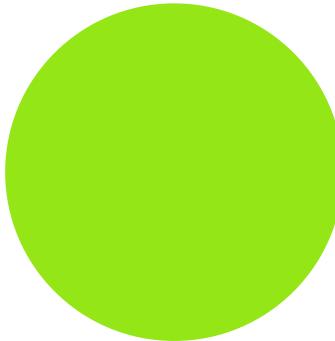




Erik Hoorweg

Vice President, Head Public Sector
Capgemini Invent

Als verantwoordelijke voor de Publieke Sector zoekt Erik naar de verbinding tussen maatschappelijke vraagstukken en de waarde die nieuwe technologieën daarin kunnen betekenen.



Edwin Heesakkers

Managing Director, EIT Urban Mobility
Innovation Hub West BV



Hans Teuben

Director Strategy en Innovation
Capgemini Invent

Hans adviseert samenwerkende overheden in Nederland en de EU op het gebied van smart cities en smart mobility. Ook leidt hij de smart city en smart mobility practice in Nederland.

Agenda



Society 5.0



**EIT &
technologie**

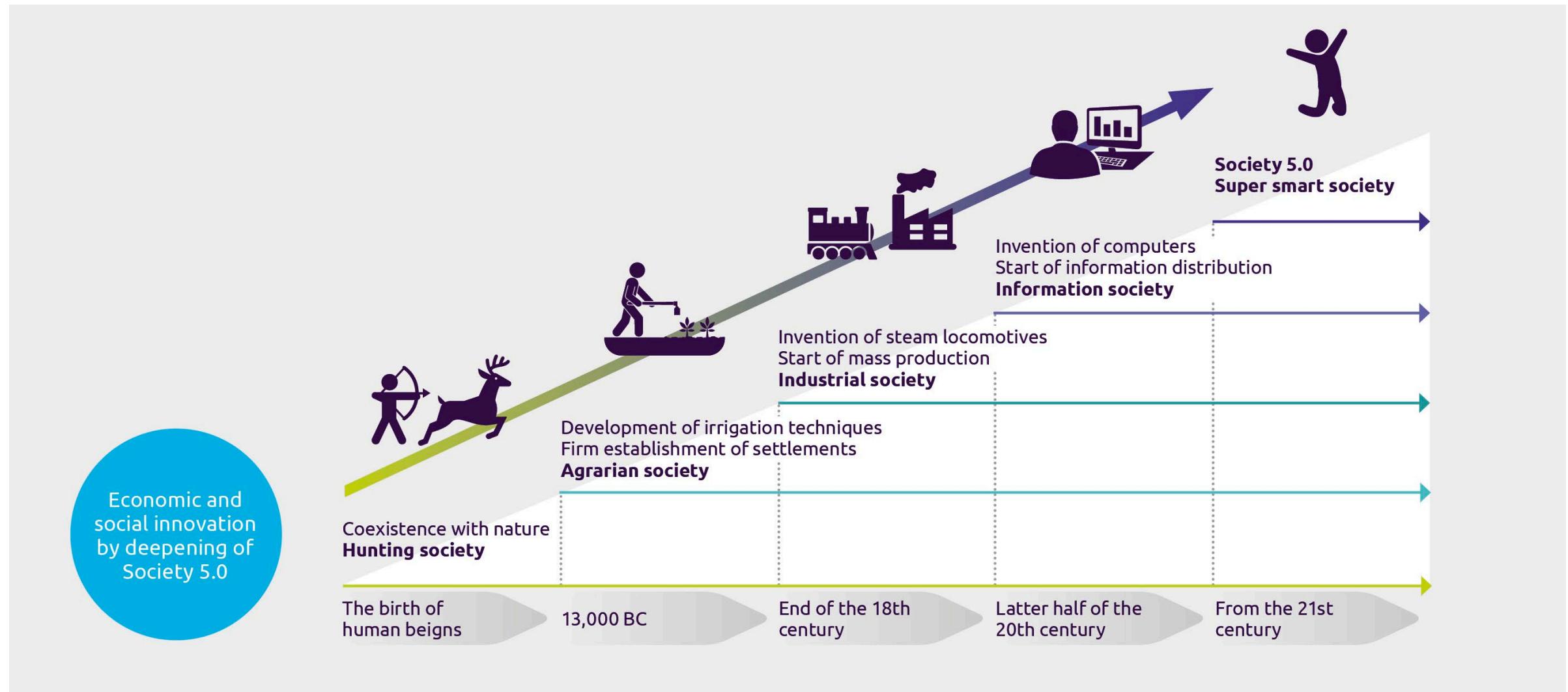


**Ecosytem
van Smart Cities
& Mobiliteit**



Society 5.0

Naar de Superslimme Samenleving





European Institute of Innovation & Technology



Urban Mobility

Solving the mobility ► challenges facing our cities together



Today's model for urban mobility is not sustainable and requires immediate change



23%

of Europe's GHG
emissions are
produced by transport

50%

of public space is
taken up by roads

67%

of road accidents
happen in cities

1 year

of our lives are
spent commuting

€130 bn

per year lost
due to congestion

GHG: Green House Gas - 'broeikasgas'

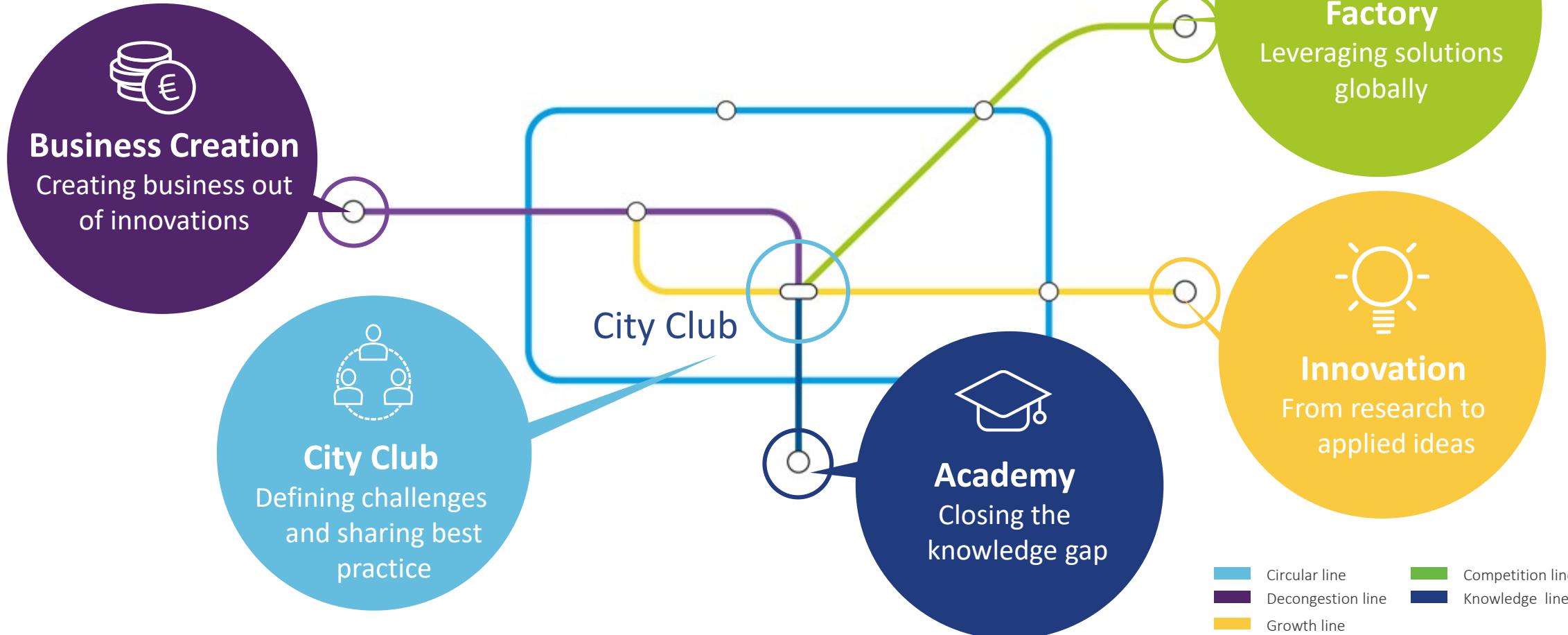
Cities today...



