Report of the ASECAP Task force "Accident Data Analysis"

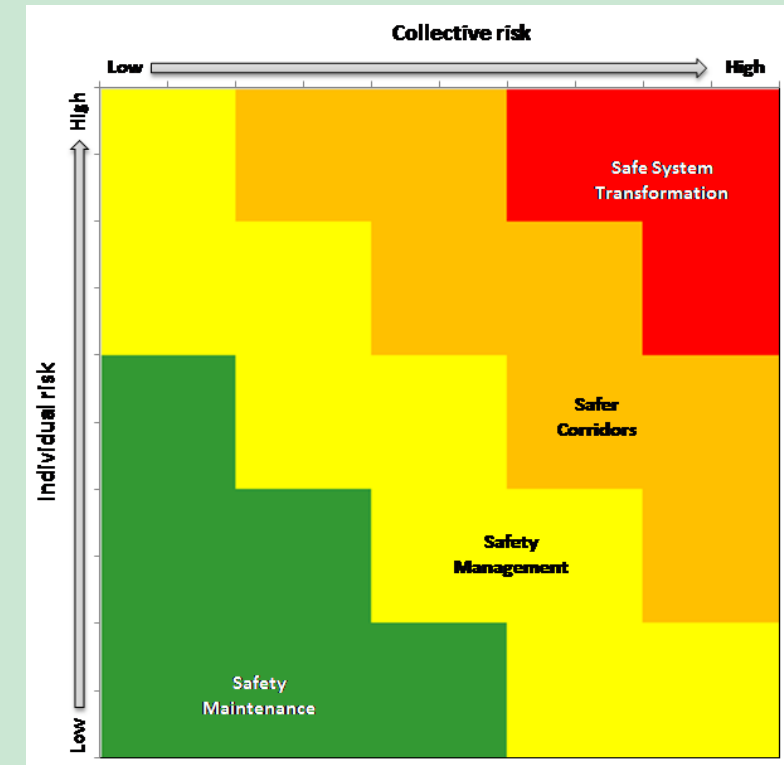**BERNHARD LAUTNER**

ASECAP Coper 2 Vice chair

TF Leader

Accident Data Analysis

Need for Accident Data for:

