



HSL
HRT

Anything is possible

Paikallisliikennepäivät, Jyväskylä 17.9.2026



From Complexity To Control

Emma Fernlöf, Business Development Manager, INIT

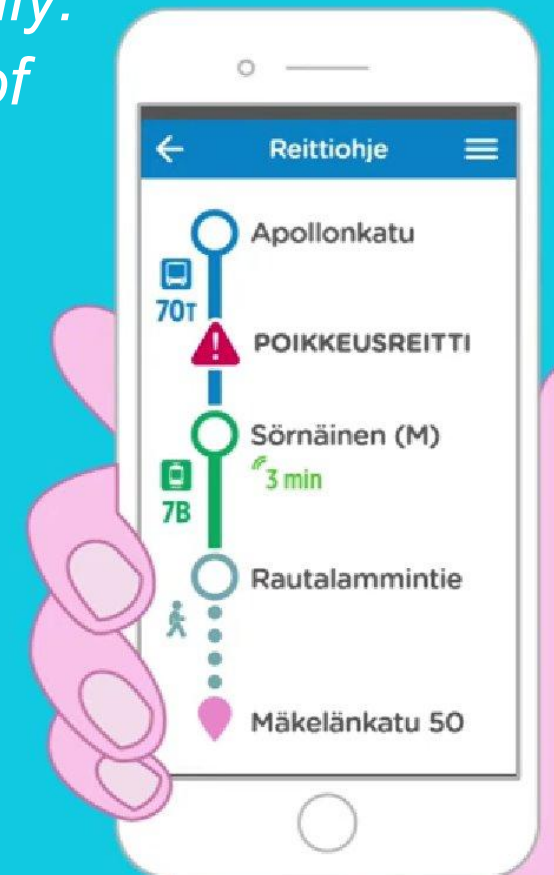
Joona Packalén, Head of Information, HSL

For passengers, public transport should be effortless. Behind simplicity lies enormous complexity.

Passengers expect a simple experience: the vehicle arrives, information is correct, and the journey continues smoothly. Behind that experience is a highly complex ecosystem of vehicles, operators, systems, devices, and integrations.

Today, public transport organizations face complexity:

- Multiple transport modes
- Legacy systems and new technologies
- Growing customer expectations
- Cybersecurity and resilience requirements
- Continuous digital transformation



Information main obstacles 2010

Different technical systems: metro, bus, tram, and train – each with its own logic even on vehicle type

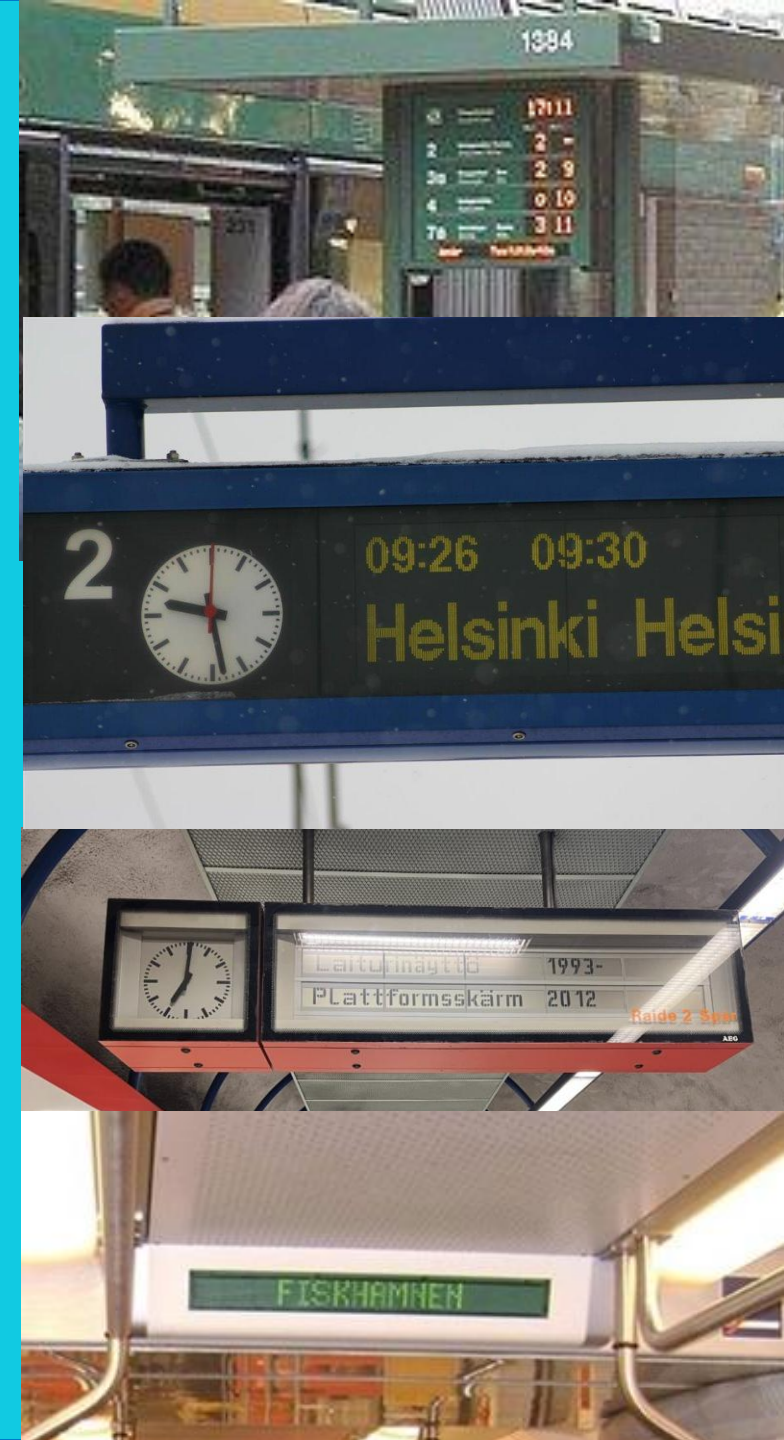
- From the customer's perspective: inconsistency, uncertainty, and confusion.
- Disruption information and major updates were handled separately → this meant delay

