

**7<sup>th</sup> IRTAD Conference**  
BETTER ROAD SAFETY DATA  
FOR BETTER SAFETY OUTCOMES  
Lyon, 27-28 September 2022

# Crash data systems within the Eastern Partnership Road Safety Observatory

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# Background

- The **Eastern Partnership Road Safety Observatory (EaP RSO)** is an initiative of the EaP countries aiming to reduce road fatalities and injuries by sharing good practices and interchanging data.
- The EaP RSO is supported by the **World Bank (WB)** jointly with the **European Commission**.
- A **Technical Secretariat** will be hosted by Georgia and is comprised by the International School of Economics at Tbilisi State University Policy Institute (ISET) and the Eastern Alliance for Safe & Sustainable Transport (EASST).
- The EaP RSO will house country-level data and act as a catalyst in **strengthening national crash data systems** and the **harmonization** of crash data among the EaP countries.



**Eastern Partnership**  
ROAD SAFETY OBSERVATORY



**Funded by**  
**the European Union**



# Objective and Methodology

- **Objective:** to support the launch of the EaP RSO, with a focus on assessing the crash data systems of the five EaP countries: Armenia, Azerbaijan, Georgia, Moldova and Ukraine.
- A **questionnaire** was sent to national stakeholders and **interviews** followed.
- Ten criteria for the **benchmarking** of the crash data systems were used based on a previous assessment of WB in 2017.
- Replies were received from **Armenia, Georgia** and **Moldova**.
- The results of the crash data reviews are presented in **country level notes**.



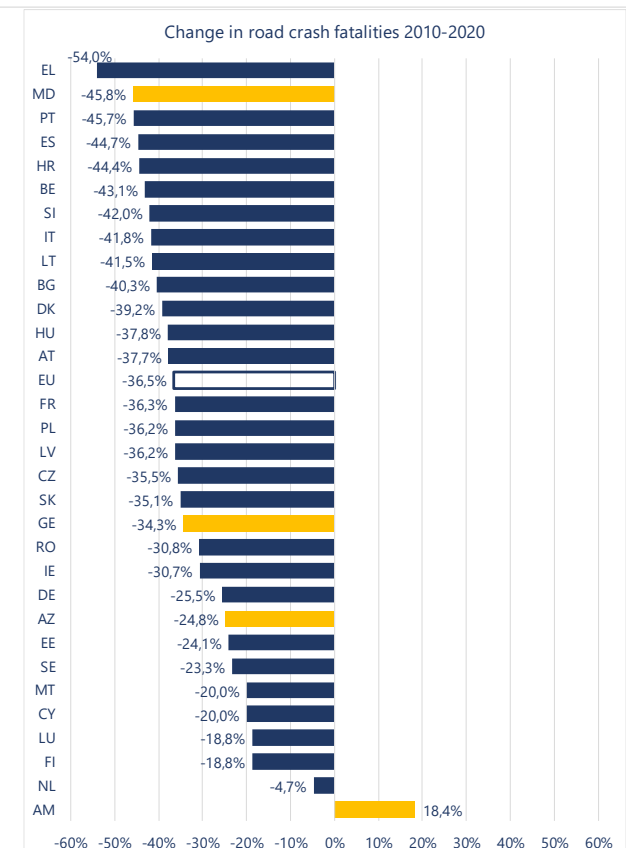
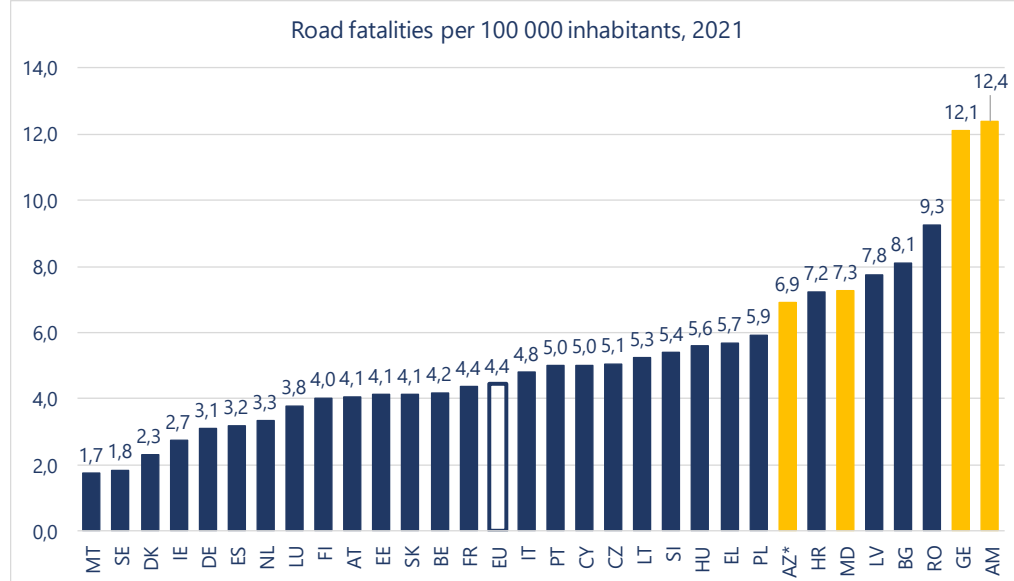


