



National MaaS- program Netherlands: lessons learnt so far

UrbanismNext EU Conference

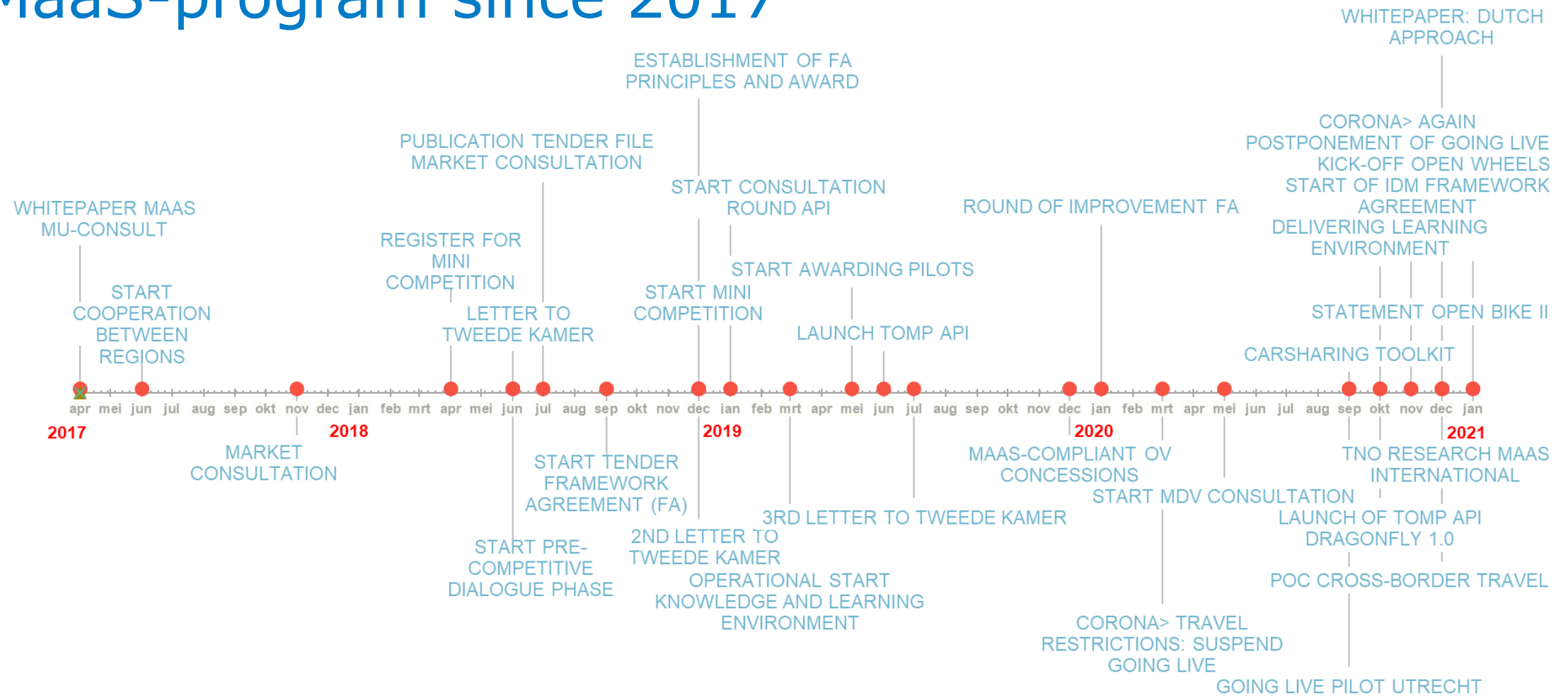
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Eric Mink

