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COMMUNICATION FROM THE COMMISSION

Commission Notice on the definition of the relevant market for the purposes of Union competition law

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1. INTRODUCTION

1.1. Purpose of the notice

- (1) The Commission uses the concept of market definition as described in this notice in its enforcement of Union competition law, namely: (i) in its enforcement of antitrust rules under Articles 101 and 102 of the Treaty on the Functioning of the European Union (TFEU) pursuant to Council Regulation (EC) No 1/2003¹ ('Regulation 1/2003'); (ii) in its merger control pursuant to Council Regulation (EC) No 139/2004² (the 'Merger Regulation'), and (iii) in its enforcement of equivalent provisions set out in the Agreement on the European Economic Area³ (the 'EEA Agreement'). The Commission usually defines the relevant market in those of its assessments where it is important to appraise the relative competitive strength of undertakings⁴ in a certain area⁵.
- (2) The purpose of this notice is to provide guidance as to how the Commission applies the concept of relevant market in its enforcement of Union competition law. Competition policy preserves well-functioning markets, while addressing relevant market failures, thereby contributing to the twin green and digital transitions and the resilience of the single market⁶. It aims at ensuring that markets remain open and dynamic. Accordingly, competition enforcement can contribute to preventing dependency and increasing the resilience of the EU

¹ Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty, OJ L 1, 4.1.2003, p. 1-25.

² Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings, OJ L 24, 29.1.2004, p. 1-22.

³ Throughout this notice, references to Articles 101 and 102 TFEU and to the Merger Regulation, in particular Article 2 thereof, shall be understood as referring to the respective equivalent provisions in the EEA Agreement, see Articles 53 and 54 of and Annex XIV to the EEA Agreement.

⁴ In Union competition law, an undertaking is any entity engaged in an economic activity that is an activity consisting in offering goods or services on a given market, regardless of its legal status and the way in which it is financed. See judgment of 23 April 1991, *Höfner and Elser v Macrotron*, C-41/90, EU:C:1991:161, paragraph 21, and judgment of 12 December 2006, *SELEX Sistemi Integrati v Commission*, T-155/04, EU:T:2006:387, paragraph 50.

⁵ In general, market definition plays less of a role in the Commission's State aid enforcement pursuant to Article 107 TFEU, as the assessment focusses on the aid recipient and the industry/sector concerned rather than identification of competitive constraints faced by the aid recipient. Nevertheless, it may be necessary to define markets in some State aid cases in order to assess whether (i) the State aid in question is capable of affecting trade between Member States or distorting competition and (ii) Article 107(3) TFEU applies. See for example judgment of 13 March 1985, *Netherlands and Leeuwarder Papierwarenfabriek v Commission*, C-296/82, EU:C:1985:113; judgment of 14 January 1997, *Spain v Commission*, C-169/95, EU:C:1997:10; judgment of 7 July 1999, *Wirtschaftsvereinigung Stahl v Commission*, T-106/96, EU:T:1999:137; Commission Decision (EU) 2016/2007 of 1 February 2016 SA.36754-2014/C. Similarly, market definition – and the notice at hand – may also play a role for cases conducted pursuant to Article 106 TFEU. See for example, judgments of 15 December 2016, *DEI v Commission*, T-169/08 RENV, EU:T:2016:733 and *DEI v Commission*, T-421/09 RENV, EU:T:2016:748. When considerations of market power and therefore of the relevant market are raised in any particular case, elements of the approach outlined in this notice might serve as a basis for the assessment of State aid or Article 106 TFEU cases. In view of the more limited application of market definition in these two types of assessments, this notice will not discuss their specific aspects further.

⁶ See "A competition policy fit for new challenges", Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM (2021) 713, 18 November 2021, page 6.

economy by enabling strong and diversified supply chains⁷. Against that background, the updated guidance given in this notice takes into account the significant developments of the past twenty years. These include digitalisation and new ways of offering goods and services as well as the increasingly interconnected and globalised nature of commercial exchanges.

- (3) By publishing the procedures that the Commission follows and by indicating the main criteria and evidence on which it relies when defining a relevant market, the Commission expects to increase the transparency of its policy and decision-making when applying Union competition law. The Commission also expects to save resources of its own services and of external stakeholders, making competition assessments more efficient.
- (4) Increased transparency and consequently increased predictability of the Commission's assessments under Union competition law will also result in greater legal certainty for undertakings and their advisers. They will be able to better assess the scope of the relevant markets and the extent to which the Commission may identify competition concerns in an individual case. They will be able to consider these factors in their internal decision-making when contemplating, for instance, acquiring other undertakings, creating joint ventures, concluding certain agreements, or engaging in certain behaviour unilaterally. The guidance in this notice will also assist undertakings in anticipating the type of information the Commission considers relevant for the purposes of market definition.

1.2. Role of market definition

- (5) Market definition is a tool that the Commission uses to identify and define the boundaries of competition between undertakings. The main purpose of market definition is to identify in a systematic way the immediate competitive constraints that the undertaking(s) involved⁸ face when offering certain products⁹ in a certain area. Market definition leads to the identification of the relevant competitors of the undertaking(s) involved when offering those products as well as the relevant customers.
- (6) The same considerations apply when defining relevant markets for the purchasing of certain products in a certain area ('purchasing markets')¹⁰, by identifying in a systematic way the immediate competitive constraints that the

⁷ Ibid, page 16.

⁸ For the purposes of this notice, an undertaking involved is the undertaking whose competitive strength is assessed. These are generally the parties to the agreement in investigations under Article 101 TFEU; the undertaking(s) being investigated in Article 102 TFEU proceedings; and the parties to the concentration in investigations under the Merger Regulation. It can also be the complainant in a competition proceeding, an undertaking in upstream or downstream markets or any other undertaking relevant to the competition proceeding, depending on the case at hand.

⁹ For the purpose of this notice, the term 'product' is used as shorthand to also comprise services or technologies, where appropriate. The term 'production' correspondingly also covers the provision or the supply of such services or technologies.

¹⁰ For examples of purchasing markets see cases M.10201 Ahold Delhaize / Deen Assets, paragraphs 20-25 and cases cited; M.9847 Aldi / FPLPH Assets, paragraphs 19-22 and M.9409 Aurubis / Metallo, section 7.1.

undertaking(s) involved face when purchasing those products. In that case, market definition leads to the identification of the relevant competitors of the undertaking(s) involved when purchasing the products as well as the relevant suppliers. The remainder of this notice will not discuss purchasing markets further, but the guidance set out in this notice also applies to purchasing markets.

- (7) The Commission commonly uses market definition where there is a need to assess the relative competitive strength of undertakings in a certain area as part of the competitive assessment¹¹ and, most notably, to assess whether an undertaking holds market power in that area. Market definition is thus a tool to structure and facilitate the competitive assessment in appropriate cases and is not a mandatory step in all assessments under Union competition law.
- (8) The Commission's use of market definition is closely related to the objectives pursued by the different Union competition law instruments:
- In assessments under Article 102 TFEU, the Commission defines the relevant markets when assessing the existence of a dominant position, which is generally evaluated by reference to the relevant market¹².
 - In assessments under the Merger Regulation, the Commission regularly defines the relevant markets when assessing the effects on competition of a concentration¹³.
 - In assessments under Article 101 TFEU, the Commission uses market definition in particular in determining whether an appreciable restriction of competition exists or in establishing if the condition pursuant to Article 101(3)(b) TFEU for an exemption from the application of Article 101(1) TFEU is met¹⁴. In practice, the Commission tends to use market definition when assessing agreements that have as their effect the prevention, restriction or distortion of competition. By contrast, the Commission usually does not define the relevant market when

¹¹ For the purposes of this notice, the term 'competitive assessment' comprises those parts of the Commission's substantive assessment of an issue of Union competition law that do not relate to market definition. That includes in particular the assessment of the existence of a dominant position, where applicable, and the assessment of the likely effects on competition of the conduct of the undertaking(s) involved or of a concentration.

¹² Judgment of 21 February 1973, *Europemballage and Continental Can v Commission*, C-6/72, EU:C:1973:22, paragraph 32; judgment of 24 May 2012, *MasterCard and Others v Commission*, T-111/08, EU:T:2012:260, paragraph 171.

¹³ Judgment of 21 February 1973, *Europemballage and Continental Can v Commission*, C-6/72, EU:C:1973:22, paragraph 32; judgment of 31 March 1998, *France and Others v Commission* ('Kali & Salz'), joined cases C-68/94 and C-30/95, EU:C:1998:148, paragraph 143; judgment of 6 June 2002, *Airtours v Commission*, T-342/99, EU:T:2002:146, paragraph 19; judgment of 7 May 2009, *NVV and Others v Commission*, T-151/05, EU:T:2009:144, paragraph 51.

¹⁴ The Union Courts have held in this context that the Commission may use market definition where "it is impossible, without such a definition, to determine whether the behaviour at issue has as its object or effect the prevention, restriction or distortion of competition within the internal market", judgment of 6 July 2000, *Volkswagen v Commission*, T-62/98, EU:T:2000:180, paragraph 230; judgment of 8 July 2004, *Mannesmannröhren-Werke v Commission*, T-44/00, EU:T:2004:218, paragraph 132. See also paragraph (9) below for further examples where market definition under Article 101 TFEU would be relevant.

assessing agreements that have as their object the prevention, restriction or distortion of competition, such as cartel agreements, and is under no obligation to do so¹⁵.

- (9) Market definition makes it possible to calculate market shares, which the Commission may use to assess an undertaking's competitive strength for the purposes of the competitive assessment. The Commission may also use market shares as a first screening tool to assess whether competition concerns may arise. Market share thresholds are one of the elements determining the scope of the block exemption regulations for Article 101 TFEU¹⁶; for assessing whether there may be an effect on trade under Articles 101 and 102 TFEU¹⁷; and for identifying concentrations deemed from the outset not to raise competition concerns under the Merger Regulation with respect to any markets or with respect to certain markets, unless there are specific circumstances¹⁸.

1.3. General principles of market definition

- (10) A number of principles apply to market definition in the Commission's enforcement of Union competition law. These principles include the following:
- (11) First, market definition is based on the facts of the case¹⁹. Relevant markets within the meaning of Union competition law differ from sector to sector, at different levels of the supply chain and may differ across geographic areas. The outcome of market definition in a given case is usually unaffected by whether it

¹⁵ Judgment of 8 July 2004, *Mannesmannröhren-Werke v Commission*, T-44/00, EU:T:2004:218, paragraph 132; judgment of 28 June 2016, *Telefónica v Commission*, T-216/13, EU:T:2016:369, paragraph 214.

¹⁶ The market share thresholds limit the applicability of the safe harbour to agreements between businesses holding a share in the relevant market(s) that does not exceed the thresholds set out in the regulations. See Article 3 of Commission Regulation (EU) 2022/720 of 10 May 2022 on the application of Article 101(3) of the Treaty on the Functioning of the European Union to categories of vertical agreements and concerted practices, C/2022/3015, OJ L 134, 11.5.2022, p. 4–13 Article 4 of the Commission Regulation No 1217/2010; Article 3 of the Commission Regulation No 1218/210 [to be updated once the new HBERs are in force].

¹⁷ Commission Notice: Guidelines on the effect on trade concept contained in Articles 81 and 82 of the Treaty ('Guidelines on the effect on trade'), OJ C 101, 27.4.2004, p.81-96, section 2.4. The Commission may use market shares in its assessment whether there may be an effect on trade, but the appreciability test does not necessarily require that relevant markets be defined and market shares calculated (see paragraph 48 of the Guidelines on the effect on trade), and the Commission is under no obligation to do so.

¹⁸ See in this regard the definition of 'affected markets' in Section 6.3 of Annex I of the Commission Regulation (EC) No 802/2004 of 21 April 2004 implementing the Merger Regulation ('the Merger Implementing Regulation'), OJ L 133, 30.4.2004, p. 1-39, as last amended by Commission Implementing Regulation (EU) No 1269/2013 of 5 December 2013 amending Regulation (EC) No 802/2004 implementing Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings, OJ L 336, 14.12.2013, p. 1–36 [to be updated once the new Merger Implementing Regulation is in force], and the Commission Notice on a simplified procedure for treatment of certain concentrations under Council Regulation (EC) No 139/2004, OJ 366, 14.12.2013, p. 5-9, paragraphs 5 and 6.

¹⁹ See EFTA Court Judgment of 5 May 2022 in Case E-12/20, *Telenor and Telenor Norge v EFTA Surveillance Authority*, paragraph 173: "market definition must be made on a case-by-case basis".

takes place in the context of merger control or antitrust enforcement²⁰. Where past Commission decisions concerning a specific market exist, the Commission may start its analysis from those and verify whether the definition of the relevant market from those past decisions may be applied to the case at hand. However, the Commission is not bound to apply the definition of a relevant market from its past decisions in future cases²¹.

- (12) Second, the definition of the relevant market involves defining both the product market and the geographic market²². When defining the relevant market, the Commission takes into account the various parameters of competition that customers consider relevant in the area and period assessed. Those parameters may include the product's price, but also its level of innovation, its quality in various aspects – such as, for example, its durability, sustainability, the value and variety of uses offered by the product, the image conveyed or the security and privacy protection afforded –, as well as its availability, including in terms of lead-time, resilience of supply chains, reliability of supply and transport costs.
- (13) Third, market definition, where required, is only one step in the Commission's assessment under Union competition law. The Commission only decides on whether there are competition concerns after having carried out a competitive assessment²³. Market definition therefore does not prejudice the outcome of the Commission's assessment under Union competition law.
- (14) Fourth, market definition allows for the distinction between competitive constraints from within and from outside the market, by including only the immediate competitive constraints in the relevant market. However, the Commission takes into account all competitive constraints (immediate or not) in the competitive assessment.

