

# POLIS

CITIES AND REGIONS FOR TRANSPORT INNOVATION

ANNUAL  
CONFERENCE

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#POLIS2022

# Let's get digital. Technology-based safety solutions

ISA in Helmond: Feedback pilots, limits and opportunities for the future

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# City of Helmond

- 95,000 inhabitants -Small and Medium-Sized City
- Fast growing
- Part of Brainport Region
- Home of the Automotive Campus
- Involved in EU projects ITS/CCAM/UVAR



# What is ISA ?

## **ISA = Intelligent Speed Assistance**

**Any system that ensures that a vehicle does not exceed a safe or legally enforced speed.**

In case of potential speeding, the driver can be alerted or the speed reduced automatically.



# ISA mandatory for new models/vehicles

## GSR's Article 6 (2)(a)

*The driver should be made aware that the speed limit is exceeded through either the accelerator control, or an alternative that provides “**dedicated, appropriate and effective feedback**”*



Source: European Commission



# Polis/Helmond : ISA Manifesto 2018



# Why make cities ISA Ready?

- Speeding is a major cause of road accidents.
- Enforcement of speed limits : cost-and labor intensive
- A positive effect expected on road safety ; decrease the accidents and nuisance



# There is work to do!

- Traffic signs in cities are not 'up to date' and ideally located
- Digital map of maximum speed is incomplete, and not always available



# Helmond – ISA Projects

At this moment the City of Helmond is involved in 4 different EU and Regional projects where we are testing an ISA Retrofit solution

- **ReVeAL** (Horizon 2020)
- **ISA-FIT** (EIT UM)
- **Praktijkproef ISA** (Brainport Bereikbaar)
- **C-Roads Antwerp – Helmond** (CEF)

