

Data and its importance on Road Safety policies

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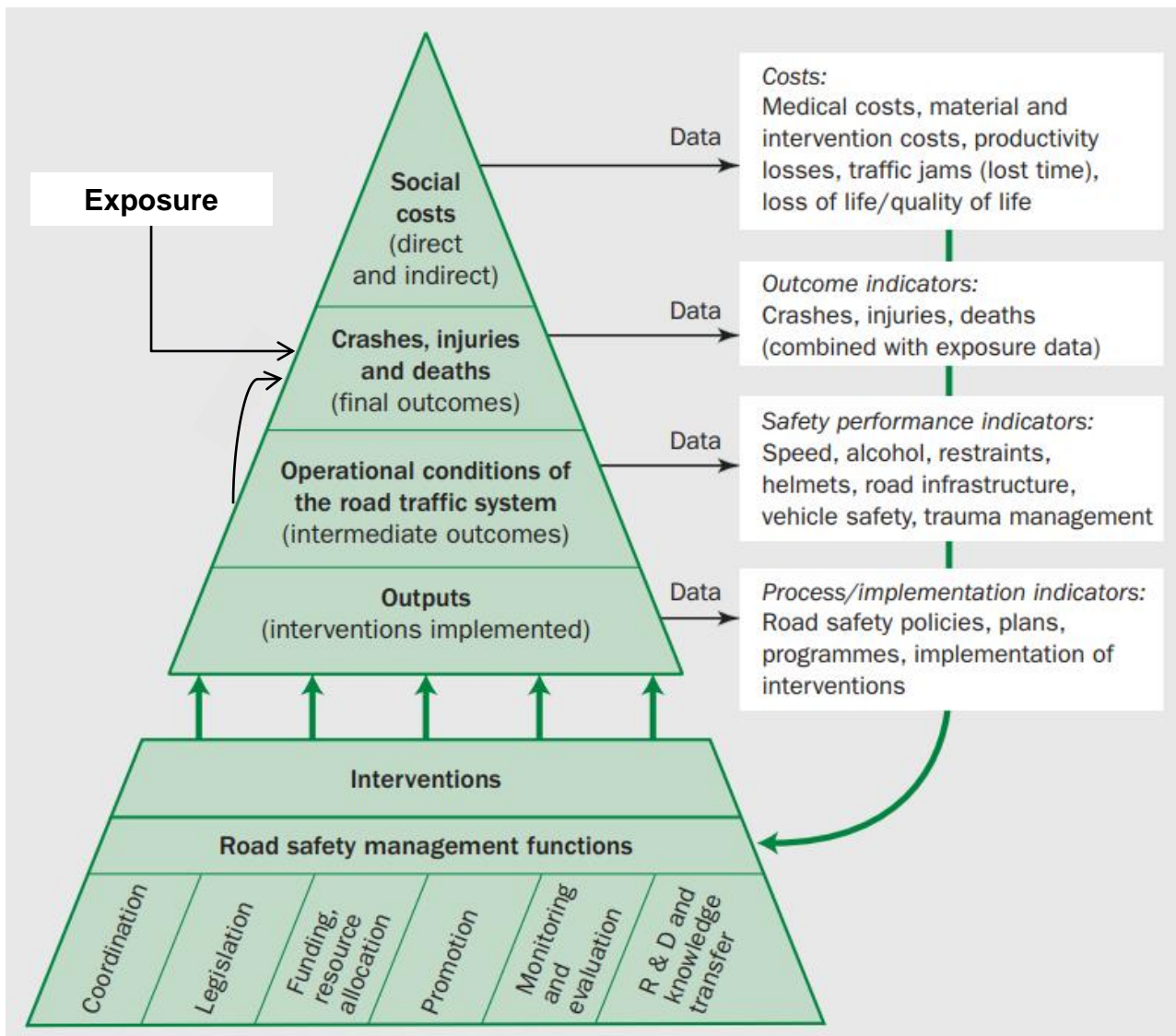
Content

- National Road Safety Observatory: functions.
- Data and indicators for road safety policies.
- Crashes, injuries and deaths. Social costs.
- Key (safety) performance indicators.
- Exposure.
- Interventions.
- The importance of linking.