- any kind of Road (Safety) Management Systems

- all major treatment types and design standards

- political and management decisions

- scientific and research institutions

- awareness and communication

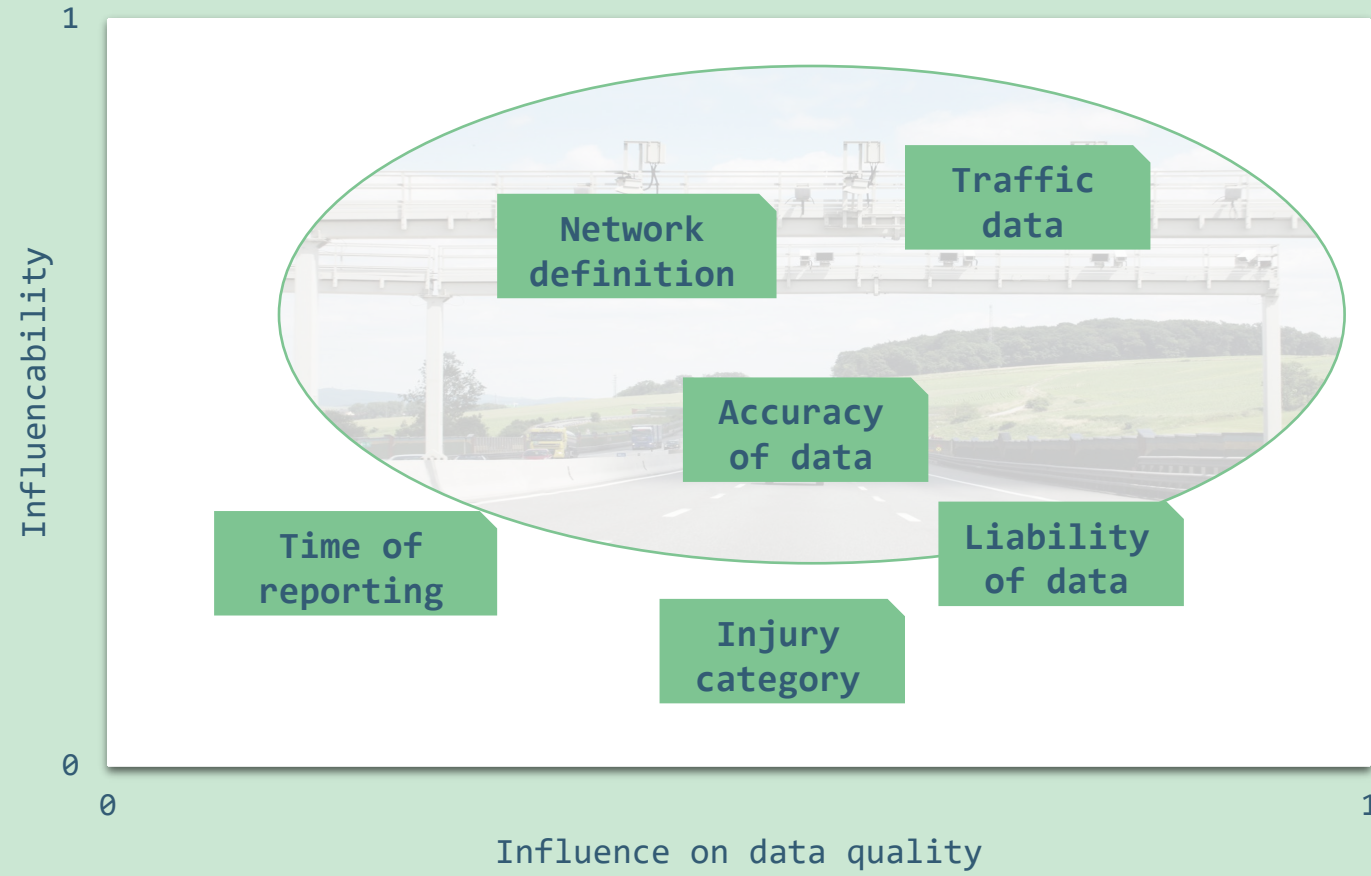"Reactive" basis for proactive approach!

Accident Data Analysis

Accident Data basic requirements: (PIARC RAI guideline 2013)

- accuracy
- complexity (including all features)
- availability
- uniformity

What are the main factors of „Quality" Accident data

Scope of ASECAP Task Force

- **Exchange of knowledge** amongst ASECAP members in the area of accident data collection, analysis and performance barometers, as well as results on Network Wide Road Safety Assessment methods (regarding RISM Directive)

- Define road safety data to be aligned for collection within **ASECAP database**

- **Quality checks** of available data and indicators

- Development of **ASECAP publications**, position papers and data interpretation

