DIFFERENT DRIVERS & VEHICLES. SAFETY FOR ALL
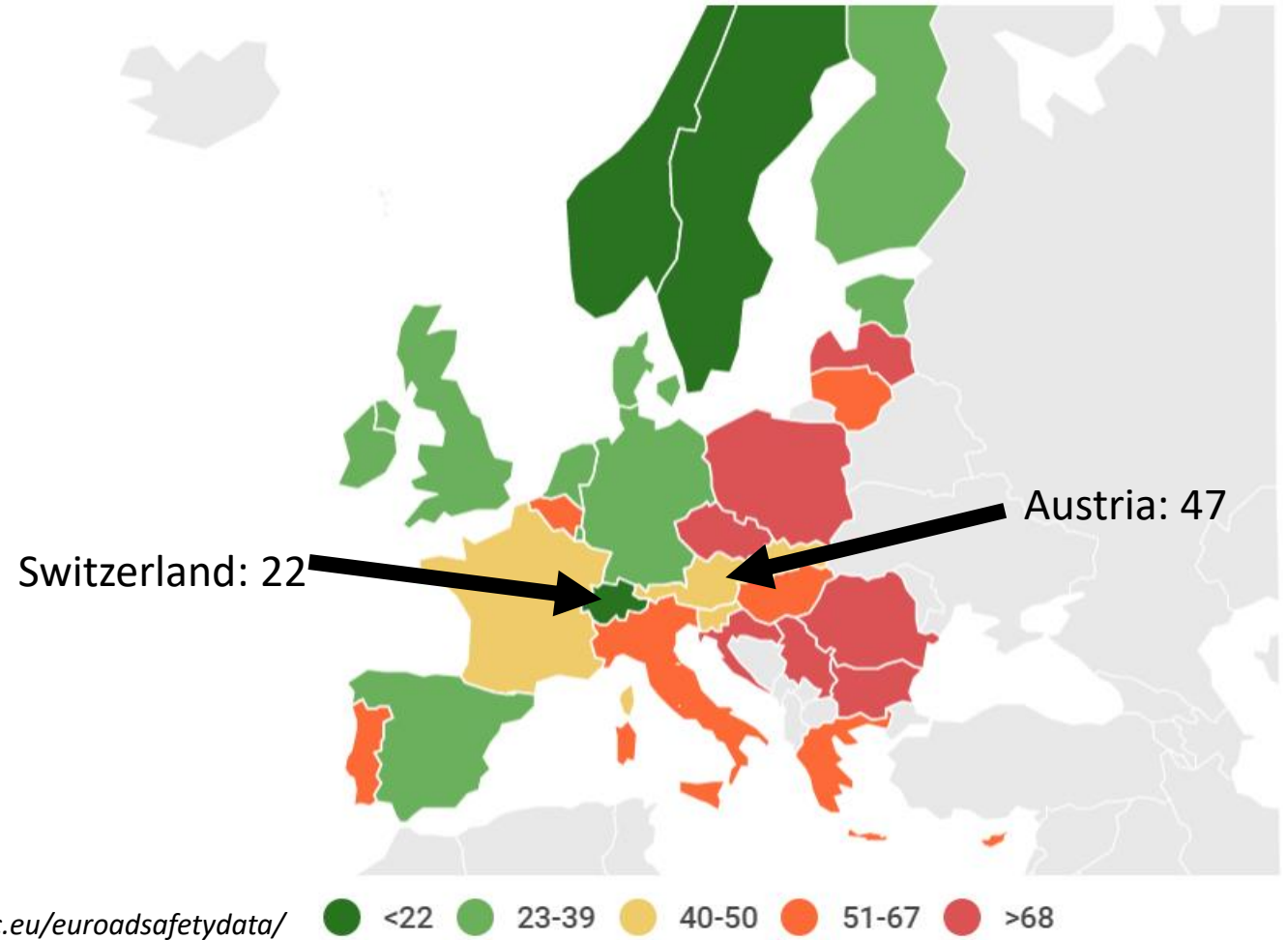
Traffic Safety Culture
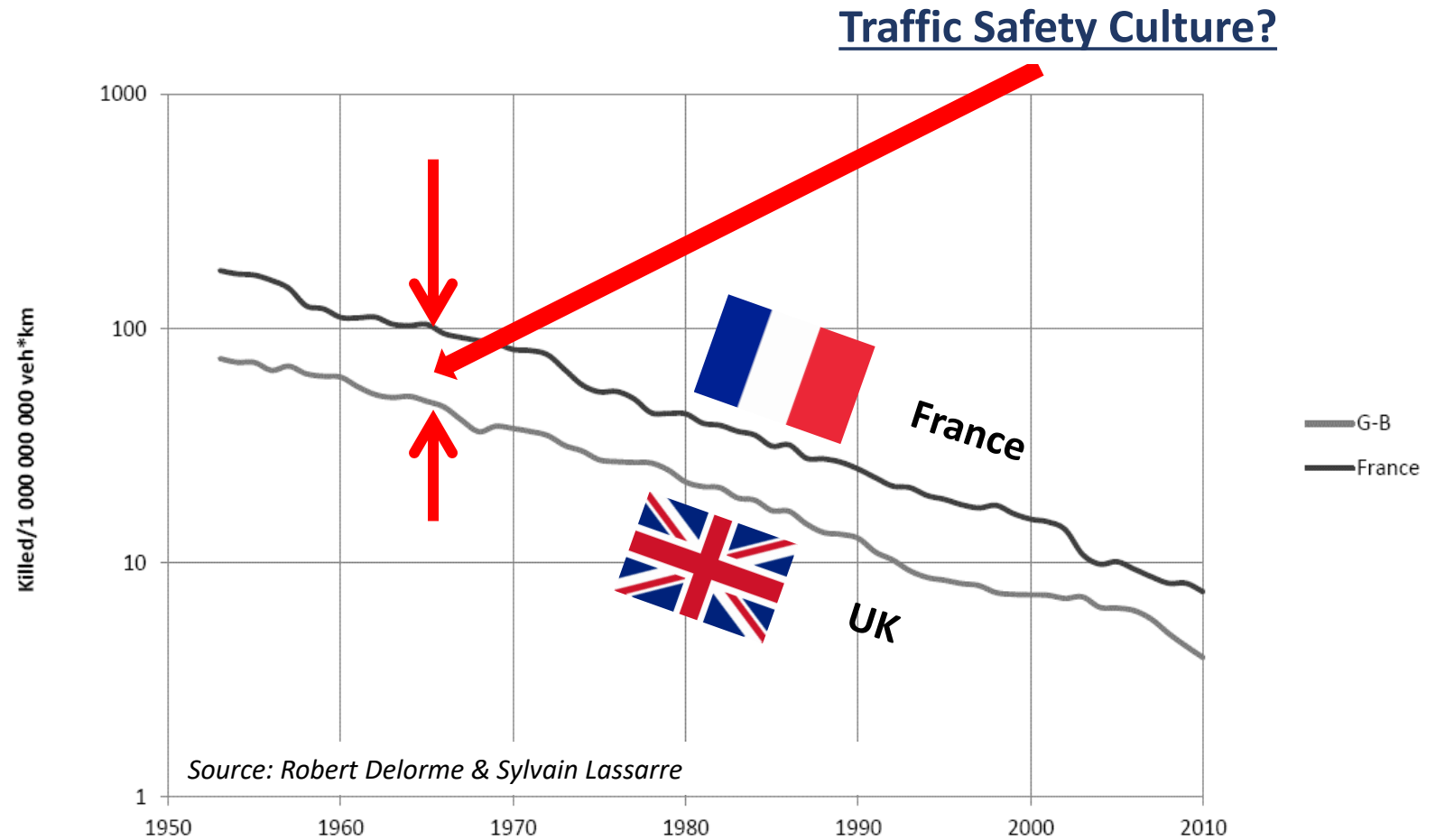
Armin Kaltenegger

