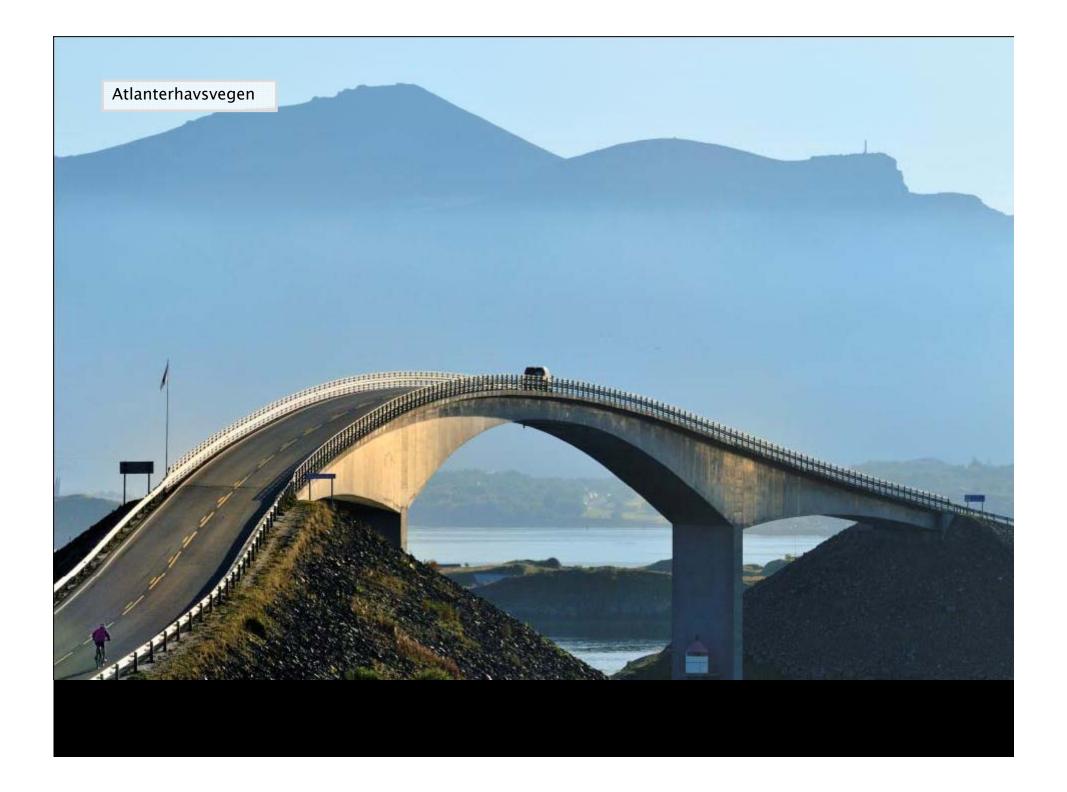


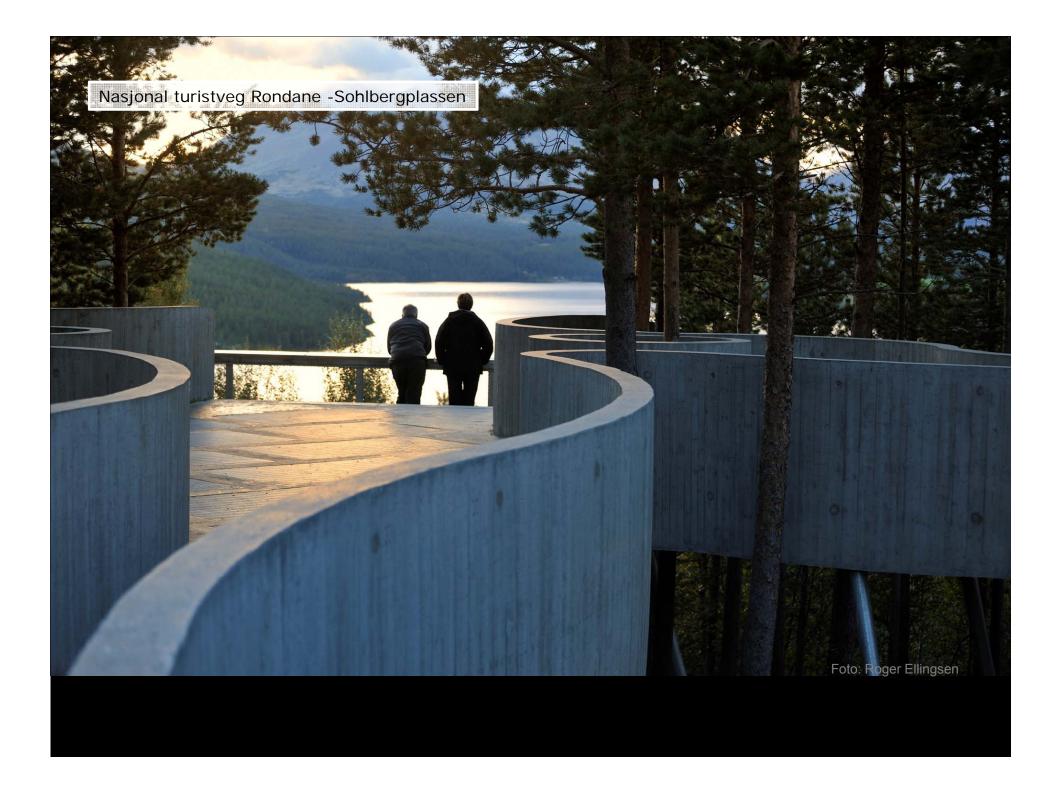


#### Walking forward at the national level

Walking as a sustainable means of short distance trips - A