Business & GIS intelligence
The untapped frontier

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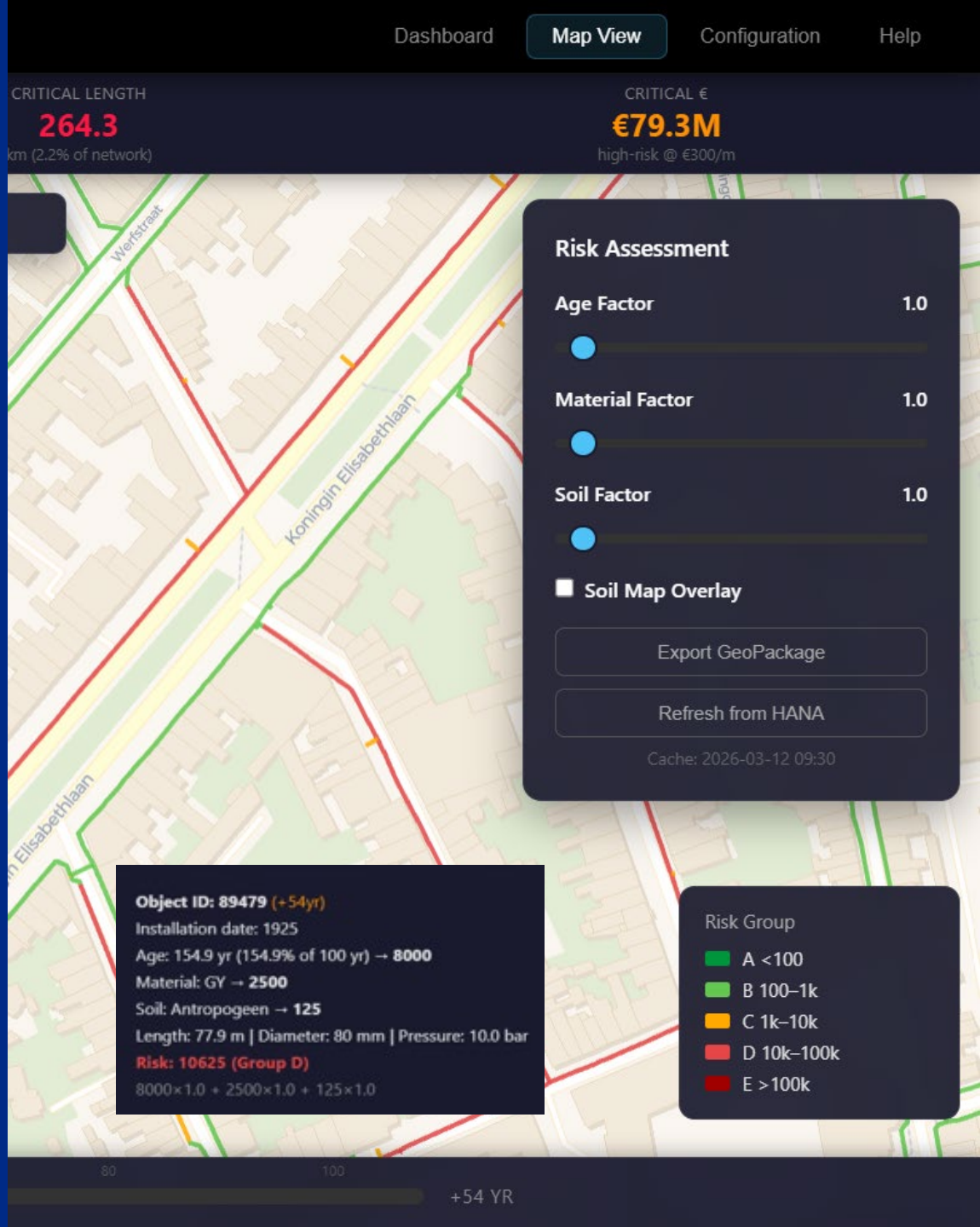
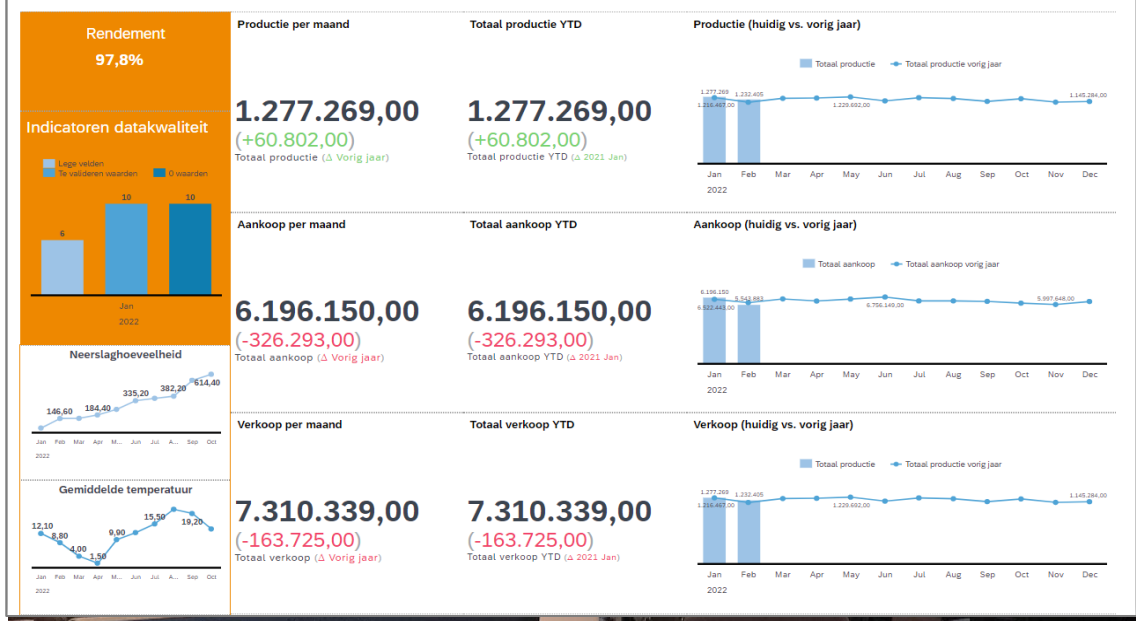
BALTIC GEOSPATIAL INFORMATION TECHNOLOGY CONFERENCE

