

# Safety strategies regarding vulnerable road users

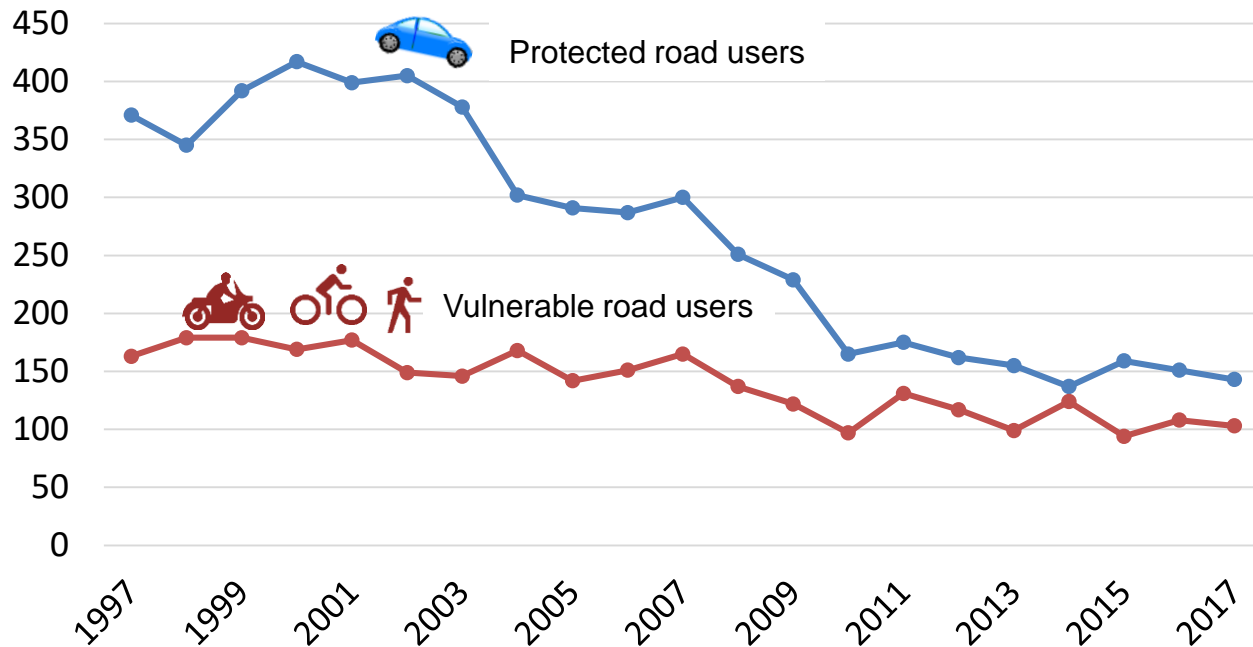
## - Motorcyclists as an example

Examples of how we work together with other organizations  
and how we use our knowledge from accidents

**Jörgen Persson**  
Project leader

# Fatalities

Increased focus on vulnerable road users!