national strategy for more walking in the case of Norway

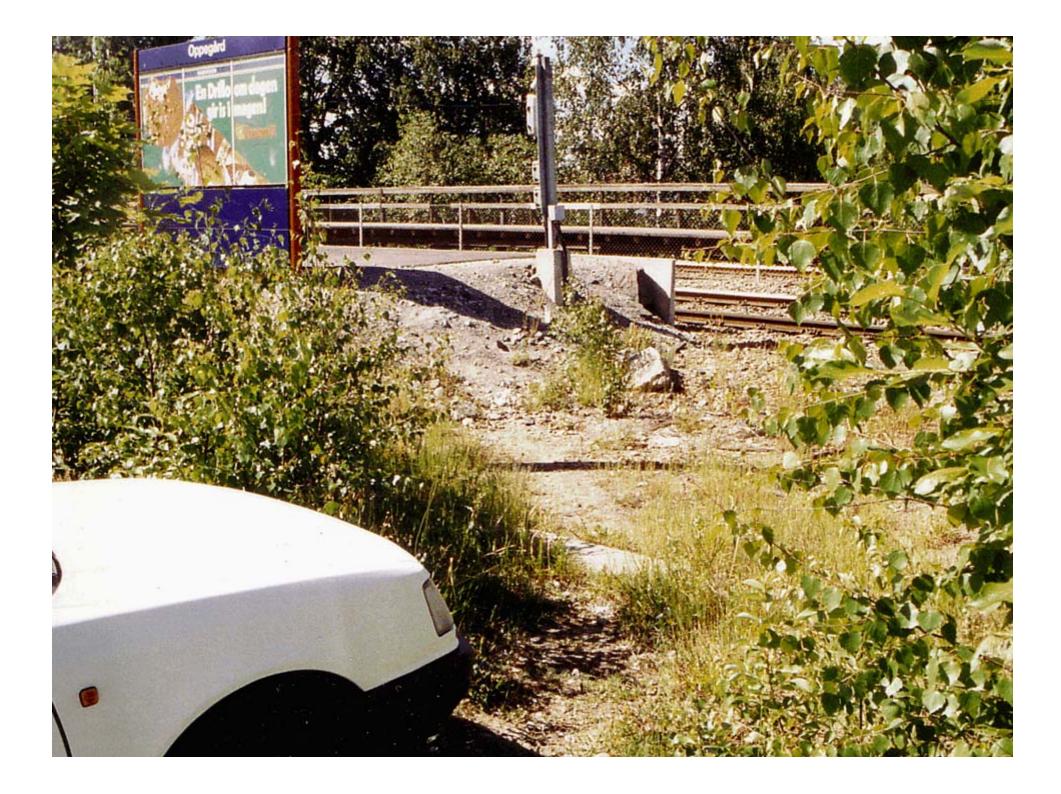
Guro Berge Norwegian Public Roads Administration We are experts at building roads for Car users

