Join the ITS European Congress

ITS: The Game Changer

22-24 May 2023

Website: www.itseuropeancongress.com
Twitter: @ITS_Congress @ERTICO #ITSLisbon2023

EUROPEAN CONGRESS

LISBON, PORTUGAL
22-24 MAY 2023

ITS: The Game Changer.

INTRODUCTION

LISA BOCH-ANDERSEN

DIRECTOR OF CONGRESSES,
COMMUNICATIONS & EVENTS
ERTICO-ITS EUROPE

LISBON
23

Webinar Series

#	Date	Congress topic
1	26 Jan	Cooperative, Connected and Automated Mobility
2	**23 Feb**	**New Mobility Services**
3	06 Apr	Future Traffic management
4	11 May	Digitalisation and Freight & Logistics

Agenda

Webinar #2	New Mobility Services
Date and Time	**23 February, Thursday, 2:00 – 3:15pm CET**
Host & Chair	**Lisa Boch-Andersen** – Director of Communications, Congresses & Events, ERTICO-ITS Europe
Speakers	• **Joost Vantomme** – CEO, ERTICO-ITS Europe - *ERTICO's Congress mission & welcome* • **Lisa Boch-Andersen** – Director of Communications, Congresses & Events, ERTICO-ITS Europe - *Birds-eye view of the Lisbon Congress* • **John Paddington** – Senior Manager, Innovation & Deployment, ERTICO-ITS Europe - *panel moderation* • **Petra Soderqvist** – Policy Officer, European Commission, DG MOVE - *Multimodal transport – what's in the Commission pipeline 2023* • **Oihana Otaegui** – Head of ITS and Engineering, Vicomtech - *New mobility and skills developments – changes, challenges and opportunities: A CCAM perspective* • **Oscar Mellegers** – Director Product Management, Verra Mobility - *The price of shared mobility* • **Franco Rosso** – International Sales & Business Development Manager, ioki – a DB company - *How DRT services can strengthen public transport systems*

House Rules

❑ All attendees will be muted – '*in listen only mode*'

❑ The webinar will be recorded & shared through ERTICO's communication channels

❑ Please type in your questions in the **Q&A window** of Teams or **email** **congresspr@mail.ertico.com**

WELCOME

JOOST VANTOMME

CEO
ERTICO-ITS EUROPE

LISBON

23

Email Questions to
congresspr@mail.ertico.com

Making mobility smarter, safer & more sustainable

Joost Vantomme,
CEO
ERTICO-ITS Europe
23rd February 2023

ERTICO: a unique public private partnership

Bringing together
120 Partners from 8 sectors since 1991
to make mobility **smarter**, **cleaner, safer**
and **more efficient.**

Geographical scope: EMEA

www.ertico.com

Traffic & Transport Industry

Service Providers

Research

Connectivity Industry

Vehicle Manufacturers

Suppliers

Users

Public Authorities

ERTICO ITS EUROPE

ITS
Intelligent Transport Systems

Mobility Apps

Automated driving

Drones

Data exchange

Traffic management

Artificial Intelligence

Mobility as a Service

Transport and Logistics

Navigation

Intelligent Infrastructure

Safety

Multimodality

Payment Systems

V2X Communication

eMobility

2023: gearing up for increased traction

Digital

Green

Urban

People & freight/logistics

Inclusion

Increased dialogue & partnerships

Lisbon hosting the game

- **Lisbon** is committed to being **carbon neutral by 2030** and set an example of how cities can address **the global challenge of climate change**.
- The strategy is focused on **promoting renewable energy** and enhancing the **resilience of its infrastructure**.
- Achieving carbon neutrality includes developing a **sustainable mobility plan** that promotes **walking**, **cycling** and **public transportation**.

> **Lisbon has**
> a modern and efficient transportation system;
> state-of-the-art infrastructure;
> vibrant cultural and economic environment;
> **Making it**
> an ideal location for hosting an international conference on ITS

Source: ITS Portugal

The 15th ITS European Congress

High Level Programme

Smart Mobility Summit of Cities & Regions, Plenaries, Opening & Closing Ceremonies

Technical Programme

Sessions and presentations on the latest developments in ITS

Exhibition

Booths and dedicated events

Demonstrations

Showcases of current ITS technology being developed and deployed throughout Europe
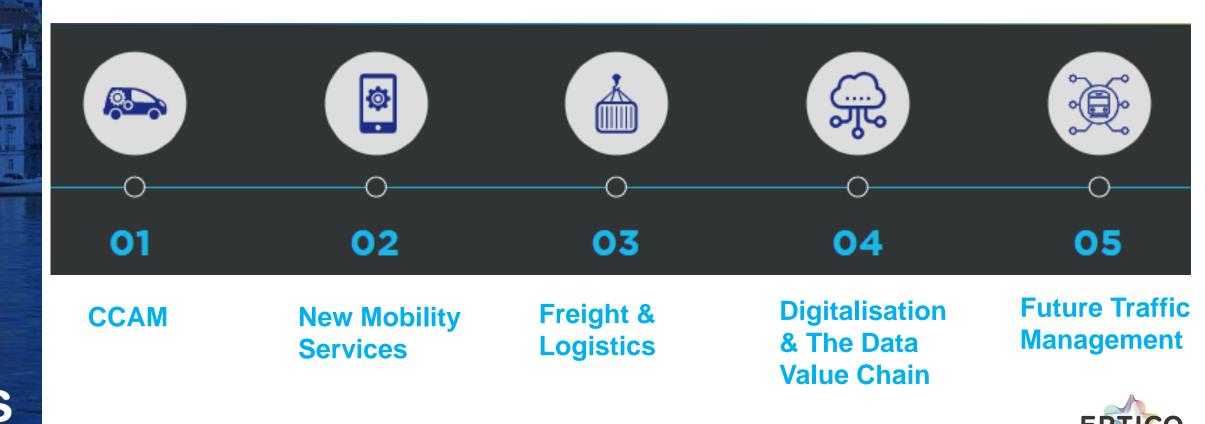
CONNECTING THE DOTS....

