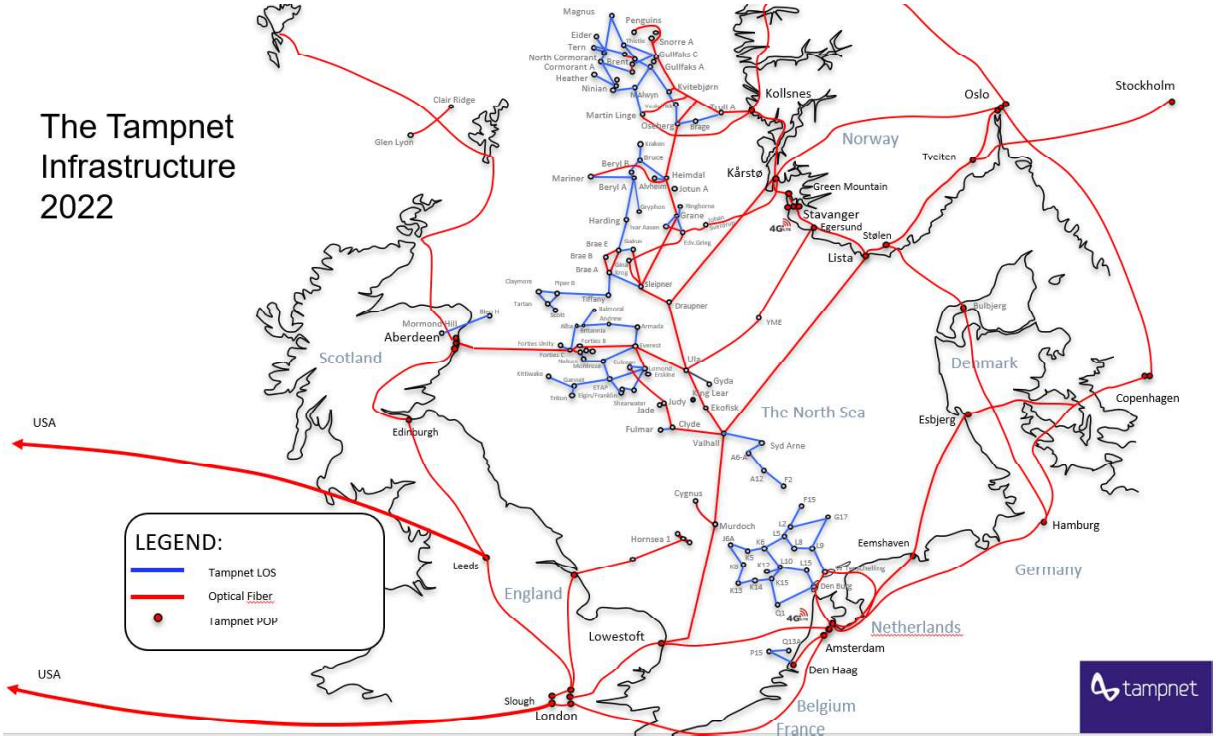
DocuSign Envelope ID: E4111803-1FBC-47D6-8E0B-68DA58421D0A

Hoofddorp, NL 18 March 2022

Dear Sir/Madam,

Tampnet BV would like to thank you for the opportunity to comment regarding the invitation arising from the press release “Orientierungspunkte zur Vergabe von Mobilfunkfrequenzen” of 24th January 2022 and the associated document “Orientierungspunkte und Bedarfsabfrage zur Bereitstellung von Frequenzen in den Bereichen 800 MHz, 1.800 MHz und 2,6 GHz für den Ausbau digitaler Infrastrukturen”.

As an offshore cellular operator Tampnet provides private and public mobile broadband, voice services and internet of things networks. We have large scale operations in the North Sea and the Gulf of Mexico as well as several smaller networks elsewhere in the America’s. The North Sea Network is shown in schematic form below, with radio access infrastructure installed on many of the offshore locations indicated:



The North Sea network includes operations in Denmark, Germany, Netherlands, Norway and the United Kingdom. Tampnet predominately serves the offshore energy sector, including oil, gas and renewable industries, but also serves general maritime traffic from large vessels through to smaller fishing and pleasure boats. Public access is achieved through roaming agreements with various terrestrial operators including Vodafone and T Mobile in Germany and the global MVNO GigSky. Tampnet also supports other networks such as aeronautical communications (among them the

DocuSign Envelope ID: E4111803-1FBC-47D6-8E0B-68DA58421D0A

European Aviation Network - EAN) which is served through our extensive subsea fibre and microwave network.

The networks consume harmonised public mobile spectrum in 700, 800, 900, 1800, 2100, and 2600 MHz, the use of which Tampnet has secured in exclusive economic zones offshore through area allotments won at auctions, site assignments, licenced direct from national regulators and through spectrum sharing agreements with other operators. Notably Tampnet has offshore allotments in 700/800/1800/2600 in the Netherlands and 700/800/1800 MHz in Norway.

Today offshore spectrum usage in Germany appears inefficient with plenty of scope for use, however, the motivation for existing operators claiming rights to use or share spectrum offshore is often limited so the spectrum often lies completely unused to the detriment of the offshore industry. Enabling simpler access to spectrum offshore will enable increasingly important advanced mobile services (5G and beyond) in this offshore region, where a lot of value creation is happening over various industries (fishing, energy, shipping, governmental, meteorological and others). Digitalization and technological evolution will happen largely through access to high speed and high-quality communications infrastructure, and we believe offshore will not be an exception.

Given that offshore locations where base stations can be commissioned are often sparse means that reasonable quantities of low and mid-band spectrum are required to provide broadband services, and we generally deploy 2x 30 MHz in 800/1800 MHz everywhere with 2 x 60 MHz used quite a few busier locations and even more in some hotspots.

To encourage efficient use, we do not believe this spectrum offshore should be included in any terrestrial operator's licenses by default. Consequently, we propose explicit separation of all the 800/1800/2600 MHz frequency spectrum within the German exclusive economic zone beyond the 12 NM territorial limit, and to make the spectrum blocks available on allotment or a site assignment basis.

We have 9 years' experience operating on a secondary basis offshore adjacent to territorial services on land whereby we engineer and coordinate our networks to avoid harmful interference thus we have no impact on national services on land and in territorial seas.

We thank you for considering our opinions and wish you luck in setting important policy regulations to improve safety, value creation and welfare for German industry and society.

Yours faithfully,

DocuSigned by:
ANDERS TYSDAL
81C8F01DCCEF45F...

21-Mar-22 | 06:05 PDT

Anders Tysdal

Chief Technology Officer
Tampnet Group

DocuSigned by:
Huib Fenenga
FC8828275D8944B...

21-mrt-22 | 06:11 PDT

Huib Fenenga

Country Manager Netherlands
Tampnet Netherlands BV