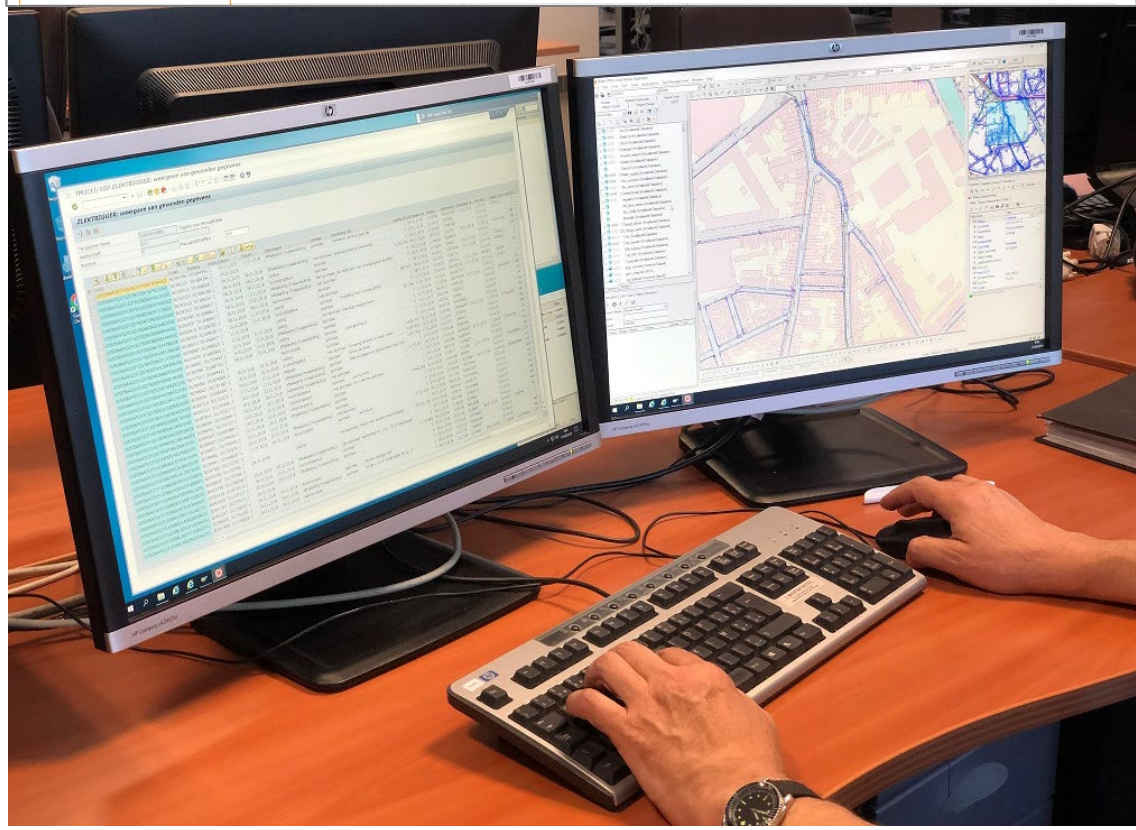


The missed opportunity
static reports vs. interactive decisions

Today: siloed and static

- SCADA, GIS, ERP, and billing in separate silos
- End-of-month PDF reports
- No spatial context on work orders or assets
- Reactive: problems found after damage occurs
- Duplicate data entry across systems





