

# Feasibility Study concerning High-Speed-Railway-Lines in Norway

Presentation

Lillestrøm, 2007 – 11 – 05



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07-11-05

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# Market Study (Offer and Traffic Demand)

## Methodology and Principles of Planning

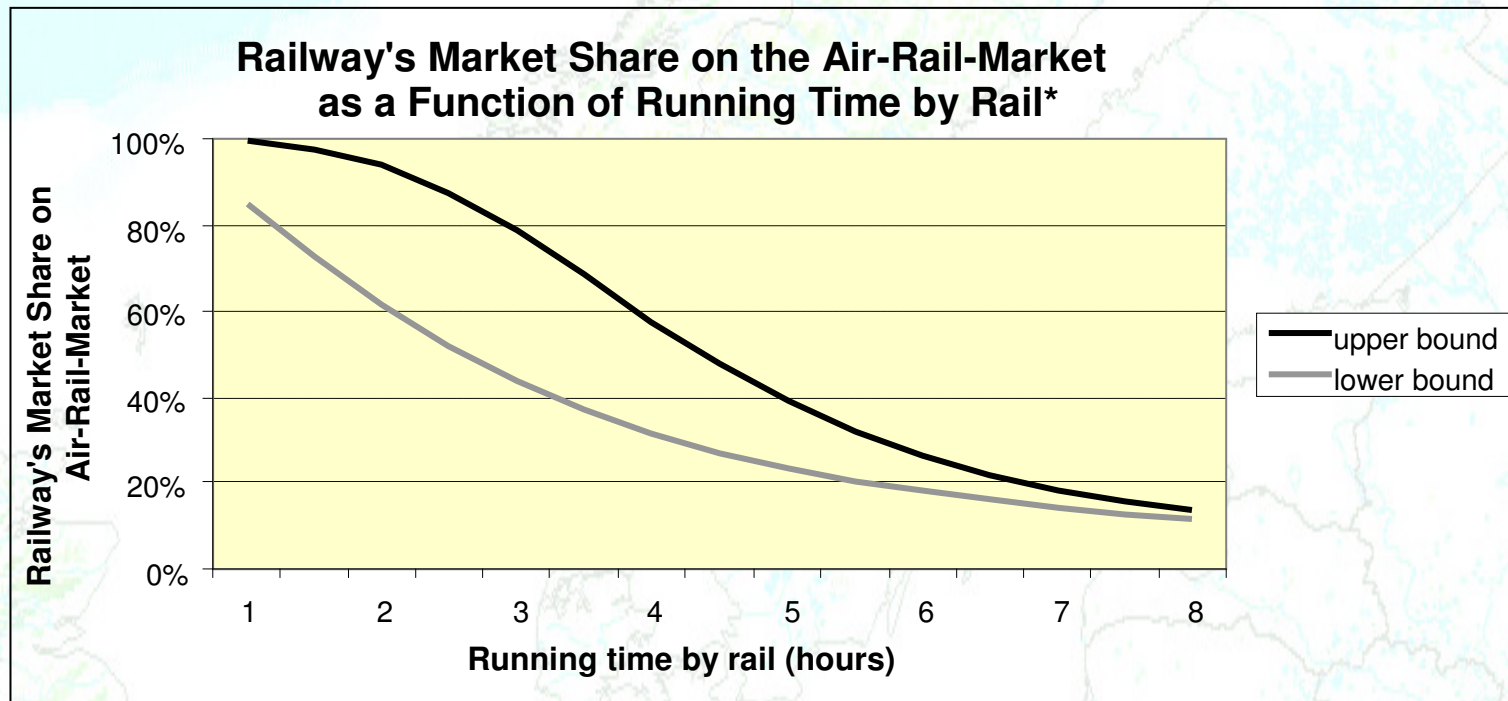
- Time horizon for traffic forecasts: 2020
- Basic forecasts on socio-economic development considering all transport modes (Reference Case)
- Separate forecasts for each High-Speed-Railway Project in question
- Examination of each relevant Origin-Destination-Relation for High-Speed-Rail-Services
- Calculations made by using approved forecast methods (UIC Passenger-Traffic-Study / German Transport Master Plan)
- Planning of infrastructure and offer fitting best to the need of the customer



# Market Study (Offer and Traffic Demand)

## Main Markets

- On most main markets High-Speed-Rail-Services compete with air traffic
- Travel time will strongly determine traffic of High-Speed-Rail-Services – air services cannot be replaced completely



\* overall travel time by air approx. 2,5 - 3 hours

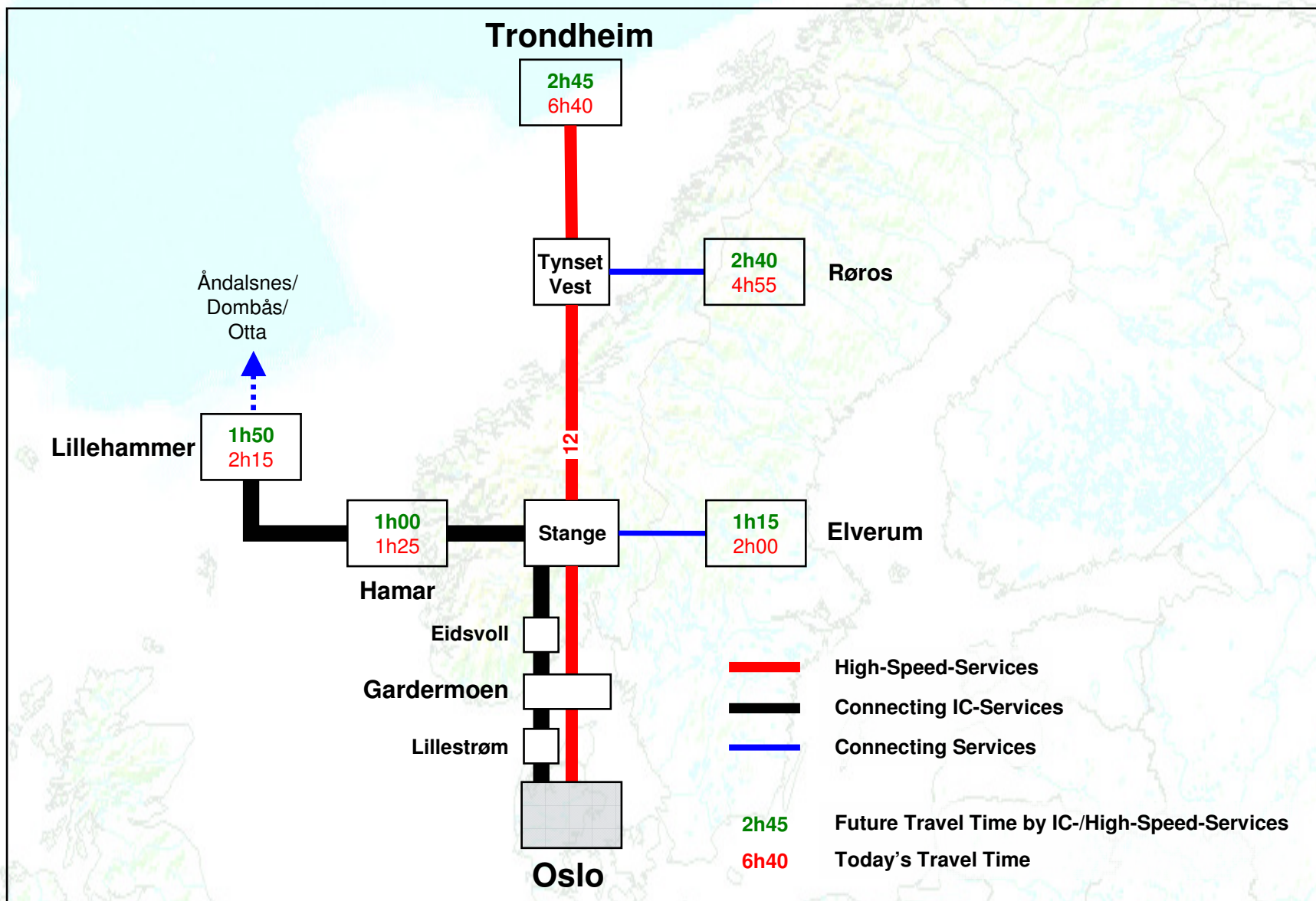
# Market Study (Offer and Traffic Demand)