# Crash and Road Safety Data Collection



# Road Crash Statistics

- Fatality rates in the EaP countries were **higher than the EU average** (from 1,6 to 2,8 time higher) in 2021.
- Armenia recorded **12,4 fatalities per 100.000 inhabitants**, which is the highest rate among the examined countries.
- The most significant improvement over the period 2010-2020 was recorded in Moldova with a **decrease of about 46%** in road crash fatalities.
- In Georgia and Azerbaijan fatalities were **reduced by 34%** and **25%** respectively.
- Armenia was the only country which presented an **increase** in road fatalities.





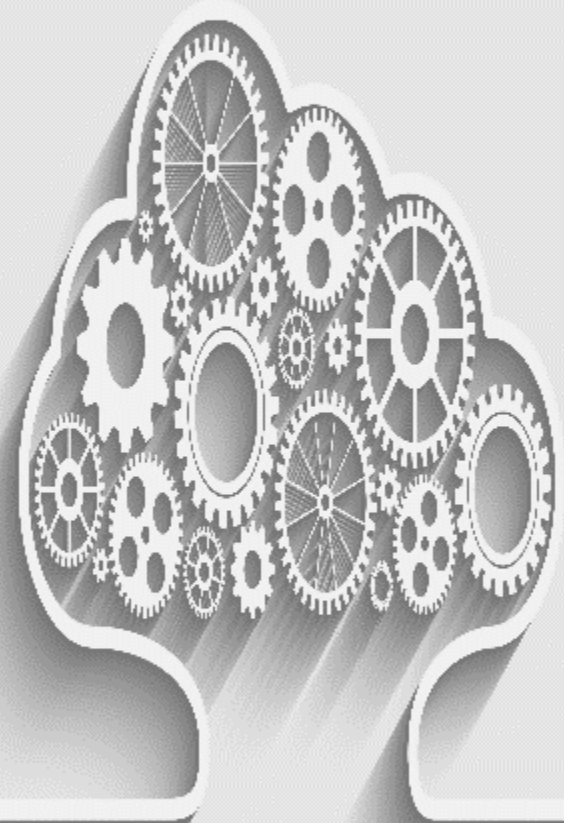
# Crash Database

- In all countries, **Traffic Police** is the responsible authority for the crash data collection.
- A **paper-based data collection form** is used at the crash scene for all countries, while in Georgia a new electronic module was introduced in 2021, which is used in a test mode.
- In Armenia, the crash data collection form was modified in 2019, with data structure and most variables being based on the **EC CADaS protocol**.
- In Moldova, the latest modification to the scope of crash data collection was done in 2008.
- **Quality control procedures** by Police take place before the inclusion of data in the central database in all countries.
- **Electronic central crash databases** held by Traffic Police exist in all countries.



