

# Exploring the development of an open data platform for road safety KPIs

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# Presentation outline

**Introduction (1)**

**Road safety performance  
indicators in the EU (3)**

**Open data platform for  
road safety KPIs (4)**

**Opportunities and barriers (2)**

**Conclusions (1)**

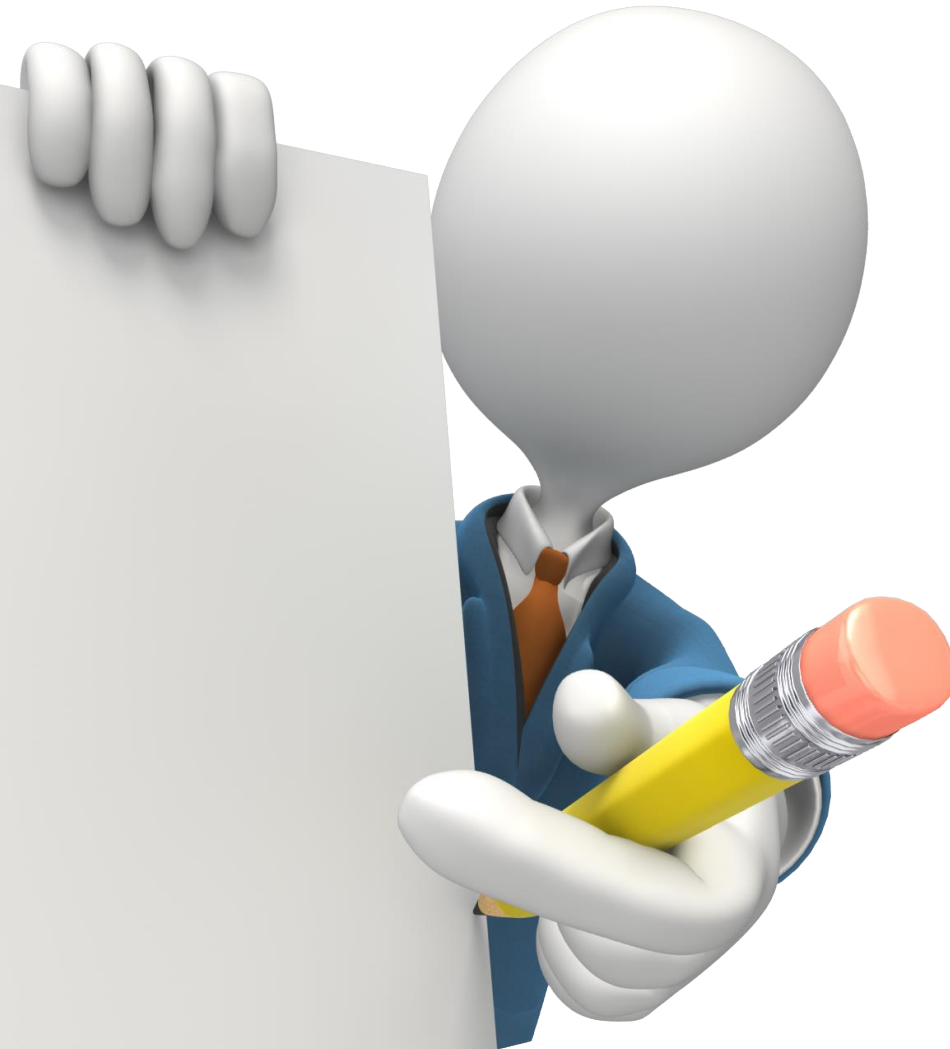
**01**

**02**

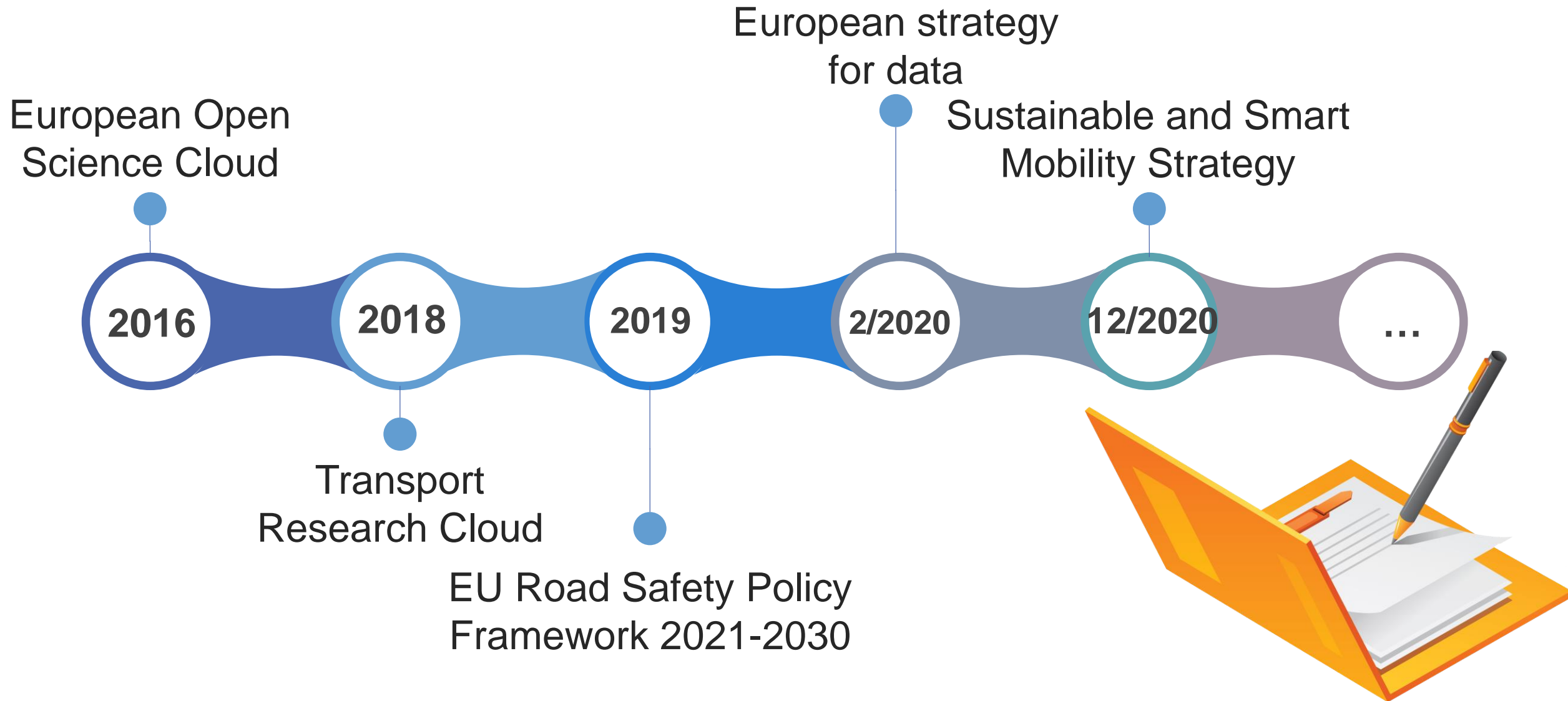
**03**

**04**

**05**



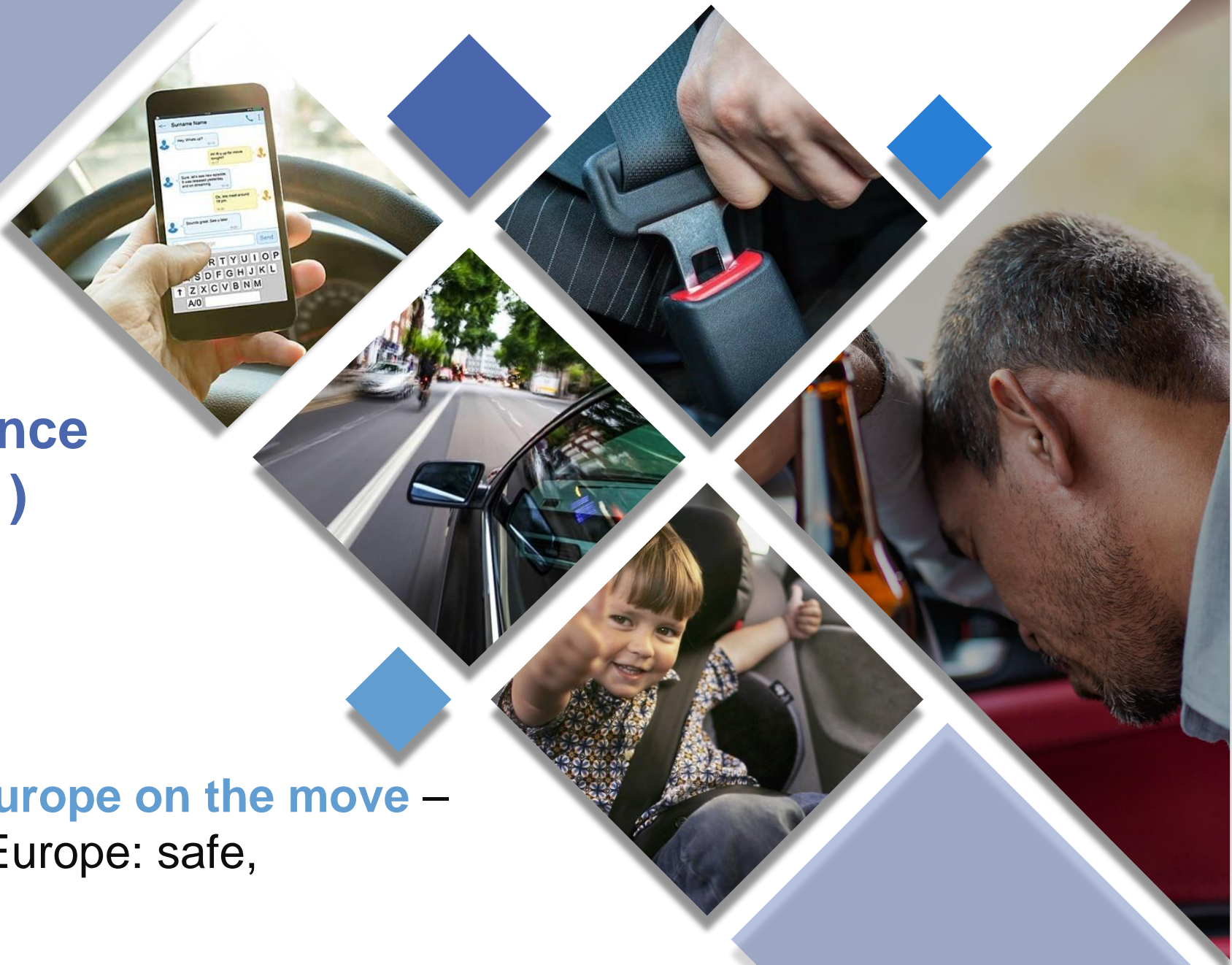
# Introduction (1)



