

Hva er de globale trendene for lokaltogtrafikken – og hva bør Norge tenke på?

Norske Tog LokalTog presentation,

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Dr Nigel G Harris

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Local Trains

1. Purpose
2. Recent International Trends
3. Issues for Norway





1 Purpose

Purpose: What are local trains for?

- Getting people to work, shopping,...
- Relieving road traffic congestion
- Improving the environment
- Efficiency not comfort the key aim
- “Can I get on the train?” is more important than “Can I get a seat?”





2 Recent International Trends

Urbanisation

- City populations continuing to increase
 - Some movement from rural to urban areas
 - Immigration from other countries usually to cities (especially capitals)
 - Puts pressure on rail systems



Increasing Rail Demand

- Rail demand increasing more quickly than network length
- Building new railways takes a long time
- Important to be able to do something more quickly
- Need to increase carrying capacity of existing network
- Train interior design a key part of this



More Trains/Track

- Similar problems around the world
 - Dublin, Ireland
 - Tel Aviv, Israel
 - Munich, Germany
 - Sydney, Australia
 - London, UK





More Trains/Track (2)

- Rural rail capacity is all about track & signalling
- In cities, station stops become critical
- Running 6 trains per hour is easy
- Running 24 trains per hour requires discipline
 - trains need to arrive, unload, load & depart safely but quickly
 - every second counts
- We need appropriate trains as well as enhanced track & signalling

More Passengers/Train

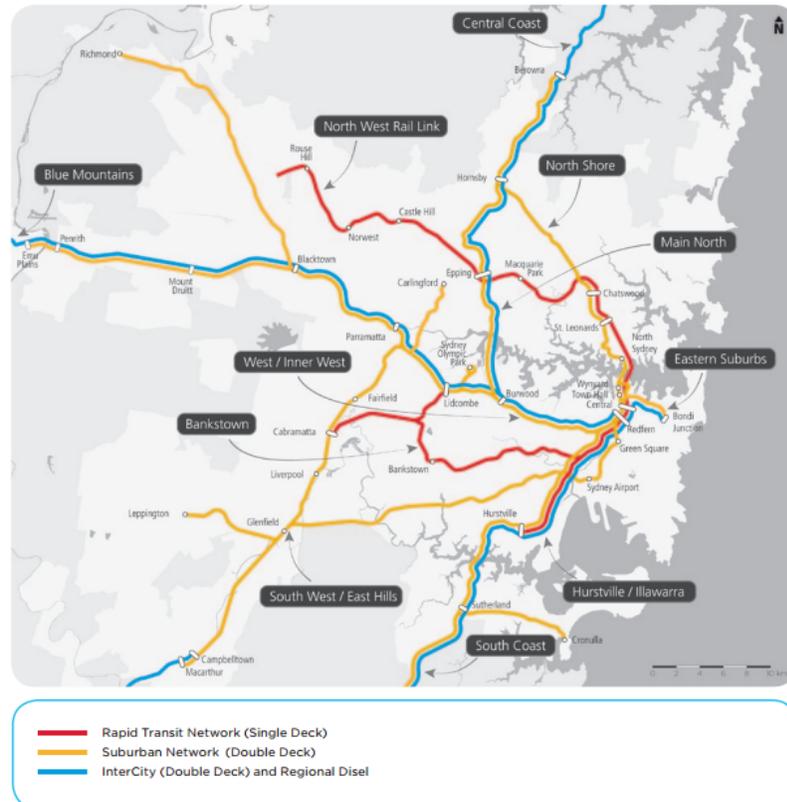
- Longer trains
 - require longer platforms
- Double-deck trains
 - fail station stop times (more people/door)
 - unable to maintain required frequencies
- Fewer seats
 - More space
 - Quicker boarding & alighting times
 - research: reducing seating density by 1 seat/m² increases alighting rate by 20-30%



Example from Australia

- Sydney rail strategy is developing inner-suburban rail network with 'metro'-type services *and trains*
 - Previous train types no longer able to cope