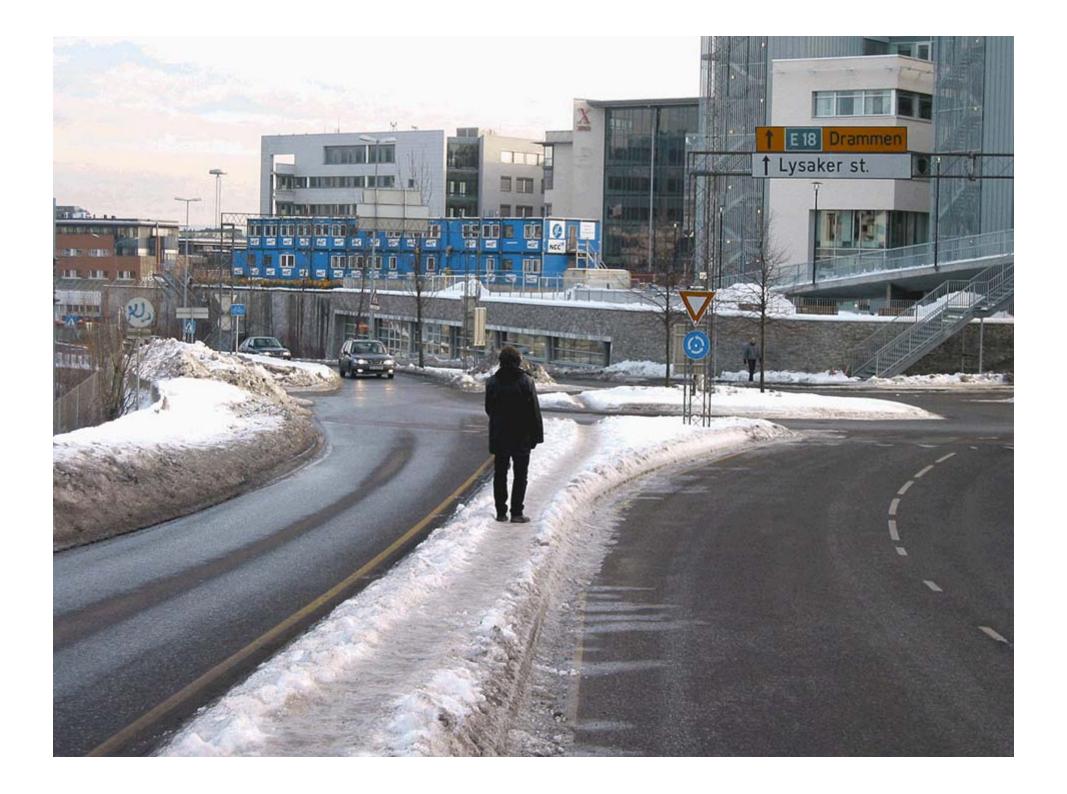




But we often neglect to provide pleasant and safe conditions for pedestrians









#### **Mandate**

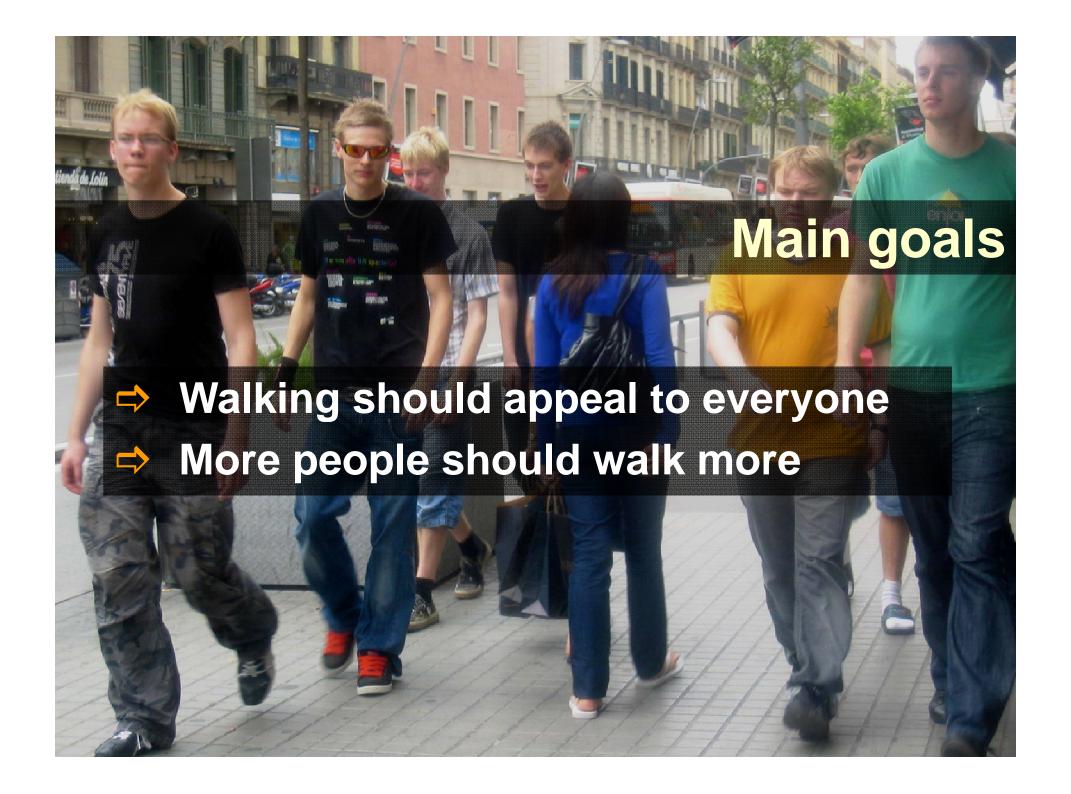
- Develop a national walking strategy
- Set up national targets for the period 2014-2023
- Propose actions and measures to achieve the desired goals
- Recommend a reporting system for evaluating goal achievement