KFV (Austrian Road Safety Board)

Road deaths
per million inhabitants (2019)

Switzerland: 22

Austria: 47

Source:
https://etsc.eu/euroadsafetydata/

● <22   ● 23-39   ● 40-50   ● 51-67   ● >68

Mind the (culture) gap

Traffic Safety Culture?

Source: Robert Delorme & Sylvain Lassarre

France

UK

G-B
France

What is Traffic Safety Culture (TSC)?

Traffic Safety Culture (TSC) can be defined as follows:

The values and beliefs shared among groups of road users and stakeholders that influence their decisions to behave or act in ways that affect traffic safety.

(Otto et al., 2016)

Relevance of Traffic Safety Culture for Driver Education

Social environment
(e.g. culture, legislation, enforcement, subculture, social groups, group values and norms)

Personal goals for life, skills for living
(e.g. lifestyle, motives, values, self-control, habits, health)

Goals and context of driving
(e.g. trip related choices, goals, driving environment, company)

Mastery of traffic situations
(e.g. rules, observation, driving path, interaction)

Vehicle handling and manoeuvring
(e.g. gears, controls, direction, tyre grip, speed adjustment)

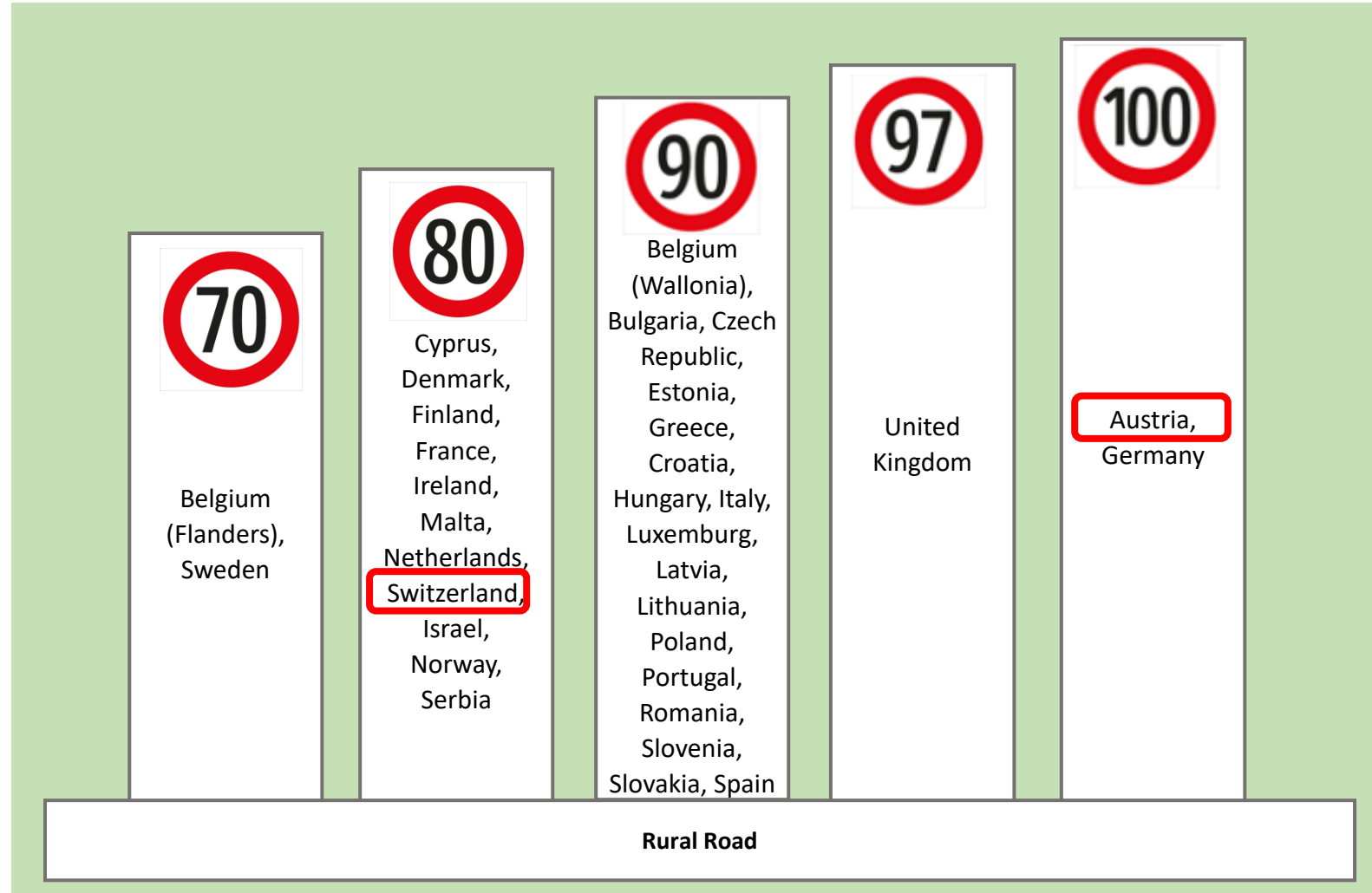*Source: "GDE-5 SOC" Keskinen, Peräaho & Laapotti (2010)*

