



EUROPEAN COMMISSION
DG Competition

CASE M.8788 – APPLE / SHAZAM

(Only the English text is authentic)

MERGER PROCEDURE REGULATION (EC) 139/2004

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

Date: 06/09/2018

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EUROPEAN
COMMISSION

Brussels, 6.9.2018
C(2018) 5748 final

COMMISSION DECISION

of 6.9.2018

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

(Case M.8788 – Apple/Shazam)

(Only the English version is authentic)

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THE EUROPEAN COMMISSION,

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

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

Having regard to Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings¹, and in particular Article 8(1) thereof,

Having regard to the Commission's decision of 23 April 2018 to initiate proceedings in this case,

Having regard to the opinion of the Advisory Committee on Concentrations²,

Having regard to the final report of the Hearing Officer in this case³,

Whereas:

1. INTRODUCTION

- (1) On 14 March 2018, the Commission received notification of a concentration pursuant to Article 4 of Regulation (EC) No 139/2004 ("the Merger Regulation") that would result from the proposed acquisition by Apple Inc. (United States of America) of sole control of the entire undertaking of Shazam Entertainment Ltd. (United Kingdom) within the meaning of Article 3(1)(b) of the Merger Regulation ("the Transaction").⁴ The undertaking comprising Apple Inc. and its subsidiaries ("Apple" or "the Notifying Party") and the undertaking comprising Shazam Entertainment Ltd. and its subsidiaries ("Shazam") are hereinafter collectively referred to as "the Parties".
- (2) The recitals in this Decision are arranged as follows. Section 2 describes the Parties and explains why the Transaction would result in a concentration within the meaning of the Merger Regulation. Section 3 explains why the Commission acquired jurisdiction to scrutinise the Transaction. Section 4 describes the procedure followed in this case. Section 5 describes the investigation undertaken by the Commission into the Transaction. Section 6 provides an overview of the digital music industry. Section 7 defines the relevant product and geographic markets. Section 8 sets out the Commission's assessment of whether the concentration brought about by the Transaction would significantly impede effective competition in each of the relevant markets. Section 9 contains the Commission's conclusions.

2. THE PARTIES AND THE TRANSACTION

- (3) **Apple** designs, manufactures and sells mobile communication and media devices (such as the "iPhone", the "iPad", the "Apple TV") as well as personal computers (the "Mac"). It also develops a variety of operating systems ("OSs"), which are installed on the hardware of the devices and personal computers ("PCs") it sells

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

In this Decision, [...] and [...] refer to confidential information which has been redacted from the version of this Decision addressed to the Notifying Party.

² OJ C20.., p....

³ OJ C20.., p....

⁴ OJ C 106, 21.03.2018, p. 16.

("macOS" for Macs, iOS for smart mobile devices, "watchOS" for smart watches and "tvOS" for smart TVs), as well as other software solutions and mobile application software solutions ("apps"), including for example a virtual assistant software solution ("Siri"). Moreover, Apple sells services, peripherals, networking solutions, and third-party digital content. In particular, Apple sells and delivers digital content online through the "iTunes Store", the "App Store", the "iBook store" and the "Mac App Store", and offers the music and video streaming service through the app "Apple Music".

- (4) **Shazam** is a developer and distributor of music recognition apps for smartphones, tablets and personal computers, branded "Shazam".⁵ It generates revenues from (i) the display of online advertising, (ii) partnerships with third parties, (iii) commissions earned on referrals of users to digital music streaming and download services, such as Apple Music, and (iv) licensing of music data and analytics services.
- (5) Pursuant to a share purchase agreement entered into on 10 December 2017, following completion of the Transaction Apple Inc. will hold the entire issued share capital of Shazam Entertainment Ltd. and will thus acquire sole control of the undertaking comprising Shazam. Therefore, the Transaction would result in a concentration within the meaning of Article 3(1)(b) of the Merger Regulation. The notified concentration that would result from the Transaction is referred to in this Decision as "the Concentration".

3. JURISDICTION OF THE COMMISSION

- (6) The Concentration does not have a Union dimension within the meaning of Article 1 of the Merger Regulation. In the last financial year before notification for which audited accounts are available for Apple (2017), Apple generated an aggregate worldwide turnover of EUR 206.3 billion, of which approximately EUR [...] billion was generated in the Union. In the last financial year before notification for which audited accounts are available for Shazam (2016), Shazam, however, generated an aggregate worldwide turnover of only EUR 45.2 million, of which approximately EUR [...] million was generated in the Union. Therefore, neither the test laid down in paragraph (2) nor the test laid down in paragraph (3) of Article 1 of the Merger Regulation is met.
- (7) On 12 December 2017, the Concentration was notified to the federal competition authority of Austria.
- (8) On 21 December 2017, the Commission received a referral request concerning the Concentration from the federal competition authority of Austria pursuant to Article 22(1) of the Merger Regulation. The national competition authorities of France, Iceland, Italy, Norway, Spain and Sweden subsequently joined the request made by the federal competition authority of Austria. Austria, France, Iceland, Italy, Norway, Spain and Sweden are collectively referred to as "the Referring States".
- (9) On 6 February 2018, the Commission adopted decisions by which it accepted the requests of the Referring States and decided to examine the Concentration pursuant to Article 22(3) of the Merger Regulation ("the Article 22 Decisions").⁶ Therefore,

⁵ Shazam also offers visual recognition services, but, at present, they have no market relevance.

⁶ Commission decision of 6 February 2018 in Case M.8788 – *Apple/Shazam*.

the Commission has acquired jurisdiction to examine the effects of the Concentration with regard to the Referring States.

4. THE PROCEDURE

- (10) On 14 March 2018, the Concentration was notified under Article 4 of the Merger Regulation at the request of the Commission pursuant to the second subparagraph of Article 22(3) of that Regulation.
- (11) After a preliminary examination of the Concentration and based on a first phase market investigation, the Commission decided on 23 April 2018 to initiate proceedings under Article 6(1)(c) of the Merger Regulation ("the Article 6(1)(c) Decision"). In the Article 6(1)(c) Decision, the Commission concluded that the Concentration raised serious doubts as to its compatibility with the internal market and the Agreement on the European Economic Area ("EEA Agreement") due to non-horizontal non-coordinated effects consisting of:
 - (a) the potential foreclosure of competing providers of automatic content recognition ("ACR") software solutions, including music recognition apps, in the territory covered by the EEA Agreement ("the EEA") as a result of conduct such as pre-installing Shazam on iOS or integrating Shazam with iOS or degrading the interoperability of ACR solutions provided by Shazam's competitors on iOS; and
 - (b) the potential foreclosure of competing providers of digital music streaming apps in the EEA as well as in the territories of the Referring States as a result of Apple gaining access to commercially sensitive information on its rivals through the Concentration.
- (12) On 15 May 2018, the Notifying Party submitted its reply to the Article 6(1)(c) Decision ("the Reply to the Article 6(1)(c) Decision").
- (13) On the same day, the second phase investigation period was extended by ten working days at the request of the Notifying Party pursuant to the first sentence of the second subparagraph of Article 10(3) of the Merger Regulation.
- (14) A state of play meeting between the Parties and the Commission took place on 22 May 2018.
- (15) The Advisory Committee discussed a draft of this Decision on 22 August 2018 and issued a favourable opinion.⁷

5. THE INVESTIGATION

- (16) After issuing the Article 22 Decisions and prior to the notification of the Concentration, the Commission sent four requests for information ("RFIs") to the Parties. The responses to those RFIs were then included in the notification. The Commission also conducted ten interviews with Shazam, the Parties' competitors and music labels.
- (17) During the first phase investigation, the Commission sent close to 60 RFIs to the Parties' competitors and customers, as well as to music labels and the Parties

⁷

At the Advisory Committee all present Member States agreed that that the Transaction must be declared compatible with the internal market and the EEA Agreement in accordance with Article 2(2) and 8(2) of the Merger Regulation and Article 57 of the EEA Agreement.

themselves. The Commission also conducted an interview with a competitor of Shazam and a preliminary reconstruction of the markets for music recognitions apps and digital music streaming apps.

- (18) During the second phase investigation, the Commission sent close to 50 detailed RFIs to the Parties (including targeted internal document requests, resulting in the submission of over 100 000 internal documents of Apple and Shazam) and key market participants in the digital music industry, as well as in the digital platforms space and the online advertising industry, including Google, Inc. ("Google"), Facebook, Inc. ("Facebook") and Twitter, Inc. ("Twitter"). Further, the Commission conducted several interviews with the Parties' competitors and the consumer association Bureau Européen des Unions de Consommateurs ("BEUC") and completed the market reconstruction exercise undertaken in the first phase investigation. Finally, the Commission collected information on the databases maintained by Apple Music, Apple Music's competitors and Shazam's competitors in order to perform a benchmarking exercise of Shazam's data against comparable databases under several metrics, as further detailed in Section 8.

6. OVERVIEW OF THE DIGITAL MUSIC INDUSTRY

- (19) The industry sector on which the Commission has assessed the impact of the Concentration on competition is the digital music sector, where both Parties are active players, albeit with different roles (as further explained in the following sub-sections).

6.1. The digital music distribution value chain

- (20) Music publishers oversee all activities related to the preparation and issuing of musical works by authors. Upstream, they are active in the supply of publishing services to authors. These services include signing authors and providing them with financial, marketing and career support in exchange for the rights to their musical work or an economic interest in their musical work (that is, the right of publishers to obtain a certain portion of the royalties collected). Downstream, music publishers are active in the exploitation of works of authors who are under contract and for a certain period of time following expiration of their contracts (the so-called retention period). To this end, they either directly grant licences to rights users in exchange for the payment of royalties or they receive a part of the royalties collected by collecting societies⁸ (for licences issued by societies) for the exploitation of an author's work.
- (21) The following types of publishing rights exist:
- (a) mechanical rights: the right to reproduce a work in a sound recording (for example compact disks);
 - (b) performance rights: the right for commercial users, such as broadcasters (TV or radio stations), concert halls, theatres, night clubs or restaurants, to divulge a work to the public;
 - (c) synchronisation: the right for commercial users, such as advertising agencies or film companies, to synchronise music with a visual image;
 - (d) print rights: the right to reproduce a work in sheet music; and

⁸ Collective management organisations, also known as collecting societies, are entities which manage copyrights in musical works, see Commission decision of 15 June 2015 in case M.6800 - *PRRfM/STIM/GEMA/JV*, recital 4.

- (e) online rights: a combination of mechanical and performance rights for online applications, such as music downloading and/or streaming services.⁹
- (22) Record companies give concrete and material (physical or digital) shape to musical works, which are then brought to end consumers. To do so, record companies need, among other things, to have mechanical rights licensed to them from publishers and/or collecting societies. Like music publishers, record companies also operate both upstream vis-à-vis authors and downstream vis-à-vis distributors. In particular, upstream, record companies provide a number of services to authors and performing artists, including discovering, developing and promoting recording artists, as well as the recording of their music (so-called "A&R", which stands for "artists and repertoire"), whereas downstream, they sell recorded music in physical or digital form to wholesalers and/or retailers (bricks and mortar shops or online platforms, such as iTunes) and license the recording rights over their catalogue to audio or video streaming digital service providers (such as Apple Music).
- (23) Publishing rights differ from recording rights. Publishing rights are rights to the notes and lyrics of a song and are usually transferred to a publisher by the author. Recording rights are rights to the particular rendition of that song, as recorded by a performing artist (who is often different from the author).
- (24) Digital music distributors have mechanical and performance rights licensed to them from collecting societies and/or music publishers and rights to actual recordings licensed to them from record companies. They then offer the musical works to consumers. There are a variety of digital music distribution channels available to consumers, who typically access music in a number of different ways.¹⁰
- (25) The main retail models for digital music distribution services are music streaming and music download.¹¹ Download involves the purchase and storage of a digital copy of a musical work on one or more personal computers or media devices. Typical examples of download platforms are Apple's iTunes apps and the MP3 service¹² of Amazon.com, Inc., ("Amazon"). With a streaming service, the user does not download music files and no permanent copy is stored on the user's personal

⁹ See Commission Decision of 22 May 2007 in Case M.4044 – *Universal/BMG Music Publishing*, recitals 18-25; Commission decision of 19 April 2012 in Case M.6459 – *Sony/Mubadala/EMI Music Publishing*, paragraph 19.

The exploitation of online rights constitutes the main area of interest for the purpose of assessing the Concentration and it is also the one which has experienced an exceptional development in the last decade, as demonstrated by the data on royalties collections reported by the International Confederation of Societies of Authors and Composers ("CISAC"). Indeed, according to the CISAC's 2017 report, available at <http://www.cisac.org/CISAC-University/Library/Global-Collections-Reports/Global-Collections-Report-2017> (accessed on 1 August 2018), although digital royalty collections are still a relatively small segment, they dominate worldwide growth across all regions. In 2016, global digital music revenues streams were around EUR 945 million, with a 51.9% growth rate from 2015, while in Europe (comprising, for the purpose of the market study at stake, Belgium, Denmark, Netherlands, Sweden, United Kingdom, France, Spain, Italy, Germany, Switzerland, Czech Republic and Turkey) digital collections for music were around EUR 526 million, with a 40.8% compared to previous year and had nearly tripled in the precedent five years, driven by explosive growth in streaming music and video platforms services.

¹⁰ Reportedly, consumers each listen on average to music on 4 different licensed ways, International Federation of the Phonographic Industry ("IFPI"), *Music Consumer Insight Report 2017*, available at <http://www.ifpi.org/downloads/Music-Consumer-Insight-Report-2017.pdf> (accessed on 1 August 2018).

¹¹ Commission decision of 15 June 2015 in case M.6800 – *PRR/M/STIM/GEMA/JV*, recital 113 and footnote 85.

¹² An MP3 service is a media device that stores and plays songs in a computer format (called MP3) for creating sound files that are much smaller than standard sound files.

computer or media device. Instead, the audio file is delivered in small data packets over the Internet and playback commences as soon as the streaming service (for example, an app or web-based solution) is initiated.

- (26) Streaming services can comprise basic ad-sponsored services, available free of charge, and premium, paid-for services. Premium services are typically ad-free, offer additional functionalities (for instance, unlimited plays of songs, a larger music library or support of smart mobile devices) and may grant users the possibility to download and store tracks in order to listen to them offline during the period of the subscription (so-called “tethered downloads”).¹³ Music streaming can be played on PCs, smart mobile devices, home entertainment systems, car entertainment systems, gaming consoles and similar devices, both online and offline. Music streaming services are available on different OSs, although commonly used most on Android by Google and iOS.

6.2. Competitive dynamics, key metrics and trends

- (27) In the last 20 years, the recorded music industry has undergone continuous and substantial transformation with a significant impact on the way music is distributed. Distribution has indeed shifted from physical to digital and, within digital, from download to streaming and from “ownership” to “access”.¹⁴
- (28) After more than a decade of declining revenues in music distribution, the global recorded music industry has in recent years recovered and experienced continuous growth, with total revenues rising from USD 14.2 billion in 2013 to USD 17.3 billion in 2017. This growth was largely driven by digital music streaming services, whose revenues surpassed those of digital music downloads in 2016.¹⁵ In 2017, more than half of all revenues (54%) in the recorded music industry were generated by distribution of digital music and, in particular, by 176 million users of premium streaming services.¹⁶ Notwithstanding the exceptional growth in recent years, digital music revenues are expected to continue to increase in the coming years, given that digital music is still mainly conveyed by free, ad-supported music services.¹⁷ With

¹³ A tethered download is a song file downloaded from a music subscription service that can be played only on personal computers or media device registered to an account of the relevant music subscription service, as opposed to untethered downloads which can be played on compatible devices, regardless of whether it is registered to an account of the music subscription service.

¹⁴ IFPI, *Global Music Report 2017*, p.7, available at: <http://www.ifpi.org/downloads/GMR2017.pdf> (accessed on 1 August 2018).

¹⁵ IFPI, *Global Music Report 2018: State of the Industry*, p. 11, available at <http://www.ifpi.org/downloads/GMR2018.pdf> (accessed on 1 August 2018).

¹⁶ According to IFPI, *Global Music Report 2018: State of the Industry*, p. 10, available at <http://www.ifpi.org/downloads/GMR2018.pdf> (accessed on 1 August 2018), global recorded music revenues (reported at wholesale prices) grew for the third consecutive year to reach around EUR 15.344 billion in 2017. The 8.1% growth was the highest percentage rate increase from a previous year in the past 20 years. Specifically, streaming revenues made up 38% of total global revenues; digital revenues (excluding streaming) made up 16%; physical unit revenues made up 30%; performance rights' revenues made up 14%; and synchronization revenues made up 2%. Moreover, record-company income deriving from digital formats and services grew by 19.1%, increasing from some EUR 7 billion to EUR 8.33 billion. Three Member States are among the top nine digital markets globally: Germany and the United Kingdom hold each 8% of the global market and France, one of the Referring States, holds 5%.

¹⁷ Form CO, paragraph 232; MIDiA, *State of the Streaming Nation 2 Report*, May 2017, Annex 6.3.III.B(a) to Form CO; and Statista worldwide and Europe data on the size of the music streaming services market, Annexes 6.3.III.B(b) and (c) to Form CO; Reply to the Article 6(1)(c) Decision, Section 2.A. In this vein also: [...]’s response to RFI [...]; agreed minutes of the conference call with Deezer, of 30 May 2018, paragraph 14, and [...] and Spotify’s IPO prospectus, Form F-1, available at:

respect to the EEA, this has been confirmed by the results of the Commission's market investigation.¹⁸

- (29) Furthermore, benefiting from increasing Internet and mobile device penetration, the growth in music streaming services is expected to continue in Europe over the next few years.¹⁹
- (30) In order to sustain their growth, music streaming service providers operate on the basis of a variety of different business models. As mentioned in Section 6.2, some providers operate so-called freemium models whereby they offer a basic, free and ad-supported service to attract users, while additional features are offered in a premium service to which users can subscribe in exchange for the payment of a monthly fee. For such business models, conversion of free users into paid subscribers is important.
- (31) When developers of music streaming apps offer their app in the app stores available on the different OSs, they may be required to use the in-app purchase or billing mechanism of the OS provider as a method of payment to process customer transactions related to the purchase of premium subscriptions. Depending on the developer terms for the app store, the developers may have to pay a fee to the OS provider on the value of transactions processed.
- (32) In particular, Apple requires third party developers (including digital music streaming providers) which sell digital content to users via apps on iOS devices to use Apple's In-App Purchase Mechanism ("IAP") for the relevant payments²⁰ and charges a fee equal to 30% of the subscription price.²¹ While a subscription outside the app (for example, on the service provider's website) with an alternative payment mechanism remains possible, Apple's App Store Review Guidelines²² limit the ability of competitors to Apple Music to promote this possibility to iOS users.²³
- (33) As regards Android, Google does not require music streaming service providers to use its in-app billing as a method of payment as long as the content may (also) be consumed outside of the app itself.²⁴ In such cases, music streaming service providers do not have to pay any transaction fees to Google.²⁵
- (34) Music streaming service providers use a number of methods in order to engage music enthusiasts, promote their services, acquire customers and retain existing users. In this respect, the results of the market investigation indicate that promotional campaigns (for example, specific offers for a limited time) and in-app advertisement in digital music streaming apps to customers which are not yet premium subscribers are generally considered to be the most effective methods to grow the subscriber base of music streaming services. Thus organic growth customer acquisition channels are

<https://www.sec.gov/Archives/edgar/data/1639920/000119312518063434/d494294df1.htm>, (accessed on 1 August 2018), page 2 and following.

¹⁸ See Section 8.4.2.1(c)(iv).

¹⁹ See: <https://www.statista.com/outlook/202/102/digital-music/europe> (accessed on 1 August 2018).

²⁰ See section 3.1.1. of Apple's App Store Review Guidelines, available at: <https://developer.apple.com/app-store/review/guidelines/> (accessed on 1 August 2018).

²¹ This is reduced to 15% after a subscriber accumulates one year of a paid service, available at <https://developer.apple.com/app-store/subscriptions/> (accessed on 1 August 2018).

²² See section 3.1.3 (b) of Apple's App Store Review Guidelines, available at <https://developer.apple.com/app-store/review/guidelines/> (accessed on 1 August 2018).

²³ For example, [...]

²⁴ See Developer Policy Center, Monetization and Ads, available at: <https://play.google.com/about/monetization-ads/> (accessed on 1 August 2018).

²⁵ This is different for the distribution of games.

of primary importance. These are followed, in order of importance, by paid online search advertising, marketing on social network sites and partnerships with mobile network/telecoms operators,²⁶ e-mail campaigns to current or former customers and referrals from other apps.²⁷

- (35) In this respect, a provider of music streaming services, SoundCloud, explained that “[c]urrently, [its] most effective customer acquisition method is [its] Customer Relationship Management program (“CRM”) that communicates via email, push and in-app notifications to [its] base of free tier listeners. [It uses] CRM to communicate about new releases, product updates and to upsell users to the paid subscriptions, sometimes incorporating promotional discounts.”²⁸ In the same vein, [...]”²⁹
- (36) Music streaming service providers typically compete for new customers who have not yet subscribed to any music streaming service provider, rather than for subscribers of competing services. As Spotify’s Director of Economics put it in 2017: “The key development in the market at the moment is competition. What is especially key is that it is competition based around market growing, not market stealing. There are more big players - and arguably more sustainable players - than have come and gone in the past, and it’s all about making new audiences aware of streaming and expanding the market. At the moment, we are growing, Apple’s growing, Amazon’s growing, and other services are coming on board, and we’re not stealing each other’s lunch.”³⁰
- (37) During the market investigation, several market respondents, such as [...]”³¹ and [...]”³², explained that at this stage of the market, growth typically comes from first-time subscribers to music streaming services rather than users who were previously subscribers of competing music streaming services. Also [...] considered that its main strategic focus was acquiring new users rather than attracting competitors’ users to its service.³³
- (38) Customers that use streaming services for free are more likely to switch to alternative service providers than paying subscribers, as the latter are typically less price sensitive and more engaged users (for example, by using additional features such as creating their own playlists).³⁴ Relatively low churn rates for premium subscribers

²⁶ The importance of partnerships with mobile network/telecoms operators is suggested by [...]. The importance of this mode of generating new subscribers is demonstrated by comments made by digital music distributors. For example, the Form CO, paragraph 246, reports that the former CEO of Deezer stated that “mobile operators are the only ones who can contribute to the critical mass” required for the success of a service” (available at: <https://www.mobileworldlive.com/interview-deezer-ceo>), while Spotify’s global head of telco partnerships has stated that such partnerships give Spotify a degree of marketing and promotion “on a scale we’d never be able to afford on our own”, increased average revenue per user and help “get people into the paid funnel and keeping them in the paid funnel”, with around 80% of paid users remaining after the end of the bundle period (available at: https://www.youtube.com/watch?v=M1rFSVdbS_I).

²⁷ Apple’s response to RFI 36, question 3 b); Soundcloud’s response to RFI 22, question 2; Deezer’s response to RFI 19, question 2; Spotify’s response to RFI, question 2; [...].

