Keeping grip on traffic by ensuring high-quality data for in-car traffic information services

Gerard Martens, Rijkswaterstaat
Vincent Lau, municipality of Amsterdam
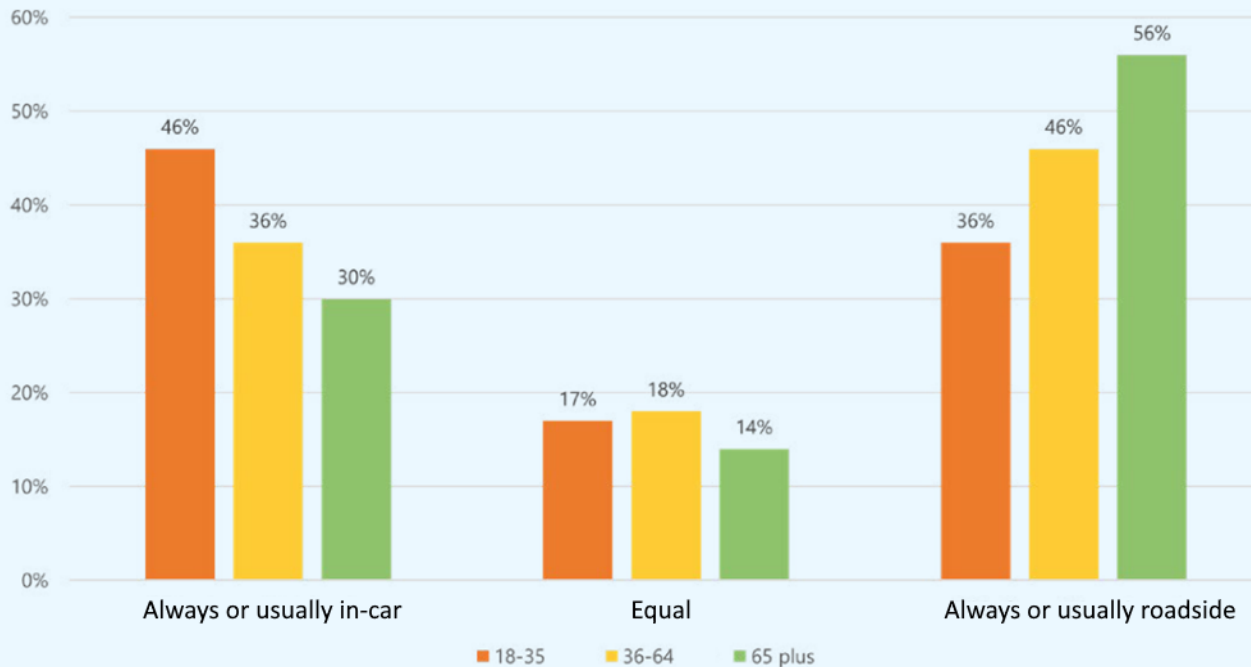
talking traffic
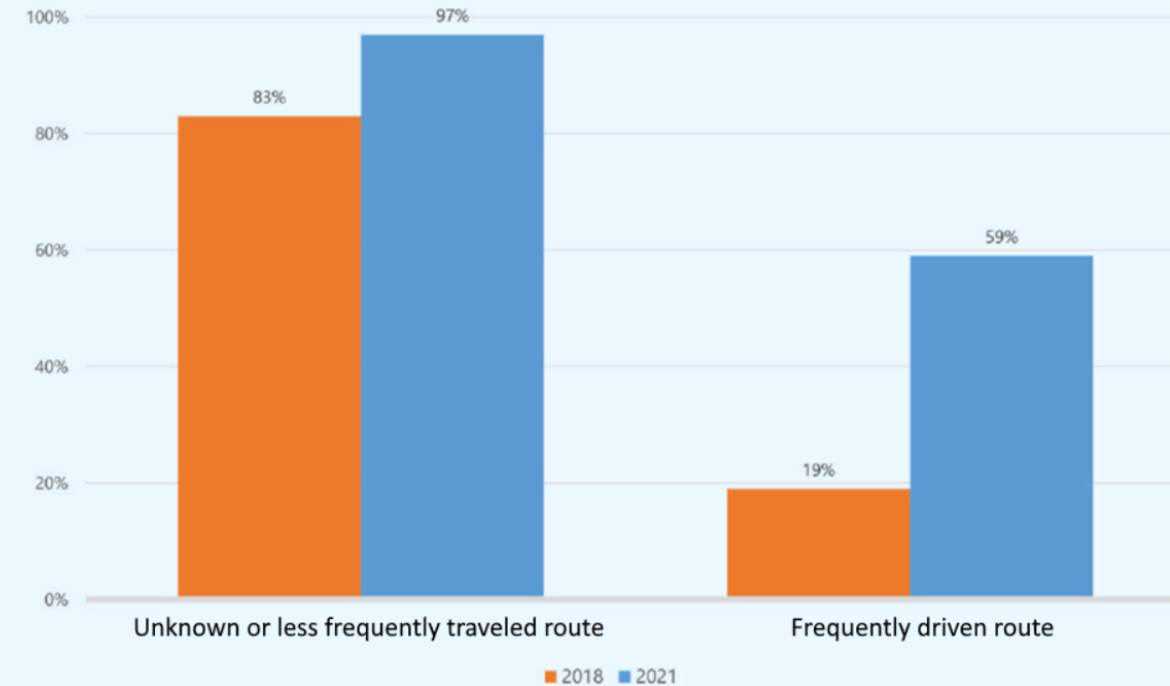
Smart mobility.
Dutch reality.

