How to make Shared Mobility Rock
SHARED MOBILITY INTEGRATION WITH MAAS

12-11-2021 - Webinar

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mpact

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European Regional Development Fund

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The topics for today

1. Mpact
2. eHUBS
3. Why should we standardize our data?
4. TOMP-API
5. CDS-M

Mpact

The organisation formerly known as Taxistop.
Do more with less – since 1975

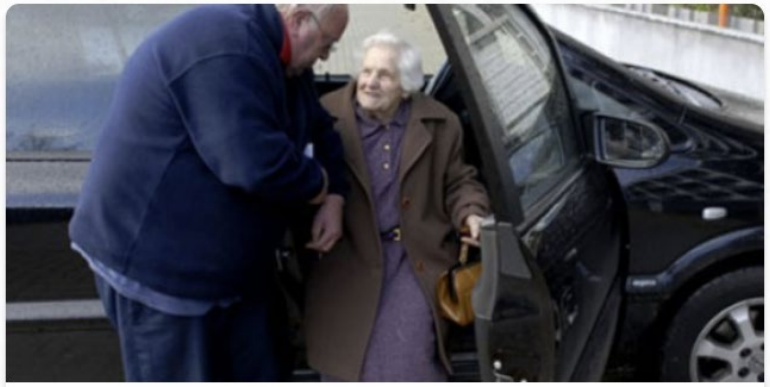
- We enable more efficient use of resources, often linked to mobility.
- Create real solutions for people.
- Increasing political and public awareness.
