



EUROPEAN COMMISSION  
DG Competition

**PUBLIC VERSION**

***Case M.10807 – VIASAT / INMARSAT***

(Only the English text is authentic)

**REGULATION (EC) No 139/2004  
MERGER PROCEDURE**

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Article 8(1) Regulation (EC) 139/2004

Date: 25/05/2023

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EUROPEAN  
COMMISSION

Brussels, 25.5.2023  
C(2023) 3528 final

**COMMISSION DECISION**

**of 25.05.2023**

**declaring a concentration to be compatible with the internal market and the EEA  
agreement**

**(Case M.10807 – VIASAT / INMARSAT)**

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# COMMISSION DECISION

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**declaring a concentration to be compatible with the internal market and the EEA agreement**

**(Case M.10807 – VIASAT / INMARSAT)**

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THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to the Agreement on the European Economic Area, and in particular Article 57 thereof,

Having regard to Council Regulation (EC) No 139/2004 of 20.1.2004 on the control of concentrations between undertakings<sup>1</sup>, and in particular Article 8(1) thereof,

Having regard to the Commission's decision of 13 February 2023 to initiate proceedings in this case,

Having regard to the opinion of the Advisory Committee on Concentrations,

Having regard to the final report of the Hearing Officer in this case,

## 1. INTRODUCTION

- (1) On 9 January 2023, the European Commission (the 'Commission') received notification of a proposed concentration pursuant to Article 4 of the Merger Regulation by which Viasat, Inc. ('Viasat', or 'the Notifying Party', USA) will acquire sole control of the whole of Inmarsat Group Holdings Limited ('Inmarsat', UK) within the meaning of Article 3(1)(b) of the Merger Regulation (the 'Transaction').<sup>2</sup> Viasat and Inmarsat are together referred to as the 'Parties'.
- (2) The paragraphs in this Decision are arranged as follows. Section 2 describes the Parties and explains why the Transaction would result in a concentration within the meaning of the Merger Regulation. Section 3 explains why the Commission acquired jurisdiction to scrutinise the Transaction. Section 4 describes the procedure followed in this case. Section 5 describes the investigation undertaken by the Commission into the Transaction. Section 6 provides an overview of the satellites communication industry. Section 7 defines the relevant product and geographic markets. Section 8 sets out the Commission's assessment of whether the concentration brought about by the Transaction would significantly impede effective competition in each of the affected relevant markets. Section 9 contains the Commission's conclusions.

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<sup>1</sup> OJ L 24, 29.1.2004, p. 1 ('the Merger Regulation'). With effect from 1 December 2009, the Treaty on the Functioning of the European Union ('TFEU') has introduced certain changes, such as the replacement of 'Community' by 'Union' and 'common market' by 'internal market'. The terminology of the TFEU will be used throughout this decision.

<sup>2</sup> Publication in the Official Journal of the European Union No C 14, 16.1.2023, p. 7.

## 2. THE PARTIES AND THE OPERATION

- (3) **Viasat** is a U.S. publicly-listed company (listed on the NASDAQ) based in Carlsbad California, which provides two-way<sup>3</sup> satellite-based communication services. Viasat owns and operates four geostationary earth orbit satellites ('GEOs'). In addition, Viasat leases capacity on third-party satellites. Viasat has three core business segments: Satellite Services, Commercial Networks, and Government Systems.
- (4) **Inmarsat** is a privately-held UK company, headquartered in London, which offers two-way satellite-based communication services globally. Inmarsat owns and operates three proprietary satellite networks totalling fifteen GEOs. Inmarsat's business is organised into four customer segments: Aviation, Maritime, Enterprise, and Government.
- (5) The Transaction consists in the acquisition of sole control by Viasat over Connect Topco Limited ('Connect Topco'), Inmarsat's ultimate parent company, pursuant to a sale and purchase agreement dated 8 November 2021. On completion of the Transaction, Viasat will hold 100% of Connect Topco's shares and voting rights, which will (indirectly) hold 100% of the shares in Inmarsat. As a result, Viasat will acquire sole control over Inmarsat. The Transaction therefore constitutes a concentration within the meaning of Article 3(1)(b) of the Merger Regulation.

## 3. UNION DIMENSION

- (6) The Transaction does not have a Union dimension within the meaning of Article 1 of the Merger Regulation, as the Parties' turnover does not meet the thresholds of Article 1(2) or 1(3) of the Merger Regulation.<sup>4</sup>
- (7) On 17 June 2022, the Commission received a referral request from *Comisión Nacional de los Mercados y la Competencia*, the competition authority of Spain (the 'Spanish NCA') pursuant to Article 22(1) of the Merger Regulation. The national competition authorities of Belgium, Bulgaria, Cyprus, Denmark, Finland, France, Ireland, Italy, the Netherlands, Romania, Sweden and Norway subsequently joined the request made by the Spanish NCA. On 26 July 2022, the Commission accepted the request and decided to examine the Transaction pursuant to Article 22(3) of the Merger Regulation.

## 4. PROCEDURE

- (8) The Transaction was formally notified to the Commission on 10 January 2023.
- (9) After a preliminary examination of the notification and based on a market investigation, the Commission raised serious doubts as to the compatibility of the Transaction with the internal market and adopted a decision to initiate proceedings pursuant to Article 6(1)(c) of the Merger Regulation on 13 February 2023 (the 'Article 6(1)(c) Decision').
- (10) On 14 February 2023 and on 20 February 2023, the Commission provided a number of key documents to the Notifying Party.

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<sup>3</sup> Two-way communication satellite networks provide point-to-point connectivity, meaning information can be transferred to and from the same ground stations via the same satellite – see <https://www.inmarsat.com/en/insights/corporate/2023/a-straightforward-introduction-to-satellite-communications.html#:~:text=Two%20way%20communication%20satellite%20network,stations%20via%20the%20same%20satellite.>

<sup>4</sup> Viasat's turnover in the EU is less than EUR 250 million and there is no Member State in which the Parties' combined aggregate turnover is more than EUR 100 million.

- (11) On 27 February 2023, the Notifying Party submitted its written comments to the Article 6(1)(c) Decision (the ‘Article 6(1)(c) Response’).
- (12) On 7 March and on 20 April 2023, state of play meetings between the Notifying Party and the Commission took place.

## **5. THE COMMISSION’S INVESTIGATION**

- (13) This Decision contains the findings on the basis of the market investigation that the Commission carried out prior to and following the notification of the Transaction until the adoption of this Decision.
- (14) Prior to the notification of the Transaction (‘pre-notification phase’), the Commission sent six requests for information (‘RFIs’) to the Parties, responses to which were included in that notification. In addition, the Commission held several calls with the Parties’ customers and competitors.
- (15) During the initial phase of its investigation (‘phase I’), the Commission sent four RFIs to the Notifying Party pursuant to Article 11 of the Merger Regulation. The Commission also sent six detailed online questionnaires (‘eRFIs’) to competitors and customers of the Parties pursuant to Article 11 of the Merger Regulation.
- (16) Over the course of the second phase of its investigation (‘phase II’), the Commission sent 1 RFI to the Notifying Party pursuant to Article 11 of the Merger Regulation. Further, the Commission sent 16 RFIs to competitors and customers of the Parties pursuant to Article 11 of the Merger Regulation.

## **6. OVERVIEW OF THE SATELLITE COMMUNICATIONS INDUSTRY**

- (17) The industry sector on which the Commission has assessed the impact of the Transaction on competition is the satellite communications sector, where both Parties are active players.

### **6.1. The satellite communications supply chain**

- (18) The supply of satellite communication services involves a variety of players operating at different levels of the supply chain. The satellite communications supply chain comprises three main levels<sup>5</sup>:
  - (a) Satellite Network Operators (‘SNOs’): companies that own and manage their own satellite fleets.<sup>6</sup> Those companies lease (sell) satellite capacity at the wholesale level to Satellite Service Providers (‘SSPs’) and resellers, for resale to downstream customers, and/or use their capacity captively to sell satellite connectivity services directly to end customers (i.e. by acting as an SSP). SNOs are therefore active at the upstream level of the economic chain. The extent to which SNOs operate at both the wholesale and the retail level varies between SNOs. The leading SNOs have fleets that typically cover most of the world. Regional SNOs have fleets typically covering one or more continents and may rely in part on capacity leased from other SNOs to supply services to different parts of the globe.

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<sup>5</sup> Form CO, paragraphs 161 and following.

<sup>6</sup> The capacity of an SNO comprises (i) owned satellites, (ii) owned payloads on a shared satellite (i.e. part-owned satellites), and (iii) leased capacity from another SNO – see Form CO, footnote 129.

- (b) SSPs: companies that assemble packages of satellite connectivity solutions consisting of satellite capacity (either purchased from third-party SNOs or sourced internally in the case of vertically-integrated SNOs/SSPs, such as the Parties) and related services (e.g. invoicing tools, customer support, remote activation of handsets and traffic monitoring) and equipment (e.g. terminals), which they sell to resellers or end-customers.
- (c) Resellers and Value-Added Resellers ('VARs'): companies that purchase satellite connectivity solutions from SSPs (including from vertically integrated SSPs) and distribute them to end-customers. In some instances, resellers operate as a distribution channel for SSPs. In other instances, resellers provide additional value-added services to end-customers (e.g. installation and maintenance of equipment) and even compete against SSPs.<sup>7</sup>
- (19) Across all industry segments (e.g. consumer broadband, commercial aviation, maritime, offshore energy, government and defence – see next section for further detail), there are three ways of providing the service to the end customer: (i) direct-to-customer (i.e., by the SNO acting as a vertically integrated SSP); (ii) through a non-vertically integrated SSP (i.e. by the SSP selling directly to the end customer); or (iii) through a reseller/VAR (i.e. by the SSP selling to the reseller/VAR, who then sells to the end customer).
- (20) Both Parties are vertically integrated SNO/SSP players.
- (21) SNOs can supply capacity (to SSPs) as 'raw' capacity, or as 'dressed' capacity. Raw capacity is capacity sold 'as is' by the SNOs, without additional services by the SNOs. Raw capacity is measured in MHz, which is a measure of frequency. Dressed capacity is satellite capacity that has been converted from analogue signals to data throughput by ground infrastructure owned by the SNO that is selling its capacity. Dressed capacity is measured in Megabits per second ('Mbps'), which is a measure of data throughput.<sup>8</sup> Satellite communication services are subject to regulation by national telecommunications regulatory bodies.<sup>9</sup>
- (22) Satellite capacity is fungible across all end-uses and downstream industry segments. More specifically, satellite capacity in a particular frequency band is fungible across all end-use applications requiring capacity in that frequency band. The Notifying Party explains that satellite capacity is therefore a 'raw material' that is used by SNOs/SSPs and SSPs/VARs to create tailored connectivity solutions for different customer segments and end-uses.<sup>10</sup>
- (23) While all SNOs may allocate capacity to the different industry segments, SSPs and resellers/VARs are specialised in serving one or more particular industries or customer segments for a number of reasons. First, from a demand-side perspective, services offered to end-users in different industry segments are customised to meet the requirements of the specific end-use (e.g. regulatory requirements). The customisation means that a connectivity solution offered in one industry segment will

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<sup>7</sup> The Notifying Party explains that the delineation between the SSP and the VAR level tends to fluctuate with some VARs effectively adding additional value to the services package instead of simply distributing it to end-customers.

<sup>8</sup> Form CO, paragraphs 246-256.

<sup>9</sup> Form CO, paragraphs 2050 and following. This regulation can include a requirement to obtain terminal and/or satellite communication network licences, including spectrum licenses. The Commission notes that this Decision is without prejudice to Decision 626/2008/EC of the European Parliament and of the Council of 30 June 2008 on the selection and authorisation of systems providing mobile satellite services (MSS), OJ L 172, 2.7.2008, p. 15.

<sup>10</sup> Form CO, paragraph 259.



be unsuitable to serve a customer's need in another industry segment. For instance, Viasat's residential broadband Wi-Fi offering would not be suitable for a maritime customer requiring broadband Wi-Fi in a ship.<sup>11</sup> Second, from a supply-side perspective, SSPs and resellers/VARs will not necessarily offer connectivity solutions in all customer segments (e.g., an SSP active in the maritime sector may not be active in the aviation sector).

## **6.2. The different uses of satellite communications**

- (24) As mentioned in section 6.1, satellite communications are used in many different industry sectors. Those include residential and commercial internet, government (connectivity for government customers for both military and commercial applications), maritime (connectivity for maritime customers), Internet of Things ('IoT'), off-shore energy (connectivity for off-shore energy customers, including for use on off-shore support vessels, platforms, and rigs) and aviation (connectivity for aviation customers).
- (25) Satellite communications can be used for broadcasting purposes e.g., television and radio. Those are called 'one-way' satellite communications. But satellite communications are also used for end-to-end exchanges of voice and data to and from several terminals that are usually located in areas where other telecommunications networks have no (or insufficient) coverage (e.g., air, sea, remote areas, etc.). Those are called 'two-way' satellite communications. The Transaction concerns two-way satellite communications.
- (26) Furthermore, satellite communications can be used for both military and commercial end uses. Military satellite communications are provided to states over frequencies that are exclusively dedicated to secure government and military use. Commercial satellite communications are provided to military and commercial clients over non-dedicated frequencies.
- (27) Finally, satellite communications services can use ground equipment at set locations to receive and transmit satellite signals (e.g. in a consumer residence), or transportable receiver and transmitter equipment for mobile users. The former are called 'fixed' satellite services and the latter are called 'mobile' satellite services. An example of fixed satellite services would be residential internet connectivity (Wi-Fi at home). An example of mobile satellite services would be Wi-Fi on a train or a plane.<sup>12</sup>

## **6.3. The different types of satellite orbits**

- (28) When rockets launch satellites, they put them into orbit in space. There, gravity keeps the satellite on its required orbit. Satellite connectivity<sup>13</sup> can be served from satellites orbiting in different orbits.
- (29) GEOs circle Earth above the equator from west to east following Earth's rotation – taking 23 hours 56 minutes and 4 seconds – by travelling at exactly the same rate as Earth. This makes satellites in GEO appear to be 'stationary' over a fixed position on Earth. In order to perfectly match Earth's rotation, the speed of GEOs should be about 3 km per second at an altitude of 35 786 km.

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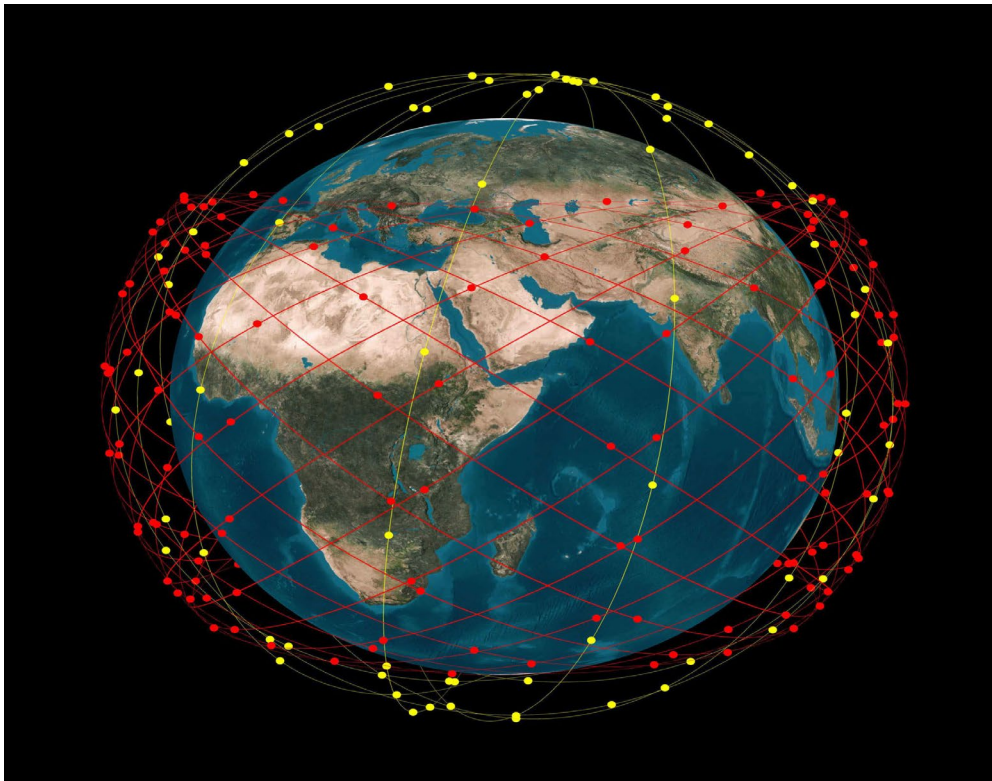
<sup>11</sup> Even within an industry segment itself, the requirements may differ. For example, within the maritime segment itself, the specific requirements of each type of vessel can also be different and therefore demand-side substitutability can be limited within that segment.

<sup>12</sup> Form CO, paragraph 24.

<sup>13</sup> The term 'satellite connectivity' is used interchangeably with 'satellite communications services' throughout this Decision.

- (30) Over time, non-geostationary orbit satellites ('NGSOs') were launched. Those occupy a range of orbital positions and do not maintain a stationary position, but instead move in relation to the Earth's surface. The most recently developed NGSOs are low-earth orbit satellites ('LEOs'), which orbit closest to the Earth's surface. LEOs are positioned c. 500 – 2 000 km above the ground and orbit around the Earth, handing off their signal to another satellite or terrestrial gateway at certain points. LEOs often work as part of a large combination or constellation of multiple satellites to give constant coverage. In order to increase coverage, sometimes constellations like this, consisting of several of the same or similar satellites, are launched together to create a 'net' around Earth – see Figure 1.<sup>14</sup>

**Figure 1: NGSO network**



*Source: Notifying Party, teach-in session of 23 June 2022*

- (31) GEOs and LEOs have different strengths and weaknesses:
- (a) Global LEO constellations are more expensive to deploy and maintain. While 3 GEOs would suffice to offer global coverage, LEOs require larger constellations in order to achieve high-quality global coverage,<sup>15</sup> since the satellite footprint decreases in size as the orbit becomes lower. GEOs have a lifespan of 15 years, compared to an average lifespan of 4-5 years for LEOs.
  - (b) LEO constellations are more technologically challenging. In particular, LEOs increasingly rely on laser technology for laser inter-satellite links ('ISLs') that will allow those satellites to link to each other and communicate with each other over the oceans where there are no ground stations.<sup>16</sup>

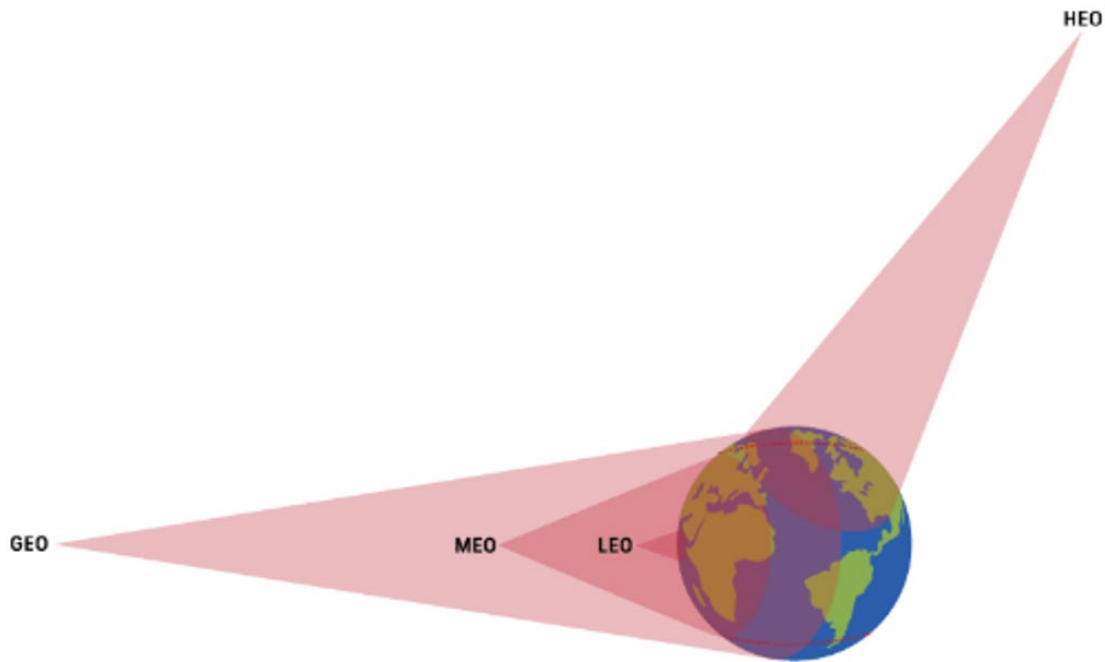
<sup>14</sup> Form CO, paragraph 148.

<sup>15</sup> To provide high throughput for many users and global coverage, a LEO constellation might need to comprise thousands of satellites, depending on the satellites' capabilities and altitude – see minutes of call with SpaceX of 20 September 2022.

<sup>16</sup> See Form CO, paragraph 1271. ISLs are real-time direct wireless channels of data communication between orbiting NGSO satellites. With ISLs, that connect a satellite with another satellite with line-of-

- (c) LEO satellites' key advantages include their low latency,<sup>17</sup> higher throughput over the entire satellite network (depending on the number and capability of satellites in the constellation) and the potential to offer true global coverage including the Polar Regions. GEOs cannot provide coverage over Polar Regions.
- (32) NGSOs also include medium-earth orbit satellites ('MEOs'), which are positioned c. 2 000-36 000 kilometres above the Earth's surface and highly-elliptical orbit satellites ('HEOs'), which move more slowly in high-altitude parts of their orbit than in low-altitude parts, which maximises viewing times and coverage over the polar regions. Figure 2 below shows the four different satellite orbit positions.

**Figure 2: LEO, MEO, GEO and HEO orbit positions**



*Source: Inmarsat*

- (33) More recently, it has been possible to provide hybrid GEO/LEO satellite communications that use both GEO and LEO connectivity to provide satellite communications.<sup>18</sup>

#### **6.4. The different types of frequencies**

- (34) Satellite communications services use different frequencies in the electromagnetic spectrum to exchange signals. In the satellite communications industry, frequency bands are separated into two categories:
- (a) Narrowband: lower frequency bands, e.g. L-band (1-2 gigahertz ('GHz')) or S-band (2-4 GHz), which have less bandwidth and are, therefore, less suitable for data-intensive applications (e.g. video streaming) but are considered more

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sight to a ground station, a LEO constellation can serve users globally even if a terrestrial gateway is not within the line-of-sight of a satellite providing services.

<sup>17</sup> See Form CO, paragraph 1262. Latency refers to the signal response time (or delay) resulting from the length of the path between a gateway (satellite) and the user terminal, and vice versa (i.e. the time it takes for the signal to travel between the gateway and user terminal). GEO signals must travel much further to earth. The delay associated with the satellite-earth station path can be more than 60 times less in the case of an NGSO system.

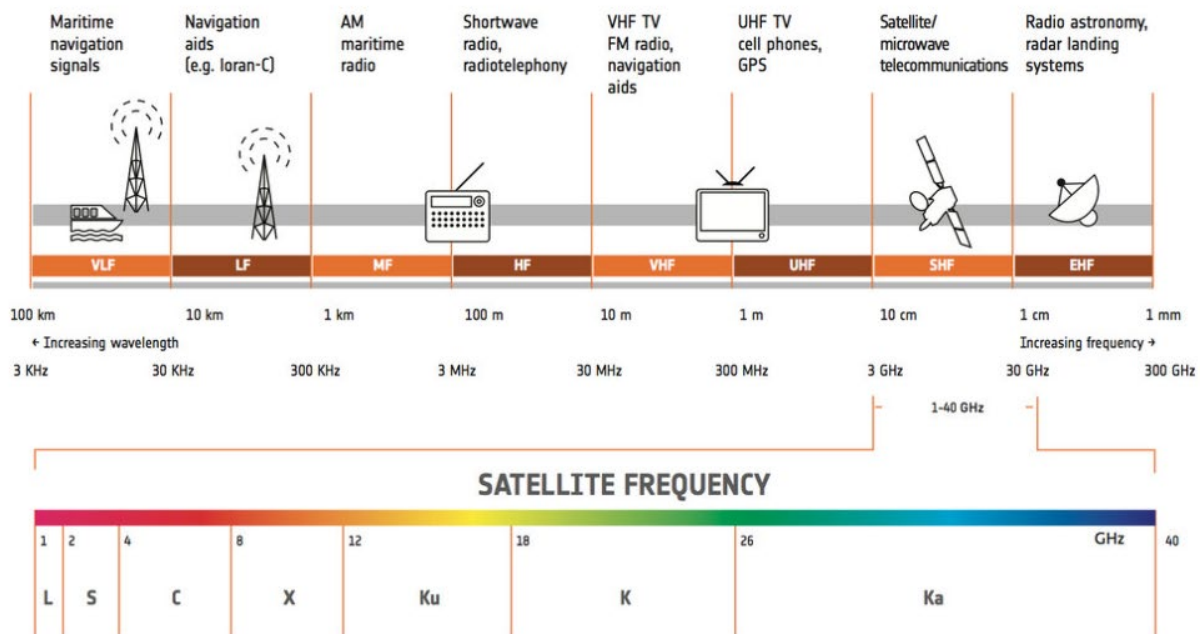
<sup>18</sup> For example, see Form CO, paragraphs 107, 179, 582, 1160, 1269 and 1315.

reliable and, correspondingly, more suitable for critical applications (e.g. for aviation and maritime safety).

- (b) Broadband: higher frequency bands, e.g. Ku-band (12-18 GHz) or Ka-band (26-40 GHz), which have more bandwidth and, therefore, offer greater communications capacity but are more susceptible to signal interference, including degradation owing to ‘rain fade’.<sup>19</sup> Broadband is well suited to any end-use applications requiring high bandwidth but for which uninterrupted connectivity is not mission-critical (e.g. where attenuation of signal owing to rain fade is not a concern, such as high-speed broadband internet for streaming videos).<sup>20</sup>

(35) Figure 3 provides an overview of satellite frequencies and their typical uses.