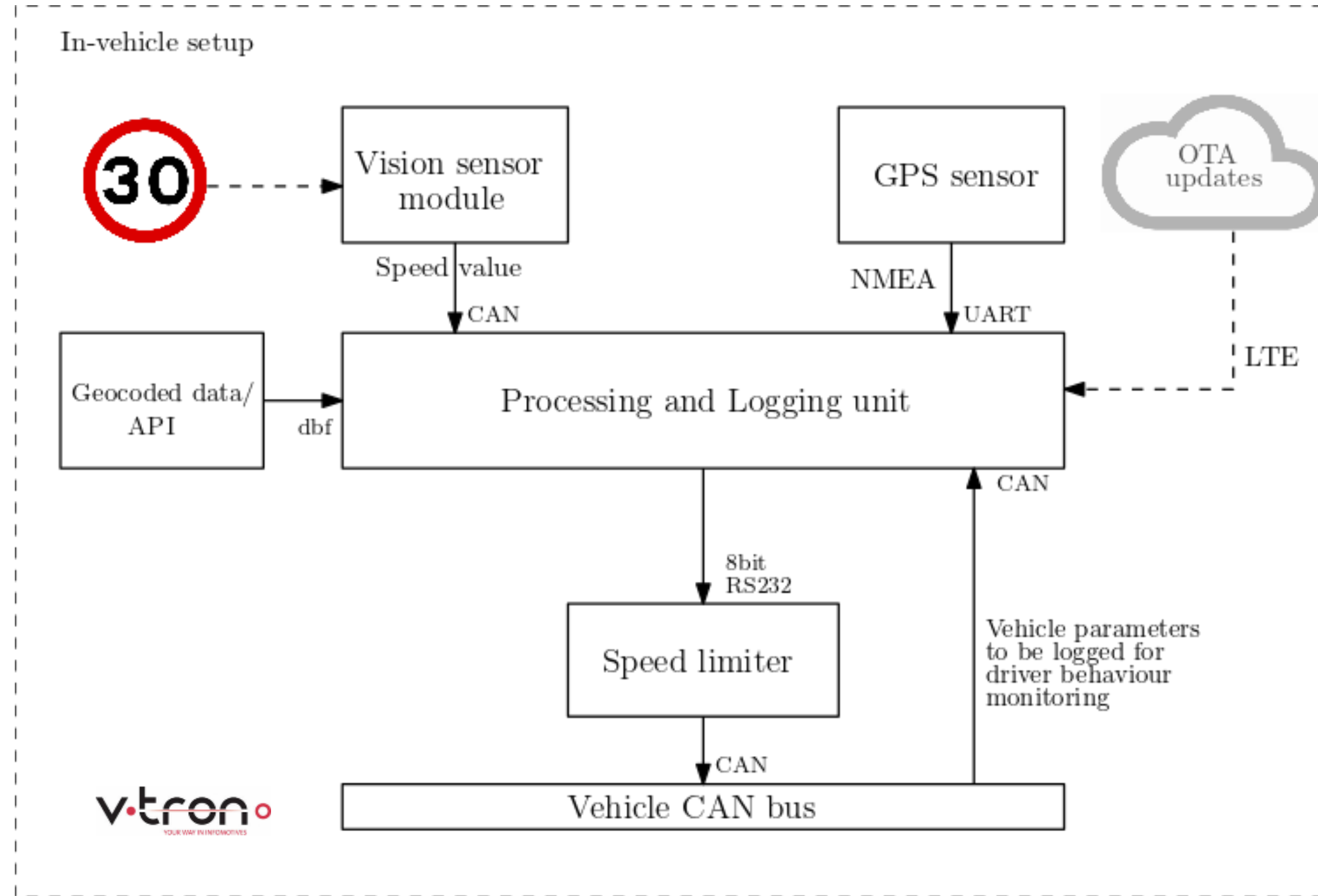




# Testing an aftermarket ISA system



# Testing an aftermarket ISA system



# ReVeAL : test in real urban conditions

## ISA test : July 2020

- 10 cars equipped with ISA / 4 days
- Assess the impact of ISA equipped vehicles on the traffic speed
- Perception of the system

