# The ARTiculation of autonomous vehicles – Experiences from 1,5 year Danish pilot

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# Automated Road Transport Forum for the North Sea Region

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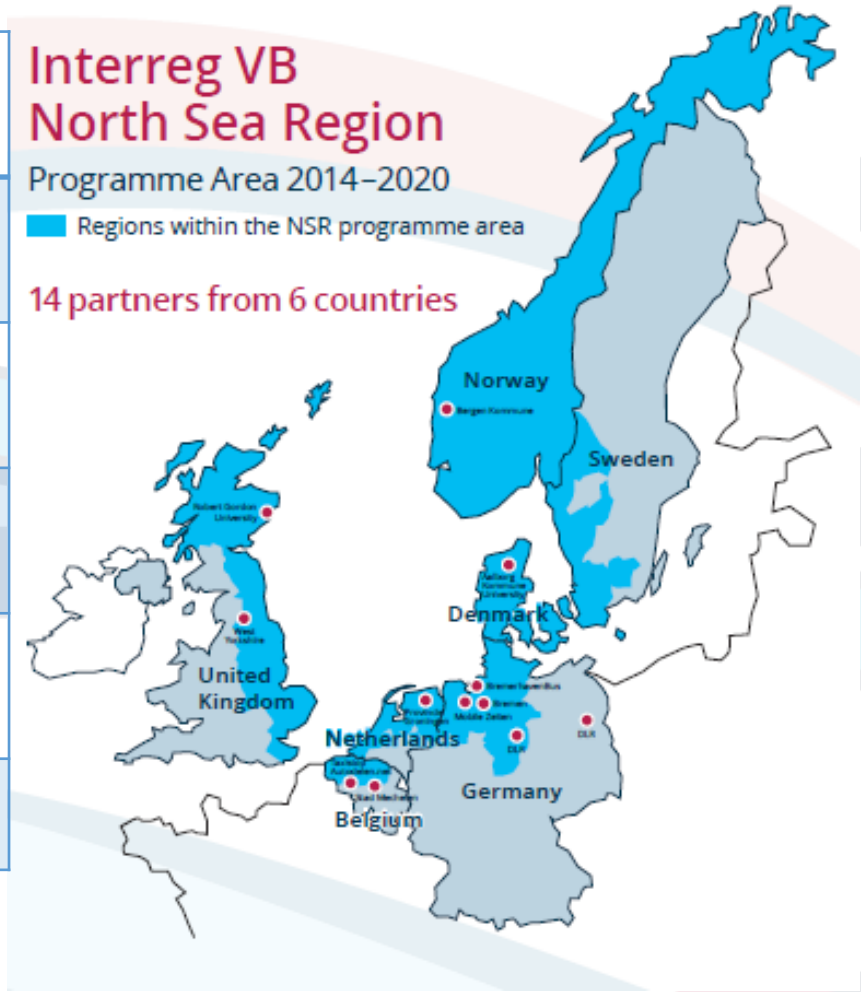
|---|---|
| **INTERREG Region** | **North Sea Region** |
| **Programm Priority** | Green transport and mobility |
| **Lead Partner** | Free Hanseatic City of Bremen |
| **Project Partner** | 14 partners (from 6 nations ) |
| **Period** | 3,5 years (01.03.19 – 31.08.22) |
| **Budget** | 4,30 Mio. Euro |




## Partners

Aalborg Kommune
Aalborg University
Auto Oelen .net
Bremerhaven Bus
City of Bergen
DLR
Mechelen
Mobile Zeiten
provincie groningen
Robert Gordon University Aberdeen
Taxistop
West Yorkshire Combined Authority

