Introduction to ERTICO & platforms

Jean-Charles Pandazis, ERTICO - ITS Europe
SENSORIS information to ITS Japan members
Tokyo, 05/06/2018

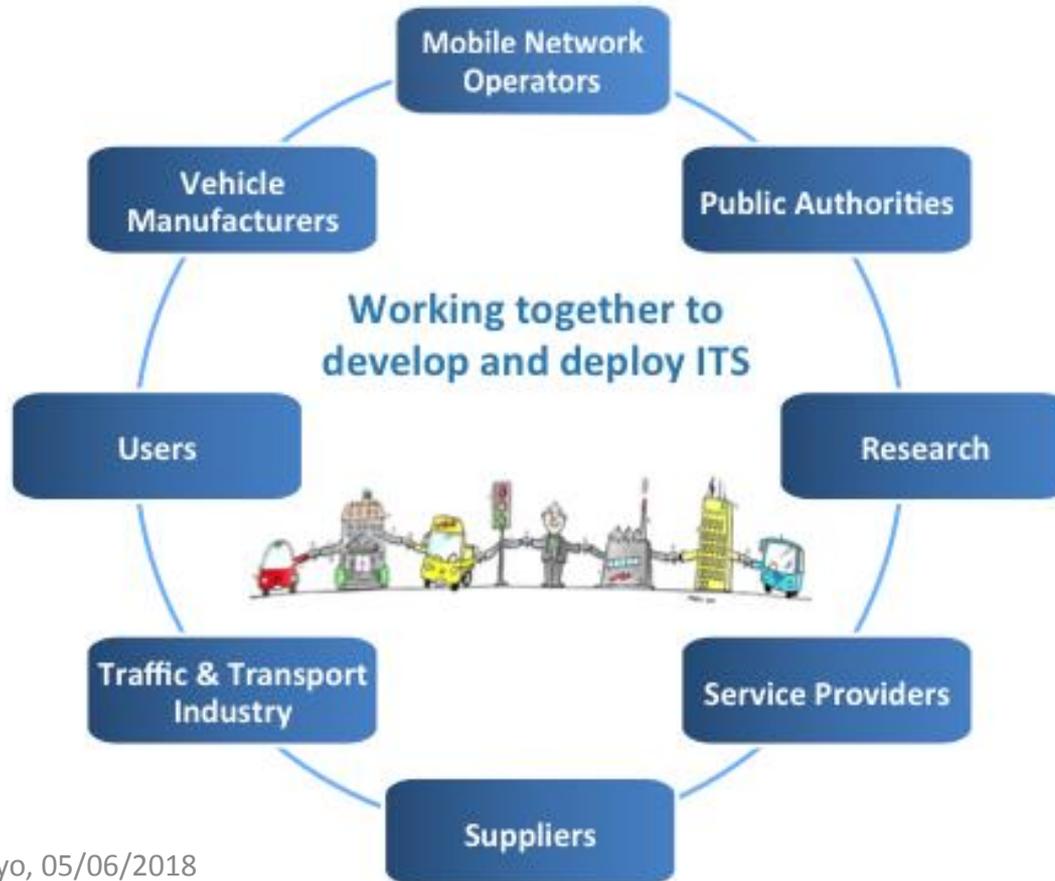# ERTICO - ITS Europe

Mission: Develop, promote and deploy Intelligent Transport Systems and services with multi-stakeholder engagement

8 sectors for ITS deployment

The ERTICO - ITS Europe Partnership (1)

