BIKE PAL

A cyclist's best friend

European Commission
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Deutscher
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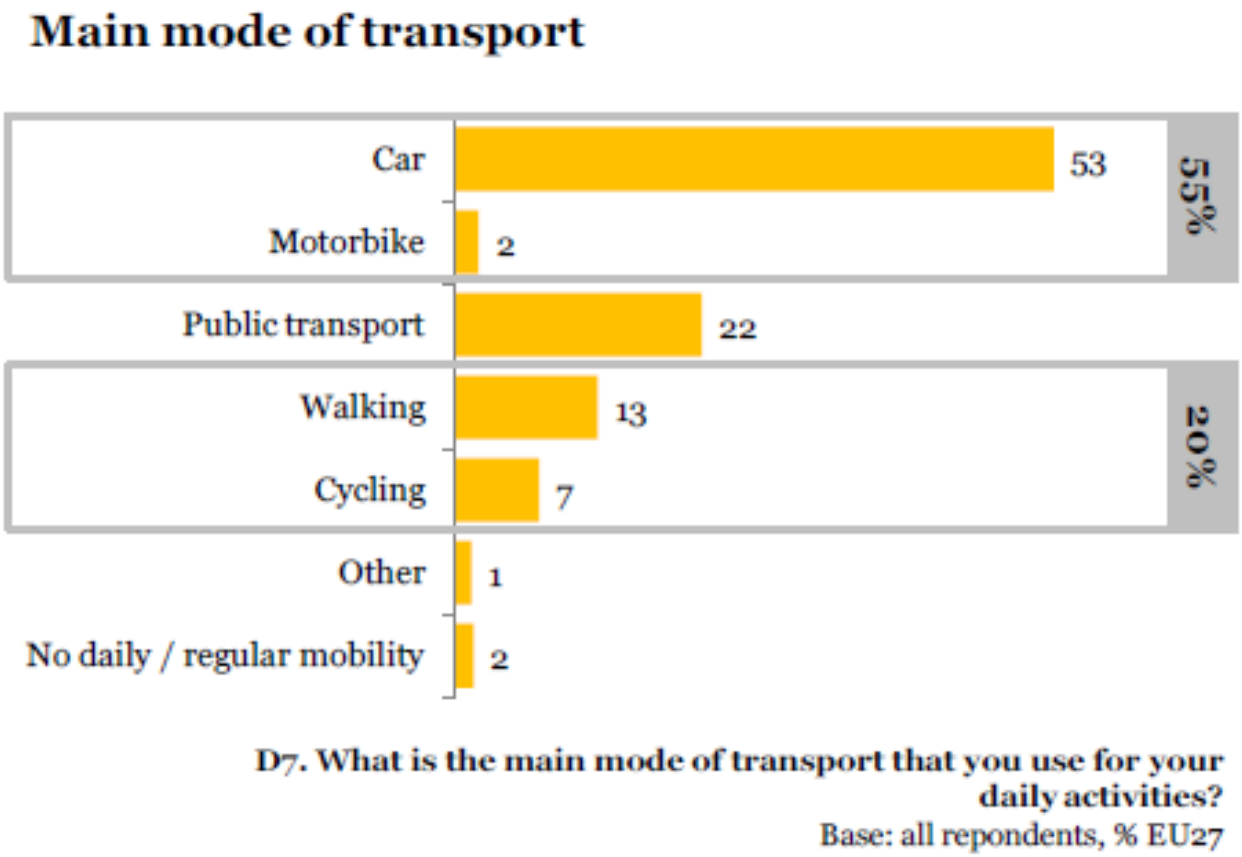
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Review of cycling safety policies in the EU

BIKE PAL Camp,
Brussels, 18th March 2013

Mircea Steriu
BIKE PAL Project Officer
European Transport Safety Council

Cycling as a mode of transport in the EU



The proportion of cyclists varies from 31% in NL to close to 0% in CY

History and benefits of cycling

- First ‘mass’ means of individual mobility;
- Reduction in CO_2 emissions by replacing trips made by personal car: 21g CO_2 equiv. per passenger kilometre compared with 101g CO_2 equiv. per passenger kilometre (European Cyclists’ Federation); 50% of car trips in the EU are shorter than 5 km
- Health benefits: increase the number of Disability Adjusted Life Years (DALY) and Active Life Years;
- Regular exercise helps in fight against obesity (SQW)
- Reduction of psychological stress, heart diseases, spinal/musco-skeletal problems, enhanced joint protection, improved metabolic processes;