²⁰ Nevertheless, in some cases, market definition may lead to different results depending on the type of analysis carried out. In particular, the immediate competitive constraints that market definition seeks to identify may differ depending on whether the focus is on the change in market power relative to prevailing conditions, or whether the focus is on whether the current or past situation reflects a position of market power relative to a competitive situation. For example, market definition in the context of assessing the change in market power resulting from a concentration involving horizontal overlaps need not always lead to the same relevant market as market definition in the context of assessing dominance under Article 102 TFEU. See also footnote 48, which explains the underlying reasoning in more detail.

²¹ The General Court clarified in this respect in its judgment of 7 May 2009, *NVV and Others v Commission*, T-151/05, EU:T:2009:144, paragraph 136: “In particular, the applicants cannot have entertained such a legitimate expectation on the ground that the Commission had defined markets in a particular way in a previous decision, since the Commission – and, a fortiori, the Court – is not bound by the findings made in such a decision”; see also judgment of 14 December 2005, *General Electric v Commission*, T-210/01, EU:T:2005:456, paragraph 120; judgment of 18 May 2022, *Wieland-Werke v Commission*, T-251/19, EU:T:2022:296, paragraph 79; judgment of 13 May 2015, *Niki Luftfahrt v Commission*, T-162/10, EU:T:2015:283, paragraph 144; judgment of 25 March 2015, *Slovenská pošta v Commission*, T-556/08, EU:T:2015:189, paragraph 197; judgment of 23 May 2019, *KPN v Commission*, T-370/17, EU:T:2019:354, paragraph 79. See also EFTA Court Judgment of 5 May 2022, *E-12/20, Telenor and Telenor Norge v EFTA Surveillance Authority*, paragraph 97.

²² Judgment of 14 February 1978, *United Brands v Commission*, C-27/76, EU:C:1978:22, paragraphs 10 and 11.

²³ See above, footnote 11.

- (15) Fifth, the markets defined are often the same across cases and assessments when the same economic activity in terms of products and geography is concerned²⁴. Nevertheless, the outcome of market definition can differ, even when the same products and geography are concerned, depending on:
- *The parameters of competition.* An undertaking may compete with other undertakings based on different parameters of competition, as explained in paragraph (12). For example, the competitive constraints on the prices of the products of the undertaking(s) involved may be different from the competitive constraints on investing in product improvements by the same undertaking(s), which can lead to different relevant product and geographic markets²⁵.
 - *The undertaking(s) involved.* As the activities of the undertaking(s) involved determine the starting point for the substitution analysis, markets may be defined differently depending on the undertaking(s) involved. This can arise, for example, when the competitive constraints between undertakings are asymmetric²⁶. In that case, taking the products of different undertakings as a

²⁴ For instance, in the air transport sector, the relevant product market for passenger air transport services has been defined on the basis of the point of origin/point of destination (O&D) pair approach. This approach has been used across cases over time. See for instance, merger cases M.3280 Air France/KLM, paragraphs 9 and 16; M.3770 Lufthansa/Swiss, paragraphs 12 et seq.; M.6447 IAG/bmi, paragraph 31; M.7333 Alitalia/Etihad, paragraph 63; M.7541 IAG/Aer Lingus, paragraph 14; antitrust cases AT.36201 PO/Lufthansa+SAS+United (Art 85); AT.39596 British Airways/American Airlines/Iberia; and judgment of 11 April 1989, Ahmed Saeed Flugreisen and Others v Zentrale zur Bekämpfung unlauteren Wettbewerbs, C-66/86, EU:C:1989:140, paragraph 40; judgment of 19 May 1994, Air France v Commission, T-2/93, EU:T:1994:55, paragraph 84; judgment of 4 July 2006, easyJet v Commission, T-177/04, EU:T:2006:187, paragraph 56. Another example are online advertising services markets, where the relevant product market has been defined across cases as a market for the provision of online advertising space, separate from offline advertising space, and the relevant geographic market has been defined across cases as national or alongside linguistic borders within the EEA – see for instance, M.4731 Google/DoubleClick, paragraphs 56 and 83-84; M.5727 Microsoft/Yahoo! Search Business, paragraphs 61 and 91-93; M.7217 Facebook/Whatsapp, paragraphs 79 and 81-83.

²⁵ For instance, in case M.7932 Dow/DuPont, the Commission, first, defined national markets for formulated crop protection products to assess product and price competition (recitals 319 and 332). In that assessment, the Commission relied on market shares computed at the level of crop/pest combinations at the national level, but also used market shares for crop/pest combination groupings at the EEA level as being informative of the strength of market players at the level of their portfolio of active ingredients, as well as global market shares of R&D suppliers, as being informative of the relative strength of suppliers bringing new active ingredients to the market (recital 362). Second, the Commission analysed innovation competition in the whole industry and in innovation spaces consisting of groupings of crop/pest combinations at the global or at least EEA-wide level to assess how agrochemical companies compete to discover and develop new active ingredients (recitals 352 and 361).

²⁶ See cases M.6497 Hutchison 3G Austria/Orange Austria and M.8808 T-Mobile Austria/UPC Austria. In the former, the Commission started from a candidate market consisting of mobile data services and found that there was limited substitutability of mobile data services by fixed internet access services (paragraph 57). In the latter, the Commission assessed whether mobile internet access services could be used for accessing the internet at home in the same way as fixed connections are used and concluded that the relevant product market included both fixed and mobile technologies as far as residential customers were concerned (paragraph 39). See also judgment of 30 January 2007, France Télécom v Commission, T-340/03, EU:T:2007:22, paragraphs 88-89; judgment of 1 July 2010, AstraZeneca v Commission, T-321/05, EU:T:2010:266, paragraphs 96-97; and judgment of the EFTA Court of 5 May 2022 in case E-12/20, Telenor and Telenor Norge v EFTA Surveillance Authority, paragraph 117.

starting point for the substitution analysis – for example because the parties to the concentration are different or because a different undertaking's behaviour is under investigation – may lead to different results in terms of market definition.

- *The time period considered.* The Commission takes into account the circumstances at the time of the conduct or concentration that is being assessed. Accordingly, market definition results may vary over time if competition dynamics change. This may be the case, for example, when competitive conditions in distinct geographic areas converge over time and become sufficiently homogeneous so that areas that were initially part of distinct geographic markets are later included in the same geographic market²⁷.

- (16) Sixth, the Commission may take into account expected transitions in the structure of a market when the case calls for a forward-looking assessment. Structural market transitions differ from considerations relating to market entry by potential competitors ('potential competition')²⁸ in that they affect the general dynamics of demand and supply in a market and therefore the general reactions to changes in relative supply conditions. Such structural market transitions need to be distinguished from changes affecting only individual undertakings or consumers offering or demanding products in the relevant markets. Structural market transitions can affect the definition of the relevant product market, for example when there is sufficient probability that new types of products are about to emerge on the market²⁹; or the definition of the relevant geographic market, for example when there are impending technological changes or impending changes in the regulatory framework³⁰. The Commission takes expected short-term or medium-term structural market transitions into account where they would lead to effective changes in the general dynamics of demand and supply within the period that is relevant for the Commission's

²⁷ For instance, in case M.2033 Metso/Svedala of 2001, the Commission defined the geographic market for crushers, a piece of mining capital equipment, as EEA-wide (see paragraph 114). In the subsequent case M.9585 Outotec/Metso (Minerals Business) of 2020, the Commission concluded that the relevant geographic market for the supply of mining capital equipment, that is to say, grinding, flotation, filtration, iron ore pelletizing equipment, was global in scope (see paragraphs 258-261). Furthermore, in case M.580 ABB/Daimler-Benz of 1995, the Commission concluded that there were national or regional specifications in the market for rail technology that acted as barriers to entry for exports outside the home region and that customers preferred suppliers established in the same region or in the same Member State (paragraphs 22-41). However, later, in case M.5754 Alstom Holdings/Areva T&D of 2010, the Commission concluded that the market was at least EEA-wide (paragraph 35).

²⁸ See paragraph (25) below.

²⁹ For example, in the context of assessing medicinal products, the relevant product market may be widened to include pipeline products that are currently undergoing clinical trials, as further explained in paragraph (90); or it may be narrowed to only a specific molecule in light of impending entry by a generic version of an originator product, see judgment of 30 January 2020, Generics (UK) and Others, C-307/18, EU:C:2020:52, paragraph 131.

³⁰ In case M.2478 IBM/Italia/Business Solutions/JV, the Commission noted that it had considered in the past that IT services were provided at national level, such as in case M.2195 Cap Gemini/Vodafone. However, it observed that IT services showed a trend towards internationalization of demand and supply, motivated in part by the use of the internet enabling operation on a remote basis (paragraph 25). This trend towards internationalisation was confirmed in the later case M.6237 Computer Sciences Corporation/iSOFT Group, where the Commission noted that major providers of IT services operated on a global basis and customers frequently had global/EEA-wide tenders (paragraphs 17-18). In these cases the geographic market definition was left open.

assessment³¹. For the Commission to be able to do so, there must be strong indications that the projected structural changes will take place with sufficient probability. The evidence must be reliable³² and needs to go beyond mere assumptions that observed trends will continue or that certain undertakings would change their behaviour.

- (17) Seventh, the concept of ‘relevant market’ in Union competition law is different from the use of the term ‘market’ in other contexts, in particular in business contexts. Undertakings often use the term ‘market’ to refer to the area or place where they sell their products or to refer broadly to the industry or sector where they belong. For instance, undertakings may say that they are active in a global market where they consider that they compete globally for revenues against undertakings from all continents. However, that does not mean that the products of all globally active undertakings are substitutable for customers in the European Economic Area (EEA) or that customers face sufficiently homogeneous conditions of competition globally, which is the relevant perspective for the Commission’s market definition under Union competition law as further explained in section 2. Also, the concept or the definition of a ‘market’ used in fields of law other than competition law, such as for example in the area of electronic communications³³, is not decisive for the purposes of Union competition law.
- (18) Eighth, the Commission does not need to reach a definitive conclusion on the precise scope of the market where the outcome of the Commission’s assessment would not change under different plausible market definitions. In such situations, the Commission may leave the question of market definition open, thereby making its assessment on market definition more efficient. The Commission may leave the market definition open³⁴ both in situations where

³¹ See judgment of 30 January 2020, *Generics (UK) and Others*, C-307/18, EU:C:2020:52, paragraphs 134-135, where the Court found that the market may be narrowed down to only a specific molecule in light of impending entry by a generic version of an originator product because the “*manufacturers of generic medicines [were] in a position to enter the market immediately or within a short period, particularly where those parties [had] formed a prior effective strategy for market entry, [had] taken the steps necessary to achieve it, such as, for example, the lodging of [a marketing authorisation] application or the obtaining of such [a marketing authorisation], or [had] concluded supply contracts with third-party distributors*” and where there was “*evidence of the perception, by the manufacturer of originator medicines, of the immediacy of the threat of market entry by the manufacturers of generic medicines*”.

³² See section 3.4 for further detail on how the Commission gathers and evaluates evidence on market definition.

³³ See in particular Commission Recommendation (EU) 2020/2245 of 18 December 2020 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive (EU) 2018/1972 of the European Parliament and of the Council establishing the European Electronic Communications Code (notified under document C(2020) 8750) C/2020/8750, OJ L 439, 29.12.2020, p. 23–31.

³⁴ In the context of differentiated product markets, the definition of an overall relevant market does not affect the possibility of identifying different competitive dynamics in some market segments while keeping the precise segment delineation open. The competition analysis of the notified concentration can lead to a finding that the concentration does not impede competition equally on all parts of the relevant market, without that affecting or calling into question the very definition of that market – see judgment of 18 May 2022, *Wieland-Werke v Commission*, T-251/19, EU:T:2022:296, paragraphs 40-41, 64 et seq.

competition concerns arise regardless of the applied market definition³⁵ and in situations where no competition concerns arise regardless of the applied market definition³⁶. When the market definition is left open, the Commission usually carries out the competitive assessment for all plausible alternative market definitions, but the depth of its competitive analysis may vary between the alternative markets assessed³⁷.

2. CONCEPT OF THE RELEVANT MARKET AND GENERAL METHODOLOGY

2.1. Concept of the relevant product market and geographic market

- (19) In line with the case law of the Court of Justice or the General Court of the European Union (the ‘Union Courts’) and the Commission’s case-practice, the relevant market within which the Commission appraises competition dynamics is typically defined along a product and a geographic dimension.
- (20) The relevant product market comprises all those products that customers regard as interchangeable or substitutable to the product(s) of the undertaking(s) involved, based on the products’ characteristics, their prices and their intended

³⁵ See, for example, the decision in case M.10078 Cargotec/Konecranes where, regarding straddle and shuttle carriers, the Commission left open both the product (which could either be defined overall or segmented between straddle and shuttle carriers) and geographic (EEA-wide or global in scope) market definitions as the transaction raised concerns under any of those plausible market definitions (recitals 126 and 376).

In addition, in assessments pursuant to the Merger Regulation, the Commission may leave the market definition open in situations where, following an initial investigation, serious doubts arise only in one of several plausible relevant markets but the undertakings involved submit commitments suitable to render the concentration compatible with the internal market; see, for instance, case M.8785 The Walt Disney Company/Twenty-First Century Fox, paragraph 85.

In commitment decisions pursuant to Article 9 of Regulation 1/2003 the Commission may also leave the market definition open where, following an initial investigation, the undertaking(s) involved submit commitments that are sufficient to address the initial concerns. See for instance case AT.37966 Distrigaz, paragraph 11, and case AT.40153 E-book MFNs and related matters (Amazon), paragraph 48.

