

4th Working Group
Institutional Coordination and Data Systems
Knowledge exchange workshop
October 18th, 2018
Minsk, Belarus



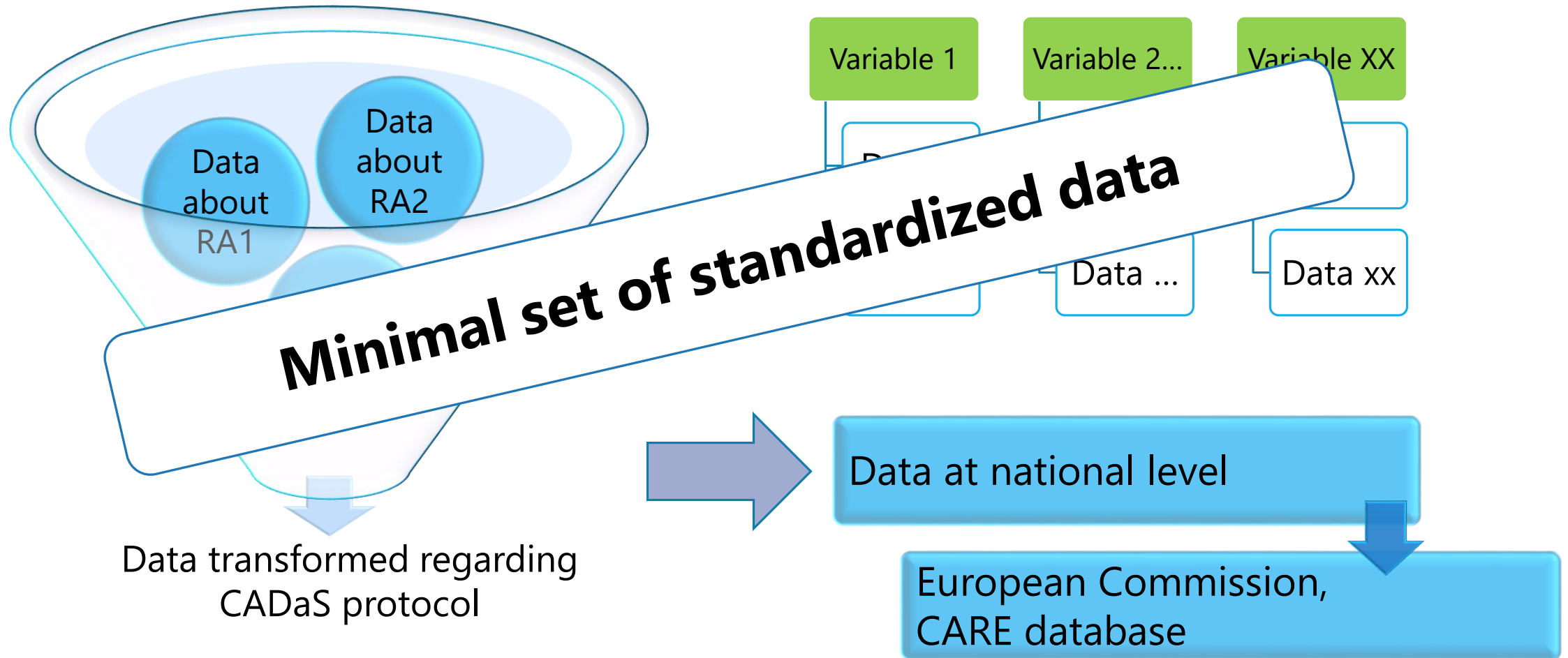
Analysis of existing Crash data form per country and comparison with CADaS

DRAGOSLAV KUKIĆ, PHD.

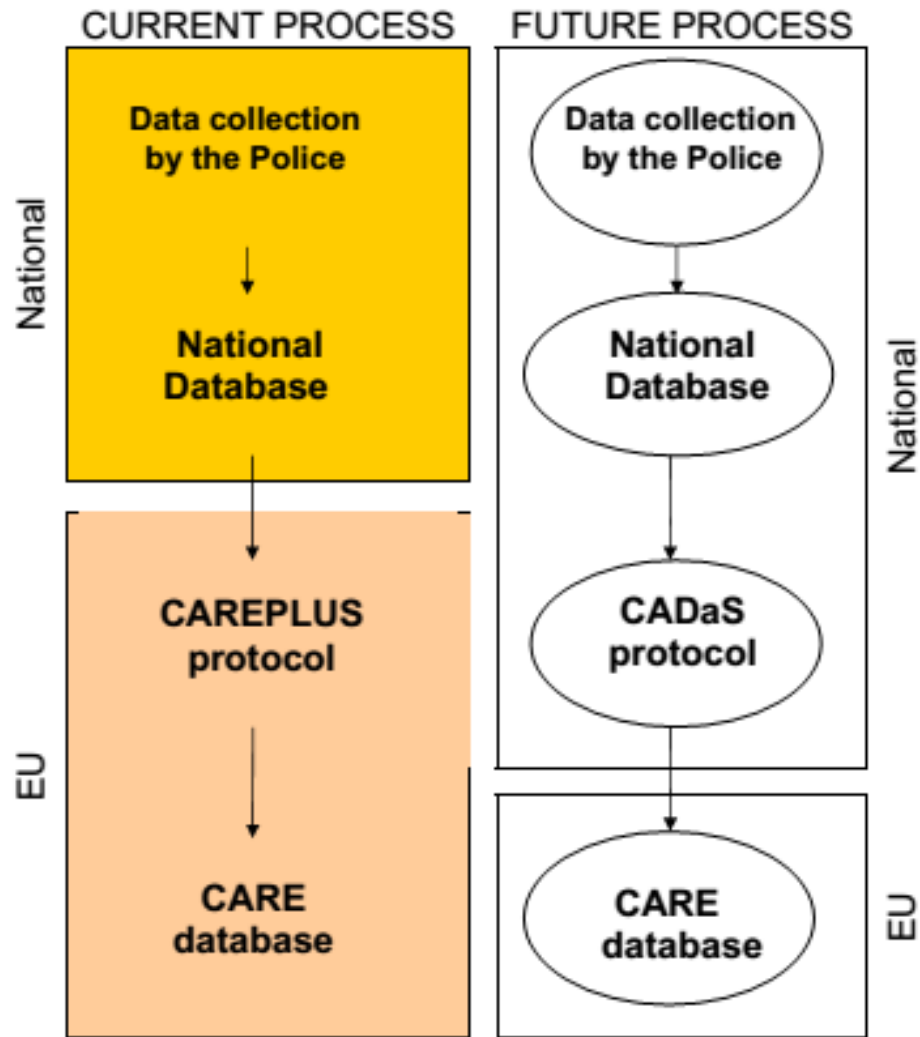
INTERNATIONAL CRASH DATA AND ROAD SAFETY SPECIALIST



CADaS protocol



CURRENT AND FUTURE PROCESSES



Minimum set of standardized data elements

More variables and values with a common definition in CARE database

Comparable road accident data in Europe

More detailed and reliable road safety analyses across European countries

Basic CADaS structure



I Accident related variables



II Road related variables



III Traffic Unit (vehicle and pedestrian) related variables



IV Person related variables

CADaS variables

Accident

ACCIDENT ID
 ACCIDENT DATE
 ACCIDENT TIME
 NUTS
 LAU
 WEATHER CONDITIONS
 LIGHT CONDITIONS
 ACCIDENTS WITH PEDESTRIANS
 ACCIDENTS WITH PARKED VEHICLES
 SINGLE VEHICLE ACCIDENTS
 AT LEAST TWO VEHICLES - NO TURNING
 AT LEAST TWO VEHICLES - TURNING OR CROSSING
 HIT & RUN ACCIDENT

13

Road

ACCIDENT ID
 LATITUDE
 LONGITUDE
 E-ROAD
 E-ROAD KILOMETRE
 FUNCTIONAL CLASS - 1st ROAD
 FUNCTIONAL CLASS - 2nd ROAD
 SPEED LIMIT - 1st ROAD
 SPEED LIMIT - 2nd ROAD
 MOTORWAY
 URBAN AREA
 JUNCTION
 RELATION TO JUNCTION / INTERCHANGE
 JUNCTION CONTROL
 SURFACE CONDITIONS
 OBSTACLES
 CARRIAGEWAY TYPE
 NUMBER OF LANES
 EMERGENCY LANE
 MARKINGS
 TUNNEL
 BRIDGE
 WORK ZONE RELATED
 ROAD CURVE
 ROAD SEGMENT GRADE

