

# How can mobility in cities be sustainable and intelligent?

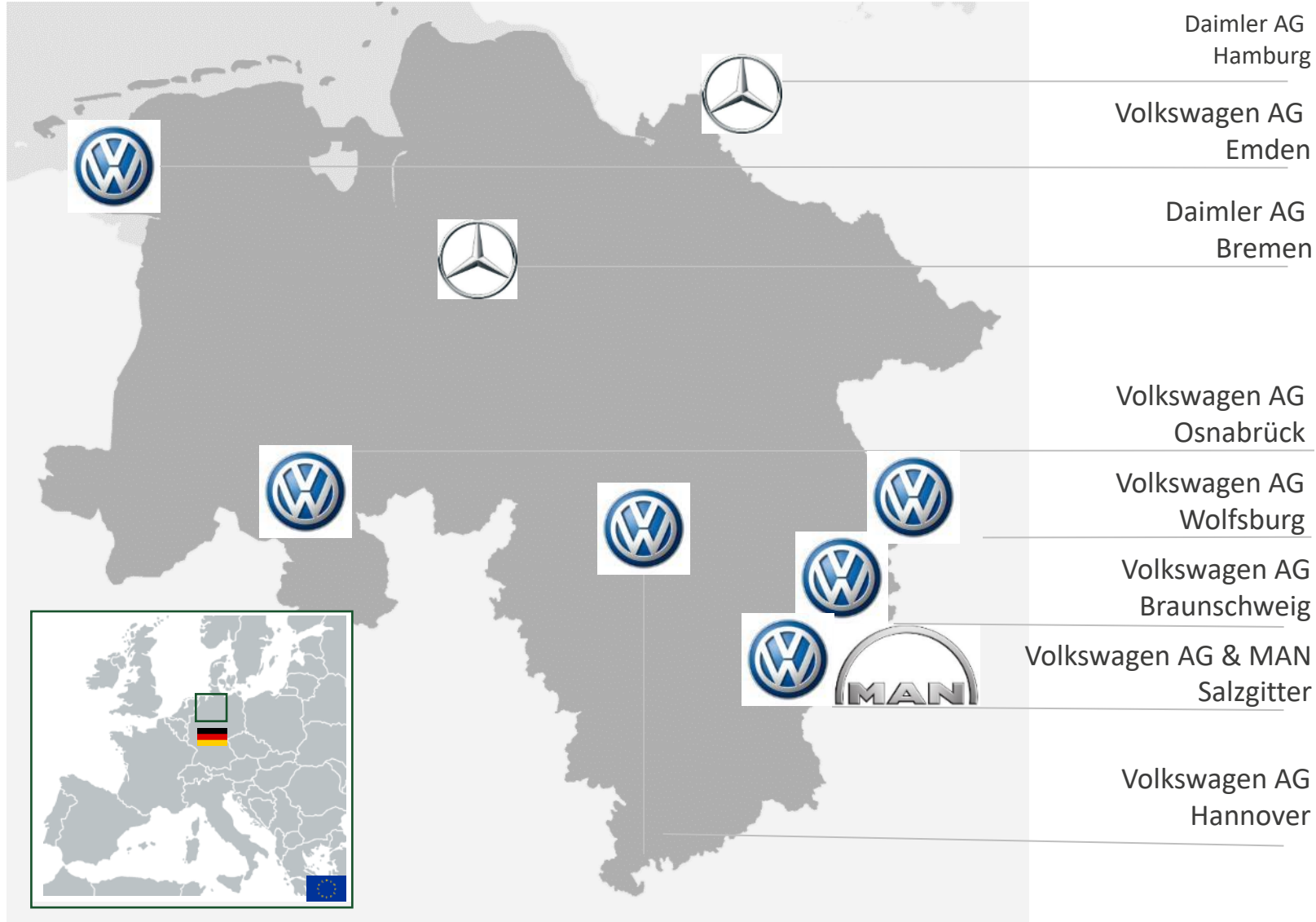
German solutions from the cluster





# The mobility cluster and its members

# Overview of the region



- **Volkswagen (VW)  
Headquarter in Wolfsburg**
- **+ 5 VW Component  
manufacturing,  
commercial vehicles**
- **Mercedes Car factory in  
Bremen (C- / E-Class and  
EQC) and Component  
manufacturing in  
Hamburg**
- **Many Suppliers**
- **Research-intensive region**