National Road Safety Observatory



Data and indicators for road safety policies

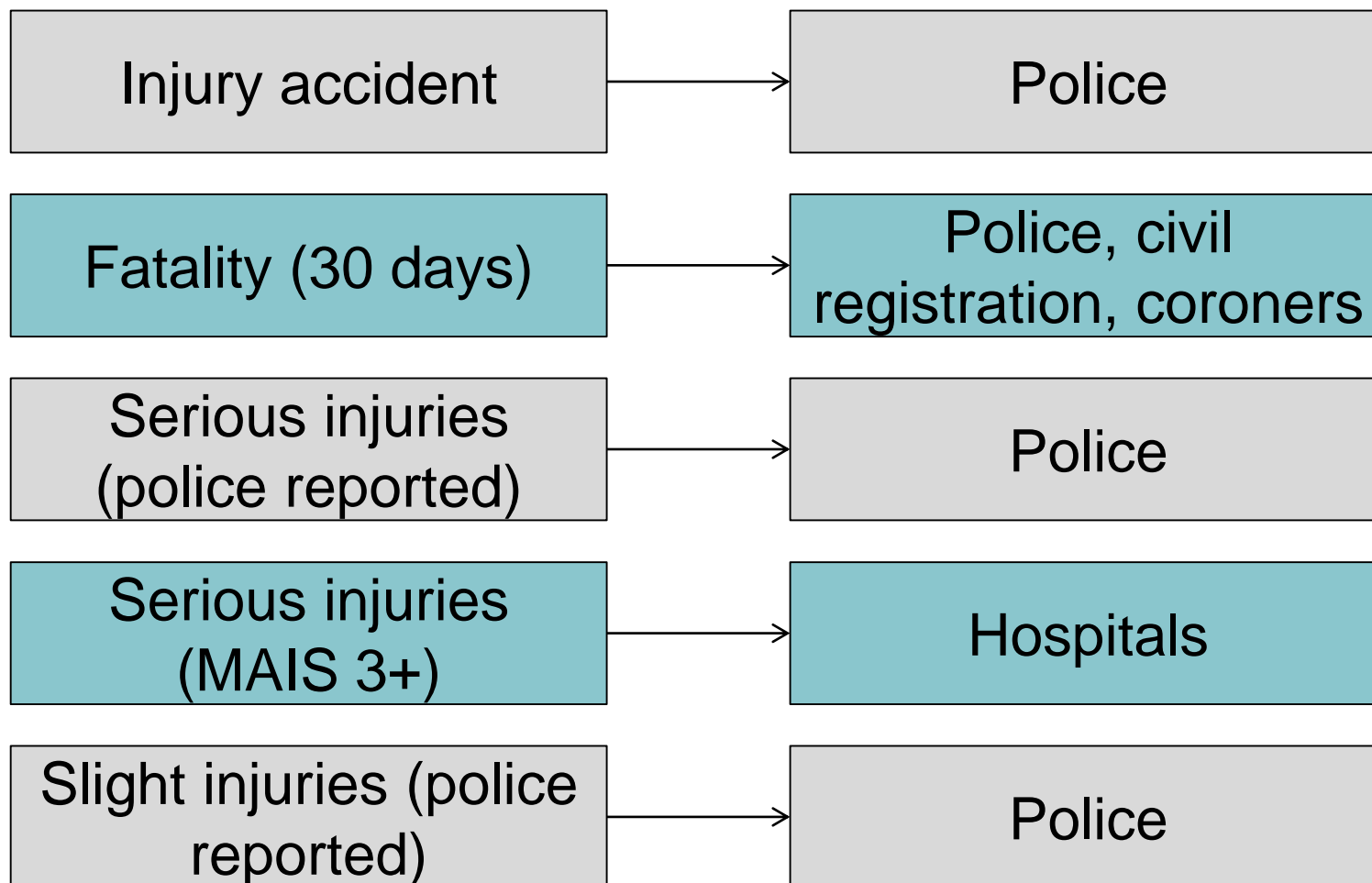


Source: WHO (2010) A road safety manual for decision-makers and Practitioners.

