

Prevention of right-turn accidents in Denmark

A photograph showing a cyclist from a rear perspective. The cyclist is wearing a tan coat and dark pants. The bicycle is black with a prominent white rear light and a white rear fender. The cyclist is riding on an asphalt road, positioned between a large green truck wheel on the left and a white road marking on the right. The truck wheel has a green hub and a black tire. The road marking is a white line on the asphalt.

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Danish Road Safety Council



Right-turn accidents

- Are serious – the big truck and the vulnerable cyclist
- Get a lot of media attention
- + a lot of political attention
- Increased focus from aprox. 2003 because of a high number of accidents
- Google "højresvingsulykke" (right turn-accident) in Denmark and.....



In-depth study on accidents between right turning HGV's and cyclists 2006

16 recommendations within:

- Legislation/Control/sanctions
- Road Engineering
- Vehicle
- Communication
- Further research

Followed up in 2013 with a new strategy

Report by the Danish Road Traffic Accident Investigation Board 2006



The "right-turn group" formed in 2005

- Danish Road Safety Agency
- Danish National Police
- The Road Directorate
- Danish Road Traffic Accident Investigation Board
- 3F - The Drivers Union
- The Cyclists' Federation
- The Danish Road Safety Council
- DTL – Danish Transport and Logistics
- ITD – International Transport Denmark
- Ministry of Transport
- Ministry of Justice
- Danish Society for Forensic Science
- Danish Coach Operators Association
- Danish Car Importers Association

Aim: To prevent right-turn accidents trough...

- Cooperation
- Coordination
- Sharing of knowledge
- Common media strategy
- Preventing "blame game"

Each organisation/authority took action on the recommendations from the reports within own field of expertice





Legislation/ control/sanctions

- Police controls focused on mirror adjustment and field of vision
- Control at car inspections
- Sanctions and fines
- Mandatory element in the driving education and driving tests



From police control

- Monitor covering critical view through front window





”Daddy, why do the drivers deliberately create blind spots in their trucks?”

A good question from the 10 year old daughter of a truck driver



Improving intersections

- Pre-green for cyclists





- Advanced stop line for cyclists



- "Bicycle box"
- Makes room for the cyclists in front of the trucks and cars
- Cyclist are easier to see
- Gives them a "head start"



Vehicles

- Increased requirements for mirror/camera coverage of front zone
- Most effective measure:
Lowered cabin and glass door



”In all of the accidents that were analyzed, the truck driver would have had at possibility to see the cyclist, if the driver had used the right mirrors at the right time and taken the nessesary time to orientate”

The Danish Road Traffic Accident Investigation Board

Communication strategy



The cyclists

must learn what to do if they are next to a truck in an intersection

Public campaigns



The drivers

must learn how to make a safe right turn – every time.

Education



”The critical zone”

- The most common collision point
- The cyclists should keep a distance to critical zone
- The driver must be extra careful that there are no cyclists here before turning - and learn correct orientation



Teaching material for drivers

”Make a safe right turn – what the driver can do to avoid right-turn accidents”

- Used at the basic driver education and at the mandatory continued education that drivers must go through every 5 years
- Contains: Teacher’s guide, fact sheet, quiz, Powerpoint presentation and 8 practical exercises

Example – marking of the critical zone



The driver gets a full view over the critical zone by orientation in the mirror over the door (covering the area close to the right side) and then...



...and then the mirror
covering the front zone

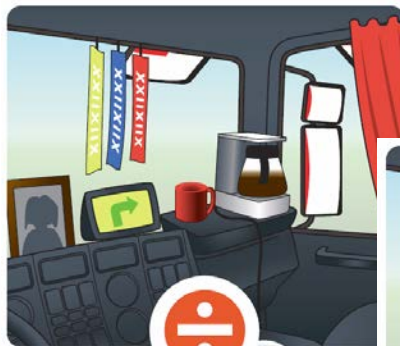


Communication to foreign drivers



**Watch out
for cyclists!**

Achtung - Radfahrer!



