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

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Presentation outline

Introduction (1)

European strategy
for data

European Open
Science Cloud

Sustainable and Smart
Mobility Strategy

2016 **2018** **2019** **2/2020** **12/2020** ...

Transport
Research Cloud

EU Road Safety Policy
Framework 2021-2030

Road safety performance indicators in the EU (1)
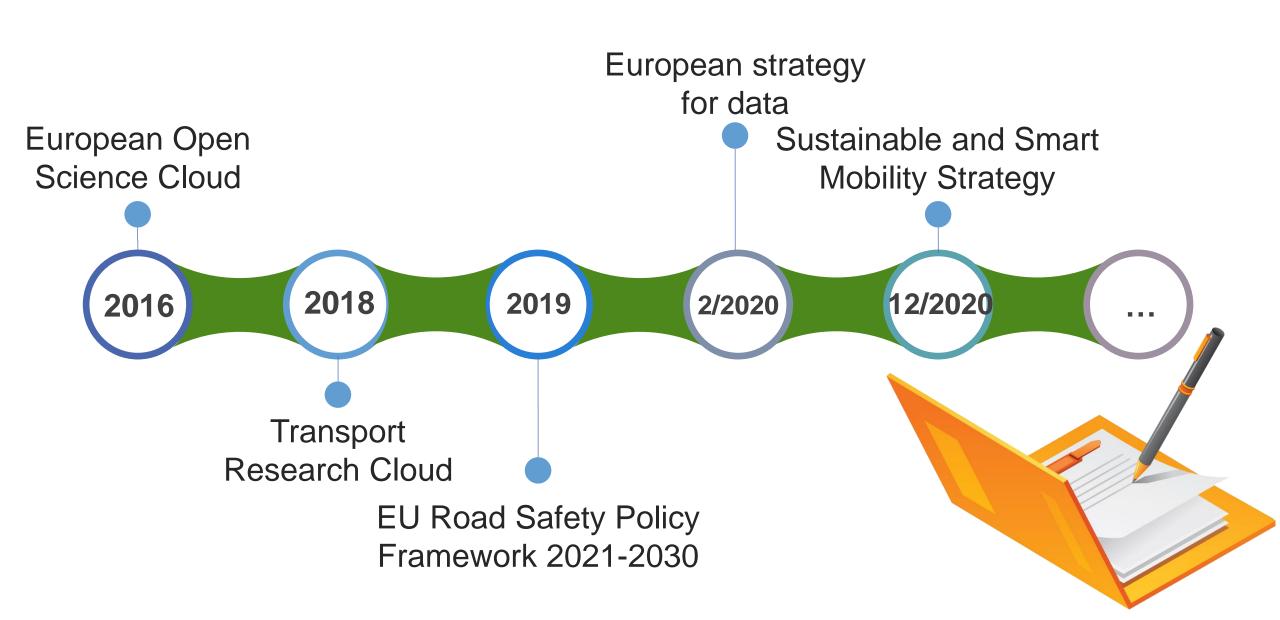
- **ETSC** (2001)
- **SafetyNET** (2008)
- **DaCOTA** (2010-2013)
- **SafeFITS** (2018)
- **3rd Mobility Package Europe on the move** – Sustainable Mobility for Europe: safe, connected, and clean
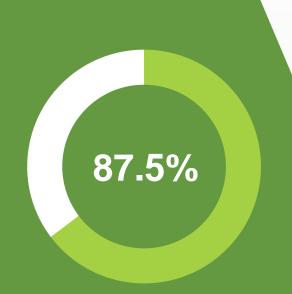
Availability maps of KPIs in the European countries (2)

87.5%
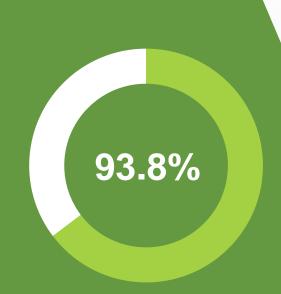
% of vehicles travelling within the speed limit

