



Smart cycling

From BITS to MegaBITS

Wim Dijkstra

Province of Overijssel, Netherlands

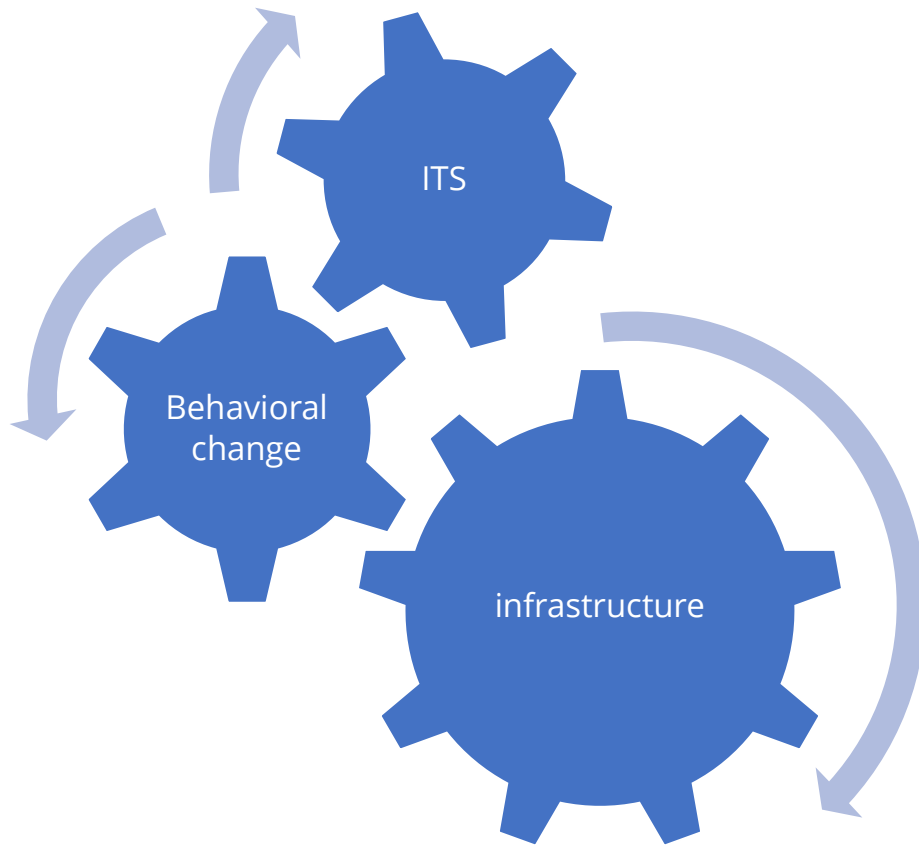


Most people think bike policy is about infrastructure





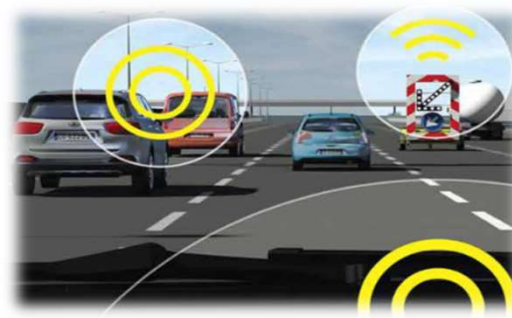
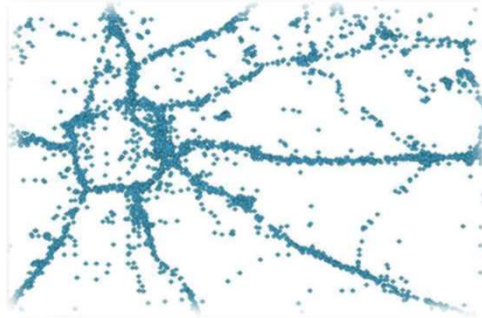
We think there is more !





Most people think ITS is about cars

**Floating
Car Data**



**Connected
Vehicles**

**Compact
Truck
Parking**



**VMS for
Car
Traffic**



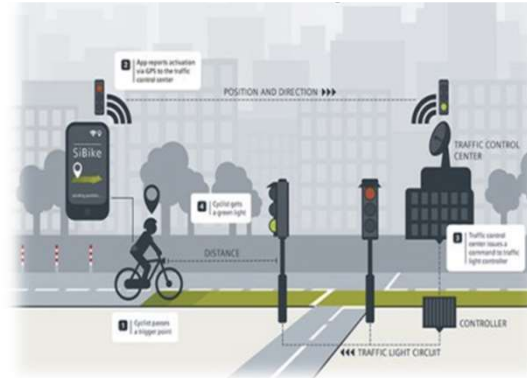


We think ITS is also about bicycles !

