Government Authorities' Coordination for Automated Driving and ITS

The Future Networked Car Symposium

Geneva, 22 March 2022

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Agenda

1. ERTICO partnership

2. Our Focus Areas

3. Automated driving, ITS and role of Authorities

4. ERTICO roadmap

1. The ERTICO-ITS Europe Partnership

ERTICO ITS EUROPE

ITS
Intelligent Transport Systems

Mobility Apps

Automated driving

Drones

Data exchange & data spaces

Traffic management

Artificial Intelligence

Mobility as a Service

Transport and Logistics

Navigation

Intelligent Infrastructure

Safety

Multimodality

Payment Systems

V2V & V2X Communication

eMobility
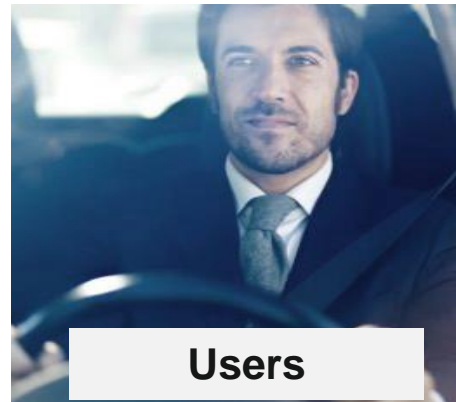
ERTICO-ITS Europe Unique Public Private Partnership

- **Powered by the European Commission in 1991**
- **Bringing together 120 Partners from 8 sectors**
- **Making mobility smarter, cleaner, safer and more efficient**
- **Moving of people, goods and data**

www.ertico.com

Traffic & Transport Industry

Service Providers

Research

Connectivity Industry

Vehicle Manufacturers

Suppliers

Users

Public Authorities

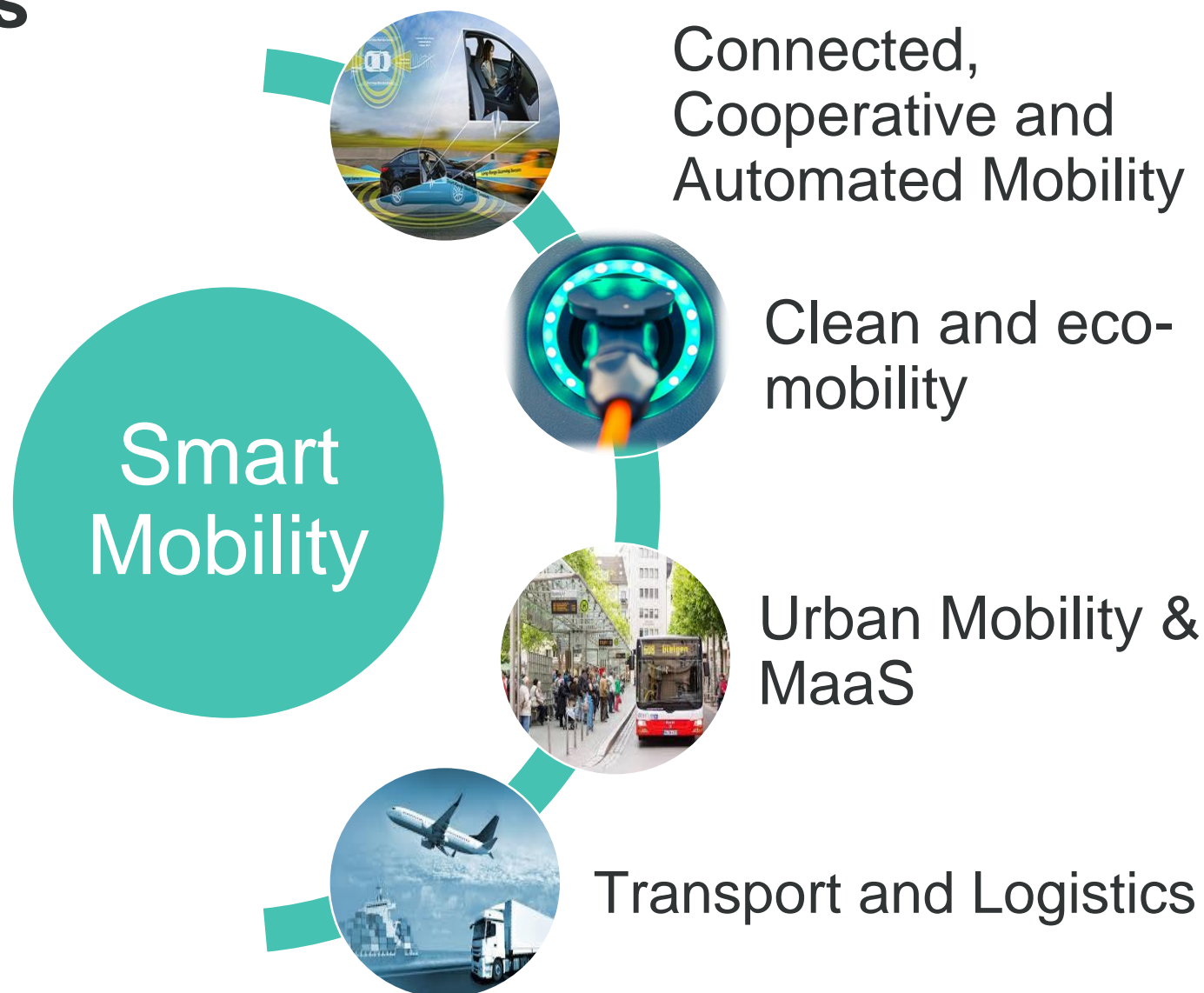# National, European & international focus
Coordination with government authorities