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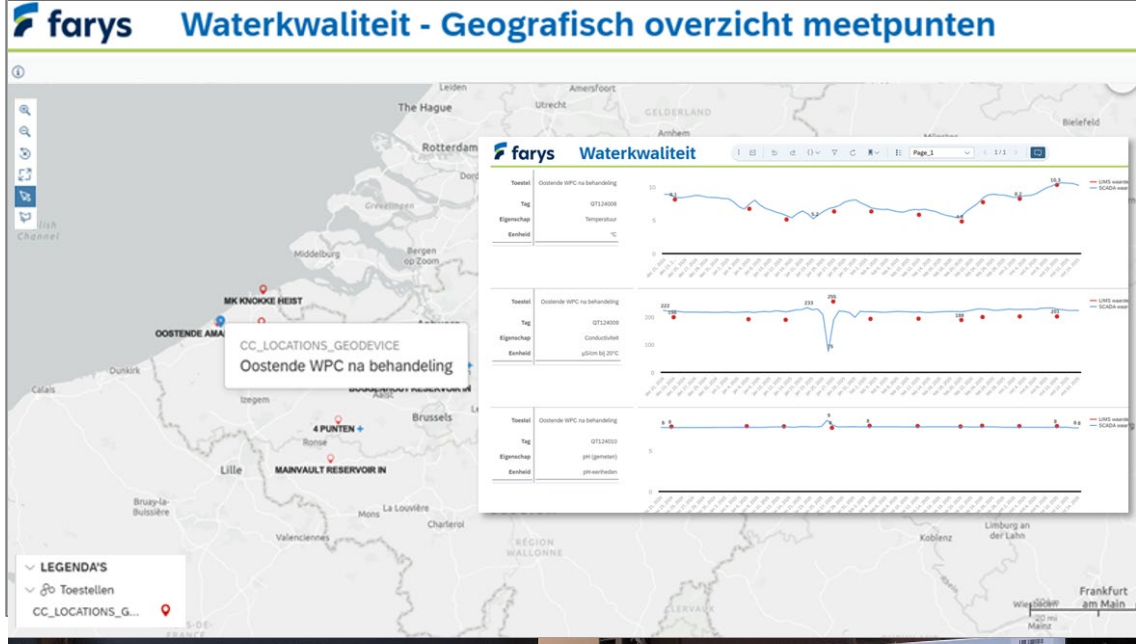
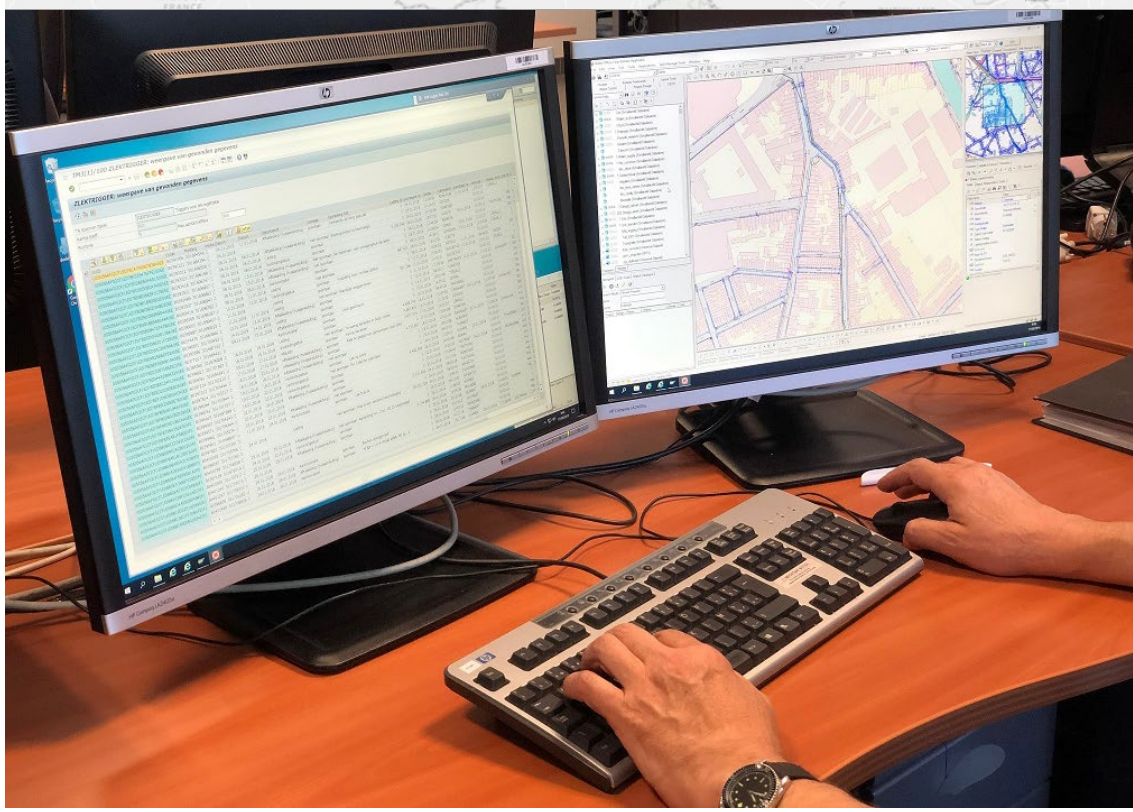
Tomorrow: unified and dynamic

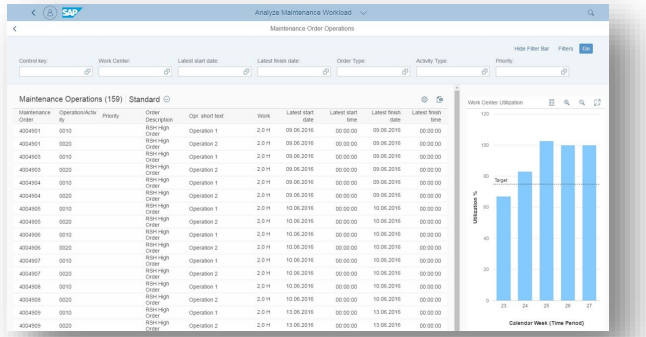
- One governed data layer linking all sources
- Real-time, location-aware dashboards
- Every asset and event has a where and when
- Proactive: predict failures before they happen
- Single source of truth for operations

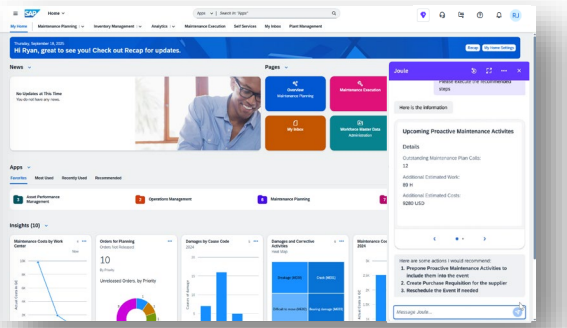


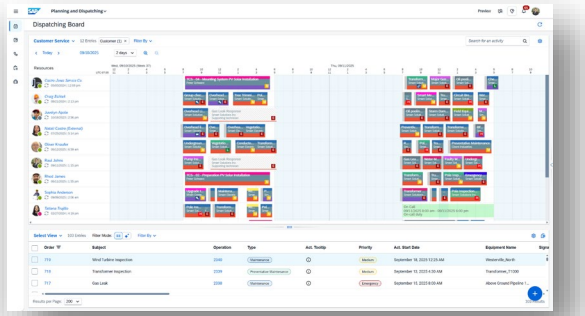


What is SAP? What does it do?

SAP is the world's leading provider of enterprise software. Think of it as the central nervous system that reliably runs a company's core operations.







