

Freight capacity, speed and rail construction

– what is needed in Central Scandinavia?

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ve kommun

What is going on in Scandinavia?

- Current population 20,9 million – 490 million trips/year
 - Sweden 10 million – BNP 32 700 Euro – 200 million trips/year – 20 trips/p
 - Norway 5,2 million – BNP 49 200 Euro – 70 million trips/year – 13,5 trips/p
 - Denmark 5,7 million – BNP 32 100 Euro – 190 million trips/year - 35,1 trips/p

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- Future population 2040 25,4 million – 601 million trips/year
 - Sweden + 24% is 12,4 million – 270 million trips/year
 - Norway + 30 % is 6,8 million – 92 million trips/year
 - Denmark + 20 % is 6,8 million – 239 million trips/year

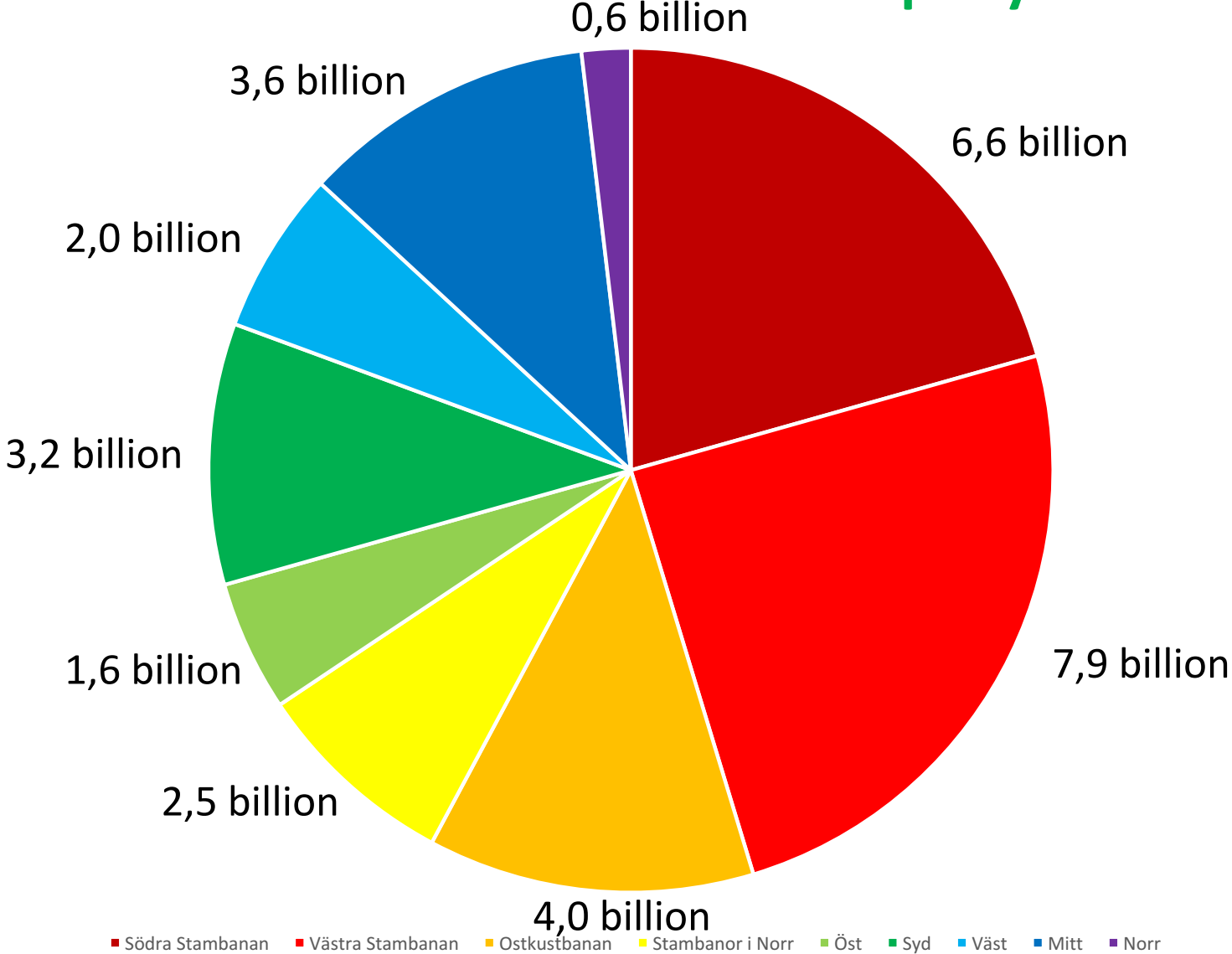
+ 111 million trips per year

What is going on in Scandinavia?

- Current population 20,9 million – 27 billion tonkm/year
 - Sweden 10 million – 20 billion tonkm/year – 2000 tonkm/person
 - Norway 5,2 million – 4 billion tonkm/year – 769 tonkm/person
 - Denmark 5,7 million – 3 billion tonkm/year - 526 tonkm/person
- Future population 2040 25,4 million – 33,6 billion tonkm/year
 - Sweden + 24% is 12,4 million – 24,8 billion tonkm/year
 - Norway + 30 % is 6,8 million – 5,2 billion tonkm/year
 - Denmark + 20 % is 6,8 million – 3,6 billion tonkm/year