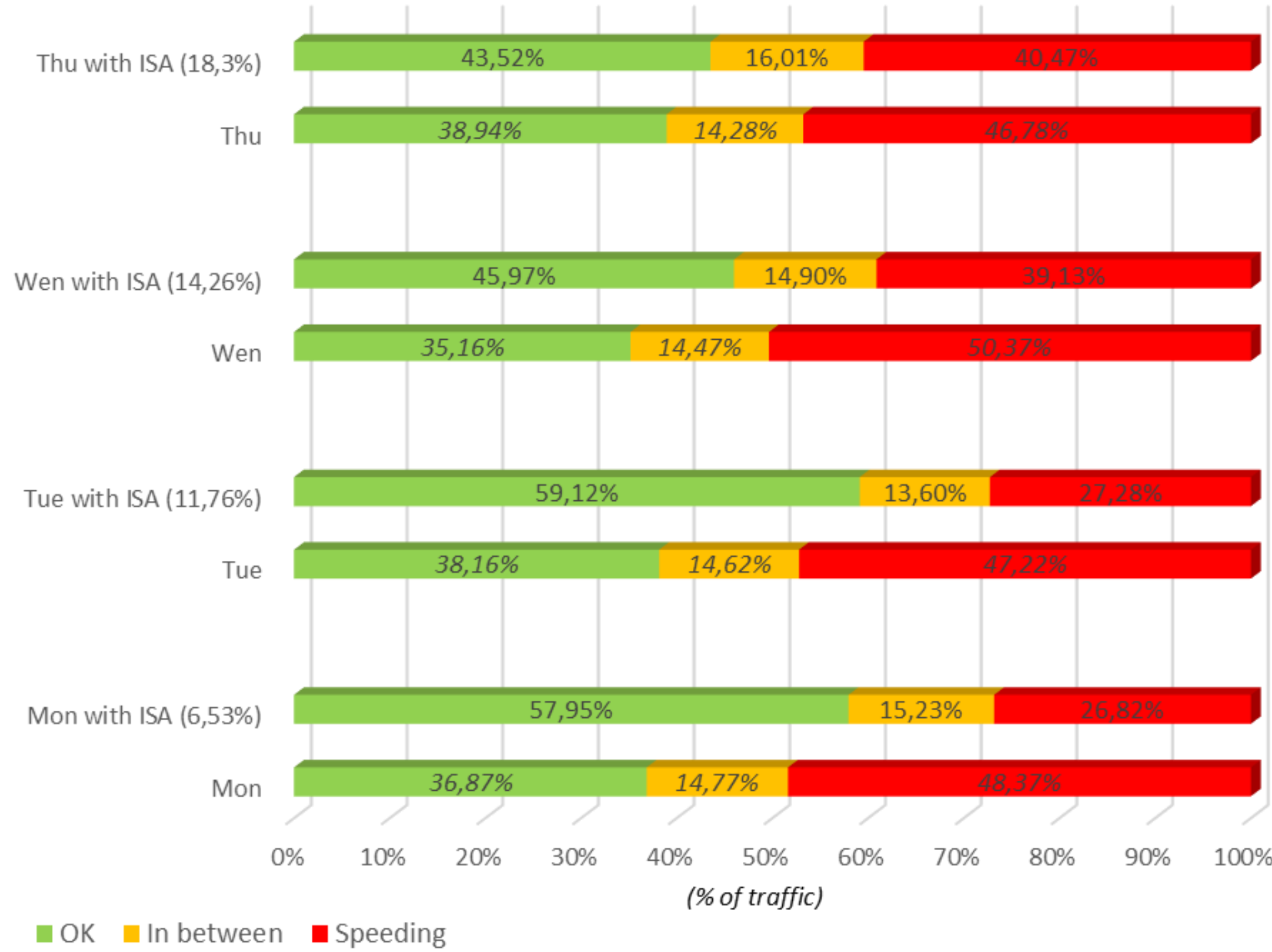


# ReVeAL 2020 test

## Some positive results

- Despite some **limits...**
- ... some **improvements**
- A **positive feedback** : good perception of the system by the users