Social Events

Associated Events

Programme at a Glance of the ITS European Congress 2023

Programme at a Glance

Time	Monday 22 May				Tuesday 23 May			Wednesday 24 May			Time
08:00	Breakfast sessions 8:00-9:00				Breakfast sessions 8:00-9:00			Breakfast sessions 8:00-9:00			08:00
08:15											08:15
08:30				Demonstrations & Technical Visits 08:30 – 18:00			Demonstrations & Technical Visits 08:30 – 18:00			Demonstrations & Technical Visits 8:30 – 17:00	08:30
08:45											08:45
09:00					Plenary 2: 9:00-10:00			Specialist sessions 9:00-10:00		Public Day 08:30 – 17:00	09:00
09:15											09:15
09:30		Smart Mobility Summit of CITIES & REGIONS 9:30-13:30									09:30
09:45											09:45
10:00					Coffee break			Coffee break			10:00
10:15											10:15
10:30	Specialist sessions 10:30-11:30				Specialist sessions 10:30-11:30			Specialist sessions 10:30-11:30			10:30
10:45											10:45
11:00											11:00
11:15											11:15
11:30											11:30
11:45	Specialist sessions 11:45-12:45				Specialist sessions 11:45-12:45			Specialist sessions 11:45-12:45			11:45
12:00			Exhibition 12:00 – 19:00			Exhibition 08:30 – 18:30			Exhibition 08:30 – 18:30		12:00
12:15											12:15
12:30											12:30
12:45	Lunch break 12:45-14:00				Lunch break 12:45-14:00			Lunch break 12:45-14:00			12:45
13:00											13:00
13:15											13:15
13:30		Summit Lunch 13:30-14:30									13:30
13:45											13:45
14:00	Specialist sessions 14:00-15:00				Plenary 3: 14:00-15:00			Specialist sessions 14:00-15:00			14:00
14:15											14:15
14:30											14:30
14:45											14:45
15:00											15:00
15:15	Plenary 1: 15:15-16:15				Specialist sessions 15:15-16:15			Plenary 4: 15:15-16:15			15:15
15:30											15:30
15:45											15:45
16:00											16:00
16:15					Coffee break			Closing Ceremony 16:15-17:00			16:15
16:30	Opening Ceremony & Ribbon Cutting 16:30-17:45										16:30
16:45					Specialist sessions 16:45-17:45						16:45
17:00								Exhibition closing / farewell reception 17:00-18:00			17:00
17:15											17:15
17:30											17:30
17:45	Exhibition Welcome reception 17:45-19:00										17:45
18:00											18:00
18:15											18:15
18:30								Dismantling exhibition			18:30
18:45											18:45
19:00											19:00
19:15											19:15
19:30	VIP Dinner				Gala Dinner						19:30
19:45											19:45
20:00											20:00
20:15											20:15
20:30											20:30
22:00											22:00

Congress Topics

ITS: The Game Changer

01 CCAM

02 New Mobility Services

03 Freight & Logistics

04 Digitalisation & The Data Value Chain

05 Future Traffic Management

ERTICO
ITS EUROPE

Congress Plenary

1. **Digitalisation - What can we expect?**

22 May 2023, Monday, 15:15-16:15
SPEAKERS: SWARCO, DG-CONNECT, ERTICO, HUAWEI

2. **CCAM - How green can we go?**

23 May 2023, Tuesday, 09:00-10:00
SPEAKERS: QUALCOMM, DG-RTD, INFRASTRUCTUREUS PT

3. **Integrating Road, Rail, Air, Waterborne - Multimodality, by any means?**

23 May 2023, Tuesday, 14:00-15:00
SPEAKERS: EUROPE'S RAIL JOINT UNDERTAKING, IMT

4. **Managing Urban Mobility Space – What can we expect from the cities in the future?**

24 May, Wednesday, 15:15 – 16:15
SPEAKERS: TRANSPORT FOR LONDON, CTAG, CITY OF HAMBURG

High Level Speakers (1)

Pearse O'Donohue
Director, Future Networks
Directorate, DG CNECT
European Commission

Prof João Caetano
Chairperson of the Board at IMT
**IMT (Instituto da Mobilidade
e dos Transportes)**

Jan Ellsberger
Vice President Industry
Development
Huawei

Jenny Simonsen
Chief Operating Officer
(Moderator)
ITS Norway

Miroslav Haltuf
Acting Chair of the States
Representatives Group
**Europe's Rail Joint
Undertaking**

Stephanie Leonard
Head of Government and
Regulatory Affairs (Moderator)
TomTom

High Level Speakers (2)

Torsten Klimke
Head of the Innovation and Research Unit, DG MOVE
European Commission

Rosalinde van der Vlies
Director of Clean Planet, DG RTD
European Commission

Martin Huber
Head of Traffic & Roads
BVM (Authority for Mobility Transition), Free and Hanseatic City of Hamburg

Francisco Sánchez Pons
Electronics, ITS & Smart Mobility Director
CTAG

Joost Vantomme
Chief Executive Officer
ERTICO

Michael Schuch
Chief Executive Officer
SWARCO AG

Smart Mobility Summit

22nd May | **Keynote Speaker Torsten Klimke, DG MOVE, European Commission**

- **A forum to support the smart mobility agenda of local authorities**
  - city and regional authority decision makers meet to share best practices and success stories, identify gaps and seek Smart Mobility Solutions that best meet their citizens' needs
- **4 Thematic table discussions**
  - allocating city road space
  - setting and using smart mobility indicators
  - collecting and using mobility data
  - transitioning to sustainable mobility

Exhibition tour

Invitation only

Technical Programme

The Technical Programme will include a range of **specialist sessions** that offer expert from the ITS community an opportunity to address the status of mobility from a technical perspective, focusing on research and innovation, and the impact related to the deployment of new technologies
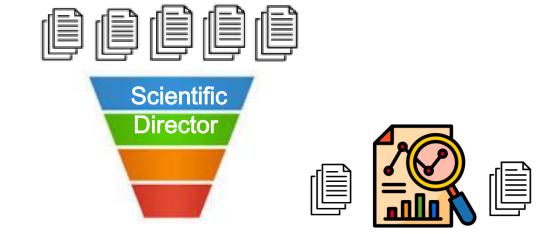
✓ Specialist Interest Sessions | SIS

