



# Network Statement 2023

Validity Period:  
December 11<sup>th</sup> 2022 – December 9<sup>th</sup> 2023

### **CORRECTIONS AND AMENDMENTS**

This document contains the corrections and amendments described in the table below. This document replaces previous versions of the Network Statement 2023 mentioned in the table.

<b>Version</b>	<b>Date of publication</b>
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# Table of contents

<b>1</b>	<b>General information .....</b>	<b>7</b>
1.1	Introduction .....	7
1.2	Purpose of the Network Statement.....	7
1.3	Legal aspects .....	7
1.3.1	Legal framework.....	7
1.3.2	Legal status and liability.....	10
1.3.3	Appeals procedure .....	10
1.4	Structure of the Network Statement.....	10
1.5	Validity period, updating and publishing.....	11
1.5.1	Validity period.....	11
1.5.2	Updating.....	11
1.5.3	Publishing .....	11
1.6	Contacts.....	12
1.7	Cooperation between European Infrastructure Managers/Allocation Bodies .....	12
1.7.1	Rail Freight Corridors .....	12
1.7.2	RailNetEurope and other international cooperation .....	12
<b>2</b>	<b>Infrastructure .....</b>	<b>14</b>
2.1	Introduction .....	14
2.2	Extent of infrastructure.....	14
2.2.1	Limits.....	14
2.2.2	Adjacent railway infrastructure.....	15
2.3	Description of Banedanmark's infrastructure .....	17
2.3.1	Geographical identification.....	17
2.3.1.1	Number of tracks and lengths of lines.....	17
2.3.2	Track gauges.....	18
2.3.3	Stations and nodes.....	18
2.3.4	Loading gauges .....	18
2.3.5	Weight limits.....	18
2.3.6	Line gradients.....	19
2.3.7	Maximum line speed .....	19
2.3.8	Maximum train length .....	19
2.3.9	Electrification .....	20
2.3.10	Signalling systems .....	20

2.3.11	Traffic control systems .....	21
2.3.12	Communication systems.....	21
2.3.13	Train control systems .....	22
2.4	Traffic restrictions .....	22
2.4.1	Environmental restrictions.....	22
2.4.2	Dangerous goods .....	24
2.4.3	Tunnel restrictions .....	24
2.4.4	Bridge restrictions.....	25
2.5	Access to/limitations of the infrastructure .....	25
2.6	Infrastructure development.....	26
<b>3</b>	<b>Access conditions.....</b>	<b>28</b>
3.1	Introduction .....	28
3.2	General access requirements .....	28
3.2.1	Conditions for applying for capacity.....	28
3.2.2	Conditions for access to the railway infrastructure .....	28
3.2.3	License to operate a Railway Undertaking .....	29
3.2.4	Safety certificate.....	29
3.2.5	Insurance.....	29
3.3	Contractual arrangements.....	29
3.3.1	Framework agreement.....	29
3.3.2	Contracts with Railway Undertakings .....	30
3.3.3	Contracts for applicants .....	30
3.3.4	General terms og conditions.....	30
3.4	Specific access requirements .....	31
3.4.1	Approval of rolling stock .....	31
3.4.2	Approval of staff.....	31
3.4.3	Exceptional transports .....	31
3.4.4	Dangerous goods .....	32
3.4.5	Test trains and other special trains.....	33
<b>4</b>	<b>Capacity allocation .....</b>	<b>34</b>
4.1	Introduction .....	34
4.2	General description of the capacity allocation process.....	34
4.3	Reserving capacity for temporary capacity restrictions.....	34
4.3.1	General principles.....	34
4.3.2	Deadlines and information provided to applicants .....	35

4.4	Impacts of framework agreements.....	38
4.5	Capacity allocation process .....	38
4.5.1	Annual timetable path requests.....	38
4.5.2	Late annual timetable path requests .....	39
4.5.3	Ad-hoc path requests .....	39
4.5.4	Coordination process.....	39
4.5.5	Dispute resolution process .....	40
4.6	Congested infrastructure .....	40
4.7	Exceptional transport and dangerous goods .....	40
4.8	Rules after path allocation .....	41
4.8.1	Adjustment of allocated capacity upon request by the applicant.....	41
4.8.2	Changes of allocated capacity made by Banedanmark.....	41
4.8.3	Rules for non-usage of allocated capacity .....	41
4.8.4	Rules for cancellation of allocated capacity .....	42
4.9	Timetabling Redesign for Smart Capacity Management.....	42
4.9.1	Objectives of TTR.....	42
4.9.2	Description of the process .....	43
4.9.3	Implementation .....	43
<b>5</b>	<b>Services and charges .....</b>	<b>44</b>
5.1	Introduction .....	44
5.2	Charging principles .....	44
5.3	Minimum access services.....	45
5.4	Additional services and charges .....	45
5.5	Ancillary services and charges .....	47
5.6	Financial penalties and incentives.....	47
5.6.1	Penalties for adjustment of allocated capacity upon request by the applicant.....	47
5.6.2	Penalties for changes of allocated capacity .....	47
5.6.3	Penalties for non-usage of allocated capacity.....	47
5.6.4	Charges for scarcity of capacity .....	48
5.6.5	Penalties for path cancellation .....	48
5.6.6	Incentives/discounts.....	49
5.7	Performance scheme.....	49
5.8	Change to charges .....	49
5.9	Invoicing and terms of payment.....	50

<b>6</b>	<b>Operations.....</b>	<b>51</b>
6.1	Introduction .....	51
6.2	Operational rules .....	51
6.3	Operational measures.....	51
6.3.1	Principles .....	51
6.3.2	Performance of operations in case of disturbances .....	51
6.4	Tools for train information and monitoring .....	53
6.5	Train Information System - TIS.....	55
<b>7</b>	<b>Service facilities .....</b>	<b>56</b>
7.1	Introduction .....	56
7.2	Service facilities - overview .....	56
7.3	Service facilities managed by Banedanmark.....	57
7.3.1	General provisions.....	57
7.3.2	Passenger stations.....	57
7.3.2.1	General information.....	58
7.3.3	Freight terminals .....	58
7.3.4	Marshalling yards and train formation facilities, including shunting facilities.....	58
7.3.5	Storage sidings .....	58
7.3.6	Facilities for the maintenance of rolling stock .....	59
7.3.7	Other technical facilities.....	59
7.3.8	Port facilities .....	60
7.3.9	Emergency facilities .....	60
7.3.10	Diesel refuelling facilities .....	60

# 1 General information

## 1.1 Introduction

Banedanmark, which manages the State's railway infrastructure in Denmark, has, cf. the Railway Act, produced and published this Network Statement. The Network Statement's main target group is Railway Undertakings and others planning to apply for capacity on infrastructure in Denmark. The Network Statement primarily contains information about infrastructure managed by Banedanmark but also contains information about connected infrastructure and Infrastructure Managers.

Basically, the infrastructure managed by Banedanmark will in the following be referred to as Banedanmark's infrastructure.

## 1.2 Purpose of the Network Statement

The Network Statement's objective is to inform Railway Undertakings and other applicants about Banedanmark's infrastructure, and the terms and conditions for allocation of capacity and use.

The Network Statement is produced in accordance with directive 2012/34/EU, act no. 686 of 27/05/2015 (The Railway Act) and Executive order no. 1245 of 10/11/2015 on allocation of railway infrastructure capacity (paths) etc. with later changes.

The Network Statement consists of a main document, which describes the infrastructure as well as the general conditions regarding access to the infrastructure. In addition, the Network Statement contains an appendix section with detailed technical information. Finally, the Network Statement includes links, for example to publications and relevant websites.

## 1.3 Legal aspects

### 1.3.1 Legal framework

The Network Statement is produced with reference to the EU railway package as well as the derived Danish legislation. Below is a list of the most important legislation related to the operations and use of the railway infrastructure in Denmark. The list is not exhaustive:

#### EU legislation

DIRECTIVE (EU) 2012/34 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 November 2012 on establishing a single European railway area (recast)

DIRECTIVE (EU) 2016/2370 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 14 December 2016 amending Directive 2012/34/EU as regards the opening of the market for domestic passenger transport services by rail and the governance of the railway infrastructure

REGULATION (EU) No. 913/2010 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 22 September 2010 concerning a European rail network for competitive freight

REGULATION (EC) No. 1371/2007 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 October 2007 on rail passengers' rights and obligations

REGULATION (EC) No. 1370/2007 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 October 2007 on public passenger transport services by rail and by road and repealing Council Regulations (EEC) Nos 1191/69 and 1107/70

COMMISSION IMPLEMENTING REGULATION (EU) 2015/10 of 6 January 2015 on criteria for applicants for rail infrastructure capacity and repealing Implementing Regulation (EU) No 870/2014

COMMISSION IMPLEMENTING REGULATION (EU) 2018/1995 of 20 November 2018 on laying down procedure and criteria for the application of the economic equilibrium test pursuant to Article 11 of Directive 2012/34/EU of the European Parliament and of the Council (Text with EEA relevance)

COMMISSION IMPLEMENTING REGULATION (EU) 2015/909 of 12 June 2015 on the modalities for the calculation of the cost that is directly incurred as a result of operating the train service

COMMISSION IMPLEMENTING REGULATION (EU) 2015/171 of 4 February 2015 on certain aspects of the procedure of licensing railway undertakings

COMMISSION IMPLEMENTING REGULATION (EU) 2017/2177 of 22 November 2017 on access to service facilities and rail-related services

COMMISSION DELEGATED Decision (EU) 2017/20175 of 4 September 2017 replacing the Annex VII to Directive 2012/34/EU of the European Parliament and of the Council establishing a common European railway area

## **National legislation**

Act no. 686 of 27/05/2015 with later changes (The Railway Act)

Act no. 588 of 24/06/2005 on Sund & Bælt Holding A/S



Executive order no.1276 of 20/11/2015 on Banedanmark's duties and powers

Executive order no. 1379 of 01/12/2015 on railway charges and environmental subsidies for freight transportation on the rail network

Executive order no. 2244 of 29/11/2021 on infrastructure charges etc. for the railway network

Executive order no. 1245 of 10/11/2015 on allocation of railway infrastructure capacity (paths) etc.

Executive order no. 1503 of 29/06/2021 on railway related service facilities and services

Executive order no. 1380 of 01/12/2015 on obligation to provide access at stations etc.

Executive order no. 1461 of 15/12/2009 on liability insurance for Railway Undertakings and Infrastructure Managers

Executive order no. 1125 of 09/10/2017 on regulation of amount of compensation and insurance in relation to the Railway act

Executive order no. 1136 of 22/09/2015 on the Danish Rail Regulatory Body

Executive order no. 1465 of 05/12/2016 on vehicles' technical compatibility with the rail network

Executive order no. 1312 of 16/12/2008 on Railway Undertakings' and Infrastructure Managers' emergency work

Executive order no. 712 of 20/05/2020 on safety approval and EU safety certificate within the railway sector

Executive order no. 896 of 13/07/2015 on the abrogation of Executive order on locomotives and passenger coaches operating on the Danish rail network

Executive order no. 601 of 23/06/2009 on rail transportation of dangerous goods

Executive order no. 710 of 20/05/2020 on approval of vehicles on the railway

Executive order no. 372 of 25/04/2016 on control of risk for major accidents with dangerous goods

Executive order no. 854 of 07/07/2015 on the authorization of railway undertakings

Consolidation act no. 1218 of 25/11/2019 on environmental protection with later changes.

### 1.3.2 Legal status and liability

The Network Statement 2021 is based on valid legislation and associated administrative regulations, including §§ 26-27 of the Executive order no. 1245 of 10/11/2015 on allocation of railway infrastructure capacity (paths) etc., with later changes, especially implementing article 27 of Directive 2012/34/EU as well as Annex IV of the Directive. The infrastructure fulfils the standards, procedures and specifications outlined in this Network Statement.

In general, Banedanmark makes reservations for the possibility of planned capacity restrictions in connection with projects being changed or cancelled, if a political decision is made in this regard.