Objects that limit your field of vision are prohibited.

Gegenstände, die Ihr Sichtfeld einschränken, sind verboten.



Keep your windows clear!
Halten Sie Ihre Fenster frei!



Atkreipkite dēmesī
dviratininkus!

Uzmanieties no
velosipēdistiem!



Atenție la bicicliști!

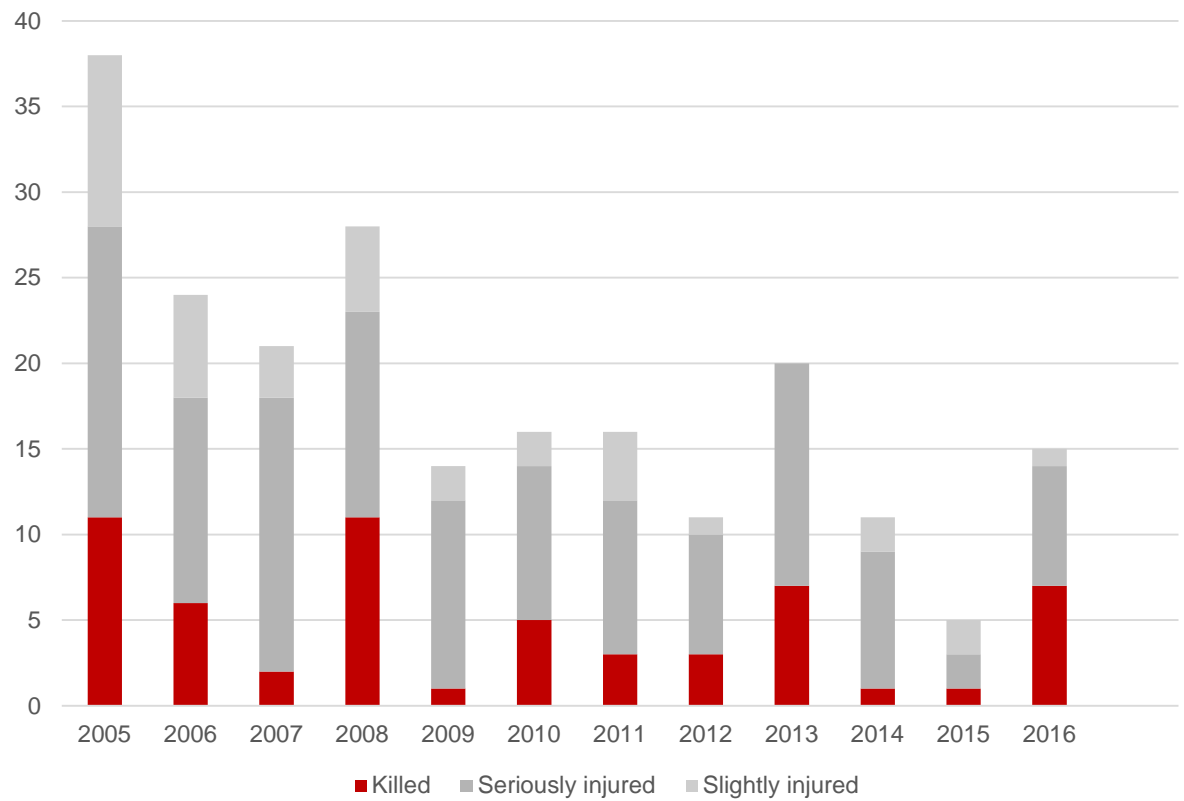
Внимание –
велосипедисти!



Pozor na cyklisty !

Uwaga na rowery !





Killed and injured cyclists in accidents with right-turning trucks 2005-2016



The key to succes

Excellent cooperation between authorities, private sector, unions and NGO's

Lessons learned

Detailed knowledge, specific recommendations and coordination is crucial