# Severely injured (police-reported) and seriously injured (hospital-reported) cyclists 2017

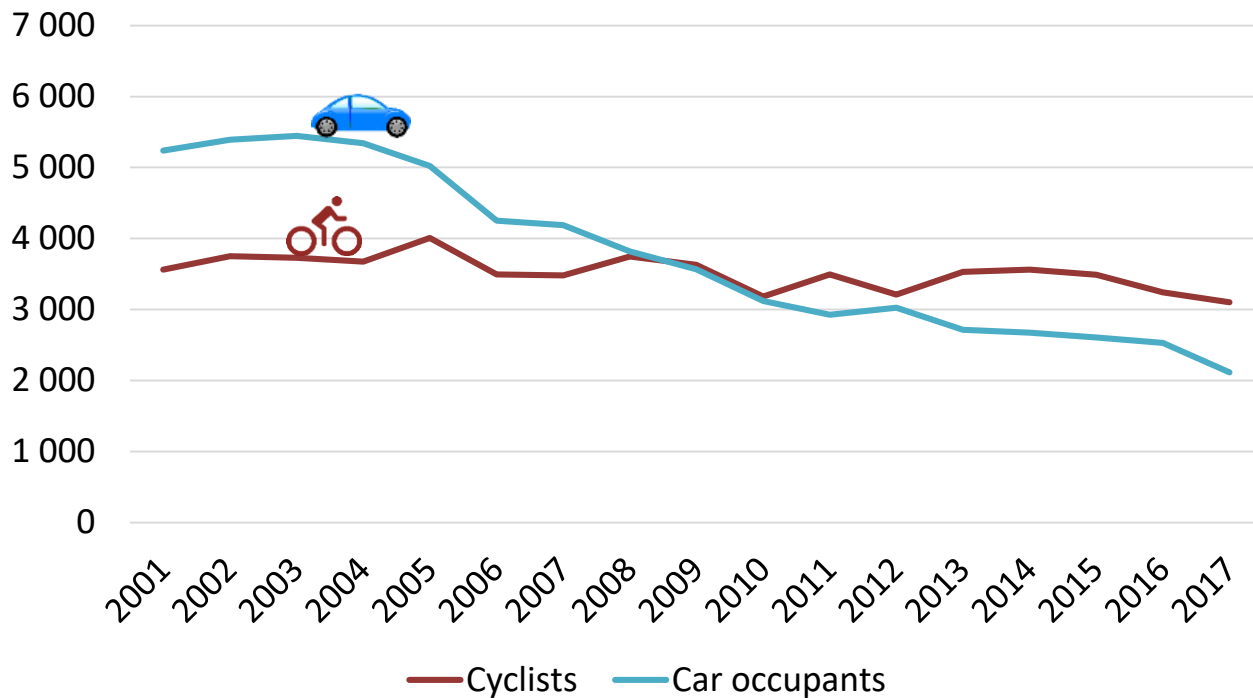
1-10

Police-reported	200 (severely injured)
Hospital-reported	2000 (seriously injured)



# Seriously injured (hospital-reported)

Increased focus on vulnerable road users!

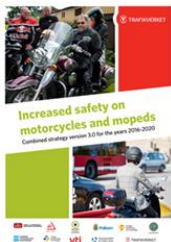


# Management by collective strategies

**GNS Väg**  
The Group for National Vision Zero Cooperation - Roads

## Collaboration groups

Safety on motorcycle  
2016



Safe walking  
2017



Safe bicycle and  
moped traffic  
2018



Safe traffic with Quad bikes, moped  
cars, tractors and motor gear  
2020



# Safe strategies

## Aim

To systematize and coordinate the safety work, in order to increase safety

## The strategy is:

- Pointing out prioritized areas
- Describing the current knowledge
- Identifying knowledge gaps and clarifying the need for further research
- Describing stakeholders' initial ambitions to contribute
- Clarifying the follow-up process

The strategy will be a guide for different authorities, municipalities, organizations and other stakeholders

# Development plan of a common strategy



# Increased safety on motorcycles (and mopeds)

Combined strategy version 3.0 for the years 2016-2020





# Working group:

- National Moped and Motorcycle Trade Association (McRF)
- Sweden Motorcyclists
- The Swedish National Association of Driving Schools
- The Swedish Police
- The Swedish Transport Administration
- The Swedish Transport Agency
- Swedish Motor Insurers
- The Swedish National Road and Transport Research Institute
- Swedish Association of Local Authorities and Regions
- The National Society for Road Safety
- Bicycle, Motor, and Sporting Goods Dealers, CSR Service AB

# Analysis of the potential of intervention areas

Interventionsområde/ åtgärd	Potential mc (%)	Antal baserat på modell 2012-2014	Potential moped (%)	Antal baserat på modell 2012-2014
Synbarhet/uppmarksamhet	12	4	25	2
Synbarhet/uppmarksamhet andra trafikant	4	1	8	-1
Rätt kompetens andra trafikanter	10	3	33	2
Uppmarksamhet mc-förare/mopedist	12	4	33	2
Säkra gator och vägar	12	4	33	2
Säkerhetsbelysning vägmiljö	12	4	33	2
Mittsuppgradering	12	4	33	2
Säkra korsningar tittor	8	3	25	2
Säkra korsningar landsväg	15	5	25	2
Säkra sidområden	12	4	33	2
Motorcykelpassat mitt- och sidorick	10	3	25	2
Bom, höj och jämn vägbana	4	1	8	1
Lagningsskyltar på väg	-	<1	-	<1
Moped klän I på cykelbanor (ej tittor)	-	-	-	<1
Säker anordning	-	-	25	2
Hastighetsbegränsning	>30	>30	-	-
Extremt betetande	30	17	-	-
Rätt kompetens mc- och mopedförare	31	10	-	-
Rätt användning hjälm	8	3	25	3
Heltäckande skyddsklädd	6	2	25	2
Ej uttining	17	6	33	2
Medicinska krav	12	4	33	2
Säker gruppbildning	8	3	17	1
Utvärdade förare	6	2	-	-
Rätt körkortsbekräftelse	25	9	-	-
Skjutövning	-	-	75	8
Säkra fordon	-	-	33	2
ABS	40	14	-	-
Stödskydd	6	2	-	-
Alkoholskydd	15	5	8	1
E-call	8	3	33	2
Traktion control	10	3	-	<1
Krockkudde	13	5	-	-
Stödsystem hastighet	>30	>30	-	-
Inga tekniska brister	4	1	-	-
Optimala moped	-	-	33	2
Säkerhetsbelysning andra fordon	6	2	25	2
Enbart registrerade fordon på väg	6	2	-	-