## Stopping Policy

- Additional intermediate stops of regular High-Speed-Rail-Services are only considered when demand potentials in the catchment area of a possible additional stop will compensate the losses on main market due to longer travel times
- Demand potentials of intermediate stops have to be at least 3% of main markets
- Additional stops are located preferable within crossing sections
  - time losses are less than on open line (reduced speed in crossing sections)
  - savings in construction and operating costs (shorter length of double tracked lines, lower speeds on switches)
- To avoid capacity problems for High-Speed-Services commuters have to be served by existing or new IC- or local services

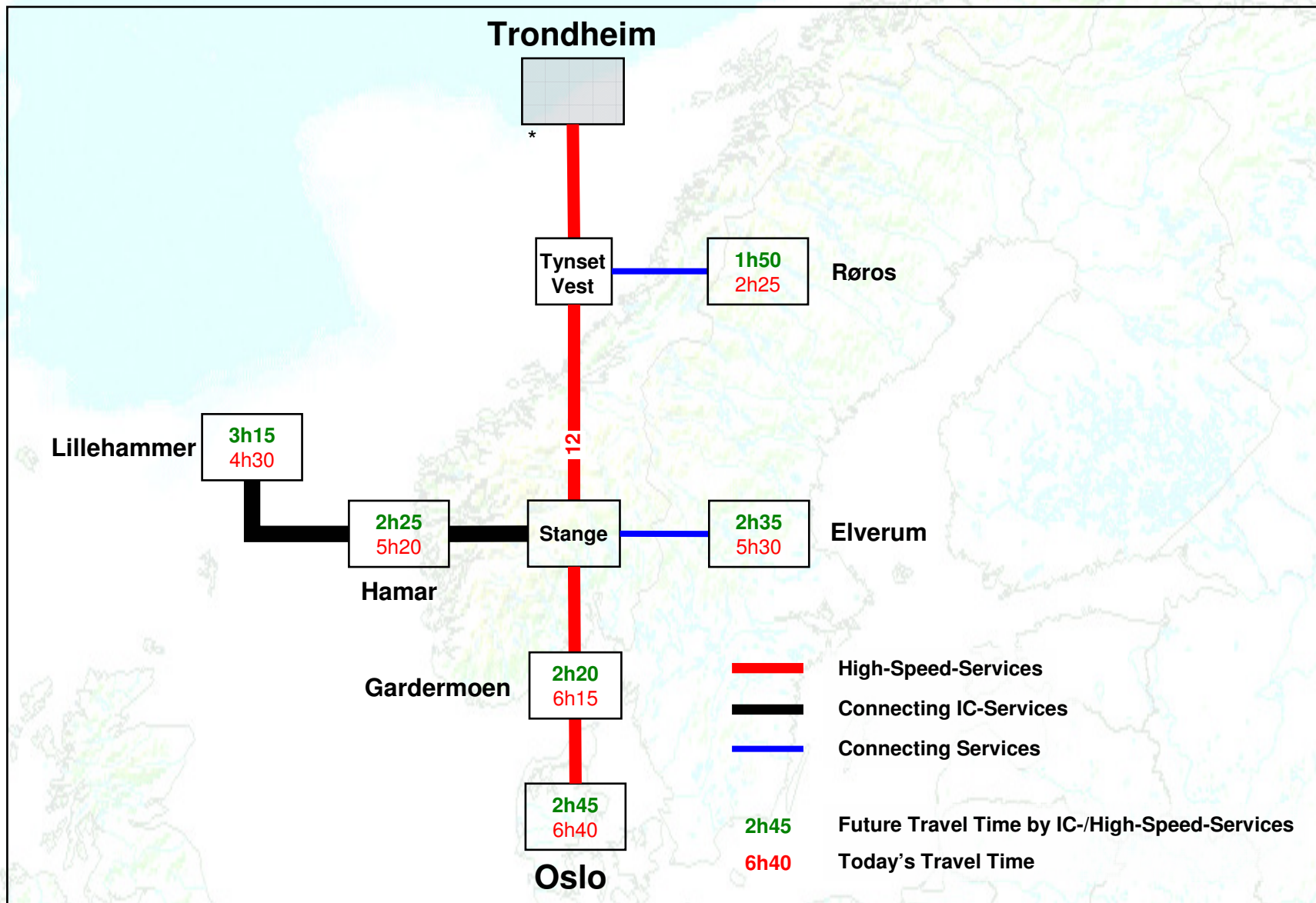


# Oslo – Trondheim / Offer and Travel Times



## High-Speed-Railway Lines in Norway

# Oslo – Trondheim / Offer and Travel Times



## High-Speed-Railway Lines in Norway

# Oslo – Trondheim / Traffic Demand

Traffic Demand:

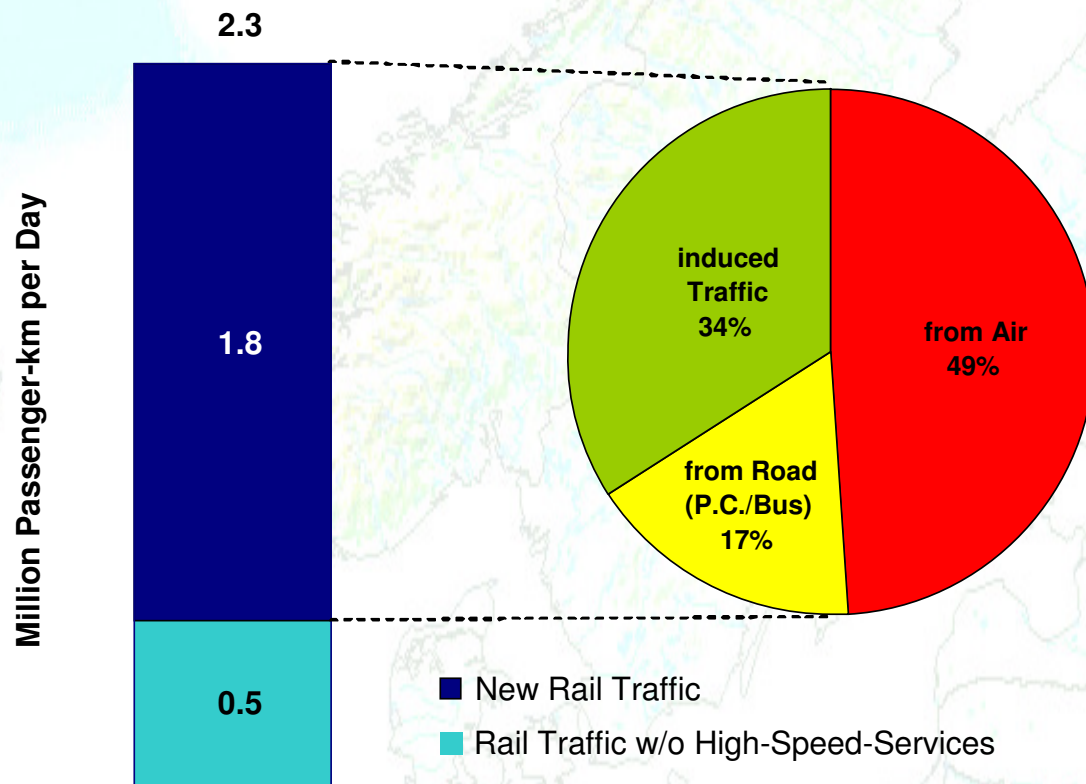
5'350 Pax /d

Transport Performance:

