Network Statement 2022

banedanmark

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Network Statement 2022

Traffic Operations
Management Supprot Office

Version 1.0

Business Development

Carsten Niebuhrsgade 49
DK-1577 København V

Phone
+45 8234 0000

l-sektrafik@bane.dk
www.bane.dk

CORRECTIONS AND AMENDMENTS

This document contains the corrections and amendments described in the table below. This document replaces previous versions of the Network Statement 2020 mentioned in the table.

Version	Date of publication
1.0	December 11th 2020

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 Objective

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.

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

1.3 Legal basis

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) no. 869/2014 of 11 August 2014 on new rail passenger services

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

COMMISION 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 (all links in Danish)

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. 1328 of 27/11/2018 on infrastructure charges etc. for the rail network (including the valid on up-to-date charging tariffs of the Executive order).

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

Executive order no. 1047 of 02/09/2015 on obligation to provide access at intermodal terminals

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. 147 of 30/01/2017 on safety approval and safety certificates 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. 653 of 08/05/2015 on approval of vehicles on the railway

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

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

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.

with projects, in case of new political decisions.

Banedanmark is not responsible for errors that 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 rail network 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 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 latest version of the common structure is on RNE's website.

Banedanmark's Network Statement has been drawn up in accordance with this structure in order to ensure that all those applying for capacity on Banedanmark's infrastructure as well as in other countries using the common structure will find the same type of information, structured in a similar way.

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

1.5 Validity and updating process

1.5.1 Validity period

The Network Statement 2022 is valid for the capacity allocation period of K22, (i.e. from December 12th 2021 to December 10th 2022).

1.5.2 Updating process

In the event of significant changes to the information contained in this Network Statement, Banedanmark will publish amendments 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 contract (see appendixes 2.3A and 2.3B). 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 effected without public consultation.

1.5.3 Publishing

Banedanmark publishes the Network Statement only as an electronic document on Banedanmark's website, from which it can be downloaded free of charge.

The Network Statement is available in Danish and English. The main document and all appendixes 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 Contact information

For enquiries regarding national and international rail traffic and other infrastructure access, contact Banedanmark. Relevant Banedanmark contact information is contained in the table below.

Banedanmark's postal address is:

Banedanmark
Carsten Niebuhrs Gade 43
DK-1577 København V
DENMARK

CVR: 18 63 22 76
Telefon: (+45) 82 34 00 00
E-mail: banedanmark@bane.dk
Web: www.bane.dk

Subject	**Responsible section in Banedanmark**
Standard Access Contract	Traffic Operations, Management Secretariat
Data exchange	Signals
Dangerous goods	Quality and Safety, Working Environment
Freight lines	Traffic Operations, Customers and Capacity Planning
Capacity applications	Traffic Operations, Customers and Capacity Planning
Commercial enquiries, including advertising	Traffic Operations, Costumers and Capacity Planning
Communication systems	Signals
Running time calculations	Traffic Operations, Customers and Capacity Planning
Network Statement	Traffic Operations, Management Secretariat
One Stop Shop	Traffic Operations, Costumers and Capacity Planning
Route compatibility	Quality and Safety
Sidings usage	Traffic Operations, Customers and Capacity Planning
Current	Infrastructure
Technical requirements & rules	Infrastructure
Train control system	Signals
Operational rules	Quality and Safety
Transmission and cables	Signals

Exceptional transports	Traffic Operations, Customers and Capacity Planning
Vintage train operation	Traffic Operations, Customers and Capacity Planning

1.7 Co-operation between the 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 completion with other forms of transport.

Part of the Danish rail network is included in European rail freight corridor 3 (Scandinavian Mediterranean – ScanMed), which covers the Stockholm/Oslo – Malmö – Copenhagen – Padborg – Hamburg – Innsbruck – Verona – Palermo line. ScanMed was established in 2015.

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.

More information on the rail freight corridor is available on the Danish Traffic, Construction and Housing Agency Agency's website as well as on Banedanmark's website.

For information on other freight corridors, see RNE's website.

1.7.2 RailNetEurope – international co-operation between Infrastructure Managers

Banedanmark participates in the European co-operation between Infrastructure Managers, RailNetEurope (RNE). See RNE's website for more information about the organisation.

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 RNE's website.

Charging Information System (CIS)
CIS is a web-based application for the calculation of infrastructure charges. CIS 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.