✓ Strategic Future Sessions | SFS

✓ Technical | Research Paper Sessions

✓ Start-up Presentation Sessions

Technical Programme - Selection Process

Scientific Director

SIS,
Strategic Future Sessions
Start-ups ppt
➡ **Programme Committee Members**

Research
And
Technical Papers
➡ **Selected papers Reviewers**

8 March Validation of provisional status of all contributions
➡ European Programme Committee Members
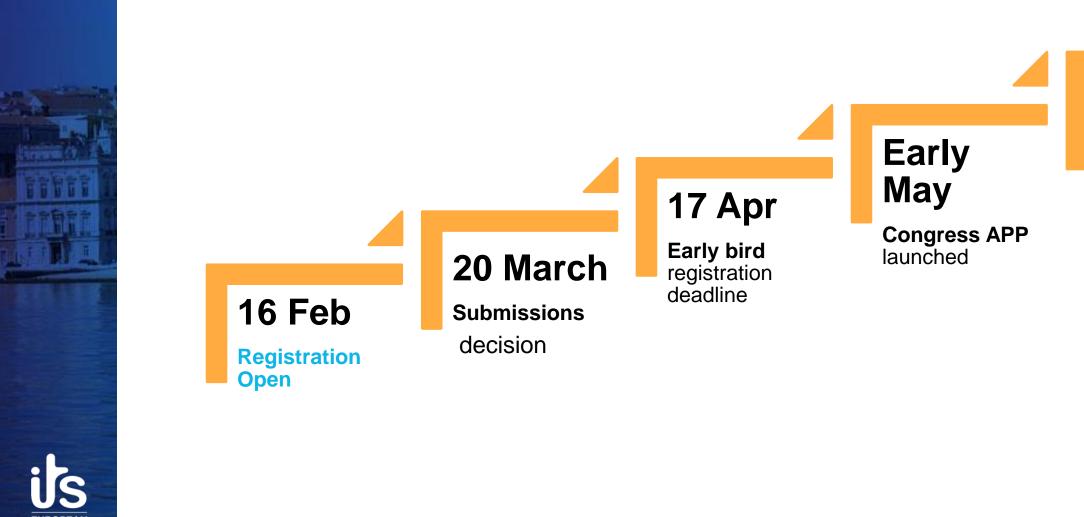
From 20 March Decisions sent to submitters

Time Line

16 Feb
Registration Open

20 March
Submissions decision

17 Apr
Early bird registration deadline

Early May
Congress APP launched

22 May
Congress opens

Registrations

16 Feb | **Opening of registration**

17 April | **Early bird Rates**

18 April to 8 May | **Standard Rates**

As of 9 may | **Full Rates**

REGISTER NOW

Delegate tickets
Full access - Access to Exhibition, Demonstration, High level programme, technical sessions, catering included

Exhibitor tickets
Access to Exhibition, Demonstrations & High Level Programme
!! For confirmed exhibitors - reduced delegate tickets available

Visitor tickets:
Access to Exhibition, Demonstrations & High Level Programme

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EUROPEAN
CONGRESS

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Showcase Partners

Carrier Partner

Engagement Partners

General Partners

ITS Lisbon Exhibitors 1

Social Events

Join us!

22nd May | **Welcome Reception**

23rd May | **Gala Dinner**

24th May | **Farewell Reception**

EUROPEAN CONGRESS
LISBON, PORTUGAL
22-24 MAY 2023

ITS: The Game Changer.

Social Events

Communication Channels

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ITS: The Game Changer.
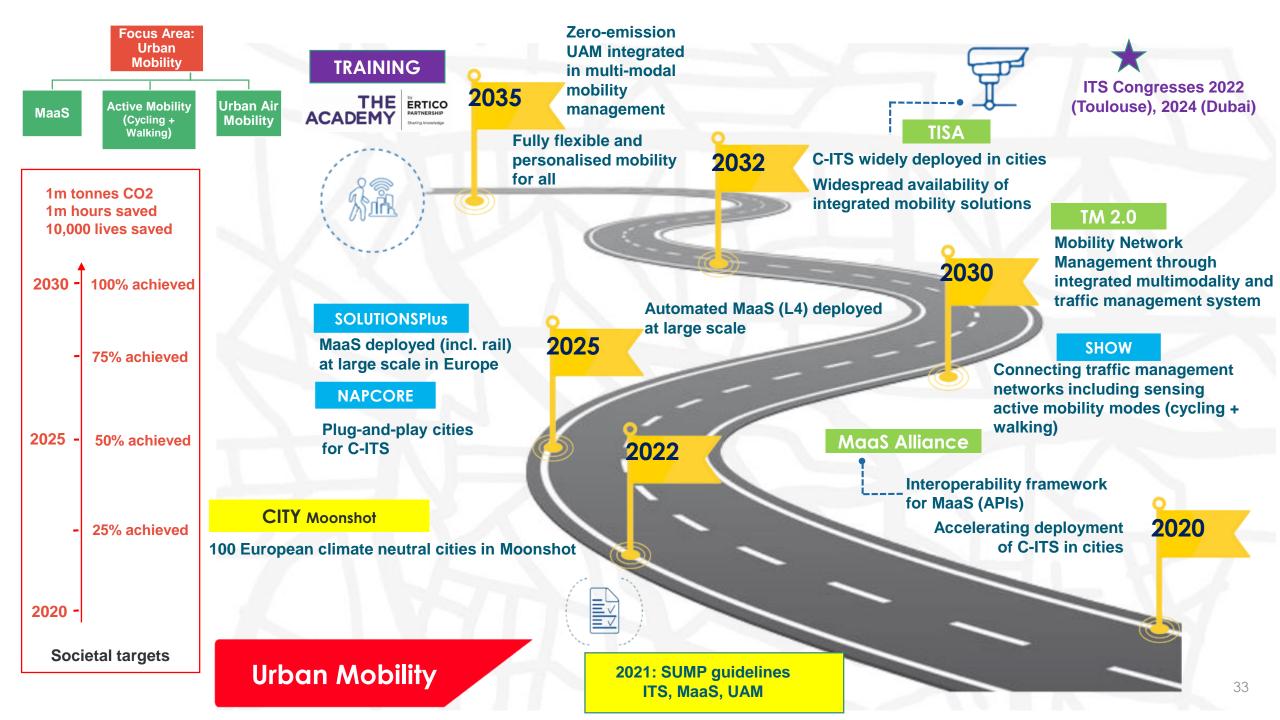
www.itseuropeancongress.com

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NEW MOBILITY SERVICES

JOHN PADDINGTON

SENIOR MANAGER, INNOVATION & DEPLOYMENT
ERTICO-ITS EUROPE

LISBON

23

Email Questions to
congresspr@mail.ertico.com

Focus Area: Urban Mobility
- MaaS
- Active Mobility (Cycling + Walking)
- Urban Air Mobility

Societal targets

1m tonnes CO2
1m hours saved
10,000 lives saved

2030	100% achieved
	75% achieved
2025	50% achieved
	25% achieved
2020	

Urban Mobility

TRAINING
THE ACADEMY by ERTICO PARTNERSHIP — Sharing knowledge

2035
Zero-emission UAM integrated in multi-modal mobility management
Fully flexible and personalised mobility for all

2032
C-ITS widely deployed in cities
Widespread availability of integrated mobility solutions

2030
Automated MaaS (L4) deployed at large scale

SOLUTIONSPlus
MaaS deployed (incl. rail) at large scale in Europe

NAPCORE
Plug-and-play cities for C-ITS

2025

2022

CITY Moonshot
100 European climate neutral cities in Moonshot

2021: SUMP guidelines ITS, MaaS, UAM

TISA

ITS Congresses 2022 (Toulouse), 2024 (Dubai)

