



**5th conference**

Transport Solutions:  
from Research to Deployment

**Innovate Mobility, Mobilise Innovation!**

**Paris - La Défense CNIT, 14 - 17 April 2014**



# Transport Safety in Europe

## A cross modal approach

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# Session Objectives



- Examine and discuss **safety problems**, common and not common across transport modes.
- Exchange experiences on **good safety practices** with potential transferability between transport modes.
- Identify **research priorities** on cross modal transport with high potential of casualty reduction.



# Background of Transport Safety in Europe



Transport mode	Fatalities	billion pkm	Fatalities / billion pkm
Road	30.268	5.457	5,55
Railway	38	407	0,09
Air	6	575	0,01
Sea	-	37	-

European Union, 2011

Comparisons of safety rates between different transport modes are particularly difficult due to lack of consistent and appropriate exposure data.



# Basic cross modal safety comparisons



- **Public transport** is safer than private transport in all modes.
- **Bus and rail** are the safest forms of land transport having very similar safety rates.
- **Car** travel is ten times safer than walking, but it is also ten times less safe than bus travel.
- **Motorcycling** is the least safe form of transport.

There is no uniform picture across and within modes and across and within countries, in Europe and worldwide.



# Common safety problems across modes



- distraction - inattention - fatigue – alcohol
- speeding - human errors
- vulnerability - protective systems
- inappropriate infrastructure - nodes
- adverse weather





# Potential common focus across modes



- Human behaviour and performance
- Automation and cooperative systems
- Infrastructure redesign with focus on critical nodes
  
- Risk management and quality control
- Accident analysis



# Tools to be used from different modes



- Vision Zero and the Safe System Approach
- Accident Investigation
- Event Data Recorders
- An EU Agency (EASA, ERSA, EMSA, Road?)

## The need for data

- appropriate and detailed **exposure** data from Europe and worldwide
- **comparable** data across and within modes and across and within countries

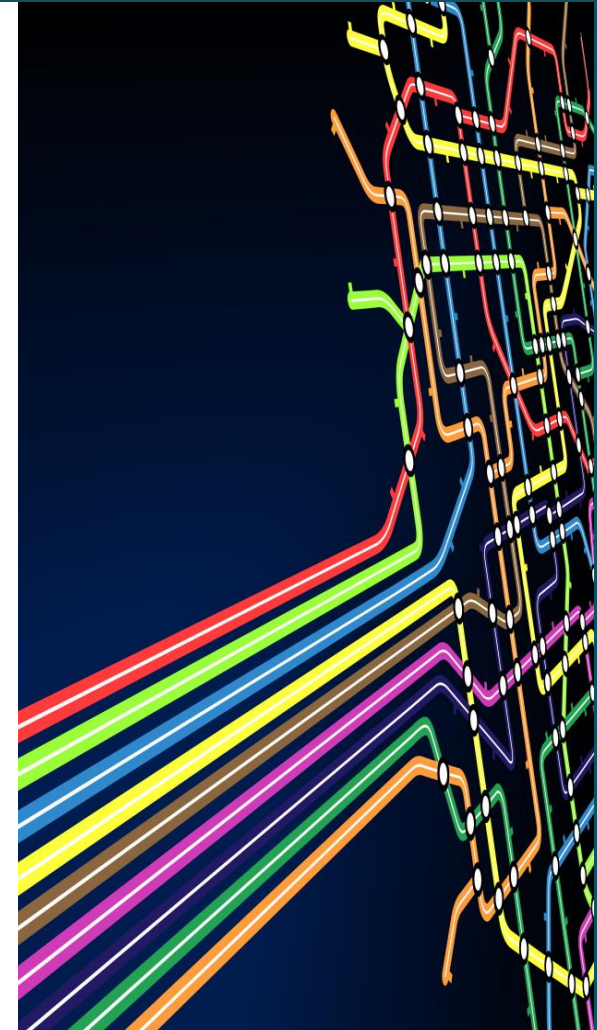


# Common approaches to be examined in all modes



- Closed systems
- International regulations
- Mandatory independent accident investigation
- Safety plans at national level
- Mandatory occurrence reporting at EU level

There are common safety problems in different transport modes involving different people, structures and geographic areas. The open questions is "how far are common solutions appropriate?".





# Fundamental policy and research challenges



- Improving coordination of policy objectives and research
- Introducing a constant process of monitoring - assessing – publishing
- Closing the gap between research and implementation

## The added value of research

Transport safety improvements can be assured by effective transport safety management, which must lean on evidence based research.



# Open Questions for cross modal transport safety



- How big is the problem?
- Should we relax the safety regulations in aviation?
- Should we increase safety regulations in road transport to the level of aviation?
- Should we adopt a common framework for risk assessments?
- How we could make collisions on roads as rare as on rail or in the air?



# Concluding Remarks



- The TRA 2014 Strategic Session on Transport Safety should be seen as the **start of the discussion** on cross modal approach on transport safety.
- It is obvious that **bringing together safety experts** from all different transport modes can be very useful, however not easily achievable.
- The exchange of experience between different modes is an area with **great potential** for safety improvement, which should be further explored.





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