Floating Bike Data



Connected Bicycles



Intelligent Bike Parking



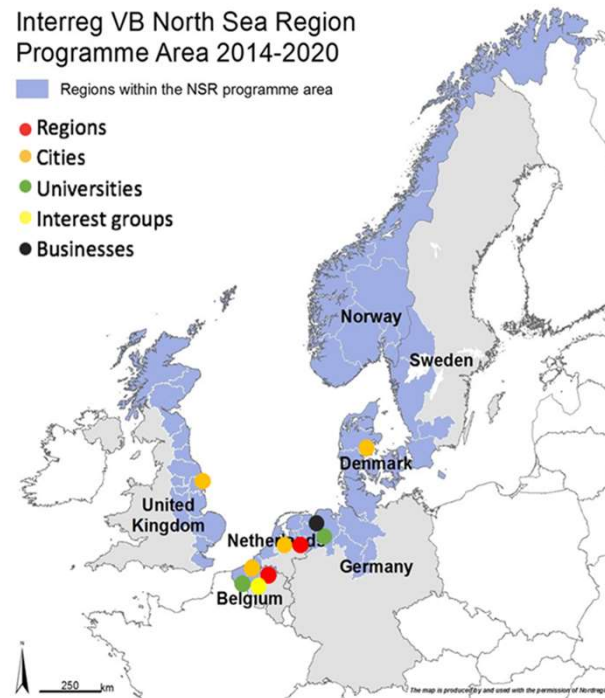
VMS for Bicycles





Interreg NSR project Bike and ITS (BITS)

Interreg VB North Sea Region
Programme Area 2014-2020



- 5 countries
- 13 partners
- 30 projects
- duration 2019-2022

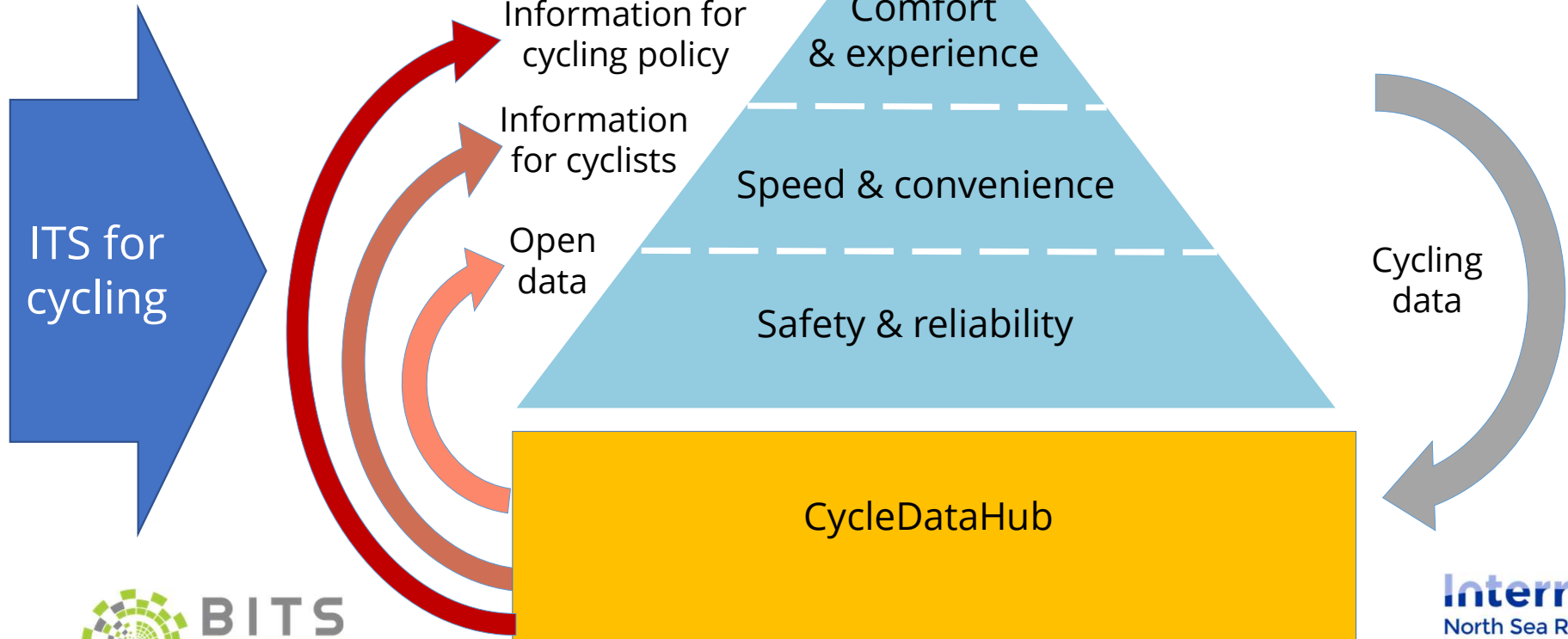
NL: Province of Overijssel (lead), Zwolle, Deelfietsen Nederland, Cycledata
BE: Province of Antwerp, Bruges, VIVES, CIE
DE: City of Oldenburg, Universiteit Oldenburg, Baron Mobility,
DK: Aarhus
UK: East Riding Council of Yorkshire