5

How Austria is shaping and cultivating its speeding culture

In contrast to Switzerland
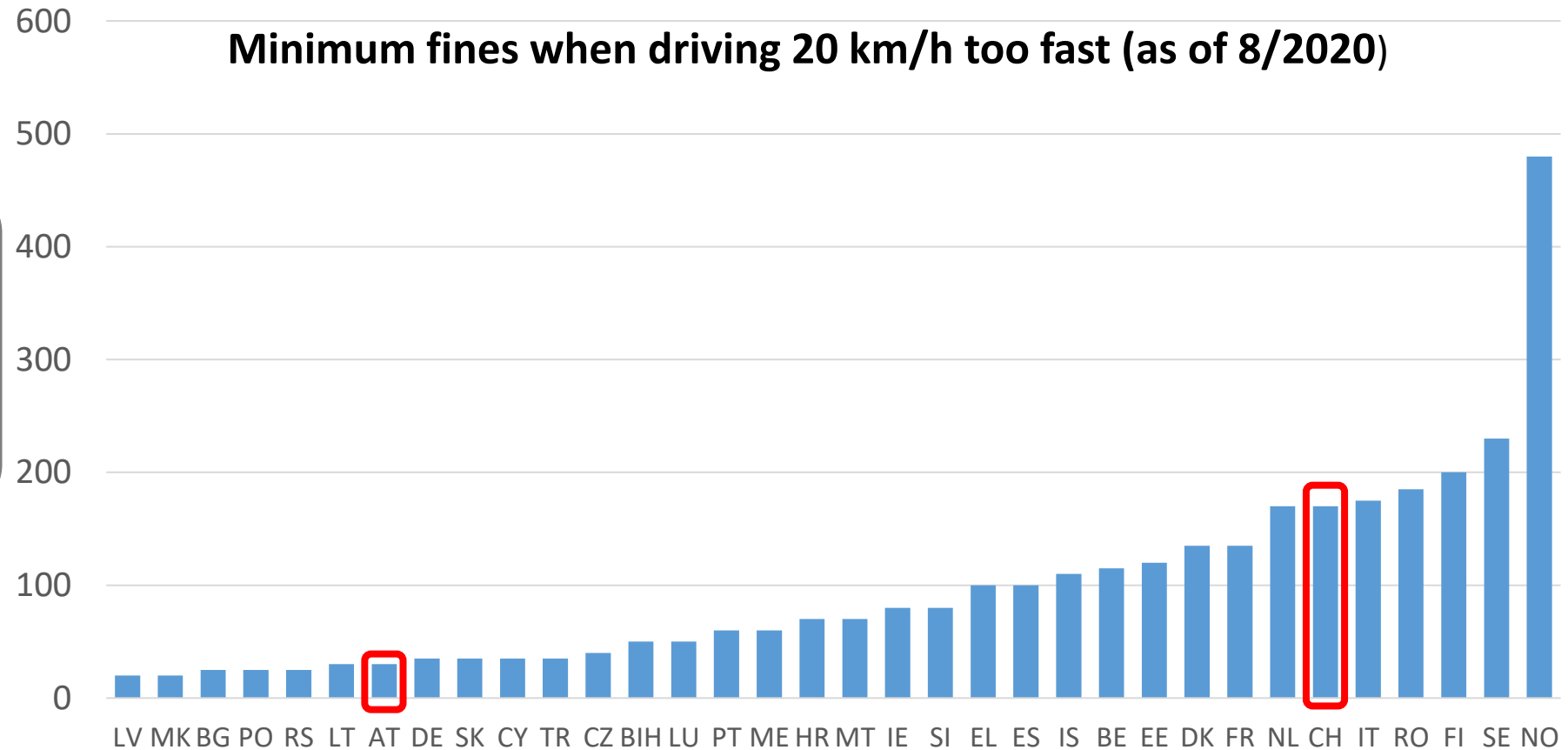
Austria and Switzerland: speed limits on rural roads

GDE:
5 Social environment
(e.g. culture, legislation, enforcement, subculture, social groups, group values and norms

Source: ETSC PIN Flash 36

70 Belgium (Flanders), Sweden

80 Cyprus, Denmark, Finland, France, Ireland, Malta, Netherlands, Switzerland, Israel, Norway, Serbia

90 Belgium (Wallonia), Bulgaria, Czech Republic, Estonia, Greece, Croatia, Hungary, Italy, Luxemburg, Latvia, Lithuania, Poland, Portugal, Romania, Slovenia, Slovakia, Spain