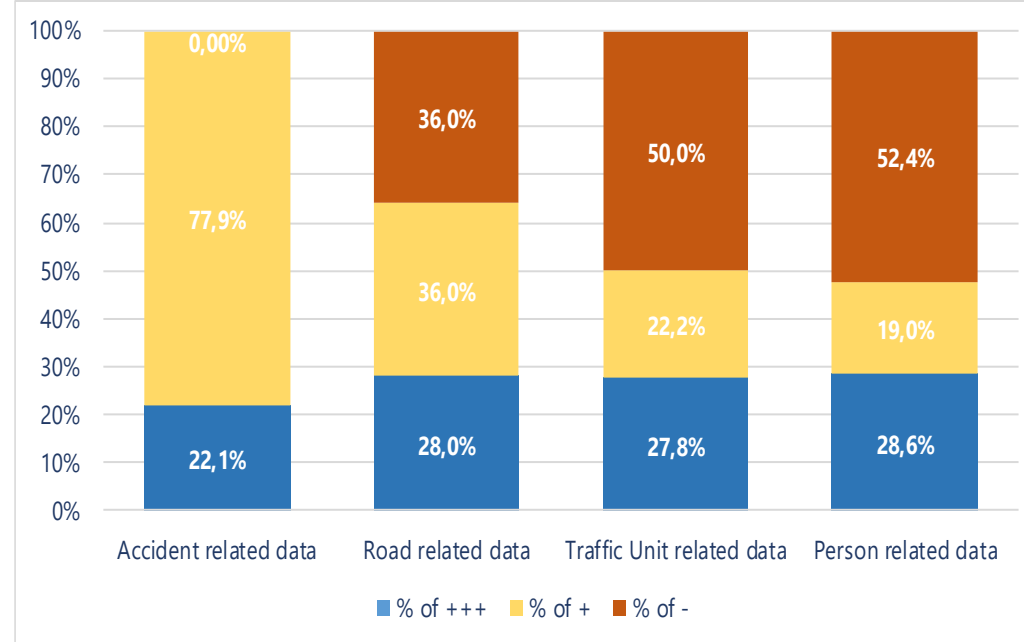
# Database Software

- In Armenia, a **digital database for road crash data** was established in 2019, to which only authorized officials by the Road Police have access. Data can be exported in MS Excel format.
- In Georgia, **two types of software** are currently used: the patrol police crew board computers core system and the pilot web application. Disaggregate anonymized road crash data are also exported in Excel files.
- In Moldova, **MS SQL software** is used. Data can be accessed online, is password-protected, and data queries by other stakeholders can be also conducted.
- The new electronic module of Georgia is expected to be **GIS oriented**, while in Armenia GIS features are expected to be introduced in 2023. The crash database of Moldova lacks GIS interface, but has the option to use point location.

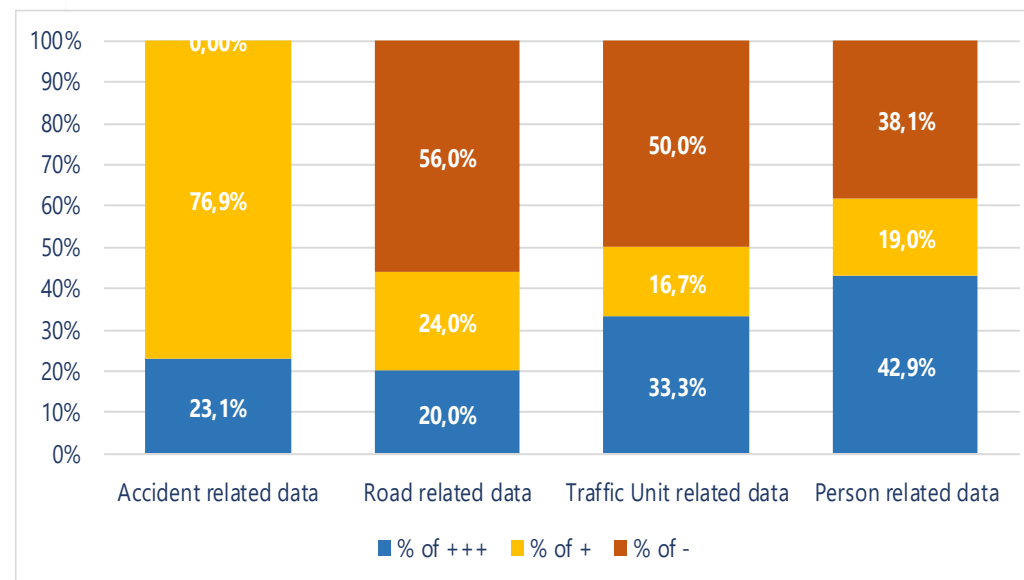


# Data on Crashes and Injuries

- The **30-days definition** for road fatalities has been adopted by Armenia and Moldova.
- There is **no differentiation between serious and slight injuries** in the crash databases of Georgia and Armenia.
- Injury definitions are **not based on international standards** in any country (e.g. ICD, AIS, etc.).
- The 30-days definition and MAIS standard for serious injuries will be introduced in the **next road safety strategic plan of Georgia**.
- Armenia has made significant progress in the national crash data structure and variables in order to be more **compatible with the CAdaS protocol**, while Moldova has made no progress since 2017.
- After full implementation of the new electronic module, **21 out of 28 MiniCAdaS variables** will be available in Georgia for submission to the EaP RSO



CAdaS data structure/Crash data form of Armenia



CAdaS data structure/Crash data form of Moldova





# Availability of Road Safety Data

- In Armenia and Moldova, disaggregate crash data are shared with other authorities upon an **official request**.
- In Georgia, detailed crash data are shared with specific Ministries. It is planned to **openly share the database** with other involved agencies through a platform created for data sharing.
- For all countries, **few aggregate statistics** are openly available through dedicated websites.
- **Vehicle fleet** and **driver license** registries are available in all countries; in Armenia data are confidential and no data were provided.
- In Armenia and Moldova, **road length** data by type of road (urban, interurban roads and motorways) are available.
- No **SPIs** are collected.



