Urban Road Safety in Norway The Norwegian Council for Road Safety Jan Johansen, director Miriam Kvanvik, senior advisor

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### **1. Introduction**



# Facts about Norway



- Big country, small population
  - $\circ$  5.2 million inhabitants
  - o 385.000 sq.km
- Trends
  - $\circ$  Population growth
  - Aging population
  - Urbanization

#### Economy

- GDP app. € 300 billion (57 700 € per capita)
- National Transport Budget 2017 € 7,5 billion
- National Road Budget 2017 € 3,8 billion



### **Complex and not very efficient infrastructure**

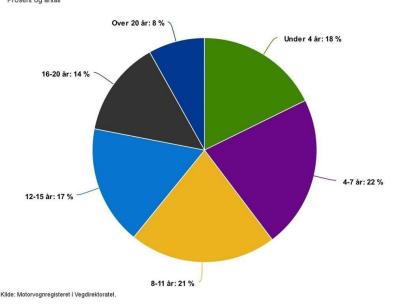
- Dominated by mountains and fjords
- Many winding and narrow roads
- 540 km motorways
- 94 000 km public roads
- 120 000 km private roads
- 1 100 road tunnels
- Average speed 70 km / h





### Considerable share of old and unsafe vehicles

Figur 5. Personbilbestanden etter alder. 2015 Prosent og antall

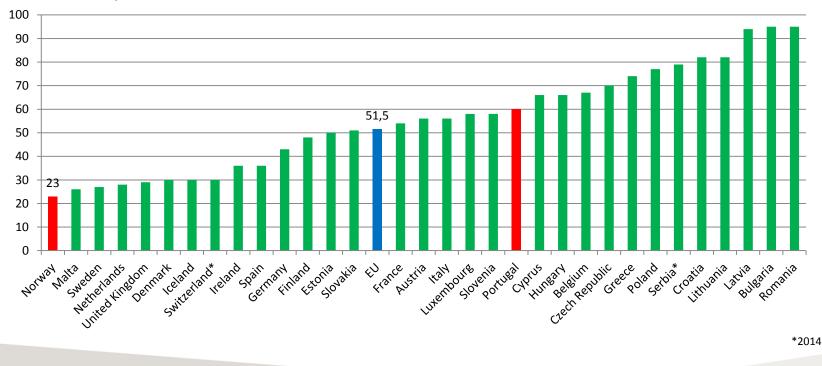


- About 3,9 million vehicles
- Average age: 10,5 years
- EU-average: 7,4 years

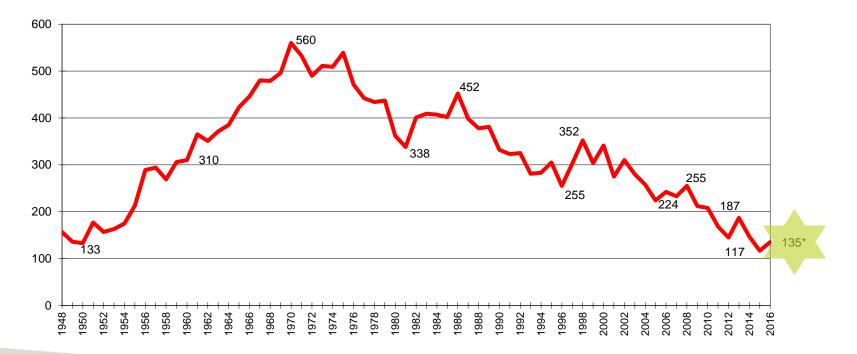
### Lowest rate on fatalities in Europe



Fatalities per million habitants







## Why have we succeeded?

- Comprehensive national plans
- Long term, committed and systematic effort
- Many stakeholders
- Broad range of knowledge-based measures
- Safety culture



### **2.** National transport policy

### **Road safety**



DREPTE HARDT SKADDE

- Political consensus about Vision Zero
- National target: Max. 500 people killed and seriously injured in 2024
- Status 2016: Approx. 800 people killed and seriously injured



# TRYGG TRAFIKK

### **Transport in urban areas**

- Political consensus about "zero growth target"
  - Raise the share of people using public transport, cycling and walking
- Heavy investments in public transport and infrastructure for pedestrians and cyclists
- Restrictions for cars in the cities



# Urban transport- and area agreements



- Cooperation national/local authorities
- Increased national funding
- Nine cities included sofar
- Main purpose: Raise the share of people using public transport, cycling and walking
- 20 % reduction in severe road accidents

### Challenge:

- How to succeed with both «zero growt target» and Vison Zero?
- Higher injury risk for cyclists and pedestrians





