

Keynote

Data for Effective Policies to Reduce Killed and Seriously Injured Road Users

Stephen Perkins

Road Safety on Four Continents, Beijing, 15 May 2013



Outline

Introduce

- The International Transport Forum and the IRTAD
International Road Traffic Safety Data and Analysis Group

Focus on

- Latest safety performance data
- Safe System approach
- Serious injuries data and reporting

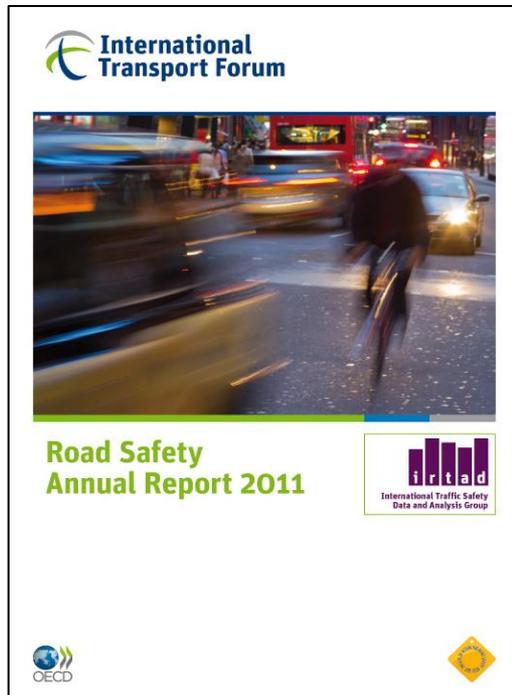


The International Transport Forum at the OECD

Think Tank

Annual
Summit

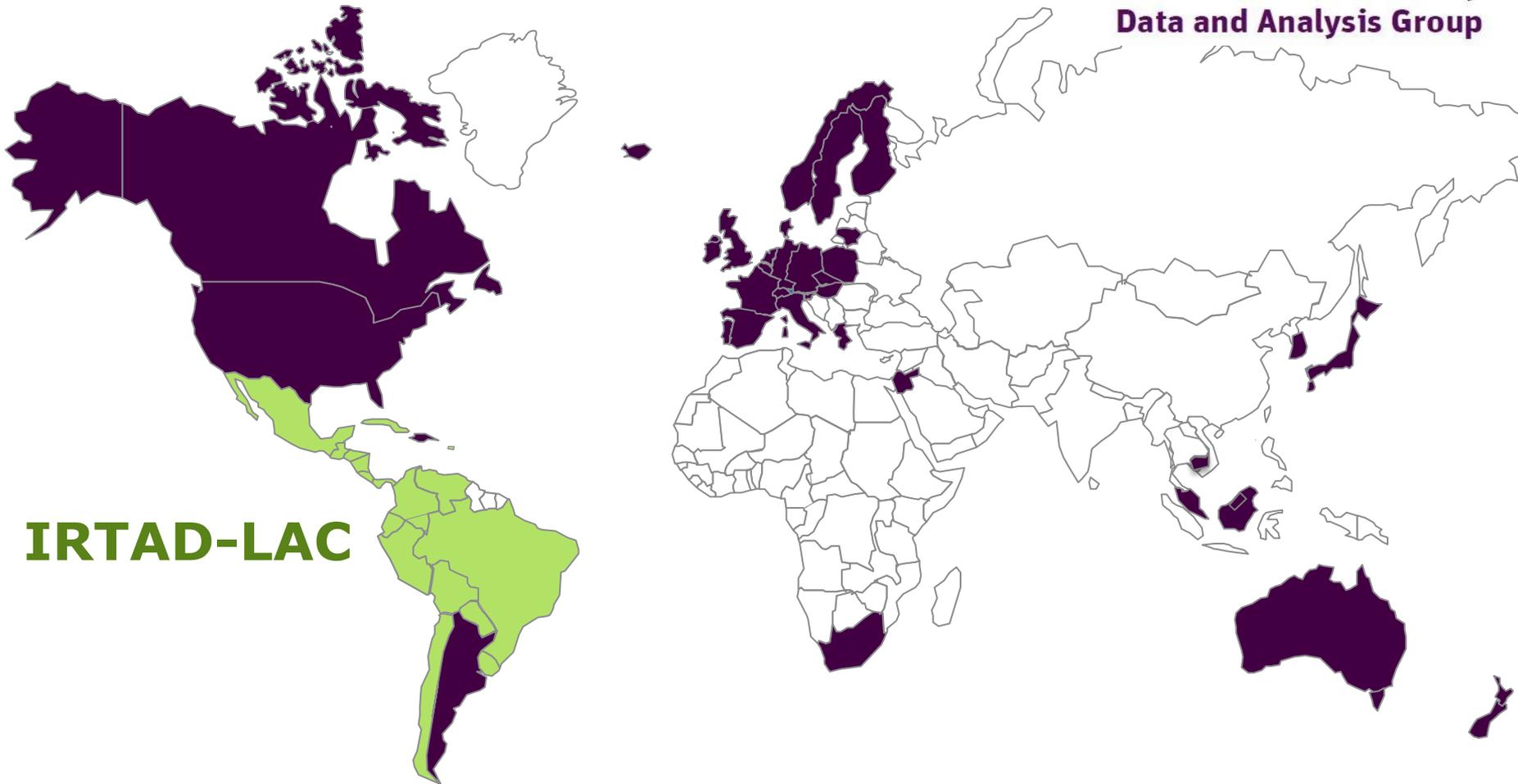
Intergovernmental
Organisation



IRTAD 70 members from 35 countries



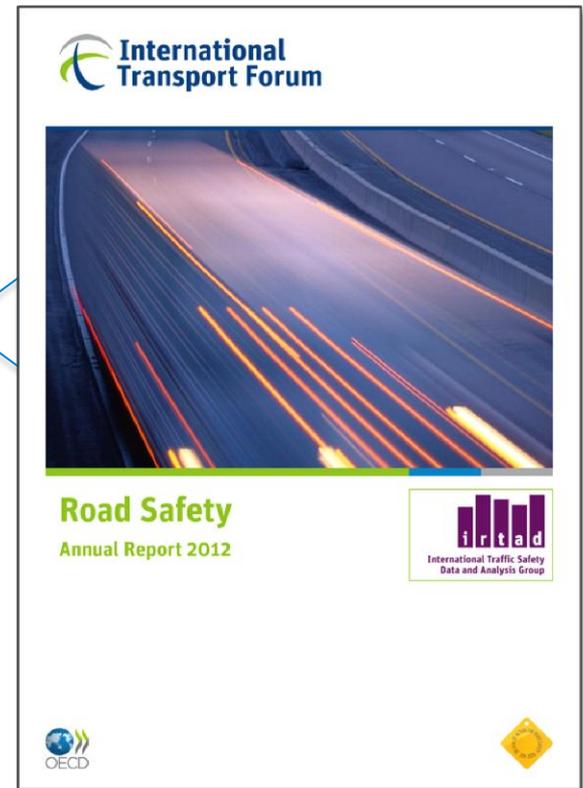
**International Traffic Safety
Data and Analysis Group**