97 United Kingdom

100 Austria, Germany

Rural Road

Austria and Switzerland: Fines

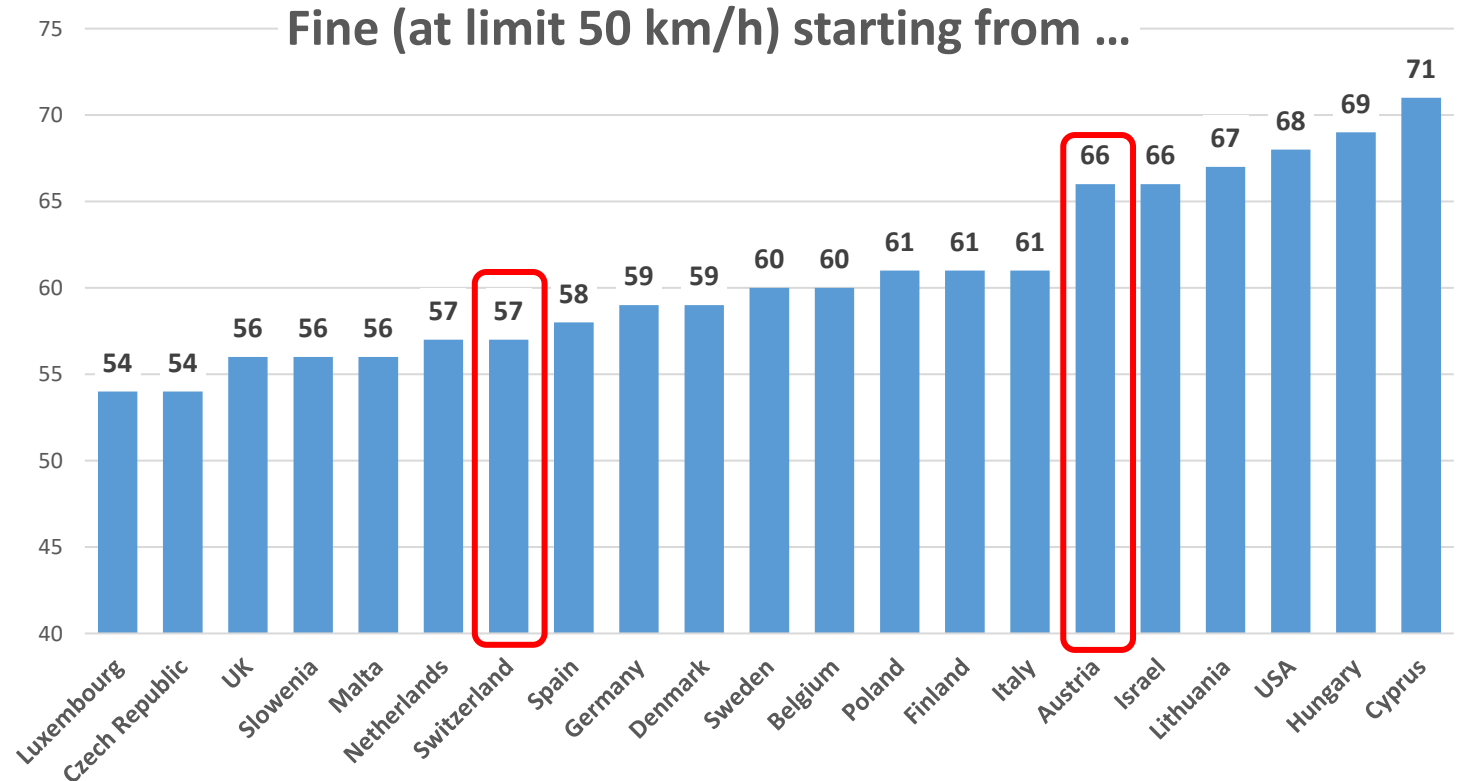**Minimum fines when driving 20 km/h too fast (as of 8/2020)**

GDE:
5 Social environment
(e.g. culture, legislation, enforcement, subculture, social groups, group values and norms

Source: ÖAMTC

Austria and Switzerland: Enforcement

GDE:
5 Social environment
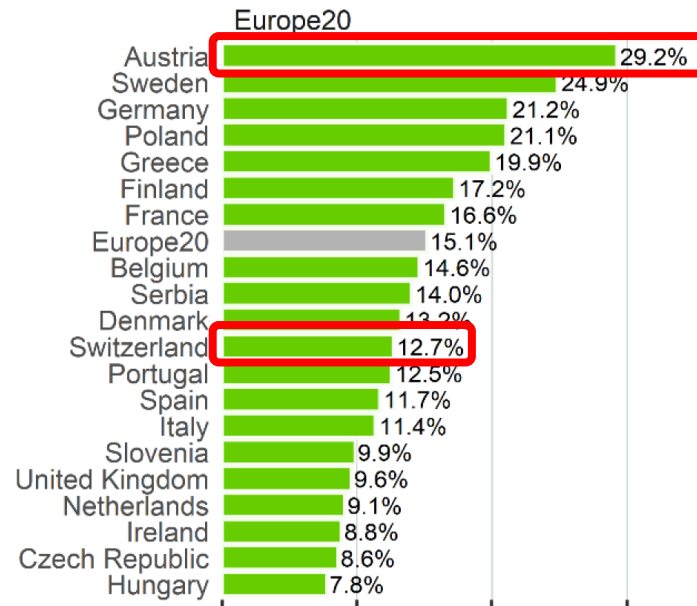(e.g. culture, legislation, enforcement, subculture, social groups, group values and norms

Fine (at limit 50 km/h) starting from …

Country	Value
Luxembourg	54
Czech Republic	54
UK	56
Slowenia	56
Malta	56
Netherlands	57
Switzerland	57
Spain	58
Germany	59
Denmark	59
Sweden	60
Belgium	60
Poland	61
Finland	61
Italy	61
Austria	66
Israel	66
Lithuania	67
USA	68
Hungary	69
Cyprus	71

Measurement and sanctioning tolerance in speed enforcement – international comparison. Source: Internal survey among members of the TISPOL working group „Operations" and IRTAD members
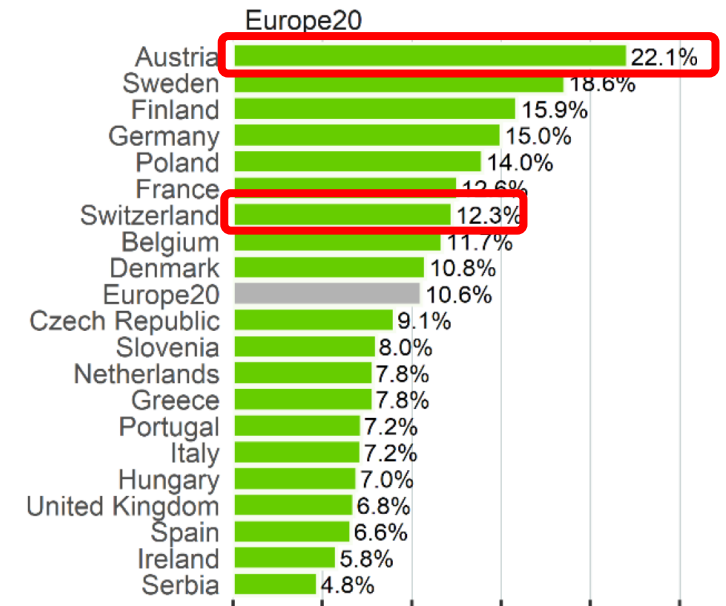
Austria and Switzerland: Road user's attitudes

