

# Vehicle-to-Vehicle communication

## An example of data sharing for road safety

UNECE Task Force on vehicular communications

23 June 2023

**Joost Vantomme**

CEO, ERTICO-ITS Europe

Chair, DFRS (Data For Road Safety ecosystem)

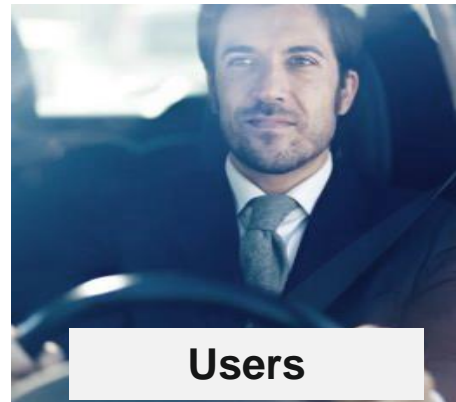


# ERTICO-ITS Europe A Public Private Partnership

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

**Geographical scope: EMEA**

[www.ertico.com](http://www.ertico.com)





**Automated driving**



**Drones**



**Data exchange**



**Traffic management**



**Artificial Intelligence**



**Mobility as a Service**



**Navigation**



**Mobility Apps**



**Transport and Logistics**



**Intelligent Infrastructure**



**Safety**



**Multimodality**



**Payment Systems**



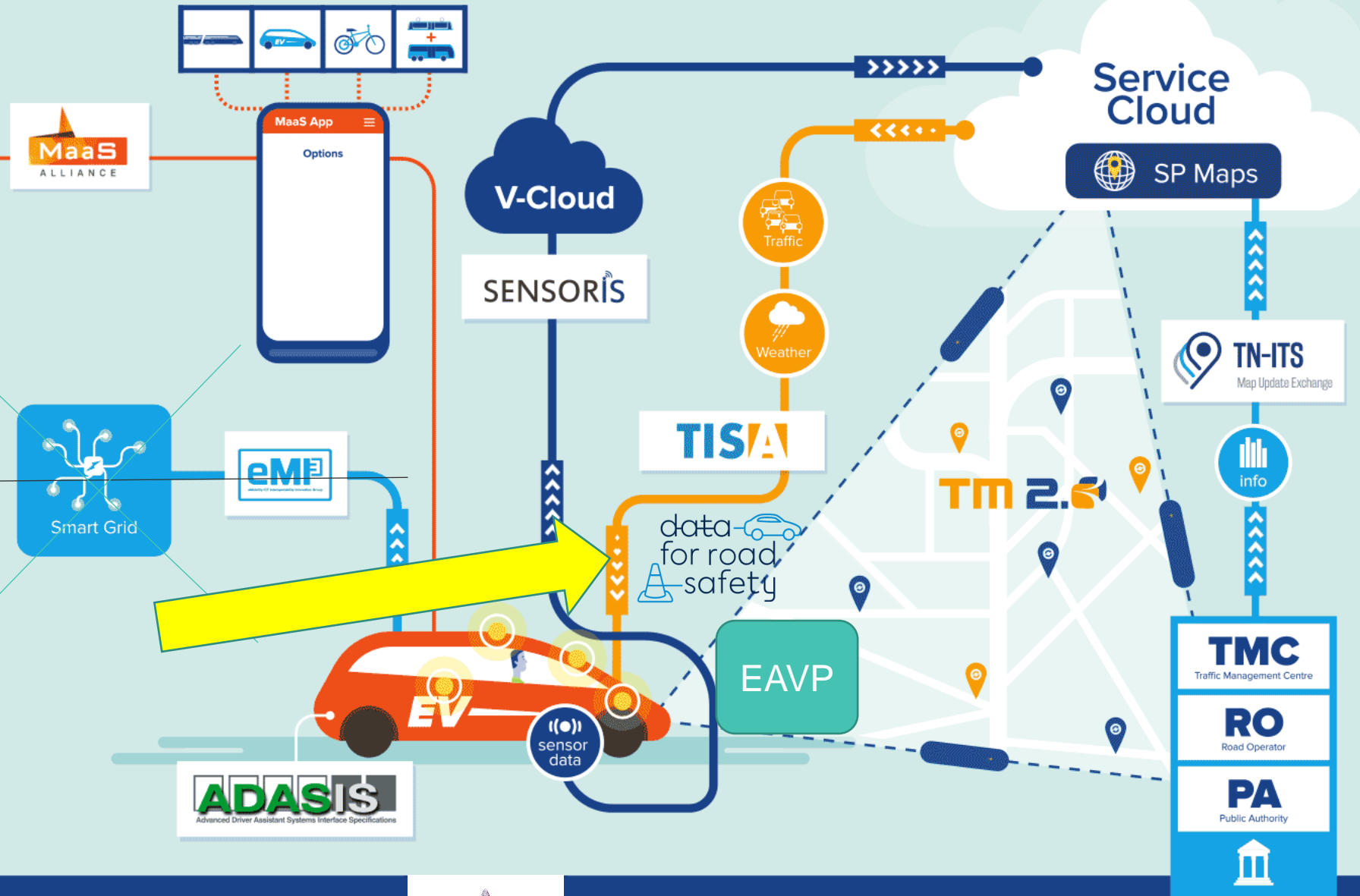
**V2X Communication**



**eMobility**

# **ITS** Intelligent Transport Systems

# SMART MOBILITY DEPLOYMENT BY ERTICO PARTNERSHIP



# ERTICO EU projects with V2V/V2I/V2P/V2G -> V2X

## Safety & security

- Improve support of driver/reduce human errors
- ✓ Vehicle safety & security (braking, steering, eCall, cybersecurity,...)
- ✓ Road & pedestrian safety
- ✓ Platooning, automated valet parking: connectivity support to automated driving

## Traffic efficiency

- ✓ Better vehicle throughput
- ✓ Road capacity learning systems
- ✓ Digital twinning, city planning

## Service economy

- ✓ Integration into multi-modal digital mobility services, e.g. MaaS and TaaS, shared/on demand mobility services
- ✓ Insurance related services
- ✓ Logistic operated systems
- ✓ Repair & maintenance
- ✓ Charging infrastructure and systems
- ✓ Parking & tolling management

## Overall

- ✓ Sustainability (e.g. charging)
- ✓ Productivity: value of time
- ✓ Upgraded city planning

# V2V/V2I/I2V. Examples of data sharing for road safety



[www.dataforroadsafety.eu](http://www.dataforroadsafety.eu)

