

Anticipated Acquisition by AlphaTheta Corporation of Serato Audio Research Limited

Decision on relevant merger situation and substantial lessening of competition

ME/7076/23

The Competition and Markets Authority’s decision on relevant merger situation and substantial lessening of competition under section 33(1) of the Enterprise Act 2002 given on 1 May 2024. Full text of the decision published on 30 May 2024.

The Competition and Markets Authority (**CMA**) has excluded from this published version of the decision information which the CMA considers should be excluded having regard to the three considerations set out in section 244 of the Enterprise Act 2002 (specified information: considerations relevant to disclosure). The omissions are indicated by [X]. Some numbers have been replaced by a range, which are shown in square brackets.

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SUMMARY

1. OVERVIEW OF THE CMA'S DECISION

1. The Competition and Markets Authority (**CMA**) has found that the acquisition by AlphaTheta Corporation (**ATC**) of Serato Audio Research Limited (**Serato**), gives rise to a realistic prospect of a substantial lessening of competition (**SLC**) in relation to the supply of DJ software globally and DJ hardware globally.
2. The CMA refers to this acquisition as the **Merger**. ATC and Serato are together referred to as the **Parties** and, for statements relating to the future, the **Merged Entity**.
3. As the CMA has found that the Merger gives rise to a realistic prospect of an SLC, the Parties have until 9 May 2024 to offer undertakings in lieu of a reference (**UILs**) to the CMA that will remedy the competition concerns identified. If no such undertaking is offered, then the CMA will refer the Merger pursuant to sections 33(1) and 34ZA(2) of the Enterprise Act 2002 (the **Act**).

Who are the businesses and what products/services do they provide?

4. ATC is a Japan-based company that supplies DJ software globally for use on laptops and desktops under the rekordbox brand and DJ hardware under the Pioneer DJ and AlphaTheta brands. ATC also supplies WeDJ, a mobile/tablet-only DJ software app.
5. Serato is a New Zealand-based company that supplies DJ software for use on laptops and desktops under the Serato DJ brand.
6. The Parties overlap in the supply of DJ software for laptop and desktop applications globally. As a library preparation tool, DJ software is used to analyse music before a performance and organise songs into playlists. As a performance tool, it is used to mix and edit music in a live performance setting.
7. There is also a 'non-horizontal' relationship between the Parties, because ATC supplies various types of DJ hardware equipment that works in compatibility with DJ software. The equipment that the CMA found to be relevant to its investigation were mixers, controllers, DJ players and all-in-one DJ systems, all of which have the capability to interoperate with DJ software.

Why did the CMA review this merger?

8. The CMA's primary duty is to seek to promote competition for the benefit of consumers. It has a duty to investigate mergers that could raise competition

concerns in the UK, provided it has jurisdiction to do so. In this case, the CMA has concluded that the CMA has jurisdiction to review this Merger: each of ATC and Serato is an enterprise, they will cease to be distinct as a result of the Merger, and the share of supply test is met as ATC and Serato have a combined share of supply of over 25%, with an increment, by both revenue and volume, in the supply of DJ software for laptops and desktops in the UK.

9. ATC announced on 11 July 2023 that it had agreed to acquire Serato for a purchase price of USD 65 million. The Merger is conditional on receiving merger control clearance from the New Zealand Commerce Commission.

What evidence has the CMA looked at?

10. In assessing this Merger, the CMA considered a wide range of evidence in the round.
11. The CMA received several submissions and responses to information requests from the Parties. This included information about the nature of the Parties' businesses, how competition works in the sector, and the Parties' respective positions in the various DJ related product markets. The CMA also examined the Parties' internal documents, which show the rationale for the Merger, how they run their businesses and how they view their rivals in the ordinary course of business.
12. The CMA spoke to and gathered evidence from other market participants to better understand the competitive landscape and get their views on the impact of the Merger. In particular, the CMA received evidence from DJ software and hardware competitors, DJ hardware retailers and DJs (end-users).

What did the evidence tell the CMA...

...about the effects on competition of the Merger?

13. The CMA found that the Merger raises significant competition concerns as a result of three 'theories of harm' (ie, hypotheses about how the Merger could harm competition).
14. First, as a result of **horizontal unilateral effects in the supply of DJ software for laptops and desktops globally**. In general terms, the concern under horizontal unilateral effects relates to the elimination of a competitive constraint by removing an alternative that customers could switch to. In this case, the CMA is concerned that the Merger would eliminate competition between two major suppliers who already enjoy a strong position in DJ software (particularly Serato) and exert a strong constraint on each other. The Merged Entity would be the clear market leader, and the CMA found that the loss of competition between the Parties would not be offset by the constraint posed by either other suppliers of DJ

software for laptops and desktops, or by suppliers of DJ software apps. The Merger could therefore result in increased prices and reduced quality and innovation for DJ customers.

15. Second, as a result of **the Merged Entity leveraging its strong position in the supply of DJ software globally to harm ATC's DJ hardware competitors (specifically, suppliers of mixers, controllers, DJ players and all-in-one systems globally)** by restricting or worsening their access to Serato's DJ software offering. Because compatibility with DJ software (and in particular Serato) is important for the competitiveness of DJ hardware products, this would harm ATC's DJ hardware rivals and reduce overall competition in the supply of mixers, controllers, DJ players and all-in-ones. The CMA found that the Merged Entity would have the ability to do so given the popularity of Serato's DJ software and the fact that the next main alternative software, rekordbox, is owned by ATC and not available for use on rival DJ hardware. The CMA also found that the Merged Entity would have the incentive to pursue this strategy given the high relative profitability of DJ hardware (where it could gain sales as a result) compared to DJ software (where it risks losing sales). ATC's strong position in the supply across all types of DJ hardware would incentivise DJs to switch to its products. The CMA considered that this would reduce overall competition across the various types of DJ hardware mentioned above, including by reducing quality, innovation and choice, or by increasing hardware prices for DJs. Maintaining the current constraint imposed by DJ hardware competitors on ATC is particularly important given ATC's strong position in DJ hardware.
16. Third, **ATC may gain access to its DJ hardware competitors' commercially sensitive information as a result of the Merger** because of the process that DJ hardware competitors undertake with Serato to ensure interoperability between their hardware and Serato's software. The CMA's concern is that the current collaboration between Serato and DJ hardware suppliers that requires the exchange of commercially sensitive information, such as product prototypes, would be compromised. Post-Merger, ATC's DJ hardware competitors could be disincentivised to innovate or share information with the Merged Entity as this information could then be used by the Merged Entity in their own DJ hardware product development. In addition, even if DJ hardware rivals continued to provide commercially sensitive information to the Merged Entity post-Merger, the transparency over their product development could mean that the Merged Entity could reduce its own innovation efforts to stay only marginally ahead of its rivals. These actions could result in less innovation in the DJ hardware markets across the board and lower quality products for DJs.

What happens next?

17. As a result of the concerns outlined above, the CMA believes the Merger gives rise to a realistic prospect of an SLC. The Parties have until 9 May 2024 to offer UILs to the CMA that will remedy the competition concerns identified. If no such UILs are offered, or the CMA decides that any UILs offered are insufficient to remedy its concerns to the phase 1 standard, then the CMA will refer the Merger for an in-depth phase 2 investigation pursuant to sections 33(1) and 34ZA(2) of the Act.

ASSESSMENT

2. PARTIES, MERGER AND MERGER RATIONALE

18. ATC is a global company registered in Japan and majority-owned by Noritsu Koki Co., Ltd, which is listed on the Tokyo Stock Exchange. ATC develops and sells DJ software for laptop and desktop applications under the rekordbox brand and DJ hardware under the Pioneer DJ and AlphaTheta brands. ATC also supplies WeDJ, a mobile/tablet-only application or 'app', which is aimed at entry-level DJs,¹ and the rekordbox DJ app. ATC also supplies music production hardware. ATC's turnover for the financial year ended 31 December 2022 was approximately £202 million worldwide and £[§<] in the UK.²
19. Serato is a New Zealand incorporated company that provides DJ software for laptop and desktop applications (through the Serato DJ brand) and music production software globally.³ Serato also supplies music production software. Serato's turnover for the financial year ended 31 March 2023 was approximately £[§<] worldwide and £[§<] in the UK.⁴
20. Upon completion of the Merger, ATC will acquire sole control over Serato through the acquisition of 100% of the shares of Serato, pursuant to a share purchase agreement (**SPA**) dated 11 July 2023.⁵ The consideration for the Merger is approximately USD 65 million.⁶
21. The Merger is the subject of review by, and conditional upon clearance from, the competition authority in New Zealand (NZCC).⁷
22. The Parties submitted that the main strategic rationale for the Merger is to enable ATC to expand its activities in music production by benefiting from Serato's experience in music production software, and to allow Serato's founders to retire.⁸ Whilst the CMA has seen references to expansion in music production as one of ATC's reasons for the Merger, the evidence indicates that the primary rationale for the Merger is further growth of the DJ (software and hardware) businesses. An ATC internal document seeking board approval for the Merger places primary and leading emphasis on Serato's top market share in DJ software and the ability to

¹ Final Merger Notice submitted to the CMA on 4 March 2024 (**FMN**), paragraph 2.16. Converted using the Bank of England average exchange rate for 2022 of US\$ 1.2362 to £1.

² FMN, paragraph 6.1.

³ FMN, paragraph 2.29.

⁴ FMN, paragraph 6.2. This turnover does not include hardware fees received by Serato which are attributable to hardware sold in the UK. Converted using the Bank of England average exchange rate for 2022 of US\$ 1.2362 to £1.

⁵ FMN, paragraph 2.37.

⁶ FMN, paragraph 2.38.

⁷ FMN, paragraph 2.40.

⁸ FMN, paragraph 7. Issues Meeting, 10 April 2024.

strengthen ATC's overall DJ business as a key reason for the Merger.⁹ ATC told the CMA at the Issues Meeting on 10 April 2024 that any focus on Serato's DJ software business in the lead up to the Merger was intended to [redacted], but does not represent ATC's actual rationale for the Merger.¹⁰ The CMA places limited weight on this argument as it considers that a contemporaneous board-level document which justifies a USD 65 million transaction should reflect, and be considered reliable evidence of, the Parties' rationale and expectations in relation to the impact of the Merger.

3. PROCEDURE

23. The CMA's mergers intelligence function identified the Merger as warranting an investigation.¹¹
24. The CMA commenced its phase 1 investigation on 4 March 2024. As part of its phase 1 investigation, the CMA gathered a significant volume of evidence from the Parties. In response to targeted information requests, the CMA received and reviewed internal documents from the Parties. The Parties also had opportunities to make submissions and comment on our emerging thinking throughout the phase 1 investigation. For example, the CMA invited the Parties to attend an Issues Meeting on 10 April 2024, and the Parties submitted their views in writing. The CMA also gathered evidence from other market participants, such as competitors, retailers and DJs. The context in which the evidence was produced has been considered when deciding how much weight to give it. Where necessary, this evidence has been referred to within this Decision.
25. The Merger was considered at a Case Review Meeting.¹²

4. JURISDICTION

26. A relevant merger situation exists where two or more enterprises have ceased to be distinct and either the turnover or the share of supply test is met.¹³
27. Each of ATC and Serato is an enterprise. As a result of the Merger, these enterprises will cease to be distinct.

⁹ ATC internal document, Annex 18 to the FMN, [redacted], July 2023, slides 11 and 17. In a section in this document describing Serato's business characteristics and performance trends, ATC leads (at slides 11 and 12) with a detailed analysis of [redacted].

¹⁰ Issues Meeting, 10 April 2024

¹¹ [Mergers: Guidance on the CMA's jurisdiction and procedure \(CMA2\)](#), January 2021 (as amended on 4 January 2022), paragraphs 6.4–6.6.

¹² [CMA2](#), from page 65.

¹³ [CMA2](#), chapter 4; Section 23 of the Act.

28. The UK turnover of Serato does not exceed £70 million for the financial year ended 31 March 2023. The turnover test in section 23(1)(b) of the Enterprise Act 2002 (the **Act**) is therefore not satisfied.¹⁴
29. The CMA considered that the share of supply test in section 23 of the Act is met based on an overlap in the supply of DJ software for use on laptops and desktops (ie, excluding mobile and tablet apps) in the UK. The CMA estimates that the Parties have a combined share of supply of [50-60]% (by revenue and volume) with an increment of [10-20]% by revenue and [20-30]% by volume in 2023 globally. The CMA considered these global estimates to be a good proxy for the Parties' shares of supply in the UK and that any UK-specific variation would not be significant enough to bring the Parties' combined share below the share of supply test threshold.¹⁵
30. As a result, the CMA believes that it is or may be the case that arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation.
31. The initial period for consideration of the Merger under section 34ZA(3) of the Act started on 5 March 2024 and the statutory 40 working day deadline for a decision is therefore 1 May 2024.

5. COUNTERFACTUAL

32. The CMA assesses a merger's impact relative to the situation that would prevail absent the merger (ie the counterfactual).¹⁶
33. In an anticipated merger, the counterfactual may consist of the prevailing conditions of competition, or conditions of competition that involve stronger or weaker competition between the parties to a merger than under the prevailing conditions of competition.¹⁷ In determining the appropriate counterfactual, the CMA will generally focus on potential changes to the prevailing conditions of competition only where there are reasons to believe that those changes would make a material difference to its competitive assessment.¹⁸
34. In this case, the CMA has not received submissions (or other evidence) suggesting that the Merger should be assessed against an alternative

¹⁴ [CMA2](#), paragraph 4.59.

¹⁵ The methodology behind the CMA's calculation of global DJ software shares is further explained in the commentary around Table 1 in the competitive assessment of Theory of Harm 1. The CMA considers it appropriate to use its global share of supply estimates as a proxy for UK shares because third-party evidence did not bring out any notable distinctions between market structure in the UK and globally. The Parties also estimated that their combined share of supply of DJ software (excluding mobile and tablet applications) in the UK was over 50% with an increment (FMN, paragraph 5.4).

¹⁶ [Merger Assessment Guidelines \(CMA129\)](#), March 2021, paragraph 3.1.

¹⁷ [CMA129](#), paragraph 3.2.

¹⁸ [CMA129](#), paragraph 3.9.

counterfactual. Therefore, the CMA believes the prevailing conditions of competition to be the relevant counterfactual.

6. COMPETITIVE ASSESSMENT

6.1 Industry background

35. Technological developments have changed, and continue to change, the way DJs manage their music and perform. Originally, a typical DJ setup was exclusively hardware-based with two turntables, a mixer and vinyl records. As the format of music moved from vinyl records to CDs to digital media, and following the increased prevalence of laptops and, more recently mobiles and tablets, DJs have increasingly used DJ software. DJ software can be used to create various effects when mixing different songs and for organising music ahead of performance. This in turn has led to the development of new types of DJ hardware, which rely on or interact with DJ software.
36. The Parties overlap in the supply of DJ software for laptops and desktops globally, with ATC also supplying the WeDJ mobile/tablet app and rekordbox mobile. There is also a non-horizontal relationship between the Parties, as ATC supplies multiple types of DJ hardware globally, including:
- (a) controllers, which are devices that DJs use to mix music when combined with DJ software, replicating the traditional DJ mixer and turntables on a single piece of equipment;
 - (b) DJ players, which are digital turntables typically connected to a mixer for the DJ to play and mix songs. DJ players have proprietary software embedded, which means that they can play music from USB sticks (or cloud music libraries) or can also be connected to a laptop or other external device with DJ software;
 - (c) mixers, which are a type of audio mixing console used to control and manipulate different audio signals which are then played through speakers or other devices, and which can use either USB sticks (or cloud music libraries) or an external device with DJ software to play and mix songs; and
 - (d) all-in-ones, which essentially combine the functionality of mixers and DJ players into one device and can use either USB sticks (or cloud music libraries) or an external device with DJ software to play and mix songs.¹⁹

¹⁹ FMN, Table 1. ATC also supplies other related hardware including turntables, headphones, and monitors (speakers). This Decision does not consider these hardware types further because (i) DJ software compatibility has limited impact, if any, on the competitiveness of these hardware products; (ii) there is a wider set of strong competitors active in the supply of these hardware products; and (iii) third parties did not raise any concerns in relation to these hardware types.

6.2 Market definition

37. Where the CMA makes an SLC finding, this must be ‘within any market or markets in the United Kingdom for goods or services’. An SLC can affect the whole or part of a market or markets. Within that context, the assessment of the relevant market(s) is an analytical tool that forms part of the analysis of the competitive effects of the merger and should not be viewed as a separate exercise.²⁰
38. Market definition involves identifying the most significant competitive alternatives available to customers of the merger parties and includes the sources of competition to the merger parties that are the immediate determinants of the effects of the merger.
39. While market definition can be an important part of the overall merger assessment process, the CMA’s experience is that in most mergers, the evidence gathered as part of the competitive assessment, which will assess the potentially significant constraints on the merger parties’ behaviour, captures the competitive dynamics more fully than formal market definition.²¹

6.2.1 Product market

40. The Parties submitted that the appropriate product markets are:
- (a) the supply of DJ software regardless of the device it is used on ie including DJ software used on laptops and desktops, DJ apps for mobile and tablets (**DJ apps**), and web-based solutions;²² and
 - (b) the supply of DJ hardware.
41. The Parties submitted that the above product markets should not be further segmented by reference to: (i) type of device; (ii) customer segments; or (iii) different categories of hardware.²³

6.2.1.1 DJ software market: segmentation by type of device

42. The CMA considered whether it is appropriate to define separate markets as between DJ software (for laptops and desktops) and DJ apps (for mobile and tablets). Overall, the evidence indicates that the competitive dynamics differ between them. Competitors indicated that from a demand-side perspective, DJ apps are generally used to ‘play around’ or are seen as ‘just for fun’ by entry-level

²⁰ [CMA129](#), paragraph 9.1.

²¹ [CMA129](#), paragraph 9.2.

²² Web-based software refers to DJ software that users can run on a web browser such as Safari, Chrome, or Edge. Users do not need to download the DJ software on a laptop or app. The Parties listed Beatport DJ as example of web-based only software (FMN, paragraph 15.1).

²³ FMN, paragraphs 13.2–13.16.