1. SPEED

- YES
- NO
- N/A
- tbd

Availability maps of KPIs in the European countries (3)

93.8%
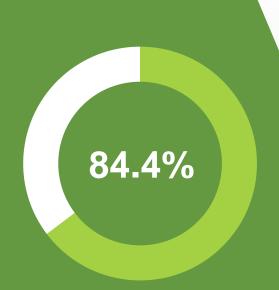
% of vehicle occupants using the safety belt or CRS correctly

2. SAFETY BELT

- YES (green)
- NO (red)
- N/A (grey)
- tbd (orange)

Availability maps of KPIs in the European countries (4)

84.4%
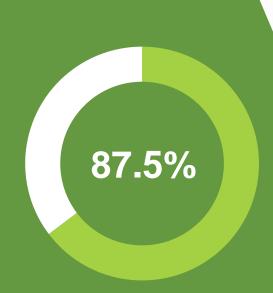
% of riders of powered two-wheelers and bicycles wearing a protective helmet

3. PROTECTIVE EQUIPMENT

- YES
- NO
- N/A
- tbd

Availability maps of KPIs in the European countries (5)

87.5%
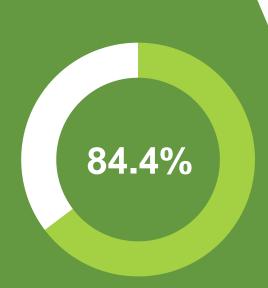
% of drivers driving within the legal limit for blood alcohol concentration (BAC)

4. ALCOHOL

YES
NO
N/A
tbd

Availability maps of KPIs in the European countries (6)

84.4%
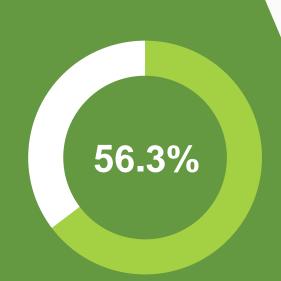
% of drivers not using a handheld mobile device

5. DISTRACTION

- YES
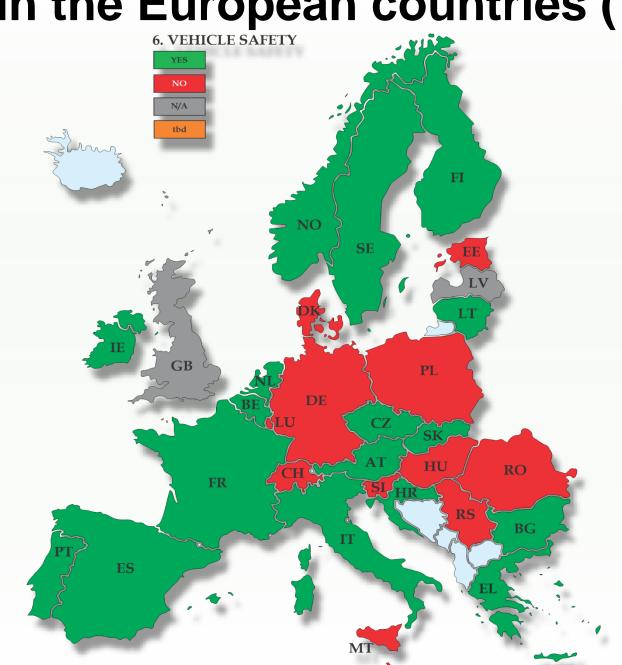- NO
- N/A
- tbd

Availability maps of KPIs in the European countries (7)