EU Policy on cycling (1)

- Road Safety Policy Orientations (2010): obj.7 protection of vulnerable road users;
- In 2010 EU Transport Ministers acknowledged cyclists as one of the user groups particularly vulnerable, where progress hasn't followed general road safety improvements;
- EP report on road safety (2011) proposed:
  - Dedicated lanes for VRUs;
  - EC and MSs must integrate cycling in transport systems;
  - Improve conspicuity and visibility of cyclists

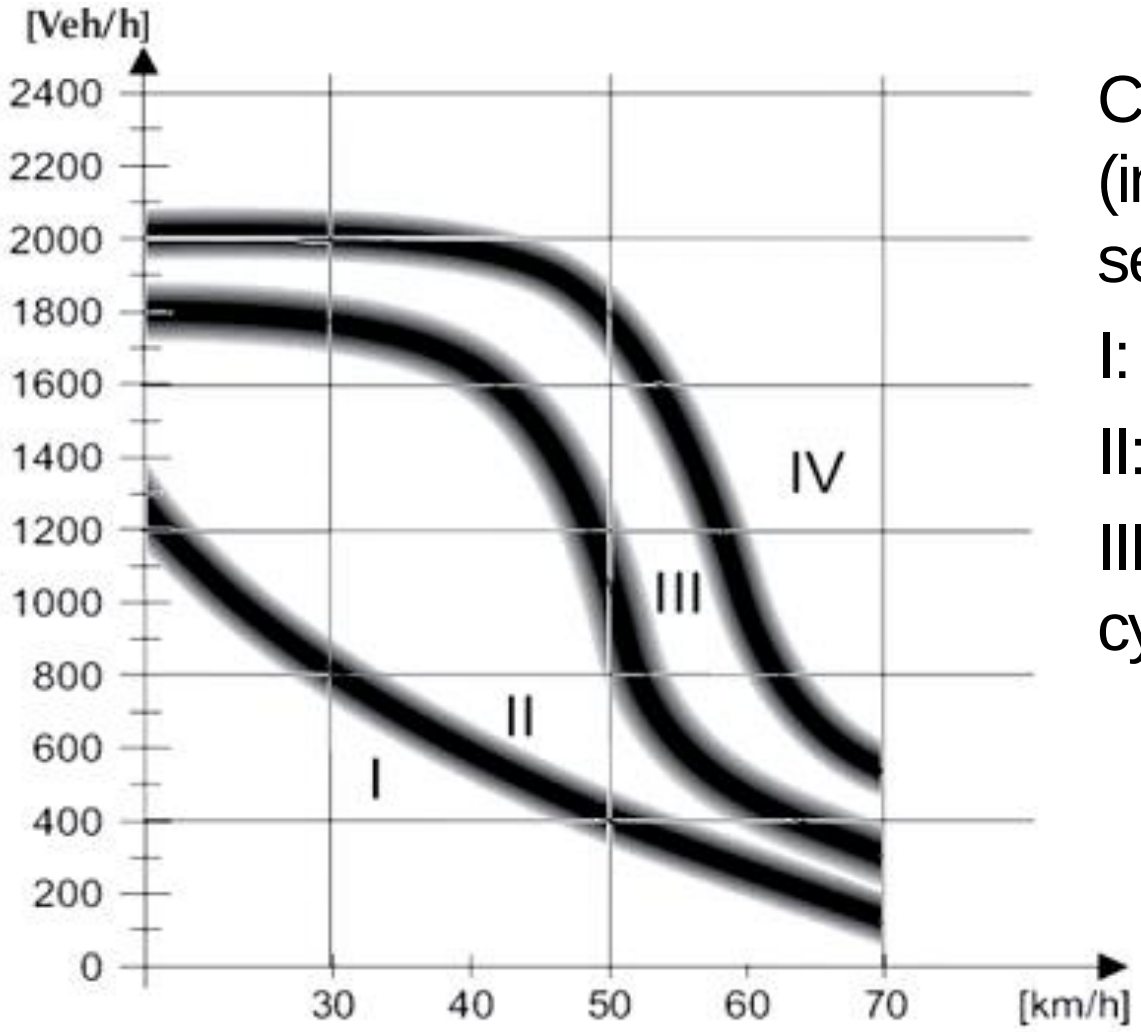
EU Policy on cycling (2)