### **Key principles**

- Universal design
- ➤ **Vision Zero** an ethical approach to safety and mobility: none killed or seriously injured in transport





#### Different perspectives

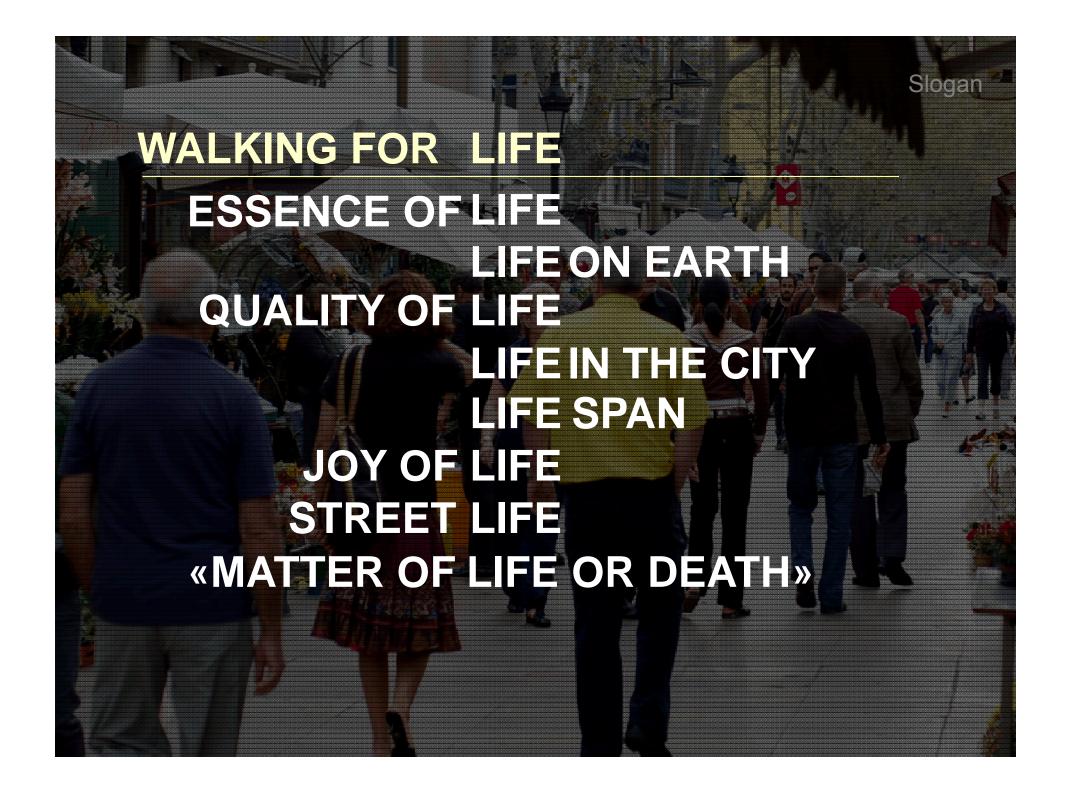
## Arguments



#### Different perspectives

Arguments





#### A working group was established

- ► Heading the group: a sociologist
- Secretary for the group: an architect
- One representative from each region of the NPRA (5)
- ► Three representatives from the Norwegian Association of Regional and Local Authorities
- One representative from the Ministry of Health
- ▶ Representatives from the roads directorate responsible for Traffic Safety, Universal Design, Traffic Behaviour and Urban Planning