Cities tomorrow...



Solutions to complex problems call for an integrated approach: The EIT Urban Mobility map



The EIT Urban Mobility projects - 2020



Innovation Project

SHARED MOBILITY REwards
Increases carsharing efficient use by incentives while contributing to the integration with the existing overall transportation system and its sustainability



Policies and Regulations required for enabling the MaaS concept
Policies and Regulations required for enabling the MaaS concept

Novel regulatory approaches and governance schemes supporting policy makers in Europe lead a successful transition towards Mobility as a Service.



Innovation Project

Off-Street parking floating CARsharing service
We define, pilot and evaluate an innovative and sustainable carsharing service for dense cities without using public space



AI-TraWell
AI-powered, proactive Travel assistant to self-monitor user's experience & craft personalised travel solutions for promoting well-being – AI-TraWell



UrbanSmartPark
UrbanSmartPark focusses on the development of automated on-street inner-city parking providing a broad range of possible parking-related services



Innovation Project

Mapping Urban Transportation Innovation Ecosystems
Creating a strategic infrastructure for urban policy management in the field of urban mobility



Innovation Project

Smart mObility hUb pLatform
A new efficient and reliable DSS tool to foster data exploitation so as to enable future urban mobility systems to be more collaborative, user centred



smuD **MOBY**

Shared Micro depots for Urban pickup and Delivery
Provides a publicly acceptable solution and raise awareness for Shared Micro depots for Urban pickup and Delivery for the benefit of urban residents

MOBY:Living lab e-micromobility
MOBY focuses on the impacts of e-micromobility on cities, traffic, safety and public spaces by integrating knowledge from the pilot cities

[Read more](#)



Innovation Project

MaaS components assessment and system planning for cooperative value creation
Increases the efficiency and quality of MaaS through a clear definition of MaaS components and their dependencies

[Read more](#)



cityflows
CityFlows: Decision-support system for proactive crowding management in crowded urban spaces

[Read more](#)



CALL4SMS
Smart Mobility Solutions

Citizen Aimed Living Lab for Smart Mobility Solutions
Supporting the city eco-system transformation towards the next economy by the deployment of a platform-based financial model within the cities



Innovation Project

Bike-Longer
Modelling bicycle user behavior and preferences with focus on e-bikes and long distance bicycle trips.

zeus

Zero Emission off-peak Urban Deliveries - ZEUS
Concept for silent and emission free city deliveries providing a more liveable, cleaner and safer urban environment.

[Read more](#)



zeus

Smart trash detection and damage prevention for shared mobility
Improves the cleanliness in shared vehicles, trains, and trams. The project will demonstrate a machine-vision based trash detection system, odour detection system as well as develop materials more suitable for shared vehicle applications

Background of the project



- Cities in Europe and worldwide are getting increasingly busy:
 - ✓ 70% of people live in urban regions by 2050 [UN]
 - ✓ 6% growth of international tourist arrivals in Europe in 2018
- Cities need to manage mixture of citizens, tourists and event visitors
- New sensing technologies are promising, in particular when combining multiple sensors → Delft University of Technology Crowd Monitoring Dashboard

Objective

To improve the liveability of crowded pedestrian spaces in European cities through the provision of decision-support for the management of pedestrian flows in the context of tourism, transfer hubs and mass events.