- EC White Paper on Transport (2011):
  - Cycling has the potential to replace short car trips if (perceived as) safe;
  - Facilitating walking and cycling should become an integral part of urban mobility and infrastructure design;

Cycling safety and road infrastructure

- Road infrastructure should be planned and designed to serve a single purpose (monofunctionality):
  - Through roads facilitating traffic flow;;
  - Distributor roads connecting the other types;
  - Access roads: provide access to destinations for users.
- Equality of speed, direction and mass at medium and high speed => otherwise reduce the speed of motorised traffic.
- Predictability of road course and road user behaviour

Cycling safety and road infrastructure



Choice of cycling facility (integration vs. separation) in Germany

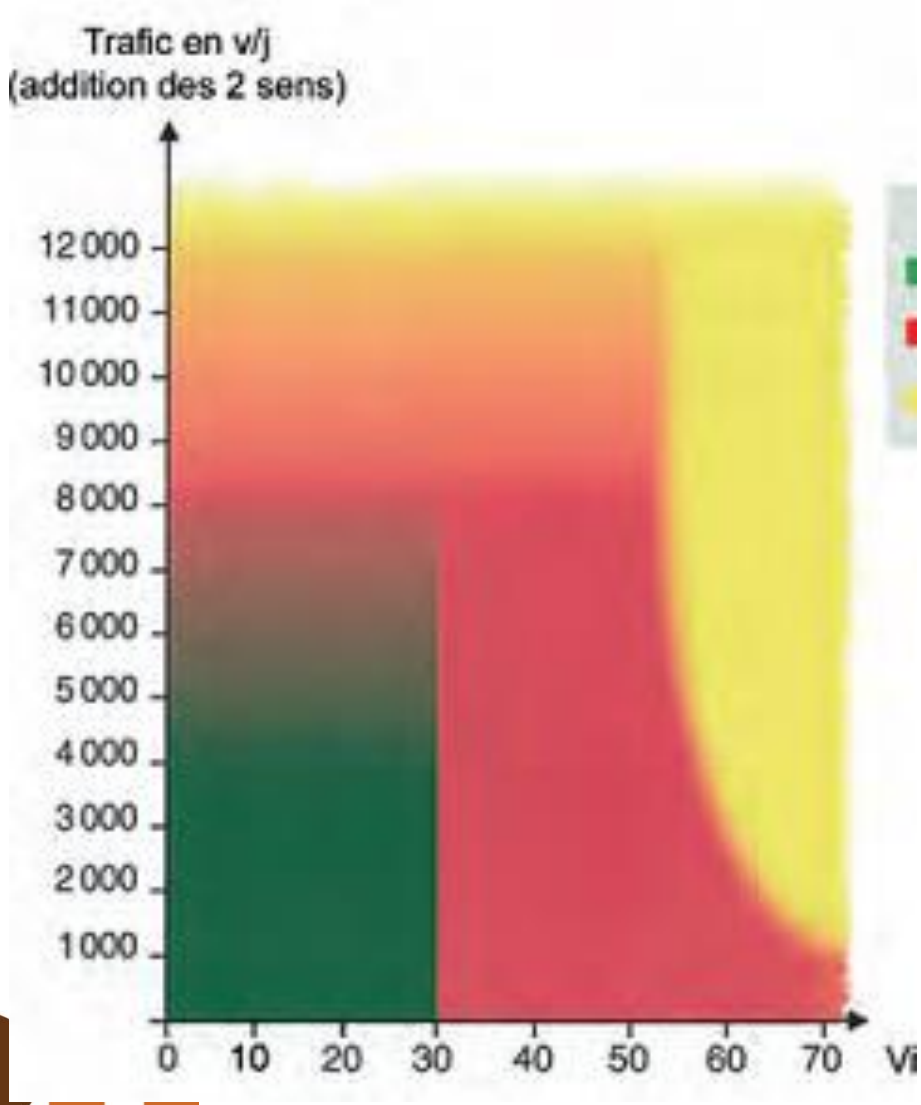
I: mixed traffic

II: soft (lanes) separation

III & IV hard (tracks, cycle streets) separation

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Cycling safety and road infrastructure



