



# 5 HIGHLIGHTS FOR SAFETY IN SUSTAINABLE MOBILITY



16<sup>TH</sup> ASECAP ROAD SAFETY CONFERENCE. MADRID, 5<sup>TH</sup> MARCH 2024.

ACTING TO CHANGE DRIVER'S BEHAVIOUR TO REACH *VISION ZERO*  
GOAL BOTH FOR MOTORIST AND STAFF

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Spanish Road Association



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The Spanish Road Association

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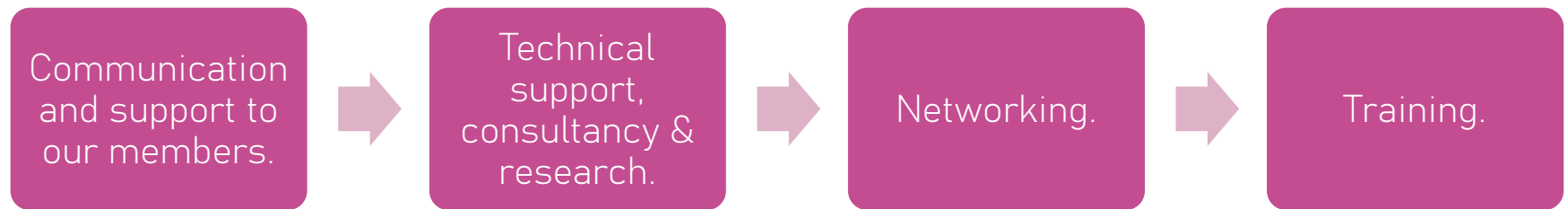
Final remarks.

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# SPANISH ROAD ASSOCIATION



- Non-profit organization focused on the defence, promotion and development of a better and safer road transport. Founded in 1949: 75 years working for a better road mobility!
- Based in Spain, working worldwide.
- Under the umbrella of the program “SAFE, GREEN AND CONNECTED ROADS”.
- Areas of specialization: safety, digitalization, sustainability, taxonomy, financing, maintenance, ...
- 4 main lines of activity:



- Founding members of:





# 1.- IS “GREEN” HIDING SAFETY?

The situation:

- Next Generation EU.
- Green Deal.
- European Commission Policy.



Make it safe & secure?



And the Safety Deal?

The first climate-neutral continent by 2050	At least 55% less net greenhouse gas emissions by 2030, compared to 1990 levels	3 billion additional trees to be planted in the EU by 2030
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## 4.1 Infrastructure - safe roads and roadsides

### KPI for infrastructure:

Percentage of distance driven over roads with a safety rating above an agreed threshold.



Directive 2004/54/EC on minimum safety requirements for tunnels in the Trans-European Road Network.



Directive (EU) 2019/1936 on road infrastructure safety management.



EU Road Safety Policy Framework 2021-2030 – Recommendations on next steps towards “Vision Zero” (Official Journal of the EU 24.3.2022).

# 1.- IS "GREEN" HIDING SAFETY?

The situation:

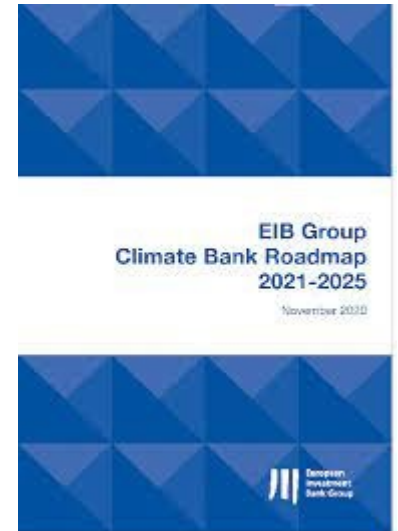
- Trans-European network: Connecting Europe Facility.
  - 2022: Program "safe and secure mobility". 4% of total finance of CEF.
  - Results in Spain for road safety: safe and secure parking area in Murcia.



- World-wide vision: Development Banks.

Are they all more climate / green oriented?

- WHO – 2<sup>nd</sup> global decade for road safety 2021-2030.
- Is there a global change in priorities?