Figure 5: Sydney's Rail Future - A Three Tier Railway





3 Issues for Norway



**The Railway
Consultancy Ltd**
Specialists in Planning Economics and Management

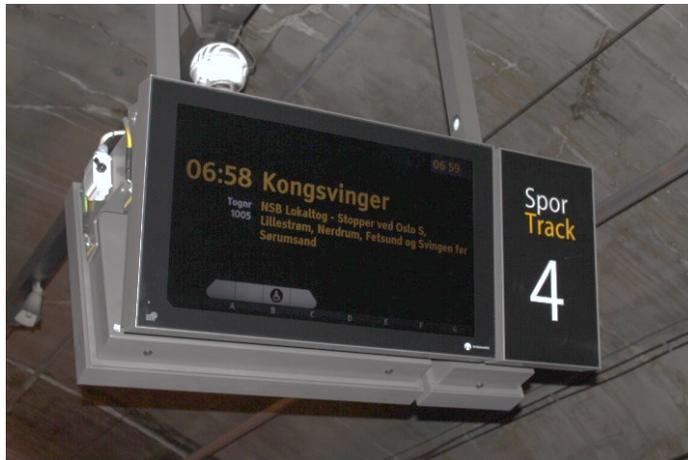
Increasing Population in Oslo

- 673,000 (2018) to reach 815,000 (2030)?
- Densification of development good for rail patronage
- But how are we going to fit the people in?



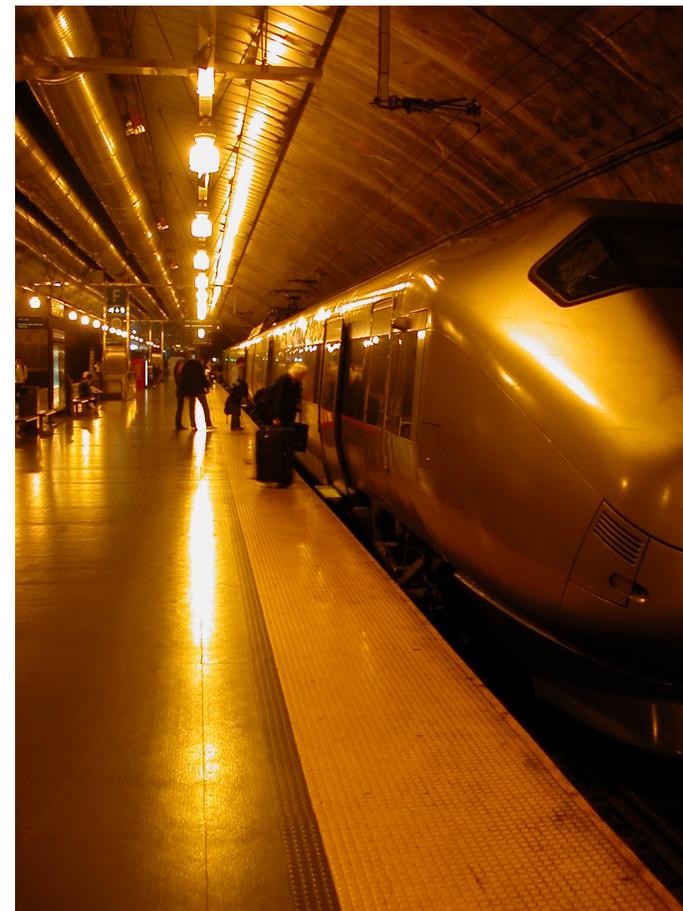
Bottlenecks in Norway's Railways

- 1979 scheme to link Vest & Øst stations a great idea
- Connects suburbs with opposite side of city centre
- Connects Baerum, Drammen & Vestfold with Gardermoen
- Enhancements to network outside Oslo (Follobanen etc.)
- The railway 'pipeline' through Oslo is now almost full



New Cross-City Tunnel

- Will the money really be found?
- If so, when?
- Realistic opening date?
- What are we going to do in the meanwhile?





Desire for Reliable Service

- Four key time elements at stations
 - Train arrives in platform
 - Passengers get off and on
 - ‘Function’ time: despatch, doors etc.
 - Train leaves platform
- Train arrival & departure depend on signalling
- Passenger and function times depend on train design



Desire for Reliable Service (2)

- At Nationaltheatret, typically:
- Total of 160s -
but only 150s in timetable
- Insufficient margin for problems
 - passengers needing assistance, minor train faults etc.
- ...but passengers want & value a reliable service
- *More of the same will not provide this*



Desire for Reliable Service (3)

- Train factors known to help manage station stops:
 - More doors
 - Wider doors
 - Bigger 'standback' areas behind the doors
 - No steps into/out of the train
 - Lower seating density giving plenty of space to move about in the train





4 Conclusions



Options for Rail in Norway

- Depend slightly on the train service
- For the LokalTog market, we have to fit in more passengers/train
- That leads to a train type not seen in Norway before
- The sort of concept being presented to you today