**Figure 3: Satellite frequencies and their uses**

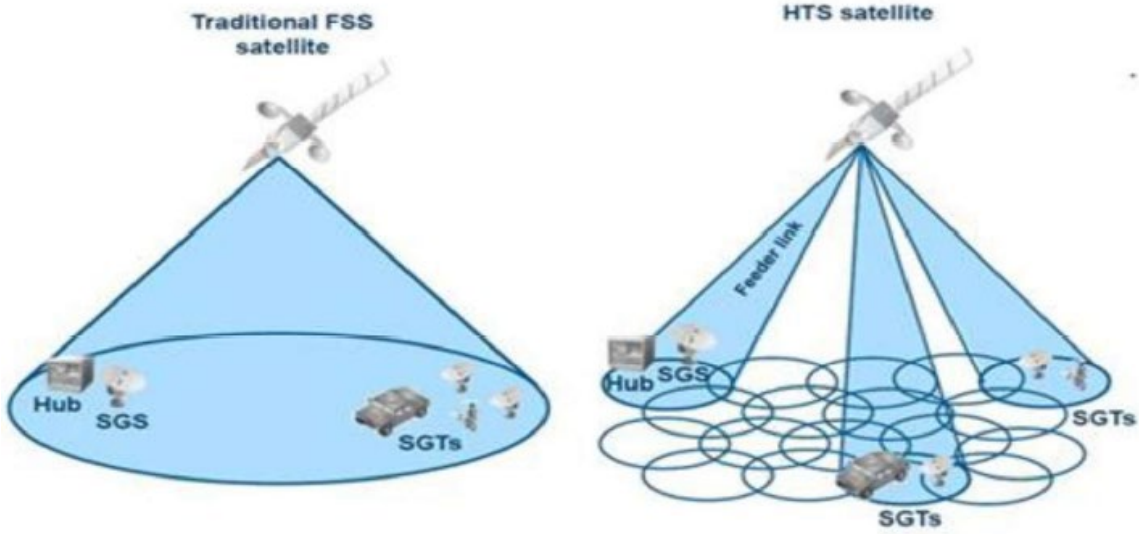


Source: European Space Agency<sup>21</sup>

- (36) Satellites can be further divided into traditional wide-beam satellites and high-throughput satellites (‘HTS’). HTS deploy a large number of narrow spot-beams that re-use spectrum so that a single satellite can deliver a multiple of the throughput delivered by traditional wide-beam satellites. Regardless of the spectrum choice (Ku, Ka-, etc.), or the orbit of the satellite (GEO or NGSO), using spot-beam architecture allows multiple beams to re-use the same frequencies. This allows more throughput and therefore more capacity from the same spectrum – see Figure 4.

<sup>19</sup> The degradation of a radio frequency signal caused by atmospheric moisture, such as rain, snow, or ice.  
<sup>20</sup> Form CO, paragraph 151.  
<sup>21</sup> Figure 3 is available at: [https://www.esa.int/Applications/Telecommunications\\_Integrated\\_Applications/Satellite\\_frequency\\_bands](https://www.esa.int/Applications/Telecommunications_Integrated_Applications/Satellite_frequency_bands). The abbreviations for the different frequencies stand for very low frequency (VLF), low frequency (LF), medium frequency (MF), high frequency (HF), very high frequency (VHF), ultra high frequency (UHF), super high frequency (SHF) and extremely high frequency (EHF).

**Figure 4: Traditional wide-beam satellites vs HTS satellites**



Source: Form CO, Attachment D3

(37) Because HTS deliver significantly increased capacity when compared to traditional wide-beam satellites, broadband traffic has been rapidly transitioning towards HTS systems in recent years, with HTS now accounting for 72% of demand (vs. 69% in 2019 and 53% in 2016).<sup>22</sup>

**6.5. Competitive dynamics and trends**

(38) The satellite sector is undergoing a period of change with existing players expanding their capacity and new players having entered or planning to enter the satellite connectivity supply chain as SNOs and/or SSPs in various industry segments.

*6.5.1. GEO expansion and the emergence of LEO operators*

(39) Both Parties have plans to expand their respective GEO fleet with the launch of new satellites.

(40) Viasat plans to add to its satellite coverage via the launching of the Viasat-3 fleet of three GEOs over the 2023-2024 period and to supply approximately [...] times the capacity of Viasat’s current fleet.<sup>23</sup> Viasat-3 will offer global coverage (except at the poles).<sup>24</sup>

(41) Inmarsat is currently in the process of launching two GEOs (GX6), each with both L-band and Ka-band capabilities. The launching is expected to be completed by the end of 2023.<sup>25</sup> Inmarsat’s board has also approved investments for the launching of three satellites (GX7, GX8 and GX9) as of 2024 and beyond. The three GX7, GX8, and GX9 satellites are Ka-band GEOs, which are all expected to be in operation by the end of 2025.<sup>26</sup> Together, the Ka-band payloads are expected to add more than [...] Inmarsat’s current Ka-band capacity.<sup>27</sup> Inmarsat’s GX satellites offer global

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<sup>22</sup> Form CO, paragraph 293.  
<sup>23</sup> Form CO, paragraph 1363.  
<sup>24</sup> Viasat today relies on third party capacity (Ku-band) to offer global coverage.  
<sup>25</sup> The first satellite was launched in December 2021.  
<sup>26</sup> Inmarsat is also planning to launch two GX10 HEO satellites for coverage over the Arctic region in 2023 – see Form CO, paragraph 1363.  
<sup>27</sup> Satellite payload simply refers to the equipment carried on board a satellite for a specific purpose (in this case for satellite communications).

coverage, except at the poles. The launch of new satellites will increase the depth of Inmarsat's coverage. Inmarsat also plans to launch two HEO satellites to provide coverage over the Arctic Circle.

- (42) Other GEO operators also have plans to launch more satellites and increase their satellite capacity and coverage, such as SES, an SNO headquartered in Luxembourg, which is operating GEO satellites and has recently started launching MEO satellites (O3b mPOWER).<sup>28</sup> SES is planning to launch more O3b satellites in 2023 and 2024, using Falcon 9 rockets by SpaceX.<sup>29</sup>
- (43) In addition to the launching of more GEOs, the industry is characterised by the emergence of LEO constellations. According to a Credit Suisse report provided by the Notifying Party *'[t]he satellite sector is now entering a once-in-a-generation period of disruption with the launch of numerous Low-Earth Orbit (LEO) constellations. High-profile backers of these mega-constellations include Elon Musk's SpaceX (Starlink), Jeff Bezos's Amazon (Kuiper) and Bharti Airtel (OneWeb)'*.<sup>30</sup>
- (44) US-based SpaceX is operating and developing a constellation of LEO satellites and a network of ground infrastructure to deliver broadband connectivity around the globe. That business operates under the name Starlink. SpaceX's first satellites were launched in 2019 and today Starlink is the most advanced LEO constellation, with approximately 3 500 satellites in orbit as of September 2022. SpaceX has a launch capability with reusable rockets enabling them to reduce the cost of each launch. SpaceX has submitted a request for regulatory approval at the US Federal Communications Commission ('FCC') to operate a constellation of 30 000 more LEO satellites.<sup>31</sup> SpaceX's LEO constellation already has global coverage, including polar coverage (with 46 satellites launched in July 2022).<sup>32</sup>
- (45) UK-based OneWeb has the second most advanced LEO constellation. Following its latest satellite launch on 26 March 2023 (its third this year), over 80% of OneWeb's planned fleet is now in orbit (618 satellites).<sup>33</sup> Following further launches this year, OneWeb will be ready to complete its first-generation constellation enabling global connectivity in 2023 (including at the poles).
- (46) Canadian-based Telesat, which currently operates a GEO network, has announced plans to launch 188 satellites as part of its Lightspeed LEO constellation by 2025, to begin offering services in 2026.<sup>34</sup> Telesat is currently supplying satellite capacity to SSPs active in the fixed broadband, government, maritime, and aviation sectors.
- (47) US-based Amazon has obtained approval by the FCC to launch a LEO constellation of a total of 3 236 satellites. Amazon has announced it will invest more than USD 10 billion in its so-called 'Project Kuiper' and is set to launch more than 3 000 satellites

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<sup>28</sup> See: <https://www.ses.com/press-release/first-two-o3b-mpower-satellites-successfully-launched>.

<sup>29</sup> See: <https://www.ses.com/our-coverage/launches>.

<sup>30</sup> Form CO, Attachment D1 - European Satellites LEO disruption: A Starlink in the making, Credit Suisse, 24 January 2022, p. 1.

<sup>31</sup> Minutes of call with SpaceX of 20 September 2022.

<sup>32</sup> <https://www.starlink.com/map> and <https://www.starlink.com/maritime>. See also Form CO, paragraph 1274.

<sup>33</sup> <https://oneweb.net/resources/successful-launch-36-oneweb-satellites-isronsil-marks-key-milestone-enable-global> and <https://oneweb.net/resources/oneweb-confirms-successful-deployment-40-satellites-launched-spacex-0>.

<sup>34</sup> Form CO, paragraphs 1410 and 1490. See also <https://www.telesat.com/leo-satellites/>.

in the next five years.<sup>35</sup> However, it has not launched any satellites yet. While the FCC approval stipulates that 50% of the satellites must be launched no later than 30 July 2026, and the rest of the constellation no later than 20 July 2029,<sup>36</sup> it is unclear at this stage whether and when the Project Kuiper satellites will be in orbit and whether Amazon plans to compete in any downstream industry sectors.

- (48) Finally, several SNOs and SSPs have announced plans to merge and combine their LEO and GEO constellations. In July 2022 OneWeb announced a merger with Eutelsat (a GEO operator).<sup>37</sup> The two companies plan to combine their LEO and GEO offering for connectivity. In March 2023 Intelsat and SES (both GEO operators, with SES also pursuing a multi-orbit strategy by launching MEO satellites) have confirmed discussions over a possible merger.<sup>38</sup>

#### 6.5.2. Increase in capacity supply and demand

- (49) As explained in section 6.5.1, while both Parties and other GEO operators have expansion plans, the capacity growth will be mostly driven by the launch of NGSOs. According to Euroconsult, an independent industry analyst, ‘While the vast majority of HTS capacity was supply by GEO satellites through 2020, a massive shift towards NGSO HTS constellation projects is underway, with the five leading players depicted accounting for over \$30 billion of planned (and largely secured) CAPEX over a short period of time’.<sup>39</sup>
- (50) Euroconsult estimates that global HTS capacity will grow from less than 16 000 Gigabits per second (‘Gbps’, which equals 1 000 Mbps) to more than 62 000 Gbps in 2026, with NGSOs comprising 89% of total capacity.<sup>40</sup> Table 1 below sets out the available GEO and NGSO capacity at the end of 2022 and 2026.

**Table 1 Euroconsult - global GEO and NGSO HTS broadband supply**

	2022			2026		
	Supply Gbps	in	%	Supply Gbps	in	%
<b>GEO</b>	2 951		19%	6 917		11%
<b>NGSO</b>	12 446		81%	55 740		89%
<b>Total</b>	15 397		100%	62 656		100%

Source: RBB Economics based on Euroconsult estimates

- (51) Similarly, independent industry analyst Northern Sky Research (‘NSR’) predicts significant increases in HTS broadband capacity in the next ten years (both via GEO and NGSO constellations), of which NGSO capacity will significantly outstrip GEO capacity over this period.<sup>41</sup>

<sup>35</sup> Project Kuiper is described as ‘an initiative to build a low Earth orbit (LEO) satellite constellation capable of providing reliable, affordable broadband service to unserved and underserved communities around the world’ – see <https://www.aboutamazon.com/news/company-news/amazon-receives-fcc-approval-for-project-kuiper-satellite-constellation>

<sup>36</sup> <https://www.fcc.gov/document/international-bureau-grants-kuiper-satellite-modification>

<sup>37</sup> <https://oneweb.net/resources/eutelsat-and-oneweb-combine-leap-forward-satellite-connectivity>

<sup>38</sup> <https://www.lesechos.fr/industrie-services/air-defense/satellites-grand-mariage-en-vue-entre-ses-et-intelsat-1920387>

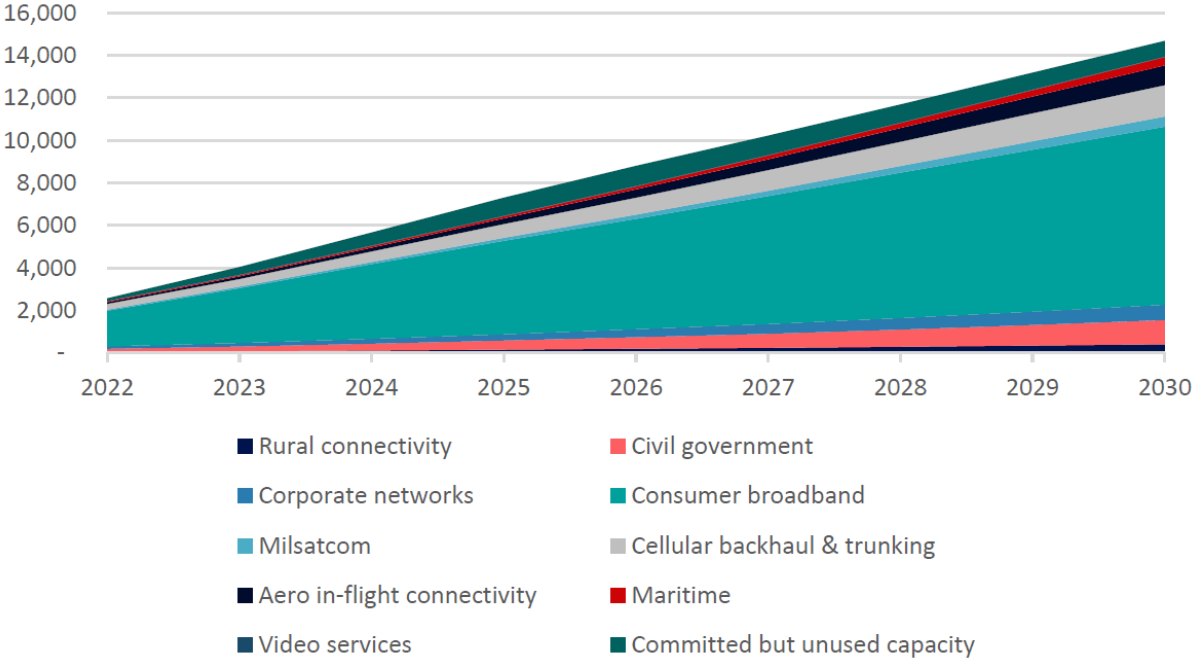
<sup>39</sup> Form CO, Attachment A37 – Euroconsult – High Throughput Satellites (Q1 2022).

<sup>40</sup> Form CO, Attachment E14(2).

<sup>41</sup> See Form CO, Attachment D14 – NSR - Global Satellite Capacity Supply & Demand 18th Edition (June 2021).

(52) Demand for satellite capacity is also expected to increase. Euroconsult estimates that total demand globally for HTS capacity will increase from approximately 2 500 Gbps in 2022 to more than 7 000 Gbps in 2025 and to approximately 14 500 Gbps in 2030.<sup>42</sup> Overall, HTS capacity supply is expected to grow more quickly than demand in the medium term. As shown in Figure 5, the consumer broadband segment is expected to be the leading demand driver.

**Figure 5: HTS demand by infrastructure (Gbps)**



Source: Form CO, Attachment D.19.1 – Euroconsult – 2022 demand and supply forecast

**7. RELEVANT MARKETS**

(53) For the assessment of the Transaction in this Decision, the following business activities of the Parties are relevant: (i) Viasat and Inmarsat are both active in the supply of satellite capacity; (ii) Viasat and Inmarsat are both active in the supply of broadband in-flight connectivity (‘IFC’) services for commercial aviation customers (or in-flight Wi-Fi to passengers in the cabin); (iii) Viasat and Inmarsat are both active in the supply of IFC services for business aviation customers.

**7.1. Market for the supply of satellite capacity**

*7.1.1. The Parties’ activities*

(54) Both Inmarsat and Viasat operate as SNOs at the uppermost level of the satellite communications supply chain. The Parties’ only overlap at the SNO level is in the supply of HTS GEO broadband satellite capacity, and in particular Ka-band satellite capacity. The Parties do not overlap with respect to the provision of narrowband satellite capacity (including S-band and L-band), as Viasat does not operate any narrowband satellites. The Parties do not provide any other kind of broadband satellite capacity (e.g. Ku-band, non-HTS or LEO satellite capacity).

<sup>42</sup> Form CO, Attachment D.19.1 – Euroconsult – 2022 demand and supply forecast.



- (55) Viasat owns payload capacity on four GEOs in service (WildBlue, ViaSat-1, ViaSat-2, and KA-SAT) and also leases Ka-band payload capacity from Telesat on Telesat's Anik F2 satellite. Viasat's current broadband Ka-band satellite fleet represents a total capacity of [...] Gbps. Viasat also currently provides near-global Ku-band coverage by leasing capacity from other SNOs.<sup>43 44</sup>
- (56) Viasat has plans to launch the ViaSat-3 programme composed of three GEOs beginning in Q1 2023 through 2024. The three ViaSat-3 satellites will exclusively provide capacity in Ka-band. The ViaSat-3 programme (i.e. ViaSat-3A, 3B and 3C satellites) is expected to provide approximately [...] times the current capacity of Viasat's own satellite fleet in-service, with approximately 3 Terabits per second ('Tbps', which equals 1 000 Gbps) of additional global capacity. Viasat's expected total broadband satellite capacity (including owned and lifetime-leased broadband satellite capacity) following the planned launch of all three of its ViaSat-3 GEOs by 2024 is [...] Gbps.<sup>45</sup>
- (57) Inmarsat owns and operates three satellite networks across its fleet of 15 GEOs utilising (broadband) Ka-band, as well as (narrowband) L-band and S-band spectrum, with a new hybrid L-band and Ka-band GX6A satellite expected to be operational by [date]. Inmarsat's current broadband Ka-band satellite fleet represents a total capacity of [...] Gbps.<sup>46 47</sup>
- (58) Inmarsat has six new satellites it plans to launch by 2025: (i) an additional hybrid satellite (GX6B) with both Ka-band and L-band payloads, which is currently expected to be launched in Q1 2023; (ii) three additional GX Ka-band satellites (GX 7, 8, 9), all of which are expected to be launched by the end of 2025; and (iii) two further Ka-band payloads (GX10A and GX10B). Inmarsat's expected total broadband satellite capacity following the planned launch of its new satellites by the end of 2025 is [...] Gbps.<sup>48</sup>

### 7.1.2. Product market definition

#### 7.1.2.1. The Commission's previous practice

- (59) In *Astrium Holding/Vizada Group* and *Apax Partners/Telenor Satellite Services*, the Commission considered that the market for satellite communication services could be segmented based on the level of the supply chain, i.e. distinguishing between SNOs, SSPs and VARs.<sup>49</sup>

<sup>43</sup> Form CO, paragraph 221.

<sup>44</sup> Viasat currently has only one broadband satellite (Viasat's KA-SAT satellite) that provides capacity to Europe (i.e., EEA & UK). [Information about Viasat's operations].

<sup>45</sup> Form CO, paragraph 225-230.

<sup>46</sup> Form CO, paragraph 233 and Table 12. Inmarsat also leases Ka- and Ku-band and other capacity from other satellite operators when required.

<sup>47</sup> Inmarsat currently has four broadband satellites that provide capacity to Europe (i.e., EEA & UK). These are Inmarsat's I-5 F1 (1 Gbps), I-5 F2 (1 Gbps), I-5 F4 (1 Gbps), and I-5 F5 (15 Gbps). Viasat estimated [...] % of its total satellite capacity covered Europe. See Form CO, Annex 32.

<sup>48</sup> Form CO, paragraph 234 and 242. Hosted on Space Norway's ASBM-1 and ASBM-2 spacecraft to be placed into HEO to cover the Arctic region in 2024 (coverage of which cannot be delivered by GEOs).

<sup>49</sup> Commission decision of 30 November 2011 in case M.6393 – *Astrium Holding/Vizada Group*, paragraph 22 and Commission decision of 20 August 2007 in case M.4709 – *Apax Partners/Telenor Satellite Services*, paragraphs 9 and 14-15. The Commission refers to 'resellers' instead of 'VARs'. The two terms are used interchangeably in the present decision.

### 7.1.2.2. The Notifying Party's view

- (60) The Notifying Party agrees with the Commission's previous practice, but submits that the market for the provision of satellite capacity by SNOs should be further segmented between: (i) HTS and (ii) non-HTS.<sup>50</sup>
- (61) First, from a demand-side perspective, the Notifying Party considers that HTS deliver increased capacity compared to non-HTS. In addition, the relatively high cost base and low volume capacity of non-HTS legacy satellites makes them less appropriate for high bandwidth applications and cost sensitive end-uses.<sup>51</sup>
- (62) Second, from a supply-side perspective, the Notifying Party considers that HTS require a different technology than non-HTS and the increase in capacity means that HTS capacity can be supplied at a lower price per unit than non-HTS.<sup>52</sup>
- (63) The Notifying Party also submits that the different types of communications services provided to end-customers should be segmented by type of wireless connectivity used.<sup>53</sup> Therefore, it submits that the market for the provision of satellite communications capacity should be segmented into broadband and narrowband services.<sup>54</sup>
- (64) First, from a demand-side perspective, the Notifying Party considers that narrowband and broadband often serve different end-use applications.
- (65) Second, from a supply-side perspective, the Notifying Party considers that the connectivity suppliers providing narrowband are, overall, not the same as the suppliers offering broadband connectivity services for various end-use applications.
- (66) With regard to the market for the supply of broadband satellite capacity, the Notifying Party submits that no further segmentation should be considered based on individual frequencies, i.e., between Ka- and Ku-band.
- (67) First, from a demand-side perspective, the Notifying Party considers that Ka- and Ku-band are both technologies that allow to perform a range of internet-based activities, offering similar internet speeds and comparable reliability to the end-users.
- (68) Second, from a supply-side perspective, the Notifying Party considers that both GEO and NGSO satellites can operate in Ka- and Ku- frequency bands and there is no technical limitation on GEOs and NGSOs in their choice of frequency band for their satellites, therefore both bands are close substitutes and part of the same market.<sup>55</sup>

### 7.1.2.3. The Commission's assessment

- (69) The results of the market investigation confirmed the market segmentation previously considered by the Commission based on the level of the supply chain, i.e. distinguishing between SNOs, SSPs and VARs, and that therefore there exists a separate market for the supply of satellite capacity.<sup>56</sup>
- (70) Further, the market investigation tested whether there is a need to segment the market for the supply of satellite capacity (i) between broadband and narrowband satellite capacity; (ii) based on industry segment; (iii) between GEO and NGSO/LEO

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<sup>50</sup> Form CO, paragraph 286.

<sup>51</sup> Form CO, paragraphs 293-294.

<sup>52</sup> Form CO, paragraph 292.

<sup>53</sup> Form CO, paragraphs 200-205.

<sup>54</sup> Form CO, paragraphs 295-303.

<sup>55</sup> Form CO, paragraphs 306-308.

<sup>56</sup> Replies to eRFI 1 to GEO SNOs, questions D.A.1-D.A.3, and replies to eRFI 2 to LEO SNOs, questions D.A.1-D.A.3.

satellite capacity; (iv) between HTS and non-HTS (broadband) capacity; and (v) between Ka-band and Ku-band satellite capacity.

- (71) As noted in paragraphs 20 and 23 of the Commission notice on the definition of the relevant market, supply-side substitutability may also be taken into account when defining markets in those situations in which its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy, and when supply-side substitutability would entail the need to adjust significantly existing tangible and intangible assets, additional investments, strategic decisions or time delays, it will not be considered at the stage of market definition.<sup>57</sup> The Commission notes that it is not possible to adjust the supply of satellite capacity once a satellite has been launched, and therefore cannot be effected immediately or without significant adjustment to assets. Further, launching satellites requires years of planning and significant levels of investment. Therefore, for the purposes of this decision, the Commission does not consider supply-side substitutability at the stage of market definition for these relevant markets.

#### 7.1.2.3.1. Segmentation between broadband and narrowband

- (72) The results of the market investigation confirmed that the market for the supply of satellite capacity should be segmented between broadband and narrowband satellite capacity, with a majority of market participants (both GEO and LEO SNOs) considering that those products were not substitutable because of different product characteristics and intended use on the demand-side.<sup>58</sup>

#### 7.1.2.3.2. Segmentation based on industry segment

- (73) A majority of market participants considered that the market should not be segmented based on the downstream end-use/industry segment (e.g. aviation, maritime, land) for which the satellite capacity is intended or used, as they considered that satellite capacity can be used interchangeably across a range of industry segments/end-uses downstream.<sup>59</sup> Moreover, a large majority of market participants confirmed that broadband satellite capacity is fungible across end-uses/industry segment.<sup>60</sup>

#### 7.1.2.3.3. Segmentation between GEO and NGSO/LEO satellite capacity

- (74) A majority of market participants considered the market should not be segmented between GEO and NGSO/LEO satellite capacity.<sup>61</sup> However, most market participants noted that there are some product characteristic differences between GEO and NGSO/LEO satellite capacity (e.g. latency, reliability, and price).

#### 7.1.2.3.4. Segmentation between HTS and non-HTS (broadband) satellite capacity

- (75) The results of the market investigation were mixed as regards the question whether the market for the supply of (broadband) satellite capacity should be segmented between HTS and non-HTS capacity.<sup>62</sup> Market participants indicated that these potential segmentations were substitutable in some instances and not substitutable in other instances.

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<sup>57</sup> Commission notice on the definition of relevant market for the purposes of Community competition law (OJ C 372/5, 9.12.1997)

<sup>58</sup> Replies to eRFI 1 to GEO SNOs, question D.A.4, and replies to eRFI 2 to LEO SNOs, question D.A.4.

<sup>59</sup> Replies to eRFI 1 to GEO SNOs, question D.A.5, and replies to eRFI 2 to LEO SNOs, question D.A.5.

<sup>60</sup> Replies to eRFI 1 to GEO SNOs, question E.A.1, and replies to eRFI 2 to LEO SNOs, question E.A.1.

<sup>61</sup> Replies to eRFI 1 to GEO SNOs, questions D.A.7-D.A.8, and replies to eRFI 2 to LEO SNOs, questions D.A.7-D.A.8.

<sup>62</sup> Replies to eRFI 1 to GEO SNOs, question D.A.9, and replies to eRFI 2 to LEO SNOs, question D.A.9.

#### 7.1.2.3.5. Segmentation between Ka-band and Ku-band satellite capacity

(76) The market investigation also provided mixed results regarding the question whether the market for the supply of (broadband) satellite capacity should be segmented between Ka-band and Ku-band satellite capacity.<sup>63</sup> The majority of market participants indicated that in some instances Ka-band and Ku-band satellite capacity are substitutable, but not in other instances.

#### 7.1.2.4. Conclusion

(77) In light of the above, the Commission considers that the relevant product market in this case is likely the market for the supply of broadband satellite capacity. For the purposes of this Decision, the question of whether the market for the supply of broadband satellite capacity is part of a broader market for the supply of satellite capacity (including both broadband and narrowband) or should be further segmented based on (i) GEO or LEO satellite capacity, (ii) HTS or non-HTS capacity, and (iii) Ka-band or Ku-band capacity can be left open, since the Transaction would not significantly impede effective competition under any plausible market definition.

#### 7.1.3. Geographic market definition

##### 7.1.3.1. The Commission's previous practice

(78) In past decisions, the Commission has not considered the geographic market definition for the market at the SNO level of the supply chain (i.e. for the supply of satellite capacity). However, the Commission previously considered the market for the provision of satellite communications services at the SSP level of the supply chain to be worldwide, whilst leaving open the geographic market definition for the VAR level of the supply chain.<sup>64</sup>

##### 7.1.3.2. The Notifying Party's view

(79) The Notifying Party submits that its vertically integrated SNO/SSP business has global characteristics but notes also the complementary geographic focus of Viasat towards North America and of Inmarsat towards Europe respectively.<sup>65</sup> Overall, it considers that the market for the provision of (broadband/narrowband) satellite capacity is worldwide in scope, in line with past Commission decisions with regard to the market for the provision of satellite communications services at the SSP level of the supply chain.<sup>66</sup>

##### 7.1.3.3. The Commission's assessment

(80) The market investigation confirmed that the geographic scope of the market for the supply of (broadband) satellite capacity is worldwide. The majority of market participants (both GEO and LEO SNOs, including players with HTS capacity and players with non-HTS capacity, as well as Ka-band and Ku-band capacity) indicated that they supply satellite capacity globally, and also considered that the 'conditions

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<sup>63</sup> Replies to eRFI 1 to GEO SNOs, question D.A.10, and replies to eRFI 2 to LEO SNOs, question D.A.10.

