



Statens vegvesen

Getting there safely together

# The Norwegian Public Roads Administration

02.042014

Norwegian Public Roads Administration – Getting there safely together

## Workshop about Road Work Zones on Motorways April 2nd 2014

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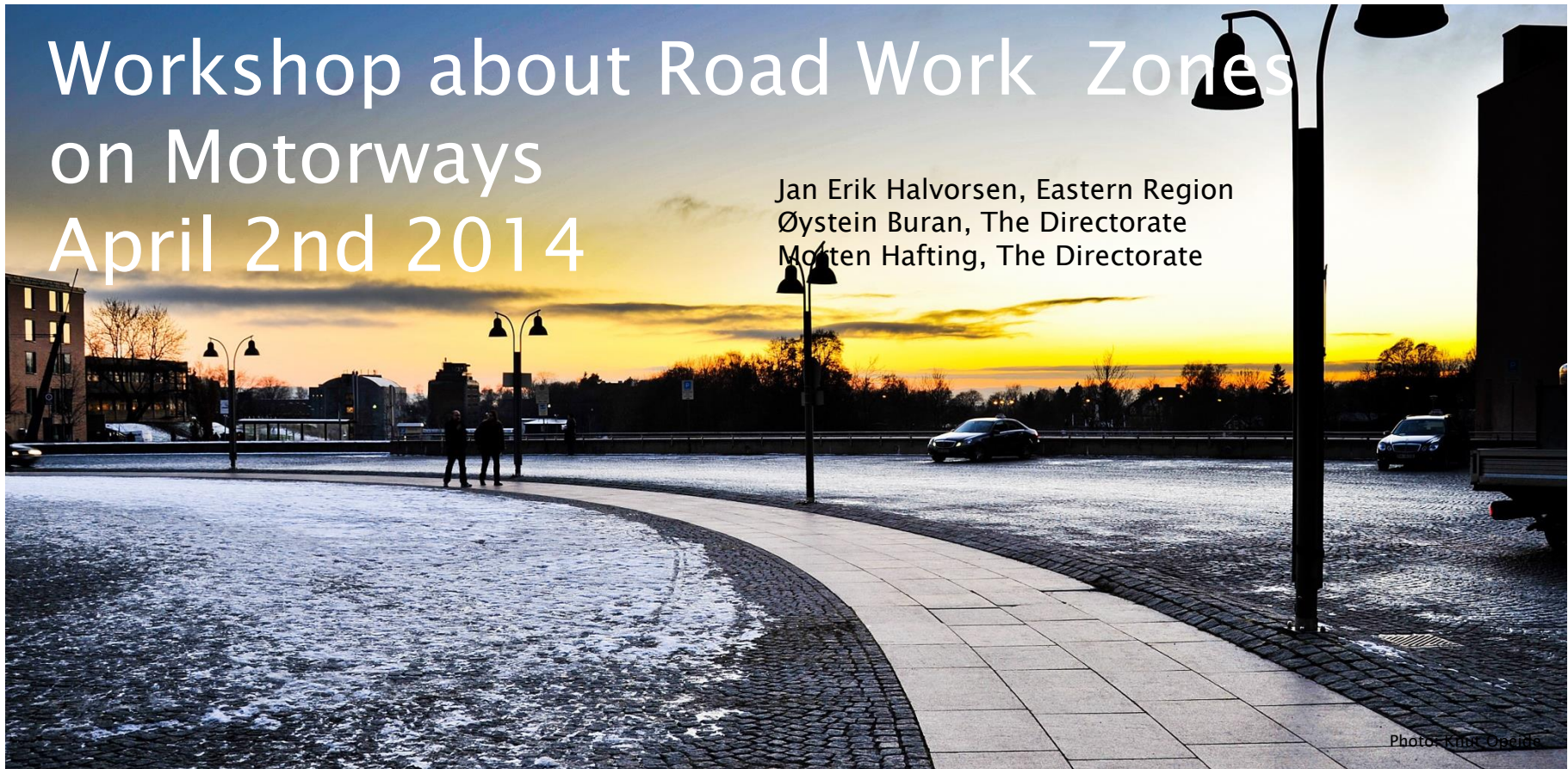
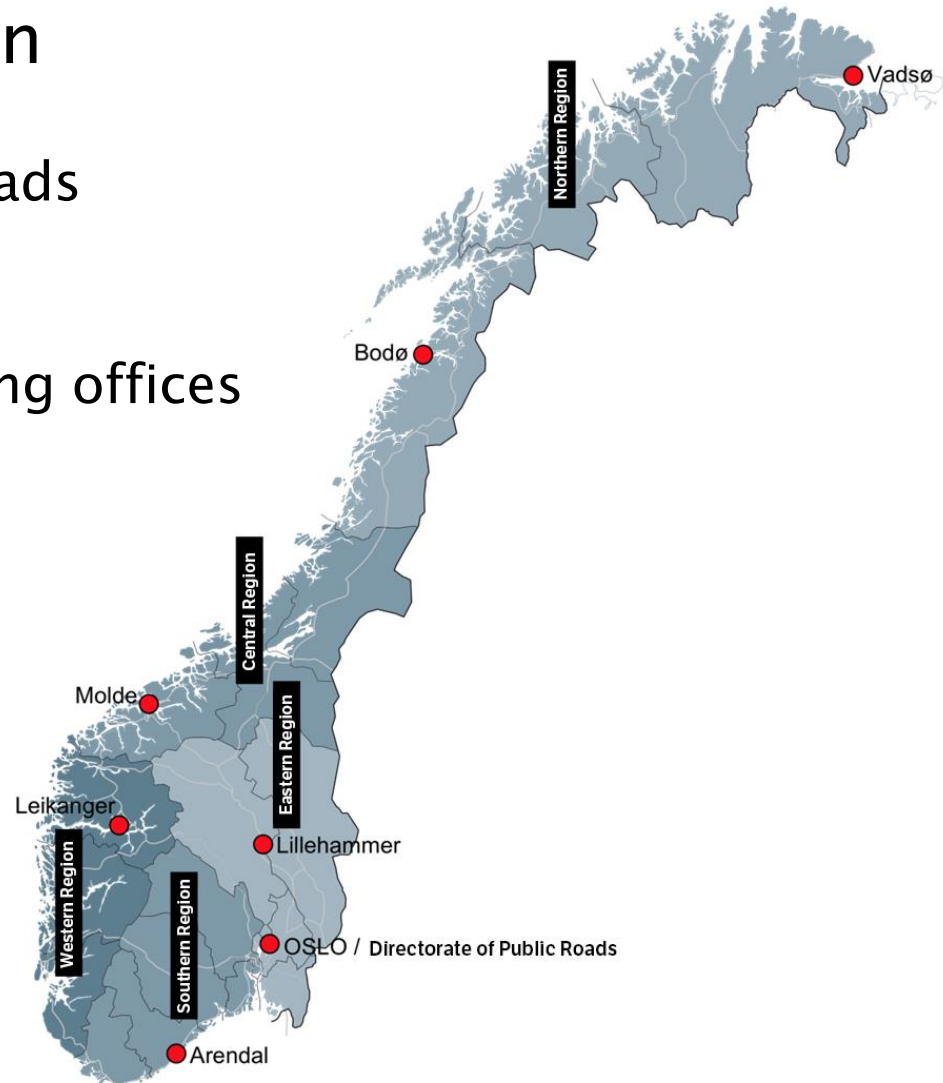