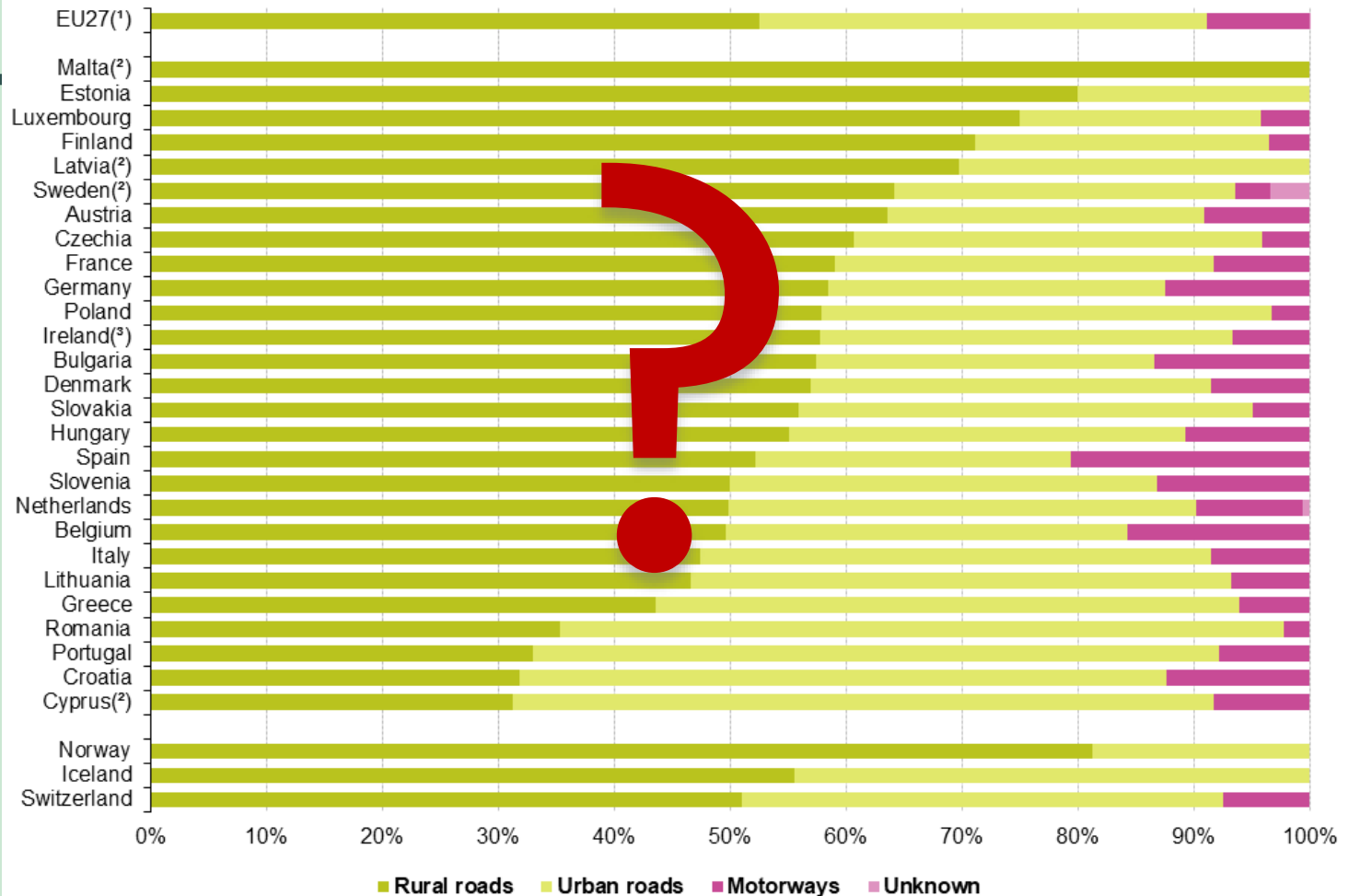- Development of Road Safety Indicators

ASECAP accident data

"The ASECAP accident data" covers road traffic accidents with **personal injury** that occur on tolled motorways. A road traffic accident with personal injury occurs when persons are injured or killed **as a result of road traffic** on roads with public traffic and **at least one vehicle in motion** was involved.

- Data excludes those deaths that are known not to have occurred "as a result of road traffic", e.g. as a result of suicide, heart attack or similar.
- Traffic fatalities are all persons who died of the consequences of an accident either at the scene of the accident or within 30 days of the accident.

KPI – Infrastructure Safety

- By type of road -> indicator for motorway density and not for safety

- By accident density –> indicator for traffic density

- By safety characteristics -> indicator for national design standards

- By user perception -> subjective data

- By population -> indicator for geographical location and industrial situation

Road accident fatalities by type of road, 2021
(%)

Countries (top to bottom): EU27(¹), Malta(²), Estonia, Luxembourg, Finland, Latvia(²), Sweden(²), Austria, Czechia, France, Germany, Poland, Ireland(³), Bulgaria, Denmark, Slovakia, Hungary, Spain, Slovenia, Netherlands, Belgium, Italy, Lithuania, Greece, Romania, Portugal, Croatia, Cyprus(²), Norway, Iceland, Switzerland

Legend: ■ Rural roads ■ Urban roads ■ Motorways ■ Unknown

Note: Liechtenstein: no fatality.
(¹) Estimated.
(²) 2020 data instead of 2021.
(³) 2018 data instead of 2021.
*Source*: Eurostat (online data codes: tran_sf_roadro)

eurostat

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KPI – Motorway Infrastructur Safety

- …. KPI's that are based on distance travelled have higher values than those based on the length of the road network!