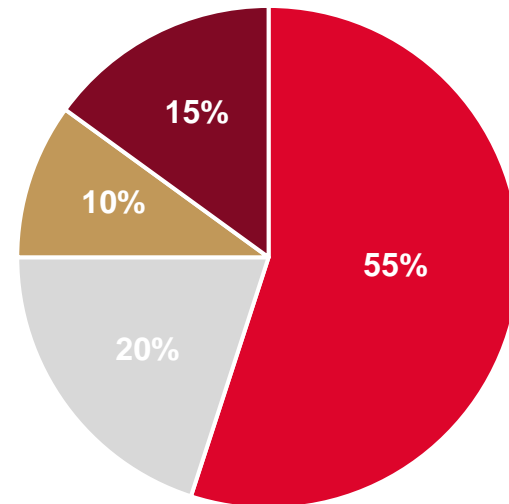
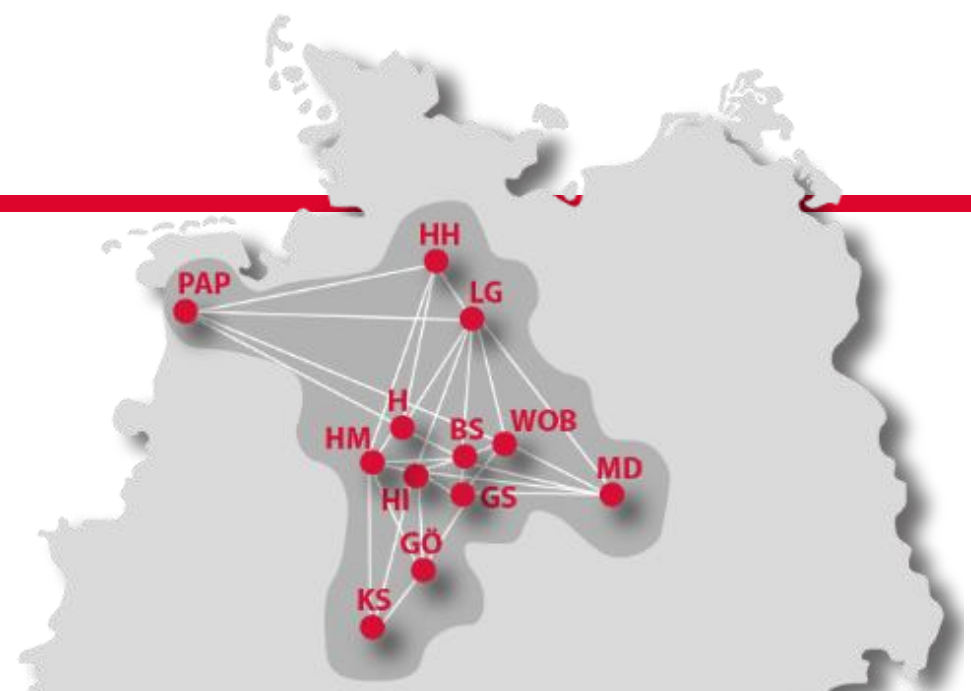
# ITS mobility: 220+ members

- **Mobility region Northern Germany**

- ITS mobility offices in Braunschweig (headquarter), Hamburg, Hannover, Wolfsburg
- Partner offices in Magdeburg, Hildesheim, Göttingen
- National and international cooperations

- **Spectrum of the mobility network**

- about 10 % large-scale enterprises (Bosch, Continental, IAV, NXP)
- about 15 % research institutions (DLR, TU BS, NFF, Ostfalia, University of Hannover)
- about 55 % Small and Medium Enterprises (SME)
- about 20 % networks, municipalities and experts (ADAC, Städte Hannover und Hamburg, Bitkom, Regionalverband Großraum BS)



- SME
- Research institutions
- Large-scale enterprises
- Networks, municipalities and experts

# More than 20 years of mobility network

## From the location Braunschweig to the network for Northern Germany

Foundation as  
Gesamtzentrum  
für Verkehr  
Braunschweig  
(GZVB)



1997

Transport and  
telematics



2007

2011

Mobility research  
Automotive industry

Consolidation as  
mobility network



2016

Further development to  
ITS mobility



2017+

Largest ITS network in  
Germany



# The network for intelligent mobility

- **Future topics of intelligent mobility**

- Connected and Automated Driving
- Cooperative transport systems
- Alternative drivetrains
- Mobility as a Service
- Artificial Intelligence
- New materials
- Satellite navigation
- eCall
- ...