Finance & billing

Tracks revenue, costs, budgets, invoicing, and customer accounts

Planning & projects

Capital planning, project management, resource allocation, and forecasting

Operations & assets

Manages work orders, maintenance schedules, inventory, and procurement

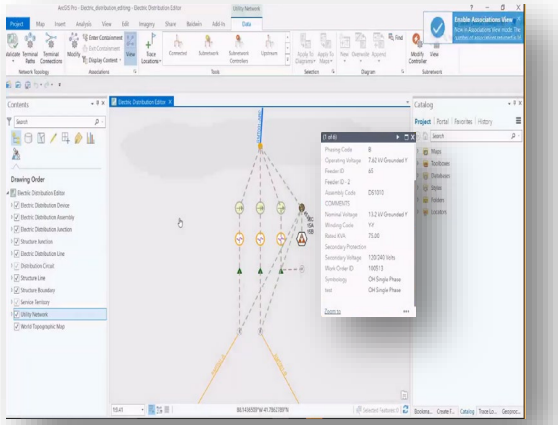
Workforce & safety

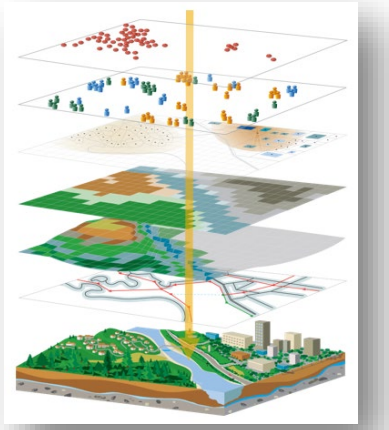
Schedules field crews, tracks qualifications, health and safety compliance

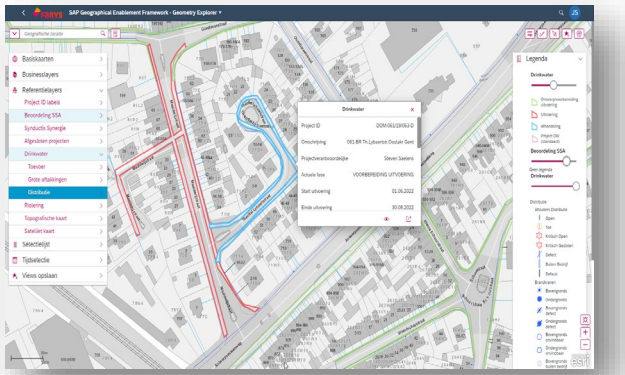
SAP ensures data integrity, process consistency, and traceability across every department.

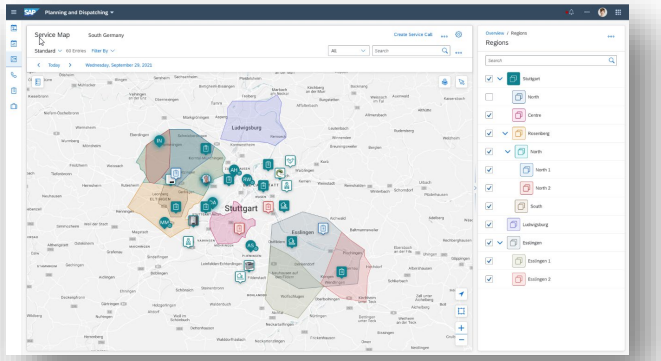
What is GIS and why it matters to utilities

A Geographic Information System (GIS) captures, stores, analyses, and visualises data linked to location. For water utilities, it answers: where are our assets, what is nearby, and what is changing over time









Network mapping

Pipes, valves, pumps, meters, and treatment plants on a live map

Spatial analysis

Catchment areas, pressure zones, flood risk, proximity to sensitive receptors

Time awareness

Track changes over time: pipe age, inspection history, seasonal demand patterns

Field context

Route crews with maps, show nearby hazards, link photos and sensors to location

When combined with business data, GIS transforms static network records into actionable operational intelligence.

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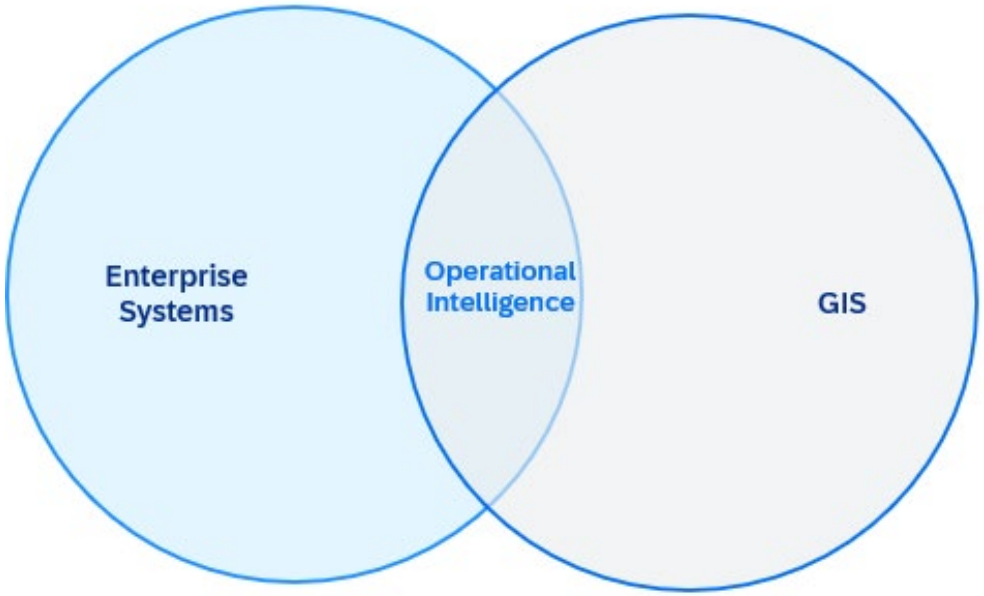
Why business systems and GIS need each other



- **Context + Action**: GIS shows where/why; business systems drive who/what/how
- Governed master data + precise locations = **trusted decisions**
- Spatial joins + time windows **turn events into operational responses**
- Shared language of place and time **reduces ambiguity across teams**