# Objectives

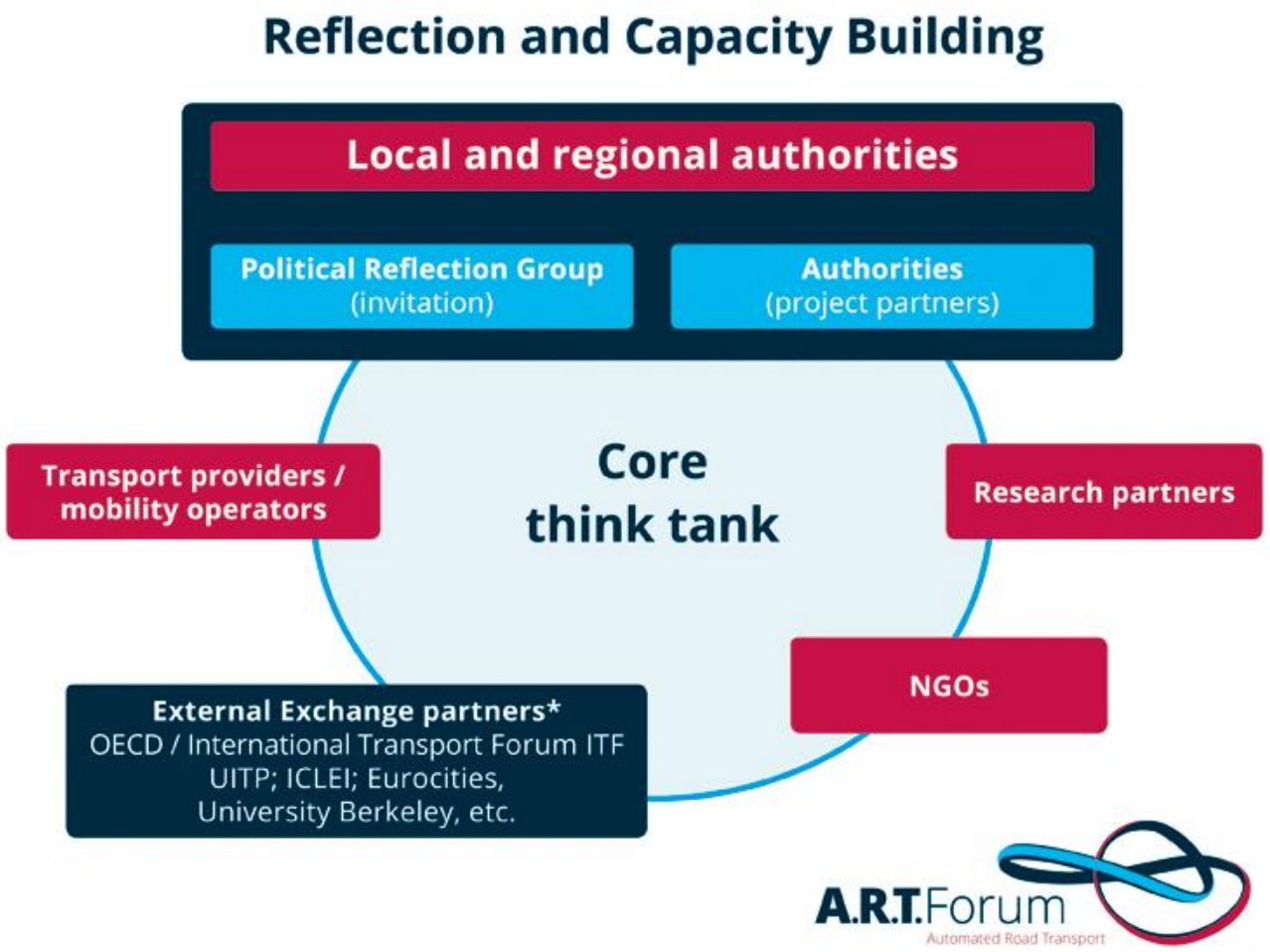

Industry develops automated driving alone

Involving planners and society

# Automated Road Transport Forum for the North Sea Region

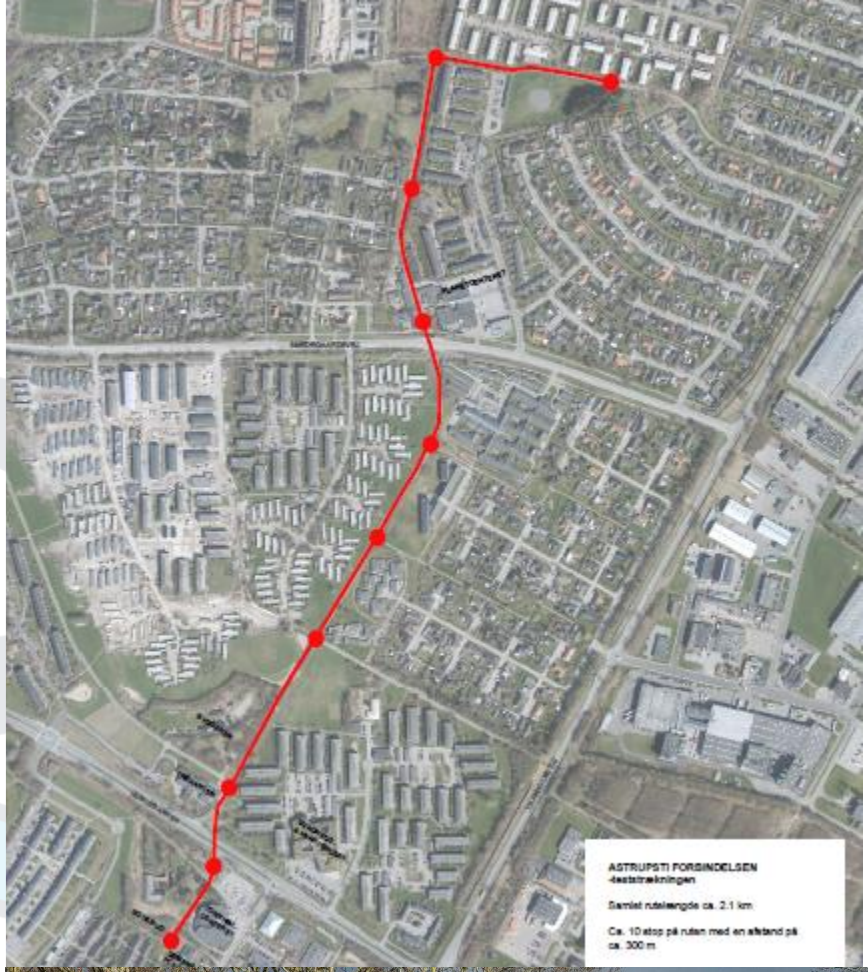
## Overall Objectives

- **Raise awareness** among public stakeholders
- Develop **policy recommendations** that enable local and regional authorities to take advantage of the opportunities of automated road transport
- **Support sustainable transport** and territorial development goals as well as **improve quality of life** in communities