Banedanmark is not responsible for faults which may occur in connection with the configuration or printing of the Network Statement.

Banedanmark cannot vouch for the correctness of the information in this Network Statement provided by and describing other Infrastructure Managers or service facility operators, including terminal operators.

Reservations are made with regard to changes to the Network Statement or to the condition of the infrastructure in general which could not be foreseen at the time of publishing the Network Statement.

Relevant legislation and associated administrative regulations applicable in this field shall prevail over the information contained in this Network Statement.

### 1.3.3 Appeals procedure

Complaints related to the content of the Network Statement or to decisions on allocation of capacity made by Banedanmark can be made to the Danish Rail Regulatory Body. For further information on complaint rights, fees and deadlines reference is made to the [Danish Rail Regulatory Body's website](#)

## 1.4 Structure of the Network Statement

The international group of European Infrastructure Managers, RailNetEurope (RNE), has produced a common structure for the organisation and content of Network Statements.

The Network Statement has been drawn up in accordance with the common structure with the purpose of making information available to a greater extent to those applying for capacity across borders. Not all issues of the common structure are relevant to Banedanmark's infrastructure. For the ease of reference such issues will not form part of the Danish version of

Banedanmark's Network Statement. In the English version of Banedanmark's Network Statement all issues will appear from the headings with an indication as to the issue being not relevant to Banedanmark's infrastructure.

The Network Statement consists of a main document, which describes the infrastructure as well as the general conditions regarding access to the infrastructure. In addition, the Network Statement contains an appendix section with more technically detailed information. Finally, the Network Statement includes useful links, for example to publications and relevant websites.

## **1.5 Validity period, updating and publishing**

### **1.5.1 Validity period**

The Network Statement 2023 is valid for the capacity allocation period of K22, (i.e. from December 11<sup>th</sup> 2022 to December 9<sup>th</sup> 2023).

### **1.5.2 Updating**

In the event of significant changes to the conditions contained in this Network Statement, Banedanmark will publish addendums to the Network Statement. Generally, this will be without a prior public consultation. A wholly or partly revised version of the Network Statement will replace the previous version of the Network Statement.

The above-mentioned does not apply to Banedanmark and the Øresundsbro Konsortiet's (Øresund Bridge Consortium Partnership) standard access contracts (see appendices 2.3C and 2.3D). Changes to the standard access contract during the period from the publication of the Network Statement to its implementation can only occur after consultation with the Railway Undertakings. However, changes prompted by authority requirements – for example new or altered legislation, Ministry of Transport and Housing requirements or decisions made by the Danish Rail Regulatory Body – will be implemented - without public consultation.

### **1.5.3 Publishing**

The Network Statement is published on Banedanmark's website,; Netredegørelser, Banedanmark. The English version "Network Statement" will be available on both Banedanmark's website <https://uk.banedanmark.dk/en/Railway-Undertaking/Network-Statements> and on RNE's website [www.rne.eu](http://www.rne.eu)

The Network Statement is available in Danish and English. The main document and all appendices have been translated to English. In the event of discrepancies between the two versions of the Network Statement, the Danish version shall apply.

## 1.6 Contacts

Enquiries regarding national and international rail traffic and infrastructure access can be directed to Banedanmark.

Banedanmark's primary contact details:

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## 1.7 Cooperation between European Infrastructure Managers/Allocation Bodies

### 1.7.1 Rail Freight Corridors

The EU regulation 913/2010 outlines the establishment of a series of European rail freight corridors and was created in order to increase competition within international freight transport, including competition with other forms of transport.

Part of the Danish railway infrastructure is included in European rail freight corridor 3 (Scandinavian Mediterranean – ScanMed), which covers the line Stockholm/Oslo – Malmö – Copenhagen – Padborg – Hamburg – Innsbruck – Verona – Palermo.

A Corridor Information Document (CID) has been produced, which gives further details about the freight corridor. Further information can be found on ScanMed's website <https://www.scanmedfreight.eu/>

More information on the rail freight corridor is available on [Banedanmark's website](#).

For information on other freight corridors, see [RNE's website](#).

### 1.7.2 RailNetEurope and other international cooperation

Banedanmark is member of RailNetEurope (RNE). RNE is an umbrella organisation of European Infrastructure Managers. RNE facilitates the operational, international business cooperation between the member

countries. More information about the organisation can be found on See [RNE's website](#).

### RailNetEurope tools

#### *Path Coordination System (PCS)*

PCS is an online software tool which supports the coordination of processes for international train path requests. Banedanmark recommends using PCS. For further information, see the website of the tool <https://pcs.rne.eu>

#### *Charging Information System (CIS)*

CIS is a web-based application for the calculation of infrastructure charges. The application is designed to provide Railway Undertakings and any other applicants who intends to apply for the allocation for capacity in international rail freight corridors with pricing information. The system calculates a price estimate. For further information, see the website of the application <https://cis.rne.eu>

#### *Train Information System (TIS)*

TIS is a web-based application which visualises international trains from origin to destination. It supports international train management by delivering data concerning international passenger and freight transport performed in rail freight corridors. For further information, see the website of the application <https://tis.rne.eu>

### One Stop Shop (OSS)

#### *One Europe – ONE Service*

In Denmark, enquiries regarding applications for capacity in international rail freight corridors must be made through Banedanmark's One Stop Shop at [asn@bane.dk](mailto:asn@bane.dk). Alternatively, enquiries can be made to Banedanmark, Traffic Operations, Customers and Capacity Planning.

Further information on One Stop Shops can be found on [RNE's website](#).

## 2 Infrastructure

### 2.1 Introduction

The following sections describe Banedanmark's infrastructure. The description comprises a range of geographical, technical and operational characteristics, which are relevant to the application purpose of the infrastructure.

An outline map of lines in Denmark can be seen in appendix 3.1A. An outline map of lines being open for passenger and freight traffic can be seen in appendices 3.1B and 3.1C.

This section also contains relevant information on other Infrastructure Managers' infrastructure or connected infrastructure elements.

### 2.2 Extent of infrastructure

Access to Banedanmark's infrastructure is regulated by a number of acts and Executive orders, The Railway Act as well as specific regulations on licenses, safety certification and approvals can be found on the [Danish Civil Aviation and Railway Authority](#).

#### 2.2.1 Limits

The geographical limits of the Danish railway infrastructure are outlined in appendix 3.1A.

The following lines are inactive (see definition below). Consequently, capacity cannot be allocated for the lines:

- Nykøbing F – Gedser
- Nykøbing F – Rødby Færge (possessed until opening of the Fehmarn Belt link)
- Tønder – Tinglev

*Sidings and including branch lines connected to other sidings, such as connections to port lines and private tracks*

A siding can be classified as to one of three levels:

#### *Open*

Usage of the siding is requested. The siding is fully maintained and fully functional. An overview of open sidings, grouped according to usage for various operational purposes, can be seen in appendix 3.2A.

### *Inactive*

Usage of the siding is not requested. Consequently, the siding is not available for traffic use, and Banedanmark can subsequently declare the siding inactive.

If usage of the siding is requested within 24 hours, it can be used for traffic purpose. The siding is technically operational, and maintenance of the siding can, if necessary, take place.

### *Closed*

Usage of the siding has not been requested for the last 24 months, during which period the siding has been inactive. Banedanmark will recommend to the Danish Civil Aviation and Railway Authority that the siding is closed. If this recommendation is approved by the Danish Civil Aviation and Railway Authority, the siding will be closed operationally and technically.

If a request for reopening of the siding is not expected in the foreseeable future, Banedanmark will recommend to the Danish Civil Aviation and Railway Authority that the siding is removed.

Status of the sidings as inactive or closed is published in the Network Statement, appendix 3.2.A.

## **2.2.2 Adjacent railway infrastructure**

Banedanmark's international and national borders with other Infrastructure Managers appear from in appendix 3.2B.

### National borders with other Infrastructure Managers

#### *The Great Belt Link*

The fixed connection over the Great Belt is owned by A/S Storebælt (Great Belt Inc). Banedanmark is the Infrastructure Manager of the fixed connection over the Great Belt and is responsible for traffic-related operations.

A/S Storebælt is responsible for maintenance and reinvestment related to infrastructure on the fixed connection over the Great Belt and covers all costs related hereto.

Sund & Bælt Holding A/S administrates the system owned by A/S Storebælt and is responsible for all maintenance and reinvestment projects on the railway line from km 106,840 to 132,396.

Every two years an exercise is conducted with regard to the Great Belt Link. The Great Belt Link is closed for traffic during the exercise.

### *The Øresund Railway*

The Danish infrastructure connected to the Øresunds Bridge – Øresundsbanen (Oeresund railway) – is owned by A/S Øresund .

A/S Øresund is responsible for the maintenance and reinvestments on to the Danish railway infrastructure connected to the Fixed Oeresund Link. A/S Øresund covers all expenses on the railway lines København H – Peberholm until km 12.854 and Vigerslev-Kalvebod until km 1.555. However, Banedanmark will be in charge of the maintenance and reinvestments of the interlocking systems on the Danish railway infrastructure connected to the Fixed Oeresund Link, until the Signalling Programme has been implemented on the lines.

Banedanmark is Infrastructure Manager of the Danish railway infrastructure connected to the Fixed Oeresund Link and is responsible for traffic operations in this regard.

Øresundsbron A/S is Infrastructure Manager for the railway system situated after km 12.854, and Øresundsbron A/S is responsible for the maintenance and the reinvestments with regard to this part of the railway infrastructure.

Sund & Bælt Holding A/S administrates the system owned by A/S Øresund and is responsible for all maintenance and reinvestment projects. However, Banedanmark is responsible for the administration of the interlocking systems on the Danish railway infrastructure connected to the Oeresund Fixed Link.

### *Regional railways*

The following links contain information on the regional railways in Denmark with railway infrastructure connected to Banedanmark's infrastructure:

- [Midtjyske Jernbaner's website](#)
- [Lokaltog's website](#)
- [Nordjyske Jernbaner's website](#)
- [Vestbanen's website](#)

Information on where each individual regional railway is connected to Banedanmark's infrastructure can be seen in appendix 3.2C. Banedanmark is Infrastructure Manager for road-related conditions of secured crossings on private railways.

### *Private sidings*

For further information on private sidings, see appendix 3.2C. Information on port railway tracks and port berths can be obtained from the relevant track owners, see section 7.2.

For information on freight terminals, see section 7.3.3.

### *International interface to other Infrastructure Managers*



Banedanmark's infrastructure is connected to the German infrastructure at the Padborg border and the Tønder border. For further information on the borders' locations and adjacent Infrastructure Managers, see appendix 3.2C.

The interface between the Danish railway infrastructure and the Swedish railway infrastructure is at the system border at Peberholm's western station border at km 23.6. The interface between Banedanmark's infrastructure and the infrastructure managed by Øresundsbro Konsortiet (Oeresund Bridge Consortium Partnership) is outlined in appendix 3.2C. Infrastructure managed by Øresundsbro Konsortiet is described in <https://www.oresundsbron.com/da/info/netredegoelse> (Network Statement for the Oeresund Bridge).

## 2.3 Description of Banedanmark's infrastructure

The infrastructure for which Banedanmark is Infrastructure Manager is described below.

Appendix 2.3A and 2.3B contain outline maps for passenger and freight traffic where the classification is performed based on the on the TSI-INF categories (P and F). The outline maps illustrate the basic parameters of the railway lines (maximum speed, axle load, gauge, etc.).

The classification is based on TSI-INF P3, P5, and P6, as P3 is divided into two ranges of speed as stated in the signature in appendix 2.3A. The railway's "big H", incl. Nordvestbanen, is classified as P3a/b due to longer trains than on the smaller P5 and P6 railways. On certain railway lines two colours occur. This is due to the fact that lengths of platforms of the smaller stations only allow trains of shorter length than required for a higher category. From appendices 2.3A and 2.3B (reference, cf. the subsequent section) it appears which lengths of platform are available at which stations. The S-train lines are shown as category P5 – solely for a visualisation of the basic parameters compared to other railways. The S-train lines are not covered by the TSI requirements.