³⁶ See, e.g. judgment of 26 October 2017, KPN v Commission, T-394/15, EU:T:2017:756, paragraph 60; and judgment of 8 July 2003, Verband der freien Rohrwerke and Others v Commission, T-374/00, EU:T:2003:188, paragraphs 107 and 110. See also, for example, the decision in case M.9695 LVMH/Tiffany, where the Commission left open the precise product and geographic market definition with respect to various categories of luxury goods, as no competition concerns arose regardless of the exact scope of the product and geographic market definition (paragraphs 25, 31, 46, 52, 57, 58 and 72).

³⁷ For instance, the Commission may focus its competitive assessment in concentrations involving horizontal overlaps on those alternative markets where the overlaps between the undertakings involved are the most substantial and where there are fewer immediate competitive constraints from within the market. The Commission may then conclude that, if the overlaps do not raise competition concerns on that market, the overlaps do not raise competition concerns on the alternative markets either. See for example case M.10339 KKR/Landal, in which the Commission’s assessment focussed on the narrowest alternative product market, defined as holiday parks, where the overlaps between the Parties’ activities were most substantial (paragraphs 23ff).

use, taking into consideration the conditions of competition and the structure of supply and demand on the market³⁸.

- (21) The relevant geographic market comprises the area in which the undertaking(s) involved supply or demand relevant products, in which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring geographic areas, in particular because conditions of competition are appreciably different in those areas³⁹.
- (22) In certain cases, temporal considerations may also be relevant when defining the relevant product and geographic market, for example where factors such as seasonality or peak/off-peak time considerations affect customer preferences or the structure of supply⁴⁰.
- (23) This notice explains how the Commission applies the definitions set out in paragraphs (20) and (21).

2.2. General methodology for market definition

- (24) As explained in section 1.2, the main purpose of market definition is to provide a framework to structure and facilitate the competitive assessment by identifying in a systematic way the immediate competitive constraints that the undertaking(s) involved face when offering certain products to customers in a certain area.
- (25) Undertakings are subject to three main sources of competitive constraints: demand substitution, supply substitution and potential competition. Demand substitution constitutes the most immediate and effective disciplinary force on the suppliers of a given product⁴¹. An undertaking's influence over prevailing conditions of sale, such as prices, depends on the extent to which its customers can switch easily to available products that the customers consider as substitutes⁴². Supply substitution can also be relevant for the definition of the

³⁸ See judgment of 30 January 2020, Generics (UK) and Others, C-307/18, EU:C:2020:52, paragraph 129; and judgment of 13 February 1979, Hoffmann-La Roche v Commission, C-85/76, EU:C:1979:36, paragraph 51. This definition is also reflected in Section 6.1 of Annex I of the Merger Implementing Regulation [reference to be verified once new Merger Implementing Regulation enters into force].

³⁹ See judgment of 30 September 2003, Cableuropa and Others v Commission, T-346/02 and T-347/02, EU:T:2003:256, paragraph 115; judgment of 7 May 2009, NVV and Others v Commission, T-151/05, EU:T:2009:144, paragraph 52; and judgment of 14 February 1978, United Brands v Commission, C-27/76, EU:C:1978:22, paragraph 11. This definition is also reflected in Article 9(7) of the Merger Regulation and Section 6.2 of Annex I of the Merger Implementing Regulation.

⁴⁰ Temporal considerations were relevant for market definition for example in case M.5467 RWE/Essent, where the Commission distinguished between peak and off-peak hours for the generation and wholesale supply of electricity (see paragraph 32), and in case M.8869 Ryanair/Laudamotion, where it distinguished between the summer and winter season in air passenger transport (see paragraphs 96-97).

⁴¹ Judgment of 4 July 2006, easyJet v Commission, T-177/04, EU:T:2006:187, paragraph 99.

⁴² In certain markets, demand may not be driven – or not solely driven – by the ultimate consumer of a product, but may be shaped by other stakeholders, whose interests are not necessarily aligned with those of the ultimate consumer. For example, in pharmaceutical markets, patients are the final consumers of medicines, doctors choose the prescription medicine or may advise patients on which over-the-counter medicine to use, and insurance schemes will typically cover all or part of the cost for

relevant market in some cases, namely when it is as immediate and effective as demand substitution. By contrast, more remote competitive constraints that do not meet the criteria of supply substitution in terms of immediacy and effectiveness require an analysis of additional factors, including the circumstances related to the conditions of entry, and are taken into account during the competitive assessment as constraints arising from potential competition⁴³.

- (26) The assessment of demand and supply substitution helps identify the products in the relevant market, and hence the suppliers active in the market. To provide a useful framework for the competitive assessment, market definition must also identify the customers that are likely to face similar effects of the conduct or concentration in question. Accordingly, the Commission focuses on the degree to which customers face similar or differing conditions of competition when it decides on which customers are included in the relevant market. This is relevant from a geographic perspective, where the Commission includes those areas in the relevant geographic market in which customers face sufficiently homogenous conditions of competition. The Commission may also distinguish between customer groups that face materially different conditions of competition in differing contexts, for example when there is price discrimination between different customer groups⁴⁴.

2.2.1. General methodology for defining product markets

2.2.1.1. Demand substitution

- (27) As set out in paragraphs (20) and (25) the main approach the Commission uses to define the relevant product market is that of assessing the substitutability of products from the perspective of the customer (demand substitution). Situations of sufficiently strong demand substitution arise when customers can switch easily to readily available alternative products. Where there is sufficient demand substitution between the products of different suppliers, the Commission includes those products in the same relevant product market.
- (28) The Commission determines the range of products that customers of the undertaking(s) involved regard as effective substitutes as well as their degree of substitutability with the products of the undertaking(s) involved by examining a variety of evidence. Such evidence includes, depending on the requirements and particularities of each case, indicators for the reasons why customers would substitute one product with another or not, such as customer preferences relating to product characteristics, prices, intended use and barriers to switching and switching costs. It also includes direct indicators of substitution, such as

the administered medicine. The Commission considers such particularities when defining the relevant market.

⁴³ The General Court has explained that “*potential competition and supply-side substitution are conceptually different issues, [...], those issues overlap in part, as the distinction lies primarily in whether the restriction of competition is immediate or not.*”, judgment of 30 September 2003, *Atlantic Container Line and Others v Commission*, joined cases T-191/98, T-212/98 to T-214/98, EU:T:2003:245, paragraph 834.

⁴⁴ See section 4.2 for further detail of how the Commission approaches market definition in the presence of price discrimination.

evidence of past or hypothetical substitution. Further details on the evidence the Commission relies on when assessing demand substitution are set out in section 3.2.

- (29) The main question to be answered when examining that evidence is to what extent and to what readily available alternative products (if any) the customers of the undertaking(s) involved would switch in response to a deterioration in the supply conditions of the products of the undertaking(s) involved relative to other products⁴⁵. For operational and practical purposes, this assessment usually focuses on reactions to price increases, but it can also consider changes in other competitive parameters, such as quality or level of innovation, as set out in paragraph (12).
- (30) Conceptually, this approach means that, starting from a candidate market which initially contains the product(s) or type of products of the undertaking(s) involved that is/are the focus of the competitive assessment, alternative products are added to the candidate market in decreasing order of the degree to which the customers would substitute the products of the undertaking(s) involved with these alternative products. That process continues until all readily available substitute products that sufficiently constrain the supply conditions of the undertakings' products have been identified. The relevant market includes all those identified products.
- (31) The theoretical criterion used to determine whether all sufficiently close substitutes have been identified is whether a hypothetical monopolist in the candidate market could exercise market power. This question can be assessed by asking whether a hypothetical monopolist in the candidate market would find it profitable to implement a small but significant non-transitory increase in price (the 'SSNIP test')⁴⁶. If such a price increase is unprofitable for the hypothetical monopolist, the process of adding additional substitutes to the candidate market continues with the addition of the next closest substitute. If the price increase is profitable for the hypothetical monopolist, the process stops and the products in the candidate market constitute a relevant market.
- (32) When undertakings compete on parameters other than price, such as quality or level of innovation, this makes the application of the SSNIP test difficult, in

⁴⁵ The equivalent analysis is applicable in cases concerning purchasing markets, where the starting point to analyse switching reactions would be the supplier and the test serves to identify the alternative distribution channels or outlets for the supplier's products.

⁴⁶ The SSNIP considered is normally a price increase in the range of 5% to 10% implemented on one or more products in the candidate market including at least one product of the undertaking(s) involved. However, the magnitude of the price increase and how it is applied may depend on the particular case at hand. For example, when the undertakings involved provide relatively little value added to the supply chain (because raw materials or purchased components represent a high percentage of the total price) the question of whether a hypothetical monopolist can exercise market power may be better assessed relative to its effect on this value added. Therefore, the Commission may apply the SSNIP to the value added rather than to the sales price in such cases. The Commission applied this concept and focussed on the value added (or the "regional premia") in case M.6541 Glencore/Xstrata when assessing evidence on imports, and the evolution of prices and margins of zinc across regions; see paragraphs 135-140 and 144.

particular in the context of zero monetary price products⁴⁷ and highly innovative industries. Further difficulties arise depending on the type of assessment carried out. When the assessment focuses on the change in market power of the undertaking(s) involved, such as for the analysis of concentrations involving horizontal overlaps, the SSNIP test can generally be applied at the prevailing market price. However, this may not be the case where the focus is on the assessment of the existing market power of the undertaking(s) involved, such as when defining markets in the context of assessing the existence of dominance under Article 102 TFEU⁴⁸. Moreover, practical constraints can make it difficult to apply the SSNIP test empirically when defining the relevant product market in real-life cases. For example, it may not be possible to gather reliable information on the amount of losses a hypothetical monopolist would incur when implementing a SSNIP.

- (33) Therefore, while the Commission may rely on the principles of the SSNIP test in its assessment of the relevant market, there is no obligation on the Commission

⁴⁷ In case AT.40099 Google Android, the Commission assessed whether manufacturers, users and application developers would switch away from Android app stores to app stores for other licensable smart mobile operating systems in the event of a small but significant non-transitory decrease of quality ('SSNDQ') of the former (see paragraphs 284-305). In general, an SSNDQ is applied as a conceptual framework for a qualitative assessment of competitive constraints. The Commission does not normally engage in a quantitative application of the SSNDQ test, which is subject to several difficulties, including in relation to the quantification of quality. In its judgment of 14 September 2022, *Google and Alphabet v Commission*, T-604/18, EU:T:2022:541, paragraphs 177 and 180, the General Court confirmed that "*the SSNDQ test [...] did constitute relevant evidence for the purpose of defining the relevant market*" while at the same time stating that "*defining a precise quantitative standard of degradation of quality of the target product cannot be a prerequisite for the application of the SSNDQ test. [...] All that matters is that the quality degradation remains small, albeit significant and non-transitory.*"

⁴⁸ In general, when the candidate market (essentially) consists of the product(s) of a single undertaking, the SSNIP-test applied at the prevailing market price will always suggest that the relevant market must be wider than the candidate market, because a profit maximising undertaking will, by definition, not find it profitable to raise price above its prevailing (profit maximising) price.

This can give rise to the so-called "cellophane fallacy", named after the US Supreme Court's market definition involving cellophane and other wrapping products (*United States v. E. I. du Pont de Nemours & Co.*, 351 U.S. 377 (1956)). It entails wrongly concluding, on the basis of a SSNIP-test applied at the prevailing price, that the relevant market must be wider than the product(s) of a dominant undertaking (see the explanations on this concept in paragraphs 158 to 171 of the Commission's decision in case AT.39523 Slovak Telekom). The cellophane fallacy can also arise when prices are at supra-competitive levels because of joint profit maximisation by a group of undertakings.

When market definition is performed in the context of a case that requires an assessment of the degree of existing market power, such as, for example, in the context of an assessment of dominance in an Article 102 case, the fact that the prevailing price may already be at a supra-competitive level hence needs to be taken into account. In such cases, the Commission may apply the SSNIP-test starting from a counterfactual price that would prevail under (more) effective competition; or it may rely on other evidence for its definition of the relevant market.

In contrast, in the context of cases where the focus is on assessing a change in market power, in particular the change in market power resulting from the elimination of competition between the parties to a concentration involving horizontal overlaps, the candidate market includes at least the relevant products of the merging parties and the SSNIP-test typically can be applied at the prevailing price. Therefore, the relevant market in the context of assessing a change in market power need not always lead to the same relevant market as in the context of assessing the level of existing market power.

to apply the SSNIP test empirically, and other types of evidence are equally valid to inform the market definition, as further described in section 3⁴⁹. In fact, in many cases the SSNIP test serves only as a conceptual framework for the interpretation of available qualitative evidence.