DJs, are free or very cheap, and are not a replacement for DJ software for laptops and desktops during live performance.²⁴ Several competitors stated that the market demands DJ software for laptops and desktops specifically and is not shifting towards app-based solutions.²⁵

43. The evidence from competitors, the Parties' internal documents and Serato's business strategy also indicated that, as discussed in paragraphs 83–87 below, DJ apps pose a limited competitive constraint on DJ software for laptops and desktops.²⁶ The CMA considers that the evidence discussed in paragraphs 83–87 runs contrary to the Parties' submissions around the competitive threat of DJ apps to DJ software and does not consider there is sufficient demand-side substitution to widen the market to include DJ apps.
44. On the supply-side, the CMA notes that most suppliers focus on either DJ software for laptops and desktops or DJ apps, although some suppliers (such as ATC, Algoriddim, and Hercules) do offer both. The CMA also considers that there is a lack of evidence of suppliers being able to use their presence in DJ apps to expand their presence in DJ software easily and routinely in response to demand changes. As such, the CMA does not consider it appropriate to widen the market on the basis of supply-side considerations.

6.2.1.2 *DJ hardware market: segmentation by type of hardware*

45. The Parties submitted that segmentation by hardware type (ie as between controllers, all-in-ones, DJ players and mixers) is not appropriate. This is on the basis that whilst certain (but not all) DJ hardware products are not substitutable, they are often acquired and used together. The Parties added that most DJ hardware suppliers offer several categories of DJ hardware.²⁷
46. On the demand side, the CMA considers there is some degree of substitutability between the different hardware types. In particular, third parties explained that there are three main hardware set-ups that DJs might typically adopt: (i) controller only, (ii) all-in-one only, and (iii) a combination of mixer(s) and DJ players(s). However, the choice of set-up might be influenced by the needs or budget of the DJ (with controllers generally being the least expensive option) and third-party evidence shows that each type of hardware had specific functionality, with

²⁴ Note of a call with a third party, December 2023, paragraph 20; and Note of a call with a third party, December 2023, paragraph 20.

²⁵ Note of a call with a third party, December 2023, paragraph 20; and Note of a call with a third party, December 2023, paragraph 21.

²⁶ Note of a call with a third party, December 2023, paragraph 13. Note of a call with a third party, December 2023, paragraph 16. Note of a call with a third party, January 2024, paragraph 21.

²⁷ FMN, paragraph 14.

respondents indicating that some DJ hardware products tend to be used in conjunction with each other, rather than being directly substitutable.²⁸

47. On the supply-side, the CMA considers that there is insufficient evidence of DJ hardware manufacturers routinely shifting their capacity to supply different types of hardware in response to demand changes. While many DJ hardware manufacturers offer controllers, only a minority of manufacturers offer other categories of DJ hardware. Only ATC and inMusic supply all four types of DJ hardware.
48. The CMA considers that while there is a degree of both demand and supply-side substitutability, it is appropriate, given the mixed nature of the evidence, to assess on a cautious basis the effect of the Merger on controllers, mixers, all-in-ones and DJ players separately. However, it also considered that, in some parts of its competitive assessment, analysing the effect of the Merger on the supply of these products in aggregate was appropriate, and that doing so did not affect the CMA's decision on the competitive effects of the merger.

6.2.1.2.1 DJ software and DJ hardware markets: segmentation by type of user

49. The Parties submitted that neither DJ software nor DJ hardware should be segmented by the occasion of use (eg at a club event or as a hobby) or the life-stage of the DJ (eg entry-level or professional) because DJs in each segment have a range of preferences and there is no single type of software or hardware product or set of features that all DJs in a particular segment use.
50. The evidence from third parties²⁹ and internal documents³⁰ indicated that DJs typically fall across a spectrum between professional or entry-level. However, the boundaries between the types of DJs and their requirements are not clear-cut. The CMA considers that segmentation by type of user would not be practicable, and that this does not have an impact on its evaluation of the Merger as any differences between types of users' preferences are considered in the competitive assessment of the Merger below. Similarly, as discussed above, whilst controllers may more commonly be used by entry-level DJs as a less expensive option, the price range of controllers varies significantly.

6.2.2 Geographic market

51. The Parties submitted that the appropriate geographical market for both DJ software and DJ hardware is global, on the basis that (i) the same DJ software is

²⁸ Response to the CMA questionnaire from a number of third parties, March 2024, question 4.

²⁹ Note of a call with a third party, December 2023, paragraph 10. Note of a call with a third party, January 2024, paragraphs 8–9.

³⁰ See for example, Serato Internal Documents, Annex 25 to the FMN, [redacted], October 2023, slide 7; Annex 11 to the FMN, [redacted], 2023, slide 30; and Annex 27 to the FMN, [redacted], Winter 2023, slide 19. See also ATC Internal Document, Annex 161 to the FMN, [redacted], May 2018, slide 47.

distributed to users all over the world; (ii) all main DJ hardware manufacturers have manufacturing facilities in a small number of locations, from which they supply globally and there are no material barriers to this and (iii) prices across markets are relatively similar.³¹

52. Evidence from third parties indicated that suppliers of DJ software are active globally and that while there is some evidence of differences in regional preferences,³² the conditions of competition are in general similar across different countries.³³ Similarly, evidence from third parties indicated that suppliers of DJ hardware are active globally and that overall, the conditions of competition are similar across different countries.³⁴
53. The CMA has therefore assessed the impact of this Merger on the supply of DJ software and the supply of DJ hardware (controllers, mixers, all-in-ones and DJ players) globally.

6.2.3 CMA's conclusion on market definition

54. The CMA therefore considers that the appropriate markets in which to assess the effect of the Merger are the supply of:
- (a) DJ software for laptops and desktops (excluding DJ apps) globally – the CMA uses the term **DJ software** from this point onwards in this Decision to refer to DJ software for laptops and desktops only. Where relevant, the CMA considered the constraint by DJ apps and other evidence on product differentiation as part of its competitive assessment;
 - (b) controllers globally;
 - (c) mixers globally;
 - (d) all-in-ones globally; and
 - (e) DJ players globally.

³¹ FMN, paragraphs 13.15 and 13.18.

³² For example, Serato was seen as optimised for hip-hop music and so used more in the US (Response to the CMA questionnaire from a number of third parties, March 2024, questions 11–12. Note of a call with a third party, January 2024, paragraph 20). This is also supported by an ATC internal document, Annex 18 to the FMN, [3<], July 2023, slide 16. Other DJ software such as Traktor Pro or VirtualDJ are optimised for electronic music (and therefore are more widely used in Europe) (Response to the CMA questionnaire from a number of third parties, March 2024, questions 7–9).

³³ Several third parties confirmed that prices do not differ by country. Third party's response to the CMA's RFI, 11 December 2023, question 4. Note of a call with a third party, December 2023, paragraph 6.

³⁴ Third party's response to the CMA's RFI, 11 December 2023, question 4. One respondent indicated that there is an element of regional competition, as it noted that some of its controllers compete closely with certain controllers from two other manufacturers in Europe (Response to the CMA questionnaire by a third party, March 2024, question 7).

6.3 Theories of harm

55. The CMA assesses the potential competitive effects of mergers by reference to theories of harm. Theories of harm provide a framework for assessing the effects of a merger and whether or not it could lead to an SLC relative to the counterfactual.³⁵
56. In its investigation of this Merger, the CMA considered the following theories of harm:
- (a) horizontal unilateral effects in the supply of DJ software globally;
 - (b) foreclosure of DJ hardware rivals globally through leveraging the Merged Entity's market position in the supply of DJ software globally; and
 - (c) non-horizontal effects in the supply of DJ hardware globally as a result of the Merged Entity having access to commercially sensitive information.
57. Each of these theories of harm is considered below.³⁶

6.3.1 Theory of Harm 1: Horizontal unilateral effects in the supply of DJ software globally

58. Horizontal unilateral effects may arise when one firm merges with a competitor that previously provided a competitive constraint, allowing the merged entity to profitably raise prices or to degrade quality on its own and without needing to coordinate with its rivals.³⁷ Horizontal unilateral effects are more likely when the parties to a merger are close competitors.³⁸
59. In assessing whether it is or may be the case that the Merger may be expected to result in an SLC as a result of horizontal unilateral effects in the global supply of DJ software the CMA considered the following evidence:
- (a) shares of supply;
 - (b) closeness of competition; and
 - (c) competitive constraints.

³⁵ [CMA129](#), paragraph 2.11.

³⁶ On the basis of the evidence gathered by the CMA, the CMA considered at an early stage in its investigation that there are no plausible competition concerns in respect of the supply of music production software and/or hardware as a result of the Merger and this is therefore not discussed further in this Decision.

³⁷ [CMA129](#), paragraph 4.1.

³⁸ [CMA129](#), paragraph 4.8.

6.3.1.1 Shares of supply

60. The Parties submitted that their combined global share in DJ software and DJ apps together by monthly active users (**MAU**) is [10-20]%, with an increment of [5-10]%,³⁹ making ATC and Serato the fifth and seventh largest suppliers respectively and edjing Mix ([30-40]%) the largest DJ software supplier. To calculate these estimates, the Parties used data from 'Digital DJ Tips Global DJ Census' (**DJ Census**) with 16,000 respondents and from an app usage data provider called 'data.ai'.⁴⁰ The Parties considered these estimates to overstate the Parties' combined global share,⁴¹ and that DJ Census is not a representative source of data by highlighting that rekordbox's user demographic data show its users are on average younger and consist of more women, relative to the DJ Census respondents' older demographic.⁴²
61. For the reasons explained above at paragraphs 42–44, the CMA does not currently consider it appropriate to include shares of supply estimates for DJ apps within the same market as DJ software.⁴³ The CMA has therefore produced its own estimates of shares in DJ software using revenue and volume (measured in MAU data collected from the Parties and competitors, supplemented with adjusted DJ Census data where actual figures were unavailable.⁴⁴ The CMA considers the DJ Census data to be an appropriate source of evidence because:
- (a) the data provided directly to the CMA by the suppliers listed in Table 1 largely supported the results reported in the DJ Census;
 - (b) the Parties' internal documents⁴⁵ show they both rely on the DJ Census to report their market position. The internal documents do not refer to any reliability issues or refer to other sources of data (such as data.ai); and

³⁹ FMN, Table 14 B and paragraphs 14.7–14.9.

⁴⁰ ATC Internal Document, Annex 49 to the FMN, 'Digital DJ Tips Global DJ Census 2023', February 2023 (henceforth the **DJ Census**), page 40.

⁴¹ On the basis that the Parties considered the shares to exclude certain relevant DJ software suppliers, and the DJ Census 2023 to not represent all users and to understate the prevalence of DJ apps (ATC's customer data shows its customers are mostly between 18 and 25 with an average of [redacted] (FMN 14.9(a)–(c))).

⁴² Parties' response to the Issues Letter, 11 April 2024, paragraph 3.2.

⁴³ The CMA notes that it excluded rekordbox's app and WedDJ revenues and MAUs from the calculation. Similarly, it did not include djay's app users.

⁴⁴ For three third parties who did not respond to the CMA questionnaire, the CMA multiplied the number of users reported in the DJ Census by a scaling factor. The scaling factor was derived by comparing the actual revenue and volume data supplied by the Parties and third parties and the number of users in the DJ census. The CMA took a similar approach to derive global figures for another competitor who only provided their UK figures (in that it used a scaling factor derived by comparing UK and global figure for the Parties and the available third parties). The CMA notes that one competitor's MAU figures were proxied for by its number of users which registered their email address in the 30 days previous to 14 March 2024 (response to the CMA questionnaire from a third party, March 2024). The CMA believes this would be roughly equivalent to paid active users. Whilst the CMA considers that there are several different ways in which the missing data can be proxied, it does not consider that these would make material differences to the overall shares of supply picture.

⁴⁵ See for example ATC Internal Document, Annex 147 to the FMN, [redacted], June 2023, slide 10 and Serato Internal Document, Annex 027 to the FMN, [redacted], January 2023, slide 18.

(c) third parties told the CMA the DJ Census data was the best source of industry data.⁴⁶

62. These estimates are set out in Table 1 below.

Table 1: Global software shares (excluding apps)⁴⁷

Supplier Name	2021		2022		2023	
	Revenue	MAU	Revenue	MAU	Revenue	MAU
Serato (Serato DJ)	[40-50]%	[20-30]%	[30-40]%	[20-30]%	[30-40]%	[20-30]%
ATC (rekordbox)	[10-20]%	[10-20]%	[10-20]%	[20-30]%	[10-20]%	[20-30]%
Combined	[50-60]%	[40-50]%	[50-60]%	[40-50]%	[50-60]%	[50-60]%
Atomix Productions (VirtualDJ)	[30-40]%	[30-40]%	[20-30]%	[30-40]%	[20-30]%	[20-30]%
Native Instruments (Traktor Pro)	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[5-10]%
inMusic (Engine DJ)	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Algorridim (djay)	[5-10]%	[0-5]%	[0-5]%	[0-5]%	[5-10]%	[0-5]%
Ableton Live	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Hercules (DJUCED)	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Mixxx	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Cross DJ (Mixvibes)	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Other	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%

Source: CMA analysis of question 19 RFI 1 (updated RFI 4), Annex 047, 048 and 049 to the FMN, responses to the CMA questionnaire from third parties, March 2024, question 3 and exchange rates from the [Bank of England](#).

63. These estimates show that post-Merger, the Merged Entity will be the market leader by a significant margin, with a combined share of supply of [50-60]% by revenue and [50-60]% by MAU, with a significant increment arising as a result of the Merger (of [30-40]% and [20-30]% respectively for 2023).⁴⁸ Serato has consistently been the market leader by revenue (in addition to a consistently strong position by volume). rekordbox's revenue, MAU and share have been consistently growing, reflecting a strengthening position and competitive constraint in the DJ software market.⁴⁹ The CMA notes that this market picture is also supported by the Parties' internal documents (as discussed later at the section on Internal documents) and the views of third parties.⁵⁰

⁴⁶ Third party's response to the CMA's RFI, 11 December 2023, question 8. Response to the CMA's invitation to comment, February 2024, page 1.

⁴⁷ The CMA has included the 'Other' category from the DJ Census into the shares which may contain app-only software suppliers. This does not materially affect the interpretation of the shares of supply.

⁴⁸ The Parties' economic advisers, NERA Economic Consulting (**NERA**), also presented global shares of supply for DJ software (ie excluding mobile and tablet apps but including app users of suppliers who provide both software and apps) using the DJ Census 2023 and data from 'data.ai' (Parties' Internal Document (produced by NERA Economic Consulting), Annex 116 to the FMN, 'AlphaTheta Corporation/Serato: unilateral effects and foreclosure theories of harm' 27 November 2023, (henceforth **Annex 116 to the FMN**), Table 2.1). NERA estimated that the Parties' combined global share of supply is [40-50]% with an increment of [20-30]% Annex 116 to the FMN, page 15, with the Parties being the second and third largest suppliers of DJ software. NERA's shares also included seven other suppliers: djay ([20-30]%), Mixvibes' CrossDJ ([10-20]%), VirtualDJ ([10-20]%), Traktor Pro ([5-10]%), Engine DJ ([0-5]%), Ableton Live ([0-5]%) and DJUCED ([0-5]%).

⁴⁹ ATC's internal documents evidence ATC's own assessment that its market share is growing in DJ software. See for example ATC Internal Documents, Annex 136 to the FMN, [3<], April 2023, slides 7–10; Annex 128 to the FMN, 'CMA RFI 1 Q19 – Response', December 2023.

⁵⁰ The CMA notes that its estimated figures are in line with or lower than estimates of the Parties' combined share provided by a number of third parties. For example, one hardware competitor stated the Merger would result in a share of supply of 80% (response to the CMA's invitation to comment from a third party, February 2024) and another stated that the Parties have a high combined share citing [Philip Morse founder of Digital DJ Tip's article](#) [last accessed 1 May 2024] (third party's response to the CMA's RFI, 11 December 2023, question 7). Similarly, another hardware competitor submitted that Serato DJ is the largest producer of DJ software (response to the CMA's invitation to comment from a third party, January 2024). The CMA has considered later in the competitive assessment (see paragraphs 51–52) third-party's feedback on the importance of the Parties' respective offerings).

64. The next largest supplier post-Merger would be Atomix Productions' VirtualDJ (**VirtualDJ**), which would have a much smaller share than the Merged Entity of [20-30]% and [20-30]% by revenue and MAU respectively. The shares of supply of other competitors are significantly lower than the Merged Entity or VirtualDJ, with Native Instrument's Traktor Pro (**Traktor Pro**) having the largest share amongst these with a share of [5-10]% and [5-10]% by revenue and MAU and no other supplier having above a [0-5]% share by revenue and MAU.
65. Overall, the CMA considers that the shares of supply show that the Parties have a very strong market position in DJ software and that post-Merger, the Merged Entity's share will be considerably larger than its competitors, including the next largest supplier (VirtualDJ). As stated above at paragraph 61, the CMA considered shares of supply an appropriate evidence base to inform its views on the Parties' and its competitors' market positions.

6.3.1.2 *Closeness of competition*

66. The CMA assessed to what extent the Parties are close competitors by considering the following:
- (a) the Parties' product offerings;
 - (b) evidence from the Parties' internal documents; and
 - (c) evidence from third parties.

6.3.1.2.1 *The Parties' product offerings*

67. The Parties acknowledged they are both popular DJ software products⁵¹ and are both positioned and priced as 'premium' products.⁵² However, the Parties submitted that their software offerings have different core users.⁵³ In particular, that rekordbox users are mostly electronic dance music (**EDM**), techno and trance DJs and are attracted to its ability to prepare their libraries and export music to USBs for use with ATC hardware which contains embedded software⁵⁴ (such as all-in-ones and DJ players); whereas Serato DJ is preferred by hip-hop DJs, used mostly for performance, and does not have an export function.⁵⁵ The Parties further argued that they have different business models with Serato DJ focusing

⁵¹ Parties' response to the Issues Letter, 11 April 2024, paragraphs 3.7, 3.15 and 3.43.

⁵² Annex 116 to the FMN, paragraph 71.

⁵³ Serato being preferred by hip-hop or scratch artists and rekordbox being preferred by techno and house music artists. See FMN, paragraphs 17, 15.11 and 15.13. Parties' response to the Issues Letter, 11 April 2024, paragraph 3.43.

⁵⁴ ATC and other hardware suppliers have created hardware with software embedded on it that can be used for certain functions during live performance.