The classification for freight trains complies with the basis parameters in F2 and F4 – the latter only on lines where the maximum axle load is below 20 tons. Thus, at the moment F2 is the dominant classification. Signature F1 is reserved for a future corridor - Øresund-Femern. Regarding lengths of passing tracks, reference is made to appendices 2.3A and 2.3B.

### 2.3.1 Geographical identification

#### 2.3.1.1 Number of tracks and lengths of lines

An overview of the number of tracks lines can be seen in appendix 3.3A.

## 2.3.2 Track gauges

In Denmark, the nominal track gauge is 1435 mm.

## 2.3.3 Stations and nodes

A map of selected stations, stopping points and nodes on Banedanmark's infrastructure can be seen in appendix 3.1B.

Banedanmark's standard for platforms at stations with long-distance or international traffic is 320 meters. It should be noted that this standard is not applied at all stations. Guideline information on the length and height of all platforms at stations on Banedanmark's infrastructure can be seen in appendices 3.6 and on [Banedanmark's website](#)

The line information of Banedanmark's infrastructure (TIB) contains a description of the local operational conditions for stations. The TIB lines can be seen in appendix 3.3B and on [Banedanmark's website](#) from which an overview of lines equipped with ETCS also appear.

## 2.3.4 Loading gauges

An overview of applicable loading gauges can be found in appendix 2.5.

Gauges for mixed traffic have not been implemented, but up to P/C 80 and P/C 410 can be transported on most lines. These loading units must be transported as exceptional transports, see section 3.4.3.

### *Cross wind*

The European regulation defines specific requirements for the Infrastructure Manager with regard to the limits for cross wind. These requirements depend on the speed permitted on a railway line. On Banedanmark's railway network speeds up to 180 km/h are permitted. This implies that a reference train which is stable at 34.8 m/s cross wind at a speed of 200 m/h (according to the EU regulation this is the relevant table value) must be able to run safely on the railway line under the most critical conditions. Consequently, it lies with the Railway Undertakings to ensure that their rolling stock, including load, being stable at this reference value.

## 2.3.5 Weight limits

Due to synergetic conditions, there is no guarantee that permission will be granted to travel at maximum speed as well as with maximum axle load and maximum meter load. For more information, see section 2.3.7 with regard to line speeds.

#### *Maximum axle load*

A guideline overview of maximum axle load can be seen in appendix 3.3D. Applicable maximum axle load of vehicles on individual lines (and line sections) is contained in AML, which can be found on [Banedanmark's website](#). Maximum axle load refers to the highest weight per axle on the line.

#### *Weight per meter*

A guideline overview of maximum weight per meter can be seen in appendix 3.3E. Applicable maximum meter load of vehicles for individual lines (and line sections) is contained in AML, which can be found on [Banedanmark's website](#). Maximum meter load refers to the highest weight per meter on the line.

#### *Train weight and load*

Reference is made to the valid legislation as well as rules issued by Banedanmark. The rules can be found on [Banedanmark's website](#).

### **2.3.6 Line gradients**

TIB contains information on gradients on the line. Max. permitted gradient/decline is contained in Track Rules 1987 section 2.10.

#### *Line gradients*

Wheel gauges must be suitable for a line gradient of 1:40.

### **2.3.7 Maximum line speed**

An overview of maximum line speeds can be seen in appendix 3.3F. Maximum line speed refers to the highest permitted speed for train sets with documented limited impact on the track (special train sets) for the given part of the line. Specifications of special train sets ("særlige togsæt") appear from Banedanmark's norm BN2-74.

For other rolling stock, the maximum speed may be lower than the maximum line speeds mentioned in the appendix. These limits appear in TIB (Banedanmark's route information)/[overview of lines equipped with ETCS](#).

### **2.3.8 Maximum train length**

Train length refers to the total length of the train including operating and non-operating traction units.

Information on permitted train lengths can be found on [Banedanmark's website](#).

Certain passing tracks or crossing tracks cannot accommodate trains of more than 835 meters, and therefore capacity limits may be imposed in such cases. Information in this regard can be obtained from [korrtoga@bane.dk](mailto:korrtoga@bane.dk).

### 2.3.9 Electrification

#### *Long-distance lines*

The following lines of Banedanmark's infrastructure are electrified:

- Helsingør – København – Roskilde - Odense – Fredericia – Lunderskov – Esbjerg
- København – Øresundsforbindelsen
- København – Køge Nord – Ringsted
- Køge Nord – Køge – Næstved
- Ringsted - Næstved
- Lunderskov – Tinglev – Padborg
- Tinglev – Sønderborg
- Næstved - Vordingborg

System separations:

Lernacken, Sweden: Between 25 kV 50 Hz and 15 kV 16.7 (operational at line speed)

Padborg: Between 15 kV 17,7 Hz (not operational at line speed)

The electrical operations on the long-distance lines are performed by 25 KV 50 Hz alternating currents from distribution stations along the track.

#### *S-train lines*

The S-train lines in the Greater Copenhagen Municipal area operate at 1650 V direct current from transformer stations along the track.

An overview of the electrified lines and lines of Banedanmark's infrastructure which are planned to be electrified can be seen on [Banedanmark's website](#)

### 2.3.10 Signalling systems

Traffic control and management is performed by Banedanmark through various types of interlocking systems which send a visual stop/go signal to the engine driver in accordance with the 1975 Safety Regulations (SR), or through interlocking systems combined with ETC/CBTC signalling stop/running permit to the engine driver through line radio and driver's cab signal according to the Safety Regulation's Operational Rules ORS/ORF.

#### *Long-distance lines*

Traffic control and management on long-distance lines where the Signalling Programme has been rolled out is performed by Banedanmark through ERTMS in accordance with the Safety Regulation's Operational Rules (ORF).

See roll out outline map for the long-distance lines via the link:

<https://www.bane.dk/Borger/Baneprojekter/Signalprogrammet/Fjernbane>

#### *S-train lines*

Control and management of the S-train traffic is performed by Banedanmark through CBTC in accordance with the Safety Regulation's Operational Rules (ORS). See roll out outline map for the S-train lines via the link:

[https://www.bane.dk/Borger/Baneprojekter/Signalprogrammet/S\\_bane](https://www.bane.dk/Borger/Baneprojekter/Signalprogrammet/S_bane)

For further information reference is made to Banedanmarks major projects plan: <https://www.bane.dk/da/Borger/Publikationer/Anlaegsplan>

### **2.3.11 Traffic control systems**

Traffic control is performed by using remote control and by using local control of interlocking and block systems. Approximately 97% of Banedanmark's lines are remotely controlled. These lines comprise both larger regional control centers (RFCs) and smaller control centers (FCs). Few stations are operated on a local basis, but the rest are remotely controlled. The station interlocking systems where an FC is located are controlled by local train dispatchers. However, the only exception being the S-trains.

The locations and coverage areas of the control centers as well as the stations which are operated on a local basis can be seen in appendix 3.3H.

Quite a few stations require the presence of local staff as any prerequisite of operations. Such stations are: Horsens, Herning, Viborg, Silkeborg, Ellidshøj, and Langå.

Operating times for local staff are stated in TIB (Banedanmark's route information). If the presence of local staff is requested outside these operating times, this can be ordered by directing contact to on 15<sup>th</sup> of the previous month:

Contact points at Banedanmark in this regard:

[tjsyd@bane.dk](mailto:tjsyd@bane.dk) for Horsens

[tjnord@bane.dk](mailto:tjnord@bane.dk) for all other stations

### **2.3.12 Communication systems**

GSM-R is applied for radio communication.

The radio channels which can be applied at the individual stations are described in TIB (Banedanmark's route information). Banedanmark's requirements regarding use of GSM-R are described in the infrastructure register.

Radio conversations are recorded, monitored, and applied for detecting causes in connection with safety-related incidents.

#### *Long-distance lines*

GSM-R radio (interoperable) is used for oral and data communication to and from the trains. In order to apply this system, the trains must be equipped with a GSM-R radio.

GSM-R can be used for shunting, or portable radios can be used in relation to Point-to-Point. Portable radios must be configured to operate only on allocated channels/frequencies. The responsibility for correct configurations lies with the Railway Undertakings.

#### *S-train lines*

GSM-R radio is used for oral and data communication to and from the trains. In order to apply this system, the trains must be equipped with a GSM-R radio.

### **2.3.13 Train control systems**

In accordance with the Danish Civil Aviation and Railway Authority's "Railway safety regulations BJ no. 5-1-2017 (applies only to ATC and HKT lines, i.e. the old signals, and consequently not the new signals ETCS and CBTC) on regulations for running on the lines with train control systems" as well as "Executive order no. 1465 of 5<sup>th</sup> December 2016 on vehicles' technical compatibility with the rail network" rolling stock, to which capacity is allocated on lines equipped with train control systems, must be equipped with either interoperable mobile ETCS Level2 Baseline 3 (possibly combined with STM-equipment), mobile ATC or mobile CBTC together with HKT (on the S-train Lines). Lines where respectively ETCS and CBTC are placed in service can only be operated by rolling stock equipped with these train control systems. Only ETCS is interoperable.

The valid traffic information issued by Banedanmark on the handling of the Danish Civil Aviation and Railway Authority's BJ 5-1-2017 contains guidelines for operating rolling stock without the ATC system on lines with ATC.

## **2.4 Traffic restrictions**

### **2.4.1 Environmental restrictions**

According to the Environmental Protection Act the undertaking responsible must when making system arrangements and operations planning ensure that the extent to which the surroundings are exposed to pollution is limited as far as possible.

The Railway Undertaking is obliged to take measures which Banedanmark finds necessary in order to comply with the specific instructions addressed to Banedanmark by the environmental authorities concerning pollution caused by the Railway Undertaking.

The parties are obliged to mutually involve each other in any contact with relevant authorities, if such contact may lead to any one of the parties or both parties being subject to an enforcement notice according to the Environmental Protection Act and this provision.

Reference is made to <https://www.retsinformation.dk/eli/lta/2019/1218>

#### *Ground pollution*

In case of just emerged spillage of oil or other chemicals caused by the Railway Undertaking in areas of Banedanmark the Railway Undertaking must immediately inform the nearest control office.

The railway Undertaking must by a special form for handling spillage of oil and chemicals on Banedanmark's website inform where the spillage took place and about the extent concerned. Upon detection of the spillage the Railway Undertaking must partly stop the spillage, partly initiate clean-up of the oil.

The local council concerned decides which investigations and remedial actions must be taken. Such investigations must be paid by the Railway Undertaking.

The Railway Undertaking must subsequently inform Banedanmark's environmental section about the spillage by completing the form on Banedanmark's website. Link for access to the form: <https://www.bane.dk/-/media/Bane/Leverandoer/Miljoe/Haandtering-af-oliespild-og-kemikaliespild.docx>.

The completed form must be sent to [miljoeoenergi@bane.dk](mailto:miljoeoenergi@bane.dk)

#### *Noise*

The Railway Undertakings must attempt to minimize noise. Environmental legislation employs two different definitions of noise caused by railway operations; noise from passing trains (line noise) and noise from other activities (terminal noise). These definitions are defined in guideline no. 1/1997 "Noise and vibrations from railways" and supplement – Environmental Protection Agency - July 2007.

Noise activities, such as stationary trains idling on reversing tracks and stabling tracks, are considered terminal noise, where the guidelines stated by the Danish Environmental protection Agency are limited to max. 35 dB at night in ownership against open and low 77. This implies that engines, compressors, and other noisy components of a train must be switched off at night, when the local council gives instructions to the Railway Undertaking as to apply a limit value.

The environmental legislation does not contain limit values for line noise from existing railways. Running to and from stabling tracks (to and from operations) and reversing tracks is covered by the regulations for line noise.