²⁸ SoundCloud’s response to RFI 22, question 3.

²⁹ [...].

³⁰ IFPI, *Global Music Report 2017*, p. 17, available at: <http://www.ifpi.org/downloads/GMR2017.pdf> (accessed on 1 August 2018).

³¹ [...].

³² [...]

³³ [...]

³⁴ [...].

confirm relatively limited switching by paid subscribers.³⁵ Younger users³⁶ and free users³⁷ are more likely to "multi-home" by using two or more apps for streaming music.

6.3. Digital music streaming services in the EEA

- (39) In the EEA, the offer of subscription-based or ad-funded music streaming services, excluding video streaming, is concentrated in just a few retailers, namely Spotify Technology S.A. ("Spotify"), Apple Music, Deezer S.A. ("Deezer"), Amazon and Google.
- (40) Spotify launched its music streaming services in 2008 and is the market leader in the EEA. The company was recently publicly listed (April 2018) and, in May 2018, it reached over 160 million monthly active users, including 75 million paying subscribers ("Premium Subscribers") and 90 million ad-funded users ("Freemium Subscribers") across 65 countries.³⁸ This growth has also been sustained by a commercial offering of Spotify's services to mobile operators who resell Spotify services or, more often, bundle them with, for example, TV and/or broadband services for a fixed monthly fee.
- (41) Apple Music, launched in 2015, has very rapidly become the second largest provider of music streaming services in the EEA, with a fast growing subscriber base of 50 million users worldwide at the beginning of 2018, of which around 8 million users are on a free trial and over 40 million are paying subscribers.³⁹ Apple Music adopts a paying-for music streaming model with the possibility of a limited free trial to encourage customers to become paying subscribers. Apple has few limited partnerships with telecoms operators in the EEA. Apple Music is pre-installed on the iOS devices and offered on a standalone basis via an app on Android devices.
- (42) Deezer launched the first streaming service in the EEA in 2007, with a relatively small catalogue. Until 2011, Deezer was available only in a limited number of countries in the EEA (France, Belgium and the United Kingdom). Since then, it has expanded its services worldwide to reach 180 countries, with a catalogue of 53 million songs and, in 2018, 14 million active users.⁴⁰ Similar to Spotify, Deezer has a premium as well as a freemium offer, and has supported its user base's growth in the EEA by bundling its music streaming service with mobile services (in particular, in partnership with Orange S.A.). Deezer also integrates in its apps a technology ("Songcatcher") which enables it to offer music recognition functionalities to its customers.

³⁵ Spotify reported in its IPO prospectus, Form F-1, available at: <https://www.sec.gov/Archives/edgar/data/1639920/000119312518063434/d494294df1.htm> (accessed on 1 August 2018), that its churn rate in the fourth quarter of 2017 was 5.1 %, meaning that 5.1 % of paid subscribers cancelled their subscription in the fourth quarter of 2017.

³⁶ See "Younger consumers use two or more apps for streaming music, mobile messaging, says Nielsen", available at: <https://techcrunch.com/2017/08/21/younger-consumers-use-two-or-more-apps-for-streaming-music-mobile-messaging-says-nielsen/?guccounter=1> (accessed on 1 August 2018).

³⁷ [...].

³⁸ See "Spotify Technology S.A. Announces Financial Results for First Quarter 2018": <https://investors.spotify.com/financials/press-release-details/2018/Spotify-Technology-SA-Announces-Financial-Results-for-First-Quarter-2018/default.aspx> (accessed on 1 August 2018).

³⁹ See "Apple CEO Says He Told Trump Tariffs Are Wrong Approach to China": <https://www.bloomberg.com/news/articles/2018-05-15/apple-ceo-says-he-told-trump-tariffs-are-wrong-approach-to-china> (accessed on 1 August 2018).

⁴⁰ See: <https://www.deezer.com/it/company/about> (accessed on 1 August 2018).

- (43) Amazon, which launched a premium, ad-free music streaming service, “Amazon Music Unlimited”, at the end of 2016, is the most recent entrant in the music streaming business. The service is also available as part of the “Amazon Prime” offer to its registered customers (over 100 million in 2018), although in a “lighter” form which allows access only to a restricted part of the catalogue (2 million tracks instead of 50 million) and for a limited period of time (40 hours maximum per month instead of unlimited access). Amazon Music's subscriber base is estimated in 2017 as being over 16 million, across Amazon Prime Music and Amazon Music Unlimited, over 30 countries.
- (44) Google also offers an on demand music streaming service, “Google Play Music”, which was originally launched in 2011 as a paid download service. Google Play Music is preinstalled on the Android OS and offered on a standalone basis via an app on iOS devices. Google's Play Music's catalogue is comparable to those of other players, with 40 million tracks and is available worldwide upon subscription. In May 2018, Google announced the launch of another music streaming service, YouTube Music, which would replace Google Play Music by 2019.

6.4. The interaction between ACR software solutions and the digital music industry: music recognition software solutions

- (45) ACR software solutions are based on audio identification technologies, which use a device's microphone to recognize (audio or video) content based on two different methodologies, so called "fingerprinting" and "watermarking".
- (46) Fingerprinting is based on the generation of unique fingerprints from the content itself which is then stored in a reference database. Audio signals captured by a media device containing ACR support (typically a smartphone or a tablet) are matched with the reference database to identify the captured content. The core of the technology lies in the quality of the algorithms aimed at extracting recognizable data points from the audio signal. The reference database (and associated business processes) is built and engineered to maximize the number of audio samples gathered (for example, for a given song).
- (47) Conversely, watermarking requires inserting digital tags containing specific information about the content into the content file itself prior to its distribution. Watermarking thus adds information, embedding it, within a video or an audio signal. Devices containing ACR support read the watermarks instead of actually recognising the played content by matching it with a reference database. Watermarking requires a technological infrastructure aimed at adding the watermark at the source of content creation. The core of the technology lies in the quality of the algorithms aimed at inserting data into the audio signal. The back-end database is typically smaller and much easier to search than the reference database needed for the fingerprinting methodology.
- (48) Music recognition software solutions are part of the broader category of ACR software solutions and are specifically used to identify music content. Music recognition software solutions based on fingerprinting technology recognise music by matching music fingerprints generated on users' devices with a reference database of fingerprints. In order to have a music catalogue that is representative of what users may seek to identify, providers of music recognition software solutions need first to

source fingerprints corresponding to popular music which are provided by music labels and music streaming or download service providers and music aggregators.⁴¹

- (49) ACR software solutions, including music recognition software solutions, are used on different platforms having an enabled microphone.
- (50) ACR software solutions, including music recognition software solutions, developed in app format ("ACR apps" and "music recognition apps") for smart mobile devices, smart TV and smart watches, enable users to obtain additional information about the content they have just experienced without any user based input or search efforts.
- (51) Apps providing music recognition functionalities either rely on their own ACR software solution, such as the solution provided by SoundHound, Inc. ("SoundHound") or Shazam, or they are powered by third party providers (for example, Deezer, MusixMatch S.p.A. ("Musixmatch") and Genius Media Group, Inc. ("Genius") apps rely on the software solution provided by ACRCLOUD Limited ("ACRCLOUD")).

6.5. ACR software solution providers in the EEA

- (52) Several providers of ACR software solutions, based on both fingerprinting and/or watermarking methodologies, are active in the EEA.
- (53) Shazam is available as apps for smartphones, tablets and personal computers whose core functionality is to allow consumers to recognize music based on fingerprinting.⁴² Shazam's users are predominantly using [...] to access its services. Shazam's technology also powers music recognition functionalities of third parties (including, in particular, Apple's virtual assistant Siri and Snapchat's music recognition functionalities within the Snapchat social network services).⁴³
- (54) Gracenote, Inc. ("Gracenote"), controlled by the global information and data group Nielsen, provides music, video and sports metadata based on fingerprinting ACR technology to entertainment services and companies, worldwide. Its main service offerings include: (i) music recognition services, to enable third party apps and software solutions to identify songs;⁴⁴ (ii) music data, providing a collection of music data; (iii) services for TV and over-the-top providers. Moreover, Nielsen connects Gracenote viewership data to a wide spectrum of Nielsen, first- and third-party consumer data for person-level consumer insights, as well as hundreds of integrated paid and owned media platforms for marketing activation.⁴⁵

⁴¹ White label providers or music aggregators are platforms that provide access to an existing large and diverse digital music catalogue and perform the clearing of rights (obtaining licences from the record labels to sell the music catalogue digitally), the settling of technological issues, including digital rights management systems, the creation of online music storefronts, secure billing systems and delivery networks. The main white label providers include 7 Digital, Nokia/OD2 and MusicLoad. These white label providers service many of the music services operated by Internet Service Providers and specialist bricks-and-mortar retailers. There are music aggregators that collect rights from a range of rights holders and supply them to digital music stores, as well as specialized digital distributors that retail and market music via online and mobile channels. See Commission decision of 19 April 2012 in Case M.6459 - *Sony/Mubadala/EMI Music Publishing*, paragraph 78.

⁴² [...]. See Form CO, paragraph 85, as well as Apple's White Paper on ACR technology of 19 June 2018, paragraph 5.

⁴³ Apple does not offer music recognition functionalities as part of a standalone product.

⁴⁴ Gracenote does not offer apps or software solutions for consumers.

⁴⁵ See: <http://www.nielsen.com/us/en/press-room/2017/nielsen-launches-first-person-level-tv-dmp-powered-by-gracenote-smart-tv-viewership-data.print.html> (accessed on 1 August 2018).

- (55) ACRCLOUD is a Chinese company which develops ACR software solutions based on fingerprinting technology. ACRCLOUD relies on a database of over 40 million music fingerprints. Its main service offerings includes: (i) music recognition services, to enable third party apps and software solutions to identify songs;⁴⁶ (ii) broadcast monitoring services, which are designed for media monitoring and analysis agencies, labels, broadcasters, media operators, content owners to monitor and measure content's performance and to protect copyright; (iii) second screen synchronization solutions to boost second screen viewing experiences of recorded content for broadcasters, content owners, advertisers and app developers.⁴⁷
- (56) Audible Magic Corporation ("Audible Magic") is a provider of ACR software solutions based on fingerprinting technology. It provides content identification for major customers such as Facebook, SoundCloud, the streaming video services Twitch and Vimeo and the telecommunications operator Verizon Wireless.⁴⁸ Its ACR software solution is also used to provide copyright complacency services.⁴⁹
- (57) SoundHound is an audio and speech recognition software provider, whose products are based on fingerprint ACR technology. Its main products are "Houndify" (a voice-AI developer platform), "Hound" (a voice-enabled digital assistant), and "SoundHound" (a music recognition mobile app for consumers).⁵⁰
- (58) Information.io GmbH ("Tonio") is an Austrian company which develops and distributes apps based on watermarking ACR technology to allow broadcasters (for example, TV channels and radio stations) to send program-associated messages and information which can be "read" through the Tonio app.
- (59) Digimarc Corporation ("Digimarc") is a global technology company which develops ACR software solutions based on the watermarking technology.⁵¹
- (60) MusicTrace GmbH ("MusicTrace") is a German company which develops ACR software solutions based on watermarking technology.⁵²
- (61) Google search app for iOS, Windows and Android offers Voice Search among other functions to search the web. The Google search app can perform music recognition functionalities. In late 2017, Google released the Pixel 2 phone running the Android OS. Google introduced the "Now Playing" feature with the Google Pixel 2 launch, which allows a user to ask the Pixel 2 to identify automatically a song playing in the user's physical environment.
- (62) MusixMatch is an Italian company maintaining the catalogue of song lyrics and lyric translations. It has expanded into music recognition, by providing an app, powered by ACRCLOUD's music recognition technology. The MusixMatch app allows for the identification of music and provides users with associated content, in particular displaying lyrics of the recognized songs.
- (63) Finally, Genius is also the provider of an app embedding as ACR software solution powered by ACRCLOUD.

⁴⁶ ACRCLOUD does not offer apps or software solutions for consumers.

⁴⁷ See: <https://www.acrcloud.com/> (accessed on 1 August 2018).

⁴⁸ Audible Magic does not offer apps or software solutions for consumers.

⁴⁹ See: <https://www.audiblemagic.com/about/> (accessed on 1 August 2018).

⁵⁰ See <https://www.soundhound.com/about> (accessed on 1 August 2018).

⁵¹ See: <http://www2.digimarc.com/1/7182/2013-06-20/18g75> (accessed on 1 August 2018).

⁵² See: <https://www.musictrace.de/index.php/about-us> (accessed on 1 August 2018).

6.6. The role of data in the digital music industry

- (64) As described in Section 6.2, the music industry is undergoing a significant change with a shift from physical to digital distribution. In this environment, user data already plays an important role today and that role is likely to grow in the future in the music industry. Such data may include: (i) device data (for example, unique device identifier, device language, operating system), (ii) demographic data (for example, name, gender, age); and (iii) behavioural data (for example, user's clicks in app, the time users spend in various screens, microphone volume level, track titles, artists, time and location of when a song has been played, the reason why a song stopped playing, social media activity).
- (65) The user data gathered by the players in the music industry has several different uses, including but not limited to: (i) development of new methods for delivering music to consumers; (ii) generation of data analytics; (iii) helping artists to understand their performance; (iv) identification of new music trends and prediction of future music hits; (v) understanding the music tastes of listeners in order to offer personalised playlists and provide music recommendations; and (vi) targeting advertising.
- (66) In the past, in order to gather similar data and generate useful insights, the music industry relied primarily on more traditional sources of information, such as physical sales data and how often songs were played on the radio. Today, with the transformation brought by digitisation, there are more players active at different levels of the music industry value chain and more data is available. In fact, the industry can rely on more precise information not only on what people are listening to, but also on where, when and through which device they are listening to it.
- (67) Further, digital distribution, and in particular music streaming, increase accessibility and convenience for users and allow for more personalization of the music experience.
- (68) Similarly to other players active in the industry, each of Shazam and Apple collect data on their users and their activity through their respective apps and services.
- (69) Shazam currently collects (i) a set of information regarding the user's identity, which varies depending on whether the individual user opts to be anonymous⁵³ or to access the Shazam app through a registered account;⁵⁴ (ii) [...];⁵⁵ (iii) the user's recognition activity performed through the Shazam app which includes, for each song recognized by the user, the track title, the artist, the time at which the song was recognized, and the location where the app was used (if the user has given this permission, otherwise only information on the country where the song was recognized is collected) (the data collected on the user's recognition activity is referred to in this Decision as "Shazam's User Behavioural Data"); and (iv) which buttons or features within the

⁵³ The Parties estimates that [...] % of the daily active users of the Shazam app are not registered users, that is the users have installed the Shazam app and use it without creating a Shazam account. For such users, Shazam creates an identifier, consisting of an arbitrary sequence of digits, to tie the user's information to a single area in the Shazam database so that, for example, the Shazam history is available for the individual user; see Form CO, paragraph 306.

⁵⁴ The Parties estimates that, for the [...] % of users which have created a Shazam account, Shazam has the following information: (i) if the user has signed up for registration through email, the user's email address; (ii) if the user has signed up through Facebook logging in service and his/her privacy settings allows the exchange of information, the user's Facebook identifier, email address, birthday, Facebook Friends List and current city; see Form CO, paragraph 310 and response to RFI12, question 2.b.

⁵⁵ In this respect, see in further detail Section 8.4.2.1.

Shazam app itself the user clicks on.⁵⁶ In this Decision, the data described in (i) to (iv) is referred to as "Shazam User Data".

- (70) On the basis of Shazam's User Behavioural Data, Shazam publishes and offers for free on its website and apps music data charts identifying songs and artists that are showing strong positive momentum within the Shazam app in a certain geographic territory ("music discovery charts"). Shazam also licenses music data charts in customised format and the raw music data used to compile its music discovery charts. Shazam further offers the "Shazam for Artists" programme, which includes access to music discovery charts in a standardised format to artists and music labels.
- (71) When consumers use Apple Music,⁵⁷ notably by playing video and audio content, Apple collects information on: title and artist of the video and audio played on the app; [...]; content the users "love", comment, or share; the time at which the song was played, and the time at which the song stopped playing; [...]; where in Apple Music the song was played; device level information (for example [...]), the user's Apple identifier, and the user's Internet protocol ("IP") address.⁵⁸ Similar information is collected by Apple on [...].
- (72) Such information is used by Apple in order to produce personalized musical recommendations for its own subscribers, as well as to offer data products similar to those offered by Shazam to the general public. Notably, Apple displays for free on its websites and apps music charts based on its iTunes sales data ("music consumption charts"). Such data can provide useful insights to music labels and artists on the performance and "trendiness" of their repertoire. Moreover, in January 2018 Apple has launched "Apple Music for Artists", which includes a dashboard giving artists access to a database on consumers' listening and buying habits.
- (73) Similar music databases are compiled by digital music distributors, including digital music streaming providers such as Amazon, Spotify and Deezer.⁵⁹
- (74) Finally, both Parties use third party music data to perform their activities. This includes in particular: digital music master recording files, [...], and music tracks metadata, such as the publishing information (name of the track, artist, producer, album, songwriter etc.). Music labels and music aggregators provide this data on a non-exclusive basis to the various players active in the music industry.⁶⁰

7. RELEVANT MARKETS

- (75) For the assessment of the Concentration, the following business activities of the Parties are relevant: (1) Apple develops OSs for its smart mobile devices (tablets and smartphones), PCs, smart watches and smart TVs, for which third parties can

⁵⁶ [...], see Form CO, paragraph 316.

⁵⁷ Apple Music's subscribers can create a profile comprised of their user handle, display name, and, if desired, a profile photo, biography, and other information which can appear alongside comments a user posts and activity a user shares on Apple Music, see Form CO, paragraph 327.

⁵⁸ If a subscriber of Apple Music has signed up for registration through a mobile network carrier, the user's phone number will be sent to Apple and will be associated with the playback activity, see Form CO, paragraph 328.

⁵⁹ In this respect, see in more detail Section 8.4.2.2(c)(v).

⁶⁰ No concern has been raised in the market investigation with respect to the effects of the Concentration in the markets for the acquisition of this data. Notably data providers, which replied to the market investigation, did not raise any concerns about the possible increase of buyer power on the part of Apple vis-à-vis them as a result of the Concentration. Thus, in this Decision the Commission will not further assess the effects of the Concentration with respect to the acquisition of music data.

develop software solutions and apps; (2) Shazam is active in the provision of ACR software solutions, including music recognition apps; (3) Apple is active in the provision of digital music distribution services, which are offered through apps; (4) both Parties are active in the licensing of music data; and (5) both Parties are active in the provision of online advertising services.

7.1. Legal framework

- (76) Market definition is a tool to identify and define the boundaries of competition between firms.⁶¹ It has both a product and a geographic dimension.
- (77) A relevant product market comprises all those products and services which are regarded as interchangeable or substitutable, by reason of the products' characteristics, their prices and their intended use.⁶² In determining the relevant product market, the Commission assesses demand substitution by determining the range of products which are viewed as substitutes by the consumers.⁶³ Demand-side substitutability is the focus of the Commission's assessment when defining the relevant markets. The Commission may also take into account supply-side substitutability, namely when its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy.⁶⁴ This is the case when suppliers are able to switch production to the relevant products and market them in the short term without incurring significant additional costs or risks in response to small and permanent changes in relative prices.
- (78) The relevant geographic market comprises the area in which the undertakings concerned are involved in the supply and demand of products or services, in which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those areas.⁶⁵

7.2. Software solutions platforms

7.2.1. Product market definition

- (79) As explained in Section 2 and in recital (75), Apple develops OSs for different types of devices, that is macOS for PCs, iOS for the smartphones “iPhone” and the tablets “iPad”, tvOS for Apple TV and watchOS for Apple Watch.⁶⁶ For the purposes of assessing the Concentration, those OSs are relevant to the extent that third parties develop software solutions and apps, including, among others, music recognition app developers such as Shazam, for those OSs in order to reach end-users of Apple's devices. For this reason, the Commission has analysed OSs as platforms for software solutions and/or apps.

⁶¹ Commission Notice on the definition of relevant market for the purposes of Community competition law (“Market Definition Notice”), OJ C 372, 09.12.1997, paragraph 2.

Given that Apple does not license its OSs to third parties, the existence of any potential markets for licensable OSs is not discussed in this Decision.

⁶² Market Definition Notice, paragraph 7.

⁶³ Market Definition Notice, paragraph 15.

⁶⁴ Market Definition Notice, paragraph 20.

⁶⁵ Market Definition Notice, paragraph 7.

⁶⁶ OSs are system software products that control the basic functions of computing devices such as servers, PCs, smart mobile devices and enable the user to use the device and run application software on it. See Commission decision of 6 December 2016 in Case M.8124 – *Microsoft/LinkedIn*, paragraph 8.

Given that Apple does not license its OSs to third parties, the existence of any potential markets for licensable OSs is not discussed in this Decision.

7.2.1.1. The Notifying Party's view

- (80) In the Form CO, the Notifying Party did not take a firm view on the relevant product market for OSs.
- (81) In the Reply to the Article 6(1)(c) Decision, the Notifying Party did not contest the Commission's findings in the Article 6(1)(c) Decision with regards to OSs for PCs, OSs for smart mobile devices and OSs for smart TVs. The Notifying Party noted that OSs for smart watches should not be considered a relevant market in itself and that smart wearables other than smart watches should be included in the same product market as OSs for smart watches.⁶⁷

7.2.1.2. Commission's assessment

- (82) In previous decisions, the Commission has not considered specifically software solutions and/or apps platforms and, in particular, whether a segmentation by device type would be relevant in that respect (that is, between PCs, smart mobile devices, smart TVs, smart watches and/or smart wearables).
- (83) Nonetheless, in *Google/Motorola Mobility*, while leaving the exact market definition open, the Commission took the view that OSs for PCs and OSs for smart mobile devices belong to separate product markets, given that both used different hardware and had different performance capacities.⁶⁸ A similar approach was adopted in *Microsoft/Nokia*⁶⁹ and in *Microsoft/LinkedIn*.⁷⁰ In *Google/Motorola Mobility* the Commission considered that OSs for smartphones and tablets were likely to belong to the same market as OSs for smart mobile devices, in view of their similar functionalities, but it left the market definition open.⁷¹
- (84) The evidence in the Commission's file has not provided any indication which would suggest that, in defining the relevant product market for software solutions and/or apps platforms, it would be appropriate to depart from its previous practice in relation to the definition of the relevant product market for OSs for PCs and OSs for smart mobile devices. The evidence in the Commission's file was also not conclusive on the question as to whether software solutions and/or apps platforms for smart mobile devices constitutes a separate market from software solutions and/or apps platforms for other smart wearables, although it indicates that software solutions and/or apps platforms for smart TVs could be considered a separate market.
- (85) Nonetheless, for the purposes of assessing the Concentration the Commission considers that the exact scope of the relevant product markets for software solutions and/or apps platforms can be left open as the Concentration would not significantly impede effective competition under any plausible market definition.

7.2.2. Geographic market definition

7.2.2.1. The Notifying Party's view

- (86) In the Form CO, the Notifying Party considered that a potential market for OSs for smart mobile devices is at least EEA-wide, if not global.