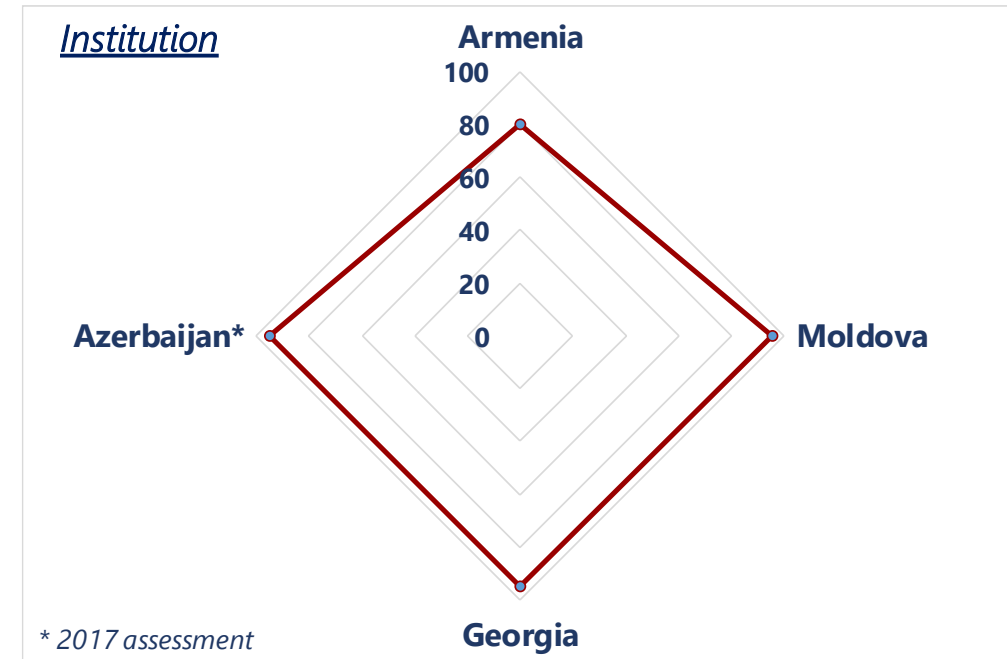
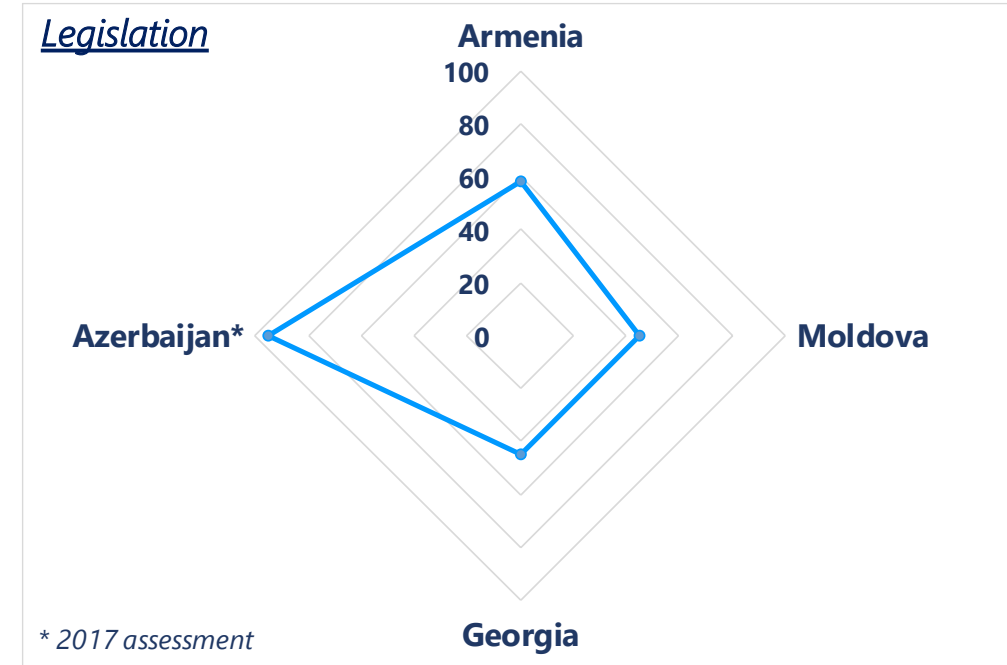
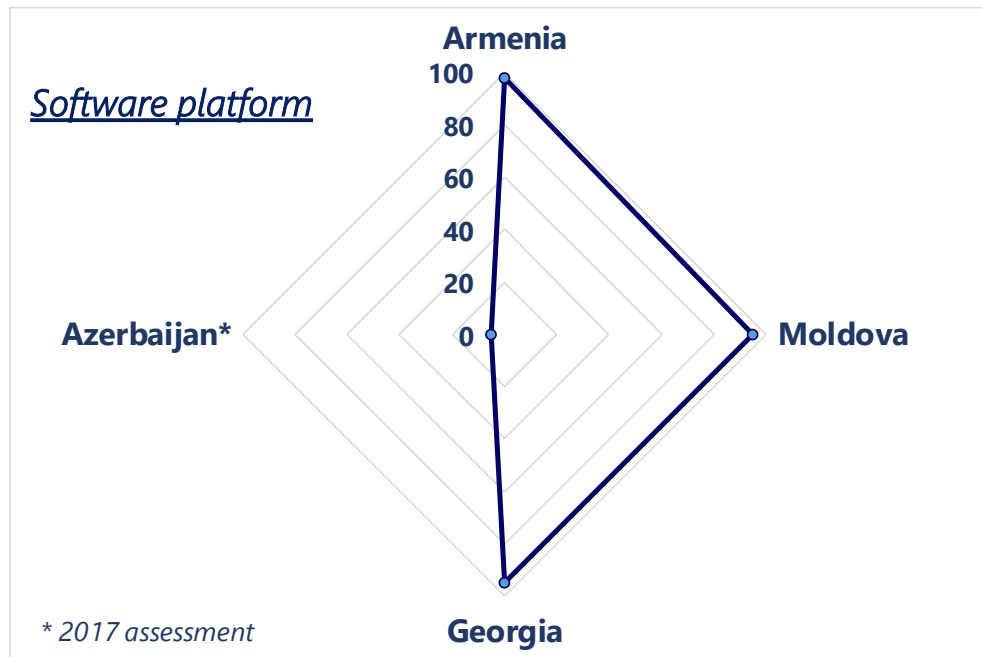