EUROPEAN UNION

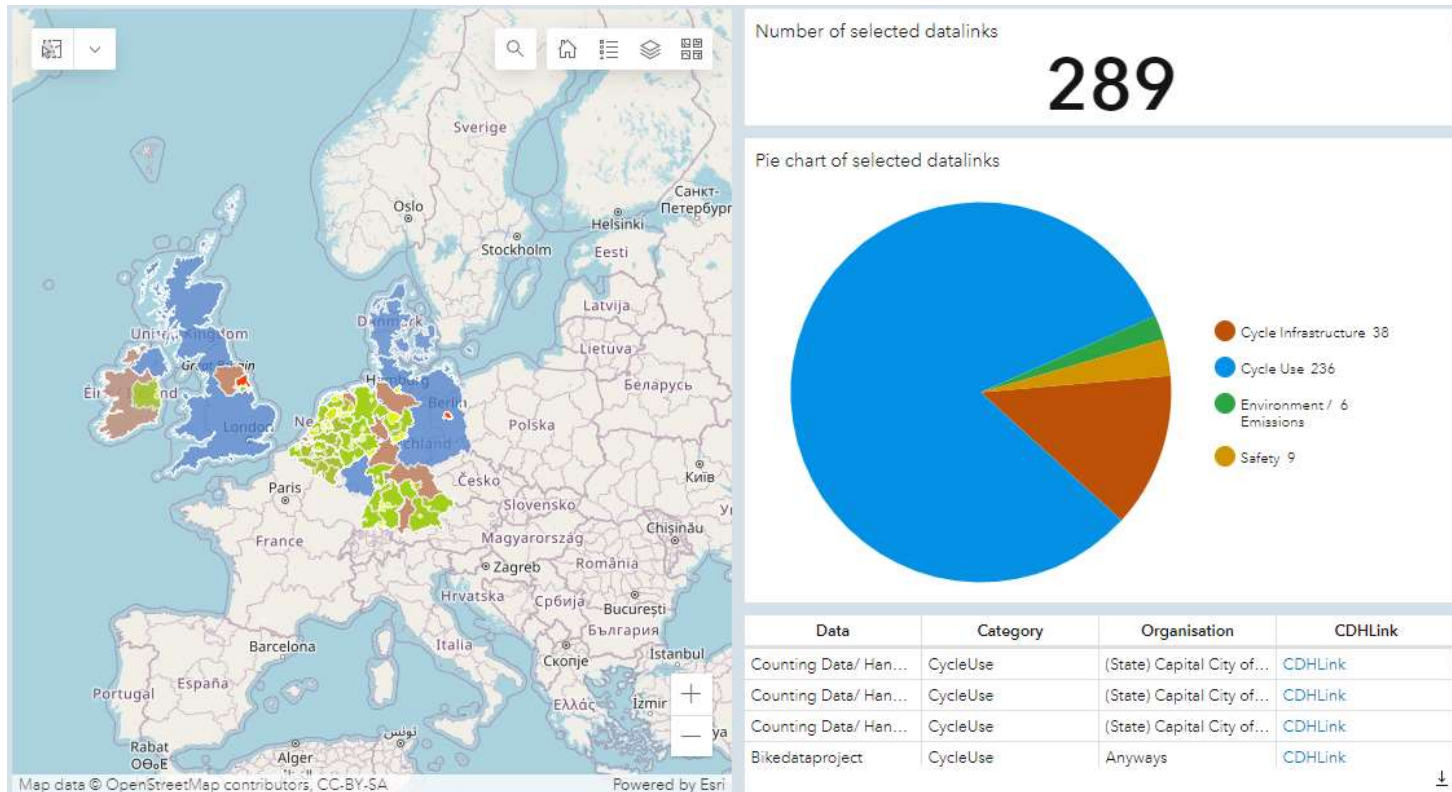


BITS framework

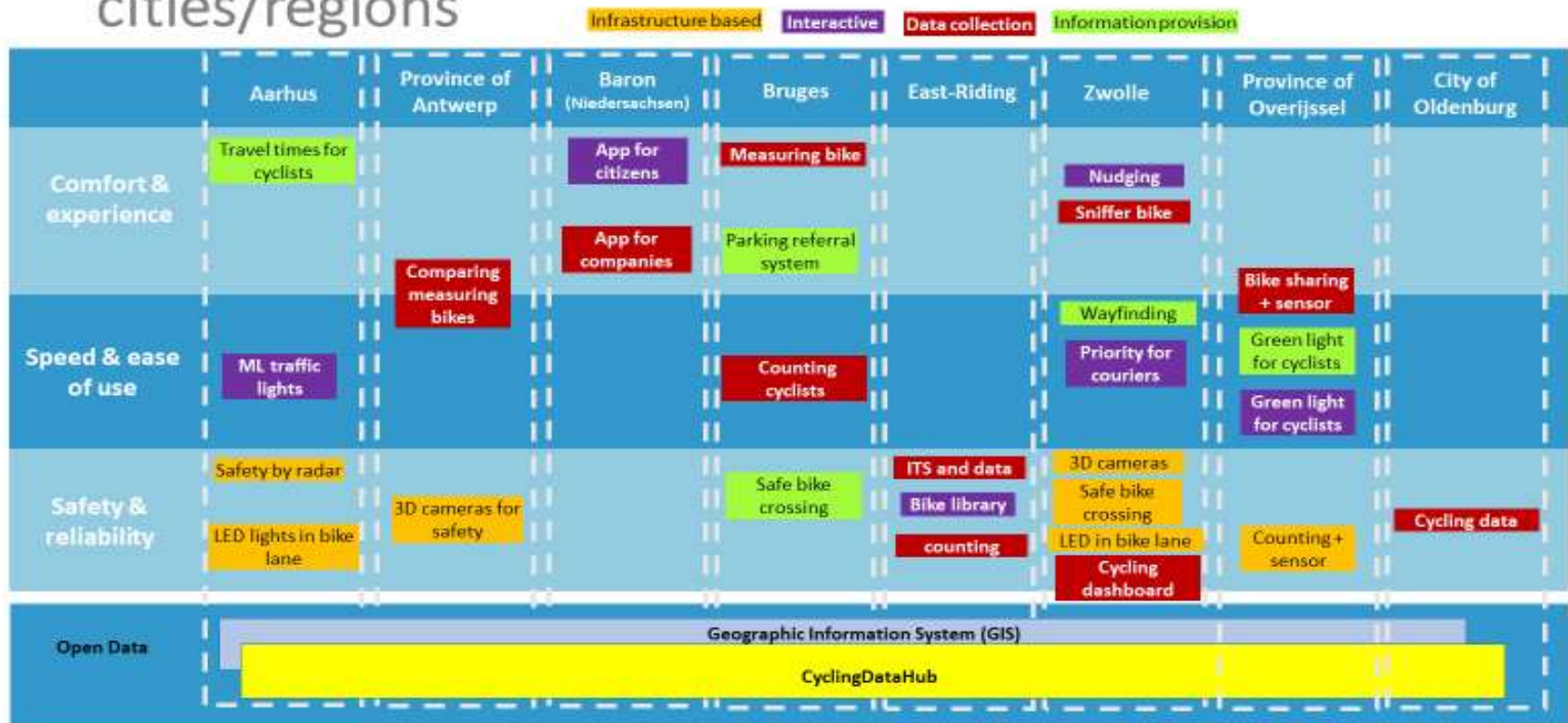




CycleDataHub

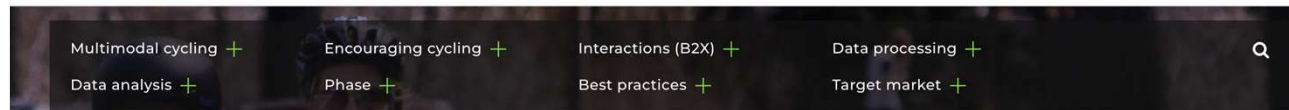


Implementing 30+ ITS systems for cyclists in 7 cities/regions





Website BITS directory



NAVIGATING THE BITS DIRECTORY

The categories above can be used to filter cycling-specific ITS products or services. Numerous categories can be selected to help further refine the selection of products or services available. 'Best Practices' (such as 'Implemented Projects' or 'Academic Research') are highlighted in blue and can be selected specifically above under this category.