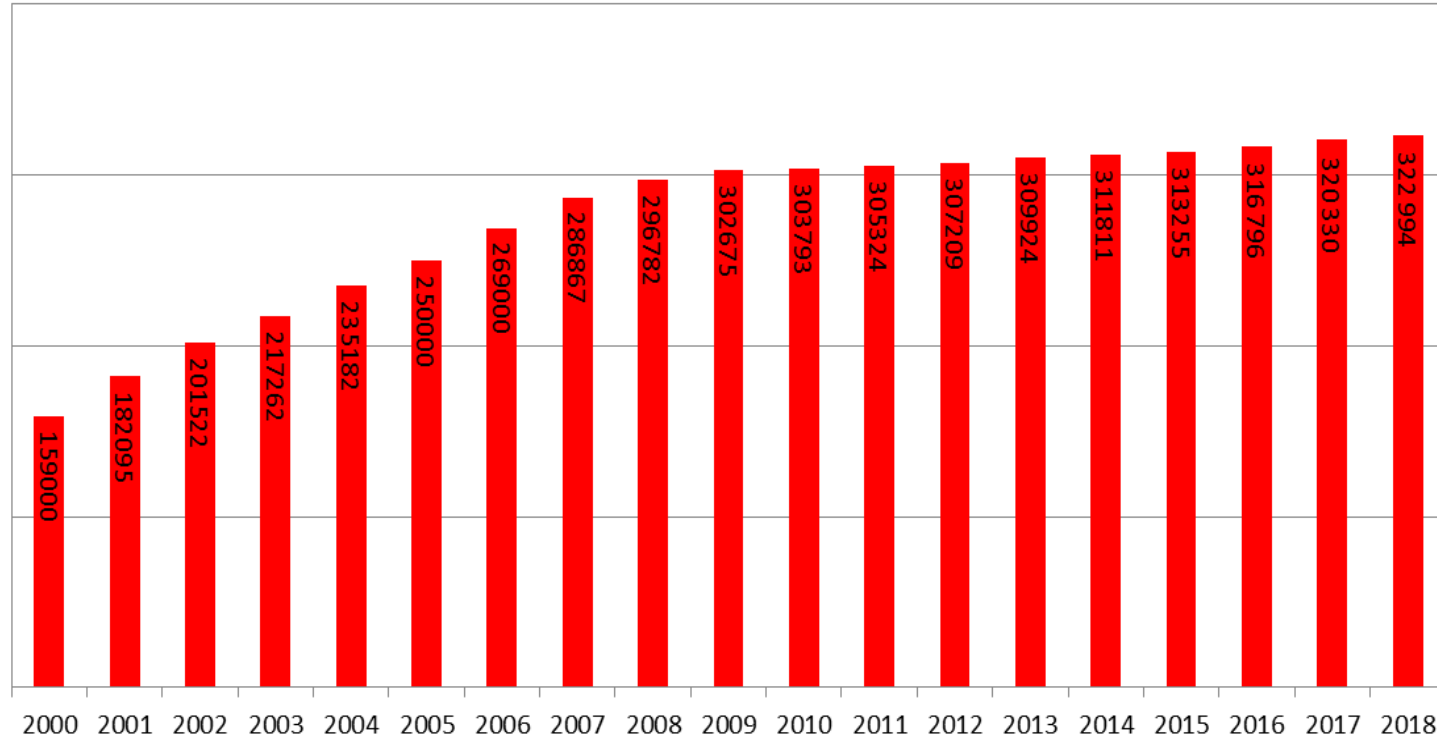
Source: National Transport Administration's in-depth studies of fatal accidents