25

Traffic unit

ACCIDENT ID
 TRAFFIC UNIT ID
 TRAFFIC UNIT TYPE
 VEHICLE SPECIAL FUNCTION
 TRAILER
 ENGINE POWER
 ACTIVE SAFETY EQUIPMENT
 VEHICLE DRIVE
 MAKE
 MODEL
 REGISTRATION YEAR
 TRAFFIC UNIT MANOEUVRE
 FIRST POINT OF IMPACT
 FIRST OBJECT HIT IN
 FIRST OBJECT HIT OFF
 VEHICLE INSURANCE FOR DRIVER/RIDER
 HIT & RUN
 REGISTRATION COUNTRY

18

Person

ACCIDENT ID
 TRAFFIC UNIT ID
 PERSON ID
 DATE OF BIRTH
 GENDER
 NATIONALITY
 INJURY SEVERITY
 ROAD USER TYPE
 ALCOTEST
 ALCOTEST SAMPLE TYPE
 ALCOTEST RESULT
 ALCOHOL LEVEL
 DRUG TEST
 DRIVING LICENSE ISSUE DATE
 DRIVING LICENSE VALIDITY
 SAFETY EQUIPMENT
 POSITION IN/ON VEHICLE
 DISTRACTED BY DEVICE
 PSYCOPHYSICAL / PHYSICAL IMPAIRMENT OR CONDITION
 TRIP/JOURNEY PURPOSE
 INJURY MAIS SCALE

21

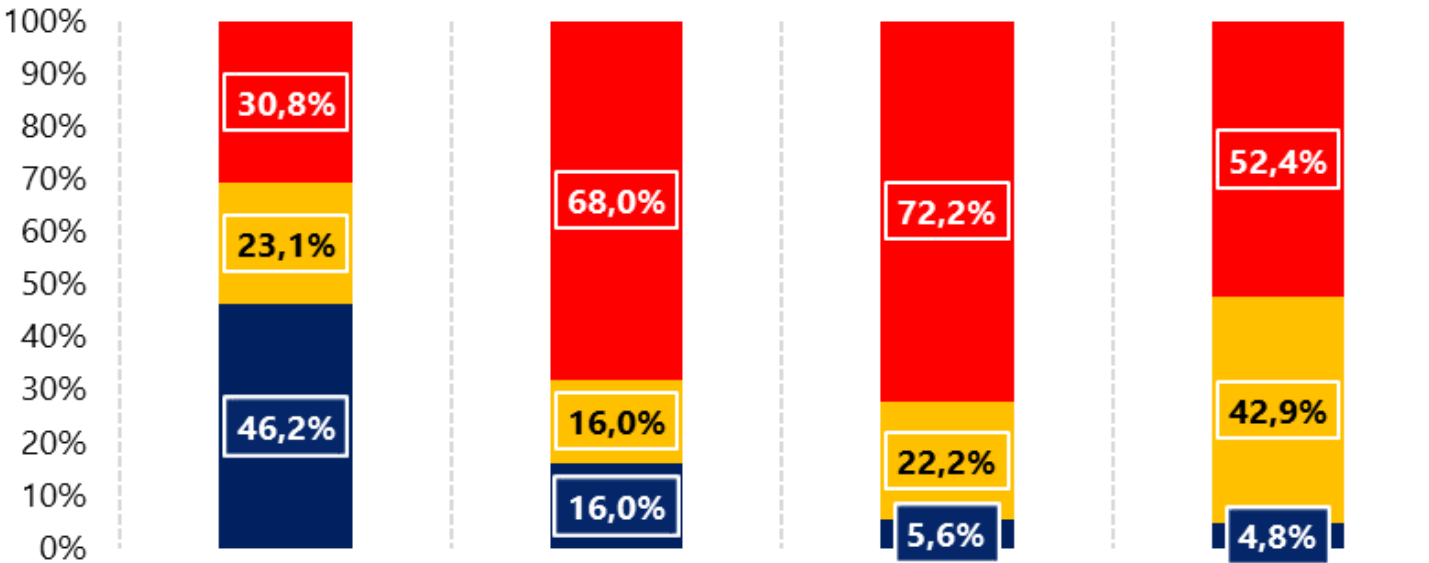
Comparison of the Crash Data Forms of the EaP countries with the CADaS recommendations of the European Commission



VS.

Crash Data Form

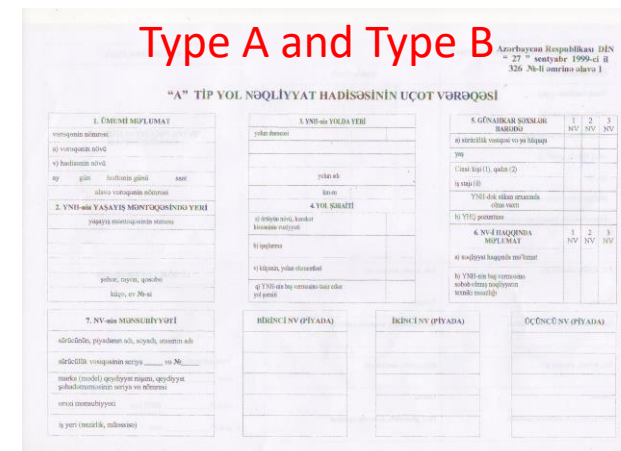
+++	The variable <u>is recorded</u> in the Crash Data Form of the EaP country <u>in a form that is proposed by CADaS</u> recommendations of the European Commission, or minimal adjustments to achieve the recording in the required form are needed.
+	The variable <u>is not recorded as a separate variable</u> in the Crash Data Form of the EaP country, as has been suggested by CADaS recommendations of the European Commission, but the data is collected within other variables. A transformation of these variables is necessary in order to adapt to CADaS recommendations of the European Commission.
-	The variable <u>is not recorded in the Crash Data Form</u> of the EaP country.

The image shows the national flag of Armenia, which consists of three horizontal stripes of red, blue, and orange. The flag is flying on a tall, silver flagpole against a clear blue sky with some light clouds. The flagpole is positioned on the left side of the frame, and the flag is fully unfurled, showing its vibrant colors.

Accident related data	Road related data	Traffic Unit (vehicle and pedestrian) related data	Person related data
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[illegible]

33. Իմ անդամները (մեկ 1 (1))			34. Հայրեր (1 (41))		
35. Իմ անդամները (մեկ 2 (102))			36. Հայրեր 2 (42)		
37. Իմ անդամները (մեկ 3 (103))			38. Հայրեր 3 (43)		
39. Իմ անդամը (2)			41. Հարգանքներ Գրականություն անձինք, համար		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	42. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	43. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	44. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	45. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	46. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	47. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	48. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	49. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	50. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	51. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	52. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	53. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	54. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	55. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	56. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	57. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	58. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	59. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	60. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	61. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	62. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	63. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	64. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	65. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	66. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	67. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	68. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	69. Դրամական քանակ (հարյուրավոր)		
ՅՈՒՆ	ՅՈՒՆ	ՅՈՒՆ	70. Դրամական քանակ (հարյուրավոր)		

The flag of Azerbaijan is shown waving on a flagpole against a clear blue sky. It features three horizontal stripes of blue, red, and green, with a white crescent and an eight-pointed star in the center of the red stripe.