Program manager MaaS



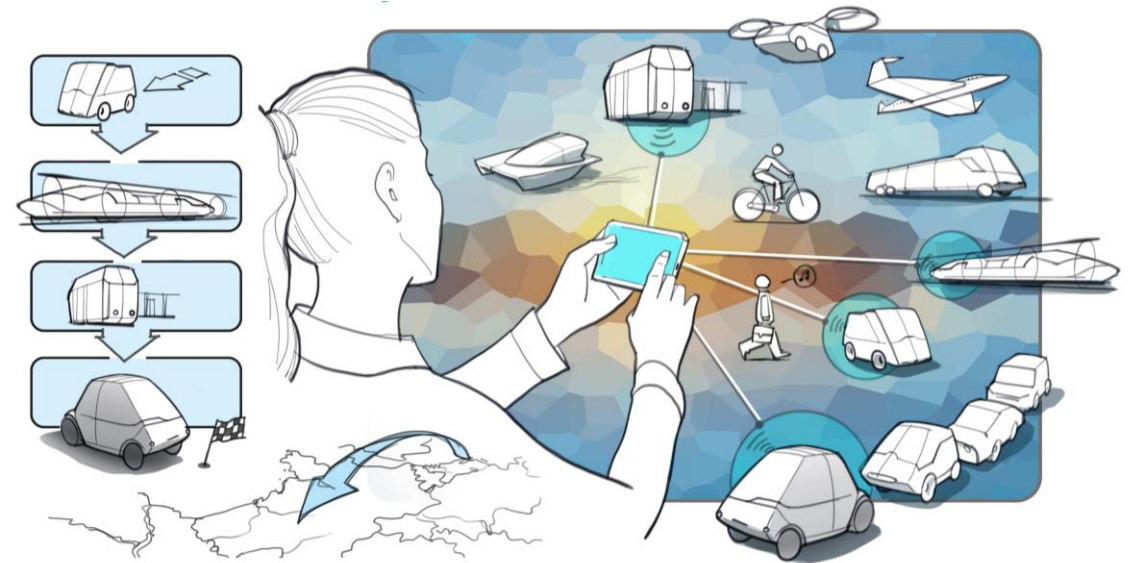
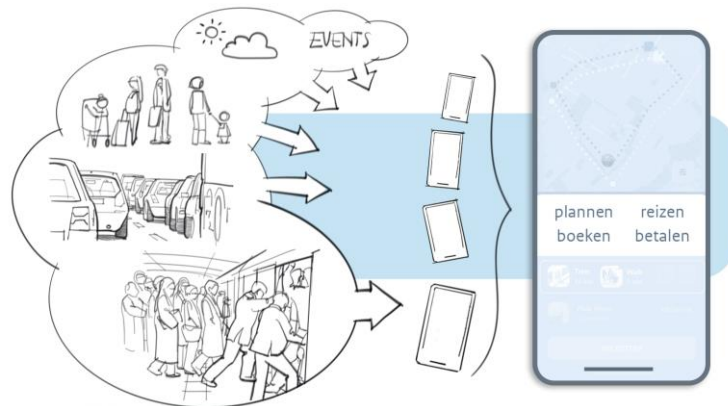
MaaS-program since 2017





How it all started: definition/functions

1. Personal settings and preferences
- 2. Plan**
- 3. Book**
- 4. Travel (access and control)**
5. Assistance
6. Adjust
- 7. Pay**





Principles for the temporarily Framework Agreement / **Public Private Ecosystem** NLs for national apps