# 1.- IS "GREEN" HIDING SAFETY?

Some ideas:

- Safety is one of the key elements of Sustainable Mobility.
- Safety as a priority for Lobbying:
  - Asecap, Smart Transportation Alliance, European Union Road Federation, national associations, etc.
- Climate and safety. Many climate events have an impact on road safety.
- Priority role of safety in ESG, should be more visible?
- Taxonomy: Green taxonomy vs social taxonomy.
  - Safety to play a key role in social taxonomy.

# Perceived gaps in environmental Taxonomy

## OBJECTIVES IN GREEN TAXONOMY

Climate Change Mitigation
Climate Change Adaptation
Transition to a circular economy
Pollution prevention and control
Sustainable use and protection of water and marine resources Protection and restoration of biodiversity & ecosystems

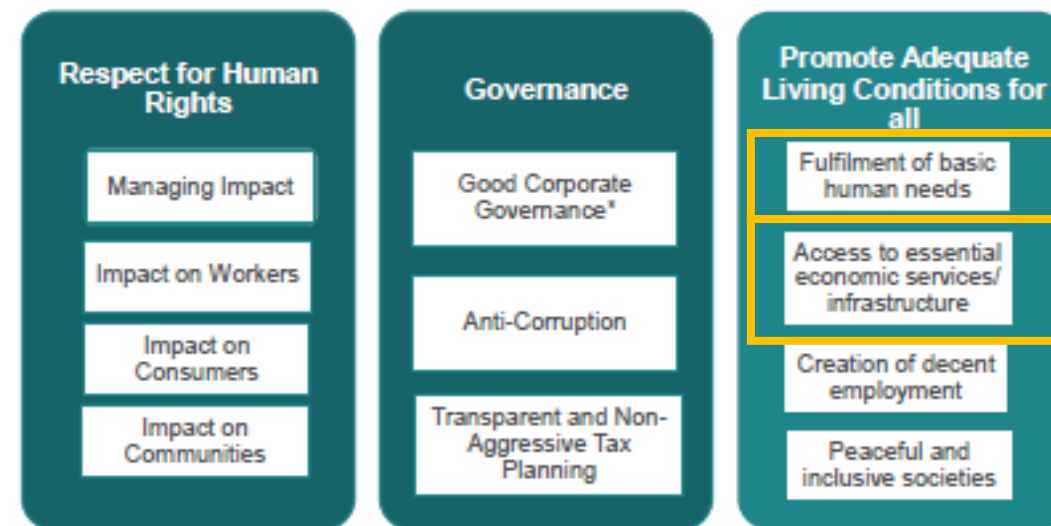
## EXAMPLES OF WHAT IS MISSING

Human Rights
Governance
Access to healthcare
Decent Employment
Equality
Non-discrimination

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## Social Taxonomy Ideas for Objectives



\*including responsible lobbying



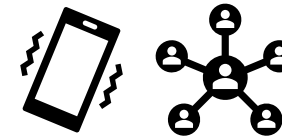
# 2.- TECHNOLOGY FOR SAFETY IMPROVEMENT

## The situation:

- Significant technology deployment in motorways.
  - Motorways as the perfect ecosystem for innovation.



- New tools for safety improvement:
  - Big Data & AI: from mobile phones to connected vehicles.
  - Satellite images.
  - Specific solutions for particular problems: fog, heavy rain, etc.
  - Technology for safety of staff.



Since 2022: continuous mobility study by applying Big Data and Artificial Intelligence to cell phone data.



**prensa**

Dirección General de Carreteras

Transportes licita por 7,9 millones de euros un contrato para obtener y tratar datos de movilidad en la Red de Carreteras del Estado mediante herramientas Big Data



Spain workforce: 14.000 maintenance operators (ACEX).  
100 victims yearly.





# 2.- TECHNOLOGY FOR SAFETY IMPROVEMENT

## Some ideas:

- Motorways as Living – labs for global solutions.
  - Motorway operators are key stakeholders of the innovation value chain. Connected and autonomous mobility.
  - Possibility to extend experience and results to the entire road network. Action!
- Investment in innovative solutions for road safety.
- Autonomous mobility: not only vehicles, but also optimal intelligent and connected road infrastructure.
- EU: lobbying for a major participation of road infrastructure in Horizon Europe and following programs.
  - STRIA: Strategic Transport Research & Innovation Agenda – roadmap on infrastructure, focus on safety.
  - Input for Research & Innovation EU programs.
- Spain: INNOVATION PUBLIC PROCUREMENT ON ROADS.
  - Launched 2022 by Ministry of Transport, 10 challenges.
  - Road design, construction, sustainability, safety, energy efficiency, autonomous vehicles, Ai for road asset inspections, tunnel management, pavements, advanced road safety management, vulnerable users, wildlife.