+ 6,6 billion tonkm per year

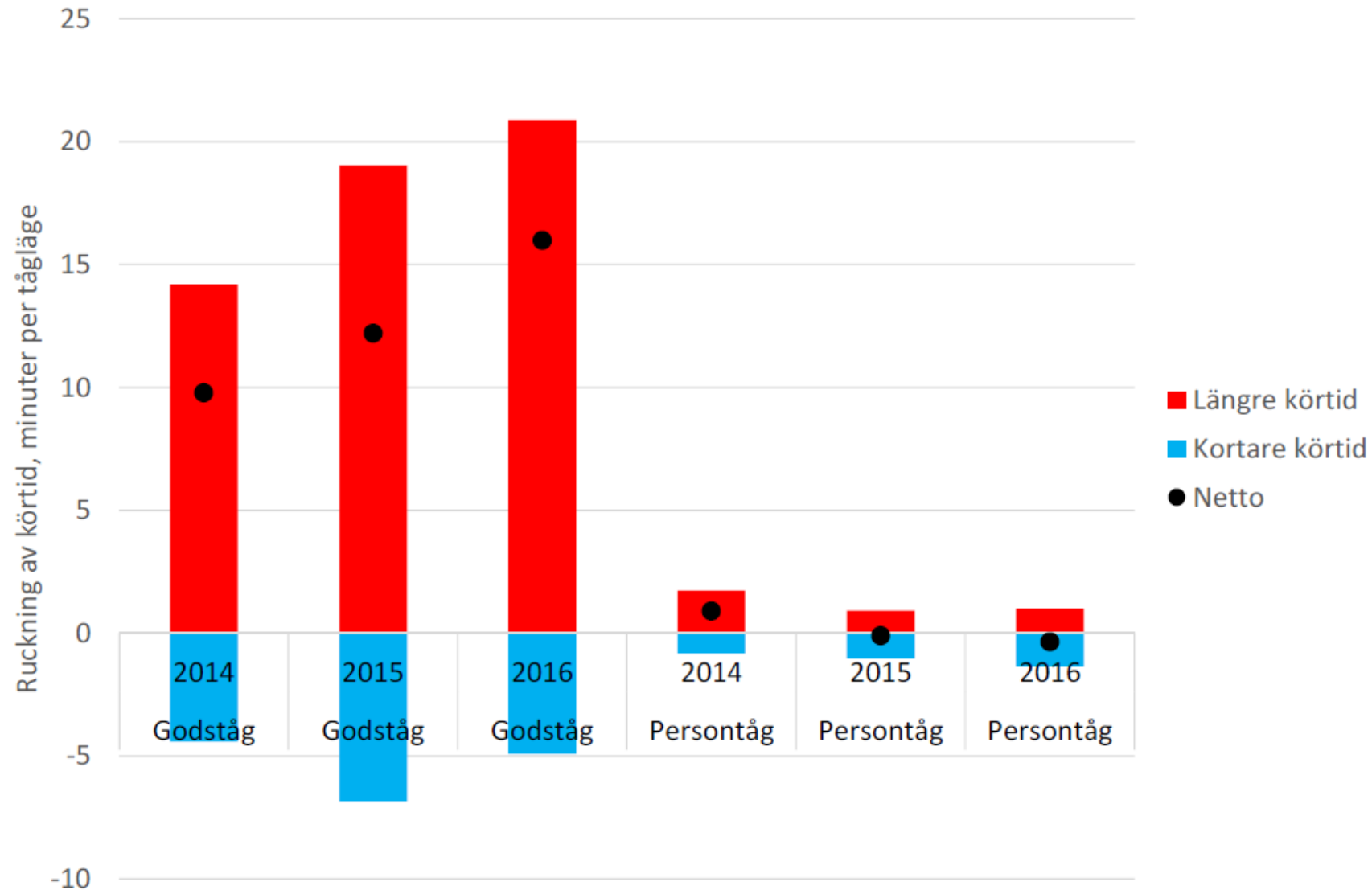
Total revenues 34 billion SEK per year



32 billion SEK excluding trips to Denmark and Norway

Lack of capacity is expensive

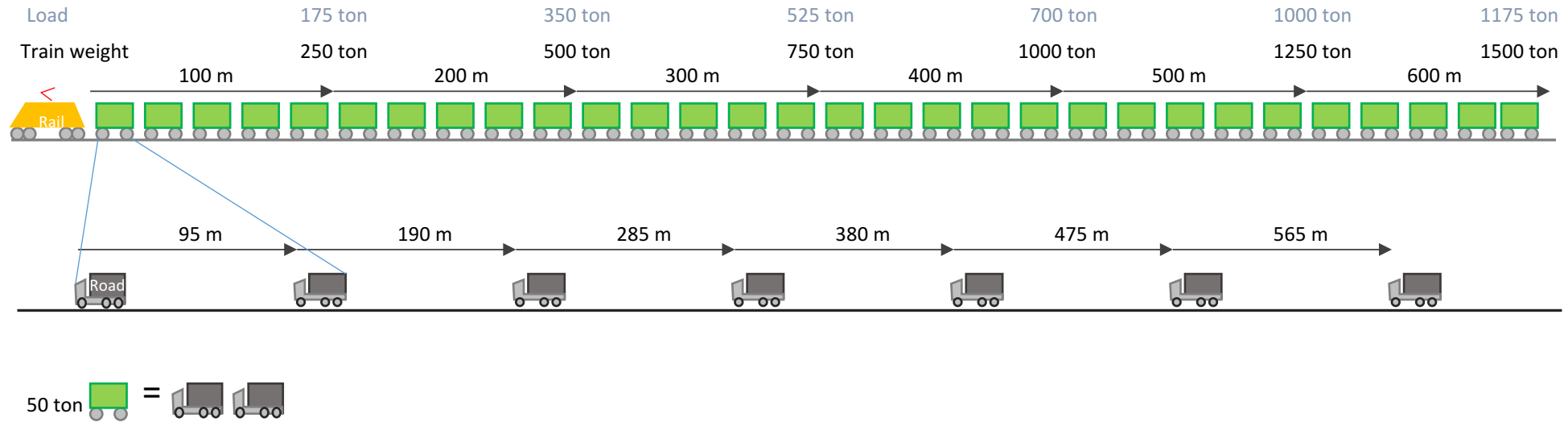
- Lack of capacity in Sweden costs **12 billion SEK** per year
 - Delays: **5 billion SEK** per year
 - 60 millions trip is canceled caused of the delays: **3 billion SEK** per year
 - Reduced export of goods: **3 billion SEK** per year
 - Freight trains on hold and stand-by on tracks: **0,95 billion** per year
 - 200 000 trains are banned on the tracks – no capacity left over on tracks
- More lorries on the railway tracks are not possible
 - Savings in environment and energy is not possible
 - Less road maintenance is not possible



Figur 5.3: Genomsnittliga ruckningar för körtider mätt i minuter per tågläge. Godståg och persontåg i T14, T15 och T16.