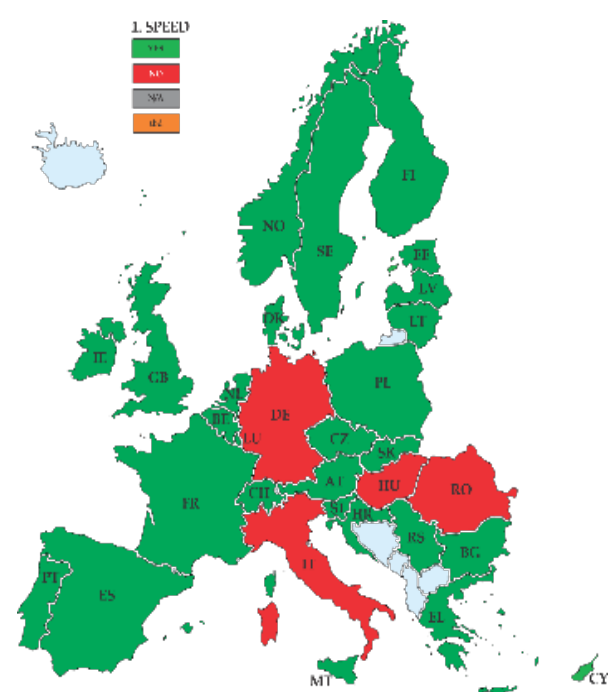


## Road safety performance indicators in the EU (1)

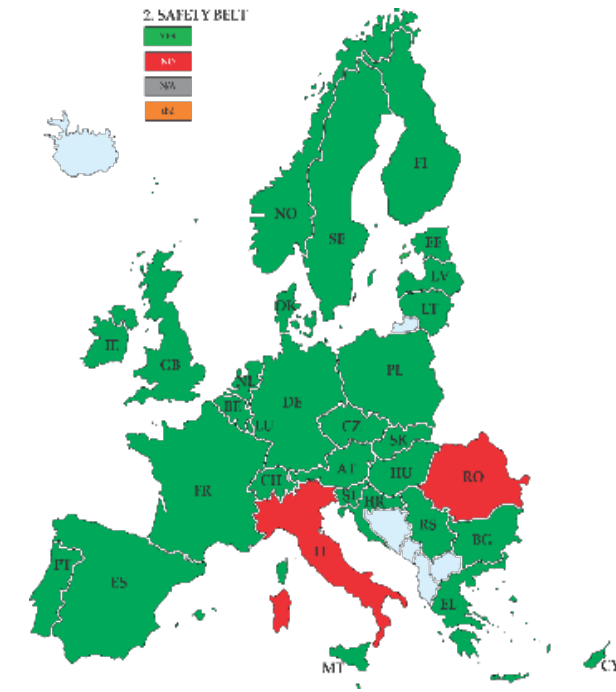
- **ETSC** (2001)
- **SafetyNET** (2008)
- **DaCOTA** (2010-2013)
- **SafeFITS** (2018)
- **3rd Mobility Package Europe on the move** – Sustainable Mobility for Europe: safe, connected, and clean



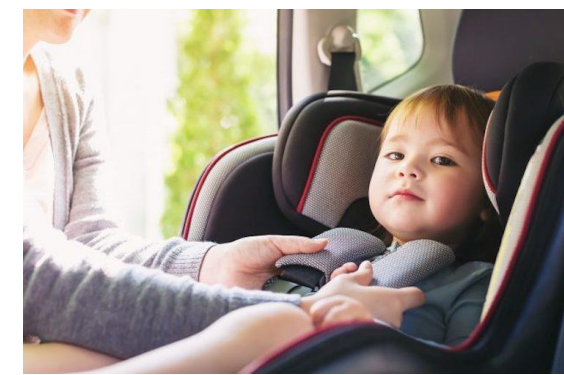
# Availability maps of KPIs in the European countries (2)



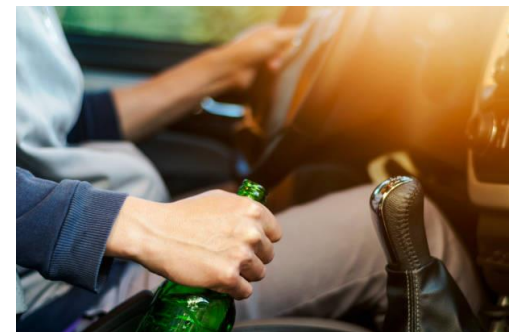
% of vehicles travelling within the speed limit



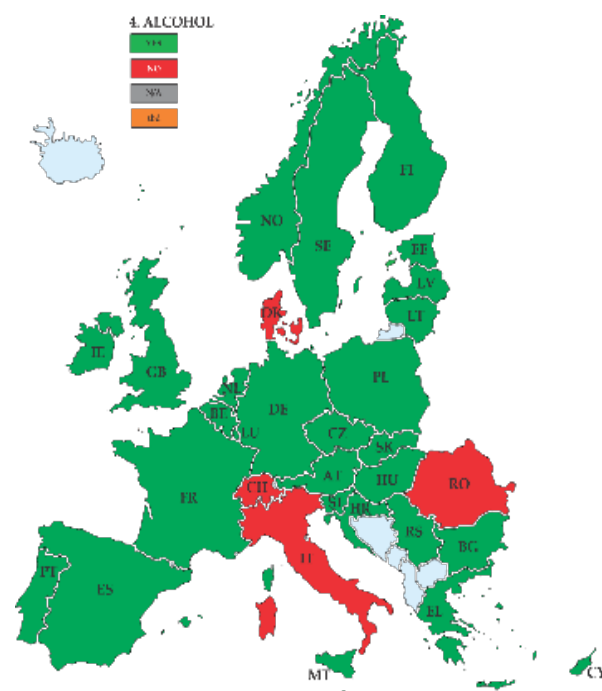
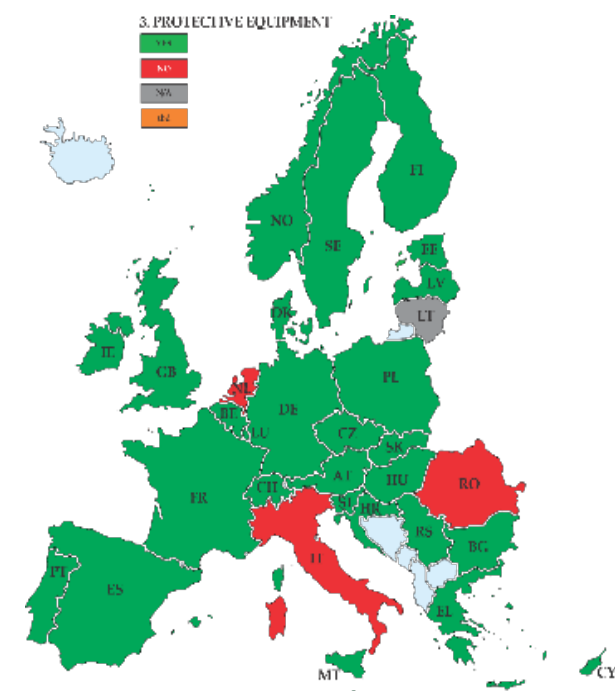
% of vehicle occupants using the safety belt or CRS correctly