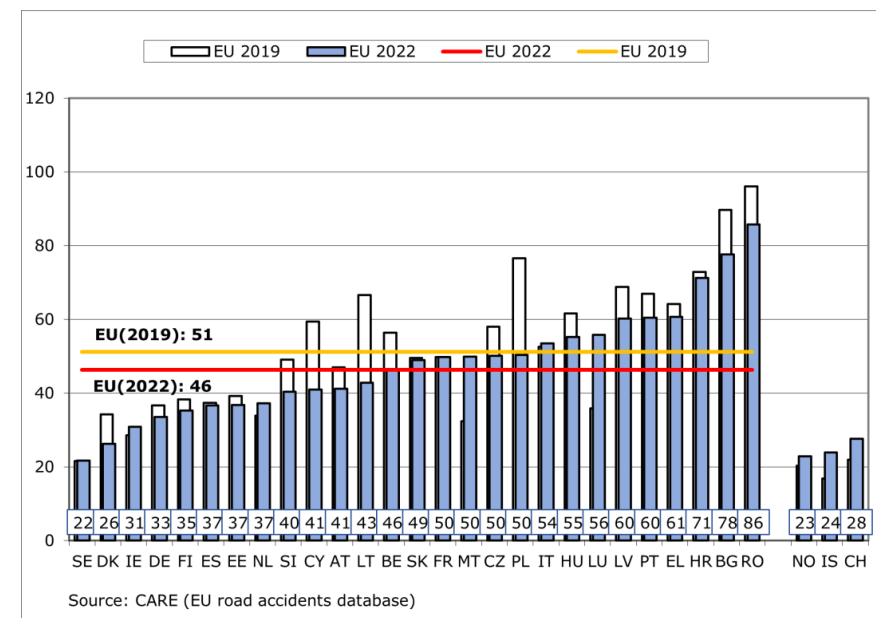
# 3.- ROLE OF INFRASTRUCTURE IN SAFE SYSTEM

## APPROACH

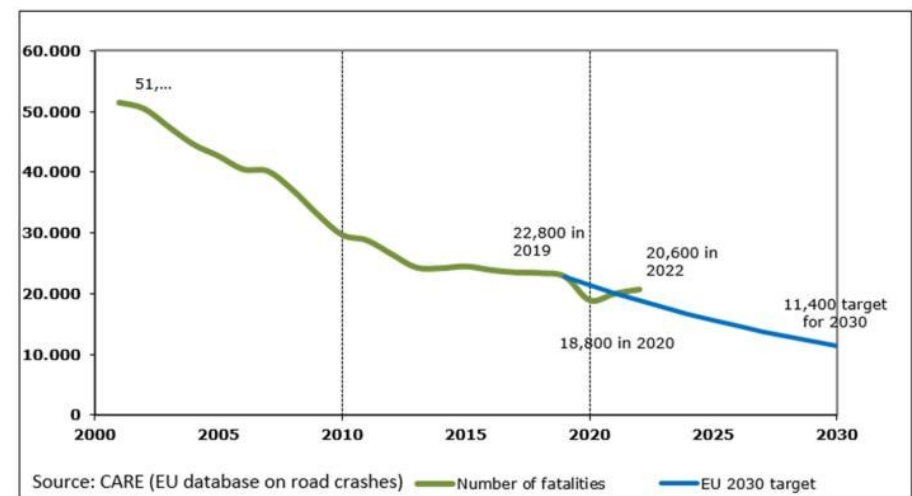
The situation:

- Stabilized safety figures across Europe.