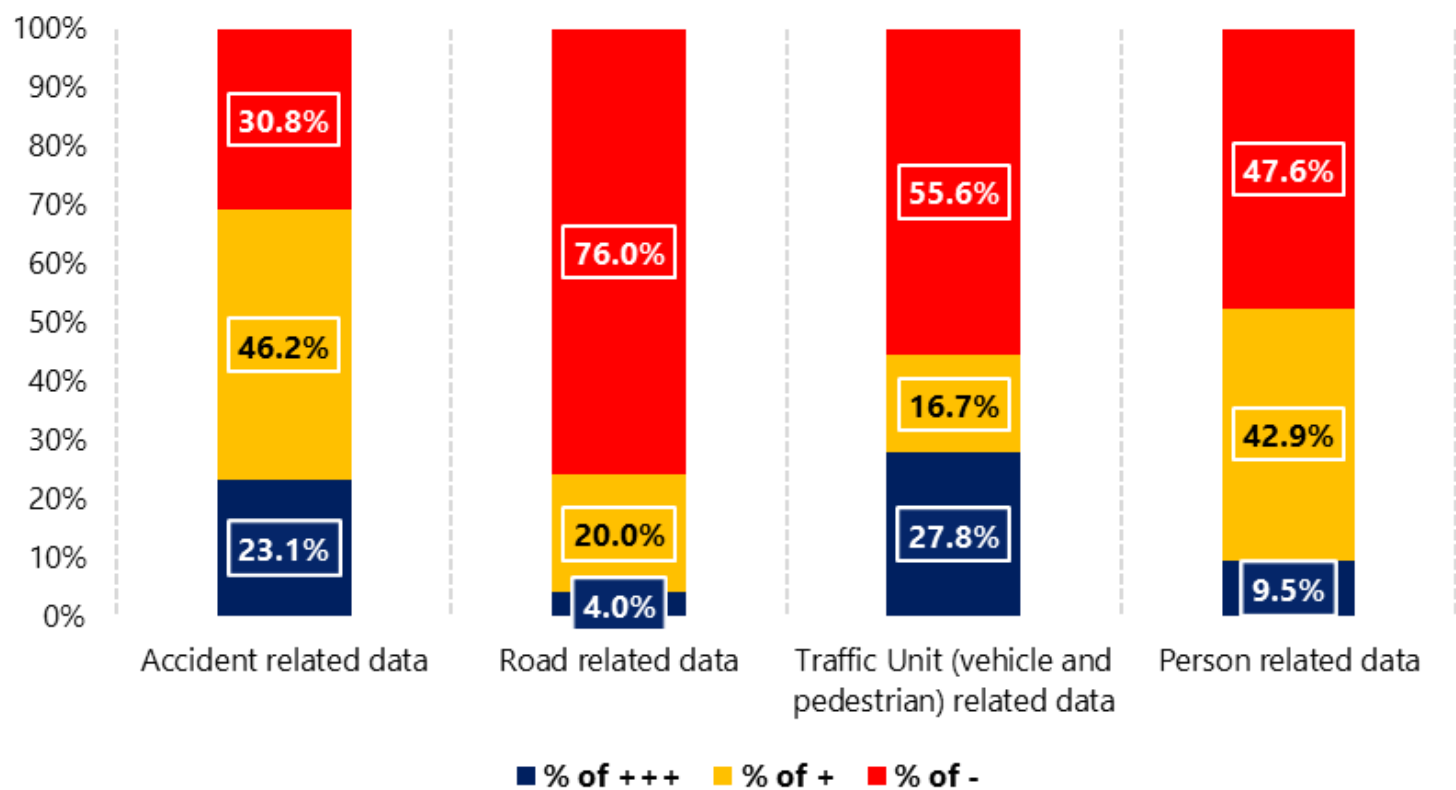
8. KONSAROT ALANAR BARIGDO MUPHAKAT		9. ULAYO MUPHAKAT	
Otun (hachado cunat)	Xonate chatur		
Yarab (hachado cunat)	1-ci	2-ci	3-ci
OTUN (1), yarabab (2)			
a) barakat gharqarant shab			
otun kipi (1), qulan (2)			
qun (3)			
shayyayt vashimam cun shimam			
b) shabab-shabab komet, mupham			
1		2	
Adi, wiyad, shimam adi	Adi, wiyad, shimam adi		
Cunam	Cunam		
Hare ghoshadilab, kometat kometat	Hare ghoshadilab, kometat kometat		
3		4	
Adi, wiyad, shimam adi	Adi, wiyad, shimam adi		
Cunam	Cunam		
Hare ghoshadilab, kometat kometat	Hare ghoshadilab, kometat kometat		

10. VOL NOQIYYAT HADINOSI SHUMININ TAYIBI

11. GORULAN FOMELER

Vazirnat nom-i ul:	SHPS dars No _____ ulayot komet
qayq No _____	SHPS nom _____
qayq No _____	ulayot komet _____

BELARUS

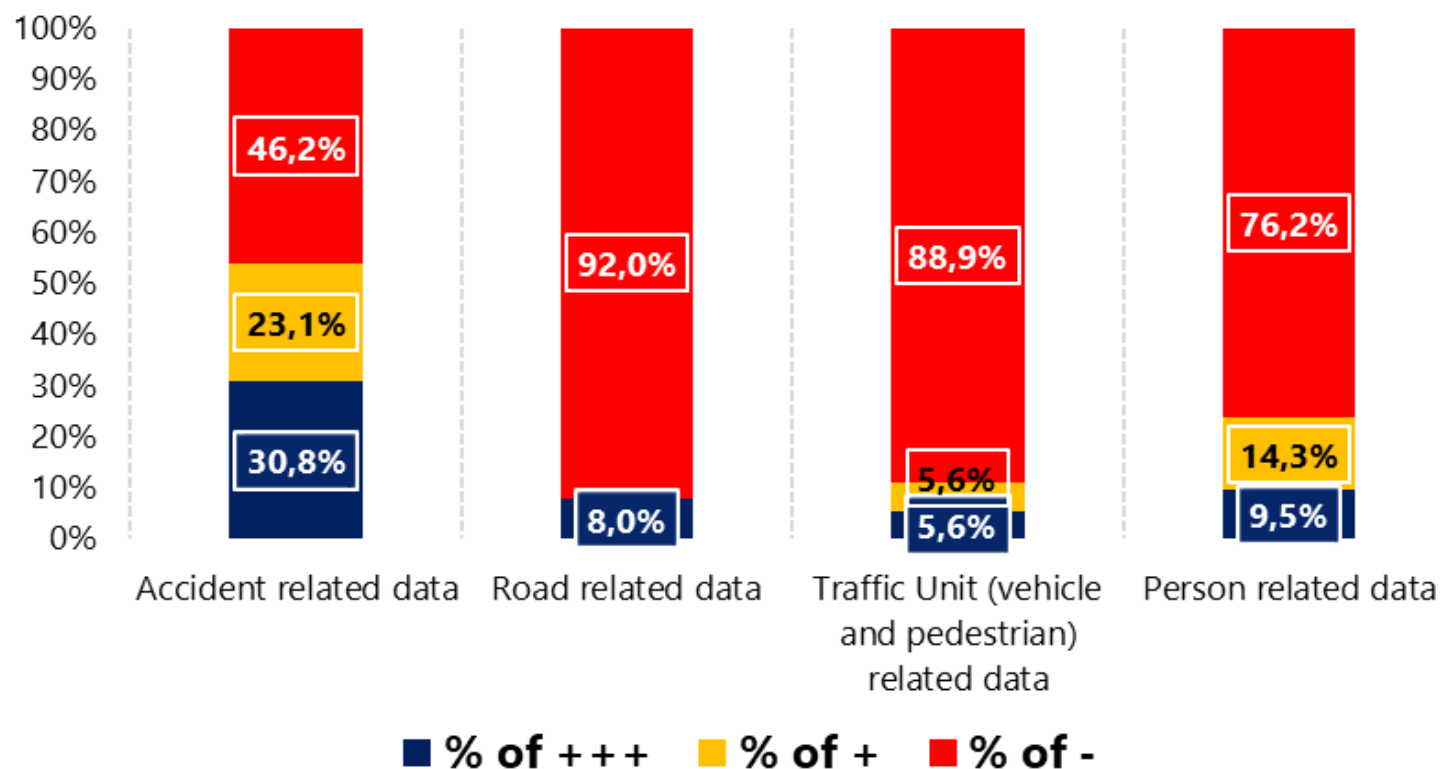


Two papers on A4

The top form is a 'Карточка учета дорожно-транспортного происшествия' (Traffic Accident Record Card). It contains fields for the date and time of the accident, the location, the vehicles involved, and the names of the drivers and witnesses. It also includes a section for the investigation and a section for the conclusion.