⁶⁷ Reply to the Article 6(1)(c) Decision, paragraph 152.

⁶⁸ Commission decision of 13 February 2012 in Case M.6381 – *Google/Motorola Mobility*, paragraphs 26 and 29-30.

⁶⁹ Commission decision of 4 December 2013 in Case M.7047 – *Microsoft/Nokia*, paragraph 27.

⁷⁰ Commission decision of 6 December 2016 in Case M.8124 – *Microsoft/LinkedIn*, paragraphs 11-15.

⁷¹ Commission decision of 13 February 2012 in Case M.6381 – *Google/Motorola Mobility*, paragraph 29.

- (87) In the Reply to the Article 6(1)(c) Decision, the Notifying Party did not bring forward any additional argument as regards geographic market definition, nor did it contest the Commission's findings in the Article 6(1)(c) Decision.

7.2.2.2. Commission's assessment

- (88) As mentioned in recital (82), in previous decisions, the Commission has not considered the geographic scope of the relevant product market for software solutions and/or apps platforms, or sub-segments thereof.
- (89) Nonetheless, in its previous decisional practice, the Commission has considered the market for OSs for smart mobile devices to be EEA-wide, or even worldwide, but it has ultimately left the exact geographic market definition open.⁷² With regard to the geographic market definition for OSs for PCs, the Commission found in *Microsoft* that the relevant geographic market for client PC OSs was worldwide.⁷³ In *Microsoft/LinkedIn* the Commission considered that the relevant geographic market for OSs for PCs was EEA-wide.⁷⁴
- (90) The evidence in the Commission's file has not provided any indication which would suggest that, in defining the relevant product market for software solutions and/or apps platforms (and sub-segments thereof), it would be appropriate to deviate from its previous decisional practice in relation to OSs for PCs and smart mobile devices. The evidence in the Commission's file was also not conclusive on the question as to whether the relevant geographic markets for software solutions and/or apps platforms for smart TVs and smart wearables (including smart watches) and smart watches are EEA-wide or worldwide in scope.
- (91) Nonetheless, for the purposes of assessing the Concentration, the Commission considers that the exact geographic scope of the relevant product markets for software solutions and/or apps platforms (and sub-segments thereof) can be left open as the Concentration would not significantly impede effective competition under any plausible market definition.

7.3. Digital music distribution services

7.3.1. Product market definition

7.3.1.1. The Notifying Party's view

- (92) In the Form CO, the Notifying Party submitted that the question whether the digital music market should be further segmented into downloading and streaming services could be left open. According to the Notifying Party, no segmentation between digital music distribution apps according to OSs would be relevant.⁷⁵
- (93) In the Reply to the Article 6(1)(c) Decision, the Notifying Party did not bring forward any additional argument as regards product market definition, nor did it contest the Commission's findings in the Article 6(1)(c) Decision.

7.3.1.2. Commission's assessment

- (94) In its previous decisional practice, the Commission has analysed the market for digital music distribution and, while leaving the market definition open, it has found

⁷² Commission decision of 13 February 2012 in Case M.6381 – *Google/Motorola Mobility*, paragraphs 33-35; Commission decision of 4 December 2013 in Case M.7047 – *Microsoft/Nokia*, paragraphs 74-77.

⁷³ Commission decision of 24 March 2014 in case C3/37.792 – *Microsoft*, recital 324-330.

⁷⁴ Commission decision of 6 December 2016 in Case M.8124 – *Microsoft/LinkedIn*, paragraph 18.

⁷⁵ Response to RFI 10, question 15.

evidence that the boundaries between streaming and downloading services were becoming blurred.⁷⁶ The Commission has not specifically assessed previously whether further segmentations, based on the type of software solution or the nature of the service, would be appropriate.

- (95) The market investigation in this case did not provide a conclusive finding as to whether music downloading services and music streaming activities form part of the same product market. That said, the market investigation results indicated that some music streaming providers would not consider themselves to be in a position to start offering digital music downloading services in the short term or without incurring significant investments.⁷⁷
- (96) The market investigation was also not conclusive with regard to the need for further segmentation based on the type of software solution offered to distribute digital music, be it a dedicated app for smartphone and/or tablet, apps that perform digital distribution functionalities next to other services (such as video streaming or other non-music distribution related services), or websites that offer music distribution functionalities. The market investigation results indicated, however, that digital music distribution software solutions for PCs or websites offering music distribution functionalities only exert a limited competitive constraint on dedicated apps for digital music distribution. Further, a segmentation by OSs does not appear to be relevant.⁷⁸
- (97) The Commission notes that, during the market investigation, concerns were raised with respect to the effects of the Concentration only in relation to the possible product market for digital music streaming apps. Moreover, as further explained in Section 8.4.2.2(a), the Commission notes that a possible product market for such apps is the only one for which a relevant link exists between the activities of Apple and the activities of Shazam, namely the “referrals” to certain digital music streaming apps on both iOS and Android, including for example Apple Music.
- (98) As regards digital music downloading services, the Commission notes that pre-Transaction, Shazam has referral partnerships [...]. iTunes is not available on Android smart mobile devices. Therefore, even if Apple were to engage in any of the practices discussed in Section 8.4.2.2., no anticompetitive effect could arise.
- (99) Therefore, it is not necessary in this case to analyse further the market for digital music downloading services. For the purposes of assessing the effects of the Concentration, the Commission considers that the narrowest relevant product market is the one for digital music streaming services for smart mobile devices, excluding video streaming services,⁷⁹ and the competitive assessment should therefore be carried out on that basis.

7.3.2. *Geographic market definition*

7.3.2.1. The Notifying Party's view

- (100) In the Form CO, the Notifying Party submitted that digital music services are readily available online in many countries with little difference in the service or features offered. Moreover, licensing deals for music are typically entered into globally by

⁷⁶ See Commission decision of 25 July 2014 in Case M.7290 - *Apple/Beats*, paragraphs 18-19.

⁷⁷ Responses to questionnaire to digital music distributors - Q6, question 32.

⁷⁸ Responses to questionnaire to digital music distributors - Q6, questions 14 and 15.

⁷⁹ In the following any reference to “digital music streaming apps” refers to such dedicated music streaming services, excluding video streaming services, for smart mobile devices .

digital music service providers and not on a country-by-country basis. Therefore, the relevant product market should no longer be considered national in scope, but rather global. Ultimately, the Notifying Party argued that the geographic market definition could be left open.

- (101) In the Reply to the Article 6(1)(c) Decision, the Notifying Party did not bring forward any additional argument as regards geographic market definition, nor did it contest the Commission's findings in the Article 6(1)(c) Decision.

7.3.2.2. Commission's assessment

- (102) As regards the geographic scope, the question whether the market for digital music distribution services is national or EEA-wide has been left open by the Commission in its previous decisional practice.⁸⁰ The Commission has not analysed the geographic scope of a (narrower) market limited to digital music streaming apps.
- (103) The market investigation was not conclusive as to whether prevailing differences in customer demand and expectations for digital music distribution apps in each EEA country continue to warrant a geographic market definition based on national markets.⁸¹
- (104) For the purposes of assessing the Concentration, the question as to whether the geographic scope of the relevant product market for digital music streaming apps on smart mobile devices is EEA-wide or national can be left open as the Concentration would not significantly impede effective competition under any plausible geographic market definition.

7.4. ACR software solutions, including music recognition apps

7.4.1. Product market definition

7.4.1.1. The Notifying Party's view

- (105) In the Form CO, the Notifying Party submitted that all methods of recognising music, including but not limited to manual searches, and the provision of ACR technology are part of the same relevant product market. In particular, the Notifying Party submitted that the relevant market encompasses not only music recognition apps, such as the Shazam app, but also web-based solutions offering music recognition, as well as other software solutions offering music recognition functionality. According to the Notifying Party, the market of music recognition services should not be further segmented according to the technology used, the functionalities offered, the device or the OS. The Notifying Party argued that, in any event, even a narrower market definition of music recognition services would not lead to any competition issues and, as such, the exact market definition could be left open.
- (106) In the Reply to the Article 6(1)(c) Decision, the Notifying Party did not bring forward any additional argument as regards product market definition, nor did it contest the Commission's findings in the Article 6(1)(c) Decision.

7.4.1.2. Commission's assessment

- (107) In previous decisions, the Commission has not specifically assessed ACR or music recognition software solutions or, more narrowly, ACR and music recognition apps.

⁸⁰ Commission decision of 25 July 2014 in Case M.7290 - *Apple/Beats*, paragraphs 20-21.

⁸¹ Responses to questionnaire to digital music distributors - Q6, questions 34 and 35.

- (108) Overall, the market investigation did not provide a conclusive finding as to whether the relevant product market is limited to dedicated stand-alone music recognition apps for a specific device type (that is, smart mobile devices, TVs, PCs, smart watches) that only perform music recognition functionalities, or whether it has to be defined as a broader market covering also apps or software solutions for all device types as well as web-based solutions that perform music recognition as part of a broader offering, or even a market encompassing all ACR software solutions.⁸²
- (109) The market investigation, nonetheless, provided some indications that apps that perform music recognition functionalities as part of a broader offering are likely to be a viable alternative for users of dedicated music recognition apps, whereas desktop-based or web-based software solutions appear to exert only limited constraints on dedicated music recognition apps for smart mobile devices.⁸³
- (110) From the market investigation it also appears that, from a user perspective, both technologies used to perform ACR functionalities, namely fingerprinting and watermarking, serve the same purpose. This would suggest that software solutions and apps based on both technologies are part of the same relevant product market.⁸⁴ From the supply-side perspective, as described in Section 6.4, the two technologies have significant differences, in particular in terms of the data and algorithms required.
- (111) The Commission notes that Shazam's market position would be significantly less relevant in a market including ACR and music recognition software solutions for other devices than smart mobile devices, music recognition software solutions which perform music recognition as part of a broader offering, web-based solutions or even a market encompassing all ACR software solutions.
- (112) Moreover, as further explained in Section 8.4.2.2(a), the Commission notes that, in the course of the market investigation, complaints have been made in relation to the leveraging of Shazam's market position in the provision of music recognition apps on smart mobile devices.
- (113) Finally, as further explained in Section 8.4.3, the Commission notes that, in the course of the market investigation, it received a complaint in relation to the effects of the Concentration in the market for ACR software solutions and, in particular, ACR apps for PCs, smart mobile devices, smart watches and smart TVs. Those effects would be the result of leveraging Apple's market position in software solutions platforms for PCs, smart mobile devices, smart watches and smart TVs.
- (114) Therefore, for the purposes of assessing the Concentration, the Commission considers that the effects of the Concentration should be assessed on the narrowest relevant product market for the provision of dedicated stand-alone music recognition apps for smart mobile devices, as well as on the broader possible markets for ACR software solutions for each of PCs, smart mobile devices, smart wearables (including smart watches), smart watches and smart TVs. The question as to whether a segmentation of the relevant product market should also be made according to the underlying technology (watermarking or fingerprinting) should be left open.

⁸² Responses to questionnaire to providers of music recognition software solutions - Q5, questions 9 to 24.

⁸³ Responses to questionnaire to providers of music recognition software solutions - Q5, question 9, 19 and 23.

⁸⁴ Tonio's written submission of 28 March 2018.

7.4.2. *Geographic market definition*

7.4.2.1. The Notifying Party's view

- (115) In the Form CO, the Notifying Party submitted that the geographic market for music recognition services is worldwide, or at least EEA-wide, given that the same solutions are typically available in multiple countries throughout the world, with only minor adaptations.
- (116) In the Reply to the Article 6(1)(c) Decision, the Notifying Party did not bring forward any additional argument as regards geographic market definition, nor did it contest the Commission's findings in the Article 6(1)(c) Decision.

7.4.2.2. Commission's assessment

- (117) Respondents to the market investigation considered that there were generally no differences in customer demand and requirements for software solutions offering ACR software solutions, including music recognition software solutions, across the various countries of the EEA.⁸⁵
- (118) Therefore, the Commission considers that, for the purposes of assessing the Concentration, the geographic scope of the relevant product market is at least EEA-wide.

7.5. Licensing of music data

7.5.1. *Product market definition*

- (119) As explained in Section 6.6, both Parties license music charts data. No overlap arises in relation to the Parties' user behavioural data, which is not licensed by the Parties to third parties.⁸⁶

7.5.1.1. The Notifying Party's view

- (120) During the first phase investigation, the Notifying Party submitted that the publication of music data charts and similar music data analytics does not correspond to a specific activity belonging to a relevant product market, but is instead an ancillary feature of the core business of music streaming or voice recognition.⁸⁷ However, if a market existed for the collection of data on individuals' music tastes and the analytics of such data, such a market should, according to the Notifying Party, not be limited to data collected in the digital music industry, but should cover all data compiled relating to music preferences, including data gathered by undertakings active in the wider field of online social networks, such as LinkedIn, Facebook, WhatsApp or Google which collect the same type of data on their users, and even additional and more valuable information.⁸⁸
- (121) In the Reply to the Article 6(1)(c) Decision, the Notifying Party did not bring forward any additional argument as regards product market definition, nor did it contest the Commission's findings in the Article 6(1)(c) Decision.

⁸⁵ Responses to questionnaire to providers of music recognition software solutions - Q5, question 25 and 25.1.

⁸⁶ In relation to Shazam's User Data as possible competitive advantage, to improve existing functionalities, or offer additional functionalities, on digital music streaming apps (regardless of whether it constitutes a relevant product market or segment), see Section 8.4.2.2(c)(v).

⁸⁷ Response to RFI 10, question 28, p. 29.

⁸⁸ Form CO, paragraphs 169-170.

7.5.1.2. Commission's assessment

- (122) The Commission has not considered the market for the licensing of music data in previous decisions.
- (123) In the market investigation, the Commission has investigated the degree of substitutability (or complementarity) between the Parties' different data products, notably their music data charts. In this respect, the majority of the respondents to the market investigation indicated that Shazam's charts are complementary to rather than substitutable for Apple's charts because the music charts compiled by Shazam may give an indication of the popularity of certain music tracks, as well as of future music trends (music "discovery") while Apple's charts reflect estimates of Apple's own music sales and/or usage patterns (music "consumption").⁸⁹
- (124) For the purposes of assessing the Concentration, the Commission considers that it is not necessary to conclude whether Shazam's music discovery charts and Apple's music consumption charts belong to the same product market as the Concentration would not significantly impede effective competition in respect of the licensing of music data under any plausible market definition.

7.5.2. *Geographic market definition*

7.5.2.1. The Notifying Party's view

- (125) During the first phase investigation, the Notifying Party submitted that the geographic market for the licensing of music data is at least EEA-wide, and it could possibly be worldwide, in scope. According to the Notifying Party, it does not seem that there are any differences between collecting this data in one country compared with collecting it in another. Furthermore, the relevant companies active in this space are generally active on a global basis. At any rate, according to the Notifying Party, the exact geographic market definition can be left open as, irrespective of the exact market definition adopted, the Concentration will not have any adverse effect on competition.
- (126) In the Reply to the Article 6(1)(c) Decision, the Notifying Party did not bring forward any additional argument as regards geographic market definition, nor did it contest the Commission's findings in the Article 6(1)(c) Decision.

7.5.2.2. Commission's assessment

- (127) The results of the market investigation were not conclusive on the geographic scope of the licensing of music data as the undertakings offering such services are generally active both in the EEA and worldwide, although a few local providers also exist (especially, for data on music popularity).⁹⁰
- (128) Nonetheless, the Commission considers that, for the purposes of assessing the effects of the Concentration, even in a scenario where the licensing of music data by the Parties is part of the same product market, the geographic scope of the relevant product market can be left open as the Concentration would not significantly impede effective competition under any plausible market definition.

⁸⁹ Responses to questionnaire to recorded music companies and music aggregators – Q8, question C.1.1., responses to questionnaire to digital music distributors – Q6, question g.51.1, and responses to questionnaire to providers of music recognition software solutions – Q5, question 35.

⁹⁰ Response to questionnaire to digital music distributors – Q6, question 51.1.

7.6. Online advertising

7.6.1. Product market definition

- (129) Shazam is offering online advertisement mainly through displaying ads in the Shazam app (for example, [...]). [...] complemented by brand-specific audio or visual content in the Shazam app (for example, an in-app commercial) [...]).⁹¹ The brand-specific advertising product is marketed under the name "Shazam for Brands".
- (130) Apple does not offer online advertising services on Apple Music or iTunes. It is only active in the online advertising space in a limited way through its Apple News service. The Apple News app is a news aggregator launched by Apple in 2015 and, so far, is available in the EEA only to users in the United Kingdom.

7.6.1.1. The Notifying Party's view

- (131) In the Form CO, the Notifying Party submitted that the Concentration could be analysed on the basis of a market consisting of online advertising services. According to the Notifying Party no separate market for online advertising for music enthusiasts would exist and, in any event, in such market the Parties' activities would not overlap.
- (132) In the Reply to the Article 6(1)(c) Decision, the Notifying Party did not bring forward any additional argument as regards product market definition, nor did it contest the Commission's findings in the Article 6(1)(c) Decision.

7.6.1.2. Commission's assessment

- (133) In past decisions, the Commission considered the market for online advertising to be separate from the market for offline advertising. It also considered possible further segmentations between search and non-search advertising or on the basis of the platform (PCs, smart mobile devices), but it ultimately left the market definition open.⁹²
- (134) The evidence in the Commission's file has not provided any indication which would suggest that, for the purposes of assessing the Concentration, it would be appropriate to deviate from its prior decisional practice. The same evidence has not provided conclusive indications as to whether it would be possible to identify a separate market or segment for online advertising for music enthusiasts, where only Shazam would be active and there would be no overlap between the Parties' activities.
- (135) In any event, the Commission considers that, for the purposes of assessing the Concentration, the product market definition can be left open as the Concentration would not significantly impede effective competition in relation to online advertising under any plausible market definition.

7.6.2. Geographic market definition

7.6.2.1. The Notifying Party's view

- (136) In the Form CO, the Notifying Party submitted that the exact geographic market definition could be left open.

⁹¹ Response to RFI 12.

⁹² See Commission decision of 21 December 2016 in Case M.8180 – *Verizon/Yahoo*, paragraphs 22-25; Commission decision of 6 December 2016 in Case M.8124 – *Microsoft/LinkedIn*, paragraphs 159-161; Commission decision of 3 October 2014 in Case M.7217 – *Facebook/WhatsApp*, paragraphs 74-79.

- (137) In the Reply to o the Article 6(1)(c) Decision, the Notifying Party did not bring forward any additional argument as regards geographic market definition, nor did it contest the Commission's findings in the Article 6(1)(c) Decision.

7.6.2.2. Commission's assessment

- (138) With reference to the geographic scope of the online advertising market and its possible sub-segments, in previous cases the Commission noted that they should be defined as national in scope or alongside linguistic borders within the EEA.⁹³
- (139) The evidence in the Commission's file has not provided any indication which would suggest that, for the purposes of assessing the Concentration, it would be appropriate to deviate from its previous decisional practice.
- (140) For the purposes of assessing the Concentration, the Commission therefore concludes that the market for online advertising and its possible sub-segments should be defined as national in scope or alongside linguistic borders within the EEA.

8. COMPETITIVE ASSESSMENT

8.1. Introduction

- (141) Shazam was incorporated and listed in the early 2000s. It launched its first music recognition app (for iPhones) in 2008. [...].
- (142) [...].⁹⁴
- (143) The Notifying Party submitted that, by acquiring Shazam, Apple would have the opportunity to make better use of Shazam's recognition services with Apple's products and services by joining Apple's technological knowhow with that of Shazam's. According to the Notifying Party, the Concentration "*will thereby make the existing and future functionality available to Apple's user base in a faster way, while at the same time enriching the quality of Apple's product offering incorporating Shazam's recognition services beyond which each firm could achieve separately.*"⁹⁵
- (144) In this context the Commission notes that the Concentration mainly combines Apple's and Shazam's complementary services (software solutions platforms and digital music streaming services for Apple and ACR software solutions, and in particular music recognition apps, for Shazam). While both Apple and Shazam are active in licensing music data and both provide some online advertising services, these activities are not their core business. Hence, the Concentration only gives rise to limited horizontal overlaps while, at the same time, giving rise to some non-horizontal relationships.

⁹³ See Commission decision of 21 December 2016 in Case M.8180 – *Verizon/Yahoo*, paragraphs 27-28; Commission decision of 6 December 2016 in Case M.8124 – *Microsoft/LinkedIn*, paragraphs 163-164; Commission decision of 3 October 2014 in Case M.7217 – *Facebook/WhatsApp*, paragraphs 44 and 83; Commission decision of 4 September 2012 in Case M.6314 – *Telefónica UK/Vodafone UK/Everything Everywhere/JV*, recitals 226-229; Commission decision of 18 February 2010 in Case M.5727 – *Microsoft/Yahoo! Search Business*, paragraphs 91-93; Commission decision of 11 March 2008 in Case M.4731 – *Google/DoubleClick*, recitals 83-84.

⁹⁴ For example, Facebook's 2012 acquisition of Instagram for USD 1 billion, Microsoft's acquisition of Skype for USD 8.5 billion, Facebook's 2014 acquisition of WhatsApp for USD 19 billion or Microsoft's 2016 acquisition of LinkedIn for USD 26 billion.

⁹⁵ Form CO, paragraph 11.

- (145) After having illustrated the Parties' market position in the relevant markets in Section 8.2, the horizontal and non-horizontal effects of the Concentration are assessed in Sections 8.3 and 8.4 respectively.

8.2. Market shares

- (146) According to the Horizontal Merger Guidelines and the Non-Horizontal Merger Guidelines,⁹⁶ in the assessment of the effects of a merger, market shares constitute a useful first indication of the structure of the markets at stake and of the competitive importance of the relevant market players.

8.2.1. Software solutions platforms

- (147) As explained at recital (79), third parties develop software solutions and apps for Apple's OSs in order to reach end-users of Apple's devices. Therefore, the Commission considers Apple's share of shipments for each type of device to be the best proxy for calculating Apple's position as a software solutions platform in the EEA and worldwide.⁹⁷
- (148) With respect to **PCs**, based on IDC⁹⁸ data, the Notifying Party estimates that Apple had a share by shipment of approximately [5-10]% in the EEA in 2017.⁹⁹
- (149) With respect to **smart mobile devices**, based on IDC data, the Notifying Party estimates that Apple had a worldwide share by shipment of approximately [10-20]% and a share of approximately [20-30]% in the EEA in 2016.¹⁰⁰
- (150) With respect to **smart wearables including smart watches**, based on IDC data, the Notifying Party estimates that Apple had a share by shipment of approximately [20-30]% in the EEA in 2017.¹⁰¹ With respect to **smart watches** market segments, based on IDC data, Apple had a share by shipment of approximately [50-60]% in the EEA in 2017.¹⁰²
- (151) With respect to **smart TVs**, the Notifying Party was not able to provide any shares at EEA level. Based on the estimate provided by the Notifying Party, Apple would have a share by shipment of [10-20]% at worldwide level.¹⁰³

8.2.2. Digital music streaming apps

- (152) The Notifying Party claimed that, to the best of its knowledge, there is no reliable source of information that would allow market shares in the field of digital music distribution to be quantified accurately. According to the Notifying Party, estimating market shares in this field is difficult due to the lack of reliable publicly available

⁹⁶ Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings ("Horizontal Merger Guidelines"), OJ C 31, 05.02.2004, paragraph 14; Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings ("Non-Horizontal Merger Guidelines"), OJ C 265, 18.10.2008, paragraph 24.