Involved European living labs



Milan
Milano Centrale



Barcelona
Sagrada Familia

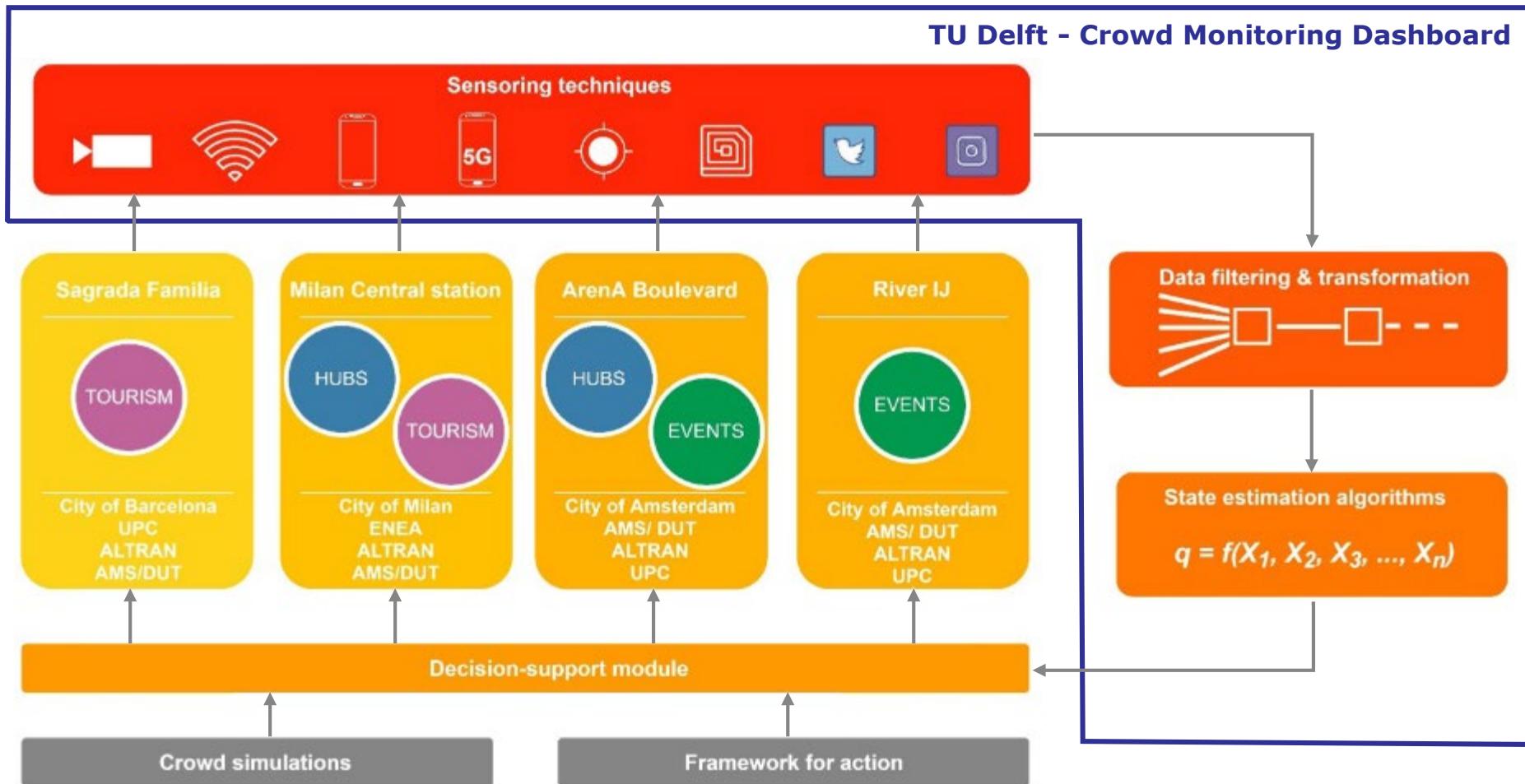


Amsterdam
ArenA – EURO 2020 2021



Amsterdam
Sail 2020 COVID-19

Project framework



CityFlows outputs

1

SaaS service:
customizable, flexible
plug-and-play
CityFlows Decision
Support System

2

An associated scenario-based framework of action for crowd management

3

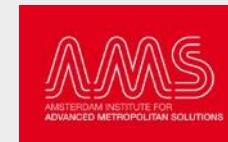
A start-up that will bring CityFlows Decision Support System to market