Choice of cycling facility (integration vs. separation) in France:

Green: mixed traffic;

Red: lane/track adjacent to carriageway;

Yellow: track separated from carriageway

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Cycling safety and road infrastructure

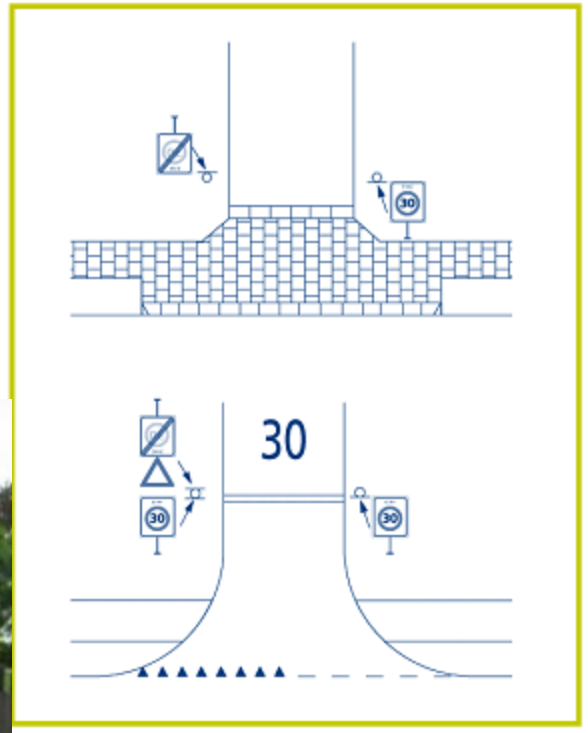
Figure 4.1
Matrix of cycle facility solutions based on motor traffic volume and speed

	85%ile Speed			
	<20mph Very Low	20-30mph Low	30-40mph Medium	>40mph High
Very High >10,000VPD	Lanes or Tracks/paths	Lanes or Tracks/paths	Lanes or Tracks/paths	Tracks/paths
High 8,000-10,000VPD 800-1,000VPH	Lanes	Lanes	Lanes or Tracks/paths	Tracks/paths
Medium 3,000-8,000VPD 300-800VPH	Lanes or combined use with cycle symbols	Lanes or combined use with cycle symbols	Lanes or Tracks/paths	Tracks/paths
Low 1,500-3,000VPD 150-300VPH	Combined use with cycle symbols	Combined use with cycle symbols	Lanes or Tracks/paths	Lanes or Tracks/paths
Very Low <1,500VPD <150VPH	Combined use – no symbols necessary	Combined use with cycle symbols	Combined use with cycle symbols	Lanes or Tracks/paths