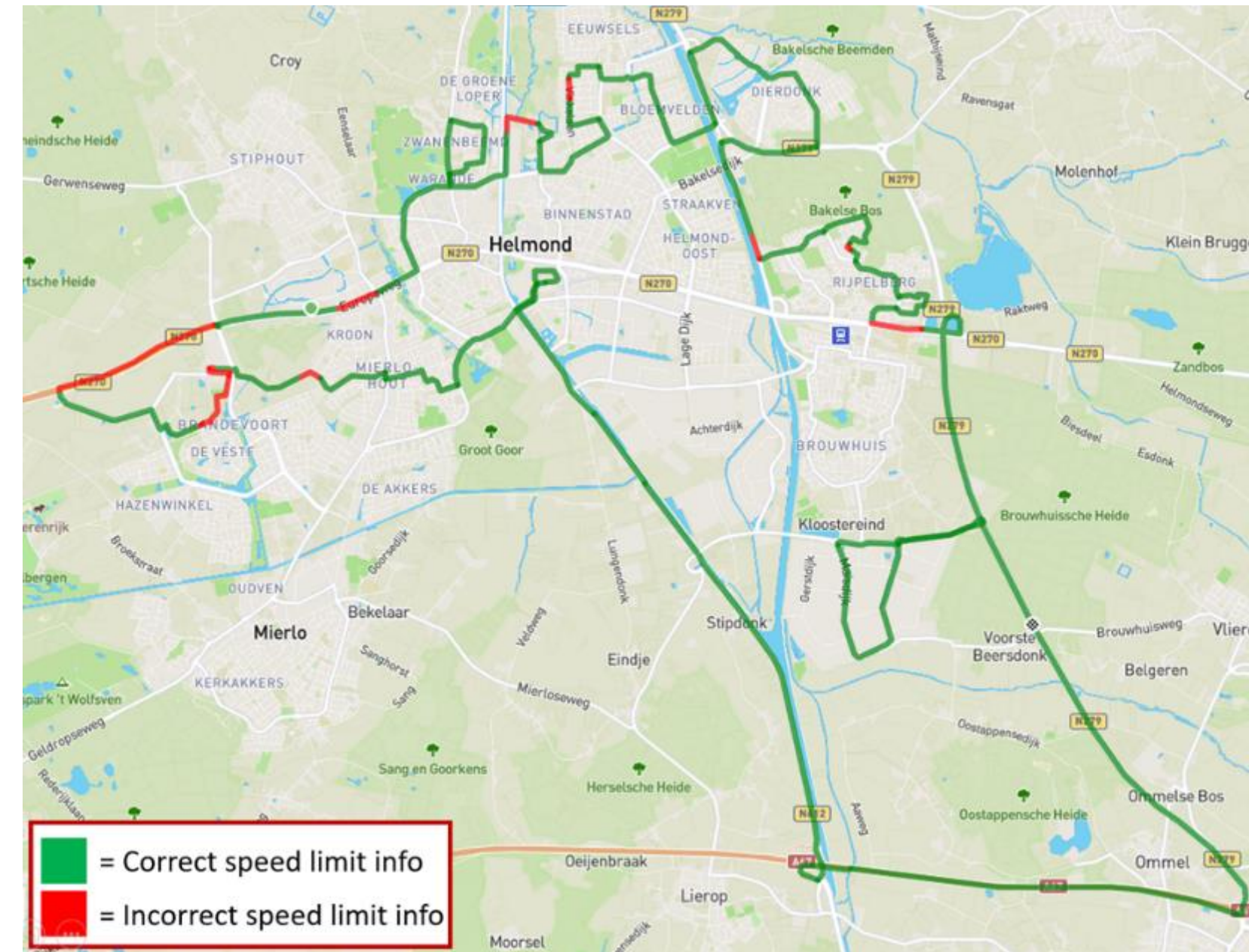
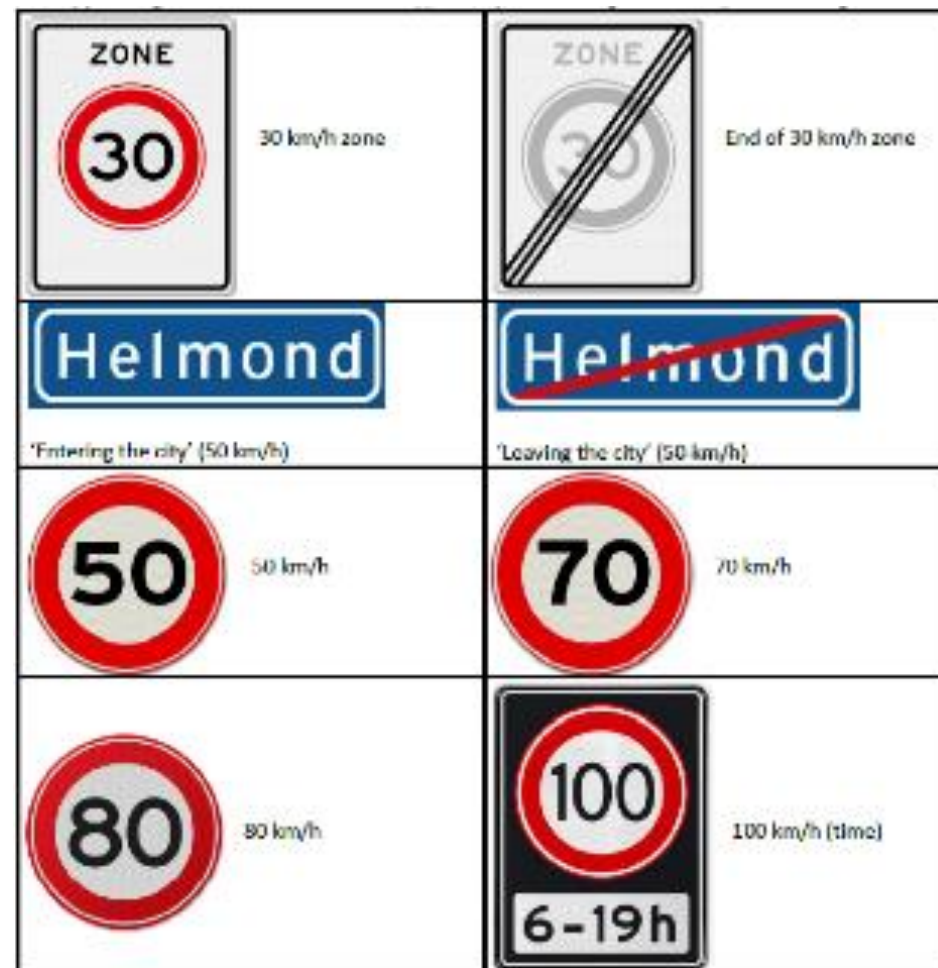
Radar 2 - Comparison between the percentages of vehicle speeding (week 2 with ISA / week 1, per day)



