

Finnish Policy – State of Play

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Ministère de la transition écologique et solidaire

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 MINISTRY OF TRANSPORT
AND COMMUNICATIONS

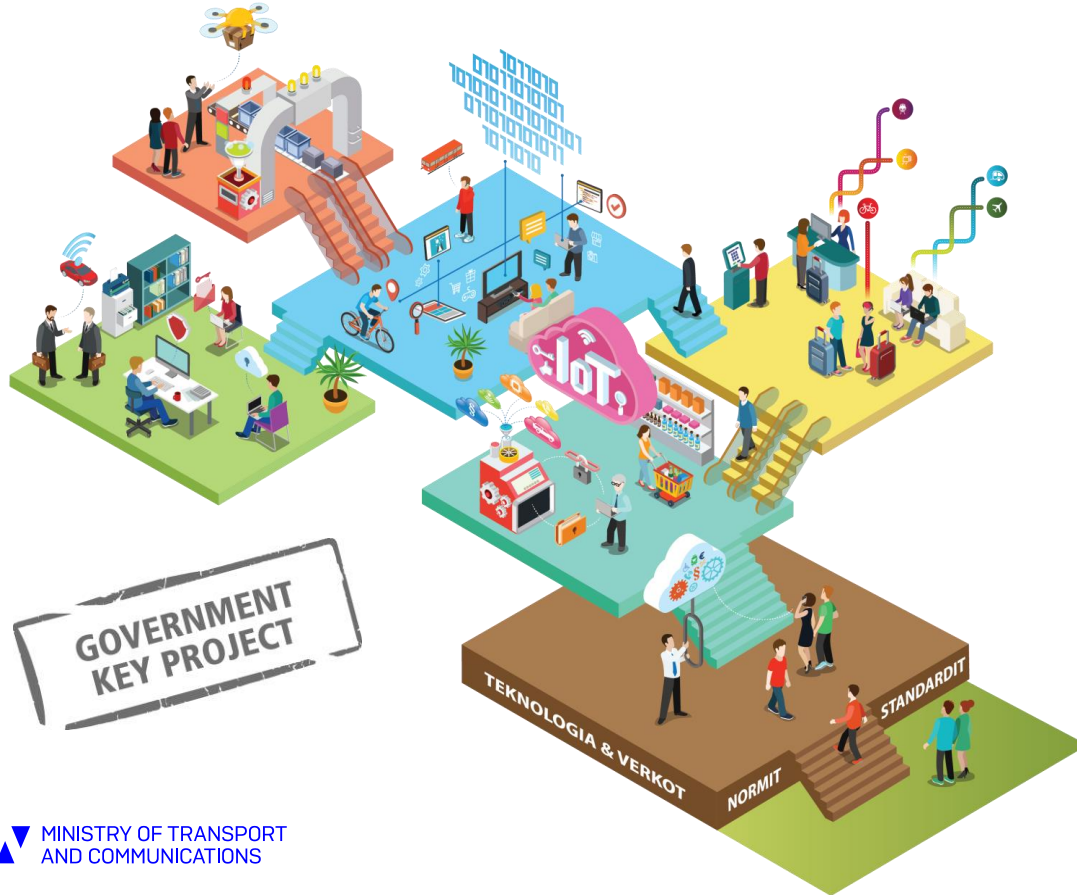


Overview

- 1 Government's flagship project
- 2 Future-Ready Legislation
- 3 Act on Transport Services

Flagship project *Digi2*

Key project: Growth Environment for Digital Business



- Mobility as a Service
- Robotisation and Automation
- Big Data & MyData
- Internet of Things
- Information Security

- Data economy in Transport
- Satellite Navigation
- Digitalisation of logistics

Our approach
Enabling MaaS services

Better and more agile services

SERVICES

MaaS operators, apps, platforms, etc.



Data utilisation and regulation

DATA

Enabling digital services: APIs, open data, MyData

Deregulation and market access



Transport and communications networks

Our approach

Horizontal Principles of the Data Economy

Data-driven by default

Principles of:

- Access to necessary data by default
- Data usage rights
- Quality and structure of data
- Interoperability
- Decentralised systems and management of data
- Human-centric data management (MyData)

An aerial photograph of a two-lane road with a car driving on it, surrounded by a dense green forest. The road has a dashed white line on the left and a double yellow line in the center. The car is a dark-colored sedan.