#### Building a common platform

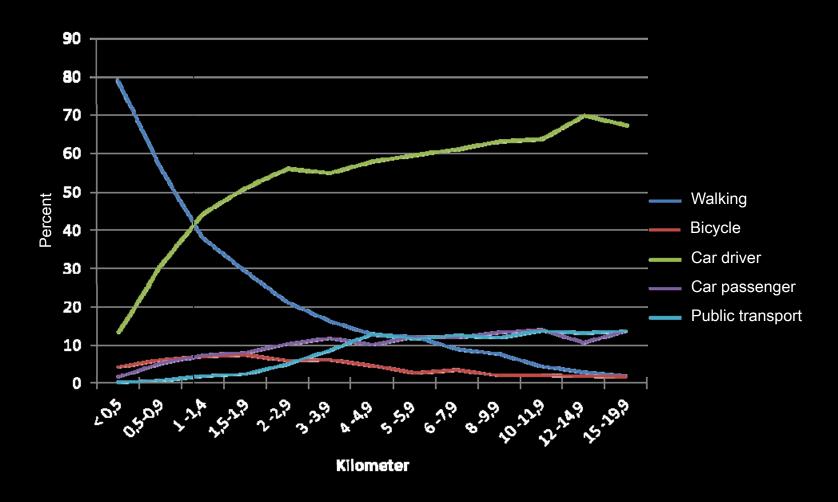
- Seminars, group discussions and workshops were organized
- ▶ We held lectures for each other
- ► We wrote work documents on different subjects
  - Laws and guidelines
  - Quality of places
  - Street environments
  - Children
  - Health
  - Campaigns
  - Travel behaviour



