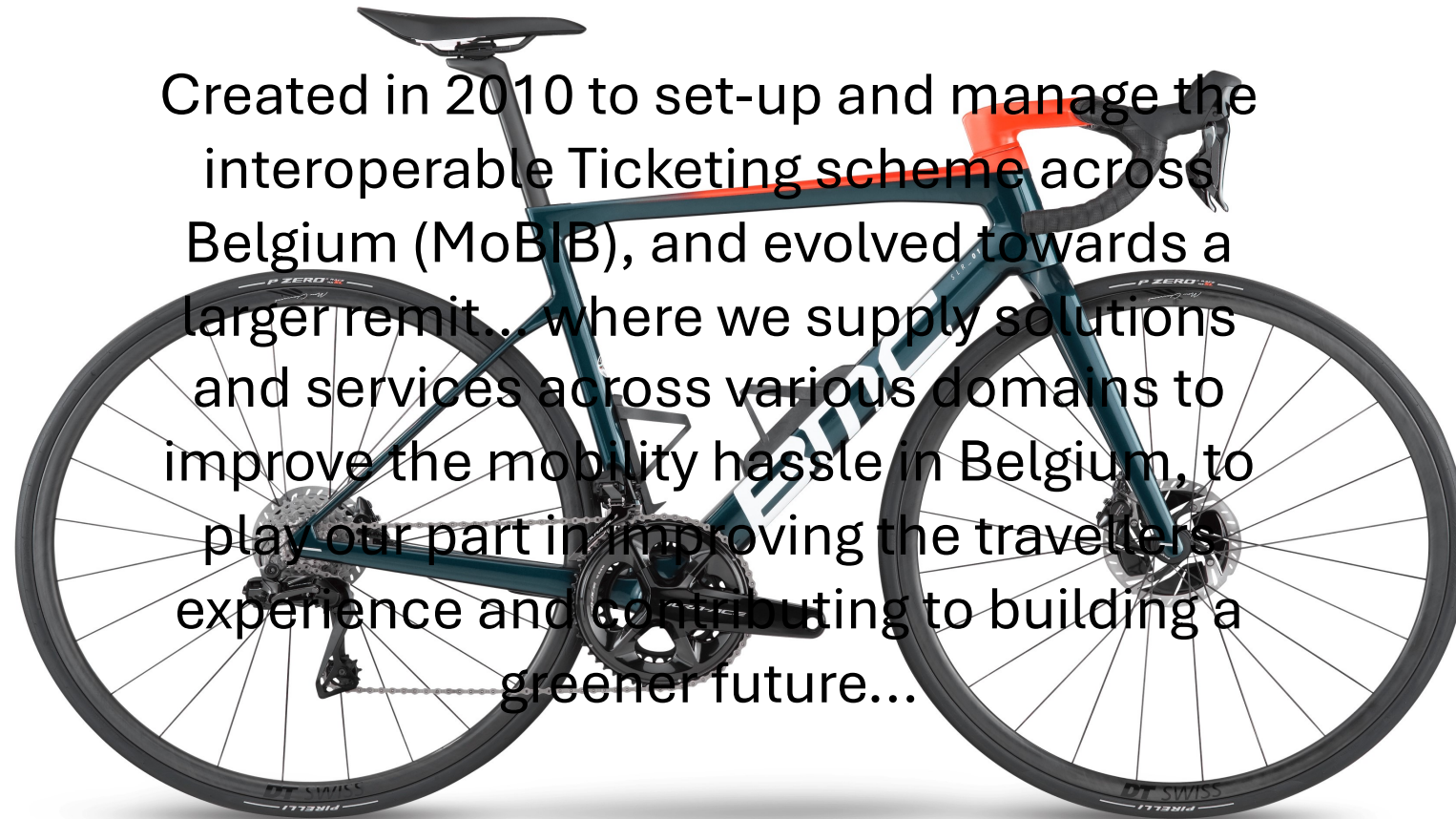**Belgian Mobility Company**

17th of September 2024

FOD Mobiliteit en Vervoer, Federale Raad voor Duurzame Ontwikkeling

Financietoren – Pachecolaan 13, Brussel

Subgroepsessie- 13:15 to 14:05
Harmonisation in Ticketing

Created in 2010 to set-up and manage the interoperable Ticketing scheme across Belgium (MoBIB), and evolved towards a larger remit... where we supply solutions and services across various domains to improve the mobility hassle in Belgium, to play our part in improving the travellers experience and contributing to building a greener future...