Photo: KIM Opside



# We are where the people are Organised by region

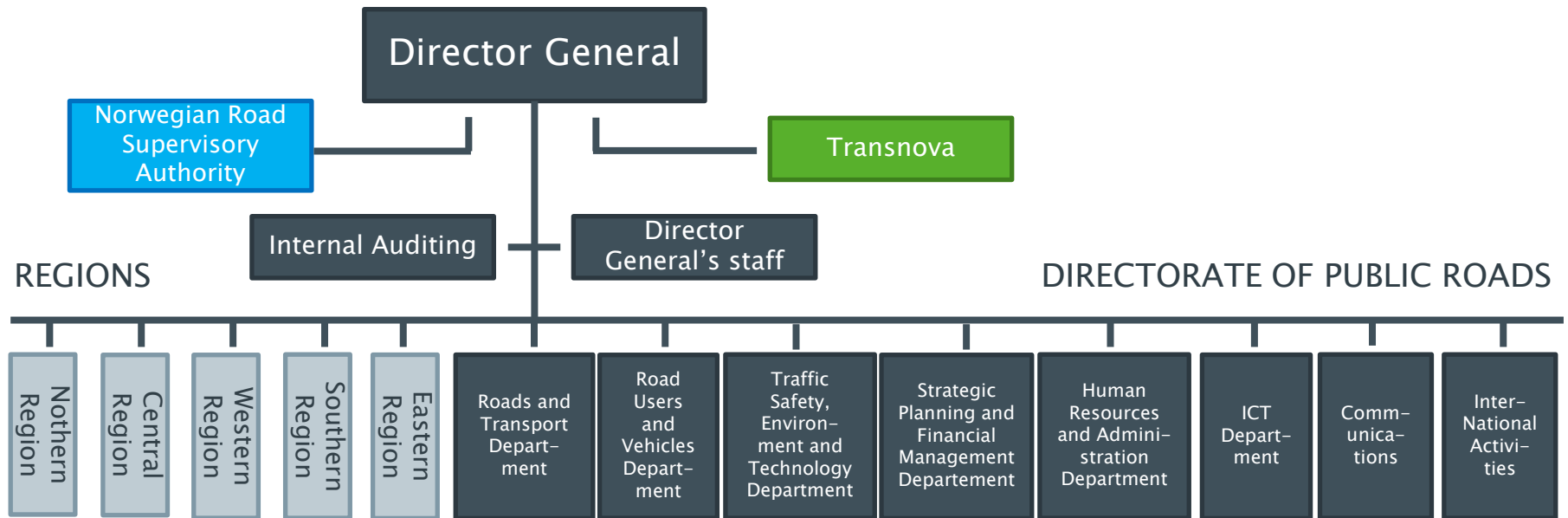
- The Directorate of Public Roads
- Five regions
- 72 driver and vehicle licensing offices
- 6,500 employees