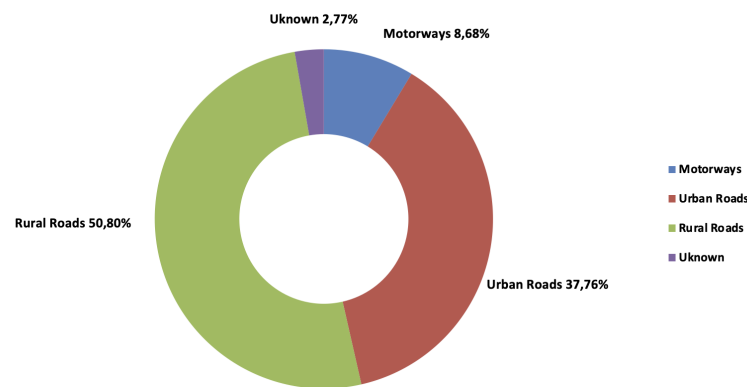
Road fatalities per million population, 2019-2022



Evolution of fatalities in EU



Fatalities by road type in EU (2021)



Source: European Union Road Federation with data from Eurostat

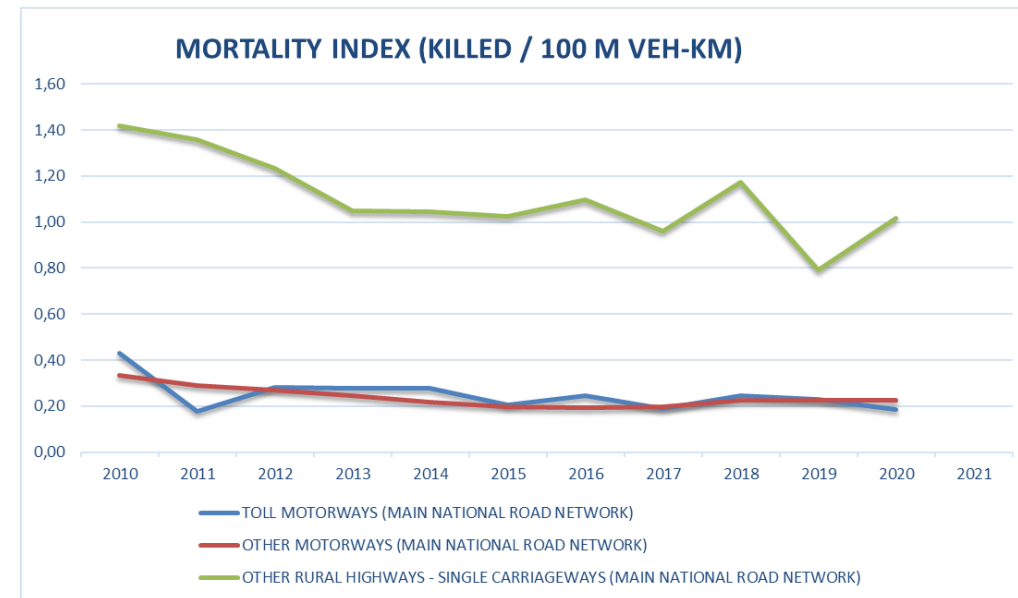
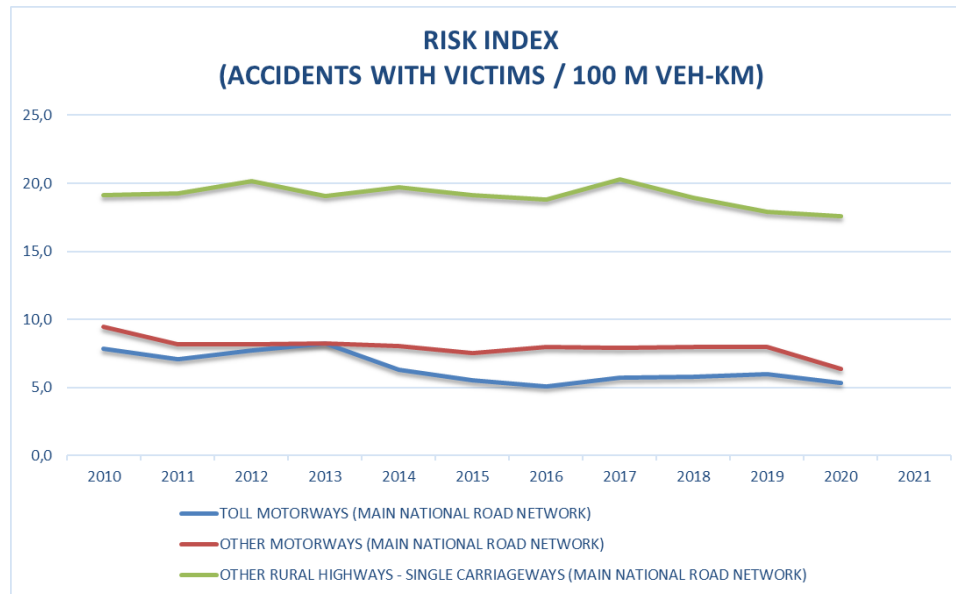
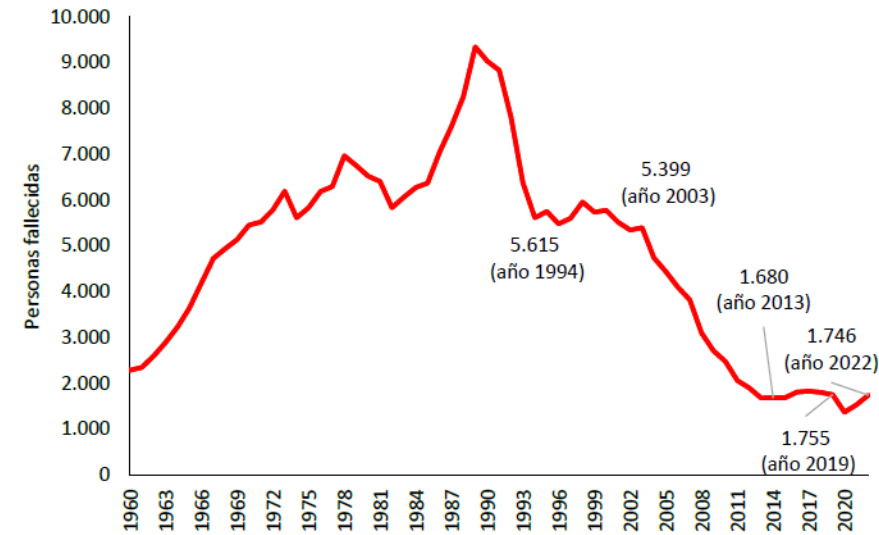
# 3.- ROLE OF INFRASTRUCTURE IN SAFE SYSTEM