What we do….

Interoperable Ticketing

We run the MoBIB Interoperable Ticket card scheme in Belgium since 2010. Today this remains the most integrated interoperable ticketing platform and is used by millions of travellers. Next to this we also manage the digital interoperable ticket, whereby a single, digital ticket (on your mobile) can be used across all public transport modes. Through this we promote sustainable and integrated travel experiences for the traveller.
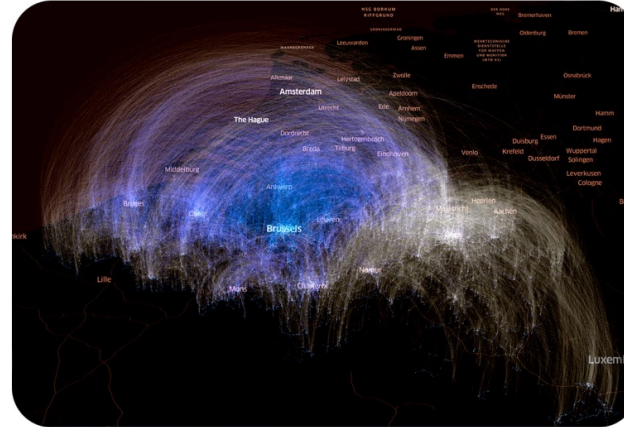
Mobility DataHub

Our DataHub collects all Mobility related data and grants you all-in-one access to qualitative data from the entire mobility ecosystem. We collect, consolidate , optimise all mobility related data and certify these to deliver this data and related services.
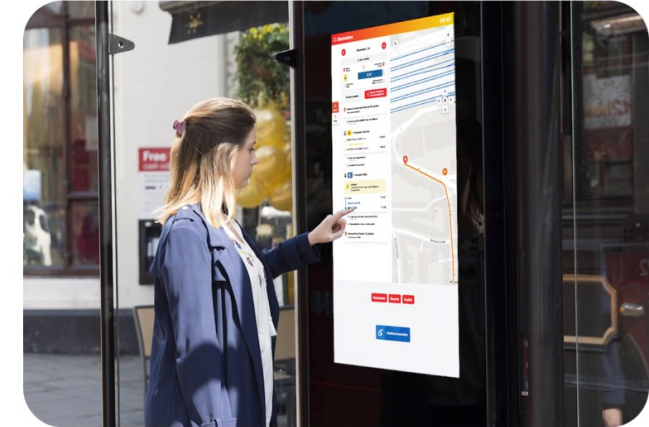
Passenger information

We have built and deployed Passenger Information solutions across the various regions, a range of products, based on a certified set of data, to guide Belgian travelers through every step of their journey.
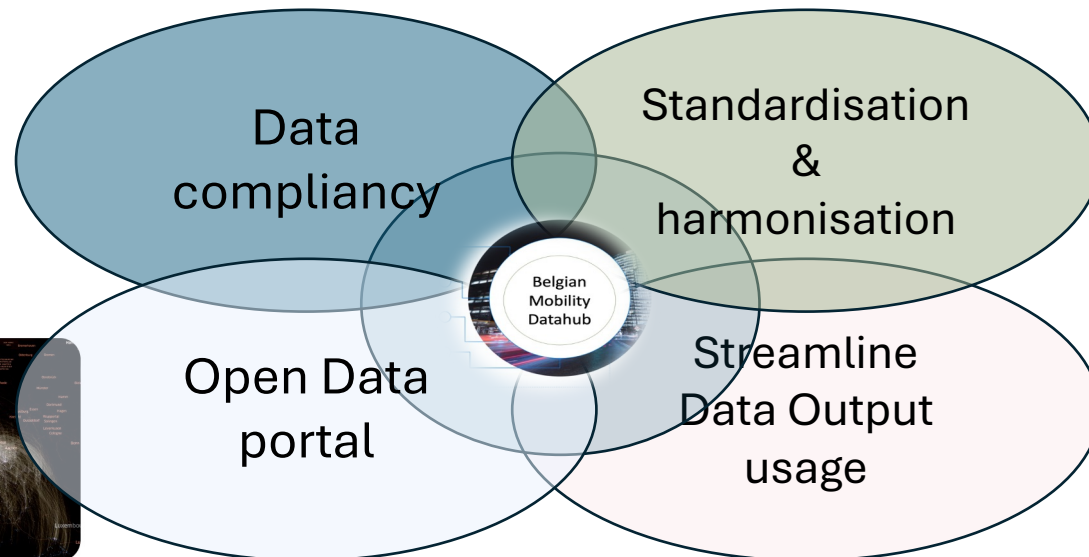
Ticketing Standardisation and harmonisation….