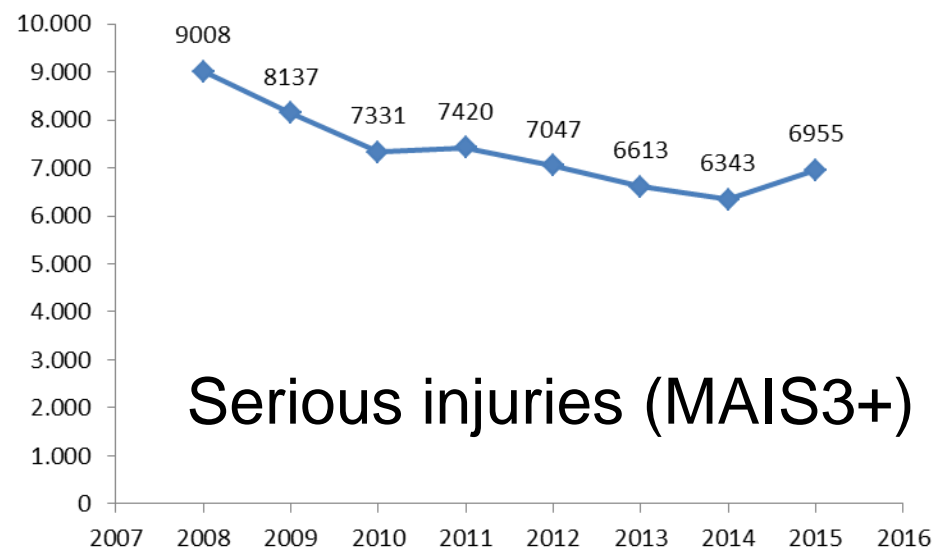
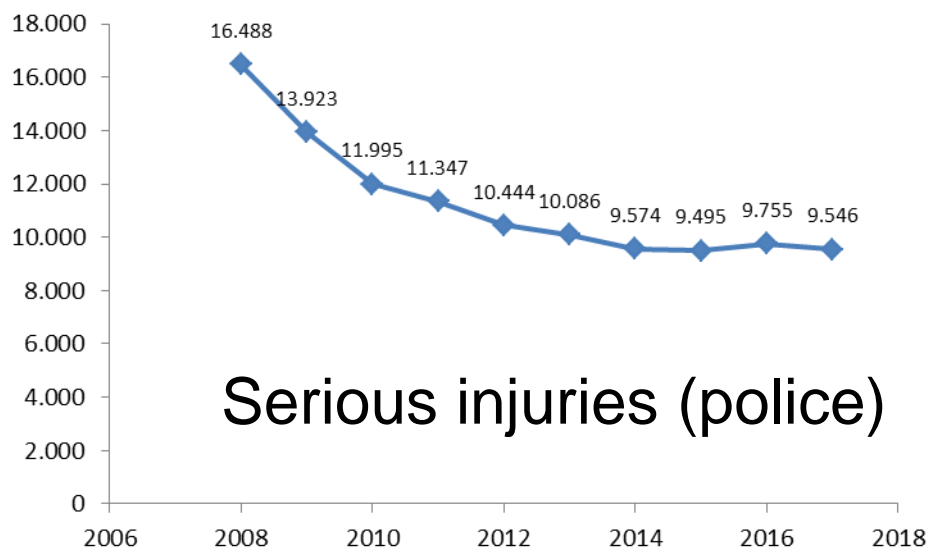