## Our structure

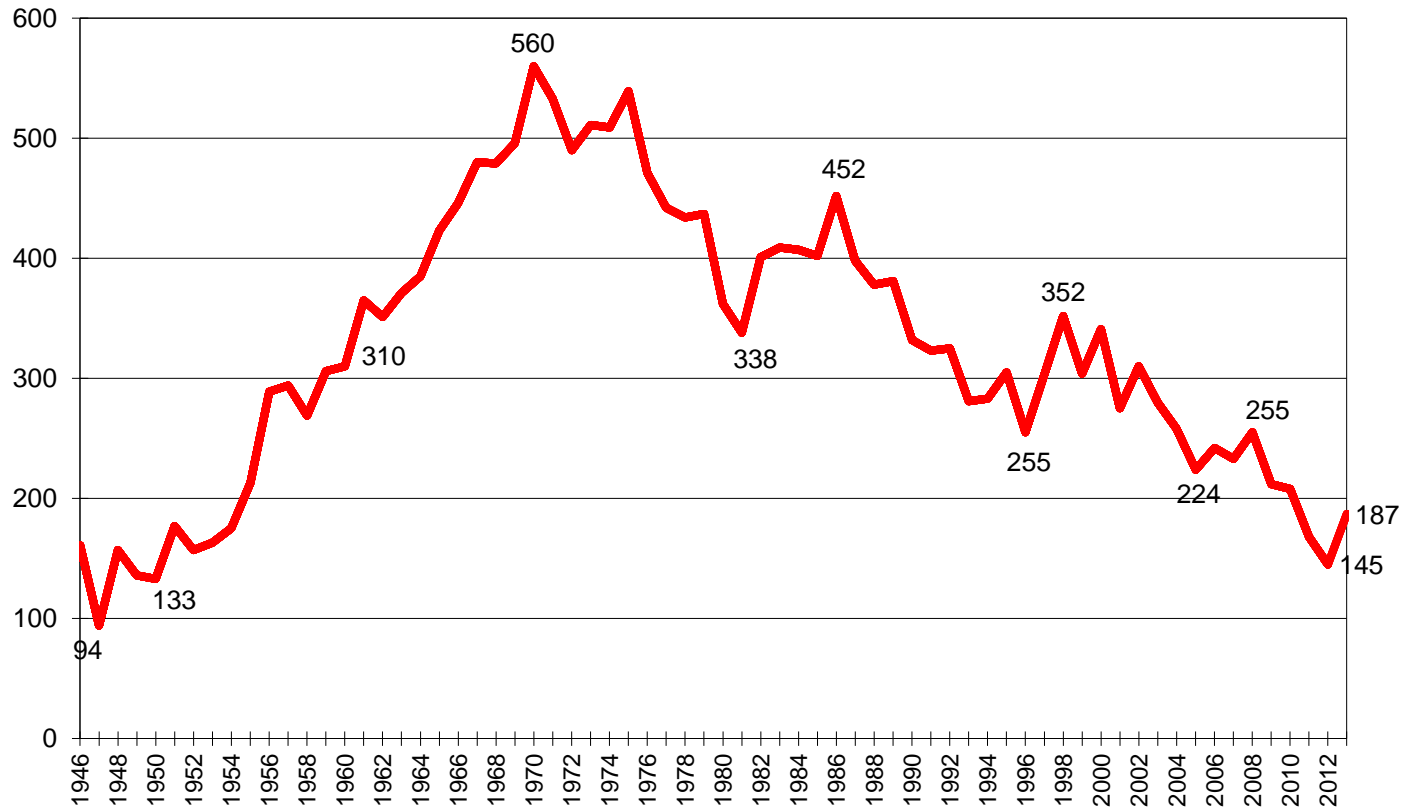
# Organisation chart for the Norwegian Public Roads Administration





Vision Zero for traffic safety – no fatalities or serious injuries

# Road safety





## Work on and along roads

# Requirements and guidelines

## Manual 051

### Work on and along roads

- Manual 062 Traffic safety equipment (Trafikksikkerhetsutstyr).
- Manual 231 Guardrails (Rekkverk )
- <http://www.vegvesen.no/en/Professional/Publications/Handbooks>
- [http://www.vegvesen.no/\\_attachment/301427/binary/528572?fast\\_title=Manual+051+Work+on+and+along+roads.pdf](http://www.vegvesen.no/_attachment/301427/binary/528572?fast_title=Manual+051+Work+on+and+along+roads.pdf)



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## Norwegian Public Roads Administration Planning and execution

- Application for Roadwork Safety Plan  
– by adequate expertise
- Approval by Sign authority
  - (NPRA–state road)
  - (municipal – municipal road)



## Norwegian Public Roads Administration

# Planning and execution

- Application for Roadwork Safety Plan
  - Include:
    - Risk assessment,
    - Sign plan (warning plan)
    - Protection plan
    - Rules of the roadwork (special rules)



## Norwegian Public Roads Administration

# Planning and execution

The roadwork safety plan depends on several matters:

- Long-term work
- Short-term work
- Mobile work

The roadwork safety plan should be a result of the risk assessment.



