

CMA update report on implementation of the Privacy Sandbox commitments

July 2022

Summary

1. This is the first 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. This report aims to explain the progress made to date 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. We currently intend to produce similar reports on a regular basis, at least until the standstill period, to reflect updated information we have received from Google, the Monitoring Trustee, members of the online advertising ecosystem, and any wider stakeholders. We would expect that the form of the reports will change over time with circumstances. Our hope is that this increased level of transparency is helpful to the industry in navigating what we recognise is a complex and evolving process.
3. Based on the evidence we currently have available, we consider that from 1 April 2022 to 30 June 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 July 2022 will be covered in Google's next quarterly report.
4. In making this assessment, we recognise that there is still a lot of work to be done. In some cases, specific obligations have not yet been engaged (eg paragraphs 25-27 of the Commitments only apply once Google ends support for third party cookies), and in other cases detailed assessment must wait until other work is completed (eg until the new APIs are designed). However, just because there are dependencies in some areas it does not mean that no work is possible – often there are important preparations to complete, which need to be put in place and tested well in advance. Overall, we think that

Google has begun this process, and we will continue to monitor its progress for the duration of the Commitments.

5. There are certain parts of the evidence base we have collected which are confidential, and which as a result we are unable to publish. This includes much of the work of the Monitoring Trustee, in particular where it has investigated Google's internal systems and processes. It also includes certain issues that have been raised with us, but where specific details could reveal the identity of the company providing the information. Therefore, we are not necessarily able to provide all the details that some stakeholders may want. We have tried to be as transparent as possible within these constraints.
6. Throughout the process to date, market participants have helpfully raised points that they consider would improve the Privacy Sandbox, including proposals relevant to each of the Development and Implementation Criteria specified in paragraph 8 of the Commitments: privacy and data protection, competition, impact on publishers and advertisers, impact on user experience, and technical feasibility. In some cases, it may not be possible to complete a full assessment until Google's proposals are more fully developed (eg effectiveness testing of the individual APIs is only planned to start after their functional testing is completed). Also, in some cases it is important to recognise the interactions between particular proposals, assessing a 'package' of measures together. However, in order to meet its obligations under the Commitments, Google will ultimately need to show that the final Privacy Sandbox proposals have properly taken these different criteria into account. The more that we can identify any concerns during the process and push Google to address them, the more likely that the Privacy Sandbox can successfully address any remaining issues.
7. Based on all the work undertaken to date, and considering all of the above, our current overall priorities are:
 - (a) Ensuring that Google's public statements (including any explainers) are accurate and give market participants sufficient information to understand and engage with Google's proposals;
 - (b) Ensuring Google designs a robust testing framework for its proposed new tools and APIs;
 - (c) Reviewing Google's internal processes to ensure that strong firewalls (processes and systems) are in place to prevent the Google Ads services accessing data that they should not, and consider any potential improvements that may be possible; and

- (d) Understanding concerns that are being raised by market participants about different elements of the Privacy Sandbox proposals, challenging Google over its proposed approaches and exploring alternative designs for the Privacy Sandbox tools which might address these issues.
- 8. 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.
- 9. We have begun to reach out to many market participants already but would welcome any further views from the wider ecosystem, in particular around the following key questions:
 - (a) Where should the CMA focus its efforts in engaging with Google on the design of the Privacy Sandbox APIs?
 - (b) What steps should the CMA take to plan for the testing and assessment of the APIs, and what would help stakeholders to engage with the testing process?
 - (c) Are there concerns about specific aspects of the Privacy Sandbox APIs which are not covered in Google's quarterly feedback report and which Google should take into account?
 - (d) Any there any instances where Google has mischaracterised elements of the Privacy Sandbox or otherwise failed to meet its obligations under the Commitments?
- 10. Contact details are provided at the end of this report.

