CMA second update report on implementation of the Privacy Sandbox commitments

October 2022

Summary

1. This is the second CMA update report on implementation of the legally binding Commitments that Google made to address competition concerns that we identified in relation to its proposals to remove third party cookies from Chrome and replace them with alternative Privacy Sandbox tools (see **Annex 1**). This report aims to explain the progress made in the most recent reporting period and highlights areas of focus where potential concerns have been raised, including through feedback from the wider industry. At the end of this report, we include a number of specific questions where we would most value input.

2. This report is intended to build on our first report (published July 2022). We do not repeat points made in our first report unless they continue to raise issues that we intend to explore further. However, there is still a lot of work to be done, and we are aiming to provide as much transparency as we can in order to help the industry to navigate this complex and evolving process.

3. Based on the evidence we currently have available, we consider that from 1 July 2022 to 30 September 2022 (the relevant reporting period), Google has complied with the Commitments it has made. Google is reporting on the basis of calendar quarters, so any developments in October 2022 will be covered in Google's next quarterly report.

4. Based on all the work undertaken to date, and submissions / feedback that we have seen, our current overall priorities are:

   (a) Ensuring Google designs a robust testing framework for its proposed new tools and APIs. To effectively shape quantitative testing, we will be seeking feedback from market participants on the design of effectiveness testing;

   (b) Continuing to engage with market participants to understand concerns raised by them, challenging Google over its proposed approaches and

exploring alternative designs for the Privacy Sandbox tools which might address these issues; and

(c) Embedding the Technical Expert (S-RM) into the monitoring regime. The Technical Expert's role will be primarily analysing data access and flows within Google's systems, ensuring robust technical access controls and security are in place, and supporting the Monitoring Trustee by providing additional ad tech expertise.

5. We welcome further engagement from market participants, in particular those who have concerns about any element of the design or implementation of the Privacy Sandbox as set out in the Commitments. While it may not be possible for us to respond to each individual concern, by raising these points with us we are better able to monitor the development of the Privacy Sandbox and ensure that Google is meeting its legal obligations.

6. We have begun to reach out to many market participants already, including on the design of experiments to test the Privacy Sandbox tools, but would welcome any further views from the wider ecosystem. We are currently seeking to:

(a) encourage those who plan to eventually adopt and use the Privacy Sandbox technologies to engage with any testing they have the capability to carry out early;

(b) receive feedback on our plans for the assessment that will be outlined in a separate note on experimental designs to be published shortly, and understand stakeholders' capability to conduct quantitative tests.

7. We encourage you to share your feedback. Contact details are provided at the end of this report.

Dashboard

Dashboard: summary of CMA view on current position, July-September 2022

Relevant section of Commitments	Compliance	Level of focus by CMA[1]	Key actions during period	Summary of planned next steps
D - Transparency and consultation with third parties	**Compliant**	**Higher focus**	• More focused engagement with affected third parties including publishers and ad tech providers to explore areas of concern	• Engagement with market participants on quantitative testing and development of individual APIs (eg Topics) • Continuing to engage with a range of affected third parties to explore areas of concern
E - Involvement of the CMA in the Privacy Sandbox proposals	**Compliant**	**Higher focus**	• Continue to develop framework for testing and trialling • Continue to engage on design issues including approach to First Party Sets	• Continue to develop framework for testing and trialling • Continue to engage on design issues including approach to Topics • Bring in views from external experts and third parties
F - Standstill before the Removal of Third-Party Cookies	**Compliant**	**Lower focus (currently N/A)**	• None	• None
G - Google's use of data	**Compliant**	**Medium focus**	• Appointed Technical Expert	• Embedding the Technical Expert into monitoring regime • Preparing detailed roadmap of priorities for the Technical Expert
H - Non-discrimination	**Compliant**	**Medium focus**	• Appointed Technical Expert • Mass training of relevant Chrome and Google Ads staff on obligations under the commitments	• Embedding the Technical Expert into monitoring regime • Apply technical knowledge to monitoring artifacts and logs • Preparing detailed roadmap of priorities for the Technical Expert
I - Reporting and compliance	**Compliant**	**Lower focus**	• Completion of regular monitoring report(s)	• Google to continue demonstrating ongoing compliance • Prepare for next monitoring report(s)

Note: this is a summary, so it cannot provide comprehensive details on all topics

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[1] While we recognise that all aspects of the Commitments are important, this column is referring to the relative priorities of the CMA, and which have required a greater focus, during the course of the reporting period.