<https://www.linkedin.com/feed/hashtag/?keywords=dfrs>

# Focus on 8 regulated events

- ❑ **Safety related traffic information (European delegated regulation 886/2013)**
- ❑ **Public/private decentralised mobility data space for safety warnings**
- ❑ **Participants: OEMs, road authorities, service providers**
- ❑ **European Commission involved**
- ❑ **Eight regulated events**
  - **Unprotected accident area**
  - **Animal, people, obstacles, debris on the road**
  - **Temporary slippery road**
  - **Reduced visibility**
  - **Exceptional weather conditions**
  - **Short-term road works**
  - **Wrong-way driver**
  - **Unmanaged blockage of a road**



# Cross-border, cross-brand, public private cooperation



## Road sector

## OEMs

## Data Service Providers

AT  
BE/Flanders  
DE  
DK  
ES  
FI  
LU  
NL  
UK


BMW  
Mercedes-Benz  
Ford  
VW Group  
Volvo Cars  
+ ACEA

TomTom  
INRIX  
HERE  
GeoTab  
NiraDynamics







# Types of data





**L1 Data**

- Raw sensor data
- Doesn't leave vehicle



**L2 Data**      **L2' Data**

- Mass data from individual vehicles
- Various data types depending on OEM/fleet:
  - Accident / Broken Down Vehicle / Vehicle In Difficulty
  - ABS / Dangerous Slow Down
  - ESP Actuation / Traction Control / Traction Loss / Hydroplaning / Slippery Road
  - Reduced Visibility / Rear Fog Light Activation / Windshield Wiper Operation



**L3 Data**      **Service**

- Intelligently clustered & combined (Possibly) validated with other data
- SRTI warning message suitable to warn drivers
- Eight SRTI categories defined in Delegated Regulation 886/2013
- Inform end users via various services and channels

# DFRS Live Map



Tool that provides a holistic view of safety-related events occurring in the past 48 hours. The dashboard features an interactive map displaying several incidents.