Källa:(Trafikanalys, 2016k)

Rail or road

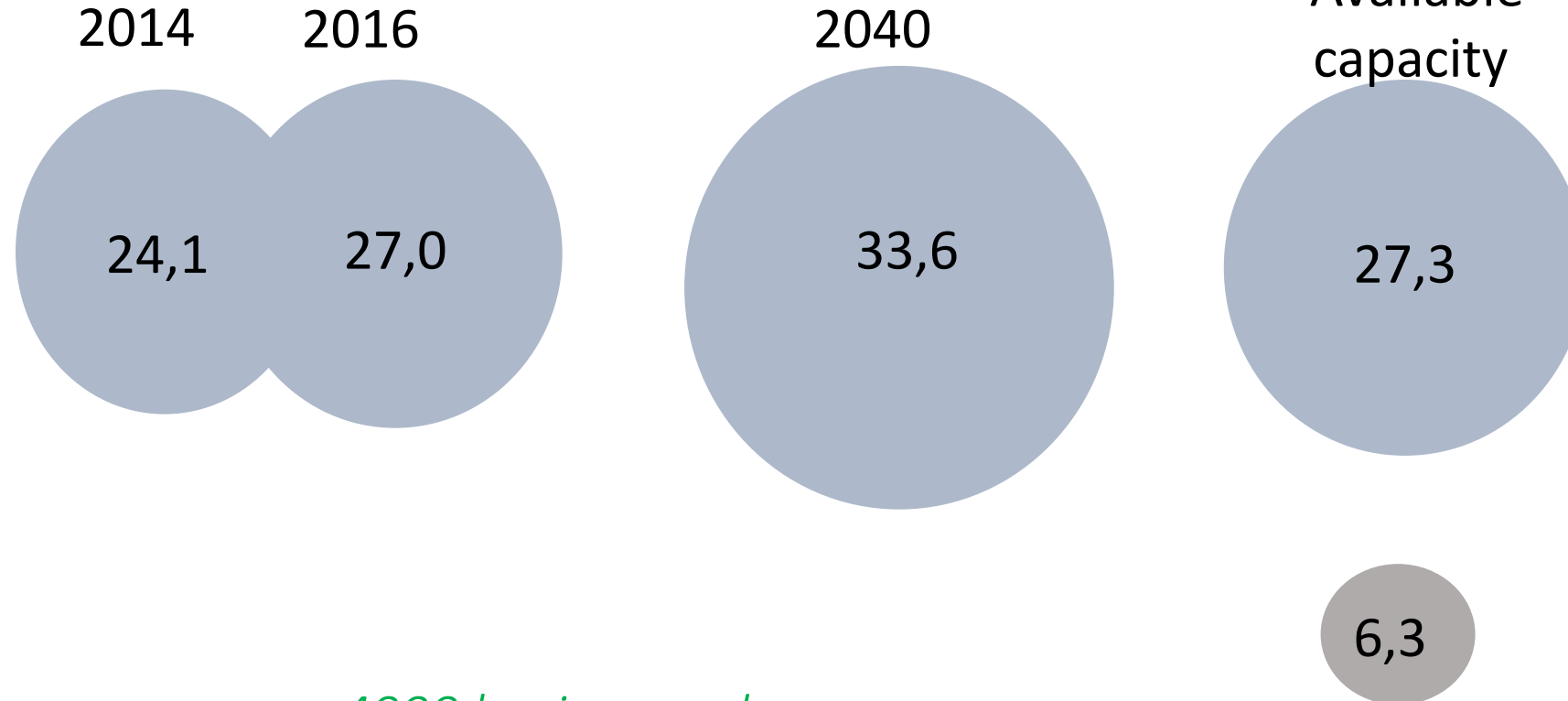


Train weight 1000 ton = 40 lorries = 3800 meter
 70 train per day = 2800 lorries = 266 000 meter = 266 kilometer