- Aim to realize a social and ecological impact.
- We prefer to do this through cooperation

Some of our services in shared mobility

Cozycar

Have you ever considered starting a carsharing group to share the costs, use and maintenance of a car? Cozycar, by Autodelen.net...

› know more



The Less Mobile Services

A Less Mobile Service connects people with a mobility need to voluntary drivers in order to meet their needs. You probably...

› know more

Carpool.be

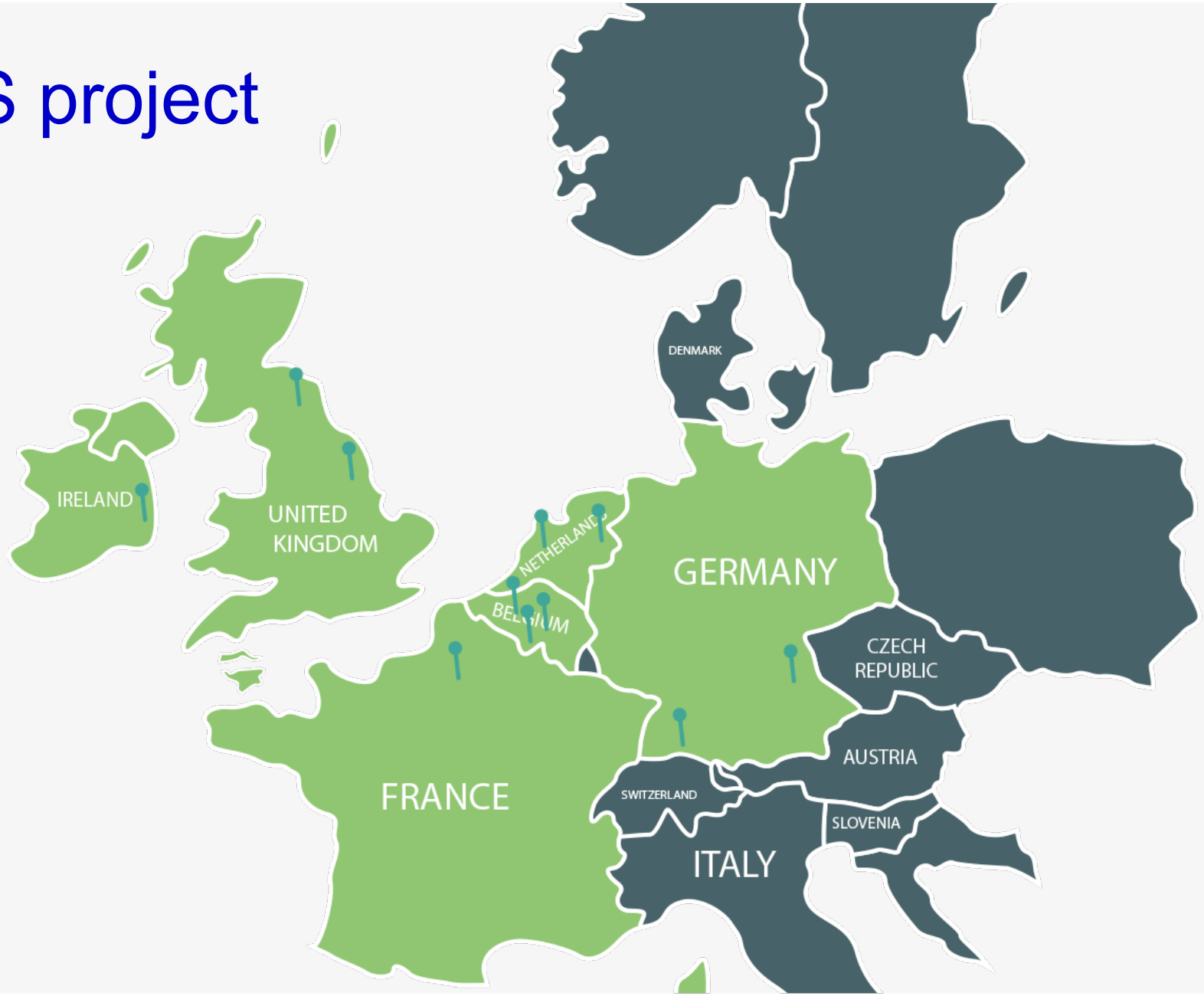
Through carpool.be you can find a carpool partner for regular or single rides. Why carpool? By carpooling, your journey...