2. ERTICO & EU : Focus Areas

ERTICO Focus Areas
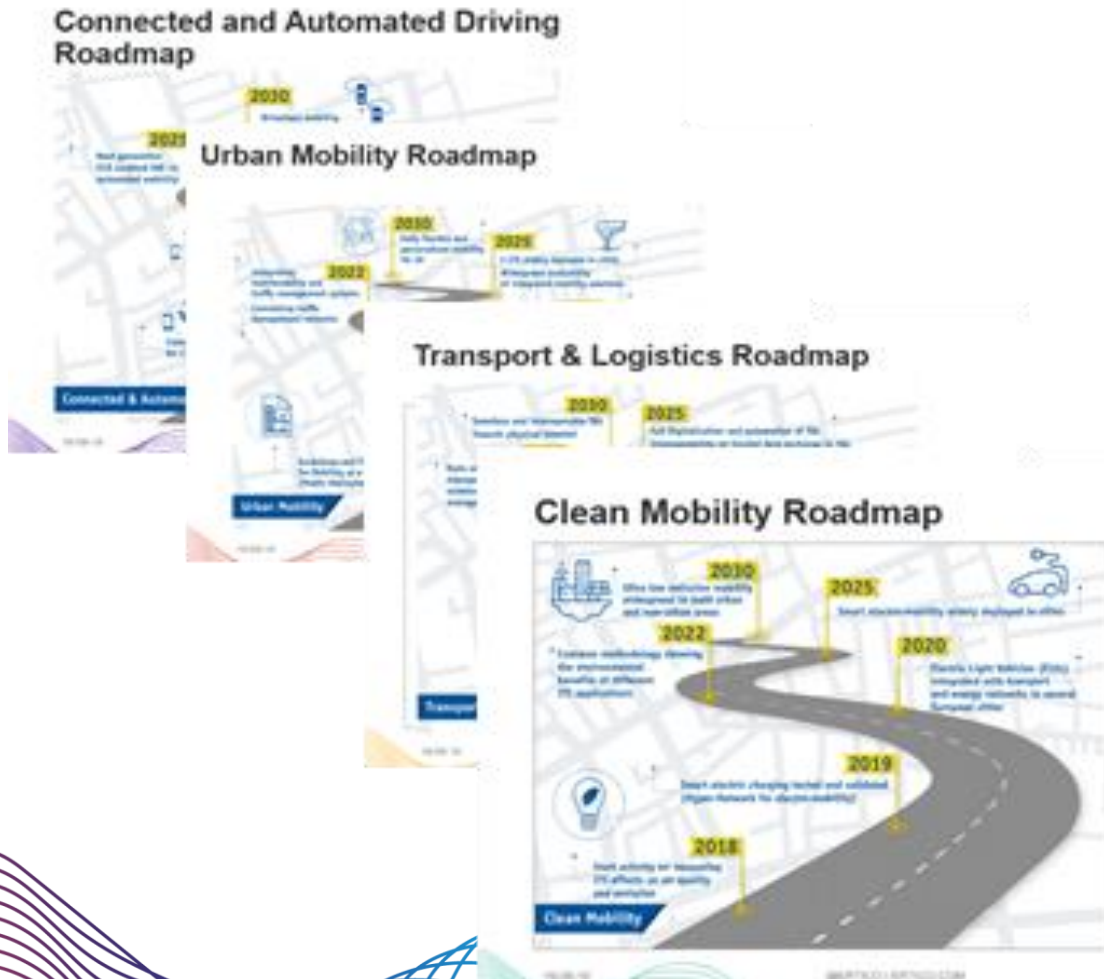
Smart Mobility featured as a main pillar of a **Smart Society**

