



# SMART cycling to meet the Green Deal target



Cycling  
Industries  
Europe

**Interreg**  
North Sea Region  
BITS  
European Regional Development Fund



## Moderator



**Kevin Mayne**  
CEO,  
Cycling Industries Europe

## Speakers



**Irene McAleese**  
Co-founder & Chief  
Strategy Officer, See.Sense



**Victoire Champenois**  
Policy Officer,  
European Commission



**Syb Tjepkema**  
Senior Policy Advisor  
Mobility, City of Zwolle



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# Zwolle world cycling city





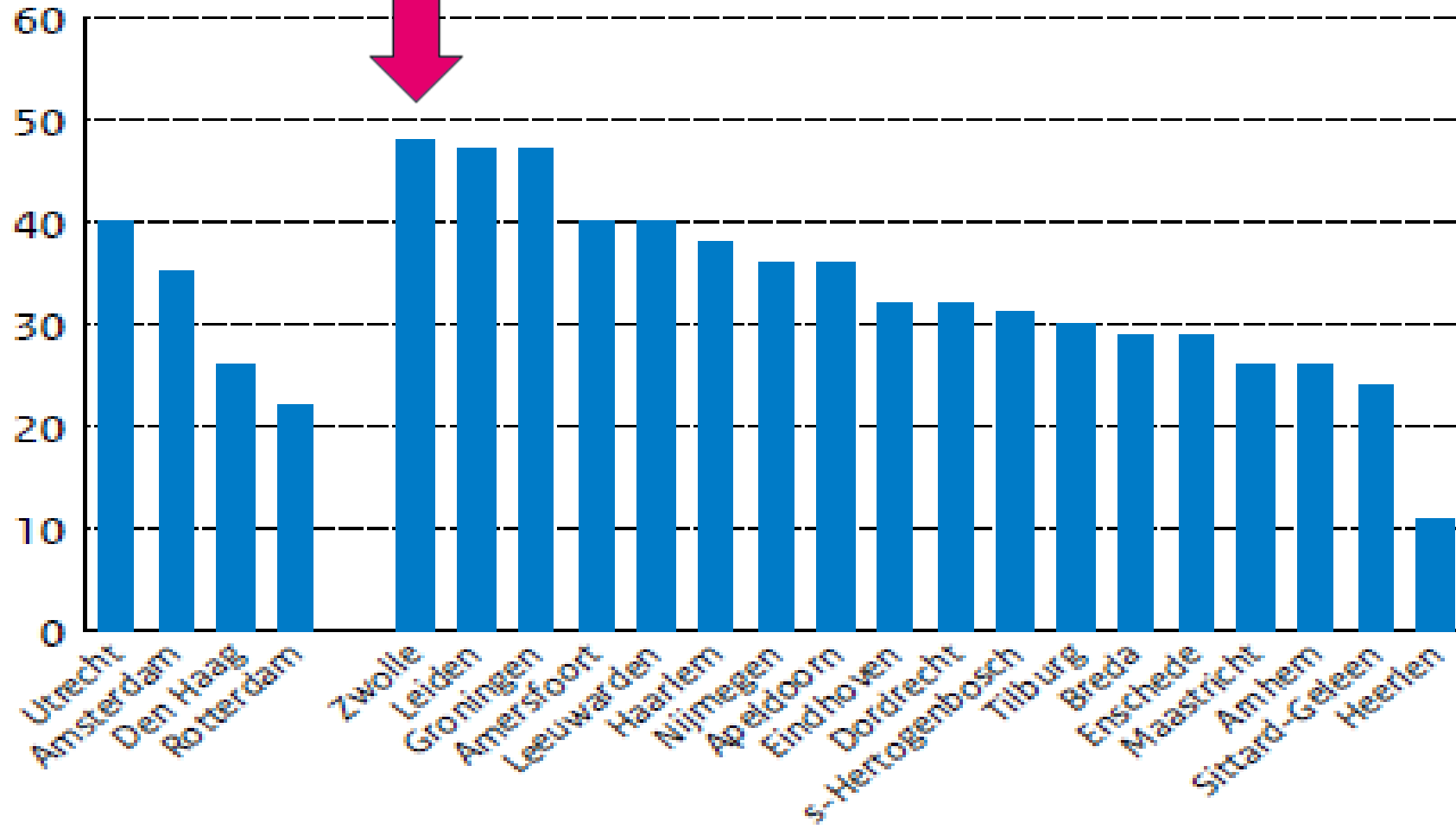


# Zwolle ideal city for cycling



**Zwolle has the highest bicycle use of the Netherlands: worldbike capital!**

% fietsgebruik voor verplaatsingen  
binnen stedelijk gebied







Successful cycling policy

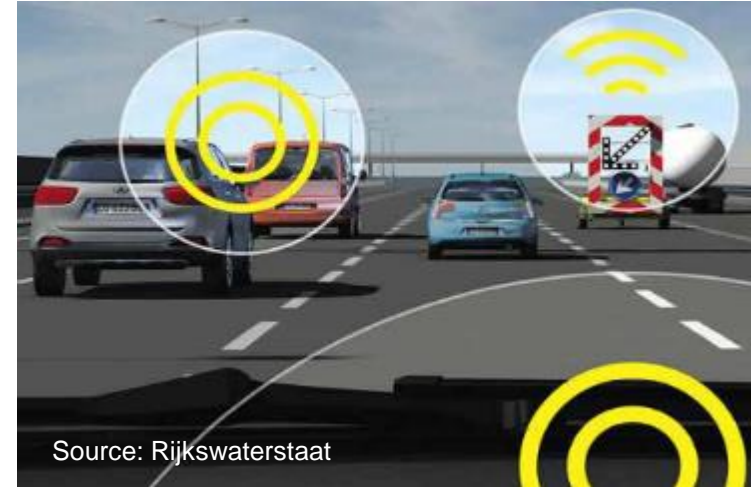
# Bike innovation





# If you think about ITS..... It probably is about cars

## Floating Car Data



## Connected Vehicles

## Compact Truck Parking



## TMS for car traffic



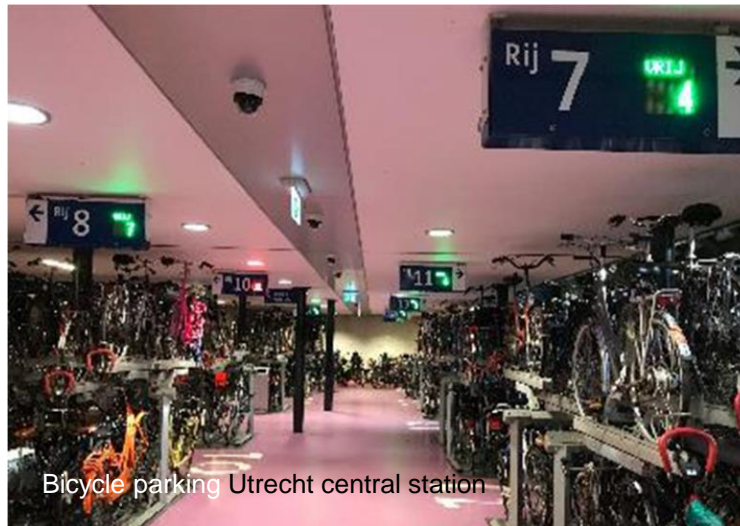
# If we think about it...it is about bicycles!