*The DFRS live map is not contractually binding real-time data (delayed by 48 hours for presentation purposes).  
Join DFRS for live data streams*



**Live Map is available from the DFRS website: <https://data-intelligence.post.lu/dfrs/>**

# DFRS Tech Group



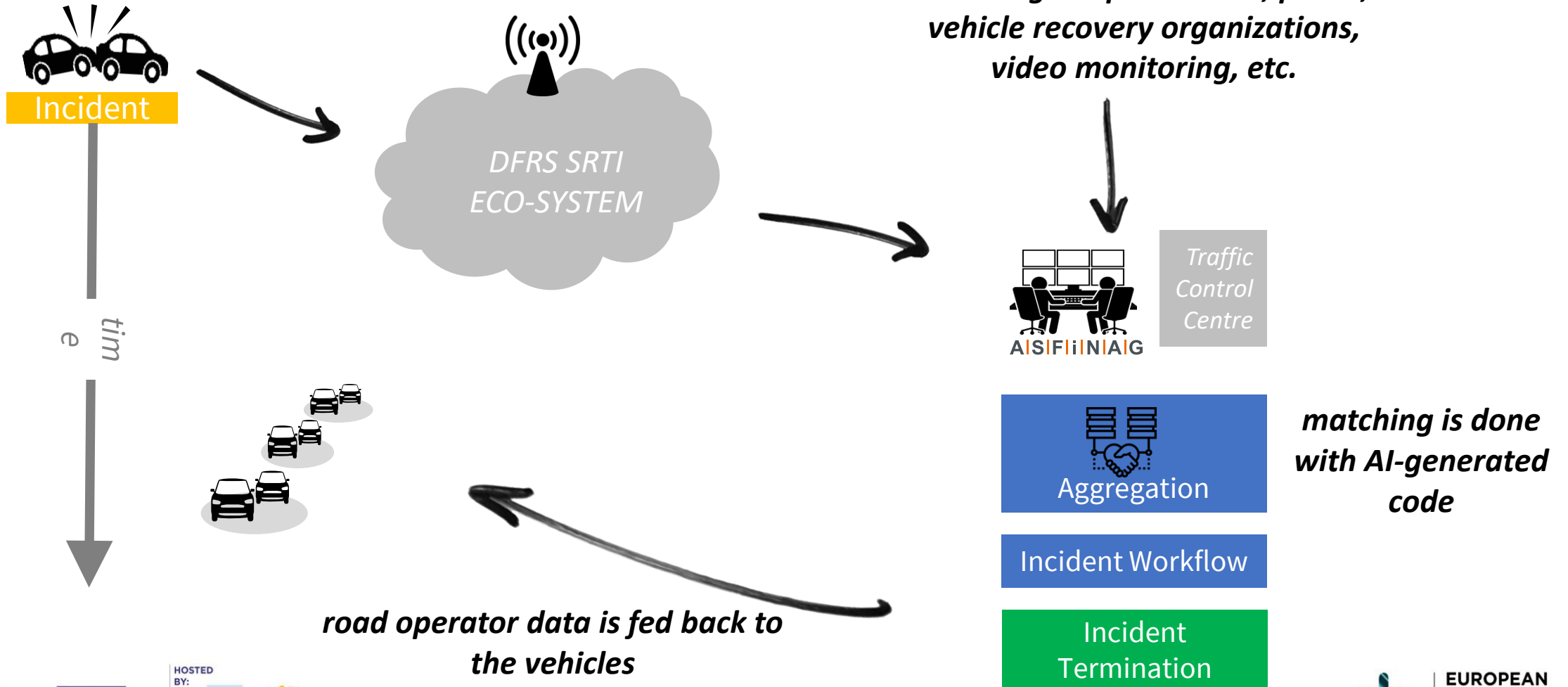
- 21+ active partners contributing to the ecosystem growth through data provision and expertise.
- 3 working groups within the DFRS Tech Group
  - **Group A** : Seeks to identify/Implement a robust DFRS SRTI data space
  - **Group B**: Seeks to identify the most appropriate data aggregation and retention rules for the DFRS ecosystem.
    - Identifies proof of value of our ecosystem
  - **Group C**: Seeks to develop a framework for data quality to validate both OEM and non-OEM data within DFRS.
- **~40,000\*** safety messages a day.
  - Temporary slippery road
  - Animal, people, obstacles, debris on the road.
  - Unprotected accident area.
  - Unprotected accident area.
  - Reduced visibility.
  - Wrong way driver.
  - Unmanaged blockage of a road.
  - Exceptional weather conditions