2.2.1.2. Supply substitution

- (34) The Commission may also take into account the substitutability of products from the perspective of suppliers (supply substitution). Supply substitution can be relevant when defining the relevant market where suppliers use the same assets and processes to produce related products that are not substitutes for customers, and where this leads to similar conditions of competition across the range of such related products. In such cases, it may be appropriate to include such related products in the relevant product market, provided the constraining effect of supply substitution across the range of products is equivalent to that of demand substitution in terms of effectiveness and immediacy.
- (35) The necessary conditions for the market to be broadened based on supply substitution are that most, if not all, suppliers are able to switch production between products in the range of related products⁵⁰, while incurring only insignificant additional sunk costs or risks, have the incentive to do so when relative prices or demand conditions change, and can market them effectively in the short term⁵¹.
- (36) Situations of sufficiently strong supply substitution may arise typically when undertakings market a range of qualities or grades of one product. An example of the approach to supply substitution is the Commission's past assessment of the market for stainless steel slabs⁵². In that case, the Commission found that, from a demand point of view, customers could not use different grades or families of grades for the same purpose. However, it was possible to switch from the production of one family of grades to another in a short time-frame and using the same equipment with limited additional costs. In the absence of particular difficulties in distribution, stainless steel manufacturers were able, therefore, to compete for orders of the various grades. The Commission

⁴⁹ In its judgment of 11 January 2017, *Topps Europe v Commission*, T-699/14, EU:T:2017:2, paragraph 82, the General Court stated: “*The Commission did not [...] commit a manifest error of assessment in basing its conclusions on the relevant market on its assessment of the evidence gathered without having recourse to an SSNIP test*”. Similarly, with respect to geographic market definition, in its judgment of 5 October 2020, *HeidelbergCement and Schwenk Zement v Commission*, T-380/17, EU:T:2020:471, paragraph 331, the General Court noted that: “*As the Commission rightly notes in paragraph 143 of the defence, the ‘SSNIP test’ is not the only method available to it when defining the relevant geographic markets.*” See also the judgment of the General Court of 22 June 2022, *thyssenkrupp v Commission*, T-584/19, EU:T:2022:386, paragraphs 76 and 155, as well as the EFTA Court Judgment of 5 May 2022 in Case E-12/20, *Telenor and Telenor Norge v EFTA Surveillance Authority*, paragraph 95.

⁵⁰ EFTA Court Judgment of 5 May 2022 in Case E-12/20, *Telenor and Telenor Norge v EFTA Surveillance Authority*, paragraph 160.

⁵¹ That is such a period that allows the producer to market the product to the customer in a timeframe that is not significantly longer than the timeframe the customer needs for switching to the other product(s) in the candidate market. Such assessment is specific to the products assessed.

⁵² See case M.6471 *Outokumpu/INOXUM*, paragraphs 120 and 121.

therefore included the various grades of stainless steel in the same relevant market.

- (37) Supply substitution can also be relevant for market definition when customers purchase bespoke products, for example, when customers issue tenders for construction projects or the procurement of trains or gas turbines. In such cases, there may be no or limited demand substitution between the bespoke products for different customers. Instead, the competitive constraint derives from the ability of other suppliers to produce the specific product that fits the needs of the customer. When the same suppliers can and generally do respond with offers to the specifications of different customers, the bespoke products can be included in the same relevant product market.
- (38) When only some of the suppliers meet the above conditions for supply substitution, it is not appropriate to include the product range in the same relevant market⁵³. When carrying out the competitive assessment, the Commission nevertheless takes into account the competitive constraint exercised by those suppliers that meet the conditions, including whether they are likely to expand their sales of the relevant products in the future when the case calls for a forward-looking assessment. An example of this approach is the Commission's past assessment of the market for metallic coated steel⁵⁴. The Commission did not accept supply substitution regarding tinsplate and electrolytically coated chromium steel in that case because only one competing supplier was able to produce these products on the same production line and because producing both products on 'swing lines' capable of switching did not play a material role in the market. However, the Commission took into account the constraint exercised by the supplier that was able to produce tinsplate and electrolytically coated chromium steel on 'swing lines' in its competitive assessment.
- (39) Similarly, when supply substitution would entail the need to significantly adjust existing tangible and intangible assets outside the regular course of business, to incur more than insignificant additional investments, sunk costs or risks, to take strategic decisions of a lasting nature or to incur time delays, the Commission does not widen the relevant market based on supply substitution. This can arise even if producers are already involved in production across the range of related products. For example, although producers of cheese may in principle produce different types of cheese, there may be significant costs and lead times involved before a producer of a certain type of cheese could switch production and start selling a different type of cheese⁵⁵. In these cases, the Commission examines the

⁵³ See judgment of 28 April 2010, *Amann & Söhne and Cousin Filterie v Commission*, T-446/05, EU:T:2010:165, paragraph 79; see also case M.5046 *Friesland Foods/Campina*, paragraph 159. See also EFTA Court Judgment of 5 May 2022 in Case E-12/20, *Telenor and Telenor Norge v EFTA Surveillance Authority*, paragraph 160.

⁵⁴ See case M.8713 *Tata Steel/ThyssenKrupp/JV*, recitals 276-278 and 1287-1293 for the assessment of tinsplate steel.

⁵⁵ For instance, in case M.9413 *Lactalis/Nuova Castelli*, the market investigation indicated that suppliers producing mozzarella could not start producing ricotta without incurring significant costs and within a short period of time and similarly, producers of ricotta could not start producing and selling mascarpone without significant costs and delay (see paragraphs 47-48).

effects of such switching in the competitive assessment as constraints from potential competition.

2.2.2. *General methodology for defining geographic markets*

- (40) As set out in paragraphs (21) and (26) the main approach the Commission uses to define the relevant geographic market is that of assessing conditions of competition. A usual starting point is an analysis of the location of the customers who would likely be affected by the relevant conduct or concentration. In order to identify those customers that are likely to face similar effects of the conduct or concentration in question, the Commission then analyses whether the conditions of competition in a certain area where customers are located are sufficiently homogeneous⁵⁶ and whether it can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those areas. Geographic markets can range from a local dimension to a global dimension depending on the conditions of competition that customers face.
- (41) The Commission carries out its assessment of the conditions of competition by examining a variety of evidence. Such evidence includes, depending on the requirements and particularities of each case: the presence of different or the same suppliers across geographic areas; similarities or differences in their market shares and prices; similarities or differences in customer preferences and purchasing behaviour; barriers and costs associated with supplying customers in a different area; distance related factors affecting costs, quantities available or reliability of supply; and trade flows and patterns of shipments. Further details on the evidence the Commission relies on when assessing geographic markets are set out in section 3.3.
- (42) When defining relevant geographic markets, the Commission usually also analyses demand substitution patterns – such as switching to imports – to identify the alternative supply options available to customers⁵⁷. When customers in two areas consider mostly the same suppliers as alternatives and can readily switch purchase volumes between them, this may indicate, together with other factors, that conditions of competition between both areas are sufficiently homogeneous and thus that the two areas should be part of the same relevant geographic market. Conversely, when customers in two areas regard different suppliers as alternatives or when the volumes that can and are switched to imports is limited, for instance because of customer preferences or because of

⁵⁶ The Union Courts' case law has consistently referred to "sufficiently homogeneous" – as opposed to identical – conditions of competition as being the criterion for defining a relevant geographic market. See judgment of 14 February 1978, *United Brands v Commission*, C-27/76, EU:C:1978:22, paragraphs 11 and 44; judgment of 8 July 2003, *Verband der freien Rohrwerke and Others v Commission*, T-374/00, EU:T:2003:188, paragraph 141; judgment of 30 September 2003, *Cableuropa and Others v Commission*, T-346/02 and T-347/02 (joined cases), EU:T:2003:256, paragraph 115; judgment of 7 May 2009, *NVV and Others v Commission*, T-151/05, EU:T:2009:144, paragraph 52; judgment of 5 October 2020, *HeidelbergCement and Schwenk Zement v Commission*, EU:T:2020:471, paragraph 294.

⁵⁷ This assessment can follow the approach set out in Section 2.2.1.1, namely to identify the suppliers to which customers would switch their purchases in case of a change in relative supply conditions and to apply the SSNIP framework.

limits in the import volumes available, this indicates that conditions of competition in the two areas are not sufficiently homogeneous⁵⁸.

- (43) As a result, the mere existence or possibility of imports in a given geographic area does not necessarily lead to widening the scope of the geographic market to the area where imports originate. Customers located in the area where imports originate may face different conditions of competition compared to customers located in the area where imports are delivered. In those circumstances, if geographic markets were defined widely to include the areas of origin and delivery of imported goods, this may erroneously include in the relevant market customers who would likely be affected differently by the relevant conduct or concentration. This would hamper rather than facilitate the competitive assessment.
- (44) In circumstances characterised by significant imports, but where trade between certain geographic areas or other supply and demand considerations are insufficient to lead to sufficiently homogeneous conditions of competition, the Commission does not, therefore, extend the relevant geographic market to include the area of origin of such imports. However, as part of the competitive assessment, the Commission includes imports into the relevant geographic market in the calculation of market shares. The Commission also fully takes into account the competitive constraint from imports in the relevant market in other ways in the competitive assessment, for instance by examining whether imports are likely to expand in the future when the case calls for a forward-looking assessment⁵⁹.
- (45) An example of how the Commission considers trade flows when defining the relevant geographic market and carrying out its competitive assessment is the Commission's past assessment of the market for finished flat carbon steel products⁶⁰. The Commission concluded that the relevant geographic markets for several types of finished flat carbon steel products were not wider than the EEA

⁵⁸ In case M.7278 General Electric/Alstom (Thermal Power – Renewable Power & Grid Business), the Commission defined the market for 50 Hz heavy duty gas turbines as global excluding China and Iran because there were barriers for some global suppliers to supply customers in those two areas (see paragraphs 162-191). In case AT.40099 Google Android, the Commission defined the market for licensing of smart mobile OSs and Android app stores as global excluding China because the undertaking's activities in China were limited by regulation (paragraphs 406-410).

⁵⁹ In case M.9592 Freudenberg/L&B, the Commission concluded that the markets for nonwoven and other fabrics were at least EEA-wide (paragraphs 50-53) and cleared the concentration because Asian rivals would continue to exert a sufficient competitive constraint on the undertakings involved (see paragraphs 98-137 for nonwoven primary carpet backings for construction applications and paragraphs 152-180 for nonwoven primary carpet backings for automotive applications).

⁶⁰ M.8444 ArcelorMittal/Ilva, section 7.2.4 (recitals 320-326) for the geographic market definition and sections 9.4.5.2-9.4.5.9 (recitals 637-750) for the competitive assessment concerning the constraints imposed by imports. The Commission carried out a detailed analysis of the competitive constraints imposed by imports, finding that significant import volumes were not as such an indicator of sufficient price pressure, that non-EEA producers were small and individually had limited influence on prices in the EEA, that imports were a less reliable source of supply for EEA customers compared to domestic products, that empirical evidence indicated that import reactions to price increases were likely to be insufficient to defeat price increases, that the ability of imports to exert competitive pressure on EEA producers had been significantly reduced, that imports could only contest a part of the demand of EEA customers and that the EEA suppliers were, to a certain extent, also gatekeepers for imports.

because market structures differed across the regions of the world, sourcing occurred to a very large extent at the regional level and the pricing of the products differed significantly between the regions of the world. Nevertheless, the competitive constraint from imports was assessed in detail as part of the competitive assessment.

3. PROCESS OF DEFINING MARKETS

3.1. General approach to market definition in practice

- (46) In practice, the Commission is usually in a position to preliminarily identify the most plausible relevant product and geographic markets within which a particular concentration or conduct should be assessed, based on readily available information, the relevant markets found in past Commission decisions in the same or similar industries, or information submitted by the undertaking(s) involved. There will often be a limited number of such plausible alternative relevant markets. The Commission then adjusts its initial working hypotheses about the relevant product and geographic markets in light of the evidence gathered during its investigation, if necessary. In many cases, a cursory examination of the alternative plausible market definitions is sufficient to structure and facilitate the competitive assessment in the Commission's decision, without the need to carry out a detailed analysis to conclude on the definition of each relevant market. In its decisions, the Commission may set out and assess alternative market definitions, beginning with potential wider or potential narrower markets, depending on the specificities of the case.
- (47) The following sections 3.2 and 3.3 describe various factors that may be relevant to define the relevant product and geographic markets. Section 3.4 describes how the Commission gathers and evaluates evidence on these different factors. This does not imply that in each individual case the Commission needs to obtain evidence on and assess all of the factors mentioned. In practice, evidence relating to a subset of these factors is often sufficient to enable the Commission to reach a conclusion on the relevant market.

3.2. Evidence to define product markets

- (48) In line with the principles set out in section 2, the Commission primarily focuses on evidence relating to demand substitution when defining the relevant product market, but it may also take into account evidence relating to supply substitution if the relevant conditions set out in section 2.2.1.2 are met. The following categories of evidence may be relevant for the assessment of demand- and supply-side substitution for the purposes of defining the relevant product market.

3.2.1. Evidence relevant for demand substitution

- (49) *Product characteristics, prices, intended use and general customer preferences.* Evidence on elements such as product characteristics (also including product quality or level of innovation), prices and intended use, which is often readily available, is generally useful to identify the range of possible substitutes that are available to the customers of the undertaking(s) involved.

- (50) However, an assessment of whether products are similar along observable characteristics, whether their prices are comparable⁶¹ or whether the products serve the same intended use⁶² may be insufficient to determine whether two products are demand substitutes. This is because such considerations may not accurately reflect the customers' value of the product attributes and how customers would react to changes in relative supply conditions such as a price increase. Conversely, differences in product characteristics, prices and intended use may not always, in themselves, be sufficient to determine that two products belong to different product markets⁶³.
- (51) The Commission therefore assesses the underlying reasons why customers would substitute one product with another or not by seeking to identify the parameters that are most relevant for the choices of customers. A variety of parameters can drive customers' choices in addition to the product's price, such as, for example, its level of innovation or its quality in various ways, as set out in paragraph (12). Differences between distribution channels, including online and offline channels⁶⁴, or the regulatory framework⁶⁵ can also be relevant. Identifying those parameters that are most relevant for customers' choice allows the Commission to compare the products along those parameters, which is informative to assess the degree of substitutability between them.
- (52) *Evidence on past substitution.* In certain cases, there may be evidence of substitution between different products following past structural changes, events or shocks in the market. Such evidence is normally informative for customer preferences, in particular when the substitution is caused by an exogenous⁶⁶

⁶¹ As regards evidence on the evolution of prices over time, many different factors unrelated to demand substitution can cause price co-movements. On the other hand, the absence of price co-movement or the existence of diverging prices typically indicates that products are unlikely to be demand substitutes. Therefore, analyses of price co-movements, including quantitative techniques such as price correlation or stationarity analyses, are in principle more informative when they indicate that two products are not in the same market.