The bottom form is a 'Справка о дорожно-транспортном происшествии' (Certificate of Traffic Accident). It contains fields for the date and time of the accident, the location, the vehicles involved, and the names of the drivers and witnesses. It also includes a section for the investigation and a section for the conclusion.

GEORGIA



One single paper – basic information

Road Traffic Accident Record Form																	
1 General information				4 Type of road traffic accident				8 Data for participants of road traffic accident									
Road traffic accident ID				1 2 3 4 5 6 7 8 9 10				a. Road traffic incident participant		Age		b. Dead (age)		c. Injured (age)			
Case ID				5 Road conditions				Category	Name/Surname	Male	Female	Male	Female	Male	Female		
Date and the time of road traffic accident				a. Type of the road surface and condition of the roadway													
2 The data in the card																	
1 2																	
3 Location of road traffic accident (address)				1 2 3 4 5 6													
City/Town:				b. Lighting on the road													
Address:				1 2 3 4													
				6 The causes of road traffic accidents													
				1 2 3 4 5 6													
				7 8 9 10 11 12													
				13 14 15 16 17 18													
				7 Type of transport													
				1 2 3 4 5 6													

MOLDOVA



Accident related data

Person related data

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

Ac

FIȘA DE EVIDENȚĂ A PERSOANELOR PARTICIPANTE LA ACCIDENT Anexa nr. 3
(Formular nr. 3)
la Instrucțiunile cu privire la evidența
accidentelor rutiere aprobate prin ordinul
interdepartamental nr. _____ din _____

SECȚIUNEA 1. INDICATORI DE IDENTIFICARE

1. Denumirea organului de evidență (ind.01)

2. Tipul fișei (ind.02)

3. Numărul fișei (AAAAOENNNS)

4. Persoană neidentificată/identificată

SECȚIUNEA 2. DATELE DE IDENTIFICARE ALE PERSOANEI

5. Numele

5.1. Prenumele

5.2. Patronymul

5.3. Sexul: masculin (1), feminin (2), (ind.33)

5.4. IDNP (Codul personal)

5.5. Data nașterii (DD.LL.AAAA)

5.6. Vîrstă (AA.LL)

5.7. Locul nașterii (ind. 026)

SECȚIUNEA 3. DATELE DOCUMENTULUI DE IDENTITATE

6. Tipul documentului de identificare (ind.44)

7. Seria documentului de identificare

8. Numărul documentului de identificare

9. Data eliberării documentului (DD.LL.AAAA)

10. Data expirării documentului (DD.LL.AAAA)

11. Autoritatea emitentă a documentului (ind.34)

SECȚIUNEA 4. DATE DESPRE DOMICILIUL ȘI OCUPAȚIA PERSOANEI

12. Țara (ind.36)

13. Codul domiciliului (ind.01)

14. Codul localității (ind.26)

15. Strada (text/cod)

16. Nr.căsu, blocului

17. Nr.apartamentului

18. Telefon de contact

19. Codul funcției

SECȚIUNEA 5. DATE DESPRE PARTICIPAREA LA ACCIDENT

20. Categoriea participatului la accident (ind.38)

21. Informații suplimentare despre participat (ind.39)

22. Starea psihofiziologică (ind.40)

23. Culpabilitatea (ind.41)

24. Incalzit/le R.C.R. comise (ind.42)

25. Aplicarea mijloacelor de securitate pasivă (ind.43)

26. Consecințele pentru participat (ind.45)

27. Spitalizarea, caracterul traumei (text)

SECȚIUNEA 6. DATE PRIVIND ADMITEREA LA TRAFIC A CONDUCĂTORULUI AUTO

28. Tipul permisului de conducere (ind.46)

29. Seria permisului de conducere

30. Numărul permisului de conducere

31. Data eliberării permisului (DD.LL.AAAA)

32. Data expirării permisului (DD.LL.AAAA)

33. Autoritatea emitentă a documentului (ind.34)

34. Categoriile permise

35. Data obținerii categoriei din care face parte vehiculul (DD.LL.AAAA)

36. Șeula auto absolvită (ind.49)

37. Seria, numărul certificatului de competență profesională

38. Data eliberării certificatului de competență profesională (DD.LL.AAAA)

39. Stagiul la calitate de conducător auto (AA.LL)

Funcția, numele și semnătura angajatăului care a completat fișa _____

Șeful Inspectoratului de poliție _____

related data

■ % of +++ ■ % of + ■ % of -

Person related data

FIȘA DE EVIDENȚĂ A PERSOANELOR ASISTATE MEDICAL DUPĂ ACCIDENT Anexa nr. 6
(Formular nr. 6)
la Instrucțiunile cu privire la evidența
accidentelor rutiere aprobate prin ordinul
interdepartamental nr. _____ din _____