# Benchmarking of Crash and Road Safety Data Systems



# Legislation, Institution & Software Platform

- The concept of a crash / road safety database is **not clearly referenced in the law** in any country, except Azerbaijan.
- In most countries, there is **one institution** tasked with leading the establishment and development of a road safety database.
- Armenia, Moldova and Georgia have **software platforms**, which allow updating the data structure in a simple manner and facilitate data input and exporting.

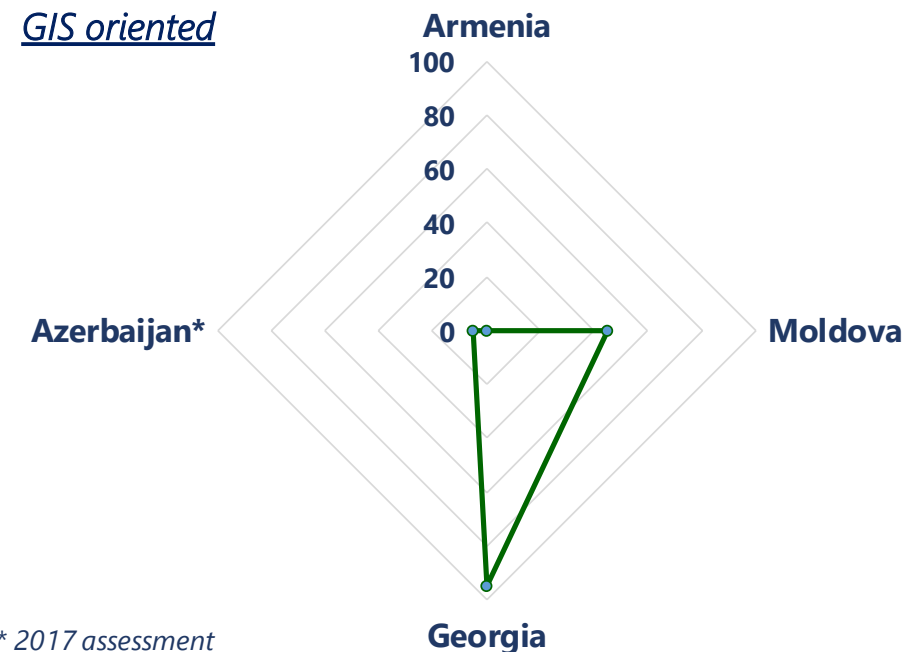