## 2022 : analysis of the digital and physical infrastructure in Helmond

Is the digital/physical infrastructure adapted for ISA operation?

- 63% of (speed) signs appropriately detected
- 91% of the information of the digital map



# ISA-FIT



- Will test a retrofit ISA in Helmond on 15 vehicles
- A European strategy will be developed to scale-up ISA implementation
- A Ready-to-market ISA retrofit product will be launched after the project



# ISA-FIT



- **Pilot will start in October for 4 – 6 weeks**
- **Functional evaluation** will assess the ISA system within different use cases
- **Scenarios of business models** and services will be analysed taking into account perspective of different stakeholders



# ISA-FIT



- **Data** may show how often drivers **overrule** the system
  - Overruling = not accepting the system's operation
- Through **surveys and interviews** the **user experiences** will be monitored
- **Evaluation** of current driver acceptance and **suggestions for improvement** on this aspect
- **User acceptance** is crucial to reach expected benefits (safety, fuel usage)





# Praktijkproef ISA *(ISA Field Test)*



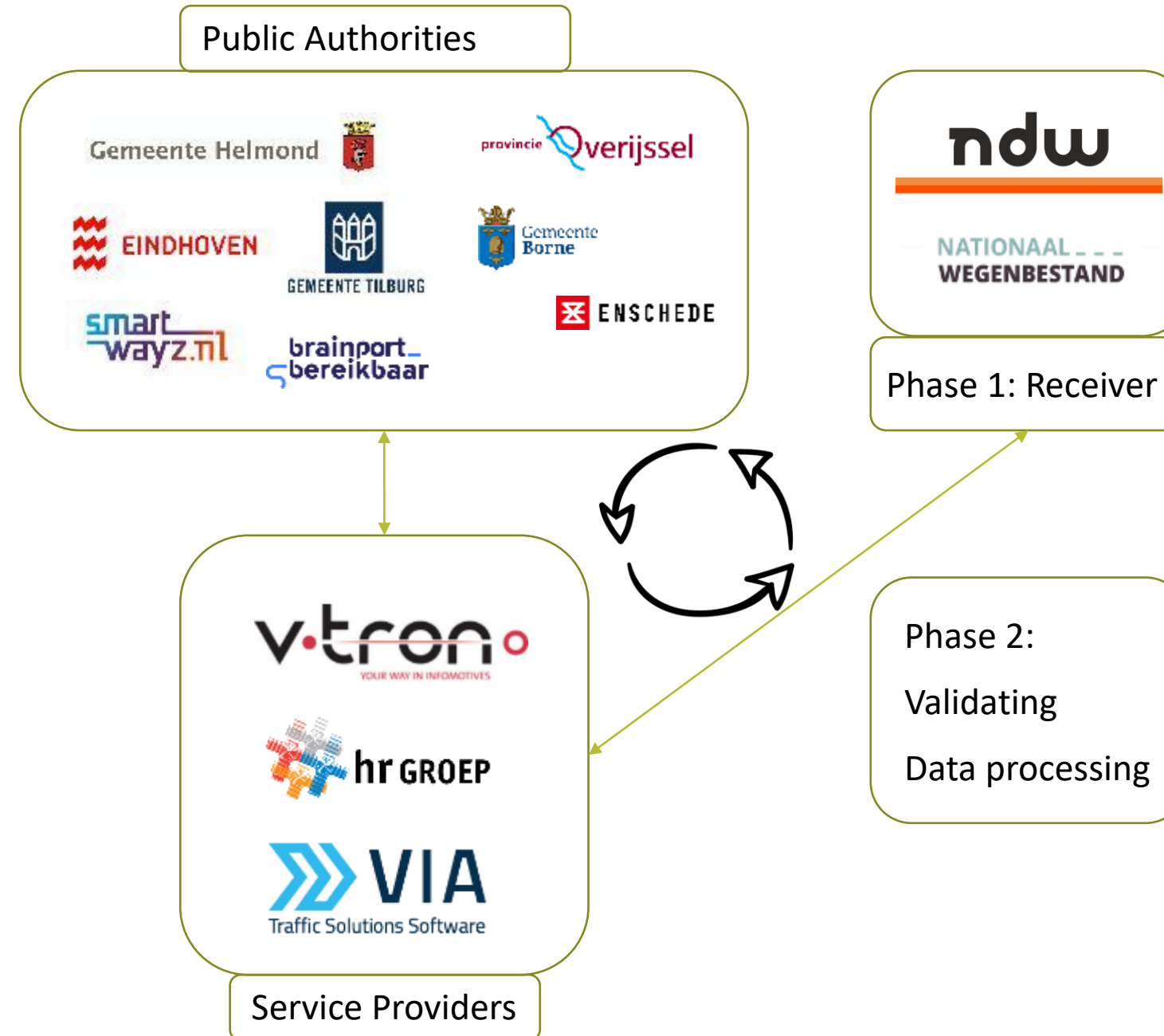
- 1. Does the built-in ISA system perform?
- 2. How is the built-in ISA experienced?
- 3. Is the digital and physical environment ISA-Ready?

## Target Group (21 vehicles)

- Private car owners (including own employees)
- Driving school owners in cooperation with CBR
- Own fleet (including road inspection vehicles)



# Praktijkproef ISA *(ISA Field Test)*



# Conclusions & Perspective

A technology that can contribute to more safety in cities

Some improvements needed to have an ISA-ready city, both on physical and digital infrastructure

Importance of the partnerships between local, national public authorities and private service providers for the next steps



# Thank you for your attention!



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