<sup>64</sup> Commission decision of 30 November 2011 in case M.6393 – *Astrium Holding/Vizada Group*, paragraph 32 and Commission decision of 20 August 2007 in case M.4709 – *Apax Partners/Telenor Satellite Services*, paragraphs 18-19.

<sup>65</sup> Form CO, paragraph 213.

<sup>66</sup> Commission decision of 30 November 2011 in case M.6393 – *Astrium Holding/Vizada Group*, paragraph 32 and Commission decision of 20 August 2007 in case M.4709 – *Apax Partners/Telenor Satellite Services*, paragraphs 17-19.

of competition’ (e.g. prices, consumption habits, number and identity of suppliers, their market strength) are sufficiently homogenous at the worldwide level.<sup>67</sup>

#### 7.1.3.4. Conclusion

(81) In light of the above, for the purpose of this Decision, the Commission considers that the market for the supply of satellite capacity (and any potential segments thereof, including the supply of broadband satellite capacity) is worldwide in scope.

### 7.2. Market for the supply of broadband IFC services to commercial aviation customers

#### 7.2.1. *The Parties’ activities*

(82) As already explained, both Viasat and Inmarsat are active as vertically-integrated SNOs/SSPs in the supply of broadband IFC services for commercial aviation customers (commercial airlines).<sup>68</sup>

(83) The technologies currently available to support IFC services are (i) satellite-based connectivity in Ka- and/or Ku-band; and (ii) air-to-ground (‘ATG’) connectivity, such as 4G/5G (which are not satellite-based); and (iii) hybrid systems that use both satellite and ATG connectivity.

(84) Viasat supplies IFC solutions to commercial airlines based on its own Ka-band network, which, following the launch of Viasat-3, will offer global coverage (except at the poles – see section 6.5 for further detail), as well as on leased Ka-band capacity.

(85) In the EEA, Viasat [...] supplies commercial airlines directly and [information about Viasat’s operations]. In the rest of the world, in addition to supplying airlines directly, Viasat has historically supplied airlines for short-haul flights outside the EEA through Thales, which acts as a VAR. Viasat generated USD [...] from the sale of IFC services to commercial aircraft globally in 2021 and USD [...] in 2022. Approximately [0-5]% of those annual service revenues come from commercial airlines based in the EEA, i.e. USD [...] in 2022 (approximately EUR [...]).<sup>69</sup>

(86) Inmarsat provides two broadband IFC solutions for commercial airlines:

(a) GX Aviation solution, based on Inmarsat’s own Ka-band network, which provides global coverage (except at the poles); and

(b) European Aviation Network (EAN), which combines Inmarsat’s S-band satellite capacity and an ATG service (with the long-term evolution (‘LTE’)<sup>70</sup> terrestrial radio connectivity provided by Deutsche Telekom) to supply IFC to airlines in the EEA.<sup>71</sup> While the satellite component of EAN is narrowband (S-

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<sup>67</sup> Replies to eRFI 1 to GEO SNOs, questions D.B.1-D.B.4, and replies to eRFI 2 to LEO SNOs, questions D.B.1-D.B.4.

<sup>68</sup> Inmarsat is also active in the market for the supply of narrowband IFC services.

<sup>69</sup> Viasat also supplies IFC equipment as well as IFE services to commercial airlines but does not currently supply IFE services in the EEA (<https://www.viasat.com/enterprise-and-mobility/industries/commercial-aviation/>).

<sup>70</sup> LTE, a type of 4G, is a standard for wireless broadband communication for mobile devices and data terminals.

<sup>71</sup> Inmarsat also supplies narrowband cockpit services to commercial airlines which rely on Inmarsat’s global L-band network. Viasat is not active in that area. Further information on Inmarsat’s IFC solutions for commercial airlines is available at: <https://www.inmarsat.com/en/solutions-services/aviation/solutions/inflight-wi-fi.html>.

band), EAN is a broadband solution, because the hybrid service allows a broadband IFC service to be delivered to passengers.<sup>72</sup>

- (87) Inmarsat supplies commercial airlines both directly and through VARs in the EEA and elsewhere. Inmarsat generated USD [...] from the sale of IFC services to commercial aircraft globally in 2020 and USD [...] in 2021. Less than [10-20]% of those annual service revenues come from commercial airlines based in the EEA, i.e. USD [...] in 2020 and USD [...] in 2021.

### 7.2.2. Product market definition

#### 7.2.2.1. The Commission's previous practice

- (88) In *Astrium Holding/Vizada Group* and *Apax Partners/Telenor Satellite Services*, the Commission concluded on a separate market for commercial two-way satellite communication services, which can be distinguished from one-way satellite communication services.<sup>73</sup>
- (89) Moreover, in *Astrium Holding/Vizada Group* the Commission considered that two-way satellite communication services can be distinguished between 'military' and 'commercial' satellite communications.<sup>74</sup> The question whether military satellite communication services constitute a separate product market from commercial satellite communication services was ultimately left open as Vizada was not active in the market for military communication services.
- (90) Furthermore, as mentioned in section 7.1 above, the Commission has considered that the market for satellite communication services (as understood for the purposes of the present Decision, i.e. commercial two-way satellite communication) could be segmented based on the level of the supply chain, i.e. distinguishing between SNOs, SSPs and VARs, and based on the end use (i.e. whether connectivity is used for land-based, maritime, or aviation applications).<sup>75</sup> The Commission identified a separate market for the supply of satellite connectivity services at 'wholesale level', i.e. by SSPs to downstream customers (large end customers and resellers) but left the market definition open as regards a possible segmentation by end use.<sup>76</sup>
- (91) The Commission has not previously considered any further segmentation of the market for the supply of satellite communications services for aviation, such as by customer type (i.e. business or commercial aviation), frequencies used (i.e. broadband or narrowband), technology used (satellite, ATG or hybrid), or type

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<sup>72</sup> <https://www.inmarsat.com/en/solutions-services/aviation/solutions/inflight-wi-fi.html>.

<sup>73</sup> Commission decision of 30 November 2011 in case M.6393 – *Astrium Holding/Vizada Group*, paragraphs 8-9 and Commission decision of 20 August 2007 in case M.4709 – *Apax partners/Telenor Satellite Services*, paragraph 8.

<sup>74</sup> Commission decision of 30 November 2011 in case M.6393 – *Astrium Holding/Vizada Group*, paragraphs 10-12. The parties to that transaction had explained that 'that Milsatcom services constitute a separate product market from Comsatcom services in light of the fact that: (1) Milsatcom frequencies are by regulation reserved for military/government; (2) Milsatcom services are mission-critical services, which are distinct from the service offered on commercial bands (including to military customers) and sourced at a significantly higher price compared to Comsatcom services; (3) Milsatcom capacity and services are generally owned and operated directly by States; and (4) private operators only play a secondary role in the provision of Milsatcom services in a highly regulated environment'.

<sup>75</sup> Commission decision of 30 November 2011 in case M.6393 – *Astrium Holding/Vizada Group*, paragraph 22 and Commission decision of 20 August 2007 in case M.4709 – *Apax Partners/Telenor Satellite Services*, paragraphs 9 and 14-15. The Commission refers to 'resellers' instead of 'VARs'. The two terms are used interchangeably in the present decision.

<sup>76</sup> Commission decision of 30 November 2011 in case M.6393 – *Astrium Holding / Vizada Group*, paragraphs 23-24 and Commission decision of 20 August 2007 in case M.4709 – *Apax Partners / Telenor Satellite Services*, paragraphs 15-16.

of aircraft (i.e. narrow-body used mainly for short-haul flights or wide-body used mainly for long-haul flights).

- (92) However, in *LG Electronics/Lufthansa Technik/JV*, the Commission considered distinguishing commercial and business aviation in the context of in-flight entertainment ('IFE') services,<sup>77</sup> based, in particular, on different certification requirements, technical requirements and functionalities.<sup>78</sup> The market definition was ultimately left open. The Commission has not previously considered a similar segmentation for IFC services.

#### 7.2.2.2. The Notifying Party's views

- (93) The Notifying Party agrees with the Commission's previous practice and considers that there is a separate market for two-way communications services, which can be further split between commercial and military services.<sup>79</sup>
- (94) The Notifying Party further agrees that there is a separate market for the supply of satellite connectivity services by SSPs to downstream customers and considers that such market should be further segmented by end use / industry of application. The Notifying Party submits that, while the underlying satellite capacity used can be the same across different industry sectors, satellite communication services offered to end-users are customised to meet the customer requirements and serve the end-use applications specific to each industry sector. Accordingly, satellite communication services tailored for end use applications in a specific downstream industry sector are in principle not substitutable with satellite communication services tailored for other industry sectors.<sup>80</sup>
- (95) In relation to the supply of satellite communications services to the aviation sector, the Notifying Party proposes three further segmentations.
- (96) First, the Notifying Party submits that the supply of narrowband and broadband connectivity for the aviation sector should be considered separately. From a demand-side perspective there is limited substitutability between the two types of connectivity services. While some basic connectivity services for passengers, such as email and texting and voice services, can also rely on narrowband (e.g., L-band), in general narrowband frequencies are considered insufficient to provide internet access to passengers on commercial flights, due to the bandwidth required for multiple passengers to be able to simultaneously connect to the internet and to use high bandwidth applications (such as video streaming). Furthermore, cockpit services are generally based on narrowband satellite capacity as they require greater reliability (see paragraph (15)). From a supply-side perspective, the suppliers providing those services are overall different (e.g. Iridium is a supplier of narrowband connectivity services but is not active in the supply of broadband IFC services to commercial airlines) and the equipment required for the provision of those services also differs. In addition, IFC services (broadband) and cockpit connectivity services (narrowband) are tendered and priced differently by suppliers. Finally, third party

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<sup>77</sup> An IFE system provides entertainment to aircraft passengers during the flight and may include video-on-demand service, moving-map systems, in-flight games, etc., but typically does not provide internet connectivity as IFC services do.

<sup>78</sup> Form CO, paragraph 427 and Commission decision of 29 March 2019, in case M.9185 – *LG Electronics / Lufthansa Technik / JV*, paragraphs 26-31 and 34.

<sup>79</sup> Form CO, paragraphs 20-23, and 183-185.

<sup>80</sup> Form CO, paragraphs 206-208.

reports (e.g., Valour Consultancy and Euroconsult<sup>81</sup>) distinguish between those services.<sup>82</sup>

- (97) Second, the Notifying Party proposes a segmentation of IFC services per type of aviation customer: commercial aviation customers and business aviation customers. From a demand-side perspective, the nature and identity of customers differ. Commercial aviation customers are commercial airlines. Business aviation customers are manufacturers, owners and operators of business jets, such as charter and air-limo companies. Furthermore, the types of aircraft used in business and commercial aviation largely differ, as do the services requested and coverage expected by each type of customer. From a supply-side perspective, the IFC providers to each type of customer are different. In addition, IFC suppliers participate in direct negotiations or bids with airlines, whereas in business aviation, IFC suppliers, in the large majority of cases, negotiate with original equipment manufacturers, maintenance, repair and operation providers or VARs. Moreover, industry reports distinguish commercial and business aviation.<sup>83</sup>
- (98) Third, the Notifying Party proposes a segmentation of IFC services for commercial aviation customers based on whether the aircraft is used to operate short-haul or long-haul flights. The Notifying Party notes that wide-body aircraft (twin-aisle) are primarily used for long-haul and conversely, narrow-body aircraft (single aisle) are typically used for short-haul flights. Therefore, the notions of different cabin sizes and flight length are largely interchangeable. The Notifying Party considers that IFC for long-haul aircraft should be considered separately from IFC for short-haul aircraft due to the following considerations: (i) satellite coverage requirements differ; (ii) pricing differs; (iii) ‘take rates’ for IFC are greater on long-haul flights; (iv) IFC services are more commonly bundled with seatback IFE offerings (movies, TV, etc.) for long-haul flights; (v) market shares of suppliers differ; (vi) third-party reports (e.g., Valour Consultancy and Euroconsult) distinguish between the provision of satellite communications services to narrow-body and wide-body aircraft).<sup>84</sup>
- (99) In the Article 6(1)(c) Response, the Notifying Party argues that if the Commission were to consider a market including both short-haul and long-haul flights within and to/from Europe, then Viasat’s committed short-haul fleets operating only in North America are irrelevant both to European long-haul and short-haul contract awards by European airlines, and the ability to provide intercontinental coverage does not factor into airlines’ decision-making in tenders for short-haul IFC.<sup>85</sup>
- (100) The Notifying Party submits that no further segmentation should be considered based on individual broadband frequencies used, i.e., between Ka- and Ku-band. First, from a demand-side perspective, Ku- and Ka-band broadband services are close substitutes that provide broadly comparable performance – there are no significant differences in relation to speed, bandwidth, capability, and unit costs. Given the broadly comparable performance of Ku- and Ka-band, a passenger sitting on a plane would not be able to know whether the broadband satellite connectivity being used is based on Ka-band or Ku-band. While frequency bands have specific characteristics that

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<sup>81</sup> Both companies offering consulting and market intelligence services regarding, among others, satellite-based applications in mobility sectors.

<sup>82</sup> Form CO, paragraphs 430-434.

<sup>83</sup> Form CO, paragraph 428.

<sup>84</sup> Form CO, paragraph 437.

<sup>85</sup> Article 6(1)(c) Response, paragraphs 6-9.



come with certain advantages and disadvantages,<sup>86</sup> the idiosyncrasies of each band do not impair their substitutability from an end-user perspective. In particular, the differentiating characteristics of Ku- and Ka-band do not automatically result in different upload and download speeds, which is an important feature for any broadband solution from an end-user perspective. Second, from a supply-side perspective, the Notifying Party considers that both SSPs using the Ka-band and SSPs using the Ku-band can and do provide IFC services to commercial aviation customers.<sup>87</sup>

- (101) In addition, the Notifying Party submits that no further segmentation should be considered based on the type of satellite orbit, i.e., between GEO and LEO IFC solutions, as well as hybrid GEO/LEO solutions.<sup>88</sup> First, from a demand-side perspective, commercial airlines purchase IFC solutions that work respectively, with GEO / NGSO constellations, and are starting to purchase IFC multi-layered solutions as they become increasingly available. Therefore, GEO, LEO, and hybrid IFC solutions (as well as ATG on a regional basis) compete for exactly the same customers, so a segmentation of the market for IFC solutions by technology is not a meaningful distinction. From a supply-side perspective, SNOs (or vertically integrated SNOs / SSPs) offer solutions that are interoperable with either GEO or NGSO constellations exclusively and solutions that follow a multi-layered technological approach (such as SES, Telesat, Eutelsat, Hughes, Intelsat, OneWeb).
- (102) Finally, the Notifying Party submits that satellite-based broadband services compete with non-satellite based broadband services, including ATG<sup>89</sup> and hybrid (satellite and ATG) services. The Notifying Party explains that at least for carriers operating short-haul flights within Europe, i.e. mostly over or near land (as ATG relies on ground masts to deliver connectivity and therefore cannot offer connectivity over the sea), ATG IFC solutions should be considered in the same product segment as satellite-based systems.<sup>90</sup>

#### 7.2.2.3. The Commission's assessment

- (103) The Commission has not found any evidence during the market investigation that would justify a departure from its previous practice according to which commercial two-way satellite communications and commercial one-way commercial satellite communications are not part of the same product market. In any event, as Viasat is not active in the provision of one-way satellite communications services,<sup>91</sup> this distinction will not be further considered in the present decision.<sup>92</sup>
- (104) Moreover, the Commission has not found any evidence during the market investigation that would invalidate the conclusion that military two-way satellite communication can be distinguished from commercial two-way satellite

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<sup>86</sup> For example Ka-band frequencies are susceptible to rain fade, as the higher the frequency, the more susceptible satellite connectivity is to weather and atmospheric interference. On the other hand, Ka-band user terminal antennas can generally be smaller and lighter than Ku-band antennas. See Form CO, Annex 17 'Characteristics of the Ka- and Ku- band frequencies'.

<sup>87</sup> Form CO, paragraph 491 and Form CO, Annex 17 'Characteristics of the Ka- and Ku- band frequencies'.

<sup>88</sup> Form CO, paragraphs 444-448.

<sup>89</sup> ATG technology uses a ground based (rather than satellite based) connectivity solution to communicate data while in flight.

<sup>90</sup> Form CO, paragraph 439.

<sup>91</sup> Form CO, paragraph 19.

<sup>92</sup> Unless otherwise specified, any reference to 'satellite communication services' should be understood as relating to two-way satellite communication services (as opposed to one-way satellite communication services).

communications services, in particular due to differences in frequencies used, prices<sup>93</sup> and regulatory requirements. In any event, since neither Viasat nor Inmarsat are active in the provision of military satellite communications services to governments in the EEA,<sup>94</sup> this distinction will not be further considered in the present decision.<sup>95</sup>

- (105) Furthermore, the results of the market investigation confirmed the market segmentation previously considered by the Commission based on the level of the supply chain, i.e. distinguishing between SNOs, SSPs and VARs. The market investigation has therefore confirmed that there exists a separate market for the supply of satellite connectivity services by SSPs.<sup>96</sup>
- (106) In addition, the results of the market investigation confirmed that the supply of satellite connectivity by SSPs can be segmented according to the industry of application. More specifically, the majority of respondents to the market investigation who expressed a view confirmed there is a separate market for the supply of satellite services to the aviation sector, for which satellite connectivity services for other industry segments/end-uses (e.g. maritime, consumer broadband internet) are not substitutable due to the specific requirements in the aviation sector (such as geographic coverage, specific technical equipment, airworthiness certifications, and others).<sup>97</sup> The Commission further notes that aviation customers are subject to different regulatory requirements than customers in other industry sectors, such as maritime. For example, there are specific certifications required for the installation of satellite connectivity systems on aircraft.<sup>98</sup> The Commission therefore considers that there is a separate product market for the supply of satellite connectivity by SSPs for the aviation sector.
- (107) Finally, the market investigation tested other plausible segmentations of the market for the supply of satellite connectivity services to the aviation sector based on frequencies used (i.e. broadband or narrowband), type of customer (i.e. business or commercial) and type of aircraft (i.e. narrow-body used for short-haul flights or wide-body used for long-haul flights). The market investigation further tested other arguments raised by the Notifying Party regarding the substitutability between the Ka- and Ku-bands for the supply of IFC services to commercial aviation customers and the substitutability between satellite-based IFC services and ATG-based IFC services. Those are assessed each in turn below.
- (108) As already noted in section 7.1 above, when supply-side substitutability would entail the need to adjust significantly existing tangible and intangible assets, additional investments, strategic decisions or time delays, it will not be considered at the stage

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<sup>93</sup> The military communication services are generally sourced at a significantly higher price because they often are supplied with additional value-added services, such as enhanced security or encryption, or special gateway operations – see Form CO, paragraph 21.

<sup>94</sup> Form CO, paragraph 45.

<sup>95</sup> Unless otherwise specified, any reference to ‘satellite communication services’ should be understood as relating to (two-way) commercial satellite communication services (as opposed to military satellite communications).

<sup>96</sup> A large majority of both GEO SNOs and SSPs active in the market for broadband IFC services for commercial aviation customers confirmed the Commission’s previous segmentation. Replies to eRFI 3 to commercial IFC competitors, questions D.A.1 and D.A.2, and replies to eRFI 1 to GEO SNOs, questions D.A.1 and D.A.2.

<sup>97</sup> Replies to eRFI 5 to commercial IFC customers, question D.A.1 and replies to eRFI 3 to commercial IFC competitors, question D.A.4.

<sup>98</sup> Form CO, paragraphs 1824 and following and minutes of the call with Aegean Airlines of 13 September 2022.

of market definition. The Commission notes that IFC solutions are a complex and highly technical product that require requires years of planning and significant levels of investment. Therefore, for the purposes of this decision, the Commission does not consider supply-side substitutability at the stage of market definition for these relevant markets.

#### 7.2.2.3.1. Possible segmentation between broadband and narrowband connectivity

- (109) All competitors and the majority of customers confirm the Notifying Party's proposed segmentation between narrowband and broadband connectivity for the aviation sector and consider that those services are not substitutable.<sup>99</sup>
- (110) The Commission agrees and considers that broadband and narrowband connectivity are not substitutable as each serves different customer needs.<sup>100</sup> Broadband connectivity solutions have more bandwidth and can be used for more data-intensive applications, such as streaming or video-conferences. Narrowband connectivity solutions are less susceptible to signal interference and are used for less data-intensive tasks where resilience is critical, such as safety communication.

#### 7.2.2.3.2. Possible segmentation between commercial and business aviation

- (111) The majority of SSP competitors do not consider that IFC services for business aviation are substitutable or interchangeable with IFC services for commercial aviation from a customer's perspective.<sup>101</sup> One competitor explained that a higher number of Wi-Fi routers and antennas are required on commercial aircraft to provide the necessary bandwidth to a high number of passengers. In addition, many existing commercial aviation IFC antennas are too large to fit on business jets.<sup>102</sup> The replies of commercial airlines were unclear as commercial airlines are usually not active in business aviation and vice-versa.<sup>103</sup>
- (112) The Commission agrees with the Notifying Party and notes indeed that from a demand-side perspective, the nature and identity of customers differ. Furthermore, the types of aircraft used in business and commercial aviation largely differ, as do the services requested and coverage expected by each type of customer. From a supply-side perspective, the IFC providers to each type of customer also differ to a large extent. Moreover, industry reports distinguish between IFC services for commercial and business aviation.<sup>104</sup> In addition, the Parties' internal documents show that *[description of Inmarsat's commercial strategy]*.<sup>105</sup>
- (113) In light of the above, for the purpose of this Decision, the Commission considers there is market for the supply of IFC services to commercial aviation customers that is separate from the market for the supply of IFC services to business aviation customers.

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<sup>99</sup> Replies to eRFI 5 to commercial IFC customers, question D.A.2 and replies to eRFI 3 to commercial IFC competitors, question D.A.8.

<sup>100</sup> **Hybrid** solutions combining satellite connectivity (including narrowband connectivity, such as Inmarsat's EAN) with ATG connectivity to form a **broadband solution** are addressed in section 7.2.2.3.6.

<sup>101</sup> Replies to eRFI 3 to commercial IFC competitors, question D.A.10.

<sup>102</sup> Replies to eRFI 3 to commercial IFC competitors, question D.A.10.

<sup>103</sup> Replies to eRFI 5 to commercial IFC customers, question D.A.4.

<sup>104</sup> Form CO, paragraph 428.

<sup>105</sup> E.g. Notifying Party's reply to RFI 3, attachment A16.

### 7.2.2.3.3. Possible segmentation between short-haul and long-haul flights

- (114) The market investigation shows that narrow-body aircraft are typically used for short-haul flights, whereas wide-body aircraft are typically used for long-haul flights.<sup>106</sup>
- (115) The majority of IFC competitors and the majority of airlines (and almost all EEA-based airlines that expressed a view) consider that a segmentation of IFC services for commercial aviation based on the type of aircraft (narrow-body or wide-body) or based on the duration of the flight (short- or long-haul) is not warranted, as the IFC services are substitutable for both types of flights or aircraft.<sup>107</sup>
- (116) However, two airlines have explained that they follow a different approach for their short-haul than for their long-haul flights.<sup>108</sup> For long-haul flights specifically, these two airlines require that the IFC solution be line-fit offerable (i.e. that the IFC equipment is installed when the aircraft is manufactured),<sup>109</sup> as grounding a wide body aircraft for a retro-fit<sup>110</sup> installation (i.e. post-delivery/post-production installation) of IFC equipment would be too costly.<sup>111</sup> One airline explained that because long-haul flights are usually equipped with IFE systems, the demand for higher bandwidth is higher for short-haul flights, as there is no alternative entertainment system available.<sup>112</sup> And another airline said the opposite, i.e. that *'passengers are more eager to use IFC solutions on Long Haul flights'*.<sup>113</sup>
- (117) Nevertheless, the majority of airlines that were asked to list the factors/selection criteria they consider when choosing an IFC supplier, pointed to broadly the same criteria for long-haul and short-haul flights.<sup>114</sup> One airline has explained *'the airline considers the IFC services to be an important part of the overall customer value proposition. The company does not distinguish between European [i.e. short-haul] and Intercontinental flights [i.e. long-haul] in this regard'*.<sup>115</sup> Another airline explained that there are no distinguishing factors relating to the length of the flight and that it aims to offer uniform IFC services across all routes regardless of the flight duration.<sup>116</sup>
- (118) The Commission notes that from a demand-perspective it is not obvious why a passenger would have different expectations in terms of quality or performance of service depending on whether the flight is short-haul or long-haul and that therefore airlines would differentiate their offer in this respect. Furthermore, while it is true that airlines flying short-haul flights to, from and within the EEA will not require the geographic coverage that long-haul flights to and from the EEA may require, it appears that major IFC suppliers would offer coverage on the majority of both long-haul and short-haul routes operated by airlines active in the EEA. The Notifying

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<sup>106</sup> Replies to eRFI 5 to commercial IFC customers, questions C6 and C7. One airline explained that *'Although it is common for some wide body aircraft also to operate short haul flights, these aircraft are not dedicated to these routes and therefore the technology decisions do not take this additional short haul flying into account'* – reply to RFI 25.

<sup>107</sup> Replies to eRFI 5 to commercial IFC customers, questions D.A.6 and D.A.7 and replies to eRFI 3 to commercial IFC competitors, question D.A.11. Also replies to RFIs 16-26 to airlines.

<sup>108</sup> Reply to RFIs 19 and 25.

<sup>109</sup> Line-fit refers to instances where equipment is installed when an aircraft is manufactured.

<sup>110</sup> Retro fit refers to instances where equipment is installed on aircraft post-production.

<sup>111</sup> Reply to RFI 25.

<sup>112</sup> Reply to RFI 19.

<sup>113</sup> Reply to RFI 21.

<sup>114</sup> Replies to RFIs of 23 March 2023.

<sup>115</sup> eRFI 3 to commercial IFC competitors, question D.B.3.

<sup>116</sup> Reply to RFI 23.

Party explains in this respect that rivals, Anuvu, Intelsat, Panasonic, and the Parties, which together account for approximately 90% of the commercial aviation IFC market overall, are active in multiple regions on both long-haul and short-haul routes with a presence in most if not all regions.<sup>117</sup> SSPs explained to the Commission that if an IFC supplier does not offer global coverage and an airline requests that coverage in a tender, that supplier can lease capacity from an SNO for the areas that the IFC service supplier does not cover.<sup>118</sup>

- (119) In addition, from a supply-perspective, besides the fact that the suppliers seem to be the same for both segments, the IFC equipment required is similar, as are the type of regulatory requirements for installing such equipment (indeed the relevant certifications are awarded per aircraft model, e.g. a certain model of Airbus, not per all narrow-body or wide-body aircraft).<sup>119</sup>
- (120) In light of the above, for the purpose of this Decision, the Commission considers there is one overall market for the supply of IFC services to commercial customers, including both short-haul and long-haul flights. The Commission will however take into account any differentiating factors between the supply of IFC services for short-haul and long-haul flights in its competitive assessment (see Section 8.5.2).