IRTAD-LAC

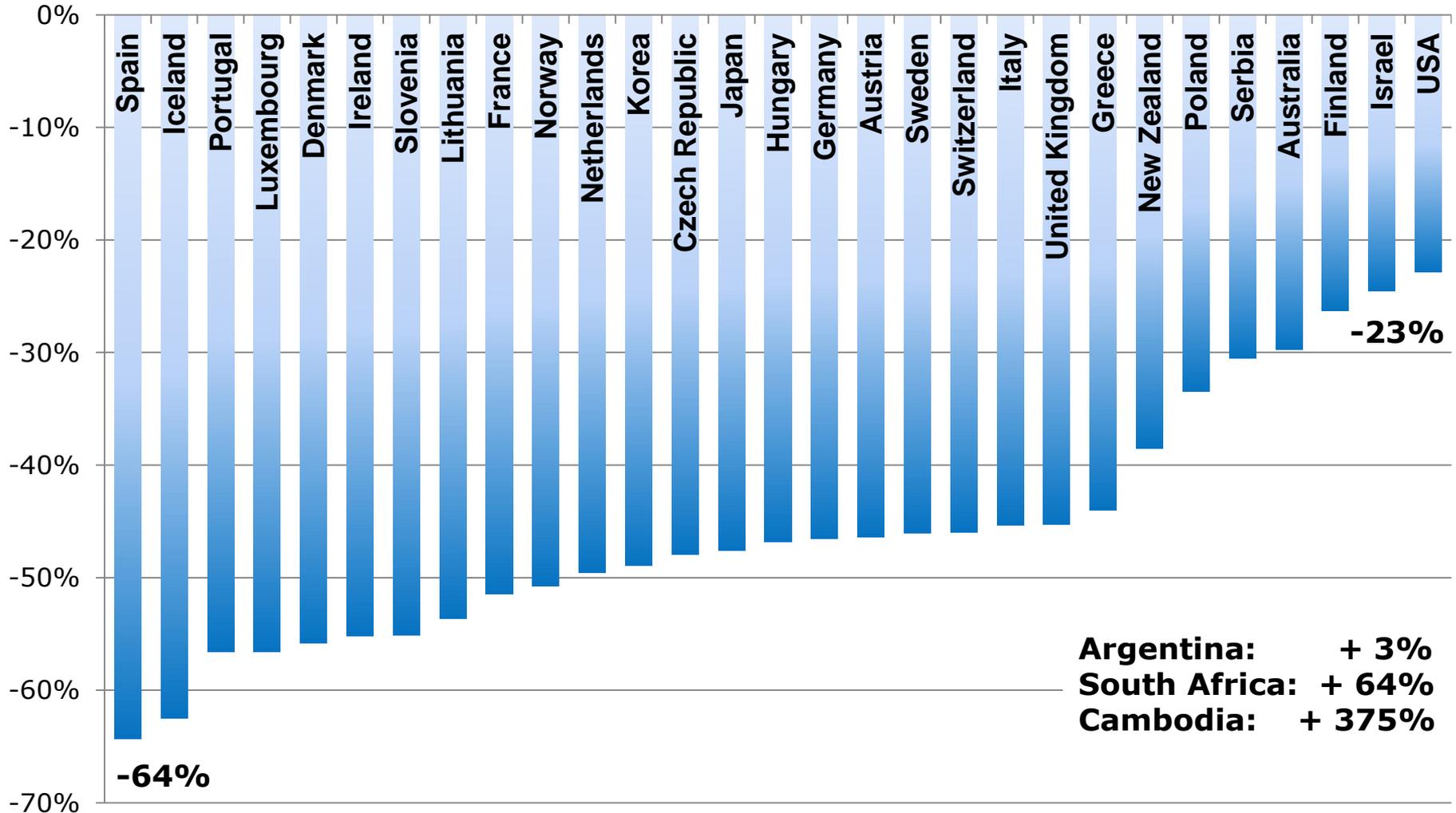
IRTAD Output

- Annual report on performance in member countries
- Road safety database
- Research reports:
 - Serious injuries
 - Speed and crash risk
- Annual meetings X2 and permanent networking
- Twinning projects with new countries