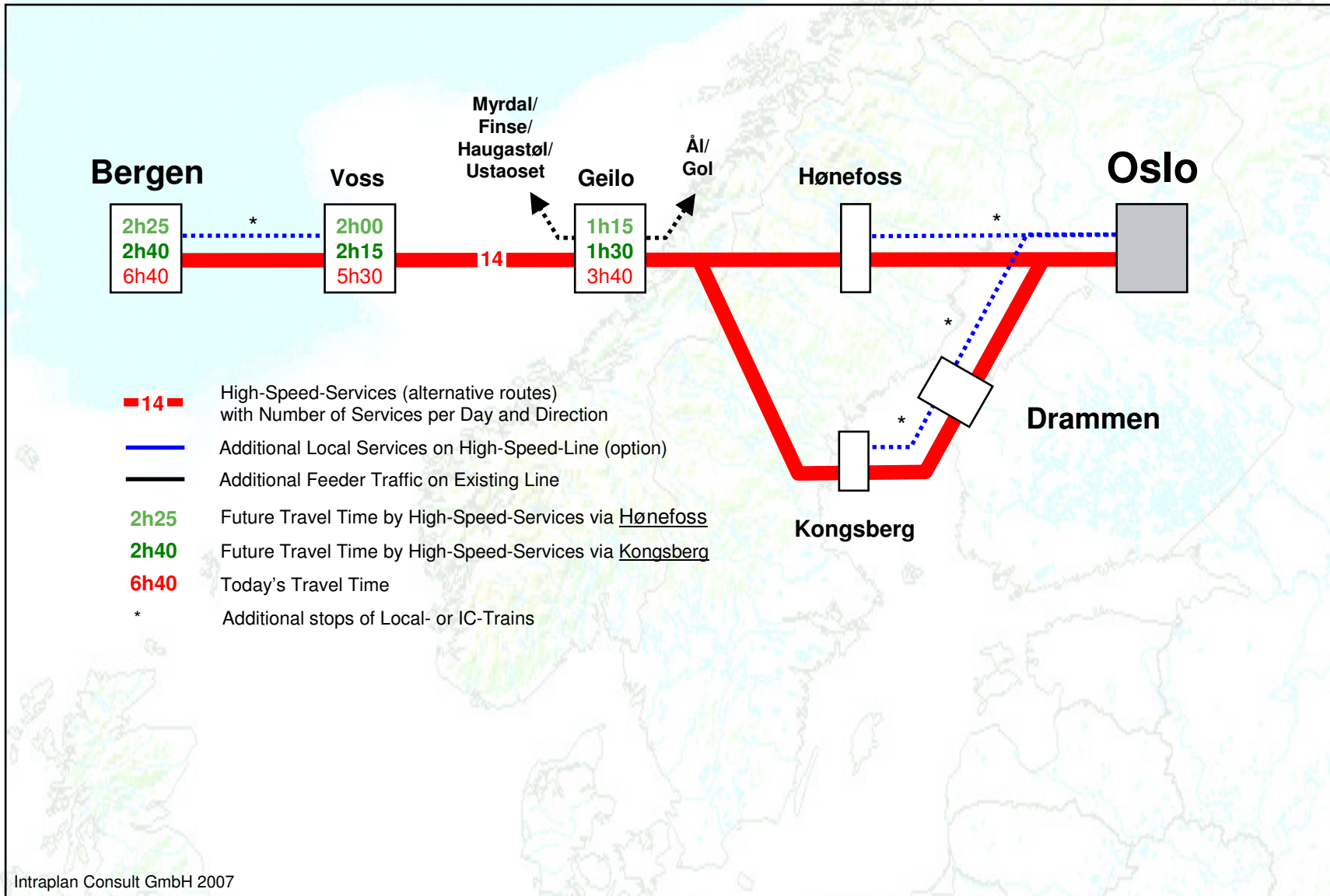
2.3 Mio Pkm/d

Market Share on Main Market:

50%



# Oslo – Hardangervidda – Bergen / Offer and Travel Times



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# Oslo – Hardangervidda – Bergen / Traffic Demand

Traffic Demand:

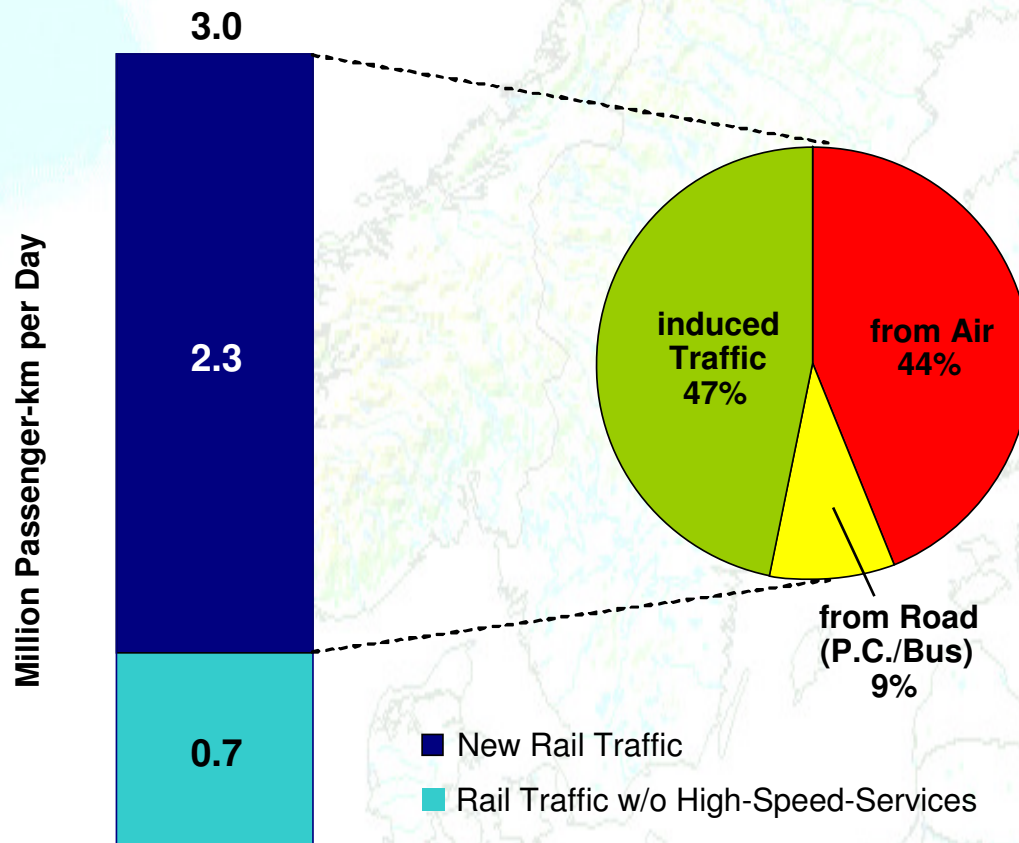
6'300 Pax /d

Transport Performance

3.0 Mio Pkm/d

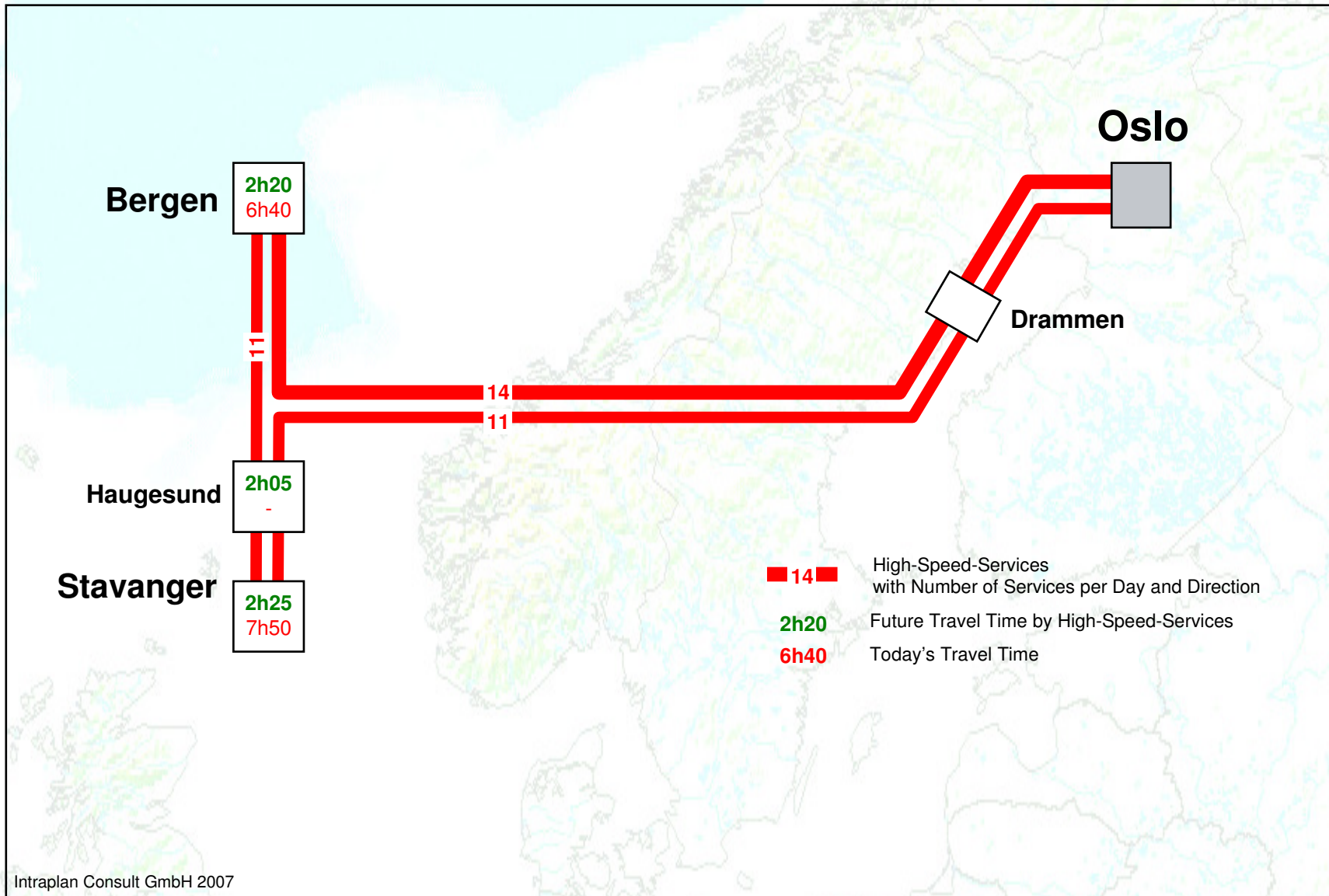
Market Share on Main Market:

53%



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# Oslo – Haukeli - Bergen/Stavanger / Offer and Travel Times



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# Oslo – Haukeli - Bergen/Stavanger / Traffic Demand

Traffic Demand:

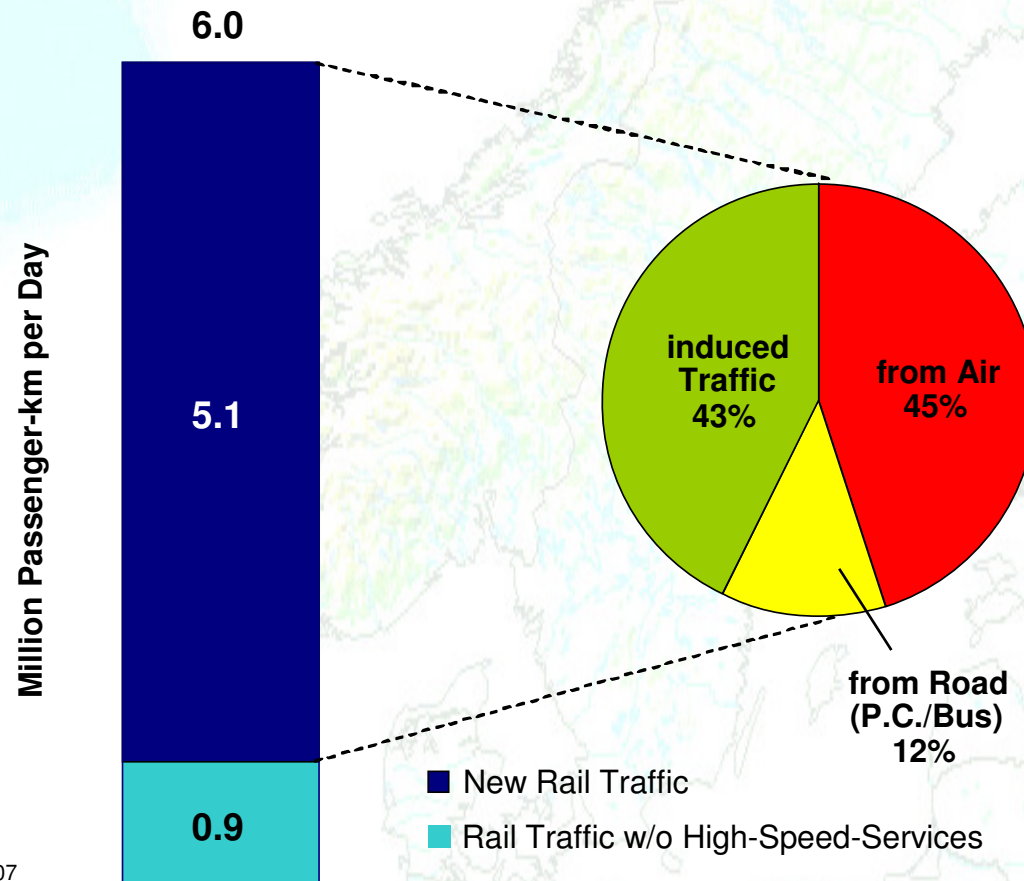
14'250 Pax /d

Transport Performance

6.0 Mio Pkm/d

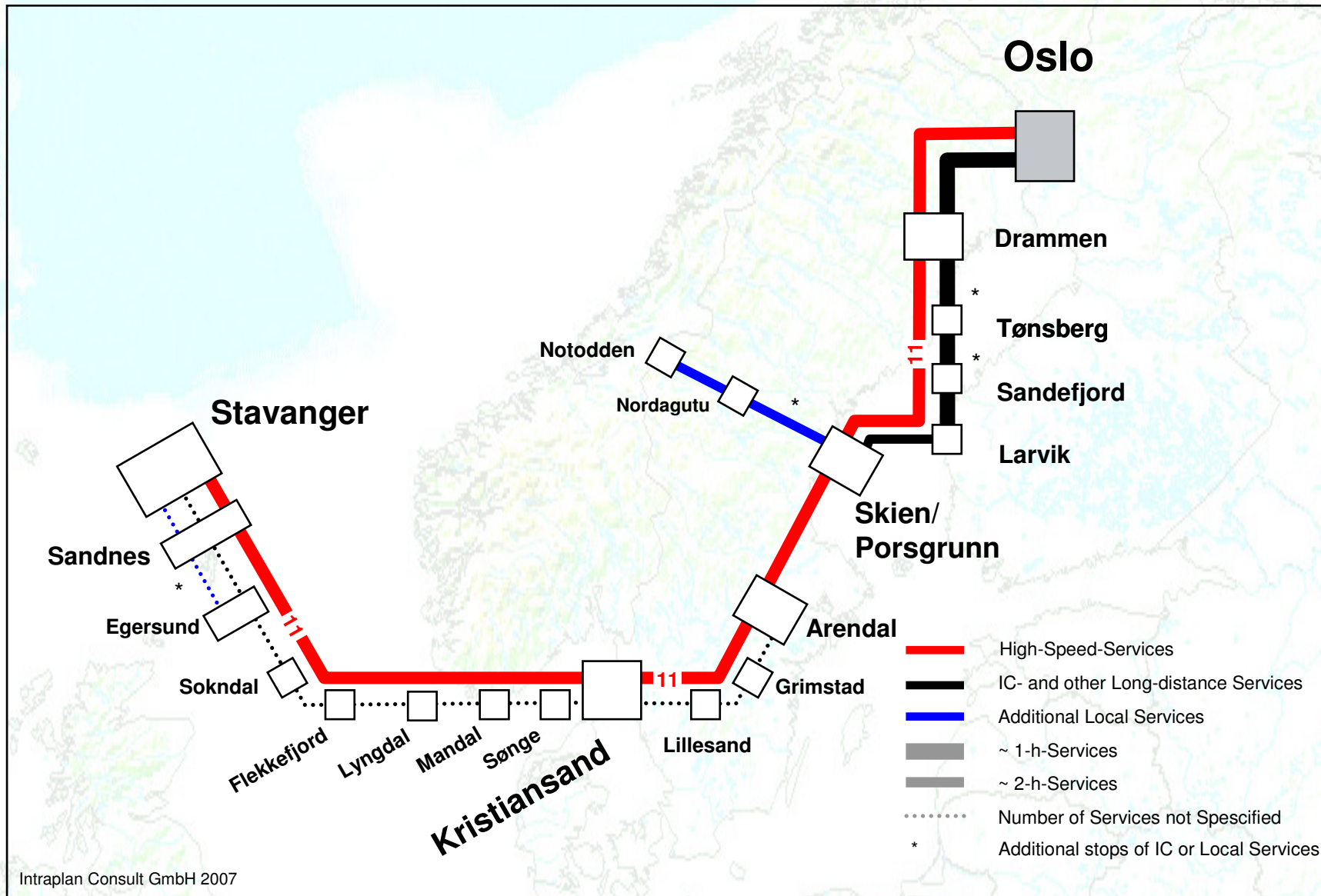
Market Share on Main Markets:

50%



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# Oslo – Kristiansand – Stavanger / Offer



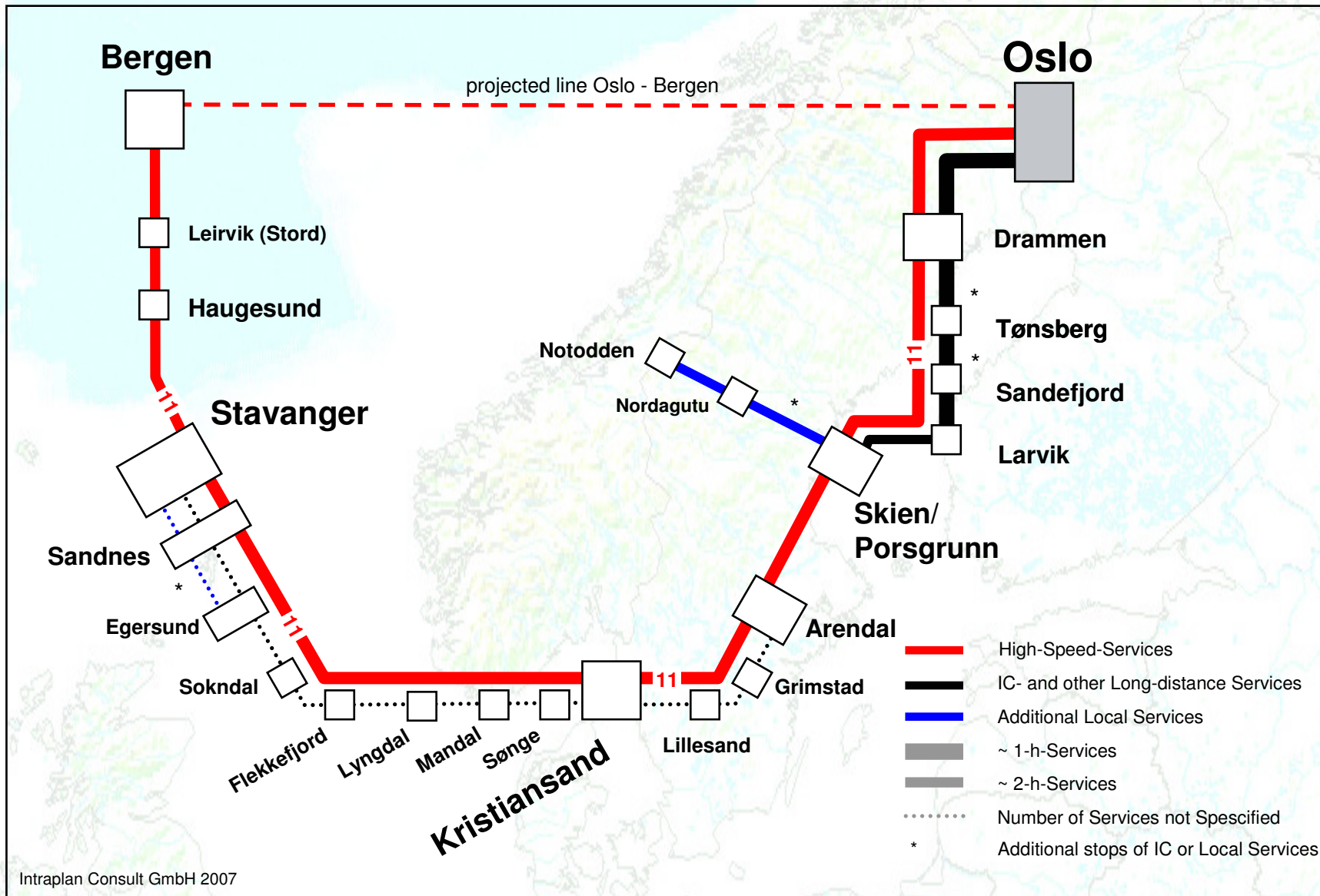
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## High-Speed-Railway Lines in Norway

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# Oslo – Kristiansand – Stavanger – Bergen / Offer



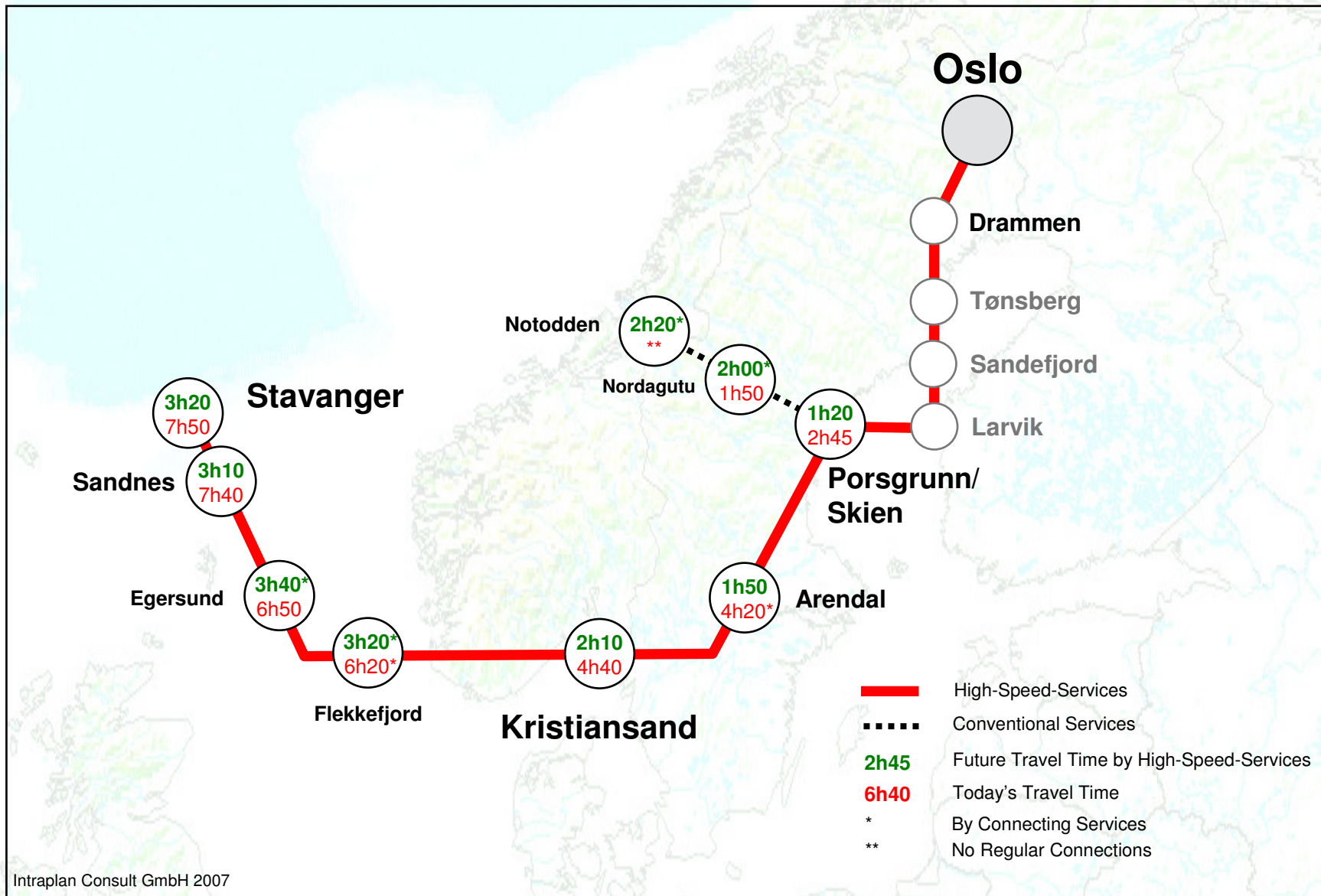
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## High-Speed-Railway Lines in Norway

