

Privacy Sandbox: Testing Guidance & Results Sharing

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Outline

- **Context of the Privacy Sandbox commitments**
- **Role of testing**
- **Timelines**
- **CMA's proposed experiment designs**
- **How we will use the results**
- **Q&A**

Background to the Commitments

- **Google plans to remove third party cookies from Chrome and introduce alternative Privacy Sandbox tools**
 - Concern that this could strengthen Google’s position in digital advertising
- **CMA accepted legally-binding commitments from Google in Feb 2022**
- **Framework for addressing issues with Privacy Sandbox designs as they arise**
- **Fuller assessment at ‘standstill period’ before removal of TPCs**
- **Powers to take further action if concerns remain**

Scrutinising design of Privacy Sandbox tools

Testing and trialling to assess likely impacts

Standstill period (60-120 days) before removal of TPCs

Ongoing commitments on use of data and self-preferencing (to 2028)

Role of testing

- **Aim is to evaluate effectiveness of the Privacy Sandbox tools – in particular**
 - Outcomes for publishers and advertisers
 - Impact on competition
- **Results will inform our overall assessment, alongside other evidence**
- **CMA is working with Google on its testing programme**
- **Testing by other market participants will help us assess wider impacts**
 - Recognise that testing is costly
 - Proposing a flexible approach

Design and Implementation Criteria in the Commitments:

- **Impact on privacy outcomes**
- **Impact on competition in digital advertising**
- **Impact on publishers and advertisers**
- **Impact on user experience**
- **Technical feasibility, complexity and cost to Google**

Timeline

2023		2024					
Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
General Availability							
	Chrome facilitated testing environments active						
Market participants testing and submitting results to the CMA				60-day default Standstill	60-day extended Standstill		

Market participants should submit results by end of Q2 2024

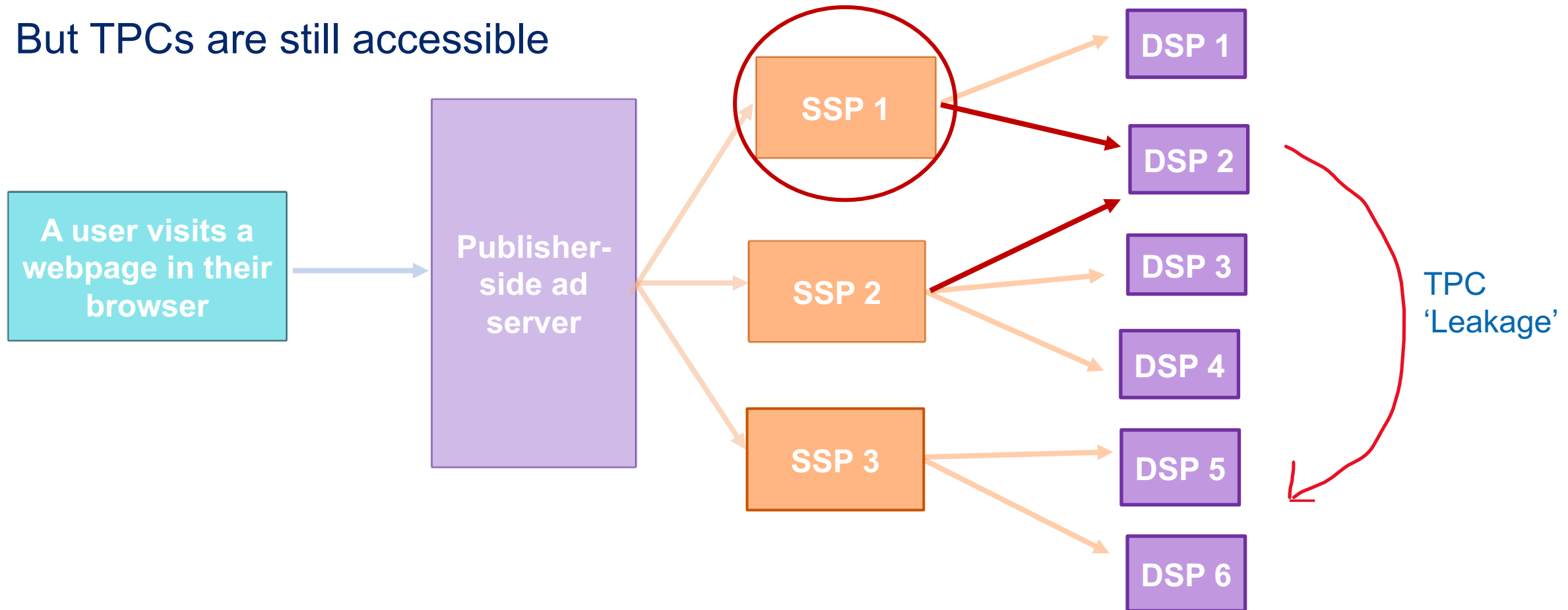
The Standstill period may be extended beyond the default 60 days to a maximum of 120 days

Experimental designs: creating treatment and control groups

- In our [June 2023 testing guidance](#) we suggested two experimental designs for testing the effectiveness of the Privacy Sandbox tools.
- The designs focus on creating groups of ads that are served using:
 - the Privacy Sandbox tools (**the treatment group**)
 - TPCs ie the status quo (**control group 1**)
 - no Privacy Sandbox or TPCs (**control group 2**)
- The outcomes of ads served in these groups can be compared to infer the impact of the Privacy Sandbox on advertisers, publishers, and competition.
- **However**, given the Privacy Sandbox has not been rolled out and TPCs are not deprecated it is not straightforward to ensure ad techs use eg only the Privacy Sandbox tools in the treatment group.