SECȚIUNEA 1. INDICATORI DE IDENTIFICARE

1. Denumirea instituției medico-sanitare

2. Numărul fișei (AAAMSPNNNS)

3. Persoană neidentificată/identificată

SECȚIUNEA 2. DATELE DE IDENTIFICARE ALE PERSOANEI

4. Numele

4.1. Prenumele

4.2. Patronymul

4.3. Sexul: masculin (1), feminin (2), (ind.33)

4.4. IDNP (Codul personal)

4.5. Data nașterii (DD.LL.AAAA)

4.6. Vîrstă (AA.LL)

4.7. Locul nașterii (ind. 026)

4.8. Codul localității (ind. 26)

4.9. Strada (text/cod)

4.10. Nr.căsu, blocului

4.11. Nr.apartamentului

4.12. Telefon de contact

4.13. Funcția, locul de muncă (text)

SECȚIUNEA 3. DATE DESPRE ACCIDENTUL RUTIER

5. Data producerii accidentului (DD.LL.AAAA)

6. Localizarea accidentului(ind.01)

7. Locul producerii accidentului (text)

SECȚIUNEA 4. DATE DESPRE ASISTENȚA MEDICALĂ

8. Data acordării asistenței medicale(DD.LL.AAAA)

9. Ora acordării asistenței medicale (DD.MM)

10. Consecințele pentru participat (ind. 45)

11. Starea psihofiziologică (ind.40)

12. Tratament (text)

13. Spitalizarea, caracterul traumei (text)

14. Perioada incapacității de muncă (ZZ)

15. Informație adițională despre spitalizare(text)

16. Persoana care a completat fișa _____

EXPLOATARE A VEHICULUI

7. _____

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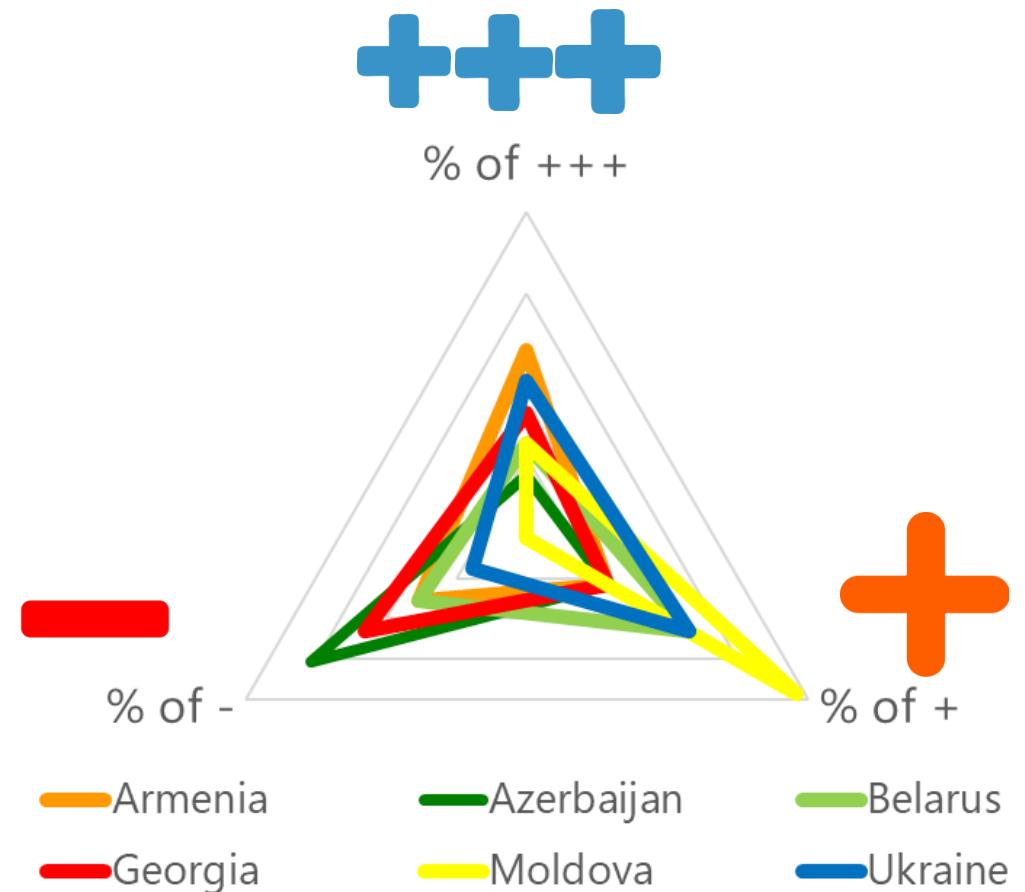
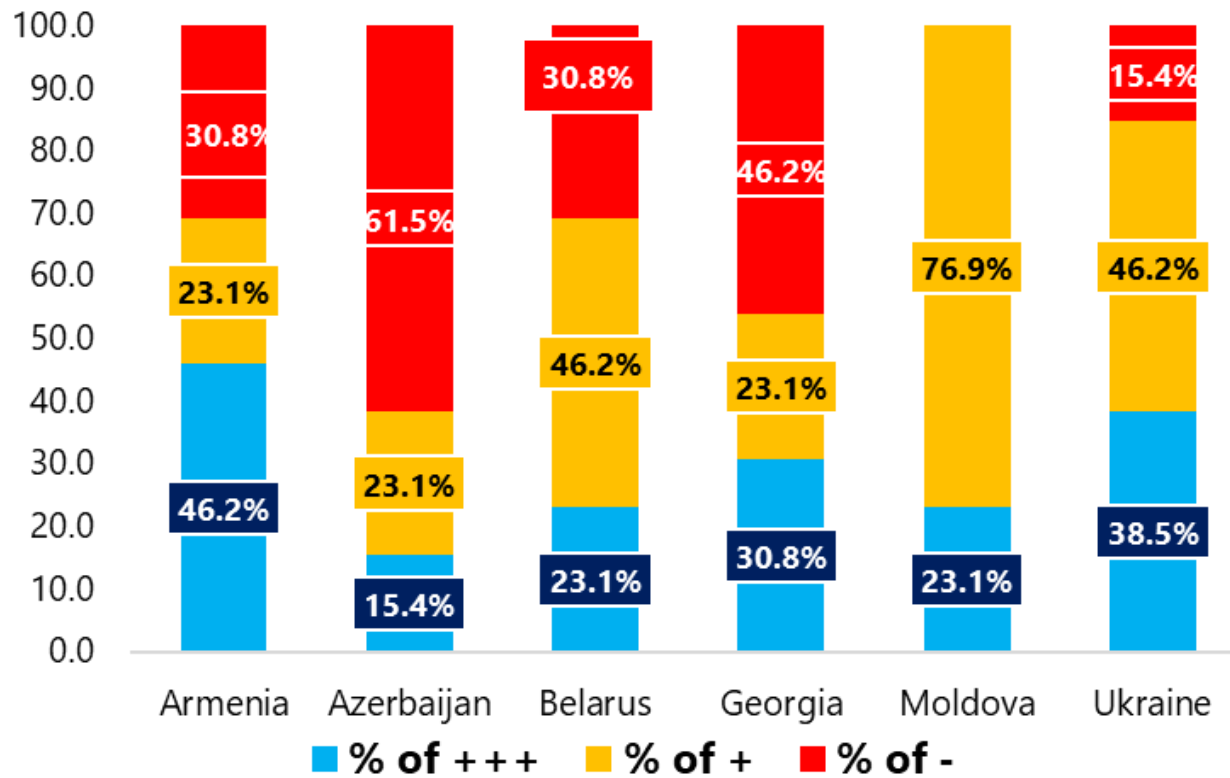
99. _____

100. _____

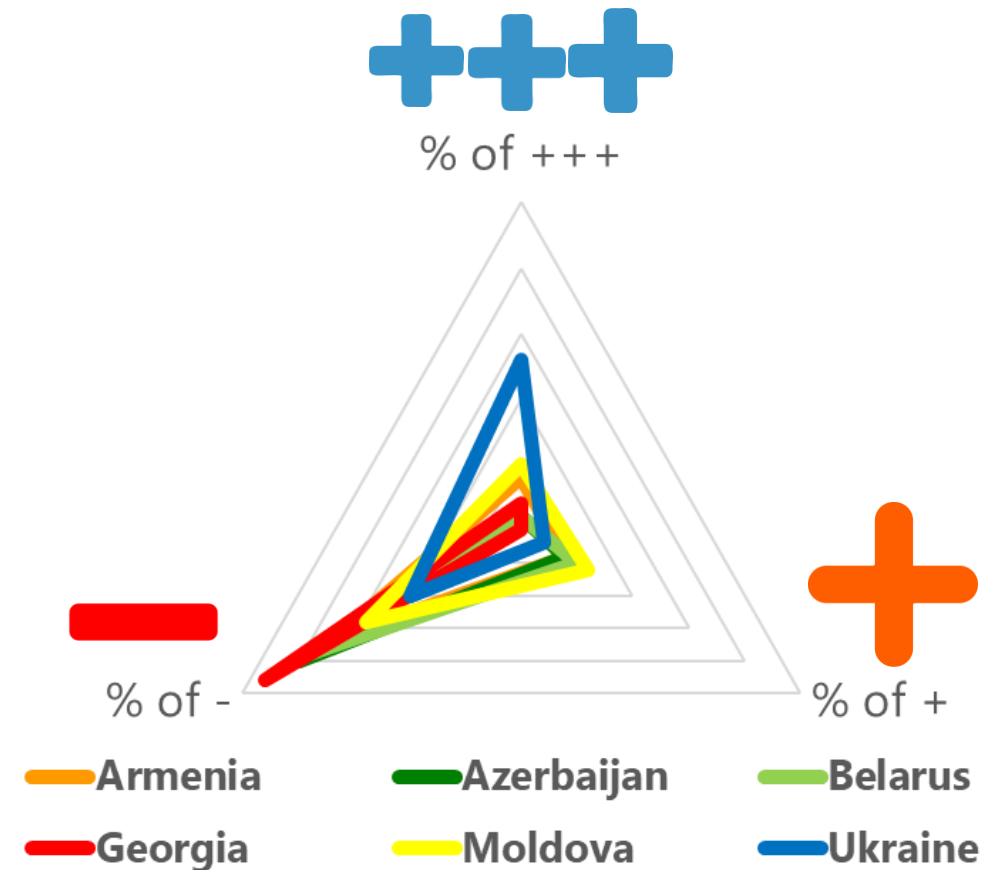
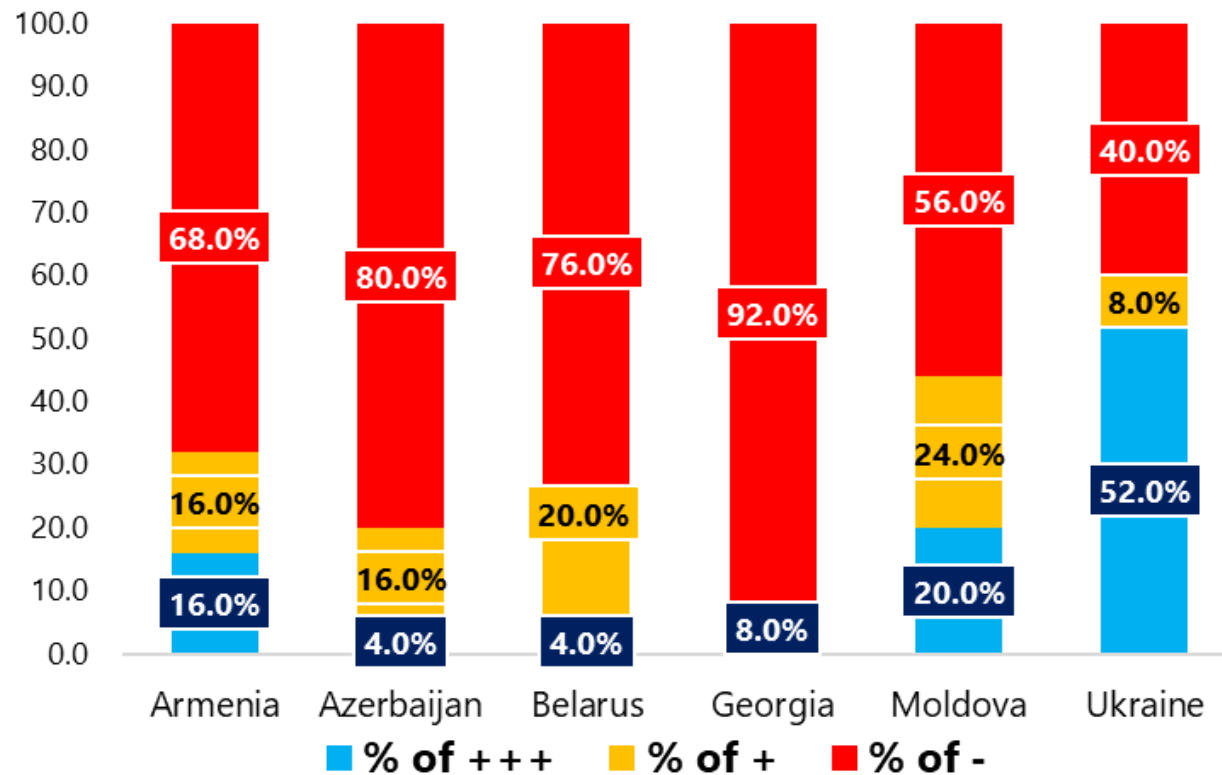
Person related data