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 RailNetEurope's website.

1.7.3 Other international co-operation

One Stop Shop (OSS)

One Europe – ONE Service
In Denmark, enquiries regarding applications for capacity on freight corridors must be made through Banedanmark's One Stop Shop at asn@bane.dk. Alternatively, enquiries can be made to Banedanmark, Traffic Operations, Key Account Management.

Further information on One Stop Shops can be found on RNE's website.

2 INFRASTRUCTURE

2.1 Introduction

The following sections describe Banedanmark's overall 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. Outline maps of lines open for passenger and freight traffic can be seen in appendixes 3.1B and 3.1C respectively.

This section also describes other Infrastructure Managers' infrastructure or connected rail network elements.

2.2 Extent of network

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 can be found on the Danish Transport, Construction and Housing Agency's website.

2.2.1 Geographical limits

The geographical limits of the Danish rail network are outlined in appendix 3.1A.

The following lines are blocked and therefore not available for allocation of capacity:

- 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
There is a demand for usage of the siding. The siding is therefore 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
There is no demand for usage of the siding. The siding is therefore not available for traffic use, and Banedanmark can subsequently declare the siding inactive.

If there is demand for the siding within 24 hours, it is Banedanmark's responsibility to ensure that the siding can be used for traffic purpose. Therefore, the siding is technically operational, and maintenance of the siding can, if necessary, take place.

Closed
There has been no demand for usage of the siding for 24 months, during which time the siding has been inactive. Banedanmark will recommend to the Danish Transport, Construction and Housing Agency that the siding is closed. If this change in status is authorised by the Danish Transport, Construction and Housing Agency, 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 Transport, Construction and Housing Agency 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 Infrastructure connected to Banedanmark's infrastructure

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

National borders with other Infrastructure Managers

The Great Belt Link
The fixed connection over the Great Belt is owned by Storebælt Inc. (Great Belt Inc). Banedanmark is the infrastructure manager of the fixed connection over the Great Belt and is responsible for traffic-related operations.

Storebælt Inc. 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 Inc. administrates the system owned by Storebælt Inc. and is responsible for all maintenance and reinvestment projects on the railway line from km 106,840 to 132,396.

An annual emergency 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 Øresund Inc.

A/S Øresund is responsible for the maintenance and reinvestments on to the Danish railway infrastructure connected to the Fixed Oeresund Link and incurs all expenses in connection herewith. However, Banedanmark is responsible for the maintenance and reinvestments of the interlocking systems on the Danish railway infrastructure connected to the Fixed Oeresund Link.

Banedanmark is infrastructure manager of the Danish railway infrastructure connected to the Fixed Oeresund Link.

Sund & Bælt Holding Inc. administrates the system owned by Øresund Inc. 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 regional railways are connected to Banedanmark's infrastructure can be seen in appendix 3.2C. Banedanmark is Infrastructure Manager for 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 5.3.7.

For information on freight terminals, see section 3.7.

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 rail network and the Swedish rail network 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 Netredegørelsen for Øresundsbron (Network Statement for the Oeresund Bridge).

2.3 Description of Banedanmark's infrastructure

Banedanmark's infrastructure is described in detail in this section.

2.3.1 Geographic identification

2.3.1.1 Number and length of lines

An overview of the number of lines can be seen in appendix 3.3A. An overview of the length of lines can be seen in appendix 6.6

2.3.2 Track gauges

In Denmark, the track gauge is 1435 mm. standard.

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 in stations with long-distance or international traffic is 320 metres. It should be noted that not all stations conform to this standard. Guideline information on the length and height of all platforms in stations on Banedanmark's infrastructure can be seen in appendix 3.6.

In relation to Banedanmark's infrastructure, the line information (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 where also an overview of lines equipped with ETCS 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. They must be transported as exceptional transports, see section 3.4.3.

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 on 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 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 Gradient

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 (in Danish:

"*særlige togsæt*") for the given part of the line. Specifications of "*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 operational and non-operational tractive units.

Information on permitted train lengths can be found on Banedanmark's website.

Certain sorting yards/loops cannot accommodate trains of more than 835 meters, and therefore capacity limits may be imposed in these circumstances. Further information can be obtained from 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
- Lunderskov – Tinglev – Padborg
- Tinglev – Sønderborg

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 is performed 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 carried out by Banedanmark through various types of interlocking systems which send a visual stop/go signal to the driver in accordance with the 1975

Safety Regulations (SR), or 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 (OR-F)/ (OR-S).