Smart Mobility

Connected, Cooperative and Automated Mobility

Clean and eco-mobility

Urban Mobility & MaaS

Transport and Logistics

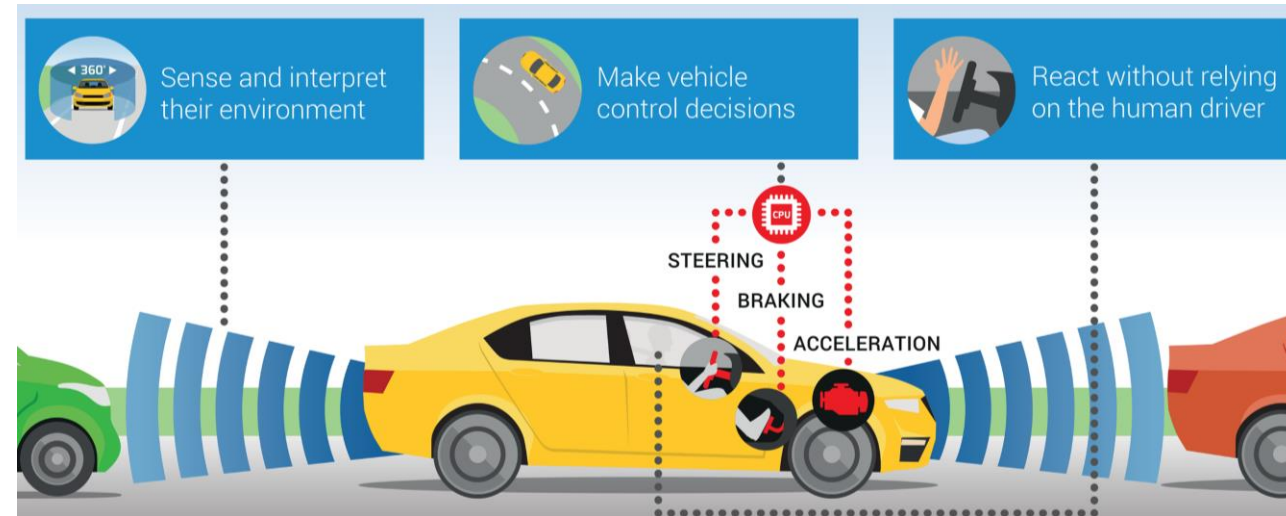# ERTICO Roadmaps in synch with EU policy focus areas

- Smart and Sustainable Mobility strategy

- Urban Mobility strategy

- Green deal

- Digital and data economy, AI and cybersecurity
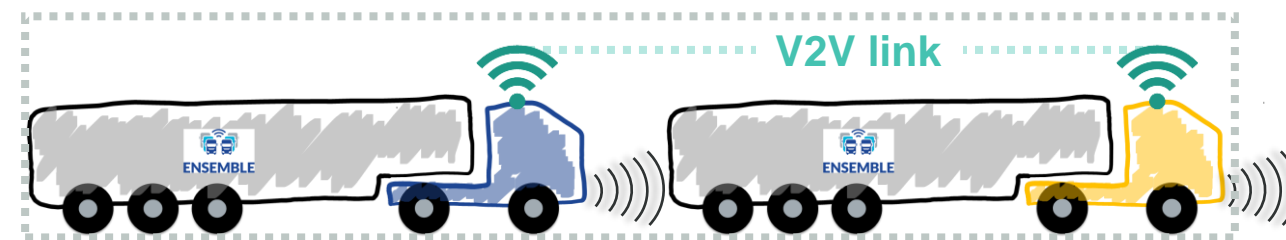
- Competitiveness and industrial strategy

