

# Nopeusrajoitukset kartalle

Digiroad Kuntaseminaari 11.5.2022

Data Partnership Manager Samuli Lehtonen

# About us



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Founded in  
1985



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9,000  
people



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Across all  
5 continents



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56  
countries





**Who we  
work with**

# HERE - Digiroad keskeiset tietolajit

# Keskeiset ominaisuustiedot – Digiroad – HERE - EU

Navigoinnin kannalta kriittiset tiedot

- Tiegeometria
- Teiden nimet
- Kääntymiskiellot
- Yksisuuntaisuudet
- **Nopeusrajoitukset**

Raskaan liikenteen reititys

- Painorajoitukset
- Korkeusrajoitukset

*EU:*

*RTTI Delegoitu asetus (Real Time Traffic Information)*

***Intelligent Speed Assistance (ISA)***



# ISA ja nopeusrajoitukset

# ISA – EU Mandate



**ISA is a soon to be mandatory in-vehicle system that shall support drivers with complying with the speed limits on any road of all European Union countries**

## ISA

### Example of Intelligent Speed Assistance

1

Vehicle receives positional information via GPS uses digital map for speed limit information and combines this with camera-based sign recognition.

2

Speed limit is displayed on the dashboard in direct line of sight.

3

Optionally: Vehicle supports driver not to speed by limiting acceleration when speed limit is reached.

Driver may override system by pushing harder on accelerator. System can also be switched off.