⁹⁷ The Commission considers that there is no need to calculate Apple's market shares for the narrowest possible markets since Apple's software solutions platforms are the only ones available on Apple's devices.

⁹⁸ International Data Corporation ("IDC") is a market intelligence company, see: <https://www.idc.com/about> (accessed on 1 August 2018).

⁹⁹ Form CO, paragraph 298.

¹⁰⁰ Form CO, paragraph 290. Separate shares by shipments for smartphones (iPhones) and tablets (iPads) have not been provided.

¹⁰¹ Response to RFI 36, question 10.

¹⁰² Response to RFI 12, question 15.f.

¹⁰³ [...]; see Response to RFI 12, question 15.g.

information and the lack of comparable data between digital streaming distributors and digital downloading distributors on the one hand, and among the various market players in the field of digital streaming on the other hand.¹⁰⁴

- (153) Nevertheless, the Notifying Party estimated that Apple Music's market share in the provision of digital music streaming apps services was [10-20]% in the EEA in 2017 based on revenues and [5-10]% based on subscribers.¹⁰⁵ Moreover, the Notifying Party estimated that, in 2018, Apple Music's market share in the provision of digital music streaming apps services, based on revenues, was [20-30]% in Austria, [10-20]% in France, [10-20]% in Italy, [10-20]% in Spain, [0-5]% in Sweden and [5-10]% in Norway.¹⁰⁶ The Notifying Party submits that Apple Music is not active in Iceland [...].
- (154) The Notifying Party only provided market shares for its main rivals (Spotify, Deezer, Amazon Music and Pandora) at the worldwide level, based on revenues and users in 2017.¹⁰⁷ On the basis of this data, which does not correspond, however, to any plausible market definition, Spotify would be the market leader with a share of [50-60]% based on revenues, but Apple Music (which was launched only in 2015) would have already gained second position, albeit at some distance, with a market share of [20-30]%.
- (155) During the market investigation, the Commission has conducted a market reconstruction collecting confidential data on the total number of subscribers, premium subscribers, revenues and revenues from subscription of digital music streaming apps¹⁰⁸ in the EEA in the years 2015, 2016 and 2017.¹⁰⁹ While the results of the market reconstruction indicate that the Notifying Party's estimates on Apple Music's market share by subscriber are conservative (especially if considering the premium customer group), they are in line with the revenue shares provided by the Notifying Party and confirm that Spotify is still the leading digital music streaming service in the EEA.
- (156) The results of the market reconstruction in the EEA market for the years 2015, 2016 and 2017 show that, by either metric used by the Commission, [...]. Moreover, [...].¹¹⁰
- (157) The results of the market reconstruction in the EEA market for the year 2017 are illustrated in Figure 1.

¹⁰⁴ Form CO, paragraph 234.

¹⁰⁵ Form CO, Tables 7 and 8.

¹⁰⁶ Response to RFI 10, question 15.

¹⁰⁷ Form CO, Tables 22 and 23.

¹⁰⁸ Data have been provided by Apple Music as well as Amazon, SoundCloud, Google Play, Spotify and Deezer, that is five out of the nine competitors in digital music streaming identified by the Parties in the Form CO, Annex 6.3IIIB.(e). Of the remaining four companies, Vevo provided data, but they have not been included in the market reconstruction given the different nature of the service offered by Vevo (that is, music video streaming): however, even if included, the data provided by Vevo does not have a material impact on the results of the market reconstruction. Tidal, Napster and Pandora did not provide a response. However, the Commission considers the market reconstruction as representative: in fact Pandora ([...]) is only available in the United States (<https://www.pandora.com/restricted> (accessed on 1 August 2018)), while Tidal and Napster appear to be extremely small even when considering data on downloads of their respective digital music streaming apps on iOS for the years 2015 to 2017 in the EEA (see Annex Q16.3 to the response to RFI 10) and on Android (see number of installs for each of these apps at <https://play.google.com/store/apps> (accessed on 1 August 2018)).

¹⁰⁹ Responses to questionnaire to digital music distributors - Q6 and responses to RFIs 18, 19, 20, 21 and 22.

¹¹⁰ [...].

Figure 1: Market shares in provision of digital music streaming apps in the EEA (2017)

Providers	Total subscribers		Premium subscribers		Revenues		Subscription fees	
	Number	%	Number	%	EUR	%	EUR	%
Apple Music	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Amazon	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Sound Cloud	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Google Play	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Spotify	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Deezer	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Total	[...]	100%	[...]	100%	[...]	100%	[...]	100%

Source: Commission's market reconstruction.

- (158) Based on the evidence collected during the market investigation, the Commission considers that Apple's position at national level in the Referring States as estimated by the Notifying Party is likely to be a reliable proxy for its market position in those countries.

8.2.3. ACR software solutions, including music recognition apps

- (159) With respect to the broader markets for **ACR software solutions** for each of PCs, smart mobile devices, smart wearables (including smart watches), smart watches and smart TVs, the Notifying Party was not able to provide an estimate of Shazam's position. Based on public information, the Commission notes that ACR software solutions market size was estimated at around USD 900 million in 2016.¹¹¹ In the same year Shazam's revenue from technology licensing was less than USD [...] million¹¹², whereas its overall revenue was USD 54 million. Therefore, even in a scenario where all of Shazam's revenue was obtained through its proprietary ACR technology, Shazam would have a market share of only approximately [5-10]% in the market for ACR software solutions at worldwide level.
- (160) With respect to the narrowest product market for the supply of **dedicated music recognition apps for smart mobile devices**, the Notifying Party submits that, to the best of its knowledge, there is no reliable source of information that would allow market shares in the field of music recognition services to be quantified, nor is it aware of third-party sources which track this information. As is the case for digital music streaming apps, according to the Notifying Party, estimating reliable market shares is very difficult given the large number of competitors and the lack of

¹¹¹ See <https://www.marketsandmarkets.com/Market-Reports/automatic-content-recognition-market-148131627.html> (accessed on 1 August 2018).

See also: <https://www.businesswire.com/news/home/20160718005570/en/Automatic-Content-Recognition-Market---Global-Forecast> (accessed on 1 August 2018).

¹¹² Form CO, Table 1.

comparable data among the many music recognition service providers. Moreover, the Notifying Party submits that market shares are a poor proxy for measuring market power in a dynamic market such as the music recognition space.¹¹³

- (161) Nevertheless, the Notifying Party estimates that in the EEA the Shazam app is used by approximately [10-20]% of smart device users ([0-5]% worldwide).¹¹⁴ The Notifying Party estimates that Shazam's market share would remain well below 30% (at approximately [20-30]%) worldwide even using more conservative figures on monthly active users and it considers that there is no reason to believe that Shazam's market share in the EEA would be materially different. The Notifying Party nonetheless considers that these figures are incomplete and that Shazam's market share estimate could be lower since not all music recognition services are included, notably SongCatcher, a functionality recently launched by Deezer on its streaming app, as well as services provided by numerous other companies.¹¹⁵
- (162) The Commission acknowledges that market shares may not be a perfect proxy for measuring market power in recent and fast-growing sectors characterised by frequent market entry and short innovation cycles.¹¹⁶ Nonetheless, the Commission notes that, as acknowledged by the Parties, Shazam is not a start-up company but rather a mature company which has been active on the market for dedicated music recognition services for nearly 20 years¹¹⁷ and launched its first app for smart mobile devices back in 2008.
- (163) The market investigation did not provide any indications of recent disruptive entry or innovation in the market for dedicated music recognition apps for smart mobile devices. On the contrary, during the market investigation, the vast majority of respondents named Shazam as an established player in the supply of music recognition apps for smart mobile devices, with a customer base and a brand image superior to those of the undertakings identified by the Notifying Party in the Form CO as Shazam's competitors.¹¹⁸ Moreover, based on different publicly available rankings, Shazam is consistently the number one free app for the provision of music recognition services on both Android and iOS in all Member States.¹¹⁹ On the basis of this qualitative evidence, the Commission considers that the market shares provided by the Parties are likely to underestimate Shazam's position in the EEA.

¹¹³ Form CO, paragraphs 188-190.

¹¹⁴ Form CO, paragraph 194.

¹¹⁵ Form CO, paragraphs 203-204. In the Form CO, paragraph 116, the Notifying Party identified as main providers of a stand-alone app for music recognition, Shazam, SoundHound, MusicID, Radio Scout, DS Music Recognition, Music Identifier, Beatfind and MusicDNA ID, while as main providers of a stand-alone app not fully dedicated to music recognition but which includes music recognition functionalities it indicated Musixmatch, Genius, Lyrics Mania, Google Sound Search, Google Assistant (in its standalone app format), Hound (in its standalone app format) and Deezer (beta of upcoming version which includes a music recognition functionality). Contrary to the Notifying Party's submission, Spotify does not offer integrated music recognition functionalities (response to questionnaire to digital music distributors - Q6, question 39.1).

¹¹⁶ Commission decision of 3 October 2014 in Case M.7217 – *Facebook/WhatsApp*, paragraph 99. See also Case T-79/12 *Cisco Systems Inc v Commission*, EU:T:2013:635, paragraph 69.

¹¹⁷ Form CO, paragraph 506.

¹¹⁸ Responses to questionnaire to providers of music recognition software solutions - Q5, questions 13 and 30. See also agreed minutes of conference call with Audible Magic of 7 March 2018, para 13.

¹¹⁹ See <https://apptopia.com/store-insights/top-charts/google-play/music-audio/austria> (accessed on 1 August 2018); <https://www.applyzer.com/?mmenu=worldcharts> (accessed on 1 August 2018); <https://www.appannie.com/en/apps/ios/top/italy/music/iphone/> (accessed on 1 August 2018). This finding is based on a review of these rankings considering only music recognition services.

- (164) During the market investigation, the Commission therefore conducted a market reconstruction collecting confidential data on daily and monthly active users of providers of music recognition apps for smart mobile devices¹²⁰ worldwide and in the EEA for the year 2017.¹²¹ The scope of this exercise was limited to the reconstruction of market shares for the narrowest product market for the provision of music recognition apps for smart mobile devices. This is because of the relevance of that product market in assessing the potential anticompetitive effects of the Concentration through the leveraging of Shazam's position. It was on those effects that the Commission received complaints. They are discussed in Section 8.4.2.2.
- (165) The results of the market reconstruction indicate that Shazam is the leading provider of music recognition apps in the EEA as well as worldwide, with a market share well in excess of 30% in the potential market for dedicated music recognition apps for smart mobile devices (in other words, excluding data for the Google Search app from the dataset), and in excess of 30% even in a broader market for apps for smart mobile devices including a music recognition functionality as part of a larger offering (in other words, [...]). Notably, the results of the market reconstruction indicate that Shazam's 2017 EEA market share, based on either monthly or daily active users, would be above [...] in even the broader market for apps for smart mobile devices including a music recognition functionality, and above [...] at worldwide level, as illustrated in Figure 2.

¹²⁰ Data have been provided by Shazam as well as Musixmatch, SoundHound, Deezer and Google, that is four out of the 14 competitors in music recognition identified by the Notifying Party in the Form CO, paragraph 116 and Annex 6.3IIIA.(b) (see footnote 115). The other companies, instead, did not provide an answer to the market investigation. However, the Commission considers the market reconstruction as representative: first, in the market investigation SoundHound has been identified as the main competitor of Shazam by the large majority of respondents, followed by Google (responses to questionnaire to digital music distributors - Q6, questions 5-7, and to questionnaire to providers of music recognition software solutions - Q5, question 3); second, as regards the companies not included in the market reconstruction, they appear to be extremely small even when considering data on downloads on iOS for the years 2015 to 2017 in the EEA (see Annex Q16.3 to the response to RFI 10) and on Android (see number of installs for each of these apps at <https://play.google.com/store/apps> (accessed on 1 August 2018)).

As regards the other companies also indicated as providers of music recognition technology in Annex 6.3IIIA.(b) of the Form CO, the Commission notes that ACRCLOUD and Audible Magic replied to the market investigation but indicated not to be active in the provision of music recognition apps, but only to offer music recognition software solutions to businesses.

¹²¹ Responses to questionnaire to providers of music recognition software solutions - Q5 and responses to RFI 15.

Figure 2: Market shares in provision of music recognition apps in the EEA (2017)

Providers	Daily active users				Monthly active users			
	EEA		Worldwide		EEA		Worldwide	
	000	%	000	%	000	%	000	%
Dedicated music recognition apps for smart mobile devices								
Deezer	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
MusixMatch	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Shazam	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Sound Hound	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Total	[...]	100%	[...]	100%	[...]	100%	[...]	100%
Music recognition apps for smart mobile devices (including non-dedicated apps)								
Deezer	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Google	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
MusixMatch	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Shazam	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
SoundHound	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Total	[...]	100%	[...]	100%	[...]	100%	[...]	100%

Source: Commission's market reconstruction.

8.2.4. *Licensing of music charts data*

(166) The Parties have not been able to provide any market shares or other information on value or volumes with regard to the licensing of music data and, particularly, music charts data. The Notifying Party maintained that many undertakings exchange such data for free, or publish them for free to the general public and that it would therefore be difficult to find adequate metrics to evaluate the market size and the positions of the Parties on such market.

(167) The market investigation has provided indications confirming the Parties' claims that there is a large number of sources of music chart data and on the difficulties of estimating market shares in that respect.¹²²

8.2.5. *Online advertising*

(168) No overlap arises between the Parties' activities in the national markets, or in markets defined along linguistic borders within the EEA, of any of the Referring

¹²² Responses to questionnaire to recorded music companies and music aggregators – Q8, question C.2, and to questionnaire to advertisers – Q7, question C.1.

States, and Shazam's market share in any of those markets would be, according to the Notifying Party, [0-5]%.¹²³

- (169) The Parties were not able to provide estimates on Shazam's market share in a hypothetical market for online advertising for music enthusiasts. The market investigation has nonetheless provided indications confirming the Parties' claims that other large providers would be active in such a hypothetical market, including Google and Facebook.

8.3. Assessment of horizontal effects

8.3.1. Legal framework

- (170) Under Article 2(2) and (3) of the Merger Regulation, the Commission must assess whether a proposed concentration would significantly impede effective competition in the internal market or in a substantial part of it, in particular through the creation or strengthening of a dominant position.
- (171) The Horizontal Merger Guidelines distinguish between two main ways in which mergers between actual or potential competitors on the same relevant market may significantly impede effective competition, namely non-coordinated and coordinated effects.
- (172) The Horizontal Merger Guidelines describe horizontal non-coordinated effects as follows: *"A merger may significantly impede effective competition in a market by removing important competitive constraints on one or more sellers who consequently have increased market power. The most direct effect of the merger will be the loss of competition between the merging firms. For example, if prior to the merger one of the merging firms had raised its price, it would have lost some sales to the other merging firm. The merger removes this particular constraint. Non-merging firms in the same market can also benefit from the reduction of competitive pressure that results from the merger, since the merging firms' price increase may switch some demand to the rival firms, which, in turn, may find it profitable to increase their prices. The reduction in these competitive constraints could lead to significant price increases in the relevant market."*¹²⁴
- (173) The Horizontal Merger Guidelines list a number of factors which may influence whether or not significant horizontal non-coordinated effects are likely to result from a merger, such as the large market shares of the merging firms, the fact that the merging firms are close competitors, the limited possibilities for customers to switch suppliers, or the fact that the merger would eliminate an important competitive force. Furthermore, not all of these factors need to be present to make significant non-coordinated effects likely, and it is not an exhaustive list.¹²⁵ Finally, the Horizontal Merger Guidelines describe a number of factors which could counteract the harmful effects of the merger on competition, including the likelihood of buyer power, entry and efficiencies.

¹²³ In the EEA, in 2017 Shazam generated revenues in the field of online advertising services of approximately EUR [...] million in the EEA (Form CO, paragraph 279.), whilst Apple generated revenues of approximately EUR [...] million in the United Kingdom in the field of online advertising services through its Apple News service. Based on these figures, the Notifying Party estimates that each of Shazam's and Apple's market share in an hypothetical EEA narrowest product market or segment for provision of mobile non-search advertising would be below [0-5] % based on value in 2016 (with data for 2017 not being available).

¹²⁴ Horizontal Merger Guidelines, paragraph 24.

¹²⁵ Horizontal Merger Guidelines, paragraph 26.

- (174) To assess whether a concentration constitutes a significant impediment of effective competition pursuant Article 2(3) of the Merger Regulation, the Commission must compare the competitive conditions that would result from the concentration with the conditions that would have prevailed without the concentration.¹²⁶ While normally the competitive conditions existing at the time of the merger constitute the relevant comparison for evaluating the effects of a merger, in some circumstances the Commission may take into account future changes to the market that can "*be reasonably predicted*".¹²⁷ On the basis of paragraph 9 of the Horizontal Merger Guidelines it is for the Commission to show the existence of a significant impediment to effective competition in the market considering reasonably predictable future changes.

8.3.2. *Licensing of music charts data*

8.3.2.1. The Notifying Party's view

- (175) According to the Notifying Party, irrespective of the market definition adopted, the Concentration will not have any negative impact on competition as Shazam does not possess a very rich or unique dataset. In particular, other companies, notably digital music distributors, possess more significant data covering music consumption (sales and streams) patterns, in other words musical works that customers actually listen to and not just songs that they seek to recognise. According to the Notifying Party, the former is a more accurate and direct indication of music preferences.¹²⁸ In addition, many data companies provide analytical tools specific to the music industry that offer their customers the ability to derive insights about trends in the music industry, very similar to what Shazam could offer, but often with more sophisticated metrics.¹²⁹
- (176) The fact that there is a lot of music data available and that Shazam's music charts data set has little commercial value is demonstrated by [...].¹³⁰ [...].¹³¹

8.3.2.2. Commission's assessment

- (177) As described in recitals (70) to (72), Shazam offers music discovery charts while Apple provides mainly music consumption charts.
- (178) The Commission notes that an overlap between the Parties' activities would arise only in a hypothetical overall market encompassing both the music charts data licensed by Shazam and the music charts compiled by Apple, which, as explained in Section 7.5.1.2, is not warranted based on the results of the market investigation.
- (179) Nonetheless, the Commission considers that, even in such a broader market and regardless of its geographic scope, the Concentration would not significantly impede effective competition. Indeed, based on the responses of the majority of the participants in the market investigation, even in such a broader product market, the music charts data offered by Shazam and Apple would be complementary rather than close competitors.¹³² Further, the majority of respondents to the market investigation

¹²⁶ Horizontal Merger Guidelines, paragraph 9.

¹²⁷ Horizontal Merger Guidelines, paragraph 9.

¹²⁸ Form CO, paragraph 300 and Annex 6.3.III.F(a).

¹²⁹ Form CO, paragraph 342.

¹³⁰ Form CO, paragraph 301 and Annex 6.3.III.A(d) Shazam's "Go Forward Plan".

¹³¹ Form CO, paragraph 321.

¹³² Responses to questionnaire to recorded music companies and music aggregators – Q8, question C.2.2., to questionnaire to advertisers – Q7, question C.2.2., to questionnaire to digital music distributors – Q6,

took the view that there are plenty of sources for music charts data in the music industry.¹³³ Finally, based on the results of the market investigation, it appears that in such a heterogeneous competitive landscape, none of the music charts data sets offered in the market, including the data sets offered by Shazam or Apple, is considered "unique" or, in any event, of any particular value compared with other data available on the market.¹³⁴

- (180) Therefore, the Commission considers that the Concentration would not significantly impede effective competition in relation to the licensing of music charts data.

8.3.3. *Online advertising*

8.3.3.1. The Notifying Party's view

- (181) According to the Notifying Party, irrespective of the market definition adopted, the Concentration will not have any negative impact on competition as Apple and Shazam have a very limited position in the online advertising market and, moreover, alternative significant operators would remain active in the market.

8.3.3.2. Commission's assessment

- (182) As illustrated in Section 8.2.5, while the Parties are both active in online non-search advertising, no reportable market exists in relation either to the supply of online advertising or to any sub-segments of it. Irrespective of that, the Commission further notes that respondents to the market investigation considered that the Concentration is unlikely to raise concerns with respect to online advertising.¹³⁵
- (183) The Commission has also considered whether any concern could arise in narrower sub-segments of the market for online advertising, such as the market segment for online advertising for music enthusiasts.¹³⁶ The Commission notes that, in a narrowly defined market or segment like that, Apple is not active and there would be no overlap between the Parties' activities.
- (184) The Commission further considers that even if post-Transaction Apple were to use some of its assets (in particular, its user data) to strengthen Shazam's position in the market/segment for online advertising for music enthusiasts, this would not significantly impede effective competition. Indeed, a number of major companies offering online advertising services on inventories far larger than Shazam, including Google and Facebook, allow advertisers to target specific audiences based on their interest and also allow the targeting of music enthusiasts. Further, as discussed in Section 8.4.2.2.(c)(v), other digital music streaming players collect and have available databases on music enthusiasts similar to Apple Music and could

question 53, and to questionnaire to providers of music recognition software solutions - Q5, question 35.2.

¹³³ Responses to questionnaire to recorded music companies and music aggregators – Q8, question C.2, and to questionnaire to advertisers - Q7, question C.1. See also agreed minutes of the conference calls with Universal Music Group of 7 March 2018 and with Warner Music Group of 6 March 2018.

¹³⁴ Responses to questionnaire to recorded music companies and music aggregators – Q8, question C.3., to questionnaire to advertisers - Q7, question C.1., and agreed minutes of the conference calls with Universal Music Group of 7 March 2018, with Warner Music Group of 6 March 2018, with Deezer of 7 March 2018 and with Google of 8 March 2018.

¹³⁵ See responses to questionnaire to advertisers - Q7, question D.1.

In relation to the possible use of Shazam as advertising tool for digital music streaming apps, see Section 8.4.2.2(c)(iii).

¹³⁶ See Commission decision of 6 December 2016 in case M.8124 – *Microsoft / LinkedIn*, and Commission decision of 3 October 2014 in case M.7217 – *Facebook/ WhatsApp*.

potentially partner with providers of advertising services, should this data asset be needed to compete in the music enthusiast segment. In particular, the Commission notes that Google, which also controls YouTube and Google Play Music, would remain one of the main channels for targeting music enthusiasts to online advertisers.¹³⁷

- (185) Therefore, the Commission considers that the Concentration would not significantly impede effective competition in respect of online advertising, and possible sub-segments thereof.