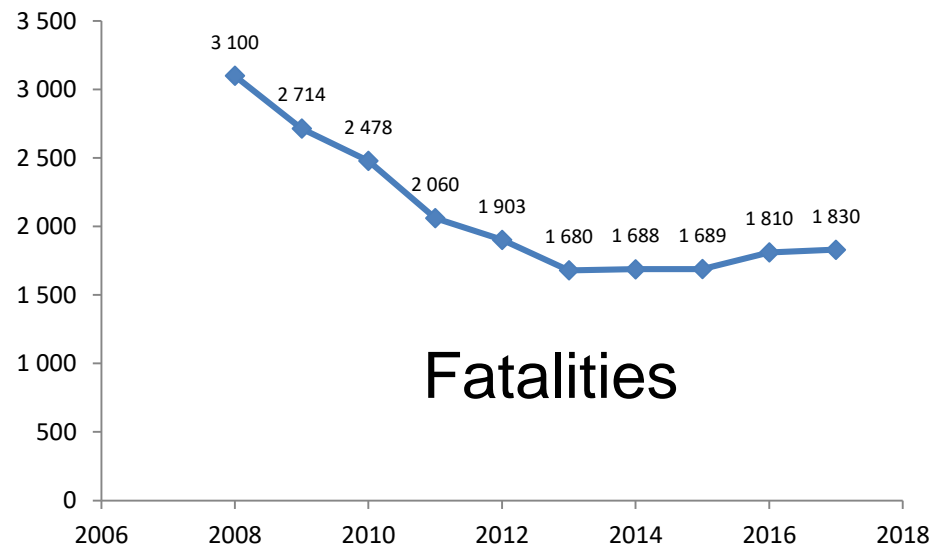
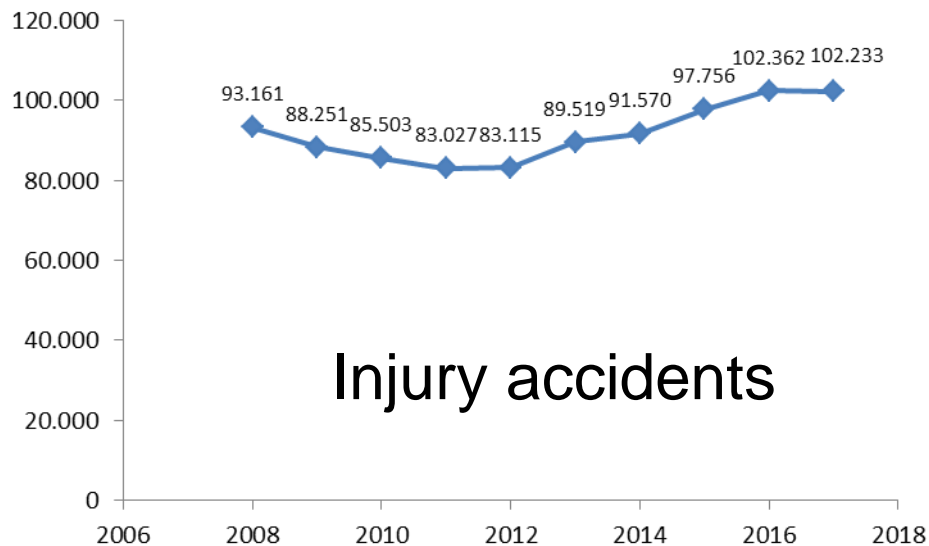
Crashes, injuries and deaths