% of riders of powered two wheelers and bicycles wearing a protective helmet

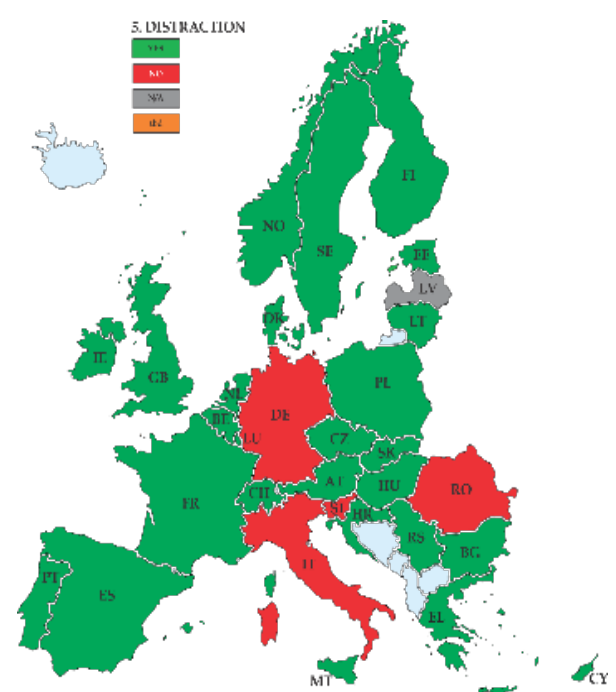


% of drivers driving within the legal limit for blood alcohol content (BAC)

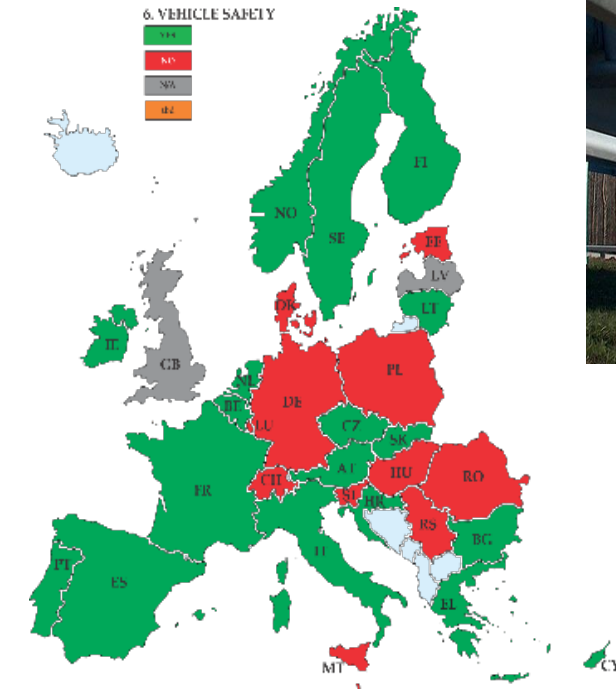
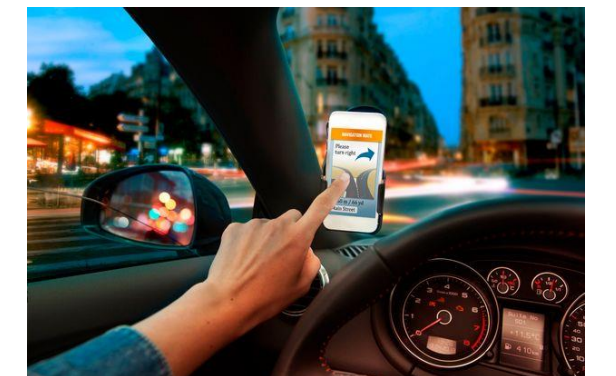