## Basic philosophy for traffic management in work zones on motorways,

- Avoid accidents (Risk assessment)
- Keep capacity – work during night and «quiet times» – (avoid rush hour, summer traffic etc)
- Close one or both direction and use detour



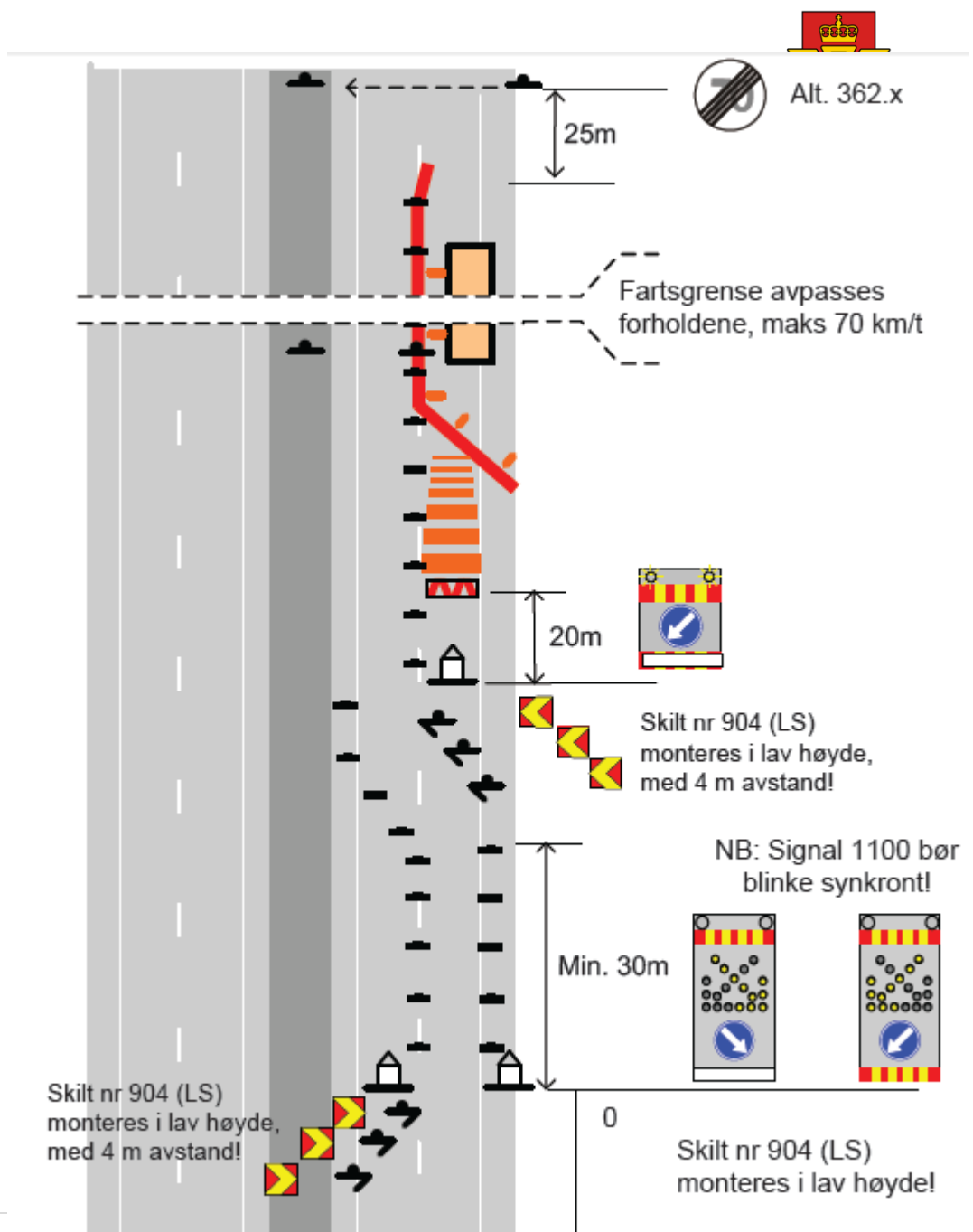
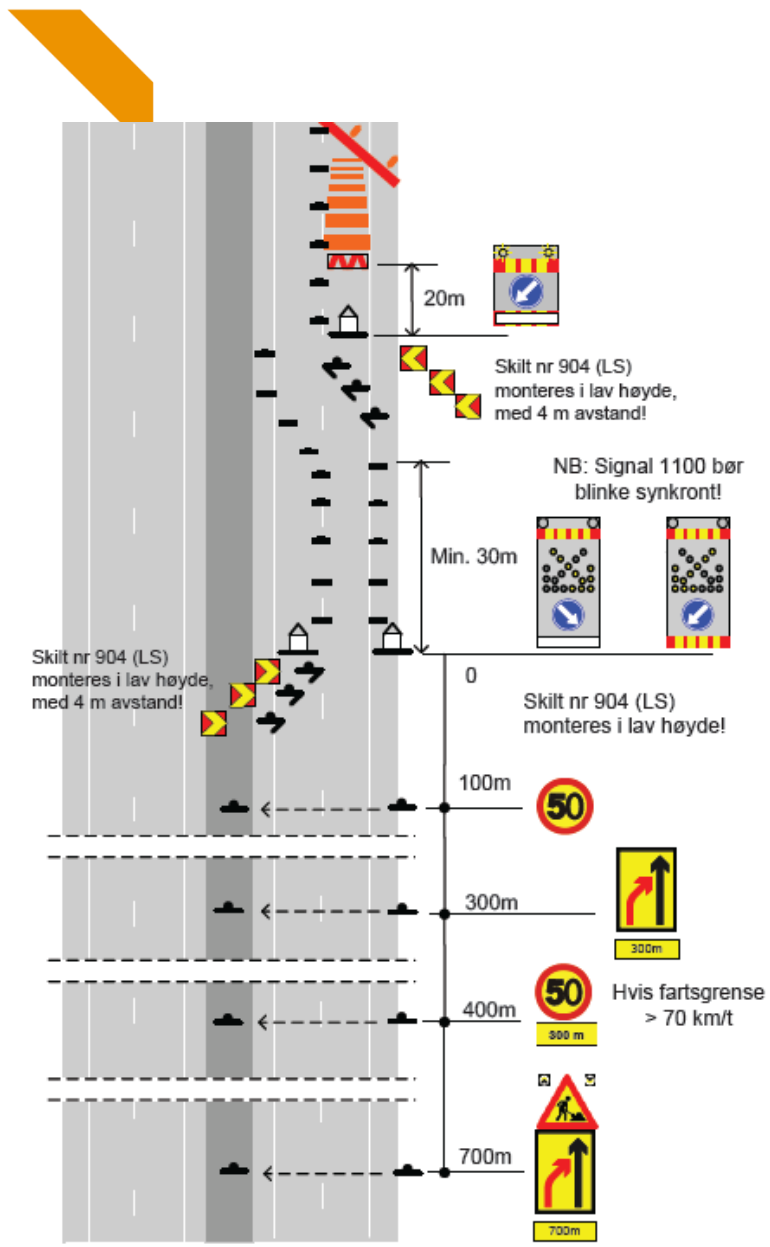
## How do we warn the drivers about the road work?