⁵⁵ Parties' response to the Issues Letter, 11 April 2024, paragraph 3.43.

on achieving wider compatibility with third party hardware than rekordbox (which is only compatible with ATC's DJ hardware).⁵⁶

68. The Parties also submitted that competition in the market is largely based on constant innovation and new functionalities, which could result in rekordbox and Serato competing more or less closely in the future.⁵⁷ Similarly, that rekordbox and Serato DJ are also not innovators in contrast to competitors like VirtualDJ and djay, with rekordbox having [redacted].⁵⁸
69. DJ software competitor evidence suggests that DJ software suppliers primarily compete on functionality, quality and innovation.⁵⁹ DJ software rivals also see hardware compatibility and brand recognition as important or very important, with the majority of respondents seeing other factors such as price and customer support services as being of limited importance.
70. Overall, evidence gathered by the CMA indicates that the Parties compete closely with each other across these parameters and have similar product offerings:
- (a) The quality and functionality of Serato DJ and rekordbox is seen to be similarly high. Whilst some evidence suggests that Serato in particular offers high quality software,⁶⁰ some third parties suggested that the Parties are together the only software suppliers materially used by professional DJs.⁶¹ In addition, the Parties' data suggest the majority of their users heavily overlap in how they use rekordbox and Serato; although the CMA notes that a sizable proportion of rekordbox also use it for USB exporting rather than for live performance, most and all of rekordbox and Serato DJ's users respectively, use both software for music management and preparation and live performance.⁶²
 - (b) The Parties react to each other's innovations and new features. For example, Serato submitted that it has a new [redacted] to compete effectively with competitors' offerings and particularly with rekordbox's DJ library.⁶³
 - (c) Both Serato DJ and rekordbox are compatible with ATC's market-leading DJ hardware (discussed below in paragraphs 99(b) and 128). Given ATC's popularity in DJ hardware, the CMA considers that it can reach a substantial proportion of the market despite rekordbox only being compatible with ATC

⁵⁶ The Parties further argued that ATC is primarily a DJ hardware business (Parties' response to the Issues Letter, 11 April 2024, paragraph 3.10 and 3.15).

⁵⁷ FMN, paragraph 18.1.

⁵⁸ Parties' response to the Issues Letter, 11 April 2024, paragraphs 3.12–3.17, 3.21.

⁵⁹ Response to the CMA questionnaire from a number of third parties, March 2024, question 8.

⁶⁰ FMN, paragraph 15.11.

⁶¹ Note of a call with a third party, December 2023, paragraph 10; and response to the CMA questionnaire by a number of third parties, March 2024, question 11.

⁶² Parties' response to the CMA's follow-up questions post-Issues Meeting, 15 April 2024, pages 2–3.

⁶³ FMN, paragraph 18.13–18.19.

DJ hardware (as evidenced by its growing share of supply discussed at paragraph 63 above). Therefore, the CMA does not consider that the Parties' submission on this difference in business models between Serato and rekordbox is relevant to the closeness of competition assessment. The CMA also notes that rekordbox's model is not unique in the market with inMusic's Engine DJ (**Engine DJ**) and Hercules' DJUCED (**DJUCED**) only being available for users of their hardware.

- (d) Both Parties, and Serato DJ in particular, have strong brand recognition and customer loyalty. Whilst this may also be linked to the Parties' level of innovation, quality and functionality, this brand recognition can be seen by the DJ Census reports submitted by the Parties. In addition, Serato was chosen by the highest number of respondents compared to other brands as the favourite piece of new DJ technology (17.2%), closely followed by rekordbox (16.1%).⁶⁴ Whilst some third parties (as discussed further at paragraph 82 below) suggest that different types of users (eg focusing on a particular music genre) may be attracted to different DJ software brands, the CMA considers that the overall evidence shows that there is still a material overlap between the Parties.

71. The CMA notes that it is not necessary for merging firms to be each other's closest competitor for horizontal unilateral effects to arise, it is sufficient for them to be close competitors with insufficient remaining competitive constraints to offset the loss of competition from a merger.⁶⁵ Additionally, the CMA considers that any limited differences between the Parties' offerings should be considered in the context of this being a differentiated market more generally. As described in paragraph 82 below, rival software suppliers offer differentiated features and appeal to different life-stages of DJs. In this context, the CMA considers that there is no greater differentiation between the Parties' offerings than as between the Parties and their competitors as explained in paragraphs 80–82 below).

6.3.1.2.2 *Internal documents*

72. ATC's internal documents indicate that it sees Serato DJ as a key competitor of rekordbox.⁶⁶ Whilst one ATC internal document refers to its targeting of EDM, house and techno music DJs specifically,⁶⁷ the overall body of internal documents show that ATC monitors Serato DJ's prices and performance trends with

⁶⁴ DJ Census 2021-2023 (Annexes 47–49 to the FMN). The CMA also considered Pioneer DJ's strong brand recognition and loyalty in DJ hardware.

⁶⁵ [CMA129](#), paragraph 4.8.

⁶⁶ ATC Internal Documents, Annex 149 to the FMN, [redacted], August 2018, slide 15; Annex 18 to the FMN, [redacted], July 2023, slide 11.

⁶⁷ ATC Internal Document, Annex 149 to the FMN, [redacted], August 2018, slide 56.

references to rekordbox being considered as Serato DJ's biggest threat.⁶⁸ ATC recognises Serato DJ as having the highest software market share, strong customer loyalty,⁶⁹ and a role as a market leader and driving force for innovation in the software market.⁷⁰ An ATC internal document also shows possible research and development (**R&D**) synergies which could be achieved post-Merger, which suggests that Serato DJ and rekordbox have a degree of overlapping investment in innovation and further, that the Merger could, in reducing R&D spending, lead to a loss of competition in relation to innovation.⁷¹

73. Serato's internal documents show that it actively monitors ATC's rekordbox as a strong competitor of Serato DJ.⁷² In particular, Serato refers to Serato DJ being the market leader in DJ software, closely followed by rekordbox (which is in line with Serato's share of supply).⁷³ One document analyses Serato's social media presence versus its competitors. This document only compares Serato to rekordbox for DJing and states that Serato is the [redacted] in DJ software against rekordbox. This document also notes that while Serato considers itself to have a reputation with hip hop DJs, the analysis of social media posts suggested that EDM was discussed with Serato most frequently, with the frequency of mentions of hip hop and rap following closely behind.⁷⁴ Furthermore, one document indicates that Serato DJ [redacted] with rekordbox and [redacted] feature.⁷⁵ A Serato internal document from 2019 included an exit survey asking Serato DJ users about their departure from the brand and which DJ software brand they had switched to, which showed that more than [redacted] of the respondents who left Serato DJ had switched to rekordbox (a greater proportion than to [redacted]).⁷⁶
74. The CMA further notes that there is a qualitative difference between how the Parties monitor and consider each other in internal documents (for example, by referring to each other as direct threats to their key business)⁷⁷ in comparison to how the Parties view other competitors, which are monitored in different contexts such as social media reactions and new feature launches.⁷⁸ The CMA notes that the focus on each other in internal documents is above other competitors that may

⁶⁸ For price monitoring, see ATC Internal Documents, Annex 100 to the FMN, [redacted], October 2019, slide 4; and Annex 98 to the FMN, [redacted], December 2018, slide 50. For performance trends monitoring, see ATC Internal Document, Annex 18 to the FMN, [redacted], July 2023, pages 11–14. ATC's internal documents also indicate that the Parties frequently interact with each other in the context of their contractual partnership.

⁶⁹ ATC Internal Document, Annex 136 to the FMN, [redacted], April 2023, slides 12–14.

⁷⁰ ATC Internal Documents, Annex 98 to the FMN, [redacted], December 2018, slide 40; and Annex 136 to the FMN, [redacted], April 2023, slide 12.

⁷¹ ATC Internal Document, Annex 18 to the FMN, [redacted], July 2023, slide 17.

⁷² Serato Internal Document, Annex 446 to the FMN, [redacted], December 2019, pages 8, 12 and 18.

⁷³ Serato Internal Document, Annex 222 to the FMN, [redacted], February 2021, slide 1 and 3.

⁷⁴ Serato Internal Document, Annex 226 to the FMN, [redacted], November 2022, slides 5 and 9.

⁷⁵ Serato Internal Document, Annex 85 to the FMN, [redacted], December 2022, pages 10 and 26.

⁷⁶ Serato Internal Document, Annex 272 to the FMN, [redacted], June 2019, pages 3–6, 7–12. The CMA notes that the sample size for this survey is not large.

⁷⁷ ATC Internal Document, Annex 18 to the FMN, [redacted], July 2023, slide 11. Serato Internal Documents, Annex 502 to the FMN, [redacted], 3 November 2022, slide 26; Annex 380 to the FMN, [redacted], 2023, slide 13.

⁷⁸ ATC Internal Document, Annex 161 to the FMN, [redacted], Undated, slides 21–29. Serato Internal Documents, Annex 412 to the FMN, [redacted], Undated, slide 7; Annex 81 to the FMN, [redacted], Undated, pages 2–17.

have similar business models or same genre focus. For example, in ATC's internal documents there are only limited discussions of rekordbox competing against Traktor or DJUCED (which both have a similar business model and genre focus to rekordbox),⁷⁹ and similarly in Serato's documents, there are limited discussions (when compared to ATC) of VirtualDJ (which Serato has submitted it considers one of its main competitors).⁸⁰

75. The CMA therefore considered that overall, the Parties' internal documents indicate that the Parties are both strong DJ software suppliers and compete closely against each other.

6.3.1.2.3 *Third-party views*

76. Competitor responses to the CMA indicate that the Parties compete closely with one another in the supply of DJ software:

(a) The majority of competitors and a number of retailers and DJs indicated that Serato DJ and rekordbox are the two most popular DJ software applications and compete closely.⁸¹ One competitor stated that professional DJs mostly use rekordbox or Serato DJ and do not easily switch.⁸² Another competitor stated that Serato DJ and rekordbox are the only choices for professional DJs.⁸³

(b) Serato DJ was named as a competitor by all the DJ software suppliers which responded to the CMA's questionnaire, being viewed by the majority of respondents as their closest competitor. All DJ software suppliers also named rekordbox as a DJ software competitor, albeit scoring slightly lower than Serato DJ.

77. The CMA noted that only a minority of DJ software competitors mentioned the genre of music as being relevant to closeness of competition between software, alongside other factors.⁸⁴

78. In relation to innovation, one DJ software competitor submitted that Serato DJ and rekordbox react to one another competitively.⁸⁵ Another DJ software competitor indicated that whilst in the past Serato was more of a 'follower' its level of

⁷⁹ ATC Internal Document, Annex 161 to the FMN, [redacted], Undated, slides 21–23.

⁸⁰ Serato Internal Documents, Annex 412 to the FMN, [redacted], Undated, slide 7; Annex 81 to the FMN, [redacted], Undated, pages 2–7.

⁸¹ Response to the CMA's invitation to comment from third parties, February 2024; submission to the CMA from a third party, March 2024; note of a call with a third party, January 2024, paragraph 21; and note of a call with a third party, November 2023, paragraph 19.

⁸² Note of a call with a third party, November 2023, paragraph 18.

⁸³ Response to the CMA questionnaire from a third party, March 2024, question 11.

⁸⁴ Responses to the CMA questionnaire from third parties, March 2024, question 8.

⁸⁵ Note of a call with a third party, November 2023, paragraph 19.

innovation had increased in recent years, creating stronger competition in the market.⁸⁶

6.3.1.3 *Competitive constraints*

6.3.1.3.1 *Parties' submissions*

79. The Parties submitted that they face vigorous competition from other DJ software suppliers, and also from DJ apps and web-based solutions,⁸⁷ and that switching costs between DJ software offerings are low based on analysis by NERA.⁸⁸ In particular, the Parties submitted that:

- (a) VirtualDJ is similar to Serato DJ and rekordbox as it can be used during professional and amateur performances, is accepted by professional DJs, and has an identical core functionality to Serato DJ. Serato also submitted that it competed closely against VirtualDJ on innovation.⁸⁹
- (b) djay is a strong competitor as it is the second largest DJ software, the current driving force behind innovation,⁹⁰ offers superior functionality to the Parties,⁹¹ is marketed towards professional DJs,⁹² has an exclusive partnership to integrate its software into Apple Music's streaming service,⁹³ and has a DJ app.
- (c) There are other strong competitors including Traktor Pro, Engine DJ, DJUCED and Mixxx (DJ software)⁹⁴ and app providers such as edjing Mix and music production software such as Ableton Live.⁹⁵
- (d) The market is dynamic with apps and streaming services representing the next evolution of the DJ software market, and as such, competitors with an

⁸⁶ Note of call with third party, December 2023, paragraph 17; and response to the CMA questionnaire from a third party, March 2023, question 9.

⁸⁷ FMN, paragraph 15.1(a) and 15(c). Parties' response to the Issues Letter, 11 April 2024, paragraphs 3.44.

⁸⁸ FMN, paragraph 15.1(e) and Annex 116 to the FMN. NERA explained that switching costs between DJ software are low because: (i) hardware users can switch between compatible DJ software offerings with little cost and without needing to buy new hardware; (ii) since core features of DJ software are similar, limited effort is required from DJs to become familiar with new DJ software; (iii) users can unsubscribe easily at the end of the month; (iv) there are free versions available for users to try before subscribing or paying for a perpetual licence; and (v) users can easily import original data/music stored in applications to new software.

⁸⁹ For example, Serato developed [X] as a direct response to similar functionalities already offered by competitors such as VirtualDJ (FMN, paragraph 15.26–15.34).

⁹⁰ ATC submitted that it had introduced a number of new functionalities, updates and improvements to rekordbox, including for example [X] in response to djay's software (FMN, paragraph 15.24–15.25).

⁹¹ Parties' response to the Issues Letter, 11 April 2024, paragraphs 3.52.

⁹² Parties' response to the Issues Letter, 11 April 2024, paragraphs 3.55.

⁹³ FMN, paragraph 15.1(d)(ii).

⁹⁴ Parties' response to the Issues Letter, 11 April 2024, paragraphs 3.44, 3.56–3.73 and FMN, paragraph 15.1(d)(ix), 15.1(d)(x) and 15.1(d)(xi).

⁹⁵ FMN, paragraph 15.1(d), 15.1(h) and 17(f).

app or streaming features should be considered as stronger competitors in the context of these trends.⁹⁶

6.3.1.3.2 CMA assessment

80. **VirtualDJ** develops and supplies DJ software as a desktop application only.⁹⁷ The CMA considers that the evidence is broadly consistent with the Parties' submissions⁹⁸, and VirtualDJ's established market share position ([25-30]% in terms of revenue and volume in 2023, as illustrated in) which indicates, that VirtualDJ is a strong competitive constraint. Additionally, both ATC⁹⁹ and Serato¹⁰⁰ respectively monitor VirtualDJ as a competitor in their internal documents, including in relation to recent technical innovations and feature launches. However, contrary to the Parties' arguments, the evidence shows it is less accepted by professional DJs.¹⁰¹
81. Third-party evidence¹⁰² and the Parties' internal documents showed that **djay** is innovative and that it incentivises other DJ software suppliers to innovate more.¹⁰³ However, evidence from DJ software competitors showed that djay it is not considered a strong competitor¹⁰⁴ because it is considered to only compete for entry-level DJs,¹⁰⁵ and has not yet reached critical mass on its DJ software.¹⁰⁶ The CMA considers that djay's competitive constraint is likely greater than that implied by its share of supply ([5-10]% in terms of revenue and [0-5]% in terms of volume

⁹⁶ Parties' response to the Issues Letter, 11 April 2024, paragraphs 2.7.

⁹⁷ Serato's exit survey (discussed above in paragraph 49) shows that over [30-40]% of the respondents switched away from Serato DJ to VirtualDJ (Serato Internal Document, Annex 428 to the FMN, [§<], June 2019, pages 3–6 and 7–12).

⁹⁸ Third parties indicated that VirtualDJ exercises a strong competitive constraint, with around half of the DJ software rivals who responded to the CMA considering it as the second strongest competitor after Serato DJ. Responses to the CMA questionnaire from third parties, March 2024, question 9.

⁹⁹ ATC actively monitors VirtualDJ ([§<]), albeit to a lesser extent compared to Serato DJ. For example, in the context of ATC's review of competitor trends, ATC refers to VirtualDJ [§<] (ATC Internal Document, Annex 18 to the FMN, [§<], July 2023, slide 16); another document monitors VirtualDJ's [§<] (ATC Internal Document, Annex 143 to the FMN, [§<], June 2023, slide 10, 49–52).

¹⁰⁰ A Serato internal document indicates that while it views itself (Serato DJ) as the market leader, Serato sees VirtualDJ [§<] behind itself, rekordbox and [§<] (Serato Internal Document, Annex 222 to the FMN, [§<], February 2021, page 1). Other documents indicate that Serato actively monitors VirtualDJ's innovative efforts (Serato Internal Document, Annex 184 to the FMN, [§<], November 2023, page 1).

¹⁰¹ Note of a call with a third party, November 2023, paragraph 38 and 16. and note of a call with a third party, January 2024, paragraph 20.

¹⁰² Response to the CMA's invitation to comment from a third party, February 2024. Note of a call with a third party, 18 December 2023, paragraph 17.

¹⁰³ For example, one ATC document monitors djay's technical features in the context of ATC's review of potential [§<] (ATC Internal Document, Annex 143 to the FMN, [§<], June 2023, slide 10, 49–52). See also ATC Internal Documents, Annex 161 to the FMN, [§<], May 2018, slide 28; Annex 9 to the FMN, [§<], November 2022, slide 93–94; Annex 98 to the FMN, [§<], December 2018, slide 27 and 40. For example, one Serato document suggests that Serato believes it is [§<] in its [§<] offering (Serato Internal Document, Annex 184 to the FMN, [§<], November 2023, page 1). See also Serato Internal Document, Annex 413 to the FMN, [§<], November 2023, pages 8–12.

¹⁰⁴ A minority of competitors considered themselves to compete closely or very closely with djay, with others listing it as a weak competitor or not mention it at all. Responses to the CMA questionnaire from third parties, March 2024, question 9. Responses to the CMA questionnaire from third parties, March 2024, question 9.

¹⁰⁵ Note of a call with a third party, December 2023, paragraph 14. Note of a call with a third party, January 2024, paragraph 20.

¹⁰⁶ Note of call with a third party, December 2023, paragraph 14.

in 2023) shown in Table 1 but is still relatively weak as evidenced by its inability to grow its market share over time despite its long-standing presence in the market.