## How can mobility in cities be sustainable and intelligent?

# Germanys Smartest City: Hamburg

## Deutschlands smarteste Städte: Hamburg vor München & Köln

Top 20 des Smart City Index 2020



Legende  
↑ > 5 Positionen verbessert  
↗ 1–5 Positionen verbessert  
→ unverändert  
↘ 1–5 Positionen verschlechtert  
↓ > 5 Positionen verschlechtert

bitkom

Bitkom ~ German  
Association of the IT  
industry (2020)



# Hamburg Facts



# ITS World Congress in Hamburg



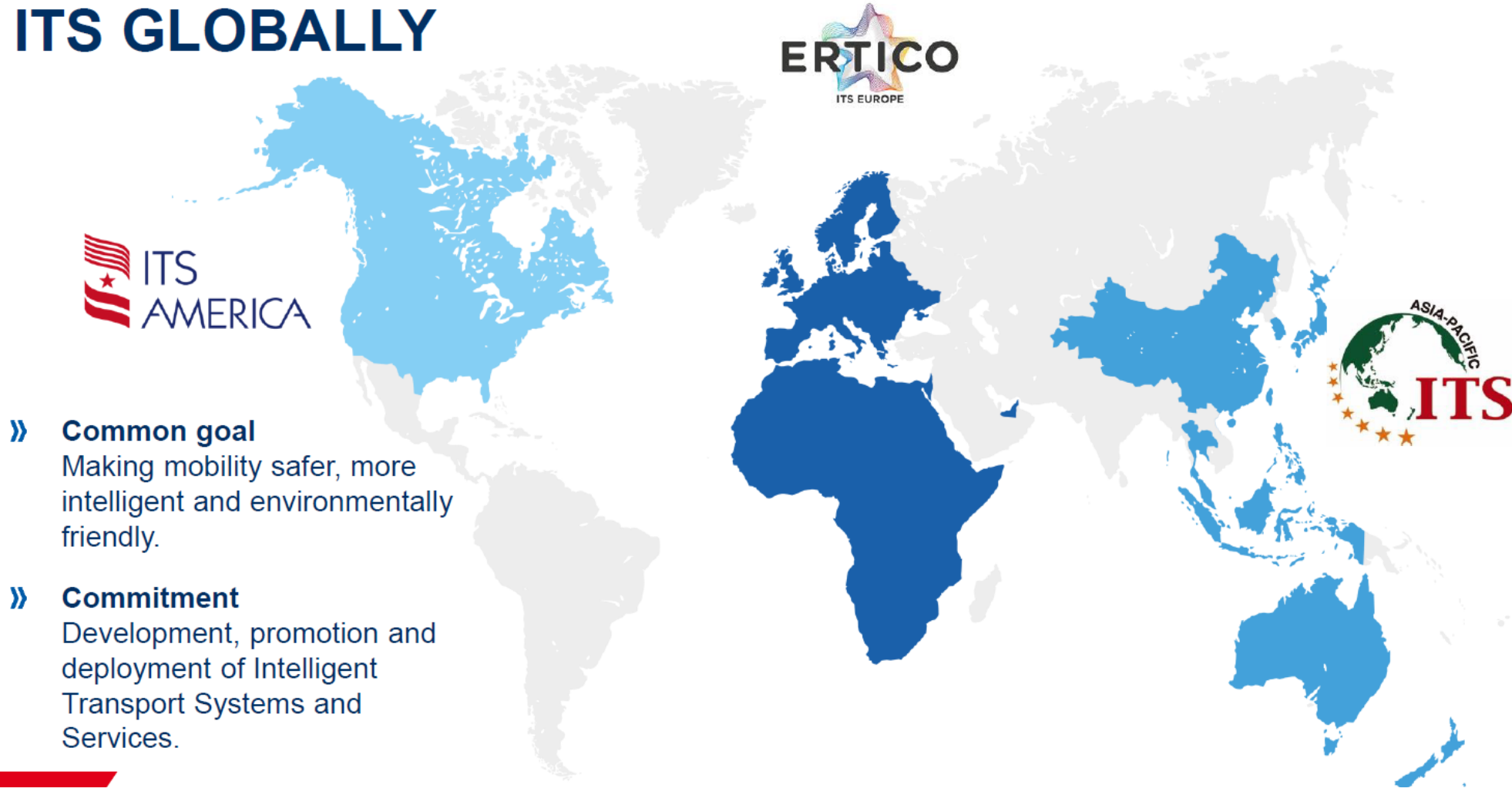
## ITS World Congress on 11 to 15 October 2021 in Hamburg

- Largest international congress on intelligent transport systems and services



# Global ITS Network

## ITS GLOBALLY



- » **Common goal**  
Making mobility safer, more intelligent and environmentally friendly.
- » **Commitment**  
Development, promotion and deployment of Intelligent Transport Systems and Services.