 <p>Bikepath Surface Quality (BSQ)</p> <p>Comfort measurements of bike paths. Efficient measurements of the conditions of your bike paths, so you can see exactly where the largest fluctuations, and thus the biggest comfort challenges are. All...</p>	 <p>Flowell Dynamic Road Marking</p> <p>Flowell is the first ever dynamic road marking. It is an active, scalable and modular light-emitting signaling system that allows to optimize safety and traffic flows. Flowell makes it possible to...</p>	 <p>Provinciale Fietsbarometer (Provincial Cycle Barometer)</p> <p>The provincial Cycle Barometer maps/visualizes safety, comfort and use of cycle routes in the...</p>
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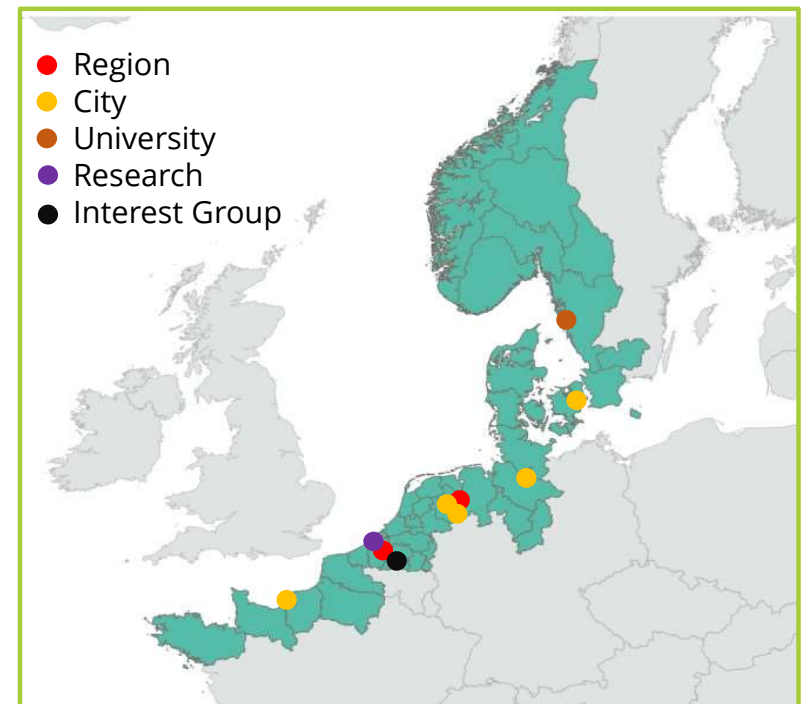
MegaBITS: Mobilizing Europe's Green Ambition through Bicycles and ITS

- Project within Interreg North Sea Programme
- Investing €4,9 mln. in cycling ITS and data
- Partners:
 - NL: Province of Overijssel (lead), City of Zwolle, City of Enschede
 - BE: Province of Antwerp, CIE, imec
 - DE: City of Hamburg
 - DK: City of Copenhagen
 - FR: Le Havre Seine Métropole
- May 2023 – April 2026



MegaBITS

Mobilizing Europe's Green Ambition through
Bicycles and Intelligent Transport Systems



