



Concept for regional traffic in Denmark

23. Dialogforum Feste Fehmarnbeltquerung

Ringsted-Fehmarn

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Trans-European Transport Network (TEN-T)

banedanmark



Agenda

- Background
- The Danish Hinterland project
- Consequences for rail-traffic during construction phase
- Possible concept for rail-traffic in the future

Banedanmark

Our Role in the Fehmarnbelt Project

- Banedanmark own and manage the existing Danish state railway network
- Banedanmark is handling all works on the Danish hinterland project from Holeby to Ringsted
- In the future Banedanmark will perform rail traffic management on the line from interface to DB Netz AG in Puttgarden to Copenhagen
- In the future Banedanmark will prepare timetables for the cross-border rail traffic from Puttgarden to Copenhagen



Ringsted - Fehmarn so far



2008:
Treaty between Germany and Denmark.

2009:
Planning Act and technical analysis started

2011:
Public Hearing

2012:
Environmental Impact Assessment published.
See more

www.banedanmark.dk/ringsted-fehmarn

Ringsted – Fehmarn so far



2012 – 2013:
Programme Phase

2013:
Political decision of 200 km/h and
financial act for early works.
Tendering of early and other works
started

2014:
Start of early works

2015:
Construction law passed through
parliament
Start of land acquisition

Ringsted-Fehmarn so far

2016: A political agreement was reached March 4th

For the Danish hinterland project it means:

- Double track, and speed upgrade to 200 km/h from Ringsted to Nykøbing F will be finished in 2021
- Electrification from Ringsted to Nykøbing F will be finished latest at 2024
- Works on the line on Lolland – Nykøbing F to the tunnel – are postponed and will be coordinated with opening of the tunnel



Ringsted–Fehmarn Overview

- Extra track Vordingborg - Holeby (approximately 55 km)
- Electrification Ringsted-Holeby (approximately 115 km)
- Upgrade to 200 km/h
- New station near Holeby
- Passing tracks near Glumsø, Orehoved and Holeby
- More than 100 affected bridges including a new bridge over Masnedsund and a new bascule bridge over Guldborgsund
- Temporary stations in Orehoved and Rødby Færgen

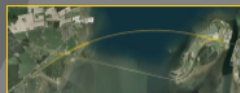
Jernbanen, der binder Europa sammen

En vigtig forudsætning for den kommende faste forbindelse over Femern Bælt er en gennemgribende ombygning af den eksisterende jernbane mellem Ringsted og Femern Bælt.

I perioden 2014–2021 udbygger og fornyer Banedanmark derfor den 115 km lange strækning til en ny og fremtidssikret jernbane til 200 km/t.



Ny Størstrømsbro
Når jernbanen opgraderes bygger Vejdirektoratet en ny Størstrømsbro. Spordelen koordineres med Banedanmark og består af en dobbeltsporet jernbane.



Hele strækningen bliver dobbeltsporet, når vi laver et nyt ekstra spor mellem Vordingborg og Holeby.

Nyt overhalingsspor

Holeby

Overgang fra Holeby til ny Femern-tunnel

Fra jernbane til tunnel
Banedanmarks projekt stopper i Holeby tæt ved Rødby Havn. Femern AS står for arbejdet med den nye Femern Bælt tunnel.



Mere end 100 broer ombygges
Hele strækningen skal elektrificeres og for at gøre plads til kørestrøm og et ekstra spor, skal mere end 100 broer på strækningen gøres højere og bredere.



Signaturer



- Ringsted–Femern Banen
- Nyt dobbeltspor
- Elektrificering
- Det Transeuropæiske Transportnet (TEN-T)
- Nye overhalingsspor
- Eksisterende jernbane
- Broarbejde

Samfinansieret af EU
Det transeuropæiske transportnet (TEN-T)

banedanmark



New station at Lolland (Holeby)

New station including two platforms. Approximately 5 km inland from Rødby Færge.

Pedestrian bridge including stairs and elevators.