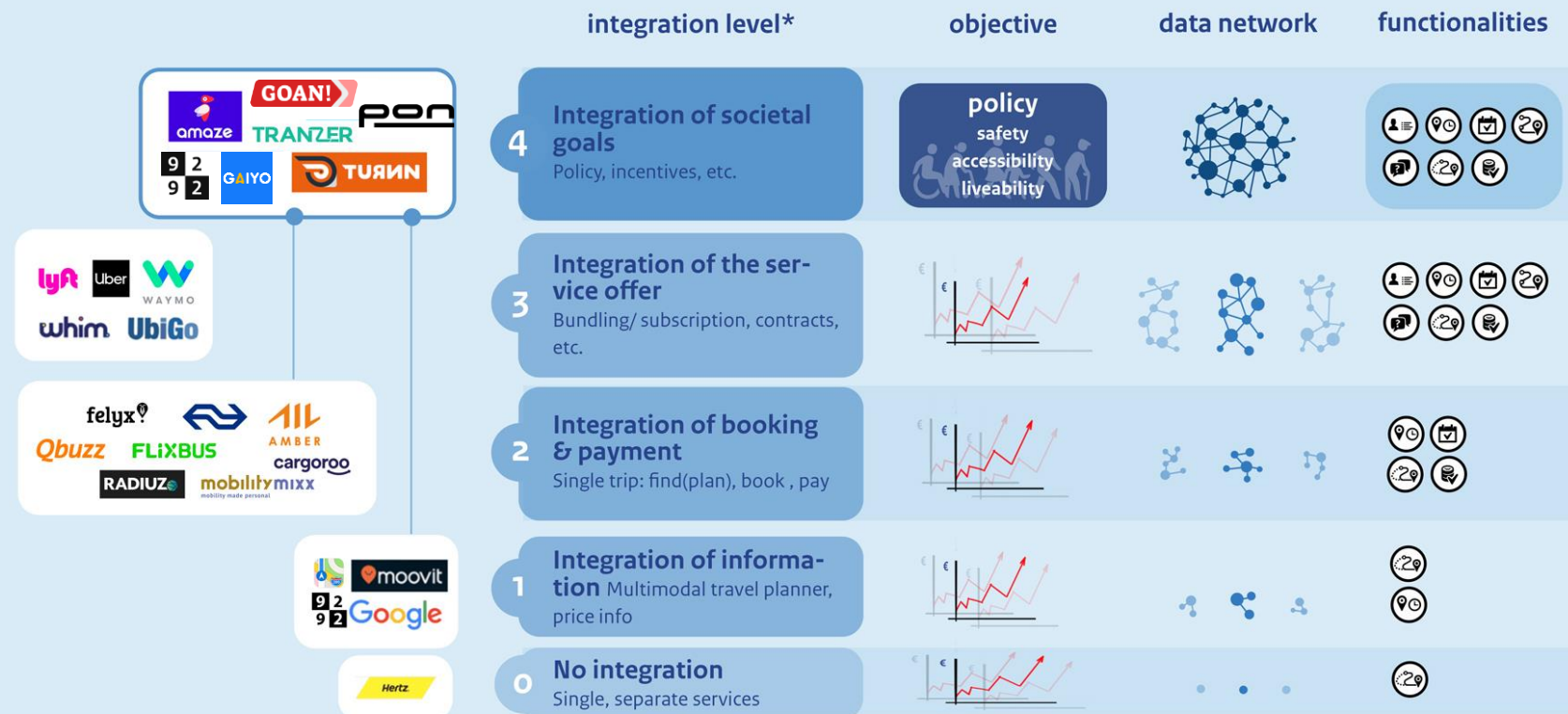
- Identical MaaS-definition and functionalities
- Data sharing (quid-pro-quo)
- Application of open standards such as TOMP-API
- Open ecosystem, PPP
- Learning together, via Knowledge and Learning Environment
- Non-discrimination
- Level-playing-field
- Privacy- and security
- In 2 yrs viable businesscases, max € 20 mln subsidy for 7 pilots





MaaS as a means not an end

National approach NL with policy goals is unique



* by Sochor et al., Chalmers, 2017



Limburg

- sustainable mobility
- offering multimodal, cross-border and door-to-door mobility solutions.

Twente

- better and cheaper target group transport
- small-scale public transport
- smart combination of transport flows.

Amsterdam Zuidas

- accessibility Zuidas
- making better use of the public urban space by offering alternative travel options.

Eindhoven

- sustainable and emission-free mobility for municipal employees
- Eindhoven wants to become a CO2 neutral city.

Groningen-Drenthe

- accessibility of the countryside of Drenthe and Groningen
- affordability of the transportation system
- combining target group transport and regular public transport.

Utrecht Leidsche Rijn, Vleuten en de Meern

- alternative transport options for residents of Leidsche Rijn, Vleuten and de Meern
- reduce the amount of traffic and congestion in the area.