Interreg
North Sea



Co-funded by
the European Union

MegaBITS

provincie  Overijssel

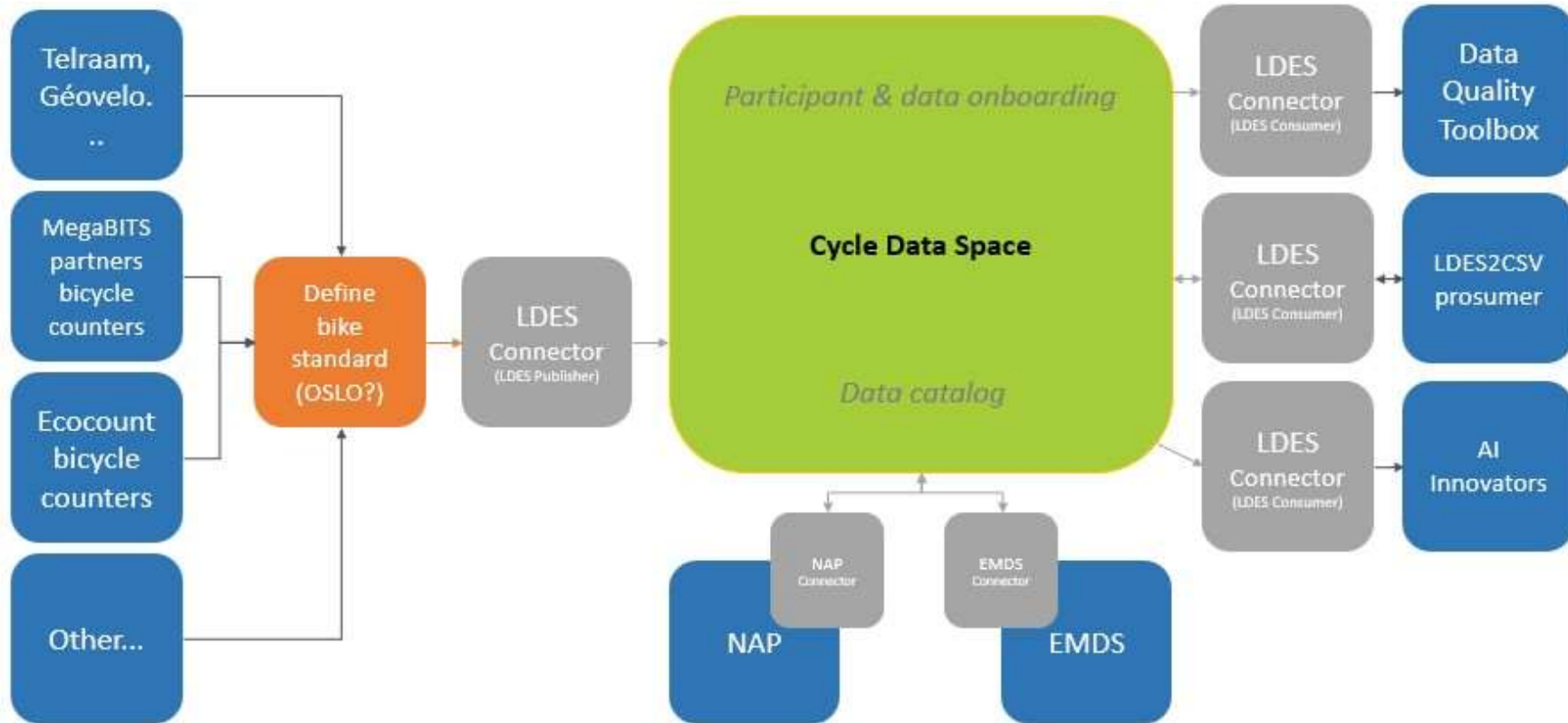


Cycle Data Space



MegaBITS

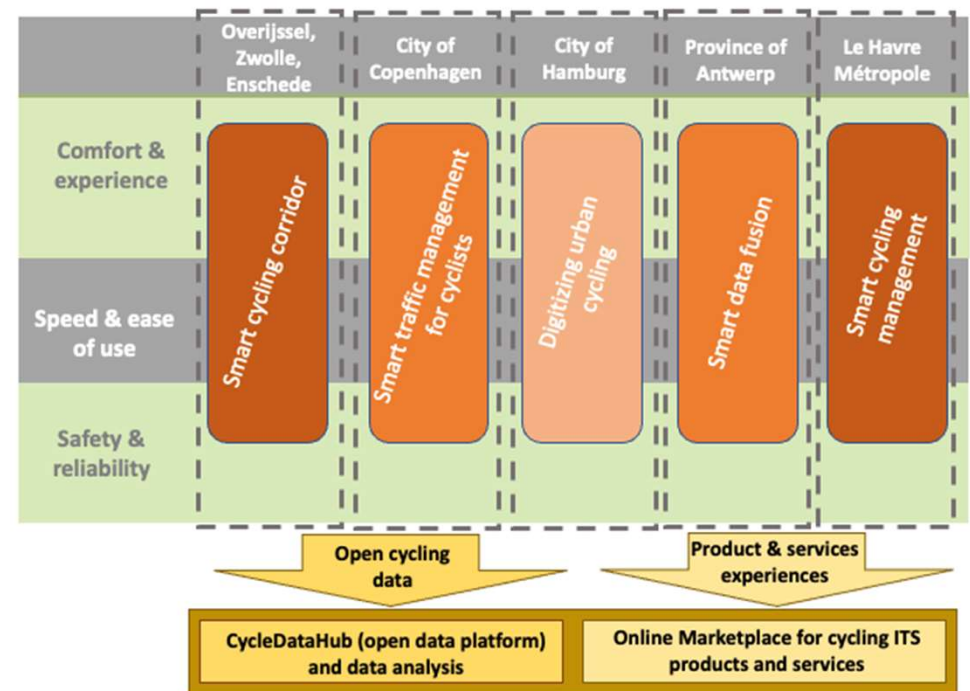
Mobilizing Europe's Green Ambition through Bicycles and Intelligent Transport Systems