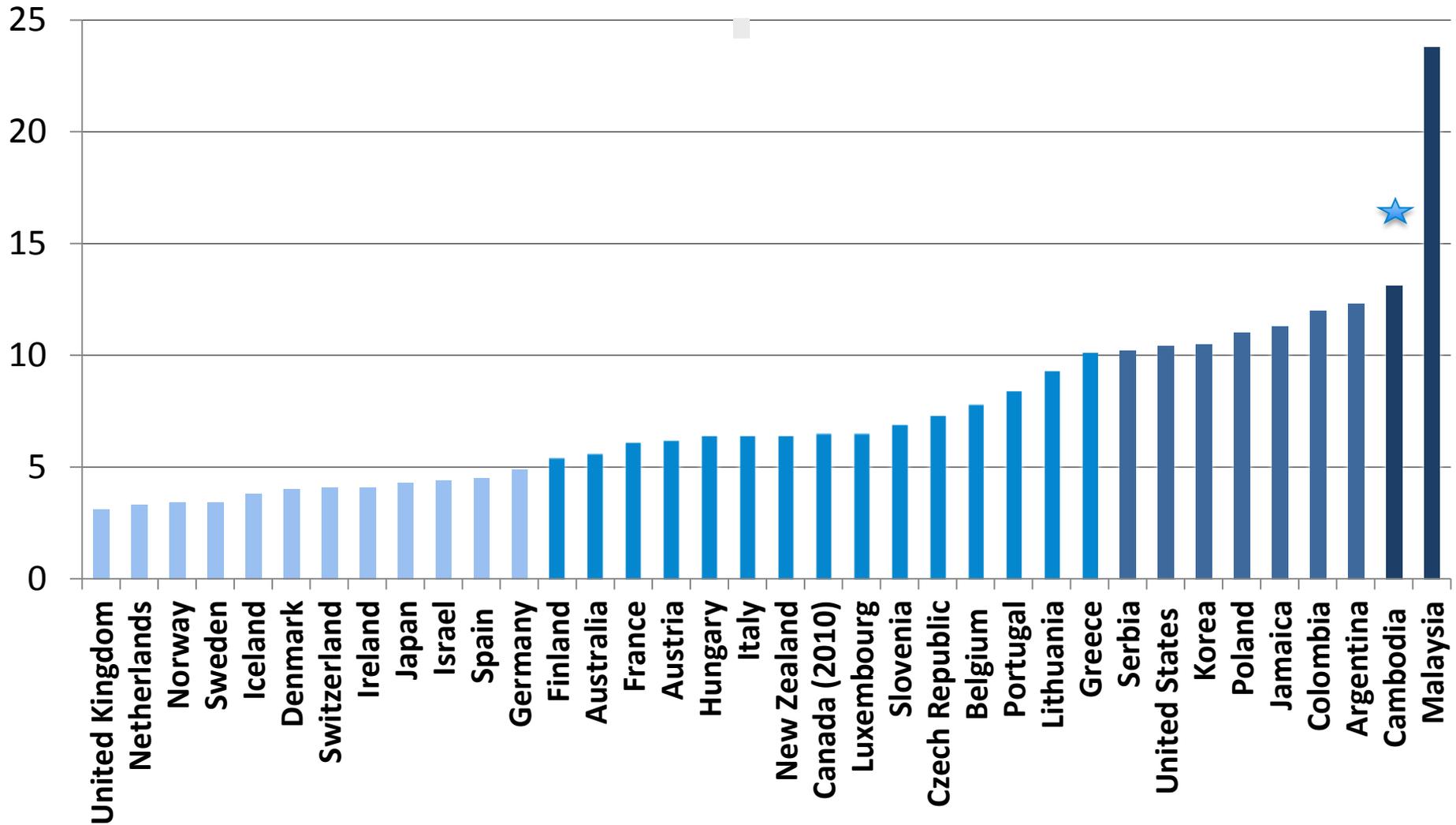


Latest IRTAD data: Reduction in Fatalities

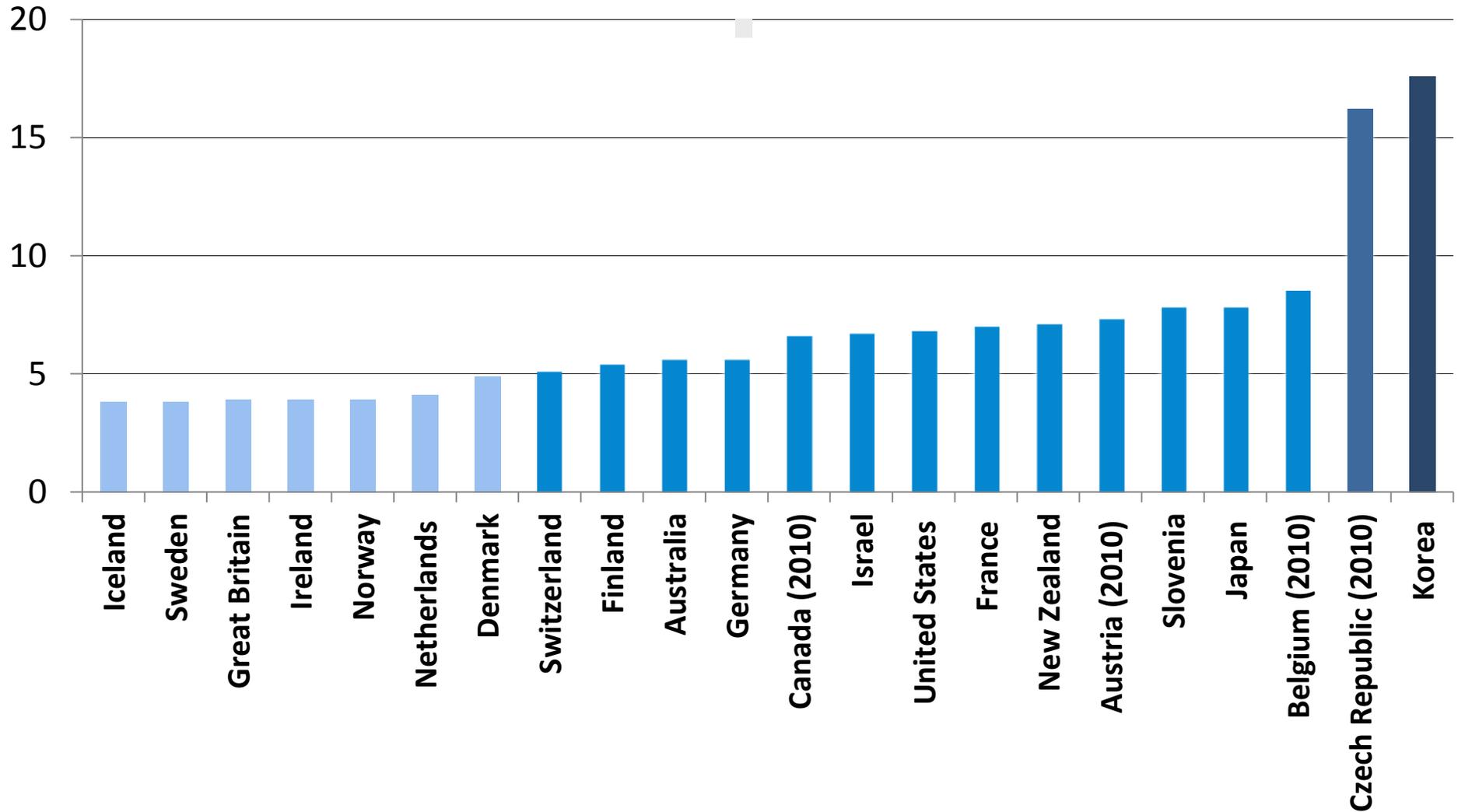
Change 2011/2001



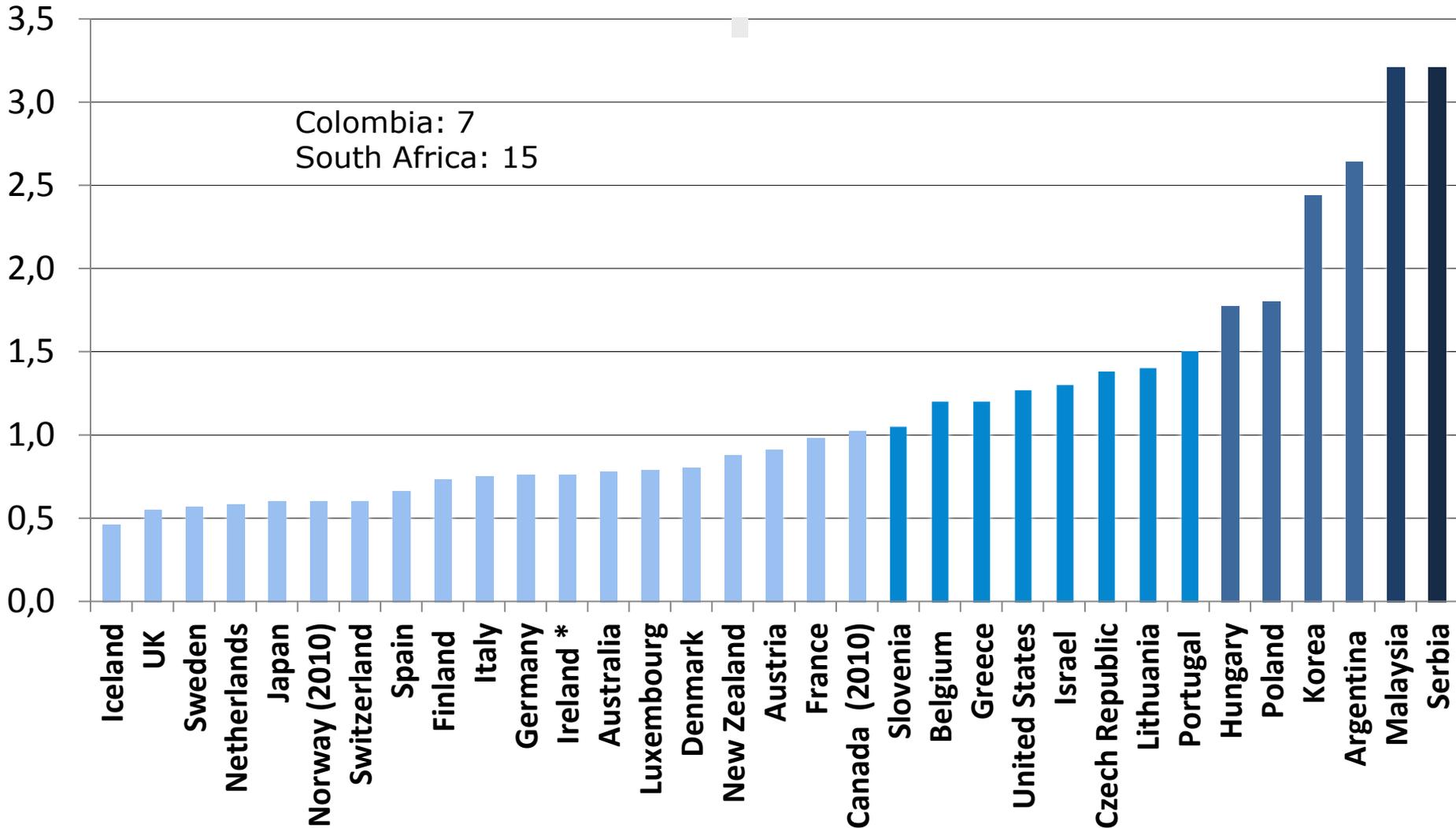
Killed / 100 000 population in 2011



Killed / billion vehicle km in 2011

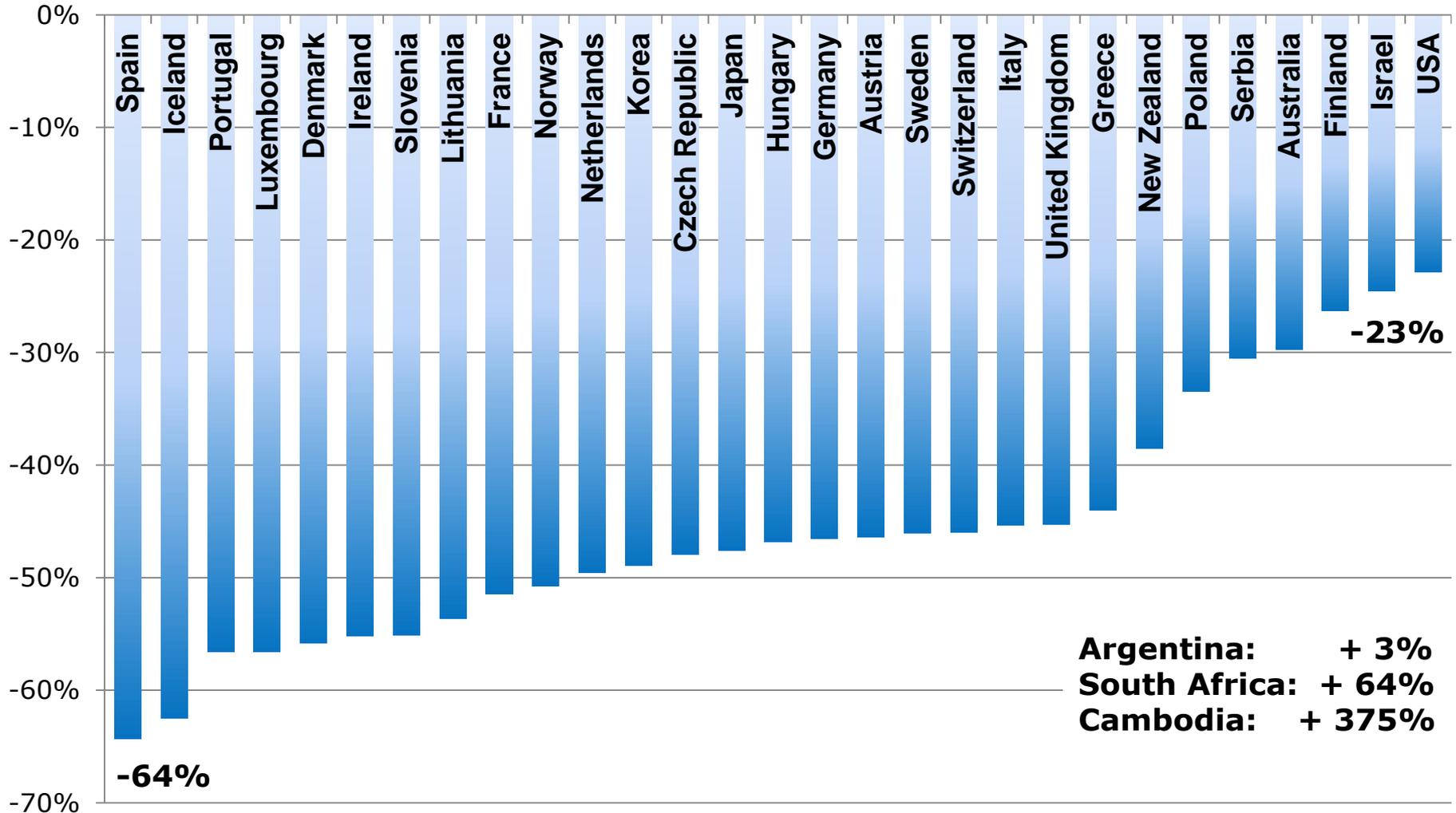


Killed / 10 000 vehicles in 2011