**DFRS Live Interactive Map**

\* Varies dependant on weather & road conditions

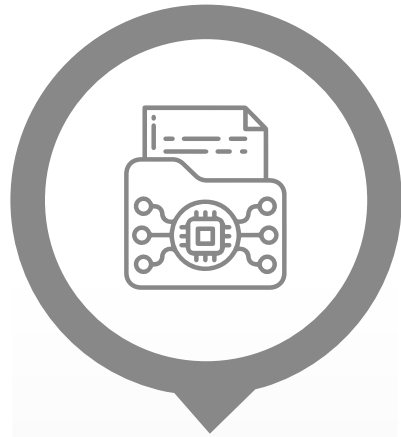
# Example of added value for a road operator



# Key documents & links



[Multi Party Agreement for the SRTI Ecosystem](#)



[Technical Documentation](#)



[Evaluation of the PoC Data for Road Safety](#)



[Instructive Video](#)



[Dedicated DFRS Website](#)

# Reach out to us !



**Twitter**

[@ERTICO](https://twitter.com/ERTICO)

[@ITS Congresses](https://twitter.com/ITS_Congresses)



**LinkedIn**

Company Page: [@ERTICO – ITS Europe](https://www.linkedin.com/company/ERTICO-ITS-Europe)

ERTICO Group: [@ERTICO](https://www.linkedin.com/company/ERTICO)

ITS Congress Group: [@ITSCongresses](https://www.linkedin.com/company/ITS-Congresses)



**YouTube**

[ERTICO – ITS Europe](https://www.youtube.com/ERTICO-ITS-Europe)



**Flickr**

[ERTICO-ITS-Europe](https://www.flickr.com/photos/ERTICO-ITS-Europe)

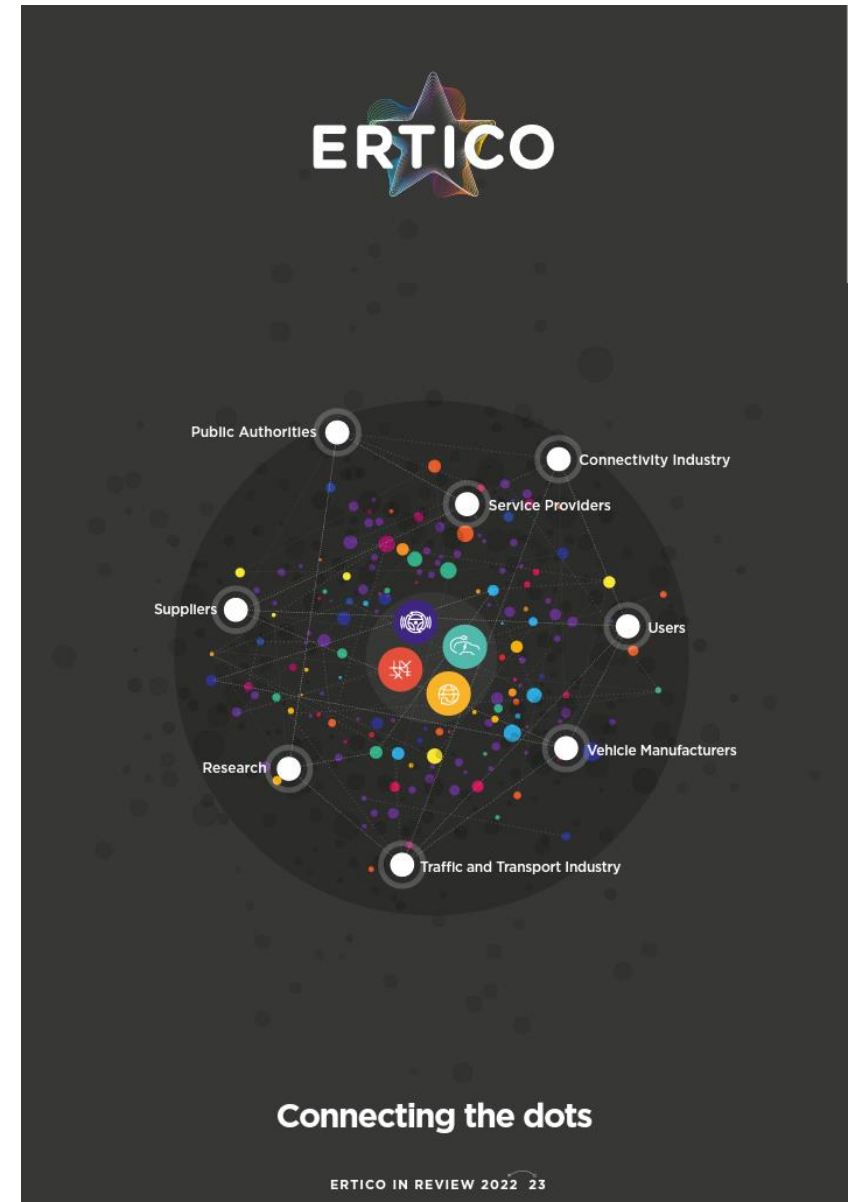
**ERTICO Newsroom:** Featured News | Partner News | Project News | Policy News | Events