ISA could cut **collisions** by **30%** and **deaths** by **20%**



Cars fitted with ISA could **reduce CO2** emissions by **8%**



**EuroNCAP** awards **extra points** to vehicles fitted with ISA

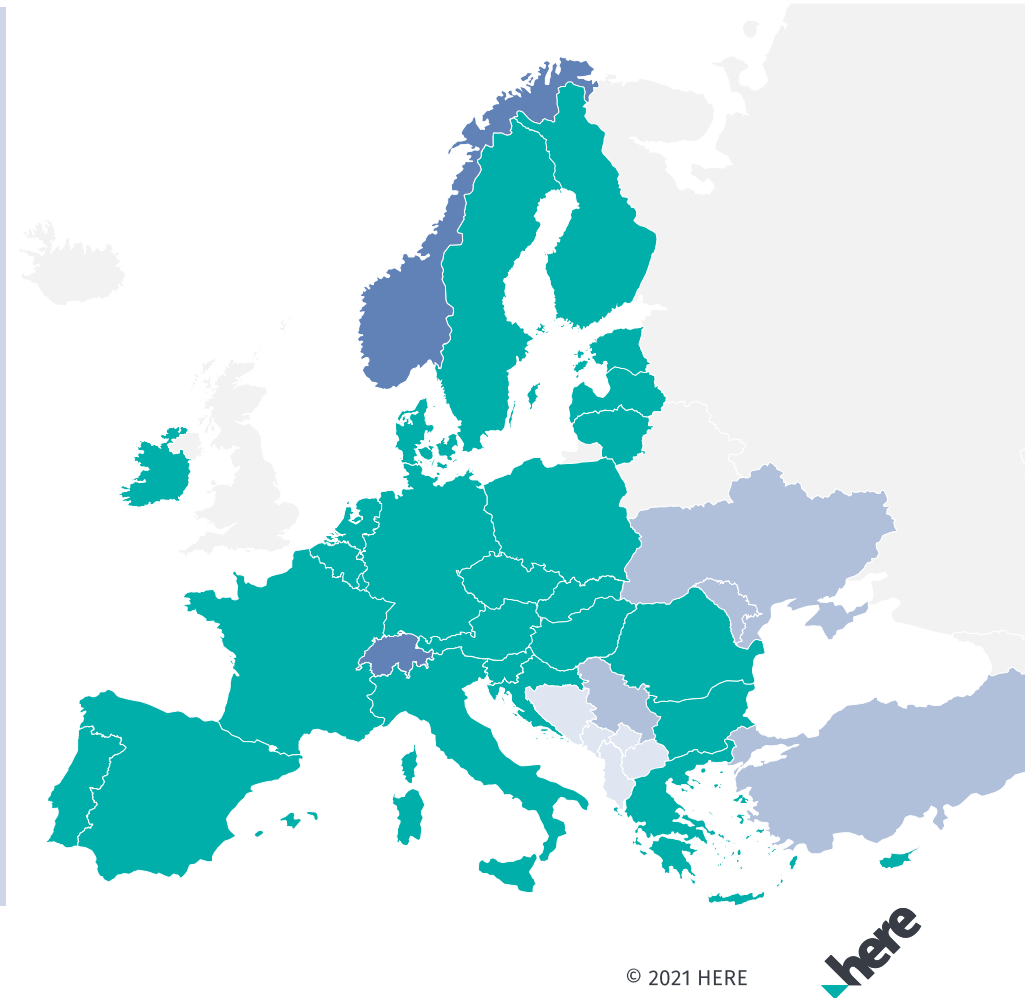


**78% of road users**  
**64% of car drivers** say they supported in-vehicle speed limiters (SATRE 2012)

# Intelligent Speed Assistance (ISA)

## Regulation Scope & Test Approval Criteria

- Mandatory for **cars, vans, trucks, and busses**
- **From Jul 2022** for new vehicle types, from **Jul 2024** for all new registered vehicles
- **EU 27 countries** (excluding outermost regions) – EU candidate countries, as well as Norway and Switzerland will introduce ISA as well
- **Legal speed limit is always displayed to driver, plus either** audible alert **or** active limitation of speed → speed limit quality directly impacting user experience
- **Minimum 7 years of map updates free to users** and **at least annual map updates** are required. The ISA solution must be reliable and comply with the ISA regulation acceptance criteria for at least 14 years after the date of manufacture of the vehicle.
- ISA approval tests needs to be passed or vehicle cannot be sold
- The **real-world test drive** shall be **400 km** (300 km if the vehicle performed well i.e., showed a performance variation 5% within the final 50 km of the route). The test drive shall involve driving in daylight and darkness, where darkness shall be at least 15% of the total distance.
- **A minimum of 3 different explicit signs AND 3 different IMPLICIT signs**, including VMS (variable message signs) and non-electronic ones must be used for the tests.
