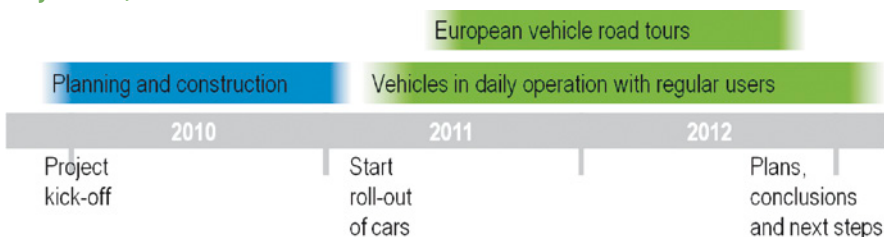


## Motivation and Objectives

Electric vehicles with fuel cells that run on hydrogen are one among several sustainable supplements to fossil fuels enabling the same convenient transportation as today. H<sub>2</sub>moves Scandinavia is the first large scale demonstration project supported by the newly established European Fuel Cells and Hydrogen Joint Undertaking Programme. Support is also given from both Danish and Norwegian (Transnova) national funds. The project objectives are to:

- Gain customer acceptance for electric vehicles with fuel cells in Scandinavia,
- Roll-out latest state-of-the-art hydrogen fuel cell vehicles operated by customers,
- Consolidate existing hydrogen-fueling hub in southern Norway and add one new station of latest design in Oslo,
- Carry out a European vehicle road tour (extended vehicle fleet) supported by mobile refueler,
- Actively link Scandinavian Hydrogen Highway Partnership (SHHP) to the European network.

## Project Plan, Milestones and Deliverables



## Technical Approach

### Vehicles

- 10 Daimler B-Class F-CELL, Drivetrain 100 kW, Range 380 km (NEDC), H<sub>2</sub> capacity 3.7 kg @ 70 MPa, Cold start –25°C .
- 5 Th!nk FC city cars, Fuel Cell Range Extender 10 kW, Range 250 km, H<sub>2</sub> capacity 1.5 kg @ 70 MPa.

### Fuelling stations

- 1 stationary hydrogen refuelling station in Oslo (SAE J2601 A70), 70 MPa, capacity of min. 200 kg/day achievable.
- 1 mobile refueler for EU demo tours .

## Achievements

### Vehicles

- Everyday testing of latest generation fuel cell cars by customers including harsh climate conditions (winter driving).
- Extended driving experience in an (inter)urban setting with multiple hydrogen refueling stations.

### Refueling station Oslo

- Daily experience with latest generation 70 MPa hydrogen refueling equipment including pre-cooling (-40°C).
- Use of hydrogen fueling station by multiple customers including harsh winter conditions.

### Certification & project safety

- Improvements and advances in regulations, codes and standards.
- Definition of safety relevant emergency mechanisms and routines within the project.



10 Daimler B-Class F-CELL



70 MPa hydrogen refueling station



5 Th!nk FC city cars

Budget	~20 M€	Funding	~8 M€ (EC), ~2 M€ (DK, NO)
Duration	36 months	Start	January 2010
DG	FCH-JU	Contract n°	FCH-JU-2008-245101
Coordinator	Ulrich Buenger, LBST	Contact	coordinator@H2moves.eu
Partners	LBST, Daimler, H2 Logic, SP, TÜV SÜD, Hydrogen Sweden, Hydrogen Link		
Website	www.h2moves.eu, www.scandinavianhydrogen.org		