3. Automated driving, ITS and role of Authorities

AD: international + regional + national + local touch

Sense and interpret their environment

Make vehicle control decisions

React without relying on the human driver

STEERING
BRAKING
ACCELERATION

V2V link

ENSEMBLE

ENSEMBLE

Pictures source:
ACEA + ENSEMBLE project

❑ **Goal: making the transport system more <u>sustainable</u>, <u>smart</u> and <u>resilient</u>**

❑ **Role of authorities differ: from hard core legislation for harmonisation, standardisation to enabling synchronisation and platforms, to coordinating investments and providing guidance**

❑ **Examples of different levels of intervention**

   ✓ Vehicle regulations

   ✓ Road regulations (road and traffic signs, traffic rules, physical infrastructure, licensing,…)

   ✓ Sensing/interpreting the physical environment (digital twins)

   ✓ Cloud & edge computing, HD maps and data spaces

   ✓ Connectivity short range and long range

   ✓ Spectrum regulations

   ✓ Cybersecurity

   ✓ Data protection and privacy

   ✓ Standardisation

Adequacy on where to act and what to regulate

Need for the global landscape but also subsidiarity

Examples:
- ✓ UN-ECE R 155 & 156 (vehicle cybersecurity & SW OTA updates)
- ✓ UN-ECE R 157 (ALKS)
- ✓ Vienna and Geneva Conventions on road traffic & their interpretation
- ✓ ITS directive and delegated acts
- ✓ World wide safety regulations, regional safety regulations
- ✓ Whole vehicle type approval, European type approval, national exemptions
- ✓ European GDPR
- ✓ Urban mobility & Urban Vehicle Access Regulations
- ✓ Data access, sharing and data spaces
- ✓ 5G spectrum allocation & deployment
- ✓ European Union decision on the harmonised use of radio spectrum in the 5,9 GHz frequency band for ITS

Automated driving & mobility. Attention points.

Time to prepare
- Road infrastructure, OEM/suppliers, traffic & transport industry, IT/telco operators, national and regional/local authorities and regulators
- Different lead times
- Different investment cycles

Synchronisation
- Vehicles & roads
- Traffic centers, digital maps
- Traffic rules
- Testing, validation
- Availability and interoperability of (meta) data
- Continuity and interoperability of services, also across borders

Comms technologies
- Tech neutrality
- But need for compatibility of technologies
- Role of legacy fleet and systems (example of eCall, connected driving)

User's trust
- Safety and (cyber) security
- Artificial intelligence
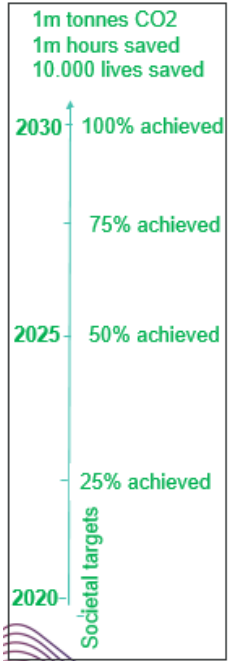- Data protection and privacy
- Affordability
- Digital skills

