Presentation overview:

- Project overview
- Green innovations
  - Greener vehicular traffic
  - Public transport and cycling
  - Better railway network
  - Better roads
  - Noise
- Benefits
  - Social
  - Economic
  - Environmental
- Challenges
This is a long-term green transport plan. It introduces:
- Green taxes
- Intelligent road pricing
- More and better public transport
- Intelligent traffic systems (ITS)
- Making Denmark a test bed for new green transportation technologies
- Greater regard for the value of the nature
The Government’s green transportation plan will require enormous investments.

The investment will be more than DKK 150 billion ($27 billion) up to year 2020.

The 2 large scale projects, the Fixed Fehrmann Belt Link and Metro Circle Line in Copenhagen accounts for approx DKK 60 Billion ($11 billion).

This leaves DKK 90 billion ($16 billion) for investments in roads, railways etc.
The 2 large scale projects are being funded partly by tolls and outside the Finance and Appropriations Act. The remaining DKK 90 billion ($16 billion) is being funded by a new Infrastructure Fund. The Infrastructure Fund is among other things financed accordingly:

- The DKK 6 billion ($1 billion) proceeds from the Scandlines sales
- DKK 9 billion ($1.6 billion) in funds from A/S The Great Link (This will prolong the payback period with 5-6 years)
- Savings in operations according to the new signal systems
- Within the free scope of the Finance and Appropriations Act
Since it is not possible to decide which projects should be built from now till 2020 the government wants a rolling investment program.

Every other year current construction projects must be evaluated:
- On the basis of analysis and decision-making criteria.

Every 4 years decisions must be made to which projects will be subject to new analysis:
- EIS analysis to determine the effect all the projects have.
- Social-economic effects must also be determined.
Green innovations

- Today the transport sector accounts for 25% of Denmark’s CO₂ emissions
- This trend must be reversed
- Some of the objectives are:
  - Greener vehicular traffic (green car tax)
  - More public transport and cycling
  - Better railway network
  - Better roads
  - Noise
Greener vehicular traffic

- Fundamental restructuring of the taxation of cars
  - It will be cheaper to buy a energy-efficient car
- Intelligent traffic systems
  - Information on alternative routes and speed limit control will even out the flow of traffic
- Smart road pricing
  - More expensive to drive during daytime in the city than evenings in the country
- The overall taxation can not rise
  - Road pricing must be offset by a lower registration tax
More public transport and cycling

- Public transportation must be a viable alternative to cars
  - Reduction in travel times
    - The hour plan
  - Extensive network of routes
  - Trains running on time
    - Repairing and replacing rail track and bridges
    - New modern signal systems
  - Interfaces between different forms of transport must be improved
    - Better parking facilities near train stations
  - Investments in exclusive cycle lanes
    - Better parking facilities near train stations
Better railway network

- The hour plan
  - Copenhagen-Odense: 1 hour
  - Odense-Aarhus: 1 hour
  - Aarhus-Aalborg: 1 hour
  - Reduces travel time from Copenhagen to Aalborg by 1.5 hour
  - This plan will move 10,000 passengers daily from cars to trains

- The fixed Fehmarn Belt Link
  - Reduce travel time between Copenhagen-Hamburg with 1.5 hour
  - Clear capacity on the railway network between Zealand, Jutland and Funen
A continued repair and replacement of rail tracks
  - Fewer delays

New signal systems
  - Fewer delays
  - Increased safety
  - More efficient operation
  - Better passenger information
  - Higher speed
    - High speed trains are a necessary to fulfill the hour plan

Electrification of the railway network
  - Electric trains are more CO₂ efficient than diesel trains
  - Will be carried out when the replacing of the signal system is finished
Better roads

- With the improvement in public transport the goal is to move the commuters from cars to public transport and thereby reduce congestion.
- After the move of the commuters the government will address the traffic problems where they are worst.
- The capacity will be improved at bottlenecks.
- Existing roads will be upgraded.
- Intelligent traffic systems will be integrated:
  - ITS can exploit the usage of the roads by 5-10%.
  - Can reduce accidents by 35%.
- Better access to harbors.
- New roads will be built to connect Denmark.
Noise

- Use of noise reducing pavement
  - This can reduce the noise pollution as much as a vehicle reduction of 50%
- Funds for noise barriers
  - Development and design of noise barriers
    - Both visual and noise reducing efficiency
- Continue to lobby for reduction in noise levels from vehicles
- Continue to lobby for new ideas on EU/international level
Social benefits

- It connects Denmark better both in traffic and environmental terms
- The plan will promote economic growth and high mobility
  - Danes has always been dependent on high mobility
  - Many work in a different part of Denmark than where they live
- Better public transportation
  - Cars are expensive in Denmark, this is very good for students and pensioners who cannot afford a car
- It addresses health issues
  - Promote cycling
  - Reduces the CO$_2$ emissions
- Better infrastructure will reduce the no. of accidents
Economic benefits

- Reduction in congestion
  - It is estimated that in the Copenhagen area congestion causes a DKK 6 billion cost to the society yearly ($1.1 billion)
  - Delays in the railway system also causes major economic losses
- As of 2010 1% of the Danish GDP is invested in research
  - This is approx DKK 20 billion yearly ($3.6 billion)
  - This will promote interaction between public research and private companies
    - Stimulate economic growth
- An economic kick-start in a time of financial crisis
Environmental benefits

- Reduction in CO2 emissions
  - Both by moving commuters from cars to public transport and greener cars
  - ITS by informing commuters of congestion and improving flows
  - Smart road pricing
- Reduction in noise pollution
Challenges

- It is the Government’s vision for the Danish infrastructure
  - Negotiations with the opposition
- Not ambitious enough?
  - Experts believe the plan is not ambitious enough to cope with the infrastructure challenges of the future
- Funding
  - Car industry against road pricing
  - Taking money from A/S the Great Link
Congestion many years to come
- It is a long term plan, many solutions are in the future but they are needed now

Forgets busses as a part of public transport
- The plan primarily focuses on the rail but forgets the part of the country there is not connected to the railway system

Environmental groups are afraid the plan will result in more roads
- They want more focus on public transport

Local opposition against some of the projects
- The environment is important therefore unpopular solutions has been chosen some places
Thanks for your attention