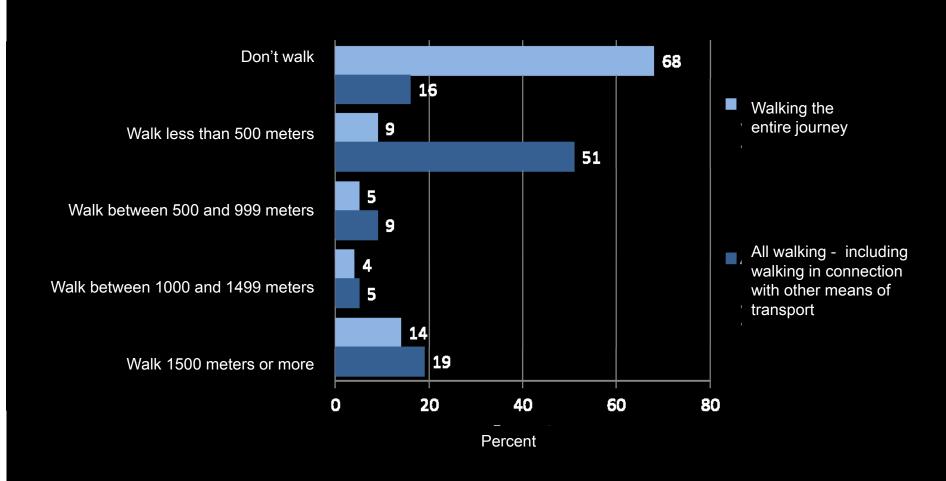


## Trip length

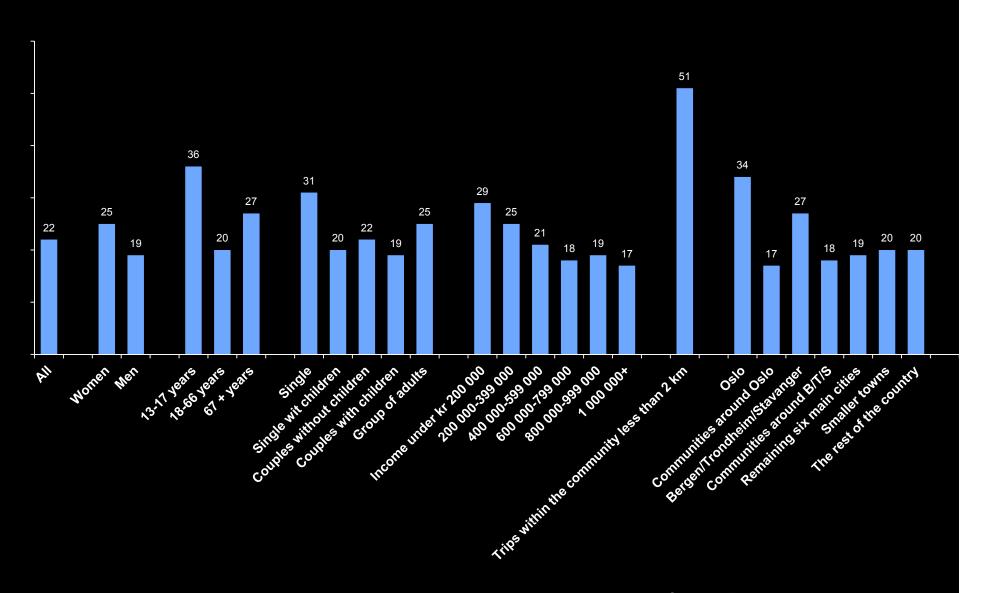
The share of walking, bycling and driving related to travel distances



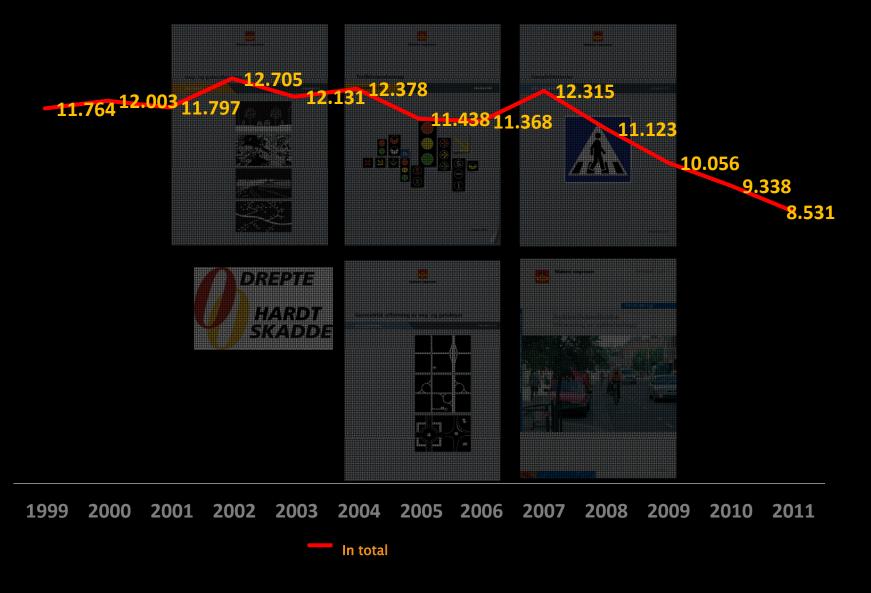
#### Share of walking distances



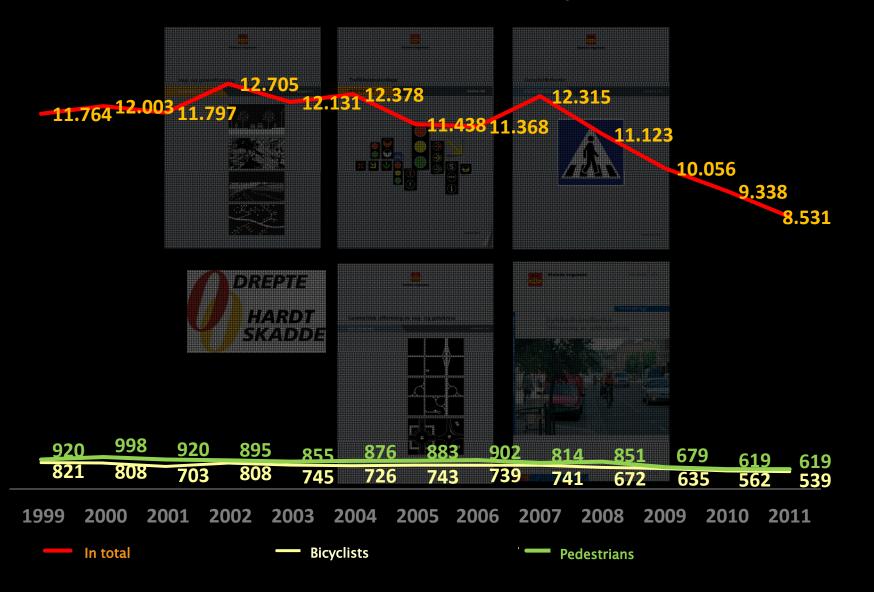
#### Share of walking - percentage of all trips