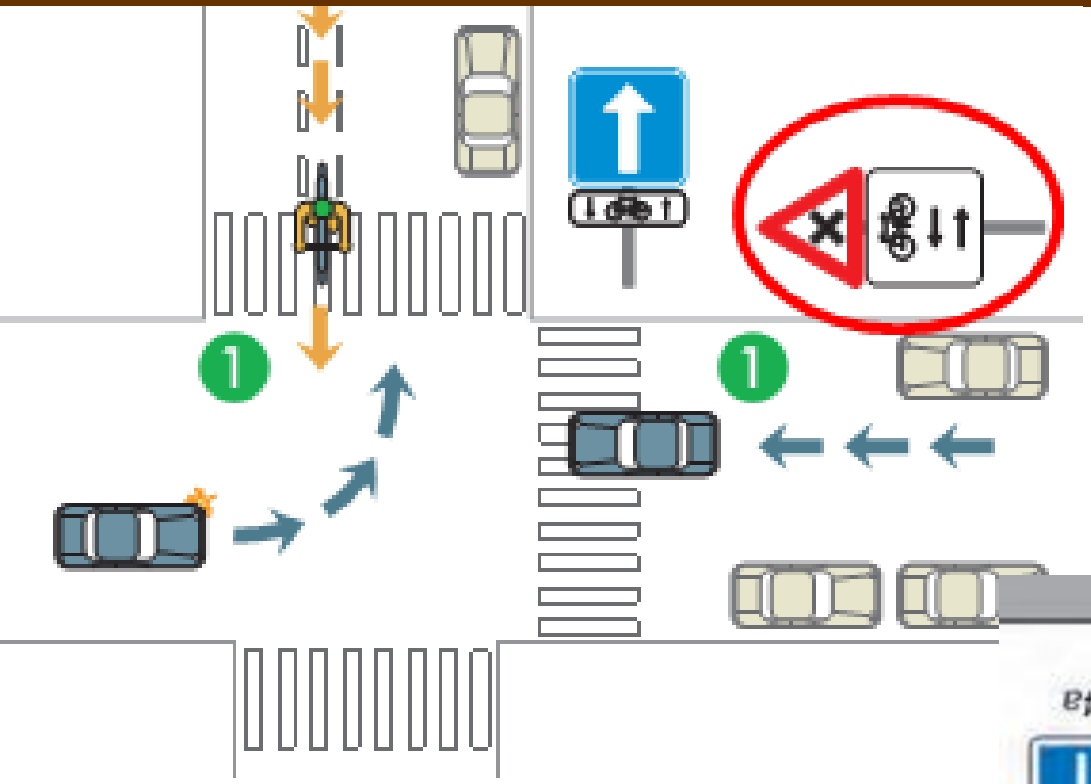
Cycling safety and road infrastructure



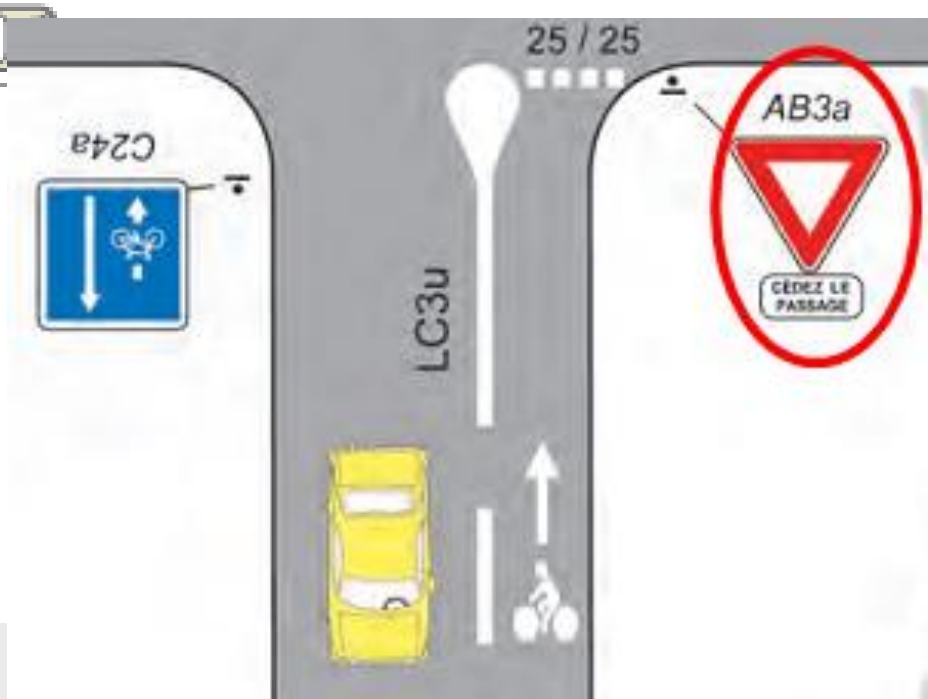




Cycling safety and road infrastructure







Cycling safety and road infrastructure



Cycling safety and road infrastructure



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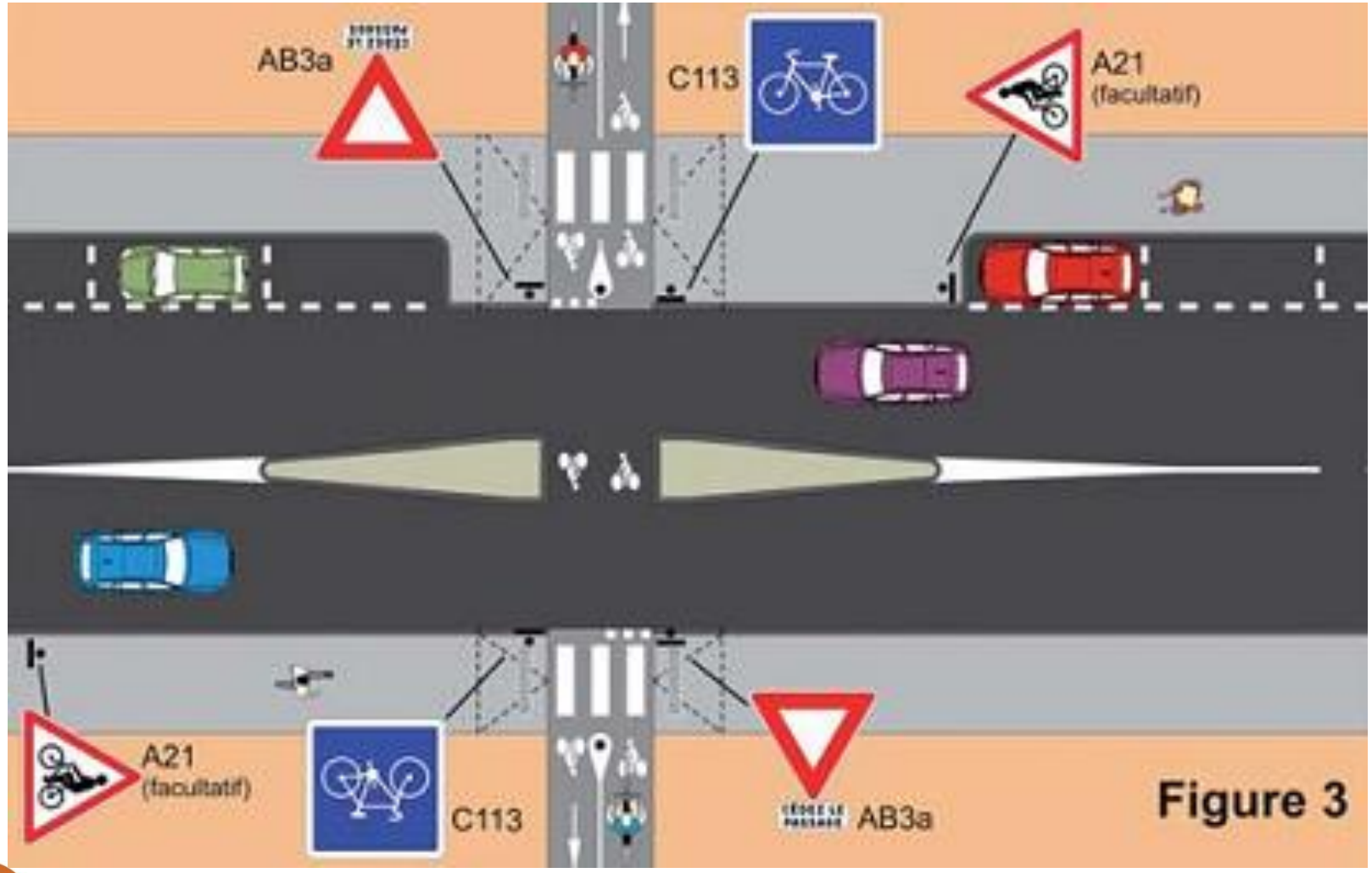


Figure 3

Bicycle safety



Prescribed equipment for safe all-around lighting

Germany

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Maintenance and reflective equipment

- *ETSC recommends that the braking system, and the bicycle's drive train more generally, is kept in good condition so as to ensure rider's highest level of safety and comfort available. The mechanical parts of the bicycle should function in such a way that the rider's attention can be fully focused on interacting with traffic.*
- *ETSC recommends that the lighting systems of bicycles ensure the highest level of consipicuity for the riders, thus making them visible for other traffic road users.*
- Riders should also ensure they are 'part of the vehicle' while cycling and should thus use equipment that makes them visible to other road users, particularly reflective jackets at night time