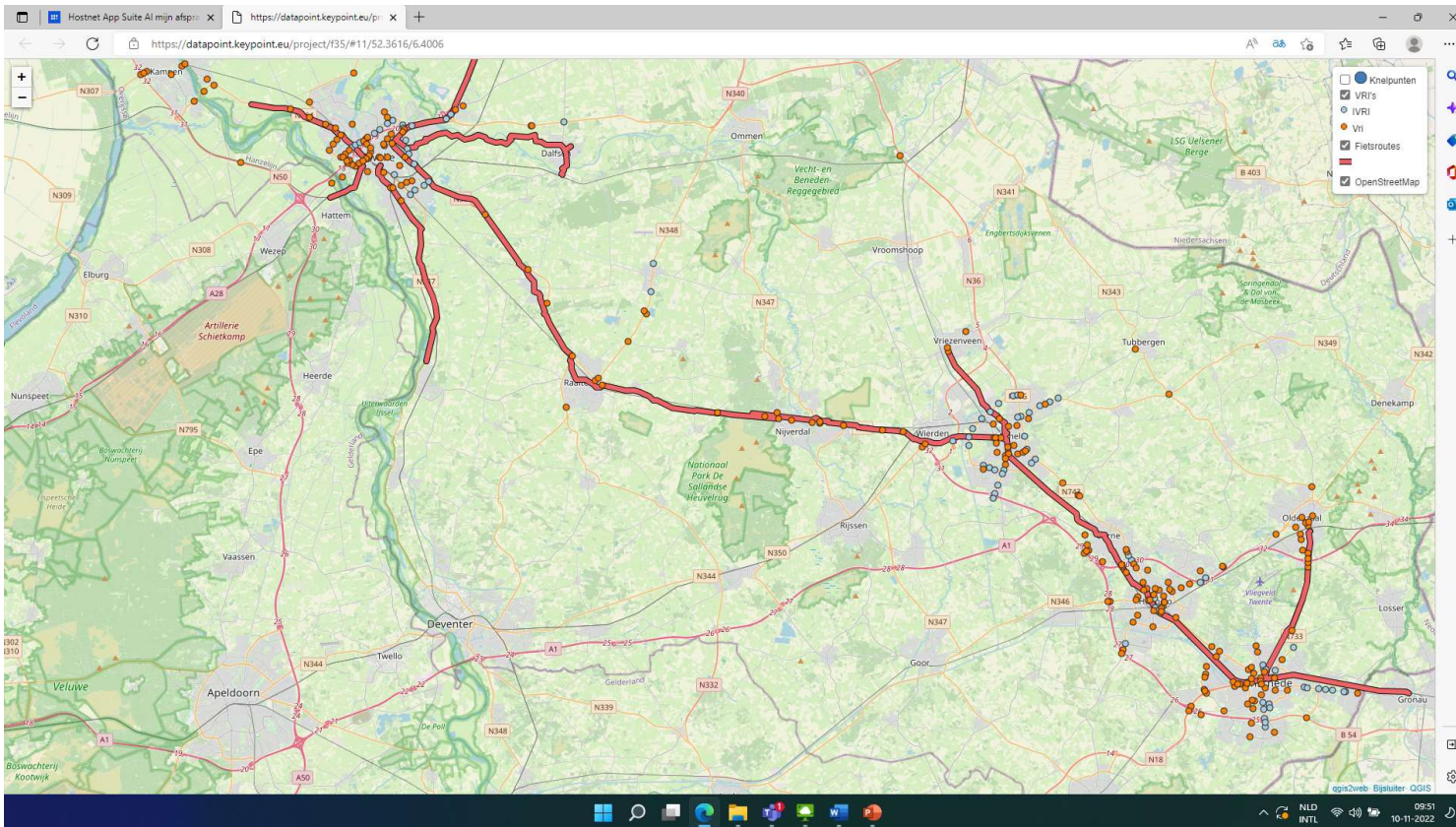


MegaBITS topics versus MegaBITS flagships

- **More focus on journey/corridor**
 - Priority smart traffic lights, bike parking, ISA
- **More focus on bike as part of mobility**
 - Bike in MaaS, bike and public transport
- **More focus on connected bikes**
 - Bike part of V2V, V2I and V2X
- **More focus on last mile logistics**
 - New challenges (routes, measures)
- **More focus on upscaling**
 - Successful projects or topics
- **More focus on integrating data**
 - All kinds of modalities, including bicycle



Smart Cycling Corridor F35 Overijssel





Priority for cycling groups (“bike chain”)



Source: Sweco



Objective:

Speed



Implementation:

Groups of cyclists get faster green
At crossings where both cyclists and cars should have priority



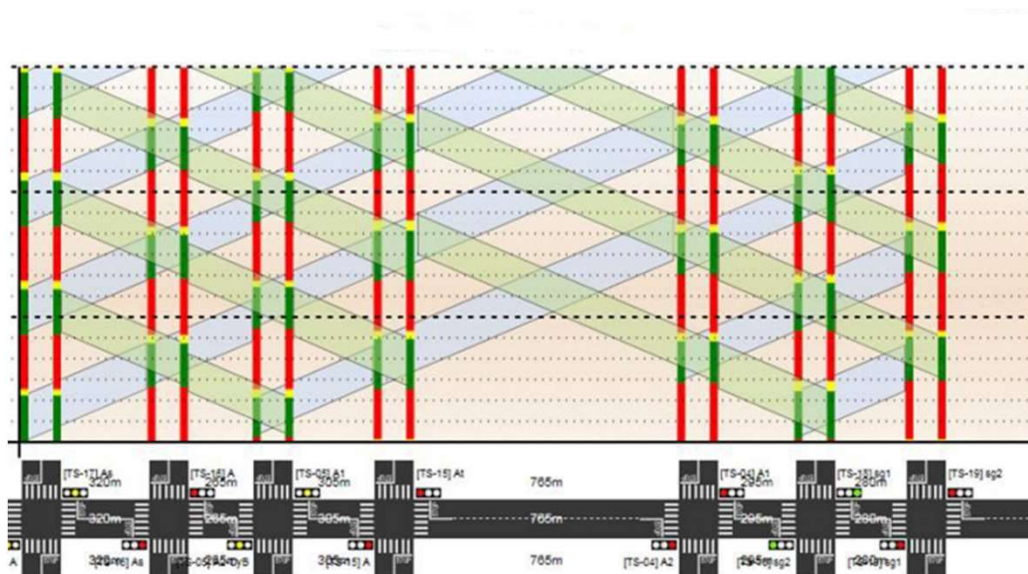
Technology:

Smart cameras
Smart traffic light

Green wave Copenhagen

By optimising the traffic signals to suit cyclists speed we create green waves. No smart traffic lights needed.