82. The CMA notes that, as is common in a differentiated market, each DJ software competitor has a set of differentiating features which appeal to a particular subgroup of customers¹⁰⁷ and even where functionality is similar, software can have a different look and feel which is important for DJs.¹⁰⁸ However, the CMA considered that other DJ software application suppliers (**Traktor Pro**, **Engine DJ**, **DJUCED** and **Mixxx**), even in the aggregate, would exercise limited competitive constraint on the Merged Entity. As illustrated in Table 1, all of these suppliers have a marginal market position despite having been in the market for a significant period of time.¹⁰⁹ Third parties generally saw these suppliers as weaker competitive constraints on the Parties, in particular with regards to innovation efforts.^{110, 111} Internal documents sometimes monitor Traktor Pro,¹¹² DJUCED, Engine DJ and Mixxx as competitors, but references to these suppliers in the internal documents are minimal.¹¹³
83. The CMA considered the extent to which DJ apps exercise a competitive constraint on the Merged Entity. As part of the CMA's market testing, DJ software competitors were asked who they considered to be their main competitors, and only one DJ app was mentioned, djay (which offers both a DJ software and DJ

¹⁰⁷ For example, Traktor has a particularly strong following in the electronic, techno, house music communities. Note of a call with a third party, January 2024, paragraph 15. VirtualDJ targets the wedding DJ segment and Algoriddim's djay holds a strong position in DJ apps. Note of a call with a third party, December 2023, paragraphs 13 and 14.

¹⁰⁸ Note of a call with a third party, January 2024, paragraph 17.

¹⁰⁹ All with a share of [0-5]% by revenue and MAU except for Traktor Pro with [5-10]% by revenue and [5-10]% respectively) (Table 1).

¹¹⁰ Around half of the DJ rivals who responded to the CMA's questionnaire named Traktor Pro as a competitor, albeit some of these respondents viewed Traktor Pro as one of their weakest competitors. For example, one competitor recognised that Traktor Pro was very popular, but third parties indicated that they consider they have developed at a slower pace and have not been trying to become a more competitive option (Note of a call with a third party, December 2023, paragraph 13(c)). Note of a call with a third party, November 2023, paragraph 16 and 38. Additionally, a further third party explained that Traktor Pro focuses more on tightly integrating its software with Native Instruments' Traktor hardware than competing as standalone DJ software. Response to the CMA's invitation to comment from a third party, February 2024.

¹¹¹ Engine DJ was named as a competitor by around half of the DJ software suppliers who responded to the CMA's questionnaire, with two suppliers saying they compete moderately or closely with it; but it was not identified as a competitor by the rest of the respondents (response to the CMA questionnaire from a number of third parties, March 2024, question 9. Response to the CMA's Invitation to comment from a third party, February 2024). The CMA further notes that Engine DJ is a standalone DJ software and a library management tool, but it is not a desktop software and therefore it does not offer the full functionality of either rekordbox or Serato. DJUCED was named by one DJ software supplier as competing very closely with it, but it was not named by any other respondents. Mixxx was named by one DJ software supplier as a competitor (response to the CMA questionnaire from a third party, March 2024, question 9).

¹¹² Notably, one ATC document monitors changes or updates to existing Traktor Pro features and the introduction of new innovative features (ATC Internal Documents, Annex 161 to the FMN, [REDACTED], May 2018, slide 21; See also Annex 98 to the FMN, [REDACTED], December 2018, slide 26) A Serato document contains a reference that Serato DJ competes [REDACTED] with Traktor Pro [REDACTED] (Serato Internal Document, Annex 11 to the FMN, [REDACTED], 2023, slide 8).

¹¹³ See for example, Serato Internal Documents, Annex 16 to the FMN, [REDACTED], October 2023, page 2; Annex 326 to the FMN, [REDACTED], August 2023; Annex 383 to the FMN, [REDACTED], September 2023; Annex 566 to the FMN, [REDACTED], April 2023, slides 9–10; and Annex 201 to the FMN, [REDACTED], September 2023, page 1. ATC Internal Document, Annex 143 to the FMN, [REDACTED], June 2023, slide 10.

app).¹¹⁴ Instead, the majority of DJ software competitors named other DJ software suppliers for desktop and laptop as their main competitors.^{115,116}

84. The Parties' internal documents also indicated that the Parties primarily see other DJ software (for laptops and desktops) suppliers (ie rather than DJ app suppliers) as competitive rivals,¹¹⁷ with mentions of DJ apps limited to discussions in the context of a segment for these products only.¹¹⁸ One internal document illustrates how ATC considers DJ apps within a separate DJ apps market and how DJ apps are primarily aimed at capturing the beginner-end of the market.¹¹⁹
85. In the Parties' Issues Letter response, Serato emphasised their view that DJ apps pose a significant threat to Serato DJ specifically.¹²⁰ However, the CMA understands that Serato has not attempted [redacted]. Serato told the CMA that [redacted].¹²¹ However, one internal document states that Serato [redacted], which suggests that Serato did not seriously consider DJ apps to be a competitive constraint in the future.¹²² This view is further supported by third-party evidence, where a competitor told the CMA that in the past it had started developing a DJ app but decided against it to continue to focus on its DJ software.¹²³
86. The CMA considers that the evidence shows that instead of competing directly with DJ software suppliers, suppliers of DJ apps offer a different service and target different users, targeting situations where an app may be used as a complement to DJ software.¹²⁴ In addition, data provided by ATC suggests that its DJ apps (such as rekordbox or WeDJ) are becoming more popular amongst some users, but it does not show that this is at the expense of rekordbox's application for

¹¹⁴ Response to the CMA questionnaire from a number of third parties, March 2024, question 9.

¹¹⁵ Response to the CMA questionnaire from a number of third parties, March 2024, question 9.

¹¹⁶ The CMA notes that no DJ software competitors named web-based only providers (such as Beatport) as competitors. As such the CMA does not believe they would act as a sufficient constraint on the Merged Entity.

¹¹⁷ See for example Serato Internal Document, Annex 27 to the FMN, [redacted], 2023, slide 18; and ATC Internal Document, Annex 100 to the FMN, [redacted], October 2019, slides 4–5.

¹¹⁸ In ATC's case, mostly mentioned when discussing its own app-based software (WeDJ). See for example ATC Internal Documents, Annex 108 to the FMN, [redacted], December 2016, slides 9–14; Annex 104 to the FMN, [redacted], April 2019, slide 2; Annex 106 to the FMN, [redacted], December 2021, slide 5–6; Annex 18 to the FMN, [redacted], July 2023, slide 16. Serato Internal Documents, Annex 27 to the FMN, [redacted], slide 17; and Annex 11 to the FMN, [redacted], 2023, slide 10.

¹¹⁹ ATC Internal Document, Annex 9 to the FMN, [redacted], November 2022, slide 94.

¹²⁰ Parties' response to the Issues Letter, 11 April 2024, paragraphs 2.55–2.60.

¹²¹ Parties' response to the Issues Letter, 11 April 2024, paragraph 3.30 and Issues Meeting, 10 April 2024.

¹²² Serato Internal Document, Annex 353 to the FMN, [redacted], November 2022, page 3.

¹²³ Note of a call with a third party, December 2023, paragraph 4.

¹²⁴ Serato Internal Document, Annex 260 to the FMN, [redacted], February 2023, page 1, which indicates the DJ apps are important for reaching a broader audience at the beginner level and would be a complement to Serato's existing suite. The CMA also notes that ATC was unable to explain what proportion or rekordbox app users also use the desktop version. Parties' response to the CMA's follow-up questions post-Issues Meeting, 15 April 2024, question 3.

desktop.¹²⁵ The CMA also notes that rekordbox and Serato DJ's MAUs have consistently grown over time.¹²⁶

87. The CMA additionally considers that the strength of ATC's position across DJ hardware types, and its ability to restrict access to ATC hardware as a channel for DJ software suppliers could also diminish the effectiveness of these DJ software alternatives as a constraint on the Merged Entity (discussed in more detail below in paragraph 108). While ATC's hardware position and its ability to diminish alternative DJ software suppliers' product offerings are not necessary for the CMA to consider that the Merged Entity would face insufficient constraints in DJ software, the CMA considers that it acts as an aggravating factor which could further reduce competition in the supply of DJ software globally.

6.3.2 Conclusion on theory of harm 1

88. For the reasons set out above, the CMA considers that:

- (a) The Merger would strengthen Serato DJ's current leading position in DJ software and create a clear market leader in the supply of DJ software, with a high share of supply and the remaining competitors being considerably smaller than the Merged Entity;
- (b) The Parties compete closely, as shown by their product offerings, internal documents and third-party feedback, which demonstrates that they both offer high quality and well-established DJ software. The limited differences between the Parties should be considered in the context of this being a differentiated market more generally, with rival software providers each offering differentiated features and appealing to different life-stages of DJs; and
- (c) While VirtualDJ and djay would both continue to exercise some competitive constraint on the Merged Entity, both will be much smaller than the Merged Entity, and the other remaining suppliers as a whole would pose a relatively limited constraint. Therefore, overall, there would be insufficient constraint to offset the loss of competition between the Parties arising from the Merger.

89. Accordingly, the CMA considers that the Merger raises significant competition concerns as a result of horizontal unilateral effects in the supply of DJ software globally.

¹²⁵ Annex 128 to the FMN, '(revised) CMA RFI question 19 – Response', December 2023.

¹²⁶ Annex 128 to the FMN, '(revised) CMA RFI question 19 – Response', December 2023. The CMA notes that it is not clear what the number of rekordbox laptop application users and revenue would be in the scenario where there was no rekordbox app at all. For clarity, the CMA is referring to there being no reduction in rekordbox's laptop application's usage while app usage was also growing.

6.3.3 Theory of Harm 2: Foreclosure of DJ hardware rivals through leveraging the Merged Entity's market position in the supply of DJ software

90. The CMA considered whether the Merged Entity would have the ability and incentive to leverage its market position in the supply of DJ software globally to foreclose ATC's DJ hardware rivals in the supply of DJ controllers, all-in-one systems, mixers, and DJ players globally. As explained in paragraphs 45–48 above, the CMA considers it appropriate to distinguish between the four DJ hardware types in its market definition. There are nevertheless common elements relevant across the CMA's assessment of this theory of harm and the CMA found that much of the same evidence was informative across all four DJ hardware types. Any distinctions in evidence or conclusions between hardware types where relevant are set out below.
91. Foreclosure of competitors can occur where the Merged Entity could use its presence in one market to directly harm the competitiveness of its rivals in another market, even if (as is the case here) there is not a conventional supplier/customer relationship. The CMA is focusing its assessment on the Merged Entity's ability to foreclose rivals through leveraging the Merged Entity's position in the global DJ software market, as Serato DJ is currently compatible and marketed with ATC's DJ controllers, all-in-one systems, mixers and DJ players, as well as with the hardware products of ATC's DJ hardware rivals within each of these hardware types.
92. Although ATC's DJ software rekordbox is not currently marketed or integrated with any non-ATC hardware the CMA considers the Merged Entity's ownership of rekordbox to be relevant to its assessment. First, rekordbox, which as set out above has a strong position in the global DJ software market, would not be available for DJs looking to continue to use ATC's rival hardware post foreclosure. Second, and as discussed in paragraph 104 below, the Merged Entity's ownership of one of very few comparable DJ software alternatives to Serato DJ strengthens the appeal of ATC's DJ hardware for those DJs who are looking for alternatives to ATC's rivals' hardware as a result of foreclosure. This would in turn increase the incentives for the Merged Entity to foreclose its hardware rivals.
93. In assessing this theory of harm, the CMA considers whether the following three cumulative conditions are satisfied:
 - (a) Would the Merged Entity have the ability to use its position in DJ software to foreclose DJ hardware rivals?

- (b) Would it have the incentive to actually do so, ie would it be profitable?¹²⁷
- (c) Would the foreclosure of these rivals substantially lessen overall competition in the DJ hardware markets?¹²⁸

94. The CMA is applying the above framework in assessing whether it is or may be the case that the Merger has resulted, or may be expected to result, in an SLC in the supply of DJ controllers, mixers, all-in-ones and DJ players globally.

6.3.4 Ability

95. To assess the Merged Entity's ability to foreclose DJ hardware rivals, the CMA considered submissions from the Parties; shares of supply in DJ software and hardware; internal documents; and third-party evidence. In particular, the CMA assessed and discusses in turn below:

- (a) the degree of market power Serato may have in the supply of DJ software;
- (b) the importance of DJ software for use with DJ hardware; and
- (c) the mechanisms that the Merged Entity could use to foreclose ATC's DJ hardware rivals.

6.3.4.1 Serato DJ's market power in DJ software

96. To assess the Merged Entity's market power in DJ software, the CMA considers in turn:

- (a) Serato's position in DJ software and the importance of Serato DJ for the competitiveness of DJ hardware rivals;
- (b) alternatives to Serato DJ for ATC's DJ hardware rivals; and
- (c) switching costs in DJ software and DJ hardware.

6.3.4.1.1 Serato's position in DJ software

97. The Parties submitted that the Merged Entity would have no ability to foreclose because they have a low combined DJ software share globally.¹²⁹ The Parties also submitted that Serato DJ is not a 'must have' nor important for the competitiveness

¹²⁷ The CMA notes that it does not only focus its assessment on short term margins but also considers firms objectives to maximise their long-run profitability if appropriate ([CMA129](#), paragraph 7.19(e)). As such, the CMA considered medium- and long-term strategic incentives in its assessment (see paragraph 126 below).

¹²⁸ [CMA129](#), paragraphs 7.9–7.10.

¹²⁹ 10-15% (FMN, paragraph 19.4(a)). NERA also submitted that taking a narrower view of only suppliers with a software application, only places Serato as the second largest firm with a market share of [20-30]% (Annex 116 to the FMN, page 38).

of DJ hardware because it does not have a mobile app¹³⁰ [redacted].¹³¹ The Parties submitted that this is evidenced by [redacted]¹³² [redacted],¹³³ [redacted]¹³⁴ and its real subscription price¹³⁵ having fallen.

98. In addition, the Parties submitted that DJ hardware rivals have the ability to create embedded software, which has reduced their reliance on third-party software suppliers.¹³⁶ In particular, the Merged Entity's ability to foreclose DJ hardware rivals may be particularly weak for high-end hardware (ie relatively expensive hardware for each hardware type) because certain types of high-end hardware (all-in-ones and DJ players in particular) will have software embedded;¹³⁷ and owners of relatively expensive hardware are more likely to switch software than buy new hardware.¹³⁸
99. As noted above in the discussion of Theory of Harm 1, the Merged Entity will be the global market leader in the supply of DJ software post-Merger. The CMA considers that the evidence set out in Theory of Harm 1 (namely, regarding the Serato DJ's high share of supply and its market-leading position as evidenced by the Parties' internal documents and third-party feedback) supports a picture of Serato DJ having market power, in addition to the following evidence:
- (a) The existence of [redacted] in Serato's contracts with DJ hardware suppliers which, contrary to the Parties' submissions, are still present in the majority of its contracts, is indicative of Serato's market power.¹³⁹ The CMA believes that DJ hardware manufacturers (including ATC) would otherwise be unlikely to accept such provisions, which may diminish their access to DJs who use alternative software.
 - (b) Relatedly, the fact that ATC partners with Serato for its DJ hardware products and pays royalty fees despite having its own comparable and increasingly successful DJ software offering implies that Serato DJ is important for ATC's hardware sales.¹⁴⁰ Similarly, Hercules and inMusic also partner with Serato

¹³⁰ As described above, the CMA does not consider DJ apps to be part of the relevant market, and in many cases either act as a complement to DJ software or are targeted at different users.

¹³¹ Parties' response to the Issues Letter, 11 April 2024, paragraphs 4.9. FMN, paragraph 19.4(d). Whilst Serato has not secured music streaming integration with [redacted], it does support music streaming from services including Tidal, Beatport, Beatsource and SoundCloud ([Digital DJ Tips website](#)). The CMA notes music streaming integration appears to be an active area of innovation in the market, with Algoriddim securing a deal for music streaming integration with Apple Music only earlier this year (FMN 13.3(b)).

¹³² Serato has contracts with its DJ hardware partners, some of which include [redacted].

¹³³ Parties' response to the Issues Letter, 11 April 2024, paragraphs 4.9. Annex 116 to the FMN, page 36 and 37.

Similarly, the Parties submitted Serato's hardware partners are able to release hardware which is not officially supported by Serato's launch or partner with other DJ software rivals such as djay (Parties' response to the Issues Letter, 11 April 2024, paragraph 4.9). [redacted] (Parties' response to the Issues Letter, 11 April 2024, paragraph 4.9(f)).

¹³⁴ [redacted] (Parties' response to the Issues Letter, 11 April 2024, paragraphs 4.9. FMN, paragraph 19.4(d)).

¹³⁵ Annex 116 to the FMN, paragraph 152.

¹³⁶ FMN, paragraph 19.4(d).

¹³⁷ Annex 116 to the FMN, paragraph 180.

¹³⁸ Annex 116 to the FMN, paragraph 4(c)(ii)(b).

¹³⁹ For all but one partner ([redacted]), the [redacted] are not time-limited and remain effective until expiry of the licensing agreement. Annexes 650 to 675 to the FMN.

¹⁴⁰ Annex 116 to the FMN, page 36.

despite having proprietary software. One ATC internal document also suggests Serato DJ compatibility is important for the competitiveness of its hardware rivals.¹⁴¹

- (c) Embedded software does not have library management functionality and so is not a full substitute for DJ software such as Serato DJ.
- (d) The CMA does not consider that the Parties' submissions on [redacted] are indicative of diminishing market power, as other evidence suggests Serato DJ has maintained a strong position in DJ software. For example, a Serato internal document and Serato's revenue and user data show that Serato DJ has consistently increased active users and revenue in real terms,¹⁴² and an ATC internal document suggests that the volume and value of ATC's DJ hardware sales in integration with Serato DJ have been [redacted], with the license fees to Serato also [redacted].¹⁴³ Additionally, Serato's internal documents¹⁴⁴ and third-party responses (discussed below in paragraph 100) suggest that Serato has a recognisable and valuable brand.