TM 2.0
Mobility Network Management through integrated multimodality and traffic management system

SHOW
Connecting traffic management networks including sensing active mobility modes (cycling + walking)

MaaS Alliance
Interoperability framework for MaaS (APIs)
Accelerating deployment of C-ITS in cities

2020

33

Real world urban mobility demonstrations
And knowledge sharing / capacity building

Speakers

Petra Söderqvist
Policy Officer
European Commission

Dr Oihana Otaegui
Head of ITS and Engineering
Vicomtech

Franco Rosso
International Sales & Business Development Manager
Ioki

Oscar Mellegers
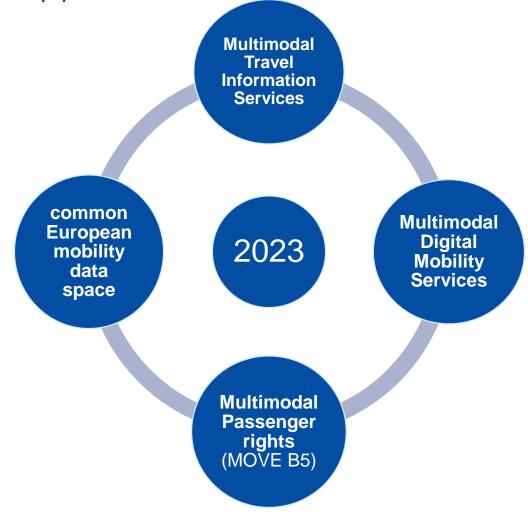Director of Product Management Europe
Verra Mobility

Multimodal transport
– *what's in the Commission pipeline 2023*

Petra Soderqvist

DG MOVE, Unit B4 Sustainable and Intelligent Transport

Brussels, 23 February 2023

Multimodal transport

– what's in the Commission pipeline 2023?

- Multimodal Travel Information Services
- Multimodal Digital Mobility Services
- Multimodal Passenger rights (MOVE B5)
- common European mobility data space

2023

European Commission

Multimodal transport
– what's in the Commission pipeline 2023?

Multimodal Travel Information Services (MMTIS)

- European Green Deal
  - Multimodal transport needs a strong boost
  - Automated and connected multimodal mobility will play an increasing role
- Sustainable and Smart Mobility Strategy
  - Flagship 6: 'Making connected and automated multimodal mobility a reality' (action 36)
- Revision of Delegated Regulation 2017/1926, priority (a) under the ITS Directive
- Main change – mandatory accessibility of dynamic data
- Planned date for adoption Q2 2023 (tbc)

European Commission
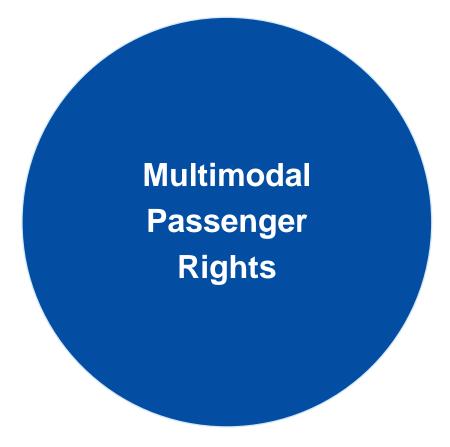
Multimodal transport
– what's in the Commission pipeline 2023?

Multimodal Digital Mobility Services (MDMS)

- New legislative initiative
- Sustainable and Smart Mobility Strategy
  - Flagship 6: 'Making connected and automated multimodal mobility a reality' (action 37)
- EU framework to increase the deployment of digital mobility services within and across modes
  - To improve multimodality and sustainability
  - Addresses market challenges for MDMS
  - Information, booking, payment
- Planned date for adoption Q2 2023 (tbc)

Multimodal transport
– what's in the Commission pipeline 2023?

Multimodal Passenger Rights
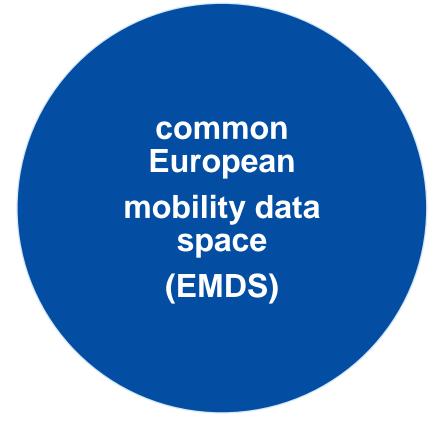
- Sustainable and Smart Mobility Strategy
  - Boost multimodal transport
- Review of the passenger rights regulatory framework
  - Options for multimodal ticketing
- Coherence with other multimodal initiatives (MDMS)
- Planned during 2023 (tbc)
- (DG MOVE Unit B5 in charge)

European Commission

Multimodal transport
– what's in the Commission pipeline 2023?

common European mobility data space (EMDS)

- Communication
- Announced in the European strategy for data
  - To facilitate access, pooling and sharing of data from existing and future transport and mobility data sources
- Main objectives
  - Identify crucial data and increase their availability to support services considered essential across the EU's territory, covering themes from sustainability to multimodality
  - Help users in the discovery of available data sources
- Reference to MMTIS and MDMS
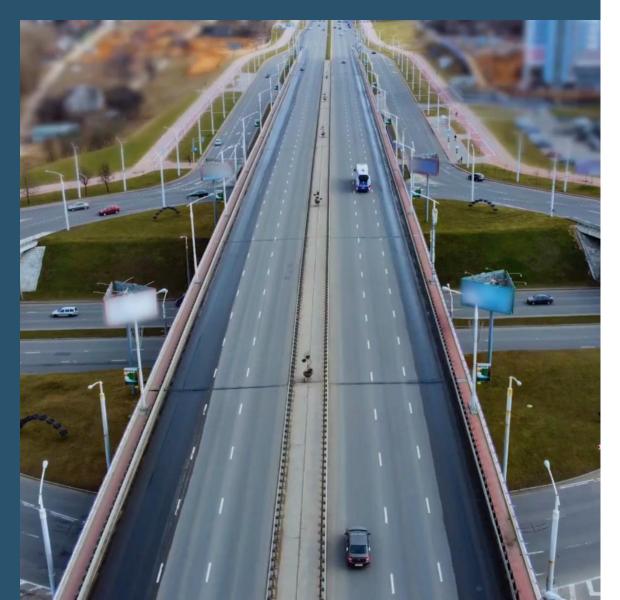- Planned date for adoption Q2 2023 (tbc)

European Commission

Thank you!

