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
The big question
How to Ensure Future-Ready Legislation?

Key questions
• What does the end-user want and need?
• Who can best cater to those needs?
• Whilst ensuring decarbonisation?

To enable this through legislation
• Holistic approach to the transport system – No more silos!
• Enable digitalisation – Open data, APIs, MyData
• Linking MaaS to wider context – Data economy, platform economy, GDPR, PSDII
• Allow Innovation and Automation – Technology neutral rules
• Decarbonisation – Making MaaS & Multimodality the 1st choice
Our approach

Enabling MaaS services

Better and more agile services

SERVICES
MaaS operators, apps, platforms, etc.

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)
Transport Code I

Essential Data – Why Regulate?

Premise: no data, no new services

To promote digitalisation, new services and fair competition, rules are needed to
a) turn information into digital form (data)
b) give access to such data in FRAND terms

But: we want enabling regulation, not to burden the players
Transport Code I

**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
Transport Code I

**Essential data – Government Decree**

Defines which categories of data are defined as essential

Definitions by the type of passenger mobility service
- Passanger 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

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
Transport Code II (draft)

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
Transport Code I

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.

Interfaces required

Technological neutrality, connecting different systems and devices via backend interoperability

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
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.

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 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

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)
Lippu Project

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

Phase I
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

Phase II
+ Gov. Decree on the essential data
+ Lippu-project (APIs)
Data concerning the use of transport services
- Open interface of the Finnish Transport agency

+ Reform of the transport register
Personal tickets (if there is an account in a digital service)
- Seasonal tickets
- Student and senior discounts etc.
- All transport modes
- All transport services
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
C-ITS

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 (e.g. infrastructure) as well as integration to other IoT systems (e.g. 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.