Changing landscape

In-car information gets more important

**Need for customized info but also socially responsible**

But who is in control when it comes to the road user's choice of route?

VM-IVRA

*Connecting the road authorities and traffic management centres with the road user*

- By sharing policy data and operational data with service providers
- Proof of concept in 2022 in close cooperation with service providers
- Gradual national rollout in 2023 and 2024
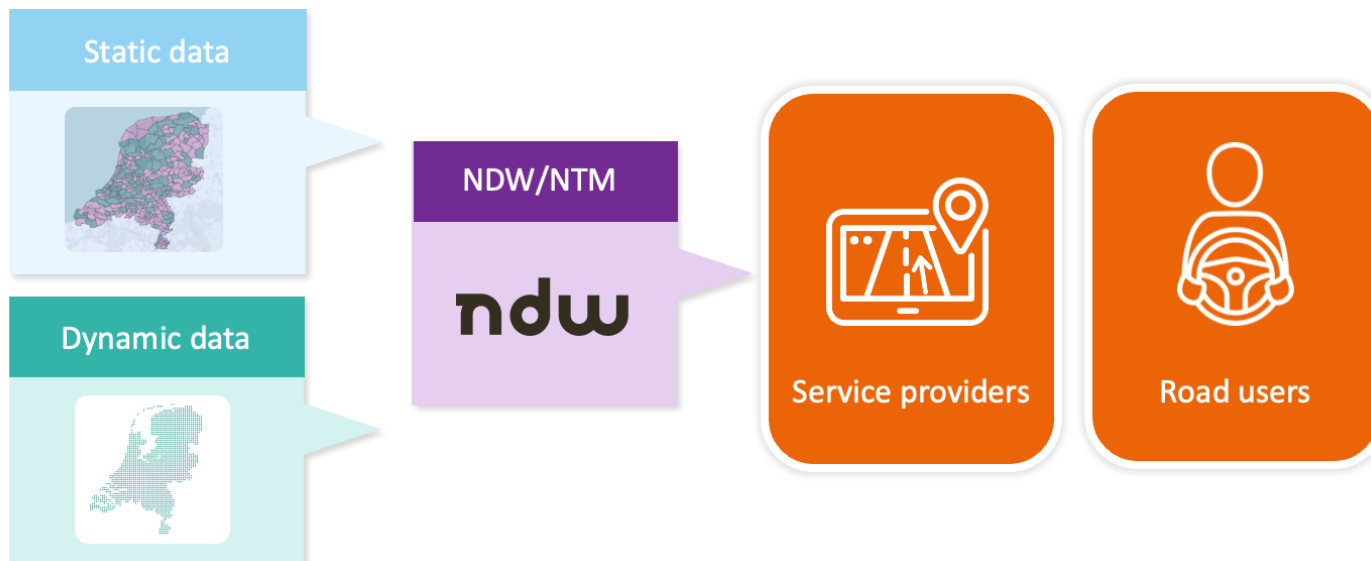
Rollout VM-IVRA services