› know more

eHUBS

Let’s get physical

The eHUBS project



What is an eHUB / Mobipoint / Mobilpunkt / …

A place in the public space where multiple mobility modes come together.

This offers a wide range of possibilities to get from A to B without taking the most obvious mode : a private car.

What have we created?

Different tools to manage & inform:

- A website - User
- eHUBS kiosk - User
- eHUBS dashboard - Municipality

The kiosk

Hoppin
Vier Jaargetijdenlei
9:25
Vier Jaargetijdenlei
hoppin.be

TREINEN BIJ VERTREK
12:30
ANTWERPEN-BERCHEM
12:30 IC CHARLEROI SUD +5' 9
12:30 S33 ANTWERPEN CENTRAAL 8
12:31 IC ANTWERPEN NOORDERDOK 10
12:37 S34 ANTWERPEN CENTRAAL 7
12:37 IC LEUVEN 5
12:38 IC AMSTERDAM CENTR +23' 10
12:42 IC BRUSSEL ZUID 12
12:43 IC POPERINGE 6
12:44 S32 ESSEN 7
12:44 S1 NIJVEL 5
12:47 IC ANTWERPEN CENTRAAL 8
12:48 S32 PUURS 6
12:50 IC ANTWERPEN CENTRAAL 7
STARTSCHERM
HOE BETALEN?
KAART
INFORMATIE

12:30
23°C
maandag 28 juni 2021
12:36 136 CAMPUS
12:40 S32 ESSEN
12:42 72 INDUSTRIEZONE IV
12:57 928 LUCHTHAVEN
13:07 IC BRUSSEL ZUID
13:09 120 KERKPLEIN
13:18 IC ANTWERPEN C
FIETSDELEN
AUTODELEN
TREIN
BUS
TAXI
OPLADEN
STALLING
LOCKERS
STALLING
FIETSPOMP
FIETS HERSTELLEN
MEER INFO

12:30
23°C
maandag 28 juni 2021
12:36 136 Campus
12:40 S32 Essen
12:42 72 Industriezone IV
12:57 928 Luchthaven
13:07 IC Brussel Zuid
13:09 120 Kerkplein
13:18 IC Antwerpen C
Fietsdelen
Autodelen
Trein
Bus
Taxi
Opladen
Stalling
Lockers
Stalling
Fietspomp
Fiets herstellen
Meer info