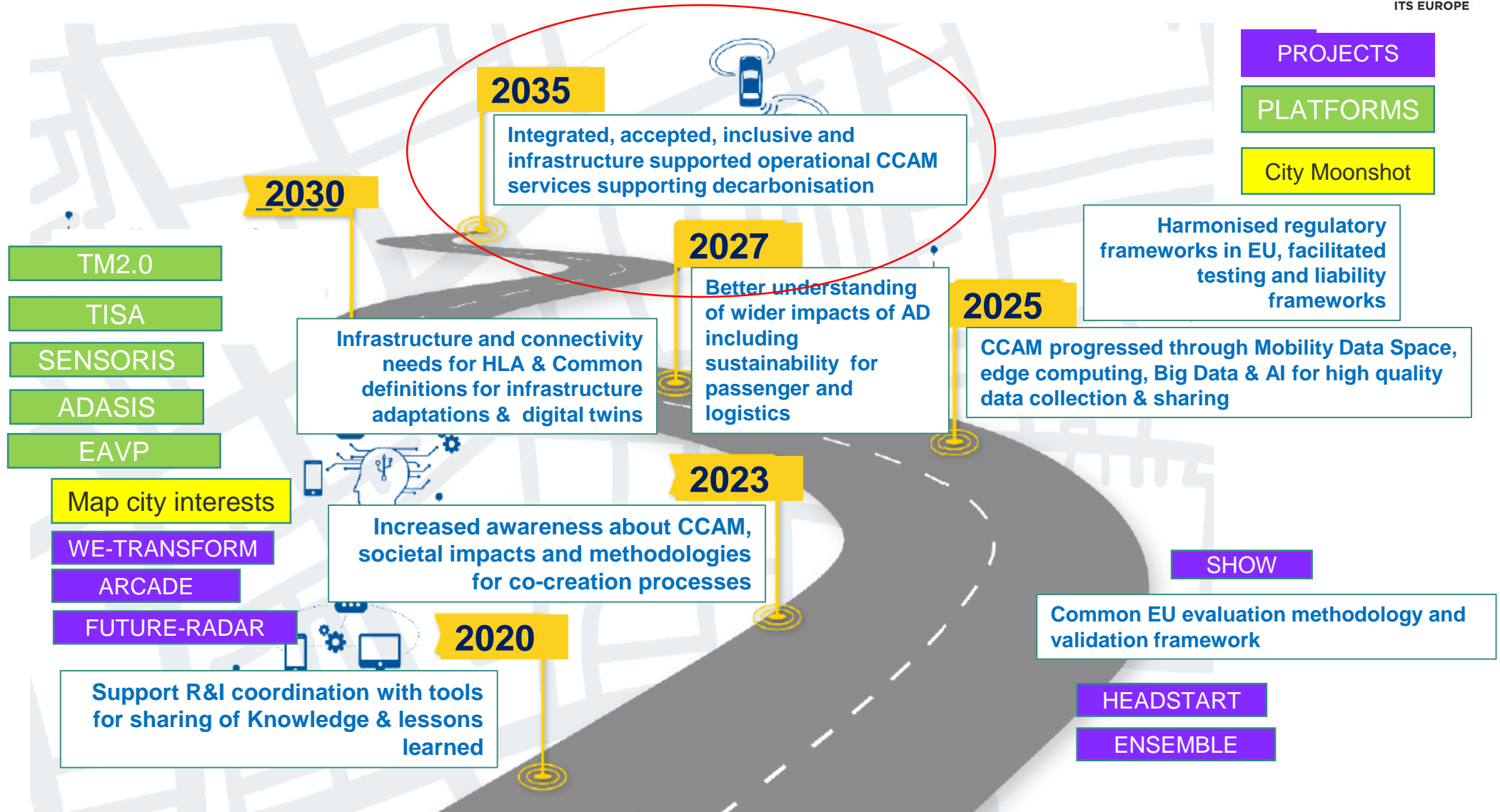# 4. ERTICO European roadmap

Bridging gaps between private and public

Example of our roadmap on CCAM

ERTICO
ITS EUROPE

1m tonnes CO2
1m hours saved
10.000 lives saved

2030 — 100% achieved
75% achieved
2025 — 50% achieved
25% achieved
2020 —
Societal targets

PROJECTS
PLATFORMS
City Moonshot

2035
Integrated, accepted, inclusive and infrastructure supported operational CCAM services supporting decarbonisation

2030

2027
Better understanding of wider impacts of AD including sustainability for passenger and logistics

Harmonised regulatory frameworks in EU, facilitated testing and liability frameworks

TM2.0
TISA
SENSORIS
ADASIS
EAVP

Infrastructure and connectivity needs for HLA & Common definitions for infrastructure adaptations & digital twins

2025
CCAM progressed through Mobility Data Space, edge computing, Big Data & AI for high quality data collection & sharing