⁶² For instance, the Commission has in the past defined separate markets for certain foodstuffs despite their same intended use for human nutrition. In case M.7220 – Chiquita Brands International/Fyffes, the Commission defined bananas as a distinct product market from other fresh fruit (paragraphs 29-34).

⁶³ For instance, in case AT.38477 British Airways/SN Brussels, despite the differences between rail transport and air services for the route between Brussels and London in terms of product characteristics, the evidence available indicated that intermodal competition existed between them, which led the Commission to conclude that the relevant market was broader than the direct air services and included rail transport (paragraphs 18-21 and 23).

⁶⁴ To establish whether online and offline sales channels fall into the same product market, the Commission may assess whether the customers consider that these channels have different characteristics such as in terms of price levels, customer service quality, delivery times and logistics costs, opening times, need to experience the product before purchase and differences in product ranges offered between the two channels. See for instance case M.8394 – Essilor/Luxottica, where the Commission assessed whether the market for optical retail should be segmented between online and offline channels (recitals 83-89 and 139).

⁶⁵ For example, regulation may require that pharmacists, when dispensing medicines, substitute automatically the originator version of the medicine with a cheaper generic version, under certain conditions.

⁶⁶ An exogenous shift or shock in supply conditions is due to unexpected events that have no direct effect on demand.

shift in relative supply conditions of the products of the undertaking(s) involved, such as an unexpected cost shock, or by another similar event. Launches of new products can also provide useful information, when it is possible to analyse precisely which products have lost sales to the new product⁶⁷. Similarly, changes in quantities in reaction to a supplier's exit from the market, or resulting from (temporary) unavailability of certain products (for example due to production outages), may be informative for substitution patterns⁶⁸. In any event, the Commission verifies whether the reactions to a significant change, such as the complete unavailability of a product, can be regarded as indicative for reactions to more limited changes in relative supply conditions. In some cases, undertakings may also collect relevant information on demand substitutes during the ordinary course of business. For example, an undertaking may have data on the customers that it has lost and the customers that it has won and the identity of the competitors which won/lost those customers. By contrast, evidence of customers shifting away from a product as a result of factors unrelated to changes in relative supply conditions are less informative for demand substitution as such shifts may rather reflect product migration, namely changes in consumption patterns and preferences over time⁶⁹.

- (53) When there is sufficient data on past substitution, it may be possible to derive quantitative measures on the substitutability of different products. For example, it may be possible to derive diversion ratios between candidate substitute products, that is to say, to calculate the share of volumes lost by one product that is diverted to each candidate substitute product; or to estimate own-price elasticities and cross-price elasticities⁷⁰ for the demand of a product using econometric techniques^{71,72}. In order to be reliable, such quantitative evidence must be sufficiently robust.

⁶⁷ For instance, in case M.5335 Lufthansa/SN Airholding, the Commission assessed whether the airport of Antwerp was a substitute to the airport of Brussels. In that context, the Commission considered the entry of VLM Airlines on the Antwerp - Manchester route, in competition with SN's flights on the Brussels - Manchester route (see paragraphs 96, and 100-101).

⁶⁸ For instance, in case M.6576 Munksjö/Ahlstrom, the Commission, when assessing the relevant product market for pre-impregnated paper, took into account that a competitor had stopped producing pre-impregnated paper and assessed the identity of the competitors which won its customers (see paragraph 189).

⁶⁹ For instance, in case M.6576 Munksjö/Ahlstrom, the Commission found that an observed shift away from standard décor paper towards pre-impregnated paper in the furniture industry had been largely driven by strategic investment decisions of a large customer further down the value chain and therefore had not been determined or accentuated by short-term changes in relative prices for pre-impregnated paper (see paragraph 248).

⁷⁰ Own-price elasticity of demand for product X is a measure of the responsiveness of demand for X (that is to say, the expected percentage change in the quantity demanded) to a one percent change in the price of product X. Cross-price elasticity between products X and Y is the responsiveness of demand for product X to a one percent change in the price of product Y.

⁷¹ For instance, in case M.5658 Unilever/Sara Lee, the Commission used econometric estimates of demand elasticities derived from scanner data to perform a SSNIP test to determine whether male and non-male deodorants are in the same relevant product market.

The Commission may use evidence on past substitution not only to define markets but also to carry out its competitive assessment, in particular to determine whether the undertaking(s) involved compete closely with each other or for the quantitative assessment of likely effects; see for instance case M.8792 T-Mobile NL/Tele2 NL (paragraphs 704-720 and 798-823).

- (54) *Evidence on hypothetical substitution.* The Commission may also rely on information about how customers are likely to react to hypothetical changes in relative supply conditions (“hypothetical substitution”). Reasoned answers of customers and competitors regarding such hypothetical substitution can be informative for identifying substitute products. In some cases, evidence on hypothetical substitution may also be available from surveys of a representative sample of customers. In certain cases, evidence on hypothetical substitution may constitute the only available direct evidence of substitutability, for instance in cases calling for a forward-looking assessment. Nevertheless, evidence on hypothetical substitution can be less reliable than evidence on actual substitution, because hypothetical demand substitution has no actual consequences for customers. In particular, views of market participants relating to the likelihood or magnitude of hypothetical switching to an alternative product may not be sufficiently reliable, complete or accurate to allow the Commission to estimate own-price elasticities of demand. However, this is a case-by-case assessment and depends on the strength of the evidence available.
- (55) In rapidly evolving industries, especially those characterised by fast technological progress, new or newly developed products or processes as well as technological or regulatory changes may lead to structural market transitions which affect existing competitive dynamics and the general reactions to relative supply conditions. In such cases, the Commission may take into account the expected changes in substitution possibilities resulting from the change in competitive dynamics, subject to the conditions set out in paragraph (16).
- (56) *Evidence on competitive constraints based on industry views.* Undertakings typically monitor competition in the ordinary course of business. There may also be industry associations or experts monitoring competition. While such industry views on market boundaries do not necessarily correspond to the concept of the relevant market within the meaning of Union competition law, information on which undertakings regard each other as (close) competitors, as well as the views of other market participants and industry experts on competitive constraints, can provide useful information for assessing demand substitution. This applies in particular where the underlying reasons given for regarding certain undertakings as (close) competitors correspond to the Commission’s market definition framework, that is to say that the undertakings’ products are regarded by customers as substitutes.
- (57) *Barriers and costs associated with switching demand to potential substitutes.* There are various potential barriers to substitution and switching costs. These barriers and costs may have a wide range of origins, such as contractual obligations, costs of searching for alternative products, uncertainty about the quality and reputation of alternative products, the costs of learning to use other products or of adapting own production processes, brand recognition, regulatory barriers or other forms of state intervention, the existence of direct and indirect

⁷² Evidence on diversion ratios or (cross-price) elasticities of demand can be relevant for identifying the next closest substitutes to be considered for inclusion in the candidate market and for the application of the SSNIP test. However, high diversion ratios or (cross-price) elasticities to products outside the candidate market do not necessarily imply that the relevant market includes such products.

networks effects⁷³, the costs of data portability or the degree of interoperability⁷⁴ with other products.

- (58) Barriers to switching may also arise when it is not possible for customers to switch between different sales channels. For example, the competitive constraints in the supply of car components for the original equipment market may differ from those in the supply of such components for spare parts, with customers for spare parts not being able to obtain the components at the conditions offered to original equipment manufacturers. This may lead to the definition of two distinct relevant product markets.
- (59) *Implementations of the SSNIP test.* In some cases, it may be possible to determine the boundaries of the relevant market also by assessing quantitatively whether a SSNIP would be profitable for a hypothetical monopolist⁷⁵. An example of an implementation of the SSNIP test is a ‘critical loss analysis’⁷⁶. Critical loss analysis normally involves determining the maximum loss of sales volume that can be incurred, following a SSNIP for products in the candidate market, for such a price increase to remain profitable for a hypothetical monopolist. This ‘critical loss’ is then compared to an estimate of the likely actual loss of sales volume resulting from the price increase. If the critical loss is greater than the likely actual loss, a SSNIP would be profitable, which indicates that the products in the candidate market form a relevant product market. In the opposite scenario, the candidate market may have to be widened. The specifics of the analysis to be carried out depend on the particular circumstances of each case. When assessing critical loss analysis, the Commission also takes into account that a high observed percentage profit margin not only implies a low critical loss, but may also indicate that the actual elasticity of demand – and hence the actual loss – is likely to be low, and vice versa⁷⁷.

3.2.2. Evidence relevant for supply substitution

- (60) *Evidence of past substitution.* When assessing supply substitution, the Commission may consider evidence from undertakings about the existence of overcapacity and their ability and incentive to redeploy production and supply in the short term. Evidence of past redeployment of production or supply to the

⁷³ Direct network effects are present when the value of a product received by a user fluctuates (either directly or inversely) with the variation of the number of the users of that product. Indirect network effects are present when a variation in the number of users of a product affects the demand of a complementary product and this results in a fluctuation in the value of the first product.

⁷⁴ This would be the case, for instance, where a sub-set of products does not function in conjunction with another product, such that switching entails an additional cost for customers.

⁷⁵ The Commission applied the SSNIP test in case M.5658 Unilever/Sara Lee, paragraphs 92-94 and section 5.3 of the Technical Annex.

⁷⁶ See for instance case M.9076 Novelis/Aleris, Annex I, Section 2.1.2. The Commission also applied a critical loss analysis in case M.4734 Ineos/Kerling but ultimately found that the results were inconclusive, paragraphs 95-105.

⁷⁷ When observed percentage profit margins are high, losing volume results in a relatively high loss in profit on the volumes lost. This implies a low ‘critical loss’ in volume to make a price increase by the hypothetical monopolist unprofitable. On the other hand, high observed profit margins can imply that the likely actual loss is also relatively low, because otherwise undertakings would not have raised prices to the observed level and would find it profitable to lower prices.

products in question in response to exogenous changes in supply or demand conditions is particularly relevant. By contrast, absent evidence of past supply substitution, the Commission may consider it less likely that the effect of such substitution would be equivalent to that of demand substitution in terms of effectiveness and immediacy.

- (61) *Barriers and costs associated with switching supply.* The Commission considers several barriers and costs when assessing the possibility of widening the market based on supply substitution. For example, it considers whether, to switch their production or supply, undertakings need to incur specific capital investments or specific investments in production processes, learning and human capital, establishment of brand or name recognition, access to data, retooling costs or other investments. Information on the existence of legal or administrative obstacles, such as the necessity of holding a particular licence, or obstacles of a strategic nature that may affect the switch of production or supply, such as contractual ties or exclusivity agreements, can also be relevant. The Commission also analyses the incentives of undertakings to switch their production or supply, including whether such a switch would lead to a loss in sales of other products, and their willingness to switch. As explained in paragraph (39), when any such barriers or costs are not insignificant, the Commission takes into account the competitive constraints (if any) exercised by such undertakings as part of the competitive assessment rather than by expanding the relevant market.

3.3. Evidence to define geographic markets

- (62) The Commission is usually able to take a preliminary view on whether the candidate geographic market is local, national, regional, EEA-wide⁷⁸, wider than the EEA or global, based on preliminary information on the purchasing behaviour and preferences of customers of the relevant products. The Commission then investigates whether conditions of competition throughout the candidate market are sufficiently homogeneous and whether the candidate market can be distinguished from other areas because competitive conditions are appreciably different in those areas.
- (63) The following categories of evidence may be relevant for the assessment of the relevant geographic market.
- (64) *Identity of available suppliers, market shares and prices.* When customers in different geographic areas have access to the same actual and potential suppliers and when these suppliers have similar market shares in the different areas, this is usually a first indication that conditions of competition are sufficiently homogeneous to include these areas in the same relevant geographic market. Conversely, when the market shares of these suppliers vary substantially across different areas, this typically indicates that conditions of competition in these areas are not sufficiently homogeneous.

⁷⁸ For practical purposes, as a working assumption, the Commission typically assesses markets at EEA-wide level where there are strong indications that markets are wider than national and narrower than global.

- (65) However, market shares may not be, in themselves, sufficient to determine whether conditions of competition are sufficiently homogeneous. For example, undertakings might enjoy high market shares in their domestic markets due to the weight of the past, and conversely, a homogeneous presence of undertakings throughout the EEA might be consistent with national or regional geographic markets.
- (66) A preliminary analysis of pricing and price differences can also provide useful evidence. Homogeneous conditions of competition across different areas can generally be expected to lead to similar price levels for the same products. Such similarity may also be the result of functioning arbitrage between different areas, that is to say the process by which higher prices in one area may lead arbitrageurs to buy in the low priced area and resell in the high priced area until prices have converged sufficiently to make such arbitrage unprofitable. However, analyses of price levels are rarely decisive, in themselves, for geographic market definition⁷⁹.
- (67) The Commission therefore explores the reasons behind any particular configuration of market shares or prices, and assesses also other indicators.
- (68) *Customer preferences and purchasing behaviour.* Differences in culture, language, life style, demographics or socio-economic background can lead to local, national or regional preferences for specific products or brands⁸⁰. This can affect the competitive positions of different undertakings in different areas. Differences in customer preferences across different areas are likely to result in differences in purchasing behaviour and hence have a strong potential to limit the geographic scope of the market.
- (69) In particular, when the set of products which customers regard as substitutes to the products of the undertaking(s) involved differs between geographic areas, this is generally a strong indication that conditions of competition are not sufficiently homogeneous for those areas to belong to the same geographic market.
- (70) An examination of customers' current geographic pattern of purchases can provide useful indicators on similarities or differences in customer preferences and conditions of competition. For example, when customers across the EEA

⁷⁹ This also applies to quantitative techniques for assessing price co-movements, such as, for example, price correlation or stationarity analyses. As set out in footnote 61, many different factors other than functioning arbitrage can cause co-movements of price. Such price co-movements might therefore wrongly suggest that two areas belong to the same relevant geographic market, although conditions of competition in the areas are not sufficiently homogenous. On the other hand, the absence of price co-movement typically indicates that conditions of competition are not sufficiently homogeneous. Therefore, price co-movement analysis is in principle more informative if it indicates that different areas are not in the same market.

