



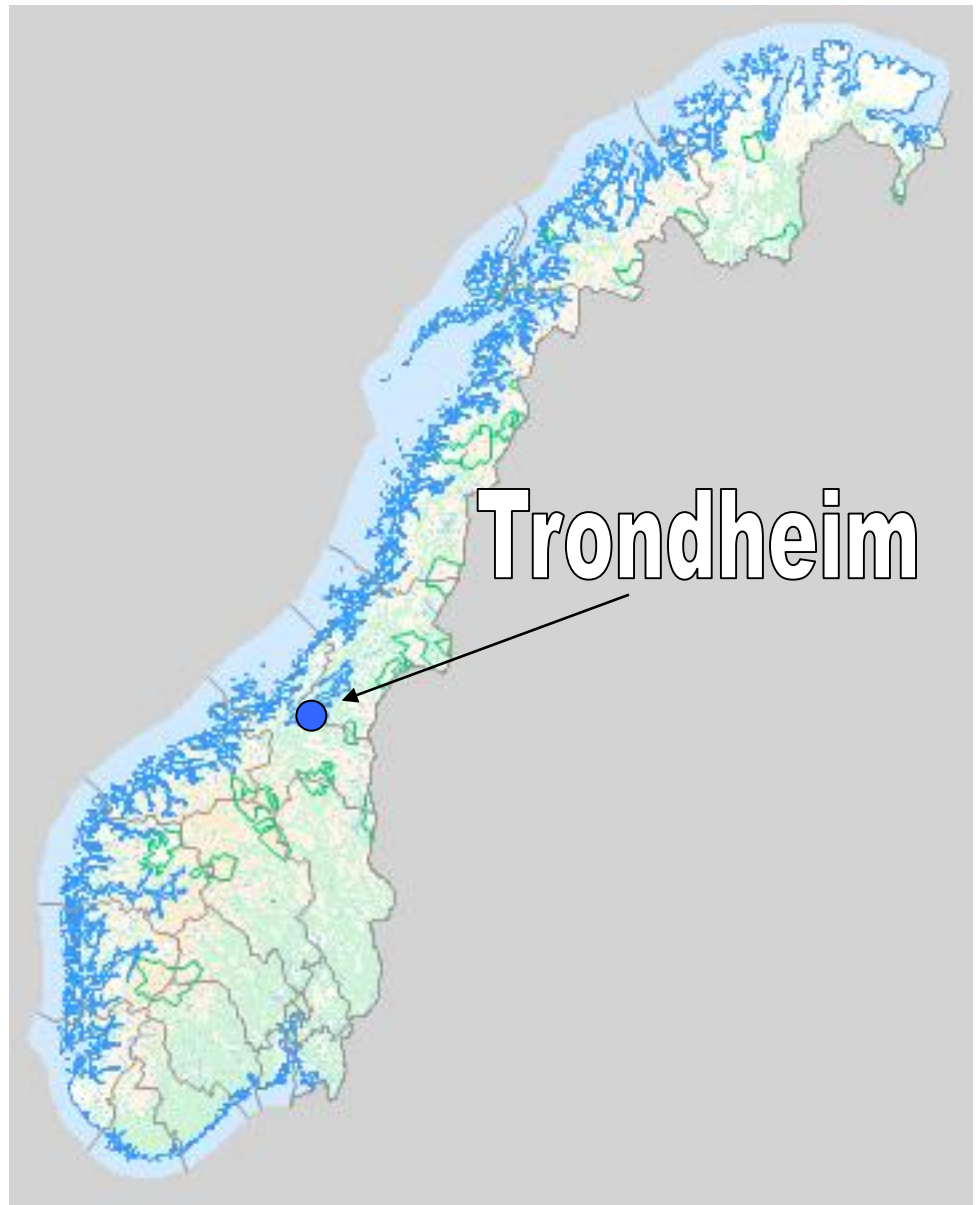
Statens vegvesen

# Priority for Public transport in Trondheim

## Adaptive control

Kristin Kråkenes  
The Norwegian Public Roads Administration  
Central Region

- ▾ Inhabitants: 170 000
- ▾ Students  
(University): 18500



# SPOT in Trondheim - history

- Testing public transport priority
  - 1996. Antenna, chip
  - Results – Good for public transport – Not so good for other traffic
- Installation Adaptiv control. SPOT chosen.
  - 1999 SPOT installation in some intersection in Trondheim  
10 % less waitingtime for public transport and cars
  - From 1999 – SPOT installation in more crossroads. But no detection for public transport