Different information systems and channels.

- The era of early mobile apps also began.

Driver for change

- HSL was founded – the first step toward unified planning and branding and passenger information (statutory task information defined by the member municipalities).





Current situation

Information system

- Bus and tram integrated
- Train and metro still separate systems

Disruption management handled in the same system across all modes

- Brand identity strengthened

Keypoints

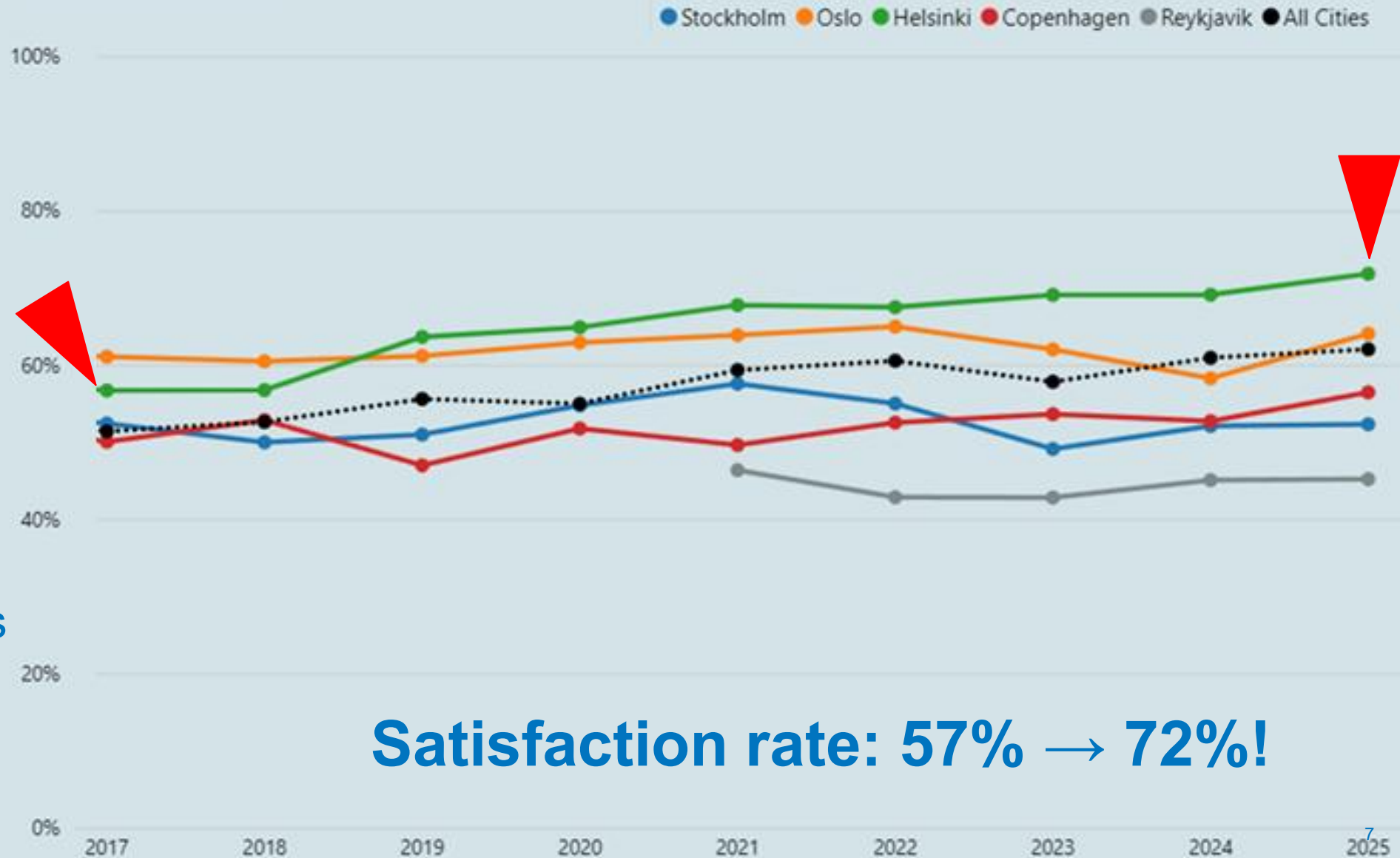
- Expansion of real-time information – stop displays, Journey Planner, and mobile app
- Implementation of ITxPT standards on vehicles – moving toward open and interoperable systems
- More **data-driven** – fewer physical devices