Partnership (2) with Public Authorities

National

Regional

City

ERTICO partners come from the following countries

Four programmes – one ITS

Advocacy

Projects
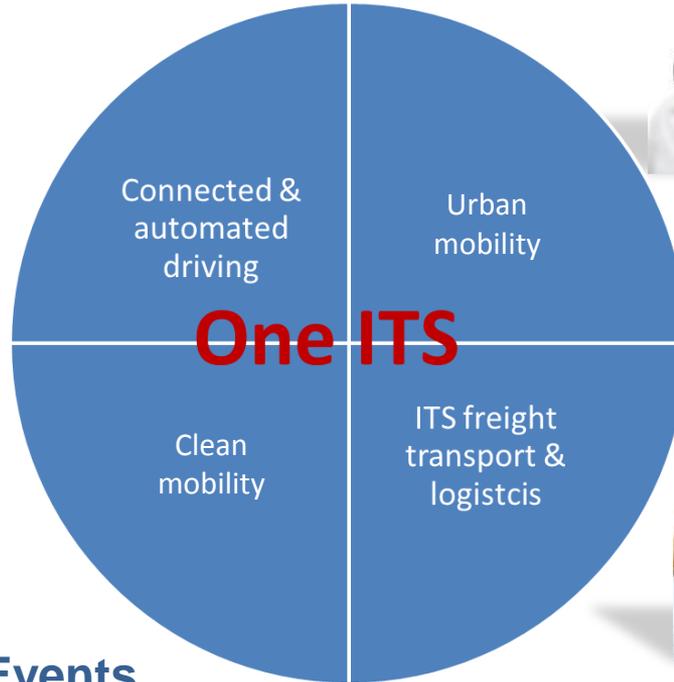
One ITS
- Connected & automated driving
- Urban mobility
- Clean mobility
- ITS freight transport & logistcis

Events

Innovation Platforms

Innovation Platforms - steps

SENSORIS
sensor data to cloud

eMF³ - electric vehicle - grid

TISA traffic and traveller information

TM 2.0 cooperative traffic management

MaaS ALLIANCE mobility as a service

ADASIS electronic horizon

TN-ITS spatial road data to cloud

INTEROPERABILITY standardisation testing

Data exchange

Services

Interoperability
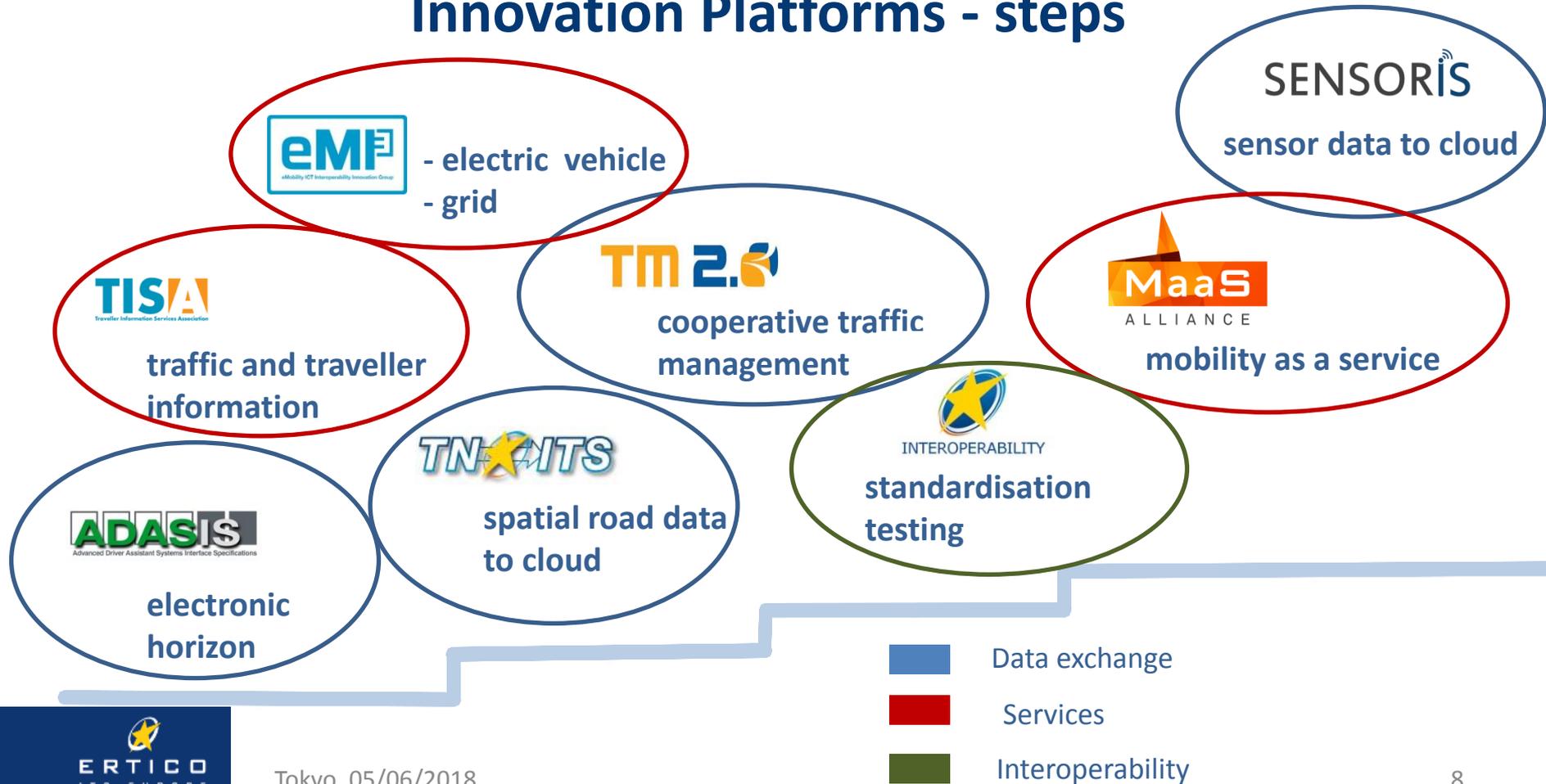
Why Innovation Platforms?