Basic indicators

Sources



Crashes, injuries and deaths



New ways to look at police data

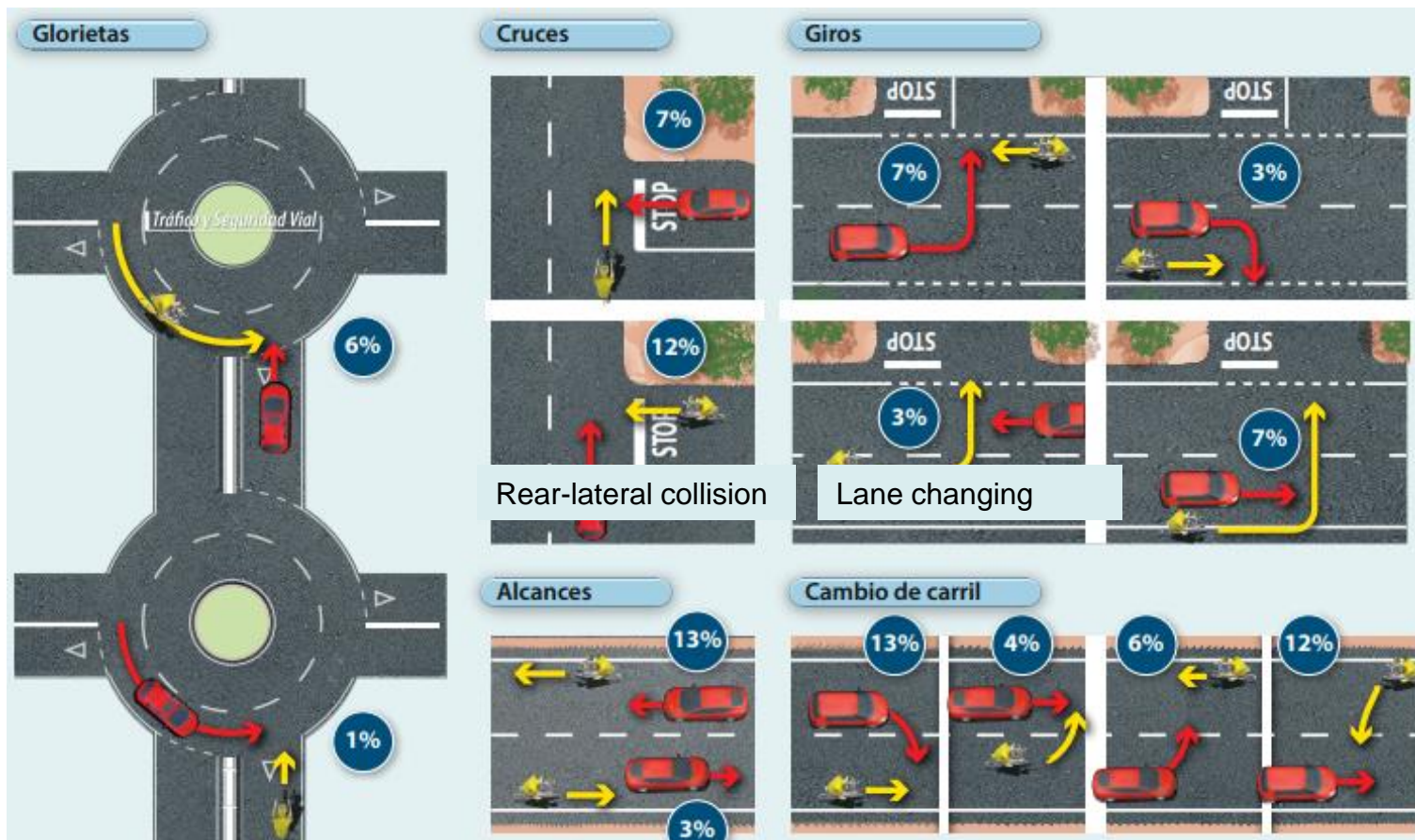
Cyclist vs. motor vehicle accident scenarios

Roundabouts

Crossings

Turnings

434 fatal or serious crashes



Social costs

- Approach: willingness to pay.
- Results to be updated.

Víctimas	Unit cost (€ 2017)
Fatality	1.501.402
Serious injury	234.862
Slight injury	6.542