Let's discuss some statements…..

Statement 1:

"DATA standardisation and harmonisation is necessary to enable ticketing harmonisation"

Data compliancy

Standardisation & harmonisation

Belgian Mobility Datahub
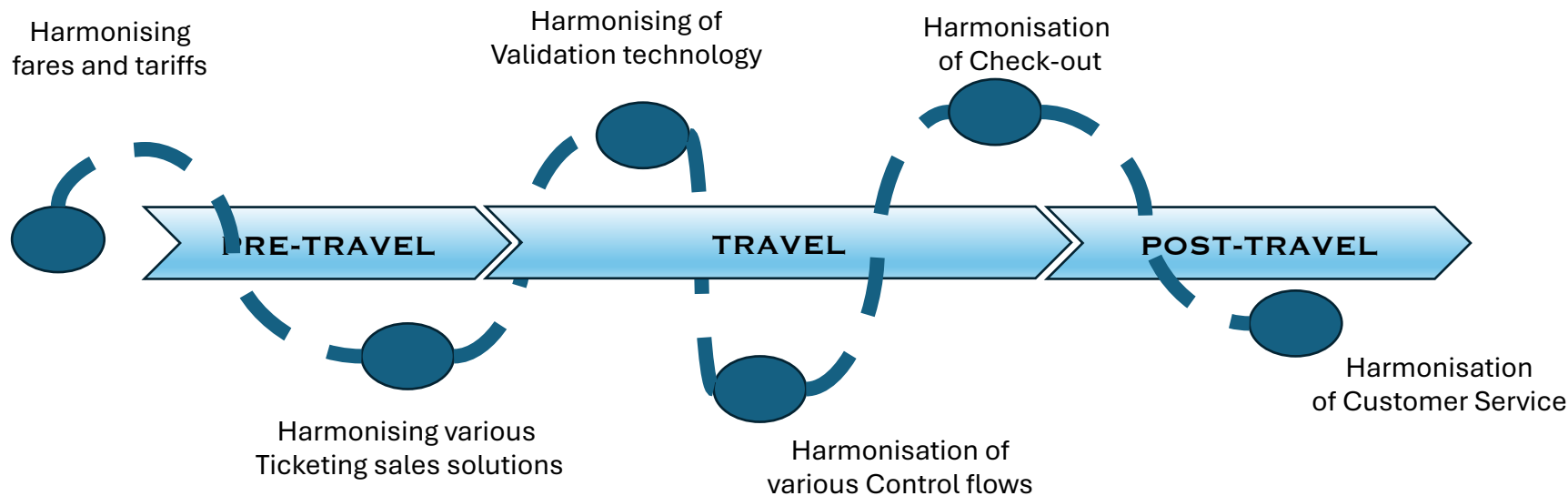
Open Data portal

Streamline Data Output usage

The use of (various) standards at regional, national and European level such as GTF(S), NeTex, OSDM….
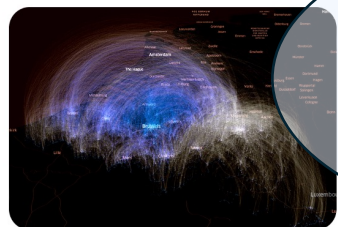
Statement 2:

"Ticketing standardisation and harmonisation ….

Can (or can't…) be done through the complete customer journey…"

Harmonising fares and tariffs

Harmonising of Validation technology

Harmonisation of Check-out

Stakeholders need clear benefits for customers to do so….

PRE-TRAVEL

TRAVEL

POST-TRAVEL

Harmonising various Ticketing sales solutions

Harmonisation of various Control flows

Harmonisation of Customer Service

Statement 3:

"Ticketing standardisation and harmonisation ….

