RÉPUBLIQUE FRANÇAISE

Autorité de la concurrence

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Decision 21-D-11 of 7 June 2021 regarding practices implemented in the online advertising sector *.

The *Autorité de la concurrence* (Standing Committee),

Having regard to the complaint, registered on 25 June 2019 under number 19/0030 F, in which the company News Corp Inc. referred to the *Autorité de la concurrence* (hereinafter "the *Autorité*") practices implemented by the companies Google Inc., now Google LLC, Alphabet Inc., and all of the subsidiaries of Alphabet Inc.;

Having regard to the complaint, registered on 23 September 2019 under number 19/0056 F, in which the company Groupe Figaro referred to the *Autorité* practices implemented by Google;

Having regard to the complaint, registered on 23 September 2019 under number 19/0057 F, in which the company Rossel La Voix referred to the *Autorité* practices implemented by Google;

Having regard to the decision of the Deputy General Rapporteur of 26 September 2019, taken pursuant to Article R. 463-3 of the French Commercial Code (Code de commerce), to join the investigation of Cases 19/0030 F, 19/0056 F and 19/0057 F;

Having regard to decision 20-C-05 of 23 November 2020 noting the withdrawal of the company Groupe Figaro;

Having regard to the Treaty on the Functioning of the European Union (“TFEU”), and in particular Article 102 thereof;

Having regard to Book IV of the French Commercial Code (Code de commerce), and in particular Article L. 420-2;

Having regard to the official report of the settlement of 12 March 2021 signed by the Deputy General Rapporteur and the companies Google Inc., now Google LLC, Google Ireland Ltd. and Alphabet Inc., pursuant to the provisions of Article L. 464-2 (III) of the French Commercial Code (Code de commerce);

Having regard to the Decisions on Business Secrecy 20-DSA-042 of 23 January 2020, 20-DSA-074 of 7 February 2020, 20-DSA-113 of 17 February 2020, 20-DSA-123 of 18 February 2020, 20-DSA-126 of 18 February 2020, 20-DSA-127 of 18 February 2020, 20-DSA-130 of 18 February 2020, 20-DSA-141 of 20 February 2020, 20-DSA-296 of 1 June

2020,
20-DSA-297 of 2 June 2020, 20-DSA-298 of 3 June 2020, 20-DSA-299 of 4 June 2020, 20-DSA-300 of 5 June 2020, 20-DSA-301 of 8 June 2020, 20-DSA-302 of 9 June 2020, 20-DSA-303 of 10 June 2020, 20-DSA-304 of 10 June 2020, 20-DSA-317 of 11 June 2020, 20-DSA-318 of 12 June 2020, 20-DSA-319 of 15 June 2020, 20-DSA-320 of 16 June 2020, 20-DSA-321 of 17 June 2020, 20-DSA-322 of 18 June 2020, 20-DSA-329 of 18 June 2020, 20-DSA-332 of 18 June 2020, 20-DSA-323 of 19 June 2020, 20-DSA-330 of 19 June 2020, 20-DSA-324 of 22 June 2020, 20-DSA-331 of 22 June 2020, 20-DSA-325 of 23 June 2020, 20-DSA-326 of 24 June 2020, 20-DSA-327 of 25 June 2020, 20-DSA-333 of 25 June 2020, 20-DSA-328 of 26 June 2020, 20-DSA-334 of 26 June 2020, 20-DSA-335 of 25 June 2020, 20-DSA-075 of 2 July 2020, 20-DSA-349 of 3 July 2020, 20-DSA-350 of 6 July 2020, 20-DSA-351 of 6 July 2020, 20-DSA-356 of 9 July 2020, 20-DSA-357 of 10 July 2020, 20-DSA-360 of 16 July 2020, 20-DSA-361 of 17 July 2020, 20-DSA-362 of 20 July 2020, 20-DSA-380 of 22 July 2020, 20-DSA-381 of 23 July 2020, 20-DSA-398 of 14 August 2020, 20-DSA-399 of 14 August 2020, 20-DSA-400 of 14 August 2020, 20-DSA-401 of 14 August 2020, 20-DSA-411 of 26 August 2020, 20-DSA-418 of 28 August 2020, 20-DECR-425 of 2 September 2020, 20-DEC-424 of 2 September 2020, 20-DECR-426 of 3 September 2020, 20-DECR-427 of 4 September 2020, 20-DECR-429 of 7 September 2020, 20-DEC-430 of 8 September 2020, 20-DEC-431 of 8 September 2020, 20-DECR-434 of 9 September 2020, 20-DECR-435 of 9 September 2020, 20-DEC-432 of 9 September 2020, 20-DEC-437 of 10 September 2020, 20-DEC-440 of 10 September 2020, 20-DEC-442 of 11 September 2020, 20-DECR-450 of 14 September 2020, 20-DECR-451 of 15 September 2020, 20-DECR-452 of 15 September 2020, 20-DEC-458 of 18 September 2020, 20-DSA-513 of 21 October 2020, 21-DSA-009 of 20 January 2021, 21-DSA-078 of 1 March 2021;