# Goals for the project

- ✓ Establish a combined solution embracing
  - Real time information for travelers
  - Priority of public transport in traffic signals
- ✓ Make public transport more attractive
  - Increase the numbers of travelers
  - Provide better information for travelers to reduce waiting time at bus stops.
- ✓ Improve travel time for public transport
  - Reduce delay in traffic signal
  - Facilitate priority of selected bus routes

# Public cooperation

Cooperation between:

- AtB (County of Sør-Trøndelag) Real time information
- Public Road administration Priority of public transport
- City of Trondheim Miljøpakken (financing)



TRONDHEIM  
KOMMUNE



**Statens vegvesen**



# Tender i 2009

Real time information and priority in Trondheim.

## **Main installation 2010/2011**

275 busser - installation

35 bus stops information screen

50 traffic lights

# Upgrading SPOT

Old versions of SPOT in traffic lights  
are upgraded

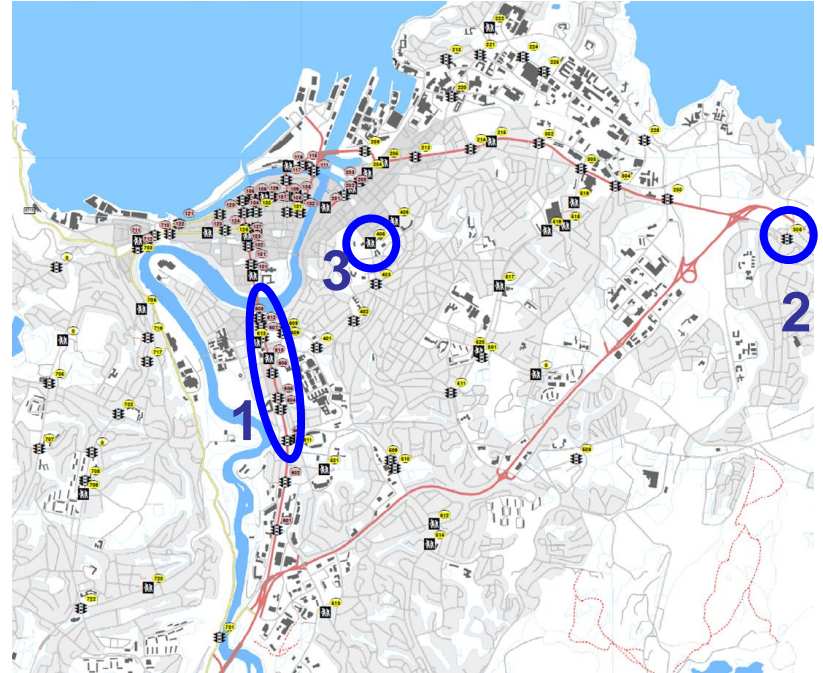
- Improved quality for traffic in general
- Signal priority for public transport