Contacts | Partners

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www.cityflows-project.eu

alTRAN



TU Delft
Delft University of Technology

ENEA

X Gemeente
X Amsterdam



Ajuntament
de Barcelona

Milano
 Comune
di Milano

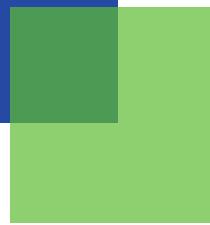


eit Urban Mobility

 **cityflows**
europe



Ecosysteem van Smart Cities & Mobiliteit



OnDijon



<https://www.youtube.com/watch?v=KVy4-fs6oKI>



The Urban Mobility Operating System

Vision

UMOS is envisioned as a universal open service platform for optimized, customized and seamless mobility for the traveler.

UMOS Platform

UMOS aims to achieve its vision through a service platform accessible to travellers via an application (mobile/web) and to other systems.

UMOS is Not-for-Profit

Parallel to the case for the mobility service providers, MaaS providers are scattered, often aiming to address the needs of local or regional travelers, leading to a more fragmented ecosystem.



UMOS Operating Modes

UMOS will operate in 3 concurrent modes, Mode A, Mode B, Mode C.

UMOS & Mobility Providers

Offering different operating modes aims to address distinct concerns of mobility service providers.

UMOS & Governmental Bodies

UMOS will also cooperate strongly with governmental bodies to help them implement certain mobility policies in their area of control.

Contacts | Partners

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- marc.boijens@altran.com

www.umos-alliance.eu

alTRAN

achmea 

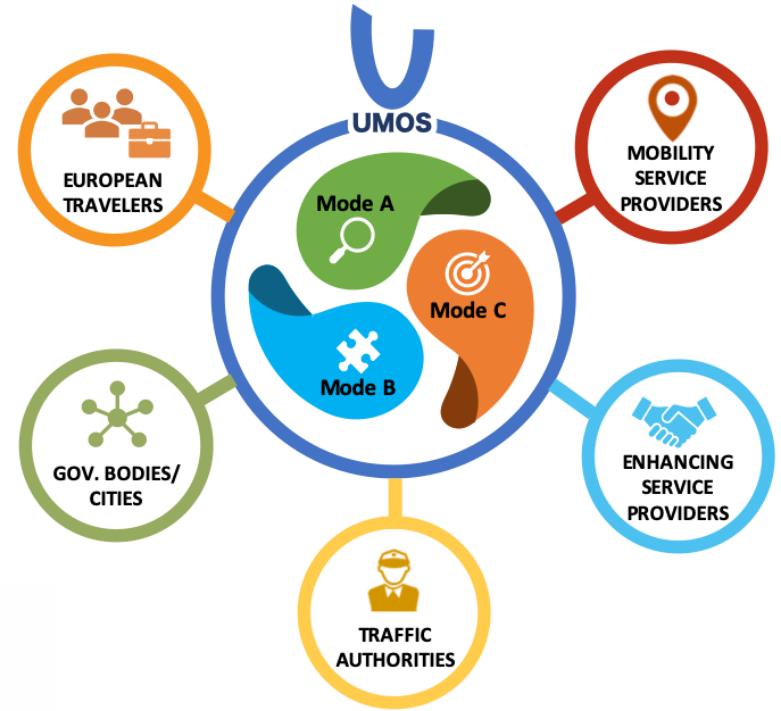
TU/e

EINDHOVEN
UNIVERSITY OF
TECHNOLOGY


UCL
Institute of Education

 EINDHOVEN

 eit Urban Mobility



 UMOS

Modal shift: wat heeft echt impact op ander reisgedrag?



Technologie



Data



Gedrag



Regulering en meer speelruimte voor steden / regio's

Alternatief aanbod en ruimtelijke voorzieningen

Andere routines inbouwen onderweg

Dynamisch beprijsen

Benutten van life events en werkgevers





Stad:
effectief
beheersbaar
schaalbaar
future proof

Bewoner:
bereikbaar
leefbaar
inclusief
schoon & veilig

Bedrijfsleven
nieuwe business
participatie



kennisinstellingen
research data
innovatie