# Availability maps of KPIs in the European countries (3)



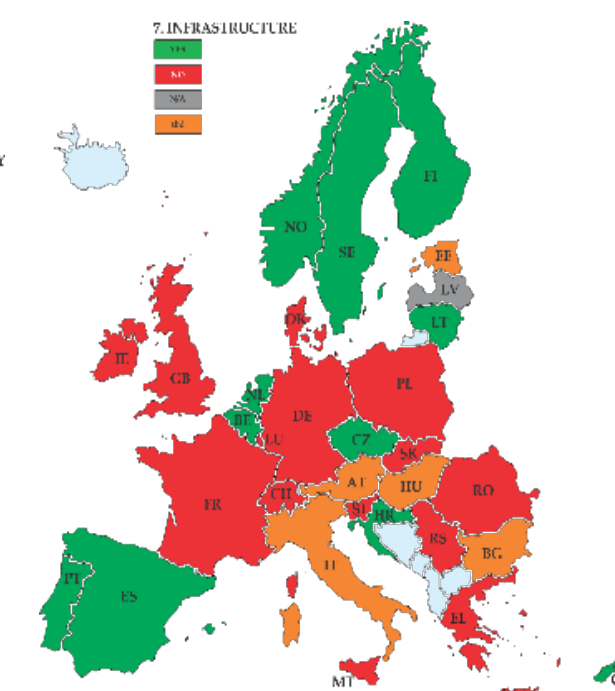
% of drivers NOT using a handheld mobile device



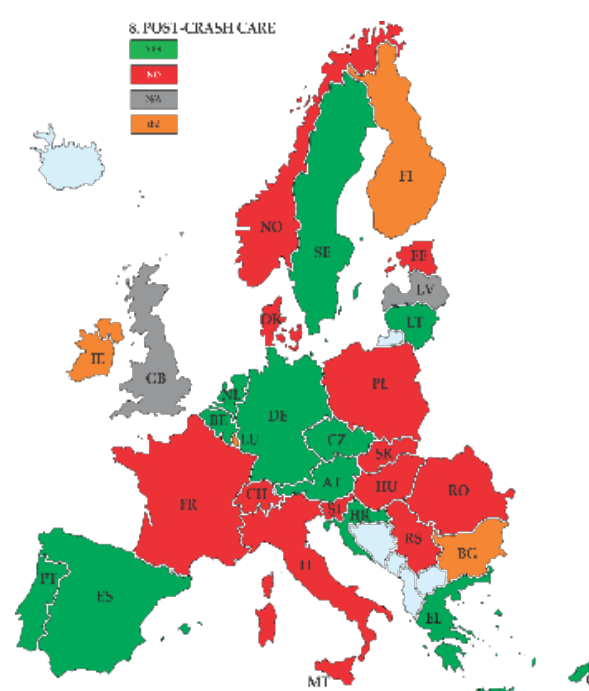
% of new passenger cars with a EuroNCAP safety rating equal or above a predefined threshold (e.g., 4-star)



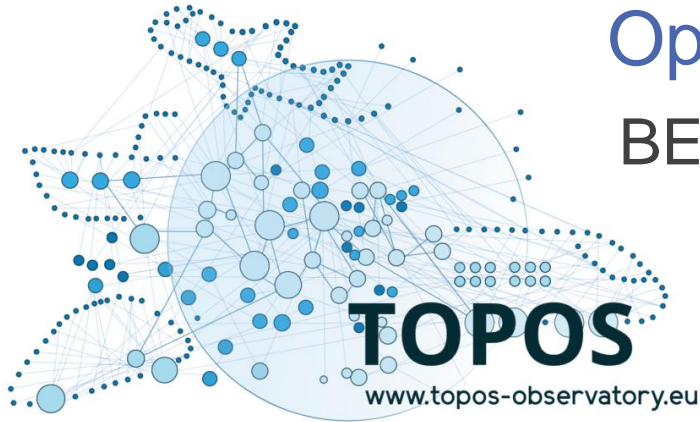
% of distance driven on roads with a safety rating above an agreed threshold



Time elapsed in minutes and seconds between the emergency call following a collision which resulted in personal injury, and the arrival of emergency services at the scene of the collision (to the value of the 95th percentile)



# Open data platform for road safety KPIs (1)

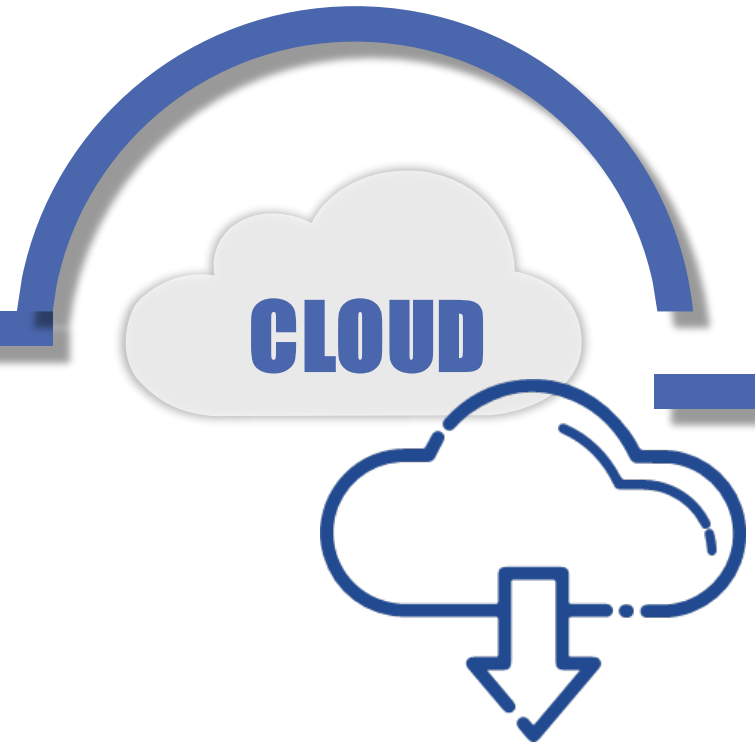


Open Science in transport research

BEOPEN Project- H2020- <https://beopen-project.eu/the-project>

## KEY PERFORMANCE INDICATORS

are recognized as a part of the platform for **global road safety data analysis**