European Commission

New mobility and skills developments changes, challenges and opportunities

A CCAM perspective

Dr. Oihana Otaegui

ITS and Engineering Director

ootaegui@vicomtech.org

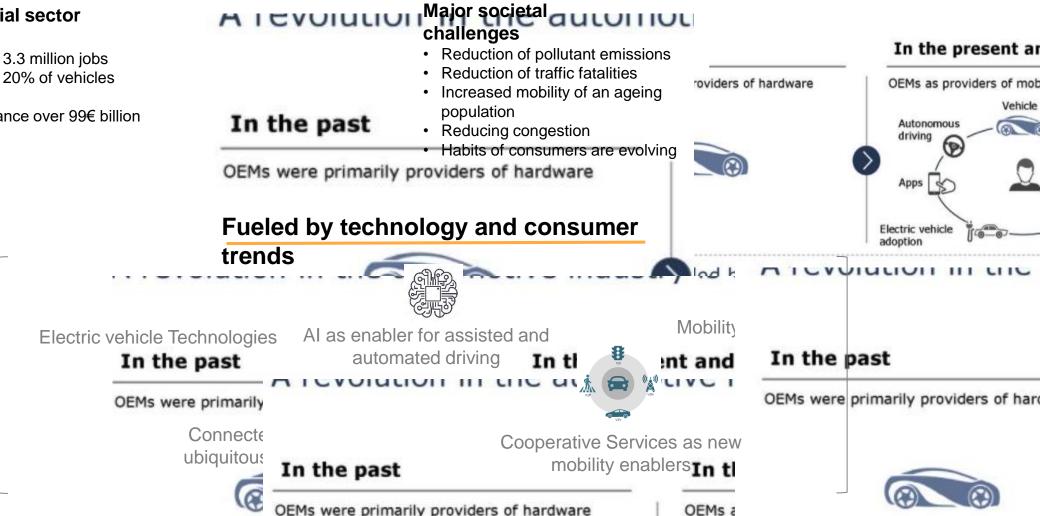# A revolution in the automotive industry is taking place …

In the past

OEMs were primary providers of hardware

Key industrial sector in Europe
- Securing 13.3 million jobs
- Producing 20% of vehicles worldwide
- Trade-balance over 99€ billion

In the present and future

OEMs as providers of mobility solutions

Major societal challenges
- Reduction of pollutant emissions
- Reduction of traffic fatalities
- Increased mobility of an ageing population
- Reducing congestion
- Habits of consumers are evolving

Fueled by technology and consumer trends

Electric vehicle Technologies

AI as enabler for assisted and automated driving

Mobility

Connected ubiquitous

Cooperative Services as new mobility enablers

Infrastructure

02- MONITORING & PREDICTIONS

BackOffice applications
Traffic Analysis & Simulation
Event prediction

01- INTELLIGENT SENSORS

Mono & Stereo vision, multicamera analysis, Detection, tracking and identification, Behavior analysis, Event detection

On-board

04- CONNECTIVITY

V2X, 5G, C-ITS, Cooperative Systems Floating Car Data

03- EMBEDDED SENSORS

Lane Departure, Forward Collision, Pedestrian detection, Traffic Sign recognition, Simultaneous localization and mapping Odometry, Slippery detection

Data Analysis & Exploitation

06- DATA MANAGEMENT

Cartography, GIS management, Custom Tile Services, Distributed Processing Data Analytics

05- DATA ACQUISITION

Track data generation, real time data management, Cartography, GIS

Advance Algorithms

07- PLANING & OPTIMIZATION

Track data generation, real time data management, Cartography, GIS

08- VISUALIZATION

Dashboards, Indicators, etc.

09- DIGITAL SECURITY Protect data, and other assets Anomaly Discovery Attack detection and contemeasures

Smart Vehicle

Smart Citizen

Smart Road Infrastructure

Level 5

Mobility Services

Backend Services: Continuous Improvement

Level 4

ADAS & Automatisation

Connectivity

Smart Infrastructures

Level 3

Car

Truck

Bus

Rail

Bike

Level 2

Electric Powertrain

Battery System

BHDC

Sensors

Maps

Level 1

Energy generation

SmartGrids

Charging stations

Storage

New Industry Chain for MOBILITY

Vehicle drivers

MaaS operators

Insurance companies

Smart cities

Traffic flow mgmt.

Maintenance service op.

Data marketplace

Fleet operators

Manufacturing

Energy

Fleet operators

……..