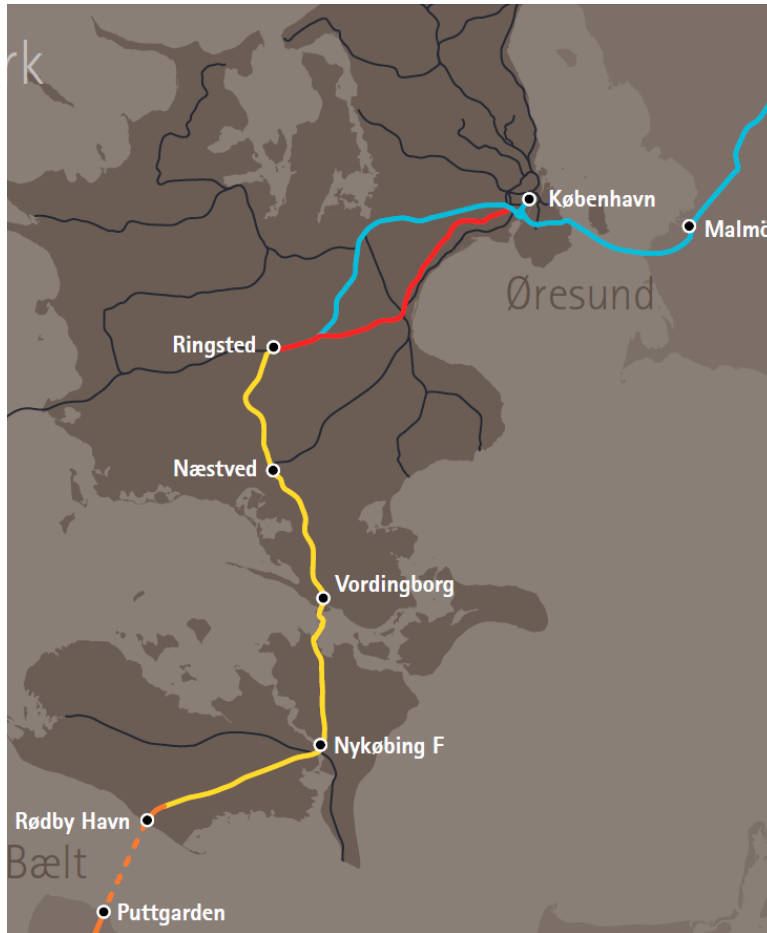
Forecourt including bus-stops and kiss- and ride facilities on the northern side of the station.

Bicycle path (and access for emergency vehicles) on the southern side of the station.

The existing station in Rødby Færge will be closed – and the rail-connection to Rødby Færge will be decommissioned.



Projects between Copenhagen and Fehmarn Belt



New line Copenhagen-Ringsted

New doubletrack, 55 km for 250 km/h

Construction Period: 2013-2018

Ringsted-Nykøbing F/Holeby

Upgrade to 200 km/h

Construction Period: 2014-2021/??

New bridge over Storstrømmen

Construction Period: 2018-2023

Electrification

Køge Nord-Næstved

Construction Period: 2015-2019

New bridge, Storstrømmen



Doubletracked road and rail bridge over Storstrømmen

Length: 3,9 km.

Max-speed trains: 200 km/h (today 100 km/h)

Max-speed cars: 80 km/h (today 50 km/h)