100. Third-party evidence suggests that DJ hardware competitors and retailers consider Serato DJ important for DJ hardware sales:

- (a) The majority of DJ hardware competitors specifically mentioned that compatibility with Serato DJ was important for their competitiveness and sales,¹⁴⁵ and indicated that a large proportion of their sales of all types of DJ hardware include Serato DJ software licences (and for DJ controllers in particular).¹⁴⁶
- (b) Similarly, most DJ hardware competitors stated they have a contractual agreement with Serato as a DJ software partner, whereby Serato grants them a non-exclusive licence to distribute hardware bearing Serato's branding and access to Serato's DJ software, in return for a fixed per-unit fee for each piece of partnered hardware sold.¹⁴⁷ This includes DJ hardware rivals which have their own embedded software, implying they are still reliant on Serato to generate sales, whether or not this is a secondary option. One

¹⁴¹ In the document ATC is monitoring an all-in-one system produced by inMusic and when assessing the features which come with the system ATC noted there is support for Serato DJ Pro. ATC Internal Document, Annex 147 to the FMN, [redacted], 21 October 2020, slide 28.

¹⁴² Serato Internal Document, Annex 89 to the FMN, [redacted], December 2022, pages 11–12.

¹⁴³ ATC Internal Document, Annex 18 to the FMN, [redacted], 11 July 2023, slide 13. Annex 128 to the FMN, '(revised) CMA RFI 1 Q19 – Response', 22 December 2023.

¹⁴⁴ For example, a 2021 Serato internal document describes Serato's DJ business as its primary business and that it has the [redacted] (Serato Internal document, Annex 543 to the FMN, [redacted], 18 May 2021, slide 9). An ATC due diligence document considering Serato similarly states that the [redacted], with its brand perception is increasing as evidenced by a survey (Serato Internal Document, Annex 022 to the FMN, [redacted], March 2023, slide 17).

¹⁴⁵ Response to the CMA questionnaire from a number of third parties, March 2024, question 11.

¹⁴⁶ Note that one competitor stated none of its hardware comes with Serato DJ (response to the CMA questionnaire from a number of third parties, March 2024, question 10). Additionally, one competitor's answer could not be accessed (response to the CMA questionnaire from a number of third parties, March 2024, question 10).

¹⁴⁷ Response to the CMA questionnaire from a number of third parties, March 2024, question 9.

hardware competitor stated this branding was important for the sale of their hardware.¹⁴⁸

- (c) Most DJ retailers stated that Serato DJ is important for the sale of DJ hardware,¹⁴⁹ and a number of retailers further stated that there would be a very significant impact on hardware sales if compatibility with Serato DJ was lost.¹⁵⁰ This was seen to affect all hardware types and all hardware rivals, with some retailers noting that inMusic in particular would be most affected.¹⁵¹
- (d) Most of the controllers and all-in-one systems that the retailers sell come with Serato DJ.¹⁵² The evidence from retailers was mixed on whether mixers and DJ players are typically sold with Serato DJ, with some retailers responding that it is the case.¹⁵³

101. In relation to the Parties' submission that the Merged Entity may not have the ability to foreclose users of high-end hardware, the CMA considers that Serato is important for hardware at all price points. One DJ hardware rival told the CMA that, at virtually every price point, it is critical for its hardware to be compatible with Serato. This DJ hardware rival also noted that it must include Serato in its products, especially its high-end systems.¹⁵⁴ Another DJ hardware rival noted that it would be unable to access professional or more experienced DJs without access to Serato DJ.¹⁵⁵

102. Finally, the CMA notes that it assesses a merged entity's ability to harm the competitiveness of rivals based on whether Serato DJ software plays an important role in shaping competition in the supply of DJ hardware (namely controllers, mixers, all-in-ones and DJ players respectively) and whether Serato DJ occupies an important position in DJ software, and not based on whether Serato DJ is a 'must have' (a feature that is not a necessary condition to a finding of market power).¹⁵⁶

6.3.4.1.2 *Alternative suppliers of DJ software*

103. The Parties submitted that the Merged Entity would have no ability to foreclose because there are numerous other DJ software suppliers that match or have better

¹⁴⁸ Note of a call with a third party, 30 November 2023, paragraph 27.

¹⁴⁹ Response to the CMA questionnaire from a number of third parties, March 2024, question 7.

¹⁵⁰ Response to the CMA questionnaire from a number of third parties, March 2024, question 7.

¹⁵¹ Response to the CMA questionnaire from a number of third parties, March 2024, question 7.

¹⁵² The CMA is currently basis this on the average percentage of controllers and all-in-ones, respectively, that the retailers which responded to the question sell which come with Serato. Response to the CMA questionnaire from a number of third parties, March 2024, question 6.

¹⁵³ Response to the CMA questionnaire from a number of third parties, March 2024, question 6.

¹⁵⁴ Response to the CMA questionnaire from a third party, question 11.

¹⁵⁵ Response to the CMA questionnaire from a third party, question 11.

¹⁵⁶ [CMA129](#), paragraph 7.14(a).

features than Serato DJ¹⁵⁷ and that suppliers compete vigorously with the Parties.¹⁵⁸ Similarly, that barriers to entry are low, with the DJ software market being very innovative and dynamic, which facilitates expansion and entry.¹⁵⁹

104. As described in Theory of Harm 1, one of the key competitors to Serato DJ is currently rekordbox, ATC's DJ software. rekordbox is only available on ATC's DJ hardware¹⁶⁰ and so is currently not a viable alternative to Serato DJ for DJs who would like to continue to use non-ATC hardware. Similarly, as stated in paragraph 70(c), software such as Engine DJ and DJUCED are only available to the users of their own DJ hardware brands inMusic and Hercules respectively and are weak alternatives to Serato more generally.
105. In addition to the evidence on alternative suppliers in Theory of Harm 1, the majority of DJ hardware competitors who partner with Serato indicated that relying on alternative software is not possible or would damage their competitiveness.¹⁶¹ One DJ hardware competitor stated it would lose almost all of its sales if it needed to switch its compatibility to another software and another stated that there is no alternative to either of the Parties and existing software cannot compete against their dominance.¹⁶² Another competitor noted that VirtualDJ would only be an alternative for controllers purchased by entry-level DJs.¹⁶³
106. Based on the evidence described above, the CMA considers there are limited alternative suppliers to Serato DJ for ATC's DJ hardware rivals (in particular, for those targeting the more professional segment of the DJ hardware customer market).¹⁶⁴
107. Furthermore, as stated in paragraphs 69, DJ software's competitiveness depends on its compatibility with DJ hardware. As such, the CMA considers that ATC's position in DJ hardware, discussed in paragraphs 127, could be leveraged to further diminish the competitiveness of alternative software providers or to raise barriers to entry and expansion of other DJ software providers.
108. The CMA considered, as a separate theory of harm, whether the Merged Entity could foreclose DJ software rivals globally through leveraging ATC's position in DJ hardware globally. The CMA found evidence suggesting that the Merged Entity would have the ability to do so given ATC's strong position in all four DJ hardware types as indicated by its shares of supply and evidence from internal documents

¹⁵⁷ FMN, paragraphs 19.4(b), 19.4(c), 17 and 21.1(f).

¹⁵⁸ Parties' response to the Issues Letter, 11 April 2024, paragraph 4.2.

¹⁵⁹ FMN, paragraphs 19.4(b), 19.4(c), 17 and 21.1(f).

¹⁶⁰ The CMA understands that the paid version of rekordbox can in theory be MIDI mapped to non-ATC hardware (FMN, paragraph 19.12) but this this requires some technical knowledge, with one third party stating most DJs today could not MIDI map (Note of a call with a third party, 18 December 2023, paragraph 31).

¹⁶¹ Response to the CMA questionnaire from a number of third parties, March 2024, question 14.

¹⁶² Response to the CMA questionnaire from a number of third parties, March 2024, question 12 and 14.

¹⁶³ Response to the CMA questionnaire from a number of third parties, March 2024, question 14.

¹⁶⁴ See paragraphs 79–80.

and third parties.¹⁶⁵ Taking into account the much higher relative margins of DJ hardware compared to DJ software, the CMA concluded that the Merged Entity is unlikely to have the incentive to pursue a standalone strategy of foreclosing DJ software competitors in order to make gains in DJ software sales alone.¹⁶⁶ However, the CMA does consider that the Merged Entity may pursue this strategy to further reduce the viability of alternatives to Serato DJ as part of a longer term strategy to foreclose DJ hardware rivals. The CMA does not consider this strategy to be a necessary condition for finding that the Merged Entity has the ability to foreclose DJ hardware rivals (given the already strong position of Serato DJ) and views this as a reinforcing factor that may strengthen its concerns in relation to a DJ hardware foreclosure theory of harm.

6.3.4.1.3 *Switching costs*

109. The CMA considers that if switching costs are higher in DJ software compared to DJ hardware, the Merged Entity would have a greater ability to foreclose DJ hardware rivals. This is because customers currently using rival DJ hardware products compatible with Serato DJ will be more willing to switch DJ hardware rather than DJ software in response to foreclosure attempts by the Merged Entity.
110. The Parties submitted that despite some DJs' perceptions, switching costs for DJ software are low and that this would limit the Merged Entity's ability to foreclose¹⁶⁷ because if Serato were to limit the compatibility of its software with ATC hardware, there would be few obstacles for non-ATC hardware users to just switch to a more widely compatible software.¹⁶⁸ The Parties submitted that:
- (a) The open compatibility of music libraries is an industry standard, that switching library data is easy, and that intermediary conversion tools aid users in switching.¹⁶⁹

¹⁶⁵ Third party software competitors stated compatibility with Pioneer DJ is important for their competitiveness; two DJ software providers' user data showed that the most frequently used DJ hardware used with their software is Pioneer DJ (response to the CMA questionnaire by a number of third parties, March 2024, question 8). Similarly, responses from three DJ software providers on the impact of Pioneer DJ no longer working with their software or having a degraded quality of compatibility with their software suggested their DJ software's competitiveness would be heavily impacted (response to the CMA questionnaire by a number of third parties, March 2024, question 11). Additionally, evidence suggested Pioneer DJ has a very strong position in DJ, hardware with a considerable degree of market power. The Parties submission acknowledges Pioneer DJ is a market leader with a very high market share (Annex 116 to the FMN, paragraph 190), internal documents from both Parties support ATC having a strong position (see, for example, ATC Internal Document, Annex 104 to the FMN, [§<], April 2019, slide 2 and Serato Internal Document, Annex 354 to the FMN, [§<], October 2022, slide 30), and multiple third parties' views, including hardware and software competitors and hardware retailers, support the fact Pioneer DJ is strong (response to the CMA questionnaire by a number of third parties, March 2024, question 7. Response to the CMA questionnaire by a number of third parties, March 2024, question 7; note of a call with a third party, January 2024, paragraph 12; response to the CMA's invitation to comment by a third party, February 2024).

¹⁶⁶ Annex 164 to the FMN, [§<], February 2024.

¹⁶⁷ Annex 116 to the FMN (Section 2.1.1).

¹⁶⁸ Annex 116 to the FMN, page 35.

¹⁶⁹ Parties' response to the Issues Letter, 11 April 2024, paragraph 4.7.

- (b) Serato has a ([<]) monthly churn rate of [<]% and analysis of Serato's users in 2022 suggests that a [<] proportion stopped using Serato in 2023 and 2024.¹⁷⁰
- (c) Switching DJ hardware is harder compared to software as DJ software have broadly similar functions and interfaces whereas DJs will have developed muscle memory with their DJ hardware devices.¹⁷¹ Similarly, the Parties submitted that DJ hardware is on average more expensive than DJ software so it would be more costly for the user to buy another set of hardware than to change their software.¹⁷²

111. The CMA believes that switching costs between DJ software offerings are high, and higher than switching costs between DJ hardware brands as:

- (a) Most DJ software competitors and a few DJ retailers indicated switching software is difficult because of data migration issues with the transfer of music libraries and user-created metadata being restricted or lost when switching.¹⁷³ In general, DJ retailers considered switching software to be more difficult for customers than switching hardware.¹⁷⁴
- (b) The existence and need to pay for library transfer tools suggest that transferring music and metadata between software is not straightforward and is indicative of it being a barrier to switching.¹⁷⁵
- (c) The CMA considers that churn rates for Serato users, in particular those using a paid version of Serato, are low. Using data submitted by the Parties, the CMA estimates that approximately [<]% of paid Serato users switched away in 2022.¹⁷⁶ Paid users of Serato also account for a significant majority of users at any given point.¹⁷⁷ The Parties' submission on churn rates

¹⁷⁰ The Parties' analysis suggests that only [<]% and [<]% of the 2022 Serato users continued to use a Serato DJ software product one and two years later respectively (Parties' response to the Issues Letter, 11 April 2024, paragraphs 4.4–4.5).

¹⁷¹ Parties' response to the Issues Letter, 11 April 2024, paragraph 4.8.

¹⁷² Annex 116 to the FMN, page 38.

¹⁷³ Response to the CMA questionnaire from a number of third parties, March 2024, question 6; and response to the CMA questionnaire from a number of third parties, March 2024, question 5. Note of a call with a third party, November 2023, page 5; and note of a call with a third party, November 2023, page 6.

¹⁷⁴ Response to the CMA questionnaire from a number of third parties, March 2024, question 5.

¹⁷⁵ For example, the Parties named DJ Conversion Utility Library Migration App as a potential application to help DJs switch libraries including a quote that it is the 'market leader when it comes to library conversion tools' (Parties' response to the Issues Letter, 11 April 2024, paragraph 4.7). However, Digital DJ Tips Philip Morse describes in a blog reviewing the app that it has a one-off pricing model charging 19.50€ (See link to [Digital DJ Tips article on DJ Conversion Utility](#), 20 August 2023, last accessed 1 May 2024).

¹⁷⁶ Based on data submitted by the Parties in response to RFI 4, the average monthly active users for paid Serato users (ie users of Serato Pro or Serato Suite) increased from approximately [<] in 2021 to [<] in 2022 (ie a net increase of approximately [<] users). Based on data submitted by the Parties in response to the Issues Letter, Serato acquired approximately [<] new users of Serato Pro or Serato Suite in 2022. This indicates that approximately [<] users of Serato Pro or Serato Suite stopped using Serato in 2022, which is approximately [<]% of the [<] paid users of Serato in 2022.

¹⁷⁷ Based on data submitted by the Parties in response to RFI 4, average monthly active users (MAUs) of paid versions of Serato (ie Serato Pro or Serato Suite) accounted for more than [70-80]% of total MAUs in each year from 2020 to 2023.

showing that a [redacted] proportion of users in 2022 do not use Serato again in 2023 or 2024 are not appropriate as these are primarily driven by free users of Serato who only use Serato for [redacted].¹⁷⁸ The CMA's analysis is supported by a 2022 Serato internal survey of its users, which demonstrated that [70-80]% of its users had been using Serato for over three years, with [20-30]% having used Serato for over 11 years.¹⁷⁹

- (d) More generally, third party evidence does not support the Parties' contention that switching DJ hardware is easier than DJ software. One hardware competitor told the CMA that DJs find it easier to switch hardware compared to software because different hardware suppliers offer products which are broadly similar, and because DJs already often use products from more than one brand.¹⁸⁰ Another hardware competitor told the CMA that it is difficult for customers to switch hardware if it is not compatible with the software that the customer uses, and another noted it is only easy to switch hardware if it is compatible with the software the customer is using.¹⁸¹

6.3.4.1.4 CMA conclusion on market power

112. The CMA considers that the Merged Entity would have market power in the supply of DJ software globally on the basis of Serato's position as the leading DJ software supplier, rekordbox (currently one of Serato's key competitors) being owned by ATC and not being available to use with non-ATC hardware, there being limited alternatives available and DJ software being more difficult to switch than DJ hardware.

6.3.4.2 The importance DJ software for use with DJ hardware

113. The Parties submitted that customers make purchasing decisions based on what DJ hardware they want, with DJ software (and its compatibility with the hardware) being less important.¹⁸² This is based on Serato survey results which show Serato users [redacted], implying DJ software compatibility is not important for the competitiveness of DJ hardware.¹⁸³

¹⁷⁸ Note that users of the free version of Serato (ie Serato Lite) do not account for a significant proportion of all Serato's users at any given point in time but add up to a significant number of users if all such unique users over one year are aggregated (as the Parties' methodology does). The Parties' submissions on the number of new paid users in 2022 who stop using Serato in 2023 show that there are significantly fewer paid customers who stop using Serato (approximately [redacted]) compared to the Parties' analysis of all Serato users (which indicates approximately [redacted] users leaving Serato between 2022 and 2023).

¹⁷⁹ Serato Internal Document, Annex 259 to the FMN, [redacted], 22 March 2023, page 12.

¹⁸⁰ Third party response to the CMA's RFI, 11 December 2023, question 3.

¹⁸¹ Response to the CMA questionnaire from a number of third parties, March 2024, question 5.

¹⁸² Parties' response to the Issues Letter, 11 April 2024, paragraph 4.15.

¹⁸³ Parties' response to the Issues Letter, 11 April 2024, paragraph 4.15.

114. The CMA considers that the following evidence shows that DJ software compatibility is important for DJ hardware suppliers' competitiveness:
- (a) DJ hardware competitors state that compatibility with DJ software is one of the two most important factors when competing against other hardware suppliers;¹⁸⁴ This is in line with the Parties' own submissions that the more software offerings are compatible with a given provider's hardware, the more that provider's hardware will sell, noting that if ATC were to lock its hardware from software rivals (such as VirtualDJ or djay) then its sales would decrease;¹⁸⁵
 - (b) the DJ Census shows that one of the most common DJ set ups (over 50% of respondents) is hardware connected to a laptop running DJ software (as opposed to hardware with embedded DJ software, DJ apps, or hardware with USB sticks);¹⁸⁶
 - (c) the brands of compatible DJ software are often placed on DJ hardware devices, with one third party suggesting Serato DJ branding was crucial to the sales of its DJ hardware products;¹⁸⁷ and
 - (d) DJ hardware manufacturers' websites, such as ATC, inMusic, Native Instrument, Allen & Heath, Akai, Reloop, and Roland, directly advertise which DJ software are compatible with the hardware.
115. The CMA considers that DJ software is important for the competitiveness of each type of DJ hardware, albeit it may be relatively less important for DJ players and mixers (as some users may perform with these types of hardware without DJ software). For example, one retailer explained that 90-95% of DJ hardware uses software even if it is just a management system for all-in-ones.¹⁸⁸ Some hardware retailers suggested that DJ players and mixers are infrequently sold with Serato DJ, which contrasts with controllers and all-in-one. The CMA notes, however, that not being sold with DJ software should not be conflated with DJ hardware not being used with, or not compatible or marketed with, DJ software. As explained above, controllers or all-in-one systems or mixers and DJ players may be purchased by the same user who would only need one software licence.¹⁸⁹ The CMA believes the importance of software for each hardware varies, with DJ software being:

¹⁸⁴ Responses to the CMA questionnaire from a number of third parties, March 2024, question 6. Additionally, innovation, brand and quality were considered as important or very important factors for the competitiveness of their hardware by majority of hardware respondents (responses to the CMA questionnaire from a number of third parties, March 2024, question 6).