# Prioritised areas for increased motorcycle safety

- increasing the percentage of motorcyclists who keep the speed limit
- reducing extreme behaviour on a motorcycle
- safer motorcycles
- safer streets and roads
- increasing focus on visibility and awareness

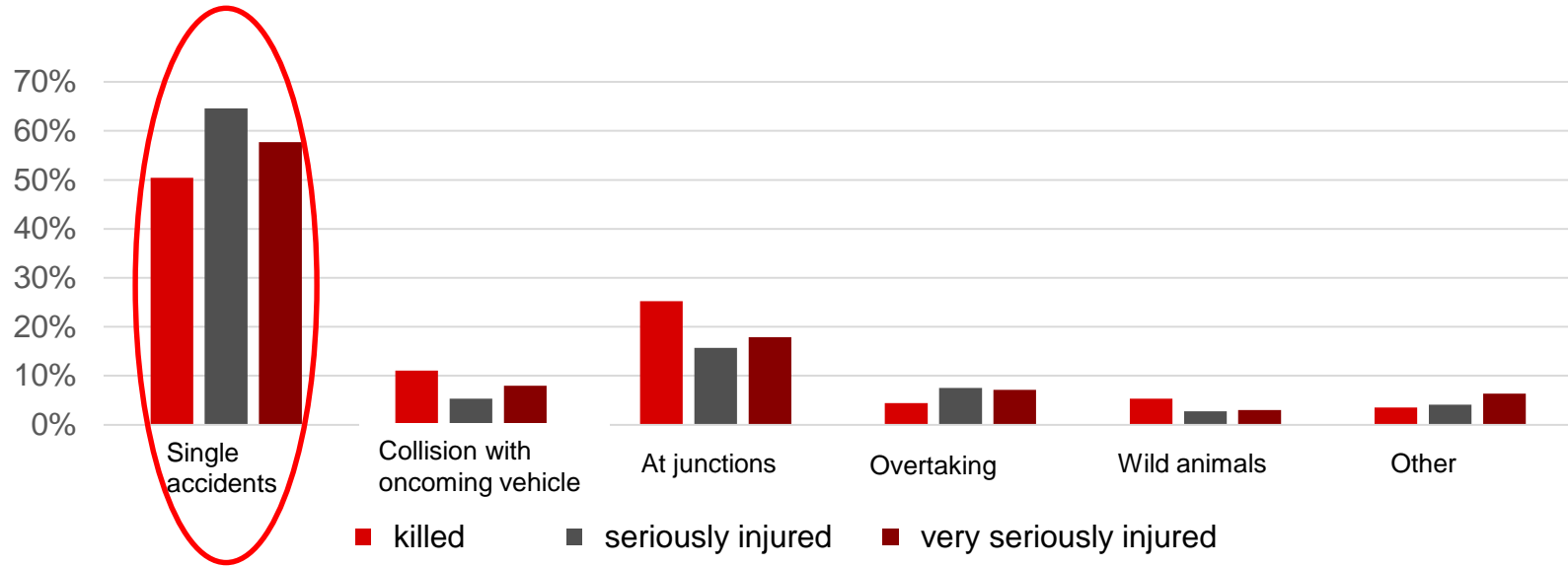


# Motorcycles on the road 30 juni, 2000-2018



Source: SCB