Service providers

Road users
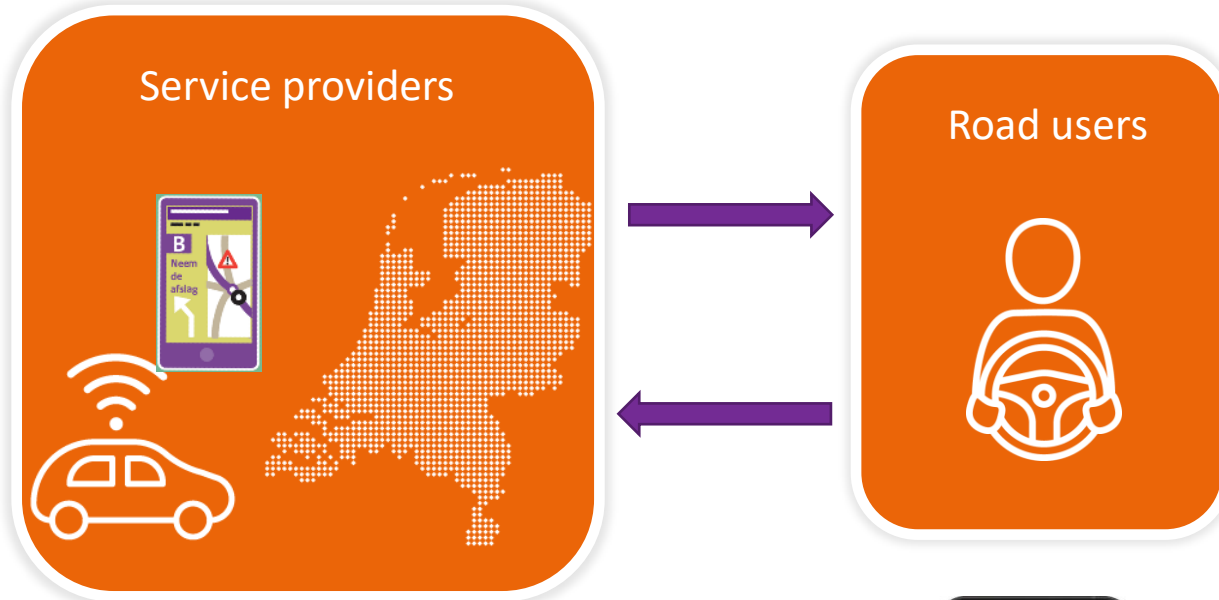
- **Digital advance notice** for road works and events

- **Actual road blockages** (due to incidents, tunnels, road works or severe weather conditions)

- **Digital in-car messages** (from roadside to in-car and on places without roadside equipment)

- In-car warnings for **'school zones'**

- Sharing policy data like **environmental zones**

- Trial with **'service message'** for entirely trapped traffic **near** road blockages
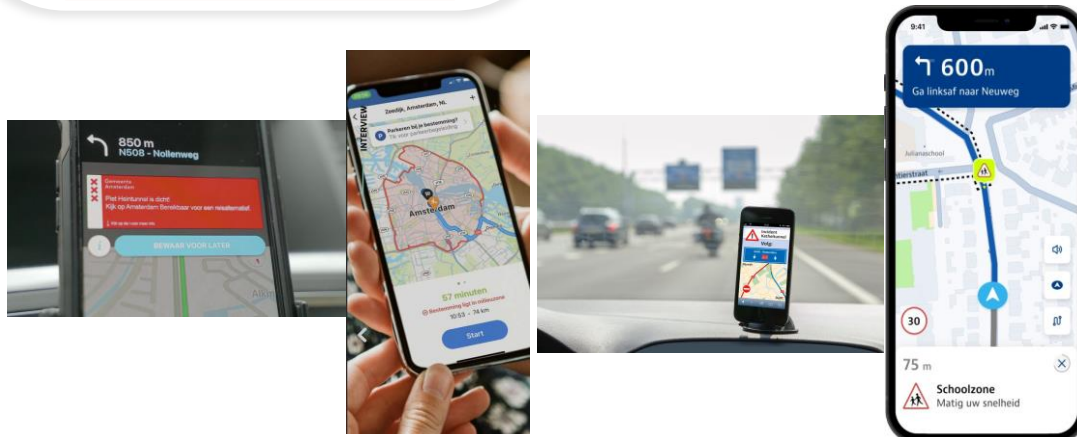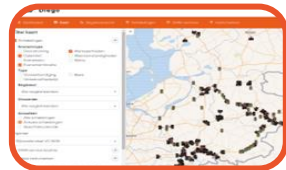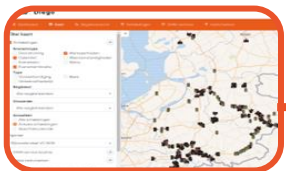
Data Quality management