5G-META
5G-LOGINNOV
5G-MOBIX
5G-DRIVE

Map city interests
WE-TRANSFORM
ARCADE
FUTURE-RADAR

2023
Increased awareness about CCAM, societal impacts and methodologies for co-creation processes

SHOW

Common EU evaluation methodology and validation framework

2020
Support R&I coordination with tools for sharing of Knowledge & lessons learned
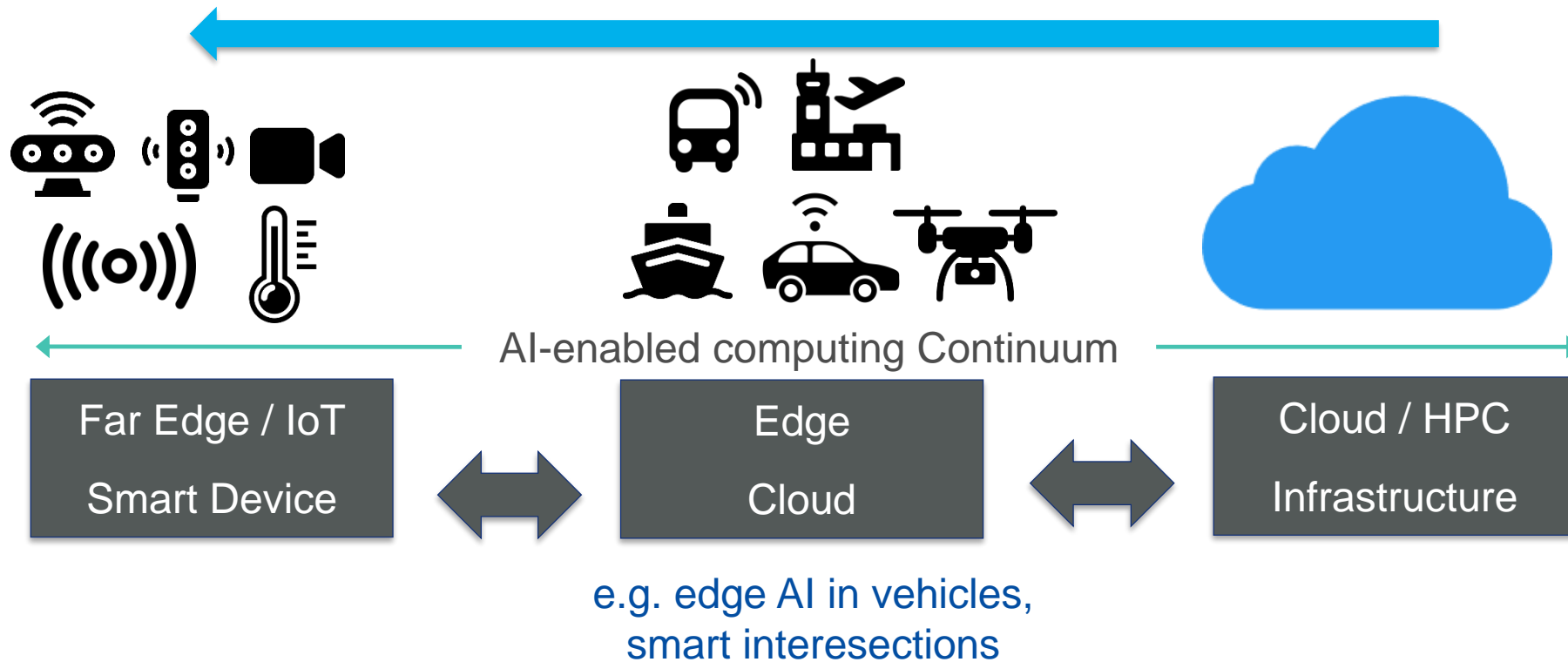
HEADSTART
ENSEMBLE