**Transport Research Cloud, as a subset of the EOSC platform**

# Open data platform for road safety KPIs (2)

## Strategic Research and Innovation Agenda (SRIA) of the EOSC

### **EOSC principles:**

**P.1. Multi- stakeholderism**  
Wide range of stakeholders

**P.2. Openness**  
Culture of sharing data

**P.3. FAIR principles**

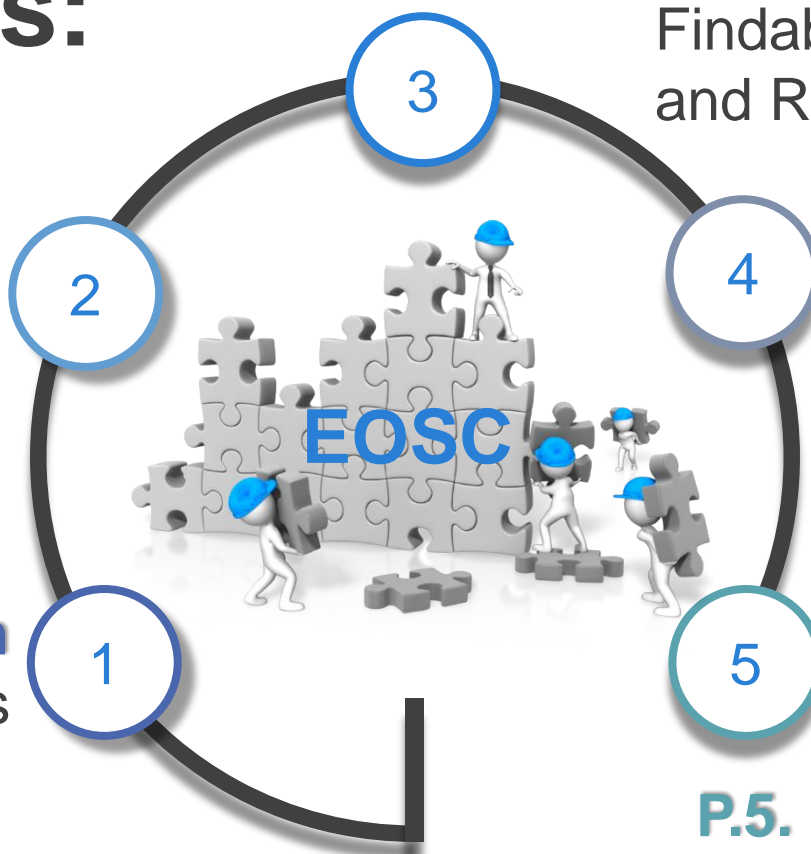
Findable, Accessible, Interoperable  
and Reusable

**P.4. Federation of  
infrastructures**

The federation of the existing  
and planned research data  
infrastructures

**P.5. Machine-actionable**

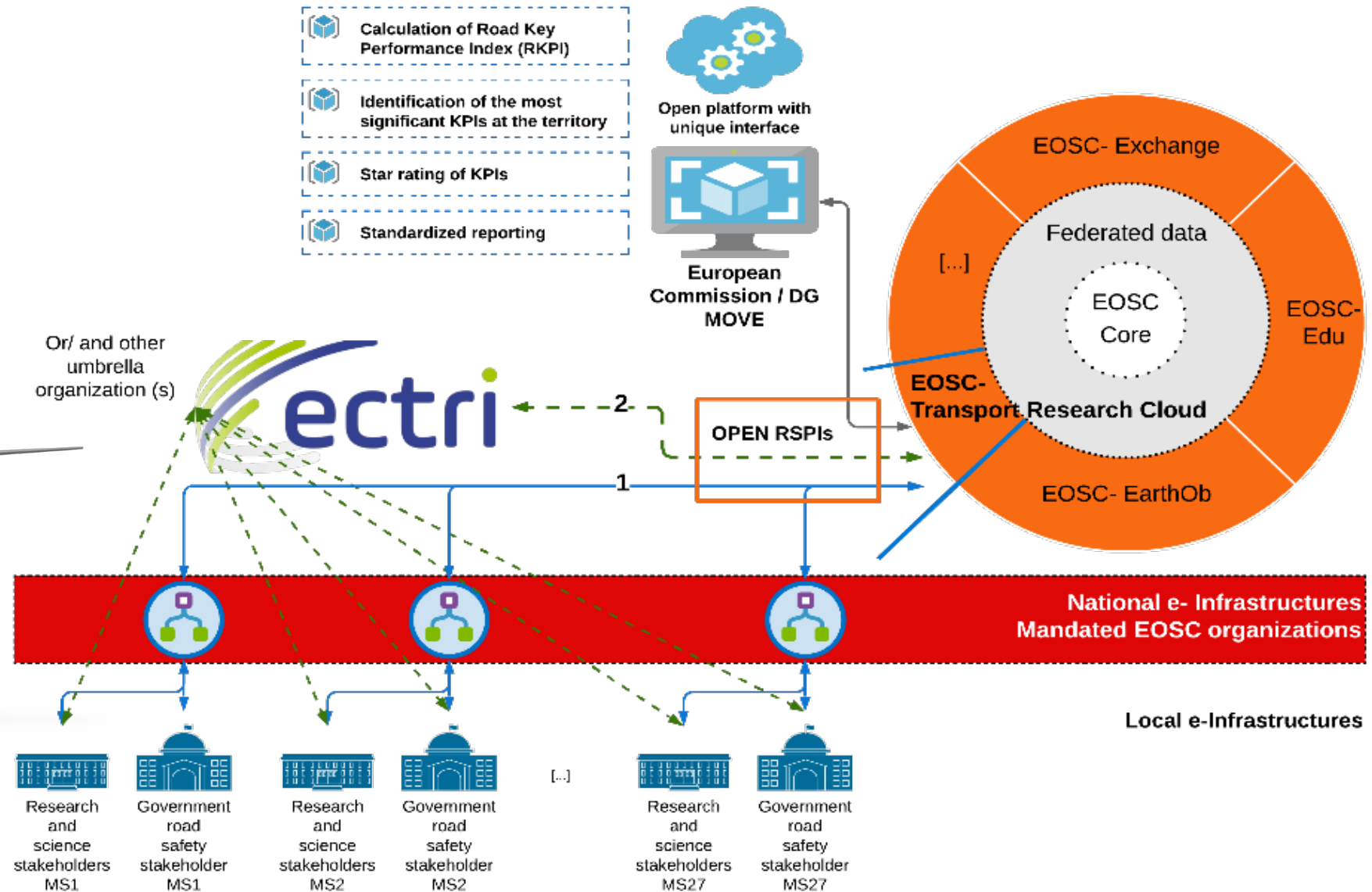
Metadata must be catalogues based  
on machine-readable metadata





