

## Research Dossier: Telenor DK

Country

Denmark

Company Name

Telenor A/S

Ownership Type

Subsidiary

Ownership/Controlling Entity

Telenor Group

Website

<https://www.telenor.dk/>

MNC

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### Company Overview

Telenor DK is the second largest mobile network operator in Denmark. Telenor was founded as a result of a merger between the mobile carrier Sonofon and ISP Cybercity in June 2009, both companies already acquired by Telenor in 2000 and 2005 respectively. Today the company is a wholly owned subsidiary of Norwegian Telenor Group.

A network sharing agreement between Telenor DK and Telia was forged in 2012, resulting in the establishment of a common infrastructure company (TT-Netværket P/S) to operate a joint radio access network.

The company has provided 2G GSM services over the 900 and 1800 MHz bands since July 1992, and 3G UMTS services over the B1 (2100 MHz) band since September 2006. The network was upgraded to support HSPA+ in October 2010, and DC-HSPA+ in March 2011. An additional B8 (900 MHz) service was launched in 2014.

4G LTE was commercially launched in March 2013 over B3 (1800 MHz) and B7 (2600 MHz). 2C carrier aggregation began in 2015 with the launch of LTE-A services, and by December 2015 the company provided a 300 Mbps service in all major cities. A 3C CA service has been progressively deployed since 2016, using B3 (1800 MHz), B7 (2600 MHz), and B20 (800 MHz) bands. The network was upgraded to LTE-A Pro in September 2018 supporting data rates up to 1 Gbps.

Telenor Denmark IoT

In July 2018 the company announced the completion of its national rollout of NB-IoT and LTE-M networks over the shared TT-Netværket infrastructure.

Telenor Denmark 5G

In February 2019 the company announced a joint trial in partnership with Nokia to verify the network's 5G capabilities, including enhanced Mobile Broadband and Ultra-Reliable Low-Latency Communication. The trials support 5G use cases such as robotics control, industrial automation, 5G+LTE dual connectivity and Fixed Wireless Access for high performance last mile connectivity.

#### ▼ 3G UMTS Network Information

Details on UMTS network deployments are shown below. Data are often incomplete due to commercial nature. Consult

dossier text for further details.

Launch Date	2006-09	Status	Active
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UMTS Band	Packet Data	Status
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B1 (2100 MHz)	DC-HSPA+	Active
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B8 (900 MHz)	HSPA+	Active
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#### ▼ 4G LTE Network Information

Details on LTE network deployments are shown below. Data are often incomplete due to commercial nature. Consult dossier text for further details.

Evolution	LTE Advanced Pro (LTE-A Pro)	Status	Active [Launched 2013-03]
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Max. MIMO	4x4 MIMO	Max. Modulation	256QAM
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Carrier Aggregation	CA_3A-7A (B3+B7) CA_3A-7A-20A (B3+B7+B20)	Features	LTE-M
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LTE Band	Channel Width	Status
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B3 (1800 MHz)	20 MHz	Active
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B7 (2600 MHz)	20 MHz	Active
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B20 (800 MHz)	10 MHz	Active
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#### ▼ 5G NR Network Information

Details on 5G NR network deployments are shown below. Data are often incomplete due to commercial nature. Consult dossier text for further details.

Type	NR (Standard)	Status	Trialling
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Max. MIMO	64T64R	Max. Modulation	256QAM
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Carrier Aggregation	-	Features	-
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NR Band	Channel Width	Status
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n78 (3500 MHz)	No Data	Trialling
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#### ▼ IoT Network - NB-IoT (LTE Cat-NB1)

Technology	NB-IoT (LTE Cat-NB1)	Status	Active
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Band	B20 (800 MHz)	Launch Date	2018-07
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▼ IoT Network - eMTC (LTE Cat-M1)

Technology	eMTC (LTE Cat-M1)	Status	Active
Band	B20 (800 MHz)	Launch Date	2018-07

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