¹⁸⁵ Parties' response to the Issues Letter, 11 April 2024, paragraph 5.3.

¹⁸⁶ DJ Census, page 29.

¹⁸⁷ FMN, footnote 65. Note of a call with a third party, 30 November 2023, page 9.

¹⁸⁸ Response to the CMA questionnaire by a third party, March 2024, question 6.

¹⁸⁹ Response to the CMA questionnaire by a third party, March 2024, question 6.

- (a) very important for controllers, which are purpose-built to control DJ software and cannot function without DJ software or DJ apps;¹⁹⁰
- (b) important for all-in-one systems and DJ players, as while they can be used to perform without any DJ software,¹⁹¹ they can and are used with DJ software to perform as well. Additionally, DJs will still use DJ software as a library management tool and for its music preparation functionality;¹⁹² and
- (c) important for mixers, as while they can be used to perform without any DJ software as long as they have an audio input (such as from a turntable or DJ player),¹⁹³ they can be and are used with DJ software to perform and, as above, DJ software may be used in the preparatory steps prior to performance with a mixer.

6.3.4.3 *The mechanisms the Merged Entity could use to foreclose ATC's competitors*

116. The Parties submitted that it is not technically possible to foreclose DJ hardware rivals because of industry-wide standard protocols which allow hardware and software to interact. The Parties argue that this means that hardware which follows this widely used protocol will still be able to be used with Serato DJ even if the Merged Entity were to cease partnering with that DJ hardware provider to make the hardware compatible with Serato DJ directly. In particular, Serato DJ is MIDI¹⁹⁴ compatible and so can be 'mapped' (**MIDI mapped**) to all DJ hardware devices¹⁹⁵ which follow the MIDI protocol. The Parties added that the open and standardised nature of MIDI means that files for MIDI mapping have been produced by a community of users and are available online,¹⁹⁶ that any foreclosure would be temporary as DJs would work to unlock or hack Serato software,¹⁹⁷ and that relying on MIDI mapping does not degrade the quality of the DJ software's compatibility with DJ hardware.¹⁹⁸
117. Additionally, the Parties stated that once Serato's DJ software has been downloaded and installed on a computer, it cannot unilaterally be updated by the

¹⁹⁰ FMN, paragraph 12.20. Third party's response to the CMA's RFI, 11 December 2023, question 2. Note of a call with a third party, January 2024, page 3.

¹⁹¹ Other than their embedded software.

¹⁹² For DJ players and all-in-ones, the CMA believes that compatibility is important as DJs need to export music from DJ software to a DJ hardware's proprietary system in order to then perform with only the hardware device. For example, the CMA considers that it is important for the competitiveness of DJ players for DJs to be able to export their music of choice (set) from their main music management software like Serato DJ, Traktor Pro and/or rekordbox (including meta data like loops and hot cues) into a DJ hardware's proprietary software (like Engine DJ) in order to export music via USB onto the DJ player.

¹⁹³ Other than their embedded software.

¹⁹⁴ The MIDI standard allows digital music gear to speak the same language (ie make products compatible with products of other brands). It is a set of digital instructions (or MIDI messages) that are sent from one device to another, telling the receiving device what to do.

¹⁹⁵ Although, the Parties note the device must have a Serato-supported sound card or must be connected to a device which has a Serato-supported sound card.

¹⁹⁶ FMN, paragraph 19.5(a)(ii).

¹⁹⁷ FMN, paragraph 19.6(b).

¹⁹⁸ Parties' response to the Issues Letter, 11 April 2024, paragraph 4.10.

Merged Entity to make it incompatible with particular hardware because the software resides locally on the user's computer. This means the end user could maintain compatibility with non-ATC DJ hardware regardless of any subsequent software updates by Serato.¹⁹⁹

118. The CMA believes that the availability of MIDI mapping is not sufficient to stop a foreclosure strategy because:
- (a) Not all features and functions of DJ hardware rely on the MIDI protocol, with additional types of protocol (such as human interface device (**HID**)) being used more widely than MIDI by many different hardware devices.²⁰⁰ HID requires expert knowledge by engineers in order to make the hardware and software compatible.²⁰¹ As such, relying on only MIDI mapping would lead to a substantial reduction in features and functionality.
 - (b) Having to spend time MIDI mapping (including testing any mapping) is inferior to immediate guaranteed plug-and-play compatibility (ie seamless integration without any user configuration) with Serato DJ; and.
 - (c) not all DJs will have the technical knowledge to MIDI map the hardware, with one third party noting most DJs today could not MIDI map.²⁰²
119. In any event, the CMA considers that the MIDI standard does not imply there is no technical ability for the Merged Entity to make rival hardware inoperable with Serato DJ because:
- (a) the fact that the free version of rekordbox,²⁰³ Engine DJ and DJUCED DJ software offerings are locked to their proprietary hardware implies that it is technically possible to do so;²⁰⁴
 - (b) all third-party hardware competitors stated that it would be technically possible to make Serato DJ inoperable with their DJ hardware, for example through a password or encryption lock;²⁰⁵
 - (c) one third party indicated that the cooperation of Serato's developers is important to ensure seamless connection between DJ controllers in particular and the DJ software prior to the product release;²⁰⁶ and

¹⁹⁹ FMN, paragraph 19.5(a)(ii).

²⁰⁰ Note of a call with a third party, December 2023, page 8; and note of a call with a third party, November 2023, page 9.

²⁰¹ Note of a call with a third party, December 2023, page 8; and note of a call with a third party, November 2023, page 9.

²⁰² Note of a call with a third party, December 2023, page 8.

²⁰³ FMN, paragraph 19.12.

²⁰⁴ FMN, paragraph 19.8.

²⁰⁵ Response to the CMA questionnaire from a number of third parties, March 2024, question 12.

²⁰⁶ Submission to the CMA from a third party, August 2023, page 2.

- (d) a Serato internal document states that [redacted], which suggests additional work between Serato and [redacted] engineers was necessary to make the device fully compatible.²⁰⁷

120. Third-party evidence currently suggests that there are a range of possible partial foreclosure strategies in addition to making Serato technically inoperable with rival DJ hardware (ie total foreclosure). Most hardware competitors stated that the Merged Entity would be able to employ one or more of the below foreclosure strategies:²⁰⁸

- (a) degrading Serato DJ's compatibility with their hardware relative to ATC's hardware compatibility;
- (b) limiting the features of Serato DJ software for use with their hardware relative to the features available to ATC DJ hardware users;
- (c) having a higher subscription or one-off purchase price for their hardware users relative to ATC DJ hardware users;
- (d) offering better customer service and maintenance support for Serato DJ software when used with ATC DJ hardware relative to their hardware;
- (e) leveraging access to customer data or other information that Serato collects from their DJ software customers which use their hardware;²⁰⁹
- (f) offering early access to Serato DJ innovations and updates (capitalising on initial customer interest) to ATC DJ hardware relative to rival hardware.

121. The majority of DJ hardware rivals submitted that the above foreclosure mechanisms would have a significant impact on their sales.²¹⁰ Therefore, based on the above, the CMA considers that the Merged Entity could foreclose its DJ hardware rivals by pursuing the total foreclosure strategy of fully restricting the interoperability of Serato DJ with ATC's rivals' hardware or pursue any (or a combination) of the partial foreclosure strategies listed above in paragraph 120.

6.3.4.4 CMA's conclusion on ability

122. The CMA considers that the Merged Entity would have the ability to foreclose DJ hardware rivals because Serato has market power in DJ software, compatibility between DJ hardware and DJ software is important for the competitiveness of DJ

²⁰⁷ Serato Internal Document, Annex 114 to the FMN, [redacted], page 18.

²⁰⁸ Response to the CMA questionnaire from a number of third parties, March 2024, question 12.

²⁰⁹ The CMA notes that an ATC document considering the benefits and synergies from the merger states that the merger will [redacted] (ATC Internal Document, Annex 018 to the FMN, [redacted], July 2023, page 17).

²¹⁰ Response to the CMA questionnaire from a number of third parties, March 2024, question 13.

hardware suppliers, and there are a range of mechanisms the Merged Entity could use to foreclose DJ hardware rivals.

6.3.5 Incentive

123. A strategy to foreclose DJ hardware rivals involves potential losses in DJ software sales and potential gains in DJ hardware sales. In assessing the incentives to foreclose, the CMA has considered whether the potential benefits of a foreclosure strategy could be greater than the potential costs.²¹¹ In line with the Merger Assessment Guidelines, the CMA has considered evidence in relation to business strategy, the strength of the Merged Entity's offering in DJ hardware and software and the relative profitability of its products in each market, as well as other costs and benefits.²¹²
124. In assessing relative profitability, the CMA considered evidence on critical diversion ratios (**CDRs**). CDRs represent the proportion of sales that need to be captured in the DJ hardware market for a foreclosure strategy to be profitable (the lower the CDRs, the lower is the proportion of customers that need to switch to the Merged Entity to make a foreclosure strategy profitable). The assessment of incentives does not focus just on short term margins but also considers whether the Merged Entity may pursue other objectives to maximise its long-term profitability.

6.3.5.1 Parties' submissions

125. The Parties submitted that there is no incentive for the Merged Entity to foreclose DJ hardware rivals for the following reasons:
- (a) The CDR analysis suggests that the Merged Entity's incentive to foreclose hardware users is likely to be limited.²¹³
 - (i) The incentive would be particularly weak for users of 'lower-end' hardware (eg lower priced controllers), as evidenced by the high CDRs.²¹⁴ It is more appropriate to consider lower-end products for each type of hardware in the assessment of CDRs because the average price of hardware used by customers of rival DJ hardware (who are the targets of a foreclosure strategy) is lower than that of customers of ATC hardware.²¹⁵

²¹¹ [CMA129](#), paragraph 7.16.

²¹² [CMA129](#), paragraph 7.19.

²¹³ Annex 116 to the FMN, paragraph 4(c)(ii).

²¹⁴ Annex 116 to the FMN, paragraph 4(c)(ii)(b).

²¹⁵ Annex 116 to the FMN, paragraph 175.

- (ii) Foreclosure would lead to a less competitive and innovative DJ hardware market, which would ultimately inhibit the growth of both the DJ hardware and software markets. Fewer customers in the market would mean that the Merged Entity would need to capture a greater share of remaining customers, leading to higher CDRs.²¹⁶
- (b) ATC has no history of using its position to foreclose its competitors. Developing rekordbox as a first-party software for ATC devices is not the same as denying rivals access to an open software such as Serato.²¹⁷ The refusal to allow Serato to be used with rival DJ hardware would lead to a significant damage to the reputation of both Serato and ATC.^{218, 219}
- (c) ATC's rationale for the Merger is part of a broader strategy to expand its presence in music production software.^{220, 221} A foreclosure strategy would have an immediate impact on Serato's earnings and its market value, which would negatively impact the share price of ATC's parent company (Noritsu Koki Co., Ltd).²²² Moreover, the terms of the SPA giving effect to the Merger,²²³ preclude refusing to allow Serato to partner with other DJ hardware brands or making Serato less attractive to partner with.²²⁴

6.3.5.1.1 CMA's assessment

6.3.5.1.1.1 Business strategy and rationale

126. As set out at paragraph 22, the Parties' internal documents suggest that contrary to the Parties' submissions the key reason for the Merger related to the growth of the DJ (software and hardware) business and that Serato's activities in music production were a secondary rather than primary consideration for the Merger. The CMA considers that the merger rationale in the internal documents is supportive of other evidence that the Merged Entity could have a broader long-term strategic incentive to use its DJ software offering across various DJ hardware products to strengthen its own position across DJ hardware and the DJ ecosystem more generally. In relation to the Parties' submissions that ATC has no history of foreclosing its competitors, the CMA considers that, as discussed below, the ability and incentives of the Merged Entity would change post-Merger as its already

²¹⁶ Parties' response to the Issues Letter, 11 April 2024, paragraphs 4.34–4.35.

²¹⁷ Parties' response to the Issues Letter, 11 April 2024, paragraphs 4.17–4.20.

²¹⁸ FMN, paragraph 19.15.

²¹⁹ Parties' response to the Issues Letter, 11 April 2024, paragraphs 4.23–4.24.

²²⁰ FMN, paragraph 7.

²²¹ Parties' response to the Issues Letter, 11 April 2024, paragraph 4.25.

²²² Parties' response to the Issues Letter, 11 April 2024, paragraphs 4.21–4.23.

²²³ The Parties submit that the SPA provisions were signed off at the highest levels of each organisation before the CMA's merger inquiry began, and therefore provide clear evidence that the Merged Entity had no intention to pursue a foreclosure strategy.

²²⁴ FMN, paragraphs 19.20–19.23.

strong position in the DJ software market is strengthened by the acquisition of Serato DJ.

6.3.5.1.1.2 *Merged Entity's strength in the supply of DJ hardware*

127. The CMA has considered ATC's position in the DJ hardware market and how closely it competes with DJ hardware rivals. As set out in the CMA's Merger Assessment Guidelines, the potential gain from a foreclosure strategy will be greater if the Merged Entity has a more successful DJ hardware offering, and if this competes closely with the rivals that may be foreclosed.²²⁵
128. The CMA found that ATC has a strong position in DJ hardware and competes closely with DJ hardware rivals. In particular:
- (a) ATC is the largest provider (both in volume and value terms) for each type of hardware, as well as in the aggregate across all hardware types (see Table 2 below).²²⁶ The next largest competitor is significantly smaller (ie less than half of ATC's size) for all four hardware types.²²⁷ ATC is also one of only two DJ hardware providers (inMusic being the other) supplying all four types of hardware, and ATC's share of supply is significantly larger than inMusic for each type of hardware.
 - (b) Third-party evidence received by the CMA indicated that, for each hardware type, ATC is a 'close' or 'very close' competitor for DJ hardware rivals;²²⁸
 - (c) ATC's ownership of rekordbox—the most significant rival to Serato DJ—makes ATC hardware an even more attractive offering for DJ's to switch to.

²²⁵ [CMA129](#), paragraph 7.19 (b).

²²⁶ Data from DJ Census (Annex 47, Annex 48 and Annex 49 to the FMN) also confirms that ATC supplied more than half of all DJ hardware globally in each year from 2021 to 2023.

²²⁷ The CMA notes that a similar pattern of relative shares—ie high shares for ATC and the next largest competitor being significantly smaller—is broadly consistent for UK only shares as well.

²²⁸ Response to the CMA questionnaire from a number of third-parties, March 2024, question 7.

Table 2: Shares of supply globally for DJ hardware (2023)

	All hardware ²²⁹		All-in-ones		DJ players ²³⁰		Mixers		Controllers	
	Vol (%)	Val (%)	Vol (%)	Val (%)	Vol (%)	Val (%)	Vol (%)	Val (%)	Vol (%)	Val (%)
ATC	[50-60]%	[60-70]%	[60-70]%	[80-90]%	[90-100]%	[90-100]%	[40-50]%	[60-70]%	[40-50]%	[50-60]%
inMusic	[10-20]%	[10-20]%	[30-40]%	[10-20]%	[5-10]%	[0-5]%	[20-30]%	[5-10]%	[10-20]%	[10-20]%
Traktor	[5-10]%	[5-10]%	-	-	-	-	[5-10]%	[10-20]%	[5-10]%	[10-20]%
Hercules	[10-20]%	[0-5]%	-	-	-	-	-	-	[10-20]%	[5-10]%
Roland	[0-5]%	[0-5]%	-	-	-	-	-	-	[0-5]%	[0-5]%
Reloop	[0-5]%	[0-5]%	-	-	-	-	[5-10]%	[0-5]%	[0-5]%	[0-5]%
Allen & Heath	[0-5]%	[0-5]%	-	-	-	-	[10-20]%	[5-10]%	[0-5]%	[0-5]%
Others	[5-10]%	[5-10]%	-	-	-	-	[5-10]%	[10-20]%	[5-10]%	[10-20]%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: CMA estimates based on data from the Parties, third parties, DJ Census (ie Annex 47, 48 and 49 to the FMN) and exchange rates from the Bank of England.

Notes: In a small number of cases where data is not available from DJ hardware providers, the CMA has used the shares for those hardware providers from DJ Census as a proxy for the shares of supply in the 'all hardware' category. The total volumes and value of sales implied by the DJ Census shares for these hardware providers are allocated to different hardware types using (i) information on the hardware types that the provider is active in; and (ii) the split of hardware type for the remaining DJ hardware market (ie based on actual data received by the CMA).

6.3.5.1.1.3 Merged Entity's strength in the supply of DJ software

129. The CMA has considered the Merged Entity's market power in DJ software and if it can engage in price discrimination or a targeted deterioration in the supply of DJ software. As set out in the CMA's Merger Assessment Guidelines, the loss in the supply of DJ software will be lower if the Merged Entity has market power in the supply of DJ software, and if it can engage in price discrimination or targeted deterioration in the supply of DJ software.²³¹

130. The CMA has found that:

- (a) The Merged Entity would have strong market power in the supply of DJ software globally. Serato is considered important for winning sales in the DJ hardware market (see paragraphs 99–102) and rekordbox is not a viable alternative for DJ hardware rivals (see paragraph 104). Moreover, the combined share of supply for Serato and rekordbox is greater than [50-60]%.²³²
- (b) As discussed in paragraphs 121, the Merged Entity has the ability to pursue a range of mechanisms to foreclose DJ hardware rivals, including the

²²⁹ 'All hardware' includes all-in-ones, DJ players, mixers, and controllers.

²³⁰ The CMA also recognises that there are a few small DJ player rivals (eg Gemini) which do not appear in the shares of supply. However, the CMA believes that the shares of these DJ player rivals would be minor and therefore not have a significant impact on the estimated shares of supply for ATC.

²³¹ [CMA129](#), paragraph 7.19 (c).