KAART
12:30
Startscherm
Inzoomen
Uitzoomen
Informatie

The importance of data

Let’s get digital

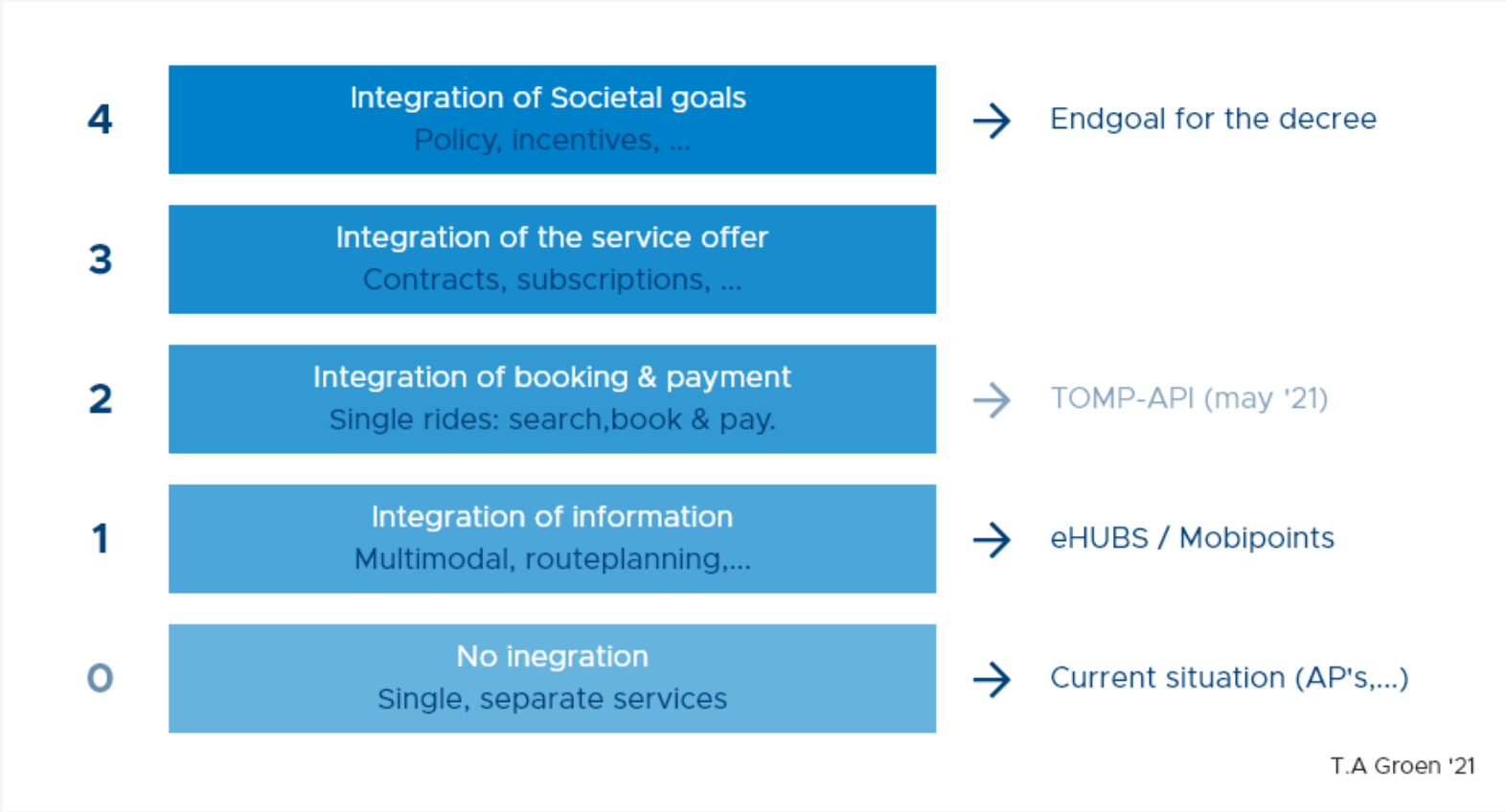
What’s data for?