# FACTS ABOUT A PILOT IN AALBORG (DENMARK)

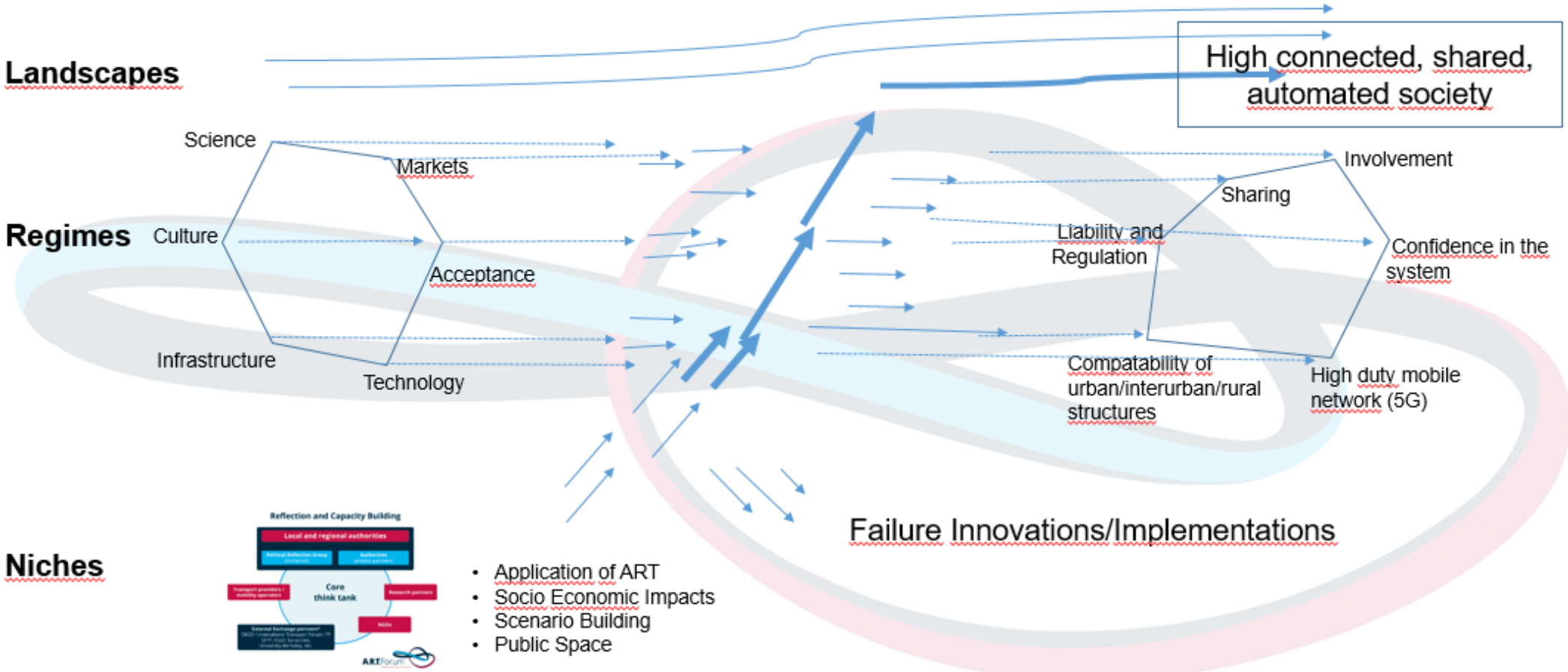
- 2.1 km public pathway
- 10 stops
- Busses and cyclists share the pathway, pedestrians are separated
- Operation every day from 7.00-21.00 every 15 minutes from march 2020- December 2021
- Operating on SAE-level 3 (our intention was SAE-level 4)
- Free of charge
- Maximum speed 18 km/h
- 2 busses operating while the 3rd one is charging
- 11 passengers (due to covid-19 only 5 passengers)