#### 7.2.2.3.4. Possible segmentation between Ku- and Ka-band

- (121) The majority of respondents to the market investigation submit that Ku- and Ka-band broadband services are substitutable.<sup>120</sup>
- (122) The Commission notes that from a demand-side perspective they both provide broadly comparable performance and are similar in terms of equipment and installation time required. They offer similar internet speeds and broadly comparable peak bandwidth rates (in the range of 30-100 Mbps).<sup>121</sup>
- (123) From a supply perspective SSPs rely on both Ka-and Ku-frequencies to provide IFC solutions to commercial aviation customers. For example, Intelsat and SpaceX currently use Ku-band frequencies, whereas the Parties use Ka-band frequencies.<sup>122</sup>
- (124) The Commission therefore considers that there is no clear advantage of Ka-band-based IFC solutions over Ku-band-based IFC solutions and that both frequencies are part of the same market for the purposes of this Decision.

#### 7.2.2.3.5. Possible segmentation between GEO- and LEO-based IFC solutions

- (125) The Commission considers that IFC services based on LEO satellites and GEO satellites are substitutable as they broadly serve the same customer needs. In addition, the majority of customers and competitors submit that IFC services from LEO satellites and IFC services from GEO satellites are substitutable from the customer's perspective.<sup>123</sup> Further, as outlined in section 8.5 below, some providers' of LEO-based IFC solution are even considered to be in close competition with the Parties' GEO-based IFC solutions.

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<sup>117</sup> Form CO, paragraph 464.

<sup>118</sup> Reply to RFIs 13 and 14.

<sup>119</sup> Form CO, paragraphs 1641, 1674 and 1825 and following.

<sup>120</sup> Replies to eRFI 5 to commercial IFC customers, question D.A.5 and replies to eRFI 3 to commercial IFC competitors, question D.A.13 and replies to RFIs 16-26 to airlines, question 4.

<sup>121</sup> Form CO, paragraph 307.

<sup>122</sup> See section 8.5 for further detail.

<sup>123</sup> Replies to eRFI 5 to commercial IFC customers, question D.A.2 and replies to eRFI 3 to commercial IFC competitors, question D.A.8.

(126) Overall, the Commission considers that GEO-based and LEO-based IFC solutions are part of the same market.

#### 7.2.2.3.6. Possible segmentation between satellite technology and ATG or hybrid technology

(127) The majority of airlines have stated that they are regarding ATG-based IFC solutions and satellite-based IFC solutions as alternatives for flights over land (in Europe: short-haul flights).<sup>124</sup> ATG services (and consequently also hybrid services combining both satellite and ATG services) only provide coverage over land and near the coast, as they need to be in proximity of a ground station.

(128) The Commission considers that, on the one hand, the two technologies (or their combination into a hybrid solution) are similar from a demand-side perspective as they offer similar performances for customers who do not require coverage over oceans; but that, on the other hand, the two technologies (or their combination into a hybrid solution) are not fully substitutable for customers who require coverage over oceans. In any case, the Commission considers that the question of whether that market should be further segmented according to whether the IFC services are based on satellite technology, on the one hand, or ATG or hybrid (satellite and ATG) technology, on the other hand, can be left open because the Transaction would not significantly impede effective competition under any plausible market definition.

#### 7.2.2.4. Conclusion

(129) In light of the above, for the purpose of this decision, the Commission concludes that the relevant product market in this case is the overall market for the supply of broadband IFC services to commercial aviation customers, including both Ka- and Ku-bands and both GEO- and LEO-based solutions, and for both short-haul and long-haul flights. For the purpose of this Decision, the question of whether that market should be further segmented according to whether the IFC services are based on satellite technology or ATG technology or hybrid (satellite and ATG) can be left open because the Transaction would not significantly impede effective competition under any plausible market definition.

### 7.2.3. *Geographic market definition*

#### 7.2.3.1. The Commission's previous practice

(130) The Commission has not previously considered the scope of the relevant geographic market for the supply of broadband IFC services to commercial aviation customers, and any segmentations thereof.

#### 7.2.3.2. The Notifying Party's views

(131) The Notifying Party considers that in relation to aircraft intended to be used for short-haul flights – which in Europe correspond to intra-European flights – it is meaningful to consider the relevant market to be Europe-wide from the perspective of EEA customers.<sup>125</sup> Conversely, for the provision of IFC services to aircraft used on long-haul flights, the Notifying Party believes a global market definition is more meaningful and indicative of how competition takes place.<sup>126</sup>

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<sup>124</sup> Replies to eRFI 5 to commercial IFC customers, questions D.A.8 and replies to RFIs of 23 March 2023.

<sup>125</sup> Form CO, paragraph 456.

<sup>126</sup> Form CO, paragraph 468.

### 7.2.3.3. The Commission's assessment

- (132) The majority of customers that replied to the market investigation set out that they procure IFC services at a worldwide level even for short-haul flights. Almost all customers and almost all competitors consider that competition takes place at a worldwide level irrespective of whether the flights are short-haul or long-haul.<sup>127</sup> For example, one competitor explained that Europe, Asia, South America and USA have largely converging demand and price characteristics.<sup>128</sup> Another competitor stated '*offers can come from companies worldwide*'.
- (133) While the majority of airlines consider the market to be worldwide, some have explained that depending on the geographic region, differences in competition may arise due to differences in coverage offered by the IFC suppliers.<sup>129</sup>

### 7.2.3.4. Conclusion

- (134) In light of the above, the Commission considers the market for the supply of broadband IFC services to commercial aviation customers, including short-haul and long-haul flights, is likely worldwide in scope. However, for the purposes of this Decision, the question of whether the market for the supply of broadband IFC services to commercial aviation customers is at least EEA-wide or worldwide in scope can be left open, since the Transaction would not significantly impede effective competition under any plausible market definition.

## 7.3. Market for the supply of IFC services to business aviation customers

### 7.3.1. The Parties' activities

- (135) Both Inmarsat and Viasat supply broadband IFC solutions to large business jets globally.<sup>130</sup>
- (136) The Parties overlap in broadband IFC solutions for business aviation only in the Ka-band spectrum. The Parties do not overlap in broadband IFC solutions for business aviation in the Ku-band spectrum, as Inmarsat does not offer any Ku-band-based solutions. The Parties do not overlap either in broadband IFC solutions for small business jets because the antennas compatible with the Parties' Ku- and Ka-band-based IFC services are currently too large to fit on small business aircraft.<sup>131</sup>
- (137) Viasat's broadband IFC solutions to business aircraft operators rely both on Viasat's own Ka-band network (which does not offer global coverage, e.g. over Asia, Africa and South America) and leased Ka- and Ku-band capacity (thereby expanding Viasat's coverage).<sup>132</sup>
- (138) Viasat provides IFC solutions to business aircraft operators primarily through a network of VARs composed of Honeywell Aerospace, Collins Aerospace, and

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<sup>127</sup> Replies to eRFI 5 to commercial IFC customers, questions D.B.1 and D.B.2, and replies to eRFI 3 to commercial IFC competitors, questions D.B.1 and D.B.2. See also replies to RFIs 16-26 to airlines; for example a large European airline explained that '*Airlines have access to the same IFC suppliers in the world, but coverage and available certification for aircraft types will differ*' and that '*Prices, consumption habits and identity of suppliers are the same all around the globe*' (reply to RFI 17).

<sup>128</sup> eRFI 3 to commercial IFC competitors, question D.B.3.

<sup>129</sup> E.g., reply to RFI 18.

<sup>130</sup> Form CO, paragraph 535.

<sup>131</sup> Form CO, paragraph 451. L-band IFC has been the only alternative so far to ATG connectivity for small business jets. Inmarsat offers small business aircraft a narrowband cockpit service and cabin IFC solutions over its global L-band satellites in competition with segment leader Iridium, while Viasat is not active in this segment (small business jets).

<sup>132</sup> As of August 2022, Viasat no longer sells Ku-band terminals for new business aviation aircraft. Viasat is currently continuing to accept service plan renewals through its VARs for existing customers.

Satcom Direct.<sup>133</sup> Viasat also makes some [...] direct sales to aircraft operators (which accounted for less than [...] of Viasat's service revenues from business aviation in the financial year 2021).

- (139) Viasat's turnover for broadband IFC services for business aviation in 2022 (year to date) was approximately EUR [...] in the EEA (EUR [...] globally).
- (140) Inmarsat's sole broadband IFC solution for business aviation is its Jet ConneX Ka-band solution.<sup>134</sup> It relies on Inmarsat's own Ka-band network and provides global coverage, except for the poles.
- (141) In business aviation, Inmarsat works [...] through a network of VARs composed of Honeywell Aerospace, Collins Aerospace and Satcom Direct. Inmarsat does not supply IFC services directly to business aircraft operators.
- (142) Inmarsat's turnover for broadband IFC services for business aviation in 2022 (year to date) was approximately EUR [...] in the EEA (EUR [...] globally).

### 7.3.2. *Product market definition*

#### 7.3.2.1. The Commission's previous practice

- (143) The Commission has not previously considered any further segmentation of the market for the supply of satellite communications services to aviation customers differentiating by type of customer (i.e., business or commercial).
- (144) As explained in section 7.2, the Commission previously considered the market for the production and supply of IFE and cabin management systems for civil aircraft could be further segmented by customer type into (i) commercial aircraft, (ii) business jets, and (iii) 'private' or VIP jets. The segmentation was confirmed by the Commission's market investigation but the precise scope of the market was ultimately left open.<sup>135</sup>

#### 7.3.2.2. The Notifying Party's views

- (145) The Notifying Party submits that the market for the supply of satellite communications services to the aviation vertical should be further segmented based on type of service, customer type and type of aircraft. With regard to the type of service and the supply of IFC services, the Notifying Party proposes a further segmentation between narrowband (for cockpit) and broadband (for passengers) connectivity along with a segmentation by type of aviation customer (i.e., commercial and business aviation customers).<sup>136</sup>
- (146) The Notifying Party proposes a further segmentation of IFC services in the business aviation segment by size/aircraft type (i.e., large and small business aircraft). The Notifying Party proposes that large business aircraft could be further segmented more narrowly by size, from largest to smallest (i.e. 'Blizliner' jets, 'Large Cabin' jets and 'Super Midsize Cabin' jets). In addition, the Notifying Party points that for large business jets, ultimate end customers are primarily large corporations and ultra-high net worth individuals. Furthermore, large business jets can be fully owned or leased by the corporate or individual end customer, but the large business jet owner

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<sup>133</sup> Form CO, paragraph 475.

<sup>134</sup> Form CO, paragraph 420.

<sup>135</sup> Commission decision of 29 March 2019 in case M.9185 – *LG Electronics/Lufthansa Technik/JV*, paragraphs 26 and 34.

<sup>136</sup> Form CO, paragraphs 426-448.



or operator is often an intermediary company that charters aircraft or runs ‘air-limo’ services.<sup>137</sup>

#### 7.3.2.3. The Commission’s assessment

(147) The majority of respondents (including all customers) to the market investigation confirmed the Notifying Party’s proposed segmentation between narrowband and broadband connectivity in relation to the market for the supply of IFC services to business aviation customers.<sup>138</sup>

(148) The market investigation was unclear as to whether the market for the supply of IFC services to business aviation customers should be segmented based on the type (i.e., small and large business aircraft) or size (i.e., from largest to smallest within each type) of aircraft.<sup>139</sup> The responses from market participants were mixed, with the majority of the respondents indicating that these potential segmentations were substitutable in some instances and not substitutable in other instances.<sup>140</sup>

#### 7.3.2.4. Conclusion

(149) In light of the above, the Commission considers that the relevant product market in this case is likely the market for the supply of IFC services to business aviation customers.<sup>141</sup> However, for the purposes of this Decision, the question of whether the market should be further segmented based on the type of service provided (i.e., broadband or narrowband IFC services), the aircraft type (i.e., large and small business aircraft) or aircraft size (i.e., from largest to smallest within each type) can be left open, since the Transaction would not significantly impede effective competition under any plausible market definition.

### 7.3.3. *Geographic market definition*

#### 7.3.3.1. The Commission’s previous practice

(150) In past decisions, the Commission has not considered the geographic market definition for the market for the supply of IFC services to business aviation customers.<sup>142</sup>

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<sup>137</sup> Form CO, paragraphs 449-450.

<sup>138</sup> Replies to eRFI 4 to business IFC competitors, questions D.A.8.; and replies to eRFI 6 to business IFC customers, questions D.A.2.

<sup>139</sup> For the purposes of this Decision, and in particular for the purposes of estimating market shares, the Commission considers that “large business aircraft” are defined in line with third party expert reports (i.e. IFC in Business Aviation Market Assessment, 9th May 2022, Valour Consultancy) as including Bizliners, Large Cabin jets and Super Mid Cabin jets, because the Parties’ broadband IFC solutions are currently able to fit on these jet sizes. In contrast, Mid Cabin jets, Small Cabin jets, Very Light jets and Turboprops are excluded from the market share estimates because the Parties’ broadband IFC solution are currently too large to fit on these jet sizes

<sup>140</sup> Replies to eRFI 4 to business IFC competitors, questions D.A.11.; and replies to eRFI 6 to business IFC customers, questions D.A.5.

<sup>141</sup> For the purposes of this Decision, the Commission considers the terms ‘business jets’, ‘business aircraft’ and ‘business aviation customers’ to include ‘private’ or VIP jets, since this does not impact the Commission’s assessment.

<sup>142</sup> Form CO, paragraph 454. For avionics and non-avionics products for civil aircraft, the Commission previously considered a market worldwide in scope, and that IFE systems belong to the non-avionics aerospace products category. Commission decision of 29 March 2019 in case M.9185 – *LG Electronics/Lufthansa Technik/JV*, paragraphs 35 and 24; Commission decision of 11 April 2017 in case M.8305 – *Rockwell Collins/BE Aerospace*, paragraphs 17 and 21; and Commission decision of 3 July 2001 in case M.2220 – *General Electric/Honeywell*, paragraphs 240 and 275.

### 7.3.3.2. The Notifying Party's views

(151) The Notifying Party submits that for business aviation, large business jets that incorporate its solutions are used both to fly long-haul intercontinental routes between regions as well as short-haul routes within regions. Overall, it considers that the market for the provision of IFC services to business jets is global in scope.<sup>143</sup>

### 7.3.3.3. The Commission's assessment

(152) The market investigation confirmed that, for the market for the supply of IFC services to business aviation customers, the geographic scope is worldwide. Indeed, the majority of market participants indicated that the procurement of IFC services for both business aviation and large business jets is worldwide in scope.<sup>144</sup> Furthermore, the majority of the market participants considered that the 'conditions of competition' (e.g., prices, consumption habits, number and identity of suppliers, their market strength) for both business aviation and large business jets is sufficiently homogeneous at the worldwide level.<sup>145</sup>

### 7.3.3.4. Conclusion

(153) In light of the above, for the purpose of this Decision, the Commission considers that the market for the supply of IFC services to business aviation customers (and the potential segment of large business jets) is worldwide in scope.

## 8. COMPETITIVE ASSESSMENT

### 8.1. Introduction

(154) For the reasons set out below, the Commission finds that the Transaction would not significantly impede effective competition in the EEA, or in a substantial part of it, in particular as a result of horizontal non-coordinated effects on the markets for (i) the supply of satellite capacity (and any potential segments thereof, including the supply of broadband satellite capacity) globally, (ii) the supply of broadband IFC services to commercial aviation customers (and potential segments thereof) globally or in the EEA, and (iii) the supply of broadband IFC services to business aviation customers (and potential segments thereof) globally.

(155) The Transaction creates some horizontal overlaps between the Parties' activities in the satellite communications industry.<sup>146</sup> These horizontal overlaps lead to three affected markets within the meaning of the Merger Regulation: the markets for (i) the supply of satellite capacity (and any potential segments thereof) globally (see sections 7.1.2.4 and 7.1.3.4), (ii) the supply of broadband IFC services to commercial aviation customers (and potential segments thereof) globally or in the EEA (see sections 7.2.2.4 and 7.2.3.4), and (iii) the supply of broadband IFC services to business aviation customers (and potential segments thereof) globally (see sections 7.3.2.4 and 7.3.3.4). The Commission has assessed whether the Transaction

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<sup>143</sup> Form CO, paragraphs 470-477.

<sup>144</sup> Replies to eRFI 4 to business IFC competitors, questions D.B.1.; and replies to eRFI 6 to business IFC customers, questions D.B.1.

<sup>145</sup> Replies to eRFI 4 to business IFC competitors, questions D.B.2.; and replies to eRFI 6 to business IFC customers, questions D.B.2.

<sup>146</sup> The Commission has also assessed potential horizontal overlaps, i.e. cases where one of the Parties is already active on a relevant market and the other one of the Parties could be a potential competitor in this market. However, in such cases, the Parties confirmed that they will not be entering these relevant markets in the near future (i.e. are not a potential competitor in these markets). For example, see Form CO, paragraphs 607, 682, and 1191, as well as the Parties' reply to RFI 1, question 8 and the Parties' reply to RFI 2, question 29.

would significantly impede effective competition in a substantial part of the internal market within the meaning of Article 2(3) of the Merger Regulation as a result of horizontal non-coordinated effects in these three affected markets.<sup>147</sup>

- (156) The Transaction also creates vertical links between the Parties' activities in the satellite communications industry, in the following vertically affected markets:
- (a) The supply of satellite capacity globally (upstream) and the supply of broadband IFC services to commercial aviation customers (and potential segments thereof) globally or in the EEA (downstream); and
  - (b) The supply of satellite capacity globally (upstream) and the supply of broadband IFC services to business aviation customers (and potential segments thereof) globally (downstream).
- (157) These vertical links lead to three vertically affected markets, which are equivalent to the three affected markets resulting from horizontal overlaps.<sup>148</sup> These vertical links that lead to affected markets are pre-existing (since both Viasat and Inmarsat are vertically-integrated SNOs/SSPs, and are therefore already both active on both upstream and downstream markets). The guidance set out in Commission guidelines on the assessment of non-horizontal mergers under the Merger Regulation sets out that non-horizontal mergers pose no threat to effective competition unless the merged entity has a significant degree of market power in at least one of the markets concerned, because otherwise the merged entity would not have the ability to foreclose its downstream rivals (i.e. input foreclosure) or upstream rivals (i.e. customer foreclosure).<sup>149</sup> For the purposes of this Decision, the Commission considers that, as a result of the conclusions with regard to the Commission's assessment of horizontal non-coordinated effects in these three affected markets, the merged entity does not have a significant degree of market power in these three affected markets, and so would not have the ability to foreclose downstream or upstream rivals. As such, the Commission considers the Transaction would not significantly impede effective competition in a substantial part of the internal market within the meaning of Article 2(3) of the Merger Regulation as a result of vertical effects on the markets for (i) the supply of satellite capacity (and any potential segments thereof, including the supply of broadband satellite capacity) globally, (ii) the supply of broadband IFC services to commercial aviation customers (and potential segments thereof) globally or in the EEA, and (iii) the supply of broadband IFC services to business aviation customers (and potential segments thereof) globally.
- (158) The Transaction does not give rise to affected markets related to a conglomerate relationship.
- (159) The horizontal non-coordinated effects arising from the three affected markets described above will be discussed in turn in the following sections. After setting out the legal framework (section 8.2) and the market shares in the relevant markets, including all plausible segments (section 8.3), the Commission will first assess the potential horizontal non-coordinated effects on the market for the supply of satellite

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<sup>147</sup> The Transaction does not lead to horizontally affected markets in any other markets in which the Parties' activities overlap, such as the supply of satellite connectivity services to maritime customers and to EEA government customers

<sup>148</sup> The Transaction does not lead to vertically affected markets in any other markets up- or downstream of the markets in which the Parties are active.

<sup>149</sup> Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings (OJ C 265/6, 18.10.2008), paragraphs 23, 35 and 61.

capacity stemming from the Transaction (section 8.4). Then, the Commission will assess the potential horizontal non-coordinated effects on the market for broadband IFC services to commercial aviation customers stemming from the Transaction (section 8.5). Finally, the Commission will assess the potential horizontal non-coordinated effects on the market for broadband IFC services to business aviation customers stemming from the Transaction (section 8.6).

## **8.2. Legal framework for the competitive assessment**

- (160) Under Article 2(2) and (3) of the Merger Regulation, the Commission must assess whether a proposed concentration would significantly impede effective competition in the internal market or in a substantial part of it, in particular through the creation or strengthening of a dominant position.
- (161) A merger may give rise to a significant impediment of effective competition as a result of the creation or strengthening of a dominant position in the relevant market(s). Moreover, mergers in oligopolistic markets involving the elimination of the important competitive constraints that the parties previously exerted on each other, together with a reduction of competitive pressure on the remaining competitors, may also result in a significant impediment to effective competition, even in the absence of dominance.
- (162) A merger may entail horizontal and/or vertical<sup>150</sup> effects. Horizontal effects are those deriving from a concentration where the undertakings concerned are actual or potential competitors of each other in one or more of the relevant markets concerned. The Commission appraises such effects in accordance with the guidance set out in Commission guidelines on the assessment of horizontal mergers under the Merger Regulation (the ‘Horizontal Merger Guidelines’)<sup>151</sup>.
- (163) Paragraph 24 of the Horizontal Merger Guidelines, which sets out the economic rationale underlying non-coordinated anti-competitive effects in horizontal mergers, states that a merger may significantly impede effective competition in a market by removing important competitive constraints on one or more firms who consequently have increased market power. This paragraph furthermore clarifies that the most direct effect of the merger will be the loss of competition between the merging firms. In order to assess whether a notified merger will result in a significant impediment of effective competition on the basis of non-coordinated effects, the Commission therefore needs to analyse primarily the extent of the competitive constraint imposed pre-merger by each of the merging parties on each other. The following sentence of paragraph 24 of the Horizontal Merger Guidelines clarifies that the removal of the rivalry between the parties may have consequences also on the other players, who may find it profitable to increase their prices. The ultimate effect would thus typically be price increases by the merging parties but also by competitors in the relevant market.
- (164) The Commission carries out an overall assessment of the likely effects of the Transaction arising from the elimination of important competitive constraints, taking into consideration the overall body of evidence in its file. The conclusion that a transaction leads to a significant impediment of effective competition is reached taking into account the degree to which all the relevant factors are present in the case under consideration.

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<sup>150</sup> Vertical effects are those deriving from a concentration where the undertakings concerned are active on different or multiple levels of the supply chain. A concentration may involve both types of effects.

<sup>151</sup> Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (OJ C 31, 05.02.2004, pages 5-18).

- (165) The Horizontal Merger Guidelines list a number of factors which may influence whether or not significant non-coordinated effects are likely to result from a merger, such as the large market shares of the merging firms, the fact that the merging firms are close competitors, the limited possibilities for customers to switch suppliers, or the fact that the merger would eliminate an important competitive force.<sup>152</sup> That list of factors applies equally regardless of whether a merger would create or strengthen a dominant position, or would otherwise significantly impede effective competition due to non-coordinated effects. Furthermore, not all of these factors need to be present for significant non-coordinated effects to be likely. The list of factors, each of which is not necessarily decisive in its own right, is also not an exhaustive list.<sup>153</sup>
- (166) The extent of closeness of competition between the merging parties is one of the factors relevant for the analysis of the likelihood of significant non-coordinated effects of a merger.<sup>154</sup> According to the Horizontal Merger Guidelines, *‘the higher the degree of substitutability between the merging firms’ products, the more likely it is that the merging firms will raise prices significantly. For example, a merger between two producers offering products which a substantial number of customers regard as their first and second choices could generate a significant price increase. Thus, the fact that rivalry between the parties has been an important source of competition on the market may be a central factor in the analysis’.*<sup>155</sup>
- (167) Finally, the Horizontal Merger Guidelines describe a number of factors, which could counteract the harmful effects of the merger on competition, including the likelihood of buyer power, the entry of new competitors on the market, and efficiencies.<sup>156</sup>
- (168) As regards entry, paragraph 68 of the Horizontal Merger Guidelines provides that when entering a market is sufficiently easy, a merger is unlikely to pose any significant anti-competitive risk. However, for entry to be considered a sufficient competitive constraint on the merging parties, it must be shown to be likely, timely and sufficient to deter or defeat any potential anti-competitive effects of the merger.
- (169) To assess whether a concentration constitutes a significant impediment of effective competition pursuant Article 2(3) of the Merger Regulation, the Commission must compare the competitive conditions that would result from the concentration with the conditions that would have prevailed without the concentration.<sup>157</sup> While normally the competitive conditions existing at the time of the merger constitute the relevant comparison for evaluating the effects of a merger, in some circumstances the Commission may take into account future changes to the market that can ‘be reasonably predicted’.<sup>158</sup> On the basis of paragraph 9 of the Horizontal Merger Guidelines it is for the Commission to show the existence of a significant impediment to effective competition in the market considering reasonably predictable future changes.

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<sup>152</sup> Horizontal Merger Guidelines, paragraphs 27 and following.

<sup>153</sup> Horizontal Merger Guidelines, paragraphs 24-38.

<sup>154</sup> Horizontal Merger Guidelines, paragraphs 26 and 28-30.

<sup>155</sup> Horizontal Merger Guidelines, paragraph 28.

<sup>156</sup> Horizontal Merger Guidelines, paragraphs 64-88.

<sup>157</sup> Horizontal Merger Guidelines, paragraph 9.

<sup>158</sup> Horizontal Merger Guidelines, paragraph 9.

### 8.3. Market shares

- (170) According to the Horizontal Merger Guidelines in the assessment of the effects of a merger, market shares constitute a useful first indication of the structure of the markets at stake and of the competitive importance of the relevant market players.<sup>159</sup> The Horizontal Merger Guidelines explain that the larger the market share, the more likely a firm is to possess market power. Furthermore, the larger the addition of market share (or ‘increment’) brought by the transaction, the more likely it is that a merger will lead to a significant increase in market power. Post-merger market shares are calculated on the assumption that the post-merger combined market share of the parties is the sum of their pre-merger market shares.<sup>160</sup>
- (171) As further set out in the Horizontal Merger Guidelines, market shares and concentration levels provide useful first indications of the market structure and of the competitive importance of both the merging parties and their competitors. For example, changes in historic market shares may provide useful information about the competitive process and the likely future importance of the various competitors, by indicating whether firms have been gaining or losing market shares.<sup>161</sup> A merger involving a firm whose market share will remain below 50% after the merger may raise competition concerns in view of other factors such as the strength and number of competitors, the presence of capacity constraints or the extent to which the products of the merging parties are close substitutes.<sup>162</sup>

#### 8.3.1. *Market for the supply of satellite capacity*

- (172) The Notifying Party relies on third-party industry analyst reports to obtain estimates for the total size of the market for the supply of satellite capacity, and for competitors’ market shares.<sup>163</sup> The Commission notes that these estimates relate to the total capacity of players in the market (i.e. including spare capacity and capacity used captively downstream), and not to only the capacity leased to third parties downstream (i.e. the merchant market). The Parties were not able to provide merchant market shares, since this information is typically confidential for rivals. However, as outlined in section 8.4, since the Parties are not significantly active on the merchant market (and instead use most of their capacity captively downstream, especially compared to competitors), the Commission considers the volume-based capacity market shares to be conservative (i.e., they would be higher than the Parties’ market shares on the merchant market).
- (173) The Parties’ combined position in the market for the global supply of broadband HTS capacity is provided in Table 2.