# ITS World Congress in Hamburg

**Experience the future of smart mobility  
in motion for five days in October 2021**



**15,000  
visitors**



**3,500  
international  
delegates**



**250  
projects and  
showcases**



**400  
exhibitors**



**30,000  
sqm exhibition  
floor**



**200+  
programme  
sessions**



**100+  
journalists  
from trade  
business and  
news media**



**100+  
countries**



**50+  
startups**

# Topics of the ITS World Congress 2021



## **Automated, cooperative and connected mobility**

Means a fundamental paradigm shift — from driver to autopilot.



## **Mobility on Demand, Mobility as a Service**

In the integration of various forms of transport service into a single mobility service accessible on demand.



## **Goods journey from ports to customers**

It improves the performance of ports and ensures more efficient transport chains.



## **Intelligent Infrastructure**

Backbone of modern economies. It moves people and goods, it powers our lives, it fuels growth.



## **New services from new technologies**

Constant innovation is key for ITS. From the advancement of established technologies to the development of completely new solutions, serving the benefits of end-users.



## **Solutions for cities and citizens**

Mobility that is sustainable, energy-efficient and respectful of the environment.



# Overview: Test Tracks in Germany

- test tracks for automated and connected driving



# “TAVF” Test Track in Hamburg City

Automated and connected driving is already taking place in the Hamburg metropolis. ITS mobility manages the coordination center.

- A test track for automated and connected driving several kilometers long in the city of Hamburg
- Upgrading traffic light systems for the I2V- and V2I-communication
- Enables testing of mobility services, automated driving functions, and safety assistant systems in **real traffic environment**
- **User-independent** and **technology-neutral**
- **ITS mobility** manages the coordination center, coordinates the activities necessary for building up, operating and marketing the test track





# Electric buses



Source: Hamburg News

| ITS mobility

- Hamburg signed a contract for 530 emission-free, solo and **articulated battery-operated buses**.
- The electric buses will be added to the fleet from 2021.
- Hamburg *Hochbahn* already has 30 battery-operated buses with another 30 expected by the end of 2020.

# HEAT Shuttle



Source: Hamburg News

- First autonomous shuttle bus
- Route: „Hafen City“
- Driverless
- Smart, Connected
- Electrified
- Part of the Hamburg ITS Strategie



# Self-service Terminals and APP



Source: Hamburg News

| ITS mobility

- Self-service **Terminals** with large screens, user-friendly operation and cashless payment with either a credit card or mobile phone (and cash as well).
- **HVV Switch App** combines HVV's public transport services and those of the MOIA shuttle-on-demand service and will add the car provider, Sixt Share, by late 2020
- + Google Maps by late 2020 while those of StadtRad and Cambio, Miles Mobility, WeShare and Share Now will likely be included next year.





## Services of ITS mobility

# Services of ITS mobility



Networking &  
Presenting



Funding acquisition &  
Project coordination



Conferences,  
Symposia & Seminars



Communication &  
Public Relations



Coordination Centers &  
Consulting



# Services of ITS mobility



Networking &  
Presenting



**Annual representation at major trade fairs**  
with more than 10.000 participants

- **Joint booths** at international ITS Congresses (ITS European and World Congresses)
- **Trade fairs and congresses** in Northern Germany (e.g. Internationale Zuliefererbörse IZB)

**Cluster Meetings** for members, cooperation partners and interested guests

- Several times per year at different venues
- Platform for the exchange of knowledge and ideas on intelligent traffic concepts
- With company visits, lectures, visitations and Elevator Pitches





# Services of ITS mobility



**Organisation** of key events and international symposia

**First-hand information and know how** from vehicle manufacturers

**More than 1.000 experts** participating in conferences of ITS mobility

- HEV „Hybrid- und Elektrofahrzeuge“, incl. performance show with prototypes and newcomers on the market
- AAET „Automatisiertes und vernetztes Fahren“ (Connected and Automated Driving)
- PARK X Congress - Intelligentes Parken der Zukunft (intelligent parking)
- eCall Days
- Werkstoffsymposium – Fahrzeuge von morgen für Kunde und Gesellschaft (materials symposium)

# Services of ITS mobility



**Administrative Support** to industry consortia and project networks

Taking over **coordinating tasks**:

- Membership and financial management
- Internal information management
- Assistance to steering committees and working groups

Serving as **central contact partner** internally and externally

Supporting **Public Relation activities**

**Advisory function** for the strategic focus of the consortium or network



# ITS World Congress in Hamburg



## ITS World Congress on 11 to 15 October 2021 in Hamburg

- Largest international congress on intelligent transport systems and services



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