Dashboard

Dashboard: summary of CMA view on current position, April-June 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	<ul style="list-style-type: none"> • CMA conducting 'roadshows' to explain Commitments to interested stakeholders • Publication of this report 	<ul style="list-style-type: none"> • More focused engagement with affected third parties including publishers and ad tech providers to explore areas of concern
E - Involvement of the CMA in the Privacy Sandbox proposals	Compliant	Medium focus	<ul style="list-style-type: none"> • Agreed testing and trialling timeline • Google launch Origin Trials • Discussion of design issues including First Party Sets, Topics and FLEDGE 	<ul style="list-style-type: none"> • Continue to develop framework for testing and trialling • Continue to engage on design issues including approach to First Party Sets
F - Standstill before the Removal of Third-Party Cookies	Compliant	Lower focus	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • None
G - Google's use of data	Compliant	Lower focus	<ul style="list-style-type: none"> • Google introduced enhanced decision-making process for Privacy Sandbox decisions • Google tagged advertiser/publisher data for additional protections 	<ul style="list-style-type: none"> • Appoint Technical Expert and continue familiarisation with Google's systems • Finalise 'engagement protocol' between Ads and other parts of Google
H - Non-discrimination	Compliant	Medium focus	<ul style="list-style-type: none"> • Confirmed Google's initial internal training materials and began rolling out • Established guidelines detailing what contacts between Chrome and Ads are permissible 	<ul style="list-style-type: none"> • Appoint Technical Expert and continue familiarisation with Google's systems • Develop additional methods to test compliance
I - Reporting and compliance	Compliant	Lower focus	<ul style="list-style-type: none"> • Completion of regular monitoring report(s) • Google provided update on expected timelines 	<ul style="list-style-type: none"> • 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

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 update

11. It has been around six months since we accepted commitments from Google relating to the Privacy Sandbox. In that time:
- (a) **Engagement:** We have had numerous meetings and discussions with Google, advertisers, publishers, ad tech intermediaries, representative bodies and other stakeholders. We are keen to ensure that no voice is left out of discussions. We have also received feedback directly from market participants, including via our dedicated email address (see contact details below), on various issues of concern. Some of these are highlighted in the following sections.
 - (b) **Collaboration:** We have worked closely with the ICO to ensure that privacy implications are a core consideration in this process.
 - (c) **Transparency:** As part of the Commitments, Google has been required to publish details about its objective and process, timelines, feedback it has received from third parties and its responses, and concerns raised by the CMA and its responses. Much of the most recent information is available in Google's second quarterly report, published alongside this document.²
 - (d) **Testing:** We have worked with Google, and taken feedback ideas from the wider industry, to begin developing a testing approach for the Privacy Sandbox measures.
 - (e) **Monitoring Trustee:** We have approved the appointment of ING Bank as the Monitoring Trustee for these Commitments. We are now working with ING to continue to design and implement a robust monitoring framework. We are also expecting to announce shortly the appointment of a Technical Expert adviser to work with the Monitoring Trustee, particularly to provide support in relation to ensuring effective internal data controls and assessing the impacts of Google's proposals on the ad tech sector.
 - (f) **Understanding:** With the help of the Monitoring Trustee, we have started to build an understanding of Google's existing processes, protocols and systems. This will be vital in establishing a robust set of protections for the relevant information, including personal data.
 - (g) **Challenging:** We have adopted a questioning attitude to Google's statements in its published reports but also those made through our

² [Google's Q2 progress report](#).

ongoing engagement. We have demanded evidence to support statements both from Google and from wider stakeholders.

Recent focus

12. We also wanted to set out some more details of our recent progress with certain matters, where we think this might be particularly helpful to the wider ecosystem.