## Number killed or seriously injured in traffic



#### Number killed or seriously injured in traffic



# Pedestrians have high risk of accidents in traffic



#### Specific goals

Share of journeys entirely on foot shall increase

From 22% to 20-30%

More children shall walk or cycle to school

National goal: at least 80%

Share of people making whole trips walking shall increase

From 35% to 50%

Share of people not walking shall decrease

From 16 % to less than 10%

Share of people walking 1500 meters or more shall increase

From 19% to more than 25%

Demographic differences shall be reduced

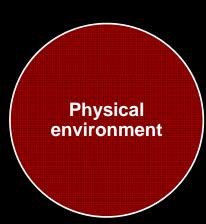
Especially male professionals, parents with children and people with high income

- The risk of traffic accidents for pedestrians shall go down
- The number of pedestrians killed and seriously injured in traffic shall be reduces









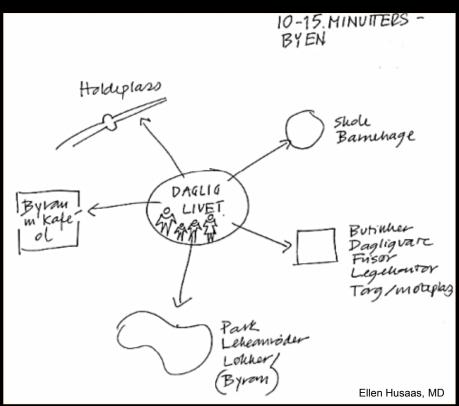
#### The objectives

- To develop the structures of urban and built-up areas to make them more suitable for walking
- To develop coherent and closely interwoven pedestrian networks with an emphasis on accessibility, safety, attractiveness and universal design
- To build attractive surroundings based upon the requirements and needs of pedestrians

#### Planning for sustainable transport

- The human being as basis for planning
- Short walking distances
- High utilisation close to town centres and junction points





#### Continuous pedestrian network

- ► To cover hole trips direct and logic routes
- City centres: a fine grid with universal design
- Outside city centres: a main grid, universally designed with access to public transport and key destinations
- Shortcuts and footpaths complement the networks



## Attractive surroundings

- Stimulating surroundings for walking and sojourning
- Good architectural quality
- High quality recreational areas
- Safe from traffic accidents
- Secure from crime and violence



### Quality in details and universal design



Photo: © Amund Johne

- Without stairs and levels differences
- ► With gradual slopes
- Even surfaces
- Continuous guidelines and good contrast and light





- Frequent places to rest
- ► Nice places to be and to visit

Physical environment

- Ensure that pedestrians are given adequate priority in national guidelines for land and transport planning and in the design of infrastructure and traffic installations.
- Ensure that pedestrian needs are safeguarded in all planning pursuant to the Norwegian Planning and Building Act, in terms of land use and infrastructure development, formal planning documents and the planning process.
- Ensure that the needs of pedestrians are safeguarded in the designing, refurbishing and processing of building applications for infrastructure and buildings.
- Assist in the improvement of existing pedestrian walkways and the establishment of new pedestrian links where needed, as well as helping in the development of secure, safe and attractive routes to schools.





- To achieve better general maintenance of pedestrian areas.
- Improve winter maintenance
- Improve better accessibility for pedestrians near road works.

## Better procedures required

- Maintaining walking areas
- Maintain landscaped areas





## A typical winter day in Bodø









otos: Tom Melby

## A winter day in Trondheim



## Single accidents (falls)- pedestrians

- 77 percent of fall accidents involving seniors over 65 happens during the winter months, from October to March.
- The main reasons are slippery roads and sidewalks and inadequate winter maintenance
- The share of pedestrians who were injured on snow or ice surface is estimated to be between 35 and 45 percent of all pedestrians injured per year.

Kilde: Tiltakskatalog for transport miljø og klima. www.tiltakskatalog.no

## Everyone should be able to reach to their destination – without accidents









## Quality in details and universal design

#### The main pedestrian network should

- be accessible for as many as possible throughout the year
- have a consistent standard
- maintain pedestrian safety and accessibility throughout the year



Service and maintenance

- Implement the national standards for operation and maintenance of pedestrian areas within the government's own sphere of activity
- Encourages other road owners to adhere to the same standard.
- Identify and evaluate current practices for year-round maintenance
- Implement demonstration projects and to develop criteria regarding requirements for follow-up.
- Assure higher requirements for accessibility and information to pedestrians near roadworks.