What comes first ? …. Implementations or standards…

Barcode ticketing
DG MOVE focuses on harmonisation in barcode ticketing
New work item for barcodes with dynamic elements and security features

Account Based Ticketing ; different definiitions and instantiations exist
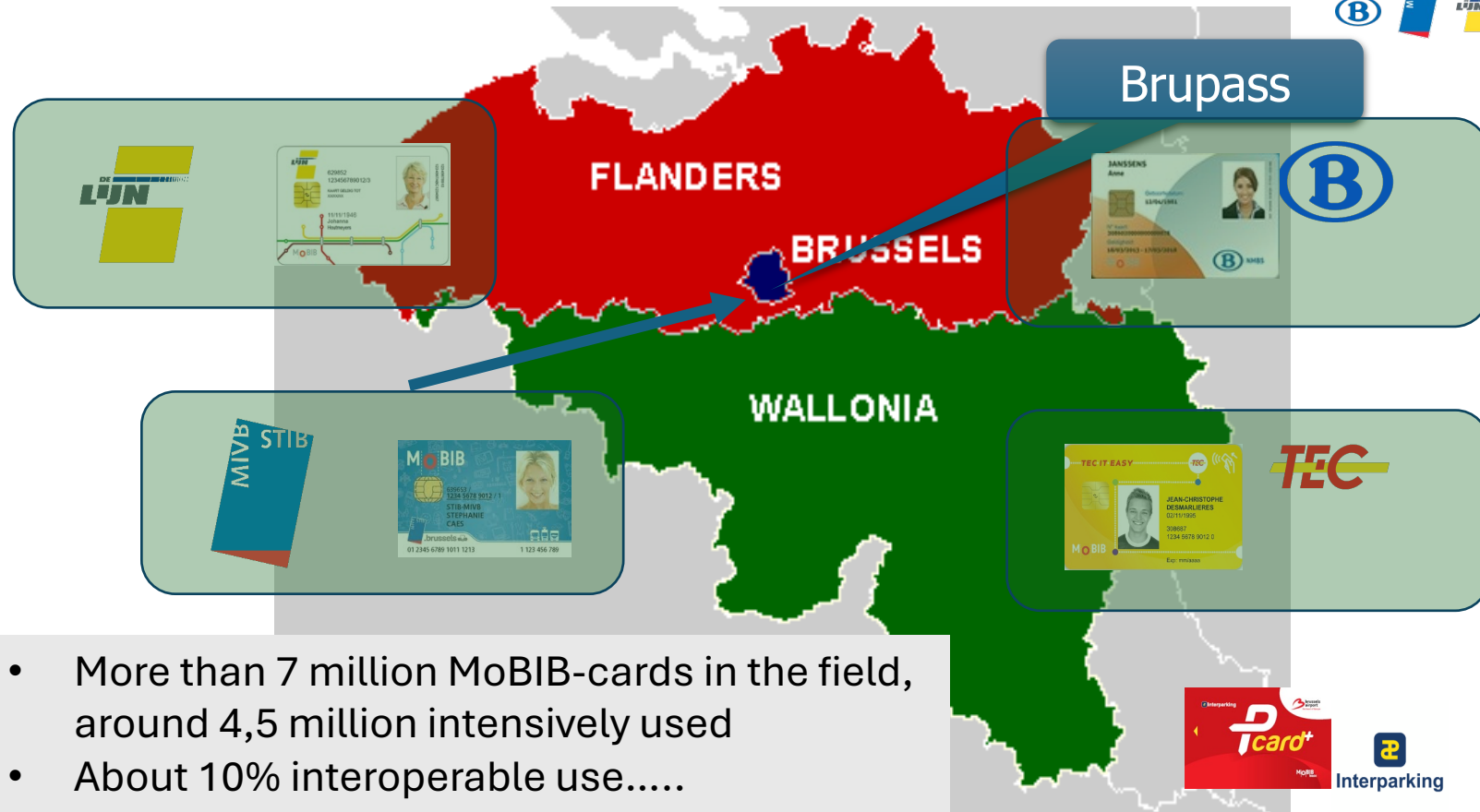ISO 24014-1 on IFMS (Interoperable Fare Management System)
ISO TR 202526 on ABT will serve as a basis for further standardisation on IFMS (Interoperable Fare Management System)

Having a closer look at some applied standards….

Today.... the interoperable MOBIB scheme standard is widely used....

- More than 7 million MoBIB-cards in the field, around 4,5 million intensively used
- About 10% interoperable use.....