8.4. Assessment of non-horizontal effects

8.4.1. Legal framework

8.4.1.1. Vertical non-coordinated effects

- (186) According to the Non-Horizontal Guidelines, non-coordinated effects may significantly impede effective competition as a result of a vertical merger if such merger gives rise to foreclosure. Foreclosure occurs where actual or potential competitors' access to supplies or markets is hampered or eliminated as a result of the merger, thereby reducing those companies' ability and/or incentive to compete.¹³⁸ Such foreclosure may discourage entry or expansion of competitors or encourage their exit.¹³⁹
- (187) The Non-Horizontal Guidelines distinguish between two forms of foreclosure. Input foreclosure occurs where the merger is likely to raise the costs of downstream competitors by restricting their access to an important input. Customer foreclosure occurs where the merger is likely to foreclose upstream competitors by restricting their access to a sufficient customer base.¹⁴⁰
- (188) In assessing the likelihood of an anticompetitive foreclosure scenario, the Commission examines, first, whether the merged entity would have, post-merger, the ability to substantially foreclose access to inputs or customers, second, whether it would have the incentive to do so, and third, whether a foreclosure strategy would have a significant detrimental effect on competition.¹⁴¹

8.4.1.2. Conglomerate non-coordinated effects

- (189) According to the Non-Horizontal Guidelines, in the majority of circumstances, conglomerate mergers will not lead to any competition problems.¹⁴² However, foreclosure effects may arise when the combination of products in related markets may confer on the merged entity the ability and incentive to leverage a strong market position from one market to another closely related market by means of tying or bundling or other exclusionary practices. While tying and bundling have often no anticompetitive consequences, in certain circumstances such practices may lead to a

¹³⁷ 1.5 billion logged in viewers visit Youtube every single month. See, "Updates from VidCon: more users, more products, more shows and much more", available at: <https://youtube.googleblog.com/2017/06/updates-from-vidcon-more-users-more.html> (accessed on 1 August 2018).

¹³⁸ Non-Horizontal Guidelines, paragraph 18.

¹³⁹ Non-Horizontal Guidelines, paragraph 29.

¹⁴⁰ Non-Horizontal Guidelines, paragraph 30.

¹⁴¹ Non-Horizontal Guidelines, paragraph 32.

¹⁴² Non-Horizontal Guidelines, paragraph 92.

reduction in actual or potential competitors' ability or incentive to compete. This may reduce the competitive pressure on the merged entity allowing it to increase prices.¹⁴³

- (190) In assessing the likelihood of anticompetitive foreclosure effects, the Commission examines, first, whether the merged firm would have the ability to foreclose its actual or potential competitors, second, whether it would have the economic incentive to do so and, third, whether a foreclosure strategy would have a significant detrimental effect on competition, thus causing harm to consumers.¹⁴⁴

8.4.1.3. Other non-coordinated effects

- (191) Finally, according to the Non-Horizontal Merger Guidelines, non-horizontal non-coordinated effects can arise also when the merged entity may, by vertically integrating, gain access to commercially sensitive information regarding the upstream or downstream activities of rivals. For instance, by becoming the supplier of a downstream competitor, a company may obtain critical information, which allows it to price less aggressively in the downstream market to the detriment of consumers. It may also put competitors at a competitive disadvantage, thereby dissuading them to enter or expand in the market.¹⁴⁵
- (192) In this context, for a competitive concern to arise, as a result of a merger the merged entity should gain access to commercially sensitive information on its rivals in upstream or downstream markets, which can allow the merged entity to undertake conducts which would put competitors at a competitive disadvantage.
- (193) Such possible theory of harm differs from the vertical non-coordinated effects discussed in paragraphs 29 to 77 of the Non-Horizontal Merger Guidelines in so far as it does not require the merged entity to directly foreclose access of its actual or potential rivals to supplies (input foreclosure) or markets (customer foreclosure). The qualifying element of the potentially anticompetitive conduct is in fact linked to the intelligence underlying that conduct, that is commercially sensitive information on the merged entity's rivals acquired through the vertical integration brought about by the merger. However, the conduct must also be liable to negatively affect competition, for instance because the merged entity can price less aggressively to the detriment of consumers or because it can put competitors at a competitive disadvantage.

8.4.2. *Possible foreclosure of competing providers of digital music streaming apps*

- (194) In the Article 6(1)(c) Decision, the Commission considered that the Concentration raised serious doubts as to its compatibility with the internal market and the EEA Agreement due to potential foreclosure of competing providers of digital music streaming apps in the EEA and in Austria, France, Italy, Spain, Sweden, Iceland and Norway, as a result of Apple gaining access to commercially sensitive information on its rivals through the Concentration.
- (195) The Article 6(1)(c) Decision also considered that the foreclosure effects potentially arising from the theory of harm described in recital (194) could be compounded by two possible groups of practices that Apple could undertake post-Transaction, that is denial or degradation of access of Apple Music's rivals to (i) Shazam's referrals as customer acquisition channel and/or (ii) Shazam as user engagement tool and/or (iii)

¹⁴³ Non-Horizontal Guidelines, paragraphs 91 and 93.

¹⁴⁴ Non-Horizontal Guidelines, paragraph 94.

¹⁴⁵ See Non-Horizontal Merger Guidelines, paragraph 78.

Shazam User Data as an input to improve existing functionalities, or offering additional functionalities, on music streaming services.

8.4.2.1. Access to commercially sensitive information

(a) *Introduction*

- (196) The Commission notes that Shazam currently collects certain data on users of third party's apps, and in particular digital music streaming apps, installed on the same smart mobile devices where the Shazam app is installed (for both Android and iOS devices) which corresponds to categories (i) and (ii) described in recital (69).
- (197) In particular, the Shazam app currently collects information as to the presence of certain apps, including digital music streaming apps, on the mobile device of the Shazam user. [...].¹⁴⁶ The digital music streaming apps for which this information is collected are, on iOS devices, [...]. On Android devices, in addition to those apps, information is also collected for [...].¹⁴⁷
- (198) Moreover, based on the Application Program Interfaces ("APIs") published by Spotify, the Shazam app allows those of its users who are also users of Spotify to connect their Shazam account (anonymous or registered) to their Spotify account (freemium or premium). If a Shazam user has connected its Shazam account to a Spotify account, Shazam is able to gain access to some additional pieces of information on Spotify users, in particular Spotify premium users, in addition to information on the mere presence of the Spotify app on the device, for example it can gain access to playlist names. In this respect, [...].¹⁴⁸
- (199) Finally, the Shazam app currently collects some user data that allows its users to be identified, for example the email address or Facebook identifier for registered Shazam users and the advertising identifier for anonymous Shazam users.¹⁴⁹
- (200) In this context the Commission has assessed whether, through the acquisition of control over the Shazam app and Shazam's database, Apple could gain access to certain data on its competitors, and in particular on Spotify, in the markets for digital music streaming apps in the EEA and in the Referring States and whether this could lead to any non-horizontal non-coordinated anticompetitive effects.

(b) *The Notifying Party's view*

- (201) In Apple's Observations of 3 April 2018, in an economic submission of 10 April 2018 as well as in the Reply to the Article 6(1)(c) Decision, the Notifying Party

¹⁴⁶ The Form CO, at paragraph 308, [...]. However, in the response to question 4.a. of RFI 12, [...].

¹⁴⁷ Response to question 4.a. of RFI 12.

¹⁴⁸ Form CO, paragraph 350, and response to question 21 of RFI 10. It cannot be excluded that the information currently stored only on the users' devices could not be transferred also on Shazam's servers.

As noted on Spotify's developer website, Spotify's user data available through its APIs include the user's display name, information about the user's followers, and the user's Spotify identifier, as well as (subject to the user's consent) the user's birthdate, country of the user, the user's email address, the user's account type (freemium or premium), the user's top artists and tracks, and the user's currently playing track. Further information on Spotify's API is available at <https://developer.spotify.com/documentation/web-api/reference/> (accessed on 1 August 2018), while the full list of information requiring authorization are listed on Spotify's developer website: <https://developer.spotify.com/documentation/general/guides/scopes/#overview> (accessed on 1 August 2018).

[...], see Reply to the Article 6(1)(c), paragraph 101.

¹⁴⁹ Form CO, paragraph 350, and response to question 21 of RFI 10.

argued that the Concentration will not give Apple Music access to commercially sensitive information on its competitors and in any event it would not give rise to anticompetitive foreclosure to the disadvantage of its rivals' customers.

- (202) First, the Notifying Party claimed that the data collected by Shazam is not commercially sensitive.
- (203) Second, the Notifying Party claimed that any increase in the ability of Apple Music to target rivals' customers by using the data collected through Shazam would be not material because (i) Apple is already able to determine which apps are installed by users on iOS, and (ii) it is already possible even today to do targeted advertising campaigns via services offered by Facebook, Google and others (including ad networks offering services based on apps installed on a user's device).
- (204) Third, the Notifying Party also claimed that, for the more accurate data on Spotify's connected users, Spotify has control of the information that Shazam could gather as it could stop allowing the use of its APIs.
- (205) Fourth, according to the Notifying Party, it would not be clear that the merged entity would have an incentive to target advertising or competitive initiatives at rivals' customers, rather than at consumers that have yet to select a music streaming service.
- (206) Fifth, the Notifying Party argued that, even if the merged entity were to target advertising or price discounts at rivals' customers, there is no prospect that this could give rise to anticompetitive effects that harm consumers. In particular, it would be highly unlikely that any targeting of rivals' customers by Apple would materially reduce the ability or incentive of such rivals to compete for users with Apple Music. Indeed, the most likely response to any aggressive advertising or pricing initiative by Apple Music would be for rivals to respond with their own competitive initiatives, which would benefit consumers.
- (207) Sixth, the Notifying Party claimed that even if the merged entity were to target advertising or price discounts at rivals' customers, the number of users Apple could target through data collected by Shazam would be too small to have any material impact on Apple Music's rivals' ability and incentives to compete.
- (208) Finally, the Notifying Party stated that, in any event, it plans to change Shazam's data collection practices to bring them in line with Apple's industry leading-positions on privacy and to update the Shazam app for OSs other than Apple's OSs so it will not send to Apple information concerning the presence of non-Apple music streaming services on the user's device, unless the music streaming service provider of that user agrees to allow this information to be sent.

(c) *Commission's assessment*

- (209) The Commission has assessed, first, whether the information to which Apple would gain access as result of the Concentration is commercially sensitive information (Section 8.4.2.1(c)(i)). Then, it has assessed the competitive disadvantage that Apple Music's competitors could suffer as a result of Apple potentially making use of that information. In this context, applying by analogy paragraph 32 of the Non-Horizontal Merger Guidelines, the Commission has examined whether Apple would have the ability (Section 8.4.2.1(c)(ii)) and incentives (Section 8.4.2.1(c)(iii)) to use the commercially sensitive information acquired through the Concentration to put competing digital music streaming apps at a competitive disadvantage, and what overall impact such a strategy would have on effective competition (Section 8.4.2.1(c)(iv)).

(i) *Commercially sensitive information*

- (210) In this case the Concentration would allow Apple to gain access to certain information on Apple Music's rivals. As explained in recitals (196) to (199), the Shazam app currently collects:
- (a) information about the presence of non pre-installed digital music streaming apps on the mobile device where the Shazam is installed: in the EEA this currently relates to approximately [...] million monthly active users of the Shazam app on Android devices and [...] million users on iOS devices;¹⁵⁰
 - (b) with respect to Spotify's users who have connected their account with the Shazam app, information about the fact that the user has connected the Shazam account to his/her Spotify account and potentially other, more granular pieces of information, based on Spotify's API.¹⁵¹ In the EEA this currently relates to approximately [...] million monthly active users of the Shazam app on Android devices and [...] million users on iOS devices.
- (211) The information collected by the Shazam app as described in the preceding recital (referred to as "Customer App Information") can be combined with other information collected by Shazam about its users, allowing those Shazam users who are (or are not) already customers of digital music streaming apps competing with Apple Music to be identified.
- (212) More precisely, based on the information in the Commission's file, the identification exercise could be performed:
- (a) through the user's email address, for approximately [...] million EEA monthly active users of Shazam who have registered on Shazam providing their email address ([...] million on iOS devices and [...] million on Android devices). Of these [...] million EEA monthly active users, around [...] million are Spotify customers connected with Shazam ([...] million on iOS devices and [...] million on Android devices);
 - (b) through the user's Facebook identifier, for approximately [...] million EEA monthly active users of Shazam who have registered on Shazam without providing their email address ([...] million on iOS devices and [...] million on Android devices). Of these [...] million EEA monthly active users, around [...] million are Spotify customers connected with Shazam ([...] on iOS devices and [...] on Android devices);
 - (c) through the mobile device's advertising ID, for the remaining EEA anonymous users of Shazam, approximately [...] million EEA monthly active users ([...] million on iOS devices and [...] million on Android devices). Of these [...]million EEA monthly active users, around [...] million are Spotify customers connected with Shazam ([...] on iOS devices and [...] on Android devices).¹⁵²
- (213) Nonetheless it cannot be excluded that the identification could be currently, or in the near future, performed through technical means other than the advertising ID.

¹⁵⁰ See Form CO, Table 6.

¹⁵¹ See footnote 148. This could include Spotify's users email address and information on the account types (freemium or premium).

¹⁵² Response to question 1 of RFI 12.

As explained at footnote 148, based on Spotify's APIs, Shazam could acquire (subject to the user's consent) the Spotify's user's email address, even for anonymous users of Shazam.

- (214) By combining the Customer App Information with the information mentioned at recital (212), Apple could thus derive a list of customers of Apple Music's rivals, including identifiers. Such information is referred to in this Decision as "the Customer Information".
- (215) The Customer Information could be used by Apple to improve the performance of its customer acquisition effects, by performing more targeted advertising or marketing campaigns aimed at customers of rival music streaming app service providers (in particular Spotify's freemium customers). This customer group could arguably be more prone to switching and take an Apple Music's subscription, compared to the universe of all other potential addresses of Apple's targeted advertising or marketing campaigns, which may be not be a music enthusiast. In turn, this could undermine the growth of Apple Music's rivals, in particular those operating on the basis of a business model whereby the conversion of free users into paid subscribers is important.¹⁵³
- (216) Whilst the Non-Horizontal Merger Guidelines do not provide a definition of "commercially sensitive information", the Commission notes that customer lists are indicated as constituting business secrets of an undertaking, together with quantities produced and sold, cost and price structure and sales strategy, that is information whose disclosure could result in a serious harm to an undertaking, in the Commission Notice on the rules for access to the Commission file.¹⁵⁴
- (217) In the Reply to the Article 6(1)(c) Decision, the Notifying Party argues that neither the Customer Information would amount to commercially sensitive information in light of the precedents of the Commission and the case law of the General Court and the European Court of Justice,¹⁵⁵ which, in the Notifying Party's view, tend to consider information relating to future prices, pricing intentions, demand or capacity information as commercially sensitive. Further the Notifying Party argues that the reference to the Commission Notice on the rules for access to the Commission file would not be relevant for the application of paragraph 78 of the Non-Horizontal Merger Guidelines. This would be because the protection of confidential information in competition proceedings does not hinge on there being a negative impact on competition, but it only requires that there is a risk of harm to the information provider, should the information be disclosed.
- (218) In this respect, the Commission considers that, first, the reason why the Commission has not considered customer lists as commercially sensitive in the previous cases recalled by the Notifying Party is not connected to the nature of the information at stake, but rather to the fact that in those cases the question of the qualification of customer lists was not relevant.

¹⁵³ See Section 6.2.

¹⁵⁴ Commission Notice on the rules for access to the Commission file in cases pursuant to Articles 81 and 82 of the EC Treaty, Articles 53, 54 and 57 of the EEA Agreement and Council Regulation (EC) No 139/2004, OJ C 325, 22.12.2005, p. 7-15, paragraph 18.

¹⁵⁵ Cases M.1879 - Boeing/Hughes, M.2510 - Cendant/Galileo, M.2738 - Gees/Unison, M.2822 - ENBW/ENI/GVS, M.2925 - Charterhouse/CDC/Telediffusion de France, M.3440 - EDP/ENL/GDP, M.3653 - Siemens/VA Tech, as well as AT.39904 Rechargeable Batteries; Case C-7/95 P, John Deere Ltd v. Commission, upholding Case T-35/92, J. Deere vs. Commission, Case T-16/98, Wirtschftsvereinigung Stahl a.o. v Commission, Case C-40/73, Suiker Unie a.o. v Commission, Case 172/80, Gerhard Züchner v. Bayerische Vereinsbank AG, Case C-89/85, Ahlström a.o. v Commission, and Case C-49/92 P, Commission v Anic.

- (219) Second, the Commission agrees with the Notifying Party that, for a finding of anticompetitive effects pursuant to paragraph 78 of the Non-Horizontal Merger Guidelines, it is not sufficient to demonstrate that, through a merger, the merged entity would gain access to commercially sensitive information on its rivals, but that it is also necessary to show that access to that information could have a negative impact on competition. This, however, is a second successive step of the assessment.
- (220) Thus, the Commission considers that the Customer Information constitutes commercially sensitive information on Apple Music's rivals in the market for digital music streaming apps in the EEA and in the Referring States within the meaning of paragraph 78 of the Non-Horizontal Merger Guidelines.
- (ii) *Ability to use the Customer Information to put competitors at a competitive disadvantage*
- (221) The Commission considers that it is unclear whether the merged entity would be able to put competing providers of digital music streaming apps at a competitive disadvantage by using the Customer Information acquired through the Concentration to perform more targeted advertising or marketing campaigns.
- (222) In this respect the Commission notes that, from a technical point of view, post-Transaction Apple would be able to access the Customer Information and to use it.
- (223) Indeed, first, the Customer Information, and in particular the Customer App Information, is (or could be stored)¹⁵⁶ [...],¹⁵⁷ so that no technical change would be required to centrally collect the data (should this be needed to perform the practices at stake, such as targeted advertising).
- (224) Second, while already pre-Transaction, Shazam has deleted certain user data as part of its broader strategy to comply with the General Data Protection Regulation ("GDPR"),¹⁵⁸ this does not exclude in itself the possibility that Apple would be able to use the Customer Information. Indeed, at the date of adoption of this Decision, Shazam has [...]. According to the Notifying Party, the latter is significant because it means that Shazam [...]. Nonetheless, the Commission notes that, [...], based on the information in its file, the possibility cannot be excluded that, even for those users that Shazam can currently identify only through the advertising ID, other technical solutions or data collected by the Shazam app could be used for the purposes of user identification and ad serving. Further, nothing technically prevents Apple from starting to collect the Customer Information again post-Transaction, including the more granular pieces of information on Spotify's users as compared with the information collected pre-Transaction by Shazam through Spotify's APIs.
- (225) Nonetheless, the Commission notes that there appears to be certain legal and/or contractual limitations on the use of the Customer Information by Apple post-Transaction.

¹⁵⁶ See footnote 148.

¹⁵⁷ Response to RFI 12, question 4.b.

¹⁵⁸ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)(OJ L 119, 4.5.2016, p. 1).

The GDPR does not require the deletion of user data. See question 2.c, RFI12. The Parties submit that there is no specific provision of the GDPR which was over-riding in Shazam's considerations, but that Article 32 of the GDPR establishes a general obligation on companies to design for privacy which was an important factor.

- (226) First, the Commission notes that the processing of personal data, including the transmission of Customer Information to the Notifying Party and its subsequent processing, is subject to the applicable European rules dealing with data protection, notably the GDPR.¹⁵⁹ On the basis of the evidence in its file, the Commission notes that [...].
- (227) Those rules apply to personal data, that is "*any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person*".¹⁶⁰
- (228) In this respect, the Commission notes that, to the extent that the combination of the Customer App Information with other pieces of information allows for identification of those Shazam's users which are (or are not) already customers of digital music streaming apps competing with Apple Music,¹⁶¹ the Customer Information could qualify as personal data and would be thus subject to the GDPR.
- (229) Pursuant to Article 5(1)(b) of the GDPR, personal data which has been collected for specified, explicit and legitimate purposes may not be further processed in a manner that is incompatible with those purposes. Data which qualifies as personal data under the GDPR can be processed by a third party only to the extent that there exists a contractual legal basis for the transmission to the third party and a legal basis for the processing by that third party.
- (230) In this respect, the Commission notes that, under Shazam's current terms of service and privacy policy, the Customer Information could be used in particular "(i) to provide [the user] with services including, but not limited to, the display of customized content, integration with [Shazam's] partner apps, and targeted advertising both on websites and other apps/websites that [Shazam] advertise through; [and] (ii) to communicate with [the user] about Shazam products and services, including sending marketing communications that [Shazam] believe[s] may be of interest to [the user], through electronic communications with [the user's] consent or where otherwise permitted by applicable law, and to provide assistance with customer service issues". Customer Information could also be shared "with third parties including advertisers and partners, some of whom may use [the user's] data for the purposes of interest-based advertising, including demographic, behavioral, and geographic ad targeting or to provide localized services (with [the user's] prior permission or where otherwise permitted by applicable law" and could in particular be transferred to a third party in "the event that ownership of Shazam or an operator of one or more of the sites changes as a result of a merger, acquisition, or transfer to another company." In the latter case, however, if "such a transfer results in a material change in the use of [the user] personal data, then Shazam will provide [the user] with appropriate notice."¹⁶²

¹⁵⁹ In this Decision the Commission discusses these rules only for the purposes of the assessment the Concentration under the Merger Regulation. The discussion from recital (226) onwards is therefore without any prejudice to the relevant administrative or legal procedures where the Parties' compliance with those rules may be assessed.

¹⁶⁰ GDPR, Article 4.

¹⁶¹ See recitals (211) to (214).

¹⁶² See Shazam's terms of service and privacy policy at https://www.shazam.com/terms#privacy_policy (accessed on 1 August 2018).

- (231) Without prejudice to the assessment of the matter by the competent data protection authorities, the Commission notes that Shazam's terms of service and privacy notice appear to inform on processing of the Customer Information collected by Shazam. Such terms of service and privacy notice appear to describe the purpose of the data processing and, based on the evidence in the Commission's file, it appears that such purpose has been specified and made manifest to Shazam's users.
- (232) The GDPR requires that individuals concerned by the processing must be informed in a transparent manner on all relevant circumstances of the processing, including on the identity of each controller and the purposes of the processing. Shazam (and Apple post-Transaction) are accountable to implement appropriate technical and organisational measures to ensure and to be able to demonstrate that processing is performed in accordance with the GDPR. In particular, they must ensure the lawfulness of the processing of personal data collected by Shazam and transmitted to Apple and comply with the principles relating to the processing of personal data, including the principles of purpose limitation, fairness and transparency.
- (233) In addition, the Commission notes that Union rules dealing with privacy and the protection of the confidentiality of communications, notably the e-Privacy Directive,¹⁶³ may also pose some limitations as to the transmission of the Customer Information to the Notifying Party and its subsequent use.
- (234) Article 5(3) of the e-Privacy Directive requires that Member States ensure that the storing of information or gaining access to information already stored in the terminal equipment of a subscriber or user is only allowed on condition that the subscriber or user concerned has given his or her consent, having been provided with clear and comprehensive information, in accordance with the GDPR, inter alia, about the purposes of the processing. This does not prevent any technical storage or access for the sole purpose of carrying out the transmission of a communication over an electronic communications network, or as strictly necessary for the provider of an information society service explicitly requested by the subscriber or user to provide the service.
- (235) Thus, Apple would be able to store the Customer Information or access the Customer Information already stored in the terminal equipment of a subscriber or a user to the extent allowed under the e-Privacy Directive.
- (236) Second, with regard to the Customer App Information, the Commission notes that Shazam is able to access data about which apps are installed on a user's Android device because the Android Developer Guidelines allow it to do so.¹⁶⁴ This situation could change at any point in time in the future and is not controlled by Apple.