[illegible][illegible][illegible][illegible]

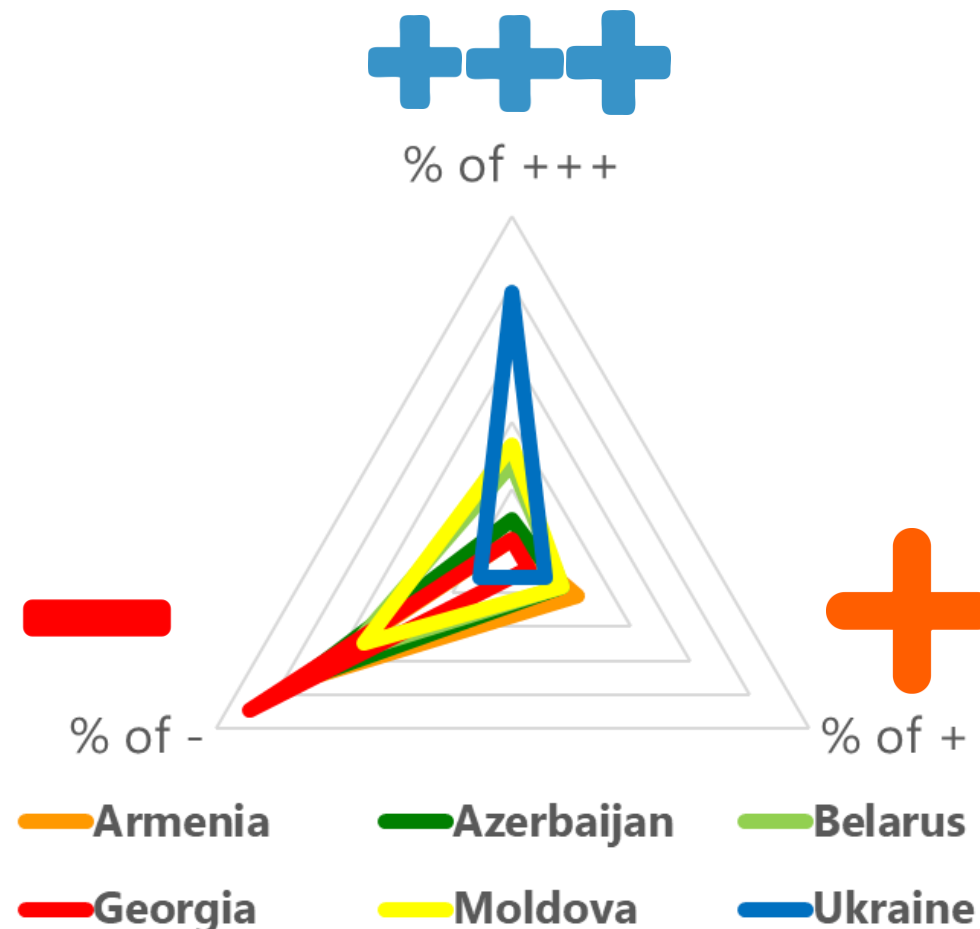
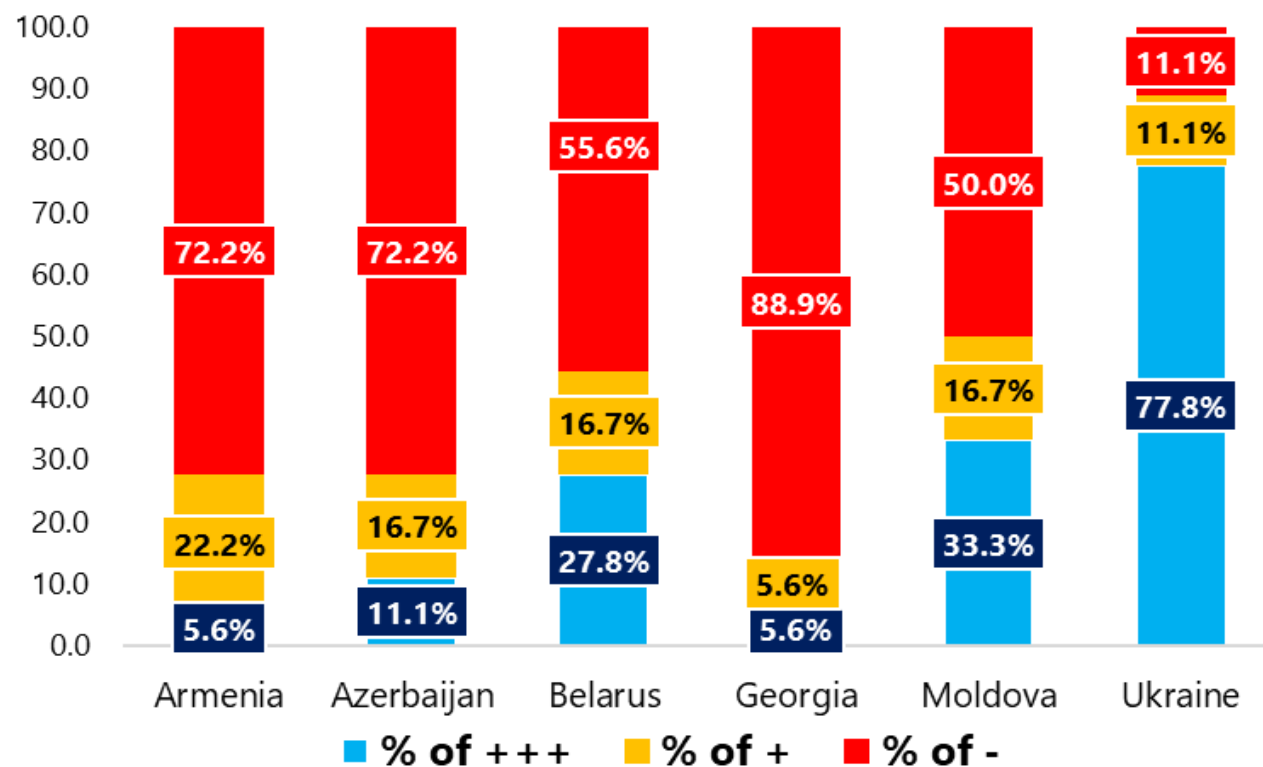
I – Accident related data – EaP countries