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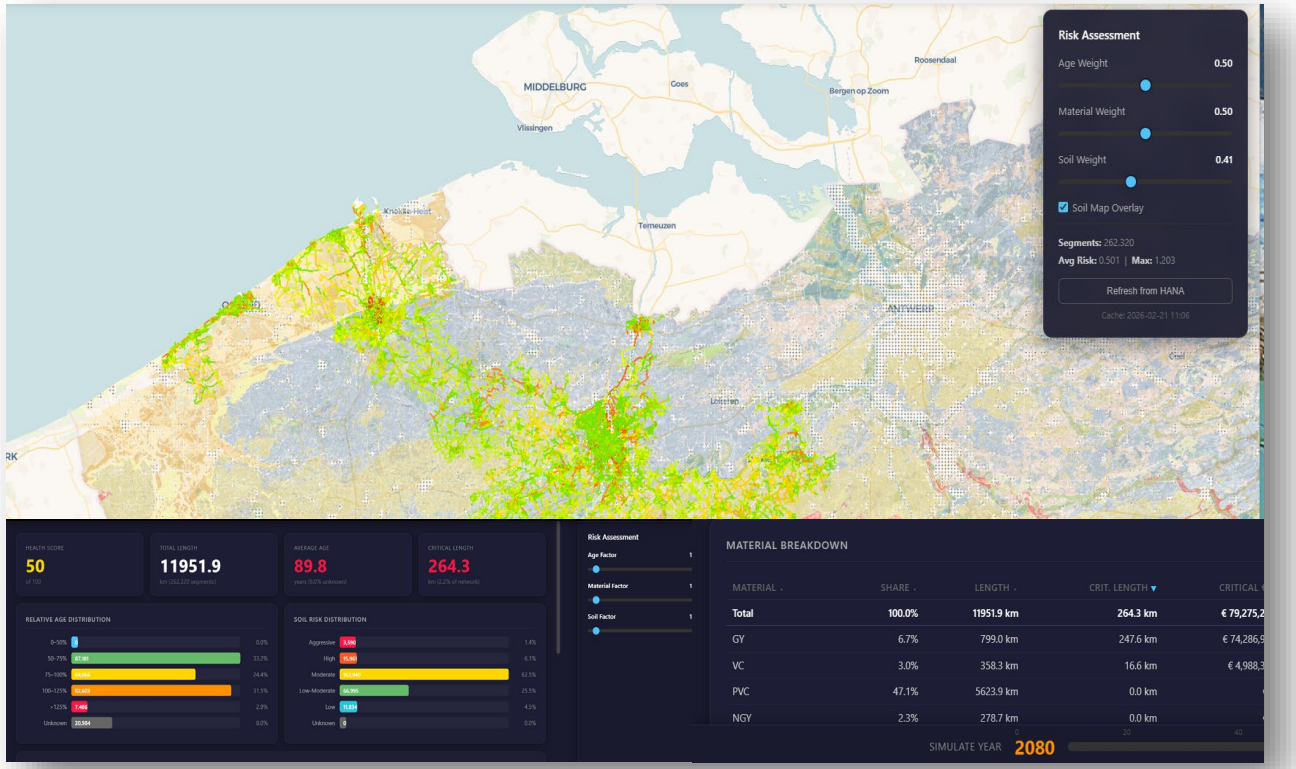

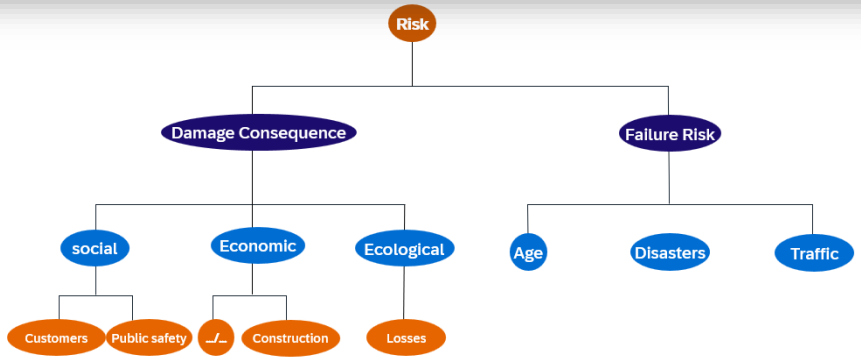

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For water utilities:

Link pipe condition, hydraulic models, customer complaints, and financial impact in one view to prioritise interventions by risk and cost.