Why HSL needed a new approach?

Results: BEST Studies theme “Information” 2017–2025

Quality components

- It is easy to get the information needed when planning a trip.
- The information is reliable when traffic problems occur.
- The information provided at stops and terminals is good.



Satisfaction rate: 57% → 72%!

HSL operates one of the most diverse public transport ecosystems in Europe; Buses, Trams, Metro, Commuter trains, Ferries



Historically, different systems and technologies evolved over time.

This created challenges:

- Increasing integration complexity
- Dependency between systems
- Slow deployment of new functionality
- Higher lifecycle costs
- Limited flexibility for future innovations



An information system is a basic need for smooth public transport.

It affects every customer and all aspects of transport planning



Real-time information for passengers

The system provides passengers with real-time information on vehicle locations, timetable predictions, and service disruptions, based on traffic data. Information is displayed in the Journey Planner and at stop displays. The system also generates customer messages, such as on-board announcements.



Public transport optimization

The traffic data produced by the system is used for public transport planning and optimization. This information helps improve timetable accuracy and manage service disruptions.



Operator contract management

The system enables monitoring and management of operators' performance, as well as carrying out necessary actions for sanctions and bonus calculations. This helps ensure that operators remain committed to keeping services on schedule.



Service punctuality

User-friendly route and timetable planning

Service disruption information

Ease of finding travel information

Clarity of wayfinding

Real-time monitoring of vehicles and journeys

Our objective:

