

SafetyCube

# Decision Support System Launch Event

## Road Infrastructure



Co-funded by the Horizon 2020  
Framework Programme of the European Union

# How does the infrastructure affect road safety?



**Pillar 1**  
Road safety  
manage-  
ment

**Pillar 2**  
Infra-  
structure

**Pillar 3**  
Safe  
vehicles

**Pillar 4**  
Road user  
behaviour

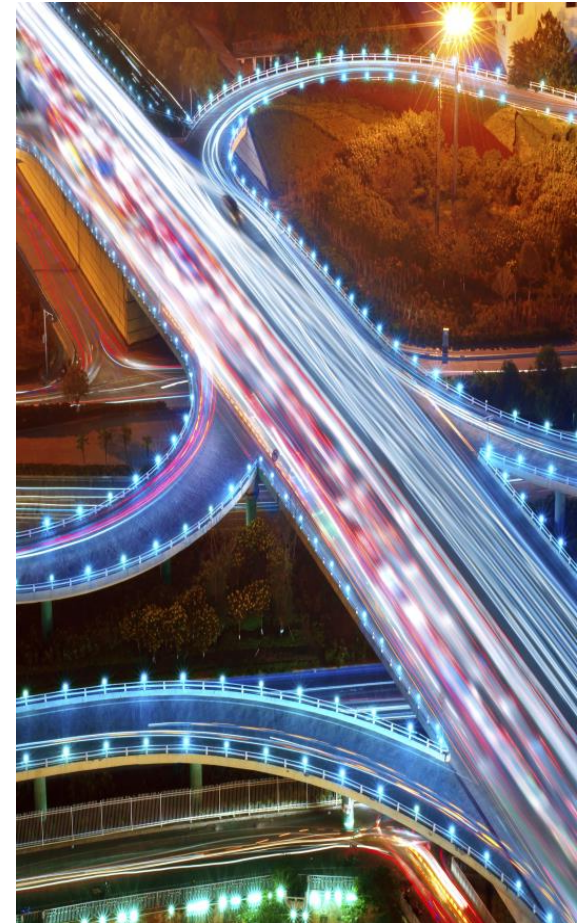
**Pillar 5**  
Post crash  
care



# How does the infrastructure affect road safety?



- **Active safety:** ensuring that road infrastructure is designed in a such a manner as to minimise the chance of accidents occurring (self-explaining)
- **Passive Safety:** ensuring that, if an accident is to occur, the consequences for the driver will be minimised (forgiving roads)



# How does the infrastructure affect road safety?



## Active safety – self explaining roads

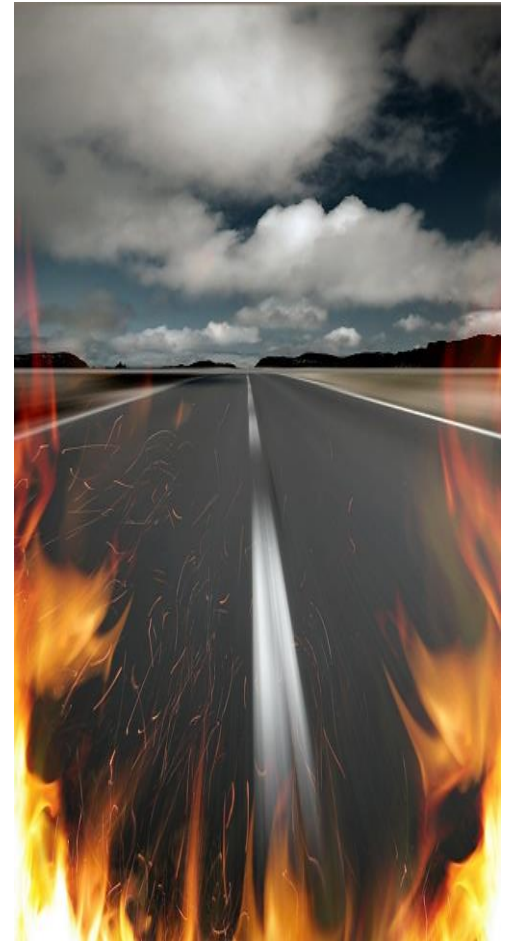
- Good vertical and horizontal alignment, delineation & signage
- Adequate friction (skid resistance) of road surface
- Road visibility / lighting
- Appropriate speed limits



# How does the infrastructure affect road safety?

## Passive safety –forgiving roads

- Forgiving roadside
- Wide shoulders
- Clear zones
- Median and lateral safety barriers, guardrails etc
- Motorcycle friendly barriers



# How does the infrastructure affect road safety?



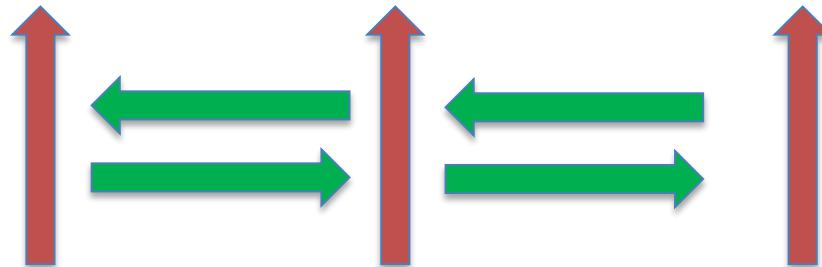
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# Why is the DSS useful for infrastructure managers?



- Authorities need access to solid evidence based to be able to implement cost-effective measures against a backdrop of limited budgets





# Stakeholders' feedback on a DSS for infrastructure



- Workshop organised at ERF premises in February 2016 with stakeholders (road operators, CEDR and city authority members, consumer groups, research centres)
- Objective was to get feedback on what users would expect from the DSS and identify 'hot topics' that the DSS should address
- Finding of the workshop also assisted in the taxonomy of risk factors and measures





# Process of building the DSS for infrastructure



- Risk factors and measure allocated to members for an extensive literature review to identify high quality studies
- Synopses made for 'hot topics' and where possible meta-analysis

# DSS Demonstration for Infrastructure

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- **Two risk factors:** work zones, horizontal alignment
- **Two measures:** speed management and formal tools to address road network deficiencies
- **Free searches:** motorways, rural roads
- **Road user groups:** PTW