Green waves allow cyclists, if they maintain a constant speed of e.g. 20 km/h, to pass multiple intersections without stopping.



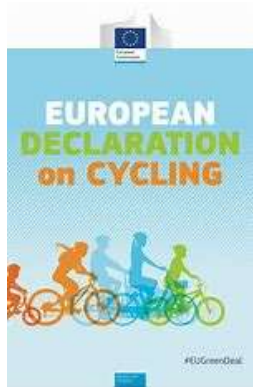


Smart Cycling Ecosystem

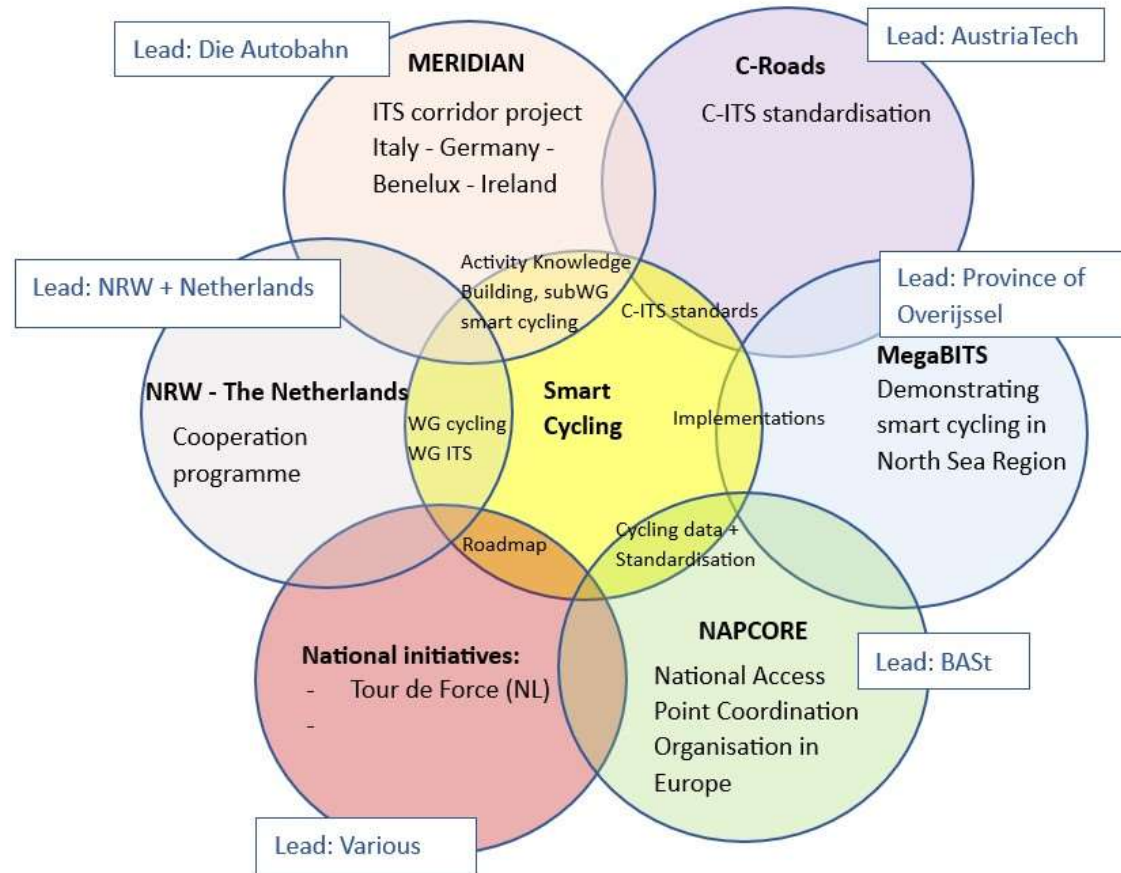


MegaBITS

Mobilizing Europe's Green Ambition through Bicycles and Intelligent Transport Systems



ITS implementations are missing !





More information (Mega)BITS community

 @MegaBITS_EU

 MegaBITS_EU

 www.interregnorthsea.eu/megabits

 info@cyclingindustries.com

MegaBITS





**Thank you for
your attention!**



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