# Trondheim – an all to familiar situation

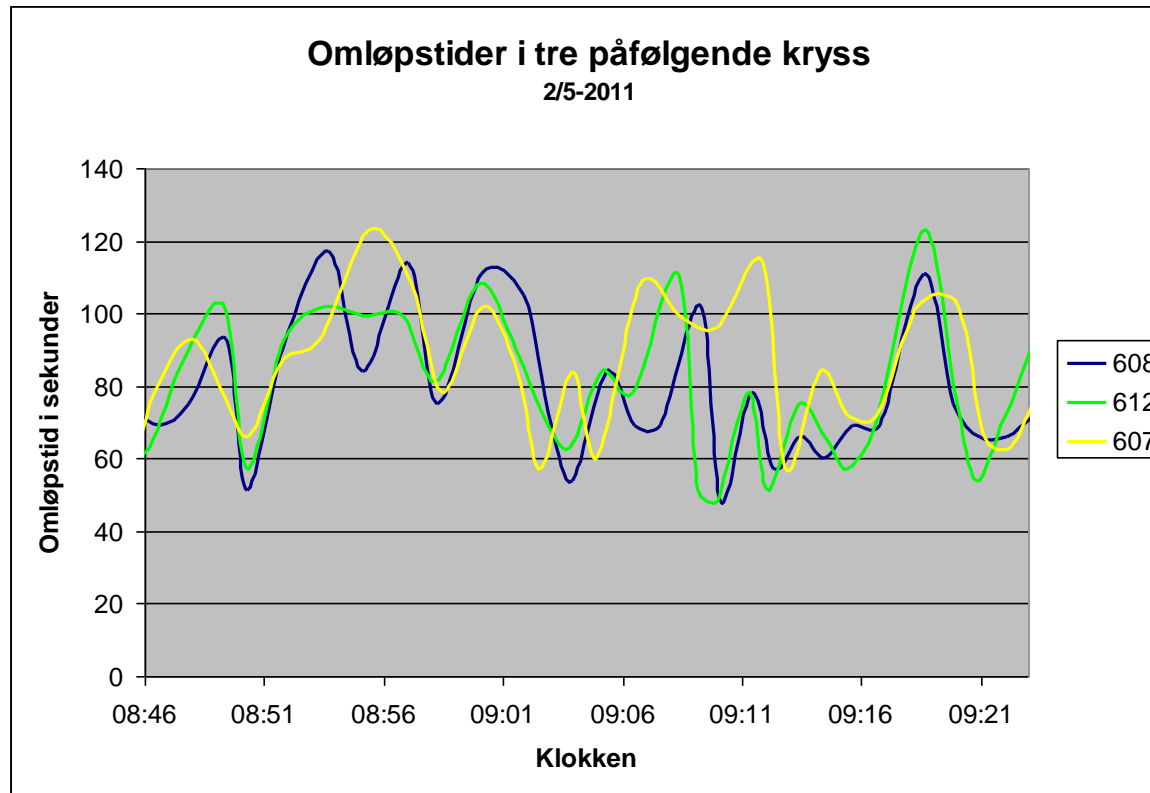
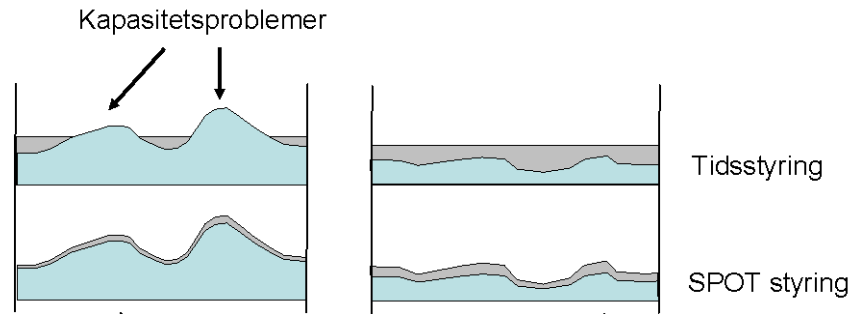