- CALYPSO standard

- For multi-modal interoperable scheme;
  - existing processes and ticketing equipment are still fragmented and need further alignment
  - Further partnerships and a multi-modal (nation-wide) governance model is needed

Interoperable Ticketing

Various regional and city schemes

Calypso card-based **technical standard widely used**
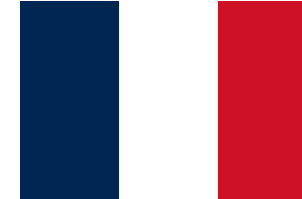
Île de France Mobilité (Navigo), Toulouse, Bordeaux, Lyon, Marseille, Rennes, Nantes, Cannes, Angers + other local MSP-based implementations (Keolis, Transdev e.g.).

Same media and technical standard ≠ interoperability. It also takes:

 Data models within the technical standard

 Product data governance within the datamodel
 Security management and global governance

The initiative MUTP (Monétique Unifiée des Transports Publics) aims at harmonizing the card—based usage amongst regions, while the "Titre de transport unique" on mobile app is seen as a first step towards more interoperability, to be supported by other media as well.

Interoperable Ticketing

45 partners in Resplus sales system, 9 private and 4 public transport operators
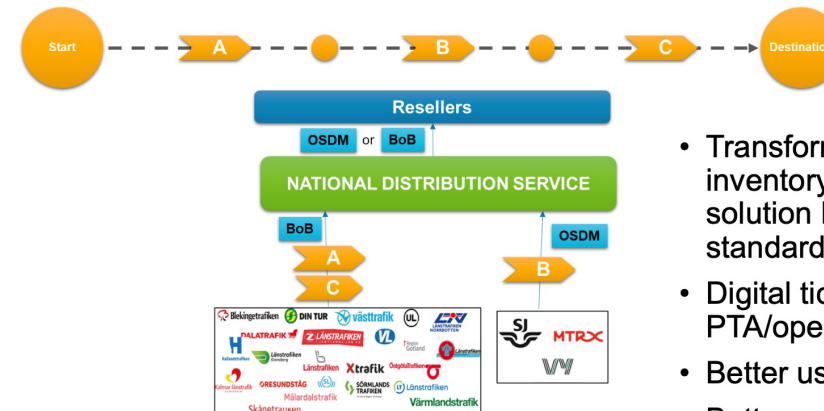
2 standards

BoB – "Biljett och Betal" meaning Ticket and Payment – Swedish standard for digital tickets used by PTA's for local traffic (busses and urban transportation)

OSDM – "Open Sales and Distribution Model" – an European rail operators standard for <u>booked</u> tickets (thus mostly for train)

Interoperable Ticketing

Samtrafiken National Service for Distribution and Sales

- Transformation from a legacy inventory system to a distributed solution based on industry standards
- Digital tickets issued by each PTA/operator
- Better user experience
- Better revenue control

Samtrafiken

Ongoing project to sell and combine the ticket distribution digitally on a new platform ("National Distribution Service). IT harmonisation between standards and <u>within</u> standards (interpretations and implementations can vary)

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National scheme legacy card-based with OV-Chipkaart (Mifare)

Local data model

Operated by Translink, in use at all PTOs and even some private mobility service providers.

Migrating since 2022 to

- EMV, account-based (server-based) ecosystem based on *finance industry standards* (OVPay)

- Digital barcode distribution platform for single tickets (Tapconnect)

❖ 46 Public Transport Concessions
❖ Nationwide coverage
❖ Multi modal system (bus, tram, train, metro and ferry)
❖ Interoperable ticketing solution
❖ Nationwide acceptance of OV-chipkaart and OVpay in Public Transport enforced by law
❖ 9 Public transport operators
❖ Distance based fare calculation

Interoperable Ticketing

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Schemes and data harmonisation occurs **at region or city level**

Most famous example: London Oyster card at Transport for London (15 PTOs plus cable cars, Uber Boats).

Initally a Mifare card-based technical standard.

Evolution to an EMV solution (bank cards) "open-loop" (Contactless)
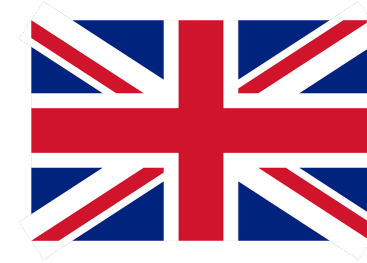
Remark: financial industry dataset ≠ transit ecosystem dataset (security, privacy, fare policy).