Connected, Cooperative & Automated Mobility

15

Next generation solutions - common denominator
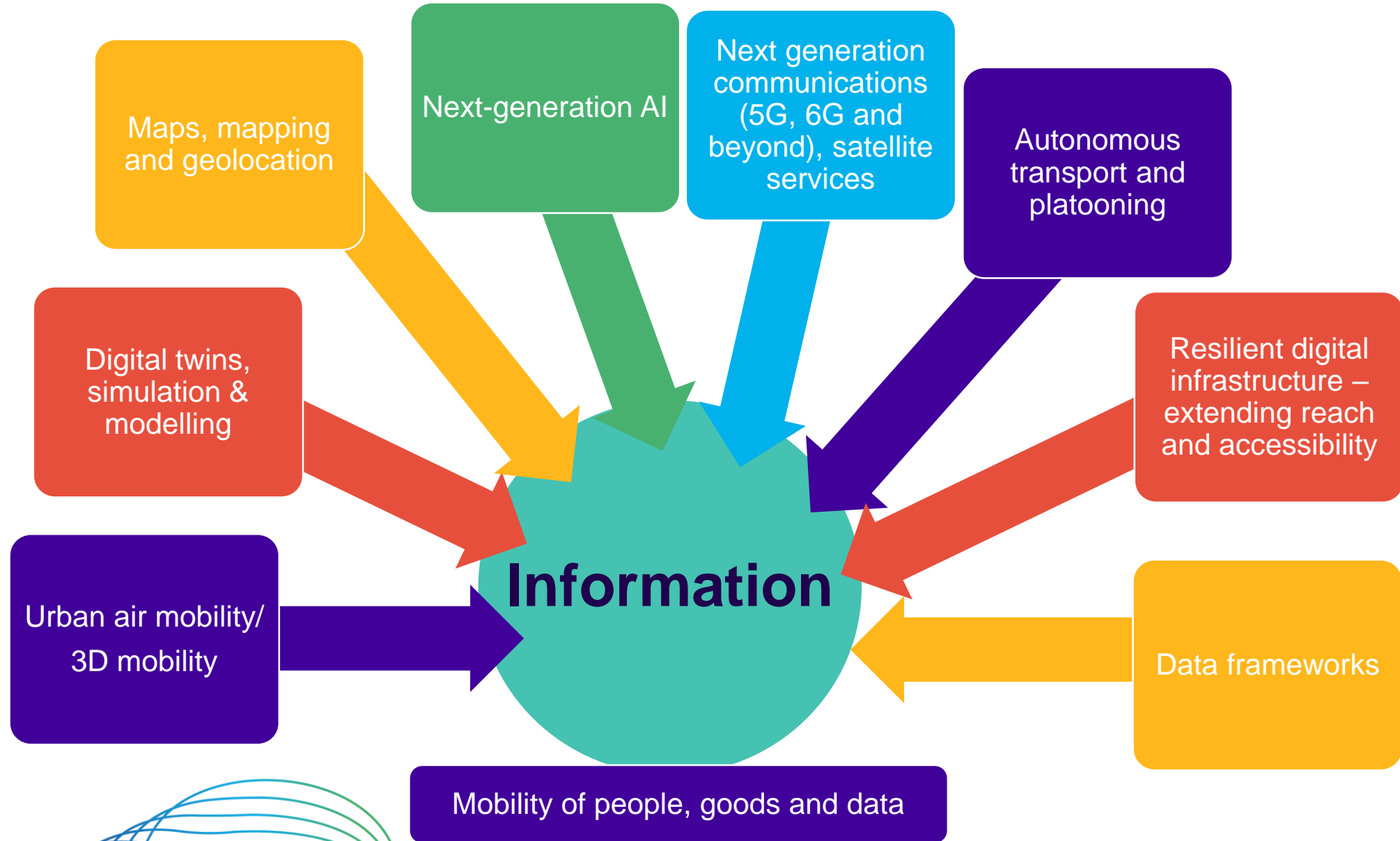
Next generation solutions - aspects of information for the mobility of people and goods

From cloud to edge: bringing compute resources closer to the data

AI-enabled computing Continuum

Far Edge / IoT Smart Device		Edge Cloud		Cloud / HPC Infrastructure

e.g. edge AI in vehicles, smart interesections

14th ITS European Congress – 30 May to 1 June 2022

- ❑ **Toulouse, France's fourth largest city and the capital of the Occitane region with over 1,300,000 inhabitants**
- ❑ **A packed programme over three days with high level programme including four plenaries and a technical programme with five ITS themes**
- ❑ **Presentations, demonstrations and state-of-the-art exhibition under one roof in one unique site the MEET near Blagnac airport**
- ❑ **Webinars and info : https://itseuropeancongress.com/**

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"Alone we can do so little,
together we can do so much" Helen Keller

ERTICO Partnership

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Useful links

- www ertico com

- Newsroom https://erticonetwork com/ (Interview and company news)

- Overview ERTICO and its current projects: https://ertico com/wp-content/uploads/2021/06/ERTICO-In-Review-2021_HD pdf

- 4 minutes video latest annual overview: https://www youtube com/watch?v=pSk_rTNxVH4&t=51s

Added value for its 120 + Partners

- EU funded project/consortia building for smart mobility

- Connecting the dots: bringing different stakeholders to the same table

- Helping to design pathways for research to be commercialised

- Generating provocative scenarios in technology development

- Innovation platforms

- Building links to similar communities across Europe and overseas

- Watching the horizon, especially globally, to help Partner business planning

- ITS congress community

Together for tomorrow's journey.