**Fortnightly Newsletter:** Promoting ERTICO Activities & Partner News → [Subscribe](#)

**ITS Congress eBlast:** Promoting ITS Congress Activities & Announcements → [Subscribe](#)

# Annual Review 2022-2023

- ERTICO Foreword
- Vision 2035 by Focus Area
- Our Partners
- What we do:
  - ERTICO Activities
  - Thought leadership & advocacy activities
  - Congresses: Los Angeles, Lisbon, Suzhou & Dubai
- Partnership overview of benefits
- [Download the Annual Report 2022 – 2023](#)
- [5' video of 2022-2023 review](#)





# ERTICO

ITS EUROPE

**Contact:**

[j.vantomme@mail.ertico.com](mailto:j.vantomme@mail.ertico.com)

+32 2 400 07 10

**“Alone we can do so little,  
together we can do so much”** Helen Keller

**ERTICO Partnership**

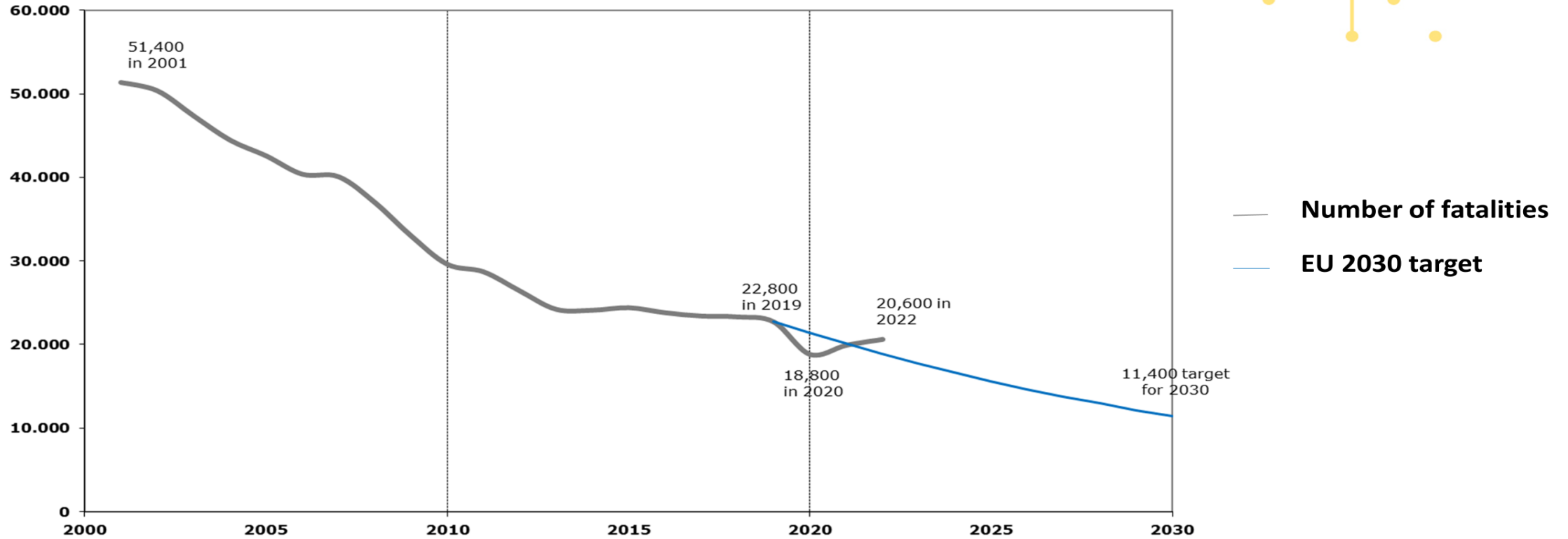
[ertico.com](http://ertico.com)