56.3%
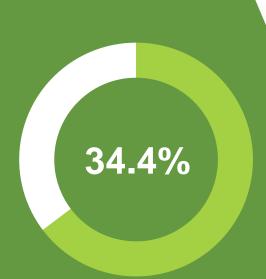
% of new passenger cars with a Euro NCAP safety rating equal or above a predefined threshold
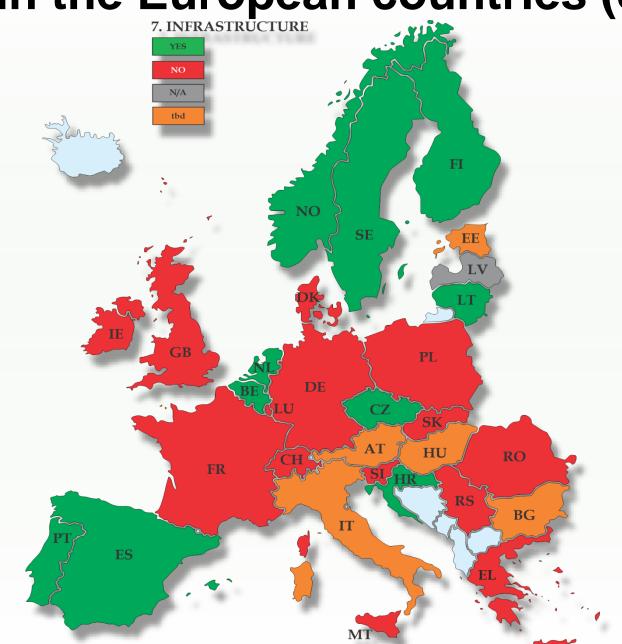

6. VEHICLE SAFETY

- YES
- NO
- N/A
- tbd

Availability maps of KPIs in the European countries (8)

34.4%
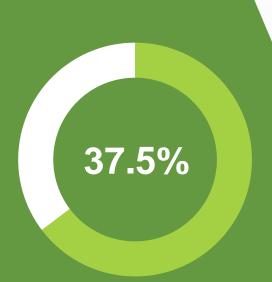
% of the distance driven over roads with a safety rating above an agreed threshold

7. INFRASTRUCTURE

- YES
- NO
- N/A
- tbd

Open data platform for road safety KPIs (1)
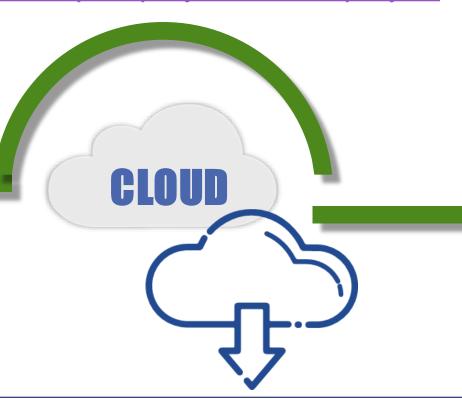
Open Science in transport research