New solution provider

Solutions provider

Engineering solutions provider, which supports development and implementations

Users

EV start-ups

Mobility players

Tech players

OEMs

Tier 0.5

Tier 1

Tier 2+

End user: Purchaser of a product or a service

Mobility players: Adopters of the innovative solutions

Tech Players Enablers of the provision of innovative technologies

OEM Focus: design, marketing and assembly

Tier 0.5 Major system and module integrator

Tier 1: Supplying specialised components and systems in a tight fit with OEMs

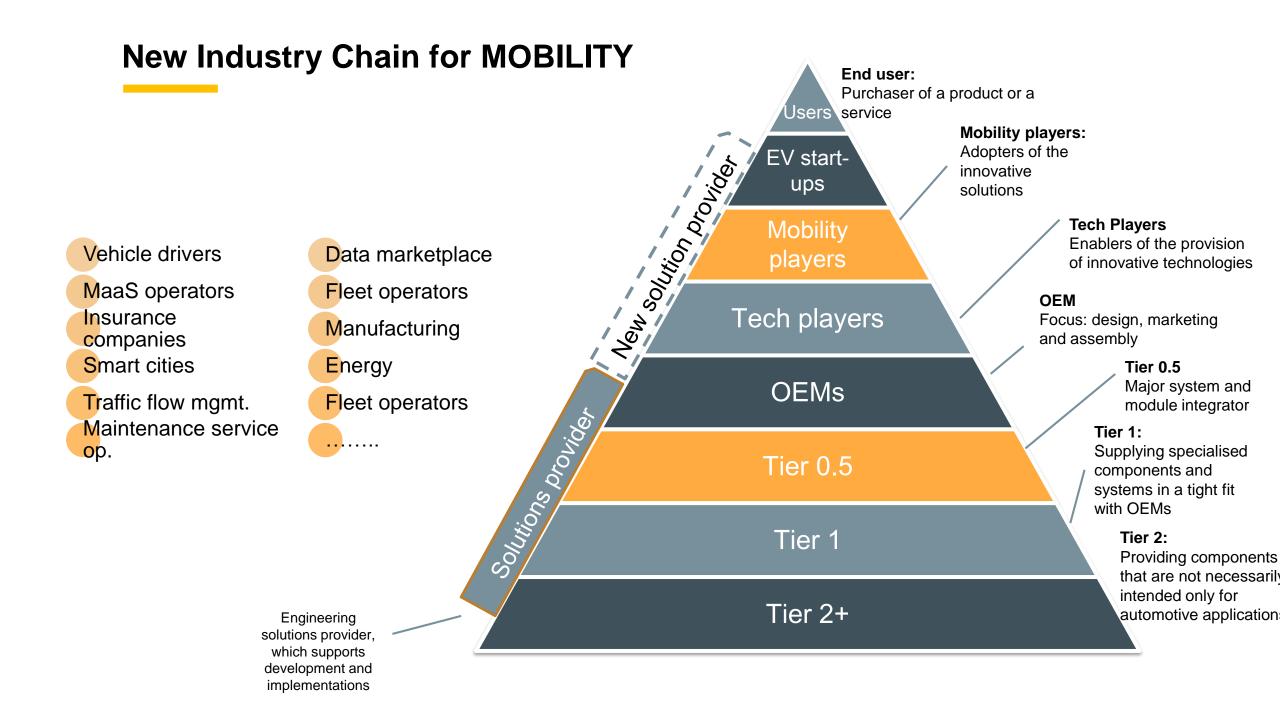**Tier 2:** Providing components that are not necessarily intended only for automotive applications
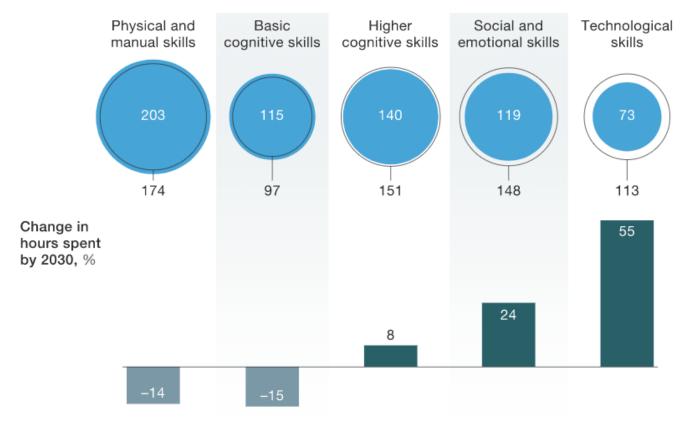
The shift towards automation in transportation and mobility is expected to eliminate jobs … **but it also creates a lot of new opportunities**
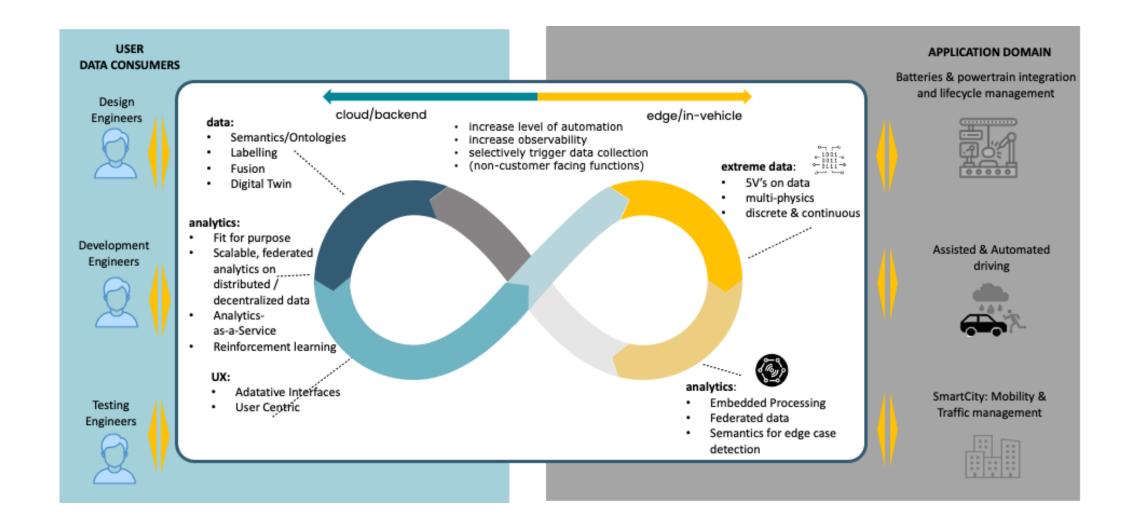
PEOPLE: Evolve/develop new technological as well as social and emotional skills - Members of the workforce who will be impacted need to be trained in the new key areas and

COMPANIES: rethink how work is organized within their organizations.

The shift towards automation in transportation and mobility is expected to eliminate jobs … but it also creates a lot of new opportunities

Source: McKinsey Global Institute Workforce Skills Model; McKinsey Global Institute analysis

Skills & Technology

USER
DATA CONSUMERS

Design Engineers

Development Engineers

Testing Engineers

cloud/backend   edge/in-vehicle

- increase level of automation
- increase observability
- selectively trigger data collection
- (non-customer facing functions)

data:
- Semantics/Ontologies
- Labelling
- Fusion
- Digital Twin

analytics:
- Fit for purpose
- Scalable, federated analytics on distributed / decentralized data
- Analytics-as-a-Service
- Reinforcement learning

UX:
- Adatative Interfaces
- User Centric

extreme data:
- 5V's on data
- multi-physics
- discrete & continuous

analytics:
- Embedded Processing
- Federated data
- Semantics for edge case detection

APPLICATION DOMAIN

Batteries & powertrain integration and lifecycle management

Assisted & Automated driving

SmartCity: Mobility & Traffic management

Thank you!

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vicomtech
MEMBER OF BASQUE RESEARCH
& TECHNOLOGY ALLIANCE

THE PRICE OF SHARED MOBILITY

OSCAR MELLEGERS

DIRECTOR PRODUCT MANAGEMENT
VERRA MOBILITY

LISBON

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congresspr@mail.ertico.com

VERRA MOBILITY™
Safe. Smart. Connected.

> **The price of shared mobility**

verramobility.com

VERRA MOBILITY EUROPE

Making mobility safer and easier

We solve complex payment challenges for shared vehicles.

We enable authorities to manage and enforce traffic management programs.

Local presence

> Amsterdam, Netherlands (Europe HQ)

> London, England

> Paris, France

> Budapest, Hungary

> Madrid, Spain

> Lisbon, Portugal

> Dublin, Ireland

Increasing complexity of RUC

> EETS Directive

> Environmental concerns, congestion

> Shift to distance-based toll pricing

> Shared mobility challenges

VERRA
MOBILITY™

Shared mobility is here

More than $100 billion has been invested in nonautonomous shared-mobility companies, mainly by venture capital and private-equity players.