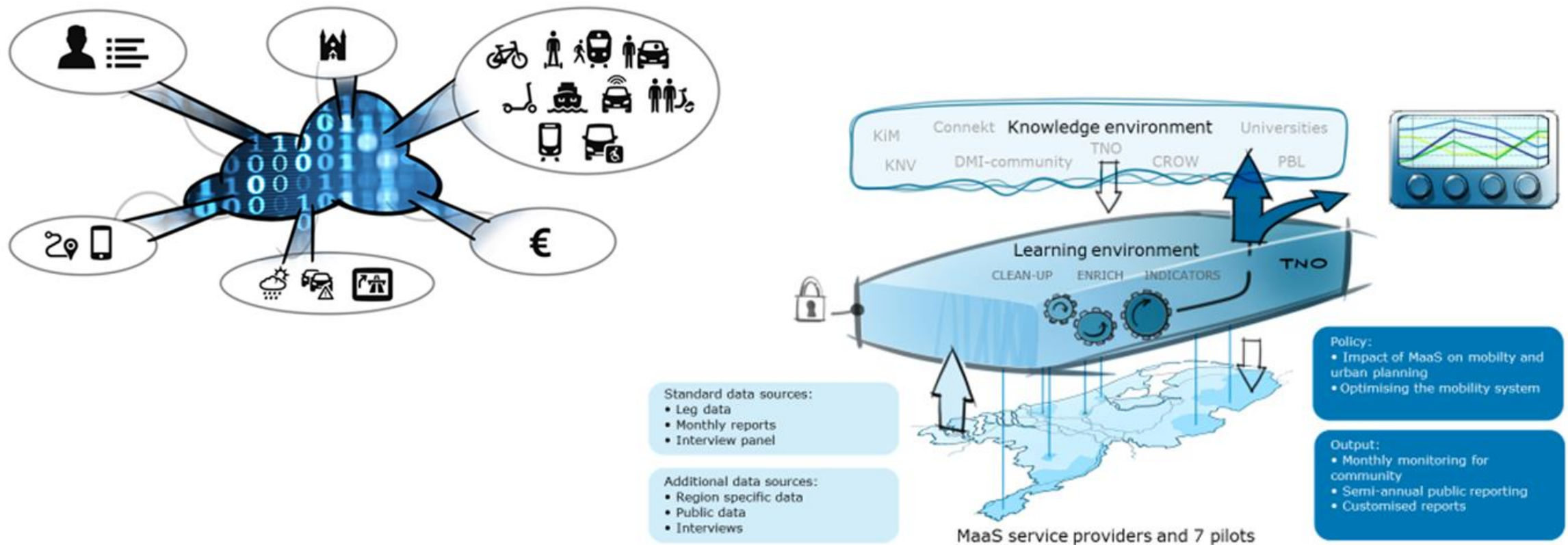
Rotterdam-Den Haag & Rotterdam-The Hague Airport

- improve accessibility of Rotterdam-The Hague Airport for travelers and employees
- sustainable and multimodal door-to-door solutions.