- Platforms for ERTICO partners to:
    - propose targeted activities with high strategic content
    - bring together major actors sharing the same strategic agenda
    - achieve concrete results

- Key for success:
    - Objectives should be in line with the strategic agenda of the ERTICO partner(s) initiating the platform
    - Balanced membership open to non-ERTICO partners
    - Pro-active-coordination by dedicated ERTICO expert

Achieve key results needed to fulfil objectives
of the ERTICO programmes

Potential cooperation with ITS Japan

- International cooperation beyond Europe for global activities

- Cooperation could include:

  - set-up of information meeting in Japan

  - host once a year of platform global meeting in Japan

  - connect to potential industrial members in Japan

  - build of mirror group in Japan with local platform members

- Similar cooperation with ERTICO support could be set-up for Japan led activities to be promoted in Europe
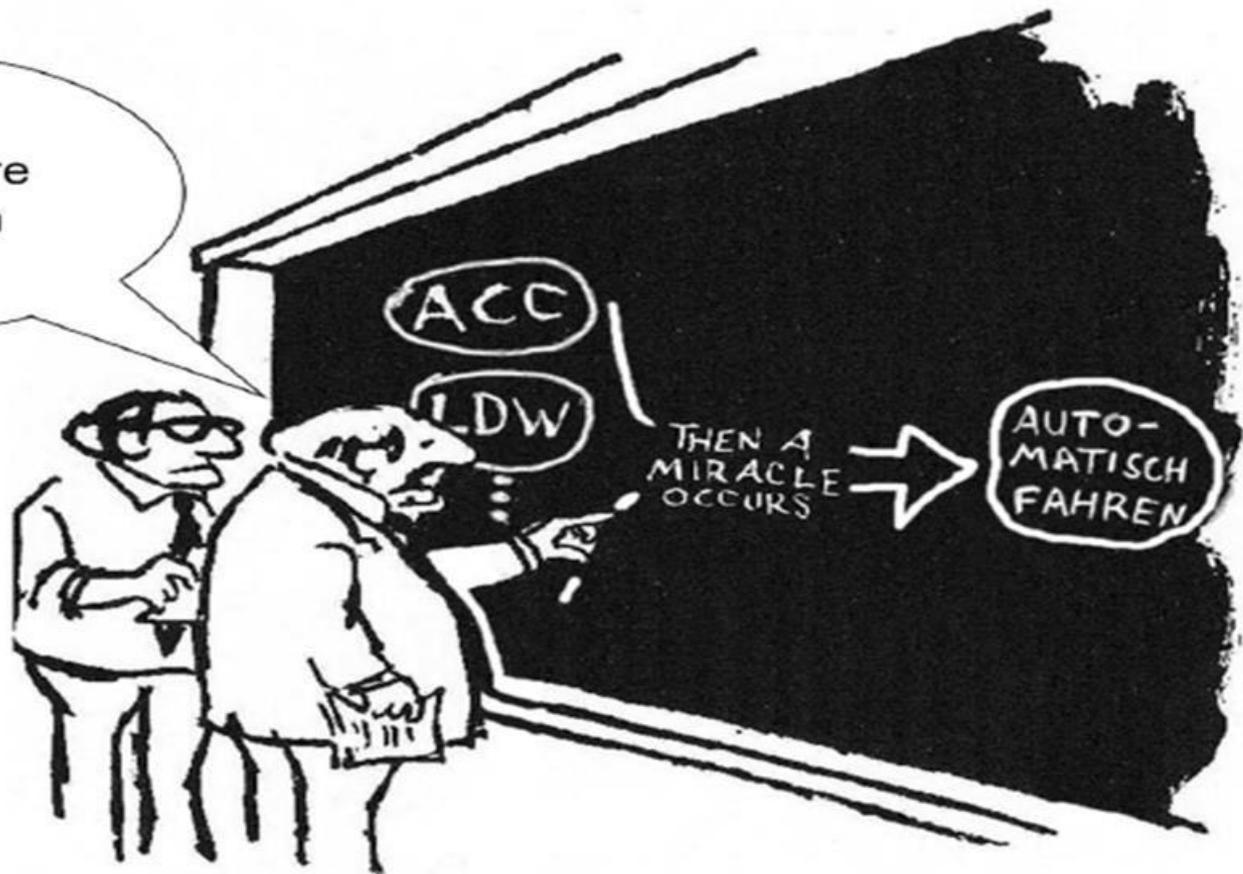
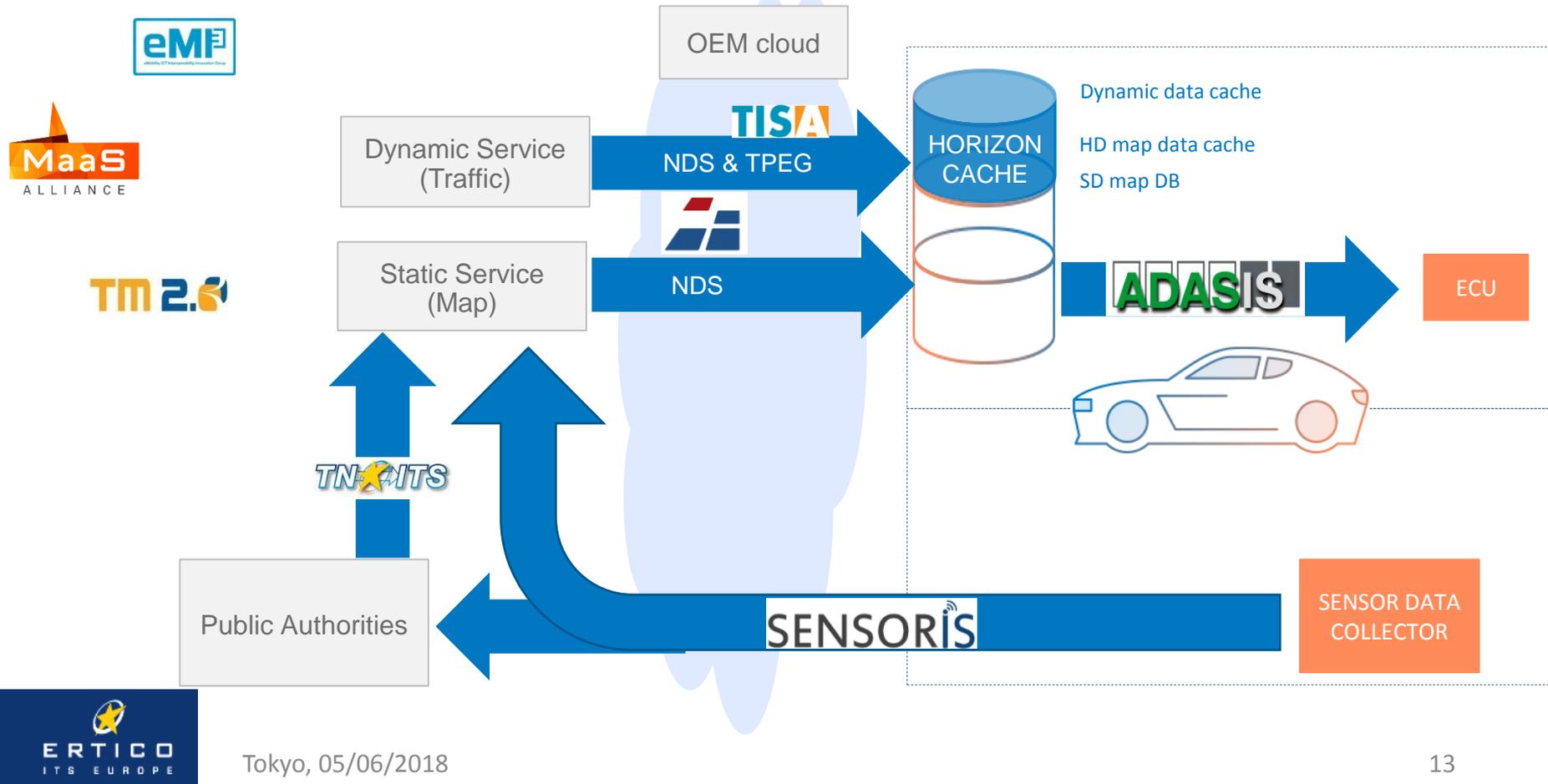# Challenges on Data Necessary to Serve Automated Driving