Progress during the most recent reporting period

Testing and trialling

8.   We have continued to work with Google during the period on possible ways to test the impact of the Privacy Sandbox APIs on advertising market outcomes. We have also begun to discuss approaches to testing with other market participants, including understanding their initial experiences of functional testing of the Privacy Sandbox tools as part of the current Origin Trials. We understand that the ramping up of the unified Origin Trial to 1% of Chrome stable traffic, which took effect on 11 August 2022, has been an important step in enabling market participants to carry out meaningful tests.

9.   Our discussions with Google and other market participants have particularly focused on:

   (a) Experimental approaches – how tests might be set up in order to be as representative as possible of the real-world impact of removing third party cookies and replacing them with the Privacy Sandbox tools;

   (b) Metrics that could be collected through the trials which would inform the CMA's assessment of effectiveness against the Design and Implementation criteria set out in the Commitments;

   (c) Timing of different phases of experimentation, given Google's planned timeline for introducing the Privacy Sandbox tools; and

   (d) Where appropriate, ways in which we might facilitate the coordination of testing with other third parties that plan to eventually test and adopt the Privacy Sandbox technologies to obtain a better understanding of overall market impacts, given that Google is only able to observe impacts for its own businesses.

10.   We intend to publish a note shortly to provide further detail on our proposed approach to experimentation and seek further views. This will include information on how Google plans to run experiments and facilitate third-party experiments and guidance on how stakeholders might replicate these or similar quantitative tests.

11.   Alongside developing these approaches to quantitative testing, we are also developing a broader framework for assessing the impact of the Privacy Sandbox changes at the Standstill period, including more qualitative forms of assessment. We will not be able to measure all the relevant impacts of the Privacy Sandbox changes through quantitative trials. Given the complexity of

the digital advertising market, we also anticipate that quantitative tests will have to be interpreted alongside of wider evidence on the impact of Privacy Sandbox including adoption and perceived effectiveness. As such, we intend to bring together broader forms of evidence, including evidence provided by other market participants, in reaching our overall assessment.

12. An important aspect of this wider evidence will be results of any quantitative tests carried out by third-party market participants. As far as possible, we intend to use third-party results from experimentation (or testing more broadly) to provide context for the results of Google's internal testing. We also intend to complement quantitative results with a qualitative assessment of the impact of Privacy Sandbox on competition.

13. A key feature of our final assessment of the Privacy Sandbox will be evaluating both the privacy impacts of the technologies themselves and how they compare with their performance against the Development and Implementation Criteria, including competition.[2] We are continuing to work with the ICO on approaches to measuring and assessing the impacts of Google's changes on data privacy.

Design issues

14. As reported in the previous update report, Google published a revised timeline for Privacy Sandbox implementation in July 2022. This envisages the removal of third-party cookies in the second half of 2024, which should provide ample time for development, testing and trialling of the new tools to support targeting and measurement of advertising.

15. As also noted in the previous report, Google published updated proposals for First Party Sets in July 2022. The CMA had previously expressed concerns to Google about the primary criterion for inclusion in a First Party Set being corporate ownership. In response to our concerns and wider industry feedback, Google revised its proposal from one which focused on shared corporate ownership across member sites to an approach centred on specific use cases, including sharing data across geographical regions and embedding content from ancillary service domains. The updated proposal improves the transparency of the criteria for inclusion in a First Party Set. The CMA will continue to assess Google's proposals against the Development and Implementation Criteria and alongside industry feedback, particularly regarding the limited 'associated sets' category that Google now proposes.

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[2] The Commitments, paragraphs 8.(a) to 8.(e).

We continue to welcome market participants' feedback on this and any other new proposals.

16. In September, Google announced a proposal to mitigate Bounce Tracking, and confirmed that this was included in the list of measures covered by the Privacy Sandbox commitments. Bounce Tracking is a covert tracking technique which momentarily redirects a user's browser to a third-party domain in order to replicate the functionality of third-party cookies, in circumvention of anti-tracking browser settings. Google intends to avoid breaking supported use cases of redirects, such as federated authentication, single sign-on, and payments. By adding Bounce Tracking Mitigations to the measures covered by the commitments, Google commits not to self-preference its own supported use cases in the design and implementation of these mitigations.

17. During this period, Google also published significant design changes regarding FLEDGE, supplementing on-device auctions with an option for server-side computation. We understand this will help address concerns regarding both advertisers, ie limitations on the complexity of the scripts they could run, and publishers, ie browser-based auctions risking impeding site performance. In addition, Google clarified the 'bring your own server' set up would remain in place and the open source FLEDGE Key / Value server would not be enforced before the deprecation of third-party cookies, addressing market participants' need for certainty regarding developer resources they need to put towards testing the API. We would welcome market participants' further feedback about these changes.