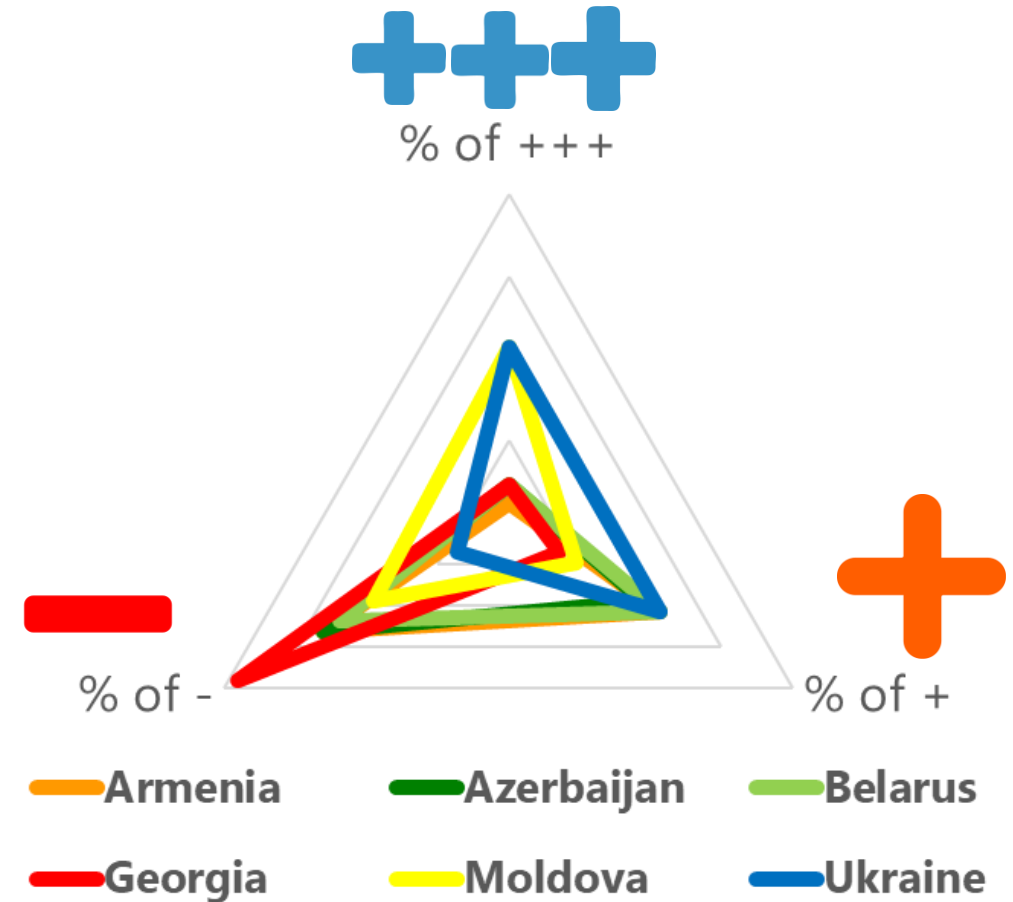
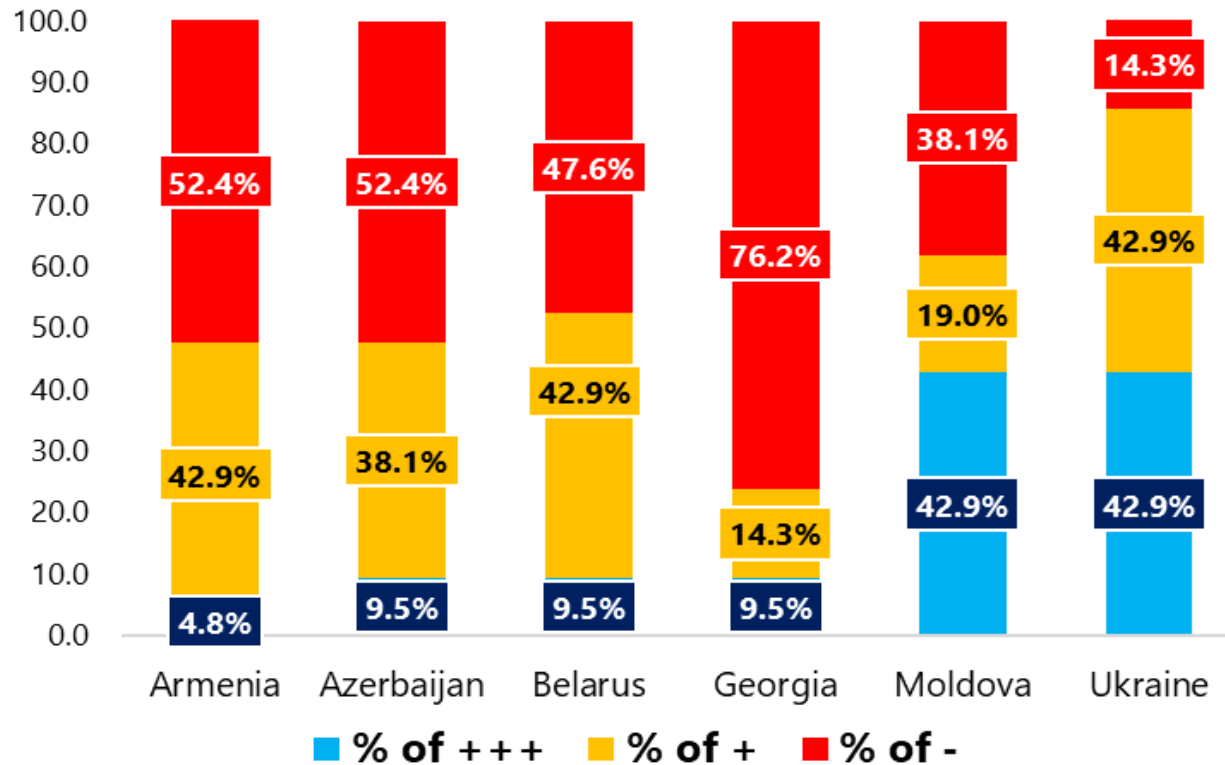
II – Road related data – EaP countries



III – Traffic Unit related data – EaP countries



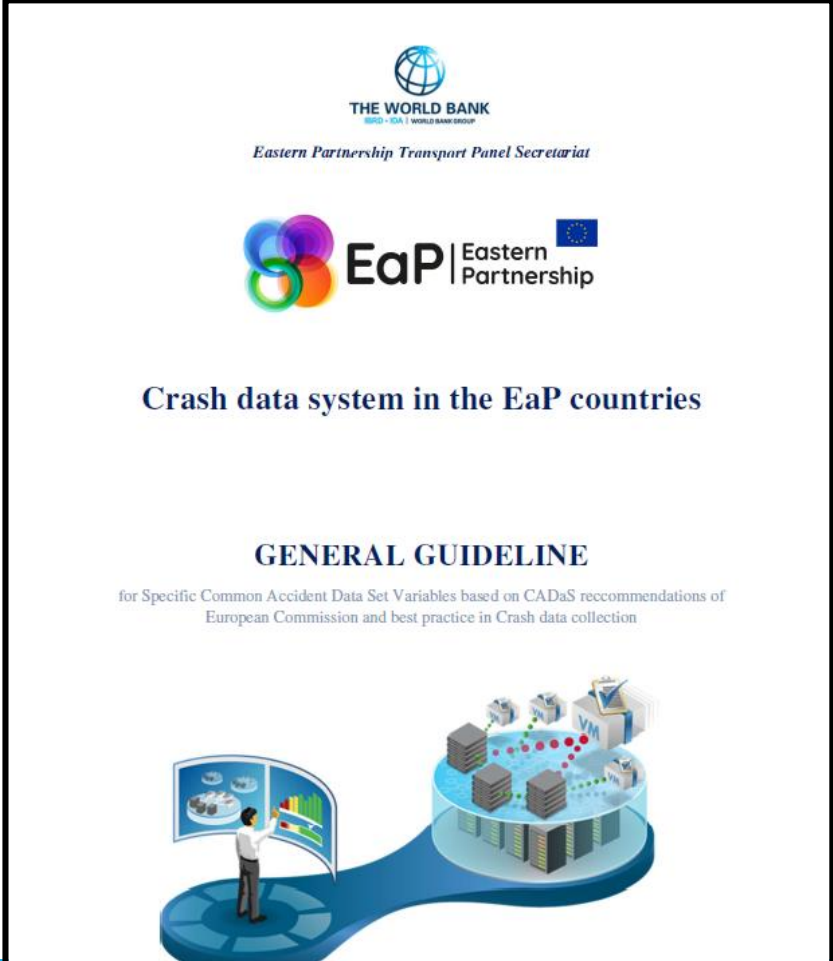
IV – Person related data – EaP countries



New immediate steps...