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

TOPOS
www.topos-observatory.eu

CLOUD

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.3. FAIR principles
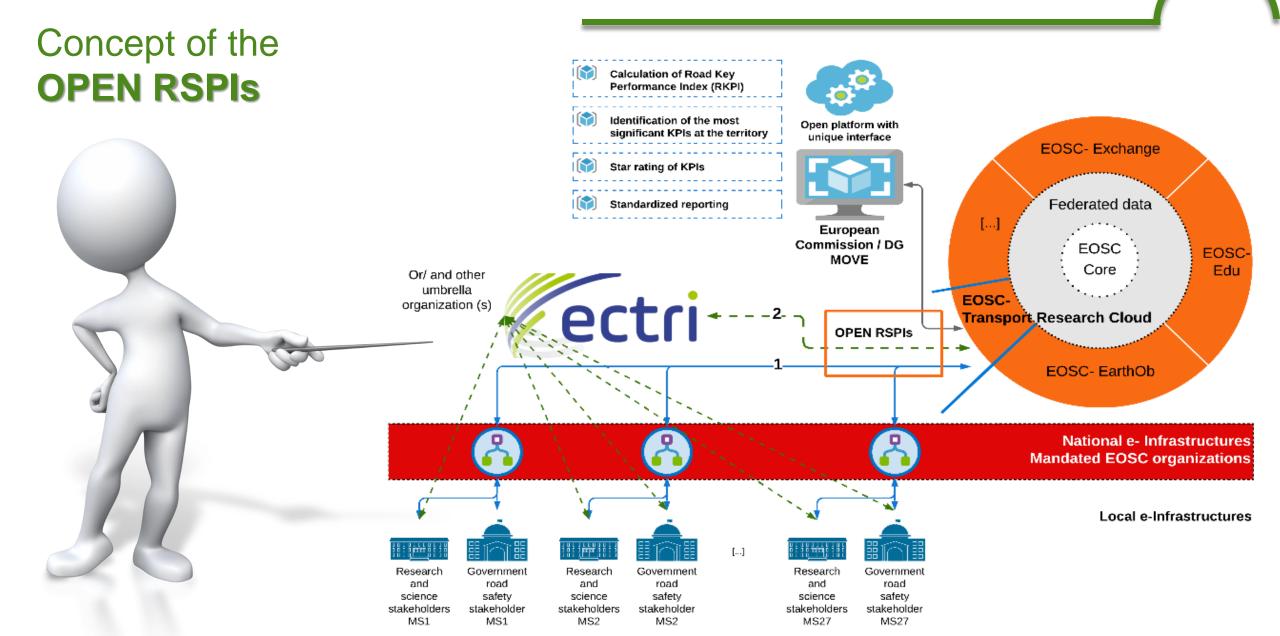Findable, Accessible, Interoperable and Reusable

P.2. Openness
Culture of sharing data

P.4. Federation of infrastructures
The federation of the existing and planned research data infrastructures

P.1. Multi- stakeholderism
Wide range of stakeholders

P.5. Machine-actionable
Metadata must be catalogues based on machine-readable metadata

EOSC

1
2
3
4
5

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

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

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

FAIRness of road safety KPIs data

EC/DG MOVE

as a leading road safety stakeholder at a EU MS level.

Opportunities and barriers to road safety KPIs data collecting and sharing (1)
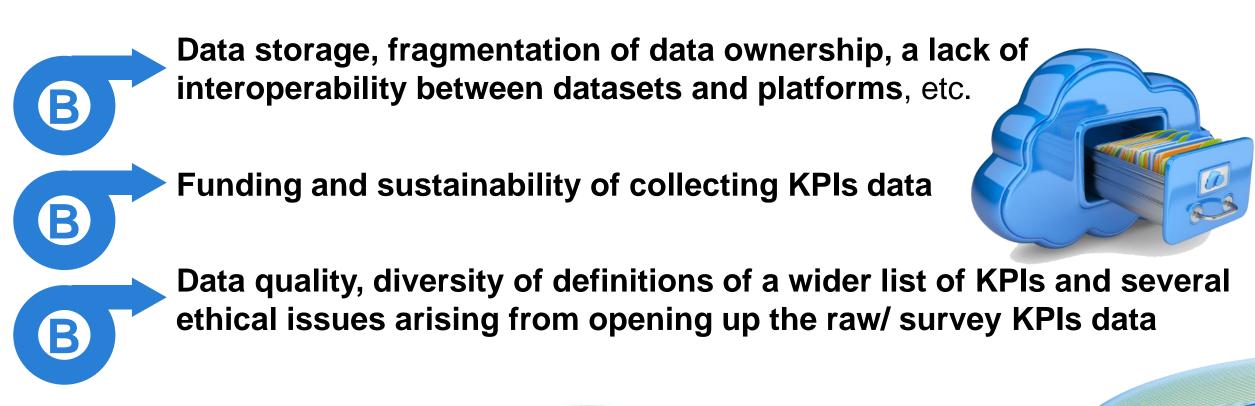
The transition period must be as safe as possible

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**

Open data platform for road safety KPIs

Conclusions (1)

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Comprehensive road safety management

Better understanding of the road safety problem

Define the earlier goal-oriented actions

FAIRness of road safety KPIs data

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Thank you