Long-distance lines
Control and management of traffic on long-distance lines where the Signalling Programme has been rolled out is carried out by Banedanmark through ERTMS in accordance with the Safety Regulation's Operational Rules (OR-F).

S-train lines
Control and management of the S-train traffic is carried out by Banedanmark through CBTC in accordance with the Safety Regulation's Operational Rules (OR-S).

The overall implementation plan can be seen in appendix 3.9.

2.3.11 Traffic control systems

Traffic control takes place partly using remote control and partly using local control of interlocking and block systems. Approximately 97% of Banedanmark's lines are remotely controlled. There are both larger regional control centres (RFCs) and smaller control centres (FCs). A few stations are manually controlled, but the rest are remotely controlled; station interlocking systems where an FC is located are usually controlled by local train dispatchers, the only exception being the S-trains.

The locations and coverage areas of the control centres as well as the manually controlled stations can be seen in appendix 3.3H.

Some stations require manual manning as a prerequisite: Horsens, Randers, Herning, Viborg, Silkeborg, Ellidshøj and Langå.

Operating times for local staff are stated in TIB (Banedanmark's route information).
Exceptional manning of stations can be arranged with Banedanmark by the 15th of the previous month by contacting:

tjsyd@bane.dk for Horsens
tjnord@bane.dk for all other stations

2.3.12 Communication system

Each line/station is allocated specific radio channels (frequencies) which Railway Undertakings are permitted and obliged to use. All radio communication uses the GSM-R system.

The channels (frequencies) may only be used on the allocated channels and at the allocated shunting places and times. The relevant radio channel for each station is outlined in TIB (Banedanmark's route information). Banedanmark's requirements regarding use of GSM-R radio are described in the infrastructure register.

Radio conversations are recorded and monitored.

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.

For shunting etc., portable Point-to-Point radios must be used. Portable radios must be configured to operate only on allocated channels/frequencies. The railway undertakings are responsible for correct configuration.

S-train line
GSM-R must be used for oral and data communication to and from the trains. In order to use the system, trains must be equipped with a GSM-R radio.

2.3.13 Train control systems

In accordance with the Danish Transport, Construction and Housing Agency's *"Railway safety regulations BJ no. 5-1-2017 on regulations for operating on lines with train control systems"*, trains which are allocated capacity on lines equipped with train control systems must be equipped with either interoperable mobile ETCS Level2 Baseline 3 (possibly combined with ATC STM equipment) or be equipped with) mobile ATC, mobile HKT (on the S-train line) or mobile CBTC (on the S-train line). Only ETCS is interoperable

The valid traffic information issued by Banedanmark on the handling of the Danish Transport, Construction and Housing Agency'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 Specialised infrastructure

Special restrictions and limitations for operating on freight lines are described in the Safety Instructions (SIN).

2.4.2 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 reduced to be as little as possible.

The Railway Undertaking is obliged to take measures which Banedanmark finds necessary with in order to comply with the specific instructions from 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 of the parties being subject to an enforcement notice according to the Environmental Act and this statement.

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 applying the form stated below 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 clan-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 team about the spillage by completing the form on Banedanmark's website: https://www.bane.dk/-/media/Bane/Leverandoer/Miljoe/Haandtering-af-oliespild-og-kemikaliespild.docx.

The completed form must be sent to miljoeogenergi@bane.dk

Noise

The parties must attempt to minimize noise. Environmental legislation employs two different definitions of noise from the railway; noise from passing trains (section noise) and noise from other activities (terminal noise). These definitions are defined in guideline no. 1/1997 "Noise and vibrations from railways" and amendment from 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 residential areas. This implies that the 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 and later changes on noise limits for new rolling stock in motion and idling. 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 accommodation.

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 ad Foods's Executive order on limitation of air pollution from non-road mobile engines.

2.4.3 Dangerous goods

On the Danish Transport, Construction and Housing Agency's website, there is 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 Regulations Operational Rules for S-trains (ORS) Safety Regulations for Long-distance lines (ORF) and Safety Instructions (SIN).

Provisions in this regard are referred to om the standard access contract (Appendix 2.3A).

2.4.4 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.

