Invitation to comment: SMS investigations into mobile ecosystems
Meta response

1. Introduction

1.1. This submission provides Meta's response to the UK Competition and Market Authority's (**CMA**) Invitation to Comment (**ITC**) in relation to its strategic market status (**SMS**) investigations into mobile ecosystems.

1.2. As noted in the Invitation to Comment,[1] the Digital Market Unit's (**DMU**) SMS investigations into mobile ecosystems will build on the CMA's prior work in this area - including the CMA's mobile ecosystems market study (**MEMS**),[2] the investigation into Apple App Store under the Competition Act 1998,[3] and the ongoing market investigation into mobile browsers and cloud gaming (the **MBCG Market Investigation**).[4]

1.3. Meta expects that the DMU's SMS investigations into mobile ecosystems will be directly informed by the evidence and recommendations arising from the CMA's previous inquiries, and welcomes the opportunity to contribute to the further development of the CMA's thinking in these areas.

1.4. In this submission, Meta has focused on key areas where Apple's conduct in relation to mobile ecosystems is harming competition, innovation and user choice.

1.5. Meta hopes that this submission is helpful, and would welcome the opportunity to provide further inputs or clarifications to the CMA as it commences these investigations.

2. Device interoperability

2.1. In the MEMS final report (**MEMS Final Report**), the CMA found that "*users consider it is important that their mobile device works with a range of other devices that they have, either other mobile devices or 'connected' devices such as smart watches.*"[5] Similarly, a recent survey found that 80% of current smartwatch owners cited compatibility with other devices (i.e., smartphones) as an extremely or very important factor in their smartwatch purchase decisions.[6]

2.2. Meta has serious concerns about the ways in which Apple leverages its control over the iOS ecosystem to prevent effective competition with its own wearable devices. A key mechanism by which Apple prevents effective competition from third-party (**3P**)

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1 Invitation to Comment, paras. 30-36.
2 CMA case page here: Mobile ecosystems market study - GOV.UK.
3 CMA case page here: Investigation into Apple AppStore - GOV.UKMobile browsers and cloud gaming - GOV.UK.
4 CMA case page here: Mobile browsers and cloud gaming - GOV.UK.
5 MEMS Final Report, para. 3.59.
6 Circana, Wearables Ownership Report, slide 45 (March 2024).

wearables is to deny them access, or provide them degraded access, to iOS features that are readily available to Apple's own wearables.

2.3. The smartphone is - and will remain for the foreseeable future - the gravitational centre of mobile computing, around which smartwatches, headphones and other wearables orbit.

2.4. Wearables, which typically have smaller batteries, weaker wireless antenna reception, and weaker processors than smartphones, rely on smartphones for key functionalities, including internet connectivity, computational offload, app functionality, and seamless setup. This reliance has afforded Apple the ability to deny or degrade 3P wearables' access to even basic iOS functionalities, while offering its own wearables unfettered, seamless access to the same. iPhone users with 3P wearables are naturally frustrated to discover that their wearables are unable to offer such basic functionalities. For instance:

2.4.1. Consumers expect their wearables to be ready to pair with their iPhones when they take them out of the box. Unlike Apple's own wearables, however, 3P wearables cannot offer consumers a seamless, out-of-the-box pairing experience because Apple denies 3Ps access to functionality that would allow iPhones to automatically detect 3P wearables and pair with those wearables over Bluetooth.

2.4.2. Consumers expect their wearables to be able to establish high-speed peer-to-peer connections with their iPhones. These connections would allow consumers to take video calls or send photos to their iPhones without their iPhones losing their existing WiFi connections, or consumers needing to take multiple actions on their phones. Apple allows its own devices, but not 3P devices, to form such connections. As a result, iPhone users with 3P wearable devices must open apps on their iPhones and click on pop-up screens each time they want to connect their iPhones to their non-Apple device.

2.4.3. Consumers expect to be able to respond to notifications on their wearables (e.g., reply to a message or accept a calendar invite), and to see associated thumbnails and attachments. But, in contrast to Apple's own wearables, Apple allows 3P wearables only to read, mute or dismiss notifications and does not allow users to respond to notifications on 3P wearables. Apple also withholds notification metadata needed to display thumbnails and attachments from 3P devices.