GDE:
5 Social environment
(e.g. culture, legislation, enforcement, subculture, social groups, group values and norms

OTHERS' ACCEPTABILITY
Drive faster than speed limit outside built-up areas
(but not on motorways/freeways)

Europe20

Country	%
Austria	29.2%
Sweden	24.9%
Germany	21.2%
Poland	21.1%
Greece	19.9%
Finland	17.2%
France	16.6%
Europe20	15.1%
Belgium	14.6%
Serbia	14.0%
Denmark	13.2%
Switzerland	12.7%
Portugal	12.5%
Spain	11.7%
Italy	11.4%
Slovenia	9.9%
United Kingdom	9.6%
Netherlands	9.1%
Ireland	8.8%
Czech Republic	8.6%
Hungary	7.8%

PERSONAL ACCEPTABILITY
Drive faster than speed limit outside built-up areas
(but not on motorways/freeways)

Europe20

Country	%
Austria	22.1%
Sweden	18.6%
Finland	15.9%
Germany	15.0%
Poland	14.0%
France	12.6%
Switzerland	12.3%
Belgium	11.7%
Denmark	10.8%
Europe20	10.6%
Czech Republic	9.1%
Slovenia	8.0%
Netherlands	7.8%
Greece	7.8%
Portugal	7.2%
Italy	7.2%
Hungary	7.0%
United Kingdom	6.8%
Spain	6.6%
Ireland	5.8%
Serbia	4.8%

Source: ESRA 2 – E-Survey of Road users' Attitudes

Austria and Switzerland

Influence of culture on individual behaviour

> **GDE:**
> **2 Mastery of traffic situations**
> (e.g. rules, observation, driving path, interaction)
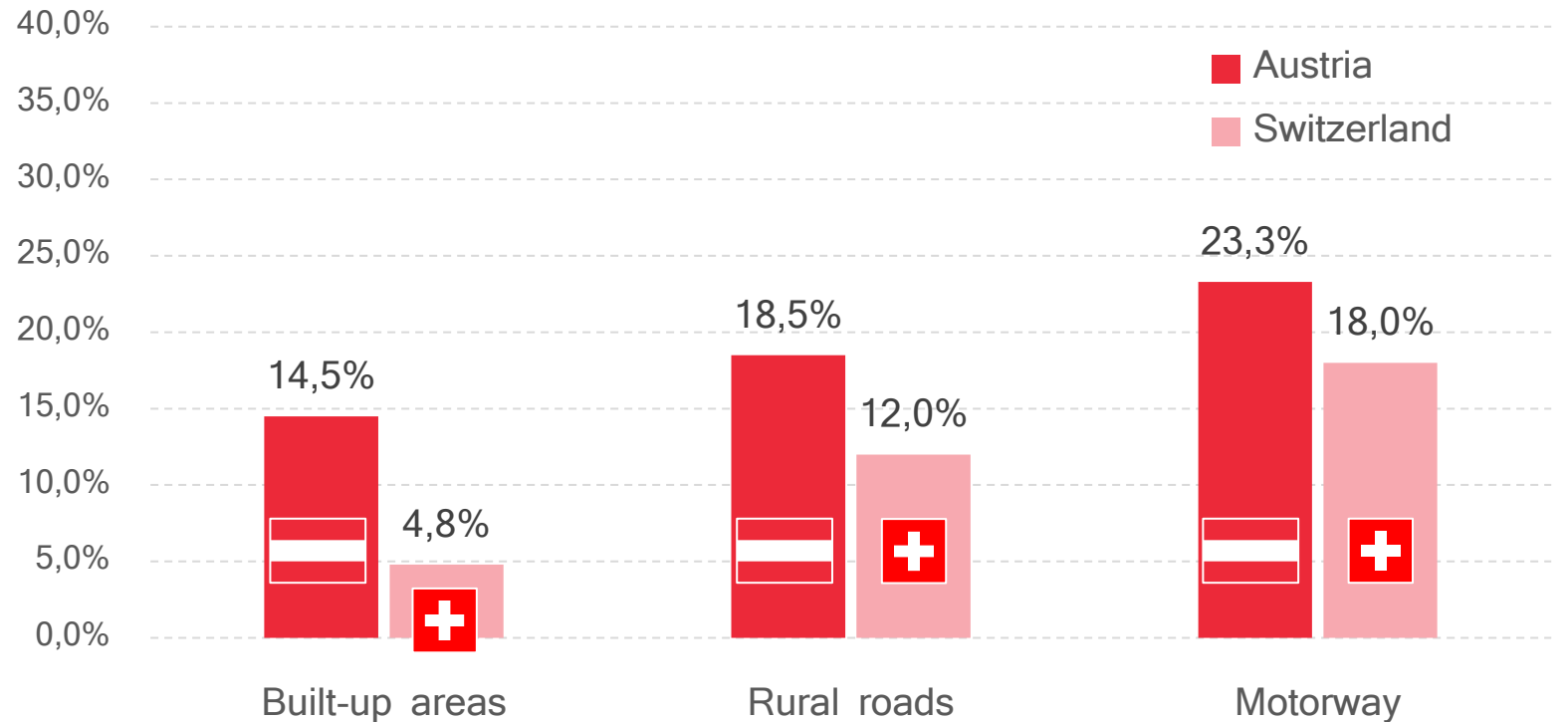
Source: bfu, KFV