Data/Information is key and a common denominator, but what do we have today?

- many initiatives around Automated Driving
- many stakeholders with different views
- many use cases involving data of different kind
- standards fragmentation

What do we need?

- harmonisation and coherency
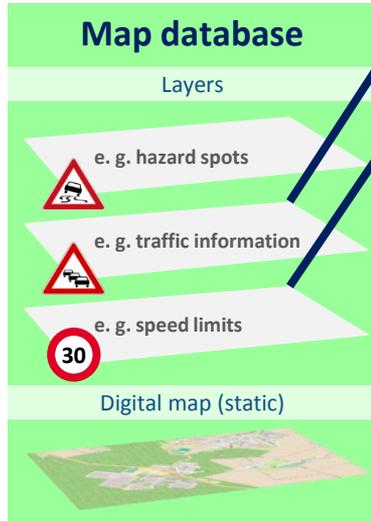- same understanding of the data eco-system

Automated driving data chain, ecosystem and beyond

ADASIS horizon

TPEG: Traffic Information

TISA

NDS: Incremental Map Update

Map database

Layers

e. g. hazard spots

e. g. traffic information

e. g. speed limits

30

Digital map (static)

Map data
(e.g. NDS Format)

▶ Determination of location and most probable path (MPP)

▶ Enrichment of MPP with road information (e.g. topography, speed limits)

▶ Conversion into ADASIS format

In-vehicle systems

HMI

100 km/h

ADAS, Energy Management

30

Relevant information for road ahead (ADASIS Format)

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ADASIS horizon specifications supports major mobility trends

Energy Efficiency

- Reduced fuel consumption by linking topographic and speed limit information to other control units (e.g. cruise control, intelligent gearbox management)

- Improvement of battery consumption through driving strategies for (hybrid) electric vehicles

Connectivity & Assistance

- Increased safety and comfort for driver through predictive, real-time road information

- Enhanced performance of driver assistance systems

- More precision for electric vehicle range estimation

Automated Driving

- Provision of road information beyond reach of vehicle sensors is a key requirement for automated driving systems

- Enhanced performance of automated driving systems

- Enabling precise localization

ADASIS horizon addresses all major future mobility trends: connected, electrified and automated

ADAS.is members (56 including 11 Japanese members)

Vehicle Manufacturers (16)
BMW
China FAW-RDC**
CRF (FCA)**
Daimler *
Ford *
Ford-Otosan
Honda *
Hyundai Motor Company
Jaguar
Opel *
Nissan
Renault
Toyota Motor Corp.
Volkswagen
Volvo Car Corp.
Volvo Tech. Dev. Corp.