Investments in shared-mobility companies since 2010[1]

	Total disclosed investment since 2010,[1] $ billion	Number of companies
E-hailing	95+	109
Mobility services[2]	8	97
Car sharing/P2P car sharing/rental	3	116
Shared micromobility	9	120
Urban aerial mobility (UAM)	8+	50+
Robo-taxi and shuttle	100+	400+

Investments in shared-mobility companies since 2010[1]

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Shared micromobility	9	120
Urban aerial mobility (UAM)	8+	50+
Robo-taxi and shuttle	100+	400+

Total disclosed investment amount since 2010 by investor type, percent of total[3]

72   21   4   2   100

Payment collection challenges

Focus on impact and collaborate
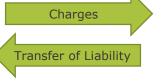
- Environmental conservation
- Public safety
- Interoperability
- Collections

VERRA MOBILITY™

> See you in Lisbon!

DRT TO STRENGTHEN PUBLIC TRASPORT

FRANCO ROSSO

INTERNATIONAL SALES & BUSINESS DEVELOPMENT MANAGER
IOKI – A DB COMPANY

LISBON

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Email Questions to
congresspr@mail.ertico.com
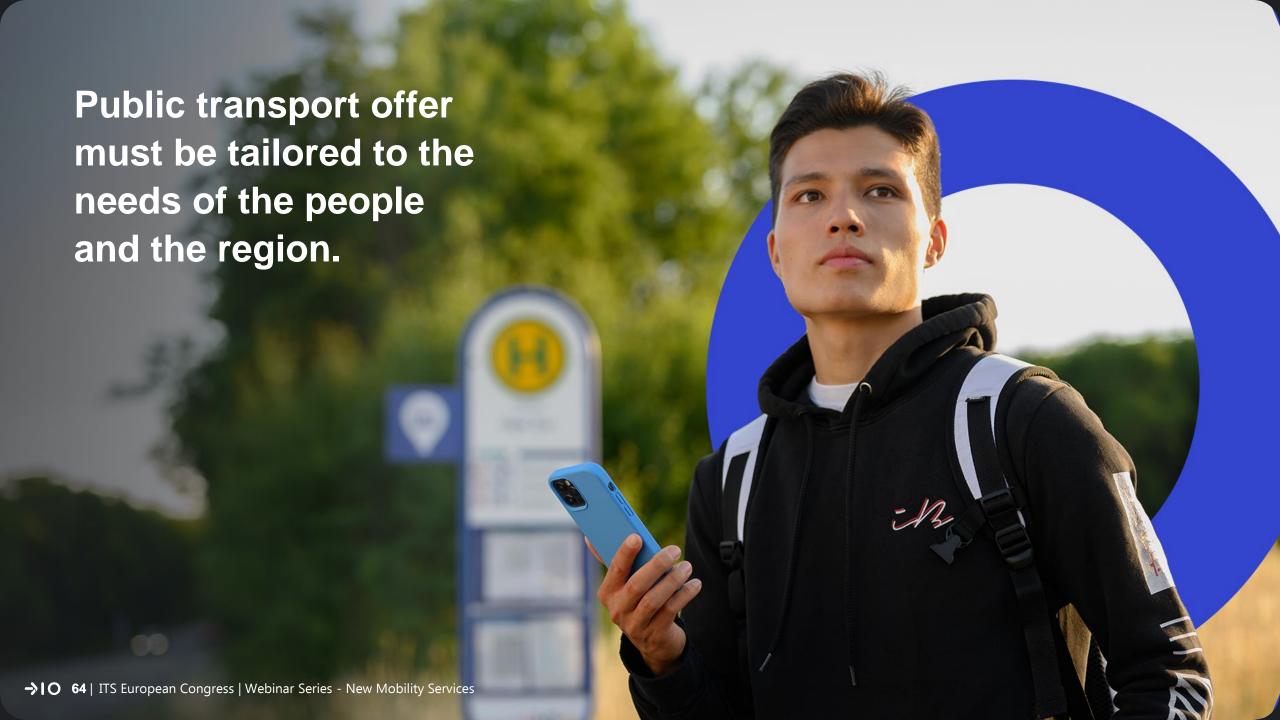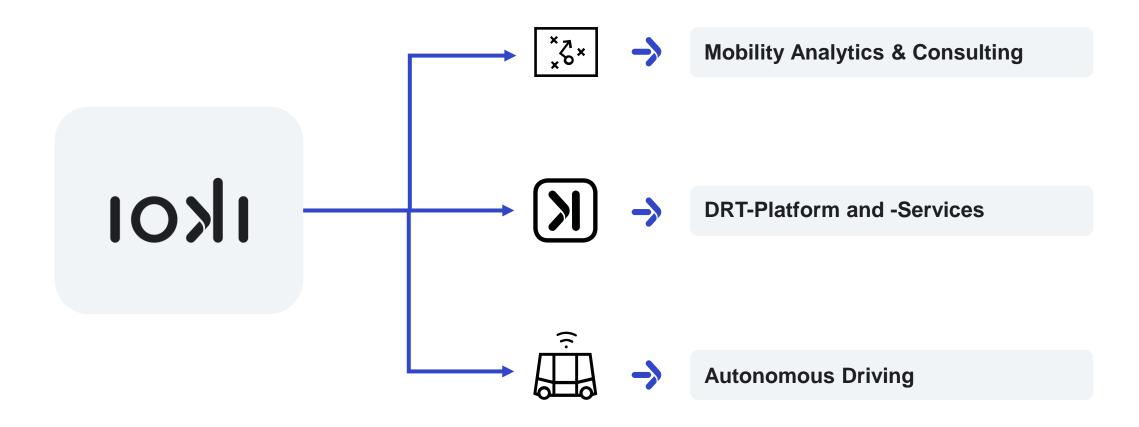
How DRT can strengthen public transport services

Franco Rosso | ioki

Public transport offer must be tailored to the needs of the people and the region.
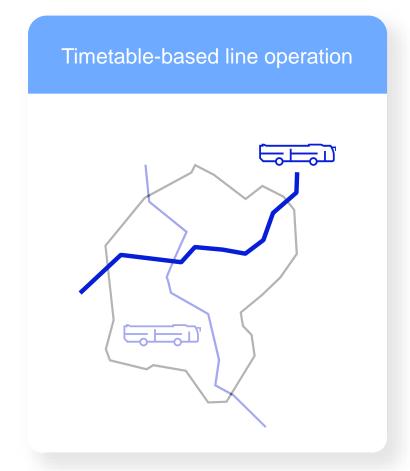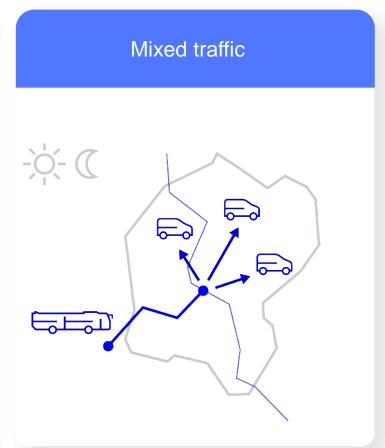
ioki supports local authorities and transport companies to build sustainable public transport solutions