7 National pilots (**scale**) with distinctive objectives

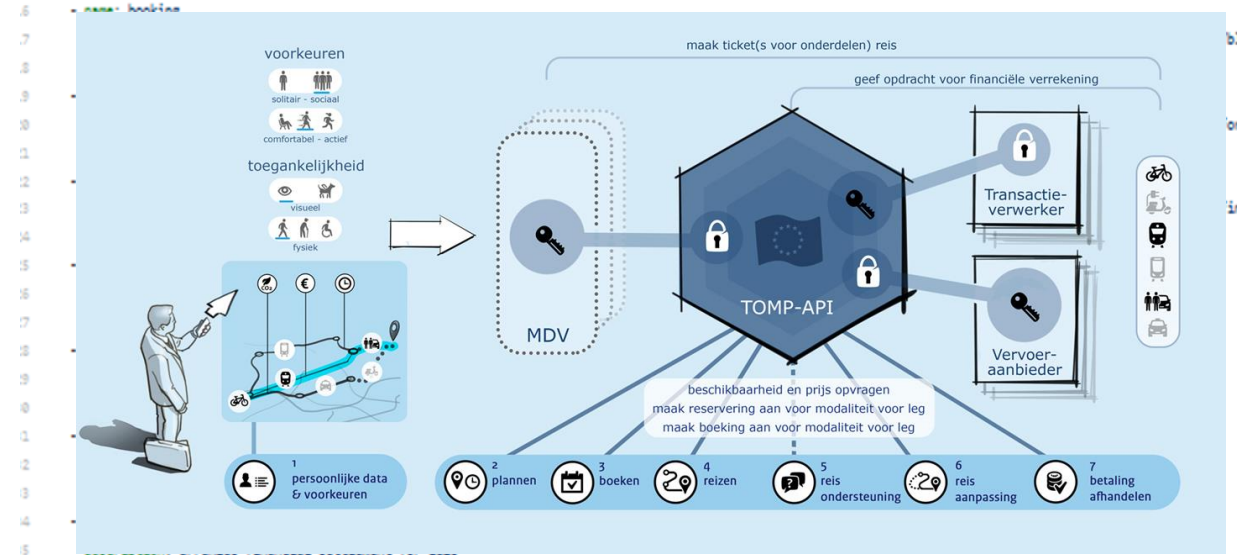


Creation of ecosystem and knowledge building





```
2 tags:
3   - name: planning
4     description: gives information about transport asset availability and pricing [free_bike_status and system_pricing_plans in GBFS].<p> The endpoints in this p
```



```

17 - name: support
18     description: support for the user while the leg is ongoing
19
20 - name: TO
21     description: the Transport Operator's endpoints
22
23 - name: HP
24     description: the HaaS Service Provider's endpoints
25
26 # security. Allowed methods basic (in header: Authorization: Basic ZGVtbzpwQ0UldzByZAM=),
27 # bearer (in header: Authorization: Bearer <token>)
28 # Api-key (in header: X-API-Key: sbcodef12345)
29 # OAuth2 and OpenId are also available
30 # The exact ways to authenticate will be described in a later version

```

Harmonisation of contracts, an example: Maas-readiness obligations for Public Transport Operators in NLs

(to be implemented before 1-1-2022)