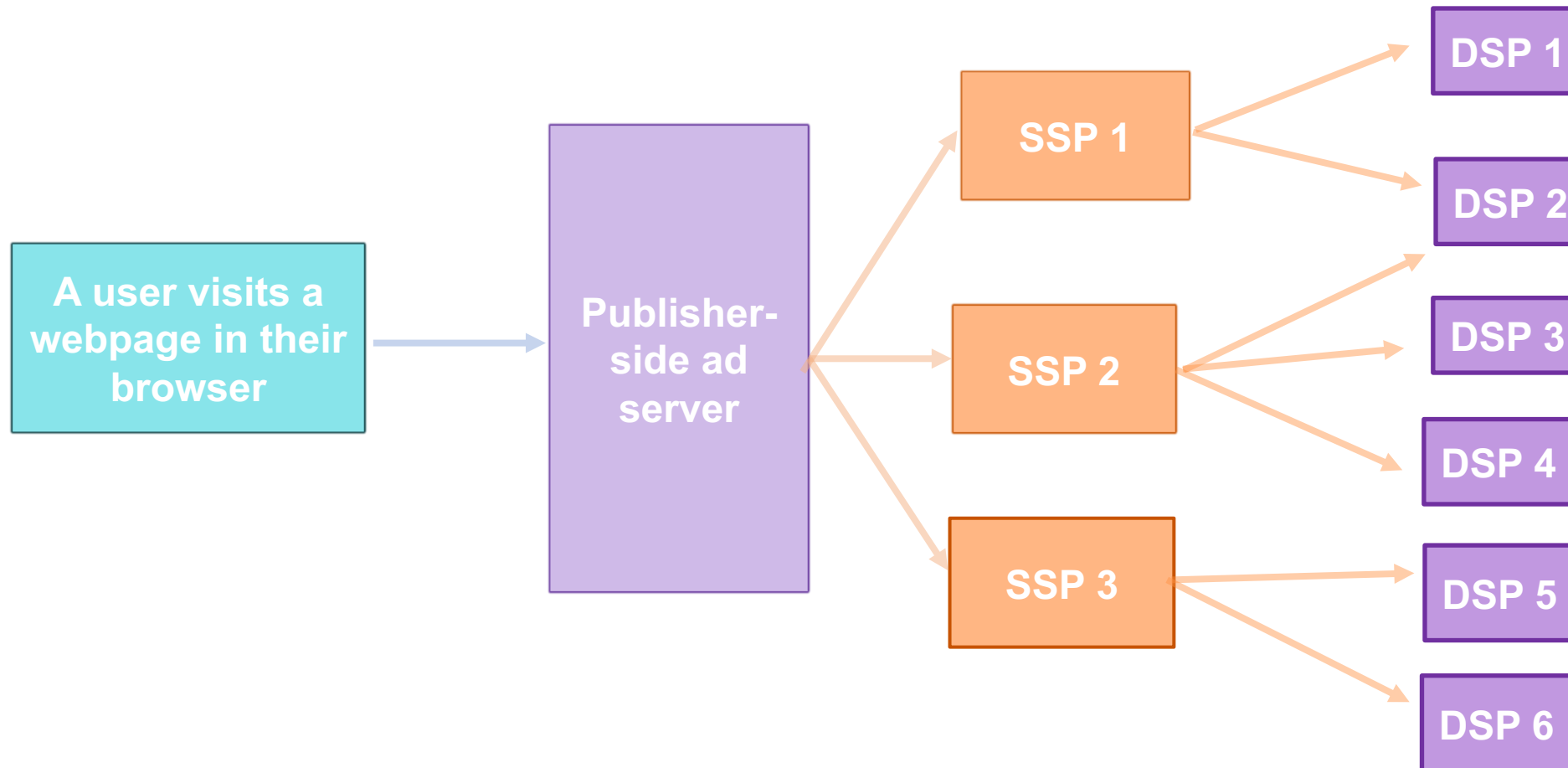
Experimental Design 1

- Treatment group (without TPCs) created on the server side
- But TPCs are still accessible



Experimental Design 2

- Chrome creates treatment group (without TPCs) in the browser
- But no guarantee all adtechs will be using the Privacy Sandbox