Latest IRTAD data: Reduction in Fatalities

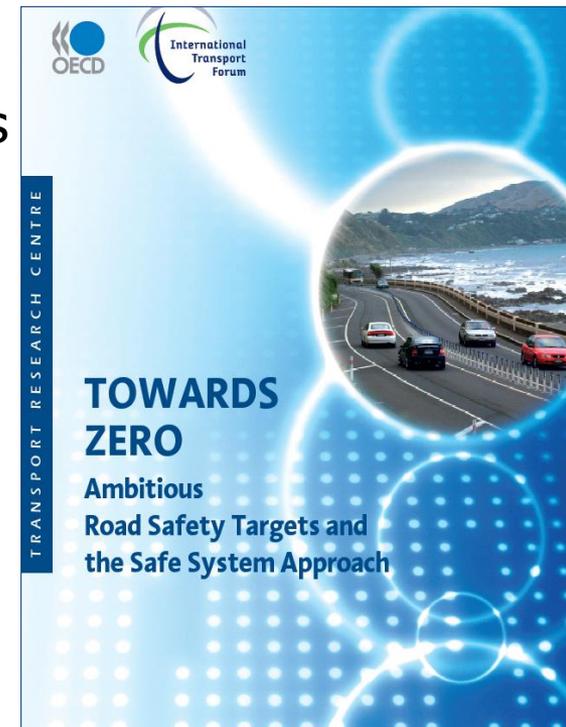
Change 2011/2001



Contemporary Road Safety Policy

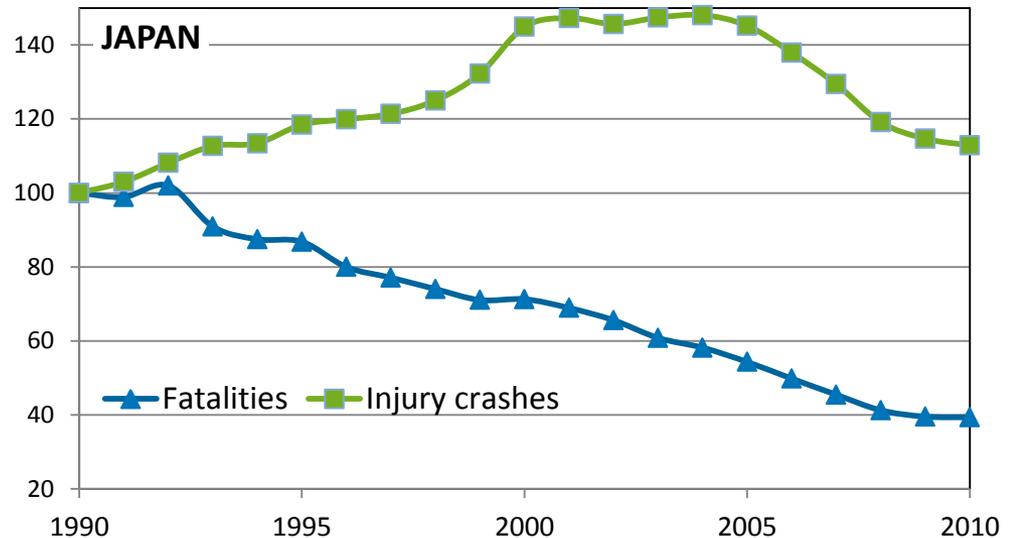
Ambitious Targets and the Safe System Approach

- Sweden and Netherlands led the way
- Vision Zero and Sustainable Safety