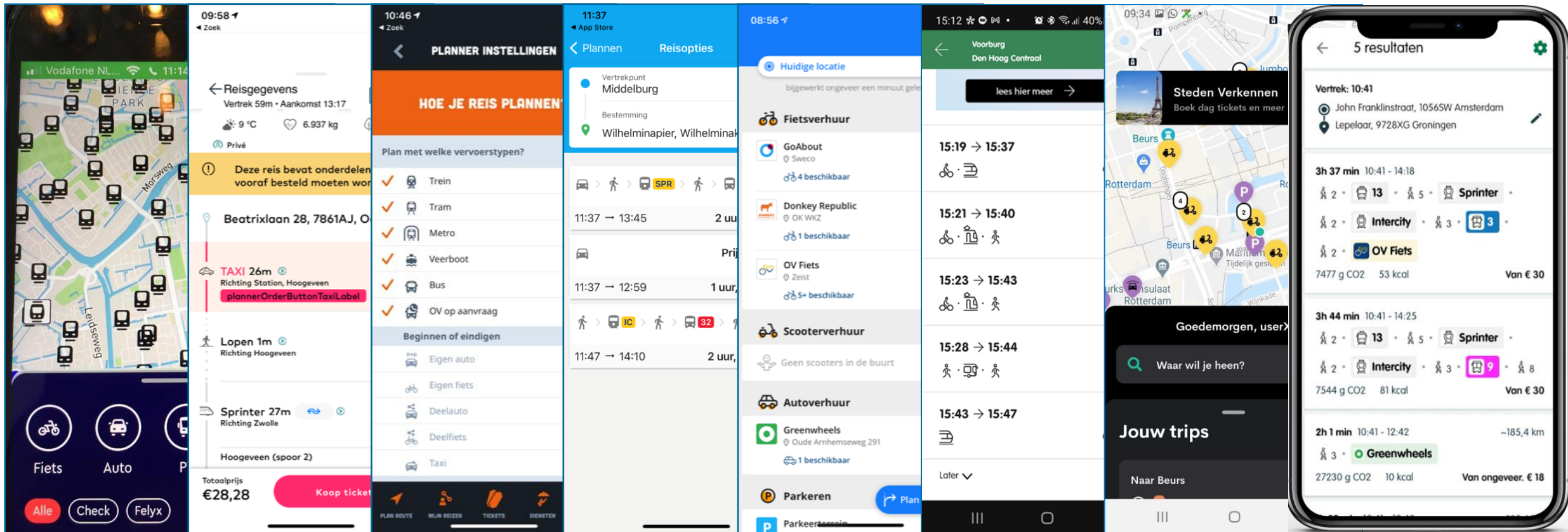


8 MaaS-obligations for PSO-contracts:

1. Cooperation on products from 3rd parties, at least a reference ticket offer, without fee, to be determined by transport authority
2. Acceptance of tickets/products on new (digital) bearers
3. Reasonable tariff for API's
4. Cooperation on data-infrastructure governments
5. Transparent conditions for API's
6. Conditions for contract termination
7. Non-discrimination at complaint handling
8. Timely referral of complaints chain-trip to 3rd parties

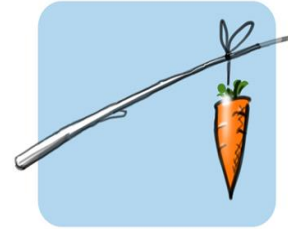


7 pilots result in 8 national apps





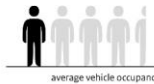
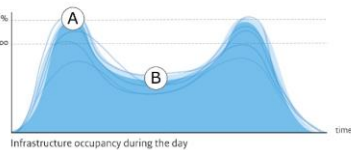
Adjusting behaviour



Current rush hour occupancy during weekdays



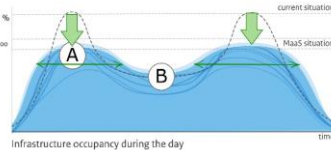
Current off-peak occupancy during weekdays



MaaS rush hour occupancy during weekdays



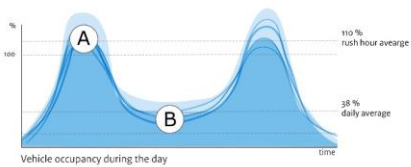
MaaS off-peak occupancy during weekdays



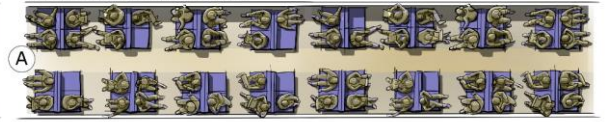
Current rush hour occupancy during weekdays



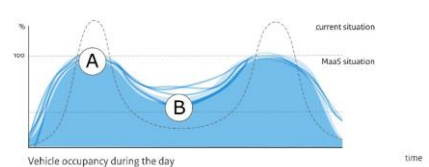
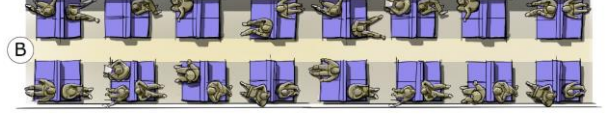
Current off peak occupancy during weekdays



MaaS rush hour occupancy during weekdays



MaaS off peak occupancy during weekdays





Next steps: creation of a public private framework agreement (**code of conduct**) for data exchange