- Helps with making well founded decisions
- Analyzing the trends over long/short periods of time
- Make targeted improvements & follow up the effect.
- Even if you can’t use the data now, in the future you most likely can.

Why standardisation

- It’s all different
- Find/work for the perfect fit
- Each piece has its own specifications.
- Forcing it will break it

The four levels of MaaS (sochor et al.)



Data & MaaS (standardized)

- Get mobility modes integrated faster & easier into a MaaS(like) platform.
- Facilitate regulation for mobility modes
- Create a fair & equal opportunities for all players.
- Offer cities/municipalities/… an insight in the use of mobility on their territory.

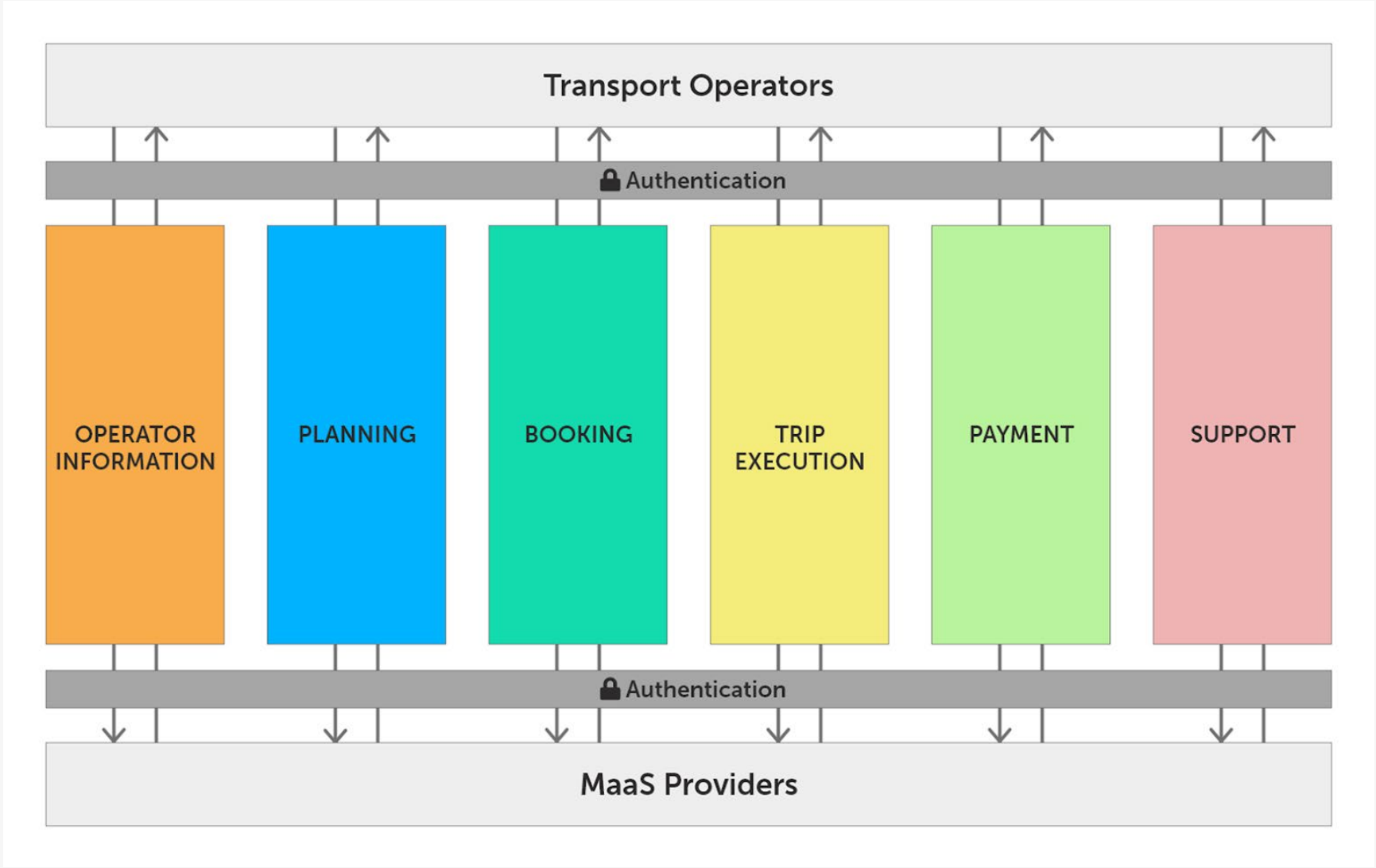
TOMP-API CDS-M

How to create a hit song

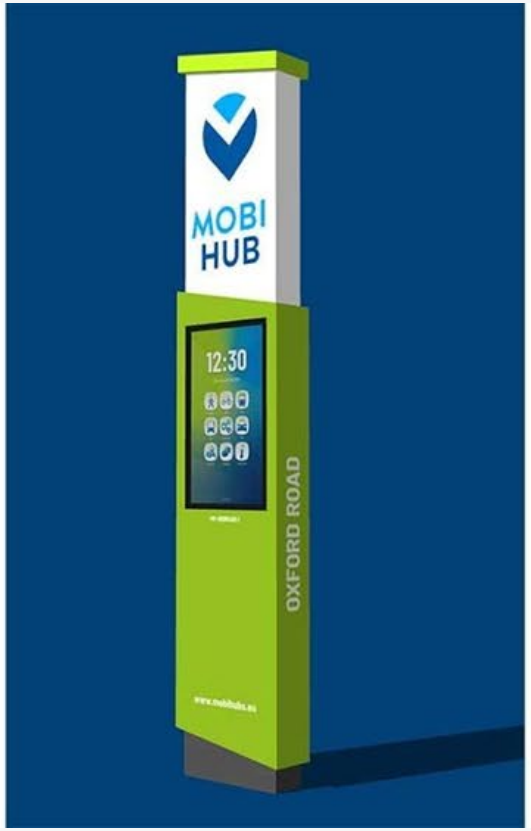
What is the TOMP API

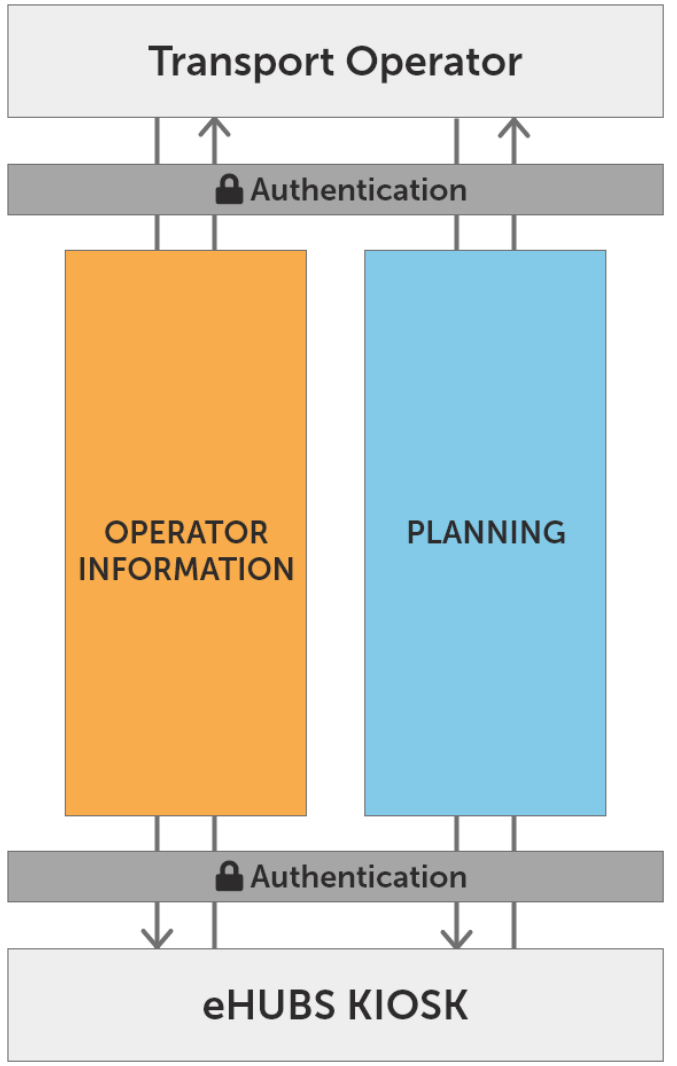
- Technical specification of how to exchange data between **T**ransport **O**perators & **M**aaS **P**roviders
- Transport Operators will need to provide data conforming to this protocol.
- Covers the complete trip for a user – for any Mobility mode
- Open Source model working group with players over the whole spectrum.