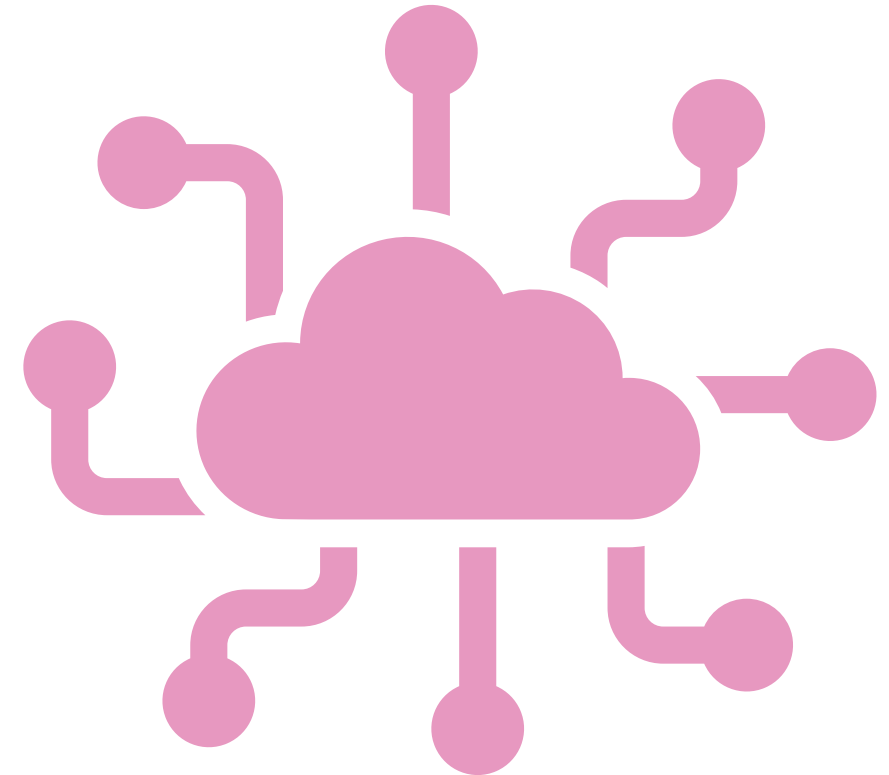
One platform, many possibilities

The goal is to create a unified and future-proof foundation.

Four design principles guided the vision:

- Unified: One common platform across all transport modes.
- Modular: Components can evolve independently.
- Open: Built on standards and APIs.
- Scalable: Able to support future services and innovations.

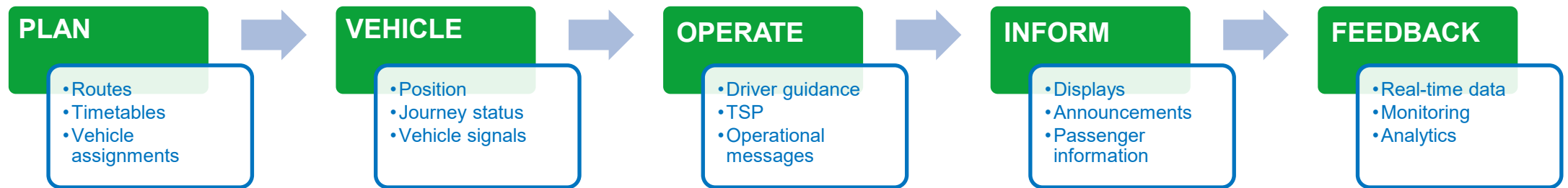
HSL selected a solution that will be deployed across approximately 1,700 buses, trams, metro cars, trains, and ferries as a common onboard platform