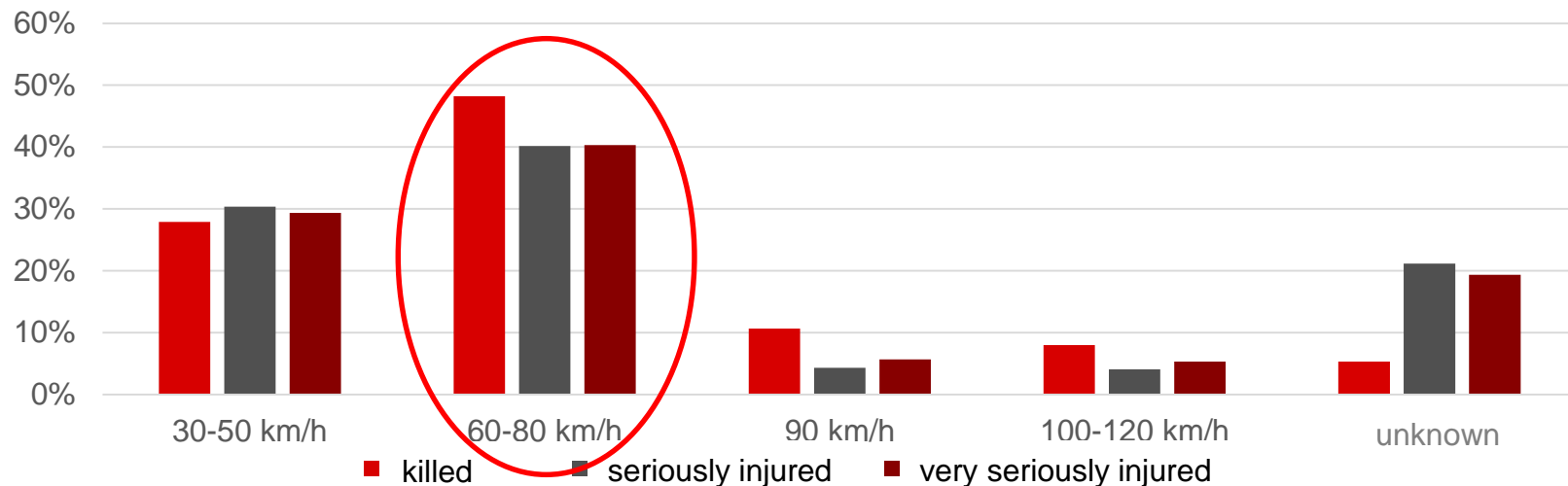
# Share of fatalities and seriously injured (hospital-reported) on mc 2014-2019



Single accidents are the single most common type of accident where motorcycle users are killed or injured

Source: STRADA

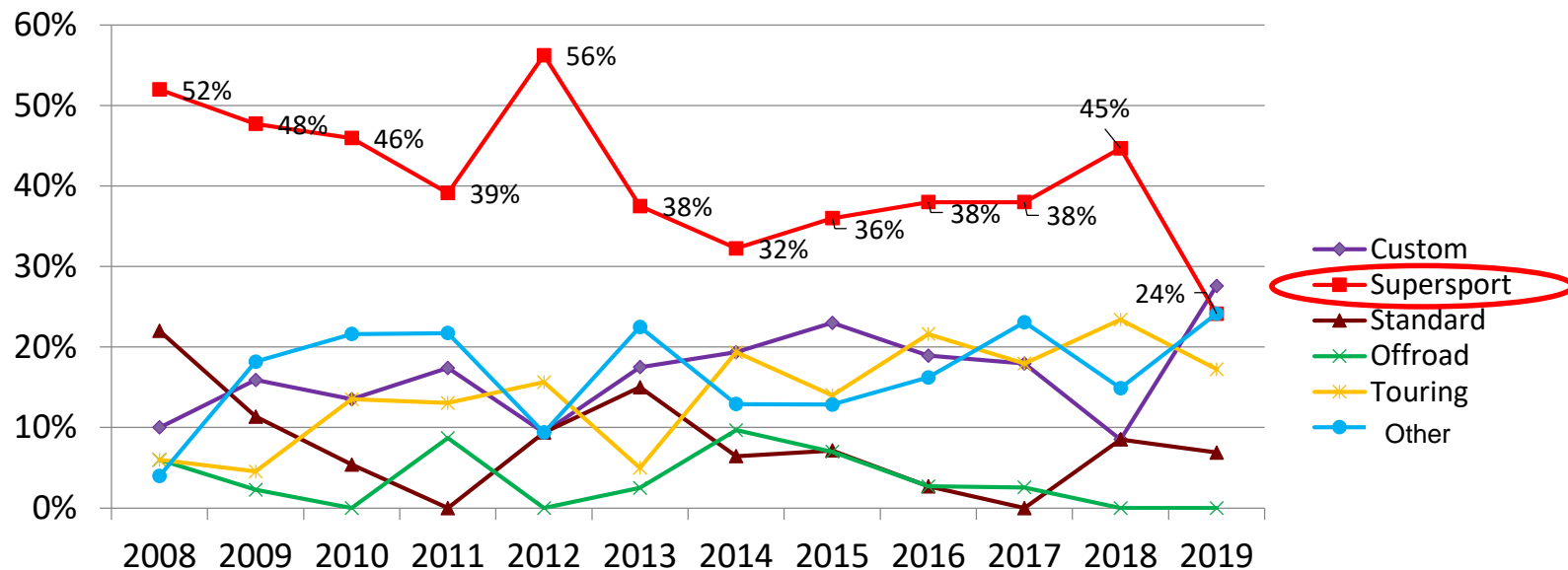
# Share of fatalities and seriously injured (hospital-reported) on mc as per speed limit, 2014-2019