Transport Code

1

Essential data

2

Interoperability of systems

3

NAP

Essential data – in practice

Section 1

Essential data concerning mobility services

Regardless of the mode of transport, a provider of passenger mobility services shall ensure that essential, up-to-date data on its services is freely available from an information system (*open interface*) in a standard, easy to edit, and computer-readable format. At minimum, this essential data shall include information on routes, stops, timetables, prices, availability and accessibility.

The Finnish Transport Safety Agency shall be notified of the web addresses of an interface referred to in subsection 1 above and web addresses of any additional information needed to use the interface as well as any address updates before operation is initiated or, with regard to updates, as soon as a new address is known.

The Finnish Transport Agency shall offer a technical service through which the data referred to in subsection 1 may alternatively be provided.

More detailed provisions on essential data referred to in subsection 1 and the requirements for keeping this information up to date, as well as on technical interoperability may be laid down by a government decree.

All transport modes and services

As soon as the provider has the information & before starting / changing a service

Re-use without limiting conditions (cf. access to APIs)

Use of APIs; one source is enough

Technology neutrality

A minima regulation in law

Open means also documented

Support (especially) for the smaller players

→connected to the NAP work

Essential data – Government Decree

Defines which categories of data are defined as essential

Definitions by the type of passenger mobility service

- Passenger transport
- Stations, ports and other terminals
- Vehicle rental services and commercial sharing services
- General commercial parking services
- Brokering and dispatch services



Interoperability of ticket and payment systems

Section 2

Interoperability of ticket and payment systems

Providers of road and rail passenger transport services, providers of brokering and dispatch services, or actors managing a ticket or payment system on behalf of these shall give mobility service providers and providers of integrated mobility services access to the sales interface of their ticket and payment systems, through which it is possible to:

1) purchase a ticket product at a basic price that, at minimum, entitles the passenger to a single trip; the travel right based on this ticket shall be easily verifiable using generally applied technology; or

2) reserve a single trip of a transportation, the exact price of which is unknown when the service begins or which for some other reason will be paid by mutual agreement after the service has been provided.

A service provider who only provides passenger transport services other than those procured by the competent authority referred to in Part IV, chapter 1, sections 4 and 5 of this Act, the Act on Public Procurement and Concession Contracts (1397/2016), hereinafter referred to as the *Public Procurement Act*, or the Act on public contracts and concessions of entities operating in the water, energy, transport and postal services sectors (1398/2016), may deviate from the requirement in subsection 1 if requirement is not technically feasible or reasonable due to the company's small size or operating area.

A service provider obligated to open a ticket and payment system interface pursuant to subsection 1 and a mobility and integrated mobility services provider that utilises the interface shall work in co-operation to facilitate the necessary practical arrangements.

Only regarding road and railroad passenger services
→ to avoid processing personal data

Use of APIs; one source is enough

Only basic-priced tickets (e.g. no student discounts) – does not necessitate having static prices

E.g. taxis

Includes exceptions

E.g. contracts on how to prove having a ticket

Interoperability of ticket and payment systems

New notion of a service provider *acting on the passenger's behalf*

If a transport service provider

- has an electronic service channel and
- the passenger has an account with the transport service provider,

it must

- provide access to the system via API
- so another service provider can buy tickets on the passenger's behalf utilising the passenger's existing identification and user information on the account.

Covers also discount tickets etc. and the issuer's of such tickets

Connecting systems by mobile network and backend support

Section 3

Promoting interoperability in public procurements

When procuring mobility services or ticket or payments systems associated with them pursuant to this Act, the Public Procurement Act, or the Act on public contracts and concessions of entities operating in the water, energy, transport and postal services sectors, a competent authority referred to in Part IV, chapter 1, section 4 and 5 of this Act shall see to it that the invitation to tender, the contract notice and the contract contain the following requirements:

- 1) the service provider has described how they have fulfilled their obligations outlined in section 1;
- 2) verifying the travel rights based on the service provider's ticket products shall be made possible by contacting a back office system through a telecommunication network shall be possible, and generally applied technologies shall be used for the verification; and
- 3) where the travel right is verified by contacting the back office system of another service provider, communication between the back office systems shall be possible through an interface.