## Floating Bike Data



## Connected Bicycles

## Intelligent Bike Parking

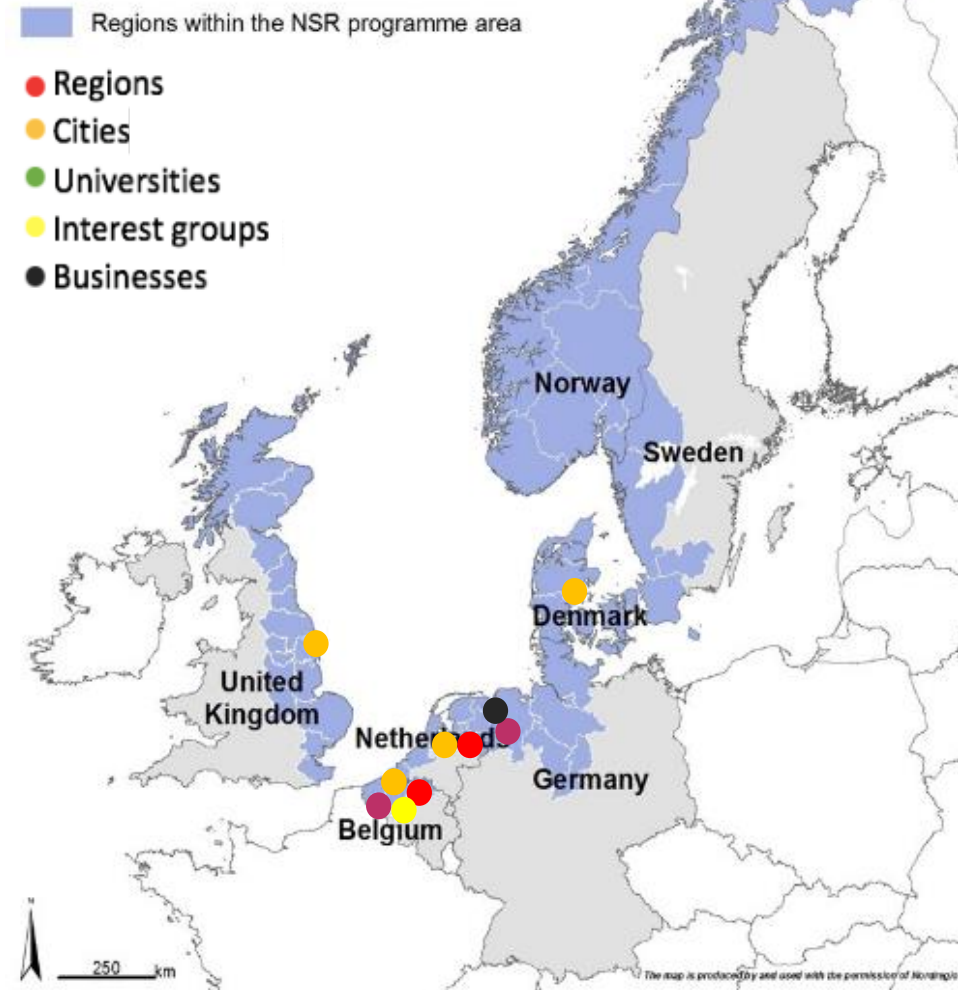


## TMS for Bicycles

# BITS – Bicycles and ITS

- Project within Interreg NSR
- Investing €4,9 mln. in cycling ITS and data (co-funded by EU)
- Partners:
  - NL: Province of Overijssel (lead), City of Zwolle
  - BE: Province of Antwerp, City of Bruges, VIVES, CIE
  - DE: Baron Mobility, University of Oldenburg
  - DK: City of Aarhus
  - UK: East Riding Council of Yorkshire
- Jan 2019 – March 2022

## Interreg VB North Sea Region Programme Area 2014-2020



# BITS: Objectives

- Make cycling more attractive with ITS (Intelligent Transport Systems) by:
  1. **Know how:** State of the Art directory
  2. **Data:** Create a CycleDataHub: Collect and use cycling data
  3. **Inspiration and cooperation:** Implement pilots
    - Combine these topics in a long term EU Roadmap voor cycling ITS





## Infra-based ITS



Smart signage & lighting



Traffic light with rain sensor  
(source: RTV Rijnmond)