In addition, the EU's TSI Noise must be complied with, as this is covered by the Ministry of Transport and Housing's [Executive order no. 884 of 07/07/2015 on termination of the Executive order on noise for rolling stock \(vehicles\) on the Danish railway network](#)  
<https://www.retsinformation.dk/eli/lt/2015/884>

The train producers' compliance with the limitations in TSI NOISE is, however, not a guarantee that the Railway Undertakings will be able to comply with the Environmental Protection Agency's limitation of 35 dB on stabling tracks near residential areas.

Noise caused by trains in stabling tracks, including idling trains, is covered by the rules regarding noise from companies and can be regulated by the local councils.

#### *Air pollution*

The Environmental Protection Agency does not state any limit values for air pollution caused by railway operations. However, limit values applying to new locomotives and motor coaches are laid down in appendix 4 of the Ministry of Environment and Food's Executive order no. 1335 of 17/06/20221 Nonroad Executive order [Nonroadbekendtgørelsen \(retsinformation.dk\)](#).

## **2.4.2 Dangerous goods**

The Danish Civil Aviation and Railway Authority's [website](#) provides information on the rules for transporting dangerous goods, including special information on transporting dangerous goods via the Great Belt and Oeresund railway tunnels.

Prior to arrival from another infrastructure, dispatch or placing of goods on Banedanmarks infrastructure and/or areas the Railway Undertaking must provide Banedanmark with all necessary information in a format approved by Banedanmark, thus complying with RID 1.4.3.6 and the valid Executive order on risks, Safety Regulations (SR), Safety Instructions (SIN) as well as Operational Rules for S-trains (ORS) and Operational Rules for Long-distance lines (ORF).

Provisions in this regard are referred to in the standard access contract.

## **2.4.3 Tunnel restrictions**

There are certain restrictions related to operating with diesel-operated trains under the Great Belt and Oeresund. In addition, passenger trains must fulfil certain requirements in order to carry passengers in the Great Belt and



Oeresund tunnels. Permission to carry passengers in the tunnels must appear from the Authorisation for Placing in Service (APIS) of the rolling stock. Similar restrictions apply to other tunnels/covered areas.

For further information, see Øresundsbro Konsortiets Trafiksikkerhedsforskrift (Øresund Bridge Consortium Partnership's Traffic Safety Regulations) as well as Banedanmark's Safety Regulations (SR), Safety Instructions (SIN), and traffic information.

#### **2.4.4 Bridge restrictions**

Certain wind restrictions apply related to rail traffic on the Great Belt Bridge and the Øresund Bridge. For further information, see Øresundsbro Konsortiets Trafiksikkerhedsforskrift (Oeresund Bridge Consortium Partnership's Traffic Safety Regulations) as well as Banedanmark's Safety Regulations (SR), Safety Instructions (SIN), and traffic information.

## **2.5 Access to/limitations of the infrastructure**

There are three important factors which can restrict availability of the infrastructure: capacity restrictions, access to sidings, and the ETCS onboard equipment's compatibility with the infrastructure

#### *Capacity restrictions*

Banedanmark performs infrastructure works and capacity limitations based in the following superior considerations:

#### Signalling Programme:

- Principally track possessions - evening/night
- In connection with test and and placing in service, longer track possessions will occur.

#### Electrification Programme:

- Primarily long track possessions at night (up to nine hours). However, track possessions of all tracks for a longer period can occur

#### Renewal projects:

- Single track operations on double track lines; possession of all tracks will occur
- Maintenance is performed based on the life circle of the lines.

#### Investment and third party projects – including speed upgrades:

- Are as far as possible coordinated with renewal projects

The works are coordinated with the purpose of ensuring the best possible timetables for the applicants. Thus, cancellations and changes can still occur after the allocation of capacity.

In appendices 3.5A and 3.5B the planned capacity restrictions in K22 and K23 for long-distance lines as well as S-train lines are stated. The standard access contracts (Appendix 2.3C and 2.3.D) moreover outline when and how Railway Undertakings must be notified of other infrastructure works/capacity limitations, which are not included in the Network Statement.

For further information, see section 4.3.2.

#### *Access to sidings*

Access to and use of sidings, including extended use, can only take place by prior agreement with the Infrastructure Manager/Infrastructure Owner. The agreement may contain special restrictions including limited access, reduced speed, reduced axle load etc.

#### *The ETCS onboard equipment's compatibility with the infrastructure*

On lines where ETCS is applied as train control system the performance of an ETCS System Compatibility test is required for the ETCS onboard equipment applied. An overview of the lines equipped with ETCS appear from appendix 3.3I.

Banedanmark makes test facilities and test staff available for the performance of the necessary compatibility tests of the Railway Undertaking's ETCS onboard equipment.

Test cases and information on the test process can be found on [Banedanmark's website](#)

## **2.6 Infrastructure development**

This section comprises a description of major development projects with regard to the infrastructure. The dimension of time for the projects may be longer than the validity period of the Network Statement.

#### The Signalling Programme

In line with the political agreement on green transport policies of 28 January 2009, the Danish parliament decided that the signalling systems on the long-distance lines and the S-train lines would be exchanged. On the long-distance lines, a signalling system will be implemented based on the European train control standard ERTMS level 2, baseline 3, and on the S-train lines a CBTC system will be implemented. The Signalling Programme rollout is expected to be completed in 2030 on the long-distance lines and in 2022 on the S-train lines.

*Long-distance lines*

For the main and regional lines, contracts are signed for the signalling infrastructure on the east of the Little Belt with Alstom, and on the west of the Little Belt with a consortium consisting of Thales and Strukton. The new signalling infrastructure will be brought into use on one line at a time.

*S-train lines*

For the S-train lines, contracts for the signalling infrastructure are entered into with Siemens. The new signalling infrastructure will be brought into use one line at a time.

Read more about the Signaling Programme on [Banedanmark's website](#).

*Electrification Programme*

On 29 May 2015, Banedanmark entered into a contract on the electrification of the majority of the Danish rail network with a consortium consisting of Aarsleff-Siemens. At the same time as the electrification, Banedanmark is carrying out a range of major preparatory work including the reconstruction of several hundred bridges around Denmark, as part of the overall electrification programme.

Read more about the Electrification programme on [Banedanmark's website](#).

## 3 Access conditions

### 3.1 Introduction

The following sections describe the terms and conditions related to Railway Undertakings' access to the railway infrastructure in Denmark, including license and safety certificate requirements.

### 3.2 General access requirements

Access to Banedanmark's infrastructure is regulated by a number of acts and Executive orders, the Railway Act as well as specific regulations on licenses, safety certification and authorisation which can be found on the [Danish Civil Aviation and Railway Authority's website](#).

#### 3.2.1 Conditions for applying for capacity

Applications for allocation of capacity on Banedanmark's infrastructure as well as possible connection with other countries' connected infrastructure must be submitted to Banedanmark.

The terms and conditions for operating a Railway Undertaking do not have to be satisfied at the time of capacity application. Third parties, for example other countries' OSSs (One Stop Shops), may apply for train paths on behalf of a Railway Undertaking.

Allocated capacity may not be transferred, hired or sold to a third party.

Non-Railway Undertakings-applicants for capacity must be approved by Banedanmark in order to be able to apply for capacity on Banedanmark's infrastructure.

For further information on requirements for non-Railway Undertakings-applicants, contact can be directed to Traffic Operations, Customers and Capacity Planning.

In connection with the capacity allocation the applicant must within 30 days state with which Railway Undertaking an agreement is entered into.

#### 3.2.2 Conditions for access to the railway infrastructure

For Railway Undertakings operating in Denmark a permit (license) and a safety certificate issued by the Danish Civil Aviation and Railway Authority are required, see sections 3.2.3-3.2.4.

In case capacity has been allocated to the Railway Undertaking, a valid and legal liability insurance is required, see section 3.2.5.

### **3.2.3 License to operate a Railway Undertaking**

The Danish Civil Aviation and Railway Authority issues licenses to operate a Railway Undertaking in Denmark.

The Danish Civil Aviation and Railway Authority's guidelines on license applications can be found on [the Danish Civil Aviation and Railway's website](#).

Licenses issued in other EU member states as well as in Norway and Switzerland are also valid in Denmark provided that the party in possession of the license has a valid and legal liability insurance in accordance with relevant legislation. For further information, see section 3.2.5.

### **3.2.4 Safety certificate**

The Danish Civil Aviation and Railway Authority issues safety certificates to Danish and foreign Railway Undertakings which fulfil the relevant requirements.

For further information, see [Danish Civil Aviation and Railway Authority's website](#).

### **3.2.5 Insurance**

Railway Undertakings must have a legally required liability insurance, in accordance with the requirements of the valid Executive order on liability insurance for Railway Undertakings and Infrastructure Managers.

For further information, see [the Danish Civil Aviation and Railway Authority's website](#).

## **3.3 Contractual arrangements**

### **3.3.1 Framework agreement**

According to the valid Executive order on allocation of railway infrastructure capacity (paths) etc. an applicant can on certain conditions enter into framework agreements with Banedanmark on applying infrastructure capacity for a period longer than the timetable period of 1 year.

At the moment, Banedanmark does not apply any framework agreements.

### 3.3.2 Contracts with Railway Undertakings

#### *Standard access contracts for the usage of Banedanmark's infrastructure*

Prior to using Banedanmark's infrastructure, it is mandatory for the Railway Undertaking to enter into an agreement with Banedanmark in the form of a standard access contract (Appendix 2.3C).

The standard access contract establishes cooperative relations, reciprocal rights and duties, conditions etc. for the use of Banedanmark's infrastructure.

If required due to special circumstances related to the Railway Undertaking, the standard access contract may be supplemented by individual appendices and addendums.

#### *Standard access contracts for the usage of the infrastructure of Øresundsbro Konsortiet*

In addition, prior to use of the infrastructure managed by the Øresundsbro Konsortiet (Oeresund Bridge Consortium Partnership) and located in Denmark, it is mandatory for the Railway Undertaking to enter into an agreement with Banedanmark in the form of a standard access contract with Banedanmark on behalf of the Øresundsbro Konsortiet (Appendix 2.3D).

The standard access contract is not a prerequisite for applying for paths.

For further information on services delivered by Banedanmark, see section 5.

### 3.3.3 Contracts for applicants

An applicant who is not Railway Undertakings must be approved by Banedanmark in order to be able to apply for capacity.

It is mandatory for the applicant to enter into an agreement with Banedanmark, which states the conditions which apply for the application of capacity, including the obligation to provide a guarantee for the payment of 50.000 DKK (Appendix 2.3E).

For further information on Standard access contracts for Railway Undertakings and on the reservation of infrastructure capacity (paths) for other applicants, contact can be directed to Traffic Operations, Management Secretariat.

### 3.3.4 General terms og conditions

RNE and the International Rail Transport Committee (CIT) have prepared a joint draft for general terms and conditions for all contractual conditions with regard to railway transport (E-CGTC-I).

Banedanmark does not apply E-CGTC-I on the railway infrastructure.

## 3.4 Specific access requirements

### 3.4.1 Approval of rolling stock

Rolling stock, including locomotives, train sets, passenger coaches, freight wagons, infrastructure works vehicles and vintage trains, must be in possession of an approval in the form of an authorisation to place in service (APIS) issued by the Danish Civil Aviation and Railway Authority, and must be registered in the National Vehicle Register (NVR). Rolling stock with an authorisation to place in service (APIS) may only be operated by either certified Railway Undertakings or approved Infrastructure Managers.

Information on authorisation to place in service (APIS) for rolling stock can be found on [the Danish Aviation and Railway Authority's website](#).

Rail or road vehicles as well as other specific vehicles which operate at a speed of under 25 km/h and which are used during possessions must obtain an authorisation to place in service (APIS) from Banedanmark, cf. Executive order no. 710 20/05/2020 on approval of vehicles on the railway, before being placed on the track. For further information, see [Banedanmark's website](#).

