Data Standardisation for Shared Mobility

25-10-2023 | TOMP Working Group
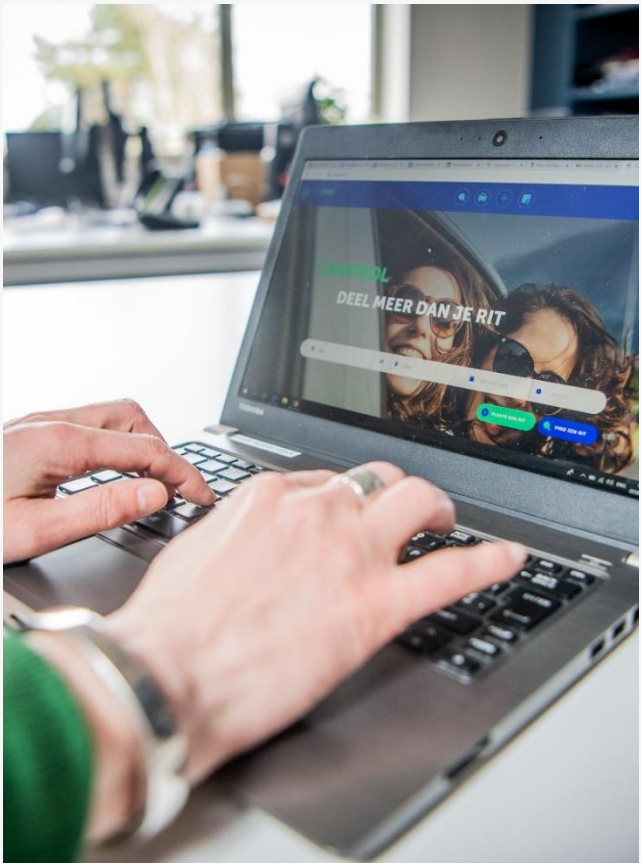
Jelten Baguet - Tjalle Groen

mpact

Interreg North Sea | **Co-funded by the European Union**

ShareDiMobiHub

www.mpact.be
tjalle.groen@mpact.be

Optimize mobility with mpact

Solutions

Innovation

Awareness

Data-standardisation for shared mobility, a study

- Introduction
  - why data matter
  - shared mobility data ecosystem
  - regulatory framework

- Data standards and specifications
  - Global
  - European
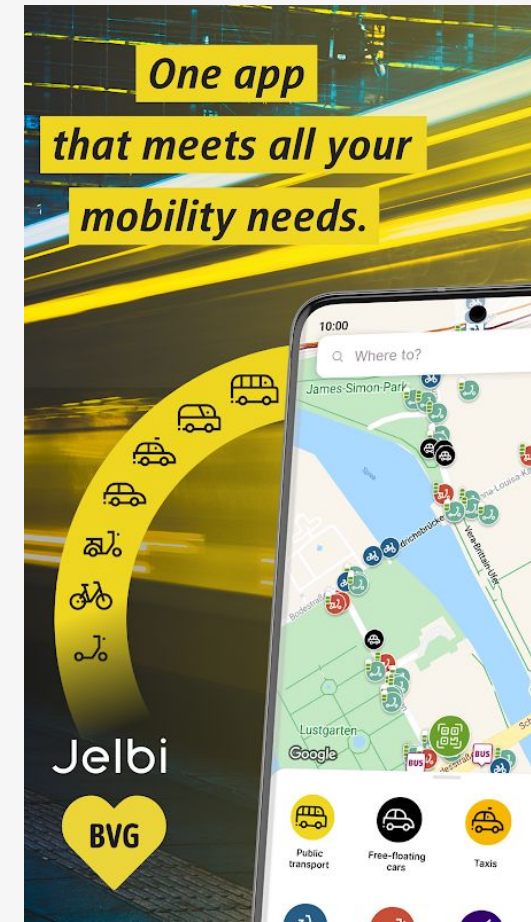 - Country specific
  - Other

- Conclusions

Data: A Short Introduction

Why should we care?

Popularity of shared mobility

One app
that meets all your
mobility needs.

Jelbi
BVG

MaaS-applications

Why we should care!

Data-exchange allows us to…

- check whether our train is on time
- use Google Maps for PT-info
- buy a bus ticket
- reserve and unlock a shared bike, scooter or car
- terminate our micro mobility journey in a geofenced zone
- get in touch with customer support
- …

