



# ERTRAC

## Research fields for TRA2022

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ERTRAC is the European Technology Platform (ETP) for Road Transport: it gathers research stakeholders from industry, research institutes, universities, associations, and public authorities from European, national and local levels.



# ERTRAC Supports TRA2022 Lisbon



ERTRAC has been a strong supporter of the TRA Conference since its origin: it is fully in line with our platform approach to bring together various research stakeholders from across Europe, from industry, research, academia, and to exchange with public authorities from European, national and local levels.

The multi-modal dimension of the conference is an opportunity for different research communities to meet, discuss major research and innovation trends, and identify synergies across fields.



# The TRA programme matches with ERTRAC main research fields:

- Energy & Environment
- Urban Mobility
- Connected and Automated Mobility
- Road Safety
- Freight and Logistics
- Global Competitiveness of Europe



## Highlights of ERTRAC research interests:

### Energy & Environment:

- **Electrification of road transport:** next generations of batteries, vehicle system architecture, new vehicle designs, integration into the grid, integration into the transport system.
- **Sustainable energies and powertrains:** energy needs, renewable energy carriers, looking at both vehicle technologies and infrastructure needs.

**Towards climate neutral road transport by 2050.**



## Highlights of ERTRAC research interests:

### Urban Mobility:

- **Integration of new technologies and new mobility services:** sharing schemes, micro-mobility, electrification, connectivity and automated mobility. Mobility system integration and data collection to support policy and decision-making.
- **Urban Mobility Resilience:** lessons learnt from covid-19 crisis, but considering other potential disruptive events, to prepare more resilient transport systems.



## Highlights of ERTRAC research interests:

### **Connected, Cooperative and Automated Mobility:**

- Investigate application domains and use cases, to be addressed progressively, for both people and goods.
- Focus on enablers: validation, infrastructure needs, technology enablers, business models, Artificial Intelligence and Data.
- Promotion of cooperation between Vehicle Industry, Communication Industry and Road Operators.



# Highlights of ERTRAC research interests:

## Road Safety:

- Focus at shorter term to address today road safety challenges beside the context of automation. Looking at all phases from preventive to post-crash safety.
- Looking at all road transport users and at all elements of the transport system: vehicles, infrastructures, and users behaviour => **Safe System Approach.**





# Highlights of ERTRAC research interests:

## Freight and Logistics:

- Impacts of major trends: digitalisation and automation; electrification and carbon neutrality.
- System integration, “Physical Internet”, new business models, supply chains resilience.

In cooperation with **ALICE**, with a **multi-modal** vision.



## Highlights of ERTRAC research interests:

### **Global Competitiveness of Europe:**

- European position and R&D challenges towards critical **materials** and components.
- **Life-Cycle Assessment:** beyond tank-to-wheel and well-to-wheel, assess materials and components sourcing, manufacturing and supply chains carbon footprint, and End-of-Life.
- Competitiveness of **manufacturing and supply chain.**
- **Education and evolution of skills** in automotive industry and mobility services.