### 3.4.2 Approval of staff

The Danish Civil Aviation and Railway Authority is responsible for approving Railway Undertakings' internal education of staff performing tasks which require safety certificates.

Further information is available on the [Danish Civil Aviation and Railway Authority's website](#).

### 3.4.3 Exceptional transports

Issuing of transportation permits for exceptional transports is carried out by Banedanmark, Traffic Operations, Customers and Capacity Planning. Enquiries should be sent to [ut@bane.dk](mailto:ut@bane.dk).

Processing and issuing take place according to the Instructions for Exceptional Transports produced by Traffic Operations, Customers and Capacity Planning. The instructions also contain a definition of exceptional transports. The instructions can be found on [Banedanmark's website](#).

Banedanmark endeavors to complete an application for an exceptional transport within a period of 14 working days. However, the completion period for an application may in some cases be longer than 14 working days, if it is necessary to collect further information/permits.

Gauges applicable in Denmark can be seen in appendix 2.5. For further information on line classifications (axle load and meter load), see section 2.3.5.

For information on application for capacity related to exceptional transports, see section 4.7.

#### *Permanent transportation permits*

In order to expedite and simplify the processing, the Railway Undertaking which applies for a renewal of a permanent transportation permit is requested to contact [ut@bane.dk](mailto:ut@bane.dk) with regard to a renewal. Such contact must be directed not later than 3 months before expiry of an applicable transportation permit.

#### *Intermodal operations*

Loading units which are to be transported on rolling stock must be constructed and marked according to the requirements in UIC 596-5 and 596-6.

In Denmark, it is possible to use the infrastructure up to P/C 80 or P/C 410 as exceptional transports.

Permanent transportation permits are issued for transportation between the intermodal terminals (see section 7.3.3.) and for transit traffic between the Padborg border and the Malmö border. Issuing of transportation permits is performed by Traffic Operations, Customers and Capacity Planning. Enquiries can be made to [ut@bane.dk](mailto:ut@bane.dk).

Overview of loading units with relevant exceptional transport numbers:

- P/C 45 = BDK 8100-22
- P/C 60 = BDK 8101-22
- P/C 80 = BDK 8102-22
- P/C 369 = BDK 8103-22
- P/C 375 = BDK 8104-22
- P/C 400 = BDK 8105-22
- P/C 4100 = BDK 8110-22

### **3.4.4 Dangerous goods**

The Danish Civil Aviation and Railway Authority controls the transportation of dangerous goods by rail in Denmark and carries out inspections to ensure that Railway Undertakings and Infrastructure Managers comply with the rules for the transportation of dangerous goods on the infrastructure. Information on inspection areas and the scope of inspection can be found in the valid directive on inland transportation of dangerous goods. More information can be found on the [Danish Civil Aviation and Railway Authority's website](#).

The transportation of dangerous goods on the infrastructure in national traffic and international freight corridors is governed by the Regulations Concerning the International Carriage of Dangerous Goods by Rail (RID). These regulations can be seen in annex 1 to appendix B of the Convention Concerning International Carriage by Rail, COTIF, with appendices CIM and



CIV, as well as the rules stipulated by the Ministry of Transport or the Danish Civil Aviation and Railway Authority.

RID is, according to order no. 919 of 16 December 1998 exempted from inclusion in "Lovtidende" (the Danish Law Gazette). A Danish translation of the regulations can be seen on [Danish Civil Aviation and Railway Authority's website](#).

Banedanmark is at all times responsible for providing details of the quantity and type of dangerous goods in areas which are Banedanmark's responsibility. Therefore, all Railway Undertakings and others transporting dangerous goods must at all times inform Banedanmark on quantity and location of dangerous goods, including information on high risks RID 1.10.3.1.2.) during transport as well as at points for shunting for signals on Banedanmarks's infrastructure. This should take place by electronic notification of wagon lists to Banedanmark's RID database in valid format in order to ensure that relevant rules are complied with, including the requirements in RID as well as the valid Executive order no. 372 of 25<sup>th</sup> April 2016 on control of risk for major accidents with dangerous goods.

For information on application for allocation of capacity related to the transportation of dangerous goods, see section 4.7.

### **3.4.5 Test trains and other special trains**

Can be ordered for according to the same procedure as the one applying for ad-hoc paths requests, see section 4.5.3.

## 4 Capacity allocation

### 4.1 Introduction

### 4.2 General description of the capacity allocation process

An applicant is allocated capacity to Banedanmark's infrastructure in accordance with the guidelines in section 4.5.

Along with the application, the Railway Undertaking must state at which stations stabling tracks are required. This must include the anticipated number of units for which space is required at a given geographical location as well as information as to at which stations shunting is required. Applications for allocation of capacity must be submitted in a format authorised by Banedanmark. Allocation of stabling tracks will be communicated in writing as an addendum to the capacity allocation.

More information on application for allocation of capacity can be found on [Banedanmark's website](#).

Railway Undertakings applying for capacity for international traffic must use the joint European timetable planning system, PCS (Path Coordination System). More information can be found on [RNE's website](#)

Banedanmark, Traffic Operations, Customers and Capacity Planning, offers free basic training in using PCS.

In addition, capacity can be allocated for ad-hoc usage of the infrastructure.

### 4.3 Reserving capacity for temporary capacity restrictions

#### 4.3.1 General principles

During these years Banedanmark renews and develops the railway infrastructure to an extent not seen before. These renewal and development projects are performed along with existing traffic being handled.

The complexity of the investment and renewal projects implies that Banedanmark needs to be able to introduce capacity restrictions on the lines effected by these projects. Consequently, the paths normally available for handling the traffic will be reduced. In connection with especially complicated and extensive projects the reduction of paths normally available will be of an extent which will mean that it will only be possible to handle traffic by applying a reduced number of paths during one hour. Additionally, in case total possessions no traffic can be handled.

For further information, reference is made to section 4.8.2.

### 4.3.2 Deadlines and information provided to applicants

#### Capacity restrictions

The capacity restrictions are categorized based on threshold values which appear from Appendix VII of Directive 2012/34/EU of the European Parliament and of the Council of 21 November 2012 on establishing a common European railway area, as amended by the Commission’s delegated decision (EU) 2017/20175 of 4 September 2017 with regard to replacing the Annex to Directive 2012/34.

These thresholds are categorized as stated below and are established with respect to the duration of the capacity restrictions and the traffic impact. Respites of notice are stated by months, where X constitutes the date of beginning of a timetable year during which the capacity restriction is expected to be performed.

<b>Deadline</b>	<b>Description</b>	<b>Supply</b>
X-24 (to be updated at X-12)	Capacity restrictions of more than 30 coherent days with a traffic impact on more than 50 % of the estimated traffic volume per line <b>(Major)</b>	<p>Appendix 3.5B contains an overview of possessions from which it appears which announced possessions are designated as major (see description).</p> <p>Appendix 3.5B i. a contains concrete date of the possession concerned, e.g.:</p> <ul style="list-style-type: none"> <li>- time of beginning and end of the possession, as far as such information is available</li> <li>- possession type, i.e. are all tracks possessed, or are reduced operations still possible.</li> <li>- how operations are affected by the possession, as far as such information is available.</li> </ul> <p>The appendix will before publishing be subject to a consulting process among the parties involved. During this process it will be possible to comment on the possessions stated.</p>

<p>X-24 (to be updated at X-12)</p>	<p>Capacity restrictions of more than 7 coherent days with a traffic impact on more than 30 % of the estimated traffic volume per line (<b>High</b>)</p>	<p>Appendix 3.5B i.a contains concrete date of the possession concerned, e.g.:</p> <ul style="list-style-type: none"> <li>- time of beginning and end of the possession, as far as such information is available</li> <li>- possession type, i.e. are all tracks possessed, or are reduced operations still possible.</li> <li>- how operations are affected by the possession, as far as such information is available.</li> </ul> <p>The appendix will before publishing be subject to a consulting process among the parties involved. During this process it will be possible to comment on the possessions stated.</p>
<p>X-12</p>	<p>Capacity restrictions of more than 7 coherent days with a traffic impact on more than 50 % of the estimated traffic volume per line (<b>Medium</b>)</p>	<p>Appendix 3.5A i. a contains concrete date of the possession concerned, e.g.:</p> <ul style="list-style-type: none"> <li>- time of beginning and end of the possession, as far as such information is available</li> <li>- possession type, i.e. are all tracks possessed, or are reduced operations still possible.</li> <li>- how operations are affected by the possession, as far as such information is available.</li> </ul> <p>The appendix also specifies possessions Major and High which were announced X-24.</p>
<p>X-5,5</p>	<p>Banedanmark informs the applicant about the allocation of paths with reservations for minor changes and adjustments and sends a draft for the timetable to all parties concerned for being subject to a consultation process. As from that time</p>	<p>The Railway Undertaking receives a preliminary allocation letter, which contains the preliminary path allocation.</p>

	the consultation period will be one month.	
X-4	Capacity restrictions of more than 7 coherent days with a traffic impact on more than 10 % of the estimated traffic volume per line, which Banedanmark is acquainted with 6 ½ months before beginning of the timetable <b>(Minor)</b>	<p>The appendix i.a contains concrete date of the possession concerned, e.g.:</p> <ul style="list-style-type: none"> <li>- time of beginning and end of the possession, as far as such information is available</li> <li>- possession type, i.e. are all tracks possessed, or are reduced operations still possible.</li> <li>- how operations are affected by the possession, as far as such information is available.</li> </ul> <p>The appendix will before publishing be subject to a consulting process among the parties involved. During this process it will be possible to comment on the possessions stated.</p>
X-3	Banedanmark informs the applicants about the final path allocation.	The Railway Undertaking receives a final allocation letter which contains the final path allocation. However, the final path allocation can be subject to changes due to possessions. In such case, the changes will be incorporated in co-operation with the Railway Undertaking.

The threshold values of the capacity restrictions are calculated based on the following method:

$$\text{Percentage impact on traffic} = \frac{\text{Affected paths}}{\text{Numer of paths on a normal day}} \times 100$$

National and European legislation relating to capacity restrictions do not take into account capacity restrictions made in in connection with maintenance activities on the railway infrastructure. Such restrictions are given notice of in accordance with the more detailed process in this regard agreed with the Railway Undertaking in the access contract.

Banedanmark can any time introduce special restrictions with regard to the use of Banedanmark’s infrastructure based on the condition of areas and lines.

In case already allocated capacity cannot be applied due to capacity restrictions, the Railway Undertaking(s)/applicant(s) concerned and Banedanmark enter a dialogue as to how to handle these challenges. Such dialogue includes an investigation of the possibilities of finding an alternative capacity allocation for the Railway Undertaking affected.

For that purpose Banedanmark arranges project and capacity meetings on an ongoing basis with the Railway Undertakings and other applicants. On such meetings it will be possible for the Railway Undertakings/applicants to discuss any adjustments of the capacity restrictions.

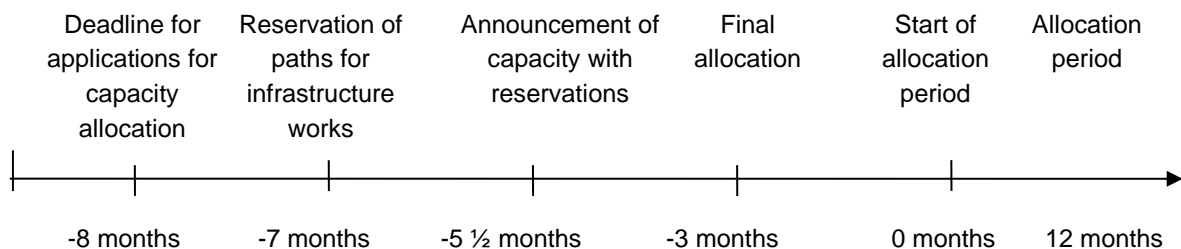
The Railway Undertakings/applicants can in this connection request that Banedanmark presents alternative possession scenarios for the capacity restrictions given notice of in the Network Statement in accordance with the above diagram.