2.4.5 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 SR, SIN and traffic information.

2.5 Restrictions in the availability 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 putting into service, longter track posseions 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 timetable tables for the applicants. Thus, cancellations and changes can still occur after the allocation of capacity.

Appendix 3.5A and 3.5B outlines the planned capacity restrictions in K21 and K22 for S-train lines as well as for long-distance lines, which. The standard access contracts (Appendix 2.3A and 2.3.B) 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 speeds, reduced axle load etc.

The ETCS onboard equipment's compatibility with the infrastructure
On lines where ECTS 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 thee lines equipped with appear from appendix 3.3I.

Banedanmark stiller 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 sand information on the test process can be found here:
https://www.bane.dk/da/Jernbanevirksomhed/Test-af-ETCS_ombordudstyr.

2.6 Development of infrastructure

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

2.6.1 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 main and regional lines and the S-train lines

would be renewed. On the main and regional lines, a signalling system will be implemented based on existing signalling solutions and 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 main and regional 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 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.

2.6.2 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 renovation 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 rail network in Denmark, including licence 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 can be found on the Danish Transport, Construction and Housing Agency's website.

3.2.1 Requirements to apply for a train path

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.

Non-RU 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-RU-applicants, contact can be directed to Traffic Operations, Key Account Management

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

3.2.2 Requirements to be made on applicants for capacity

For Railway Undertakings operating in Denmark a permit (licence) and a safety certificate issued by the Danish Transport, Construction and Housing Agency 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 Permit (licence) for performing train operations

The Danish Transport, Construction and Housing Agency issues licences to operate a Railway Undertaking in Denmark.

The Danish Transport, Construction and Housing Agency's guidelines on licence applications can be found on the Danish Transport, Construction and Housing Agency's website.

Licences 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 licence 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 Transport, Construction and Housing Agency issues safety certificates to Danish and other Railway Undertakings which fulfil the relevant requirements.

For further information, see the Danish Transport, Construction and Housing Agency's website.

3.2.5 Cover of liabilities

Railway Undertakings to which capacity has been allocated must have legally required liability insurance, in accordance with the requirements of Executive order on liability insurance for Railway Undertakings and Infrastructure Managers.

For further information, see the Danish Transport, Construction and Housing Agency's website.

3.3 Contractual arrangements

3.3.1 Framework agreements

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 for Railway Undertakings

Standard access contracts for the usage of Banedanmark's infrastructure
Prior to using the allocated capacity on Banedanmark's infrastructure, it is obligatory for the party which has been allocated capacity to enter an agreement with Banedanmark in the form of a standard access contract (Appendix 2.3A).

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

If required due to special circumstances related to the party with allocated capacity, the standard access contract may be supplemented by individual appendixes and addendums.

Standard access contracts for the usage of the infrastructure of Øresundsbro Konsortiet
In addition, prior to use of allocated capacity on infrastructure managed by the Øresundsbro Konsortiet (Oeresund Bridge Consortium Partnership) and located in Denmark, it is obligatory for

the Railway Undertaking to enter an agreement with Banedanmark in the form of a standard access contract with Banedanmark on behalf of the Øresundsbro Konsortiet (Appendix 2.3B).

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

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

3.3.3 Contracts for non-RU applicants

Non-RU applicants for capacity must be approved by Banedanmark in order to be able to apply for capacity.

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

For further information on Standard access contracts for Railway Undertakings and on contracts for other applicants, contact Traffic Operations, Management Secretariat.

3.3.4 European General Terms & Conditions for use of railway infrastructure

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 rail network.

3.4 Specific access conditions

3.4.1 Rolling stock acceptance process

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

Information on authorisation to put into service (APIS) for rolling stock can be found on the Danish Transport, Construction and Housing Agency's website.

Rail or road vehicles as well as other specific vehicles which operate at a speed of under 20 km/h and which are used during possessions must obtain an authorisation to put into service (APIS) from Banedanmark before being placed on the track. For further information, see Banedanmark's website.

3.4.2 Staff acceptance process

The Danish Transport, Construction and Housing Agency is responsible for approving Railway Undertakings' internal education of staff with functions requiring safety certificates.

Further information is available on the Danish Transport, Construction and Housing Agency's website.

3.4.3 Exceptional transports

The 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.