2.5. These restrictions imposed by Apple on 3P devices have effectively eliminated cross-platform competition for several categories of wearables. For example, the smartwatch space used to be highly competitive, but as a result of Apple's self-preferencing, smartwatch rivals (like Fossil[7]) have been unable to make any

[7] See: Fossil is quitting smartwatches | The Verge.

headway with iOS users, leaving Apple's own smartwatch to dominate sales. As a result, a staggering 78% of iPhone users who own a smartwatch today own the Apple Watch.[8]

2.6. The harmful impact of these restrictions on competition and innovation has been recognised by the CMA in its MEMS Final Report[9] and by the US Department of Justice (**DOJ**) in its lawsuit against Apple for monopolising smartphone markets.[10]

2.7. Going forward, Apple's incentive to thwart interoperability will only continue to grow as Apple introduces new categories of wearable devices.[11]

2.8. The CMA has previously identified interoperability with connected devices as a proposed area of intervention for the DMU - either via conduct requirements or pro-competition interventions.[12] The EU's experience in relation to interoperability indicates that a "ticketing system" - which requires 3Ps to identify and request access to iOS features available to Apple's wearables - is unlikely to promote effective interoperability.[13]

2.9. Instead, an effective intervention must require Apple to identify the iOS features available to its own wearables and to provide 3Ps, by a specified date, the APIs, protocols and other resources needed to access those iOS features.[14] By requiring Apple's wearables to access only those iOS features that Apple has enabled 3Ps to access, an effective intervention (unlike a ticketing system) would ensure that Apple is commercially incentivised to provide 3P wearables effective iOS interoperability.

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8 See: Apple's Device Ecosystem Multiplies its Brand Strength and Stickiness.

9 MEMS Final Report, para. 8.34: "*With regards to the availability and characteristics of other connected devices, our survey results show that this factor poses more significant barriers to switching, particularly for users switching from iOS to Android, with 44% of iOS Marginal Users stating that having other devices linked to their mobile device and operating system was a reason for not switching. This suggests that there is a good case that a requirement to maintain comparable interoperability between Apple's devices (eg the Apple Watch) and Android could bring significant benefits through making competition more effective and limiting the effect of ecosystem lock-in*."

10 21 March 2024 complaint, available here: Complaint: U.S. and Plaintiff States v. Apple Inc., paras 98 - 100.

11 For example, Apple launched its Vision Pro MR headset in February 2024. See: Apple Vision Pro - Apple (UK). Apple also reportedly plans to develop other wearables, including smart glasses and fitness rings. See: Apple Ponders Making New Wearables: AI Glasses, AirPods With Cameras, Smart Ring - Bloomberg.

12 MEMS Final Report, p. 337, table 8.1.

13 As of 31 August 2024, developers had submitted 88 feature requests through the ticketing system that Apple created in the EU. See Case DMA.100204, SP - Apple - Article 6(7) - Process, Commission Decision opening proceedings pursuant to Article 20(1) of Regulation (EU) 2022/1925 (19 September 2024), para. 16 (available here). As of 12 February 2025, it remains unclear whether Apple has allowed developers to access any of the requested iOS features.

14 This would be consistent with the approach that informed the remedies imposed in the *C-3/37.792 Microsoft* antitrust case (in the context of protocols used by Windows work group servers).

3. App Tracking Transparency (ATT)

3.1. In the MEMS Final Report, the CMA provided a detailed account of Apple's ATT framework. While the CMA recognised that initiatives that provide users "*greater control over the use of their personal data*" can bring privacy benefits,[15] it also expressed concerns regarding ATT's self-preferential implementation and its anticompetitive effects.

3.2. Specifically, the CMA expressed concern that, in implementing the ATT framework, Apple "*is not applying the same standards to itself as to third parties, and that consumers may not be making fully informed choices*."[16] The MEMS Final Report recognised both that the "Personalised Ads" prompt applicable to advertising within Apple's own apps employs a different choice architecture than the ATT prompt applicable to third party advertising,[17] and that Apple Ads Attribution API, which Apple makes available to users of its own advertising services, offers more timely and granular data than SKAdNetwork, the tool that Apple makes available to 3P developers and ad networks.[18]

3.3. The CMA expressed concern that Apple's self-preferential implementation of ATT "*is likely to result in harm to competition, make it harder for app developers to find customers and to monetise their apps, and ultimately harm consumers by increasing the prices or reducing the quality and variety of apps available to them.*"[19]

3.4. The CMA explained that these concerns could be addressed by a requirement that Apple "*not self-preference [its] own digital advertising [business] through the operation of [its] app store, including through [its] approach to privacy*".[20] This proscription against self-preferencing would, among other things, require Apple to "*apply a consistent set of design principles (ideally informed by user testing) to all user prompts on its platform that seek users' consent for the processing of their personal data for the purpose of serving targeted adverts,*" and to "*offer equivalent or more similar functionality via SKAdNetwork . . . as it offers via Apple Ads Attribution API, . . . including in terms of granularity of the data developers can access under each tool and timing for receiving such data*."[21]

3.5. The MEMS Final Report stated that the CMA intended to engage with Apple on these issues,[22] but today, two-and-a-half years after the report's publication, the competitive issues that the report identified remain entirely unaddressed.

3.6. In those intervening years, however, additional economic evidence has emerged of both ATT's discriminatory nature and its anticompetitive impact.

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15 MEMS Final Report, para. 8.188.
16 MEMS Final Report, para. 8.188.
17 MEMS Final Report, Appendix J, paras 116 - 119.
18 MEMS Final Report, para. 6.205 and Appendix J, paras. 146 - 157.
19 MEMS Final Report, para. 6.219.
20 MEMS Final Report, para. 8.164.
21 MEMS Final Report, para. 8.189.
22 MEMS Final Report, para 8.193.

