R&D phase | Research **Expected Commercialization** | FY27-

Mehr Licht!
More Photonics for Intelligence

#E09

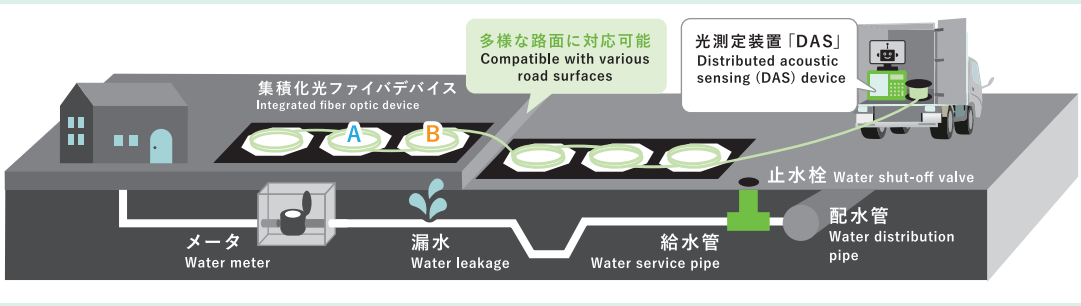
#Operational Efficiency#Regional Revitalization#Open Innovation

Water-Leak Localization by Fiber Sensing

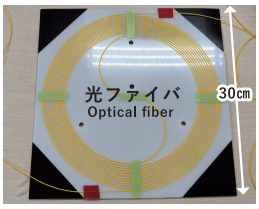
Leak localization independent of skill

Technical Challenges & Goals

Local water systems face aging pipes, while skilled leak-detection workers are declining. Delays in finding and repairing leaks can cause water loss. We are developing a highly accurate method for locating underground leaks, improving maintenance efficiency and supporting sustainable water services.

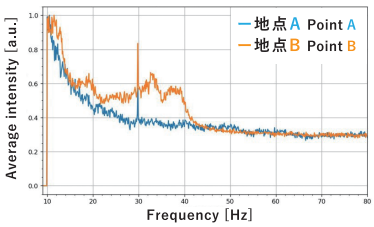


集積化光ファイバデバイス Integrated fiber optic device



簡易に敷設可能な
可搬型デバイス
Easily deployable device

測定結果 Measurement results



高感度な振動
計測が可能
Capable of highly sensitive vibration measurement

Key Technologies

Core Technologies

- Leak-localization technology using sensing with portable, easily deployable fiber-optic devices
- Leak localization using automatic extraction of leak-sound features

Key Differentiators

- Fiber sensing enables easy and accurate leak localization without relying on skilled workers
- Unlike noise-sensitive surveys, it automatically estimates leak locations under diverse conditions

Use Cases

Public Services & Local Government

Local governments and infrastructure operators use portable fiber-optic devices, enabling anyone to easily and accurately locate leaks and improve maintenance.

Exhibitors

NTT Access Network Service Systems Laboratories

CONTACT：Access Operations Project