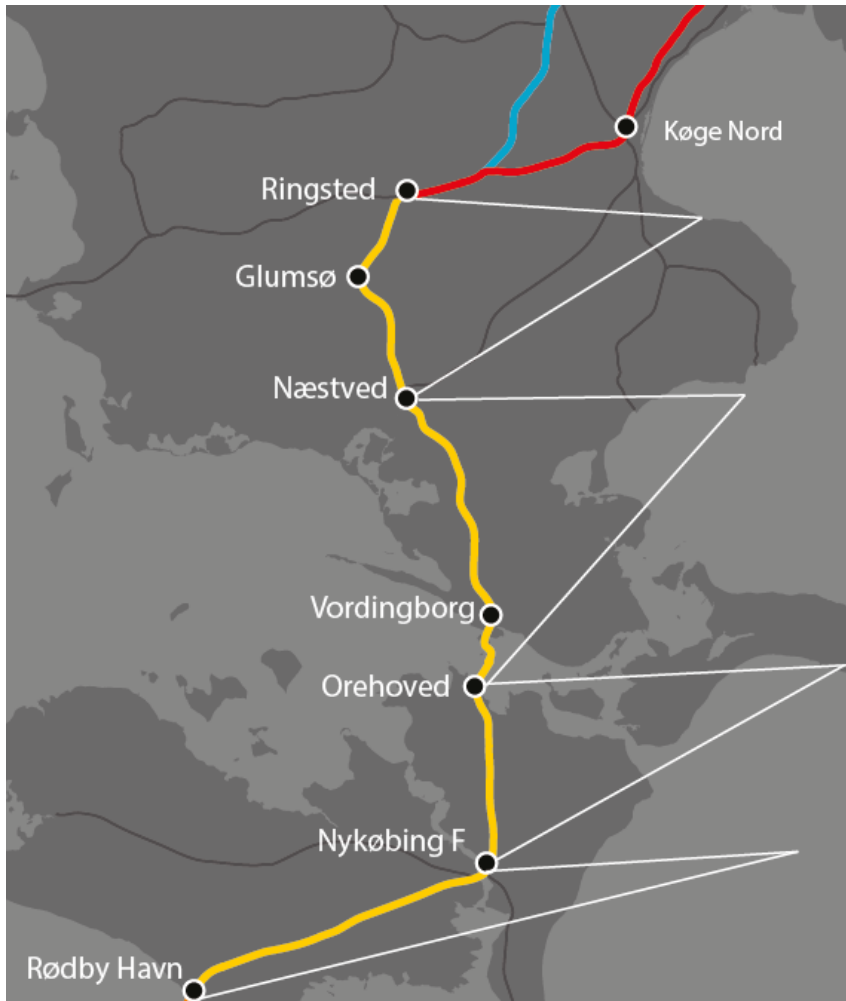
Free space for vessels: 26 m.

The Danish Road Directorate is Client, Banedanmark performs rail installations

Consequences for rail-traffic during construction phase



Major track possessions



The major track possessions are expected within the following periods, where a large amount of the works are expected:

Between Ringsted and Næstved

Total possession in 7 weeks, spring 2020

Total possession 6 months middle of 2021

Between Næstved and Orehoved.

Total possession one week in 2017

Total possession in 3 months in the summer of 2019.

Falster

Total possession in 9 weeks in 2018

Total possession 6 months in the middle of 2019

Total possession 4½ months in middle of 2021

Lolland

Total possession in 10 weeks in 2018

The current line will be renewed as needed to keep it open until the upgrade starts.

Other possessions in weekends/bank holidays.

Possible concept for rail-traffic in the future

Rail traffic today

Regional service today:

- Copenhagen-Nykøbing F:
 - o 1 Regionalexpress per hour
 - o 1 Regional per hour
 - o Additional rush hour traffic
- Nykøbing F-Rødby Færge:
 - o Approximately 1 train every 2 hours



Possible concept for rail-traffic in the future

Assumptions in the present timetable-work

Several unknown parameters:

- What is the required service level?
- Which kind of rolling stock will be used?
- What is maximum speed for rolling stock?
- Free access operators for international traffic



Possible concept for rail-traffic in the future

Timetable concept for the future

Regional service:

- Copenhagen-Nykøbing F (as today):
 - o 1 Regionalexpress per hour
 - o 1 Regional per hour
 - o Additional rush hour traffic
- Nykøbing F-Holeby:
 - o 1 train every 2 hours (primarily serviced by Regional trains Lübeck-Nykøbing F). In Nykøbing F connection to Copenhagen – probably by changing train.
- In general travel times will be reduced significantly

Reduced travel times

Possible traveltimes, when all projects have been finished

Fastest connection	2015	Reduction	After FBQ**
København – Nykøbing Falster	1:23	0:26	0:57
Nykøbing Falster – København	1:32	0:35	0:57
København – Næstved	0:49	0:15	0:34
Næstved – København	0:53	0:19	0:34
Næstved – Nykøbing Falster	0:34	0:11	0:23
Nykøbing Falster – Næstved	0:41	0:18	0:23
København – Hamburg	4:34	*	*
Hamburg – København	4:46	*	*

*) Timetable-work is in progress in cooperation between DB Netz AG, Femern A/S and Banedanmark

***) Assuming all mentioned projects finished, including flyover Ringsted and rolling stock capable of running at 250 kph.

Questions