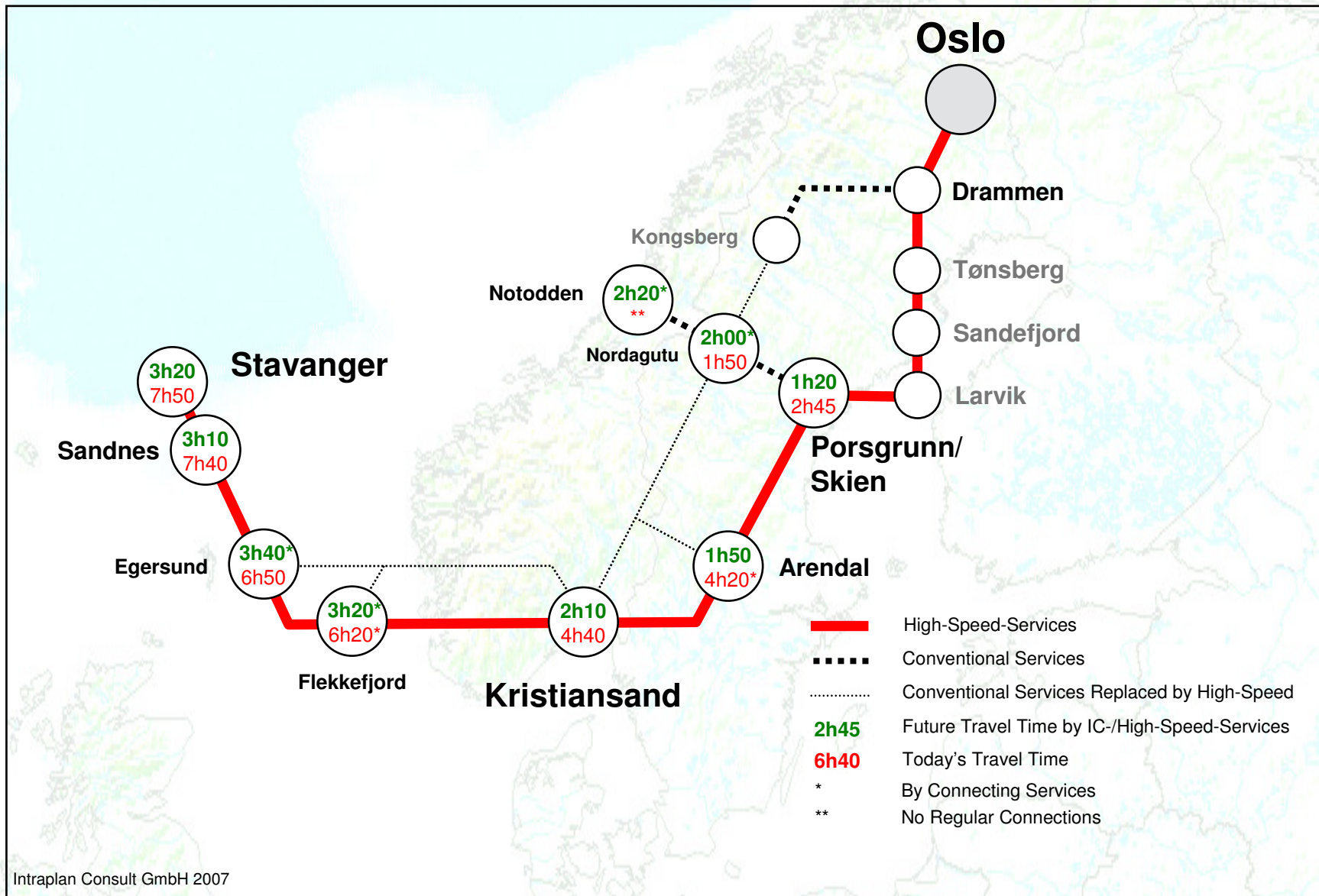


# Oslo – Kristiansand – Stavanger / Travel Times

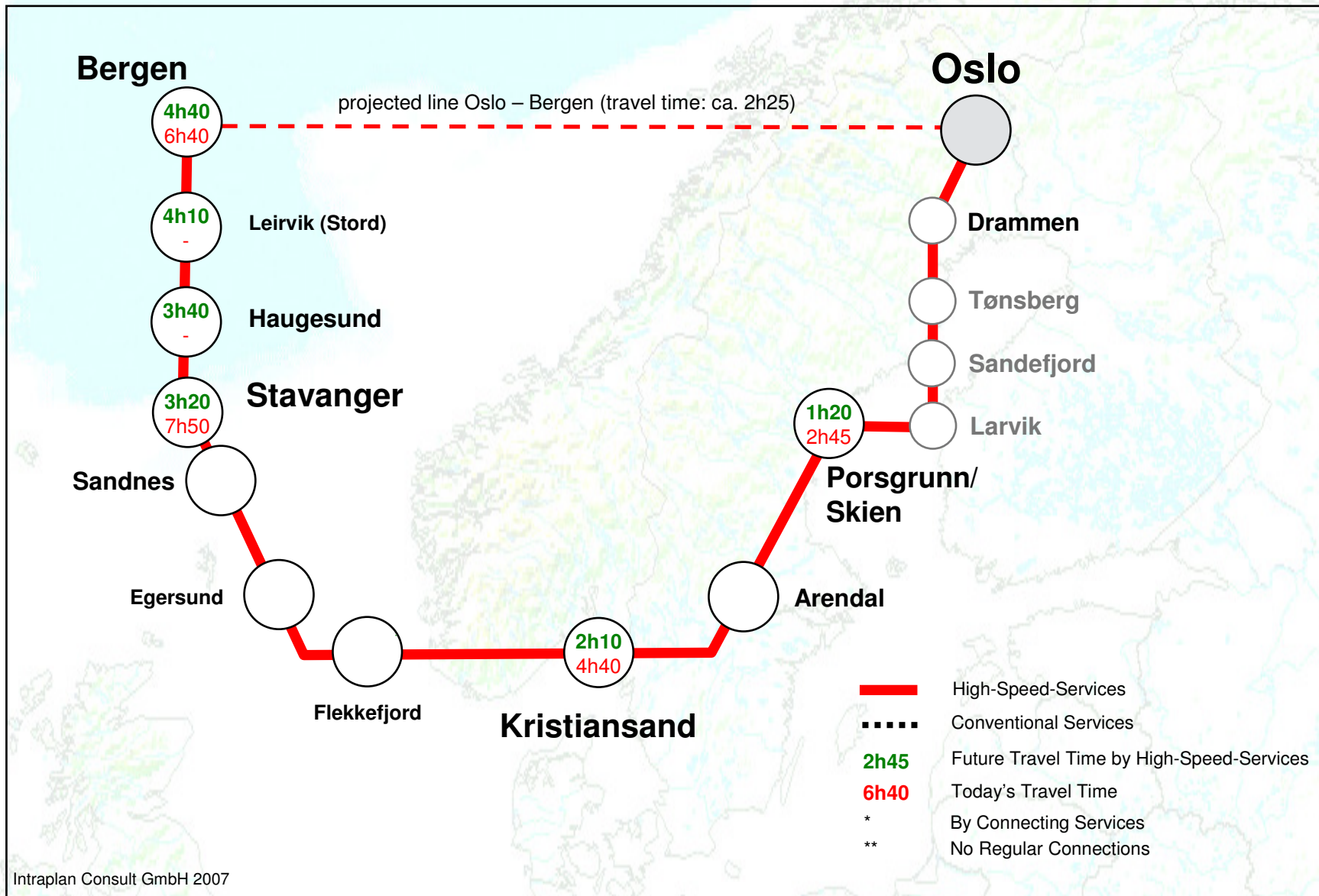


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# Oslo – Kristiansand – Stavanger / Travel Times