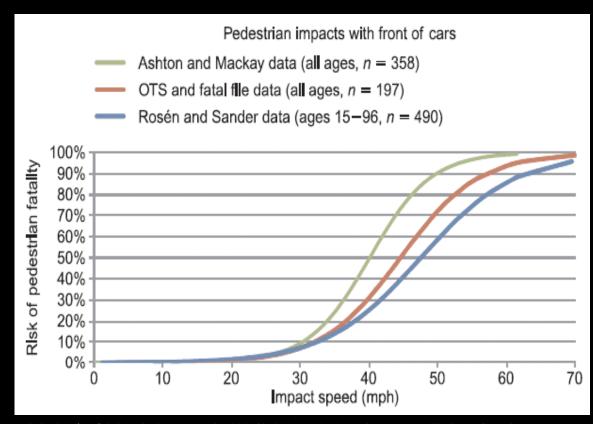




- To give pedestrians a higher priority when designing infrastructure and traffic installation
- Improve interaction between groups of road users. .

### Regulating traffic and road user behavior

- Vehicle traffic must adapt to the character of the place and its role in the urban setting
- Speed limits in cities and towns should be reduced to
   30 km/h and
   40 km/h



Richards, D (2010), Relationship between speed and risk of fatal injury: pedestrians and car occupants, TRL Report, September 2010. Rosén E., Sander U.: Pedestrian fatality risk as a function of car impact speed. Accident Analysis and Prevention 41 (2009), 536-542.

## Shared space



### **Interaction**

- Review current practices
- Bicycling on the pavement (sidewalks)



# We might need to think differently







#### The Highway

Regulated
Impersonal
Linear
Single purpose
Consistent
Predictable
Systematic
State conrtrolled
Signs and markings

#### The Public Realm

Cultural defined

Personal

**Spatial** 

Multi-purpose

Constantly changing

Unpredictable

Contexual

Cultural

Informal communication

Traffiic interplay

- Ensure that the prioritization of pedestrians is enshrined in legal acts, regulations and handbooks that regulate traffic interplay.
- Contribute that speed reduction measures in towns and built-up areas are implemented
- Contribute that safe and attractive pedestrian crossings are provided to safeguard whole travel chains.
- Test and evaluate types of traffic management and new forms of interaction between road users
- Generally contribute towards street solutions with a higher priority for pedestrians when streets in cities and built-up areas are being expanded and redeveloped





- Influence people directly to walk more
- Raise the status of walking as a mode of transportation and an everyday physical activity

### Change in travel behaviour

- Mobility Management
- Action Plans
- Sustainable urban mobility plans (SUMP)
- Information and campaigns





#### Campain

## To get children to walk to school





- The NPRA will draw up a national communication strategy for a more active walking culture
- Encourage the implementation of local actions and measures to influence different population groups.
- Conduct evaluation and improvement in the use of signage and information for pedestrians..





- To obtain more knowledge about pedestrians
- Develop better tools and methods to make provision for pedestrians.



- Incorporate knowledge about infrastructure and installations for pedestrians in national registers
- Initiate research that examines the needs and preferences of pedestrians
- Evaluate demonstration projects and other measures to promote walking
- Draw up a communication plan directed at planners and decision makers
- Incorporate knowledge about pedestrians in relevant teaching and as a separate field of study in higher education





- To encourage all authorities and private agencies to assume responsibility with regard to pedestrians
- To establish cooperation on making provision for walking and developing an active walking culture.



Responsibility and Cooperation

- NPRA will draw up action plans to reinforce the walking strategy and communication plans to engage relevant players.
- NPRA must assist in drawing up local walking strategies, with goals for more walking and strategies for how municipalities, county administrations, other public authorities and private agencies should cooperate to achieve these.
- Integrate pedestrian interests into relevant government, regional and local commitments and programs.

## The most important now is to:

- Draw up action plans to reinforce the walking strategy and communication plans to engage relevant players
- Give higher priority to pedestrians in traffic by working actively for 30 and 40 km/h speed limit in cities and towns
- Promote cooperation between state, counties and municipalities so that at least 50 cities will actively pursue local walking strategies
- Invest in knowledge development and dissemination