Testing and trialling

13. Stakeholders have continued to express a need for greater transparency in the development of the Privacy Sandbox proposals. In particular, they asked for greater clarity around planned timetables for implementation, including for testing and trialling of the Privacy Sandbox changes. On the one hand, some stakeholders have highlighted the risk that removal of third-party cookies could be further delayed, which they argue might have a negative impact on users' privacy and lead to an extended period of uncertainty for the wider market. On the other hand, some stakeholders have questioned whether there is sufficient time for standards to be agreed for the Privacy Sandbox tools before third party cookies are removed.
14. Taking these concerns into account, over recent months we have worked on mapping the likely timing of our analysis against Google's projected timeline for trialling the Privacy Sandbox tools. We have also developed testing designs and framework to ensure that the impact of the Privacy Sandbox changes is assessed as rigorously as possible against the Development and Implementation Criteria.
15. This has involved regular meetings with Google and the ICO on Google's proposed timeline for the deprecation of third-party cookies, the design and roll-out of Privacy Sandbox APIs, engagement with third-party market participants, and discussions with external experts on how to approach testing and trialling. Our objective has been to ensure we obtain as broad a picture of the impacts of the Privacy Sandbox changes as possible. This includes capturing the experiences of as many market participants as possible and understanding how the Privacy Sandbox might affect the market for online advertising.
16. Google has recently released an [updated timeline](#) for the Privacy Sandbox process. This provides additional time for Google to develop its proposals and respond to developer issues and concerns. It also ensures that there is sufficient time for testing and analysis of the proposed APIs before the standstill period. It is important that Google continues to be transparent with

stakeholders about its future plans, and we welcome the fact that it is providing more clarity to the market on its updated timelines.

17. We recognise the importance of giving clarity to market participants about the details of different phases of testing. Google's updated timeline shows when different types of testing of the Privacy Sandbox APIs is due to take place. We expect Google to publish further details as it moves through the different phases of testing. While we have made progress towards designing comprehensive tests, we will continue to engage with market participants who are considering carrying out their own trials to ensure that we are learning from these approaches and that testing can be coordinated where appropriate.

Design issues including First Party Sets

18. We have engaged regularly with Google on design issues around several of the main proposed APIs including Topics, FLEDGE and the Attribution Reporting APIs. For example, in relation to the Attribution Reporting APIs, we have queried the impact of delayed, noisy attribution reports on smaller publishers. We have also raised concerns around the potential impact of Google's First Party Sets (FPS) proposal.
19. Specifically, we raised concerns with Google about the potential impacts of a model where common ownership is a key determinant of membership of a FPS. In relation to the Development and Implementation Criteria:
 - (a) privacy outcomes (criterion 8a):³ we noted that it is not clear whether the majority of consumers would necessarily be aware that they are tracked across the different domains of a FPS if based on common ownership.
 - (b) publishers (criterion 8c):⁴ in the event that the Privacy Sandbox tools are less effective than current technologies based on third party cookies, then some publishers' ability to generate advertising revenue would be impacted. They might also be less competitive than Google and other large publishers, with potential repercussions for the viability and the ease of entry in the market.
20. The dialogue between the CMA, ICO and Google regarding the new FPS proposal also reflected concerns raised by stakeholders. Some stakeholders told us that the design of the FPS proposals could significantly affect the impact of the wider Privacy Sandbox changes, since it would allow Google

³ The Commitments, paragraph 8a.

⁴ The Commitments, paragraph 8c.

and other large operators to continue to share data between their domains once third-party cookies are removed. Several stakeholders also raised questions about the overall impact of the FPS proposal, including whether it would favour large platforms with multiple sources of first-party data, and how Google would decide the scope of FPS in practice.

21. In response to these concerns, Google informed the CMA that it had adapted its design of FPS. This adapted proposal defines distinct use cases for the creation of a FPS with the aim of maintaining functionality across domains within the set.⁵ There are several ways in which we consider the adapted proposal to be an improvement against the concerns outline in paragraphs 20(a) and 20(b) above. As a result, we have encouraged Google to publish their new FPS proposal in order to engage with and receive feedback from the wider ecosystem. However, the CMA has also made Google aware of several aspects of the proposal we consider could benefit from further consideration as it continues to develop FPS.