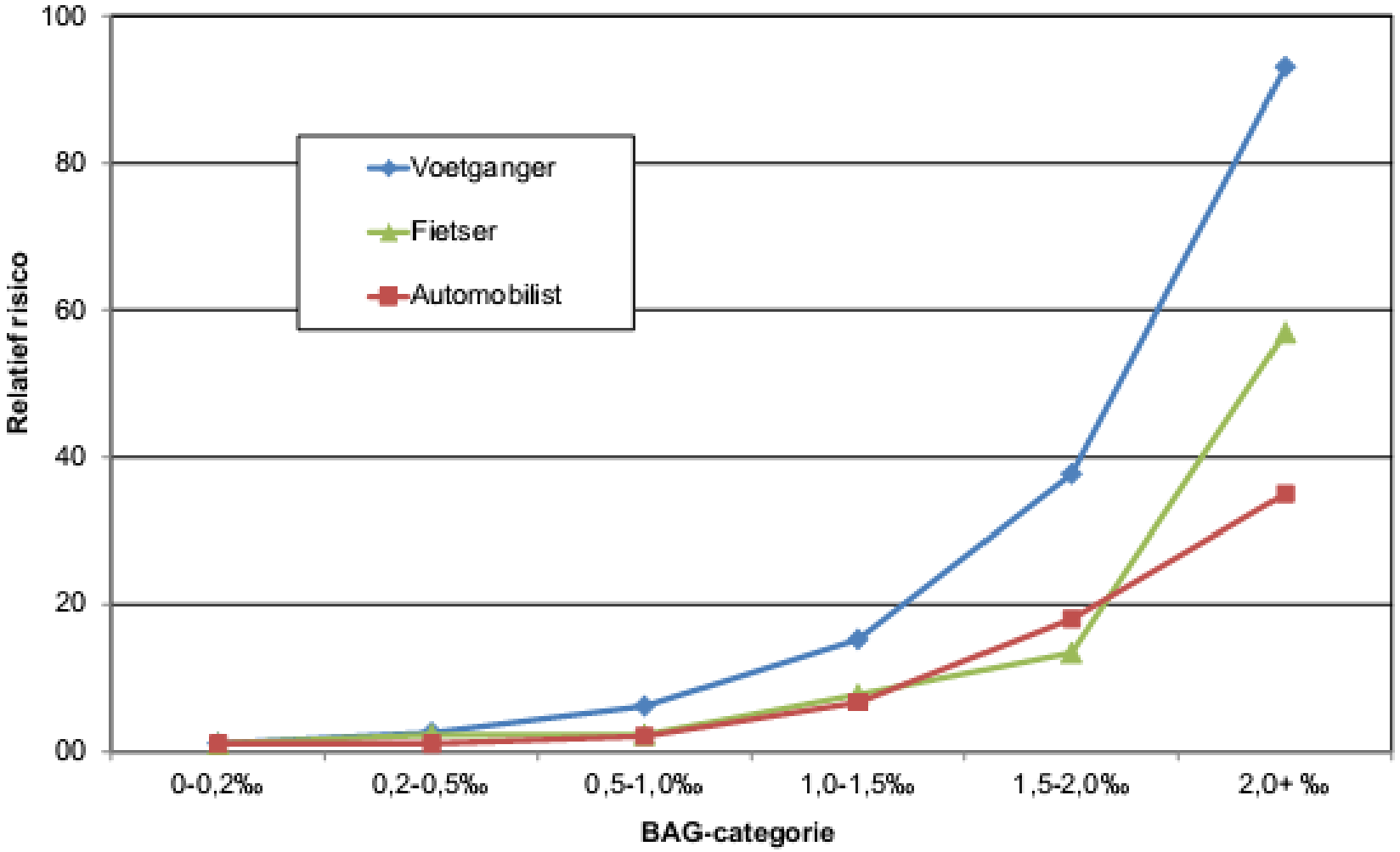
The use of helmets

- Designed to protect the head of the cyclist in case of collision;
- Effective in avoiding head injuries among cyclists;
- (but): designed and tested in lab, not real-life conditions: maximum protection at speeds under 20km/h and no other vehicle involved;
- Cyclists should be encouraged to wear them as they have life-saving potential in certain types of collisions;
- Further research should be undertaken so they protect cyclists in real-world environment;
- Cyclists should be properly instructed into how they should be properly strapped and secured.

Cyclists' behaviour

- Cyclists should use the roads correctly and have a minimum of knowledge of the rules of the road > cycling safety courses/communication campaigns targeted at school children/beginner cyclists;
- Cyclists should do their best to ensure other users can understand and predict their behaviour on the road;
- Cyclists should ensure they are visible to other road users, including by establishing eye contact;

Riding under the influence of alcohol/drugs



Relative risk of being involved in a collision, in relation to BAC levels

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Motorised road users' behaviour



Thank you for your attention!

For more information on

European Transport Safety Council

www.etsc.eu

www.etsc.eu/bike-pal.php

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