# GIS & Web orientation of software platform

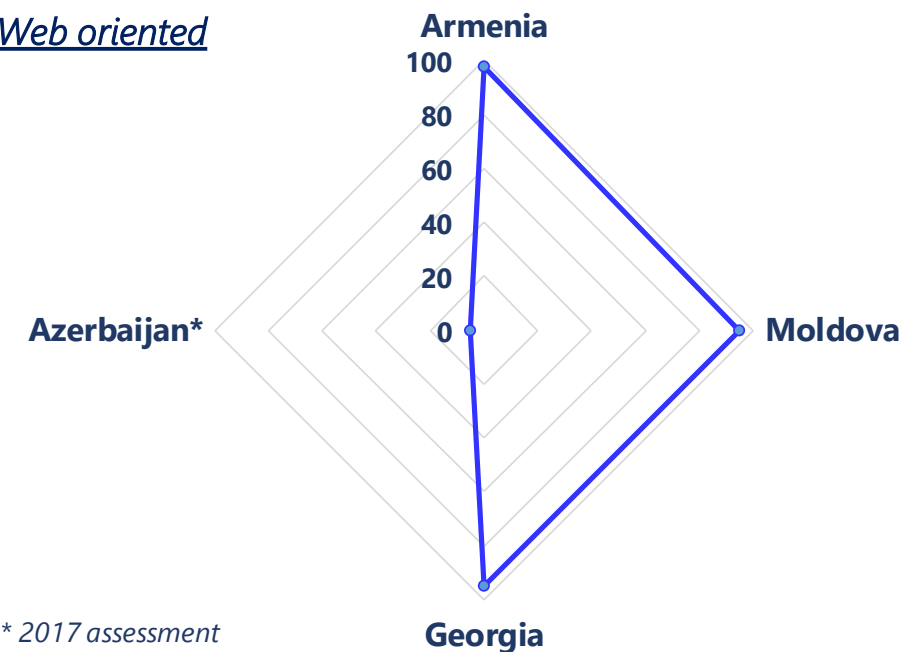
- All countries have developed crash databases that are **online available**, which may enable the data exchange between different institutions and organizations.
- The new electronic module of Georgia disposes **GIS features**, while in Moldova there is the option to use point locations.

## GIS oriented



\* 2017 assessment

## Web oriented



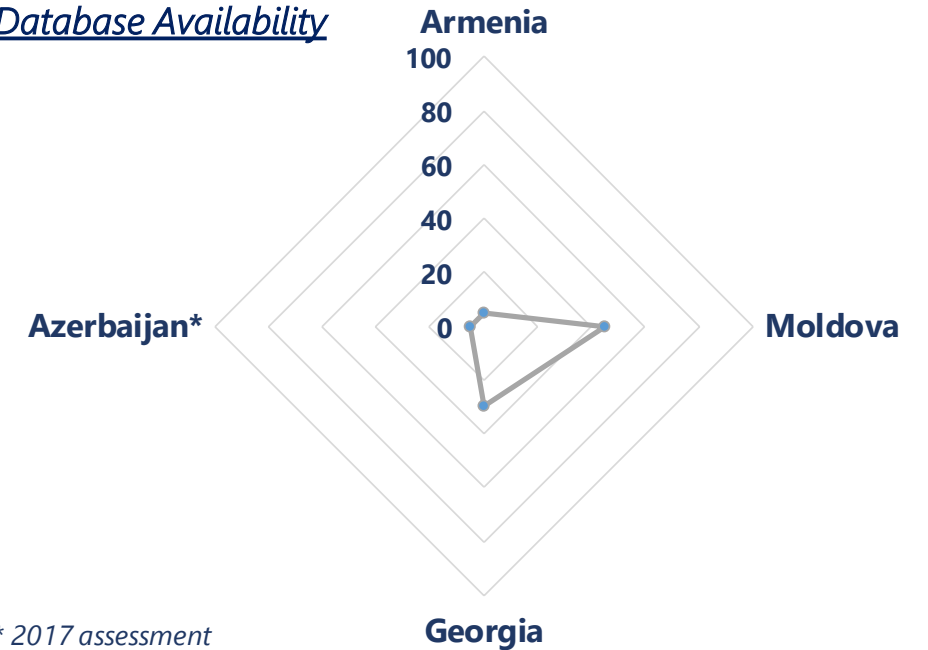
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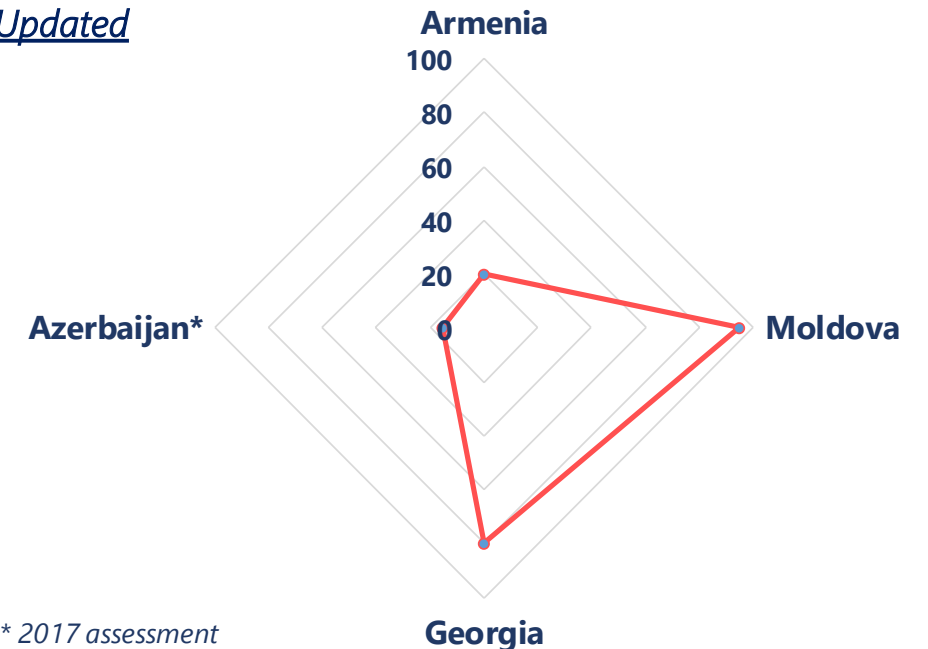
# Database availability & Update