ADAS Manufacturers (17)
Autonomos
Continental Automotive *
CTAG
Delphi Automotive systems**
Denso
dSPACE
Fujitsu Ten (Europe) **
Hitachi
Ibeo
IPG
Knorr-Bremse**
LG Electronic
Magna Electronic Europe
Magneti Marelli
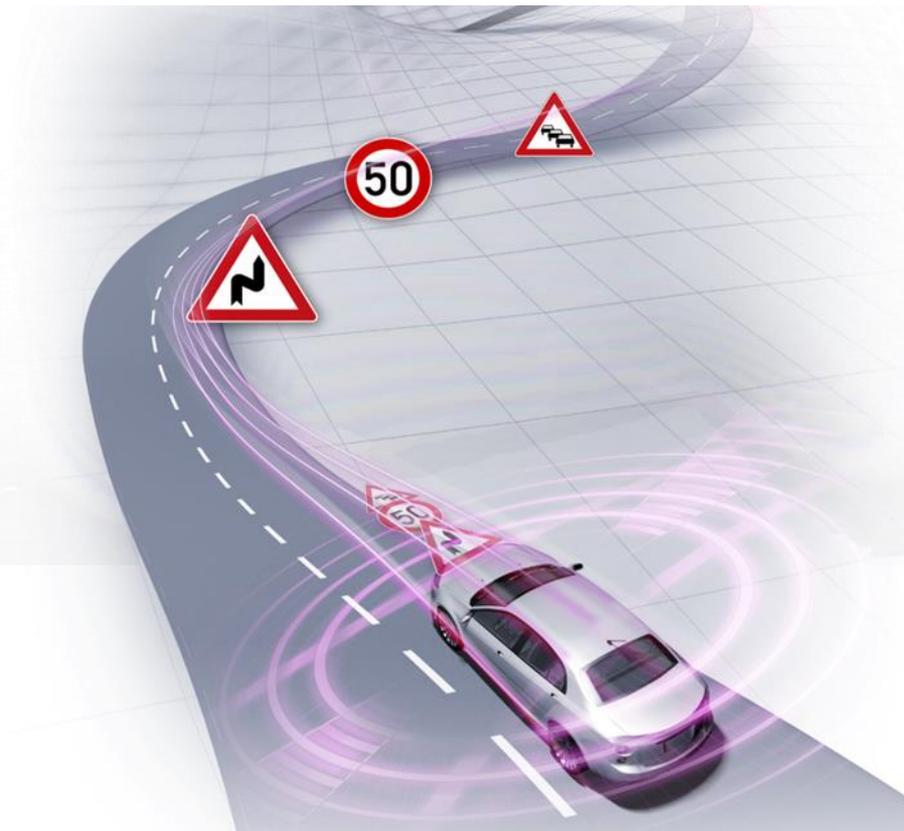Novero
TRW (ZF)
Valeo

Navigation System Manufacturers (13)
AISIN AW
Alpine
Autoliv
Elektrobit Automotive
Garmin
Harman
Mappers Co.**
Mitsubishi Electric Europe
MXNAVI
NNG LLC
Panasonic
Robert Bosch GmbH * (ADASIS Chair)
Telenav

*   Steering Board Members
** New Members

Map & Data Providers (10)
AND
AutoNavi Holding
Baidu Netcom**
eMapgo Technologies**
GeoDigital Automotive**
Here *
Navinfo Co
TomTom *
Wuhan Kotei Informatics**
Zenrin

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v3 specifications supports highly automated driving

New ADASIS v3 specifications supports different aspects of autonomous driving

- Support of HAD maps (NDS)
- supporting long range horizon without any restrictions
- update & erasure mechanism for dynamic data

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Next steps

- v3 specifications currently under review within ADASIS

- Release of ADASIS v3 specifications to all ADASIS members (Q2/2018)

- Public release planned one year after (Q2/2019)

- Development of a reference implementation for ADASIS members only

- Initiate cooperation with ITS Japan and other ITS organisations to wider inform on ADASIS

SENSORIS - Vehicle based Sensor Data Interface

- Initiated by HERE, coordinated by ERTICO, Constituted on June 2016

- Open group from the global vehicle industry and suppliers who joined forces to standardise open specifications for vehicle based sensor data interface

- Focus on Sensor Data upstream

- Part of Open AutoDrive Forum => alignment with NDS, ADASIS and TISA

- Liaison with other Sensor Data specifications, e.g. Ko-HAF project (BMBF)