18. We have raised with Google a number of points that stakeholders put to us during the period, including the following:

    (a) There is a concern that advertisers could misuse FLEDGE to understand rivals' bidding logic and collude, to the detriment of publishers. The Chrome team is aware of this issue, which it says is to be balanced with the benefits of greater transparency.

    (b) We have sought clarification from Google about who could be top-level seller in a FLEDGE 'component auction', involving multiple sellers. Google said the publisher and its publisher ad server decide who is top-level seller.

    (c) An analysis by Xandr found that while Topics API results in good agreement between topics and their own content tags for sites, that Topics API does not generate output for 10% of hostnames tested.

Google told us that Xandr's results were inaccurate because they did not use subdomains (eg *starwars*.fandom.com).

(d) On Federated Credential Management, we relayed to Google a question about the number of identity providers (IDPs) a user would be able to choose from when signing in to site, and how the list of these IDPs would be determined. Google said each site would decide which IDP(s) they want to use and in what order to display; the browser may choose to display first the IDP used before. We also asked what identifier(s) a site (Relying Party) gets when a user logs in through an IDP. Google said the identifier(s) and the user information is generated by the IDP and represents what the IDP wants to share with the Relying Party.[3]

19.   We have sought clarification from Google about how measurement would work on its Owned & Operated (O&O) inventory, to better understand how this would compete with other inventory. For click-based ads, Google told us it will be able to use first-party cookies and link decoration for attribution, and this will co-exist with Privacy Sandbox measurement. For view-based ads, Google said measurement on O&O inventory will depend entirely on its Attribution Reporting API.

20.   We have also discussed with Google its plans for user controls for when Privacy Sandbox reaches general availability in 2023. Google has presented its current proposed user interfaces for controls relating to Topics, FLEDGE and ad measurement. Together with the ICO, we are continuing the dialogue with Google about this and what underlies current design decisions on the consent flow for opting in or out.

Actions and findings of the Monitoring Trustee

21.   The Monitoring Trustee has not informed the CMA of any instances of Google being non-compliant with its obligations under the relevant paragraphs of the Commitments.

22.   During the reporting period, the Monitoring Trustee has overseen Google's activities relating to paragraphs 25-27, 30-31, and 33 in the Commitments, including:

(a) Testing the scope, organisation, functioning of, and interactions between internal working groups involved in the design of the Privacy Sandbox.

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[3] Typically a subset from this list of identifiers: Final: OpenID Connect Core 1.0 incorporating errata set 1

(b) Training of internal staff, particularly those who represent Google in external interactions (eg speaking to ads customers, or at W3C). At this point, over 90% of staff in the relevant working groups have undertaken their formal training, with the number rising to 100% for W3C members and members of the partnership team (who regularly deal with external parties).[4]

(c) Strengthening of compliance artifacts around internal decision-making processes (eg logs and records), in particular by requiring additional details to allow for robust reviews and challenges to specific key design decisions and processes that support them.

(d) Generating a set of repeating deliverables: Identifying a list of Google materials/submissions which represent a base level of expectations for the quarterly reporting process. This is a minimum set of items which simplifies an element of the monitoring process, in the knowledge that other activities will be necessary in each period depending on the particular focus / issues identified (ie it is not a 'tick box exercise'). Furthermore, this deliverables list will be kept under review and amended over time to ensure it remains up to date as further issues are identified which would benefit from systematised reporting.

23. The Monitoring Trustee has also been closely involved in the appointment of an independent Technical Expert as explained below.

Technical Expert appointment

24. As noted at the point of accepting the Commitments,[5] there are specific technical skills which are needed in order to effectively monitor the Commitments. These are best supplied by appointing an independent Technical Expert to support ING as the Monitoring Trustee. In particular, we see the following skills as being vital for effective monitoring of the Commitments over the medium to long-term:

(a) Analysing data access and flows;

(b) Technical access controls and security; and

(c) Ad Tech expertise.

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[4] These figures exclude staff members who are formally out of the office and not active in the development of the Privacy Sandbox, for example as a result of long-term sickness.
[5] Eg, see Annex 4 to the Commitments, paragraph 34.

25. ING produced a shortlist of potential candidates which could provide these capabilities. The CMA then interviewed a number of these companies, jointly with ING, in order to identify a preferred candidate as well as testing to ensure its independence (eg requiring initial and ongoing conflict check procedures).