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 endeavours 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 (axel 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 time of processing, the Railway Undertaking which applies for a renewal of a permanent transportation permit is requested to contact 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 3.7) and for transit 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.

Overview of loading units with relevant exceptional transport numbers:

- P/C 45 = BDK 8100-21
- P/C 60 = BDK 8101-21
- P/C 80 = BDK 8102-21
- P/C 369 = BDK 8103-21
- P/C 375 = BDK 8104-21
- P/C 400 = BDK 8105-21

3.4.4 Dangerous goods

The Danish Transport, Construction and Housing Agency 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 Transport, Construction and Housing Agency's website.

The transportation of dangerous goods on the infrastructure in national 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 appendixes CIM and CIV, as well as the rules stipulated by the Ministry of Transport and Housing or the Danish Transport, Construction and Housing Agency.

RID is, according to order no. 919 of 16 December 1998 exempt from inclusion in "Lovtidende" (the Danish Law Gazette). A Danish translation of the regulations can be seen on the Danish Transport, Construction and Housing Agency'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 provide details (including information on high risk RID 1.10.3.1.2.) to Banedanmark of quantity and location of dangerous goods in transit, as well as in secured and unsecured areas on Banedanmark'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 followed, including the requirements in RID as well as the valid Executive order on control of risk for major accidents and 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 applied 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 by Banedanmark 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 on 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 a supplement to the capacity allocation.

More information on application for allocation of capacity, including application forms can be found on Banedanmark's website.

Railway Undertakings applying for capacity for international freight 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 Reservation of 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 handles.

The complexness 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 at a time. 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 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 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.

Deadline	**Description**	**Supply**
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 **(Major**)	Appendix 3.5B contains an overview of possessions. From this overview possessions which are designated as major appear (see description). Appendix 3.5B i. a contains concrete date of the possession concerned, e.g.: - time of beginning and end of the possession, as far as available - possession type, i.e. are all tracks possessed, or are reduced operations still possible. - how operations are affected by the possession, as far as available. 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.
X-24 (to be updated at X-12)	Capacity restrictions of more than 7 coherent days with a traffic impact on more than	Appendix 3.5B i.a contains concrete date of the possession concerned, e.g.:

	300 % of the estimated traffic volume per line (**High**)	- time of beginning and end of the possession, as far as available - possession type, i.e. are all tracks possessed, or are reduced operations still possible. - how operations are affected by the possession, as far as available. 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.
X-12	Capacity restrictions of more than 7 coherent days with a traffic impact on more than 300 % of the estimated traffic volume per line (**Medium**)	Appendix 3.5A i. a contains concrete date of the possession concerned, e.g.: - time of beginning and end of the possession, as far as available - possession type, i.e. are all tracks possessed, or are reduced operations still possible. - how operations are affected by the possession, as far as available. The appendix also specifies Major and High which were reported X24.
X-5,5	Banedanmark informs the applicant about the allocation of paths with reservations for and sends a draft for the timetable to all parties concerned for being subject to a consultation process. As from that time the consultation period will be one month.	The Railway Undertaking receives a preliminary allocation letter, which contains the preliminary path allocation.

X-4	Capacity restrictions of more than 7 coherent days with a traffic impact on more than 300 % of the estimated traffic volume per line, which Banedanmark is acquainted with 6 ½ months before beginning of the timetable (**Minor**)	The appendix i.a contains concrete date of the possession concerned, e.g.: - time of beginning and end of the possession, as far as available - possession type, i.e. are all tracks possessed, or are reduced operations still possible. - how operations are affected by the possession, as far as available. 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.
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 handled in co-operation with the Railway Undertaking.

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

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

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 agreed with the Railway Undertaking in the access contract.

Banedanmark can any time introduce special restrictions with regard to the application 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 with the Railway Undertakings and other applicant. On such meetings it will be possible for the Railway Undertakings/applicants to discuss any adjustments of the capacity restrictions.