- **The performance target is at least 90% of the total distance driven**, with a flexibility of 80% for three specific road types (urban, non-urban, motorways/ expressways).





# ISA enables the following uses

An intelligent speed assistance (ISA) system shall comprise a speed limit information function (SLIF) and either a speed limit warning function (SLWF) or a speed control function (SCF).



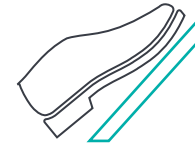
## Display

Speed Limit Information Function (SLIF) will simply display the currently effective speed limit to the driver.



## Warning

Speed Limit Warning Function (SLWF) will warn drivers using visible and/or audible alerts when the speed limit is being exceeded. Drivers then decide themselves whether or not to slow down. It is an informative or advisory system only.



## Control

Speed Limit Control Function (SCF) limits the vehicle's speed to the speed limit. Driving slower is possible by less pressure on the accelerator pedal. The SCF may allow drivers to go faster than the speed limit by pressing down on the accelerator with more force to overwrite the SCF.

# Why map data benefits ISA solutions

Typical challenges when reading signs with camera systems



# Speed Limits Challenges in Europe

## 1 Not all countries have the same density of explicitly sign posted speed limits

- High density in Northern Europe and UK
- Low too very low in Central, Southern and Eastern Europe

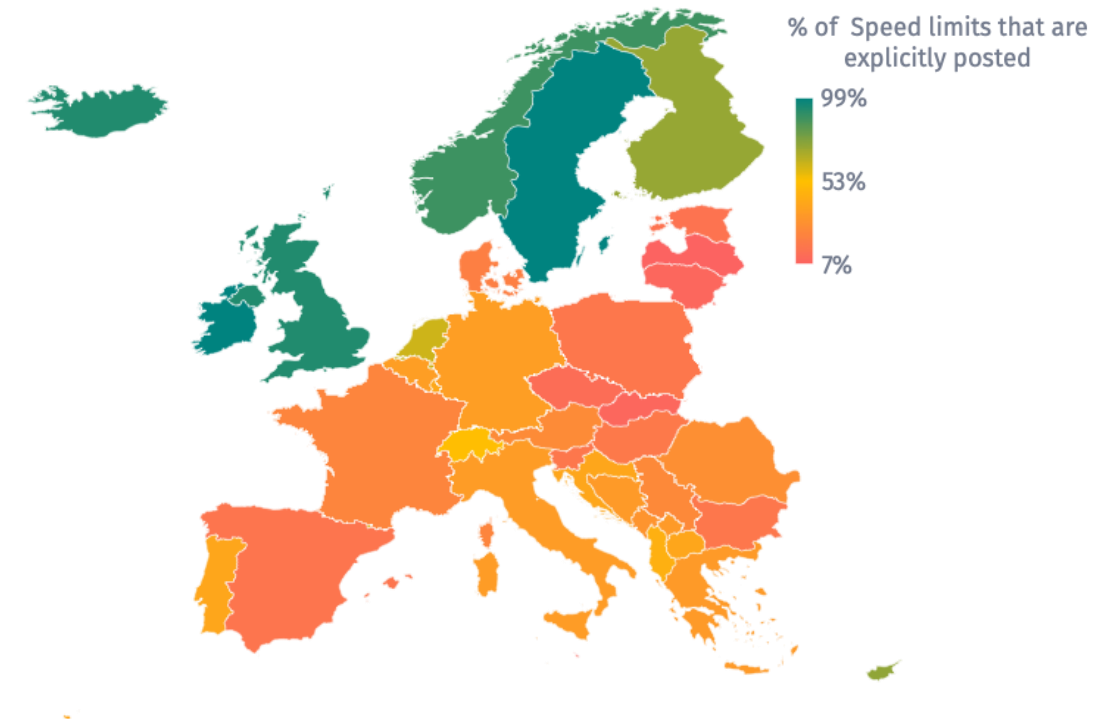
**Over 60% of the speed limits are implicit. They are not sign posted but based on road rules and regulations.**