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<sup>159</sup> Horizontal Merger Guidelines, paragraph 14.

<sup>160</sup> Horizontal Merger Guidelines, paragraph 27.

<sup>161</sup> Horizontal Merger Guidelines, paragraph 15.

<sup>162</sup> Horizontal Merger Guidelines, paragraph 17.

<sup>163</sup> Form CO, annexes 9.1 and 9.2.

**Table 2: Volume-based capacity market shares for the market for the supply of broadband HTS capacity, worldwide**

Competitors	2018	2019	2020	2021	2022	2023	2024	2025
Viasat	[10 - 20]%	[10 - 20]%	[5-10]%	[5-10]%	[0-5]%	[5-10]%	[10-20]%	[5-10]%
Inmarsat	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
<b>Combined</b>	<b>[20-30]%</b>	<b>[10-20]%</b>	<b>[10-20]%</b>	<b>[5-10]%</b>	<b>[5-10]%</b>	<b>[10-20]%</b>	<b>[10-20]%</b>	<b>[10-20]%</b>
SpaceX	[0-5]%	[10-20]%	[40-50]%	[50-60]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Telesat (incl. Lightspeed)	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[5-10]%
SES (incl. O3b)	[10-20]%	[10-20]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%
OneWeb	[0-5]%	[0-5]%	[0-5]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Echostar Corporation	[10-20]%	[10-20]%	[5-10]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Eutelsat	[5-10]%	[5-10]%	[0-5]%	[0-5]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%
Intelsat	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
NBN Co Limited	[5-10]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Avanti Communications	[5-10]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
ArabSat	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Others	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: The Notifying Party, Form CO attachment E13 and annex RFI 28.1.

(174) The Parties' position in the market for the global supply of broadband Ka-band HTS capacity is provided in Table 3.

**Table 3: Volume-based capacity market shares for the market for the supply of broadband Ka-band HTS capacity, worldwide**

Competitors	2018	2019	2020	2021	2022	2023	2024	2025
Viasat	[20-30]%	[10-20]%	[10-20]%	[20-30]%	[10-20]%	[30-40]%	[40-50]%	[20-30]%
Inmarsat	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
<b>Combined</b>	<b>[20-30]%</b>	<b>[20-30]%</b>	<b>[20-30]%</b>	<b>[20-30]%</b>	<b>[10-20]%</b>	<b>[30-40]%</b>	<b>[40-50]%</b>	<b>[30-40]%</b>
Telesat (incl. Lightspeed)	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[20-30]%
SES (incl. O3b)	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[20-30]%	[20-30]%	[10-20]%
Echostar Corporation	[20-30]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[5-10]%
Eutelsat	[5-10]%	[5-10]%	[10-20]%	[5-10]%	[20-30]%	[5-10]%	[5-10]%	[5-10]%
NBN Co Limited	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Avanti Communications	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
ArabSat	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Yahsat	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Sky Perfect Jsat	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Others	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[5-10]%	[5-10]%	[5-10]%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: The Notifying Party, Form CO attachment E13 and annex RFI 28.1.

(175) The Parties' combined position in the market for the global supply of broadband HTS GEO satellite capacity is provided in Table 4.

**Table 4: Volume-based capacity market shares for the market for the supply of broadband HTS GEO satellite capacity, worldwide**

Competitors	2018	2019	2020	2021	2022	2023	2024	2025
Viasat	[20-30]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[40-50]%	[40-50]%	[40-50]%
Inmarsat	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[5-10]%
<b>Combined</b>	<b>[20-30]%</b>	<b>[20-30]%</b>	<b>[20-30]%</b>	<b>[20-30]%</b>	<b>[10-20]%</b>	<b>[40-50]%</b>	<b>[40-50]%</b>	<b>[50-60]%</b>
Echostar Corporation	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%
Eutelsat	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[20-30]%	[10-20]%	[5-10]%	[5-10]%
Intelsat	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[5-10]%
SES	[5-10]%	[0-5]%	[0-5]%	[10-20]%	[5-10]%	[5-10]%	[0-5]%	[0-5]%
NBN Co Limited	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Avanti Communications	[5-10]%	[5-10]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
ArabSat	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Yahsat	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Others	[10-20]%	[20-30]%	[20-30]%	[20-30]%	[20-30]%	[10-20]%	[10-20]%	[10-20]%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: The Notifying Party, Form CO attachment E13 and annex RFI 28.1.

(176) The Parties' combined position in the market for the global supply of broadband Ka-band HTS GEO satellite capacity is provided in Table 5.

**Table 5: Volume-based capacity market shares for the market for the supply of broadband Ka-band HTS GEO satellite capacity, worldwide**

Competitors	2018	2019	2020	2021	2022	2023	2024	2025
<b>Competitors</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
Viasat	[20-30]%	[20-30]%	[20-30]%	[20-30]%	[10-20]%	[40-50]%	[50-60]%	[50-60]%
Inmarsat	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[5-10]%
<b>Combined</b>	<b>[20-30]%</b>	<b>[20-30]%</b>	<b>[20-30]%</b>	<b>[20-30]%</b>	<b>[20-30]%</b>	<b>[40-50]%</b>	<b>[50-60]%</b>	<b>[50-60]%</b>
Echostar Corporation	[20-30]%	[20-30]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%
Eutelsat	[5-10]%	[5-10]%	[10-20]%	[5-10]%	[20-30]%	[10-20]%	[5-10]%	[5-10]%
SES	[0-5]%	[0-5]%	[0-5]%	[5-10]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%
NBN Co Limited	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%
Avanti Communications	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
ArabSat	[0-5]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Yahsat	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Sky Perfect Jsat	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Others	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%

Source: The Notifying Party, Form CO attachment E13 and annex RFI 28.1.



### 8.3.2. Market for the supply of broadband IFC services to commercial aviation customers

- (177) The Notifying Party relies on third-party industry analyst reports to obtain volume-based estimates for the total size of the market for the supply of IFC services to commercial aviation customers, and for competitors' market shares.<sup>164</sup>
- (178) The Notifying Party has provided market shares based on the number of 'active' aircraft, i.e. aircraft in which IFC equipment has been installed and broadband IFC services were active in each year between 2018 and 2022.<sup>165</sup> In addition, the Notifying Party has submitted market shares for the year 2022 based on the number of 'committed' aircraft, i.e. both active aircraft and aircraft that are in backlog and in which IFC equipment is not yet installed or in-service but the aircraft customer and IFC provider are contractually committed for this to occur.<sup>166</sup>
- (179) The Notifying Party provided market shares at both a global level and an EEA-wide level. To allocate the market shares in the EEA, the Notifying Party identified which airlines are operating in the EEA. To identify whether an airline is operating in the EEA, the Notifying Party considered, first, that all EEA-headquartered airlines operate in the EEA. Second, with relation to airlines headquartered outside the EEA, the Notifying Party considered whether an airline with an active or committed IFC terminal had at least one scheduled flight with origin or destination in the EEA in November 2022.<sup>167</sup>
- (180) The Parties' combined position in the market for the global supply of broadband IFC services to commercial aviation customers (including satellite-, ATG-, and hybrid-based connectivity) is provided in Table 6.

**Table 6: Volume-based market shares for the market for the supply of broadband IFC services to commercial aviation customers, including satellite, ATG and hybrid technology, worldwide**

Connectivity provider	2018	2019	2020	2021	2022	
	Market share (active aircraft)	Market share (active aircraft)	Market share (active aircraft)	Market share (active aircraft)	Market share (active aircraft)	Market share (committed aircraft)
Viasat	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[20-30]%	[20-30]%
Inmarsat	[0-5]%	[5-10]%	[5-10]%	[5-10]%	[10-20]%	[10-20]%
<b>Combined</b>	<b>[10-20]%</b>	<b>[20-30]%</b>	<b>[20-30]%</b>	<b>[20-30]%</b>	<b>[30-40]%</b>	<b>[30-40]%</b>
Intelsat	[40-50]%	[30-40]%	[30-40]%	[30-40]%	[30-40]%	[20-30]%
Panasonic Avionics	[20-30]%	[20-30]%	[20-30]%	[20-30]%	[20-30]%	[20-30]%
Anuvu	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[5-10]%
Thales	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Taqnia Space	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
SpaceX	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Others	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100%</b>

Source: The Notifying Party, annex RFI 28.2.

<sup>164</sup> Form CO, annexes 9.1 and 9.2. The Parties are unable to estimate value-based market shares given a lack of reliable information on revenues earned by competing IFC providers in the relevant segments.

<sup>165</sup> Form CO, paragraph 484.

<sup>166</sup> Form CO, paragraph 484.

<sup>167</sup> Form CO, annexes 9.1 and 9.2.

(181) The Parties' position in the market for the supply of broadband IFC services to commercial aviation customers at the EEA-level (including satellite-, ATG-, and hybrid-based connectivity) is provided in Table 7.

**Table 7: Volume-based market shares for the market for the supply of broadband IFC services to commercial aviation customers, including satellite, ATG and hybrid technology, EEA**

Connectivity Provider	2018	2019	2020	2021	2022	
	Market share (active aircraft)	Market share (active aircraft)	Market share (active aircraft)	Market share (active aircraft)	Market share (active aircraft)	Market share (committed aircraft)
Inmarsat	[10-20]%	[10-20]%	[20-30]%	[20-30]%	[20-30]%	[20-30]%
Viasat	[0-5]%	[0-5]%	[0-5]%	[5-10]%	[5-10]%	[5-10]%
<b>Combined</b>	<b>[10-20]%</b>	<b>[20-30]%</b>	<b>[20-30]%</b>	<b>[20-30]%</b>	<b>[30-40]%</b>	<b>[30-40]%</b>
Panasonic Avionics	[60-70]%	[50-60]%	[50-60]%	[50-60]%	[40-50]%	[40-50]%
Intelsat	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%
Anuvu	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%
Taqnia Space	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
SpaceX	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Others	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.0%</b>

Source: The Notifying Party, annex RFI 28.2.

(182) The Parties' combined position in the market for the global supply of broadband IFC services to commercial aviation customers, excluding ATG- and hybrid-based connectivity, is provided in Table 8.

**Table 8: Volume-based market shares for the market for the supply of broadband IFC services to commercial aviation customers, excluding ATG and hybrid, worldwide**

Connectivity Provider	2018	2019	2020	2021	2022	
	Market share (active aircraft)	Market share (active aircraft)	Market share (active aircraft)	Market share (active aircraft)	Market share (active aircraft)	Market share (active aircraft)
Viasat	[10-20]%	[20-30]%	[20-30]%	[20-30]%	[20-30]%	[20-30]%
Inmarsat	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[10-20]%
<b>Combined</b>	<b>[20-30]%</b>	<b>[20-30]%</b>	<b>[20-30]%</b>	<b>[30-40]%</b>	<b>[30-40]%</b>	<b>[40-50]%</b>
Panasonic Avionics	[30-40]%	[30-40]%	[30-40]%	[30-40]%	[20-30]%	[20-30]%
Intelsat	[20-30]%	[20-30]%	[20-30]%	[20-30]%	[10-20]%	[10-20]%
Anuvu	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%
Thales	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Taqnia Space	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
SpaceX	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Others	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100%</b>

Source: The Notifying Party, annex RFI 28.2.

(183) The Parties’ combined position in the market for the supply of broadband IFC services to commercial aviation customers in the EEA, excluding ATG- and hybrid-based connectivity, is provided in Table 9.

**Table 9: Volume-based market shares for the market for the supply of broadband IFC services to commercial aviation customers, excluding ATG and hybrid, EEA**

Connectivity Provider						
	2018	2019	2018	2021	2018	
	Market share (active aircraft)	Market share (active aircraft)	Market share (active aircraft)	Market share (active aircraft)	Market share (active aircraft)	Market share (committed aircraft)
Inmarsat	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[20-30]%
Viasat	[0-5]%	[0-5]%	[0-5]%	[5-10]%	[0-5]%	[5-10]%
<b>Combined</b>	<b>[10-20]%</b>	<b>[20-30]%</b>	<b>[10-20]%</b>	<b>[20-30]%</b>	<b>[10-20]%</b>	<b>[20-30]%</b>
Panasonic Avionics	[60-70]%	[50-60]%	[60-70]%	[50-60]%	[60-70]%	[40-50]%
Intelsat	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%
Anuvu	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%
Taqnia Space	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
SpaceX	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Others	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
<b>Total</b>	<b>100.00%</b>	<b>100%</b>	<b>100.00%</b>	<b>100%</b>	<b>100.00%</b>	<b>100%</b>

Source: The Notifying Party, annex RFI 28.2.

### 8.3.3. Market for the supply of IFC services to business aviation customers

(184) The Notifying Party also relied on third-party industry analyst reports<sup>168</sup> to obtain estimates for the total size of the market for the supply of IFC services to business aviation customers.<sup>169</sup>

(185) The Notifying Party provided market shares at a global level for (broadband and narrowband) IFC services for business aircraft in which it estimates that [40-50]% of all currently installed IFC terminals on business aircraft belong to Iridium Communications with [20-30]% attributable to Inmarsat and only [0-5]% to Viasat. Adoption of broadband IFC terminals has been lower on business aircraft than on commercial aircraft. As a result, most business aircraft operators continue to have an L-band (i.e. narrowband) based IFC terminal installed on both small and large business aircraft.<sup>170</sup>

(186) Table 10 provides market shares for the market for the supply of broadband and narrowband IFC services to business aviation customers globally.

<sup>168</sup> Form CO, Attachment E16 ‘Business Aviation Market Assessment Valour Consultancy, 9<sup>th</sup> May 2022’.

<sup>169</sup> Form CO, paragraphs 549-560.

<sup>170</sup> Form CO, Attachment E1.

**Table 10: Volume-based market shares for the market for the supply of broadband and narrowband IFC services to business aviation customers, worldwide**

Connectivity Provider	2021
	Market share
Viasat	[0-5]%
Inmarsat	[20-30]%
<b>Combined</b>	<b>[20-30]%</b>
Iridium Communications	[40-50]%
Gogo Business Aviation	[30-40]%
Others	[0-5]%
<b>Total</b>	<b>100.0%</b>

Source: The Notifying Party, attachment E1.

(187) Finally, specifically for the market for the supply of broadband IFC services for large business jets only, the Notifying Party provided market shares at a global level, as Table 11 below shows.

**Table 11: Volume-based market shares for the market for the supply of broadband IFC services to large business jets, worldwide**

Service Provider	2021		2022	
	IFC terminals	Market share	IFC terminals	Market share
Viasat	[...]	[5-10]%	[...]	[5-10]%
Inmarsat	[...]	[20-30]%	[...]	[20-30]%
<b>Combined</b>	<b>[...]</b>	<b>[30-40]%</b>	<b>[...]</b>	<b>[30-40]%</b>
Gogo	[...]	[60-70]%	[...]	[60-70]%
SES (Luxstream)	[...]	[0-5]%	[...]	[0-5]%
IDAIR	[...]	[0-5]%	[...]	[0-5]%
Intelsat (FlexExec)	[...]	[0-5]%	[...]	[0-5]%
SmartSky	[...]	[0-5]%	[...]	[0-5]%
SpaceX	[...]	[0-5]%	[...]	[0-5]%
Anuvu	[...]	[0-5]%	[...]	[0-5]%
<b>Total</b>	<b>4425</b>	<b>100.0%</b>	<b>4 874</b>	<b>100.0%</b>

Source: The Notifying Party, attachment E15.

#### **8.4. Horizontal non-coordinated effects on the market for the supply of satellite capacity**

(188) The Transaction leads to a horizontal overlap in the global market for the supply of satellite capacity (and any potential segments thereof, including the supply of broadband satellite capacity). This horizontal overlap leads to an affected market within the meaning of the Merger Regulation, as the Parties exceed the 20% threshold in certain potential segments within the global market for the supply of satellite capacity.<sup>171</sup>

<sup>171</sup> In particular, based on market share data for 2019-2025, the potential segments (i) for the supply of broadband Ka-band HTS satellite capacity, (ii) the supply of broadband HTS GEO satellite capacity, and (iii) the supply of broadband Ka-band HTS GEO satellite capacity.

(189) The Commission has assessed whether the Transaction would significantly impede effective competition in a substantial part of the internal market within the meaning of Article 2(3) of the Merger Regulation as a result of horizontal non-coordinated effects on the global market for the supply of satellite capacity (and any potential segments thereof, including the supply of broadband satellite capacity).

8.4.1. *The Notifying Party's view*

(190) The Notifying Party submitted that the Transaction will not give rise to competition concerns in the market for the supply of satellite capacity.

(191) *First*, the Notifying Party submitted that the Parties' capacity usage is largely captive and complementary. Indeed, the Notifying Party submitted that the Parties do not materially compete to lease out their satellite broadband capacity on the merchant market but instead use their capacity captively to compete downstream (supplemented, in the case of both Parties, by capacity leased from third parties). Both Viasat and Inmarsat lease out only approx. [...] % and [...] % of their respective total HTS broadband capacity.<sup>172</sup> Viasat expects its share to [evaluation of Viasat's future market share] (while Inmarsat's share of merchant market supply is expected to [evaluation of Inmarsat's future market share]).<sup>173</sup>

(192) The Parties' activities also differ both in terms of their customer base and geography. Inmarsat primarily leases raw broadband capacity ([information about Inmarsat's activities and customers]). Viasat mostly leases capacity [information about Viasat's activities and customers].<sup>174</sup>

(193) *Second*, in light of the dynamic nature of the satellite industry, in particular the ongoing industry expansion driven by NGSO entrants, the Notifying Party argued that their current and estimated future combined market share overstates the merged entity's future market position. This would in particular be the case if looking at GEO SNOs only, but also be due to the Parties' more imminent plans for additional satellite launches compared to rivals' concrete plans to launch a large number of additional satellites in the second half of the current decade.<sup>175</sup>

(194) *Third*, the Notifying Party submitted that an abundance of capacity will continue to drive prices down, an effect that would be further reinforced by satellite capacity's fungible nature, which means that capacity can easily be reallocated between customers and downstream industry sectors.<sup>176</sup> According to the Notifying Party, the market for the supply of satellite capacity is characterised by very significant spare capacity,<sup>177</sup> which will be further increased as a result of planned expansion by multiple NGSO constellations (namely SpaceX's Starlink, OneWeb and SES'

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<sup>172</sup> Form CO, paragraph 351.

<sup>173</sup> Form CO, paragraphs 354 and following.

<sup>174</sup> Form CO, paragraph 353.

<sup>175</sup> Form CO, paragraphs 385 and following.

<sup>176</sup> Form CO, paragraphs 394 and following and 258 and following.

<sup>177</sup> Satellite capacity may be 'committed', 'allocated', or 'spare'. Committed capacity is capacity that is being used to serve a customer contract and is therefore unavailable to be used for another customer until the existing contract ends or is terminated. Allocated capacity is capacity that has been budgeted for deployment in a specific vertical or for specific customer contracts based on the SNO's forecast demand over the budget period. Allocated capacity can be committed (if it is already serving customer contracts) or uncommitted (if it is not yet serving customer contracts but is expected to be deployed – i.e., become committed). Spare or excess capacity is capacity that is unallocated, i.e., because the SNO's total available capacity exceeds the demand forecast for the period. See Form CO, paragraph 275.

O3b).<sup>178</sup> By 2025, NGSO constellations are expected to represent between 80-85% of the total supply of broadband capacity.<sup>179</sup> In addition, the fungible nature of satellite capacity means that capacity can be easily (re-)allocated to specific end-uses and downstream industry sectors according to customer demand as and when it arises.<sup>180</sup>

- (195) *Fourth*, the Notifying Party submitted that barriers to entry are falling and there is evidence of large-scale NGSO entry and expansion by multiple NGSO and SNOs in recent years and the immediate future. The most significant decrease of entry barriers relates to cost of production and launch of satellites: first and foremost, the cost of launches into space have more than halved in recent years compared to the period between 1970 and 2000, due to an increase in number and availability of launch vehicles (including from SpaceX); second, the size of critical satellite components has decreased, enabling smaller and less expensive satellites; third, manufacturing improvements have enabled assembly lines to ‘mass’-produce satellites; and fourth, advances in laser and related inter-satellite technologies allow satellite-to-satellite communications, minimising the size and costs of the terrestrial component of satellite networks.<sup>181</sup>
- (196) Following this drop in entry costs, a large number of new NGSO operators have launched and are planning to launch numerous NGSO constellations, in particular, SpaceX (Starlink), UK-based OneWeb, Telesat, SES (O3b mPOWER) and Amazon (Kuiper).<sup>182</sup> As a reaction to the multiple launches of NGSO satellites (current or future), GEO satellite operators are also planning to launch additional GEO capacity. These include the Parties’ plans to launch three and six additional GEOs respectively as well as rival GEO operators’ recent (2021) and planned (by 2023) launches of at least eleven new GEOs (Anuvu, Eutelsat, EchoStar and SES).<sup>183</sup>
- (197) *Fifth*, the Notifying Party argues that global coverage, resilience and low latency (which are not reflected in the shares) are more important than capacity. The Notifying Party submits that the Parties’ broadband satellite fleets consisting of four and six satellites, respectively, encounter a number of competitive disadvantages compared to, for instance SpaceX’s<sup>184</sup> and OneWeb’s<sup>185</sup> fleets. NGSO systems offer higher quality in the form of lower ‘link latency’<sup>186</sup>, which can be critical for customer value in real-time or interactive applications. A higher number of satellites in a constellation increases not only the operator’s ability to address high bandwidth demand, but also the network’s resilience and redundancy through access to back-up capacity in the event of an unforeseen in-orbit failure of a satellite. A larger fleet size or constellation, combined with a hybrid combination of satellites at different

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<sup>178</sup> Euroconsult estimates that 971 Gbps of GEO HTS capacity was unused in 2022, with an average fill rate of 67%; for NGSO HTS capacity, an estimated 11 853 Gbps of capacity was unused in 2022, with a fill rate of 5%. Form CO, paragraph 282.

<sup>179</sup> Form CO, paragraphs 395 and 282.

<sup>180</sup> [*Information about Viasat’s operations and market activities*]; see Form CO, paragraph 278.

<sup>181</sup> Form CO, paragraphs 1508 and following.

<sup>182</sup> Form CO, paragraphs 1489 and following.

<sup>183</sup> Form CO, paragraphs 1504-1505. Anuvu has announced plans to launch MicroGEO satellites and become a satellite operator: <https://www.anuvu.com/our-company/blog/post/4298/countdown-to-the-anuvu-constellation>

<sup>184</sup> According to the Notifying Party, Starlink currently counts 3 612 satellites launched, of which more than 3 321 are already in orbit.

<sup>185</sup> According to the Notifying Party, OneWeb currently has 502 satellites in operation (of more than 600 planned).

<sup>186</sup> Latency refers to the signal response time (or delay) resulting from the length of the path between a gateway (satellite) and the user terminal, and vice versa (i.e. the time it takes for the signal to travel between the gateway and user terminal).

altitudes and orbits, is more likely to achieve global coverage including for the Earth's poles.<sup>187</sup>

#### 8.4.2. *The Commission's assessment*

(198) The Commission considers that the Transaction would not significantly impede effective competition as a result of horizontal non-coordinated effects on the global market for the supply of satellite capacity (and any potential segments thereof). This is in particular because, as set out in further detail below, (i) the Parties' current combined market shares remain moderate and the increment limited (section 8.4.2.1), (ii) the Parties will not possess any market power in the near future (section 8.4.2.2), and (iii) customers have sufficient possibilities of switching supplier post-Transaction (section 8.4.2.3).

(199) The Parties are only active in the narrowest segment for the supply of broadband Ka-band HTS GEO satellite capacity.<sup>188</sup> Therefore, given that this is the narrowest plausible market definition, if the Transaction would not significantly impede effective competition as a result of horizontal non-coordinated effects on this narrowest plausible market definition, the same would be true for broader plausible market definitions. As such, the Commission proceeds by assessing the horizontal non-coordinated effects of the Transaction on the (potential) global market for the supply of broadband Ka-band HTS GEO satellite capacity.

8.4.2.1. The Parties' combined market shares remain moderate and the increment limited based on today's capacity

(200) As set out in the Horizontal Merger Guidelines (see paragraph (171) above), market shares provide useful first indications of the market structure and of the competitive importance of both the merging parties and their competitors. In its assessment of the merging parties' market position, the Commission, however, typically assesses also a number of other factors such as the strength and number of competitors, the presence of capacity constraints or the extent to which the products of the merging parties are close substitutes.<sup>189</sup>

(201) As outlined in section 8.3, the Parties were not able to provide merchant market shares, since this information is typically confidential for rivals, and only provided volume-based capacity market shares. However, as outlined below in this section, since the Parties are not significantly active on the merchant market (and instead use most of their capacity captively downstream, especially compared to competitors), the Commission considers the volume-based capacity market shares to be conservative (i.e., that they would be higher than the Parties' market shares on the merchant market).

(202) Based on market share data provided by the Notifying Party, as set out in section 8.3 above, the Commission notes that the Parties combined share of total capacity in this potential global market is moderate in 2022, [20-30]%, with Viasat and Inmarsat accounting for [10-20]% and [0-5]% respectively. The Commission also notes that the increment accounted for by Inmarsat is limited. As noted by paragraph 18 of the Horizontal Merger Guidelines, a combined market share of less than 25% is an indication that a concentration is not liable to impede effective competition. Further,

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<sup>187</sup> Form CO, paragraph 178.

<sup>188</sup> Inmarsat is also active in the market for the supply of narrowband satellite capacity. However, since Viasat is not active in this market, the Commission does not assess this market, and instead focusses on the narrowest potential market where the Parties are both active.

<sup>189</sup> Horizontal Merger Guidelines, paragraph 17.

based on these market shares, the pre-merger HHI is approximately 1225, the post-merger HHI is approximately 1350 and the HHI delta is approximately 125. As noted by paragraph 20 of the Horizontal Merger Guidelines, the Commission is also unlikely to identify horizontal competition concerns in a merger with a post-merger HHI between 1 000 and 2 000 and a delta below 250.

- (203) In light of the above, and for the purposes of this decision, the Commission considers that the merged entity's combined share today would be moderate and the increment limited on all relevant markets.

#### 8.4.2.2. The Parties will not possess any appreciable market power in the near future

- (204) The Commission notes, at the outset, that as a result of upcoming satellite launches by the Parties (primarily Viasat), the Parties' combined share of total capacity is expected to increase significantly in the next three years. In 2025, the Parties' combined share is expected to increase to [50-60]%, with Viasat and Inmarsat accounting for [50-60]% and [5-10]% respectively. The Commission further notes that the increment accounted for by Inmarsat remains limited, but that the merged entity's combined share of capacity in the near future would not be moderate. Despite the fact that the merged entity's combined share of capacity in the near future would not be moderate, the Commission considers, however, that the merged entity will not possess any appreciable market power in this potential market in the next few years for the following reasons.