Involvement in appointing a Technical Expert to assist the Monitoring Trustee

22. Prior to Google appointing a Monitoring Trustee, we set out and communicated to Google the technical expertise that we would expect from a Monitoring Trustee to apply in this case. Given the range and specificity of expertise required, it was clear that the Monitoring Trustee would need to sub-contract a Technical Expert to complement its own expertise and experience, particularly around data systems (focused particularly on paragraphs 25-27) and ad tech (focused particularly on paragraph 30).
23. We have been closely involved in the initial identification, subsequent assessment and interviews, and ultimate decision on the choice of Technical Expert. This has enabled us to assess the specific set of expertise the Technical Expert would bring, and how well this would support the mandate of the Monitoring Trustee.
24. We are expecting to announce shortly the identity of this Technical Expert. We will work with the Monitoring Trustee to embed them into the monitoring system, and assist them in developing a deep understanding of Google's systems and processes so they can begin their valuable work as quickly as possible.

⁵ On 27 July 2022, Google published a [summary](#) of its new FPS proposal and an explainer on extending the [Storage Access API](#).

Engagement with market participants

25. Third-party input from interested stakeholders in the wider online advertising ecosystem plays an important role in ensuring that the CMA becomes aware of, and understands, concerns about the impact of the Privacy Sandbox proposals.
26. Since the publication of Google's first progress update, we have engaged with a broad range of stakeholders operating in the ecosystem, either directly or via a number of trade bodies and associations. This engagement has been important in:
 - (a) raising awareness of the formal framework imposed by the Commitments for the ongoing scrutiny of Google's design, development and implementation of the Privacy Sandbox proposals;
 - (b) understanding any ongoing concerns stakeholders may have with individual Privacy Sandbox proposals; and
 - (c) encouraging stakeholder input into testing and trialling of key Privacy Sandbox proposals.
27. Our engagement has fed into our engagement with Google on their design and implementation choices about specific Privacy Sandbox tools, for example on FPS and Google's Attribution Reporting API.
28. Stakeholder engagement will continue to play an important role in our scrutiny of Google's proposals, and in the coming months we will seek out views through direct bilateral engagement, including with ad tech intermediaries and publishers, focusing on their experience of engaging with Google on testing and trialling since the implementation of the Commitments.

Actions and findings of the Monitoring Trustee

29. While we have been particularly focused on Google's design approach and conduct during this period, the Monitoring Trustee has spent most of its time considering the practical implementation of the relevant paragraphs of the Commitments – the Monitoring Trustee's mandate specifically covers Google's use of data (paragraphs 25-27), non-discrimination (paragraphs 30-31), and anti-circumvention (paragraph 33). We have met regularly with the Monitoring Trustee to keep track of progress and agree on key areas to focus on. On 18 July 2022 the Monitoring Trustee sent us its second quarterly monitoring report.

30. 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.
31. The Monitoring Trustee has developed a workplan for the next reporting periods (noting that some activities will take longer than three months), particularly focused on:
 - (a) In-depth technical review of relevant data flows and associated processes for demonstrating compliance.
 - (b) Reviewing artifacts (eg logs and records) linked to Google's continued compliance with regard to its processes such as its decision-making processes and communications between Ads and the wider organisation.
 - (c) Finalising the 'engagement protocol' (ie communication and feedback channels) between Google Ads and other parts of Google involved in the Privacy Sandbox.
 - (d) Ensuring continued roll-out of Google's internal compliance training programmes.
 - (e) Monitoring compliance by Google with agreed timelines and reviewing Google's planned timelines for further implementation.
32. Many of these activities align with the Monitoring Statement template set out in Annex 3 of the Commitments. However, we expect that as the development of the Privacy Sandbox continues and new issues arise, the specific monitoring requirements are likely to evolve and could well necessitate additional work beyond that which could be previously foreseen. We will instruct the Monitoring Trustee to undertake any necessary work as and when these changes arise.

CMA current views

33. Based on the evidence we currently have available we consider that Google has been compliant with the Commitments it has made.
34. However, this is early in the process. The Commitments envisage an ongoing process of design and testing leading up to the standstill period and removal of third-party cookies. In this context, Google still has substantial work to do, both on the design and testing of the individual APIs / tools, and to continue to meet its wider obligations, such as transparency, internal controls, user controls, and reflecting on feedback.

