

4D digital platform™ technologies boost society DTC

Solve the key issues in building DTC systems using
time-series spatial data, for a data-driven society
#Customer Experience Value Creation #Productivity Improvement

時空間データを活用するSociety DTC強化で課題解決・価値創造を実現
boosting Society Digital Twin Computing using time-series spatial data to solve issues,...



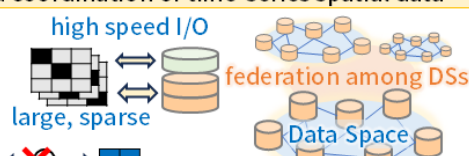
4 D デジタル基盤®技術 4D Digital Platform™ Technology

1. 時空間データ活用（収集・蓄積・流通・連携）

collection, accumulation, distribution and coordination of time-series spatial data

時空間データ流通技術

Processing Technology
for Time-series Spatial Data



秘匿クロス統計技術®

Private Cross-aggregation Technology



3D-MSS/time-series modeling

モバイル空間統計®技術

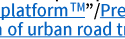
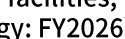
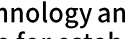
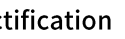
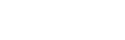
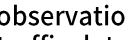
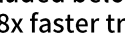
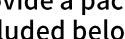
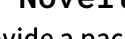
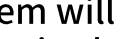
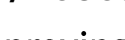
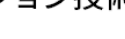
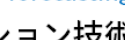
Mobile Spatial Statistics Technology



2. 分析/評価/最適施策導出 analysis/evaluation/determination of optimal measure

移動需要予測技術（O/D、移動手段別）

Travel Demand Forecasting Technology
(aggregation by origin, destination
and mode of transportation)



forecasting

交通流マルチエージェントシミュレーション技術

Traffic Flow Multi-Agent Simulation Technology

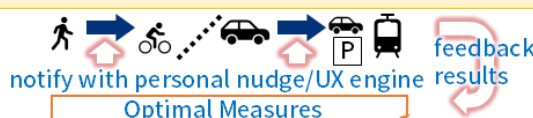


simulation
with data assimilation

3. 最適施策適用 actuation of optimal measures

行動変容技術

Behavior Modification Technology
(learning and evolving with results)



Optimal Measures

///Technical Issue

The realization of Society DTC systems requires the coordination ,integration and utilization of diverse “time-series spatial data”, but the cost of them is enormous.

///Research Goal

Improving the technologies that facilitate them will reduce the cost and time required to implement DTC systems in various fields.

---Technology

- technology to accelerate the use of time-series spatial data (Axispot, Private Cross-aggregation Technology, ...)
- travel demand forecasting technology .
- traffic flow multi-agent sim. tech.(data assimilation, etc...)
- behavior modification technology.

---Applicable Business

- mobility service field : traffic flow forecasting, simulation and rectification
[target date for establishment of basic technology and service provision: FY2026]
dynamic pricing of parking fees [target date for establishment of basic technology: FY2026]
- marketing field : attracting customers to visit stores, commercial facilities, tourist facilities
[target date for establishment of basic technology: FY2026]

---Novelty

Provide a package of technologies to boost Society DTC, included below and above diagram,
• 8x faster traffic flow simulation with region-wide real-observation travel demand forecasting and real-time traffic data correction. (world's first attempt) etc...