- Information sign (WMS)
- Sign
- Sign on vehicle/warning panels
- Media
- Road Traffic Management Centre
- Navigation
- Internet



How do we protect the drivers and the workers when accidents happen? How do we guide the drivers safe and secure through the work zone?

- Protection
  - Transverse protection
  - Longitudinal protection
- Energy absorbing equipment





## What do we know about traffic accidents at road work zones?

- And what about all the “almost accidents”...
  - can we keep learning and “bee in front”
- Often high consequence when something happens (speed, heavy vehicle)
- But so far, the biggest challenge is not on motorways
- So far, most focus on accidents in ordinary traffic – but focus are increasing regards Road Work.





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- Analysis of 23 fatal accidents (2005–2009)
- Pedestrians and cyclists most at risk
- 15 Heavy vehicles involved
- 5 of the dead, children under 16

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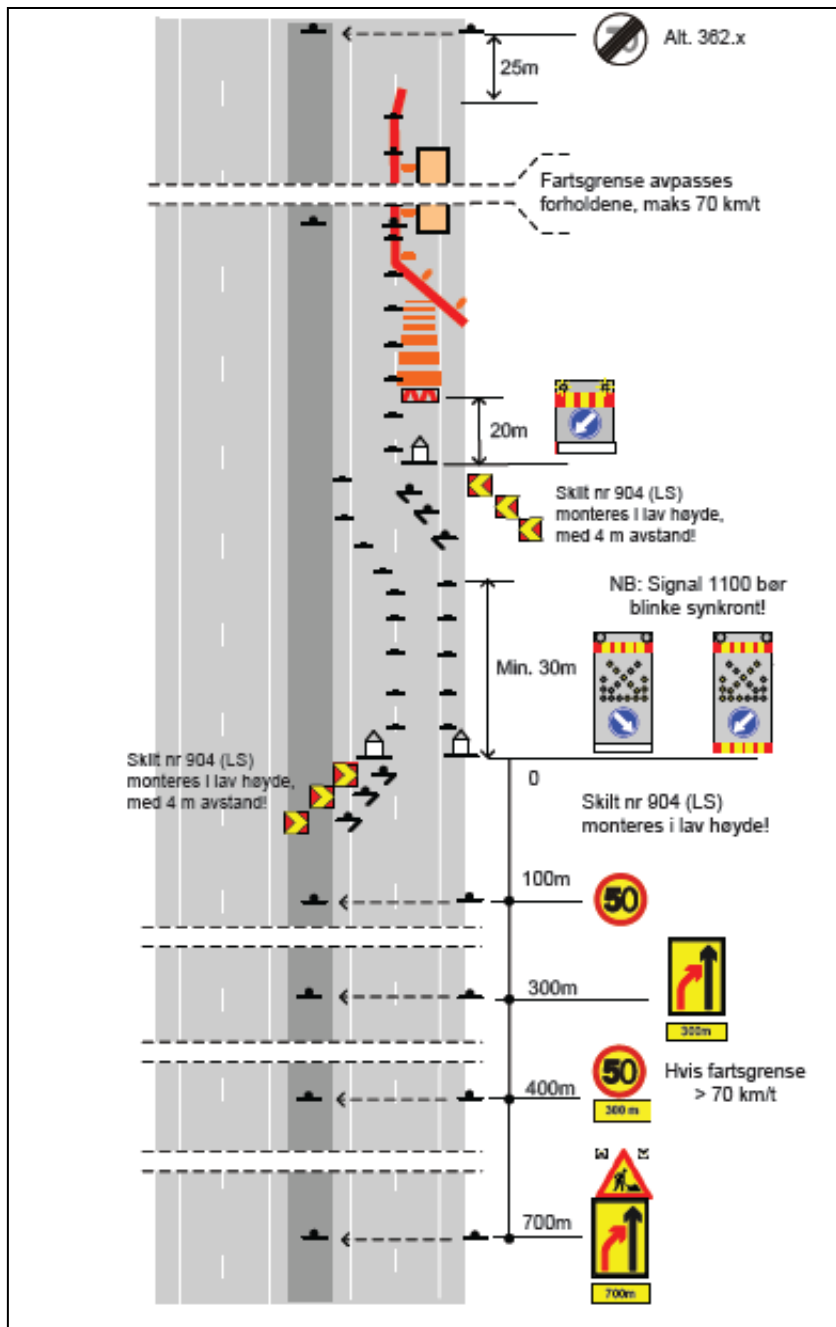


## Transition zones, moving traffic to the opposite part of the motorway, speed and design?

- «S» curve
- Form a port
- Decrease lane width (corridor)



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Using ITS and VMS, how is the experience by using permanent systems and movable systems.

Movable system

- Not much experience with movable systems
- Some suppliers are eager (– but small market ?)

Permanent system

- VMS are frequently in use (more and more– also for other purposes)
- Tunnel – lane signal, speed limit etc



## Ongoing research?

Not much at the moment...

Focus on (not specially for motorway – in general)

- Protection (rails and energy absorbing)
  - Correct use
  - Alternative use
- Revises training system and qualification requirements