



## ***Intelligent Access for Livable and Sustainable European Cities***

***Jop Spoelstra – Innovation program coordinator***

200x technology passion



NL, SE, DK, UK



Since 1987



We connect **physical** and **digital** worlds. Innovative. Mission-critical.

✓ electronics

✓ embedded

✓ software

✓ security

Mobility



Public Safety



Energy & APM



Industry



## Transition in Traffic Management Technology



1960: Single 'traffic light'



2006-2010: Network traffic management



Now: Connected vehicle and infrastructure

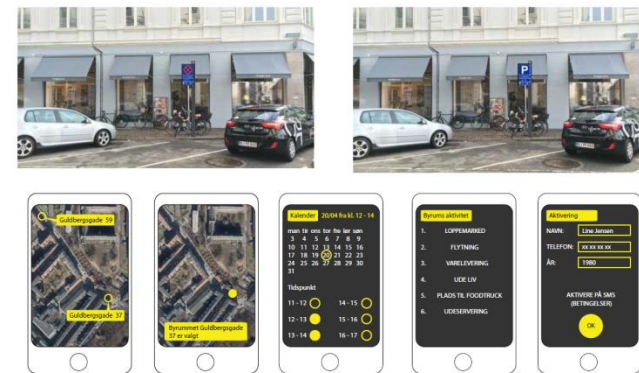
# Traffic management → City management



MobiMaestro Network traffic management



Copenhagen cyclists guidance



'Dynamic public space'



# Urban Intelligent Access

**Air pollution falls by a third inside London's congestion zone**



Credit: Wikimedia Commons

By Jason Plautz

Published Oct 23, 2017

**Paris bans up to 60% of its cars as heatwave worsens pollution**

Forrest Crelia

PARIS (Reuters) - Paris has banned more than half of the cars registered in the region from its roads as a record heatwave worsens air pollution, the most drastic restrictions ever imposed there, officials said.



FILE PHOTO: Rush hour traffic fills the ring road in Paris, France, June 26, 2017. REUTERS/Charles Platiau

**Berlin horror crash prompts growing calls to ban SUVs from German cities**



A vigil was set up for the victims of Friday's accident in which an SUV drove into a sidewalk, killing four people. Photo: DPA

**Amsterdam considers a city centre car toll, but national politicians say no**



Society May 3, 2018

**Rome bans tourist the city center**



Chris Singsen | CC BY 2.0

Share 429



Zelda Caldwell | Jan 05, 2019

**Remember to pack your walking shoes if you travel to the Eternal City.**



**Sweden edges towards geo-fencing terrorism deterrent.**



Such restrictions would also help increase the road safety of vulnerable road users. It could help to protect people's lives and health by preventing opportunities to hijack vehicles and use them in terror attacks.

Sweden could be the first country to introduce terrorist-proof digital geo-fencing after its infrastructure minister, Tomas Eneroth, indicated that testing could begin in Stockholm as early as next year. Geo-fencing, which is not currently being used by any other countries in the way Sweden is proposing, is able to pinpoint the geographical position of vehicles using global positioning technology and prevent them from entering restricted areas.



# Digital Public Space

- 3 Restrict & Enforce
- 2 Monitor & Manage
- 1 Facilitate & Inform

**Digital public space**

Physical public space



Required competences:

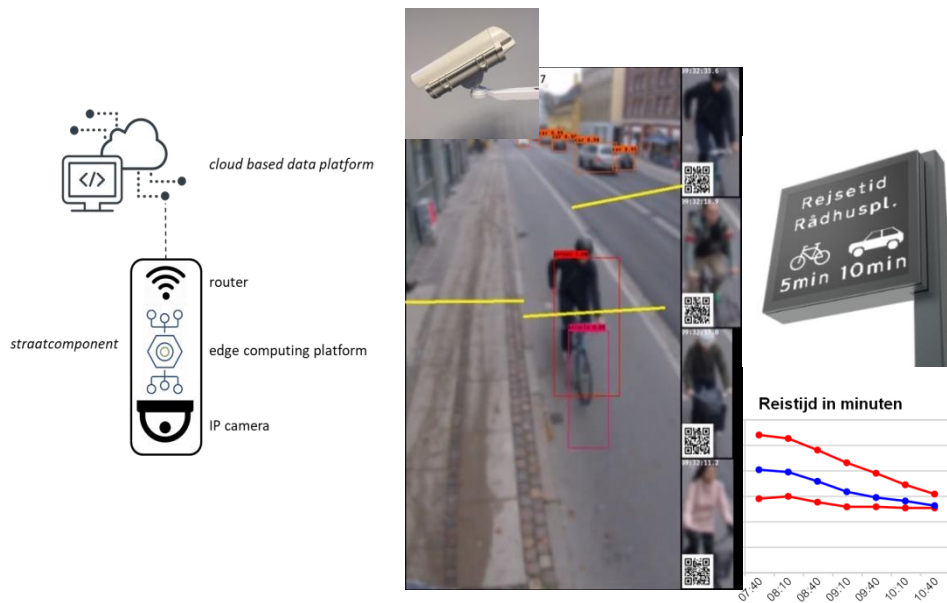
→ Enforce

→ Inform

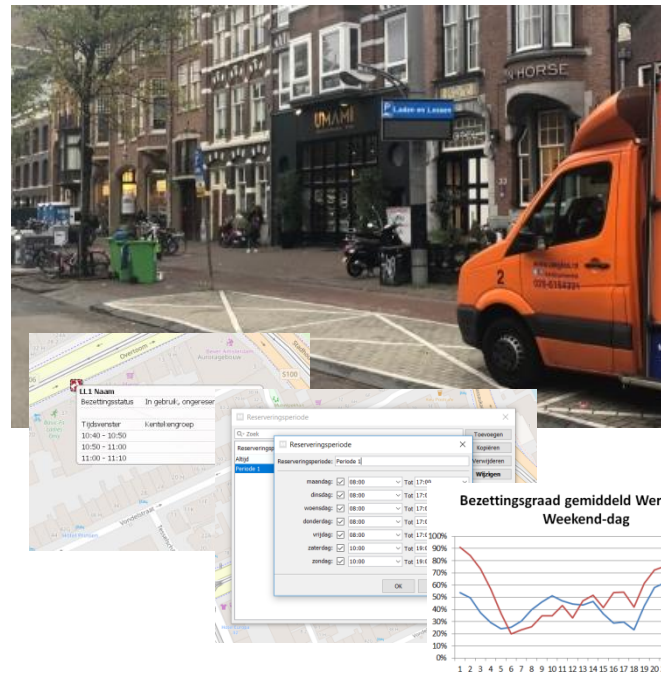
→ Intelligence

→ Understand

## Understand



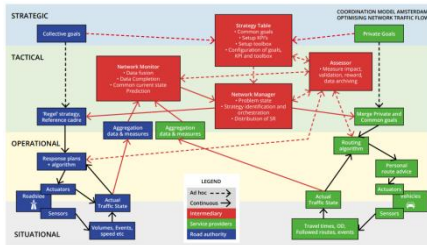
Recall4Bikes: Privacy-proof bicyclists monitoring



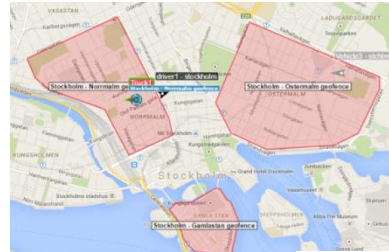
Connected Loadingbay Amsterdam

# Intelligence

## SOCRATES<sup>2.0</sup> FAST SAFE GREEN



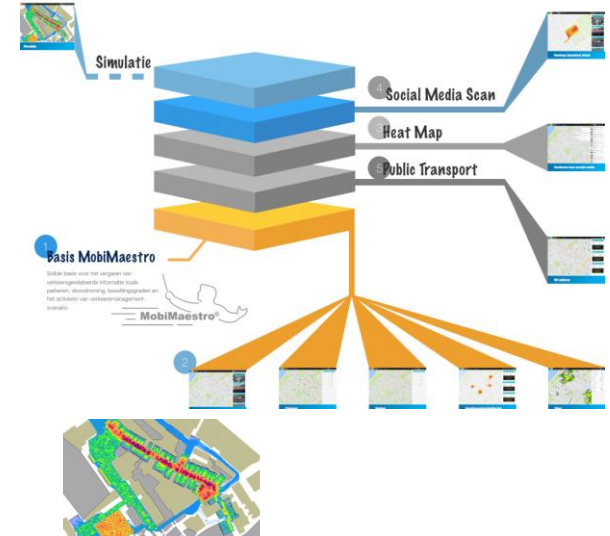
Data fusion, analysis and prediction



Nordic  
**WAY2**



Geofencing and 'Digitalised Policy'



Data-combinations and geographical mapping



### Inform



Digital signs



Third party information through API



Third party use of information through API

## Enforce



Event-based enforcement



Dynamic physical infrastructure



Automatic enforcement

## Urban Intelligent Access schemes

- 3 Restrict & Enforce
- 2 Monitor & Manage
- 1 Facilitate & Inform

**Digital public space**

Physical public space



Required competences:

- Enforce
- Inform
- Intelligence
- Understand



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