35. Some market participants have raised questions about Google's motivations, and one aim of our open and transparent process is to try and help address this issue. Our current view is that Google largely appears to have engaged openly and in the spirit of the Commitments.
36. That having been said, we are aware of numerous issues being raised by third parties around Google's conduct and proposals already. In many cases we consider that this largely reflects a difference of opinion on the best approach to take, which deserves further thought and discussion. However, there are also some areas where we are pushing Google to act to address specific concerns.
37. 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 as well as the CMA.

Design

38. Since accepting the Commitments, we and the ICO have been working with Google around design of its Privacy Sandbox tools. The first step of this is around functional testing, to understand and explore how these tools will operate. Once the functional testing of a given tool is completed, we intend to work with Google to undertake effectiveness testing of the tools, to understand their performance at scale and to assess their impact (both individually and combined) in line with the Development and Implementation Criteria in the Commitments. In both cases, our ability to assess the Privacy Sandbox would benefit from a wide variety of users of these tools engaging with the various trials, and providing their feedback on what is working well, and areas which may require changes. We are therefore engaging with Google and the wider ecosystem to understand the extent of participation in the trials from advertisers, ad tech companies, and publishers. This is an important factor in the CMA's evaluation of the Privacy Sandbox technologies.
39. Alongside developing our approach for testing the impact of Google's Privacy Sandbox tools, we also recognise that there are alternative proposals being developed by third parties and are working with the ICO to better understand their viability and likely impacts.

40. The testing and trialling process has required us to engage in extensive discussions with Google, as well as drawing on wider expertise from within and beyond the CMA. Our current views are:
- (a) Most of the APIs are still at an early stage of design and development. Key parameters, functionalities and issues are the subject of discussions with the CMA, ICO and market participants, as well as current functional testing.
 - (b) We have also discussed with Google plans for the testing of the effectiveness of Privacy Sandbox targeting and measurement. This includes metrics collection, simulations and experiments – and the underlying timeline.
 - (c) Once Google Ads has obtained sufficient traffic during the Origin Trial, Google Ads would provide a detailed report of overall testing of measurement APIs. Initially, the scope of these reports would be limited to the event-level reporting. Over time the reports would include aggregate reporting as well. Ultimately, Google Ads envisages providing the CMA with its analysis, including on the impact of noise and time delays on utility.
41. We are also aware of ongoing work to address specific feedback points on many of the individual APIs, made by either (or both) the CMA and market participants.⁶ We have focused our discussions with Google so far on three core groups of APIs corresponding to distinct use cases: targeting, measurement, and ‘boundary’ use cases such as measures to reduce fingerprinting. The active issues that we have pressed Google to consider in relation to the design of the APIs include:
- (a) Tools to support targeted advertising – including the Topics and FLEDGE APIs, being developed to support interest-based advertising and remarketing respectively:
 - (i) Stakeholders have expressed concerns regarding the usefulness of Topics, and how the value of Topics is created and redistributed among market participants. There are also questions around the governance of the taxonomy of Topics – for example a mechanism remains to be defined for stakeholder participation in developing and maintaining the taxonomy.

⁶ A more detailed list of stakeholder feedback is provided in [Google’s Q2 progress report](#).

- (ii) In relation to FLEDGE, we are keen to understand the impact of computationally-intensive FLEDGE auctions on publishers' site performance. As a complex process which takes place locally on the user's browser, this may interfere with the functioning of the browser. There is also a concern that FLEDGE risks favouring Google as the primary SSP, and there is a lack of clarity on how the 'component auction' mechanism would prevent that.
 - (b) Tools to support measurement and attribution – including the Attribution Reporting API, broadly aiming at measuring when a user's interaction with an ad leads to a conversion on an advertiser's website.
 - (i) There are concerns that the API risks disproportionately affecting smaller publishers and advertisers, who would not be able to average out noise from reports and recover utility as much as larger players. Similarly, smaller market participants could lose out most from less timely reports. This is something we intend to cover in the testing.
 - (c) Broader elements, including Privacy Sandbox proposals introduced to limit data collection and fingerprinting:
 - (i) Some stakeholders have raised concerns that User Agent Client Hints (UACH) might be overly prescriptive compared with the flexibility the User Agent string offered. A stakeholder also flagged it may be costly for companies to migrate to UACH, and we have obtained reassurance on this point. There are also concerns about latency relating to UACH and Gnatcatcher. We have flagged to Google that it will be important to assess these latency impacts as part of our assessment.
 - (ii) Stakeholders expressed concerns FPS may impact smaller and larger market participants differently. Stakeholders also pointed out that having too many sites in the same set could result in similar outcomes to third-party cookies. As noted above, we have asked Google to reconsider their design.
42. Our current view is that, while Google has provided 'holding' responses to many of these issues (eg 'this will be explored during testing'), this is in the nature of having set reporting periods during an ongoing and iterative development process. We will require Google to address these points in a comprehensive manner during the design process, but it is not necessarily possible to do so immediately. However, this does not mean that these points are being overlooked or ignored, and we would encourage market participants to continue to raise their Privacy Sandbox concerns to us, the Monitoring