- Inspiring long term vision to eliminate deaths **and serious injuries**
- Steady progress through interim targets based on funded interventions
- Netherlands targets 2020:
 - Deaths < 500
 - Serious injuries < 10 600
- Focus moving to serious injuries



The Serious Injury Problem

- Why slower progress?



- Can we trust the data?

2010	France		Germany
Fatalities	3 992		3 648
Hospitalised	30 393	× 2	62 620
Injured	84 461	× 4	371 170



We need better injury record systems

- To assess the real number of serious injuries
 - Real costs of road crashes
- To understand the consequences of different crash types
- To design adequate countermeasures to reduce serious injures



Maximum Abbreviated Injury Scale: MAIS3+

Example

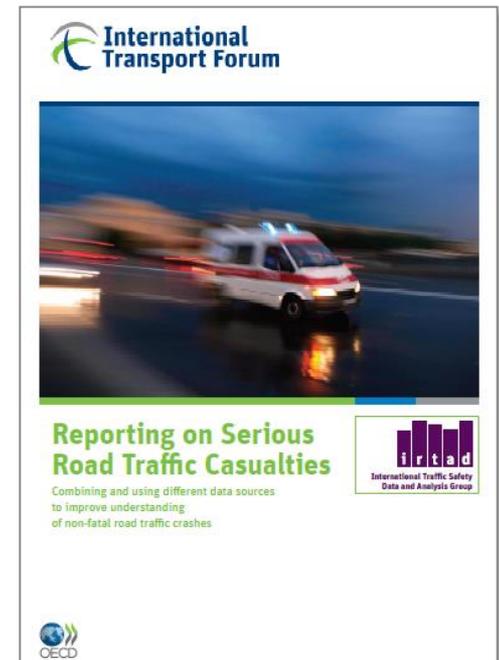
Region	Injury description	Abbreviated Injury Scale
Head and Neck	Cerebral contusion	3
Face	No injury	0
Chest	Flail chest	4
Abdomen	Minor contusion of liver	2
	Complex rupture of spleen	5
Extremity	Fractured femur	3
External	No injury	0
MAXIMUM		5