¹⁶³ Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector ("Directive on privacy and electronic communications" or "e-Privacy Directive") OJ L 201, 31.7.2002, p.37-47.

In this Decision the Commission discusses these rules only for the purposes of the assessment the Concentration under the Merger Regulation. The discussion in recitals (234) and following is therefore without any prejudice to the relevant administrative or legal procedures where the Parties' compliance with those rules may be assessed.

¹⁶⁴ In fact, Google recommends that an app checks third party app presence when the app allows for linking or integration with other apps on Android, as this would prevent the app's malfunction when trying to link a non-existing app. See <https://developer.android.com/training/basics/intents/sending#Verify> (accessed on 1 August 2018).

- (237) Finally, in relation to the specific data on Spotify's users, the Commission notes that Shazam has access to this data through Spotify's public APIs and access to that data is governed by Spotify's developer terms and conditions of service, which restrict the use of Spotify's user data by app developers and can be enforced by Spotify. Notably, those terms of service include, amongst others, obligations for developers to: (i) only request from Spotify users the data they need to operate their app; (ii) not to email Spotify users without explicit consent; and (iii) completely and accurately disclose the privacy practices and policies they apply on their app or website. Further, Spotify's terms of service (section I, points f and h) prevent the use of Spotify's user data "*in any manner to compete with Spotify*".¹⁶⁵ Thus, post-Transaction, on the one hand, Apple would be contractually prevented from using the data Shazam collects through Spotify's public APIs "*in any manner to compete with Spotify*" and, on the other hand, Spotify could undertake a defensive conduct and stop the exchange of data. Finally, the same considerations made at recitals (226) to (232) on the legal restrictions stemming from applicable European data protection rules apply also to Spotify's user data.
- (238) Thus, in this Decision, the Commission, while mindful that legal and/or contractual constraints may limit Apple's possible future use of the Customer Information, will assess the effects of the Concentration on the assumption that such use could be achieved in a lawful manner.
- (iii) *Incentives to use the Customer Information to put competitors at a competitive disadvantage*
- (239) The Commission considers that it is unclear whether the merged entity would have the incentive to use the Customer Information to harm put Apple Music's competitors at a competitive disadvantage.
- (240) In this respect, the Commission notes that, Apple's internal documents show that [...].¹⁶⁶
- (241) Nonetheless, the Commission also notes that, first, (while this is not alone a ground for excluding concerns), the internal document review confirmed Apple's submission that [...]. This seems to be in line with the market practice of targeting marketing efforts to new subscribers, not switchers.¹⁶⁷
- (242) Second, while Apple Music user base is currently concentrated [...].¹⁶⁸ [...].
- (243) In this respect, the Commission notes that Apple's internal documents and analysis show that Apple Music's [...] on Android [...].¹⁶⁹
- (244) This seems to be in line with Apple's general customer acquisition strategy for Apple Music, which appears to be focussed on organic growth exploiting Apple's long experience as download service provider, having launched iTunes back in 2001, and

¹⁶⁵ Spotify's Developer Terms and Conditions of Service, available at: <https://developer.spotify.com/terms/> (accessed on 1 August 2018).

¹⁶⁶ For example see Annex Q37.15 to RFI 10.

¹⁶⁷ See Section 6.2.

¹⁶⁹ For example, Apple's internal documents, APL-SHZ_000018943 and APL-SHZ_000173026, the latter being a document on [...] where [...].

its large installed base of iPhone users (over 700 million users worldwide in 2017).¹⁷⁰ [...].¹⁷¹

- (245) Third, the Commission notes that, in response to an RFI pursuant to Article 11(2) of the Merger Regulation, Apple has stated its plans to change Shazam's data collection practices to bring them in line with Apple's industry leading-positions on privacy and, thus, to update the Shazam app for OSs other than Apple's OSs so that it will not send to Apple the Customer App Information, unless the music streaming service of that user agrees to allow this information to be sent to Apple.¹⁷²

(iv) *Impact on competition*

- (246) Most importantly, on the basis of the evidence in its file, the Commission considers that, even if the merged entity were to have the ability and incentives to put competing providers of digital music streaming apps at a competitive disadvantage by using the Customer Information, the related practices, such as targeted advertising, are unlikely to have a negative impact on effective competition in the market for digital music streaming apps in the EEA, Austria, France, Iceland, Italy, Norway, Spain and Sweden.

- (247) First, the ability to access the Customer App Information on Android, and thus to derive the Customer Information, is not limited to Shazam and would not be limited to Apple post-Transaction. Indeed, any app that is installed on an Android device is allowed by the Android Developer Guidelines to access the Customer App Information. Although arguably Shazam's installed base allows it to gather the Customer App Information for a very high number of (music enthusiast) users, the same would be true for Facebook and Twitter, for example, which also collect information on their users' interest.

- (248) In fact, even if Apple were to gain access to the Customer Information, its ability to target subscribers of competing music streaming services post-Transaction is not set to increase materially. Indeed, the market investigation confirmed the Notifying Party's claim that there exist several providers, including, but not limited to Facebook, Google and Twitter, which allow for the targeting of "music enthusiast" audiences (including some players allowing targeting of audiences of users of digital music streaming distributors, such as "Spotify app users") which Apple could rely upon to target such users already pre-Transaction.¹⁷³ Further, the ability to target subscribers of competing music streaming services post-Transaction would not be limited to Apple, as Apple Music's rivals could also rely on the same third party services post-Transaction (as well as pre-Transaction).

- (249) In this respect SoundCloud explained that it prospects "*potential users through "look-a-like modeling", which entails defining the attributes and behaviors of [its] most likely customers and identifying new audiences who've taken similar actions and exhibited similar behavior. [...]*".¹⁷⁴

¹⁷⁰ See: <https://www.statista.com/statistics/755625/iphones-in-use-in-us-china-and-rest-of-the-world/> (accessed on 1 August 2018).

¹⁷¹ Form CO, paragraph 246.

¹⁷² Response to RFI 46, question 1.

¹⁷³ Facebook's response to RFI 30; Twitter's response of RFI 29. [...] and [...] explained that they offer their customers the possibility to target users that have a specific app installed on a device (for example, the Spotify app), see responses to, respectively, RFI 33 and RFI 34.

¹⁷⁴ SoundCloud's response to RFI 22, question 5.

- (250) Second, the market investigation clearly indicated that the digital music streaming service market in the EEA (and in the Referring States, including Iceland where Apple Music is active) has been growing considerably, as illustrated by Figure 3, based on data on new subscribers (gross adds) acquired by providers of music streaming apps in the period 2015-2017, as well as estimates from 2018 based on data on the first quarter of 2018.

Figure 3: Music streaming apps' gross adds in the EEA and Referring States (2015-2018)

[...]

Source: Commission's market reconstruction.

- (251) Not only the market growth rate in the EEA has been considerable, but also market projections appear to show similar trends for the next few years. In this respect Statista estimates a continuous increase of the number of users and revenues of digital music streaming services until 2022, as shown in Figure 4.

Figure 4: Evolution of digital music streaming market in Europe (by revenues and subscribers, 2016-2022)



Source: Statista, September 2017, provided as Annex 6.3.III.B(c) to the Form CO.

- (252) In the course of the market investigation, similar market growth estimates by revenues at EEA level, illustrated in Figure 5, have been provided by Spotify, based on Goldman Sachs data.¹⁷⁵

**Figure 5: Market growth of digital music streaming market in the EEA
(by gross revenues, 2018-2023)**

2018	2019	2020	2021	2022	2023
31%	25%	21%	19%	14%	15%

Source: Goldman Sachs data provided by Spotify.

- (253) Statista also estimates a continuous increase of the number of users and revenues of digital music streaming services until 2022 in France, Italy, Spain, Sweden and Norway.¹⁷⁶ With respect to Austria, albeit user penetration and total market size by subscribers are projected to be stable, still Statista estimates an annual growth rate in the period 2018-2022 of 1.8%.¹⁷⁷ Statista does not elaborate estimates for Iceland.
- (254) Further, respondents to the market investigation, including [...],¹⁷⁸ confirmed that growth comes mainly through subscription of new customers rather than win-back of competitors' customers: competition is for new users and not for switchers. In this vein, [...],¹⁷⁹ while [...].¹⁸⁰ [...].¹⁸¹
- (255) In this context, any target advertising or marketing campaign aimed at persuading existing customers to churn would have very limited, if any, anticompetitive effects. This is in particular the case as, today, Apple Music is not the leader in the market for music streaming services in the EEA as well as in the Referring States, where Spotify continues to be the leading player, not only in terms of subscriber market shares (which provide a static picture of the current competitive constraint exerted by a player),¹⁸² but also in terms of [...] market shares (which provide a dynamic picture of the projected competitive constraint of a market player). This is illustrated by Figure 6 which contains shares of [...] for music streaming services in the EEA and in the Referring States since the launch of Apple Music in 2015, as reconstructed by the Commission's in the market investigation.

¹⁷⁵ Agreed minutes of the meeting with Spotify of 29 May 2018, paragraph 11.

¹⁷⁶ See for France: <https://www.statista.com/outlook/209/136/music-streaming/france#>;
for Italy: <https://www.statista.com/outlook/209/141/music-streaming/italy#>;
for Spain: <https://www.statista.com/outlook/209/153/music-streaming/spain#>;
for Sweden: <https://www.statista.com/outlook/209/154/music-streaming/sweden#>;
for Norway: <https://www.statista.com/outlook/209/145/music-streaming/norway#> (accessed on 1 August 2018).

¹⁷⁷ See <https://www.statista.com/outlook/209/128/music-streaming/austria#> (accessed on 1 August 2018).

¹⁷⁸ [...].

¹⁷⁹ [...].

¹⁸⁰ [...].

¹⁸¹ [...].

¹⁸² See also Statista, Spotify Is Pulling Away From Apple Music, 27 July 2018 <https://www.statista.com/chart/8399/spotify-apple-music-paid-subscribers/> (accessed on 1 August 2018).

**Figure 6: Shares of [...] for music streaming services
in the EEA and in the Referring States (2015 to first quarter (Q1) 2018)**

Providers	EEA				Austria			
	Q1 2018	2017	2016	2015	Q1 2018	2017	2016	2015
Apple Music	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Amazon	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
SoundCloud	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Google Play	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Spotify	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Deezer	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]

Providers	France				Italy			
	Q1 2018	2017	2016	2015	Q1 2018	2017	2016	2015
Apple Music	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Amazon	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
SoundCloud	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Google Play	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Spotify	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Deezer	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]

Providers	Spain				Sweden			
	Q1 2018	2017	2016	2015	Q1 2018	2017	2016	2015
Apple Music	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Amazon	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
SoundCloud	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Google Play	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Spotify	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Deezer	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]

Providers	Iceland				Norway			
	Q1 2018	2017	2016	2015	Q1 2018	2017	2016	2015
Apple Music	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Amazon	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
SoundCloud	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Google Play	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Spotify	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Deezer	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]

Source: Commission's market reconstruction.

Note: [...].

- (256) To the contrary, in line with the Notifying Party's submission, it is likely that any target advertising or marketing campaign by Apple aimed at persuading existing customers to churn would prompt Apple's digital music streaming rivals to react by engaging in similar practices.¹⁸³
- (257) Third, the Commission notes that the Notifying Party's internal documents containing best estimates for Apple Music's customer acquisition opportunities generated by the Concentration overall (that is, not limited to [...]) measure the effects of those opportunities in a total of [...] new Apple Music's subscribers over the next five years worldwide,¹⁸⁴ that is around [...] new Apple Music's subscribers

¹⁸³ See SoundCloud's response to RFI 22, question 10; [...].

¹⁸⁴ Apple's internal documents, Form CO, Annex 5.4(a).1.

per year. This equals to around [...] % of Apple Music's gross adds in 2017 and projected gross adds in 2018 in the EEA alone and less than [...] of the 2017 aggregated gross adds, and 2018 aggregated estimated gross adds, of all digital music streaming app providers in the EEA based on the Commission's market reconstruction. Such small percentages suggest that the impact of the Concentration overall in the markets for digital music streaming apps in the EEA and in the Referring States is likely to be limited. In this context, the possible effects of the use of the Customer Information are likely to be negligible.

- (258) In light of the above, it is unlikely that the data increment brought by Shazam could provide a significant competitive advantage to Apple which could lead to non-horizontal non-coordinated anticompetitive effects, by reducing the ability and incentives to compete of competing digital music streaming providers.

(v) *Conclusion*

- (259) In light of the above, the Commission considers that the Concentration would not significantly impede effective competition as a result of non-coordinated effects in respect of digital music streaming apps in the EEA or in any of Austria, France, Italy, Spain, Sweden, Iceland and Norway due to access to commercially sensitive information.

8.4.2.2. Other non-coordinated effects to the detriment of competing providers of digital music streaming apps

(a) *Introduction*

- (260) Music recognition apps offer a functionality, which is of interest and is used by the same users of digital music distribution apps. In fact, music recognition functionalities are integrated in some digital music streaming apps, as is the case of SongCatcher in Deezer. As a result, music recognition apps and digital music streaming apps can be considered complementary or at least closely related products within the meaning of paragraph 91 of the Non-Horizontal Merger Guidelines.

- (261) Moreover, after the user has "shazammed" or tagged a song for recognition, Shazam provides the user with information on the song (title and artist) and various other features to enrich its experience, including links to digital music distribution apps. If the user makes use of one of these links, that user will be referred to the platform of the digital music download app (iTunes on iOS and Google Play on Android) or to the digital music streaming app of her/his choice between Apple Music, Spotify, Deezer, Google Play and, in some countries, Amazon Music.¹⁸⁵ These links constitute the so called "mechanism of referral", which constitutes one of the various tools for customer acquisition ("referrals to registration", [...]) and engagement available to providers of digital music streaming apps ("referrals to streaming", [...])¹⁸⁶. Similar links are offered by competing providers of music recognition apps, such as SoundHound. Also in light of these links, music recognition apps and digital music streaming apps can be considered complementary or at least closely related products within the meaning of paragraph 91 of the Non-Horizontal Merger Guidelines.

- (262) Furthermore, data collected by music recognition apps, and in particular by Shazam, could be used to improve existing functionalities, or offer additional functionalities,

¹⁸⁵ Shazam result page contains, in a separate tab, also a link to the video streaming service YouTube.

¹⁸⁶ [...]. Google Play is however also the preinstalled digital music download app on Android devices, a link to which is also included in the Shazam result page.

on digital music streaming apps. In this context, user data collected by Shazam could be considered as an important input within the meaning of paragraph 30 and 34 of the Non-Horizontal Merger Guidelines for providers of digital music streaming apps.

- (263) In their referral requests, the Referring States identified possible foreclosure concerns arising from both the conglomerate and vertical relationships existing between the Parties' products.¹⁸⁷ Likewise, in the market investigation both competing providers of digital music streaming apps, the independent music companies association "Impala" and BEUC expressed concerns with respect to the potential foreclosure effects of the Concentration in the market for digital music streaming apps.
- (264) In the Article 6(1)(c) Decision the Commission found that, by leveraging Shazam's market position, Apple could have engaged in some restricting and exclusionary practices, which in combination with the effects of the conducts related to access to commercially sensitive information, might have reduced the ability or incentives to compete of Apple Music's rival providers of digital music streaming apps in the EEA, Austria, France, Iceland, Italy, Norway, Spain and Sweden.
- (265) Since, as described in Section 8.4.2.1, the Concentration would not significantly impede effective competition due to access to commercially sensitive information, in the following recitals, the Commission explains why, already in the Article 6(1)(c) Decision, it considered that those practices leveraging Shazam's market position are equally unlikely to give rise to non-horizontal non-coordinated effects through foreclosure of competing providers of digital music streaming services in the EEA, Austria, France, Iceland, Italy, Norway, Spain and Sweden.
- (b) *The Notifying Party's view*
- (266) According to the Notifying Party, while it plans to generate a total of [...] new Apple Music's subscribers over the next five years as a result of the Concentration, this cannot give rise to any foreclosure effects to the detriment of competing providers of digital music streaming apps. This is because of the following reasons put forward by the Notifying Party in particular in the Form CO and in the Reply to the Article 6(1)(c) Decision.
- (267) First, if Shazam was so valuable to other music streaming providers, it would be inconceivable that Apple would be able to purchase Shazam for less than EUR [...] million in a market currently valued by the market leader (which is not Apple) at USD 10 billion.
- (268) Second, the market for digital music streaming apps is growing very fast and Shazam is an insignificant source of customer acquisition: the Notifying Party claims that Shazam's total referrals accounted in 2017 for [...]%) of net new users at worldwide level. Thus, it is inconceivable that competing providers of music streaming services would suffer any anticompetitive foreclosure effect if they no longer were to have access to this single source of new users.

¹⁸⁷

In the Article 22 Decisions, based on the submission of the Referring States, the Commission considered that two types of adverse effects were likely to be brought about by the Concentration, that is:

(a) Potential foreclosure of competing digital music distributors, leveraging on Shazam's market position, through either (i) denial or degradation of access to Shazam as an important entry point, or (ii) denial or degradation of access to Shazam's software/technology to power integrated or connected with music recognition services; and

(b) Potential increased barriers to entry and expansion in the markets for (i) digital music distribution and (ii) online advertising, as a result of the combination of Shazam's data with Apple's data.

- (269) Third, users only have a very limited interaction with Shazam and Shazam therefore is not a source of significant user engagement which would meaningfully enriches the experience of customers of digital music streaming apps. In particular, the average user spends less than [...] per month using Shazam, with each session typically lasting less than [...], and the average Shazam monthly active user tags less than [...] songs in a month and takes no further action in approximately [...] of those tags. In contrast, an average Spotify user spends approximately 25 hours per month on the Spotify app which corresponds to approximately 375 songs listened per monthly active user.
- (270) Fourth, [...] post-Transaction providers of those apps will continue to have a number of potential technology partners available should they wish to develop a music recognition offering.
- (271) Finally, Shazam's data on user music discovery is not a key asset and is not unique. Shazam's User Behavioural Data [...]. In the music industry, the most potentially valuable data relates to actual music consumption (that is, sales, streams) because that is most representative of the correlation across multiple songs a user may like. As a result, the most interesting and valuable data to offer digital music streaming services is held by music streaming providers themselves.
- (c) *Commission's assessment*
- (272) Shazam's market share in the EEA and worldwide markets for music recognition apps (regardless of whether such market includes only dedicated music recognition apps or also other apps with embedded music recognition functionalities) is well in excess of the 30% threshold set forth in paragraph 25 of the Non-Horizontal Merger Guidelines.¹⁸⁸ Nonetheless, based on the evidence in its file, the Commission notes that, so far, Shazam's high market shares have not translated into a significant degree of market power within the meaning of paragraphs 23 of the Non-Horizontal Merger Guidelines in the provision of music recognition apps. Indeed, Shazam [does not extract significant revenues] from users of the Shazam app ([...])¹⁸⁹ [...].
- (273) Nonetheless, assuming that Shazam's market shares were indicative of a significant degree of market power within the meaning of paragraphs 23 of the Non-Horizontal Merger Guidelines, the Commission investigated whether, after the Concentration, the merged entity could give rise to non-horizontal non-coordinated effects through foreclosure of competing digital music streaming apps.
- (274) On the basis of the submissions from the Referring States and from respondents to the market investigation, the Commission has identified the following groups of possible practices through which the merged entity could potentially be able to foreclose competing providers of digital music streaming apps:
- (a) exclusionary practices leveraging the merged entity's market position from music recognition apps to the markets for digital music streaming apps, which in turn consist of:
- denying or degrading access of competing providers of digital music streaming apps to Shazam's referral mechanism as customer acquisition channel, and at the same time directing all referrals to Apple Music or

¹⁸⁸ See Section 8.2.3.

¹⁸⁹ See recital (69) on the data collected by Shazam.

- giving more prominence to referrals to Apple Music (assessed in Section 8.4.2.2.(i));
- denying or degrading access of competing providers of digital music streaming apps to Shazam's referral mechanism as functionality, which boosts user engagement or enriches user experience on digital music streaming apps, and at the same time directing all referrals to Apple Music or giving more prominence to referrals to Apple Music (assessed in Section 8.4.2.2.(ii));
- (b) practices restricting access of competing providers of digital music streaming apps to the Shazam app as advertising tool, and at the same time restriction of the use of the Shazam app as advertising tool only to Apple Music (assessed in Section 8.4.2.2.(iii));¹⁹⁰
 - (c) integration of Shazam's music recognition functionalities within the Apple Music apps, and at the same time denial of similar levels of integration to competing providers of digital music streaming apps (assessed in Section 8.4.2.2.(iv)); and
 - (d) practices restricting access of competing providers of digital music streaming apps to Shazam User Data as an important input to improve existing functionalities, or offer additional functionalities, on digital music streaming apps (assessed in Section 8.4.2.2.(v)).
- (275) The Commission's assessment on each of those practices in the light of the results of the in-depth investigation is set out in the following recitals. For this purpose, consistent with paragraphs 32 and 94 of the Non-Horizontal Merger Guidelines, in relation to each of these practice the Commission examines (i) whether the merged entity would have the ability to foreclose competing providers of digital music streaming apps; (ii) whether it would have the economic incentive to do so; and (iii) what overall impact such a foreclosure strategy would have on effective competition.
- (i) *Shazam as customer acquisition channel*
- (276) The Commission considers that the merged entity is likely to have the **ability** to engage in the denial or degradation of access to Shazam's referral mechanism as customer acquisition channel.
- (277) In this respect, the Commission notes that, first, from a technical point of view, the referral tiles are designed as a hyperlink, which, when clicked, in the absence of the digital music streaming app on the mobile device of the Shazam user, directs the user to the app store of the relevant OS so that s/he can download the app. Such hyperlink is added on the results page of the Shazam app and does not interfere with the music track recognition. The removal of referral tiles to competing digital music streaming apps appears to be technically fairly simple and not to degrade to a meaningful extent the experience of Shazam users.
- (278) Second, the Commission notes that Apple's internal documents [...].¹⁹¹
- (279) Moreover, the Commission considers that the merged entity is likely to have the **incentives** to engage in the denial or degradation of access to Shazam's referral

¹⁹⁰ This practice was not identified in the Article 6(1)(c) Decision and analysed by the Commission in the second phase investigation.

¹⁹¹ See Form CO, Annex 5.4(a)8 [...].

mechanism as customer acquisition channel. This is demonstrated by Apple's internal documents, [...].¹⁹² In its internal documents Apple estimates that this strategy would bring up to [...] additional users on Apple Music over five years, corresponding to USD [...] revenues,¹⁹³ [...].