26. On 26 September 2022, the CMA approved the appointment of S-RM[6] by the Monitoring Trustee as an independent Technical Expert. S-RM is a global consultancy firm, headquartered in the UK. The firm has extensive experience advising governments and large organisations on regulatory issues, antitrust, and other compliance matters. The team at S-RM regularly assess or advise on management of extensive, complex data systems with significant privacy implications.

27. S-RM's expertise for this case is drawn from former industry professionals, digital advertising analysts and data scientists with specific expertise in the programmatic supply chain, economics of the digital advertising ecosystem, data flows, industry standards and technologies.

28. S-RM will support ING's monitoring work, providing advice and undertaking additional activities to test Google's compliance with the Commitments. ING will coordinate S-RM's input, retaining primary responsibility for advising the CMA on relevant matters.

Engagement with market participants

29. Third-party input from interested stakeholders in the wider online advertising ecosystem continues to play an important role in ensuring that the CMA becomes aware of, and understands, concerns about the impact of the Privacy Sandbox proposals.

30. Since the publication of the CMA's first update report, we have engaged with a broad range of stakeholders either directly or via various trade bodies and associations. Our discussions have focussed on understanding ongoing concerns of publishers with the design of individual Privacy Sandbox proposals, including Google's updated First Party Sets proposal; and the experience of ad tech intermediaries engaging with Google on testing and trialling since the implementation of the Commitments.

31. Our stakeholder engagement with market participants has fed into our direct interactions with Google on its design and implementation choices about specific Privacy Sandbox tools, and design of tests for evaluating the

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[6] https://www.s-rminform.com/

effectiveness of Privacy Sandbox proposals with respect to the Development and Implementation Criteria as agreed in the commitments.

32.   Our engagement with publishers has highlighted some potential design derived impacts, such as:

   (a) The three-domain restriction for 'associated domains' to form a First Party Sets could favour larger more established publisher brands, and disproportionately affect organisations hosting large numbers of smaller or niche publishers.

   (b) The Topics API taxonomy set based on categorisation of hostnames (currently set at 350) may not be sufficiently granular, and particularly affect news publishers' utility from using the API, and hence their incentive to adopt the Privacy Sandbox Technologies.

33.   Our engagement with ad tech intermediaries to date has enabled us to progress our thinking on quantitative testing of the Privacy Sandbox tools. At the same time, it has highlighted some factors limiting the ability of industry participants to engage in meaningful testing of the Privacy Sandbox APIs, both at present and in the future. For example:

   (a) The delayed timeline for deprecating third-party cookies has reduced the incentive for the industry to dedicate resource to testing Google's Privacy Sandbox proposals, with supply-side experiments limited by low demand-side participation.

   (b) Without widespread industry coordination, difficulties replicating the market for digital advertising post third-party cookie deprecation will limit the representativeness of future quantitative tests to measure the impact of the Privacy Sandbox.

34.   Stakeholder engagement will continue to play an important role in our scrutiny of Google's proposals. In the coming months we will be further engaging with ecosystem participants to discuss design of experiments to test the Privacy Sandbox tools, as well as with publishers to further understand their design concerns relating to Privacy Sandbox APIs such as Topics.

Engagement with the ICO and international authorities

35.   The ICO has continued to work actively alongside the CMA in implementing the Commitments. This has included:

(a) Working with the CMA on plans for testing and trialling and wider assessment of the Privacy Sandbox tools – in particular, to assess the likely impacts of Google's changes on privacy;

(b) Assessing proposed alternative approaches to targeting; and

(c) Engaging with the CMA in discussions on the design of Google's Privacy Sandbox tools to address any concerns about competition and data protection impacts at the design stage.

36. In light of Google's intention to apply the Privacy Sandbox changes globally, we have also provided regular updates to other international competition and data protection authorities on the progress of implementing the Commitments.

CMA current views

37. Based on the evidence we currently have available we consider that Google has been compliant with the Commitments.

38. It is helpful to consider issues as being broadly categorised as either (i) design or (ii) implementation. The former is associated with the development of the Privacy Sandbox (and associated tools) and is being overseen by the CMA directly, while the latter relates to the necessary changes within Google to give effect to the Commitments (eg its data systems, processes, and access protocols) and more closely involves the Monitoring Trustee and Technical Expert as well as the CMA.