Most motorcyclists are killed or seriously injured on 60-80 km/h road sections

Source: STRADA

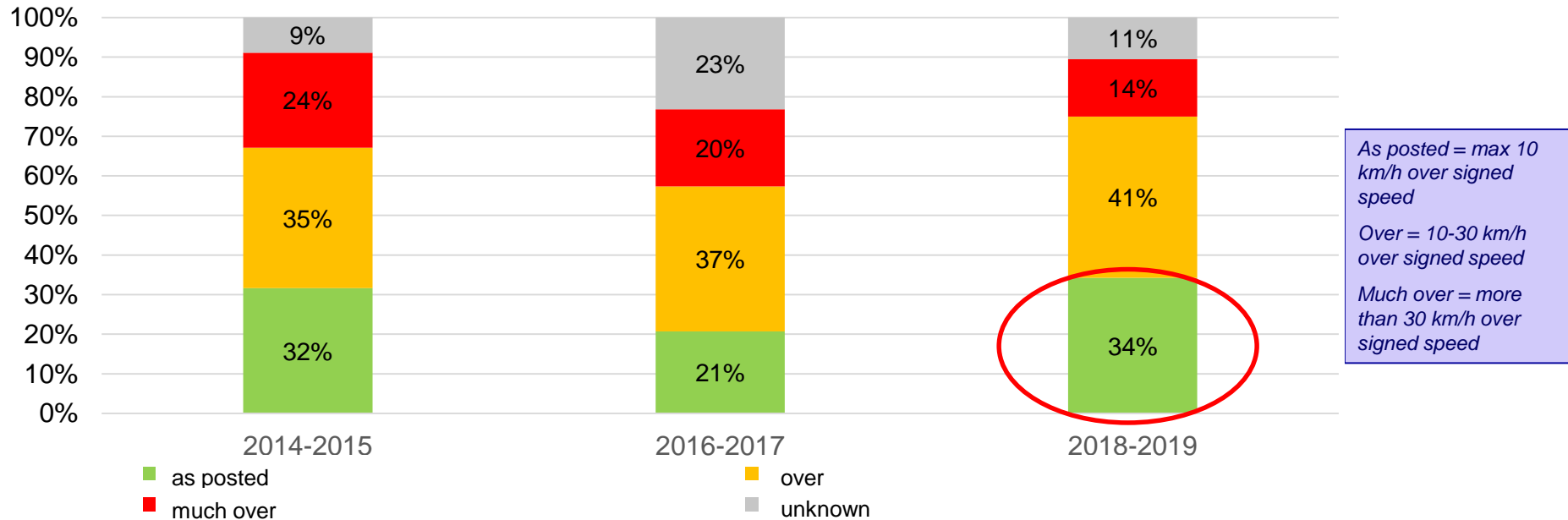
# Fatalities on motorcycles per type, 2014-2019



Approximately 40% of motorcyclists in fatal accidents rode a super sport motorcycle

Source: National Transport Administration's in-depth studies of fatal accidents

# Estimated speed in fatal accidents with motorcycles 2014-2019



Only 1 in 3 fatalities in motorcycle accidents has been estimated to drive within the speed limit