²³² See Table 1.

restriction or degradation of access to Serato for specific DJ hardware rivals, or for specific hardware types, or for specific types of purchases (eg standalone subscriptions of Serato versus access to Serato through hardware).²³³ This would enable to Merged Entity to target foreclosure strategies towards specific competitors or hardware types, where a foreclosure strategy may be more effective or profitable.

6.3.5.1.1.4 *Relative profitability of DJ hardware and DJ software*

131. The CMA has considered the information available on relative profitability and CDRs.²³⁴ The CMA has also considered how CDRs vary by type of customer groups and type of hardware. Specifically, this means considering different CDRs for:
- (a) different customer groups, based on how customers use Serato's DJ software, namely (i) Group A: Serato Pro included with hardware; (ii) Group B: standalone Serato Pro subscription;²³⁵ and
 - (b) different hardware types (ie all in ones, controllers, DJ players and mixers) as well as different sets of hardware within the same type (eg high and low margin controllers to reflect the fact that there is a high variation in the level of margin across different controllers).²³⁶
132. The CMA considers that although there are differences in CDR estimates between customer groups and hardware types, they are generally low. In particular, as shown in Table 3:
- (a) CDR estimates across all hardware categories range between [10-20]% and [30-40]%;
 - (b) Separate CDR estimates for all-in-ones, mixers and DJ players (ranging between [0-5]% and [20-30]% depending on customer group) are relatively lower than for controllers (ranging between [20-30]% and [50-60]%);

²³³ See paragraphs 118–121.

²³⁴ As set out at paragraph 124, CDRs represent the proportion of sales that need to be captured in the DJ hardware market for a foreclosure strategy to be profitable. If CDRs are lower than the customer switching that the Merged Entity could expect to capture, a foreclosure strategy is likely to be profitable.

²³⁵ The CMA has focussed on Serato Pro (which is paid software) in assessing incentives to foreclose competitors but notes that there is also another group that includes customers who can access Serato Lite (which is free) as part of their hardware purchase or as a standalone software purchase. Serato does not earn margins from standalone subscription customers of Serato Lite (which means that the CDR estimates for this group would be zero) and earns only a small royalty fee of [x<] from customers who access Serato Lite through hardware (which means that the CDR estimates for this group would be very low (ie [0-5]% or less depending on type of hardware)).

²³⁶ Based on data submitted by the Parties in Annex 164 of the FMN, product value is correlated with margin ie higher value products typically earn higher margins and vice versa.

- (c) For the higher margin controllers, CDRs are low (ranging between [10-20]% and [20-30]%). These controllers account for a large share of ATC's controller revenues (approximately [40-50]%).²³⁷

Table 3: CDRs customer groups and hardware type

	<i>Parties' estimates (CDRs using the unit weighted average margins)</i>	<i>Group A: Serato Pro included with hardware</i>	<i>Group B: standalone Serato Pro subscription</i>
All hardware categories	[30-40]%	[10-20]%	[30-40]%
All-in-one	[10-20]%	[5-10]%	[20-30]%
Controller	[60-70]%	[20-30]%	[50-60]%
High margin controllers	NA	[10-20]%	[20-30]%
Low margin controllers	NA	[40-50]%	[60-70]%
2DJ player + mixer	[5-10]%	[0-5]%	[0-5]%
Mixer	[10-20]%	[5-10]%	[10-20]%

Source: Parties' estimates: Tab 'Foreclosing DJ hardware', Annex 164, Final Merger Notice; CDRs for Group A, and Group B: CMA estimates using data provided by the Parties in Annex 164, Final Merger Notice.

133. The CMA considers that the Parties' estimates are based on assumptions that inflate average CDRs.²³⁸ Notwithstanding these issues, the CMA considers that even the CDR estimates based on the Parties' own methodology are also low.
134. The CMA considers that the proportion of customers that the Parties could expect to capture is likely to be higher than the CDRs. This is because:
- (a) As set out in paragraph 109 above, evidence indicates that the costs of switching DJ software are high, and higher than the costs of switching DJ hardware. This suggests that that a large proportion of end-customers would be likely to switch DJ hardware in order to maintain access to Serato DJ.
 - (b) ATC has a strong position in the supply of DJ hardware. As set out in Table 2 above, ATC supplies a significant share of DJ hardware—both in the aggregate as well as by hardware types—such that ATC's market share is higher than the corresponding CDRs.²³⁹ If switching is approximately in line with market shares, the Merged Entity would be able to recapture a greater proportion of sales than required as per CDRs for foreclosure to be profitable.²⁴⁰

²³⁷ Margins on controllers range between NZ\$ [30-40] and NZ\$ [60-70]. For the calculation of CDR estimates for higher margin controllers, controllers with a margin of NZ\$ [30-40] or more are considered relatively higher margin. Note that the data on margins is reported in NZ\$ instead of £ for ease of comparison with the Parties' submissions.

²³⁸ In calculating potential losses in the supply of DJ software, the Parties make the incorrect assumption that all customers purchase a standalone subscription of Serato Pro (when in fact, this should only apply to customers the CMA has assigned to Group B). Moreover, this standalone subscription is not accounted for in the corresponding gains for the customers who switch to ATC. This leads to relatively higher estimates of potential losses, which in turn leads to higher estimates of CDRs.

²³⁹ CDRs are highest for controllers and ATC's value market share (of [50-60]%) is in line with the CDR for controllers.

²⁴⁰ In the absence of direct evidence on customer switching between DJ hardware providers and given the relatively low levels of differentiation in each hardware market (as set out in paragraph 111), the relative reliability of market share estimates and the shares being broadly in line with other evidence on closeness of competition between hardware providers, the CMA considered this to be a reasonable assumption.

135. The CMA has considered the Parties' submission in relation to CDRs:
- (a) With regard to Parties' submissions that users of ATC DJ hardware are more likely to buy relatively more expensive hardware than users of non-ATC hardware,²⁴¹ the CMA considers this may (at least in part) be driven by differences in the type of hardware purchased by users of ATC hardware.²⁴² Moreover, even if users of non-ATC hardware purchased less expensive hardware, this does not imply (as the Parties suggest) that users would not switch to the relatively more expensive hardware in order to maintain access to Serato DJ.²⁴³
 - (b) The CMA has not received evidence to suggest that a foreclosure strategy aimed at expensive controllers would lead to a credible retaliation strategy from rival DJ hardware providers who may cease to pay royalties for cheaper controllers. Instead, as set out in paragraphs 99–102, DJ hardware rivals consider Serato important for hardware sales and there is no evidence that this retaliation strategy would be profitable.
 - (c) In relation to the Parties' submissions that a foreclosure strategy would lead to a shrinkage of the DJ hardware and software markets, the CMA has not seen any evidence to indicate that users would exit the market in response to a foreclosure strategy. A foreclosure strategy may reduce innovation and quality of DJ products, but it is not likely to drive users out of the market.²⁴⁴

6.3.5.1.1.5 *Other costs and benefits*

136. The CMA has considered the Parties' submissions in relation to (i) the potential financial and reputational damage from a foreclosure strategy; and (ii) contractual protections provided by the SPA.
137. In relation to the Parties' submissions on the potential financial impact on the share price of ATC's parent company, the CMA notes that Noritsu Koki Co., Ltd is a Japanese conglomerate with interests in several industries. The CMA does not consider that the available evidence suggests a foreclosure strategy would reduce ATC's earnings. Neither has the CMA seen evidence to indicate that the share

²⁴¹ Paragraph 175 and Table 3.6, Annex 116 to the FMN.

²⁴² Although Table 3.7 Annex 116 to the FMN splits minimum and maximum prices by hardware type, as set out in the notes to Table 3.7, these are neither complete nor like for like. The CMA also considers this type of analysis to be limited in the extent to which it reflects actual price differences.

²⁴³ The CMA notes the Parties' submissions of CDR estimates based on the cheapest hardware available for each hardware type (Annex 116 to the FMN). The CMA does not consider these CDR estimates to be informative. Even if prices of ATC hardware were relatively higher than prices of hardware sold by ATC's rivals (which the CMA does not confirm based on the evidence it has received), it does not follow that customers would purchase the cheapest available hardware (rather than hardware that is relatively cheaper).

²⁴⁴ The available evidence (as described at paragraph 128(a)) suggests that it is important for users to maintain access to DJ software (eg Serato and rekordbox) and ATC has a strong position in the supply of DJ hardware. In response to a foreclosure strategy, users are therefore more likely to switch to ATC's DJ hardware to maintain access to Serato, rather than stop using DJ software and hardware altogether.

price of Noritsu Koki Co., Ltd will be particularly susceptible to variations in one subsidiary's, ATC's, earnings. Further, share prices may be volatile and, as such, could increase if the Parties implement a successful foreclosure strategy.

138. The CMA does not consider that any reputational damage the Merged Entity may face would be significant enough to prevent it from engaging in a foreclosure strategy. The Merged Entity holds a strong position in the market for DJ hardware (as set out in Table 2 above) and DJ software (as set out in paragraphs 112 above) and it is unlikely that customers would switch away from the Merged Entity's DJ solutions due to any reputational issues associated with a foreclosure strategy given the limited alternatives that would exist for them post-Merger.
139. The CMA has placed limited weight on contractual protections (eg those provided by the SPA).²⁴⁵ The contractual provisions may not be interpreted and applied in a way that prevents all forms of harm. For example, the parties to the SPA may disagree on whether certain foreclosure mechanisms [X] or amount to a breach of ATC's obligation to [X] and use [X]. As a result, it may be difficult for the sellers to enforce the provisions. Such provisions may also be renegotiated or set aside based on the parties' respective bargaining powers. In addition, any potential protection offered by the SPA would be time limited.

6.3.5.1.2 CMA's conclusion on incentive

140. The CMA considers that the Merged Entity would have the incentive to foreclose DJ hardware rivals. The CDRs needed to make a foreclosure strategy profitable are low and well below ATC's market share across all four types of hardware (with the exception for lower-value controllers). The strong position of Serato in the supply of DJ software; the importance of compatibility with DJ software for DJ hardware rivals; and the high costs of switching DJ software for DJ customers together mean that the Merged Entity would be able to minimise losses in the supply of DJ software. Given this, the Merged Entity would be likely to capture a significant share of customer diversion and make significant gains from foreclosure to offset any losses.

6.3.6 Effect

141. Competition concerns may be particularly likely to arise if one of the merger firms has a degree of pre-existing market power, and already faced limited competitive constraints pre-merger²⁴⁶ (see discussion and Table 2 above).
142. The CMA considers that if the Merged Entity engaged in foreclosure, it would undermine the ability of ATC's DJ hardware rivals whose products are currently

²⁴⁵ [CMA129](#), paragraph 7.15.

²⁴⁶ [CMA129](#), paragraph 7.21.

used by DJs together with Serato DJ to compete. This range of rivals currently provide an important competitive constraint for ATC within and across the different types of DJ hardware, including on the price and quality of DJ hardware in the market overall. For some types of DJ hardware (all-in-ones and DJ players), ATC only faces competition from one sizable competitor, and as such any loss of that rivals' ability to compete could result in a significant weakening of the constraint on ATC. Therefore, the effect of the Merged Entity engaging in foreclosure would likely be to harm competition overall across all the DJ hardware types, leading to increased prices, reduced quality and less choice for end-users.

6.3.7 Conclusion on Theory of Harm 2

143. For the reasons set out above, the CMA believes that the Merged Entity would have the ability and incentive to foreclose ATC's rivals in four categories of DJ hardware—controllers, all-in-ones, mixers and DJ players—. The removal or degradation of compatibility with Serato would have a significant impact on the competitiveness of ATC's hardware rivals because of the importance DJ software, and in particular Serato DJ to DJs. The CMA believes that there are limited alternative DJ software options available to users of ATC's rivals in DJ hardware. The CMA also considers that the Merged Entity would have the incentive to pursue a foreclosure strategy, especially given ATC's strong position in the supply of DJ hardware and the high relative profitability of DJ hardware (where it could gain sales as a result) compared to DJ software (where it risks losing sales). The CMA considers that this would reduce overall competition across the four types of DJ hardware (namely controllers, mixers, all-in-ones and DJ players). The CMA considers that this would reduce overall competition across the four types of DJ hardware (namely controllers, mixers, all-in-ones and DJ players).

6.3.8 Theory of Harm 3: Non-horizontal effects in DJ hardware globally arising from the exchange of commercially sensitive information

144. Under this theory of harm, a concern would arise if following the Merger, the Merged Entity is able to gain access to commercially sensitive information (**CSI**) relating to the activities of its DJ hardware competitors, resulting in reduced competition in the supply of DJ hardware globally. For example, the Merged Entity could use the CSI to compete less aggressively in the development and innovation of these products, or otherwise put its rivals at a competitive disadvantage and/or reduce competitors' incentives to compete with the Merged Entity.²⁴⁷

145. In assessing this concern, the CMA considered:

²⁴⁷ [CMA129](#), paragraph 7.3.

- (a) the extent and nature of CSI currently shared with Serato by ATC's DJ hardware rival competitors;
- (b) whether post-Merger ATC would have access to the CSI of its DJ hardware competitors that it would not have had absent the Merger;
- (c) whether the Merged Entity would be less incentivised to innovate as it would be better informed about rivals' product developments; and
- (d) whether DJ hardware rivals would be less incentivised to innovate owing to the deterioration of their first mover advantage, or disincentivised to share CSI with the Merged Entity, to their competitive disadvantage.

146. As explained at the section 'DJ hardware market: segmentation by type of hardware', the CMA has distinguished between controllers, mixers, all-in-ones and DJ players in its market definition. There are nevertheless common elements between them that are relevant to the CMA's assessment (namely, the importance of DJ software to these hardware types' competitiveness, as discussed at paragraph 114). Third party feedback in relation to this theory of harm did not make observations applicable to a specific DJ hardware type within the four hardware types considered. Consequently, the CMA has structured its analysis below based on the categories of evidence outlined in paragraph 145 above, without distinguishing the effects as between each DJ hardware type.

6.3.8.1 *Nature and extent of CSI shared with Serato*

147. Serato submitted that its partnership arrangements with DJ hardware manufacturers involves these partners providing Serato with various types of confidential information, including design, technical and financial information, as well as prototype hardware.²⁴⁸ A number of Serato's DJ hardware manufacturing partners (including ATC) confirmed that they share CSI at different stages of the hardware development process and product life cycle. This CSI includes sketches, forecasts, business plans, drawings and designs, prototypes and specifications, firmware, and estimated unit sales. The majority of these partners (all bar ATC) indicated that the information shared is significant and highly confidential.²⁴⁹ A DJ hardware manufacturer that does not currently partner with Serato indicated that if it were to work with Serato on a new product, it would need to show Serato concepts and design prior to launch, which it considers to be CSI.²⁵⁰

²⁴⁸ Annex 173 to the FMN, 'Serato's response to the CMA's section 109 notice', 2 February 2024, question 6 and Parties' response to the CMA's RFI 4, 2 February 2024, Table A.

²⁴⁹ Third party response to the CMA's RFI, 11 December 2023, question 4. Response to the CMA questionnaire from a number of third parties, March 2024, question 16.

²⁵⁰ Response to the CMA questionnaire from a third party, March 2024, question 16 and 17.

148. The CMA considers that, through Serato's partnerships with DJ hardware suppliers, Serato currently has access to significant CSI regarding ATC's DJ hardware competitors' products, including highly confidential information relating to innovation such as prototypes.

6.3.8.2 *Change to ATC's access to CSI post-Merger*

6.3.8.2.1 *Parties' submissions*

149. Serato submitted that it does not currently provide ATC with any CSI that it has received from other DJ hardware suppliers.²⁵¹ Serato indicated that DJ hardware suppliers are able to choose to limit and control the amount and depth of information, when this is provided, and to put in place other safeguards to comprehensively protect their proprietary data.²⁵²

150. ATC submitted that Serato would continue to operate as a standalone business post-Merger,²⁵³ and a number of measures will be put in place after closing to provide Serato's partners with additional comfort that there is no risk of Serato sharing CSI with ATC, including confidentiality protocols, non-disclosure agreements and ethical walls/firewalls.²⁵⁴ ATC indicated that if it were to use any CSI of rival DJ hardware post-Merger, this would cause significant reputational damage to Serato.²⁵⁵

151. Despite initially submitting that it did not share or receive the information it currently provides to Serato (such as prototypes, design, technical or financial information) with other DJ hardware suppliers,²⁵⁶ ATC later submitted that it does share some such information, and that the sharing of this information between competing DJ hardware suppliers is not a novel development post-Merger, and so the Merger would not therefore have any discernible impact on innovation in DJ hardware. For example, ATC noted that it shared information relating to its Pioneer hardware with Traktor, which is owned by Native Instruments (also a supplier of DJ hardware).²⁵⁷

6.3.8.2.2 *CMA's assessment*

152. The CMA places limited weight on the assurances that the Parties have given to third parties with respect to the protection of their CSI post-Merger, including the

²⁵¹ Parties' response to the CMA's RFI 4, 2 February 2024, question 1(b).

²⁵² Parties' response to the CMA's RFI 4, 2 February 2024, question 1(b) and footnote 3.

²⁵³ FMN, paragraph 20(c)(i).

²⁵⁴ FMN, paragraph 20(c)(iii) and Annex 174 to the FMN, 'ATC's response to the CMA's section 109 notice', 16 January 2024, question 8.

²⁵⁵ FMN, paragraph 20(c)(i).

²⁵⁶ Parties' response to the CMA's RFI 4, 2 February 2024, question 1(b) and Issues Meeting, 10 April 2024.

²⁵⁷ ATC also mentioned Rane (inMusic) and Allen & Heath as other examples of hardware manufacturers sharing CSI with competing manufacturers (Parties' response to the CMA's follow-up questions post-Issues Meeting, 15 April 2024, question 1).

confidentiality protocol, non-disclosure agreements and ethical walls/firewalls. The Parties have not provided details on the terms of ATC's non-disclosure agreements and how they would legally prevent information being shared within the same corporate group post-Merger.