## 2 Location specific speed limits

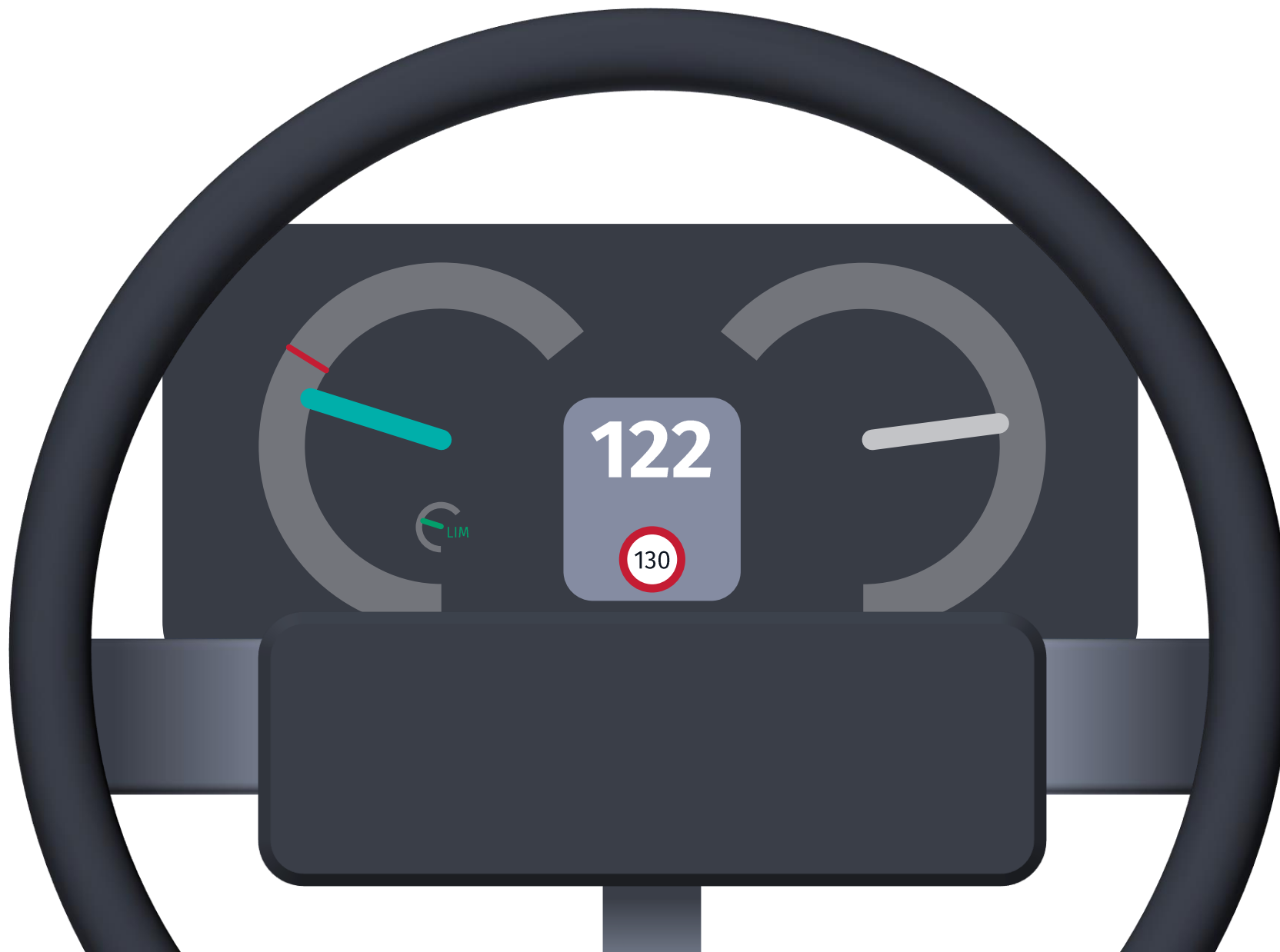
- Speed Limits change when crossing country borders
- Motorways, national roads, inside city limits, play zones/pedestrian roads