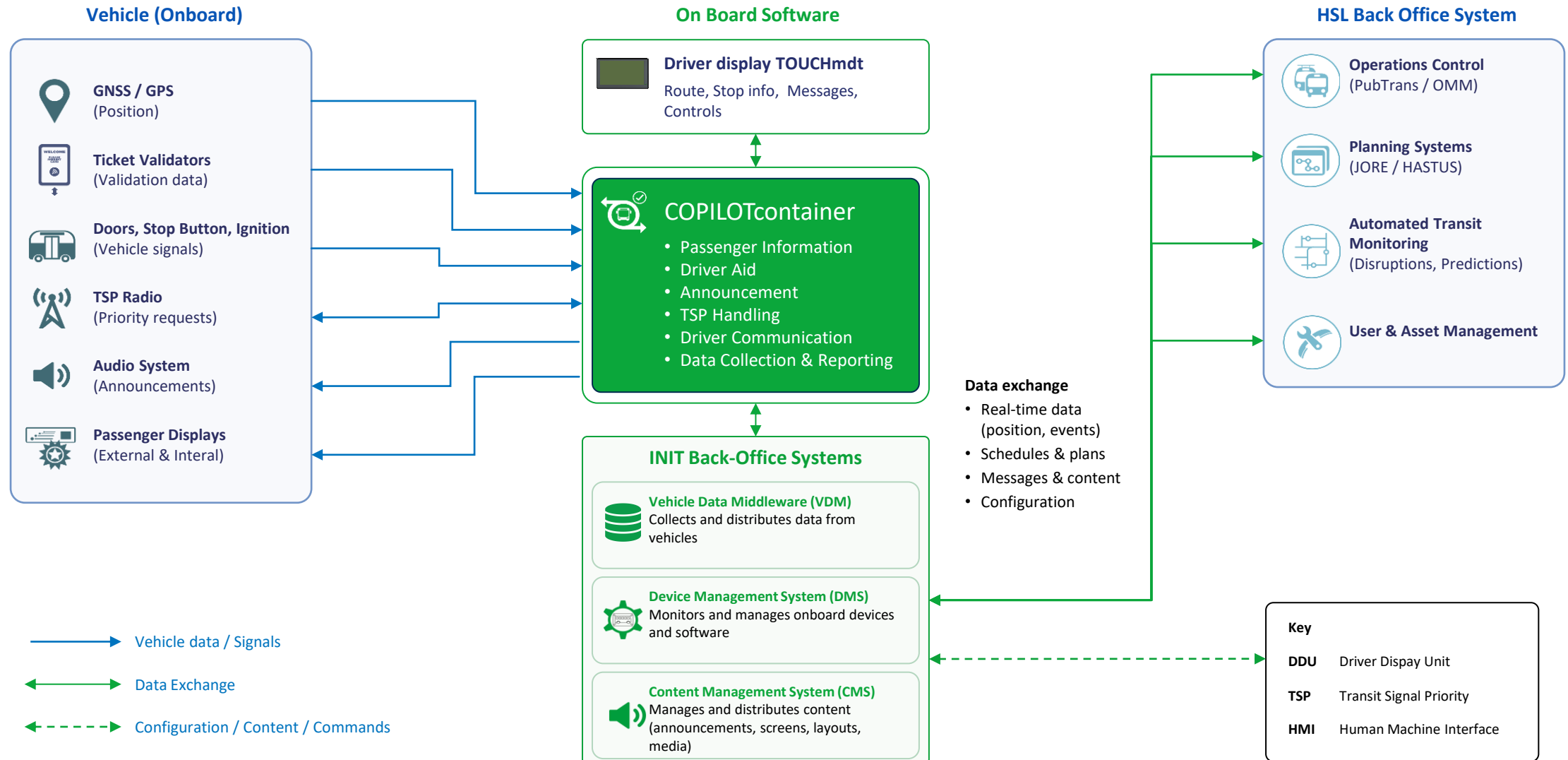
Information flow

On a unified vehicle platform



One common onboard platform connects information from planning to operations – and back again.

INIT Vehicle Solution provided to HSL



Scope of work

➤ INIT delivers:

- COPILOT container running on HSL's VBox
- TOUCHmdt driver display for buses
- Vehicle backend systems:
 - Device management
 - Vehicle data middleware
 - Content management



Sintrones VBOX-3630 i3



Why containerization matters

- Software can be updated independently
- Functions can evolve without replacing the full onboard setup
- One platform can support different vehicle types
- Legacy and modern interfaces can coexist