NDW applications

Data feed
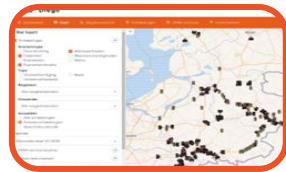
George

Melvin

Diego

NMS

- Enforce application conditions
   e.g. road network, type of situation
- Validity checks on input
- Automatic generation of text messages
- Four eyes principle with manual text input
- Technical checks
   E.g. Closed polygons around environmental zone, school zone, missing traffic signs)
- Control processes for quality checks at road authorities
- Combining data sources with similar info
- Dashboards for monitoring quality
- IDEA + feedback loop

ns/school

rks

nen)

IDEA

IDEA How does it work

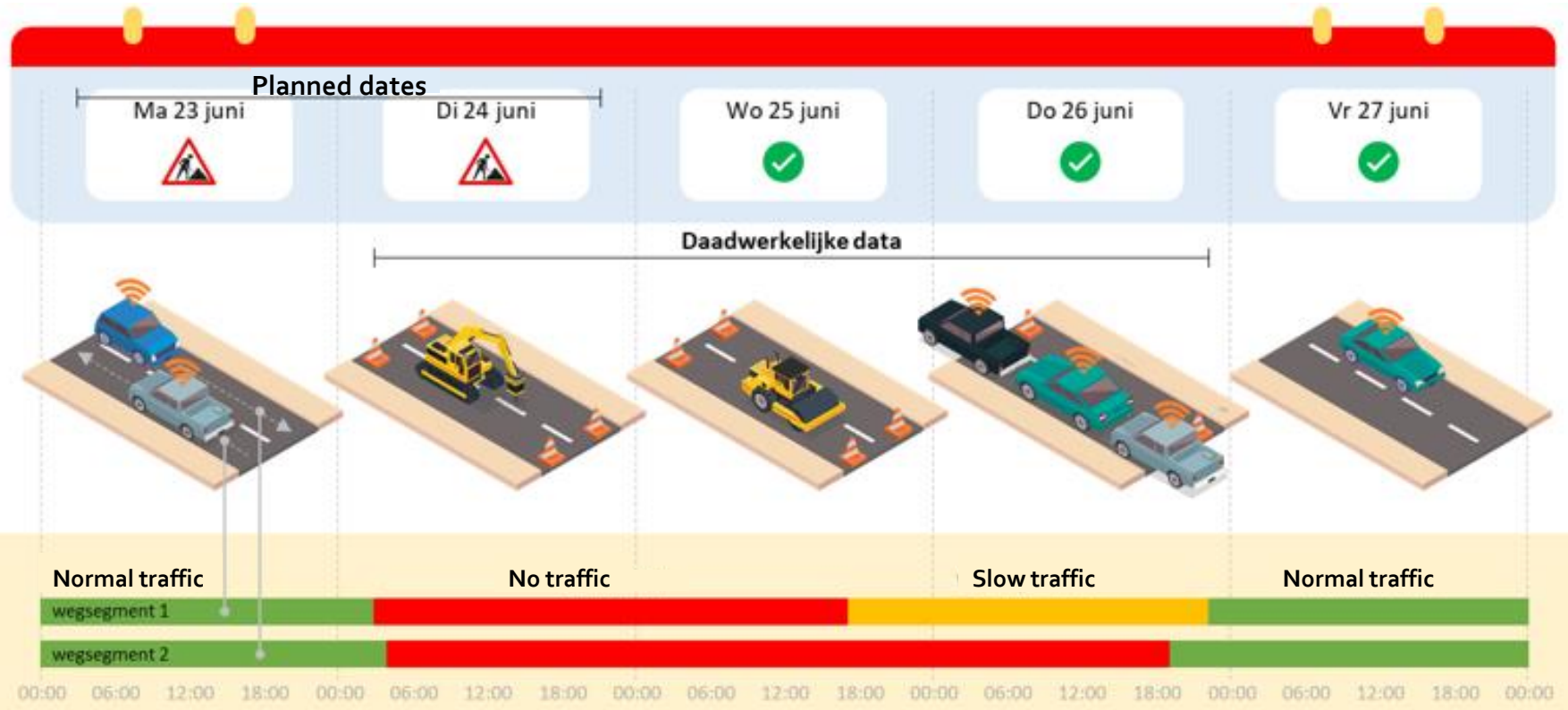**Planned road works & road closures**
Melvin, LTC, SPIN, NMS, VM-IVRA