Interoperable Ticketing

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Easy Connect (Netherlands-Germany); Cross-border between 2 schemes

Pilot project started with EU funding, NL Ministry, Provinces, Translink and Arriva

Apps: Naveo (DE) – Glimble (NL)

Integration of account (server)-based systems : *API standardisation*

![Router Infrastructure & Interfaces diagram]

Router Infrastructure & Interfaces

- Router Infrastructure in a cross-border eco-system
- Interoperabele Router connected with multiple National (or Regional) Routers
- functionality of the Router(s):
  - distribute unique ID's
  - connect different (existing) systems (also cross-border)
  - routing data, without storing data itself

Primary goal:

connect different (ticketing) systems of different countries (regions) with each other and thereby exchange transactions, with which a traveller with an existing account in country "A" can also travel to and in countries "B" and "C", "D" etc.

TOMP-router in the Netherlands connects MaaS Service Providers with (shared) transport operators via the TOMP API (many-to-many principle)
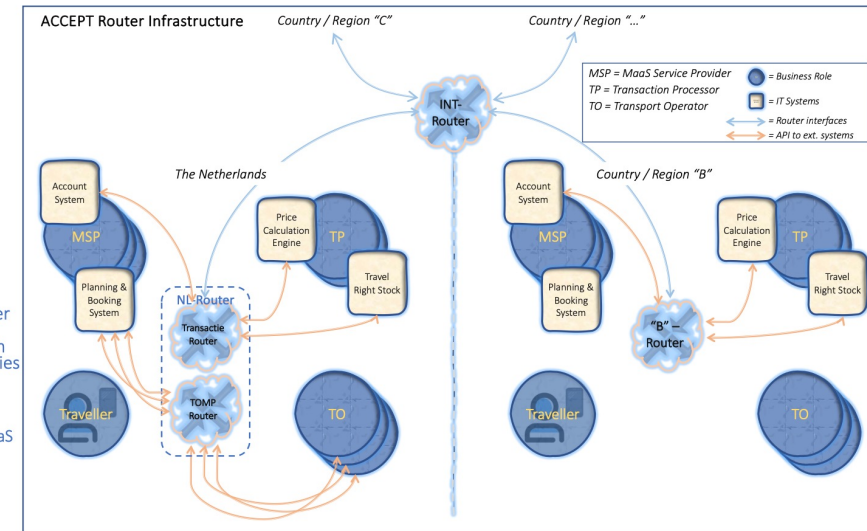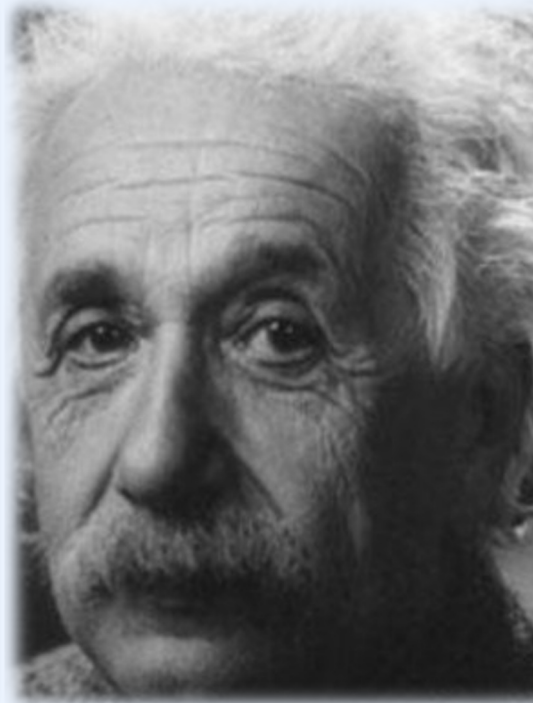
Source: Accept Institute (2023)

Interoperable Ticketing

Standardisation layers
Media → within a common (eco)-system → inter (eco)-systems

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The future is an unknown, but a somewhat predictable unknown. To look to the future we must first look back upon the past. That is where the seeds of the future were planted. I never think of the future. It comes soon enough.

— Albert Einstein —

AZ QUOTES

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