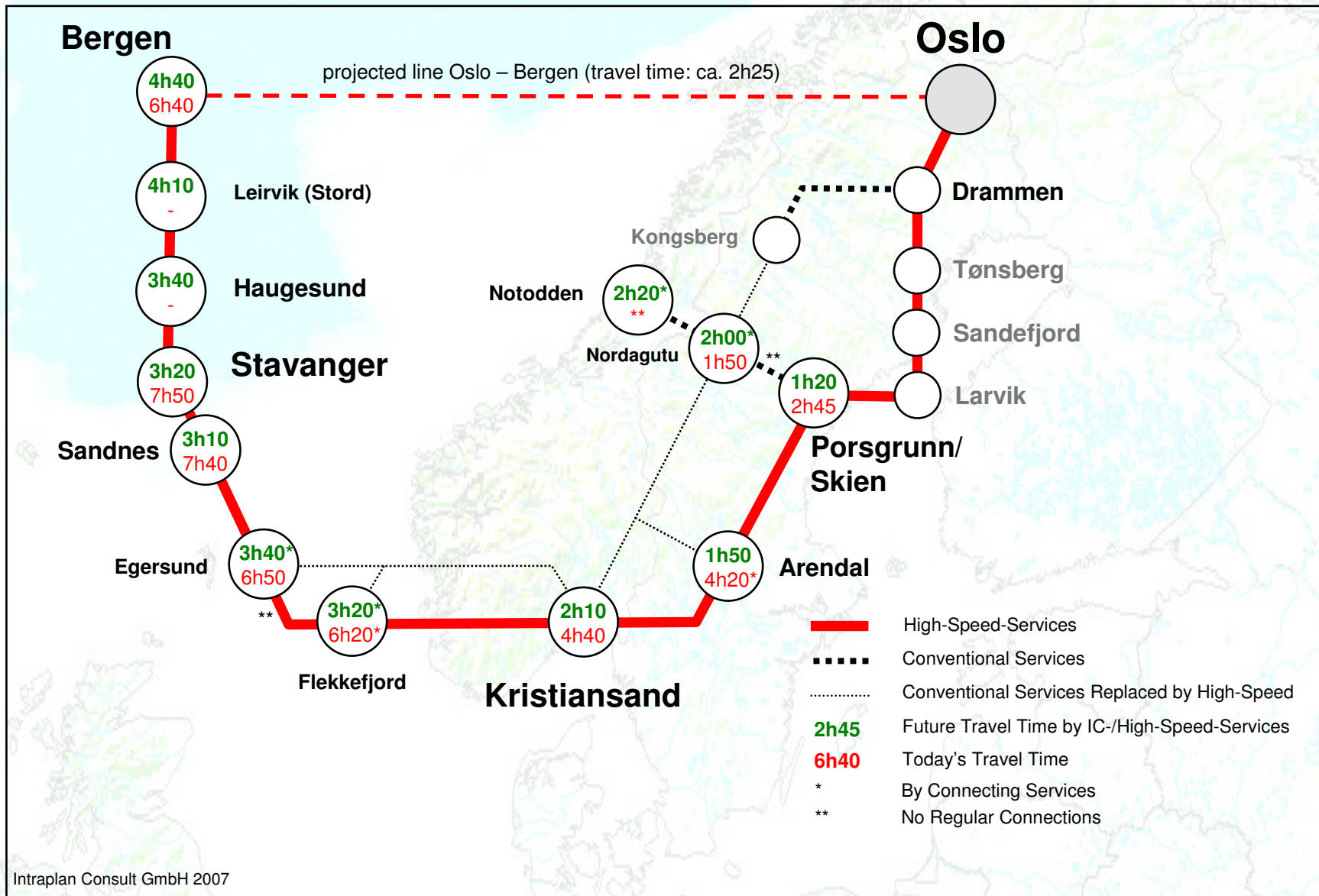


# Oslo – Kristiansand – Stavanger – Bergen / Travel Times



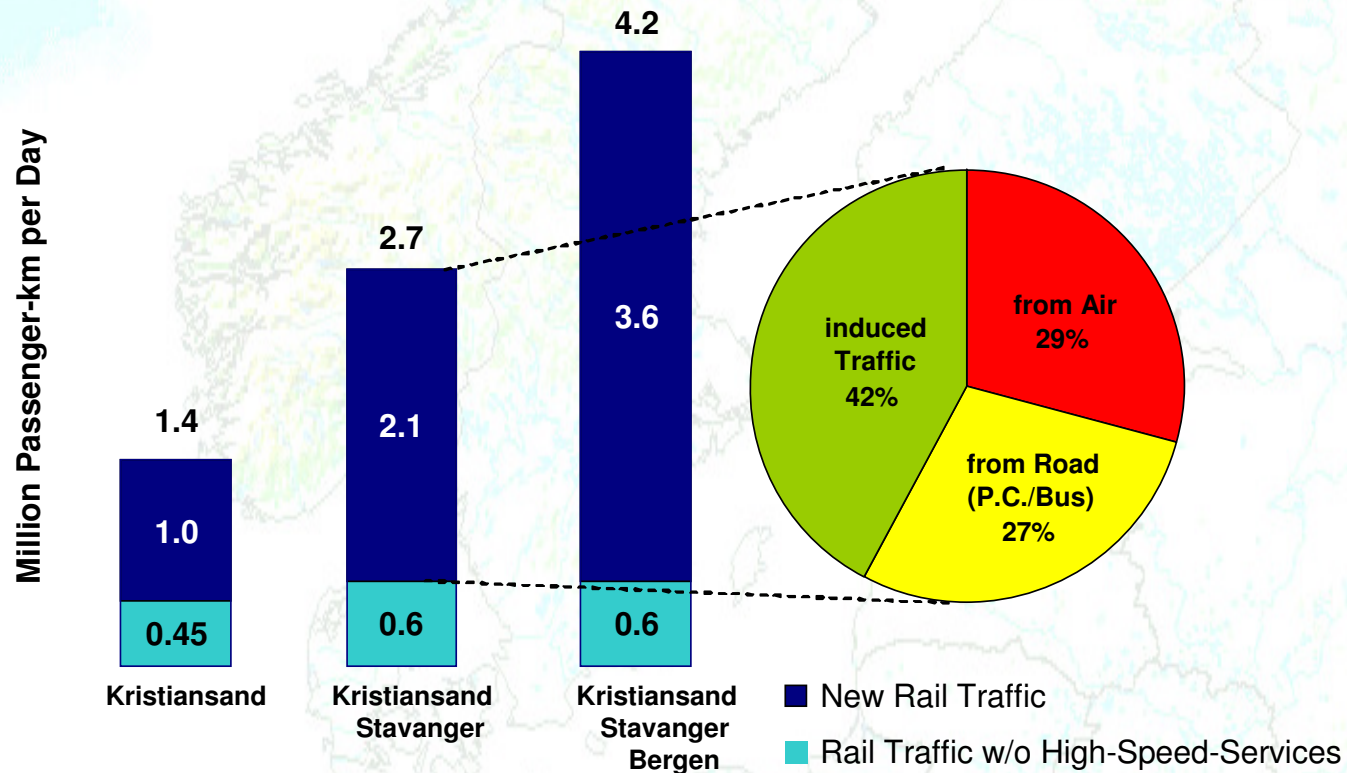


# Oslo – Kristiansand – Stavanger – Bergen / Travel Times



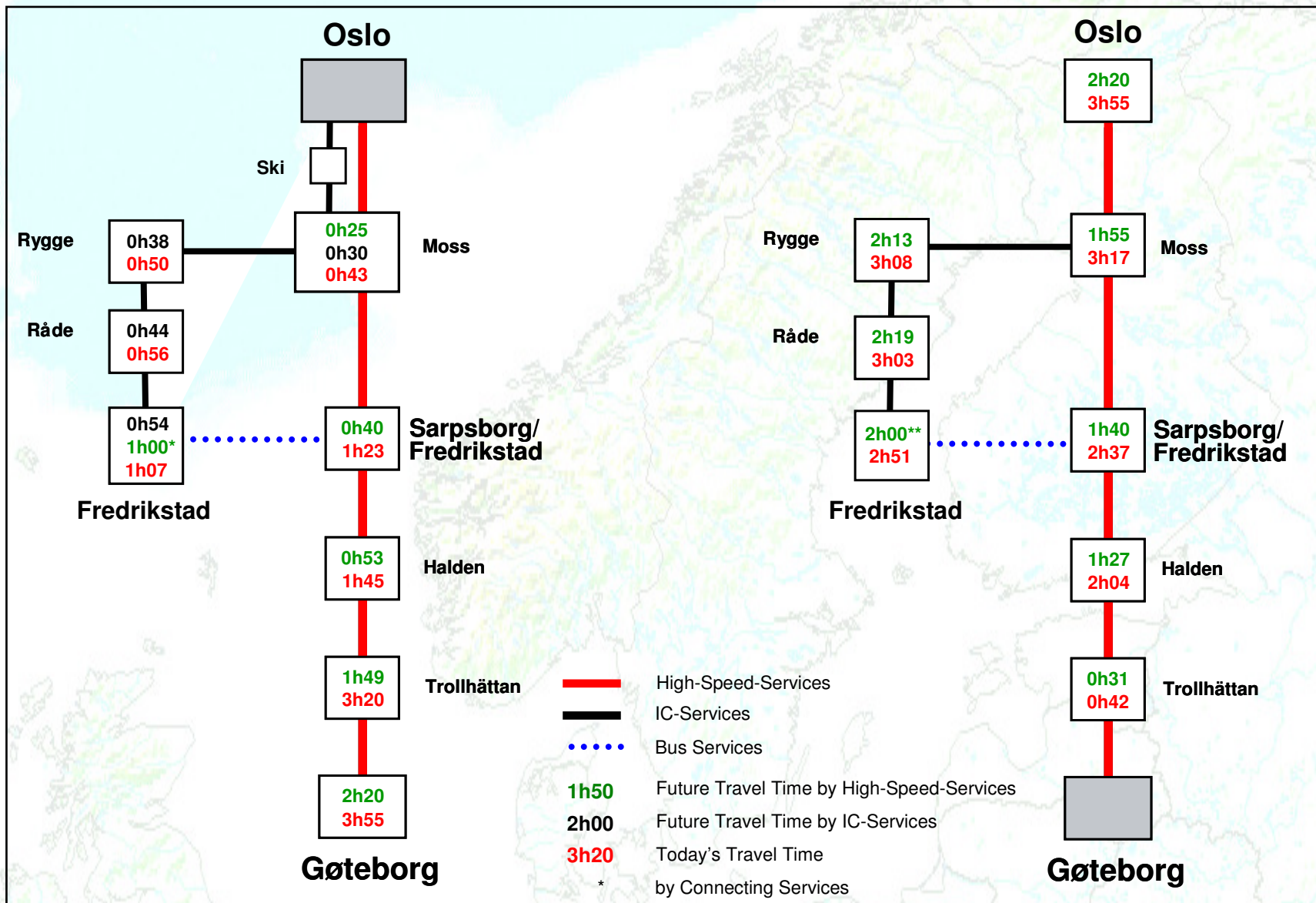
# Oslo – Kristiansand – Stavanger – Bergen / Traffic Demand

	Kristiansand	Kristiansand Stavanger	Kristiansand Stavanger Bergen	
<b>Traffic Demand:</b>	4'050	7'700	13'800	Pax /d
<b>Transport Perform.:</b>	1.4 Mio	2.7 Mio	4.2 Mio	Pkm/d
<b>Market Share:</b>	48%	33%*	43%*	
*on additional markets				



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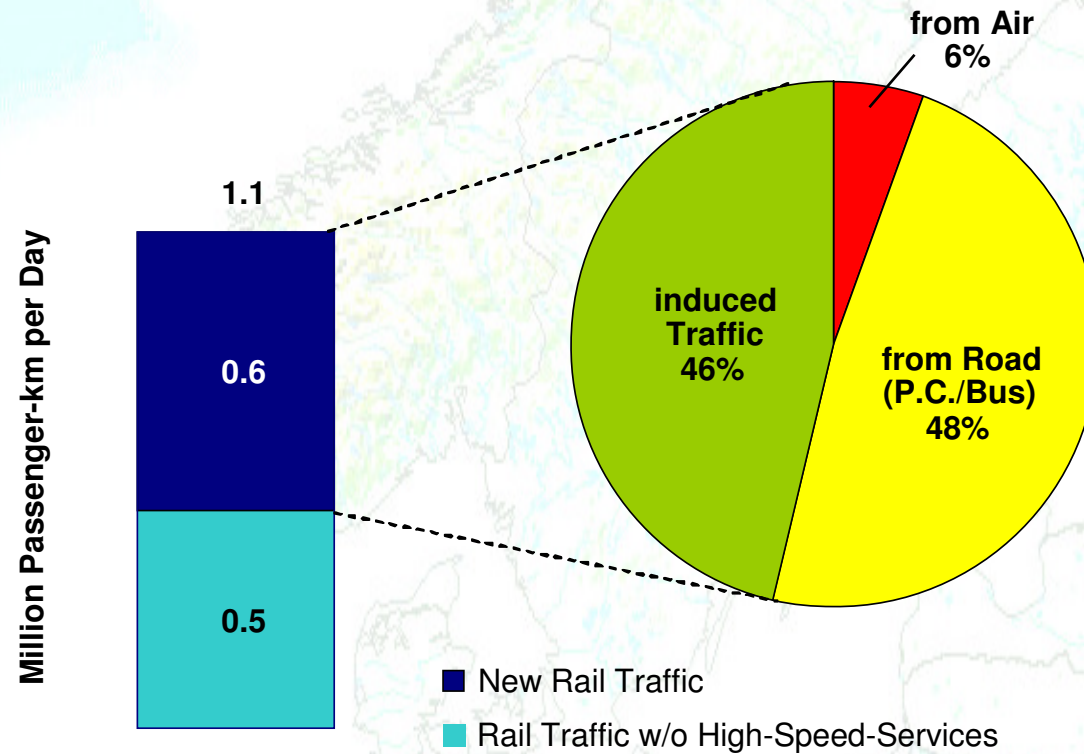
# Oslo – Gøteborg / Offer and Travel Times



## High-Speed-Railway Lines in Norway

# Oslo – Gøteborg / Traffic Demand

<b>Traffic Demand:</b>	<b>6'100 Pax /d</b>
<b>Transport Performance:</b>	<b>1.1 Mio Pkm/d</b>
<b>Market Share Oslo – Gøteborg:</b>	<b>41%</b>
<b>Market Share Oslo – Sarpsborg/Halden:</b>	<b>34%</b>



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# All High-Speed-Projects / Traffic Demand

	Number of Passengers	Traffic Performance (Passenger-km)
	Daily Average	
Oslo – Trondheim	5'350	2.3 Mio
Oslo – Hardangervidda - Bergen	6'300	3.0 Mio
Oslo – Haukeli – Bergen/Stavanger	14'250	6.0 Mio
Oslo – Kristiansand	4'050	1.4 Mio
Oslo – Kristiansand – Stavanger	7'700	2.7 Mio
Oslo – Kristiansand – Stavanger – Bergen	13'800	4.2 Mio
Oslo - Gøteborg	6'100	1.1 Mio