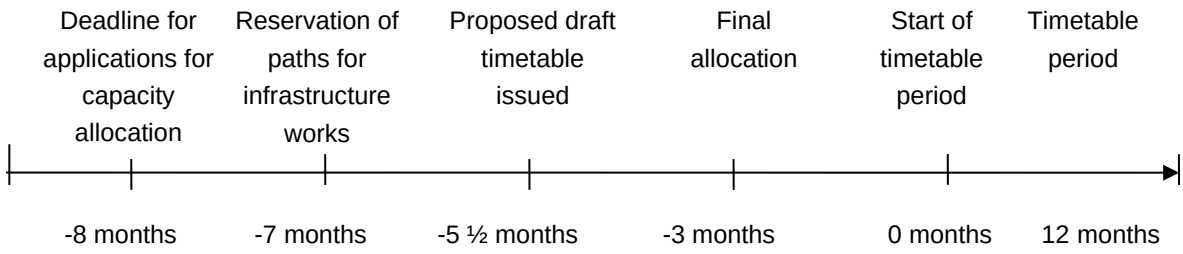
The Railway Undertakings/applicants can in this connection request that Banedanmark presents alternative possession scenarios for the capacity restrictions given notice of in the Network Statement in accordance with the above diagram.

4.4 Influence by framework agreements

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

4.5 Path allocation process

Capacity allocation on Banedanmark's infrastructure follows the procedure and includes 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 timetable 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 optimal capacity, and allocate it to the applicant that can best document a concrete need.

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

Banedanmark will issue a proposed draft timetable at least 5½ months before the start of the timetable period and the final capacity allocation will be announced at least 3 months before the timetable period.

An overview of the deadline dates for K22 can be seen in appendix 4.3.

4.5.2 Late annual timetable path applications

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 treated until all applications received in due time have been treated, 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 applications

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

Banedanmark at least 30 days before the date requested. It is recommended that other Railway Undertakings submit applications at least 5 working days before the date requested. Allocation takes place on a first-come first-served basis and Banedanmark will process 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 korrtoga@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 centre (DCDK) by mail 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.
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

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 the congested lines in K20, as well as bottlenecks, which are lines at risk of congestion as capacity usage is in excess of UIC's maximum recommended usage, can be seen in appendix 4.4.

When a line is 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 speed.

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

4.7 Exceptional transports and dangerous goods

Exceptional transports
Applicants must disclose exceptional transports when applying for allocation of capacity, and must obtain 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 from the applicant

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

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

4.8.2 Changes performed by Banedanmark of allocated capacity

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 og passenger traffic.

4.8.3 Non-usage of allocated capacity

The Railway Undertaking is on its own initiative obliged to cancel allocated capacity which the Railway Undertaking i 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 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 to withdraw the path for the remaining part of the timetable year.

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

In connection with the cancellation of paths for an entire year such paths will 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.

4.8.4 Cancellation of allocated capacity

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

4.9 TimeTable Redesign (TTR)

4.9.1 Objectives TTR

RailNetEurope (RNE) and Forum Train Europe (FTE), supported by the European Rail Freight Association (ERFA) are currently working on a Redesign of the International Timetabling Process (TTR). The objective of TTR is to harmonize and improve the European rail timetabling system to significantly increase the competitiveness of railway transports.

TTR consists of different 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 traffic it will mean earlier availability of the final timetable allowing earlier and more reliable ticket purchasing for passengers.

For the freight traffic, it will mean more possibilities for short-term path requests and thus more flexibility to better meet customers' needs.

Detailed information on the project can be found on https://ttr.rne.eu/ og http://www.forumtraineurope.eu/services/ttr/.

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

4.9.2 TTR pilot project

Banedanmark is in dialogue with the Swedish infrastructure manager, Trafikverket, and the Norwegian infrastructure manager, BaneNOR, with regard to a Scandinavian TTR- pilot project. With this pilot project central concepts in TTR are to be tested within the framework of RailNetEurope.

For further information, contact Trafik, Kunder & Trafikplanlægning korrtoga@bane.dk.

5 SERVICES AND CHARGES

5.1 Introduction

Banedanmark delivers a range of services to Railway Undertakings. These services are described below.

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

Track access charges

Running on Banedanmak's infrastructure paid by train kilometer charges and bridge access charges for passage of the Great Belt and Oeresund.

Train kilometer charges and bridge access charges are in designated as track access charges. These track access 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 developments 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.

In 2020 the train kilometer charge – except from the lines Korsør – Nyborg og Øresundskyst – Swedish border - amounts to:

5,09 DKK per kilometer performed (excl. VAT).

For operating S-trains on Banedanmark's infrastructure no track train kilometer charges are paid.