Capacity is a problem

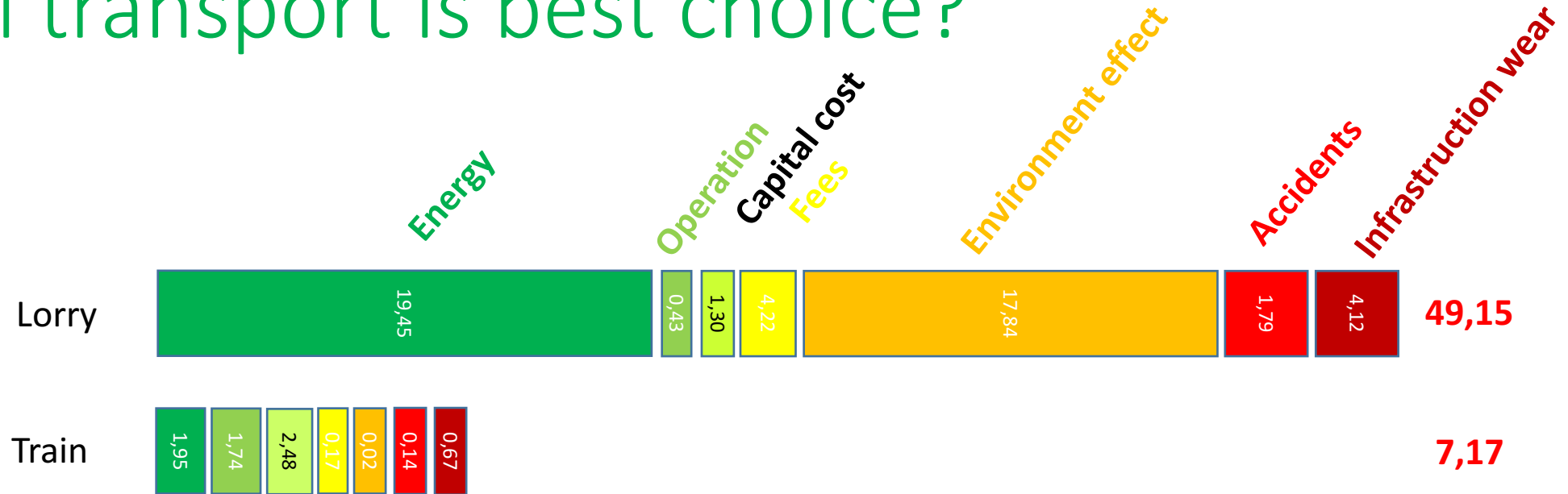
billion tonkm



*4000 lorries per day
8 freight trains
Oslo - Göteborg*

Lorry, boat, airplane

Rail transport is best choice?



Infrastructure wear – is 6 times more expensive for lorries than for frighet trains

Unit: SEK/ton hour speed 90 km/h

1 Lorry = 10 cars

1. EURASIAN SERVICE LINES

TRANSIT TIME: 14 – 18 DAYS





Duration 2017

FROM KÖPENHAMN TO:

OSLO	8:40
GÖTEBORG	3:45
STOCKHOLM	5:30
HAMBURG	4:30

FROM GÖTEBORG TO:

OSLO	3:50
STOCKHOLM	3:20
KÖPENHAMN	3:45





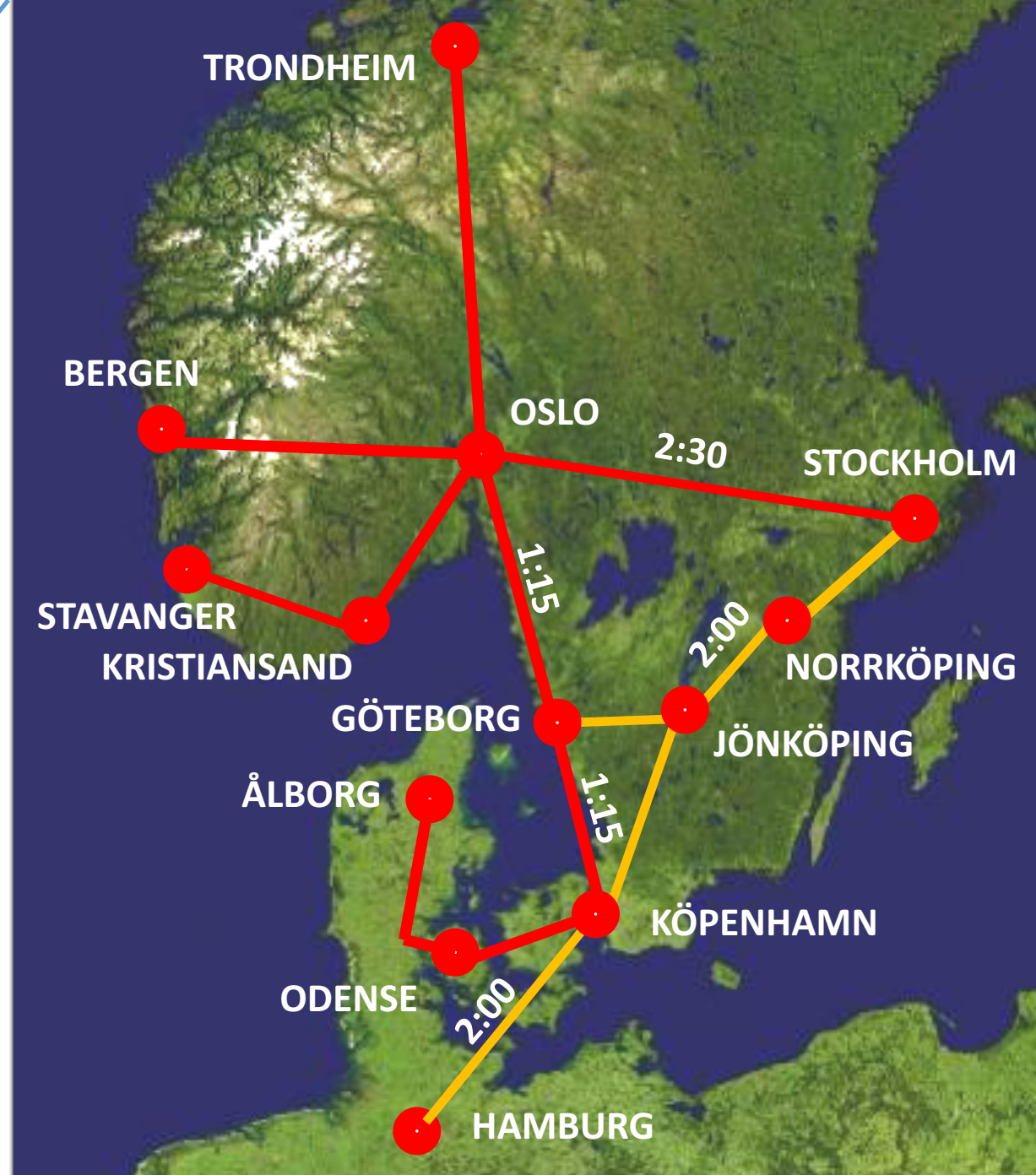
Duration 2025

FROM OSLO TO:

GÖTEBORG	1:15
KÖPENHAMN	2:30
STOCKHOLM	2:30
HAMBURG	4:30

FROM GÖTEBORG TO:

OSLO	1:15
STOCKHOLM	2:00
KÖPENHAMN	1:15



Tokyo – Osaka construction time 5 years 1959!