[@ertico](https://www.instagram.com/ertico)



## 2022 EU Road Safety Statistics

Trend in the number of road traffic fatalities



Source: CARE (EU database on road crashes)

# ROAD TRAFFIC FATALITIES IN THE EU IN 2021

by road user and (other) 'main vehicle' involved in the crash

IN A COLLISION WITH...

FATALITIES		PEDESTRIAN	BICYCLE	MOPED	MOTORBIKE	CAR	LORRY (<3.5T)	HEAVY GOODS VEHICLE (>3.5T)	BUS OR COACH	OTHER VEHICLE/ UNKNOWN	NO OTHER VEHICLE INVOLVED	TOTAL
PEDESTRIANS		0	29	16	115	2 328	416	391	97	10	0	3 554
CYCLISTS		7	45	6	26	838	183	199	30	7	0	1 837
MOPED RIDERS		0	1	7	6	232	42	27	5	2	0	515
MOTORCYCLISTS		10	8	8	91	1 386	231	207	13	8	0	3 236
CAR OCCUPANTS		18	6	4	21	2 504	625	1 392	115	18	3 900	8 883
LORRY (<3.5T) OCCUPANTS		1	0	1	0	124	62	250	10	32	0	742
HEAVY GOODS VEHICLE (>3.5T) OCCUPANTS		1	1	0	0	40	11	192	2	13	0	413
BUS OR COACH OCCUPANTS		3	0	0	0	1	7	12	4	14	0	120
OTHER/UNKNOWN		2	3	2	4	169	0	0	4	27	0	597
<b>TOTAL</b>		<b>42</b>	<b>93</b>	<b>44</b>	<b>263</b>	<b>7 627</b>	<b>1 611</b>	<b>2 722</b>	<b>280</b>	<b>728</b>	<b>6 487</b>	<b>19 897</b>

Methodological note: the data cover fatalities in single-vehicle crashes and crashes involving one or more traffic units. For the majority of fatal crashes, only one other vehicle is involved in the crash. For multi-vehicle crashes, the 'main vehicle' is the heaviest of the vehicles involved as this tends to be responsible for the most serious consequences. As a result, the figures in each column likely underestimate the number of cases a particular vehicle was involved in a crash. Source: EU CARE database on road crashes

Data refer to the year 2021 except IE (2017), MT and SE (2019), CZ, EE, EL, CY, LV and SK (2020)

[itsworldcongress.com](http://itsworldcongress.com)