Source: HERE internal data research

## Estimated posted speed limits density in Europe

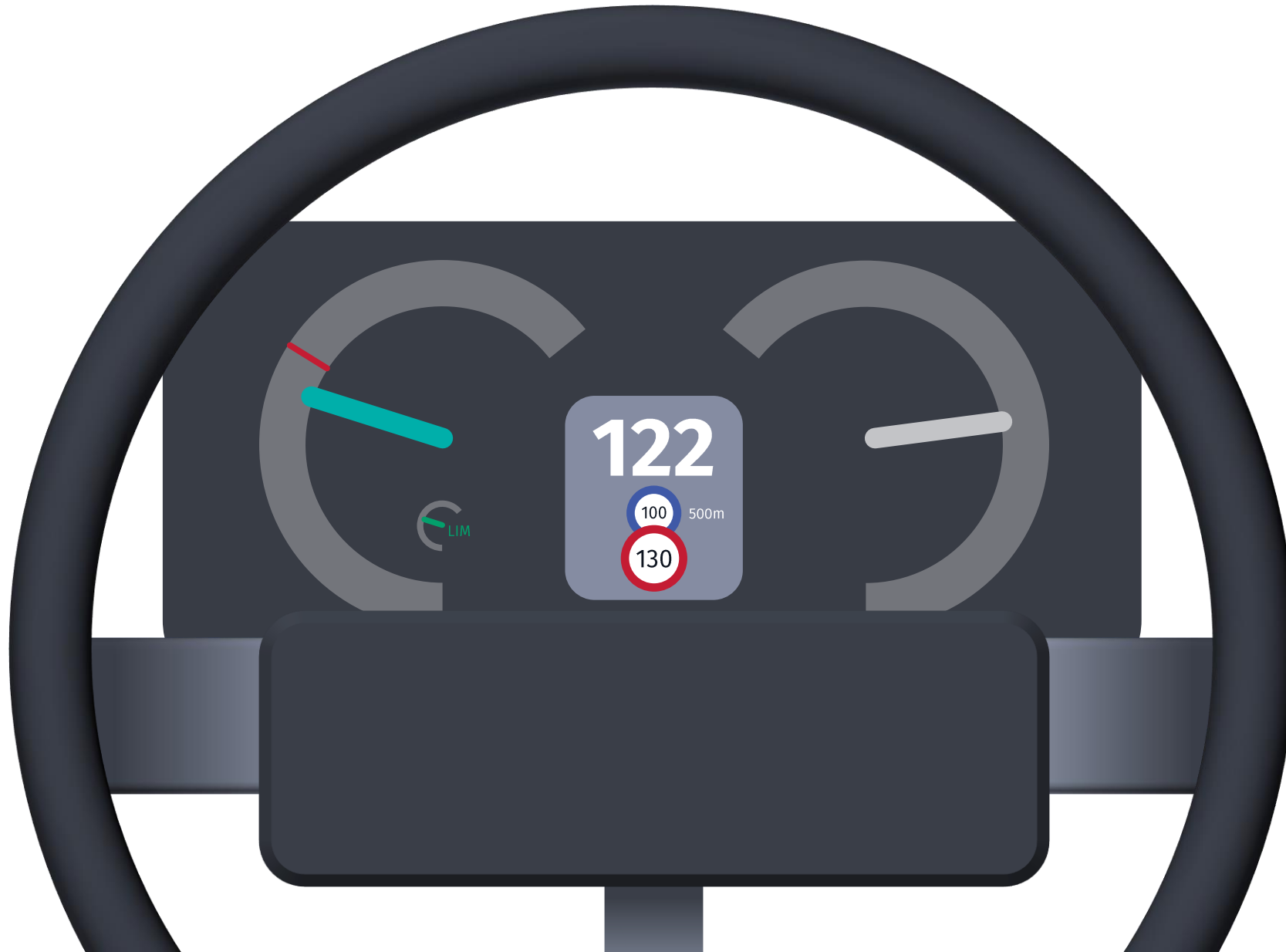


# Example of Intelligent Speed Assistance

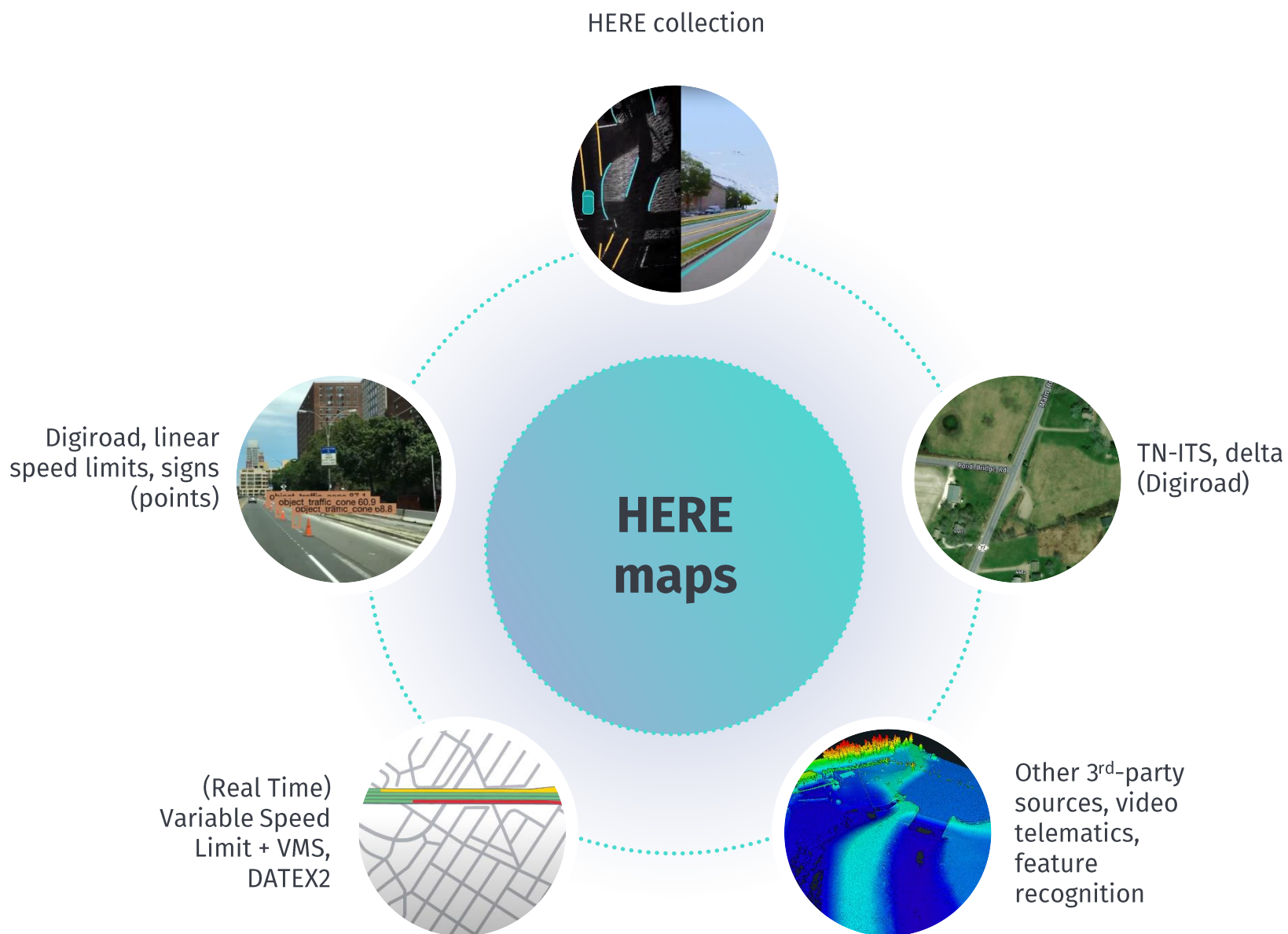




# Example of Speed Limit Assistance – camera + map



# Finland Speed Limits landscape



# Today

#1 location data and  
technology platform

#1



## **HERE is the leader**

According to Omdia, Counterpoint  
Research and Strategy Analytics

Ranked #1 in completeness  
across the industry

Outranking Google, Mapbox,  
TomTom and Apple

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# How can HERE help you?



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