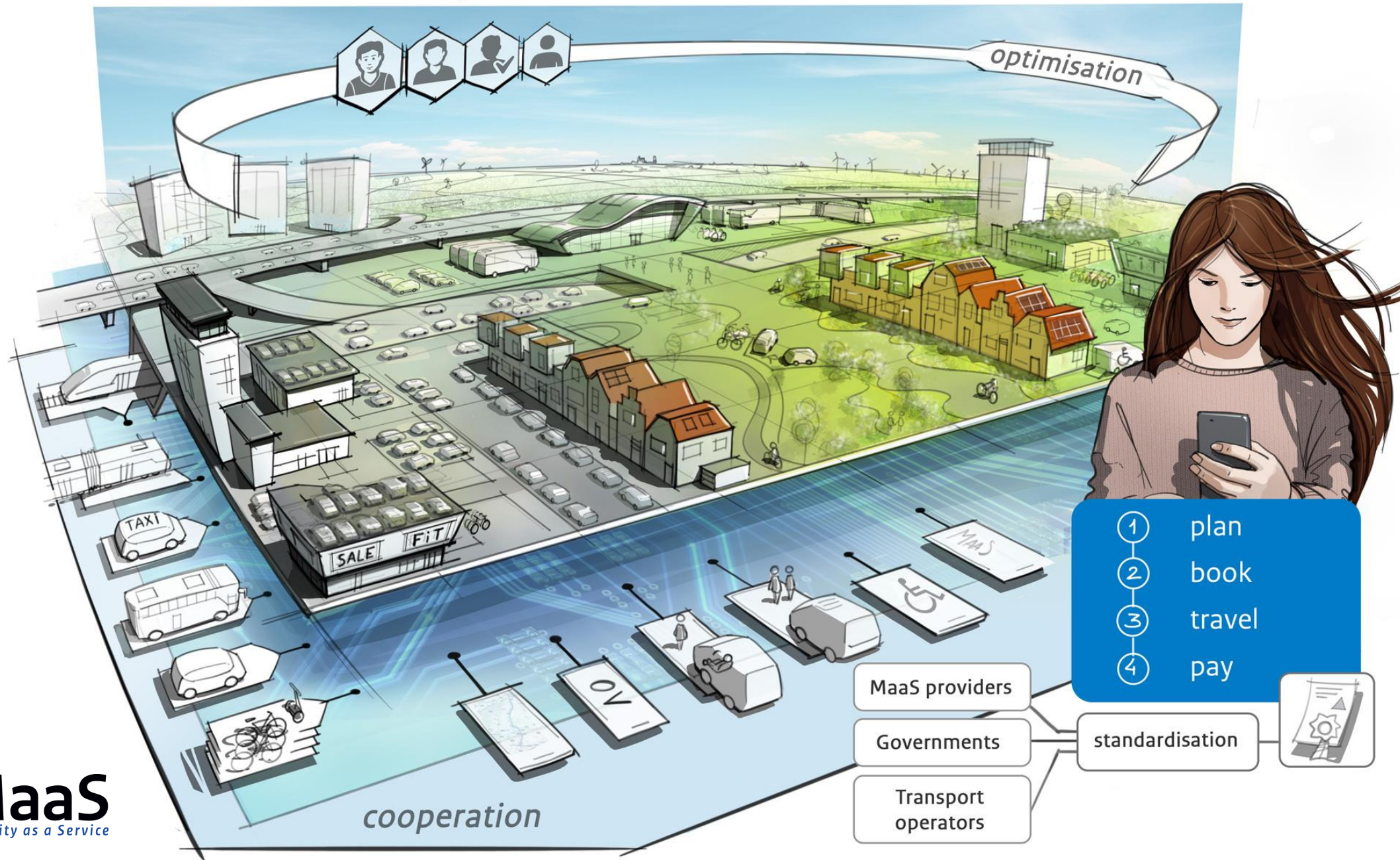
2020

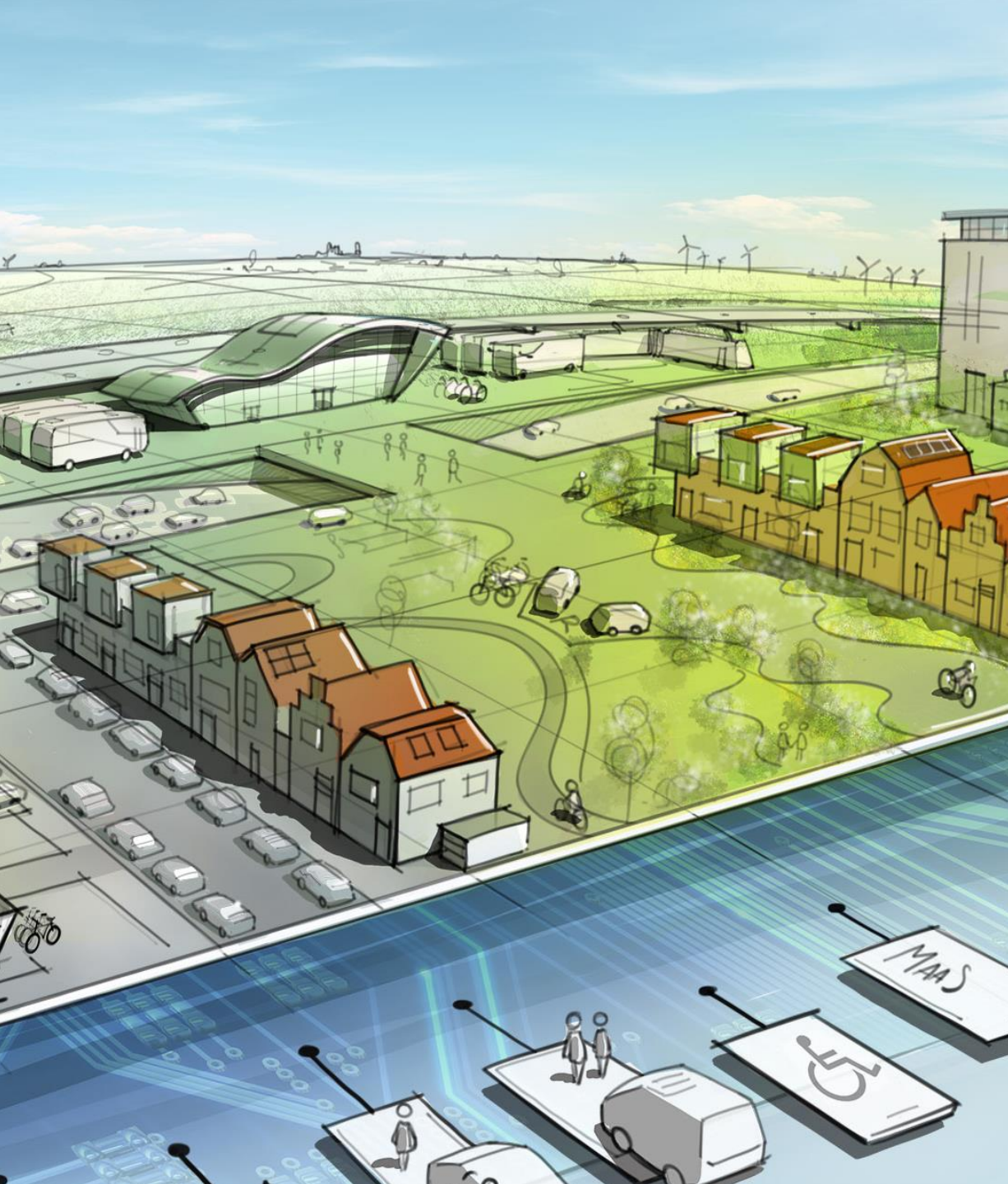
- › MaaS-readiness
- › Carsharing toolkit
- › OpenBike II
- › Governance report
- › Start CDS-M
- › Changed travel behavior
- › Etc...

2021

- › Start pilots
- › Start Learning Environment
- › Gain first knowledge
- › Open Wheels
- › Shared car parking permit
- › Building on public-private agreement system (PPP)
- › Perpetuating travel behavior
- › Etc...

MaaS: Mobility as a Service





2oMaaS
Mobility as a Service

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