(EC Baseline 2023)

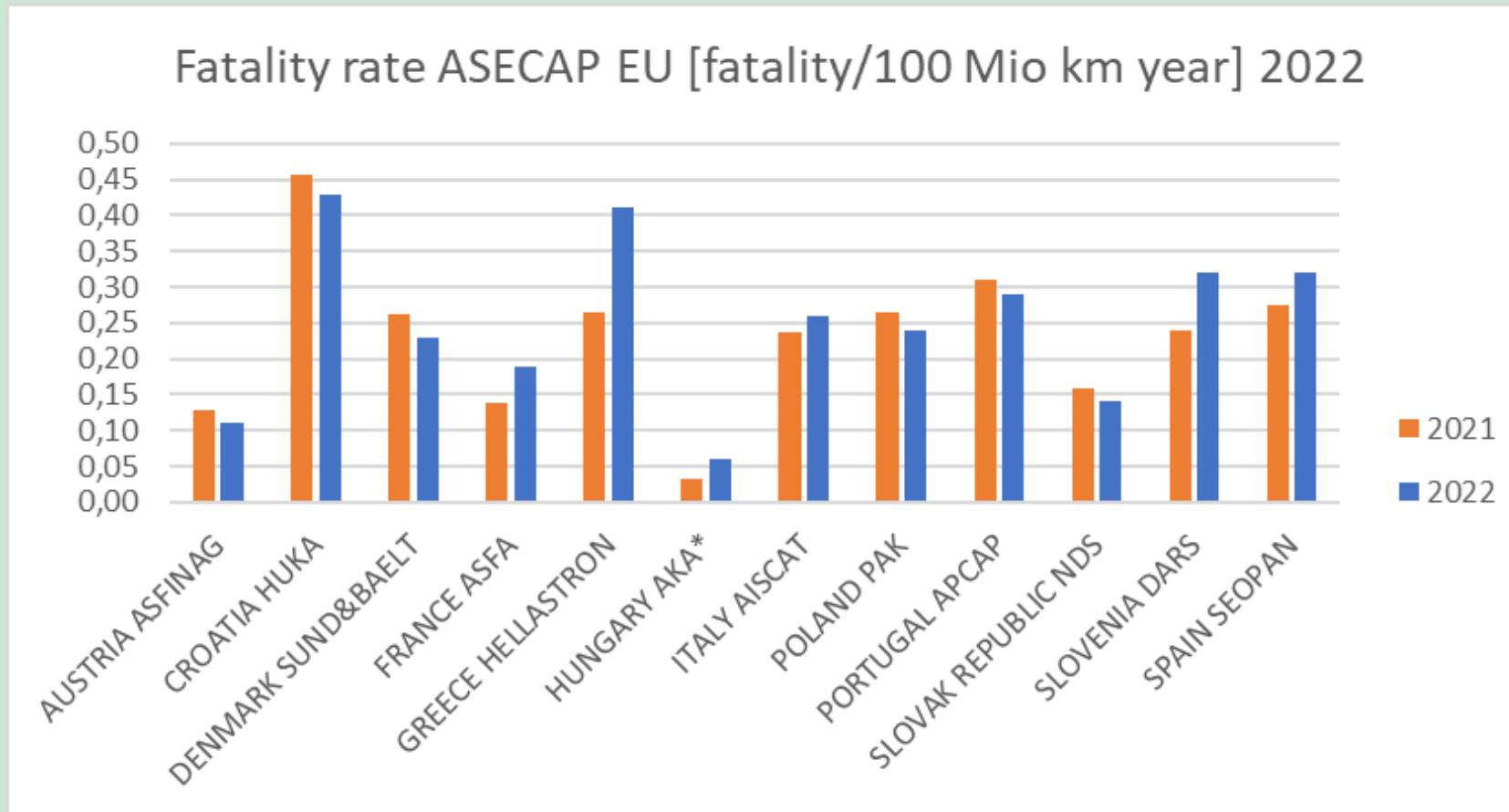# -> Fatality rate (Fatalities per distance travelled)