The modules

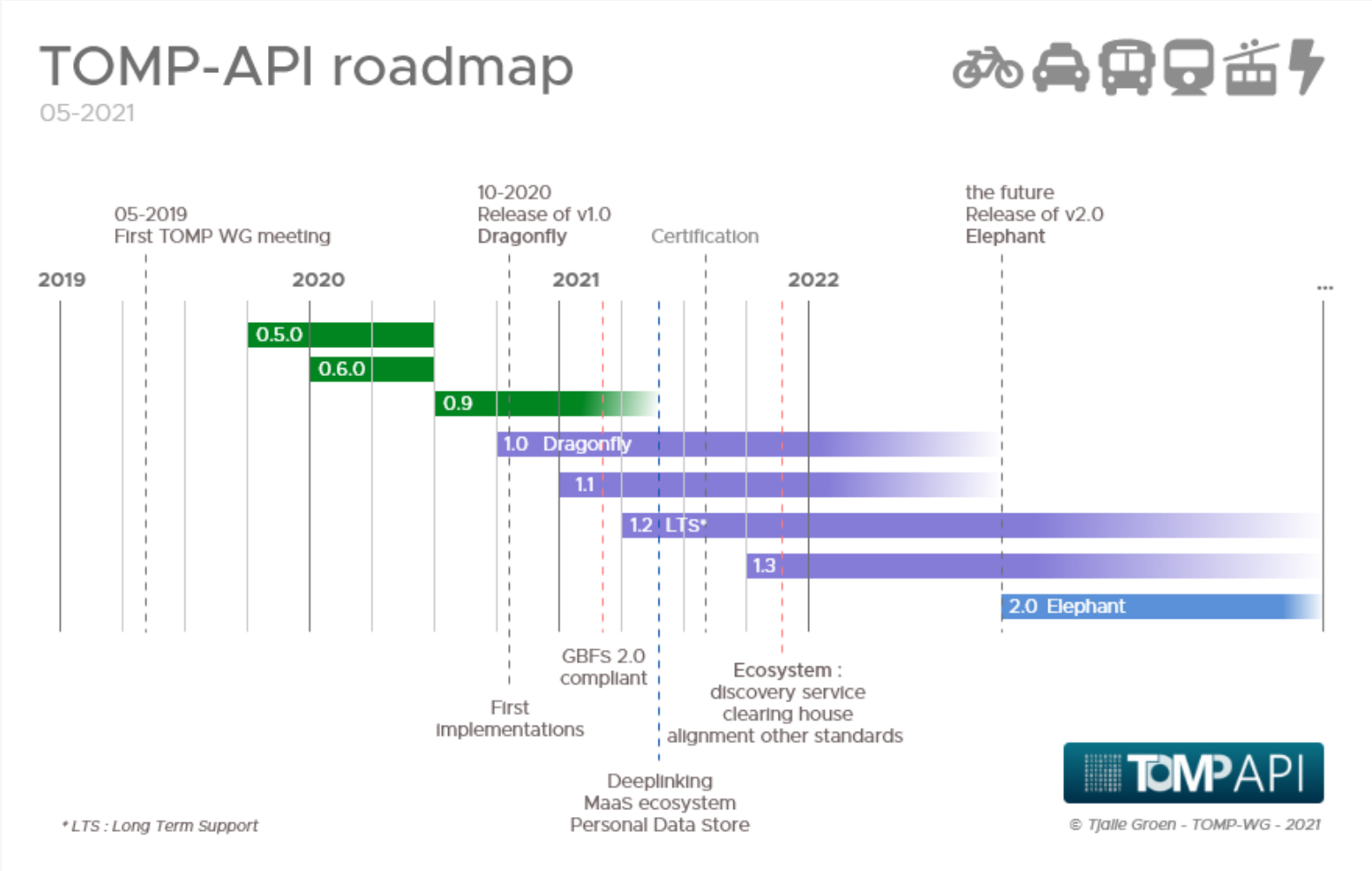

Transport Operators
Authentication
OPERATOR INFORMATION
PLANNING
BOOKING
TRIP EXECUTION
PAYMENT
SUPPORT
Authentication
MaaS Providers

eHUBS


MOBI
HUB
12:30
OXFORD ROAD


Transport Operator
Authentication
OPERATOR INFORMATION
PLANNING
Authentication
eHUBS KIOSK

Roadmap


TOMP-API roadmap
05-2021
05-2019
First TOMP WG meeting
10-2020
Release of v1.0
Dragonfly
Certification
the future
Release of v2.0
Elephant
2019
2020
2021
2022
...
0.5.0
0.6.0
0.9
1.0 Dragonfly
1.1
1.2 LTS*
1.3
2.0 Elephant
GBFS 2.0
compliant
First
implementations
Ecosystem :
discovery service
clearing house
alignment other standards
Deeplinking
MaaS ecosystem
Personal Data Store
* LTS : Long Term Support
TOMP API
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The TOMP working group aims to develop and sustain an internationally governed interoperable open standard for technical communication between Transport Operators and MaaS Providers, by means of definition, improvement, alignment and dissemination.

Plans for the future

- TOMP-API standard itself is ready, being used in real life in multiple countries by a large group of parties.
- Frees up time for other things
  - Dissemination
  - (self)Certification
  - MaaS islands
  - Ecosystem of trust
  - Discovery services
  - Personal information – standardized
  - Governance

CDS-M : **C**ity **D**ata **S**tandard **M**obility

Photo by Julie Fader on Unsplash

CDS-M

- Specification / standard for sharing data between mobility operators and municipalities.
- An agreement on how to store and handle shared data.

- Data grouping (aggregation) to comply to privacy regulations.
- Based on existing European expectation, definitions and demands.