- (280) However, the Commission considers that, even if the merged entity were to have the technical ability and the incentives to engage in the denial or degradation of access to Shazam's referral mechanism as customer acquisition channel, it is unlikely that post-Transaction the merged entity would have the ability to foreclose competing providers of digital music streaming apps and that such conducts would have a negative **impact on competition**, in particular with regard to prices and choice in the markets for digital music streaming apps in the EEA and in the Referring States.
- (281) First, the evidence in the Commission's file indicates that, albeit Shazam has a significant market share in the market for music recognition apps and its competitors do not appear to have the same strength in particular in terms of brand recognition and attractiveness to users in the EEA,¹⁹⁴ this does not appear to have translated in a significant degree of market power, including vis-à-vis providers of digital music streaming apps. Indeed, the revenues generated by Shazam from the partnership with digital music streaming apps are very limited.
- (282) Second, and more importantly, the effects of denial or degradation of access of competing providers of digital music streaming apps to Shazam's referral mechanism are unlikely to be enough to reduce their ability or incentives to compete.
- (283) In this respect the Commission notes that, while it is theoretically conceivable that competing providers of digital music streaming apps could be negatively impacted by a denial or degradation of access to Shazam's referral mechanism, and [...], no Apple Music's rival to date provided any quantitative or qualitative evidence showing that access to Shazam was important for them to thrive as providers of digital music services. To the contrary, the evidence in the Commission's file confirms the Notifying Party's claim on the insignificant relevance of Shazam as customer acquisition channel for digital music streaming apps in the EEA, as well as in the Referring States. During the market investigation the Commission has conducted a market reconstruction collecting confidential data on digital music streaming apps' new subscribers acquired in the EEA in the years 2015, 2016 and 2017 and in the Referring States in 2017, overall (gross adds) and through Shazam's referrals to registration. The results of the market reconstruction indicate that the relevance of Shazam's referrals as customer acquisition channel in the EEA and in the Referring States is in line with the Notifying Party's estimate for the worldwide market. In fact, Shazam's referrals only account for [...] of the new users of digital music streaming services in the EEA, as shown in Figure 7 and [...] at national level depending on the Referring Member State.

¹⁹² See footnote 191.

¹⁹³ See Form CO, Annex 5.4(a)1 [...].

¹⁹⁴ Responses to questionnaire to digital music distributors - Q6, question 13, and responses to questionnaire to providers of music recognition software solutions - Q5, question 30. See also responses to questionnaire to digital music distributors - Q6, questions 40 and 41 on the relative importance of the Shazam app in terms of customer acquisition channel compared to other music recognition apps.

**Figure 7: Shazam referrals's contribution to gross adds growth
in the EEA (2015-2018)**

[...]

Source: Commission's market reconstruction.

- (284) In this context, referral to registration via Shazam appears to be merely one out of the large number of different customer acquisition channels for digital music streaming apps described in Section 6.2 (and a rather unimportant one accounting, for example, for [...] of new subscribers for both Spotify and Deezer¹⁹⁵). Other customer acquisition channels (such as search advertising or on social networks) will remain available post-Transaction, so that competing digital music streaming apps will not be prevented from engaging in effective customer approaches.
- (285) The Commission further notes that:
- (a) although Spotify had no referral agreement between mid-2015 and mid-2016, it managed to expand its customer base at a very high rate.¹⁹⁶ [...];¹⁹⁷
 - (b) Amazon Music has rapidly grown its subscribers with no or negligible contribution by Shazam's referrals.¹⁹⁸ [...].
 - (c) [...].¹⁹⁹
- (286) Therefore, given the small fraction of new users that Shazam's referrals account for in the EEA and in the Referring States and the availability of other customer acquisition channels, the Commission considers that, even if the merged entity were to stop referrals from Shazam to competitors of Apple Music, it is unlikely that the reduction of sales prospects faced by digital music streaming apps, which would not benefit anymore of Shazam's referrals to registration, could reduce their ability or incentives to compete. Neither does the Commission consider that the merged entity's foreclosure strategy at stake could deter entry by potential competitors in the market for digital music streaming apps, given the limited number of customers over which Apple Music would have an acquisition advantage thanks to Shazam's referrals to registration.²⁰⁰ This is in particular because of the exponential growth that

¹⁹⁵ [...].

¹⁹⁶ Spotify's IPO prospectus, Form F-1, available at: <https://www.sec.gov/Archives/edgar/data/1639920/000119312518063434/d494294df1.htm> (accessed on 1 August 2018). Based on the market reconstruction undertaken by the Commission, Spotify's new subscribers grew b [...] from 2015 to 2016.

¹⁹⁷ Shazam's internal documents, [...]

¹⁹⁸ Data provided by Shazam in the Form CO, Tables 10, 11, 12 and 25, referrals to Amazon in 2017 accounted for [...]. Based on the market reconstruction undertaken by the Commission, referrals to registration accounted in 2017 for [...] of Amazon's new subscribers, while its new subscribers have grown by [...].

¹⁹⁹ Apple's Observations on the Commission's Preliminary Questions, paragraph 19 iii.

²⁰⁰ The Commission also notes that [...] of Shazam active user base is on iOS devices and on such devices already pre-Transaction the referral tile to Apple Music has a more prominent position. Moreover, already pre-Transaction around a [...] of the referrals to registration of (both iOS and Android) users in the EEA from the Shazam app to digital music streaming apps goes to Apple Music: Apple Music is the [...] receiver by number of referrals to registration from Shazam, [...].

the market for digital music streaming apps in experiencing at worldwide and EEA levels as well as in the Referring States.²⁰¹

- (287) Thus, the Commission considers that the Concentration would not significantly impede effective competition as a result of conglomerate foreclosure effects in the markets for digital music streaming apps though denial or degradation of access to Shazam's referral mechanism as customer acquisition channel in the EEA and in Austria, France, Italy, Spain, Sweden, Iceland and Norway.
- (ii) *Shazam's referral mechanism as functionality which boosts user engagement or enriches user experience on digital music streaming apps*
- (288) The Commission considers that the merged entity is likely to have the **ability** to engage in the denial or degradation of access to Shazam's referral mechanism as functionality, which boosts user engagement or enriches user experience on digital music streaming apps.
- (289) In this respect the Commission notes that, from a technical point of view, the same tiles on the Shazam results page allow both referrals to streaming and referrals to registration. The difference is that, when the user has already installed on her/his mobile device the digital music streaming app, a click on the tile directs the user to the digital music streaming app, and not to the app store. Once on the digital music streaming app premium subscribers of the digital music streaming app (or also free trial subscribers, depending on the app) can listen to the full track they have tagged with Shazam. Therefore, for the same reasons explained in recital (277), the Commission considers that the removal of referral tiles to competing digital music streaming apps appears to be technically fairly simple and not to degrade to a meaningful extent the experience of Shazam users.
- (290) However, the Commission considers that, even if the merged entity were to have the technical ability to engage in the denial or degradation of access to Shazam's referral mechanism as an engagement functionality, it is unlikely to have the ability and the incentives to foreclose rivals in the market for digital music streaming apps and that such conducts would have a negative **impact on competition**, in particular with regard to prices and choice in the markets for digital music streaming apps in the EEA and in the Referring States.
- (291) First, the evidence in the Commission's file indicates that, albeit Shazam has a significant market share in the market for music recognition apps and its competitors do not appear to have the same strength in particular in terms of brand recognition and attractiveness to users in the EEA,²⁰² this does not appear to have translated in a

²⁰¹ Form CO, Annex 6.3.III.B(b) and Form CO, Annex 6.3.III.B(c). Statista forecasts that the market will grow from approximately USD 8 billion to USD 12 billion from 2017 to 2022 worldwide and from USD 2.3 billion to USD 3.5 billion on a European basis.

See also, Reply to the Article 6(1)(C), Annex II.A. Goldman Sachs industry report shows an expected growth of the worldwide paid streaming market by USD 8.9 billion (from USD 5.1 billion to USD 14 billion) between 2017 and 2022

See also, Spotify's IPO prospectus, Form F-1, available at: <https://www.sec.gov/Archives/edgar/data/1639920/000119312518063434/d494294df1.htm> (accessed on 1 August 2018), page 2 and following where it is indicated that "*streaming is growing globally*" and that "*the streaming market is still in its infancy*".

²⁰² Responses to questionnaire to digital music distributors - Q6, question 13 and responses to questionnaire to providers of music recognition software solutions - Q5, question 30. See also responses to questionnaire to digital music distributors - Q6, questions 44 and 45 on the relative importance of the Shazam app in terms of customer engagement.

significant degree of market power, including vis-à-vis providers of digital music streaming apps. [...].²⁰³ Likewise, the Commission notes that [...],²⁰⁴ while, in the market investigation, [...].²⁰⁵ All these elements provide an indication of limited economic relevance of referrals to streaming for boosting user engagement or enriching user experience on digital music streaming apps.

(292) Second, the effects of such practice are unlikely to be enough to reduce the ability or incentives to compete of competing providers of digital music streaming apps.

(a) First, the Commission notes that the evidence in the Commission's file indicates that the relevance of referrals to streaming as functionality, which boosts user engagement or enriches user experience on digital music streaming apps is very limited. The Commission has benchmarked the number of referrals to streaming in the EEA with the number of total subscribers and premium subscribers of digital music streaming apps in the EEA:²⁰⁶ the result of this exercise shows that the number of referrals to streaming per subscriber as well as per premium subscriber is negligible in the EEA. The Commission also tried to estimate the proportion of users of digital music streaming apps in the EEA for which referrals to streaming may be an important functionality. For this purpose, assuming that all referrals to streaming were performed by the same users and that these users would click once per week on the referral tile, the Commission has divided the total number of clicks to streaming in the months of December 2017 and January 2018 by the number of weeks per month and benchmarked the result with the user basis of digital music streaming providers. Also on the basis of this conservative metric referrals to streaming appear to have a limited importance in terms of user engagement on digital music streaming apps: indeed the proportion of these customers out of the total number of subscribers or premium subscribers of digital music streaming apps in the EEA would be small. Assuming that users, for which referrals to streaming are particularly important in terms of engagement and user experience, would click more than once per week on the referral tile, the share of demand represented by these customers would be even smaller.

(b) Second, the Commission notes that Shazam is used for only [...] per month by its users,²⁰⁷ which is a minimal if compared to several hours of use of music streaming apps ([...]²⁰⁸, [...]²⁰⁹). This means that the user exposure to the brand of the music streaming apps within Shazam is very marginal.

(c) Third, the Commission notes that, rather than boosting user engagement or enriching user experience on digital music streaming apps, referrals to

²⁰³ [...], see footnote 186.

²⁰⁴ See, for example, responses to questionnaire to digital music distributors - Q6; agreed minutes of the [...], and agreed minutes of the [...].

²⁰⁵ [...].

²⁰⁶ [...]; subscriber data provided in response to providers of digital music distributors - Q6, questions 4 and 5.

²⁰⁷ Form CO, paragraph 266.

²⁰⁸ Commission's calculation based on information provided by third parties

²⁰⁹ See Spotify's IPO prospectus, Form F-1, available at: <https://www.sec.gov/Archives/edgar/data/1639920/000119312518063434/d494294df1.htm> (accessed on 1 August 2018).

streaming may at best (if at all)²¹⁰ serve this purpose for Shazam. In this respect, the Commission notes that, in fact, [...].²¹¹

- (d) Fourth, already pre-Transaction the referral tile to Apple Music has a more prominent position on iOS devices, where around [...] of Shazam active user base is and [...] of referrals to streaming are performed. Moreover, already pre-Transaction around a [...] of the referrals to streaming of iOS users in the EEA from the Shazam app to digital music streaming apps goes to Apple Music: Apple Music is the [...] receiver by number of referrals from Shazam, the [...].²¹²
 - (e) Fourth, the removal of a link to competing digital music streaming apps would not as such stop users of such services from shazamming songs and then listening to those songs on rival digital music streaming apps. This can be done by simply opening the respective digital music streaming app and looking for the recognised song.
- (293) The market investigation has not provided any indication that the effects of the denial or degradation of access to Shazam's referral mechanism as engagement functionality would be different in any of the national markets for digital music streaming apps in the Referring States.
- (294) Thus, the Commission considers that the Concentration would not significantly impede effective competition as a result of conglomerate foreclosure effects in the markets for digital music streaming apps though denial or degradation of access to Shazam's referral mechanism as functionality in the EEA and in Austria, France, Italy, Spain, Sweden, Iceland and Norway.
- (295) A functionality to boost user engagement or enrich user experience on digital music streaming apps, much more useful than Shazam's referrals, appears to be offering embedded music recognition functionalities, as Deezer has recently done.²¹³ As discussed in Section 8.4.2.2.(iv), the Commission considers that the Concentration is unlikely to give rise to anticompetitive effects in relation to the ability of competing providers of digital music streaming apps to access music recognition software solutions to offer such embedded functionalities.
- (iii) *The Shazam app as advertising tool*
- (296) The Commission considers that the merged entity is likely to have the **ability** to engage in practices restricting access to the Shazam app as advertising tool for competing digital music streaming apps.
- (297) In this respect the Commission notes that, all what is required to perform this conduct is to use the advertising space on the Shazam app to promote exclusively Apple Music. Further, Apple could redesign the Shazam app so to display push notifications promoting Apple Music on Android devices²¹⁴ (regardless of whether

²¹⁰ [...] (Form CO, Tables 11, 12 and 25, and response to RFI 10, question 39).

²¹¹ In an internal document attached to the Form CO as Annex 5.4(a)8, Apple states that, post-Transaction, [...]. See footnote 191.

²¹² Response to RFI 10, question 39, as well as Form CO, Tables 11, 12 and 25.

²¹³ Deezer's response to questionnaire to digital music distributors – Q6, question 47: "the best option for increasing the customer retention is the integration of a music recognition feature in our services".

²¹⁴ On iOS devices Apple already has the ability to send push notifications pre-Transaction.

the device has installed a music streaming app) and thus growing its user base on a platform [...].²¹⁵

- (298) Moreover, the Commission considers that the merged entity is likely to have the **incentives** to engage at least in the first of these practices. This is demonstrated by [...].²¹⁶ To the contrary, with respect to the possibility of sending push notifications, [...],²¹⁷ so that the Commission considers it unclear whether Apple would have the incentive to introduce a feature which could reduce the value of the company/assets it is acquiring.
- (299) However, the Commission considers that, even if the merged entity were to have the technical ability to engage in practices restricting access to the Shazam app as advertising tool, it is unlikely to have the ability and the incentives to foreclose rivals in the markets for digital music streaming apps and that such conducts would have a negative **impact on competition**, in particular with regard to prices and choice in the markets for digital music streaming apps in the EEA and in the Referring States.
- (300) First, the Commission notes that the potential of this strategy would reflect nothing, but Shazam's strength in the advertising market. As explained in Section 8.2.5, Shazam appears to be a relatively small player in online advertising. As such Shazam does not have significant degree of market power within the meaning of paragraph 61 of the Non-Horizontal Merger Guidelines in the market for online advertising nor in the possible sub-segment for online advertising for music enthusiasts.
- (301) Even considering the potential market segment for online advertising for music enthusiasts, the Commission notes that, as explained in Section 8.3.3.2., a number of major companies offering online advertising services on inventories far larger than Shazam, including Google and Facebook, allow advertisers to target music enthusiasts and would remain available to competitors of Apple Music post-Transaction.
- (302) Further, as explained in Section 6.2., after promotional campaigns and in-app advertisement in digital music streaming apps, the most effective advertising tools for digital music streaming apps appear to be paid online search advertising, marketing on social network sites and partnerships with mobile network/telecoms operators, e-mail campaigns and referrals from other apps. Thus, non-search advertising on platform others than social networks, including on the Shazam app, does not appear to be among the most effective advertising tools for digital music streaming apps. In particular the Commission notes that, when asked about the important/effective customer acquisition channels, [...].²¹⁸ In the same vein [...].²¹⁹
- (303) In addition, the Commission note that the Shazam app is used for only [...] per month by its users, which is minimal if compared to several hours of use of other non-search advertising platforms.²²⁰ This means that the user exposure to the brand of the music streaming apps within the Shazam app is very marginal.
- (304) Thus, it appears that, for digital music streaming players, having their service featured on the Shazam app is only one of the many different ways (and clearly not

²¹⁵ The practice of push notifications is indicated as customer acquisition tool by SoundCloud in its response to RFI 22, question 3.

²¹⁶ In Form CO, Annex 5.4(a)2 and Annex 5.4(a)9, [...]. In Form CO, Annex 5.4(a)2, [...].

²¹⁷ Shazam's internal documents, [Doc IDs 795-43224; 795-14539; 795-1720].

²¹⁸ [...].

²¹⁹ [...].

²²⁰ Form CO, paragraph 266.

one of the most important ways), in which they attempt to build/market their brand and to promote their services. Therefore, even if the merged entity were to restrict Shazam as advertising tool exclusively to Apple Music, the impact on the ability or incentives to compete of its rivals would be negligible.

- (305) With specific reference to the use of push notifications on Android, the Commission notes that such use is regulated by Android's developer guidelines. These guidelines provide for the user's ability to accept or suppress push notifications and an app developer cannot simply decide to send push notifications to all users who have the app. Consequently, post-Transaction any push notifications would only be sent to a subset of the Shazam users on Android.
- (306) Further, the Commission notes that, even if the merged entity were to start sending such push notifications, the effects of such practice are unlikely to be enough to reduce the ability or incentives to compete of other providers of digital music streaming apps on Android devices. First, the growth of competing digital music streaming apps has not been supported by Shazam push notifications pre-Transaction and there is no evidence that this would have changed absent the Transaction. Second, even if the use of push notifications were to attract the attention of Android users to Apple Music (despite the draw-backs mentioned at recital (298), [...]²²¹).
- (307) Thus, the Commission considers that the Concentration would not significantly impede effective competition as a result of conglomerate foreclosure effects in the markets for digital music streaming apps though restricting access to the Shazam app as advertising tool in the EEA and in Austria, France, Italy, Spain, Sweden, Iceland and Norway.
- (iv) *Shazam as provider of software solutions to power music recognition functionalities*
- (308) The Commission considers that the merged entity is likely to have the **ability** and the **incentive** to integrate Shazam's music recognition functionalities within the Apple Music apps and to deny similar levels of integration to competing digital music streaming apps. In particular, based on Apple's internal documents, [...]²²²[...].²²³
- (309) However, the Commission considers that, even if the merged entity would have the technical ability and the incentives to integrate Shazam's music recognition functionalities within the Apple Music apps and to deny similar levels of integration to competing digital music streaming apps, it is unlikely that post-Transaction the merged entity would have the ability to foreclose competing providers of digital music streaming apps and that such conducts would have a negative **impact on effective competition**, in particular with regard to prices and choice in the markets for the digital music streaming apps in the EEA and in the Referring Member States.
- (310) Importantly, post-Transaction, several alternative providers of music recognition technology, such as Tonio, Gracenote and ACRCLOUD, would remain active in the market which could partner with digital music streaming app providers to provide music recognition functionalities to end-users. In this vein, in the market investigation, Musixmatch noted that, in order to provide music recognition functionality it is possible to use providers like ACRCLOUD or Gracenote.²²⁴ More

²²¹ In this respect see Section 8.4.2.1(c).

²²² Form CO, Annex 5.4(a)10. [...]

²²³ Form CO, Annex 5.4(a)2 and Annex 5.4(a)9. [...]

²²⁴ Response to questionnaire to providers of music recognition software solutions Q5, question 24. In particular, Musixmatch integrates ACRCLOUD's music recognition online service and customized offline

generally, most of competing providers of ACR software solutions and apps responding to the market investigation considered that the Concentration would have a neutral or positive impact on the market for ACR and music recognition software solutions in the EEA.²²⁵ In this respect, another competitor, Audible Magic noted that the Concentration may be positive since it may encourage digital music distributors to partner with providers of music recognition technology.²²⁶

- (311) Moreover, already pre-Transaction, those alternative providers were offering their music recognition technology to digital music streaming apps. For example, ACRCLOUD is the provider of the music recognition technology used by Deezer in its newly-launched in-app music recognition functionality "Songcatcher"²²⁷, while Gracenote has a partnership with Amazon Music.²²⁸ The viability and competitiveness of the offering of those alternative providers is confirmed in an internal discussion [...].²²⁹
- (312) Thus, the Commission considers that the Concentration would not significantly impede effective competition as a result of conglomerate foreclosure effects in the markets for digital music streaming apps though the integration of Shazam's technology into Apple Music in the EEA and in Austria, France, Italy, Spain, Sweden, Iceland and Norway.
- (v) *Shazam as provider of user data to improve existing functionalities, or offer additional functionalities, on digital music streaming apps*
- (313) The Commission considers that the merged entity is likely to have the technical **ability** and the **incentive** to use the Shazam User Data²³⁰ to improve its digital music streaming. [...].²³¹
- (314) Nonetheless, the Commission notes that applicable European rules dealing with data protection, privacy and the protection of the confidentiality of communications, notably the GDPR and the e-Privacy Directive, may pose some limitations as to the transmission of personal data of Shazam's users to the Notifying Party and its subsequent use. In this respect, the same considerations made in Section 8.4.2.1(c)(ii) apply.
- (315) Nonetheless, the Commission considers that, even if the merged entity were to have the ability and the incentive to use the Shazam User Data, it is unlikely that post-Transaction the merged entity would have the ability to foreclose competing providers of digital music streaming apps and that such conduct would have a negative **impact on competition**, in particular with regard to prices and choice in the markets for the digital music streaming apps in the EEA and in the Referring States.

recognition technology, available at: <https://www.acrcloud.com/music-recognition> (accessed on 1 August 2018).

²²⁵ Responses to questionnaire to providers of music recognition software solutions - Q5, question 36.

²²⁶ See agreed minutes of the conference call with Audible Magic of 7 March 2018.

²²⁷ New Deezer SongCatcher Feature Brings Music Closer to the Fans, available at: <http://www.deezer-blog.com/press/new-deezer-songcatcher-feature-brings-music-closer-to-the-fans/> (accessed on 1 August 2018).

²²⁸ New Deezer SongCatcher Feature Brings Music Closer to the Fans, available at: <http://www.deezer-blog.com/press/new-deezer-songcatcher-feature-brings-music-closer-to-the-fans/> (accessed on 1 August 2018).

²²⁹ Shazam internal document, [...], [Doc ID 795-43758].

²³⁰ See recital (69).

²³¹ Form CO, Annex 5.4(a)1.