- (205) First, broadband Ka-band HTS GEO satellite capacity appears to be a homogenous good, which is fungible between end-use/industry segments. All respondents to the market investigation considered broadband HTS satellite capacity is fungible and can be used interchangeably across a range of industry segments/end-uses downstream (except one respondent who indicated '*I don't know*').<sup>190</sup> Therefore, players in the market generally all closely compete with one another (compared to if products were differentiated).<sup>191</sup>

- (206) Second, the Parties use most of their capacity captively and lease downstream only [a proportion] of their total capacity: approximately [10-20]% and [20-30]% for Viasat and Inmarsat respectively.<sup>192</sup> Further, Viasat expects the proportion of its total capacity that it leases to decrease to [10-20]% by 2025, and Inmarsat expects the proportion to remain the same (around [20-30]%) by 2025.<sup>193</sup> In addition, as noted in the next section, many of the Parties' competitors in this market are not vertically integrated SNO/SSPs, and therefore focus solely on leasing satellite capacity and do not use any captively. As such, the Commission considers that the Parties do not significantly compete to lease out their satellite capacity in this market.

- (207) Third, the market is characterized by a high proportion of spare capacity, including amongst the Parties' competitors. Third party expert reports provided by the Parties estimate that 43% of total broadband Ka-band HTS GEO satellite capacity is unfilled, i.e. is spare capacity.<sup>194</sup> Indeed, as outlined in the assessment in the

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<sup>190</sup> Replies to eRFI 1 to GEO SNOs, questions D.A.5 and E.A.1, and replies to eRFI 2 to LEO SNOs, questions D.A.5 and E.A.1.

<sup>191</sup> Horizontal Merger Guidelines, paragraph 28.

<sup>192</sup> Form CO, paragraph 351.

<sup>193</sup> Form CO, paragraphs 354-356.

<sup>194</sup> NSR's estimates, see Global Satellite Capacity Supply and Demand, 19th Edition, NSR (attached as Form CO Attachment D30 and Attachment D31). Another third party expert report indicates that 33% of total broadband HTS GEO satellite capacity is spare capacity; High Throughput Satellites, Euroconsult, 6th Edition (submitted as Form CO Attachment E14(2)).



following paragraphs, the level of spare capacity amongst competitors is so high that it could cover the Parties' entire leased capacity to its customers (both today and in the near future). Therefore, the Parties do not have any pivotal capacity to serve demand that cannot be served by rivals, and would always face competition from rivals who have spare capacity to compete for the Parties' customers.

- (208) In the first place, the majority of GEO SNO respondents to the market investigation consider that there is excess/spare satellite HTS capacity today and also in 3 years time.<sup>195</sup> One GEO SNO competitor stated '*significant capacity is forecast to come on stream over the next 3 years (including further Starlink rollout, launch of Viasat 3 and Eutelsat VHHS) which will significantly outstrip growth in demand, leading to excess capacity and downwards price pressure*'. Another GEO SNO competitor explains '*according to Euroconsult (Euroconsult 2022 – Satellite Connectivity & Video Market) [...] average HTS satellite fill rates have decreased from 40% in 2017 to 16% in 2022.*' This implies that, according to this market participant, over 80% of satellite capacity today remains spare, and could be used to meet demand if the merged entity were to increase prices.
- (209) In the second place, in order to further investigate to which degree the merged entity's high combined capacity post-Transaction would lead to appreciable market power, the Commission analysed the extent to which the capacity of the merged entity's competitors would post-Transaction be able to cover the entire market demand.
- (210) It is well known from the economics literature, and consistent with the Commission's case practice, that in markets with capacity constraints, pivotal firms (those who cover the residual demand that cannot be covered by competitors) enjoy an appreciable degree of market power.<sup>196</sup> That is because even in a worst-case scenario, where rivals successfully win orders filling their entire capacity, the pivotal supplier would nonetheless be *de facto* the only supplier for the remaining part of demand that cannot be served by rivals. Pivotal suppliers are therefore in a position to exercise an appreciable degree of pricing power in the market, being aware that the market (that is, customers) are dependent on their supply.
- (211) Small suppliers have a strong incentive to undercut competitors because if they fail to do so they risk ending up with no sales (as their competitors can fully cover the entire market demand). To the contrary, pivotal suppliers (those who face some degree of residual demand that cannot be covered by competitors) face a trade-off between pricing aggressively to capture some of the demand for which they face competition from competitors and keep prices high to exploit the portion of (residual) demand that cannot be covered by rivals. The larger the portion of residual demand faced by the incumbent supplier, the larger the amount of demand for which the incumbent knows it is *de facto* the only supplier and therefore the larger the incentive to keep prices high and avoid undercutting competitors.
- (212) The degree of market power exercised by a pivotal supplier depends on its degree of pivotality (that is, on the extent to which rivals are insufficient to cover total market demand). A merger may therefore cause anti-competitive effects by making a

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<sup>195</sup> Replies to eRFI 1 to GEO SNOs, questions C.7, E.A.3, and E.A.4.

<sup>196</sup> Commission decision in Case M.9076 – *Novelis / Aleris* (2019), paragraphs 528-531. For example, see Daisuke Hirata (2009), 'Asymmetric Bertrand-Edgeworth Oligopoly and Mergers', *B.E. Journal of Theoretical Economics*, Vol. 9, No. 1, pp. 1935-1704. See also Case M.6471 *Outokumpu/Inoxum* (Commission decision of 7 November 2012).

supplier pivotal that previously was not or by conferring to a supplier that was already pivotal even more control over indispensable production facilities.

- (213) The Commission's pivotality calculations, based on the figures for demand and capacity, indicate that the merged entity will not be pivotal post-Transaction. Indeed, excess supply in the market for the supply of broadband Ka-band HTS GEO satellite capacity is [...] times greater than the Parties' leased capacity downstream in 2022 and [...] times greater in 2025.<sup>197</sup> As such, the merged entity's competitors could easily cover the entire market demand, including the Parties' current customers. Therefore, it appears unlikely that the merged entity would have an appreciable degree of pricing power over its current customers or any potential customers, since these customers' demands could be met easily by the rest of the market.
- (214) In light of the above, and for the purposes of this Decision, the Commission considers that the merged entity will not possess any appreciable market power in this potential market in the next few years.

#### 8.4.2.3. A sufficient number of credible competitors remain post-Transaction

- (215) The Horizontal Merger Guidelines provide, at paragraph 31, that where customers of the merging parties may have difficulties switching to other suppliers because there are few alternative suppliers, such customers are particularly vulnerable to price increases.
- (216) The Commission notes that, as outlined in the section above, customers would not be vulnerable to price increases since competitors could easily cover the entire market demand. Further, the Commission considers that, as explained in this section, a number of alternative suppliers exist and are a credible alternative to the merged entity post-Transaction.

##### 8.4.2.3.1. Existing GEO SNO competitors

- (217) As outlined in the market share tables in section 8.3, the Parties face competition in this potential narrow market (for the supply of broadband Ka-band HTS GEO satellite capacity) from many other GEO SNOs who have a large amount of capacity and excess capacity (in comparison to demand). These include Echostar Corporation, Eutelsat, and SES. Many of these are not vertically integrated SNO/SSPs (such as Eutelsat and SES), and therefore focus solely on supplying satellite capacity and do not use any of their satellite capacity captively. In addition, the Parties also face out-of-market competition from GEO SNOs outside this potential market (i.e. those supplying satellite capacity other than broadband Ka-band HTS GEO satellite capacity), such as Intelsat and Iridium, which market respondents consider closely compete with the Parties (see paragraphs below). Therefore, even under a narrow market definition, these other GEO SNOs would constitute an additional out-of-market constraint.
- (218) GEO SNO respondents to the market investigation considered that Echostar Corporation, Eutelsat, and Intelsat compete closely with Viasat. None considered that Inmarsat competes closely with Viasat.<sup>198</sup>
- (219) GEO SNO respondents considered that Intelsat, SES and Iridium compete closely with Inmarsat. None considered that Viasat competes closely with Inmarsat.<sup>199</sup>

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<sup>197</sup> Commission analysis based on data from Form CO, paragraph 351 and 354-356, and Form CO, attachment D31.

<sup>198</sup> Replies to eRFI 1 to GEO SNOs, question E.A.A.7.

<sup>199</sup> Replies to eRFI 1 to GEO SNOs, question E.A.A.8.

- (220) All GEO SNO respondents considered that the Transaction would have a neutral impact on competition in the supply of HTS GEO satellite capacity.<sup>200</sup> One GEO SNO competitor states *‘the number 1 strategic issue in the satellite industry that will impact competition and competitive dynamics in the next 3-5 and 5-10 years is the huge influx of LEO capacity coming onstream - initially from Starlink and then potentially from Amazon/Kuiper and other fast followers. This step change in the amount of cap[a]city available will greatly increase competition, increase customer choice and drive down prices as supply exceeds demand. Other facts such as merger activity are secondary to this in terms of the impact on competition.’*

#### 8.4.2.3.2. Existing/potential LEO SNO competitors

- (221) In addition, even under a narrow market definition (excluding capacity from LEO SNOs), the Parties also face out-of-market competition from LEO SNOs, which market respondents consider closely substitutable with GEO satellite capacity. Therefore, these LEO SNOs would constitute an additional out-of-market constraint. As outlined in the market share tables in section 8.3, the Parties face competition from many other LEO SNOs who have a large amount of capacity and excess capacity (in comparison to demand). These include SpaceX, Telesat (Lightspeed) and OneWeb.
- (222) All GEO SNO respondents consider that LEO SNOs (such as SpaceX and OneWeb) compete closely with the Parties in the supply of satellite capacity to downstream customers.<sup>201</sup> One GEO SNO competitor states *‘from consumer market perspective, Starlink is already competing with the parties, the same is expected for OneWeb. LEOs will compete with the Parties in the supply of satellite capacity in the future.’* Another GEO SNO competitor similarly explains *‘low orbit satellites are alternatives for other satellite connection solutions, with emphasis on low latency and higher speeds. Therefore, there is a close competition.’*
- (223) Finally, all GEO SNO respondents consider that LEO SNOs will affect competition in the supply of satellite capacity in the next 2-3 years, in particular through a significant increase in capacity.<sup>202</sup> One GEO SNO notes *‘the entry in service of LEO constellations will expand considerably the available HTS supply. As previously mentioned, the capacity brought by Starlink alone is more than the entire GEO HTS capacity combined as of today’*. In addition, the majority of GEO SNO respondents have already reacted to the entry of LEO SNOs in the supply of HTS satellite capacity, for example, by competing more vigorously for customers or investing more in innovation.<sup>203</sup>
- (224) In light of the above, and for the purposes of this decision, the Commission considers that a number of alternative suppliers exist and are a credible alternative to the merged entity post-Transaction.

#### 8.4.3. Conclusion

- (225) In light of the foregoing, the Commission considers that the Transaction would not significantly impede effective competition as a result of horizontal non-coordinated effects on the global market for the supply of satellite capacity (and any potential segments thereof, including the supply of broadband satellite capacity).

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<sup>200</sup> Replies to eRFI 1 to GEO SNOs, question F.2.

<sup>201</sup> Replies to eRFI 1 to GEO SNOs, question E.A.C.1.

<sup>202</sup> Replies to eRFI 1 to GEO SNOs, question E.A.C.2.

<sup>203</sup> Replies to eRFI 1 to GEO SNOs, question E.A.C.6.

## **8.5. Horizontal non-coordinated effects on the market for the supply of broadband IFC services to commercial aviation customers**

(226) The Transaction leads to a horizontal overlap in the market for the supply of broadband IFC services to commercial aviation customers (and any potential segments thereof)<sup>204</sup> both globally and in the EEA. This horizontal overlap leads to an affected market within the meaning of the Merger Regulation, as the Parties exceed the 20% threshold in this market (and certain potential segments thereof) both globally and in the EEA.

(227) The Commission has assessed whether the Transaction would significantly impede effective competition in a substantial part of the internal market within the meaning of Article 2(3) of the Merger Regulation as a result of horizontal non-coordinated effects on the market for the supply of broadband IFC services to commercial aviation customers (and any potential segments thereof) both globally and in the EEA.

### *8.5.1. The Notifying Party's view*

(228) The Notifying Party has submitted that the Transaction will not give rise to competition concerns in the market for the supply of broadband IFC services for commercial aviation customers, neither at an EEA-wide nor at a global level.

(229) First, the Notifying Party has submitted that the supply of broadband IFC services to commercial aviation customers is a highly dynamic market which remains at a relatively nascent stage of development, and so historical market shares may not necessarily be a good measure of future competition in the market.<sup>205</sup> The current IFC penetration rate, i.e., the number of aircraft equipped with IFC ('active' aircraft) compared to the total number of aircraft in service, is still very low in Europe (which the Notifying Party defines as the EEA including the UK) compared to the U.S., in particular for short-haul commercial aircraft (only 24.4% of all short-haul aircraft in Europe are currently equipped with IFC solutions, meanwhile this figure is 72.9% in the U.S.).<sup>206</sup> In other words, demand growth and low penetration of broadband IFC services, in particular in short-haul planes, means that a large portion of the addressable market is open for competition, providing opportunities for current competitors and new entrants to win business.

(230) The low penetration rates especially for short-haul commercial aircraft in Europe also mean that market shares can evolve quickly. A single large contract won by any of the Parties' competitors would significantly change the historical market shares. By way of example, the Notifying Party put forward Intelsat's recent win of 60 A220 short-haul aircraft from Air France, which increased its presence in European short-haul from [0-5]% to [0-5]% and made it the fourth largest competitor in the provision of commercial aviation IFC on European short-haul routes.<sup>207</sup>

(231) The Parties expect the market for the provision of broadband IFC services to commercial aviation customers to expand very significantly until 2030. Between 2023 and 2030, connected wide-body and narrow-body aircraft are both expected to

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<sup>204</sup> In particular, the Transaction leads to a horizontal overlap only in the potential segment for the supply of broadband IFC services to commercial aviation customers excluding ATG-based connectivity, since Viasat does not offer an IFC solution that uses ATG-based connectivity.

<sup>205</sup> Form CO, paragraphs 565 and following and 1611 and following.

<sup>206</sup> Form CO, paragraph 459. Approximated by narrow-body aircraft owned by airlines headquartered in Europe.

<sup>207</sup> Form CO, paragraphs 567 and 571.

more than double globally.<sup>208</sup> With regard to Europe in particular, connected wide-body aircraft are expected to roughly double, whereas connected narrow-body aircraft are expected to almost triple over the same period of time.<sup>209</sup>

- (232) Second, the Notifying Party has submitted that market shares have limited evidentiary value in a nascent market such as the market for the supply of broadband IFC services to commercial aviation customers, and especially in the EEA where the penetration rate of IFC services is relatively low.<sup>210</sup> As a consequence, in particular in the EEA, there are constant shifts in the parameters that airlines value as they try to meet the evolving needs of their passengers and the competitive influence of the offerings of their competitors.<sup>211</sup>
- (233) Against this background, the Notifying Party submitted that the Parties compete with rival commercial IFC services providers on various key parameters of competition, and what the airline customer perceives as the ‘price’ of the service can differ significantly from customer to customer, depending on what the airline considers to be the most important dimensions of value for a given tender in time.<sup>212</sup> The Notifying Party further submits that depending on customer airlines’ preferences, different rivals have a competitively stronger offering than the Parties.<sup>213</sup>
- (234) The Notifying Party has submitted that the relevant parameters of competition include, at least, price (in turn, with differently weighed cost factors such as upfront equipment cost, recurring cost of data and managed services, cost of required maintenance, and incremental cost of weight and in-flight drag leading to higher fuel consumption of the aircraft), geographic coverage, capacity depth, latency, technical expertise, and operational support,<sup>214</sup> while factors such as vertical integration, certification (Type Certificates (‘TCs’) and Supplementary Type Certificates (‘STCs’)<sup>215</sup>), and broadband spectrum (e.g. Ka- vs. Ku-band) play only a minor role for effective competition.<sup>216</sup>
- (235) Third, the Notifying Party has submitted that the Parties are ‘*not particularly close competitors*’<sup>217</sup> and that they face strong competition from existing players who are innovating and engaging in partnerships with multiple SNOs to achieve greater growth and will continue to constrain the merged entity.<sup>218</sup>
- (236) More specifically, the Notifying Party has submitted that Anuvu, Panasonic and Intelsat are well-established players in the market for the provision of broadband IFC services to commercial aviation customers and can each leverage particular strengths for future gain in the EEA.<sup>219</sup>

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<sup>208</sup> Form CO, paragraph 1614, based on estimates by Northern Sky Research.

<sup>209</sup> Form CO, paragraph 1616, based on estimates by Northern Sky Research.

<sup>210</sup> Form CO, paragraphs 563-571.

<sup>211</sup> Form CO, paragraphs 1261 and following, and Article 6(1)(c) Response, paragraphs 33 and following.

<sup>212</sup> Form CO, paragraphs 1708 and following and Article 6(1)(c) Response, paragraphs 35 and following.

<sup>213</sup> *Ibid* and Form CO, paragraphs 1261 and following.

<sup>214</sup> Form CO, paragraphs 1648 and following and 1653 and following, and Article 6(1)(c) Response, paragraph 35.

<sup>215</sup> For each type of airframe make/aircraft model, a certification is required before physical installation of IFC systems on the aircraft. The certification is delivered by the national civil aviation authority and certifies the IFC equipment’s airworthiness on a given type of aircraft model.

<sup>216</sup> Article 6(1)(c) Response, paragraphs 36 and following.

<sup>217</sup> Form CO, paragraph 1708.

<sup>218</sup> Form CO, paragraphs 1409 and following.

<sup>219</sup> Form CO, paragraphs 1768 and following, and Submission of 17 March 2023, paragraphs 13 and following.

- (237) Anuvu has historically been able to leverage its significant presence in the provision of wireless IFE services to short-haul aircraft into the IFC market. After overcoming financial difficulties in 2020, Anuvu has won a number of sizeable tenders such as in May 2022 for 104 narrow-body aircraft of Turkish Airlines which alone increased Anuvu's market share by [0-10] percentage points.<sup>220</sup> Anuvu benefits from a number of long-term Ka- and Ku-band leases and partnerships with SNOs<sup>221</sup>, which provide Anuvu with enhanced coverage, flexibility, lower investment costs and sufficient scale to command attractive wholesale prices.<sup>222</sup> Anuvu's existing IFC customers in Europe include Air France, Icelandair and Norwegian.<sup>223</sup>
- (238) Panasonic, the clear market leader in the provision of broadband IFC services to long-haul aircraft, in part due to its strong IFE position with long-haul aircraft, has successfully participated in tenders involving short-haul aircraft with airlines globally. The Notifying Party submits that Panasonic also actively bids for [a proportion] of tenders involving short-haul aircraft, including for European airlines.<sup>224</sup> Similar to Anuvu, Panasonic benefits from long-term leases with SNOs (SES, Avanti, Eutelsat), which provide Panasonic with flexibility, low investment costs and full coverage across all airline routes in Europe.<sup>225</sup> It recently announced a partnership with OneWeb which will allow it to provide a hybrid GEO/LEO offering,<sup>226</sup> and is an anchor tenant on Eutelsat's 10B extreme high throughput capacity satellite, which was designed in close collaboration with Panasonic specifically to meet IFC needs of airlines.<sup>227</sup> Panasonic's existing IFC customers in Europe include Lufthansa, International Airlines Group (IAG), Air France, Virgin Atlantic, TAP Portugal and Finnair.
- (239) Intelsat's acquisition, in December 2020, of Gogo's commercial aviation IFC business turned it into a vertically integrated commercial IFC provider, with capacity sourced from more than 50 GEOs. Intelsat currently has more European GEO capacity than Inmarsat ([...] Gbps<sup>228</sup> versus [...] Gbps), a coverage that enabled Intelsat to secure a 2021 contract with Air France for the provision of broadband IFC services to 60 A220 short-haul aircraft.<sup>229</sup> In August 2022, Intelsat and OneWeb announced that they had entered into a global distribution partnership to offer a new multi-orbit IFC solution to airlines combining OneWeb's LEO capacity with Intelsat's GEO capacity.<sup>230</sup> Intelsat counts among its European broadband IFC services customers Air France and British Airways.<sup>231</sup>

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<sup>220</sup> Form CO, paragraph 1778.

<sup>221</sup> Including Eutelsat, Telesat, Hispasat, ABS and Astranis - see Form CO, paragraph 1784. In July 2021, Anuvu announced its planned partnership with Astranis for a launch of eight MicroGEO HTS satellites in 2023, each with a capacity of 7.5 Gps. In February 2022, Telesat and Anuvu announced a satellite capacity deal whereby Anuvu acquired 10 Gbps of Ka-band capacity from Telesat starting from March 2022.

<sup>222</sup> Form CO, paragraph 1784.

<sup>223</sup> Form CO, paragraph 1784; see also reply to RFI 23.

<sup>224</sup> Form CO, paragraph 1768.

<sup>225</sup> Form CO, paragraph 1773. It also already offers global coverage, including imminent coverage over the poles through its agreement with OneWeb.

<sup>226</sup> Through its announced partnership with OneWeb, Panasonic will '*offer OneWeb's global service standalone or paired with Panasonic Avionics' award-winning GEO service, which covers 99.6% of the world's flight routes*'. Panasonic expects to support OneWeb-equipped aircraft in the second half of 2023. See Form CO, paragraph 1773.

<sup>227</sup> Form CO, paragraph 1773.

<sup>228</sup> Gbps stands for billions of bits (gigabits) per second and is a measure of bandwidth.

<sup>229</sup> Form CO, paragraph 1792.

<sup>230</sup> Form CO, paragraph 1791.

<sup>231</sup> Form CO, paragraph 1792.

- (240) Fourth, the Notifying Party submits that the Transaction takes place at a time when the industry is undergoing a ‘*once-in-a-generation period of disruption*’.<sup>232</sup> A large number of new entrants, primarily with NGSO satellites, have already begun to build out capacity at the SNO level. New NGSO operators have launched and are planning to launch numerous NGSO constellations, in particular, SpaceX (Starlink), UK-based OneWeb, Telesat, SES (O3b mPOWER) and Amazon (Kuiper).<sup>233</sup> As a reaction to the multiple launches of NGSO satellites (current or future), GEO satellite operators are also planning to launch additional GEO capacity.<sup>234</sup> As a consequence, the new NGSO capacity is fuelling entry and expansion in various downstream industry sectors, including aviation.<sup>235</sup>
- (241) NGSOs benefit from a number of competitive advantages that come into play in particular in the aviation sector, which are a much lower latency (i.e. higher responsiveness) that can be critical for customer value in virtual meetings, accessing VPNs and other ‘real-time’ or interactive applications, greater network density and resilience, quasi-global coverage due to larger satellite fleets and constellation coverage around the globe (including the poles), and lower costs due the NGSO satellites’ smaller size compared to GEOs which makes them cheaper to manufacture and to launch.<sup>236</sup>
- (242) In the commercial aviation IFC segment, LEO operators have already secured their first IFC contracts and are actively and aggressively competing for IFC customers and bidding in aviation tenders.<sup>237</sup> Thereby new entrants and expanding rivals alike notably resort to hybrid GEO/LEO and GEO/MEO solutions such as (i) Intelsat with its partnership with OneWeb, (ii) SES with its O3b mPOWER fleet, (iii) Eutelsat with its partnership and pending acquisition of OneWeb,<sup>238</sup> (iv) Anuvu with its leased Ku-band capacity (including its pending MicroGEO fleet, a partnership with Telesat/Lightspeed and discussions with OneWeb), and (v) Gogo with its OneWeb/Hughes partnership.<sup>239</sup> According to the Notifying Party, SpaceX’s recent win of a commercial IFC tender in the short-haul segment in Europe (for airBaltic) evidences not only the real competitive pressure that LEO operators already exert but also the credibility of these entrants in the eyes of customers to constitute a strong and reliable alternative to GEO operators.<sup>240</sup>
- (243) Fifth, the Notifying Party argues that vertical integration is not critical to success in the provision of commercial broadband IFC services. This is because vertically and non-vertically integrated providers compete directly and customers select providers based on the competitive variables they value most, without relying on supply-side considerations based on the degree of vertical integration.<sup>241</sup>

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<sup>232</sup> Form CO, paragraph 174.

<sup>233</sup> Form CO, paragraphs 1489 and following.

<sup>234</sup> These include the Parties’ plans to launch three and six additional GEOs respectively as well as rival GEO operators’ recent (2021) and planned (by 2023) launches of at least eleven new GEOs (Anuvu, Eutelsat, EchoStar and SES). See Form CO, paragraphs 1504-1505.

<sup>235</sup> Form CO, paragraph 174.

<sup>236</sup> Form CO, paragraph 178.

<sup>237</sup> Form CO, paragraphs 1730 and following.

<sup>238</sup> On 25 July 2022, a planned merger between Eutelsat and OneWeb was announced: <https://oneweb.net/resources/eutelsat-and-oneweb-combine-leap-forward-satellite-connectivity>.

<sup>239</sup> Form CO, paragraph 582.

<sup>240</sup> The Notifying Party, submission of 11 January 2023. The Notifying Party notes that airBaltic awarded a contract to SpaceX despite the fact that SpaceX’s IFC system is not yet certified on airBaltic’s aircraft.

<sup>241</sup> Form CO, paragraphs 172 and following.

- (244) The substantial increase of capacity upstream, both by legacy players (i.e., GEO satellite operators) and through the launch of NGSO (and in particular, LEO) constellations is and will continue to be driving prices down for satellite broadband capacity.<sup>242</sup> This is so in part because SNOs having increased capacity upstream are seeking additional opportunities to sell that capacity to relevant downstream industry sectors. Given the specific technological advantages of NGSO capacity for aviation use cases set out at paragraph (241) above, the commercial IFC market is a natural focus area for those SNOs.<sup>243</sup>
- (245) Moreover, several competitors, such as Panasonic and Anuvu, also benefit from vertical integration-like economics, given their long-term contracts with SNOs, which provide flexibility, lower investment costs and sufficient scale to command very attractive wholesale prices and flexible access to innovative offerings, including from NGSOs.<sup>244</sup>
- (246) Sixth, commercial airlines constrain the Parties' ability to unilaterally increase prices post-Transaction. The Notifying Party had submitted that commercial airlines are typically large and sophisticated companies that enjoy various ways to constrain the Parties' competitive position, including through contractual remedies, such as early termination-clauses that allow airlines to terminate a contractual relationship early where a materially improved IFC product has become available and the IFC provider has failed to offer an equivalent alternative, or benchmarking provisions that allow the airline to renegotiate terms if the market offers better conditions.<sup>245</sup>
- (247) Finally, airlines are increasingly working with more than one IFC service provider, which provides airlines with leverage when negotiating new contracts. That diversification is facilitated by the development of new types of on-board satellite terminals<sup>246</sup> that allow airlines to source broadband IFC services from multiple providers for a given aircraft type and fleet.<sup>247</sup>

#### 8.5.2. *The Commission's assessment*

- (248) The Commission considers that the Transaction would not significantly impede effective competition as a result of horizontal non-coordinated effects on the global or EEA-wide market for the supply of broadband IFC services to commercial aviation customers (and potential segments thereof). This is in particular because, as set out in further detail below, (i) the Parties' market position remains moderate (section 8.5.2.1), (ii) customers have sufficient possibilities of switching supplier post-Transaction (section 8.5.2.2), and (iii) the market is nascent with a number of potential new entrants (section 8.5.2.3).