## APPROACH

The situation:

- Stabilized safety figures across Spain.

Evolution of victims killed in Spain in road accidents (Source: DGT)

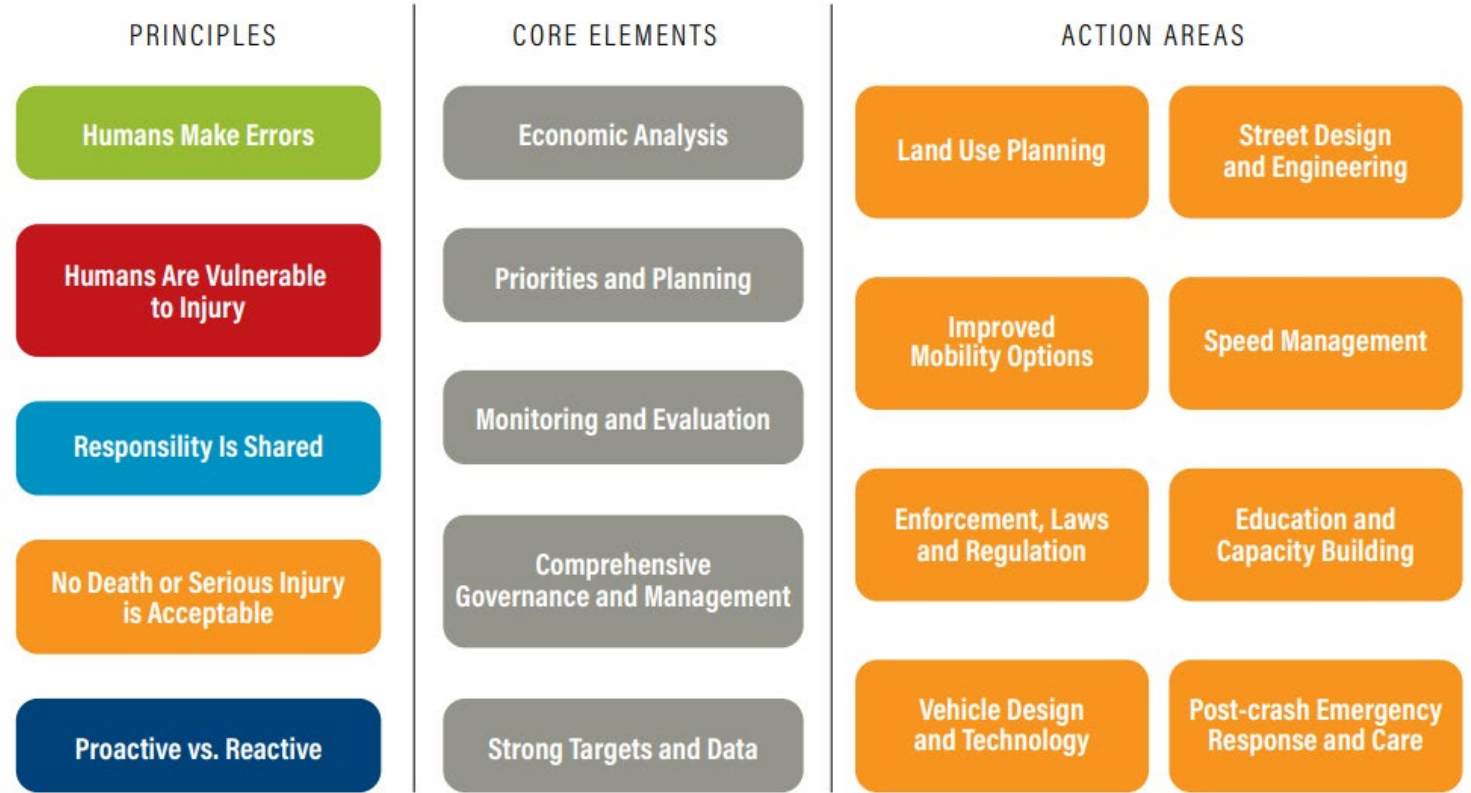


# 3.- ROLE OF INFRASTRUCTURE IN SAFE SYSTEM

## APPROACH

The situation:

- Safe System approach:



Source: Sustainable and Safer (World Resources Institute).

- Vision Zero with Zero investment?



Certainly NOT!

# 3.- ROLE OF INFRASTRUCTURE IN SAFE SYSTEM

## APPROACH

Some ideas:

- Priorities for Safe System in road infrastructure.
- Focus on disperse accidents:
  - Preventive tools: road safety inspections.
  - Road sections with high potential for improvement (if any)
- Additional research programs Seopan-AEC on road safety improvements.



Motorways



Asociación Española de la Carretera seopan

Seguridad en carreteras convencionales:  
un reto prioritario de cara al 2020

Febrero 2017




White Spots: identification of infrastructure characteristics linked to the no-occurrence of accidents: in toll motorways, significant contribution of speed, % of heavy vehicles, lane width and shoulder width.





# 4.- LEGAL FRAMEWORK, PLANS AND PROGRAMS.

## The situation:

- Adequate representation of road infrastructure in laws / policies / budgets for safe and sustainable mobility?
  - Specific program on Road Safety Strategy for road infrastructure, enough actions on infrastructure?
  - Different programs and investments of road administrations.
  - Law on sustainable mobility, recently approved in Spain.
  - February 2024, Spain: Creation of the Independent Authority for the Technical Investigation of Transport accidents, covering aviation, railways and maritime. Road accidents?
- Safety improvement on Next Generation EU Spain. 8%!
  - From 11,300 M€ in the Ministry of Transport:
    - 858 M€: urban roads, tunnel upgrade in accordance to Directive, vulnerable users, animal runover, protection against noise.
    - 56 M€ for secure parking, ITS, hydrogen and sustainable pavement.
  - ITS in toll motorways was included!
  - Safety improvement in road infrastructure: not for other road administrations (regional or local).
- European Commission.
- Is this enough for a transport mode with almost 90% of goods and passengers?