# Different regulation for traffic light signaling

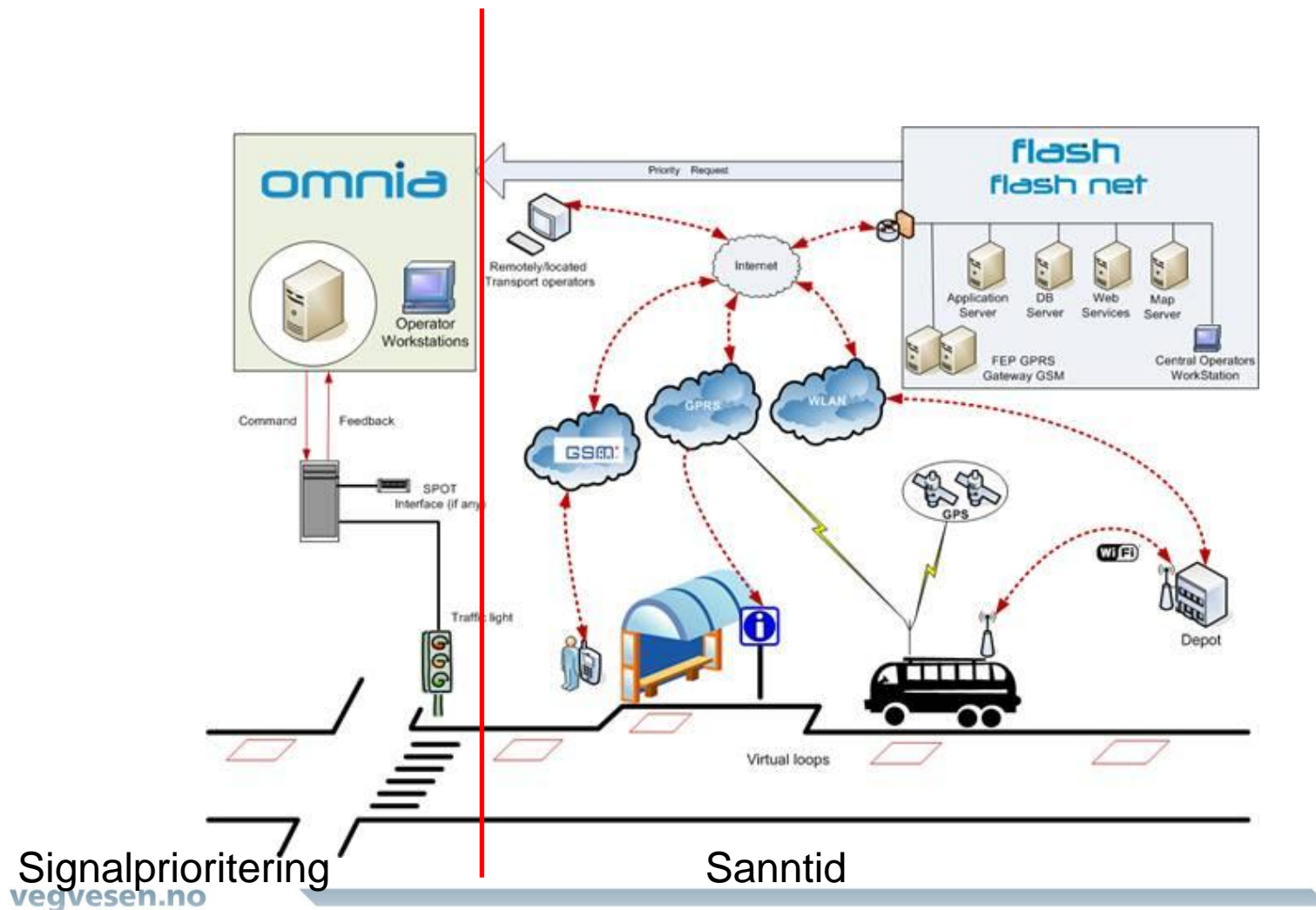
1. *Coordinated traffic lights*
2. *Standalone traffic light*
3. *Standalone pedestrian crossing traffic light*