##### 8.5.2.1. The Parties' market position remains moderate

- (249) As set out in the Horizontal Merger Guidelines (see paragraph (171) above), market shares provide useful first indications of the market structure and of the competitive importance of both the merging parties and their competitors. In its assessment of the merging parties' market position, the Commission takes into account a number of other factors such as the strength and number of competitors, the presence of

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<sup>242</sup> Form CO, paragraph 575.

<sup>243</sup> Form CO, paragraphs 1584 and following.

<sup>244</sup> Form CO, paragraph 1718.

<sup>245</sup> Form CO, paragraph 1670.

<sup>246</sup> Such as Airbus' HBCplus solution that facilitates interoperability of multiple IFC providers' solutions by allowing airlines to switch between authorised HBCplus IFC providers with minimal or no replacement of hardware or software required, see Form CO, paragraphs 1695 and following.

<sup>247</sup> Form CO, paragraph 1670.



capacity constraints or the extent to which the products of the merging parties are close substitutes.<sup>248</sup>

- (250) Based on market share data provided by the Notifying Party, as set out in section 8.3 above, at the global level of the market for the supply of broadband IFC services to commercial aviation customers (including connectivity based on satellite, ATG and hybrid technology), the merged entity would have a share of [30-40]% (in terms of committed aircraft, see recital (178)) with an increment of [10-20] percentage points. The Commission considers that the merged entity's combined share would not allow the merged entity to significantly impede competition in this market, despite the fact that it is the highest on the overall market for the supply of broadband IFC services to commercial aviation at a worldwide level. The Commission notes that after the Transaction, there will remain a number of competitors with a significant share in the market, the highest being Intelsat with a market share of [20-30]% and Panasonic with a market share of [20-30]%. Anuvu accounts for a smaller share of the market of [5-10]%.
- (251) The Commission notes that the merged entity's market share would be similar if aircraft connected with ATG-based and hybrid IFC solutions were to be excluded from the market share calculation, as the merged entity would have a share of [40-50]% (in terms of connected aircraft) with an increment of [10-20] percentage points.<sup>249</sup> Also in this narrower market, there would remain a number of competitors with significant share in the market, the highest being Panasonic with [20-30]%, Intelsat with [10-20]% and Anuvu with still [10-20]%.
- (252) Similarly, at the EEA level of the market for the supply of broadband IFC services to commercial aviation customers, the merged entity would have a share of [30-40]% (in terms of committed aircraft) with a limited increment of [0-10] percentage points. [...]. The merged entity would still be smaller than Panasonic, which has a [40-50]% market share. In addition to Panasonic, further competitors remain with a not insignificant share in the market: Intelsat at [10-20]%, Anuvu at [5-10]%. The Commission notes that the merged entity's market share would be similar if aircraft connected with ATG-based and hybrid IFC solutions were to be excluded from the market share calculation, as the merged entity would have a share of [20-30]% (in terms of committed aircraft) with an increment of [0-10] percentage points. In this narrower market, Panasonic's lead in market share would be even greater (with [40-50]%) and also Intelsat's ([10-20]%) and Anuvu's ([5-10]%) share would increase.
- (253) In addition to the above analysis, the Commission notes that market shares seem to have limited evidentiary value in a nascent market such as the market for the supply of broadband IFC services to commercial aviation customers, and especially in the EEA where the penetration rate of IFC services is relatively low, and where evolving needs of passengers and continuously improved rival offerings constantly shift the key parameters of competition. As further discussed in section 8.5.2.3 below, in a market where passenger needs and available offerings constantly evolve, the fact of having won a certain share of tenders based on parameters of competition that were relevant in the past may not necessarily indicate that the respective IFC provider would have similar chances of success in future tenders that might privilege different parameters.

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<sup>248</sup> See also paragraph (200) above.

<sup>249</sup> The Parties' activities would not overlap in a hypothetical segment including only ATG-based and hybrid IFC services, because Viasat does not offer ATG-based or hybrid (satellite/ATG) IFC services.

- (254) Moreover, the results of the market investigation both in phase I and phase II indicate that not only are passenger needs evolving and, consequently, key parameters of competition for IFC contracts shifting, but also that demand from airlines is significantly differentiated (with airlines placing varying levels of importance on different parameters of competition),<sup>250</sup> and, as such, different competitors have different advantages depending on the parameters of competition valued by the specific airline organising the tender.<sup>251</sup>
- (255) In this regard, based on the results of the market investigation, the Commission considers that the Parties do not have particular competitive advantages for a given set of key parameters of competition that would set them apart from rivals; and as such, the Parties' market position will remain moderate. The majority of airlines having responded to the market investigation in phase I confirmed that key factors for choosing an IFC service provider are certification (TCs and STCs)<sup>252</sup>, geographic coverage, after-sales support, price of service, quality of network performance, capacity depth, and technical expertise.<sup>253</sup> Other factors, such as track record, innovation, latency, product portfolio, and vertical integration were rated as significantly less relevant for the award of IFC tenders.<sup>254</sup>
- (256) Among the factors listed above, some market participants have indicated that the Parties are particularly strong in terms of vertical integration, certifications (TCs and STCs), and the fact that they both use Ka-band frequencies. However, the market investigation has shown that those factors are either usually not decisive for the outcome of a tender (as in the case of vertical integration (see recitals (258)-(259) below) and the Ka-band offering (see recital (260) below)) or that the Parties do not actually enjoy an advantage over rivals (as in the case of certifications, see recital (261) below), for the reasons discussed below.
- (257) First, the Commission notes that based on the results of the market investigation, for most of the main parameters of competition listed above in recital (255), the Parties' offerings are perceived either as not the strongest in the market or as strong on par with rivals' offerings.<sup>255</sup> Indeed, the large majority of airlines responding to the market investigation in phase I indicated Panasonic as being by far the strongest provider in terms of existing certifications (TCs and STCs), while Intelsat was ranked on par with the Parties.<sup>256</sup> In terms of geographic coverage, Inmarsat is seen as a market leader together with Intelsat and Panasonic (but not Viasat).<sup>257</sup> In this regard, a number of respondents noted that Viasat had '*no complete global coverage*' or '*not yet global coverage*',<sup>258</sup> while others noted that both Intelsat and Panasonic had '*global coverage with competitive pricing*'.<sup>259</sup> In terms of price and after-sales support, the majority of customers perceive the Parties together with Panasonic as the

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<sup>250</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.2, and replies to RFIs 11-15, question 5.

<sup>251</sup> Replies to RFIs 16-26, question 10.

<sup>252</sup> The requirement for certification was further clarified during the Commission's phase II investigation, as discussed at paragraph (261) below.

<sup>253</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.2. All of these factors were rated on average at least 4 on a scale from 1 (lowest importance) to 5 (highest importance).

<sup>254</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.2. All of these factors were rated on average below 4 on a scale from 1 (lowest importance) to 5 (highest importance).

<sup>255</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.2. Airline customers were asked to rank the two strongest competitors for each factor taken into account for choosing an IFC service provider.

<sup>256</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.2.

<sup>257</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.2.

<sup>258</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.1.

<sup>259</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.1.

strongest providers.<sup>260</sup> For technical expertise and know-how, the majority of customers rated Inmarsat highest, closely followed by both Intelsat and Viasat.<sup>261</sup> Only for quality of service and depth of capacity did the majority of customers perceive both Parties' offerings as the best in the market, although several respondents noted that Inmarsat does '*not [have the] same level of bandwidth as Viasat*'.<sup>262</sup>

- (258) Second, regarding the Parties' potential competitive advantage of vertical integration, as noted above in recital (256), the market investigation confirmed that vertical integration is not necessary to effectively compete in the market for the supply of broadband IFC services to commercial aviation customers.<sup>263</sup>
- (259) Moreover, as noted in section 8.4, there is excess supply of satellite capacity both today and in the coming years. Further, broadband satellite capacity is fungible across different use cases/industry segments (including the supply of broadband IFC services to commercial aviation customers).<sup>264</sup> Crucially, IFC providers can successfully compete and win tenders with leased capacity and several IFC providers, including Viasat and Intelsat (who are vertically integrated), have successfully built their businesses on the basis of leased capacity.<sup>265</sup> Indeed, the Commission's phase II investigation confirmed that the large majority of IFC providers to commercial aviation customers consider it easy to lease additional capacity from SNOs to provide global coverage, with some respondents indicating that the persisting excess capacity at SNO level will make it even more likely that SNOs will lease out additional capacity at IFC providers' requests.<sup>266</sup>
- (260) Third, the market investigation also confirmed that offering IFC services using the Ka-band is not necessary to effectively compete in the market for the supply of broadband IFC services to commercial aviation customers, also in the potential segment excluding ATG-based and hybrid satellite/ATG IFC services in the EEA.<sup>267</sup> The Commission's investigation indicated that there is no clear technical or performance advantage of the Ka-band over the Ku-band. Both frequencies have different benefits and disadvantages from an airlines' perspective, as explained,<sup>268</sup> such as the potential cost implications (e.g. in terms of fuel consumption or space in the aircraft) of the generally larger and heavier Ku-band terminal antennas, or the greater susceptibility to weather and atmospheric interference of the Ka-band due to its higher frequency. However, from a passenger's perspective, both Ka- and Ku-bands offer similar performance. This is, for instance, because both frequencies allow end-users to perform a range of internet-based activities including browsing the internet, both offer similar internet speeds (as measured by bandwidth) and comparable reliability to the customer (despite the very occasional weather interference mentioned above). Moreover, peak bandwidth rates over Ka- and Ku-band are broadly comparable in the range of 30-100 Mbps.<sup>269</sup> Finally, the Ku-band remains widely used and is backed by sophisticated investors, including SpaceX and OneWeb.

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<sup>260</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.2.

<sup>261</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.2.

<sup>262</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.1.

<sup>263</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.2.

<sup>264</sup> Replies to eRFI 1 to GEO SNOs, question E.A.1, and replies to eRFI 2 to LEO SNOs, question E.A.1.

<sup>265</sup> Article 6(1)(c) Response, Annex 3, and replies to RFIs 11-15, question 2.

<sup>266</sup> Replies to RFIs 11-15, question 3.

<sup>267</sup> Replies to eRFI 5 to commercial IFC customers, question D.A.5.

<sup>268</sup> See footnote 86.

<sup>269</sup> Form CO, paragraph 307. The market investigation did not identify any indications to the contrary.

(261) Finally, regarding the Parties' potential competitive advantage of holding a broad range of certifications (TCs and STCs), the phase II market investigation clarified that, while many airlines value existing certification at the time of the tender, line-fit and retrofit certifications (i.e., TCs and STCs) are not a prerequisite for bidding for or winning IFC contracts, as long as the bidder commits to or submits a strict timeline for obtaining those certifications.<sup>270</sup> IFC tender data tracked by independent market analysts suggests that more than 30% of selections across both retrofit and line-fit IFC contracts are made in advance of the awarded provider having certification for these solutions.<sup>271</sup> Viasat itself won about [40-50]% of its line-fit IFC contracts and [60-70]% of its retrofit IFC contracts over the last [...] years [information on Viasat's competitive position].<sup>272</sup> Moreover, airlines considered competitors were stronger (Panasonic) or just as strong (Intelsat) as the Parties in terms of certifications (see recital (257)).<sup>273</sup>

(262) In light of the above, and for the purposes of this Decision, the Commission considers that the merged entity's market position would remain moderate in the market for the supply of broadband IFC services to commercial aviation customers (and potential segments thereof). Regardless of the merged entity's market position, the Commission considers that customers will remain able to switch suppliers, as will be further explained in section 8.5.2.2 below.

#### 8.5.2.2. A sufficient number of credible competitors remain post-Transaction

(263) The Horizontal Merger Guidelines provide, at paragraph 31, that where customers of the merging parties may have difficulties switching to other suppliers because there are few alternative suppliers, such customers are particularly vulnerable to price increases.

(264) At the outset, the Commission notes that broadband IFC services are purchased by commercial aviation customers through tenders. As the Commission explained in Case M.7278 – *GE/Alstom*,<sup>274</sup> in markets characterised by tendering, the general mechanism through which a merger can influence competitive outcomes is similar to what occurs in mergers in ordinary differentiated product industries, where firms also compete on price. That is, a merger internalises the competitive pressure that two firms exercised on each other prior to the merger and can lead each of the remaining firms to bid less aggressively post-merger. The precise mechanism through which a merger can influence bids and the indicia of potential unilateral effects, depend on how the tendering process is set up and on the information available to bidders.

(265) In addition, the Commission notes at the outset that a change of IFC equipment on an operating aircraft requires a high capital investment, concerns complex certification and time-consuming installation, with the aircraft being offline for weeks or even

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<sup>270</sup> Replies to RFIs 16-26, question 7.

<sup>271</sup> Submission of 17 March 2023, paragraph 62 and Annex 3 covering IFC tender awards by commercial airlines over the period 2016-2022, based on industry data tracked by independent analysts Valour Consultancy (supplemented based on Viasat's market knowledge). Among retrofit contracts tracked for the period 2016-2022, approximately [40-50]% of awards were to a provider [information about winning bidders] that did not have an STC for the aircraft type in question prior to the award. [information about Viasat's competitive position]. Among line-fit contracts tracked for the period 2016-2022, approximately [20-30]% of awards were to a provider [information about winning bidders] that did not have a TC for the aircraft type in question prior to the award. [Information about Viasat competitive position].

<sup>272</sup> See footnote 271 above.

<sup>273</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.2. See also recital (257) above.

<sup>274</sup> Commission decision in Case M.7278 – *GE/Alstom* (2015), Annex I - The Commission's Economic Analysis of Bidding Data, paragraphs 7 and following.

months whilst installation is ongoing. Accordingly, the IFC solution/equipment is usually changed only during a complete cabin retrofit. The majority of existing customers with ongoing contracts will be unaffected by the Transaction, as their contracts typically last many years [time period] and typically do not [information about contractual terms in the Parties' customer contracts].<sup>275</sup> Therefore, the customers that could be impacted by the Transaction are those commercial airlines that are looking to newly equip their aircraft with broadband IFC services or re-equip their aircraft with newer or rival IFC technology. These customers will however retain the possibility of selecting amongst (or switching to) a number of credible competitors with similar (or even stronger, depending on the tender criteria) offerings compared to the Parties.

- (266) As noted at section 6.5 above and section 8.5.2.3 below, the supply of IFC services to commercial airlines is still a nascent and growing market with a low penetration rate in the EEA and, therefore, many opportunities for rival IFC providers to compete in airlines' tenders. In addition, as discussed at section 8.5.2.1 above, a number of strong competitors are perceived as equally strong or stronger than the Parties on many of the key parameters of competition in this market. Moreover, the Commission notes that the Parties' main customers in the EEA are [information about the Parties' customers]. In reply to the Article 6(1)(c) Decision, the Parties provided information showing that the large majority (i.e., [...] out of [...]) of European commercial airlines with more than 50 IFC-committed aircraft have IFC commitments with more than one IFC provider, and [information about the Parties' customers].<sup>276</sup> This is in line with the results of the market investigation that show that out of twelve European commercial airlines having indicated to currently source IFC services, ten source IFC services from at least two providers.<sup>276</sup> Only one out of these ten multi-sourcing airlines sources IFC services [information about the Parties' customers]. [Information about the Parties' customers].<sup>277</sup>
- (267) The Commission assesses each of the Parties' main competitors in turn in sections 8.5.2.2.1-8.5.2.2.4 below, concluding, for the purposes of this Decision, that Intelsat, Panasonic and Anuvu each constitute a credible alternative to the merged entity post-Transaction. In addition, SpaceX has started bidding for IFC contracts and, since its market entry in 2022, has already won commercial IFC contracts with six airlines. Although it is not certain today when SpaceX will fully perform those contracts, and whether and to what extent SpaceX may further expand in the commercial IFC space, SpaceX will at least constrain the merged entity in IFC tenders post-Transaction, if not constitute a credible alternative to the merged entity in the next three years. For each competitor discussed below, the Commission assessed the feedback received during phase I market investigation and more targeted phase II market investigation, the Parties' internal documents evaluating tender conditions and outcomes, as well as additional evidence submitted by the Parties during phase II of the investigation.

#### 8.5.2.2.1. Intelsat

- (268) Intelsat entered the market as a result of its acquisition of Gogo's commercial aviation business in December 2020.<sup>278</sup> Intelsat, which relies on a GEO-based Ku-

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<sup>275</sup> Form CO, paragraphs 1670 and following. The market investigation did not identify any indications to the contrary.

<sup>276</sup> Replies to eRFI 5 to commercial IFC customers, question C.9.

<sup>277</sup> Replies to eRFI 5 to commercial IFC customers, question C.9.

<sup>278</sup> <https://www.intelsat.com/newsroom/intelsat-completes-acquisition-of-gogo-commercial-aviation-announces-leadership-appointments/>

band network for its IFC solution and is vertically integrated, is and has been the market leader globally in the overall market for the supply of broadband IFC services to commercial aviation customers, with a share of approximately [30-40]% in each of the past 5 years (see Table 6, section 8.3). Intelsat has a relatively smaller market share in the EEA (approximately [10-20]%), but is still significantly larger than Viasat. In the potential segment excluding ATG-based IFC services, Intelsat is relatively weaker both globally and in the EEA, but is still larger than Inmarsat globally and Viasat in the EEA.<sup>279</sup>

- (269) Airline customers that responded to the market investigation ranked Intelsat third highest on average, ahead of Inmarsat (and behind Panasonic and Viasat), in terms of competitive strength today in the overall market for the supply of broadband IFC services to commercial aviation customers.<sup>280</sup> In response to the market investigation's query to designate the two strongest competitors for a given competitive parameter, airline customers selected Inmarsat second most often (i.e. ahead of either one of the Parties, but not both) in relation to satellite geographic coverage and technical expertise/know-how, and third most often in relation to satellite capacity depth, price (ranking behind both Parties for both parameters), and innovation (behind Viasat and SpaceX).<sup>281</sup> Intelsat was selected less often as being among the two top competitors in relation to other key parameters of competition, such as performance/quality of service and track record/reputation.<sup>282</sup>
- (270) The vast majority of airline customers and all competitors that submitted a response considered that Intelsat competes closely with Viasat in the overall market for the supply of broadband IFC services to commercial aviation customers. Similarly, the vast majority of airline customers and all competitors considered that Intelsat competes closely with Inmarsat.<sup>283</sup> Further, the majority of airline customers observed that Intelsat bids 'very often' against either of the Parties in their tenders.<sup>284</sup> This was confirmed by the Commission's phase II investigation, which showed that Intelsat was competing closely with both Viasat and Inmarsat in recent tenders.<sup>285</sup>
- (271) The majority of airline customers that submitted a response also considered that Intelsat would be able to easily expand in the market for broadband IFC services to commercial aviation customers following a price increase post-Transaction, either by launching additional own satellites or through cooperation with other SNOs.<sup>286</sup>
- (272) In addition, the Parties' internal documents evaluating tender invitations or results for the period 2021-2022 that [the Parties' internal assessment of a competitor].<sup>287 288</sup>
- (273) Evidence gathered by the Parties suggests that in January 2023, Alaska Airlines selected Intelsat to provide IFC services for an entire fleet of regional jets on which it will install Intelsat's new electronically steered antenna to deliver this service.<sup>289</sup>

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<sup>279</sup> Conversely, Intelsat is particularly strong in IFC offerings based on ATG, globally and relative to the Parties.

<sup>280</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.1.

<sup>281</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.2.

<sup>282</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.2.

<sup>283</sup> Replies to eRFI 5 to commercial IFC customers, question E.B.2, and replies to eRFI 3 to commercial IFC competitors, question E.B.2.

<sup>284</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.3.

<sup>285</sup> Replies to RFIs 11-26.

<sup>286</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.4.

<sup>287</sup> Submission of 17 March 2023, paragraph 24 and Annexes 3-5, 9 and 15-19.

<sup>288</sup> Submission of 17 March 2023, paragraph 24 and Annexes 11 and 20-22.

<sup>289</sup> Submission of 17 March 2023, paragraph 55, with further references.

Alaska Airlines' cooperation with Intelsat will be the first commercial aviation fleet-wide installation of a hybrid IFC solution that utilises both GEO and LEO connectivity, combining Intelsat's GEO satellite capacity with OneWeb's LEO satellite capacity.<sup>290</sup> In a recent statement of February 2023 about successful tests of this hybrid GEO/LEO solution, Intelsat noted that its hybrid IFC solution combines '*the benefits of LEO's low latency along with the redundancy GEO provides*' and offers seamless coverage both over polar regions and the most populated cities, with a simultaneous reduction of antenna size that will reduce drag and, hence, CO2 emissions for airlines.<sup>291</sup>

- (274) Therefore, for the purposes of this Decision, the Commission considers that Intelsat constitutes a credible alternative to the merged entity post-Transaction in the market for the supply of broadband IFC services to commercial aviation customers.

#### 8.5.2.2.2. Panasonic

- (275) Panasonic, a provider of GEO-based IFC Ku-band solutions is a non-vertically integrated player. Panasonic has historically had a larger market share than both of the Parties globally in the overall market for the supply of broadband IFC services to commercial aviation customers, with a share of approximately [20-30]% in each of the past 5 years (see, Table 6, section 8.3). However, today, Panasonic is of comparable size to Viasat based on committed aircraft (and still larger than Inmarsat). Panasonic is the market leader in the EEA, with a share of over [40-50]% (see Table 7, section 8.3), and would still be larger than the merged entity post-Transaction. In the potential segment excluding ATG-based and hybrid (satellite/ATG) IFC services, Panasonic's market share is largely the same, if not slightly higher, than in the overall market (see Tables 8 (worldwide) and 9 (EEA) section 8.3).

- (276) Panasonic (alongside Inmarsat) was listed most often by airline customers that responded to the market investigation as an IFC service provider that the airline customers currently use or have signed a contract with.<sup>292</sup> Further, airline customers based in and outside the EEA ranked Panasonic highest on average in terms of competitive strength today in the overall market for the supply of broadband IFC services to commercial aviation customers.<sup>293</sup> In response to the market investigation's query to designate the two strongest competitors for a given competitive parameter, airline customers considered Panasonic to be amongst the strongest competitors, selecting Panasonic most often as '*one of the two strongest competitors*' in relation to certifications (TCs and STCs), second most often (i.e. ahead of either one of the Parties, but not both) in relation to satellite geographic coverage, product portfolio and track record/reputation, and third most often in relation to performance/quality of service, and after-sale/technical support (in both cases behind both Parties).<sup>294</sup> However, Panasonic was selected less often as being among the two top competitors in relation to other key parameters of competition, such as price, satellite capacity depth, innovation, and vertical integration.<sup>295</sup>

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<sup>290</sup> <https://news.alaskaair.com/alaska-airlines/alaska-airlines-plans-streaming-fast-satellite-wi-fi-upgrades-to-our-e175-regional-jets/>.

<sup>291</sup> <https://www.intelsat.com/newsroom/intelsat-completes-multi-orbit-inflight-wi-fi-tests/>.

<sup>292</sup> Replies to eRFI 5 to commercial IFC customers, question C.9.

<sup>293</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.1, including airlines based in and outside the EEA. The result is therefore indicative both for the worldwide market as well as for a potential narrower EEA-wide segment.

<sup>294</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.2.

<sup>295</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.2.

- (277) The vast majority of airline customers and all competitors that submitted a response considered that Panasonic competes closely with Viasat in the overall market for the supply of broadband IFC services to commercial aviation customers.<sup>296</sup> Similarly, the vast majority of airline customers and all competitors considered that Panasonic competes closely with Inmarsat.<sup>297</sup> Further, the majority of airline customers observed that Panasonic bids ‘*very often*’ against either of the Parties in their tenders.<sup>298</sup> In this sense, the majority of market participants who expressed a view consider that Panasonic is strong in terms of certifications (TCs and STCs), product portfolio, and after-sale support (maintenance and technical support).<sup>299</sup> The majority of airline customers that submitted a response also considered that Panasonic would be able to easily expand in the market for broadband IFC services to commercial aviation customers following a price increase post-Transaction.<sup>300</sup>
- (278) The Commission’s phase II investigation further confirmed that Panasonic can build on a large and varied base of SNO capacity suppliers, to which its recent partnership with OneWeb for the supply of hybrid GEO/LEO services is only the latest addition. Recent tender data submitted by competitors and airline customers seems to confirm that Panasonic continues to compete successfully in the market, including often against the Parties.<sup>301</sup>
- (279) In addition, the Parties’ internal documents evaluating tender invitations or results for the period 2021-2022 indicate [the Parties’ internal assessment of a competitor].<sup>302 303</sup>
- (280) Therefore, for the purposes of this decision, the Commission considers that Panasonic constitutes a credible alternative to the merged entity post-Transaction in the market for the supply of broadband IFC services to commercial aviation customers.

#### 8.5.2.2.3. Anuvu

- (281) Anuvu is a non-vertically integrated player providing a GEO-based IFC Ku-band solution. Anuvu has historically had a market share comparable to that of Inmarsat globally in the overall market for the supply of broadband IFC services to commercial aviation customers, with a share of approximately [10-20]% in each of the past 5 years (see Table 6, section 8.3). However, today, Anuvu is the smallest of the significant players based on committed aircraft. Anuvu has a relatively smaller market share in the EEA (approximately [5-10]%, with customers including Air France, Icelandair and Norwegian), but is still larger than Viasat (see Table 7, section 8.3). In the potential segment excluding ATG-based and hybrid IFC services, Anuvu’s market share is largely the same as in the overall market (approximately [10-20]% and [5-10]% globally and in the EEA respectively; see Tables 8 and 9, section 8.3).

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<sup>296</sup> Replies to eRFI 5 to commercial IFC customers, question E.B.2, and replies to eRFI 3 to commercial IFC competitors, question E.B.2.

<sup>297</sup> Replies to eRFI 5 to commercial IFC customers, question E.B.2, and replies to eRFI 3 to commercial IFC competitors, question E.B.2.

<sup>298</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.3.

<sup>299</sup> Replies to eRFI 3 to commercial IFC competitors, question E.C.2. and Replies to eRFI 5 to commercial IFC customers, question E.C.2.

<sup>300</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.4.

<sup>301</sup> Replies to RFIs 11-26.

<sup>302</sup> Submission of 17 March 2023, paragraph 17 and Annexes 3-5 and 9.

<sup>303</sup> Submission of 17 March 2023, paragraph 17 and Annexes 10-12.