## 4.4 Impacts of framework agreements

At the moment, Banedanmark does not apply any framework agreements.

## 4.5 Capacity allocation process

Capacity allocation on Banedanmark’s infrastructure follows the procedure and the deadlines stated below:



### 4.5.1 Annual timetable path requests

Banedanmark will make decisions on capacity allocation based on applications received 8 months before the start of the allocation period. In the event of more than one application for allocation of the same capacity, Banedanmark will, with the applicants’ consent, attempt to allocate the optimum capacity, and allocate it to the applicant that can best document a concrete need.

7 months before the start of the allocation period, Banedanmark will reserve capacity for infrastructure works, taking received capacity applications into account.

Banedanmark will allocate capacity with reservations at least 5½ months before the start of the allocation period, and the final capacity allocation will be announced at least 3 months before the start of the allocation period.

An overview of the deadline dates for K23 can be seen in appendix 4.3.

#### **4.5.2 Late annual timetable path requests**

Applications for path allocation for the annual timetable received after expiry of respite of the application will be included in the annual timetable. However, these applications cannot be handled until all applications received in due time have been handled, and after the applicants having had the possibility to raise objections to the capacity allocation with reservations.

If it is necessary to rearrange a path which has already been allocated in order to comply with requests received after expiry of the respite of the request, this will only be possible, if this is necessary in order to ensure that all requests for paths to the greatest extent possible are complied with, and if this is approved by the applicant to whom the path has been allocated.

#### **4.5.3 Ad-hoc path requests**

Ad-hoc path applications mean requests for capacity allocation for an ongoing timetable period.

Applications for occasional capacity allocation for vintage trains must be received by Banedanmark at least 30 days before the date of planned running. It is recommended that other Railway Undertakings submit applications at least 5 working days before the date of planned running. Allocation takes place on a first-come first-served basis, and Banedanmark will reply to the request within 5 working days of receipt. Charges are calculated based on the valid tariffs at that time.

Applications should be sent in writing to [korrtoqa@bane.dk](mailto:korrtoqa@bane.dk) or via PCS.

In case of applications for path allocation less than three working days before planned date of running an order must be sent to Banedanmark's operations center (DCDK) by mail [tlp@bane.dk](mailto:tlp@bane.dk).

#### **4.5.4 Coordination process**

In the event of conflicting requests for allocation of capacity on the same line, Banedanmark will invite the relevant applicants to coordinated negotiations.

Applicants who choose not to participate in negotiations or who display passivity at negotiations will risk being down prioritised, despite the order of priority. If a solution cannot be found through negotiation, Banedanmark will make the final decision on allocation.

Allocation of capacity always adheres to the valid Executive order on allocation of railway infrastructure capacity (paths) etc.

### 4.5.5 Dispute resolution process

Complaints regarding the allocation process should be made in writing to:

Danish Rail Regulatory Body (*Jernbanenævnet*)  
Carsten Niebuhrs Gade 43  
DK-1577 København V  
DENMARK  
[info@jernbanenaevnet.dk](mailto:info@jernbanenaevnet.dk)

Complaints must be submitted in writing to the Danish Rail Regulatory Body within four weeks of the announcement of the relevant capacity allocation. More information on fees and deadlines is available on [the Danish Rail Regulatory Body's website](#)

## 4.6 Congested infrastructure

When it is not possible to fulfil an application for capacity following coordination and subsequent consultation, the infrastructure is declared to be congested. An overview of utilisation of capacity in K23 can be seen in appendix 4.4.

When a line is declared to be congested, capacity allocation is carried out according to the principles described in the valid Executive order on allocation of railway infrastructure capacity (paths) etc.

When applying for allocation of capacity on congested infrastructure, the applicant must prioritise paths in order to enable Banedanmark to draw up principles for operations at reduced capacity.

In case that a line is declared to be congested infrastructure, Banedanmark is responsible for producing a capacity analysis and a capacity improvement plan according to applicable rules in the valid Executive order on allocation of railway infrastructure capacity (paths) etc.

## 4.7 Exceptional transport and dangerous goods

### *Exceptional transports*

When applying for the allocation of capacity for exceptional transports, applicants must provide information in this regard and must obtain a transportation permission prior to application (for more information, see section 3.4.3). When transportation permission has been granted, capacity can be allocated.

### *Dangerous goods.*

Contact Banedanmark, Traffic Operations, Customers and Capacity Planning for information on capacity allocation for transporting dangerous goods.



## **4.8 Rules after path allocation**

### **4.8.1 Adjustment of allocated capacity upon request by the applicant**

Change requests for the allocated capacity are handled equally, as long as they are received within the respite of submitting complaints regarding the temporary path allocation.

A change request is handled as an ad-hoc application. See section 4.5.3.

### **4.8.2 Changes of allocated capacity made by Banedanmark**

Changes of allocated capacity in connection with capacity restrictions are in practice handled by Banedanmark performing corrections of the annual timetable. Banedanmark, Customers and Capacity Planning, always endeavors to reach an agreement with the Railway Undertakings concerned regarding the distribution of the capacity available during the capacity restriction.

In case of no agreement, the corrections are handled according to the superior principles stated below:

1. Priority is given to passenger traffic in rush hours, whereas priority is given to international freight traffic during the night hours.
2. Outside the rush hours priority is given to international freight traffic in the rail freight paths of the ScanMed-corridor.

Thereupon, second priority is given to passenger traffic, succeeded by other traffic.

In each individual case it is assessed as to how far the concrete situations implies circumstances to be taken into special account. If e.g. a national rail freight path has an interval of 14 days, and therefore – based on the above – cannot form part of a project with a duration of 6-8 weeks. In such a case it could make sense to ensure that this concrete path is settled in a correction, even though this might be to the disregard of either international rail freight traffic or passenger traffic.

### **4.8.3 Rules for non-usage of allocated capacity**

The Railway Undertaking is on its own initiative obliged to cancel allocated capacity which the Railway Undertaking is not going to make use of.

In connection with trains crossing from one network to another and arriving with an expected delay of max. 18 hours, the Railway Undertaking will still be entitled to make use of the capacity, unless the Railway Undertaking informs Banedanmark that the Railway Undertaking does not want to preserve the right to use the capacity. Banedanmark provides as soon as possible the

Railway Undertaking with the necessary information as to the updated or the new path.

If a Railway Undertaking for a period of at least one month has not made use of 75 % of the capacity of the allocated path, Banedanmark decides whether a path is to be withdrawn for the remaining part of the timetable year.

The capacity released as a consequence of the withdrawal will be made available as ad-hoc capacity and can be requested by all Railway Undertakings/applicants on equal conditions.

In connection with the cancellation of paths for an entire year such paths will also in practice be withdrawn and released as ad-hoc capacity.

For further information concerning the process for withdrawal of allocated paths, reference is made to [Fkplan@bane.dk](mailto:Fkplan@bane.dk).

#### **4.8.4 Rules for cancellation of allocated capacity**

Paths can be cancelled for a fee. The deadlines for cancellation and the level of fees are regulated in the valid Executive order on infrastructure charges etc. for the rail network.

## **4.9 Timetabling Redesign for Smart Capacity Management**

### **4.9.1 Objectives of TTR**

RailNetEurope (RNE) and Forum Train Europe (FTE), supported by the European Rail Freight Association (ERFA) are working on the so-called Time Tabling Redesign for Smart Capacity Management (TTR). The objective of TTR is improve the utilisation of the existing capacity. This is to be performed through more long-term planning of reliable timetables, by which the need for cancellation of paths can be minimized. Another objective of TTR is to comply with all transport needs on the railway market and to increase the competitiveness of railway transports. It must e.g. be far more simple to book paths through digital platforms.

TTR consists of many components, including in particular an improved planning of the distribution of infrastructure capacity, including temporary capacity restrictions and the introduction of new capacity allocation processes.

For the passenger transport it will mean that the final timetable will be available earlier than it is the case today. Moreover, it will be possible for passengers to purchase tickets earlier and on a more reliable basis compared to the conditions of today.

For the freight transport TTR will mean more and better possibilities of booking different types of capacity products than it is the case today. It will e.g. be possible to apply for capacity on a short-term basis ensuring the

quality, despite the product concerned. Thus, more flexibility and better possibilities for complying with needs of final customer can be obtained.

Detailed information on the project can be found on [RNE's website](#) and on [FTE's website](#)

TTR is planned to be fully implemented for K25 provided that it is supported by the European and national legal framework.

#### **4.9.2 Description of the process**

For a description of the TTR processes, reference is made to [RNE's website](#)

#### **4.9.3 Implementation**

##### *TTR Pilot project*

Prior to TTR a cooperation has been established between Norway, Sweden, and Denmark on a Scandinavian pilot project. At the moment, the Scandinavian TTR pilot project works on the so-called capacity strategy which forms the first important step towards the long planning horizon provided by TTR in order to be able to form more reliable timetables. Bandanmark will take contact to various partners, including Railway Undertakings, terminals, and the Ministry of Transport for obtaining feedback with regard to the capacity strategy.

## 5 Services and charges

### 5.1 Introduction

Banedanmark delivers a range of services to Railway Undertakings against payment of infrastructure charges. Moreover, Banedanmark delivers a number of services against separate payment.

Banedanmark's services are divided into four categories in accordance with EU directive 2012/34 annex II. Not all services described in the directive are offered by Banedanmark.

### 5.2 Charging principles

#### *Infrastructure charges*

For running on Banedanmark's infrastructure train kilometer charges and bridge charges for the passage of the Great Belt and Oeresund are paid.

Train kilometer charges and bridge charges are in total designated as infrastructure charges. These infrastructure charges are collected monthly in arrears by Banedanmark based on actual operations during a given timetable.

Banedanmark regulates the tariffs of infrastructure charges annually based on development in general prices and salary indexes. The regulated tariffs are stipulated in the valid Executive order on infrastructure charges etc. for the rail network.

#### Train kilometer charge

The Railway Undertakings pay train kilometer charges based on kilometric performance on Banedanmark's infrastructure. The train kilometer charges are settled as the costs incurred as a direct result of operating the train service.

Applicable tariffs of train kilometers and bridges appear from the valid executive order on infrastructure charges for the rail network (link for Executive order <https://www.retsinformation.dk/eli/lta/2021/2244>)

In connection with the statement of train kilometre charges the lengths of lines, which appear from appendix 6.6, apply. The line length is measured from the middle of a given station to the middle of another given station.

#### *Environmental subsidy*

Under a range of circumstances, Railway Undertakings may receive an environmental subsidy from Banedanmark based on a consignment note for freight transport. The environmental subsidy is paid to national and international (import/export) freight transport as well as to intermodal transport (trailer, detachable body, or container) transiting through Denmark and reloading to or from a lorry either at the beginning or at the end of the transportation. Further conditions are contained in the above-mentioned

Executive order on railway charges and environmental subsidies for freight transportation on the rail network.

### 5.3 Minimum access services

In general terms, Banedanmark's minimum access package provides applicants and Railway Undertakings with the opportunity to be allocated capacity and to use the infrastructure. Banedanmark is obliged to provide the minimum access services on an equal, non-discriminatory basis.

In DIRECTIVE (EU) 2012/34 annex II point 1 the following minimum access services are stated:

- a) Handling of requests for railway infrastructure capacity;
- b) The right to utilise capacity which has been allocated;
- c) Use of the railway infrastructure, including points and changing points;
- d) Train control including signalling, regulation, dispatching and the communication and provision of information on train movement;
- e) Use of electrical supply equipment for traction current, where available;
- f) All other information required to implement or operate the service for which capacity has been allocated.

Banedanmark's standard access contract (Appendix 2.3C) contains a more detailed description of Banedanmark's minimum access services as well as the reciprocal conditions, rights and duties which Banedanmark and the Railway Undertaking are subject to in connection with delivery or use of the minimum access services.

### 5.4 Additional services and charges

Payment for additional services as defined in Annex II of Directive 2012/34/EU is performed after prior agreement.