Trustee and/or Google as appropriate. The relevant contact details for this are provided at the end of this report (paragraph 53).

Implementation

43. As discussed above, in overseeing the implementation of the Privacy Sandbox we have the assistance of the Monitoring Trustee and are expecting this to be supplemented further by the appointment of a dedicated Technical Expert.
44. Many elements require substantial preparatory work or are dependent on other changes or developments, and so cannot reasonably be 'switched on' at the point of signing the Commitments. However, we are cognisant of the need to make progress and complete all necessary changes well ahead of the removal of third party cookies (eg to allow time for tests and audits). We are therefore challenging Google to push itself in setting robust timelines for further changes.
45. Google has already made a number of key changes to its internal processes in response to the Commitments, including:
 - (a) Internally communicated the importance of the Commitments, and included feedback mechanisms (eg escalation routes for queries);
 - (b) Established an enhanced decision-making process for Privacy Sandbox decisions, to reflect the requirements of the Commitments;
 - (c) Produced and retained access logs for relevant data systems;
 - (d) Started to roll out internal training on the Privacy Sandbox; and
 - (e) Implemented new protections for advertisers' data (eg that which is willingly provided for the advertiser's own use through Google Analytics).

Key questions and next steps

46. As explained above, it is still relatively early in the implementation of the Privacy Sandbox Commitments. This means that we are currently in a process of prioritising the most important issues to focus on, as well as those that are sufficiently 'free-standing' to be addressed at this point. As the process continues, we would expect many of these issues to be adequately resolved, with the potential for a smaller number of more complex and/or late-arising issues that need to be subsequently resolved (with a fallback option of using the designated mechanisms during the standstill period, as set out in paragraphs 19 to 24 of the Commitments).

47. The key activities that we are planning to focus on during the next reporting period include:
- (a) Engagement with stakeholders (including publishers and ad tech providers), where they have concerns regarding Google’s current design proposals on specific tools;
 - (b) Building a framework and develop additional methods for testing the Privacy Sandbox APIs; and
 - (c) Working to embed the Technical Expert within both Google’s systems and the existing monitoring processes.
48. We would particularly welcome views from market participants on the following questions that we consider to be particularly important at the current stage of work:
- (a) Where should the CMA focus its efforts in engaging with Google on the design of the Privacy Sandbox APIs?
 - (b) What steps should the CMA take to plan for the testing and assessment of the APIs, and what would help stakeholders to engage with the testing process?
 - (c) Are there concerns about specific aspects of the Privacy Sandbox APIs which are not covered in Google's quarterly feedback report and which Google should take into account?
 - (d) Any there any instances where Google has mischaracterised elements of the Privacy Sandbox or otherwise failed to meet its obligations under the Commitments?
49. We are planning to publish the next report in October 2022.

Contact details

50. 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; robin.vanmulders@cma.gov.uk; angela.nissyrios@cma.gov.uk; and chris.jenkins@cma.gov.uk.
 - (b) **Monitoring Trustee:** trustee.services@ing.com; matthew.hancox@ing.com; and david.verroken@ing.com

(c) **Google:** [Feedback - Chrome Developers](#)