Mobility Analytics & Consulting

DRT-Platform and -Services

Autonomous Driving
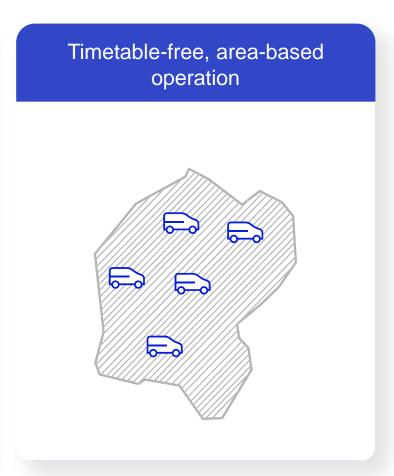
Timetable-based scheduled and timetable-free area transport

Mixture in one area

Timetable-based line operation

Mixed traffic

Timetable-free, area-based operation
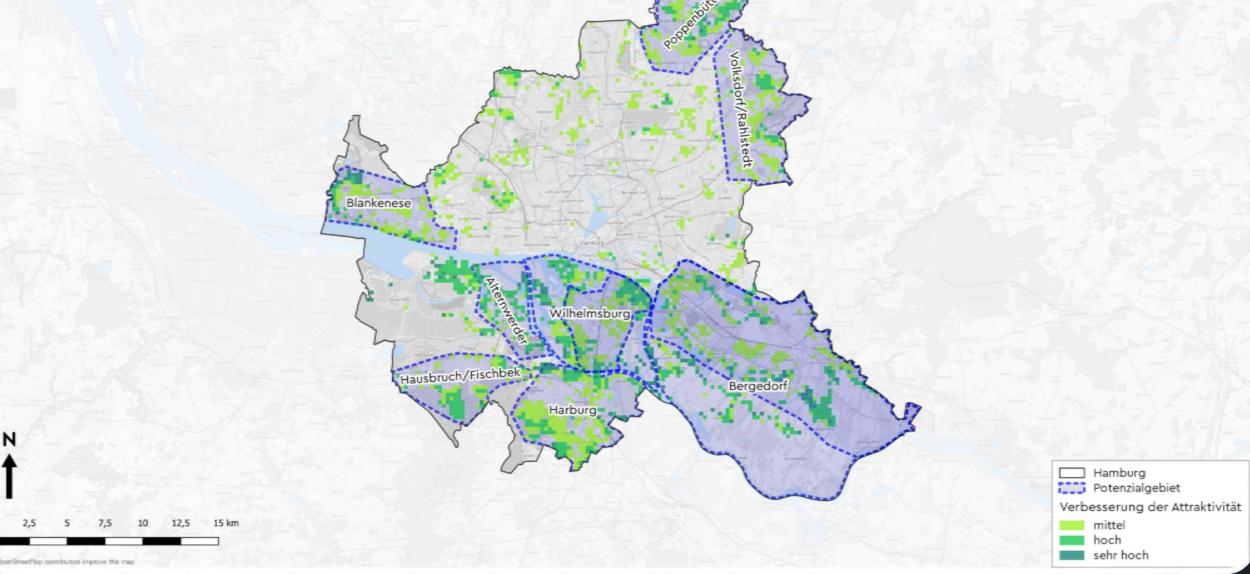
DRT Feeder Service Areas can strengthen the PT network by reducing door-to-door travel times

DRT Shuttles improving Hamburg's mobility offer

🏆 **Verkehrswendepreis & German Mobility Award**

Key facts
- Services areas: 5
- Emission free vehicles: approx. 20
- Passenger km: +2,6 Mio. (End October 2022)
- Passengers: > 820.000 (End October 2022)
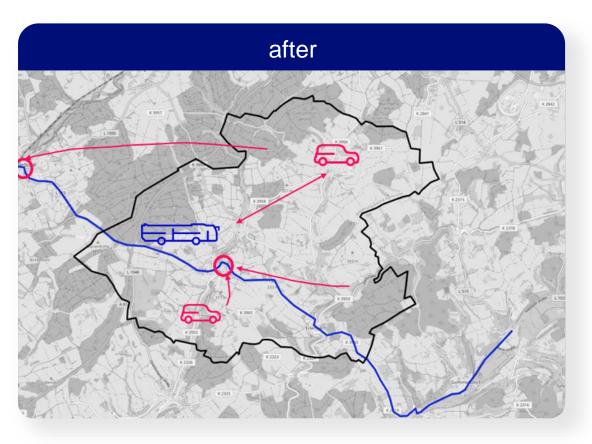- Average waiting time: < 5 min

Usage Behaviour
- 72% of passengers let themselves be transported to the next public transport stop
- 88% of passengers use an VHH season ticket
- every fourth passenger replaces the journey by car with the shuttle service
- 50% of passengers use the service daily

Substitution of existing lines is another way to strengthen public transport with DRT

Partial replacement of bus lines by integrated DRT
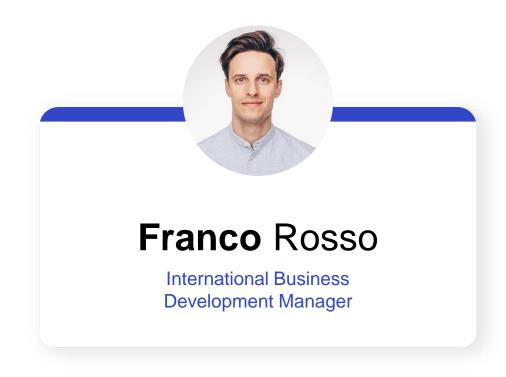

before

after

DRT services improving regional mobility offer

- Rural transport in Castilla-La Mancha region

- 11 vehicles

- The service connect 112 Municipalities with Cuenca

- Stop-to-stop service

- The service works as line-based and on-demand depending on the moment of the day

- On-demand service with the largest operational area in Spain

Flexible, customised and integrated solutions are the key to success – What is important to you?

We look forward to discussing our findings at the ITS European Congress

Franco Rosso

International Business
Development Manager

Innovation for tomorrow's journey.