Our proposed designs and Google's testing modes



- Google announced that it will label slices of traffic in Chrome to facilitate experimentation in two phases:
 - **Mode A:** the state of TPCs will not be modified but Chrome will assign a portion of traffic to either the treatment, control group 1 or control group 2 and provide ad techs with labels. Traffic will only be labelled so market participants can experiment on the same treatment and control groups **along the lines of Design 1**.
 - **Mode B:** Chrome will create (and label) the treatment group by deprecating TPCs for 1% of traffic globally. Because TPCs will be deprecated for this 1% of traffic, it is designed for ad techs to conduct experiments **along the lines of Design 2**. Ad techs should use control group 1 from Mode A. Those on the supply-side should suppress the Privacy Sandbox APIs before sending ad requests.
- In addition to deprecating cookies for 1% of traffic, a small fraction of traffic will also have Privacy Sandbox relevance and measurement APIs disabled (to form control group 2)
- Mode A will launch in Q4 2023, and Mode B will launch in Q1 2024. Both will remain active until the end of Q3 2024.

What we will do with the results

- We will use results submitted to the CMA in our assessment of whether the Privacy Sandbox tools have been designed in a way that **has addressed our competition concerns**.
 - We are seeking to understand the impact the changes might have **on publishers, advertisers, and ad techs of different types and sizes**.
 - Results submitted will be **used alongside test results from Google's testing as well as qualitative evidence and technical analysis** to understand the market-wide impacts.
- **We are under a statutory obligation to protect information relating to firms**
 - Although it may be appropriate that we share the results of testing with Google, we would seek to protect confidentiality of the firms involved
 - We intend to publish a summary of the results that we receive as part of our analysis but would do this in a way that protects confidentiality – eg, publishing ranges or high-level directional results rather than raw figures, and not identifying individual firms

What we want market participants to do



- Carry out tests/experiments along the lines of Designs 1 and 2 (with Design 2 being more robust) that focus on measuring how the Privacy Sandbox has impacted key business metrics. We are particularly interested in:
 - i. Revenues per impression
 - ii. Conversions per impression/click
 - iii. Clicks and conversions per dollar
 - iv. Clicks per impression
 - v. Web page latency
 - vi. Total unique bid requests served by DSPs/SSPs (as a proxy demand for individual ad techs' services)
 - vii. Number of wins for advertisers/campaigns
 - viii. % of planned campaign budget spent
 - ix. Unique viewers
 - x. Average time spent or video completion rates
 - xi. Brand lift.

Example table of results



Table 1: Template table of experimental results that market participants should submit to the CMA

Metric	Treatment vs control 1	Treatment vs control 2	Control 2 vs control 1
Revenue per impression	<i>effect</i>	<i>effect</i>	<i>effect</i>
	<i>Standard error</i>	<i>Standard error</i>	<i>Standard error</i>
	<i>95% confidence interval</i>	<i>95% confidence interval</i>	<i>95% confidence interval</i>
Clicks per dollar			
Conversions per dollar			
<i>Add rows of relevant metrics....</i>			

Example descriptive table

Table 2: Template table for reporting descriptive statistics for metrics in the treatment and control groups

Metric	Treatment	Control 1	Control 2
Revenue per impression	<i>Mean</i>	<i>Mean</i>	<i>Mean</i>
	<i>Standard deviation</i>	<i>Standard deviation</i>	<i>Standard deviation</i>
	<i>25th and 75th percentile</i>	<i>25th and 75th percentile</i>	<i>25th and 75th percentile</i>
Clicks per dollar			
Conversions per dollar			
Clicks per impression			
Latency			
<i>Add rows of relevant metrics....</i>			

Example of balance checks

Table 3: Template table for reporting characteristics of treatment and control impressions

Characteristic	Treatment	Control 1	Control 2
Country			
%UK			
% EU			
etc....			
Add characteristics as appropriate			

How to submit results



- Using the templates provided in the annex to our [2023 testing guidance](#), submit to the CMA:
 - Results of tests to the CMA
 - Information on the technical and practical parameters of your tests
 - Any additional information on your tests that highlights what might be driving results
- In particular, in our testing guidance we listed a number of specific questions about results we are asking market participants to answer as part of their submissions
- We are happy for market participants to contact us directly with questions, clarifications or feedback on testing as early as possible in advance of (and also during) testing
- Please submit results to privacysandbox@cma.gov.uk **by the end of Q2 2024 or sooner**

Table 4: Template table for answers to the CMA's questions regarding market participants' testing results



Question	Answer. If not applicable, please explain why
Was your testing visible or invisible?	
Which inventory, formats and campaign types did your testing cover?	
How comprehensive were the changes you made for testing to your infrastructure?	
How comprehensive were any mitigations you used?	
How much did you rely on the mitigations you used?	
How business-critical were the metrics you collected?	
How were your metrics calculated?	
Which testing mode did you use?	
How long was your experiment?	
Did you work together with other market participants?	
What samples sizes did you use and how have you measured uncertainty?	
Are there any other aspects of your tests that affect their comprehensiveness?	
Do you have any other feedback on testing?	

Any questions?