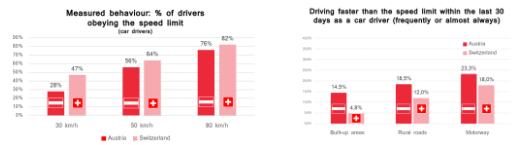**Measured behaviour: % of drivers obeying the speed limit**
(car drivers)

	30 km/h	50 km/h	80 km/h
Austria	28%	56%	76%
Switzerland	47%	64%	82%

Austria and Switzerland Influence of culture on individual behaviour

GDE:
2 Mastery of traffic situations
(e.g. rules, observation, driving path, interaction)
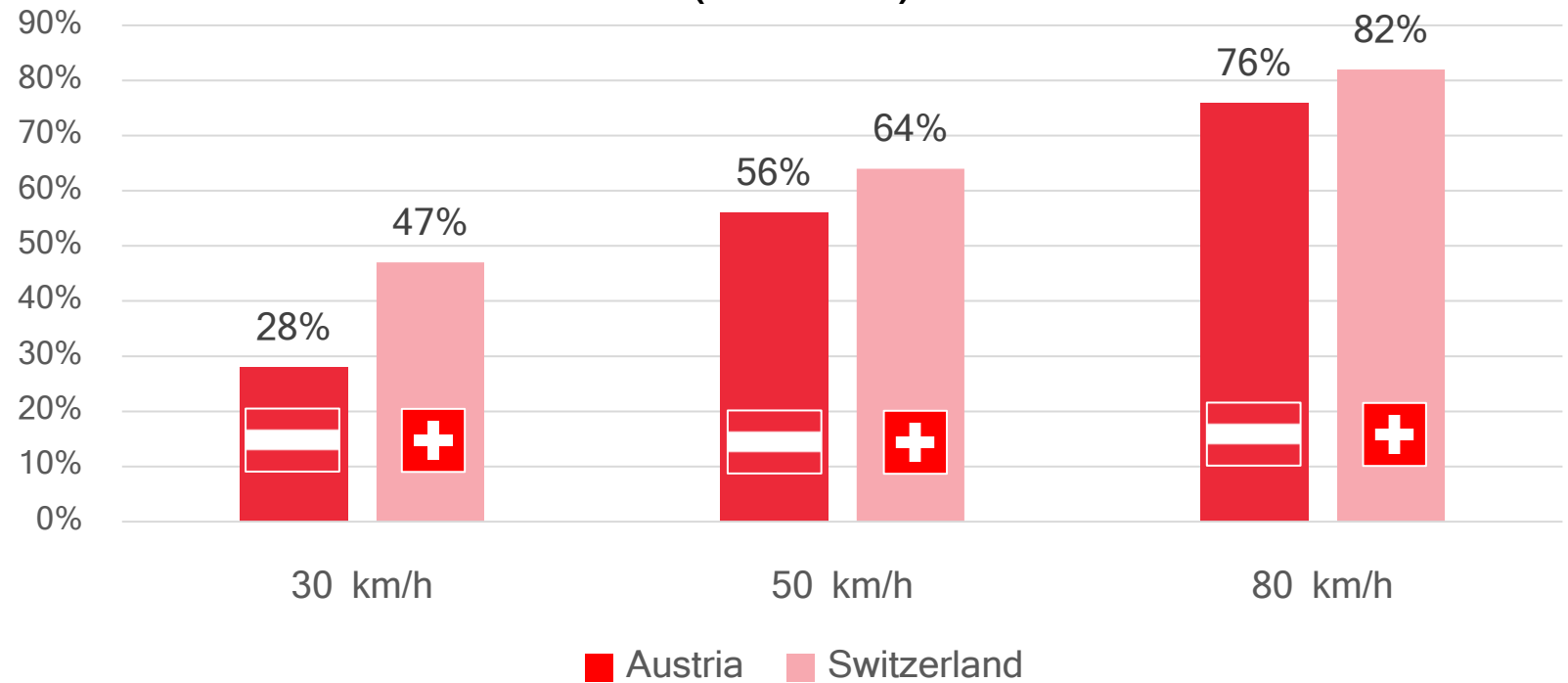
Reported behaviour: driving faster than the speed limit
within the last 30 days as a car driver (frequently or almost always)

- Austria
- Switzerland

Built-up areas: 14,5% / 4,8%
Rural roads: 18,5% / 12,0%
Motorway: 23,3% / 18,0%
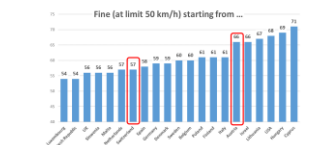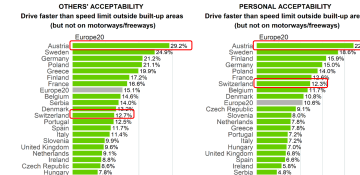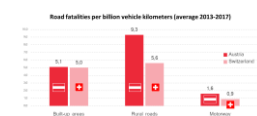
Austria and Switzerland – the result: fatalities in road traffic

Road fatalities per billion vehicle kilometers (average 2013-2017)