- The principle of an **“open by default” road safety database** has not been adopted by any country, while progress has been made in Georgia and Moldova to provide access to detailed crash data to other authorities in the future.
- In Moldova and Georgia, **updates** of crash data are **undertaken regularly**, on an annual or semi-annual basis.

Database Availability

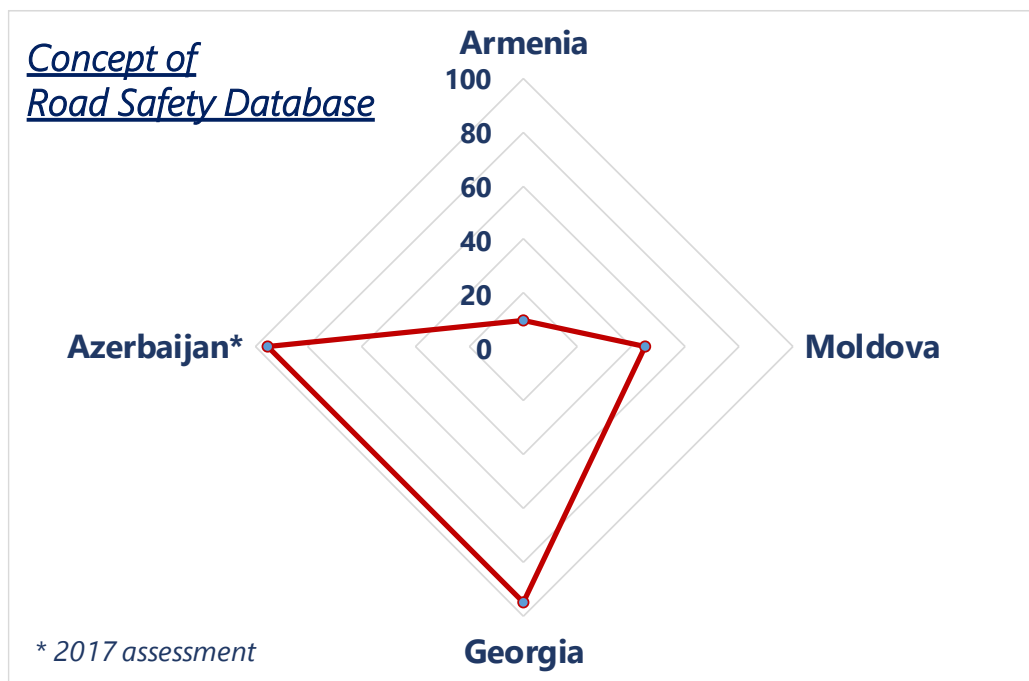


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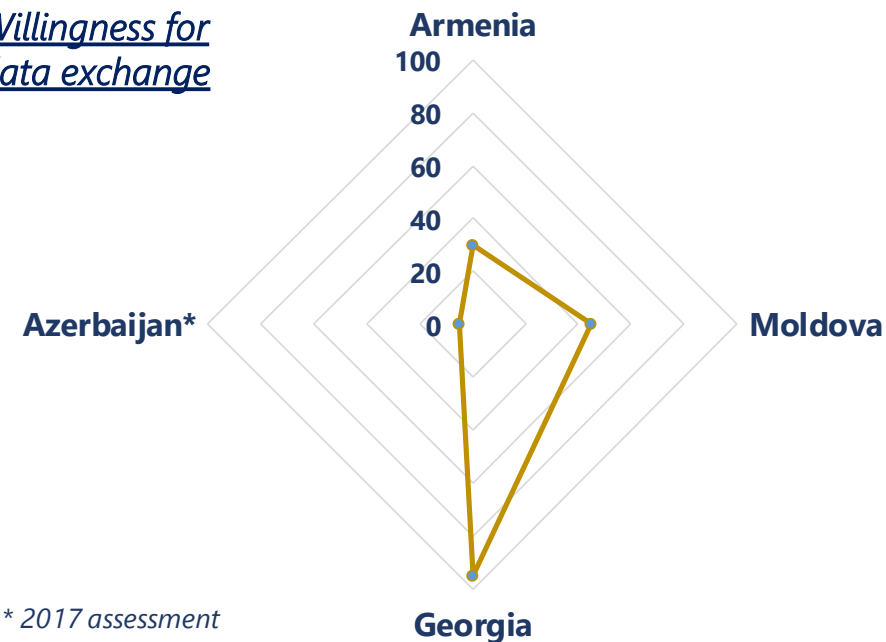


# Willingness to exchange data & Connectivity

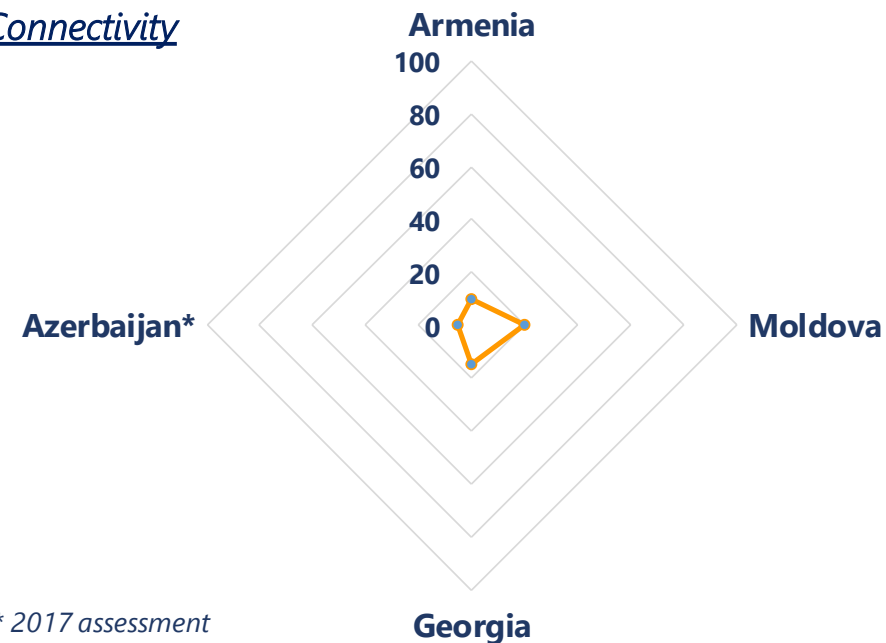
- Georgia is willing to **exchange crash data** with other authorities or organizations under a non-restrictive manner.
- Other available road safety databases at national level are **not connected** with the crash database in any country.



## Willingness for data exchange



## Connectivity





# Conclusions & Recommendations

- Georgia has made significant **progress in almost all examined criteria** used for the assessment of its crash data system.
- Armenia has made significant progress in the **transformation of its national crash data structure**, which should be a priority for Moldova as well.
- The establishment of a **valid death registration system** should be considered for all countries, in order to better validate the crash data collected by the Police and estimate the effect of under-reporting.
- The need for **high quality crash data** and the establishment of a **central road safety database** should be emphasized to all involved stakeholders, and especially to Police, which will allow in the long-term a data-driven approach to the decision making process.



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