#### *Traction current*

Traction current usage is charged based on consumption as described below. Charging of traction current does not generate income for Banedanmark.

*Traction current for trains with a traction current metre on board which sends the data to be used to calculate charges via Erex:*

- Traction current charge is calculated according to the valid tariff at that hour for electricity on the spot market (Nord Pool Spot) with the addition of an electricity-trading tariff.
- The charge depends on the location and consumption in charging areas DK1 and DK2.

- The electricity tariff is supplemented with the State's up-to-date electricity tariffs, PSO, network loss, contribution to administration of traction current calculations and VAT.

There may be minor variations in the calculated charges for operations on the Oeresund Bridge as the supply switches between Swedish and Danish power supply.

*Traction current for trains without a traction current metre on board:*

- Traction current charge is calculated based on the month's average tariff for DK1 and DK2 with the addition of an electricity-trading tariff.
- Charges are based on the reported number of kilometers performed in the period multiplied by a number of kWh/km. kWh is calculated differently for each class of rolling stock. The calculated number of kWh is used to calculate the charge.
- The calculated charge comprises the electricity tariff, which is supplemented by the State's up-to-date electricity tariffs, PSO, network loss, maintenance, administration of traction current calculations and VAT.

*Train pre-heating and other electricity to trains via external power supply sockets*

Electrical current for train pre-heating (standby current) supplied via the train's pantograph is calculated and charged in connection with the charging of traction current.

Electrical current consumption from external power supply made available by Banedanmark will be calculated at cost price including tariffs etc.

For further information, see valid Executive order on Retsinformation.

*Water for preparation of trains*

For information on calculation of charges for water for preparation, see Banedanmark's standard access contract in appendix 2.3C.

*Exceptional transports*

For information on calculation of charges in respect of permits for exceptional transports, see Banedanmark's standard access contract in appendix 2.3C.

## 5.5 Ancillary services and charges

Upon request, Banedanmark can supply a number of ancillary services defined in Annex II of Directive 2012/34/EU to the Railway Undertakings. Payment for ancillary services is performed after prior agreement.

### *Access to telecommunication network*

The law on establishing a joint utilisation of masts for radio communication purposes, etc. (The Mast Law) entitles telecommunication companies involved in public mobile communication to lease aerial space in existing masts and on tall buildings. Therefore, Banedanmark can offer aerial space in Banedanmark's masts and on Banedanmark's buildings under comparable leasing conditions as are offered to telecommunication companies.

Reference is made to <https://www.retsinformation.dk/eli/lt/2021/420>

## 5.6 Financial penalties and incentives

### 5.6.1 Penalties for adjustment of allocated capacity upon request by the applicant

Banedanmark does not levy charges for request for adjustment of an allocated capacity.

Reference is made to the valid Executive order on infrastructure charges etc. for the rail network.

### 5.6.2 Penalties for changes of allocated capacity

Banedanmark does not levy charges for alterations of an allocated path.

Reference is made to the valid Executive order on infrastructure charges etc. for the rail network.

### 5.6.3 Penalties for non-usage of allocated capacity

At the moment, Banedanmark does not levy charges for paths not used.

Reference is made to the valid Executive order on infrastructure charges etc. for the rail network.

### 5.6.4 Charges for scarcity of capacity

In accordance with the valid Executive order on infrastructure charges etc. for the rail network the infrastructure charges may include a charge which reflects the scarcity of capacity on an identifiable section of the infrastructure during periods of congestion.

At the moment, Banedanmark does not levy a supplementary charge which reflects scarcity of capacity.

### 5.6.5 Penalties for path cancellation

If an applicant or a Railway Undertaking does not wish to use an allocated path, the path concerned must be cancelled. If an applicant or a Railway Undertaking cancels one or more paths at a time less than 49 days before planned operations, 50 % of the charge for the cancelled path or the first of cancelled paths during the cancellation period are paid. If the path is cancelled less than 8 days paid before planned operations, the entire charge for the path concerned is paid as described in the Executive order.

As a supplement to these penalties Banedanmark levies a mandatory cancellation fee of DKK 25.000 kr. per month, if a Railway Undertaking during the month for which statements are made, does not utilize the paths of parts of them corresponding to a utilization of less than 75 percent of the planned and extra kilometres of the Railway Undertaking concerned during the months concerned.

The mandatory penalty is calculated as stated below:

$$\frac{(\text{Planned} + \text{extra km}) - \text{cancelled km} * 100}{(\text{Planned} + \text{extra km})}$$

Basically, Banedanmark takes the kilometres which the Railway Undertaking has planned for a given month or – after settlement of the annual timetable – has announced as extra kilometres by ordinary passenger trains or freight trains and empty trains. The sum of kilometres cancelled by the Railway Undertaking is to be deducted from the sum of the Railway Undertaking's planned kilometres and announced extra kilometres of the month concerned. The figure obtained in this regard is to be divided by the sum of planned kilometres and announced extra kilometres month concerned and is finally to be divided by 100. On that basis a percentage is generated which indicate the percentage share of planned kilometres and announced extra kilometres which are performed in the month concerned and not cancelled by the Railway Undertaking. If this percentage share is less than 75 percent, Banedanmark will levy a penalty of DKK 25.000 for the month concerned from the Railway Undertaking.

The percentage limit of 75 percent reflects the provision in the Network Statement, section 4.8.3, which is applied in connection with decisions as to



withdrawal of paths from the Railway Undertakings: "If a Railway Undertaking for a period of at least one calendar month has not made use of 75 % of the capacity of the allocated path, Banedanmark may make use of the provision on withdrawal of paths. This provision gives Banedanmark authority to decide whether a path is to be withdrawn for the remaining part of the timetable year."

The compilation method only includes operations on the landside and not operations on the fixed connections across the Great Belt and Oeresund. This is because train kilometre charges are levied on the landside. These train kilometre charges are settled based on the kilometric performance, whereas for the fixed connections bridge access charges are levied. These bridge access charges are levied based on the number of passages of the connections and not on the kilometric performance.

Reference is made to the Executive order on infrastructure charges etc. for the railway network.

### **5.6.6 Incentives/discounts**

Banedanmark does not grant any discount on infrastructure charges.

## **5.7 Performance scheme**

In accordance with the valid Executive order on Banedanmark's duties and powers and the valid Executive order on railway charges and environmental subsidies for freight transportation on the rail network, Banedanmark has established a mandatory performance scheme. The objective of the performance scheme is to encourage Infrastructure Managers and Railway Undertakings to minimise disruption on the infrastructure and therefore improve the infrastructure's efficiency.

The performance scheme is settled in the valid Executive order on infrastructure charges etc. for the rail network.

## **5.8 Change to charges**

As far as possible, all changes to charges, other than the on-going tariff regulation, will be announced by Banedanmark at least 12 months prior to implementation of the changes concerned. Any changes will be indicated to Railway Undertakings at hearings followed by publication of an amendment to an Executive order.

The tariff for the environmental subsidy can be changed at one month's notice via an Executive order issued by Banedanmark.

## 5.9 Invoicing and terms of payment

### *Infrastructure charges*

Infrastructure charges are payable to Banedanmark monthly in arrears with a payment deadline of 30 days net, in accordance with the rules in the valid Executive order on infrastructure charges etc. for the rail network.

Prior to issuing the invoice for infrastructure charges, Banedanmark forwards documentation stating the infrastructure charges to be paid by the Railways Undertaking. The documentation is forwarded to the Railway Undertaking on a monthly basis and comprises a specification of the individual settlements. Thus, it will be possible for the individual Railway Undertaking to review the settlements before the invoice being issued.

Failure to pay infrastructure charges before a deadline stated to the Railway Undertaking may result in Banedanmark revoking allocated capacity.

### *Traction current*

Payment for traction current is charged monthly in arrears with a payment deadline of 30 days net.

### *Train pre-heating and other electricity to trains via external power supply*

Consumption of electricity used for pre-heating of trains and other electricity via mains sockets is charged monthly in arrears with a payment deadline of 30 days net.

### *Water for preparation of trains*

For further information on invoicing for water for preparation, see Banedanmark's standard access contract, appendix 2.3C.

### *Exceptional transports*

For further information on invoicing for exceptional transports, see Banedanmark's standard access contract, appendix 2.3C.

## 6 Operations

### 6.1 Introduction

This section contains an overview of Banedanmark's rules for performing train operations, including shunting.

### 6.2 Operational rules

Banedanmark's traffic regulations are published in pursuance of the Railway Act and apply to all who either perform railway operations or is moving within Banedanmark's infrastructure.

The Regulation can be found on [Banedanmark's website](#)

#### *Course in cross-border operations*

Banedanmark can provide a course in Danish rail traffic regulations for engine drivers of Railway Undertakings only operating between Germany and the border stations of Padborg or Tønder. For further information, contact Banedanmark, Quality and Safety.

### 6.3 Operational measures

#### 6.3.1 Principles

In connection with the production of the working timetable, a "Principper for afvikling" of the timetable ("Operational Code") is also produced, which describes how traffic should be operated in case of traffic irregularities, with or without reduced capacity. "Principper for afvikling" includes a number of arrangement rules and a larger number of arrangement plans. Banedanmark may deviate from the "Operational Code" if required in order to normalise operations. The "Operational Code" for operating the timetable is available in Banedanmark's Operations Information System (DIS).

Access to DIS can be requested by directing an inquiry to [dcdkom@bane.dk](mailto:dcdkom@bane.dk)

For further information, reference is made to Banedanmark's standard access contract, appendix 2.3C.

#### 6.3.2 Performance of operations in case of disturbances

In case of unforeseen situations Driftscenter Danmark (Operations Centre Denmark) handles the long-distance lines in close collaboration with the Railway Undertakings as well as the control offices, other Infrastructure

Managers etc. For the S-train lines, situations are handled by Driftscenter Hovedstaden (Capital City Operations Centre).

Banedanmark has produced a contingency plan in accordance with the valid Executive order on Railway Undertakings' and Infrastructure Managers' emergency work describing how serious incidents or disturbances to rail traffic will be handled. Moreover, Banedanmark releases traffic information and instructions in connection with specific weather conditions.

The contingency plan also covers the Great Belt link as well as the Copenhagen H/Vigerslev – Copenhagen Airport Kastrup line. The line between Copenhagen Airport Kastrup and Peberholm is, however, managed by Øresundsbro Konsortiet (Oeresund Bridge Consortium Partnership) in accordance with Trafiksikkerhedsforskrift (TF – Traffic Safety Regulations).

In accordance with the valid Executive order on allocation of railway infrastructure capacity (paths) etc. Banedanmark can demand that Railway Undertakings make the resources, including rolling stock, which Banedanmark finds appropriate, available in order to normalise railway traffic as quickly as possible.

In emergency situations and in the case of breakdowns which make the infrastructure inaccessible, Banedanmark can close allocated capacity during repairs.

#### *Winter arrangements*

Every year Banedanmark implements winter arrangements which are effective from 15 November to 15 April.

In connection with the winter arrangements a traffic statement ("*Winter arrangements*") is produced, divided into guidelines applying to long-distance lines and guidelines applying to S-train lines. "*Winter arrangements*" is distributed to all relevant partners, including all Railway Undertakings operating on Banedanmark's infrastructure.

Traffic operations during winter is performed based on a special winter arrangement plan. This plan is divided partly into phases/levels depending on the severity of the weather, partly in geographic areas depending on which railway lines being affected by the winter weather. Each phase/level is i.a. decisive for which point switches are to be given priority, and where and how the winter arrangements are to be performed in general. Each phase/level is proportional to which traffic can operate. It is up to Banedanmark to decide when to progress from one phase/level to the next.

#### *Arrangements in case of storms*

Banedanmark implements arrangements to be followed in connection with storms. Performing traffic in case of storms is based on a special storm arrangement plan. This plan is divided partly into phases/levels depending on the severity of the storm, partly in geographic areas depending on which

railway lines being affected by the storm. Each phase/level is proportional to which traffic can operate. It is up to Banedanmark to decide when to progress from one phase/level to the next.