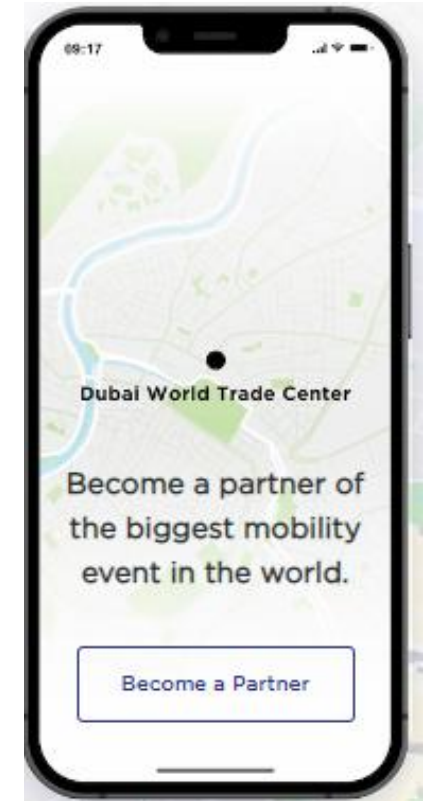
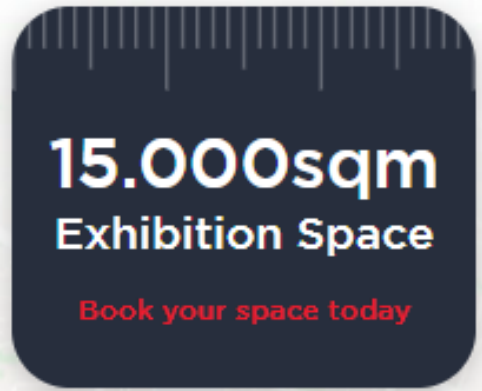
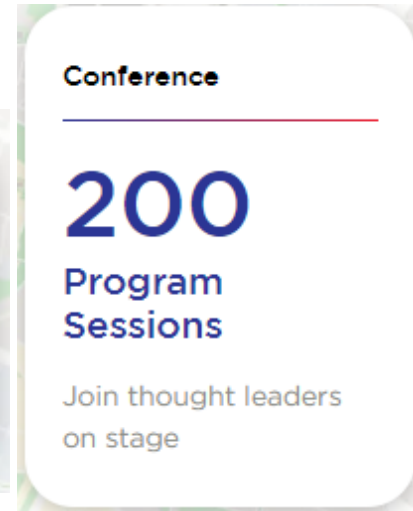
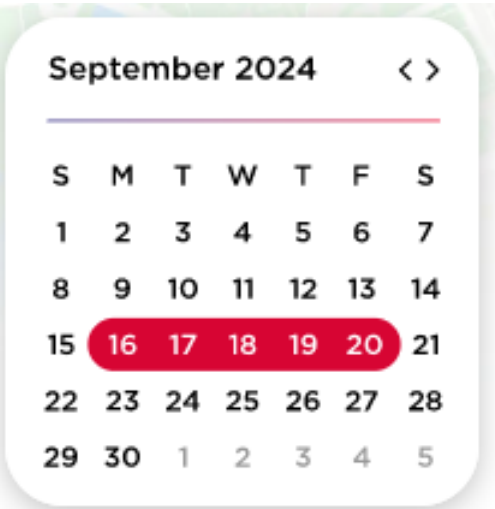


# DUBAI ITS World Congress

16 -20 September 2024  
Mobility Driven by ITS



# Dubai Congress: What to expect



## And much more!

Organised by



Co-organised by



Hosted by



Supported by



[itsworldcongress.com](http://itsworldcongress.com)

# Brochures & Floorplan

- Commercial Partnership brochure
- Exhibition brochure
- Interactive floor plan

➔ Express your interest,  
email: [salescongress@mail.ertico.com](mailto:salescongress@mail.ertico.com)



# Examples of our involved projects & platforms with data sharing in CCAM

## PROJECTS



SUNRISE

PoDIUM



## PLATFORMS



**CONNECTED COOPERATIVE  
AND AUTOMATED MOBILITY**

ACCELERATING AUTOMATION  
AND CONNECTIVITY FOR SAFER  
AND SMARTER MOBILITY

CCAM services play a central role in delivering decarbonisation and improving safety in the transport of people and goods within the right legal and regulatory frameworks and in line with the European Green Deal and Vision Zero among many other key targets. With a roadmap goal of Inclusive and Integrated CCAM being deployed by 2035, time is short, and much work remains.