- 1st specifications planned for Q2/2018, Public released planned Q2/2019

- Initiate cooperation with ITS Japan and other ITS organisations to wider inform on SENSORIS

SENSORIS: possible cooperation
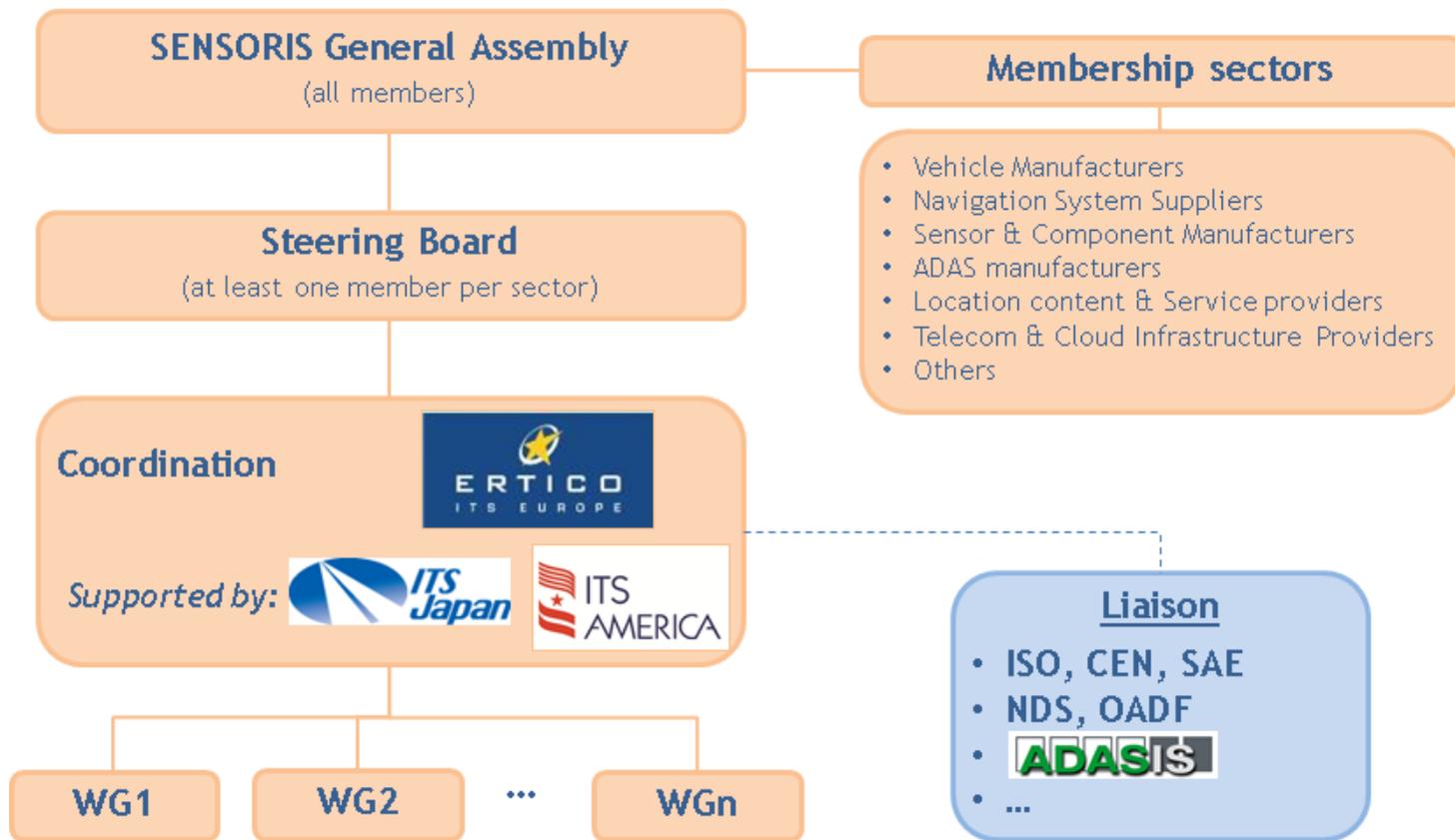
Thank you for your attention!

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