Key performance indicators

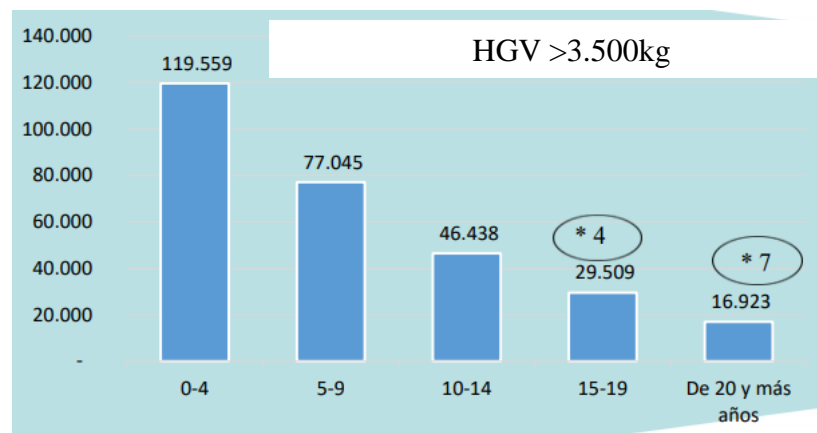
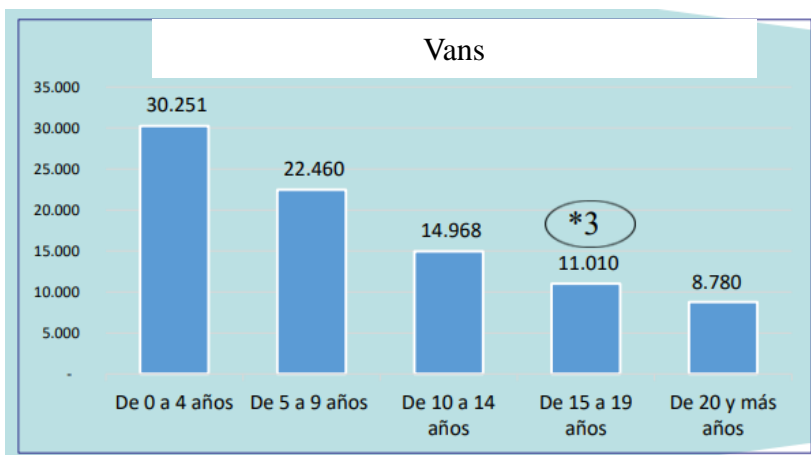
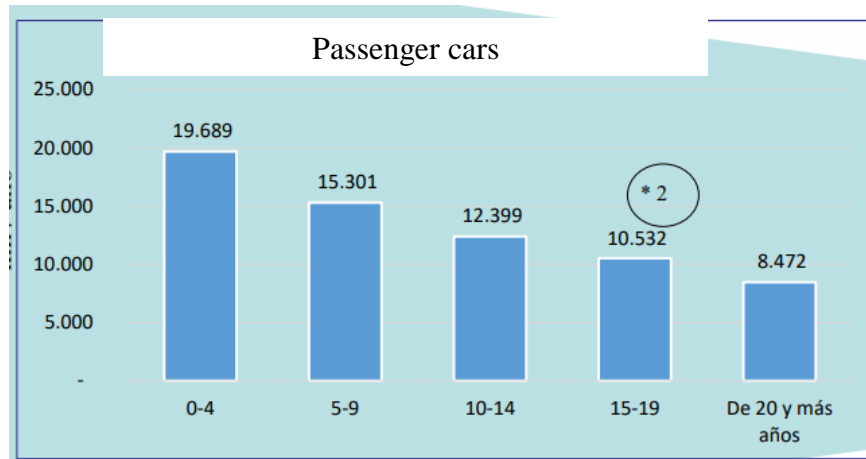
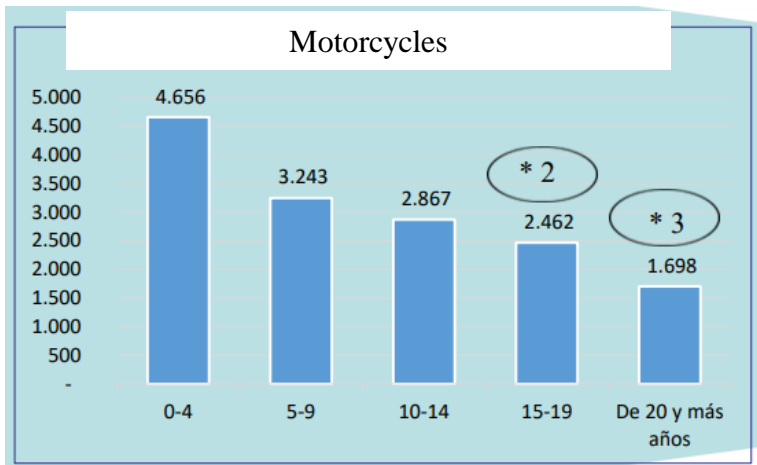
- Ongoing work, 2020-2021.
- According to EU strategic framework.

Indicator	Method
Speed	Free flow speed
Seat belt, helmet, CRS	Observational survey
Alcohol & drugs	Random checks
Mobile phone	Observational survey
Vehicle	Safety rating, safety systems?
Roads	Safety rating
Post-crash care	Reponse time?

Exposure

- Several methods available: counters, surveys, big data, odometer readings.
- Ideal: combination.
- Current work: odometer readings in roadworthiness tests
→ Exposure of national vehicles domestically and abroad.
- > 26 million roadworthiness tests conducted per year.
- Vehicle variables: type, age, propulsion, engine capacity, gross weight.

