

Note

National Report Denmark 2018

1. General

Sund & Bælt Holding A/S owns - through its subsidiaries A/S Storebælt and Øresundsbro Konsortiet - the only two user paid infrastructure roads in Denmark, viz. the two large bridge links: the Storebælt link connecting the two biggest islands in Denmark and the Øresund link connecting Denmark and Sweden.

Both links are combined road and rail links and fees are paid by both road users and railway operators.

2. The year 2018

2.1. Network length

The Storebælt link is 18 km long and the Øresund link is 16 km long, totalling 34 km user paid motorway. This is unchanged from 2017.

The Danish motorway road network totals 1,268 km. Apart from the above bridges, the motorways are not user paid.

2.2. Financing

The two infrastructure links have been financed by loans raised in the capital markets. The Danish state guarantees for the affiliated companies' commitments and in the case of Øresundsbro Konsortiet the guarantee is shared by the Swedish and the Danish states.

2.3. Traffic

The traffic growth has been calculated on the basis of the number of vehicles crossing the bridge links cf. the below specification for the two bridges.

Table 1. Growth in traffic 2014 – 2018 (percentage)

	2014	2015	2016	2017	2018
Storebælt	+4.4	+4.6	+4.4	+3.0	+2.0
Øresund	+3.4	+1.8	+5	+1.7	-0.4
The Danish road network	+2.5/5.0 ¹⁾	+2.9/+4.8 ¹⁾	+2.8	+1.7/4.1 ¹⁾	+1.2/+3.1 ^{1) 2)}

Note: 1) Motorways
2) Based on Q1-Q3

For comparison, growth in the Danish economy is 1.4 per cent for 2018.

2.4. Tolling system and tolling technologies used

The tolling systems are barrier-based single lane systems. The payments are primarily done by using DSRC and from 2018 also by using ANPR. Secondly means of payments are payment cards or cash.

The DSRC used is based on 5.8 GHz. All the 5.8 GHz DSRC profiles used for communication in EasyGo® are currently accepted by the road side equipment. The profile is based on EN15509.

The RSE supports EN15509 with both security level 0 and 1. All new OBE must be according to EN 15509.

2.5. Tolls

Below are stated the price per passage and the price per driven km for private cars and HGVs, respectively. It should be noted that the price per km is very high as it covers infrastructures comprising bridges and tunnels for which construction costs have been very high. The construction cost for Storebælt inclusive of land works totalled DKK 36 billion (EUR 4.8 billion) and for Øresund exclusive of land works DKK 19.6 billion (EUR 2.6 billion).

Table 2. Fees 2018

EUR	Storebælt		Øresund	
	Price per passage	Price per km	Price per passage	Price per km
Private cars	33	1.8	41	2.6
HGVs 10-20 m	129	7.2	154	9.6

Note: Reductions/discounts:
 Reductions is granted using the ETC-lanes
 Quantity discounts for commercial cars/HGV's
 Discounts for commuters

2.6. Revenues

Table 3. Revenues 2018/2017

Million	2018		2017		Growth pct. (basis DKK)
	DKK	EUR	DKK	EUR	
Storebælt	2,873	385	3,164	425	-9.1
Øresund	1,430	191	1,406	189	+1.7
Total	4,303	576	4,570	614	-5.8

Note: The figures in EUR are based on the rate of exchange late 2017 of 744.49 and late 2018 of 746.73, respectively

2.7. Safety

Table 4. Safety 2018/2017

Number for 10 million km. travelled	Storebælt		Øresund	
	2018	2017	2018	2017
Personal injury rate	0.08	0.09	0.08	0.08
Fatal accident rate	0.04	0	0	0
Rate of dead	0.04	0	0	0

2.8. Long-term forecasts and tendencies

2.8.1. Fehmarnbelt

Femern A/S, which is a 100 per cent owned subsidiary of the Sund & Bælt Group, is responsible for the planning and construction of a fixed link between Denmark and Germany across the Fehmarnbelt. The link will be the world's longest immersed road/rail tunnel.

The Fehmarnbelt project was approved by a Construction Act passed by the Danish parliament in 2015. Therefore, all permits, including environmental permits, are in place on the Danish side.

In 2016, conditional civil works contracts were concluded with two major international contractor consortia consisting of Danish, German, French and Dutch companies. The contracts cover approximately 75 percent of the construction. The major tunnel contracts were concluded in 2016 and are conditional upon German plan approval.

On December 28, 2018, the Ministry of Transport in Schleswig-Holstein announced that the plan approval for the Fehmarnbelt tunnel was ready to be signed. This finalisation procedure gave Femern A/S the opportunity to suggest amendments to the factual content, as well as editorial changes. This process is now completed and the plan approval signed by the German approval authority in Kiel. The German approval relates exclusively to the construction work on the German side. Activities on the Danish side are regulated by the Danish Construction Act for the Fehmarnbelt project.

In March 2019 the political parties behind the Fehmarnbelt Fixed Link project have decided to initiate a number of large construction activities in Rødbyhavn on Lolland. Femern A/S have been requested to enter negotiations with the contractor consortia that will build the Fehmarnbelt tunnel, about launching a number of major construction activities in Rødbyhavn on the Danish side.

The specific construction activities that will take place at Rødbyhavn on Lolland are:

- The construction of the large tunnel element factory at Rødbyhavn. The plant will cast the 89 tunnel elements that together will constitute the Fehmarnbelt tunnel.
- The establishment of a work harbour at Rødbyhavn. Materials for construction of the plant will be delivered via the harbour and tunnel elements will be shipped out to sea from here.
- The establishment of the tunnel portal on Lolland. The first tunnel elements will be immersed and connected to the Danish portal.
- The establishment of the housing and administrative facilities for the Femern A/S tunnel workers and contractors.
- Ordering of special marine equipment. Including the machines to be used to dredge the tunnel trench.
- Other lesser preparatory works

The construction works on the Danish side are expected to begin in the fall of 2019

The Fehmarn link is expected to open in 2028.

The total construction budget incl. reserves in 2015 prices amounts to DKK 52.2 billion for the cost-to-coast link and DKK 9.5 billion for the Danish landworks. Based on the assumptions for traffic, revenue, cost of operation, and financing expenses, the prepayment period for the entire facility is expected to be 36 years.

The Danish state will extend state guarantees to cover the companies loans and other financial liabilities and moreover, without further notification of each individual case, the Danish state guarantees the companies' other ongoing liabilities in connection with the construction project

3. Main ASECAP key figures

Table 5. Key figures 2018 Denmark

	2018
Network length – 2x lanes	34 km
No. of km under construction	0 km
Forecasts of opening motorway sections	0
Annual toll revenue	576 million EUR
Permanent staff	276
Average daily traffic (LV)	50,507 vehicles
Average daily traffic (HV)	5,746 vehicles
Average daily traffic (LV+HV)	56,253 vehicles
Total number of accidents	40
No. of personal injury accidents	3
Personal injury rate per 10 million km	0.08
No. of dead	1
Km travelled (1.000.000 km.)	355
No. of toll plazas	2
No. of lanes	42
No. of teletoll equipped lanes	42
No. of teletoll subscribers	1,552,000
No. of rest areas with station services	0
No. of rest areas	0
No. of restaurants	0
No. of hotels	0