Bridge access charges

In 2020 the bridged access charges for passage of the Great Belt Link and the Oeresund Link amounts to:

	Great Belt	Oeresund
Passenger trains	5.537,00 DKK (excl. VAT)	2.276,53 DKK (excl. VAT)
Freight trains	6.732,05 DKK (excl. VAT)	2.754,53 DKK (excl. VAT)

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 at one 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 package

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 package on an equal, non-discriminatory basis.

As described in DIRECTIVE (EU) 2012/34 annex II point 1, the minimum access package comprises the following:

a) Handling of requests for railway infrastructure capacity;
b) The right to utilise capacity which has been granted;
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 granted.

Banedanmark's standard access contract (Appendix 2.3A) contains a more detailed description of Banedanmark's minimum access package 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 package.

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 measured as described below. Measurement of traction current does not generate income for Banedanmark.

Traction current delivered to trains with a traction current metre on board which sends the data 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 usage in charging areas DK1 and DK2.

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

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

Traction current delivered to trains without a traction current metre on board:

- Traction current charge is charged 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 kilometres travelled in the period multiplied by an amount 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, State's up-to-date electricity tariffs, PSO, leakage, difference loss, contribution to administration of traction current calculations and VAT.

Train pre-heating and other electricity to trains via mains 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 as described above.

Electrical current use from mains sockets made available by Banedanmark will be calculated at cost price including tariffs etc.

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

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

5.5 Ancillary services and charges

Upon request, Banedanmark can supply the 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 have the right to lease aerial space in existing masts and on tall buildings. Banedanmark can therefore offer aerial space in Banedanmark's masts and on Banedanmark's buildings under comparable leasing conditions as are offered to telecommunication companies.

5.6 Financial penalties and incentives

5.6.1 Penalties for path modification requested by the applicant

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

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

5.6.2 Penalties for path alteration

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 railway network.

5.6.3 Penalties for non-usage of paths

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 railway network.

5.6.4 Penalties for path cancellation

If an applicant or a Railway Undertaking does not wish to use an allocated path, the path concerned can 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.

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

5.6.5 Incentives/discounts

Banedanmark does not grant any ERTMS discount on infrastructure charges.

5.7 Performance scheme

In accordance with the valid Executive order on Banedanmark's duties and powers, Banedanmark has established a generic obligatory performance scheme 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 railway network.

5.8 Changes to charges

As far as possible, all changes to charges, other than on-going tariff regulating, will be announced by Banedanmark at least 12 months prior to implementation. All 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 with one month's notice via an Executive order issued by Banedanmark.

5.9 Billing and paying arrangements

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.

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

Traction current
Charges for traction current are payable to Banedanmark monthly in arrears with a payment deadline of 30 days net.

Train pre-heating and other electricity to trains via mains sockets
Charges for electricity used for pre-heating of trains and other electricity via mains sockets are payable to Banedanmark monthly in arrears with a payment deadline of 30 days net.

Water for preparation of trains
For further information on billing for water for preparation, please see Banedanmark's standard access contract, appendix 2.3A.

Exceptional transports
For further information on billing for exceptional transports, please see Banedanmark's standard access contract, appendix 2.3A.

6 OPERATIONS

6.1 Introduction

This section contains an overview of Banedanmark's rules for 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 train 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 locomotive 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" ("Operational Code") is also produced, which describes how traffic should be operated in case of traffic irregularities, with or without reduced capacity. 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 ordered by directing an inquiry to dcdkom@bane.dk

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

6.3.2 Traffic operations in case of disturbances

Unforeseen situations are handled by Driftscenter Danmark (Operations Centre Denmark) for main and regional lines in close collaboration with the Railway Undertakings and the affected area, including various control offices, other Infrastructure Managers etc. For the S-train line, situations are handled *by Driftscenter Hovedstaden* (Capital City Operations Centre).

Banedanmark has produced a contingency plan in accordance with the Executive order on Railway Undertakings' and Infrastructure Managers' emergency work describing how serious incidents or disturbances to rail traffic will be dealt with. 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 available the resources, including rolling stock, that Banedanmark finds appropriate 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 a winter alert which is effective from 15 November to 30 April.

In connection with the winter alert, a *"winter arrangements"* traffic statement 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 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. can operate. It is up to Banedanmark to decide when to progress from one phase/level to the next.