ERTICO Partnership

ERTICO's Vision 2030 for mobility

- Connected
- Automated
- Digital
- Multimodal

- Electric
- Integrated
- On demand
- User-centric

Mobility-as-a-Service or *MaaS*

SMART MOBILITY DEPLOYMENT BY ERTICO PARTNERSHIP
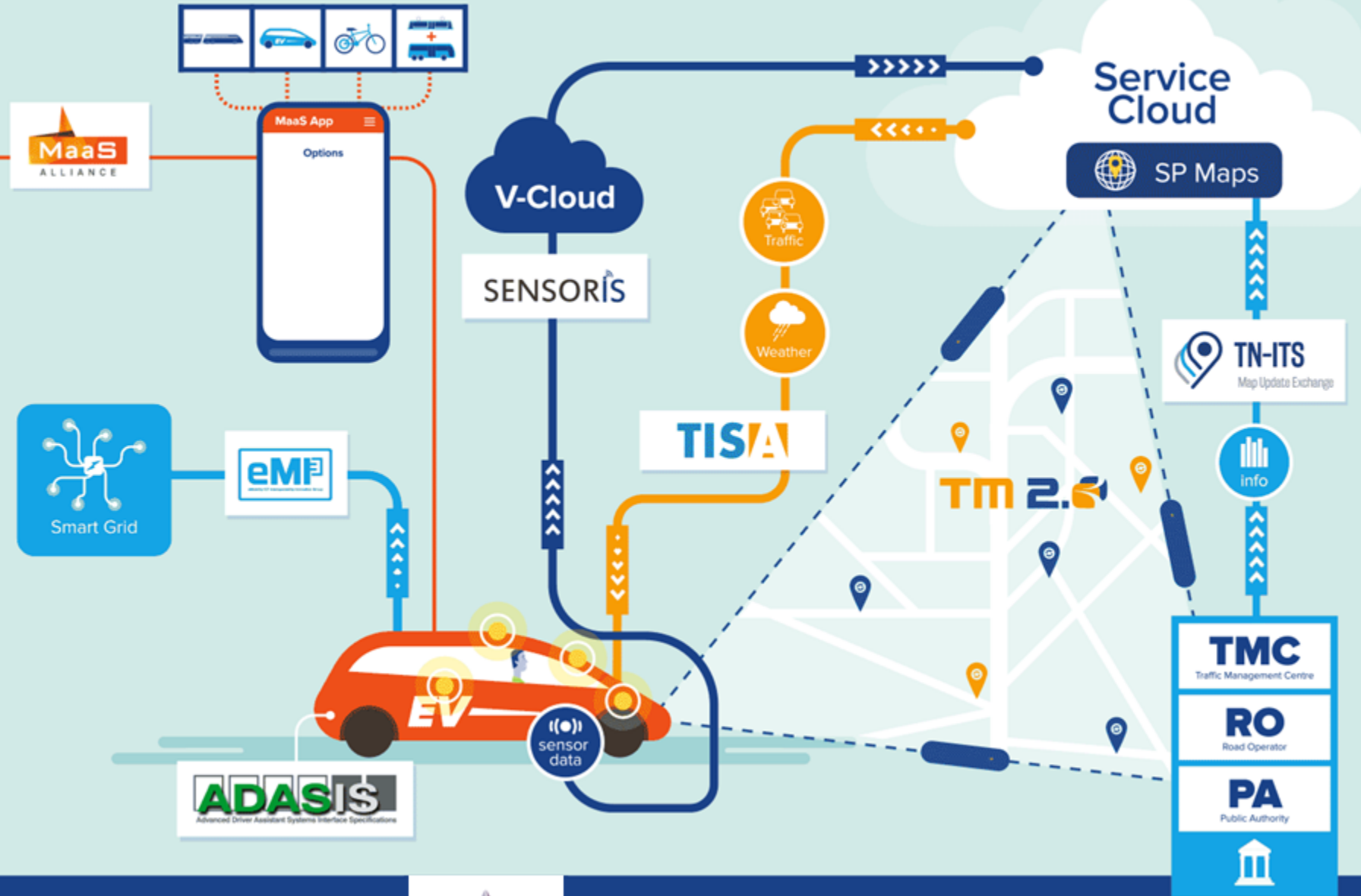
ERTICO'S ROLE IN MOBILITY

Expectations and benefits of digital economy

Safety	Traffic efficiency	New mobility	Resources
• ADAS and automation • Reduce human errors • Inclusive (aging/disabled)	• Optimized throughput • Cooperative • Dialogue among systems	• On demand & shared • Multi-modal • Single ticketing	• Contribution to climate and environment • Increase of productivity • Better us of land/space • Upgraded city planning • Interoperable data spaces