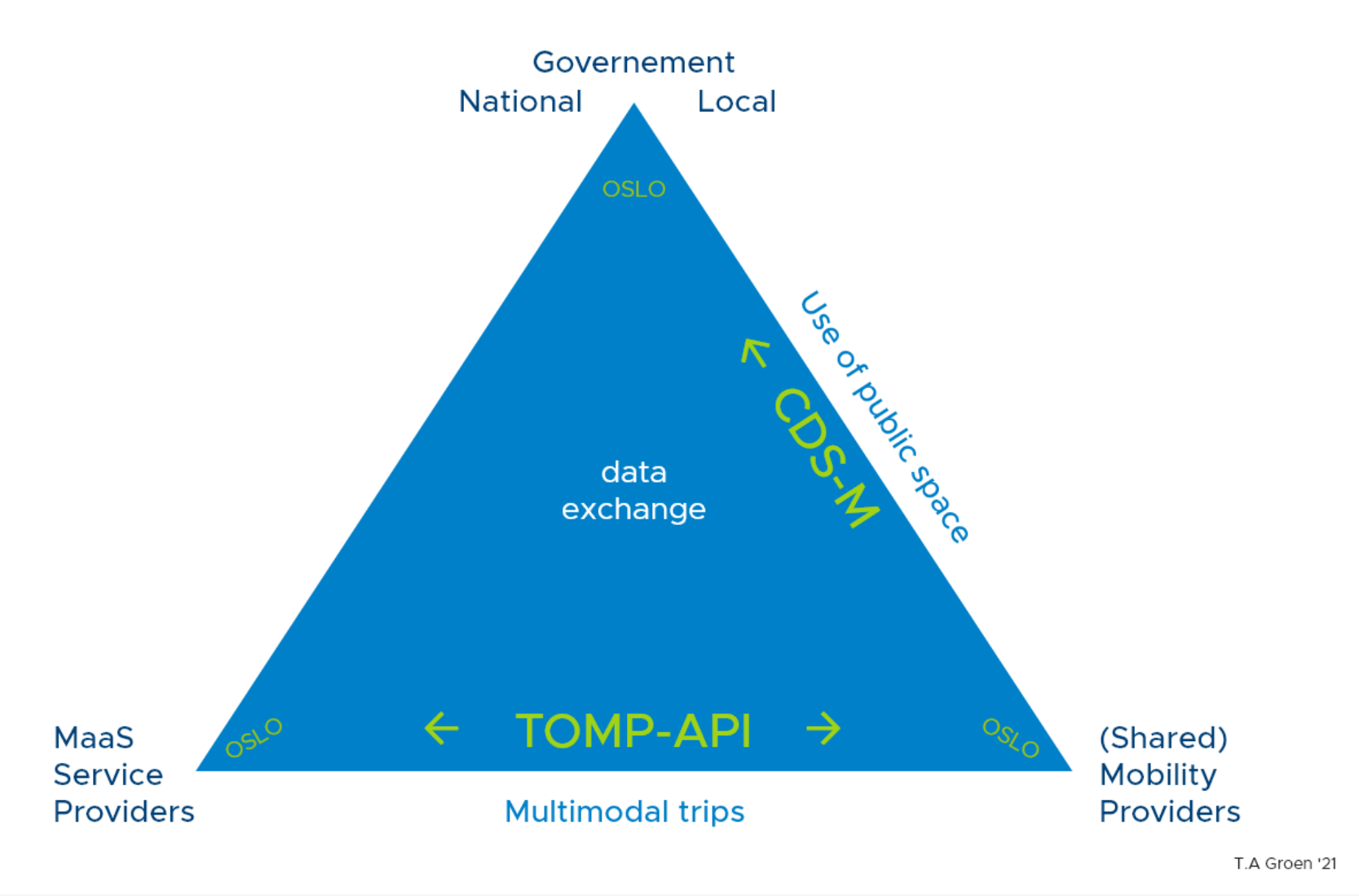
CDS-M - Goal

- To better understand the effects of shared mobility on public space. (fe. Accessibility, quality of life,...)
- CDS-M will become a tool for development, adjustment and improvement of policy.
- Optimal usage of public space, f.e. by dynamic traffic flow en permitable areas. vergunninggebieden.
- Easy exchange of information derived from the data.

CDS-M

- This standard is in full development
- First version of the blueprins has been published
- End 2021 (or Q1 2022) an update will follow
- Open workinggroup – if interested you can get involved.
- Contact : cds-m@amsterdam.nl

How do they compare?



Other standards

- Europe : NETEX & SIRI
- Global : GTFS (google, apple) - GTFS RT (PT), GOFS
- Duitsland : IXSI5 - carsharing
- France & USA : GBFS+ - bike sharing
  - TOMP-API is built upon GBFS.
- MDS - protocol voor data exchange between operators and cities
  - CDS-M = European alternative.

Dig a bit deeper?

- TOMP-API
  - Website : https://tomp-wg.org/
  - WIKI : https://github.com/TOMP-WG/TOMP-API/wiki/TOMP-API-for-dummies
  - Swaggerhub : https://app.swaggerhub.com/apis-docs/TOMP-API-WG/transport-operator_maas_provider_api/1.2.0
  - eHUBS : DL LTP6.3 : https://www.nweurope.eu/projects/project-search/ehubs-smart-shared-green-mobility-hubs/#tab-7
- CDS-M
  - https://www.polisnetwork.eu/wp-content/uploads/2021/03/Principles-CDS-M2.pdf

QUESTIONS?

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