40% Single vehicle accidents

- Austria
- Switzerland

Built-up areas: Austria 5,1 — Switzerland 5,0

Rural roads: Austria 9,3 — Switzerland 5,6

Motorway: Austria 1,6 — Switzerland 0,9
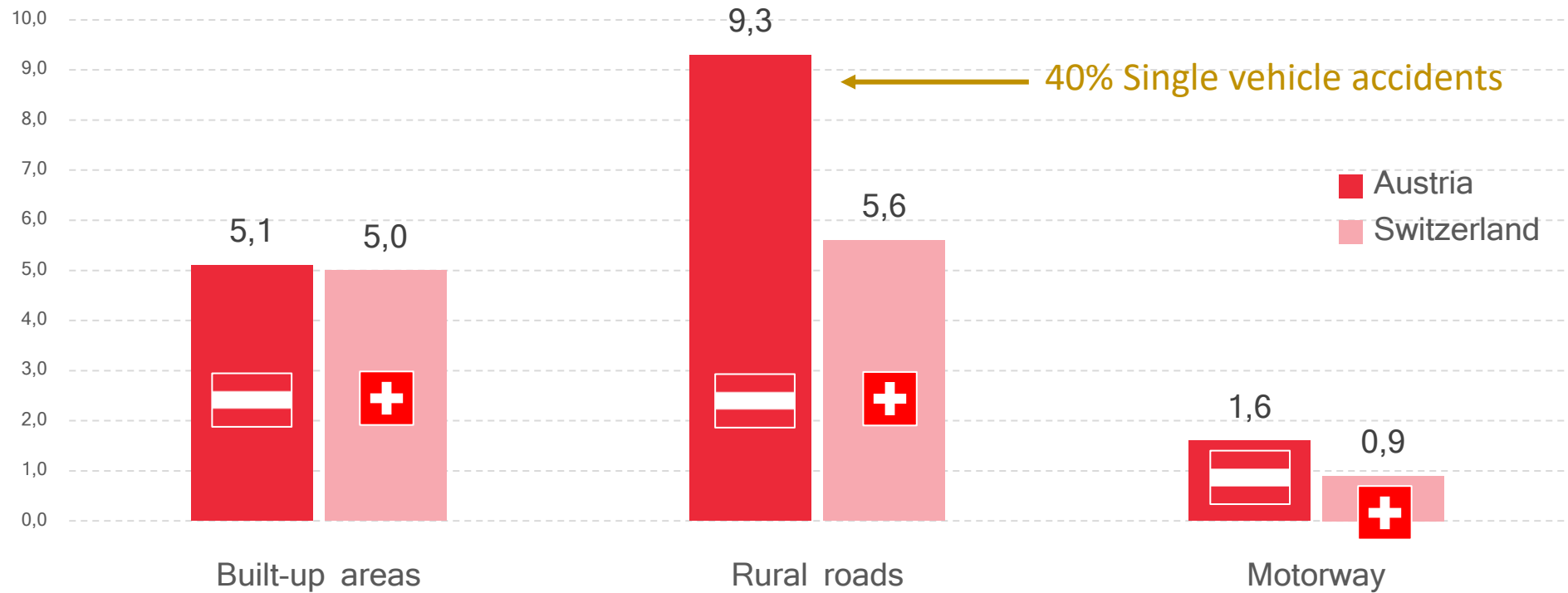
Source: bfu, STATISTIK AUSTRIA

Austria and Switzerland – conclusion

Speed limits on rural roads	
Minimum fines for 20 km/h too fast	170 € vs. 30 €
Tolerance in speed enforcement	+ 7 km/h vs. +16 km/h
Road users' attitudes	Outside built-up areas: Higher acceptability of others speeding (12,7 % vs. 29,2 %) Higher personal acceptability of speeding (12,3 % vs. 22,1 %)
Road user behaviour	Compliance with speed limit (much) higher in CH … when measured … when reported by drivers themselves
Fatalities per billion vehicle kilometers	+ 2/3 fatalities on rural roads

The TraSaCu Project

- Goal: development of a comprehensive framework of TSC that is useful for practical work in road safety as well as for academic research

- Finalized in 2018

- Results available at www.trasacu.eu

The TraSaCu project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 645690. Results reflect only the authors' view, the Research Executive Agency (REA) is not responsible for any results.

The TraSaCu Project

- Stakeholder Guide: [Deliverable 5.1 Implementation Strategy: A stakeholder guide to integrate Traffic Safety Culture in road safety strategies – TraSaCu](#)

- hands-on advice on

  - how to deal with defining, measuring, transforming and institutionalising TSC

  - how to design targeted interventions during this change process

Relevance of Traffic Safety Culture for Driver Education

A model for changing behaviour

- Attitudes, perception of norms and perception of possible control emerge from beliefs about the behaviour

- Most promising targets for behavioural change:
  - Normative beliefs (about what others typical do)
  - Control beliefs (sense of being in control)

Source: Ward, N., Otto, J., & Herbel, S. (2015)
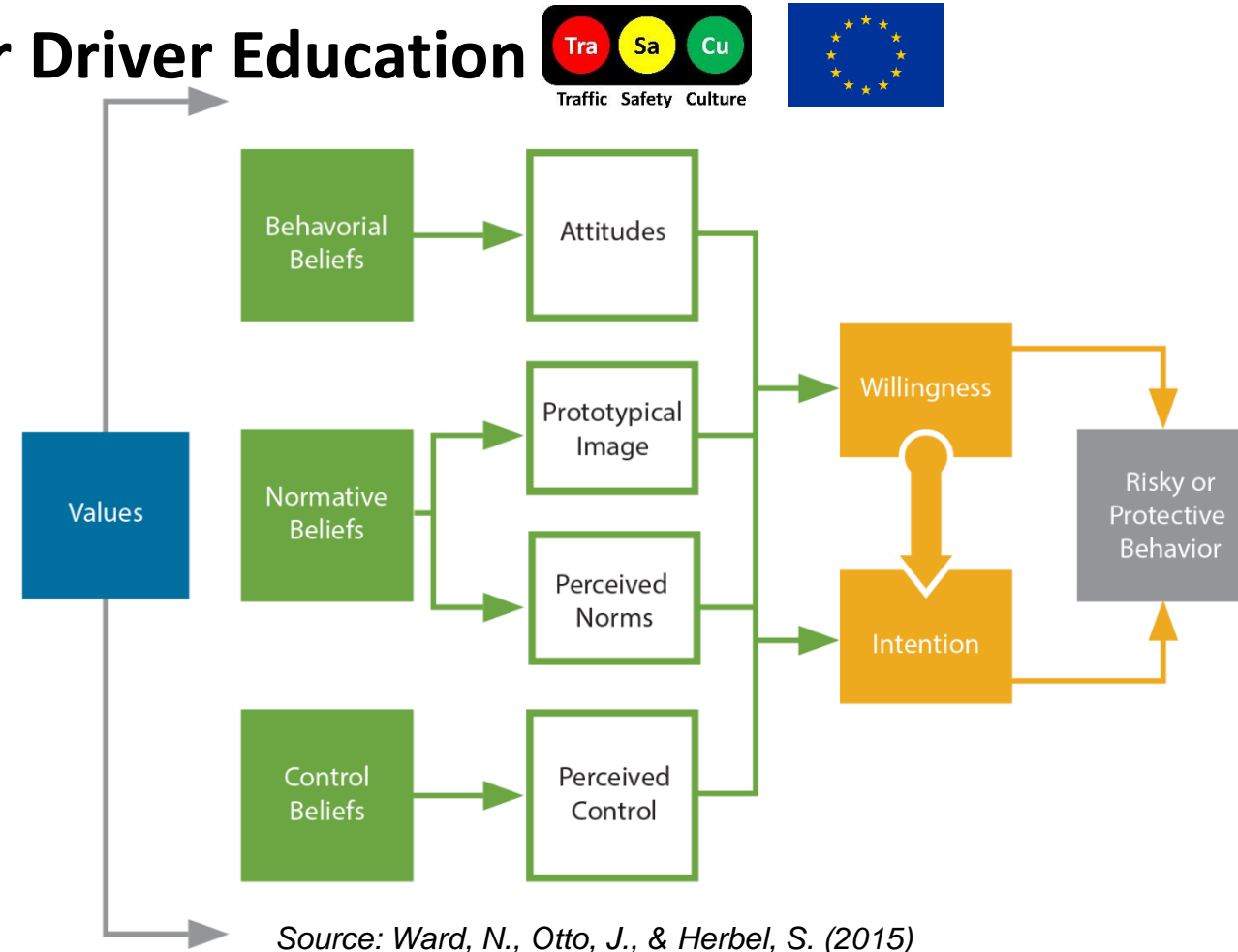
Relevance of Traffic Safety Culture for Driver Education