- (316) First, the market investigation provided mixed results on whether Shazam User Data should be considered as important to offer music streaming services.²³² In fact, some digital music streaming providers indicated that Shazam User Data could be relevant and complementary to the one on their users. Nonetheless, the Commission notes that, currently, [...]. As described in recital (70), Shazam licenses [...] music data charts in customised format and the raw music data used to compile music charts to third parties and, among digital music streaming providers, [...].²³³ Thus Shazam User Data does not appear to be an important input to improve existing functionalities, or offer additional functionalities, on digital music streaming apps.
- (317) Second, the Commission notes that it is unlikely that, should Shazam User Data, or a subset thereof, were to be used exclusively by Apple Music, this would affect a sufficiently important proportion of Apple Music's competitors to result in a significant price increase or reduction of market incentives to innovate. This is because Shazam User Data does not appear to be unique and, thus, be able to confer a significant "data advantage" to Apple post-Transaction and Apple Music's competitors would have the opportunity to access to similar database. In this respect the Commission has compared the Shazam User Data to other dataset available on users of digital music services using four relevant metrics: that is the variety of data composing the dataset; the speed at which the data are collected (velocity); the size of the data set (volume); and the economic relevance (value). These metrics, the so-called "Four Vs"²³⁴, comprise the four key parameters that are increasingly used to assess the commercial and thus competitive relevance of large datasets.
- (318) With regard to the **variety** of data, the Commission notes that, based on the responses to the market investigation, both providers of digital music streaming apps and music recognition services collect similar type of device data (for example, device language, operating system), demographic data (for example, name, gender, age), and behavioural data (for example, user's clicks in app) on their users as the one encompassed in the Shazam User Data.²³⁵
- (319) Further, several respondents have indicated that they collect and do have access to music tag data. Therefore, the same type of data could be available from other sources. Importantly, Deezer has recently launched a music recognition functionality within its digital music streaming app, which would enable it to collect music tag activity about its own users to complement the data on music streaming activity and, thus, further enriching the variety of data it maintains on its users. A similar strategy is available to other music streaming apps, due to the presence of several providers of music recognition technology on the market.²³⁶

²³² Responses to questionnaire to digital music distributors – Q6, questions 51 and 54.

²³³ The effect of the Concentration in relation to the licensing of music charts data has been already discussed in Section 8.3.2.

²³⁴ See "Competition Law and Data", 10 May 2016, joint report of the *Bundeskartellamt* the German National Competition Authority ("NCA") and the *Autorité de la concurrence* French NCA, available at <http://www.autoritedelaconcurrence.fr/doc/reportcompetitionlawanddatafinal.pdf> (accessed on 1 August 2018).

See also, German Monopolies Commission (Monopolkommission), Special Report N.68: Competition policy: The challenge of digital markets", 2015, available at http://www.monopolkommission.de/images/PDF/SG/s68_fulltext_eng.pdf. (accessed on 1 August 2018).

²³⁵ Responses to questionnaire to providers of music recognition software solutions - Q5, question 5. See also, responses to questionnaire to providers of music recognition software solutions – Q6, question 9.

²³⁶ See Section 8.4.2.2.(c)(iv).

- (320) Moreover, the Commission considers that for the purposes of providing recommendations and personalised suggestions to users based on their tastes, several datasets are needed and used in the market. Currently all music streaming players offer such functionality based on their own user consumption data (that is data on the music that users stream) as well as discovery data (that is data collected through various market intelligence sources on popularity of certain music tracks and future music trends). For example, Spotify compiles a database of music discovery data, albeit based on different sources than music tag activity, and it has been very successful in providing personalized experience to their user through recommendations without the use of Shazam data.²³⁷
- (321) Shazam collects only music discovery data based on one possible (even if arguably important) source that is music tag activity (data on which songs a given user has "shazamed" in a given location at a given point in time). Therefore, Shazam User Data seems to be one of the several data points that allow market players (artists, recorded music companies, digital music services) to understand which songs are trending in a given area. However, the variety of data collected by Shazam appears to be more limited compared to data sets collected by other industry players, given that Shazam does not have access to music consumption data.
- (322) With regard to the **velocity** of data, using the average time spent by users each month on the app as a proxy of the speed at which new data is generated and the data previously collected become outdated, it appears that Shazam collects users' data at lower speed compared to providers of music streaming apps. In particular, the Shazam app is used for approximately [...] per month per user,²³⁸ which is significantly lower compared to the time spent by users on Spotify (25 hours per month),²³⁹ on Apple Music ([...] per month)²⁴⁰ or other music streaming apps (on average [...] hours per month).²⁴¹
- (323) With regard to the **volume** of data, while Shazam has access on data on over [...] active users in the EEA, Apple Music's competitors in the EEA, in aggregate, have access to [...] monthly active users with a significantly higher app engagement (in terms of time spent on the app)²⁴² which would result in a significantly higher volume of data compared to Shazam. For example, Spotify publicly stated that it maintains a large and diversified data set of more than 200 petabytes, which provides significant insights into content consumption and user behaviour, including discovery data.²⁴³

²³⁷ Spotify provides recommendations playlists such as Discover Weekly, Release Radar, and Daily Mix. Spotify's IPO prospectus, Form F-1, available at: <https://www.sec.gov/Archives/edgar/data/1639920/000119312518063434/d494294df1.htm> (accessed on 1 August 2018).

²³⁸ Form CO, paragraph 266.

²³⁹ Spotify's IPO prospectus, Form F-1, available at: <https://www.sec.gov/Archives/edgar/data/1639920/000119312518063434/d494294df1.htm> (accessed on 1 August 2018).

²⁴⁰ RFI 36, question 11.

²⁴¹ Commission's calculations based on responses to questionnaire to digital music distributors - Q6, question 8.3.

²⁴² See recital (322).

²⁴³ See Spotify's IPO prospectus, Form F-1, available at: <https://www.sec.gov/Archives/edgar/data/1639920/000119312518063434/d494294df1.htm> (accessed on 1 August 2018).

- (324) With regard to the **value** of data, Shazam User Data does not appear to be a key asset and is not unique. The limited relevance of Shazam User Data is confirmed by [...]Shazam [...] was able to generate [...] EUR [...] worldwide and EUR [...] in the EEA in 2017.²⁴⁴ [...].²⁴⁵
- (325) In the music industry, the most potentially valuable data appears to relate to actual music consumption, as that is the most representative of the correlation across multiple songs a user may like. As a result, the most interesting and valuable data to offer digital music streaming services is typically held by music streaming providers themselves.²⁴⁶
- (326) In particular, Shazam User Data does not appear to be a key element of success of digital music streaming apps. In this respect, the Commission notes in an internal document Shazam itself notes that [...].²⁴⁷ Further, in the market investigation the Commission has asked to Apple's digital music streaming competitors to provide any analysis, study, report (made internally or provided by third party such as external advisors/consultants) they may have undertaken on Shazam User Data, [...]: this suggests that Shazam User Data has no relevance for digital music streaming apps.²⁴⁸
- (327) Thus, it appears that the addition of the Shazam User Data would not allow Apple to materially improve its services by offering even more targeted music suggestions to users. In this respect, in some internal documents, Apple defines Shazam's data as [...] in the market for digital music streaming.²⁴⁹
- (328) In this context, even if the merged entity were to deny access to Shazam User data to competitors of Apple Music, the impact on the ability to compete of those rivals would likely be negligible. Therefore, the Commission considers that Shazam User Data, cannot be qualified as an important input within the meaning of paragraph 34 of the Non-Horizontal Guidelines with respect to the provision of digital music streaming services in the EEA and in Austria, France, Italy, Spain, Sweden, Iceland and Norway.
- (329) Thus, the Commission considers that the Concentration is unlikely to lead to a significant impediment of effective competition as a result of input foreclosure effects to the detriment of providers of digital music streaming apps in the EEA and in Austria, France, Italy, Spain, Sweden, Iceland and Norway.
- (vi) *Conclusion*
- (330) In light of the above, the Commission considers that the Concentration would not significantly impede effective competition in the EEA or in any of Austria, France, Italy, Spain, Sweden, Iceland and Norway as a result of non-horizontal foreclosure effects in respect of digital music streaming apps through the practices discussed in

²⁴⁴ Form CO, Table 1.

²⁴⁵ Shazam's submission and internal documents on Shazam's sale process of 26 February 2018.

²⁴⁶ For example, Spotify claims that its programmed "playlists have become a key discovery tool for users" and that Spotify is "an essential partner to both aspiring and established artists by enabling their music to be discovered". In particular, as a result of its programmed playlist, listening diversity is increasing with users being encouraged to discover new artists. Spotify's IPO prospectus, Form F-1, available at: <https://www.sec.gov/Archives/edgar/data/1639920/000119312518063434/d494294df1.htm> (accessed on 1 August 2018). See also, "Listening Diversity Increases Nearly 40 Percent on Spotify", available at: <https://insights.spotify.com/us/2017/11/02/listening-diversity-spotify/> (accessed on 1 August 2018).

²⁴⁷ Shazam internal document, [...], [Doc ID 795-43758].

²⁴⁸ Shazam internal documents, [...], Doc ID:795-42061.

²⁴⁹ [...].

Section 8.4.1.2(c)(i) to Sections 8.4.1.2(c)(iv), including to the extent that these effects would compound the non-horizontal non-coordinated effects of the Concentration stemming from the conduct discussed in Section 8.4.2.1.

8.4.3. *Possible foreclosure of competing providers of ACR software solutions, including music recognition apps*

- (331) ACR software solutions offer a functionality, which is of interest and is also used by the same users of PCs, smart TVs, smart mobile devices and smart wearables. In fact, ACR software solutions are integrated into music recognition solutions which are available on PCs, TVs, smart mobile devices and smart wearables, as is the case for the Shazam app which is available on several platforms. As a result, ACR software solutions and software solutions and/or apps platforms for PCs, smart TVs, smart mobile devices and smart wearables (including smart watches) and smart watches can be considered complementary or at least closely related products within the meaning of paragraph 91 of the Non-Horizontal Merger Guidelines.
- (332) During the market investigation a concern has been raised whereby Apple could increase Shazam's market position in the market for ACR software solutions by leveraging its OS position.²⁵⁰
- (333) In the Article 6(1)(c) Decision, the Commission considered that the Concentration raised serious doubts as to its compatibility with the internal market and the EEA Agreement due to potential foreclosure of competing providers of ACR software solutions in the EEA.
- (334) Accordingly, the Commission analyses whether the Concentration could give rise to non-horizontal non-coordinated effects through foreclosure of competing providers of ACR software solutions in the EEA.

8.4.3.1. The Notifying Party's view

- (335) The Notifying Party submitted that the Concentration would not have any impact on competition on the market for ACR software solutions and narrower potential segments, such as the provision of music recognition apps in the EEA. This is because of the following reasons put forward by the Notifying Party in particular in the Form CO and in the Reply to the Article 6(1)(c) Decision. First, Apple has limited shares of device shipment in the EEA. Second, Apple would not have the ability to foreclose Shazam's competitors since many different platforms would remain available to other providers of ACR software solutions post-Transaction. Third, Apple already pre-Transaction has a deeper integration with Shazam and therefore the Concentration would only result in Apple internalizing a current technology provider: such internalization will not impact Shazam's position on the market. Finally, Apple would not have the incentives to limit access to third party providers of ACR software solutions and music recognition apps since its strategy is to provide a wide range of high quality apps to attract customers. For example, Apple's App Store includes apps that compete with Apple owned-apps such as music streaming services (for example, Spotify's), messenger services (for example, WhatsApp's) and productivity software (such as, Google's).

²⁵⁰ Tonio's written submission of 28 March 2018. See also agreed minutes of the call with Tonio of 15 May 2018 and of 8 March 2018. In the market investigation, no similar concern has been put forward in relation to music recognition apps.

8.4.3.2. Commission's assessment

- (336) On the basis of a complaint received in the market investigation, the Commission has identified some potential practices through which the merged entity could potentially be able to foreclose competing providers of ACR software solutions, including music recognition apps. Post-Transaction, Apple could (i) pre-install the Shazam app on Apple's PCs, smart mobile devices and other platforms; (ii) provide a deeper integration to the Shazam app on Apple's products and services for PCs, smart mobile devices and other platforms; and (iii) reduce the interoperability between Apple's products and services (and, specifically, Apple devices' microphone) and third parties ACR apps and software solution.²⁵¹ As a result, competing providers of ACR software solutions could be potentially be marginalized.
- (337) The Commission's assessment of those practices, in light of the results of the market investigation, is set out in the following recitals. For this purpose, consistent with paragraph 94 of the Non-Horizontal Merger Guidelines, in relation to each of these practice the Commission examines: (i) whether the merged entity would have the ability to foreclose competing providers of ACR software solutions; (ii) whether it would have the economic incentive to do so; and (iii) what overall impact such a foreclosure strategy would have on competition.
- (338) The Commission considers that the merged entity is likely to have the **ability** to pre-install the Shazam apps, to deeply integrate Shazam's technology with its products and services (such as Apple's OSs) and/or to reduce interoperability between Apple's products and services and third parties' ACR software solutions. In this respect, the Commission notes that, first, being a vertically integrated operator in the development of software solutions and/or apps platforms, the merged entity would be capable of integrating the Shazam app or Shazam's ACR software solutions on its devices without incurring significant cost or investments. Second, for the merged entity, it would also be possible to enhance the integration with Shazam's offering and/or to reduce interoperability with third party ACR software solutions since, based on Apple's Developer Program, Apple may revoke or remove access to third parties to its API "*at any time in its sole discretion*".²⁵²

²⁵¹ See agreed minutes of the conference call with Tonio of 15 May 2018. More precisely, in relation to this conduct, Tonio explained that, in the near future, the use of microphones installed in smartphones will change. Audio input will be widely exploited to transmit information from media sources around the user into his/her smartphones. The ACR function will be permanently switched on and will keep on recording all audio input in the surroundings of the user (so called "Always On Strategy"). According to Tonio, the Concentration will provide Apple with the necessary ACR technology to successfully establish on an emerging market for metadata on media consumption, in particular digital music consumption.

In this respect, the Commission notes that, already pre-Transaction, Apple has access to Shazam's technology: thus, if it wanted it could agree with Shazam to undertake the Always On Strategy already pre-Transaction. Moreover, the Commission notes that in response to an RFI pursuant to Article 11(2) of the Merger Regulation, Apple stated that it has no plans, and no intention, of integrating the Shazam music recognition technology into any Apple OSs, or functionality offered on any Apple devices, in order to collect what music the user is playing from a competing music streaming service on an Apple device without the user's consent (response to RFI 46, question 2). Finally, the Commission notes that, should the merged entity decide to undertake the Always On Strategy, it should abide to applicable European rules dealing with data protection, privacy and the protection of the confidentiality of communications, notably the GDPR and the e-Privacy Directive. In this respect, the same considerations made in Section 8.4.2.1(c)(ii) apply in relation to the limitations to the ability to collect and use the data.

²⁵² Annex Q9, RFI12.

- (339) The Commission considers that it is unclear whether the merged entity would have the **incentive** to engage in the practices described at recital (336). On the one hand, Apple is likely to have the incentive to enhance its integration with Shazam’s ACR software solutions and provide more visibility to the Shazam app on its products and services.²⁵³ In particular, as described in recital (308), [...]. On the other hand, it does not seem likely that Apple would reduce its integration with third party music recognition apps and ACR software solutions. In this respect, the Commission notes that, should Apple “*grant exclusive access to [its] products’ microphones to Shazam, i.e. [should] only Shazam [be]able to “receive” data via microphone*” on Apple’s devices,²⁵⁴ post-Transaction, such conduct may harm the competitiveness of Apple’s core device business. Indeed, this could undermine the attractiveness of Apple’s devices by reducing availability of software solutions and apps that require access to the microphone to operate, but also deprives Apple from the revenues it generates from distributing third party apps,²⁵⁵ in the effort to drive customers to use Shazam, a free app [...].²⁵⁶
- (340) Moreover, the Commission considers that, even if the merged entity were to have the incentive to engage in the practices described at recital (336), it is unlikely that post-Transaction the merged entity would have the ability to foreclose competing providers of ACR software solutions, including music recognition apps, or that such conduct would have a negative **impact on competition**, in particular with regard to prices and choice, in the market for ACR software solutions in the EEA.
- (341) First, as regards the software solutions and/or apps platforms, the Commission notes that Apple has at least a strong position in relation to smart watches, where it had a share of [50-60]% by shipment in the EEA in 2017. In relation to PCs, smart TVs and smart mobile devices, smart wearables (including smart watches), as described in Section 8.2.1, Apple’s share of the market is currently more limited in each case. Nonetheless, the Commission further notes that even Apple’s smart watches do not appear to constitute a particularly significant channel for providers of ACR software, and in particular music recognition apps. In this respect the Commission notes that, for example, only [...] % of Shazam’s monthly active users are on Apple’s smartwatches²⁵⁷ and Shazam’s monthly active users on smart watches relates to only [...] % of the total number of smart watches shipped worldwide in 2017.²⁵⁸
- (342) Second, the concern at stake does not seem to be merger-specific. Already pre-Transaction, as of mid-2014²⁵⁹ Shazam and Apple had an ongoing partnership pursuant to which Shazam outsourced its technology, including its ACR software solution, to Apple for integration into Apple’s virtual assistant, Siri. Therefore, Apple’s choice to partner with Shazam and to refuse integration with competing providers of ACR software solutions and apps is a business choice independent of the Transaction. Moreover, the same complainant, Tonio, in its submission, also

²⁵³ Annex 5.4.(a).1, Form CO.

²⁵⁴ Tonio’s submission, page 13.

²⁵⁵ Apple generated approximately USD [...] revenue from the distribution of third party apps in 2017. See, Annex 37.3 to RFI 10, slide 101.

²⁵⁶ Shazam internal document, [...] [Doc ID 795-53297].

²⁵⁷ Shazam has approximately [...] monthly active users worldwide on Apple Watches, in comparison with Shazam’s total monthly active users worldwide which were [...] as of December 2017; see Reply to Article 6(1)c Decision, paragraph 157.

²⁵⁸ 18 million smart watches have been shipped in 2017. See: <https://techcrunch.com/2018/02/06/apple-watch-shipments-jumped-in-2017-according-to-analysts/?guccounter=1> (accessed on 1 August 2018).

²⁵⁹ Annex 6.3.I Form CO.

noted that its request to access Siri's audio domain had been ignored by Apple long before the Transaction was announced.²⁶⁰

- (343) Furthermore, post-Transaction Apple would still lack an ACR software solution based on watermarking technology which is a different technology from the one developed by Shazam based on fingerprinting.²⁶¹ Thus, Apple's incentives as regards the potential foreclosure of providers of ACR software solutions based on watermarking technology are not likely to be affected by the Concentration as it does not change Apple's market position as regards the ownership of such technology.
- (344) Third, the majority of competing providers of ACR software solutions, including music recognition apps, responding to the market investigation considered that the Concentration would have a neutral or positive impact on the market for ACR software solutions in the EEA (or worldwide).²⁶² In this vein, Audible Magic noted that the Concentration might be positive since it might encourage other digital music distributors to partner with providers of music recognition technology.²⁶³ Musixmatch noted that the Concentration would be really positive for its business.²⁶⁴ Finally, [...].²⁶⁵
- (345) Moreover, one of the main providers of ACR software solutions, ACRCLOUD, noted that the Concentration would not have any impact on its business since even pre-Transaction it did not have any collaboration with Apple.²⁶⁶ Likewise, while some respondents to the market investigation indicated that Apple is a relevant channel, they also noted that only a minority of their revenue is generated from presence on Apple's devices.²⁶⁷
- (346) Further, several respondents expressed the view that several other software solutions platforms would remain available post-Transaction, including but not limited to Android.²⁶⁸ In fact, the Commission notes that, as explained in Section 6.4, ACR software solutions are not specifically developed for smart watches or smart mobile devices, but for a wider range of platforms including smart TVs, PCs and other services aimed at recognising audio content,²⁶⁹ which would not be controlled by Apple post-Transaction.

²⁶⁰ Tonio's written submission of 28 March 2018.

²⁶¹ See Section 6.4.

²⁶² Responses to questionnaire to providers of music recognition software solutions - Q5 2018, question 36.

²⁶³ Agreed minutes of the conference call with Audible Magic of 7 March 2018.

²⁶⁴ Responses to questionnaire to providers of music recognition software solutions - Q5 2018, question 36.
²⁶⁵ [...].

²⁶⁶ Agreed minutes of the conference call with ACRCLOUD of 6 March 2018.

²⁶⁷ Responses to questionnaire to ACR providers - Q37 questions 2, 6, 7 and 8.

²⁶⁸ Responses to questionnaire to ACR providers - Q37, question 7.

²⁶⁹ For example ACR software solutions are used to provide media monitoring services, enabling copyright owner to identify copyrighted music for compliance and royalty management.

(347) Finally, the Commission considers it unlikely that any deeper integration of the Shazam technology with, or pre-installation of the Shazam app within, Apple's devices would lead to the anti-competitive foreclosure of competing ACR software solutions providers. Shazam's current integration with Apple has not prevented other providers of ACR software solutions and music recognition apps to compete²⁷⁰ or enter the market.²⁷¹ In this regard, the Commission notes that, first, as described in Section 8.3.3, even based on an over-estimate Shazam's position in the market, Shazam has only a limited market share of approximately [5-10]% in the market for ACR software solutions at worldwide level. Second, with regard to music recognition apps, being integrated on the pre-installed virtual assistant Siri has not boosted Shazam's usage pre-Transaction, since the number of music tags through Siri accounted for only approximately [...] % of the total volume of music tags by Shazam users in the EEA in 2017.²⁷² Third, the evidence in the Commission's file has not provided any indication that use of the Shazam app on Apple's devices would significantly increase post-Transaction.

8.4.3.3. Conclusion

(348) In light of the above, the Commission considers that the Concentration would not significantly impede effective competition as a result of conglomerate foreclosure effects in the market for ACR software solutions, or in any possible sub-segments of that market including music recognition apps, either in the EEA or worldwide.

9. CONCLUSION

(349) For the reasons set out in Section 8, the Commission finds that the Concentration would not significantly impede effective competition in respect of the provision of any of the following: (i) the licensing of music charts data at worldwide level, in the EEA or in any of the Referring States; (ii) online advertising services in any of the Referring States; (iii) digital music streaming apps in the EEA or in any of the Referring States; and (iv) ACR software solutions at worldwide level or in the EEA,

HAS ADOPTED THIS DECISION:

Article 1

The notified concentration resulting from the transaction whereby Apple, Inc. acquires control, within the meaning of Article 3(1)(b) of the Regulation (EC) No 139/2004, of the entire undertaking of Shazam Entertainment Ltd. is declared compatible with the internal market and the Agreement on the European Economic Area.

²⁷⁰ For example, ACRCLOUD has launched a partnership with Deezer in order to provide in-app music recognition functionalities. See, "New Deezer SongCatcher Feature Brings Music Closer to the Fans", available at: <http://www.deezer-blog.com/press/new-deezer-songcatcher-feature-brings-music-closer-to-the-fans/> (accessed on 1 August 2018).

²⁷¹ For example, Tonio App has been released in October 2014 when the integration agreement between Apple and Shazam was already in place.

²⁷² Form CO, Table 12.

Article 2

This Decision is addressed to:

Apple, Inc.

1 Infinite Loop

CA 95014 - Cupertino

United States of America

Done at Brussels,

For the Commission

(Signed)

Margrethe VESTAGER

Member of the Commission