- (282) Airline customers that responded to the market investigation ranked Anuvu fifth highest on average (behind Panasonic, Viasat, Intelsat and Inmarsat), in terms of competitive strength today in the overall market for the supply of broadband IFC services to commercial aviation customers.<sup>304</sup>
- (283) The majority of airline customers and the majority of competitors that submitted a response considered that Anuvu competes closely with Viasat in the overall market for the supply of broadband IFC services to commercial aviation customers. Similarly, the majority of airline customers and the majority of competitors considered that Anuvu competes closely with Inmarsat.<sup>305</sup> One airline that is a customer of Anuvu explained explicitly that it considers Anuvu ‘*a viable competitor to other IFC providers*’.<sup>306</sup> However, the majority of airline customers observed that Anuvu did not bid ‘*very often*’ or ‘*often*’ against either of the Parties in tenders.<sup>307</sup> The majority of airline customers do not perceive Anuvu as one of the two strongest competitors in any key parameters of competition, including in terms of price,<sup>308</sup> performance, coverage, certifications, level of vertical integration (through partnerships and capacity leases), track record/reputation, and technical expertise.<sup>309</sup>
- (284) However, the majority of airline customers that submitted a response considered that Anuvu would be able to easily expand in the market for broadband IFC services to commercial aviation customers following a price increase post-Transaction.<sup>310</sup>
- (285) The Commission’s phase II investigation confirmed that Anuvu has a varied base of SNO capacity suppliers that supply Anuvu with sufficient capacity to effectively compete in the market for broadband IFC services to commercial aviation customers. In addition, Anuvu considers it could easily procure additional capacity if needed to fill any coverage gaps.<sup>311</sup> Despite the fact that as noted in recital ((283) the majority of airline customers responding to the market questionnaire observed that Anuvu did not bid ‘*very often*’ or ‘*often*’ against either of the Parties in their tenders,<sup>312</sup> the Commission takes account of the fact that recent tender data submitted by competitors and airline customers seems to confirm that Anuvu continues to compete successfully in the market, including against the Parties.<sup>313</sup>
- (286) In addition, Viasat’s internal documents evaluating tender invitations or results for the period 2021-2022 indicate that [the Parties’ internal assessment of a competitor].<sup>314 315</sup>
- (287) Additional evidence gathered by the Parties suggests that Anuvu recently, in Q1 2023, won a tender for a fleet of 70 narrow-body aircraft with Norwegian Airlines, in [the Parties’ internal assessment about competitors participating in a tender].<sup>316</sup>

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<sup>304</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.1.

<sup>305</sup> Replies to eRFI 5 to commercial IFC customers, question E.B.2, and replies to eRFI 3 to commercial IFC competitors, question E.B.2.

<sup>306</sup> Replies to eRFI 5 to commercial IFC customers, question E.B.2.

<sup>307</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.3.

<sup>308</sup> Only one airline mentioned that Anuvu is one of the two strongest competitors in terms of price of service.

<sup>309</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.2.

<sup>310</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.4.

<sup>311</sup> Reply to RFI 11, questions 2-3.

<sup>312</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.3.

<sup>313</sup> Replies to RFIs 11-26.

<sup>314</sup> Submission of 17 March 2023, paragraph 36 and Annexes 3, 14, and 22-28.

<sup>315</sup> Submission of 17 March 2023, paragraph 36 and Annex 29.

<sup>316</sup> Submission of 17 March 2023, paragraph 33 and Annex 23.

(288) Therefore, for the purposes of this decision, the Commission considers that Anuvu constitutes a weaker but still credible alternative to the merged entity post-Transaction in the market for the supply of broadband IFC services to commercial aviation customers.

#### 8.5.2.2.4. SpaceX

(289) SpaceX designs, manufactures and launches advanced rockets and spacecraft. SpaceX is also operating and developing a constellation of LEO satellites and global network of ground infrastructure to deliver broadband connectivity under the name Starlink. SpaceX's first satellites were launched in 2019. To date SpaceX has launched approximately 3 500 LEO satellites and has submitted a request for regulatory approval to operate a constellation of 30 000 more LEO satellites.<sup>317</sup> SpaceX offers connectivity services using the Ku-band.<sup>318</sup> SpaceX announced its entry into the commercial aviation IFC market in April 2022 following the signature of contracts for the future supply of broadband IFC services with two commercial airlines (JSX and Hawaiian Airlines) and has since won four additional contracts with Northern Pacific, Connect Airways, ZipAir and with EEA-based airline airBaltic. In the market for the supply of broadband IFC services to commercial aviation customers (and potential segments thereof), SpaceX has a market share of around [0-5]% based on the entire stock of committed aircraft (i.e. including aircraft with contracts concluded before SpaceX had entered the market).<sup>319</sup>

(290) Airline customers that responded to the market investigation ranked Space X sixth highest on average (behind Panasonic, Viasat, Intelsat, Inmarsat and Anuvu), in terms of competitive strength today in the overall market for the supply of broadband IFC services to commercial aviation customers.<sup>320</sup> In response to the market investigation's query to designate the two strongest competitors for a given competitive parameter, airline customers considered SpaceX to be amongst the strongest competitors, selecting SpaceX most often as '*one of the two strongest competitors*' in relation to latency, and second most often (i.e. ahead of either one of the Parties, but not both) in relation to innovation.<sup>321</sup> However, SpaceX was selected less often as being among the two top competitors in relation to other key parameters of competition, such as price, satellite capacity depth, and vertical integration.<sup>322</sup>

(291) The majority of airline customers that submitted a response considered that SpaceX competes closely with Viasat in the overall market for the supply of broadband IFC services to commercial aviation customers. Similarly, the majority of airline customers considered that SpaceX competes closely with Inmarsat.<sup>323</sup> However, the majority of airline customers observed that SpaceX did not bid '*very often*' or '*often*' against either of the Parties in their tenders.<sup>324</sup>

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<sup>317</sup> Minutes of call with SpaceX of 20 September 2022.

<sup>318</sup> Minutes of call with SpaceX of 20 September 2022.

<sup>319</sup> Market share estimate provided by the Notifying Party on the basis of Q2 2022 market data. For SpaceX, the Parties' share estimates include only the first won tender (Hawaiian Airlines) accounting for approx. 50 committed aircraft. The Commission therefore considers the share estimate to be a conservative proxy for SpaceX's current market position.

<sup>320</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.1.

<sup>321</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.2.

<sup>322</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.2.

<sup>323</sup> Replies to eRFI 5 to commercial IFC customers, question E.B.2.

<sup>324</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.3.

- (292) The majority of airline customers that submitted a response considered that SpaceX would be able to easily expand in the market for broadband IFC services to commercial aviation customers following a price increase post-Transaction.<sup>325</sup>
- (293) The results of the market investigation are nuanced as to SpaceX's competitive strength in the market for the supply of broadband IFC services to commercial aviation customers. While the majority of customers who expressed a view expect that SpaceX will be able to submit a credible bid in tenders for commercial aviation broadband IFC services within less than 3 years,<sup>326</sup> SpaceX itself explains that as a new market entrant it does not have at this stage the necessary certifications and licenses to compete with the Parties.<sup>327</sup> Several customers and competitors agree that SpaceX does not yet have the necessary certifications and that they are not yet '*in service*'.<sup>328</sup> In this respect, some European airlines estimate it too early to tell how LEO solutions evolve and that choosing a non-certified IFC supplier would be a risky choice.<sup>329</sup> The Commission notes, however, that a total of six airlines, including EEA-based airBaltic, already awarded contracts to SpaceX prior to SpaceX acquiring the required STCs. Further airlines indicated during the Commission's market investigation that they anticipate to invite SpaceX to forthcoming tenders or that they saw or expect to see SpaceX amongst the selected bidders in recent or upcoming tenders.<sup>330</sup>
- (294) The vast majority of both customers and competitors who expressed a view consider SpaceX currently a weak or very weak competitor in the market for broadband IFC services for commercial aviation.<sup>331</sup> While several commercial airlines expect SpaceX to be able to credibly bid for IFC contracts within the next 3 to 5 years,<sup>332</sup> others remain sceptical with regard to timing as long as SpaceX has not proven its capabilities in practice.<sup>333</sup> The results of the market investigation have further shown that the lack of certification of SpaceX's solutions on many aircraft types is considered by the majority of respondents who have expressed a view, both customers and competitors, to remain a major barrier to SpaceX's expansion,<sup>334</sup> in particular because obtaining the necessary certifications and licenses (such as TCs and STCs) is considered by the majority of respondents having expressed a view as the most difficult and time-consuming barrier to entry and expansion.<sup>335</sup> SpaceX itself considers it lacks the number of licenses and certificates the Parties have,<sup>336</sup> even though it is sometimes seen bidding against either of the Parties in tenders for commercial broadband IFC services.<sup>337</sup> SpaceX considers it will increase its market

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<sup>325</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.4.

<sup>326</sup> Replies to eRFI 5 to commercial IFC customers, question E.D.1.

<sup>327</sup> Replies to eRFI 3 to commercial IFC competitors, question E.D.2.2.

<sup>328</sup> E.g. reply eRFI 5 to commercial IFC customers, question E.C.1, where one airline explains that SpaceX is '*not offerable in any type [of] fleet yet*'.

<sup>329</sup> Replies to eRFI 5 to commercial IFC customers, question E.D.2.2 and E.D.6.

<sup>330</sup> Replies to RFI 21 and replies to eRFI 5 to commercial IFC customers, question E.C.3.

<sup>331</sup> Replies to eRFI 3 to commercial IFC competitors, question E.C.1 and Replies to eRFI 5 to commercial IFC customers, question E.C.1.

<sup>332</sup> Replies to Replies to eRFI 5 to commercial IFC customers, question E.D.1.

<sup>333</sup> Replies to eRFI 5 to commercial IFC customers, question E.D.2.

<sup>334</sup> Replies to eRFI 3 to commercial IFC competitors, questions E.C.2 and E.D.5 and replies to eRFI 5 to commercial IFC customers, questions E.C.2 and E.D.5.

<sup>335</sup> Replies to eRFI 3 to commercial IFC competitors, question E.D.5 and replies to eRFI 5 to commercial IFC customers, question E.D.5. Both for line-fit and retro-fit installation, respondents estimate the time to get certification for a new IFC solution to take up to two years on average. Replies to eRFIs 3 and 5, question E.D.6-2.

<sup>336</sup> Replies to eRFI 3 to commercial IFC competitors, question E.C.1.

<sup>337</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.3.

presence in due course, but it still needs to obtain the necessary certifications and licences and *'get installed on aircraft.'*<sup>338</sup>

- (295) However, the majority of customers who expressed a view also consider SpaceX have the necessary capabilities to overcome these barriers.<sup>339</sup> The Commission also notes that indeed the stated disadvantages have not stopped SpaceX from winning tenders, including very recently with airBaltic. In addition, the Parties provided additional evidence showing that SpaceX won the Hawaiian Airlines and airBaltic tenders despite [information about the Parties' competitive position].<sup>340</sup> In this regard, airBaltic explained that *'an IFC supplier must [not] already have the necessary certifications at the time [...] they are awarded an IFC contract. All necessary steps for certification can be done even after parties have engaged in cooperation for provision of IFC services, [as long as] the IFC supplier [demonstrates] the readiness and ability to obtain the necessary certifications in [a] certain period of time.'*<sup>341</sup> Moreover, SpaceX has now started providing IFC services to passenger flights in the US.<sup>342</sup>
- (296) In addition, the Parties' internal documents evaluating tender invitations or results indicate that both Viasat and Inmarsat [the Parties' internal assessment regarding a competitor].
- (297) Further evidence on recent developments gathered by the Parties, after SpaceX started providing IFC services to passenger flights in the US, suggests that SpaceX's offer is increasingly perceived as delivering the promised hi-speed low-latency broadband service also in practice. A number of reports about real-life experience with SpaceX's IFC testify to the service's fast and reliable inflight Internet experience, reporting *'download speeds in excess of 100 Mbps [and] upload speeds, which hovered between five and 20 Mbps'* and *'connectivity that delivered speeds competitive with 4G and sometimes even 5G'*.<sup>343</sup> Separately, [the Parties' internal assessment regarding a competitor].<sup>344</sup>
- (298) In addition, the Notifying Party submitted evidence demonstrating that SpaceX has also been exerting a competitive constraint on the Parties [the Parties' internal assessment about the providers participating in a tender].<sup>345</sup>
- (299) Therefore, for the purposes of this decision, the Commission considers that SpaceX will at least constrain the merged entity in IFC tenders post-Transaction, if not constitute a credible alternative to the merged entity in the next three years.
- (300) In light of the above, and for the purposes of this decision, the Commission considers that Intelsat, Panasonic and Anuvu each constitute a credible alternative to the

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<sup>338</sup> Replies to eRFI 3 to commercial IFC competitors, question E.C.1. In addition, SpaceX submitted that *'while our technology can be a positive differentiator, existing long-term contracts in the sector lock us out of many opportunities. Certification timelines, incumbent switching costs [...] can also make it difficult to obtain favourable terms.'* Replies to eRFI 3 to commercial IFC competitors, attachment to question F.4.

<sup>339</sup> Replies to eRFI 5 to commercial IFC customers, question E.C.1.

<sup>340</sup> Article 6(1)(c) Response, Annex 7.

<sup>341</sup> Reply to RFI 22, question 7.

<sup>342</sup> JSX now online with SpaceX Starlink, PaxEx.Aero, 9 December 2022, available at: <https://paxex.aero/jsx-spacex-starlink-inflight-internet-active/>

<sup>343</sup> Submission of 17 March 2023, paragraphs 45 and following.

<sup>344</sup> Submission of 17 March 2023, paragraph 49. SpaceX's latency averaged 62.3ms (compared to Inmarsat's 597ms) and maximum peak received throughput per session was 1100Mbps (compared to Inmarsat's 164.4Mbps).

<sup>345</sup> Article 6(1)(c) Response, paragraphs 127-129 and Annex 12.

merged entity post-Transaction, and that SpaceX will at least constrain the merged entity in IFC tenders post-Transaction, if not constitute a credible alternative to the merged entity in the next three years in the market for the supply of broadband IFC services to commercial aviation customers.

8.5.2.3. The market is nascent, with a number of potential new entrants

- (301) The Commission notes at the outset that the majority of airline customers that responded to the market investigation considered that the Transaction would have a neutral or positive impact on their company and on the overall market for the supply of broadband IFC services to commercial aviation customers more generally.<sup>346</sup>
- (302) The Commission notes further that while demand for IFC is a relatively small proportion of current and forecast demand for HTS capacity (as shown in Figure 5 above), the supply of IFC services is a nascent and growing market. According to industry analysts,<sup>347</sup> there were approximately 9 900 connected aircraft globally on board which IFC services were provided at the end of 2021, and this is expected to exceed 20 900 connected aircraft by 2031.
- (303) Europe in particular provides significant opportunities for current competitors and potential new entrants. The Notifying Party explains that the majority of European aircraft are not yet ‘connected’ (i.e., supplied with IFC). More specifically, according to independent industry analysts, as of Q2 2022, there are more than 3 500 uncommitted short-haul aircraft for airlines headquartered in Europe (including the UK), or approximately four times the number of in-service short-haul aircraft.<sup>348</sup> For short-haul flights, the penetration rate for Europe is 24.4%, while the penetration rate for the U.S. is 72.9%.<sup>349</sup> Those penetration rates suggest that the U.S. is a more mature region in terms of use of IFC services compared to Europe, and therefore there remains significant scope for additional IFC uptake for airlines headquartered in Europe.
- (304) That is confirmed by the Commission’s market investigation. Almost all airlines that replied to the Commission’s market investigation expect the demand for IFC services to increase in the coming three years.<sup>350</sup>
- (305) Both LEO and GEO operators are investing to expand their capabilities in a number of ways.<sup>351</sup> As explained in section 6.5.1, GEO operators, including the Parties, have plans to launch new satellites to improve their capacity and coverage, including in the IFC industry segment. In addition, a number of partnerships have been announced between SSPs active in the supply of IFC services and NGSO operators for the supply of hybrid (GEO/LEO) IFC solutions:
- (a) In August 2022, Intelsat (a vertically integrated GEO SNO/SSP) and OneWeb announced they had signed a global distribution partnership to offer a new multi-orbit IFC solution to airlines combining OneWeb’s LEO capacity with Intelsat’s GEO capacity.

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<sup>346</sup> Replies to eRFI 5 to commercial IFC customers, question F.1 and F.2.

<sup>347</sup> Form CO, Attachment D19.1 – Euroconsult, High Throughput Satellites, 2022 demand and supply forecast.

<sup>348</sup> Form CO, Attachment D20 – Valour Consultancy, The Future of In-Flight Connectivity, 2020 Edition.

<sup>349</sup> This is approximated by narrow-body aircraft owned by airlines headquartered in Europe and the U.S., respectively.

<sup>350</sup> Replies to eRFI 5 to commercial IFC customers, question E.A.1.

<sup>351</sup> See, e.g., section 8.5.2.2.4 regarding SpaceX’s, a LEOs’ operator, recent expansion.

(b) In October 2022, OneWeb announced a distribution partnership with Panasonic (i.e. a non-vertically integrated SSP) to develop hybrid IFC services.

(306) Further, the market investigation confirmed that the market is very dynamic and will be undergoing significant changes in the future, and that the majority of airlines are already taking LEO potential entrants into account in their IFC tenders.<sup>352</sup> In addition, as discussed in section 8.4.2, the upstream market for the supply of broadband satellite capacity is characterized by significant excess supply. Potential new entrants such as OneWeb and [a LEO potential entrant] have announced the intention to enter the market for broadband IFC services to commercial aviation.<sup>353</sup> The Commission therefore considers it likely that in the next three years, if not entry, at least partnerships with potential new entrants will occur.

### 8.5.3. Conclusion

(307) Based on the assessment in Section 8.5.2, and in light of the results of the market investigation and of all the evidence available to it, the Commission concludes that the Transaction would not significantly impede effective competition as a result of non-coordinated anti-competitive effects in the global or EEA-wide market for the supply of broadband IFC services to commercial aviation customers (and potential segments thereof, i.e. segmented according to whether the IFC services are based on satellite technology or ATG technology or hybrid (satellite and ATG)).

## 8.6. Horizontal non-coordinated effects on the market for the supply of IFC services to business aviation customers

(308) The Transaction leads to a horizontal overlap in the global market for the supply of broadband IFC services to business aviation customers (and the potential segment for the supply of broadband IFC services to large business jets).<sup>354</sup> This horizontal overlap leads to an affected market within the meaning of the Merger Regulation, as the Parties exceed the 20% threshold in the global market for the supply of broadband IFC services to business aviation customers and also in the potential segment for the supply of broadband IFC services to large business jets.

(309) The Commission has assessed whether the Transaction would significantly impede effective competition in a substantial part of the internal market within the meaning of Article 2(3) of the Merger Regulation as a result of horizontal non-coordinated effects on the global market for the supply of broadband IFC services to business aviation customers (and the potential segment for the supply of broadband IFC services to large business jets).

### 8.6.1. The Notifying Party's view

(310) *First*, the Notifying Party submits that the merged entity will have no market power post-Transaction in the potential segment for the supply of broadband IFC services to large business jets, in which the Parties' activities overlap. In this potential segment, the Parties' combined market share ([30-40]%) will remain less than half the share of the market leader Gogo ([60-70]%), who would remain in a position to thwart any attempt by the merged entity to raise prices or decrease service quality.<sup>355</sup>

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<sup>352</sup> Replies to eRFI 5 to commercial IFC customers, question E.D.3.

<sup>353</sup> [a LEO potential entrant]'s reply to eRFI 2 to LEO SNOs, questions C.1; and OneWeb's reply to eRFI 2 to LEO SNOs, questions E.B.9.

<sup>354</sup> In particular, the Transaction leads to a horizontal overlap only in the potential segment for the supply of broadband IFC services to business aviation customers excluding ATG-based connectivity, since Viasat does not offer an IFC solution that uses ATG-based connectivity.

<sup>355</sup> Form CO, paragraphs 591 and 1969 and following.

- (311) *Second*, the Notifying Party argues that direct customers, which are typically VARs and aircraft original equipment manufacturers ('OEMs'), have countervailing buyer power and the merged entity would not be able to price discriminate. This is because operators and end users are protected by price-intermediation by a layer of powerful buyers (VARs) that negotiate directly with the Parties. Those are mainly Collins Aerospace, Honeywell Aerospace and Satcom Direct. The agreements between SNOs and VARs are non-exclusive and allow VARs to leverage their relationships with one SNO against another SNO.<sup>356</sup>
- (312) *Third*, the disruptive current market conditions set out for commercial aviation IFC, at Section 8.5. above, apply equally to business aviation IFC services, including for the competitive advantages of the newly entering NGSOs/LEOs, such as a lower latency, greater network density and resilience, quasi-global coverage, and lower costs.<sup>357</sup>

#### 8.6.2. *The Commission's assessment*

- (313) The Commission considers that the Transaction would not significantly impede effective competition as a result of horizontal non-coordinated effects on the global market for the supply of broadband IFC services to business aviation customers (and the potential segment for the supply of broadband IFC services to large business jets, i.e. the only potential segment in which the Parties overlap). This is in particular because (i) the Parties' market position remains moderate (section 8.6.2.1), (ii) customer have sufficient possibilities of switching supplier post-Transaction (section 8.6.2.2), and (iii) the market is nascent, with a number of potential new entrants (section 8.6.2.3).

##### 8.6.2.1. The Parties' market position remains moderate

- (314) Based on market share data provided by the Notifying Party, as set out in Table 10, section 8.3 above, at the global level of the market for the supply of broadband and narrowband IFC services to business aviation customers, the merged entity would have a share of [20-30]%. The Commission considers that the merged entity's combined share is moderate. A number of competitors remain with higher market shares, the highest being Iridium Communications with a market share of [40-50]% and Gogo with a market share of [30-40]%. Furthermore, at the global level of the potential market for the supply of broadband IFC services to large business jets, the merged entity's share would also remain moderate with a combined market share of [30-40]%. The merged entity would still be smaller than Gogo, with [60-70]% market share.
- (315) For similar reasons as those outlined in section 8.5.2.1, the market investigation has confirmed that also in relation to business aviation customers, the Parties do not have particular competitive advantages for a given set of key parameters of competition that would set them apart from their competitors. Whereas some market participants have indicated that the Parties are particularly strong in terms, e.g., of vertical integration, geographic coverage, quality and performance, and after-sales support, the market investigation has shown that those factors are either usually not decisive for the outcome of a tender or that the Parties do not actually enjoy an advantage over rivals in relation to those factors. The majority of the customers consider that the most important factors when choosing between competing IFC service providers are capacity depth, coverage, innovation, performance (quality of service), after-sale

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<sup>356</sup> Form CO, paragraphs 591 and 1928 and following.

<sup>357</sup> Form CO, paragraphs 593 and 1953 and following.

support, and the price of service. On the contrary, the majority of the customers consider the following to be less important factors: product portfolio, track record/reputation, technical expertise/know-how, latency, certifications, and vertical integration (ownership of capacity) .<sup>358</sup> For instance, customers responding to the market investigation considered that the Parties are not the strongest competitors in terms of innovation, latency, and broadband capacity.<sup>359</sup> Similarly, while some respondents to the market investigation consider that vertical integration can be an advantage, others noted that *‘the advantage could also be obtained by having a long term partnership between SSP & SNO’*, which is the case for existing non-vertically integrated rivals.<sup>360</sup>

- (316) In light of the above, and for the purposes of this Decision, the Commission considers that the merged entity’s combined market position would be moderate on all relevant markets. Regardless of the merged entity’s combined market position, the Commission considers that customers will remain able to switch suppliers, as will be further explained in section 8.6.2.2 below.

#### 8.6.2.2. A sufficient number of credible competitors remain post-Transaction

- (317) The Commission notes that in business aviation, a number of competitors will remain in the market, which will constitute viable alternatives to the merged entity, namely Iridium Communications, Gogo, SES (Luxstream), IDAIR, Intelsat (FlexExec), Smart Sky, and SpaceX.

- (318) In this regard, the results of the market investigation indicate that the majority of the customers consider the Parties, Gogo, Intelsat (FlexExec), SES (Luxstream), and SpaceX (Starlink) to be the main existing competitors in the market for IFC services to business aviation.<sup>361</sup> Furthermore, after the announcement in May 2022 of its partnership with OneWeb’s LEO satellite capacity, Gogo will be the first truly global broadband IFC service provider in business aviation by including polar and fully global coverage.<sup>362</sup>

- (319) Following the same trend as the market for the supply of IFC services for commercial aviation, the majority of the consumers consider SpaceX (Starlink) to be a sufficiently credible competitor whereas some market participants consider SpaceX to be the only competitor that would be able to easily expand in the market for IFC services for business aviation following a price increase Post-Transaction.<sup>363</sup> However, customers have also highlighted that SpaceX is not yet developed and certified and that it lacks *‘pedigree’*. Finally, customers believe that SpaceX will be as strong as the Parties in the market for IFC services to business aviation.<sup>364</sup>

#### 8.6.2.3. The market is nascent, with a number of potential new entrants

- (320) For similar reasons as those outlined in section 8.5.2.3, the market is very dynamic and will be undergoing significant changes in the future. In addition, the total number of connected large business aircraft is expected to grow from less than 4 500 at year-end 2021 to over 12 000 by 2031.<sup>365</sup> The Commission therefore considers it likely

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<sup>358</sup> Replies to eRFI 6 to business IFC customers, question E.C.2.

<sup>359</sup> Replies to eRFI 6 to business IFC customers, questions E.C.1.1 – E.C.1.2.

<sup>360</sup> Replies to eRFI 3 to business IFC competitors, question E.A.5.

<sup>361</sup> Replies to eRFI 6 to business IFC customers, questions E.C.1-1 – E.C.1.4.

<sup>362</sup> Form CO, paragraph 555.

<sup>363</sup> Replies to eRFI 6 to business IFC customers, question E.C.6.

<sup>364</sup> Replies to eRFI 6 to business IFC customers, questions E.C.1-1 – E.C.1.5 and E.D.1-1 – E.D.1-5.

<sup>365</sup> Form CO, paragraph 1919.



that in the next three years, if not entry, at least partnerships (such as Gogo's partnership with OneWeb) with potential new entrants will occur.

### 8.6.3. *Conclusion*

(321) In light of the foregoing, the Commission considers that the Transaction would not significantly impede effective competition as a result of non-coordinated horizontal effects on the global market for the supply of broadband IFC services to business aviation customers (and the potential segment for the supply of broadband IFC services to large business jets).

## 9. **CONCLUSION ON THE COMPATIBILITY OF THE NOTIFIED TRANSACTION WITH THE INTERNAL MARKET**

(322) The Commission therefore finds that the Transaction would not significantly impede effective competition in the EEA, or in a substantial part of it, in particular as a result of horizontal non-coordinated effects (or as a result of vertical effects) on the markets for (i) the supply of satellite capacity (and any potential segments thereof, including the supply of broadband satellite capacity) globally, (ii) the supply of broadband IFC services to commercial aviation customers (and potential segments thereof) globally or in the EEA, and (iii) the supply of broadband IFC services to business aviation customers (and the potential segment for the supply of broadband IFC services to large business jets) globally.

HAS ADOPTED THIS DECISION:

### *Article 1*

The notified operation whereby Viasat, Inc. acquires sole control of Inmarsat Group Holdings Limited within the meaning of Article 3(1)(b) of the Merger Regulation is hereby declared compatible with the internal market and the functioning of the EEA Agreement.

### *Article 2*

This Decision is addressed to:

Viasat Inc.  
6155 El Camino Real  
Carlsbad, CA, 92009  
United States of America

Done at Brussels, 25.5.2023

*For the Commission*

*(Signed)*  
*Margrethe VESTAGER*  
*Executive Vice-President*