⁸⁰ In case AT.39740 Google search (Shopping), for instance, the Commission defined the market for general search as national because of language preferences despite those services being accessible by users anywhere in the world (see paragraphs 253-254). In case M.7220 Chiquita/Fyffes, the Commission, although recognising that the supply of bananas was mostly coming from outside the EEA, defined the market at the national level based on national preferences (see paragraphs 119-131). This illustrates also that the presence of one supplier or of the same suppliers in the EEA or worldwide may be consistent with geographic markets defined at national level, as explained in paragraph (65).

have access to the same suppliers on similar terms, regardless of the customer's location, for instance if they purchase from undertakings located anywhere in the EEA on similar terms, or they procure their supplies through tendering procedures in which the same set of undertakings are invited and submit bids, the geographic market is likely to be considered to be EEA-wide⁸¹. Similarly, when customers around the world have access to the same suppliers on similar terms regardless of the customers' location, the relevant geographic market is likely to be global^{82,83}.

- (71) *Barriers and costs associated with supplying customers in different areas.* The Commission assesses whether suppliers are able and willing to offer their products on competitive terms throughout the candidate market or whether there are barriers or costs that make it impossible or unattractive for a supplier to serve customers on competitive terms in areas that it does not currently serve. This assessment includes an examination of whether customer preferences require suppliers to have a local presence or access to a distribution network or relevant distribution channels to sell throughout the candidate market. It also includes an examination of the regulatory framework, namely any type of barrier created by state action that may affect suppliers from other areas. Such barriers may include public procurement rules, public subsidies, price regulation, quotas and tariffs limiting trade or production, technical standards, linguistic requirements, legal monopolies, limits to freedom of establishment, administrative authorisation requirements (for instance licenses and permits), or other sector-specific regulation. Such barriers can effectively limit the degree to which suppliers in a certain geographic area are subject to competitive pressure from suppliers based outside that area and thus lead to differences in the

⁸¹ Examples exist in relation to markets for the production and supply of basic metal products, such as aluminium or steel. In case M.9076 Novelis/Aleris, the Commission's investigation confirmed that customers had a common preference for sourcing aluminium automotive body sheets from EEA-based suppliers and the relevant geographic market for aluminium automotive body sheets was defined as EEA-wide. In markets for finished flat carbon steel products, for instance in cases M.8444 ArcelorMittal/Ilva and M.8713 Tata Steel/ThyssenKrupp/JV, the relevant geographic market was considered to be EEA-wide, with geographic differentiation within the EEA (as confirmed in the latter case by the judgment of the General Court of 22 June 2022 *thyssenkrupp v Commission*, T-584/19, EU:T:2022:386, paragraphs 145-258). The market has also been defined as EEA-wide for refractory products, due to, among others, customers' strong common preference for sourcing from EEA-based suppliers – see M.8286 RHI/Magnesita Refraterios, paragraphs 55-57 and 61.

⁸² For instance, in markets for civil aerospace applications, customers procure original aircraft equipment and aerospace systems and components from the same suppliers worldwide, and the Commission found that the relevant geographic market for these products was global, for instance in cases M.8658 UTC/Rockwell Collins, paragraphs 204-205 and 207; M.8425 Safran/Zodiac Aerospace, paragraph 298; M.8948 Spirit/Asco, paragraphs 37-38.

⁸³ The Commission may also define a global market excluding only specific areas with different conditions of competition, as for example in case M.7278 General Electric/Alstom (Thermal Power – Renewable Power & Grid Business), described in footnote 58. Likewise in case M. 8677 Siemens / Alstom, the Commission found that the relevant geographic market for both high speed and very high speed trains could be global excluding China, South Korea and Japan as there were insurmountable entry barriers for foreign suppliers in those three countries (see paragraph 133). See also case M.6541 Glencore/Xstrata in which the Commission assessed potential geographic markets defined as global excluding China, because exports from China were limited, because industry analysts reported figures for China and the rest of the world separately and because a number of market participants supported such split (see paragraphs 43-45).

conditions of competition. The same barriers can also hinder customers from purchasing from suppliers in different areas.

- (72) Conversely, the regulatory framework, in particular regulatory harmonisation, for instance at the level of the Union or globally, may reduce barriers to trade and indicate that geographic markets are wider or likely to become so in the future. The Commission takes into account the process of market integration when defining geographic markets. Where regulatory barriers are removed, the Commission assesses relevant evidence indicating a structural market transition, for instance regarding prices, market shares or trade patterns.
- (73) *Distance-related factors, transport costs and catchment areas.* In some markets, the competitive positions of suppliers may depend on the distance between each supplier and the customer. For example, transport costs may represent an important fraction of costs for certain products, which may put suppliers that are located at a greater distance from the customer at a significant competitive disadvantage relative to suppliers that are located closer to the customer. Other factors, such as security of supply considerations, sustainability considerations, product perishability or accessibility may have a similar effect. Moreover, in consumer markets, travel distance or time to the supplier may be an important consideration. This is typically the case, for example, for airports, supermarkets or petrol stations.
- (74) In such situations, markets are likely to be geographically differentiated in the sense that competitive conditions change as a function of the distance between each supplier and the customer. In such cases, the Commission may define geographic markets based on catchment areas that reflect the distance within which customers and suppliers are generally located. Catchment areas can be drawn around customers or around suppliers, depending on the specificities of the case. While it is often preferable to assess competitive conditions at each customer location, it may not be possible to draw catchment areas around customer locations, for example because customers are many and dispersed or because there is no information on the location of customers of competitors. For practical purposes, the Commission may therefore draw catchment areas around supplier locations⁸⁴. Catchment areas are generally either measured in terms of customers' travel distance or time (in which case they are called isochrones) or in terms of the delivery distance or time around a location within which a given proportion of sales occurs. The size of catchment areas should be representative of the purchasing patterns of most customers, which can be determined from the actual distribution of delivery or travel distances or time, and/or can be based on the views of market participants. On that basis, the Commission typically considers catchment areas covering 80% of sales or customers as a starting point⁸⁵. With a view to conducting sensitivity analyses or to factoring in market-specific considerations, the Commission may also rely on alternative scopes.

⁸⁴ In such a situation, the Commission has also drawn catchment areas around a hypothetical customer located at the mid-point between the merging parties' sites, that is the mid-point of a straight line drawn between the sites, see case M.7252 Holcim/Lafarge (paragraph 73).

⁸⁵ See for example, case M.7408 Cargill/ADM Chocolate Business in relation to the market of industrial chocolate (paragraphs 63-78), or case M.7567 Ball/Rexam in relation to the market for beverage cans (paragraph 248).

The Commission has for instance also defined geographic markets on the basis of catchment areas covering 70% and/or 90% of sales⁸⁶.

- (75) *Trade flows and pattern of shipments.* An analysis of the pattern and evolution of shipments and trade flows and of the drivers of such flows may indicate the absence or existence of barriers. The responsiveness of such flows to changes in relative supply conditions may also indicate the degree of competitive pressure exerted by suppliers located outside the candidate geographic market on the undertaking(s) involved. In some cases, it may be possible to quantify this constraint, for example by econometrically estimating import elasticities or through event studies demonstrating the responsiveness of imports to price changes⁸⁷. However, the mere existence of trade flows or their responsiveness to changes in relative supply conditions does not necessarily imply that conditions of competition in the area from which the trade flows originate are sufficiently homogeneous to those in the candidate geographic market to warrant an expansion of the relevant geographic market. When this is not the case, and as explained in paragraph (42), the Commission takes the competitive constraints (if any) from importers on the undertaking(s) involved into account in the competitive assessment, (including with respect to market shares and potential future expansion) rather than by expanding the relevant geographic market.

3.4. Gathering and evaluating evidence

- (76) The Commission uses various categories and sources of evidence to define the relevant markets and it may rely on both qualitative and quantitative information. Certain types of evidence may be decisive in one case, but of limited or no importance in other cases involving a different industry, a different product or different circumstances. In most cases and in particular where a detailed assessment is required, the Commission bases its decisions on the consideration of a number of factors, as set out in sections 3.2 and 3.3, and different sources. The Commission adopts an open approach to empirical evidence, aimed at making effective use of all available information which may be relevant in individual cases, and makes an overall assessment based on this evidence⁸⁸. The Commission does not apply a rigid hierarchy of different sources of information or types of evidence⁸⁹.

⁸⁶ For example, in case M.7878 Heidelberg Cement/Schwenk/Cemex Hungary/Cemex Croatia, the Commission found circular catchment areas representing 90% of deliveries around the Parties' plants to be more appropriate than catchment areas representing 70% of deliveries (recital 182) but also considered modified catchment areas based on road distances and delivery patterns (recitals 189-190).

⁸⁷ See for example, case M.6541 Glencore/Xstrata, where the Commission assessed the responsiveness of imports to relative price changes for zinc metal in the EEA (see paragraphs 141-148).

⁸⁸ In its judgment of 6 July 2010, *Ryanair v Commission*, T-342/07, EU:T:2010:280, paragraph 136, the General Court stated: “*It is the Commission’s task to make an overall assessment of what is shown by the set of indicative factors used to evaluate the competitive situation. It is possible, in that regard, for certain items of evidence to be prioritised and other evidence to be discounted*”. The same reasoning applies *mutatis mutandis* to market definition.

⁸⁹ In its judgment of 11 January 2017, *Topps Europe v Commission*, T-699/14, EU:T:2017:2, paragraph 82, the General Court stated: “*the definition of the relevant market does not require the Commission to follow a rigid hierarchy of different sources of information or types of evidence*”. This was confirmed in the judgment of the General Court of 22 June 2022, *thyssenkrupp v Commission*, T-584/19, EU:T:2022:386, paragraphs 78 and 156.

- (77) Evidence used by the Commission to define markets should be reliable⁹⁰. This is likely to be the case for instance when the evidence comes from public authorities or is supported by multiple sources, including by market participants with conflicting interests, such as suppliers and their direct customers. In addition, to the extent possible, the Commission should use recent evidence in relation to the period under investigation, in particular when assessing markets in an industry undergoing change. Where the case calls for a forward-looking assessment and when market definition is based on changes in competitive dynamics within the time period considered, such changes must be supported by reliable evidence showing with a sufficient level of certainty that the expected changes will indeed materialise. Evidence carries a higher probative value if it can be established that the evidence could not have been influenced by the Commission's investigation, such as evidence pre-dating discussions of a concentration or conduct and pre-dating the Commission's investigation.
- (78) Where appropriate, as well as relying on submissions by the undertaking(s) involved, the Commission gathers evidence by addressing written requests for information to market participants and/or by interviewing them. In that context, the Commission seeks to obtain from the main competitors and customers in the industry factual evidence and their views of the boundaries of the product and geographic markets. The Commission may also contact relevant trade or customer associations, undertakings active in upstream or related markets, and other key stakeholders including government authorities or non-governmental organisations.
- (79) In order to define the relevant market, the Commission may also request internal documents from relevant entities, including in particular the undertaking(s) involved. Internal documents are particularly relevant where these have been prepared in the ordinary course of business, as opposed to documents prepared in view of or during the Commission's investigation, as these may better reflect how these undertakings view the market(s). This may include marketing studies that undertakings have commissioned in the past to inform decisions about, for example, the pricing of their products or marketing actions. Customer surveys on usage patterns and attitudes, data on customer purchasing patterns, the views expressed by suppliers and market research studies submitted by the undertaking(s) involved and their competitors may be taken into account to establish whether an economically significant proportion of customers considers two products as substitutable. Evidence showing that an undertaking monitors the behaviour of certain competitors, or strategic documents relied on by the undertaking to inform business decisions, such as business plans or assessments

⁹⁰ As regards the probative value of the various items of evidence, the sole criterion relevant in evaluating the evidence adduced is its reliability (see, for example, judgment of 13 September 2013, *Total Raffinage Marketing v Commission*, T-566/08, EU:T:2013:423, paragraph 43). The nature of the procedure at hand plays a role in this respect. In particular regarding merger control, the case law of EU courts establishes that in view of the need for speed and the very tight deadlines to which the Commission is subject, it cannot be required to verify all the information it receives, in the absence of evidence indicating that information provided to it is inaccurate. See judgment of 20 October 2021, *Polskie Linie Lotnicze "LOT" v Commission*, T-240/18, EU:T:2021:723, paragraphs 87 and 88 and case law cited.

of strengths, weaknesses, opportunities or threats, may also indicate the strength of competitive constraints exercised by different rival undertakings⁹¹.