Having regard to the observations submitted by the company News Corp Inc., the company Groupe Rossel La Voix, the company Groupe Figaro and the companies Alphabet Inc., Google LLC and Google Ireland Ltd.;

Having regard to the other evidence in the case file;

The rapporteurs, the Deputy General Rapporteur, the representatives of the company News Corp Inc., the company Groupe Rossel La Voix and the companies Alphabet Inc., Google LLC and Google Ireland Ltd., and the representative of the minister of the economy heard at the meeting of the *Autorité de la concurrence* on 7 May 2021;

Adopts the following decision:

Summary[1]

By the terms of the present decision, the *Autorité de la concurrence* fines Google for having abused its dominant position in the market for ad servers for publishers of websites and mobile apps, in violation of Articles L. 420-2 of the French Commercial Code (Code de commerce) and 102 of the Treaty on the Functioning of the European Union ("TFEU").

This decision follows a referral by several press publishers who monetise the content of their websites and mobile apps through the supply of advertising space, using two advertising technologies sold by Google: (i) the Doubleclick for Publishers (hereinafter "DFP") ad server; and (ii) the Doubleclick AdExchange (hereinafter "AdX") programmatic advertising space sales platform.

The publishers who referred the practices have argued that Google's two technologies benefited each other to the detriment of competing technology providers and to the detriment of the yield of their own advertising inventories.

The digital display advertising industry and advertising technologies for publishers

In order to market the advertising space on their websites and apps, publishers use various types of technology, in particular ad server technology and programmatic advertising platforms:

- the **ad server** is a tool that allows the serving of ads on the website or mobile app of the publisher. It also makes it possible to manage the sale of advertising space in a unified manner, in particular by giving the publisher the ability to choose, for the same advertising space, between transactions concluded directly with advertisers (known as "guaranteed campaign elements") and the programmatic sale on multiple platforms which organise auctions (i.e. according to an automated mechanism);
- the **supply side platforms for the programmatic sale of advertising space** (**"SSP"**) are "marketplaces" where buyers of advertising space and publishers wishing to sell advertising space (or "impressions") come together. They typically solicit bids from advertisers for a given impression, then conduct an auction between the different prices offered by the advertisers, and finally transmit the winning bid to the ad server.

In order to optimise their revenues and maximise their chances of selling a given ad space, publishers generally offer the same ad space for sale via multiple auction platforms simultaneously. In contrast, publishers generally use a single ad server to organise the competition between the different bidding platforms. The interoperability of an ad server with the bidding platforms therefore determines both the revenue that publishers derive from their advertising spaces and the attractiveness of the auction platforms.

The practices implemented by Google to promote its own advertising intermediation technologies

Google has engaged in two distinct practices whereby its DFP ad server favoured its AdX SSP and, conversely, its AdX SSP favoured its DFP ad server.

Firstly, the DFP ad server favoured the AdX bidding platform, in particular by indicating to it the price offered by competing SSP platforms. AdX used this information to optimise the

[1] This summary is for information purposes only. Only the following numbered paragraphs of the decision are authentic.

bidding process it was implementing, in particular by varying the commission received on impressions sold according to the intensity of competition.

Secondly, Google has imposed technical and contractual limitations on the use of the AdX platform through a third-party ad server. As a result, the modalities of interaction offered to third-party ad server clients were inferior to the modalities of interaction between DFP and AdX, which penalised both third-party SSPs and publisher clients.