*“Mobilizing is more than running a pilot…and ART should always be a solution to a problem”*


# Socio-technical Approach



# If Autonomous Vehicles are the solution, what is the problem?

*AVs should not be considered a "technofix" and that it will likely come with new (perhaps bigger) challenges that we cannot predict*

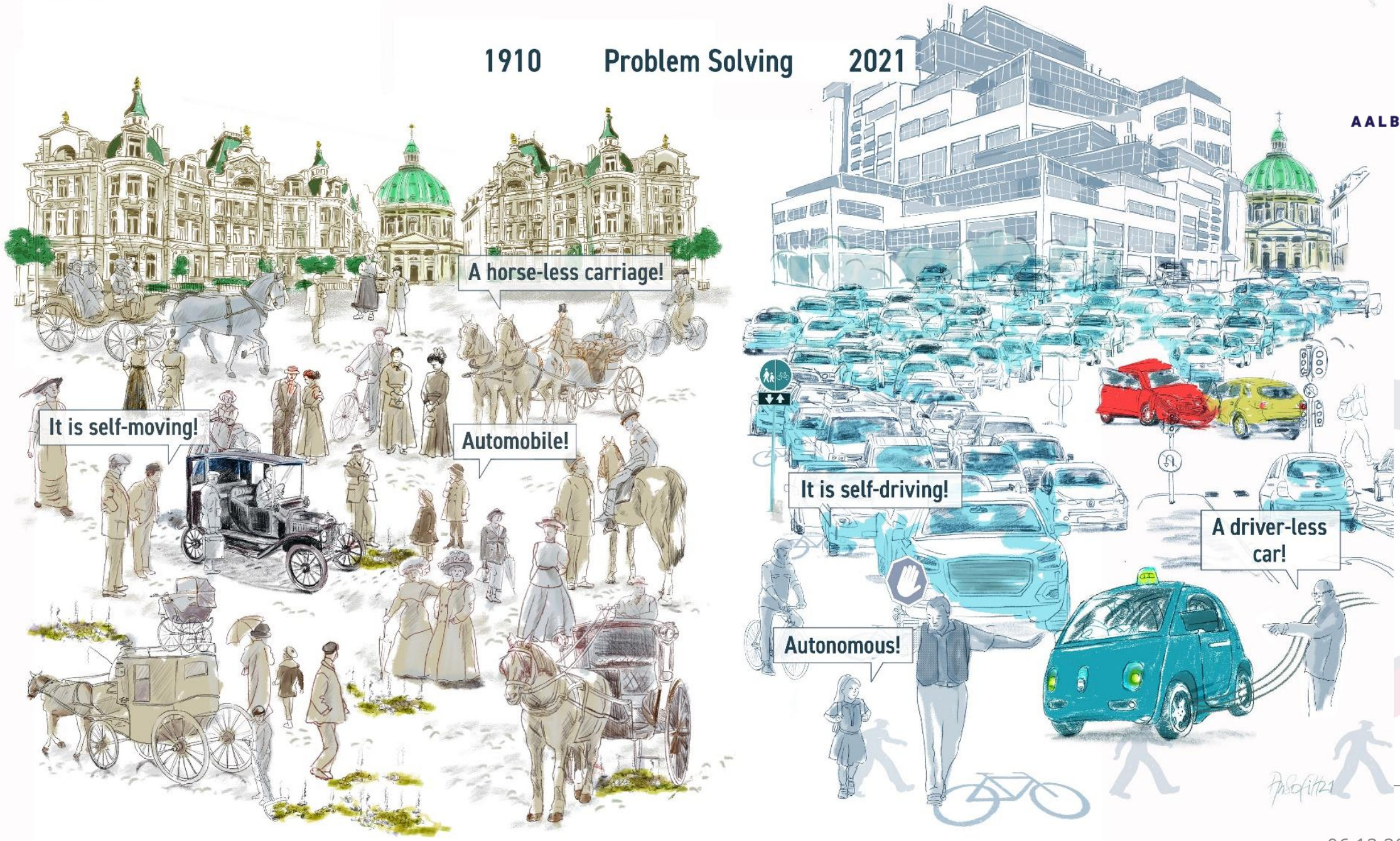



*Illustration: Anne-Sophie Helger.*

# Why?

**If Autonomous Vehicles are the solution, what is the problem?