Exposure (average km per year)



Interventions

- Basic databases:
 - Injury accidents.
 - Vehicles.
 - Drivers.
 - Traffic violations.
 - Penalty point system.
 - Alcohol & drugs enforcement.
 - Speed enforcement.

Interventions

- Some basic indicators (2018):
 - 747.998 new driver licenses.
 - 1.830.932 vehicle registrations.
 - 5,5 million alcohol checks.
 - 139.703 drug checks.
 - 1.290 speed cameras.
 - 4,2 million tickets (2,6 millions speed related).

Penalty point system

Violation	2018	
	Penalties	Points
Speed	473.606	1.107.054
Alcohol	102.849	472.470
Drugs	50.534	303.204
Seat belt, CRS	98.614	295.842
Mobile phone	197.456	592.368
Helmet	6.649	19.947
Traffic lights	130.719	522.876
Stop	21.984	87.936
Overtaking	3.473	13.892
Reckless driving	9.466	56.796
Inappropriate driver license	7.644	30.576
Driving time and rest periods	141	846
Yield	7.944	31.776
Others	44.935	199.322
TOTAL	1.156.014	3.734.905

Targets and indicators

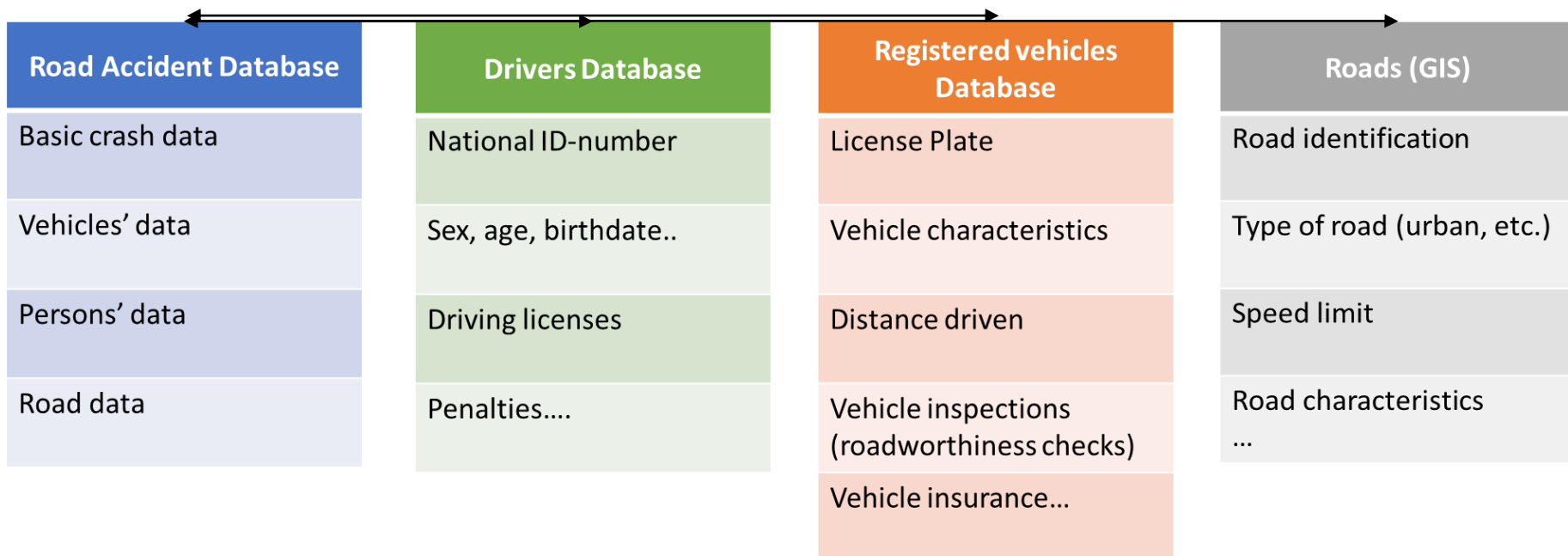
Indicators	Baseline figure 2009	2017 figure	Target figure 2020
1. Fatality rate below 37 per million population	59	39	Below 37
2. Reduction in the number of seriously injured casualties by 35%	13.923	9.546	9,050
3. Zero children (under 12) fatalities without a child restraint system	12	5	0
4. 25% fewer drivers aged 18 to 24 killed and seriously injured at weekends	730	364	548
5. 10% fewer drivers aged over 64 killed	203	192	183
6. 30% reduction of pedestrians killed	459	338	321
7. 1 million more cyclists without their death rate going up	1,2	1,7	1.2
8. Zero car fatalities in urban area	101	82	0
9. 20% fewer deaths and serious injuries amongst motorcyclists	3.473	3.143	2,778
10. 30% fewer fatalities in run-off-road accidents on rural roads	520	317	364
11. 30% fewer fatalities in 'in itinere' accidents	170	120	119
12. To lower below 1% the number of positive alcohol breath trests. DRUID KPI, cut off point 0.05 mg/l	6,7%	1,7% (2015)	Below 1%
13. To halve the percentage of light vehicles exceeding the speed limit by more than 20 km/h	12,3% (motorways) 6,9% (dual) 15,8% (rural)	n.a.	6.2% (motorways) 3,5% (dual) 7.9% (rural)