# 4.- LEGAL FRAMEWORK, PLANS AND PROGRAMS.

## Some ideas

- Recognise and support the role of roads:
  - In multimodal and combined transports, roads are key for modal shift.
  - In last-mile.
  - In climate change adaptation: roads are linked to the concept of redundancy, to avoid isolation of areas after climate events.
  - For demographic challenge (depopulated areas): roads not mentioned in the specific Spanish plan.
  - Under special circumstances (e.g. COVID-19).
  - ....
- Lobbying activities.
- And investments.

# 5.- SOCIETAL ISSUES.

The situation:

- Negative concerns of toll motorways. 
- Case of Spain:
  - End of concession contracts, free motorways received enthusiastically by governments and citizens.
  - Pay-per-use debate seems to be delayed, until when? 
- Lack of:
  - Recognition of positive impacts of toll motorways.
  - Social concerns about safety improvement and other benefits. 

# 5.- SOCIETAL ISSUES.

Some ideas:

- Focus on communication.
- Motorways are much more than a toll:



- Social rentability of motorways.
- Every week / weekend there is an opportunity to show high performance of motorways.

## KPI for infrastructure:

Percentage of distance driven over roads with a safety rating above an agreed threshold

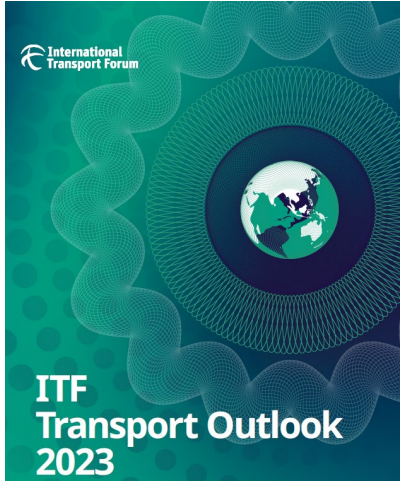
- ESG, we now safety is a priority: remark to the society.

# CONCLUSIONS

- The society and decision takers need a major concern of the role motorways play in safe and sustainable mobility.
- Do not consider road safety as something we already got over. It was a challenge of the past, but it is still a challenge of the present and future!
- Road infrastructure: enormous potential for accident reduction.
  - Technology is key, but also “hardware” solutions.
  - Investments required.
- Potential of technology in mobility, but also risks linked to distractions, coexistence of different vehicles, etc.
- Lobbying actions.
- Communication actions, internal and external.
- Motorways as perfect living-labs.



# FINAL REMARKS



**The High Ambition scenario:  
The necessary pathway to decarbonisation**

Only one reference to safety, on urban areas.

## Policy recommendations

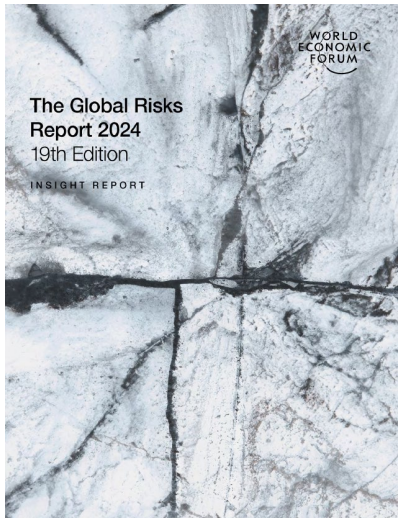
**Develop comprehensive strategies for future mobility and infrastructure**

**Implement mode shift and demand-management policies where they are most effective**

**Accelerate the transition to clean vehicle fleets**

**Consider the additional benefits for urban areas when evaluating policies**

**Reform vehicle taxation to capture external costs of new vehicle fleets**



Global Risks Report 2024

### Top 10 risks



"Please estimate the likely impact (severity) of the following risks over a 2-year and 10-year period."

#### 2 years



#### 10 years



Risk categories | Economic | Environmental | Geopolitical | Societal | Technological

Source: World Economic Forum Global Risks Perception Survey 2023-2024.

Extreme weather events

Cyber-insecurity

Pollution

Biodiversity loss and ecosystem collapse

....

And safety!

THANK YOU FOR  
YOUR  
ATTENTION