153. In any case, the CMA considers that in practice such measures generally do not completely remove a firm's ability to harm its rivals, given that certain rivals might not be covered, the measures may not protect all ways in which the competitiveness of rivals could be harmed, and the measures may be of limited duration. Moreover, over time contracts may be renegotiated or terminated, and firms may waive their rights to enforce any breaches in light of their overall bargaining position (reflecting the change in market structure brought about by a merger).²⁵⁸
154. While ATC submitted that hardware manufacturers do sometimes share the types of information they provide Serato with other hardware manufacturers (for example, those that also own DJ software), it provided a limited number of examples of such exchanges,²⁵⁹ and it did not provide any details on the nature and extent of the information exchanged.
155. The CMA therefore considers that there will be a change to the CSI available to ATC as a result of the Merger, which will be mitigated only to a limited extent by ATC's proposed contractual protections and softer assurances.

6.3.8.3 *Impact on incentives and competition*

6.3.8.3.1 *Parties' submissions*

156. The Parties submitted that there is no risk that CSI could be used to undermine the competitiveness of other hardware suppliers, and in particular that:
 - (a) competitors would not refrain from sharing information or have a reduced incentive to innovate, due to the reassurances that the Parties are providing and will provide to Serato's partners (including protocols, non-disclosure agreements or the SPA);
 - (b) DJ hardware suppliers can unilaterally protect their information (eg by sequencing the information sharing or by launching a product without

²⁵⁸ [CMA129](#), paragraph 7.15.

²⁵⁹ ATC's response to Question 1 of the CMA RFI dated 10 April 2024 referred to four ATC hardware models from 2011 and 2020, and three third-party hardware models from 2012, 2015 and 2018.

Serato's integration and full involvement) and this would not make their products less attractive;²⁶⁰ and

- (c) sensitive information of high strategic value is minimal, and therefore if ATC were to receive this information, any benefit would likely be very limited.²⁶¹ Of the information it receives, Serato submitted that only the prototypes of new DJ hardware products are highly confidential, and these can be provided very late in the process.²⁶² Serato further submitted that it would be exceedingly risky if ATC were to wait until it accessed these prototypes before innovating on its own.²⁶³ In this regard, the Parties estimated that it had taken inMusic five years to release a mixer with similar features to an ATC one.²⁶⁴

6.3.8.3.2 CMA's assessment

157. All of Serato's hardware manufacturing partners which responded to the CMA's questionnaire confirmed that they share CSI with Serato during the product development process, indicating the significant commercial importance of pre-launch integration.²⁶⁵ These hardware partners confirmed that their CSI, including prototypes, is shared with Serato far in advance (up to one or two years ahead of product launch) and throughout the planning and development process.²⁶⁶ One of these partners indicated that two years would be sufficient time for the Merged Entity to take advantage by replicating design features.²⁶⁷
158. The CMA believes that its findings that Serato has market power in DJ software and that integration with Serato DJ is important for DJ hardware's competitiveness (discussed above in paragraphs 100–107) do not align with the Parties' submission that integration with Serato DJ is not important.²⁶⁸ In fact, the CMA considers that the sharing of CSI facilitates the current level of interoperability and integration and that this is important for maintaining DJ hardware providers' competitiveness.

²⁶⁰ Parties' response to the CMA's RFI 4, 2 February 2024, question 1(e). See also Parties' response to the Issues Letter, 11 April 2024, paragraphs 6.6–6.8 and 6.12–6.14. The Parties submitted that when Serato is not integrated with DJ hardware pre-launch, it can be integrated in around 2 months post-launch (although did not address Serato's incentives to do so post-Merger).

²⁶¹ Parties' response to the CMA's RFI 4, 2 February 2024, question 1(a).

²⁶² Parties' response to the CMA's RFI 4, 2 February 2024, question 1(c). See also Parties' response to the Issues Letter, 11 April 2024, paragraph 6.3. The Parties submitted that additional information is shared 'for additional design input' – see Issues Letter Response, paragraph 6.4. Serato does not consider that visual design, technical and financial information that Serato receives from DJ hardware manufacturers are important for DJ hardware innovations.

²⁶³ Parties' response to the CMA's RFI 4, 2 February 2024, question 1(d). See also Parties' response to the Issues Letter, 11 April 2024, paragraphs 6.10–6.11.

²⁶⁴ Parties' response to the Issues Letter, 11 April 2024, paragraph 6.11.

²⁶⁵ The Parties also referred to the 'attractiveness' of at-launch integration with Serato: see Parties' response to the Issues Letter, 11 April 2024, paragraph 6.8.

²⁶⁶ Response to the CMA questionnaire from a number of third parties, March 2024, question 16.

²⁶⁷ Third party response to the CMA's RFI, 11 December 2023, question 14.

²⁶⁸ Parties' response to the Issues Letter, 11 April 2024, paragraph 4.9.

159. Additionally, almost all DJ hardware manufacturers that responded to the CMA's questionnaire²⁶⁹ indicated that if ATC had access to their CSI, it would greatly impact their incentives to develop new hardware products and improve existing ones.²⁷⁰ The key reasons listed by third-party DJ hardware manufactures for their concerns were that:
- (a) new functions could be shared, blocked, artificially delayed or overtaken by ATC;²⁷¹
 - (b) DJ hardware rivals could lose their first-mover advantage;²⁷² and
 - (c) knowing the release schedule of new products could give the Merged Entity an unfair advantage and the opportunity to release sooner, react quickly to the timing of product releases, or affect the release timings by prioritising ATC's own products.²⁷³
160. As well as impacting DJ hardware manufacturers who currently partner with Serato, the Merger could also affect future partnerships, potentially making expansion for these rivals more difficult. One hardware manufacturer which does not currently partner with Serato said that ATC having access to its CSI through Serato post-Merger would 'greatly affect' any plans to develop new products compatible with Serato, which limits their ability to sell into markets where this compatibility is important.²⁷⁴
161. Additional feedback from a number of DJs that responded to the CMA's invitation to comment indicated that the Merger would lead to DJ hardware manufacturers having two main options: (i) sharing pre-production version of their hardware or ideas that might be novel and innovative with their main DJ hardware competitor while still in the development phase; or (ii) forego a partnership and trying to develop their own DJ software meaning that some of the smaller companies would not survive.²⁷⁵
162. The third-party evidence gathered by the CMA indicates that innovation is an important parameter of competition in the DJ hardware market.²⁷⁶ The CMA

²⁶⁹ In addition, a number of respondents to the CMA's invitation to comment mentioned that if ATC had access to DJ hardware manufacturers' CSI, it would have an impact on DJ hardware innovation.

²⁷⁰ For example, one third party indicated that the uncertainty brought about by the Merger has already halted innovation. See also the response to the CMA questionnaire from a number of third parties, March 2024, question 12.

²⁷¹ Response to the CMA questionnaire from a third party, March 2024, question 16. Response to the CMA questionnaire from a number of third parties, March 2024, question 17. Submission to the CMA from a third party, August 2023, page 11.

²⁷² Response to the CMA questionnaire from a third party, March 2024, question 17.

²⁷³ Response to the CMA's Invitation to comment, from a third party, February 2024. Third party response to the CMA's RFI, 11 December 2023, question 14.

²⁷⁴ Response to the CMA questionnaire from a third party, March 2024, questions 17–18.

²⁷⁵ Response to the CMA's Invitation to comment, from a number of third parties, February 2024.

²⁷⁶ The majority of respondents to the CMA's questionnaire indicated that innovation is an important or very important parameter of competition in the DJ hardware market. (Response to the CMA's questionnaire from a number of third parties, March 2024, question 6. See also 114(a) above.

considers that there are two possible ways in which the exchange of CSI could result in a lessening of competition in the DJ hardware market post-Merger.

163. First, DJ hardware rivals whose products are used by DJs together with Serato DJ to compete might have less incentive to innovate post-Merger or share less CSI in relation to their innovations post-Merger, reducing quality. In particular, DJ hardware rivals might anticipate that ATC would use their CSI to respond more rapidly with its own product improvements. This could mean that rivals could lose their first-mover advantage, which in turn could reduce their incentives to innovate. Because of Serato's importance in DJ software, this could result in lower quality products and less innovation in the DJ hardware market overall. As explained in paragraph 142 above, for some types of DJ hardware (all-in-ones and DJ players), ATC only faces competition from one sizable competitor, and as such any loss of innovation from that rival could result in a significant weakening of the constraint on ATC.
164. Second, the Merged Entity may have a reduced incentive to innovate and compete across the different types of DJ hardware because its products would need to be only marginally better than its rivals' products to compete with them effectively. If DJ hardware rivals do not change their behaviour and continue providing CSI to the Merged Entity, the Merged Entity would have advance knowledge of its competitors' rollout of future products and could use this information to slow down its own innovation as a response, and to provide products that are only marginally better than its rivals' products. This may result in the Merged Entity offering less competitive and innovative products compared to the position absent the Merger.
165. If DJ hardware competitors decided to terminate their relationship with Serato for any new product innovations, this would have a similar effect as the total foreclosure strategy for new products in Theory of Harm 2.

6.3.9 Conclusion on Theory of Harm 3

166. For the reasons set out above, the CMA found that post-Merger, DJ hardware competitors may be disincentivised to innovate or to share CSI with the Merged Entity, to their competitive disadvantage. Even if they continue to provide CSI to the Merged Entity post-Merger, this could reduce ATC's incentive to innovate and compete as strongly as it did prior to the Merger. In addition, the evidence indicates that any effect on competition as a result of the exchange of CSI could be substantial because of ATC's existing position in the supply of DJ hardware and the importance of Serato's software to DJ hardware rivals. If DJ hardware rivals shared less CSI and reduced their innovation levels, this would result in lower quality products and a loss of competition in DJ hardware.

167. Therefore, the CMA found that the Merger raises significant competition concerns as a result of non-horizontal effects arising in four categories of DJ hardware globally—controllers, all-in-ones, mixers and DJ players—from the exchange of CSI.

7. ENTRY AND EXPANSION

168. Entry, or expansion of existing firms, can mitigate the initial effect of a merger on competition, and in some cases may mean that there is no SLC. The CMA will consider entry and/or expansion plans of rivals who do so in direct response to the merger as a countervailing measure that could prevent an SLC. In assessing whether entry or expansion might prevent an SLC, the CMA considers whether such entry or expansion would be timely, likely and sufficient.²⁷⁷

7.1 DJ software

7.1.1 The Parties' submissions

169. The Parties submitted that barriers to entry and expansion for the supply of DJ software are low, as such software can be developed relatively quickly and at low cost.²⁷⁸ The Parties submitted that these barriers are particularly low for existing suppliers of DJ apps or music production software who can leverage their technical and industry expertise.²⁷⁹

170. The Parties provided examples of recent entrants over the past five years such as DJ it!, DJ Music Mixer and Beatport DJ.²⁸⁰

7.1.2 CMA assessment

171. When considering claims of entry or expansion, the CMA considers the robustness of the evidence on timeliness, likelihood and sufficiency. Given the inherent uncertainty in this type of assessment, the CMA is likely to place greater weight on detailed considerations.²⁸¹

172. The evidence indicates that barriers to entry and expansion are relatively high. The Parties' internal documents identify the following barriers to entry: financial barriers (such as significant investment to develop, market and maintain competitive products); technical barriers; and reputational barriers.²⁸² One Serato

²⁷⁷ [CMA129](#), paragraph 8.31.

²⁷⁸ FMN, paragraph 21.1.

²⁷⁹ FMN, paragraph 21.1.

²⁸⁰ FMN, paragraph 22.1.

²⁸¹ [CMA129](#), paragraph 8.30.

²⁸² See ATC Internal Document, Annex 50 to the FMN (produced by Maia Research), 'Global DJ Software Industry Research Report 2023, Competitive Landscape, Market Size, Regional Status and Prospect', 2023, pages 20–21, where technical barriers include software development and integration with hardware; and reputational barriers include earning

document recognises that there are also other barriers to expansion, such as product and brand expertise and industry knowledge.²⁸³ In addition, another Serato document notes that the DJ industry is becoming more static, indicating a lack of entry and expansion.²⁸⁴

173. DJ software suppliers submitted that new entrants may face high financial costs in resourcing the technical expertise required to develop and maintain high quality DJ software,²⁸⁵ and the majority of these suppliers also submitted that brand loyalty and reputation are important factors for market entry and expansion. Whilst a third party recognised that rekordbox was a successful entry in 2009, this was seen as due to having leveraged the loyalty and reputation of ATC DJ hardware customers.²⁸⁶ Some third parties also mentioned that establishing a relationship with hardware manufacturers would also act as a barrier to entry or expansion in the market, given the prevalence of exclusive bundling of software and hardware products.²⁸⁷
174. As mentioned at paragraph 137, levels of switching are low in the DJ software market because customers are sticky, with the majority of third parties agreeing with this.²⁸⁸ Also as discussed at paragraphs 83–86 above, the CMA considers that DJ apps pose a limited competitive constraint. In terms of the nascent competitors that the Parties submitted, in particular, DJit!, DJ Music Mixer and Beatport DJ, the CMA has found no evidence that they pose any constraint (either individually or in aggregate).²⁸⁹
175. Finally, as is clear from the evidence discussed in Theory of Harm 1, the evidence does not indicate that any of the entrants cited by the Parties play a significant role in the market.
176. For the reasons set out above, the CMA considers that entry or expansion in DJ software would not be timely, likely and sufficient enough to prevent a realistic prospect of an SLC as a result of the Merger.

customer trust and building a positive brand image. See also Serato Internal Documents, Annex 278 to the FMN, [redacted], slides 90–92; Annex 365 to the FMN, [redacted], November 2023, slide 16.

²⁸³ Serato Internal Document, Annex 278 to the FMN, [redacted], March 2023, slides 90–92.

²⁸⁴ Serato Internal Document, Annex 90 to the FMN, [redacted], December 2019, pages 8 and 12.

²⁸⁵ Response to the CMA questionnaire from a number of third parties, March 2024, question 13.

²⁸⁶ Submission to the CMA from a third party, August 2023, page 4. Response to the CMA questionnaire from a number of third parties, March 2024, question 13.

²⁸⁷ Response to the CMA questionnaire from a number of third parties, March 2024, question 13.

²⁸⁸ Response to the CMA questionnaire from a number of third parties, March 2024, question 13.

²⁸⁹ FMN, paragraph 22.1.

7.2 DJ hardware

7.2.1 The Parties' submissions

177. The Parties submitted that the barriers to entry and expansion for the supply of DJ hardware are not significant, given that the technical expertise, financial investment and time required are feasible and realistic.²⁹⁰ These barriers would be even lower for existing suppliers of DJ software or music production software or hardware that can leverage their technical and industry expertise.²⁹¹
178. The Parties provided examples of recent entrants such as Musignal and Next Beast by Tiesto.²⁹²

7.2.2 CMA assessment

179. As explained in paragraph 171, the CMA typically places greater weight on detailed considerations of entry and expansion, including specific examples supported by robust evidence on timeliness, likelihood and sufficiency.
180. The evidence indicates that overall, barriers to entry and expansion are high. One Serato document shows that, in the context of considering how the name change from Pioneer DJ to AlphaTheta could affect sales of Serato-branded DJ hardware, Serato recognises the importance of brand reputation in the DJ hardware market, with references to Pioneer DJ as the most iconic and valuable brand in the DJ hardware space.²⁹³ DJ hardware rivals submitted that companies considering entering or expanding into the supply of DJ hardware would be required to make a significant financial investment and access technical expertise over an extended time period to establish themselves in the consolidated market.²⁹⁴ Almost all DJ hardware suppliers submitted that brand awareness and reputation play an important role in competition in DJ hardware,²⁹⁵ and some mentioned that having an established relationship with DJ software suppliers (in particular Serato) is key.²⁹⁶ In terms of potential new entrants that the Parties submitted, including Musignal Inc. and Next Beat by Tiesto, the CMA has found no evidence to indicate that these entrants are posing a competitive constraint in the DJ hardware market (either individually or in aggregate).

²⁹⁰ FMN, paragraph 22.3.

²⁹¹ FMN, paragraph 22.3.

²⁹² FMN, paragraph 22.4.

²⁹³ Serato Internal Document, Annex 396 to the FMN, [§<], October 2023, slide 3.

²⁹⁴ Note of a call with a third party, December 2023, paragraph 13, 14, 36; and response to the CMA questionnaire from a number of third parties, March 2024, question 15.

²⁹⁵ Note of a call with a third party, December 2023, paragraph 5 and 12; and response to the CMA questionnaire from a number of third parties, March 2024, question 15.

²⁹⁶ Response to the CMA questionnaire from a number of third parties, March 2024, question 15.

181. Therefore, in particular because of the financial and technical investment and the reputational barriers, the CMA did not consider that entry or expansion in DJ hardware would be timely, likely and sufficient enough to prevent a realistic prospect of an SLC as a result of the Merger.

8. CONCLUSION ON SUBSTANTIAL LESSENING OF COMPETITION

182. Based on the evidence set out above, the CMA believes that it is or may be the case that the Merger may be expected to give rise to an SLC as a result of:

- (a) Horizontal unilateral effects in the supply of DJ software globally;
- (b) Foreclosure of DJ hardware rivals in the supply of controllers, mixers, DJ players and all-in-one systems respectively globally through leveraging the Merged Entity's market position in the supply of DJ software; and
- (c) Non-horizontal effects in the supply of controllers, mixers, DJ players and all-in-one systems respectively globally arising from the exchange of commercially sensitive information.

DECISION

183. Consequently, the CMA believes that it is or may be the case that (i) arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation; and (ii) the creation of that situation may be expected to result in an SLC within a market or markets in the United Kingdom.
184. The CMA therefore believes that it is under a duty to refer under section 33(1) of the Act. However, the duty to refer is not exercised whilst the CMA is considering whether to accept undertakings under section 73 of the Act instead of making such a reference.²⁹⁷ The Parties have until 9 May 2024²⁹⁸ to offer an undertaking to the CMA.²⁹⁹ The CMA will refer the Merger for a phase 2 investigation³⁰⁰ if the Parties do not offer an undertaking by this date; if the Parties indicate before this date that they do not wish to offer an undertaking; or if the CMA decides³⁰¹ by 16 May 2024 that there are no reasonable grounds for believing that it might accept the undertaking offered by the Parties, or a modified version of it.

Joel Bamford
Executive Director, Mergers
Competition and Markets Authority
1 May 2024

²⁹⁷ Section [33\(3\)\(b\)](#) of the Act.

²⁹⁸ Section [73A\(1\)](#) of the Act.

²⁹⁹ Section [73\(2\)](#) of the Act.

³⁰⁰ Sections [33\(1\)](#) and [34ZA\(2\)](#) of the Act.

³⁰¹ Section [73A\(2\)](#) of the Act.