Source: National Transport Administration's in-depth studies of fatal accidents

# Results of speed measurements 2016

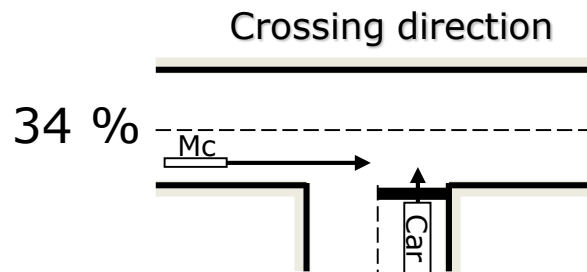
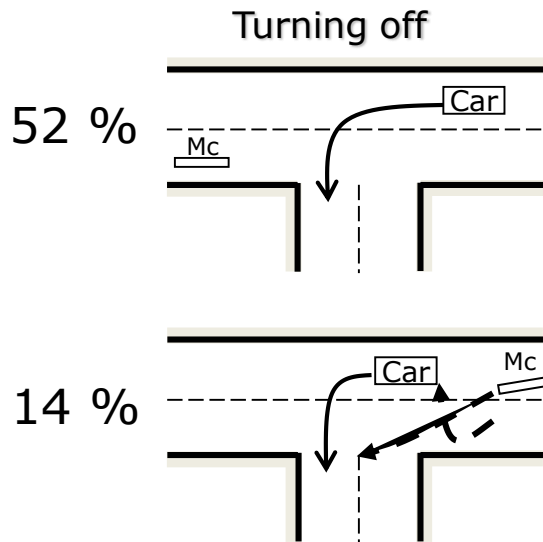
(State roads)

	<u>Cars without trailers</u>		<u>Mc</u>
Share above	55%		62%
Share > 5km/h	38%		48%
Share > 30km/h	3%	↔	8%



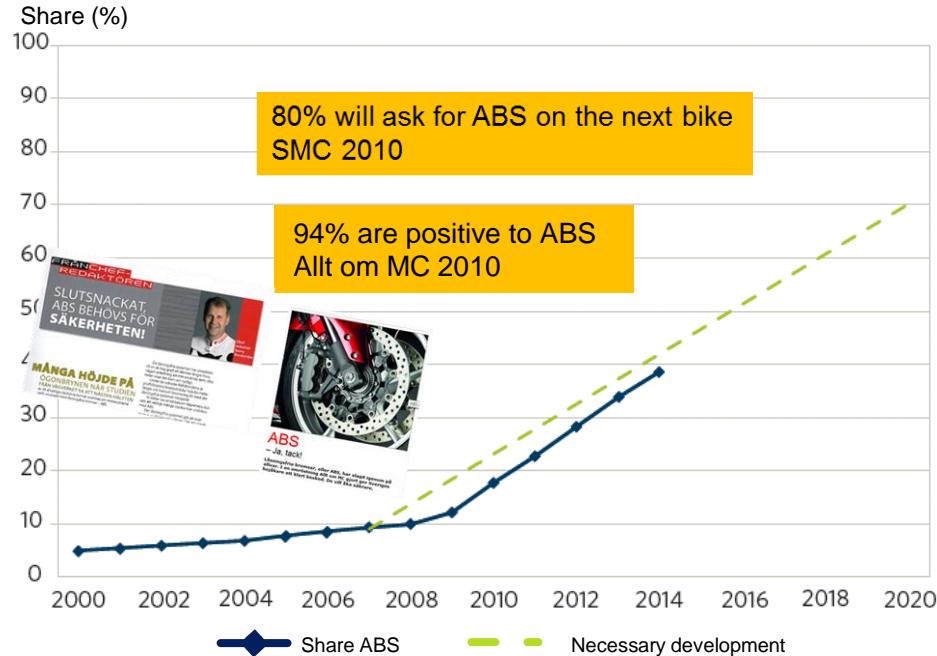
# Course of events in junction-related fatal accidents with motorcycles 2005-2013 (108 accidents)

Source: Swedish Transport Administration's in-depth studies of fatal accidents



In almost all junction accidents the motorist has driven out or turned in front of the motorcyclist  
In 7 out of 10 accidents the mc driver has been driving more than 10 km/h over the signed speed  
In 4 out of 10 accidents the mc driver has driven more than 30 km/h over the signed speed

# Share of mileage by motorcycles equipped with ABS brakes



ABS brakes on motorcycles reduces the risk of be killed or seriously injured in an accident by about 30-50 percent.

## Sold mc with ABS (McRF)

2008	15%
2010	59%
2011	62%
2012	70%
2014	85%
2015	90%

Source: SCB, Swedish Transport Administration

# My experience

## Important with:

- Collaboration
- Systematic work
- Base the work on knowledge and facts

## For more information

<https://www.trafikverket.se/resa-och-trafik/Trafiksakerhet/Din-sakerhet-pa-vagen/>

Thank you!

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