Google has requested the *Autorité* to apply the settlement procedure, pursuant to the provisions of Article L. 464-2 (III) of the French Commercial Code (Code de commerce). The application of the settlement procedure resulted in an official settlement report being drawn up, which was signed with the General Rapporteur, setting out the maximum and minimum amount of the financial penalty that could be imposed by the *Autorité*.

In the course of the discussions with the General Rapporteur in the context of the settlement, Google also proposed commitments.

In the first instance, Google proposed several commitments that aim to ensure that Google offers third-party SSPs a way to interoperate with the DFP server, allowing competition on the merits between AdX and third-party SSPs for buying inventory from publishers using DFP.

In the second instance, Google committed to making changes to the existing configurations (AdX Direct and Unsold Campaign Element) that allow publishers using third-party ad servers to access AdX demand in real time.

The *Autorité*, having examined all the facts of the case file, considered that a fine of €220 million should be imposed, this amount being within the range set out in the official settlement report.

Furthermore, the *Autorité* considered that the commitments offered by Google were making it more likely for the latter to be once more in compliance with the law, and improve the competitive functioning of the market for ad servers and SSP platforms. It therefore made these commitments mandatory for a period of three years from the date of notification of the decision or, where appropriate, from their actual implementation date.

CONTENTS

I. Findings

A. REMINDER OF THE PROCEDURE

1. By letter registered on 25 June 2019 under number 19/0030 F, the company News Corp Inc. referred to the *Autorité de la concurrence* (hereinafter "the *Autorité*") practices implemented by the companies Google Inc., now Google LLC, Alphabet Inc., and all of the subsidiaries of Alphabet Inc. (hereinafter "Google");

2. By letters registered on 23 September 2019 under numbers 19/0056 F and 19/0057 F, the companies Groupe Figaro and Groupe Rossel La Voix also referred to the *Autorité* practices implemented by Google.

3. According to the complainants, Google has a dominant position in the market for ad servers for publishers and has engaged in abusive practices by systematically favouring its supply side platform for advertising space, to the detriment both of competing providers and of the yield of their online advertising inventories. Moreover, Google allegedly engages in a predatory strategy aimed at strengthening this dominant position and exploiting its vertical integration in the advertising technology ecosystem, to generate additional margins. Publishers and advertisers are apparently unable to know the amount of these additional margins which appear to be kept confidential by Google.

4. By decision of 26 September 2019, the Deputy General Rapporteur of the *Autorité de la concurrence* decided to join the investigation of these complaints, in accordance with Article R. 463-3 of the French Commercial Code (Code de commerce).

5. On 1 and 19 October 2020, the investigation services sent the companies Alphabet Inc., Google LLC and Google Ireland Ltd. a statement of objections concerning practices which are prohibited under Article 102 of the Treaty on the Functioning of the European Union (hereinafter "TFEU") and Article L. 420-2 of the French Commercial Code (Code de commerce).

6. On 6 November 2020, the company Groupe Figaro withdrew its complaint. By decision 20-C-05 of 23 November 2020, the *Autorité* noted the withdrawal of the company Groupe Figaro.

7. In an official report signed on 12 March 2021, the companies Alphabet Inc., Google LLC and Google Ireland Ltd. undertook not to contest the notified objections and submitted various commitments which were annexed to the official settlement report.

8. At the hearing of 7 May 2021, Google formally confirmed its agreement with the terms of the settlement.

B. THE ONLINE ADVERTISING SECTOR

9. Publishers of websites or mobile apps are likely to monetise their content or services by inserting advertising space on their site. This is the case, for example, for news sites such as lequipe.fr, but also for e-commerce services such as cdiscount.com, which sell advertising space in addition to their products or services.

10. These advertising spaces can primarily be distinguished according to whether they are linked to a search performed by the Internet user or not[2]. The advertising spaces linked to a search are those displayed on the results pages of general or specialised search engines[3]. When the ad is not linked to a search, it is generally referred to as *display advertising* by the industry).