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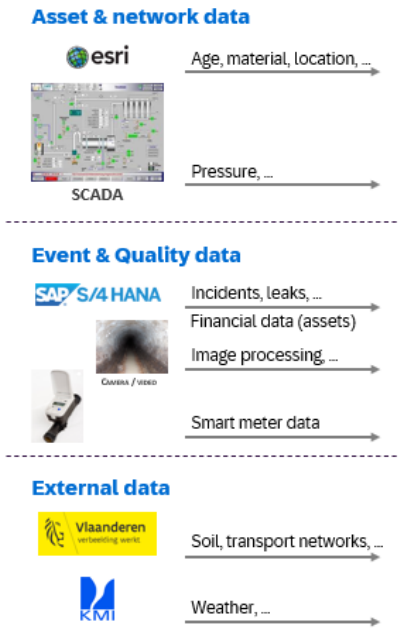
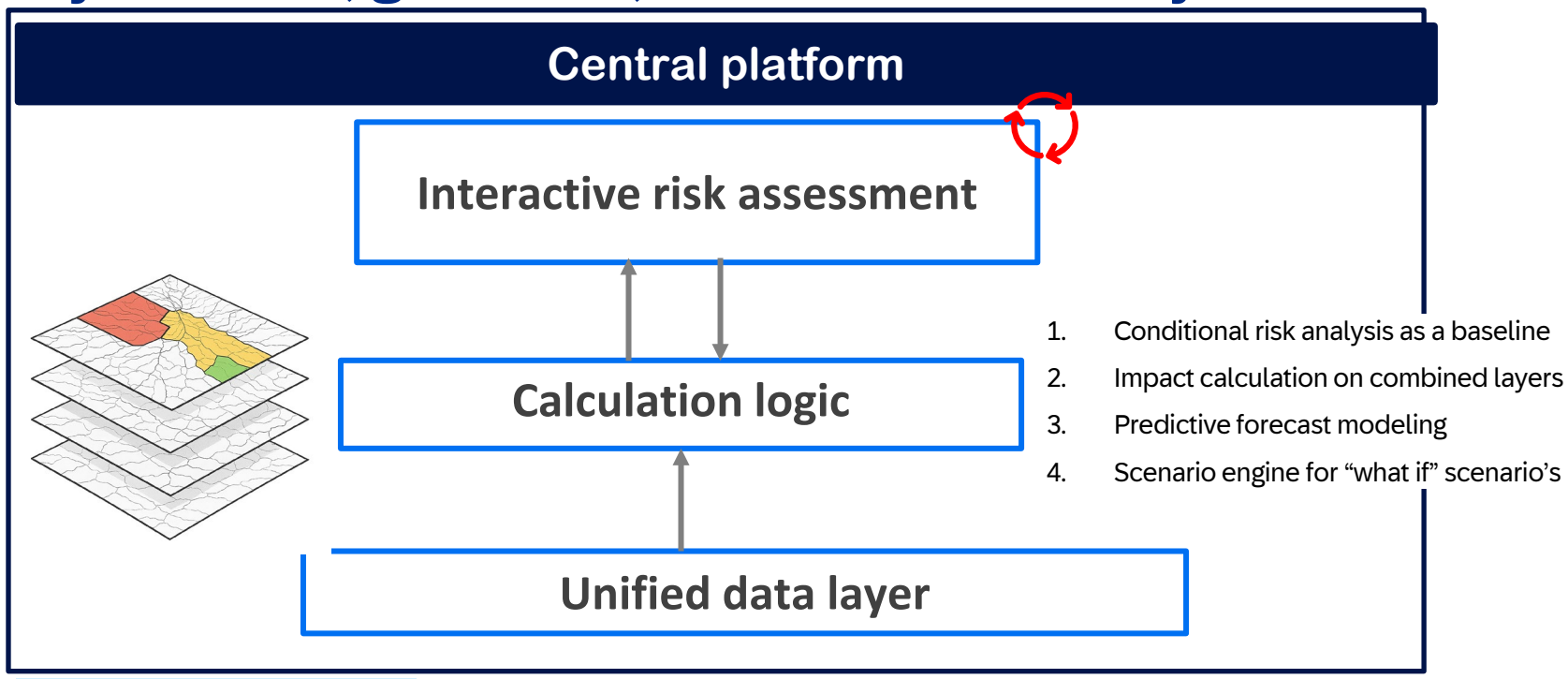
The unified, spatially enabled, governed, time-aware data layer



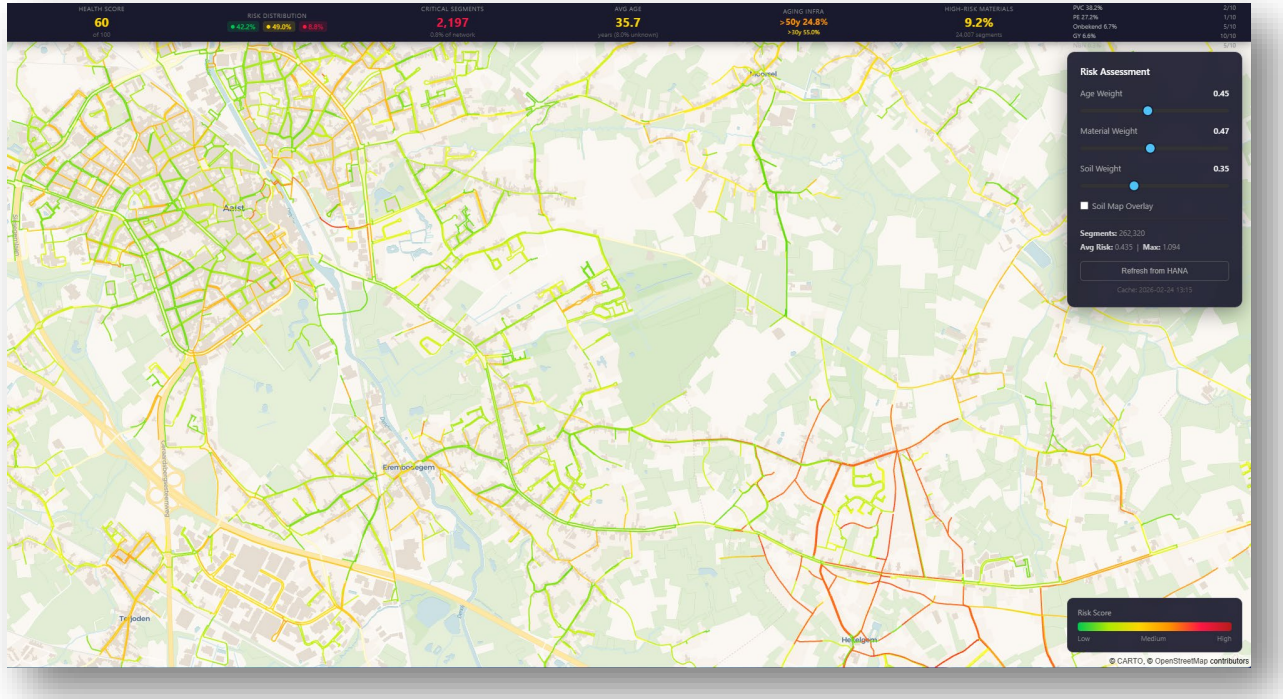


Data sources	Integration	Unified data layer	Experiences
SCADA / Telemetry GIS network ERP / Finance Field apps Customer / Billing	Geocoding ID matching Spatial indexing Event streaming Data quality rules	Governed entities Location + geometry Time-versioned Semantic definitions Access controls	Interactive maps Time-series analytics What-if scenarios Alerts & triggers Regulatory reports

Unified | Spatially enabled | Governed | Time-aware

Use case: asset lifecycle management and capital planning

Business question: Which pipes and pumps should we replace in the next 5-year capital programme?