# Open data platform for road safety KPIs (3)

## Concept of the **OPEN RSPIs**



# OPEN RSPIs enables...(4)

4) Identification of the most significant KPIs in a territory- EU level

5) Star rating of KPIs (incl. a larger number of indicators) and star rating of driver's behaviour- EU level

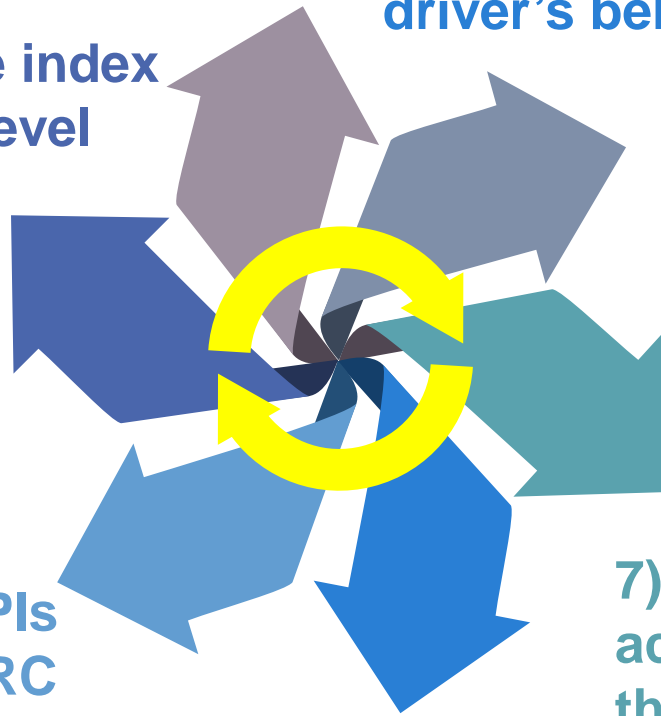
3) Calculation of the key performance index and cross- country comparison- EU level

2) Data management that provides monitoring/ cross- country comparisons for each KPI individually- EU level

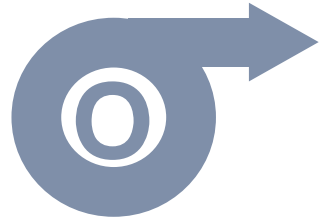
6) Generation of results and reports according to the selection criteria of the EC/DG Move and leading road safety stakeholder- EU level and EU MS level

1) Entering (meta) data of KPIs according to the EOSC- TRC requirements- EU level and EU MS level

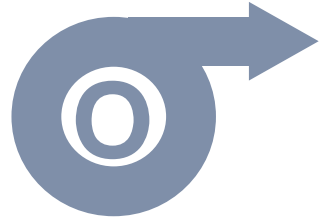
7) Generation of results and reports according to the selection criteria of the academic and research stakeholders



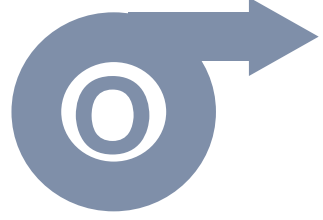
# Opportunities and barriers to road safety KPIs data collecting and sharing (1)



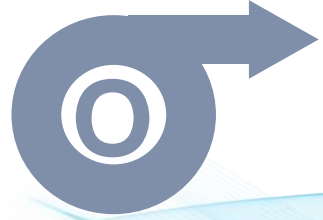
**The transition period must be as safe as possible**



**Automated process of KPIs data collection by using the AI, V2X, IoT, etc.**



**Next generation of FAIR professionals and professionals for the management data of KPIs**

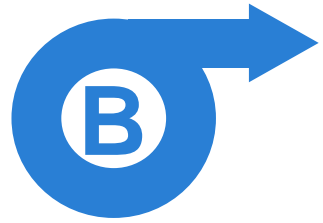


**Higher level of culture of the data sharing and interoperability**

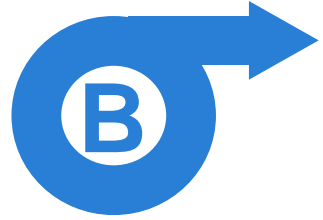




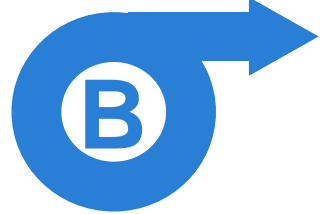
# Opportunities and barriers to road safety KPIs data collecting and sharing (2)