**

# How?

**Mobilizing is more than running a pilot…and ART should always be a solution to a problem!**

**While we wait for driverless cars, we should learn how to share them!**

# Who?

**The beginning of a sustainable roll-out of autonomous transport starts with the education of our youth**

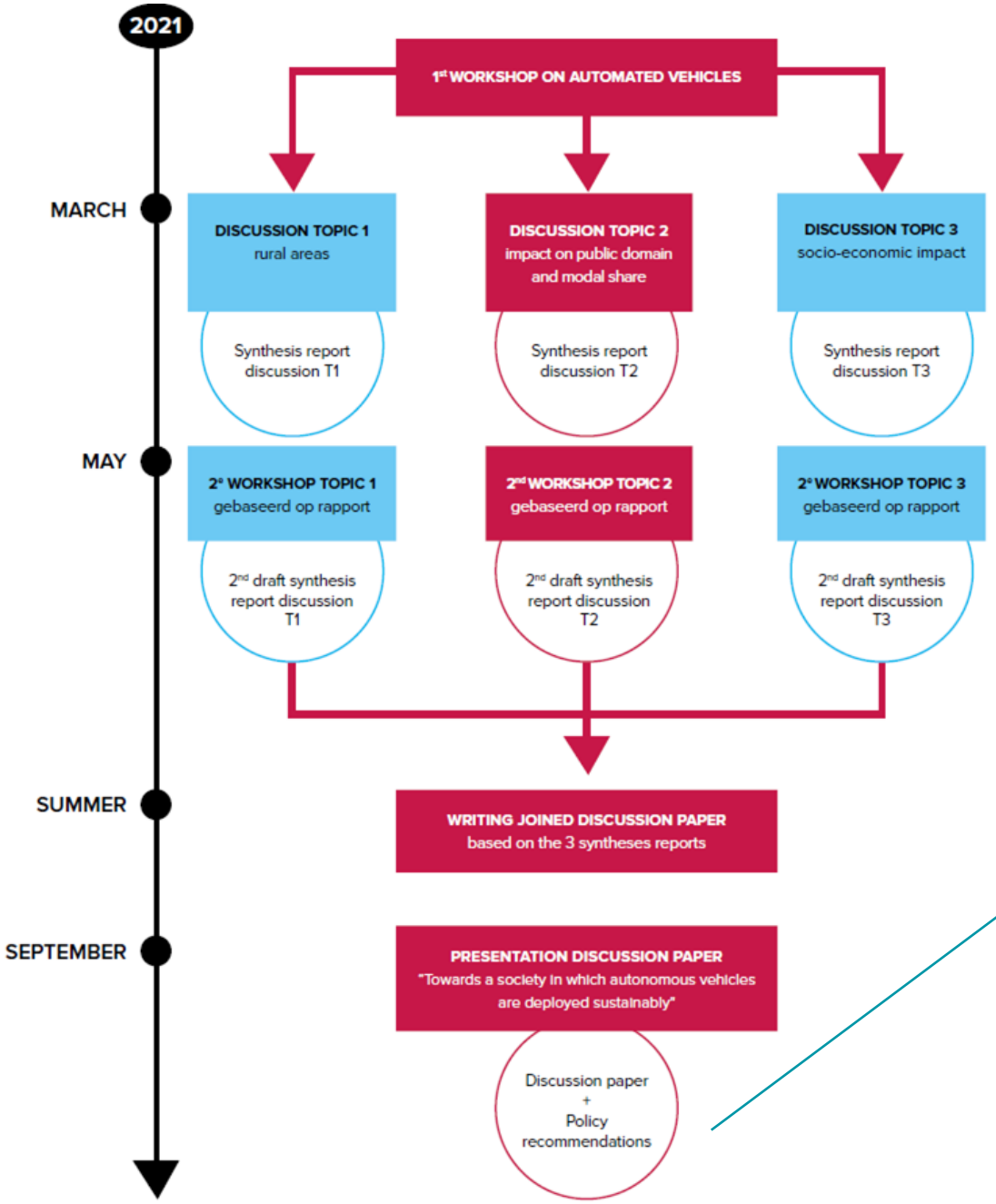
**Sustainable urban autonomous mobility needs a societal dialogue and the definition of societal goals and corresponding regulatory measures**