- (80) In some cases, ad hoc surveys of a representative sample of customers or suppliers can provide useful information on the relevant market⁹². The Commission may decide to conduct or commission a survey in a particular case depending on the issue at hand, on the evidence available from other sources, and taking into account administrative constraints, such as the time frame of the investigation. Surveys must be designed carefully in order to elicit meaningful replies from the population of interest. For example, it is preferable in principle to ask about recent past decisions rather than about hypothetical decisions; the questions should be clear and should not induce responses in a particular direction; and the range of response options provided should be sufficiently comprehensive.
- (81) The Commission may also rely on public information, market or industry reports, as well as market statistics or economic studies, including by external consultants of the undertaking(s) involved⁹³. In cases involving regulated markets, including, for instance, the telecommunications, energy or healthcare sectors, the Commission may also seek data from and the views of sector-specific regulators.
- (82) Where appropriate, the Commission may also carry out informal visits or formal inspections at the premises of the undertaking(s) involved, their customers and/or their competitors, in order to better understand how products are manufactured or supplied.

4. MARKET DEFINITION IN SPECIFIC CIRCUMSTANCES

- (83) This section addresses certain market definition aspects that are specific to particular industries, sectors or types of markets. Unless otherwise specified in this section, the general principles on market definition set out in this Notice with respect to product and geographic market definition continue to apply.

4.1. Market definition in the presence of significant differentiation

- (84) Products may be differentiated so that some products are closer substitutes than others. Differentiation can occur at the product or geographic level. Product

⁹¹ In case M.7902 Marriott International/Starwood Hotels & Resorts Worldwide, for example, the Commission relied on the fact that the merging parties benchmarked themselves against both chain and independent hotels to find that these suppliers were in the same market (see paragraph 28). In case M.6663 Ryanair/Aer Lingus III, the Commission assessed Ryanair's and Aer Lingus' price monitoring on air passenger routes as evidence to determine whether different airports in the same cities were substitutes (see paragraphs 98-103).

⁹² In case M.4439 Ryanair/Aer Lingus, the Commission commissioned an independent consultant to carry out a customer survey at Dublin airport. The Commission used the results of that survey as indirect evidence to assess whether certain airports are substitutable for customers (see paragraphs 36, 94, 99 (9) and Annex I).

⁹³ The source and the context within which such studies are prepared is also relevant. In particular, studies prepared in the context of a specific case will be subject to particular scrutiny, since evidence carries a lower probative value if it has been influenced by the Commission's investigation.

differentiation occurs where attributes of the products matter for the customer's choice⁹⁴, including design, brand image, technical specifications, durability, level of service or any other specific feature⁹⁵. Geographic differentiation occurs where the location of the individual customer and supplier matters for the customer's choice⁹⁶.

- (85) Applying the principle of analysing the substitutes effectively available to customers to define the relevant market can lead the Commission to identify separate relevant markets within a continuum of differentiated products. In other cases, it is possible for the Commission to define a relatively broad relevant market that includes differentiated products⁹⁷.
- (86) When products are differentiated, market shares may provide a less reliable indicator of market power and the Commission normally analyses whether the undertaking(s) involved and other suppliers compete closely, as part of its competitive assessment. A detailed competitive assessment of how closely suppliers compete with each other may reduce the importance of market shares and hence that of market definition. Therefore, although market definition remains an important step, analysing how closely suppliers compete may become more relevant in the competitive assessment of differentiated markets⁹⁸.

⁹⁴ See, for instance, the judgment of 18 May 2022, *Wieland-Werke v Commission*, T-251/19, EU:T:2022:296, in the market for rolled products made of copper and copper alloys, where the General Court noted in paragraph 39 that: “[...] *the applicant does not dispute that rolled products are not homogeneous products but that they are products which are differentiated according to a great number of criteria (composition, level of finishing, end applications, etc.). Each of those criteria allows the overall market for rolled products to be segmented, without any of them being, a priori, paramount or allowing separate product markets to be identified.*”

⁹⁵ For example, in the telecoms industry where different types of customers can have different consumption habits that influence their choice of supplier. In case M.8792 T-Mobile NL/Tele2 NL, the Commission concluded on a broad market definition with product differentiation across customer groups due to differences in monthly spend, contract formation and duration, contract performance, and differences in customer need. In this particular case, although concluding on an overall retail market for the provision of mobile telecommunications services to all end customers, the Commission still found that two separate customer groups were identifiable with respect to the provision of retail mobile telecommunications services: private customers and business customers.

⁹⁶ In case M.7155 SSAB/Rautaruukki, the Commission considered that the strong geographic differentiation on steel flat products, as evidenced by the analysis of divergent prices between the Nordic countries, mainland Europe and the UK, warranted an assessment of the impact of the concentration focused in the Nordic countries (see paragraph 102).

⁹⁷ In such cases, the Commission may take into account the competitive dynamics in specific market segments in its assessment. See the judgment of 18 May 2022, *Wieland-Werke v Commission*, T-251/19, EU:T:2022:296, concerning the market for rolled products made of copper and copper alloys where the General Court explained in paragraph 40: “*Moreover, it must be borne in mind that, in the context of differentiated product markets, the existence of an overall market does not affect the possibility of identifying different competitive dynamics in some market segments*”.

⁹⁸ For instance, the Commission can assess the intensity of competition between undertakings by focusing its analysis on the segment shares of the undertakings, at switching levels, prices or market share levels or quantitative measures of the substitutability between different products such as diversion ratios or estimated demand elasticities. An example for such analysis is case M.5658 Unilever/Sara Lee, where the Commission found significant differentiation in the market for deodorants and performed a quantitative assessment of likely price effects based on estimated demand elasticities as part of its competitive assessment. See also footnote 71 above.

- (87) In certain cases, the existence of chains of substitution⁹⁹ may lead the Commission to define relevant markets where products or areas at the extreme of the market are not directly substitutable¹⁰⁰. The Commission's analysis of the facts usually leads the Commission to reject such wider market definitions, however, especially due to breaks in the chain of substitution¹⁰¹.

4.2. Market definition in the presence of price discrimination

- (88) Price discrimination occurs when different customers (or customer groups) are charged different prices for the same product, for reasons unrelated to costs. This can lead to a distinct group of customers for the relevant product constituting a narrower, distinct market. This is usually the case when three conditions are met¹⁰²: (a) it is possible to identify clearly to which group an individual customer belongs at the moment of selling the relevant product to the customer; (b) trade among customers or arbitrage by third parties is unlikely; and (c) the price discrimination is of a lasting nature. In those situations, the conditions of competition across the different customer groups can differ so that the conduct or transaction in question can have different effects on different groups of customers. Price discrimination based on customers' location can also be a reason to define the relevant geographic market in accordance with these locations¹⁰³.

4.3. Market definition in the presence of significant investments in R&D

- (89) The Commission may take into account specific factors in highly innovative industries characterised by frequent and significant investments in research and development ('R&D').
- (90) A prominent example of cases where the Commission may take this approach are so-called pipeline products. While these products may not yet be available to customers, there may be sufficient visibility on their R&D process to establish

⁹⁹ For example, even though customers of product A may not consider product C as a demand alternative, there may be a chain of substitution where A's customers consider product B as substitute and B's customers consider product C as substitutes. Product A may then be indirectly constrained by competition from product C via such a chain of substitution. .

¹⁰⁰ In case M.9413 Lactalis/Nuova Castelli, the Commission found that there was evidence that there was a chain of substitution for branded and private-label cheeses (see paragraph 89) and that they competed with each other, although it could not exclude that branded products primarily may compete in a different market and left the market definition open.

¹⁰¹ In case M.5335 Lufthansa/SN Airholding, the Commission rejected the existence of a chain of substitution between different types of tickets given that this was not corroborated by evidence. The price analysis conducted by the Commission showed that prices at the extremes of the alleged chain of substitution had very different levels and were not interdependent (see paragraph 33). In case M.6905 Ineos/Solvay/JV, the Commission rejected the existence of overlaps between the shipment areas of the principal S-PVC suppliers forming a chain of substitution across the EEA based on a quantitative analysis showing lack of arbitrage and different pricing trends between the different overlapping catchment areas (see paragraphs 260-262 and 338).

¹⁰² This can also apply when such conditions will only be met in the future, for instance due to changes in the competitive conditions brought about by the concentration under review.

¹⁰³ Product market and geographic market definitions affected by price discrimination can be exemplified in such cases as M.5830 – Olympic/ Aegean Airlines (see paragraph 58) and M.7155 SSAB/Rautaruukki (see paragraphs 101-102).

the market to which these products will likely belong, if the development were to be completed successfully and the products brought to market. The Commission may find that such pipeline products belong to an existing relevant product and geographic market¹⁰⁴ or to a new market, which is limited to the pipeline products and their substitutes¹⁰⁵ and includes the areas where such products are likely to be sold. The intended use of the pipeline product and its projected substitutability with other products play a particular role in determining the relevant market.

- (91) By contrast, in some cases, an R&D process may not be closely related to any specific product¹⁰⁶ but related to earlier stages of research, which may serve multiple purposes or may not yet be targeted at any specific objective, and which in the longer term may feed into various products. Although the fact that such earlier innovation efforts do not immediately translate into tradeable products may render it difficult to identify a relevant product market within a strict sense, it may still be relevant to identify the boundaries within which undertakings compete in such earlier innovation efforts¹⁰⁷. For the purposes of this type of assessment, factors such as the nature and scope of the innovation efforts, the objectives of the different lines of research, the specialisation of the different teams involved or the results of the undertaking's past innovation efforts may be relevant for the purposes of defining the boundaries within which innovation competition takes place.
- (92) A continuum may exist between R&D processes which are closely related to a specific product or pipeline product and earlier innovation efforts which are not. This may be the case in particular at the stage in time when R&D processes become more targeted but still consist of multiple and alternative potential results, which are not yet sufficiently refined to be classified as specific pipeline products with a defined use. The Commission's assessment of market definition in this case may be closer to that of pipeline products or of earlier innovation efforts, depending on where the relevant R&D process stands on this continuum.

¹⁰⁴ In particular alongside products with the same intended use(s). Relevant examples for such assessments can be found in the pharmaceutical industry. For instance in case M.7275 Novartis/GlaxoSmithKline Oncology Business, the Commission assessed the B-Raf inhibitors and MEK inhibitors under development by the parties as part of the market for targeted therapies for the treatment of advanced melanoma, in which existing products were already marketed (paragraphs 23-31).

¹⁰⁵ In particular in cases where various undertakings develop the same or comparable pipeline products or such products are expected to considerably alter industry dynamics due to their characteristics. For instance in case M.9461 AbbVie/Allergan, the Commission identified a plausible market limited to IL-23 inhibitors, for the treatment of ulcerative colitis and Crohn's disease, while no IL-23 inhibitor was then marketed by any supplier, the products being in development at the time, in particular due to the promising nature of such products to treat these diseases (see paragraphs 48-54, and 56-60).

¹⁰⁶ As mentioned in footnote 9, the term "product" also covers technologies. This section is also particularly relevant to defining markets in the presence of such technologies. Technologies may be licensed or sold independently from a tangible good or service as intellectual property rights and may as such be considered a product for the purposes of this Notice.

¹⁰⁷ In case M.7932 Dow/Dupont, the Commission applied the concept of innovation spaces to define such boundaries (see in particular section 4.4).

- (93) Innovation is a key parameter of competition and future developments of products are by definition largely uncertain. As a result, the Commission may factor in all potential outcomes of R&D processes and assess in particular those scenarios where competition would be significantly affected by the conduct or the transaction in question.

4.4. Market definition in the presence of multi-sided platforms

- (94) Multi-sided platforms support interactions between different groups of users, creating a situation where the demand from one group of users has an influence on the demand from the other groups¹⁰⁸. In this situation, the reaction by one group to a change in supply conditions may also affect other groups, which gives rise to feedback loops between the different sides of the platform, that is to say to indirect network effects¹⁰⁹. Platforms typically internalise these indirect network effects between different groups when setting their supply conditions. The Commission takes into account the indirect network effects between user groups on different sides of the platform when defining the relevant markets and/or in the competitive assessment.
- (95) In the presence of multi-sided platforms, the Commission may define a relevant product market for the products offered by a platform as a whole, in a way that encompasses all (or multiple) user groups¹¹⁰, or it may define separate relevant product markets for the products offered on each side of the platform¹¹¹. Depending on the facts of the case, it may be more appropriate to define separate markets where there are significant differences in the substitution possibilities on the different sides of the platform. To assess if such differences exist, the Commission may take into account factors such as whether the undertakings offering substitutable products for each user group differ, the degree of product differentiation on each side (or each user group's perception thereof), behavioural factors such as the homing decisions¹¹² of each user group and the nature of the platform (for instance whether it is a transaction or a matching platform). Where separate markets have been defined for the products offered on each side of the platform, network effects and constraints from the other side of the platform may still be taken into account in the competitive assessment.
- (96) In practice, the presence of indirect network effects may render the assessment of demand substitution and, in particular, the application of the SSNIP test more

¹⁰⁸ Typical examples of multi-sided platforms include payment card systems (see case AT.34579 *Mastercard*) and advertising-sponsored platforms (see case M.8124 *Microsoft/LinkedIn*).

¹⁰⁹ For instance, a price rise on side A of the platform decreases demand from users on that side. The decrease in demand on side A would then affect demand of users on side B, which in turn may affect the demand of users on side A (or on a third side C). See examples in case AT.39740 *Google search (Shopping)* (paragraph 159) and case AT.40099 *Google Android* (paragraphs 464, 469 and 638).

¹¹⁰ In case M.8124 *Microsoft/LinkedIn*, the Commission defined a single market for online recruiting services, encompassing both job seekers and recruiters (see section 3.7).

¹¹¹ In case AT.34579 *Mastercard* concerning payment card systems, the Commission defined the issuing and acquiring side of the market as distinct relevant product markets (see sections 6.2.3 and 6.2.4).