Real time situation
o.a. Floating Car Data

IDEA
Real time, high quality, validated data
voor service providers en wegbeheerders

Planned dates

| Ma 23 juni | Di 24 juni | Wo 25 juni | Do 26 juni | Vr 27 juni |

Daadwerkelijke data

Normal traffic — No traffic — Slow traffic — Normal traffic

wegsegment 1
wegsegment 2

00:00 06:00 12:00 18:00 00:00 06:00 12:00 18:00 00:00 06:00 12:00 18:00 00:00 06:00 12:00 18:00 00:00 06:00 12:00 18:00 00:00
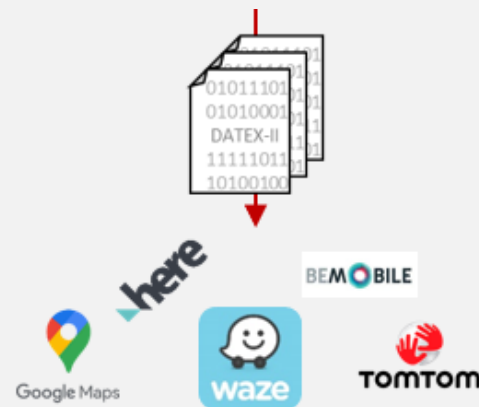
IDEA How does it work

1

Service providers receive high quality, validated real time data

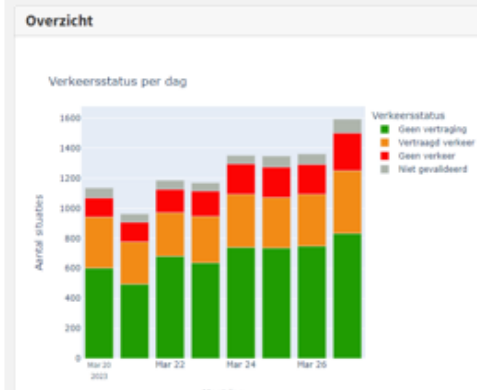Validation within 10-20 minutes

2

Road Authorities receive report with deviations of the planned time frames of the road work
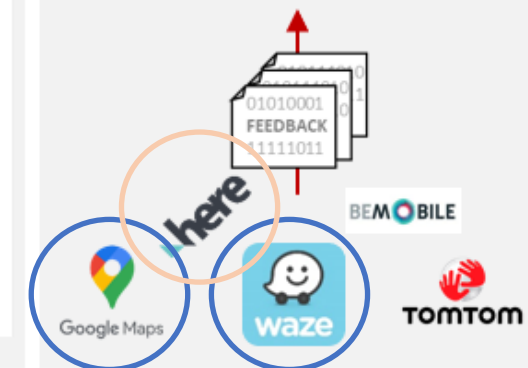
3

Data quality is presented to **Road Authorities** in a dashboard

4

Service providers give feedback to IDEA about:
- application and impact of the data
- Data corrections

Findings and Learnings

- The law (EU, national) in and of itself will not be enough to work together. We (public-private) need to really collaborate and understand each other to be successful.

- The paradigm of "just share open data, the market will find a use" has failed. Shared data of insufficient quality (for purpose) is not going to be used by anyone.

- Quality improvement is a continuous process on alle levels of de data chain. People in the chain need to be aware of the required use.

- Data of planned roadworks is hard to improve without outside sources, feedback is necessary and effective.

- When possible use multiple data sources to improve data. So: Use data to validate data!