Advantages of data standardisation
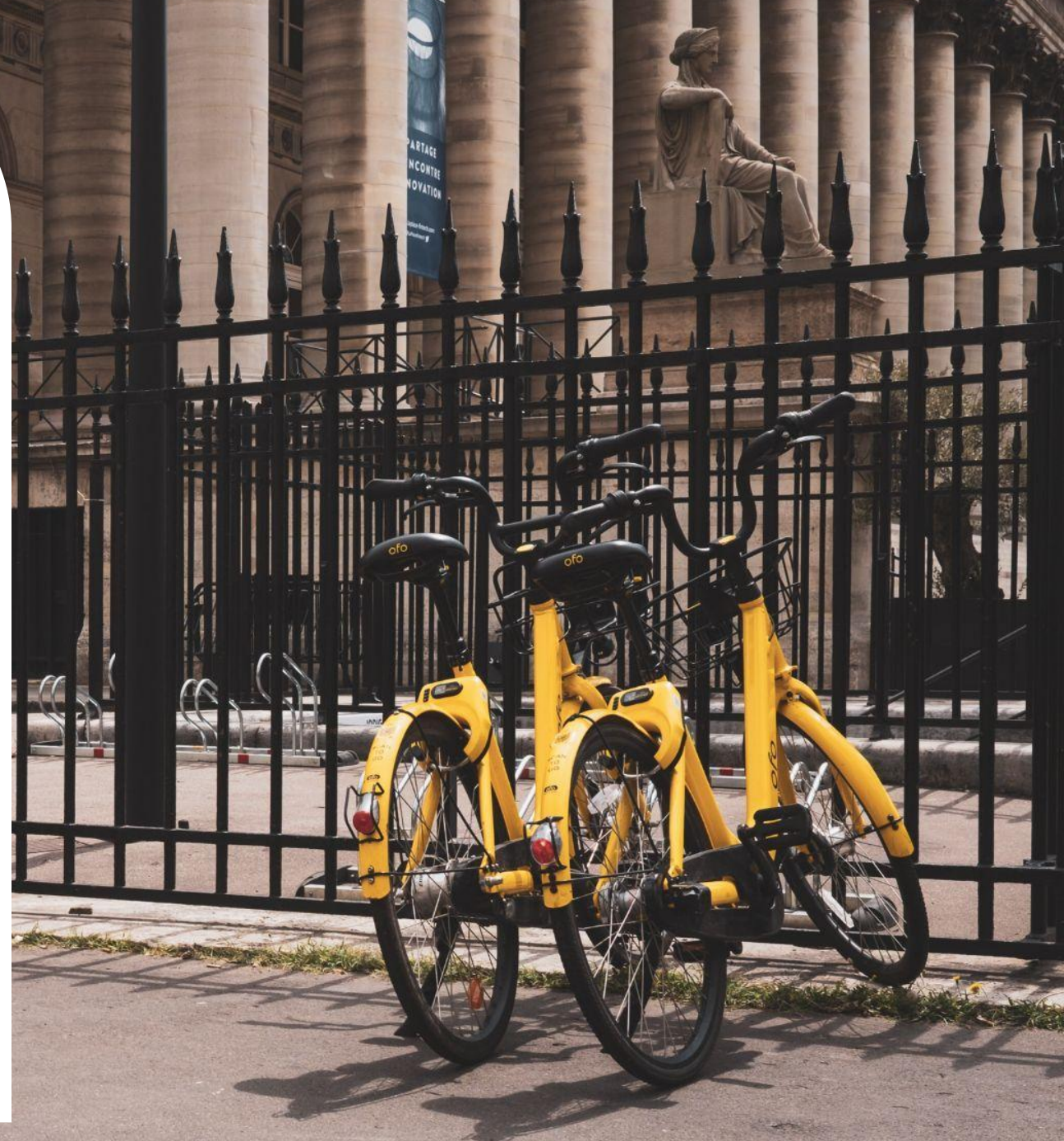
🕐 Time-efficient

💰 Cheaper

🧚 Level playing field

🔍 Monitoring and regulation

The Shared Mobility Data standardisation landscape

First things first

Sources

- Own research
- MaaS Alliance (Abella et al., 2021)
- MobiDataLab Project (Chevalier, 2022)

Beware…

- Standard…
- … vs. Specification

The four levels of MaaS (sochor et al.)

4	**Integration of Societal goals** Policy, incentives, ...
3	**Integration of the service offer** Contracts, subscriptions, ...
2	**Integration of booking & payment** Single rides: search, book & pay. → TOMP-API (may '22)
1	**Integration of information** Multimodal, routeplanning,... → GBFS+, NETEX,...
0	**No integration** Single, separate services → Current situation (NAP's,...)

T.A Groen '22

An overview

		Global	European	National
4	Integration of Societal goals			
3	Integration of the service offer			
2	Integration of booking & payment		TOMP API · ODSM	RDEX
1	Integration of information	GBFS · MDS · GTFS	OJP · Trans model · NeTEx · DATEX II · SIRI · CDS-M	OSLO · IXSI
0	No integration			

TAG - 10/23

Structure per specification/Standard

- Name & Acronym
- What
- Who
- Why
- Relevance
- Compliance and Compatibility
- Governance
- Variants