3.7. For example, a study conducted by researchers at Meta, Carnegie Mellon University, and the University of Southern California found that prompts styled on Apple's Personalised Ads prompt could achieve significantly higher opt-in rates than those styled on the ATT prompt.[23] The study, involving 11,000 self-identified iPhone users in the US and UK, found that the former yielded opt-in rates more than twice as high as the latter yielded.

3.8. The same study casts doubt on Apple's claims that the ATT prompt provides users transparency into or control over use of their personal data. The study found that many iPhone users incorrectly believe that allowing "tracking" will share their phone's physical location, and that the misperception that opting-in will share the phone's location was far more prevalent - 9 percentage points higher - among study participants exposed to the ATT prompt than those exposed to Apple's Personalised Ads prompt.[24]

3.9. Another study conducted by economists at Meta, the University of California, Berkeley, and Northwestern University examined ATT's macroeconomic impact.[25] The study found that ATT, by reducing the effectiveness of ads, led to increased exit and decreased entry by businesses (especially small businesses), and also increased prices for consumers. Specifically, the study found that US industries that were more affected by ATT witnessed a 49% increase in net exit (defined as exits minus new entries) relative to industries that were less affected.[26]

3.10. The researchers compared their findings with industry-level data from the U.S. Bureau of Labor Statistics and the U.S. Census Bureau, concluding that industries more impacted by ATT saw a ~1% decrease in the overall number of businesses, and a 2.9% increase in prices, relative to less affected industries. Furthermore, this analysis likely underestimates ATT's full impact, as the analysis only compares industries that were *more* affected against industries that were *less* affected; it does not compare more affected industries to industries that were entirely *unaffected* by ATT. In other words, ATT almost certainly deterred entry and induced exit even in the industries that were less affected, but still impacted, by ATT.

3.11. As the harms identified in the MEMS Final Report remain unabated, even as evidence of these harms has grown, Meta submits that the DMU should, at minimum, require Apple to refrain from self-preferencing its own advertising business through the operation of its

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[23] BAVISKAR, Sagar; CHOWDHURY, Iffat; DEISENROTH, Daniel; LI, Beibei; SOKOL, D. Daniel. ATT vs. Personalized Ads: User's Data Sharing Choices Under Apple's Divergent Consent Strategies. USC CLASS Research Paper No. 24-26, June 28, 2024. Available at: ATT vs. Personalized Ads: User's Data Sharing Choices Under Apple's Divergent Consent Strategies by Sagar Baviskar, Iffat Chowdhury, Daniel Deisenroth, Beibei Li, D. Daniel Sokol :: SSRN. Accessed on: February 7, 2024.

[24] BAVISKAR, Sagar; CHOWDHURY, Iffat; DEISENROTH, Daniel; LI, Beibei; SOKOL, D. Daniel. ATT vs. Personalized Ads: User's Data Sharing Choices Under Apple's Divergent Consent Strategies. USC CLASS Research Paper No. 24-26, June 28, 2024. Available at: ATT vs. Personalized Ads: User's Data Sharing Choices Under Apple's Divergent Consent Strategies by Sagar Baviskar, Iffat Chowdhury, Daniel Deisenroth, Beibei Li, D. Daniel Sokol :: SSRN. Accessed on: February 7, 2024., para. 4.2.3..

[25] DEISENROTH, D.; MANJEER, U.; SOHAIL, Z.; TADELIS, S.; WERNERFELT, N. Digital Advertising and Market Structure: Implications for Privacy Regulation. July 2024. Available at: Digital Advertising and Market Structure: Implications for Privacy Regulation | NBER. Accessed on: February 7, 2024.

[26] The researchers deemed advertisers or industries as more (or less) affected by ATT based on the shares of their ad spend on Meta's ads platforms that was directed towards ATT opted-out users (as opposed to ATT opted-in users or users of non-iOS devices).

app store and to apply a common set of standards to its own and to third parties' advertising businesses, including with respect to the design of user prompts and the timeliness and granularity of ad-measurement data.

4. Other priority areas for DMU enforcement

Browsers and browser engines

4.1. The CMA has already examined Apple's anticompetitive behaviours in relation to browsers and browser engines in the course of its MBCG Market Investigation. Meta broadly agrees with the CMA's conclusions in its Provisional Decision Report, and would be happy to provide additional feedback as appropriate.

App distribution

4.2. If the CMA intends to explore ways of facilitating alternative app distribution channels on mobile ecosystems in the UK, Meta would be happy to further engage in this area.

5. Conclusion

5.1. This submission sets out the key aspects of Apple's conduct in relation to mobile ecosystems which Meta considers is harming competition, innovation and user choice, and which Meta submits that the DMU should prioritise as areas for potential intervention.

5.2. Meta is grateful for the opportunity to raise these important issues, and stands ready to engage with the CMA as appropriate.

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