- Depends by level of development
- Different from country to country

1. **GPS coordinates** of RA (X and Y, or N, E)
2. **Types of RA** in accordance with CADaS and
3. **Contributory factors** in RA data collection
4. **Road related data:**
 - Specific place of road accident
 - Relation to junction/interchange
 - ...
5. **Traffic unit manoeuvre**
6. **Injuries as reported**



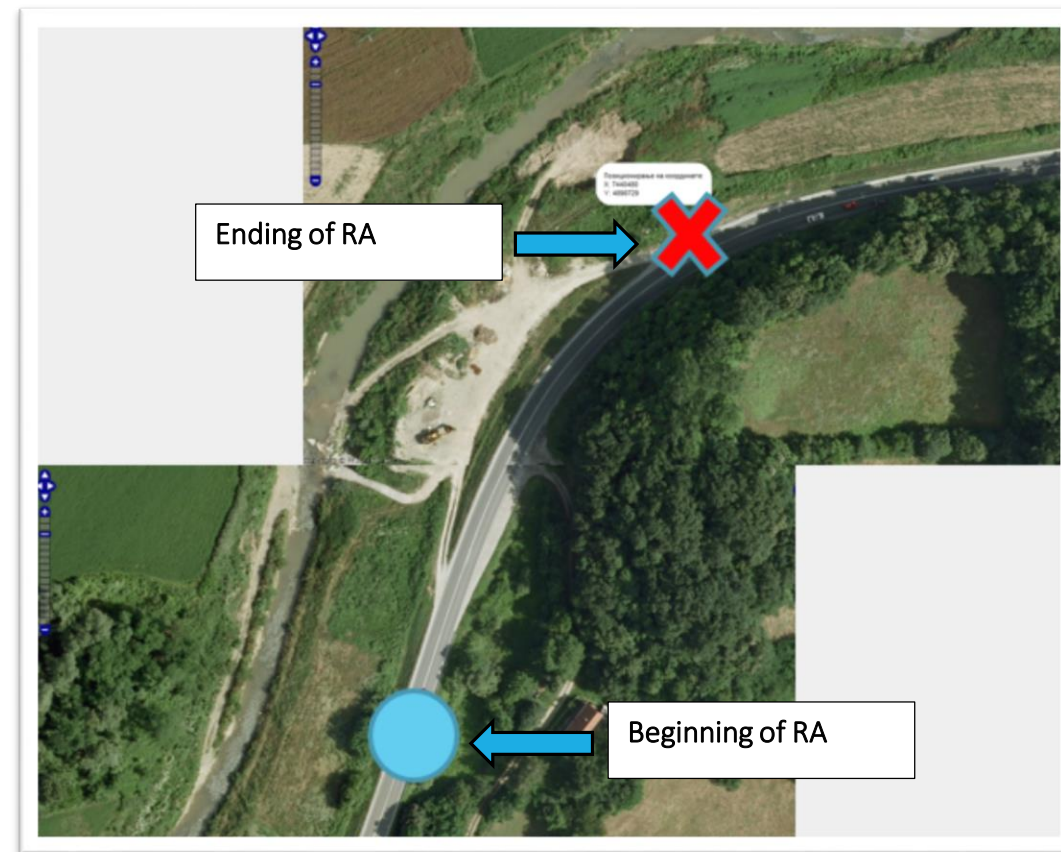
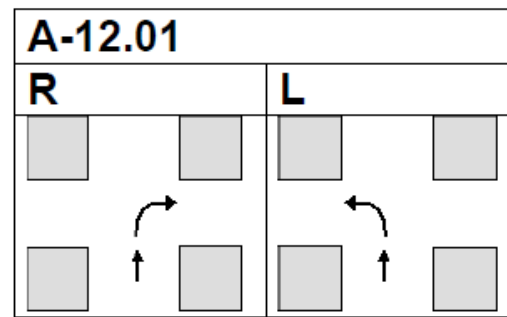
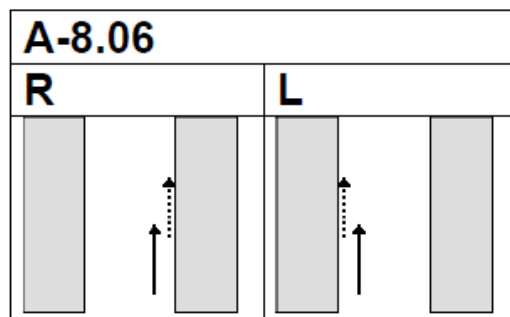
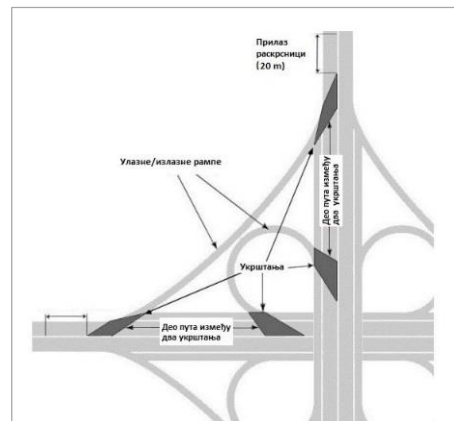
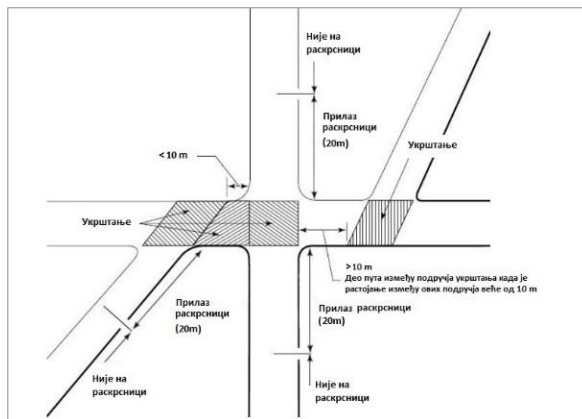
The image shows the front cover of a report titled 'Crash data system in the EaP countries'. At the top, it features the logos of 'THE WORLD BANK' and 'EaP Eastern Partnership'. Below the title, it says 'GENERAL GUIDELINE for Specific Common Accident Data Set Variables based on CADaS recommendations of European Commission and best practice in Crash data collection'. At the bottom, there is an illustration of a person standing next to a large, stylized globe or data structure. The entire cover is enclosed in a black border.

Crash data system in the EaP countries

GENERAL GUIDELINE
for Specific Common Accident Data Set Variables based on CADaS recommendations of European Commission and best practice in Crash data collection

...in preparation

New immediate steps... examples



New immediate steps...

Example of programming work

NOM_TIP_ID	NAME	STATUS
1	ACCIDENTS WITH PEDESTRIANS	A
2	ACCIDENTS WITH PARKED VEHICLES	A
3	SINGLE VEHICLE ACCIDENTS	A
4	AT LEAST TWO VEHICLES – NO TURNING	A
5	AT LEAST TWO VEHICLES – TURNING OR CROSSING	A

SQL query:

```
Select nom_tip_id, name, status  
FROM nez_nom_tipovi
```



THANK YOU FOR YOUR ATTENTION ANY QUESTIONS?

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