1. Aggregate asset register: age, material, diameter, soil type
2. Join with failure history, repair costs, and location risk
3. Model remaining useful life by spatial cluster
4. Overlay consequence: proximity to hospitals, schools, roads
5. Optimise investment: maximum risk reduction per unit spend

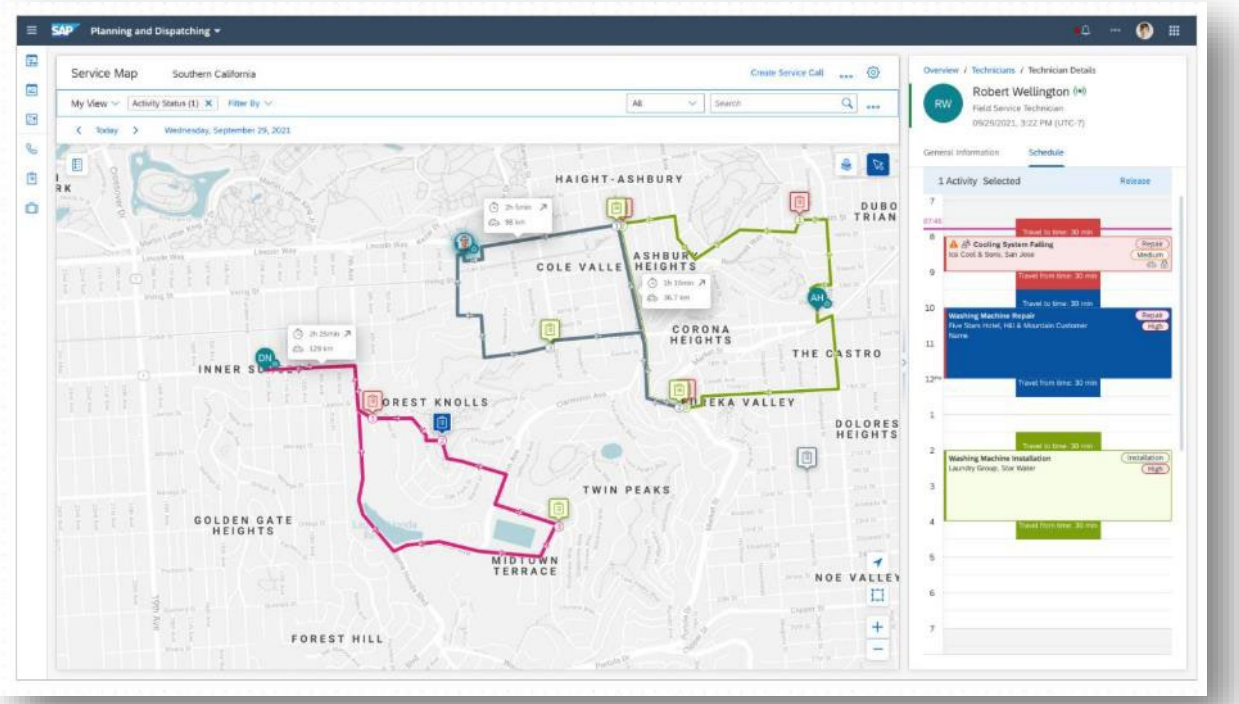
KPIs

- Unplanned failures reduced by 20-35%
- Capital efficiency: right asset, right time
- Service interruptions minimised
- Regulatory asset health scores improved

Data: asset register, CCTV surveys, failure logs, soil/geology maps, consequence layers, cost models

Use case: field crew dispatching and route optimisation

Business question: How do we get the right crew to the right job in the shortest time with the right parts?



1. Prioritise open work orders by SLA, risk, and customer impact
2. Match skills and equipment to job requirements
3. Compute optimal routes considering live traffic
4. Re-plan dynamically as emergencies arrive
5. Track completion and update asset records in real time

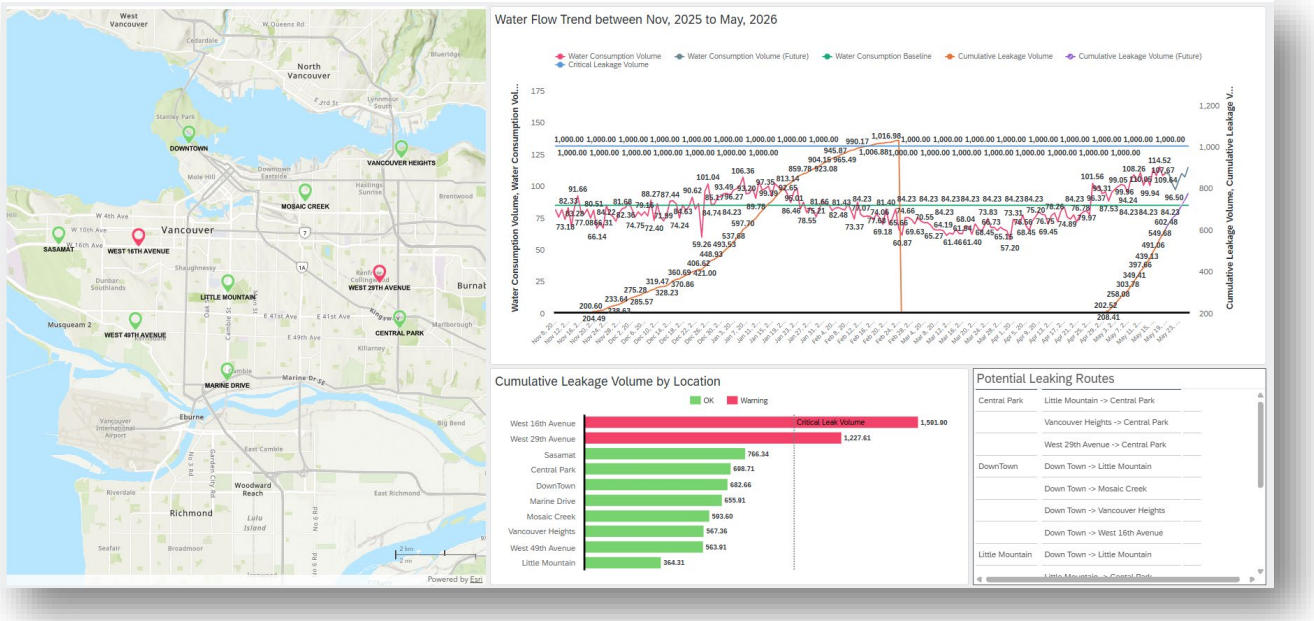
KPIs

- First-time fix rate increased to 85%+
- Mean time to repair reduced by 25%
- Travel miles reduced by 15-20%
- SLA compliance >95%

Data: work orders, crew locations, skills matrix, spare parts inventory, road network, live traffic

Use case: network leak detection and non-revenue water

Business question: Where is water being lost, and which leaks should we fix first?