# Integration


# Being Realistic


# Discussion Paper

- 6 workshops
- 25 experts from academia, business, regional and local governments, user groups, …
- Experts from Belgium and The Netherlands
- Partners: Autodelen.net, Mpact and City of Mechelen





A.R.T.Forum Automated Road Transport

Interreg North Sea Region ART-Forum European Regional Development Fund

EUROPEAN UNION

Implement full Intelligent Speed Assistance as soon as possible in all cars

Stimulate and facilitate car sharing and shared mobility

Provide financial incentives to lower car use, e.g. smart kilometer charge

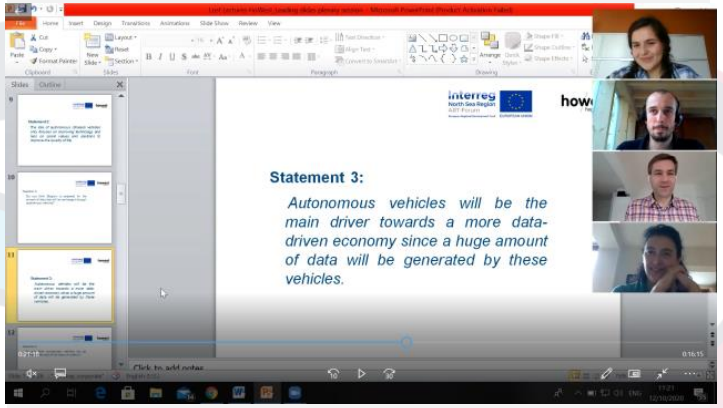
Smart mobility technologies should not focus primarily on the car

# Awareness & Talk value: Lost Lectures

## University of Hasselt: The impact of AV's on different transport modes


## University of Ghent: The impact of AV's on vulnerable groups

## College of HoWest: The role of AV's in the city of the future



# Key steps to our study

European Platform on Sustainable Urban Mobility Plans

(1) Definition of a sustainable transport system

(2) Identification of relevant societal actors

(3) Identification of design potentials

Efficiency & Effectiv-eness

Accessibility, Inclusion and Integration

Quality of Life & Sustaina-bility

**Administrations, politicians, mobility providers, logistics, local iniatiatives, research, NGO**

literature study & stakeholder workshop