A competent authority shall approve all such systems used by service providers that meet the requirements listed in subsection 1, paragraph 2. Additionally, a competent authority shall ensure that its activities promote interoperability of the ticket and payment systems also in other respects.

Public money directed only to systems supporting interoperability and connectivity

Ticket and payment systems relating to publicly procured transport must be backend supported and connected over the internet

Interfaces required

Technological neutrality, connecting different systems and devices via backend interoperability

Ensuring interoperability by openness and cooperation

Section 4

General requirements related to the opening of interfaces

Access to data and information systems offered through the open interfaces referred to in sections 1 and 2 above and any support services, terms and conditions of use, software, licences and other services that may be required to access them shall be offered on fair, reasonable and non-discriminatory terms.

Service providers obliged to open interfaces referred to in sections 1 and 2 above shall ensure that the interface can be opened without compromising the service's information security or privacy.

Goal: Ensuring non-discrimination in access to data

Clarifies the concept of *openness*

There can be terms e.g. a (reasonable) charge

Security and privacy by design when buying tickets

Section 5

Interoperability of services that link services and interfaces

Service providers who provide technical links between the open interfaces on which provisions are laid down in this chapter and the actors responsible for maintaining back office systems associated with verifying travel rights shall, when developing their services and systems, ensure that they are interoperable with other similar services. The service providers referred to above shall also in other respects work together in order to deliver the technical interoperability required to form travel chains.

Providers of integrated mobility services shall open the interfaces needed to verify travel rights and ensure that the travel rights may be verified using generally applied technologies.

More detailed provisions on ensuring the interoperability referred to in subsection 1 and 2 may be laid down by a government decree.

Goal: Ensuring a level playing field for new services

Interoperability by design

Interfaces of MaaS Services

Interoperability of ticket and payment systems

Implementation through the *Lippu* project

Joint project of three agencies: Finnish Communications Regulatory Authority, Finnish Transport Safety Agency and Finnish Transport Agency + consulting services

Two branches of work:

- technical interfaces
- policies between operators (what should be taken into account in the agreements – code of conduct)

In close cooperation with the stakeholder (Lippu network)

First preliminary versions drafted and delivered to the network. Further development

- using electronic tools open for interested parties (interfaces)
- workshops (policy issues)

Technical interface work

Scope

- Simple technical API
 - Four services: authentication, products, availability, reservation
 - Support for call based transport
 - Support for accessibility information
 - No specification for tickets format or ticket validation
- Documentation, example implementation for the API, client library

Code licensed with European Union Public Licence v. 1.2 and is available online



Source: Solita

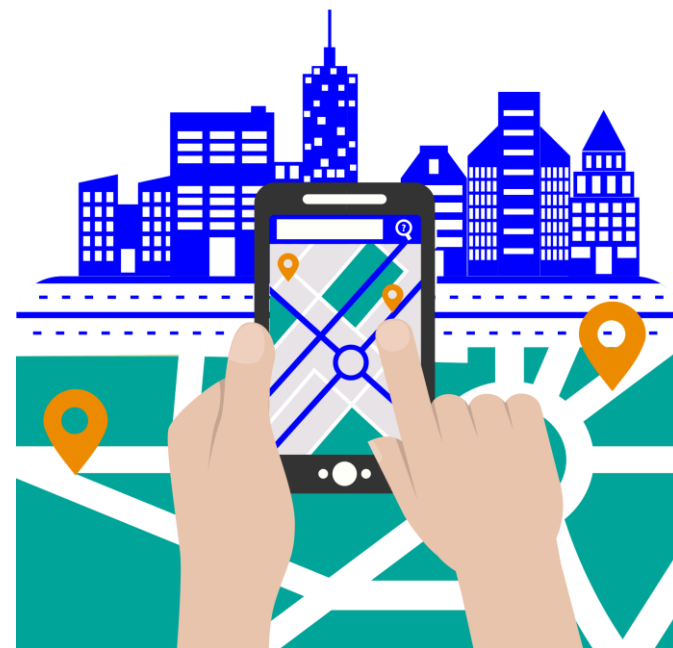
Policies between operators (codes of conduct)