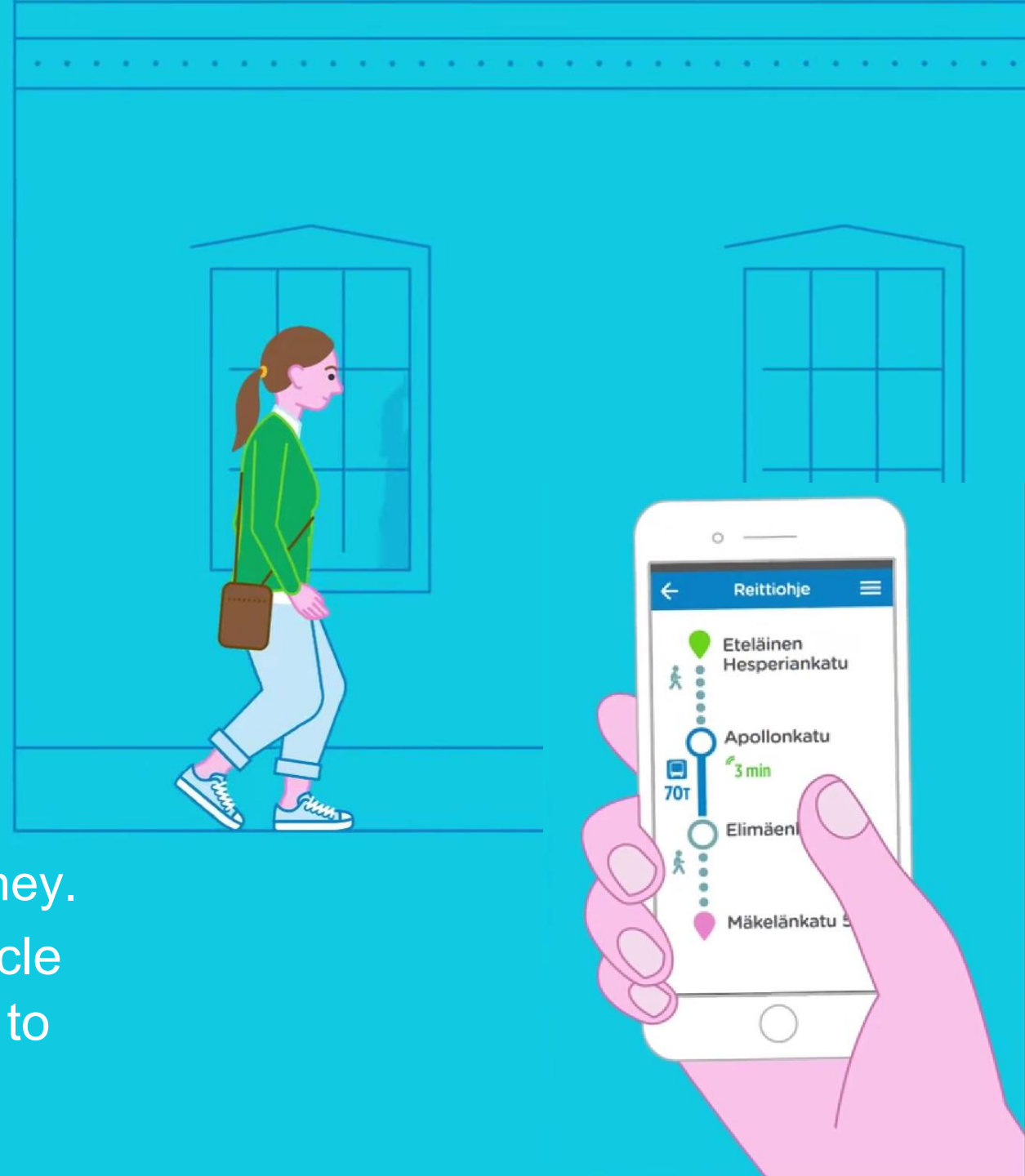
The value

- One platform across traffic modes
- Standardized data flows
- Easier updates and lifecycle management
- Better basis for real-time information and operations

Vision 2030 HSL

HSL information renewal project

- Hardware, software, and ITxPT-based systems are being aligned to create a unified framework across all transport modes.
 - This enables seamless transit that supports multimodal trips.
 - The mission is to create true interoperability, ultimately benefiting customers by providing reliable, travel information throughout their entire journey.
- Additionally the solution simplifies lifecycle management, and enables shorter time to market



Preliminary schedule of the project

Timeline

2024

2025

2026

2027

2028

2029+

Preliminary project

Vision and framework for renewal

Phased
renewal

Phase 1

In-vehicle system

Specification, procurement, and implementation
of subsystems



Maintenance and development of subsystem



Phase 2

Backend system

Specification, procurement, and
implementation of subsystems

Maintenance and
development of subsystem

Goal: Better customer experience

Passengers experiencing:

- More reliable information
- Better service quality
- Simpler journeys
- More seamless travel chains

This directly supports HSL's vision:

- "A vibrant metropolitan region where sustainable mobility is the easiest choice."
- And our mission:
 - To create attractive public transport based on people's needs and connected with other sustainable modes of mobility.



7B Pasila 1

8 Arabia 5

6T Arabia 7

7B Pasila 9

The technology is not the destination. It enables our mission.

→ By 2030 we want:

- A unified digital transport platform: All transport modes operating on a common technological foundation.
- Faster innovation: New services introduced faster and with lower risk.
- Data-driven operations: Vehicle data supporting real-time decision making and service optimization.
- Stronger ecosystem collaboration: Partners connecting through common interfaces and shared capabilities.

**When information flows
seamlessly
Your journey does too**