#### *Leaf fall arrangements*

Banedanmark implements leaf fall arrangements. The arrangements are set up on a pre-arranged date with startup of leaf fall cleansing on selected railway lines on which traffic operations is especially affected by the leaf fall.

#### *Active participation*

Railway Undertakings will be invited by Banedanmark to actively participate in the preparation of winter arrangements, arrangements in case of storms as well as leaf fall arrangements in good time prior to the winter and leaf fall seasons.

#### *Bridge and tunnel restrictions on the Great Belt and the Oeresund*

Bridge and tunnel restrictions on the Great Belt and the Oeresund are regulated by "Minimum requirements for maintaining train services", which is distributed as traffic information by Banedanmark, Quality and Safety, Railway Safety on behalf of the infrastructure owner.

#### *Incidents with international impact*

If large incidents with significant international impact occur, international coordination of incident management is needed.

For international disruptions longer than 3 days with a high impact on international traffic, [RNE's International Contingency Management](#) applies to the greatest extent possible. However, Banedanmark may make other arrangements, if the situation so requires.

## **6.4 Tools for train information and monitoring**

### Traffic information for passengers

Banedanmark's standard access contract (Appendix 2.3C) includes an outline description of the delivery of passenger information. The following provides a more detailed description of Banedanmark's delivery of passenger information.

By arrangement with and in collaboration with Railway Undertakings, Banedanmark delivers visual and auditory passenger information on long-distance lines via Banedanmark's media at stations and Din Station (Your Station) on web and app. Banedanmark's delivery of passenger information

depends on Banedanmark having access to the necessary data on Railway Undertakings' operations.

Passenger information is delivered via various media according to the relevant service standard and depending on various operational situations and customer needs.

The precise provision is determined in the "*Service Standard for Passenger Information*". The agreement is currently adjusted, but generally, the passenger information services include the following as a minimum:

#### *During normal train operations*

Banedanmark's information screens at stations and on platforms are updated with information on departures and arrivals. Banedanmark gives customers notice about upcoming planned changes in traffic via information screens and loudspeakers.

#### *During changes to train operations*

Banedanmark's information screens at stations and on platforms are updated with information on trains' current departure times, changes to the timetable and information about the train. Audio information on changes in traffic and advice for customers are given by announcements over Banedanmark's loudspeakers at stations and on platforms.

#### *In addition*

Banedanmark updates the web based *Rejseplanen* (Journey Planner) with trains' up-to-date arrival and departure times, platform numbers, cancellations, and extra trains on the long-distance lines. This also applies to Din Station (Your Station) on web and app.

Banedanmark provides a nationwide telephone service for blind and visually handicapped customers, which provides an audio version of departure and arrival information.

#### *Real time data usage for passenger information*

To ensure that passenger information is consistent and updated, Banedanmark has established data services. The objective of these services is to collect planned and real time data about train operations from its own sources and other linked Railway Undertakings' real time data.

This information is used by Banedanmark and linked Railway Undertakings, the Journey Planner (Rejseplanen) as well as other interested parties in a full range of systems and interfaces. This ensures that customers experience the same passenger information regardless of which media they use. The data service can be provided to all Railway Undertakings via a standard interface.

In order for Banedanmark to be able to provide correct and actual passenger information the Railway Undertakings performing passenger transport must

deliver i.a. GPS positions, train formation data and stopping pattern/destination outside Banedanmark's infrastructure for own trains in real time, see appendix 5 in the standard access contract.

## **6.5 Train Information System - TIS**

TIS is managed by RNE and is a web-based application that supports international train management by delivering real-time train data concerning international trains. The relevant data are obtained directly from the Infrastructure Managers' systems, and all the information from different IMs is combined into one train run from departure or origin to final destination. In this manner, a train can be monitored from start to end across borders.

Railway Undertakings and terminal operators may also be granted access to the TIS and they can join the RNE TIS Advisory Board.

Access to TIS is free of charge. However, a user agreement must be entered into in this regard. For further information, reference is made to <http://tis.rne.eu>

## 7 Service facilities

### 7.1 Introduction

The service facility operator must according to EU Commission's Implementing regulation 2017/2177 of 22 November 2017 on access to service facilities and rail-related services prepare a description of the service facility and the services for which the service facility operator is responsible.

The description of the service facility must comply with the requirements laid down in article 4 (2) of EU Commission's Implementing regulation 2017/2177 of 22 November 2017 on access to service facilities and rail-related services.

### 7.2 Service facilities - overview

The service facility operator is, cf. the Executive order on rail-related service facilities and services, obliged to inform Banedanmark about the number of paths for which the service facility can provide capacity during the following year<sup>1</sup>.

RNE has developed a template for the description of the service facilities at free disposal. This template can be found on [RNE's website](#)

The template is prepared in compliance with the requirements for the description of the service facilities which appear from EU Commission's Implementing regulation 2017/2177 of 22 November 2017 on access to service facilities and rail-related services.

The service facility operator is obliged to publish the description of the service facilities on its own website or on a joint web portal or by providing Banedanmark with the necessary information. If the service facility operator decides to publish the description of the service facilities on an own website or on a joint web portal, the service facility operator must supply Banedanmark with a link for this for this website or for a joint web portal. In this connection Banedanmark can refer to the respective service facility operators' websites below.

#### Freight Terminals

Intermodal Terminal Høje Taastrup managed by af DB Cargo: [Terminal Hoeje Taastrup \(dbcargo.com\)](#)

Intermodal Terminal Taulov managed by DB Cargo: [Terminal Taulov \(dbcargo.com\)](#)

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<sup>1</sup> Railway infrastructure in private property solely arranged for the infrastructure owner's own freight operations, are not covered by the Executive order and the obligation to provide information.



Intermodal Terminal Padborg at the moment managed by TX Logistik. (At the moment the terminal is put out to tender. Therefore, at the moment it is uncertain whether the terminal will still be managed by TX Logistik in 2023

Intermodal Terminal Hirtshals is managed by [Hirtshals Havn: Hirtshals Havn \(hirtshalshavn.dk\)](https://www.hirtshalshavn.dk)

Intermodal Terminal Esbjerg is managed by [Esbjerg Havn: Port of Esbjerg \(portoesbjerg.dk\)](https://www.portofesbjerg.dk)

### Port terminals

For further information on the ports and services in this regard, reference is made to the individual ports and the managers of the ports by the links stated below. If a manager is not stated, the management is performed by the port concerned.

[Fredericia Havn](#) is managed by [ADP](#)

[Frederikshavn Havn](#) is managed by [Port of Fredericia](#)

[Grenaa Havn](#)

[Kolding Havn](#)

[Kalundborg Havn](#)

[Køge Havn](#)

[Skagen havn](#)

[Thyborøn havn](#)

[Vejle Havn](#) ([Vejle Havn has two railway tracks on each side of the port quay – the north quay and the south quay. Facilities are not available for service of railway vehicles, etc.](#))

[Aalborg Havn](#)

[Århus Havn](#)

## **7.3 Service facilities managed by Banedanmark**

### **7.3.1 General provisions**

Information in this section is prepared based on available data/information.

### **7.3.2 Passenger stations**

An overview of all passenger stations and stopping points on Banedanmark's infrastructure as well as guideline information on platform lengths and heights can be seen in appendix 3.6.

An overview of all passenger stations and stopping points on Banedanmark's infrastructure after the roll-out of the ETCS system on the lines, where ETCS is expected to be implemented in 2023, as well as guideline information on platform lengths and heights can be seen on [Banedanmark's website](#).

### **7.3.2.1 General information**

Banedanmark does not supply any information on ticket systems at passenger stations.

All passenger-related facilities at stations situated on Banedanmark's infrastructure are managed by DSB.

### **7.3.3 Freight terminals**

Banedanmark owns the intermodal terminals at Høje Taastrup, Taulov, and Padborg, but the terminals are operated by a third party. Banedanmark allocates capacity at intermodal terminals according to the rules in the valid Executive order on rail-related service facilities and services.

All Railway Undertakings have access rights to the terminals and the services delivered by the terminal operators in accordance with the valid Executive order on rail-related service facilities and services.

### **7.3.4 Marshalling yards and train formation facilities, including shunting facilities**

Railway Undertakings can carry out shunting on sidings. An overview of stations with sidings available for freight and passenger trains can be seen in appendix 3.8. An overview of how many meters of sidings there are located at each station can be seen in appendix 3.2A.

There is no guarantee that all sidings can be used for shunting.

Applications for train formation tracks for rolling stock must be made to Banedanmark, Traffic Operations, Customers and Capacity Planning.

### **7.3.5 Storage sidings**

Railway Undertakings can park (store rolling stock for a period of more than 72 hours) on sidings. An overview of stations with sidings available for freight and passenger trains can be seen in appendix 3.8. An overview of how many meters of sidings there are located at each station can be seen in appendix 3.2A.

There is no guarantee that all sidings can be used for parking.

Applications for capacity for parking of engines and coaches must be made to Banedanmark, Traffic Operations, Customer and Capacity Planning.

On certain sidings available for parking Banedanmark offers access to mains sockets for power supply. For this purpose, Banedanmark supplies main sockets at three voltages:

- 1500 V (single-phase)
- 1000 V (single-phase)
- 400 V (three-phase)

It should be noted that that the rules for placing of dangerous goods is subject to the valid Executive order on control of risk for of accidents with dangerous goods.

### 7.3.6 Facilities for the maintenance of rolling stock

Banedanmark does not offer facilities for the maintenance of rolling stock available to Railway Undertakings.

### 7.3.7 Other technical facilities

Banedanmark does not provide facilities to the Railway Undertakings for cleaning or washing of rolling stock.

#### *Facilities for monitoring wheel and axel loads on trains in operation*

Banedanmark monitors wheel and axel loads on trains in operation. For this purpose, Axel load Checkpoint's facilities of the type ATLAS FO are used. Banedanmark's ATLAS FO facilities are placed in the infrastructure as follows:

TIB-line	Track no.	Placement (center of ATLAS FO facility in the track)
1	H	14,191
1	V	14,191
1	H	181,974
1	V	181,980
26	2. main track	85,983
820	5	2,391

Banedanmark handles violations of applicable thresholds for wheel and axel loads in accordance with BN2-205.

Banedanmark offers access to measuring data from Banedanmark's ATLAS FO facility to the Railway Undertakings. For further information, contact [ALC-drift@bane.dk](mailto:ALC-drift@bane.dk).

*Facilities for monitoring pantographs on trains in operation*

Banedanmark monitors pantographs on trains in operation. For this purpose, PantolInspect facilities are used. Banedanmark's PantolInspect facilities are placed in the infrastructure as follows:

<b>TIB-line</b>	<b>Track no.</b>	<b>Placement</b>
1	H	12,708
1	V	12,721
820	H	2,251
820	V	2,251
880	H	4,071

*Vehicle weigh bridges*

Banedanmark owns a number of vehicle weigh bridges. The locations of these vehicle weigh bridges are shown below:

<b>City</b>	<b>Bearing capacity</b>	<b>Weight-ID</b>
Kolding	50 t	23362
Fredericia	2 of 50 t each	23363
Køge	60 t	23364

Banedanmark cannot guarantee that all vehicle weigh bridges are verified and operational.

*Turntables*

Banedanmark owns turntables at Padborg and Nykøbing F.

**7.3.8 Port facilities**

Banedanmark allocates capacity to and from port rails. A survey of port rails can be seen in appendices 3.1.C and 3.2.C

**7.3.9 Emergency facilities**

Banedanmark provides assistance as to rescue service after prior agreement.

**7.3.10 Diesel refuelling facilities**

Banedanmark does not provide facilities for diesel refuelling.



Udkast til ny afgiftsbekendtgørelse for 2022.msg

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### **Network Statement 2023**

**Fejl! Ingen tekst med den anførte typografi i dokumentet.**

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