Scope: contract provisions regarding access to interfaces of payment and ticketing systems

”Soft law” – not legally binding nor a model contract

Includes inter alia:

- Information security
- Informing about exceptional situations
- Processing of personal data
- Payments
- Use of trademarks
- Liabilities



Our Goal

Enabling Easy Travel Chains



+ Gov. Decree on the essential data
+ Lippu-project (APIs)

Essential data on mobility services (APIs)

- All transport modes and services

Anonymous single tickets (interoperability of ticketing and payment systems)

- Road and rail transport services



+ Reform of the transport register

Data concerning the use of transport services

- Open interface of the Finnish Transport agency

Personal tickets (if there is an account in a digital service)

- Seasonal tickets
- Student and senior discounts etc.
- All transport modes
- All transport services

An icon at the bottom right of the Phase II box shows a digital ticket with a QR code and a user profile icon, representing personalized digital services.

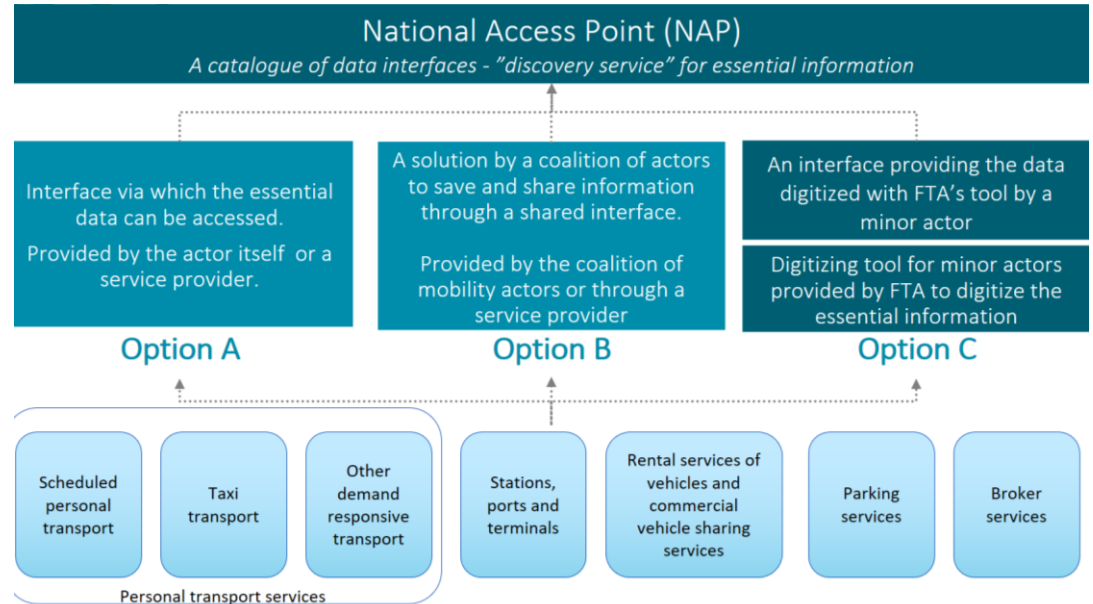
Transport Code I NAP work

NAP version 1.0. is running

Open source code

To be done in 2018: improving quality and scope of data, and further work on compatible interface solutions

To be done in 2019: NAP will be developed in accordance to the ITS directive and the delegated act



Source: Finnish Transport Agency

Perspectives for the development

- Operational framework that supports the use of automation, utilization of data and new mobility services
- Deregulation as well as reducing administrative burden: soft measures and industry standards as the first option and as far as possible
- Finland would like to especially raise the following points:
 - Clear minimum interoperability requirements are a necessity for the deployment of C-ITS, but their mandatory introduction is not needed at this stage. We need a common understanding that there should be a principle of interoperability, and this principle should then be implemented at the most appropriate level.
 - Interoperability must not be seen only as an internal feature of the C-ITS. Interoperability in C-ITS means taking into account the C-ITS system itself, elements closely linked to it (eg. infrastructure) as well as integration to other IoT systems (eg. various smart city features).
 - A high level of security enables efficient sharing of data which is critical in enhancing security and safety of connected and automated transport. However, existing validated solutions and legal instruments must be taken into account when assessing the need for new rules.