Design

39. As we explained above, the CMA has engaged in discussions with Google and third parties regarding some aspects of the design of various APIs. These are design aspects the CMA continues to assess as functional testing of the API increases and begins to show results.

40. Further to this, as illustrated by Google's FLEDGE changes and updates mentioned above, the Privacy Sandbox proposals continue to evolve, as do the timelines for implementation of their iterations (within the bounds of the overall timeline set by Google). The CMA continues to interrogate if and how such changes address stakeholder feedback, and, together with the ICO, what they mean with regards to the Development and Implementation Criteria.

41. While testing is currently focused on functional testing, we have worked with Google to further our thinking of how the effectiveness of the Privacy Sandbox will be assessed in practice. In particular, we have discussed the possibility

for both browser-based and server-based experiments. We would welcome market participants' feedback on this point.

42. We have continued to receive updates on Google's proposed user controls, in line with the requirements in the Commitments.

Implementation

43. As discussed above, in overseeing the implementation of the Privacy Sandbox we have the assistance of the Monitoring Trustee and a recently-appointed independent Technical Expert.

44. Following the appointment of the Technical Expert, we are expecting to start to explore the following areas in more detail (noting that these will certainly take more than 3 months to complete):

   (a) Reviewing Google's systems and data controls / access permissioning, and how these can protect Personal Data from being shared between functions as specified in paragraphs 25-27, while also providing for the specified exceptions (preventing spam and fraud);

   (b) Mapping Google's data flows, including any instances of secondary data storage which could result in accidental or intentional sharing of Personal Data in contravention of the Commitments; and

   (c) Applying additional ad tech expertise to scrutinise the key decisions and decision making process Google is using in its internal development of the Privacy Sandbox.

   (d) Conducting recurring sampling and testing of Google's compliance systems and process

Key questions and next steps

45. The key activities that we are planning to focus on during the next reporting period include:

   (a) Ensuring Google designs a robust testing framework for its proposed new tools and APIs. To effectively shape quantitative testing, we will be seeking feedback from market participants on the design of effectiveness testing, and intend shortly to publish a note on possible experimental designs in order to seek views;

   (b) Continuing to engage with market participants to understand concerns raised by them, challenging Google over its proposed approaches and

exploring alternative designs for the Privacy Sandbox tools which might address these issues; and

(c) Embedding the Technical Expert (S-RM) into the monitoring regime. The Technical Expert's role will be primarily analysing data access and flows within Google's systems, ensuring robust technical access controls and security are in place, and supporting the Monitoring Trustee by providing additional Ad Tech expertise.

46.   We are particularly seeking to:

(a) encourage those who plan to eventually adopt and use the Privacy Sandbox technologies to engage with any testing they have the capability to carry out early;

(b) receive feedback on our plans for the assessment that will be outlined in a separate note on experimental designs to be published shortly, and understand stakeholders' capability to conduct quantitative tests.

47.   We are planning to publish the next report in early 2023.

Contact details

48.   We would welcome views from members of the online advertising ecosystem on this report, as well as on any other relevant publications (eg Google's own quarterly reports). The relevant contact details are:

(a) **CMA:** privacysandbox@cma.gov.uk; matthew.allsop@cma.gov.uk; angela.nissyrios@cma.gov.uk; and chris.jenkins@cma.gov.uk.

(b) **Monitoring Trustee (including communications for the Technical Expert):** trustee.services@ing.com; matthew.hancox@ing.com; and david.verroken@ing.com.

(c) **Google:** Feedback - Chrome Developers.

Annex 1 – current proposals in the Privacy Sandbox

At the time of publication, the list of proposals in the Privacy Sandbox include:[7]

1. Use Case: Fight spam and fraud on the web

(a) Trust Tokens

2. Use Case: Show relevant content and ads

(a) Topics

(b) FLEDGE

3. Use Case: Measure digital ads

(a) Attribution Reporting

4. Use Case: Strengthen cross-site privacy boundaries

(a) First Party Sets

(b) Shared Storage

(c) CHIPS

(d) Fenced Frames

(e) Federated Credential Management

5. Use Case: Prevent covert tracking

(a) User-Agent Client Hints

(b) User Agent Reduction

(c) DNS-over-HTTPS

(d) Gnatcatcher

(e) Privacy Budget

(f) SameSite cookies

(g) Storage Partitioning

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[7] Use cases and proposals listed here reflect those listed at the time of publication on
https://developer.chrome.com/docs/privacy-sandbox/overview/

(h) HTTP Cache Partitioning

(i) Network State Partitioning

(j) Bounce Tracking Mitigations