# Coordination for intersection



# Practical organization of the project System overview

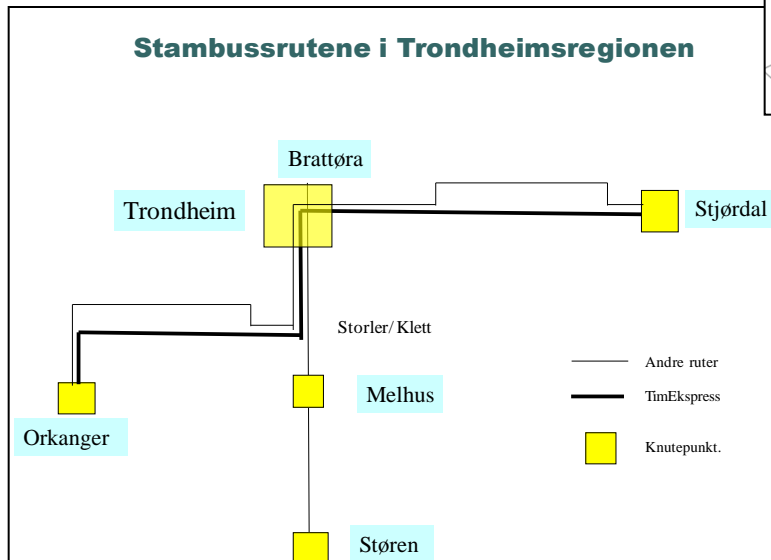
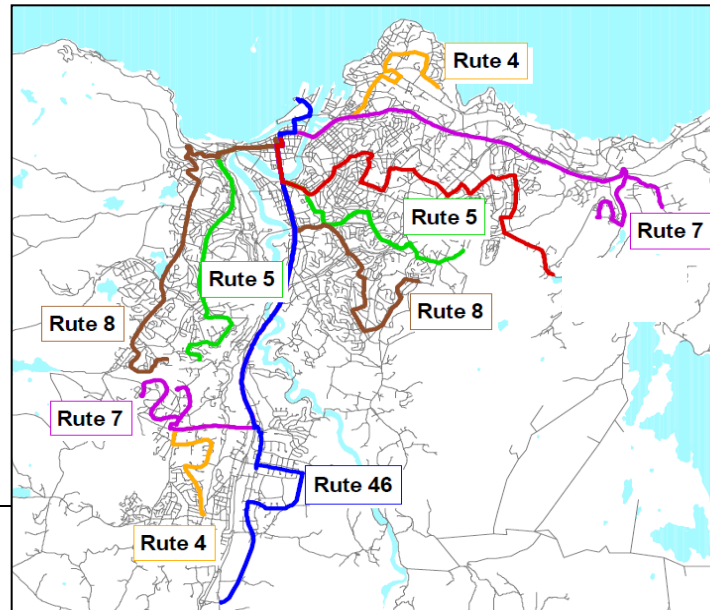


Signalprioritering  
vegvesen.no

Sanntid

# Chosen priority for signaling

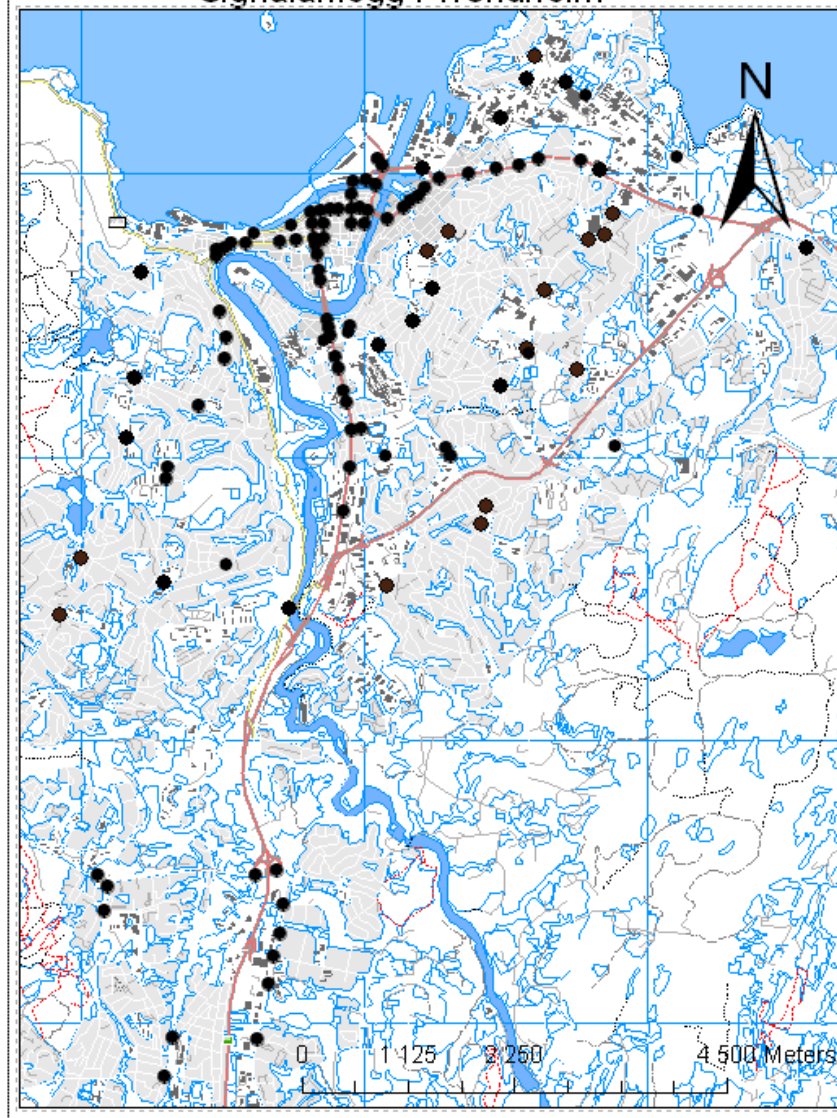
- Different priority: chosen routes, delayed busses
- Heavy weight for public transport – green wave