Report:

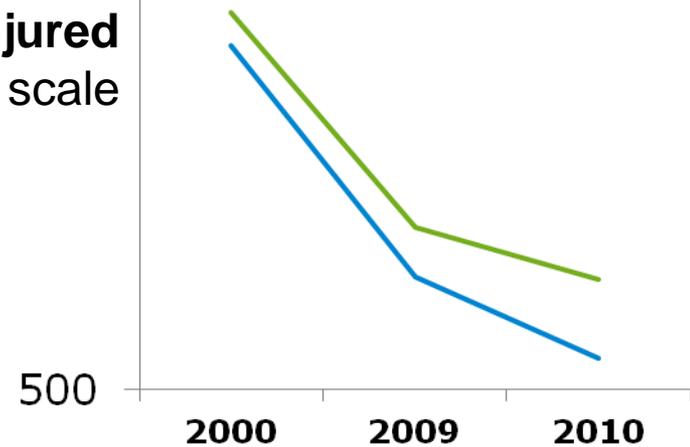
<http://www.internationaltransportforum.org/irtadpublic/pdf/Road-Casualties-Web.pdf>

Reporting injuries: IRTAD recommendations

- Complement police data with hospital data
- Medics not police best at assessing severity of injuries
- Link police and hospital data
 - Both sets of data incomplete
 - Deterministic and probabilistic methods exist
 - To link and estimate overall total



500

2000 2009 2010


Using Linked and MAIS Data

SWOV Reporting to IRTAD

Netherlands Police Data

	1970	1980	1990	2000	2009	2010	2010% change over		
							2009	2000	1970
Fatalities (reported)	3 181	1 996	1 376	1 082	644	537	-17%	-50%	-83%
Injury crashes	58 883	49 383	44 915	37 947	19 378	10 778	-44%	-72%	-82%
Rates									
Deaths / 100 000 population	24.6	14.2	9.2	6.8	3.9	3.6	-8%	-42%	-85%
Deaths / 10 000 registered vehicles	-	4.3	2.4	1.4	0.7	0.6	-9%	-54%	-
Deaths / billion veh.-km	-	26.7	14.2	9.3	5				-
Motorisation mveh / 1000 pop;	213	333	390	482	561	563	+0.4%	+17%	+164%

Netherlands Linked Data

	2000	2009	2010	2010% change over	
				2009	2000
Fatalities (real)	1 166	720	640	-11%	-45%
Seriously injured (MAIS2+)	16 500	18 880	19 200	+2%	+16%
(MAIS3+)	5 220	5 470			
Rates					
Deaths / 100 000 population	7.3	4.4	3.9	-11%	-47%
Deaths / 10 000 registered vehicles	1.5	0.8	0.7	-12%	-54%
Deaths / billion vehi-km	10	5.6			

Using Linked and MAIS Data: SWOV Road Safety Outlook 2020

Impact of Measures in 2012 Road Safety Policy Stimulus

Activity Policy Stimulus	Indication possible reduction in 2020	
	Fatalities	Serious road injuries
Differentiation of premiums according to road behaviour	20	200 – 300
Safe cycling routes	10	400 – 1,900
Improving cyclist visibility	< 10	300
Road safety improvement programme for senior road users	< 10	< 100
Total (corrected for overlap)	< 50	900 – 2,500

Targets

100

6 500 - 8 500

Impact of Potential Extra Measures

Possible extra action/measure	Indication possible reduction in 2020	
	Fatalities	Serious road injuries
Full sustainably safe bicycle infrastructure	100 – 130	3,500 – 4,100
Everybody wears a bicycle helmet	10 – 20	1,200 – 1,400
Nobody drinks alcohol and participates in traffic	100 – 120	1,400 – 1,700
No speeding offences	150 – 190	2,100 – 2,500

Concluding remarks

- Data matters for effective policy
- IRTAD Triennial Research Conference, with PIARC
Buenos Aires 11-14 November 2013



BETTER SAFETY DATA

FOR BETTER ROAD SAFETY OUTCOMES

Buenos Aires, Argentina • 13 - 14 November 2013

PRELIMINARY ANNOUNCEMENT and call for papers

Web

IRTAD

OISEVI

PIARC

International Transport Forum

Thank you

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www.internationaltransportforum.org