## Bicycle data collection

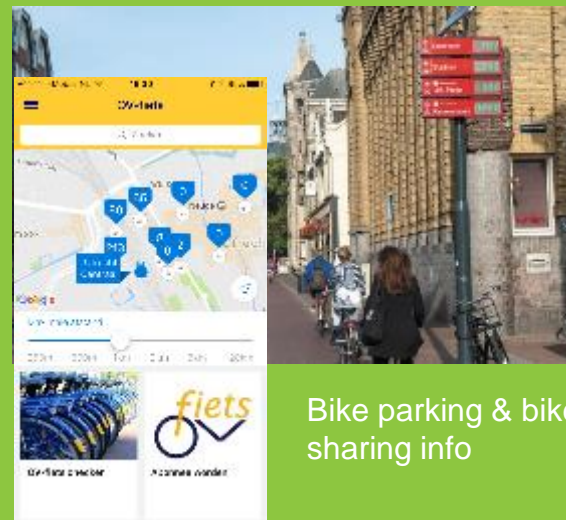


Bicycle counters



Floating bicycle data

## Info provision to cyclists



Bike parking & bike sharing info

Green light indicator



## Interactive systems



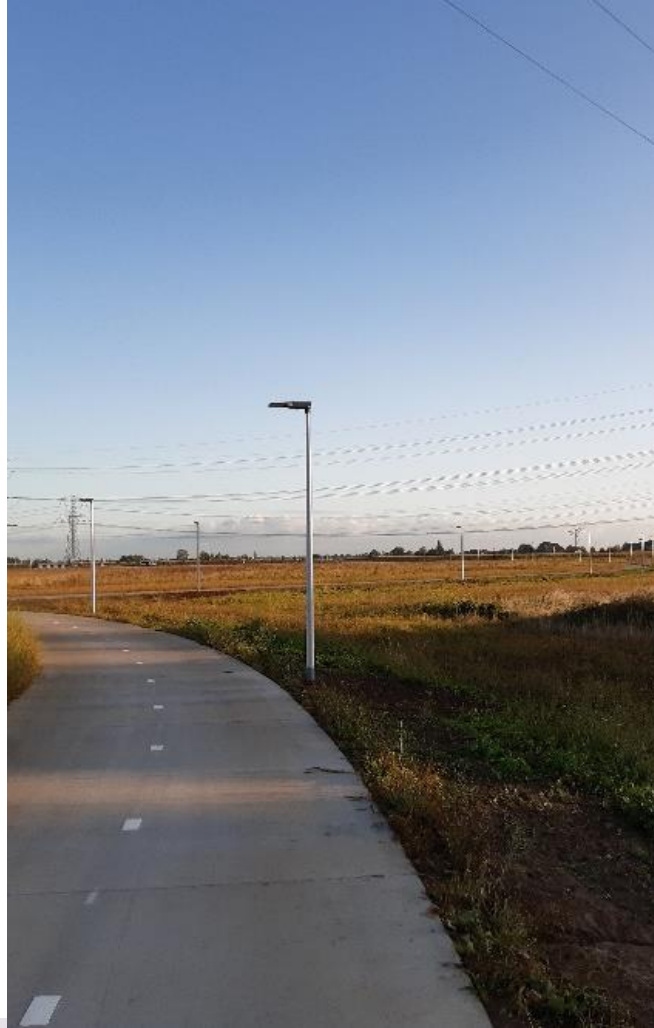
Ping



Gamification

BITS distinguishes 4 categories of ITS





## Zwolle: ITS and data







Met afstand  
**de meest  
gastvrije**

Kijk op  
[zwolle.nl/alleensamen](https:// zwolle.nl/alleensamen)

 gastvrij

Zwolle



  
Tip:  
Parkeer uw fiets in de  
pop-up fietsenstalling  
op het  
**Grote Kerkplein**  
Hier is altijd plaats!



The importance of data during covid-19





# Zwolle world cycling city

Thank you for your time



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# Reaction on BITS project



- **Legal framework** – *ITS not only about road but also multimodality !*

- **Intelligent Transport Systems Directive** (2010/40/EU) and **Delegated Regulation on Multimodal Travel Information Services** (2017/1926/ EU)

➡ establishment of [National Access Points](#) (NAPs)

- **Upcoming:** Common European Mobility Data Space + CEF PSA Coordination mechanism for federate NAPs + [revision of the ITS Directive](#)



- **Financial opportunities** – *on top of existing instruments, **the Recovery and Resiliency Facility (RRF)***

- 672.5 billion euros: 37% to be directed to climate related expenditures and 20% to digital
- MS to draw up plans, put to the Commission and final approval by Council



# SEE.SENSE® CYCLING TECHNOLOGY & DATA

## GREAT B2C & B2B PRODUCTS

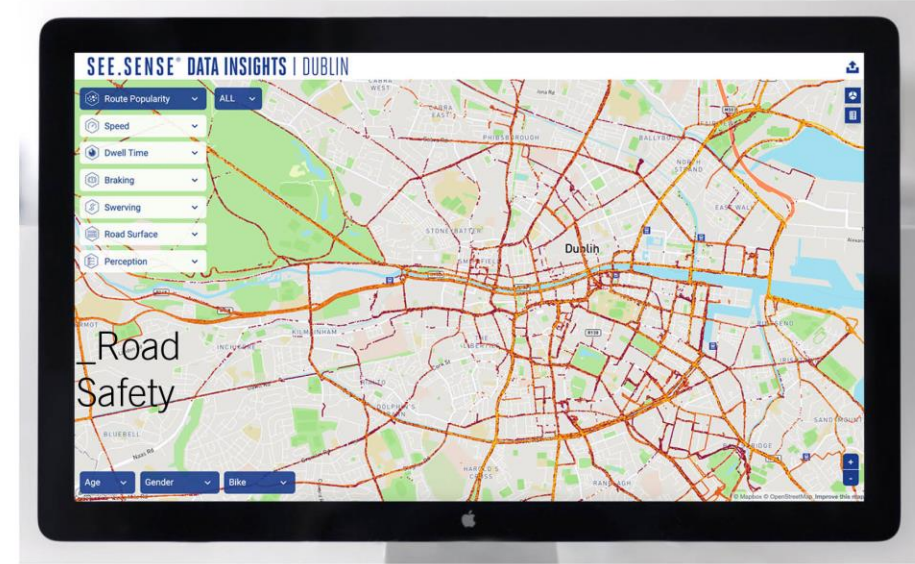


Consumer products & app



Mobility fleet integration

## PROVIDING ACTIONABLE INSIGHTS FOR CITIES



Data dashboard

- \_ **Near Real Time data for ITS** Bike to Infra communication
- \_ **Sensor data** for infrastructure planning
- \_ **Citizen engagement** & reporting

- \_ **Road Safety** - swerving, braking & collisions
- \_ **Network Planning** - route, speed & dwell times
- \_ **Asset Mgmt** - road surface condition

# THANK YOU FOR YOUR ATTENTION!

For any queries please contact CIE at [info@cyclingindustries.com](mailto:info@cyclingindustries.com)



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@BITS.EU



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BRUGGE



EAST RIDING  
OF YORKSHIRE COUNCIL



CITY OF  
AARHUS



Cycling  
Industries  
Europe

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**vives**



CARL  
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