The importance of linking

Road identification

License Plate

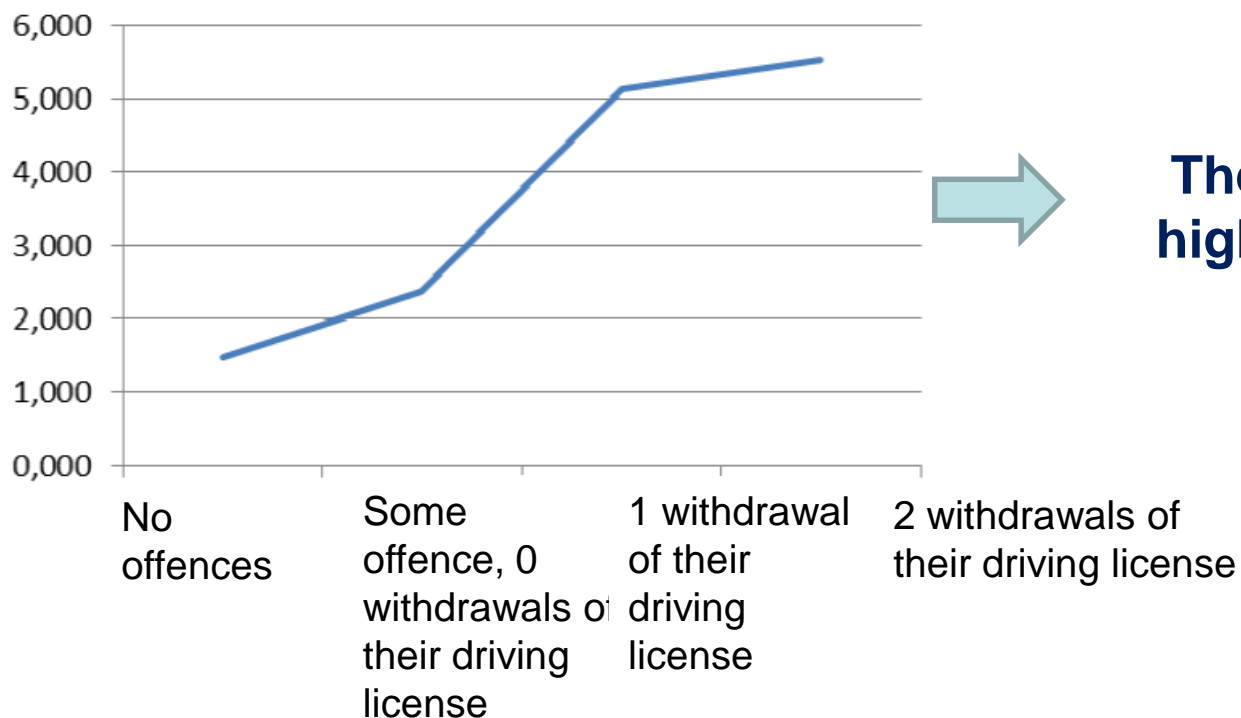
National ID-number



The importance of linking

Using several registers: accident rate of drivers depending on their offender profile

Accident rate per year and thousand drivers (2014-2016)



The accident rate is higher for recidivists

THANK YOU!

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