facility damage data, predictions can be made anywhere in the country without any special survey.
- By utilizing public data that can be obtained at any time, predictions can be made not only during normal times but also during disasters.