11. The term advertising inventory refers to all the advertising space available for sale at a given time, for a given period, and for a given advertising medium. The online advertising inventories of a website correspond to the surface area of the advertising spaces of each page of this site, multiplied by the number of times this page is opened by the various users (Internet users, smartphone users or app users) and each time a page of the site is opened, a new surface area of advertising is possible[4].

12. Only display advertising, i.e. inventories not linked to a search, are concerned by the practices which are the subject of this Decision.

1. THE SUPPLY OF ONLINE NON-SEARCH ADVERTISING SPACE

a) Advertising formats and media

13. Online display ads can come in a variety of formats, and can be displayed on different media.

14. To designate the display of a given ad to an Internet user, we refer hereinafter, according to the terms used in the sector, of an ad "impression". A web page including an ad space consulted by ten Internet users therefore generates ten impressions.

[2] See, in this regard, Opinion 18-A-03 of 6 March 2018 on data processing in the online advertising sector, paragraph 178.
[3] See, in particular, Decision 19-D-26 of 19 December 2019 regarding practices implemented in the online search advertising sector.
[4] See the glossary in *Autorité* Opinion 18-A-03 on online advertising.

The formats

15. The Syndicat des Régies Internet ("SRI")[5] distinguishes between the so-called classic formats, which include:

- the banners,
- the site skins,
- video, which is further subdivided into in-stream video, i.e. video inserted into pre-existing video content, and out-stream video, i.e. video inserted into non-video content,
- special formats including native formats and audio.

16. The main formats are presented in more detail in the table below:

Format	Description	Examples
Banners	The most common advertising format. The impression can include images and animations.	Banners, tiles, and website skins.
Native	An advertising format that is integrated into the surrounding content, for example within a news feed or in the form of recommendations.	Link to a sponsored product appearing in an Instagram feed.
Out-stream video	A video advertising format that plays within the surrounding content.	Video ad appearing in the middle of an article on the website of L'Équipe.
In-stream video	A video advertising format that appears before, during, or after the playback of video content.	30 second video as played before content is played on the My Canal app. 6 second video ad played during the playback of a content on YouTube.

17. Under the impetus of industry associations representing online advertising players such as the IAB (Interactive Advertising Bureau)[6] or the Coalition for Better Ads[7], all of these formats are moving towards ever greater standardisation, for example in terms of display size. These standards aim both to guarantee an acceptable "user experience" and to allow for greater fluidity in relations between publishers and advertisers. In so doing, they help valorise the online advertising space.

18. In general, the most exposed advertising spaces (typically the top of web pages or the centre of articles) are the most visible by users, and therefore the most profitable for publishers.

[5] 23ème Observatoire de l'e-pub, SRI France, Accessible at: http://www.sri-france.org/wp-content/uploads/2020/01/20200130_ePub_2019_VDEF-Post-pr%C3%A9sentation.pdf. The SRI is a professional association that represents the main sellers of online advertising space in France.
[6] The IAB France is an association founded in 1998 whose remit is to structure the internet communications market, promote the use thereof and to optimise the effectiveness thereof (https://www.iab.com/).
[7] https://www.betterads.org/

The least exposed locations, for example at the bottom of a website, are most often dedicated to native formats or content recommendations, and are often perceived as less desirable[8].

The media

19. The SRI also distinguishes between display advertising according to their medium of distribution, generally differentiating between distribution on a computer, on a smartphone - itself split between the web environment, i.e. via the browser installed on the phone, and the app environment, i.e. in an app other than the browser - and addressable television, which groups together smart TVs, Internet boxes provided by operators, and comparable media connected to a TV, for example Roku, Amazon Fire TV Stick or Apple TV.

20. The formats offered on each of these media are more or less the same, but there may be marginal differences, for example in the size of the displays or the quality of the video streams. There are also differences in the acceptability of formats: for example, the interstitial format, which blocks the display of content for a limited time, is considered acceptable on smartphones, but contrary to the recommendations of the Coalition for Better Ads for computer content[9].

b) Ad targeting

21. Historically, display advertising was based on the content of the destination site or web page, so that there was a match between the content of the page and the ad, but also between the audience of the site and the advertiser's target audience. This type of advertising is called contextual advertising.