# Overview of bus lines

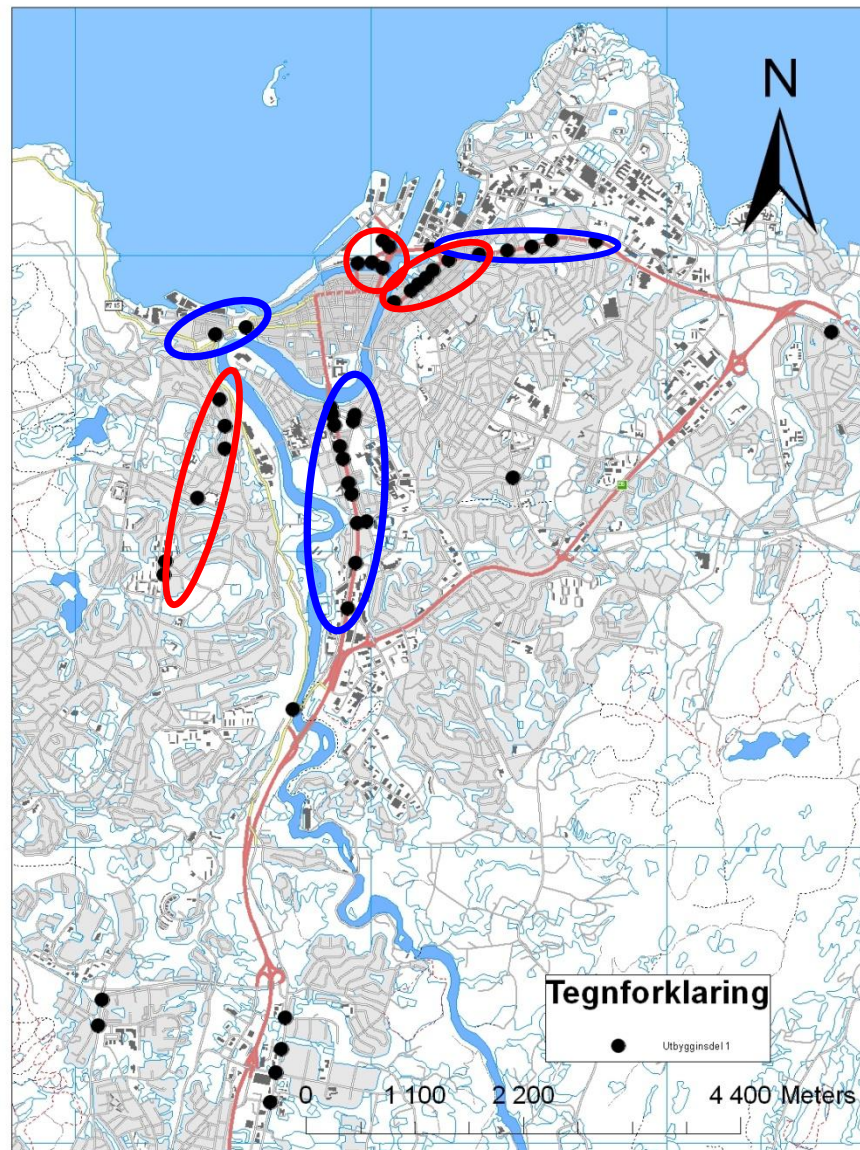


## Signalanlegg i Trondheim



# Signalanlegg med planlagt kollektivprioritering Trinn 1

-  In operation
-  Summer 2011



# Further on

- Evaluation for public transport priority
- Consideration about new installations
- Installation in more busses (buscompanies)

# Thanks for the attention



**Statens vegvesen**