1. Ingest flow/pressure sensor data + DMA boundaries
2. Spatial analysis: detect anomalies by zone
3. Correlate with pipe age, material, and burst history
4. Rank repair priority by volume lost x cost x risk
5. Generate spatially optimised repair schedule

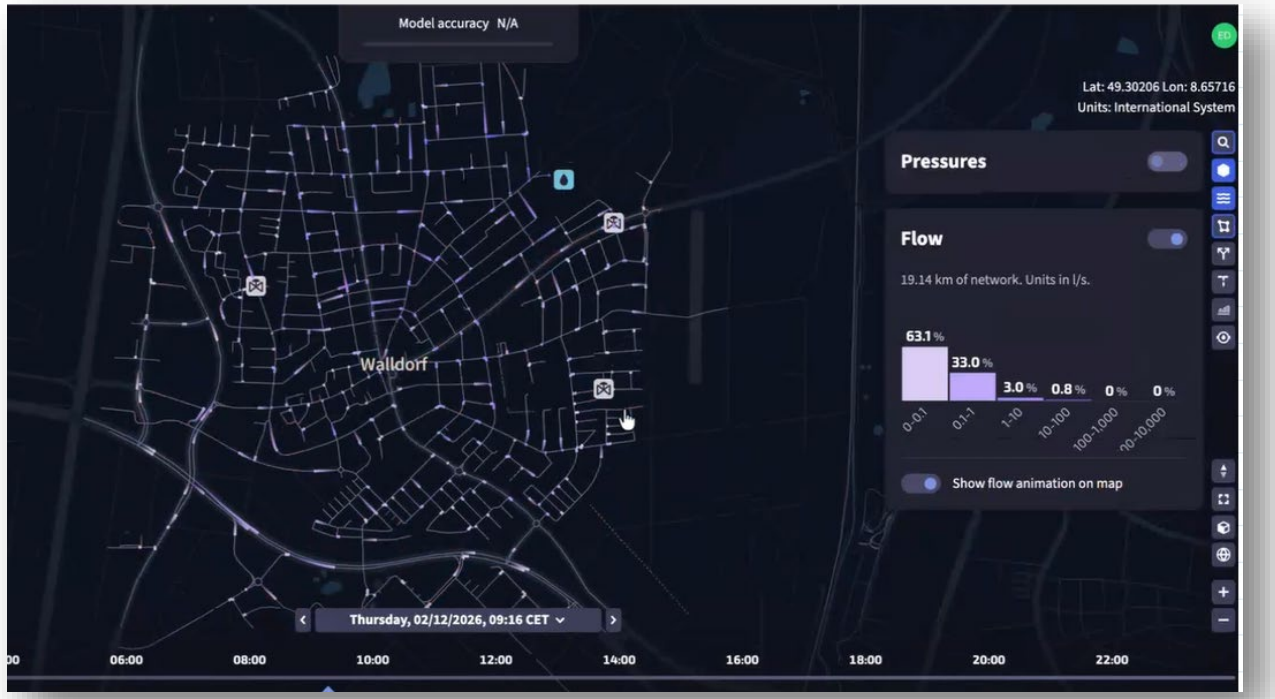
KPIs

- Non-revenue water reduced by 15-25%
- Leak detection time: days to hours
- Repair prioritisation accuracy +40%
- Infrastructure renewal ROI improved

Data: flow meters, pressure sensors, pipe registry, DMA boundaries, burst history, cost models.

Use case: wastewater overflow prediction and compliance

Business question: Which overflow points are at risk in the next 48 hours, and how do we prevent regulatory breaches?



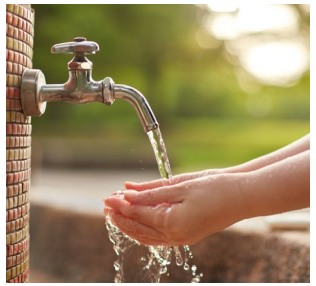
1. Combine rainfall forecast + sewer level sensors
2. Overlay catchment topology and CSO locations
3. Simulate hydraulic capacity vs. predicted inflow
4. Identify high-risk spill points and time windows
5. Trigger pre-emptive actions (tankers, flow diversion)

KPIs

- CSO spill events reduced by 30-50%
- Regulatory penalty avoidance
- 48-hour predictive lead time
- Environmental harm incidents minimised

Data: rainfall radar, sewer sensors, CSO locations, catchment models, permit thresholds, tanker fleet

Why partnering with SAP



Relevant portfolio for the water and water services industry

Gain operational efficiency

Become data driven organization

Future proof solutions

Executive Value Network for Water & Wastewater

October 21-22, 2026
Canal de Isabel II, Madrid, Spain

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The **Executive Value Network (EVN) for Water & Wastewater** is an international knowledge sharing oriented forum for those interested in digital transformation best practices of **Water and Wastewater** companies. This event will highlight success stories of digital transformation and recent innovations in water technology. It promises lots of new information, interesting conversations and, above all, it will facilitate catching up with business partners, to grow your network and meet some old peers.

Thank you for the close collaboration with:

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MINSAIT

- **"Run efficiently":** Delivering streamlined and cost-effective processes.
- **"Plan fairly"**: Approaching resource management with equity and foresight.
- **"Resilience Proofing"**: Ensuring robust systems that can adapt to challenges and disruption

Thank you

Contact information:

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