GTFS

General Transit Feed Specification

- Developed in 2005 in Portland, Oregon (US)
- For integrating PT data in Google Maps
- Maintained by MobilityData (affiliated with Google)
- Basic, but easy to implement & maintain static data
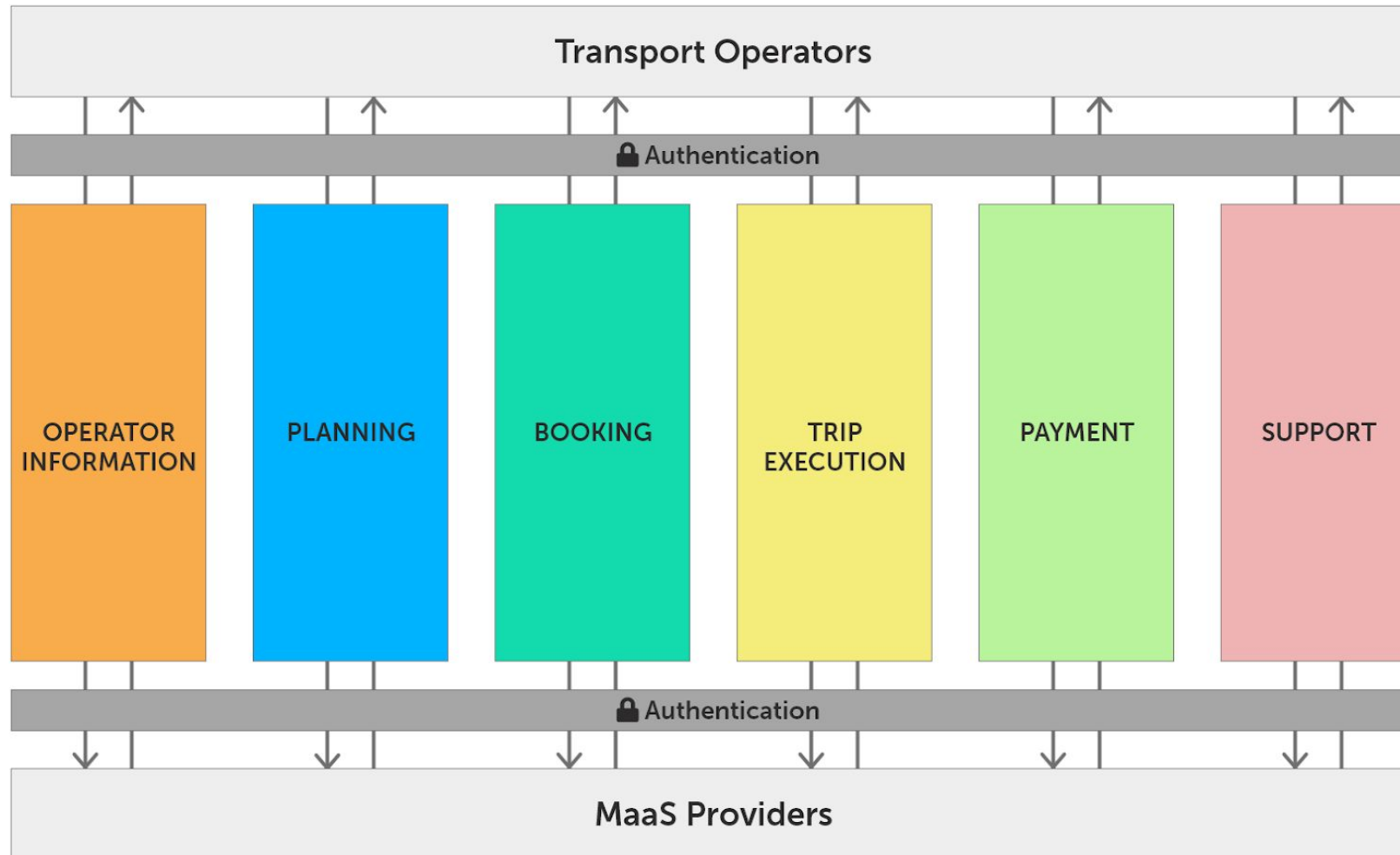- Open Source governance structure

TOMP-API

Transport Operator Maas Provider API

- Developed in 2019, Europe
- Technical specification for integration a Mobility Mode into a MaaS application
- Maintained by the TOMP-WG
- Open Source governance structure
- Full user journey within MaaS context
- Compatible with GBFS & Netex

The modules

CDS-M

City Data Standard for Mobility

- Originated in the Netherlands - G5
- Toolkit for cities on how to work with data
- Focus shifted, after market research
- No push for a specific standard, providing insights & methodology.
- Focus on the European legal framework.
- A lot of shared insights/research available (cds-m.com)

IXSI 5

Interface for X-Sharing Information

- Developed in Germany, since 2014
- Focus on connecting Car sharing providers
- Sharing information, no booking
- XML-based system
- Creative commons licence
- Since version 5 - also different mobility modes

The Future?

What will the future bring?

- There are many standards out there.
  - Who will survive?
  - Necessary to develop new standards?

- What will determine the future?
  - Viability of MaaS
  - Government frameworks
  - Balance between public and private sector

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- **Discover what's out there and try to find common ground!**

Download the full study for free!

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Tjalle Groen | Jelten Baguet

Tjalle.Groen@mpact.be | Jelten.Baguet@mpact.be

Find us on LinkedIn!

MPACT
info@mpact.be
www.mpact.be

MPACT GENT
K.M. Hendrikaplein 65B
9000 Gent

MPACT BRUXELLES / BRUSSEL
Rue Thérésienne 7
1000 Bruxelles
Theresianenstraat 7
1000 Brussel

MPACT GEMBLOUX
Rue Buisson St Guibert 1B
5030 Gembloux