¹¹² This refers to the decision by users to use one platform for a given product (single-homing) or use multiple platforms in parallel for the same product (multiple-homing).

challenging than in situations where no such demand interdependence between user groups exists.

- (97) Multi-sided platforms often supply a product at a zero monetary price to a user group in order to attract users to products offered on the other sides of the platform and monetise their products on those sides. Zero monetary prices are an integral part of multi-sided platforms' business strategy, so the fact that a product is supplied at a zero monetary price does not imply that there is no relevant market for that product.
- (98) In such cases, non-price elements are particularly relevant for the assessment of substitution. The Commission focuses on elements such as product functionalities¹¹³, intended use¹¹⁴, evidence on hypothetical substitution and on competitive constraints based on industry views¹¹⁵, barriers or costs of switching such as interoperability with other products and licensing features¹¹⁶. The Commission may also consider alternatives to the SSNIP framework, namely by assessing the switching behaviour of customers in response to a small but significant non-transitory decrease of quality ('SSNDQ')¹¹⁷.

4.5. Market definition in the presence of after markets, bundles and digital ecosystems

- (99) In certain circumstances, the consumption of a durable product (primary product) leads to the consumption of another connected product (secondary product) (this is often called 'after market'). In these circumstances, the Commission also takes into account the competitive constraints imposed by market conditions in the respective connected markets when defining the relevant markets for the primary and secondary products and/or in the competitive assessment.
- (100) There are generally three possible ways to define relevant product markets in the case of primary and secondary products, namely: (i) as a system market comprising both the primary and the secondary product¹¹⁸; (ii) as multiple markets, namely a market for the primary product and separate markets for the secondary products associated with each brand of the primary product¹¹⁹; or (iii)

¹¹³ See for instance the market definition of consumer communication services and social networking services in case M.7217 Facebook/WhatsApp (paragraphs 24-33 and 51-61).

¹¹⁴ See for instance the market definition of general search services in case AT.39740 – Google Search (Shopping)(paragraphs 163-183).

¹¹⁵ See for instance market definition of professional social networking services in case M.8124 Microsoft/LinkedIn (paragraphs 106-110).

¹¹⁶ See for instance case AT.40099 – Google Android and in particular the market definition of Android app stores (paragraphs 284-305) and of licensable smart mobile operating systems (paragraph 239).

¹¹⁷ See footnote 47 above for an example of such assessment of an SSNDQ.

¹¹⁸ In case M.7278 General Electric/Alstom (Thermal Power - Renewable Power & Grid Business), the Commission defined a market for the sale of gas turbines and subsequent servicing (see section 7.2.3.3.).

¹¹⁹ In case AT.39097 Watch Repair, the Commission defined multiple separate markets for spare parts, each associated with a particular watch brand (see paragraphs 86-91).

as dual markets, namely the market for the primary product on the one hand and the market for the secondary product on the other hand¹²⁰.

- (101) The definition of a system market may be more appropriate: (i) the more likely it is that customers take the whole-life costs into account when purchasing the primary product; (ii) the higher the expenditure on (or the value of) the secondary product(s) compared to the expenditure on (or the value of) the primary product; (iii) the higher the degree of substitutability between primary products and the lower the switching costs between primary products; and (iv) when there are no or few suppliers specialised only in the secondary product(s)¹²¹. When these circumstances are less likely to be met, it may be more appropriate to define dual markets or multiple markets, depending primarily on the degree of substitutability between the secondary products of the various suppliers. For instance, if secondary products from different suppliers are compatible with all or most of the primary products the definition of dual markets may be more appropriate, whereas if customers of the primary product are locked-in to using only a restricted set of secondary products, the definition of multiple markets may be more appropriate.
- (102) In other circumstances, although the consumption of one or more products is not dependent on a primary product, customers may still prefer to consume several products together as a bundle. In these circumstances, the Commission may examine whether the bundle constitutes a relevant product market distinct from the individual products¹²².
- (103) Digital ecosystems can in certain circumstances be thought of as consisting of a primary core product and several secondary (digital) products whose consumption is connected to the core product, for instance, by technological links or interoperability¹²³. When considering digital ecosystems, the Commission may thus apply similar principles to the ones applied to after markets to define the relevant product market(s)¹²⁴. When the secondary

¹²⁰ In case M.9408 Assa Abloy/Agta Record, the Commission defined a market for after-sales services without distinguishing the service provider (see paragraph 127).

¹²¹ See, to that effect, judgment of 15 December 2010, *CEAHR v Commission*, T-427/08, EU:T:2010:517, paragraphs 78-109, and in particular paragraphs 79, 95 and 108 as well as case M.7278 General Electric/Alstom (Thermal Power – Renewable Power & Grid Business), paragraph 95.

¹²² See case M.5462 Thomas Cook Group/Gold Metal International, where the Commission assessed and left open the possibility of package holidays being in a separate market from holidays where the consumer purchases the various elements individually (see paragraphs 9-16).

¹²³ In its judgment of 14 September 2022, *Google and Alphabet v Commission*, T-604/18, EU:T:2022:541 the General Court stated in paragraph 116: “*in a digital ‘ecosystem’ [...] the products or services which form part of the relevant markets that make up that ecosystem may overlap or be connected to each other on the basis of their horizontal or vertical complementarity. Taken together, the relevant markets may also have a global dimension in the light of the system that brings its components together and of any competitive constraints within that system or from other systems.*” An example of a digital ecosystem would be an ecosystem of products built around a mobile operating system, including hardware, an application store and software applications.

¹²⁴ See paragraph 299 of the decision in case AT.40099 – *Google Android* on the definition of the market for app stores where the Commission concluded that the conditions to define a system market comprising app stores and smart mobile operating systems were not present.

(digital) products are offered as a bundle, the Commission may also assess the possibility of that bundle constituting a relevant market on its own. Although not all digital ecosystems fit an after market or bundle market approach, the Commission may in any event take into account elements such as network effects, switching costs and (single and/or multi)-homing decisions for the purpose of defining the relevant product market(s).

5. MARKET SHARES

- (104) Market definition enables the Commission to identify the suppliers and customers active on each relevant market. It can then calculate the total market size and the market share of each supplier, based on sales (and, for customers, purchases) of the relevant products in the relevant geographic area in which the customers are located.
- (105) Market shares reflect the relative position of suppliers on the market and, as such, can be very useful in assessing market power. However, market shares are not the sole indicator of an undertaking's strength in the market¹²⁵. Other factors, such as barriers to entry, access to specific assets and inputs, as well as product differentiation and degree of substitutability, may also be relevant, depending on the specific nature of the case. The Commission's guidelines on the substantive assessments in competition proceedings explain this further¹²⁶.
- (106) The Commission usually relies on market shares based on sales. Conversely, in procurement markets, the Commission usually relies on market shares based on purchases. Generally, both the value of sales or purchases and the volume of sales or purchases provide useful information.
- (107) In addition to sales or purchases, depending on the specific products or on the specific industry in question, other metrics can offer complementary or more useful information to determine market shares. These may include: capacity¹²⁷ or production volumes (in particular for markets characterised by the strategic importance of capacity); the number of suppliers (in particular in markets with formal tenders or in situations where innovative products are at the development

¹²⁵ See for instance judgment of 9 July 2007, *Sun Chemical Group and Others v Commission*, T-282/06, EU:T:2007:203, paragraph 140. Also see judgment of 6 July 2010, *Ryanair v Commission*, T-342/07, EU:T:2010:280, paragraph 42.

¹²⁶ See for instance the Commission's guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, OJ C 31, 5.2.2004, p.5-15, sections III and IV. Also see the Commission's guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements, OJ C 11, 14.1.2011, p. 1, paragraph 45.

¹²⁷ See for instance case M.8674 *BASF / Solvay's Polyamide Business* relating to the nylon polymer value chain (paragraph 455(b)), case M.7744 *HeidelbergCement/Italcementi* in a concentration involving the market for grey cement (paragraph 61) and case M.4000 *Inco/Falconbridge* in a concentration involving the market for nickel (paragraphs 315 et. seq.). See also M.8713 *Tata Steel/ThyssenKrupp/JV* (recitals 474-481) as well as the judgment of 22 June 2022, *thyssenkrupp v Commission*, T-584/19, EU:T:2022:386, paragraph 591.

stage); the number of tenders awarded¹²⁸; usage metrics such as the number of (active) users¹²⁹, the number of visits¹³⁰, time spent or audience numbers¹³¹, the number of downloads¹³² and updates, the number of interactions¹³³ or volume or value of transactions concluded over a platform (in particular where access to products is provided mainly for free, as can be the case for instance in digital markets, or more generally in the case of multi-sided platforms); units of fleet, seat capacity, number of trips or access rights such as slots at specific airports (for instance in transport markets)¹³⁴; and/or reserves held (for instance in the mining sector)¹³⁵. In markets where there are frequent and significant investments in R&D, the level of R&D expenditure or the number of patents or patent citations may be used as relevant metrics to assess the relative competitive position of companies¹³⁶.

- (108) In markets characterised by a significant degree of product differentiation, market shares measured in sales value and sales volume can be significantly different. In these circumstances, the Commission usually considers sales values to better reflect the heterogeneity between the different products¹³⁷. Sales volumes complement sales value and may in some instances better reflect the competitive strength of undertakings. For example, in the case of a concentration involving two undertakings offering a product at a much lower price than others, but capturing a significant share of customers, sales value alone may underestimate the competitive importance and interactions of those undertakings¹³⁸.
- (109) As explained in section 4.1, in the case of a significant degree of product or geographic differentiation, market shares tend to be less informative and it may

¹²⁸ See for instance case M.8134 Siemens/Gamesa, paragraphs 75-80, which explain that the number of tenders for wind turbines awarded was a more relevant metric in that case than the installed base of wind turbines due to a time lag between award and installation.

¹²⁹ See for instance case M.7217 Facebook/WhatsApp (paragraphs 95-98).

¹³⁰ See for instance case AT.39740 – Google Search (Shopping) (paragraphs 273-284).

¹³¹ See for instance case M.9064 Telia Company/Bonnier Broadcasting Holding in relation to the market for the wholesale supply of Free To Air and basic pay TV channels (footnotes 315, 316, 324, 327, 333 and 339).

¹³² See for instance case AT.40099 Google Android (paragraphs 591-593).

¹³³ See for instance case M.10262 Facebook/Kustomer in relation to the market for B2C communication services (paragraphs 176-179).

¹³⁴ See for instance case M.4439 Ryanair/Aer Lingus (paragraphs 340-347); case M.8869 Ryanair/LaudaMotion (paragraphs 303-306) and case M.9287 Connect Airways/Flybe (paragraphs 447-453).

¹³⁵ See for instance case M.4000 Inco/Falconbridge (paragraphs 490-494) and case M.8713 Tata Steel/ThyssenKrupp/JV (recitals 472-481).

¹³⁶ See for instance case M.7932 Dow/DuPont (Annex 1 of the decision) and case M.8084 Bayer/Monsanto (recitals 1153 et seq.).

¹³⁷ See for instance M.7278 General Electric/Alstom (Thermal Power – Renewable Power & Grid Business), paragraph 426.

¹³⁸ For instance, competition between providers of private label products, which are not differentiated, may be better captured by reference to volume shares. See case M.9413 Lactalis/Nuova Castelli, paragraph 137.

be more relevant to assess the degree of substitutability in the context of the competitive assessment. The Commission may, when appropriate, rely on shares for segments of the relevant market and take those into account when assessing how closely undertakings compete with each other and with their competitors¹³⁹.

- (110) Market share information may be provided in the form of estimates by the undertaking(s) involved, if precise market shares are not available to them. The Commission can additionally or alternatively use other sources of information on market size and market shares. These may include studies or reports by public authorities, industry consultants or trade associations, internal documents of the undertaking(s) involved or estimates provided by market participants. Particularly where no reliable estimates from the undertaking(s) involved or information from other sources are available, the Commission may carry out a full or partial market reconstruction, through requests for information addressed to relevant market participants, asking the suppliers or customers in the relevant market to provide data on their own sales or purchase volumes or values or other relevant metrics.
- (111) As a general rule, the Commission relies on market shares computed over one year reference periods for at least three years. However, the time period over which market shares are computed may differ depending on the characteristics of the relevant market. In particular, in markets characterised by lumpy or irregular demand, or seasonality of supply and/or demand, it may be appropriate to compute market shares over longer or shorter reference periods¹⁴⁰.

6. CONCLUSIONS

- (112) The Commission will further develop its interpretation of the concept of relevant product and geographic market in its case practice, in line with developments in the markets and in competition dynamics, in line with the case law of the Union Courts and in line with evolutions in best practices in market definitions.
- (113) The Commission's interpretation of the concept of 'relevant market' in this notice is without prejudice to the interpretation given to the concept by the Union Courts in individual cases.

¹³⁹ For instance, in case M.9409 Aurubis/Metallo Group Holding, the Commission found that the relevant market for copper scrap for smelting and refining was highly differentiated, in particular in terms of material composition and origin, and consisted of multiple segments. The Commission reviewed market shares for these specific segments to assess how closely the merging parties competed with one another and with their competitors (see recitals 227 and 468).

¹⁴⁰ Examples of longer reference periods due to lumpy demand can be found in tender markets. For example, in case M.7278 General Electric/Alstom (Thermal Power – Renewable Power & Grid Business) market shares were calculated for a five and ten year period (see paragraphs 420-422) while in case M.8677 Siemens/Alstom a ten year reference period was used (see paragraph 141). Several years of data for shorter reference periods (namely seasons) have for instance been used in airline cases such as M.8869 Ryanair/Laudamotion (see paragraph 304).