Leaf fall arrangements

Banedanmark implements a leaf fall alert. The alert is 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 alert 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 train monitoring system

6.4.1 Traffic information for passengers

Banedanmark's standard access contract (Appendix 2.3A) 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. 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"*, which is regularly adjusted, but generally, Banedanmark's passenger information includes the following as a minimum:

During normal train operations
Banedanmark's electronic 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 disruption to train operations
Banedanmark's electronic information screens at stations and on platforms are updated with information on trains' current departure times. Audio information on changes in traffic and advice for customers is 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.

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 a data service. This service collects real time data about train operations from its own and other linked Railway Undertakings' real time data sources.

This information is used by Banedanmark and linked Railway Undertakings 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 deliver GPS positions for own trains as well as information with regard to timetables and data on rolling stock in real time.

6.4.2 Train Information System - TIS

TIS 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 [IM name]'s systems and all the information from the 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.

RUs and terminal operators may also be granted access to the TIS and they can join the RNE TIS Advisory Board. All members of this Board grant all other members full access to TIS data if they are involved in the same train run. Without it, mutual agreements have to be signed between Railway Undertakings and between Railway Undertakings and terminal operators.

Access to TIS is free of charge. 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 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

7.2.1 Information for the service facility operators

The service facility operator is obliged to publish the description of the service facilities on its own website or on a joint webportal 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, the service facility operator must supply Banedanmark with link for this for this website of a joint webportal.

RNE has developed a template for the description of the service facilities at the free disposal. This template can be found on å 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.

Whatever publishing method chosen by the service facility operator, the necessary information must be received by Banedanmark not later than Friday 9 December 2020, with regard to being included in Banedanmark's Network Statement for 2022.

7.2.2 Freight terminals

Intermodal Terminal Taulov and Høje Taastrup

Intermodal Terminal Padborg

Taulov Container & Rail Terrminal

Intermodal Terminal Hirtshals

Intermodal Terminal Esbjerg

7.2.3 Port facilities

For further information on the orts and services in this regard, reference is made to the individual ports by the links stated below:

Fredericia Havn
Frederikshavn Havn
Grenaa Havn
Kolding Havn
Kalundborg Havn
Køge Havn
Skagen havn
Thyborøn havn
Vejle Havn
Aalborg Havn
Aarhus 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 way stations on Banedanmark's infrastructure as well as guideline information on platform lengths and heights can be seen in appendix 3.6A.

An overview of all passenger stations and way stations on Banedanmark's infrastructure after the roll-out of the ECTS-system on those lines, were ECTS is expected to operate in 2020, as well as guideline information on platform lengths and heights can be seen in appendix 3.6B.

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 Executive order on obligation to provide access at intermodal terminals.

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 obligation to provide access at intermodal terminals.

7.3.4 Marshalling yards and train composition 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 metres of siding are located at each station can be seen in appendix 3.2A.

There is no guarantee that the entire siding can be used for shunting.

Applications for capacity for shunting must be made to Banedanmark, Traffic Operations, Customers and Capacity Planning.

Banedanmark allocates capacity on access sidings. All shunting must be by agreement with Banedanmark.

7.3.5 Sidings for parking

Railway Undertakings can park rolling stock 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 metres of siding are located at each station can be seen in appendix 3.2A.

There is no guarantee that the entire siding can be used for parking.

Applications for capacity for parking 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 mains 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 applicable Executive order on control of risk for major accidents and dangerous goods.

7.3.6 Maintenance facilities for rolling stock

Banedanmark does not make workshops or other facilities for the maintenance of rolling stock available to Railway Undertakings.

7.3.7 Other technical facilities, including facilities for cleaning of washing of rolling stock

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 Checkpoints 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. right 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 the ATLAS FO facility. For further information, contact ALC-drift@bane.dk.

Facilities for monitoring pantographs on trains in operation

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

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

Vehicle weighbridges

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

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

Banedanmark cannot guarantee that all wagon weighbridges are verified and operational.

Turntables

Banedanmark owns turntables at *Padborg* and *Nykøbing F*.

7.3.8 Port lines/tracks

Banedanmark allocates capacity to and from port tracks. An overview of the locations of port lines/tracks can be seen in appendixes 3.1C and 3.2C

7.3.9 Emergency facilities

Banedanmark provides assistance as to rescue service after prior agreement Emergency facilities

7.3.10 Refuelling facilities (diesel)

Banedanmark does not provide facilities for diesel refuelling.