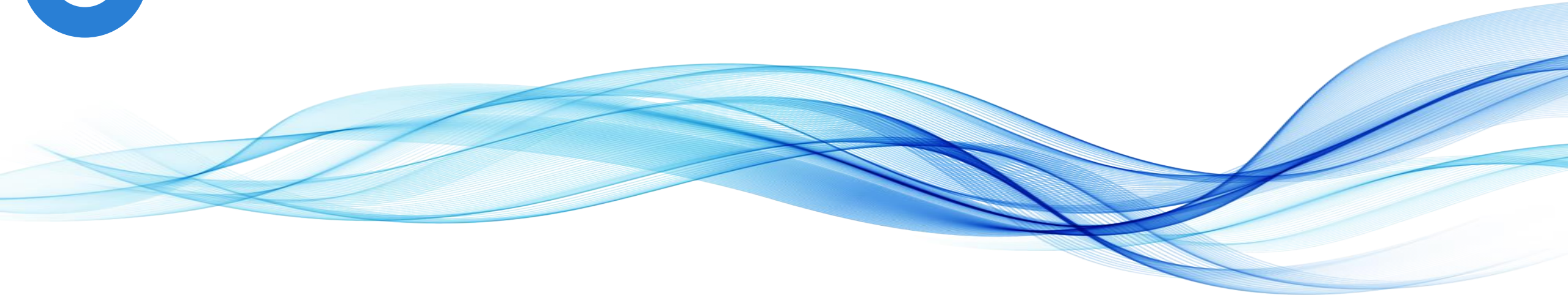
**Data storage, fragmentation of data ownership, a lack of interoperability between datasets and platforms, etc.**



**Funding and sustainability of collecting KPIs data**



**Data quality, diversity of definitions of a wider list of KPIs and several ethical issues arising from opening up the raw/ survey KPIs data**



# Conclusions (1)

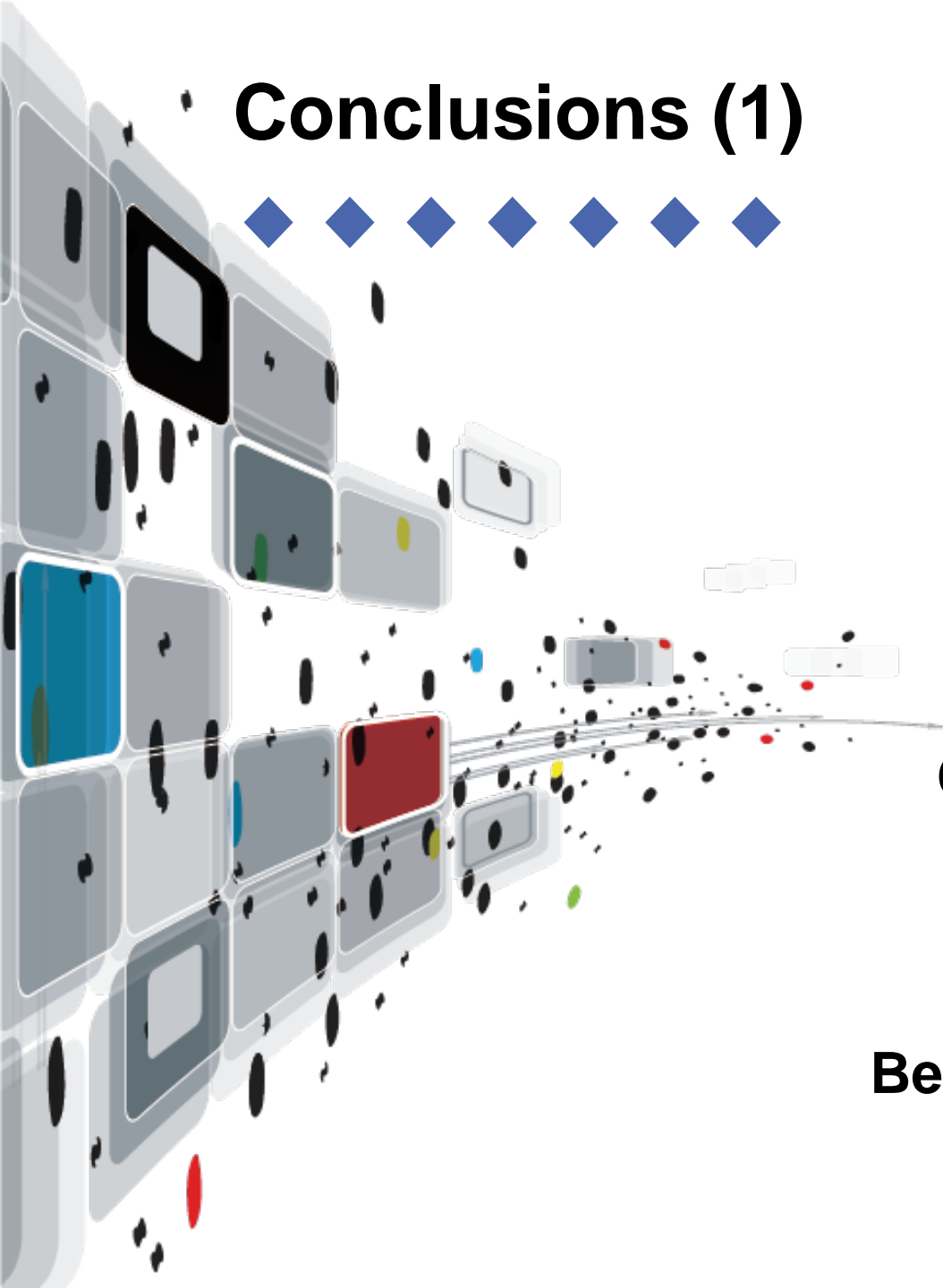


**Comprehensive management of the KPIs data**

**FAIRness of road safety KPIs data**

**Better understanding of the road safety problem**

**Define the earlier goal-oriented actions**



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Thank you