ASECAP statistic 2022

ASECAP FATALITY RATE 2019 - 2022

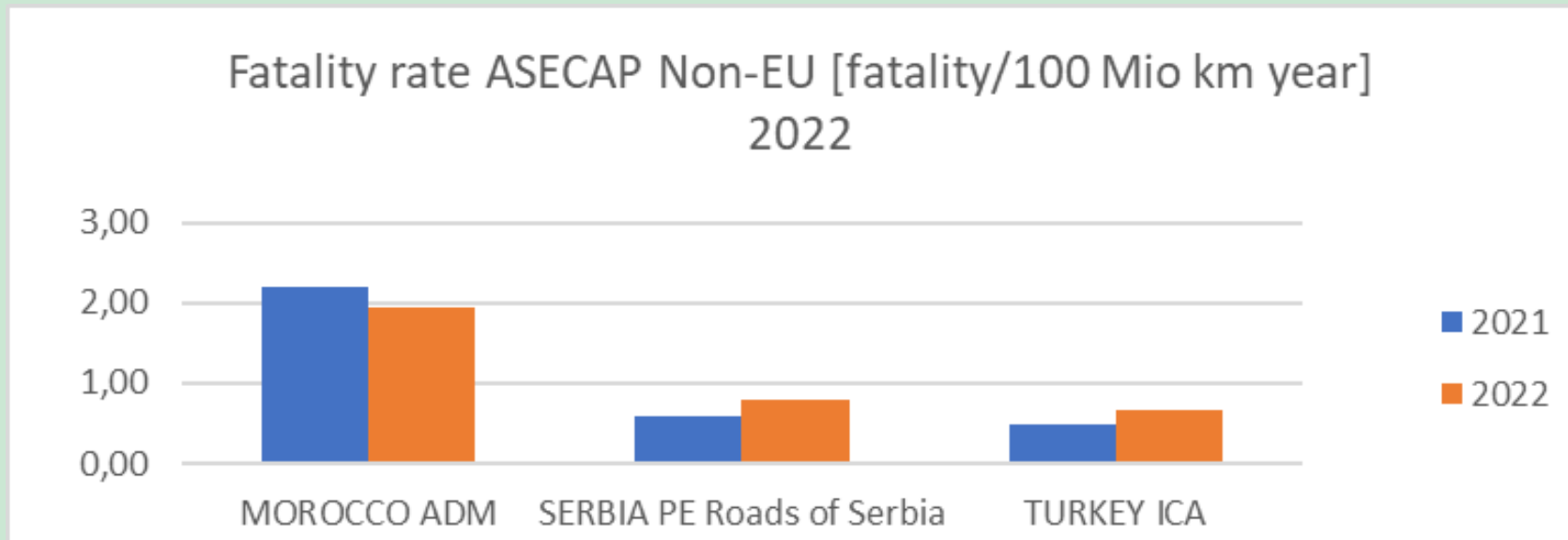| Year	Rate
2019	0,23
2020	0,21
2021	0,20
2022	0,23
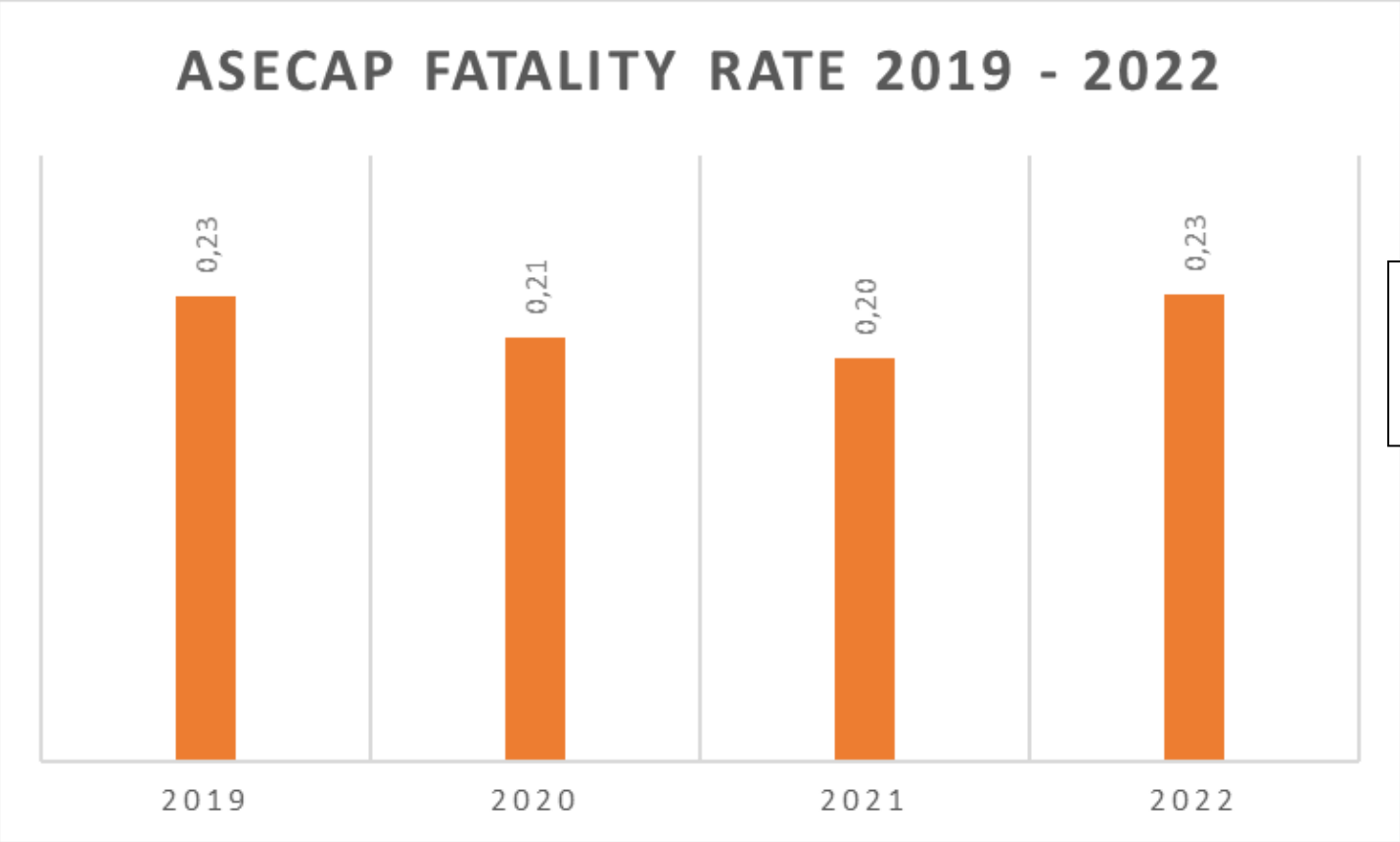
+ 15% increasing rate in relation to 2021

AUSTRIA ASFINAG, CROATIA HUKA, DENMARK SUND&BAELT, FRANCE ASFA, GREECE HELLASTRON, ITALY AISCAT, POLAND PAK, PORTUGAL APCAP, SLOVAK REPUBLIC NDS, SLOVENIA DARS, SPAIN SEOPAN

ASECAP statistic 2022

Fatality rate ASECAP EU [fatality/100 Mio km year] 2022

* Hungary AKA: figures of Hungary AKA seemed not to be consistent in relation of network length and accident figures

ASECAP statistic 2022

Thank you for your attention

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