### Soon to be launched: New National Transport Plan



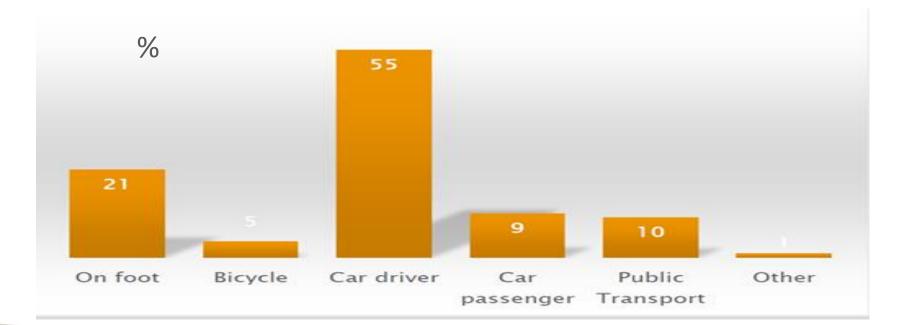
**Expectations:** 

- More ambitious national targets on road safety
- Expansion of "zero growth target"
- The very first Children`s Transport Plan

### 3. Vulnerable road users and accidents

### How we travel in Norway

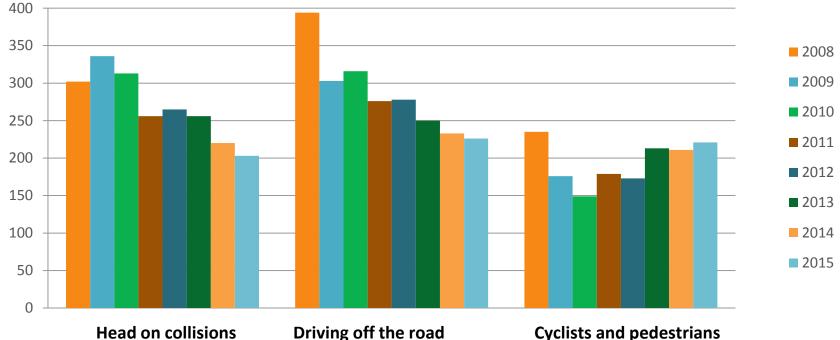




Source: Transport Economic Institute, 2014

# 1/3 of killed and severly injured in Norway are cyclists and pedestrians







### **Challenge: Unrecorded cycle accidents/injuries**

- The official statistics include only accidents reported by the police, most of them involve vehicles
- ....most cycle accidents are singel accidents, seldom reported by the police



### Depth study of cycle fatalities in Norway

Important findings:

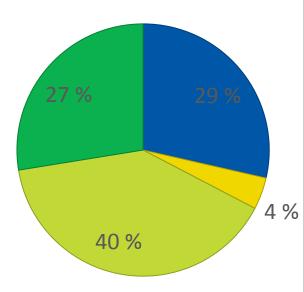
- 2/3 involved vehicle
- 3/4 were male
- 4/10 happend in the roadway
- 9/10 happend because of individual errors
- 7/10 happend because of road errors
- 7/10 did not wear helmet

single bicycle

bicycle-bicycle

car-bicycle

heavy vehicle-bicycle



### 4. How we improve road safety in urban areas

## Safe infrastructure

- Leading main traffic out of cities
- Buliding separate and connected pedestrian and cycle paths
- Removing dangerous crossings
- Designing secure crossing
- Maintenance
- Self-explanatory labeling
- Street lights



### Low speed limits/actual speed

- Higher risk for injuries related to speed on urban roads
- 30 km/h speed limit (and actual speed) in streets with high numbers pedestrians and cyclists because of the human resilience
- 40 km/h speed limit (and actual speed) in streets with priority to public transport and delivery of goods



Dødsrisiko for fotgjenger ved påkjørsel



### **Keeping the rules**

- Drivers are obliged to:
  - Allow pedestrians and cyclits sufficient space
  - Give way at pedestrian crossing
- If possible pedestrians shall:
  - Use footpaths, pavement or hard shoulder
- Cyclist are allowed to:
  - Cycle on pavements if it does't endanger pedestrians





### Use of security equipment



- Cyclists:
  - Lights and reflectives (regulated)
  - Helmet (recommended, but not regulated)
    - Target children: 90 %, status 87 %
    - Target adults: 60 %, status: 56 %
- Pedestrians:
  - Reflectives (recommended, but not regulated)
    - Target cities: 40 %, status 28 %

### **Education of children**

Existing targets in primary school:

- After 4<sup>th</sup> grade: Follow the traffic rules for pedestrians and cyclists
- After 7<sup>th</sup> grade: Practice safe use of bicycles
- After 10th grade: Explain how security equipment prevents and reduces damage by accidents



## 5. Projects run by the Norwegian Council for Road Safety

### Certification as «Traffic safe municipality»





Systematic work, routines and criterias for traffic safety in:

- Technical department
- Area planning department
- Culture department
- Municipality doctor
- Health clinics for children
- Nursery schools
- Primary schools

### «Heart zones» around schools

- Safe walking and cycling to school through car-free zones
- National coperation between governments and organizations



### HJERTESONE TRYGGERE SKOLEVEI

# Research project: Testing childrens attention through eye tracker