The Minnesota Income Tax Compliance Experiment

Participants received one of the following information messages:

1. Increased examination and auditing of tax returns with prior notice to taxpayers
2. Enhanced services to taxpayers (better customer support when filling the forms)
3. Information about the services Minnesotan taxes are used for, such as education, healthcare and support for the elderly
4. People who file tax returns report correctly and pay voluntarily 93 percent of the income taxes they owe.

Which one do you think worked?

Relevance of Traffic Safety Culture for Driver Education

Perception is everything

- Perceived behaviour of others influences our own behaviour

- But: we are not very good at estimating other people's behaviours

- Perception bias:

  - Tendency to overestimate prevalence of risky behaviour

  - Tendency to overestimate prevalence of one's own behaviour or attitude

Relevance of Traffic Safety Culture for Driver Education

Perception is everything

… and authorities & institutions play their part

- Tolerances in speed enforcement

- Rule compliance and safety attitudes of role models (e.g. mobile phone & seatbelt use of police, driving instructors)

Relevance of Traffic Safety Culture for Driver Education

Perception is everything

- Typical messages from road safety institutions:
  - 80% are above the limit in 30 km/h zones
  - 200,000 text messages while driving every day
- This may reinforce and rationalise faulty normative beliefs among drivers about prevalence of aberrant behaviour (*"if everybody does it, why shouldn't I?"*).
- ➜ **Reinforce positive behaviour instead**
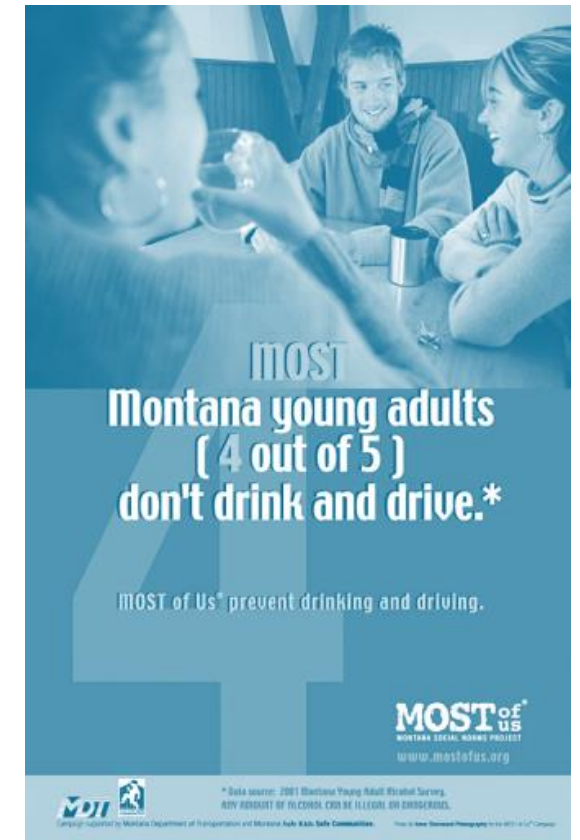
Relevance of Traffic Safety Culture for Driver Education

Show the positive

Fear

Hope

About 27,000 people not wearing seatbelts are killed in car accidents each year in the U.S.

It's more than just a number. It's your life.

Don't be another statistic.

4717

BUCKLE UP.

Embrace Life
Always wear your seat belt

Relevance of Traffic Safety Culture for Driver Education

In communication with (future) road users:

- **Avoid fear-based** messages and **be appreciative** in all communication, including with "difficult" target groups.

- **Avoid triggering mechanisms of denial** (shocking messages may counteract the intended impact, especially in the risk-prone target group of male adolescents and young adults).

- **Align communication with existing values**: E.g. those who drive under the influence of cannabis are more likely to value enjoyment, stimulation and self-direction and less likely to value security, tradition and conformity. Interventions designed to align with these values increase the likelihood of acceptance.

- **Correct misperceptions** about social norms and aberrant behaviour of peers.

Relevance of Traffic Safety Culture for Driver Education

Regarding institutions and role models

- Consider the culture in institutions (driving schools, test institutions). Do they have a safety-first mentality internalized?
- Consider values and beliefs of driving instructors, driving examiners and lay instructors
- Integration of culture-based approaches in the education of driving instructors and examiners
- Raise awareness on how role models' values, beliefs and behaviour is influencing traffic safety culture

KFV

THANK YOU!

Dr. Armin Kaltenegger

Legal Department
KFV (Austrian Road Safety Board)

Schleiergasse 18 | A-1100 Vienna

Tel: +43-(0)5 77 0 77-1200

E-Mail: armin.kaltenegger@kfv.at | www.kfv.at