22. So-called personalised advertising has gradually developed, i.e. advertising that is displayed according to the profile of the Internet user that visits the site. The data used can be demographic, for example the age and sex of the Internet user, their socio-professional category, but also behavioural data, such as the sites visited, their geolocation, or the interests of the Internet user.

23. Studies conducted by the company Google have shown that, under certain circumstances, displaying personalised ads can double publishers' revenues[10].

24. The evolution of the regulatory framework, in particular with the entry into force of the General Data Protection Regulation (GDPR)[11], has prompted a clarification of the conditions under which the personal data of Internet users can be collected and used. One of the major points of the European regulatory framework, which was subsequently clarified by the data protection authorities[12], is that the collection and use of personal data of Internet users for the purpose of ad targeting can in principle only be done with their explicit consent. This

[8] See, for example, the minutes of the hearing of the Rossel group, classification mark 7389.
[9] https://www.betterads.org/desktop-prestitial-ad-with-countdown/
[10] Competition & Markets Authority: Online platforms and digital advertising, *Market study final report*, Appendix F: the role of data in digital advertising, paragraphs 142 et seq. D. Ravichandran, N. Korula, *Effect of disabling third-party cookies on publisher revenue*, 2019. Accessible at: https://services.google.com/fh/files/misc/disabling_third-party_cookies_publisher_revenue.pdf ;
Interim report of the Australian Competition and Consumer Commission ("ACCC"): page 58: https://www.accc.gov.au/system/files/Digital%20Advertising%20Services%20Inquiry%20-%20Interim%20report.pdf
[11] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).
[12] See in particular (French only): https://www.cnil.fr/fr/cookies-et-autres-traceurs

consent must be obtained for each of the companies involved in the use of personal data. It may nevertheless be collected by a third party, for example in the event that the content publisher uses the services of external companies for display advertising.

25. In order to use personal data to display targeted advertising, there are four main methods: closed platforms (sometimes referred to as "walled gardens"), advertising identifiers, "fingerprinting" and cookies.

26. In the case of closed platforms (e.g. logging into a Facebook account), a user logs in to access a service. The data generated by the user (or inferred from their use), can then be used to target advertising content, either directly by the service in question or by being shared with third parties. The active nature of the identification process, as well as the reluctance of Internet users to identify themselves online, limits the use of this method to a fraction of digital content publishers, namely those who offer services to the most attractive Internet users and/or whose content is visited relatively frequently.

27. In the case of cookies, the active identification of the Internet user is not necessary, since the visited site places a small file on the device used which will make it possible to recognise the device at the next visit, and thus to gradually accumulate information on this Internet user. This cookie is reserved for the site that placed it and cannot be read by another site. This method is specific to web environments.

28. Conversely, fingerprinting is a probabilistic technique that aims to uniquely identify a user on a website or mobile app using the technical characteristics of their browser or individual identification data. The hardware that the user uses to connect provides the server with various information, such as the screen size or the operating system. This information, if sufficient in quantity, can be used to distinguish between individuals and track them in a similar way to cookies.

29. Finally, advertising identifiers are a method specific to app environments. Mobile devices have a unique identifier per device, called the *Android Advertising Identifier* for Google Android devices and the IDFA for Apple iOS devices, which can be used by apps for ad targeting purposes.

c) Marketing methods to sell advertising space

30. Two methods of marketing online advertising space coexist: direct sales and programmatic sales.

31. Direct sales are based on an agreement concluded directly between the publisher of the website or mobile app and the advertiser, possibly represented by an agency. These agreements are generally based on targets over a given period of time, either in terms of number of impressions or percentage of impressions. They imply that sales teams are in contact with advertisers or their representatives, and can therefore only be justified for large volumes. Furthermore, they require the ability to predict the quantity of advertising impressions available for sale, whereas the number of visitors to a site or app is by nature uncertain. This marketing method is therefore only used by publishers of websites or mobile apps that have a large audience, a particular brand image, or that attract an audience specifically targeted by advertisers.

32. The company Groupe Rossel, whose direct sales represent a significant part of its online advertising revenues, has stated in this regard (translated): "*Direct sales remain important for us in terms of turnover, but they have evolved. We used to have a lot of sales in conventional display, and this is shifting to native advertising or brand content. It's*

immediate because we have to work on the content, on its distribution. There is little in the way of programmatic in these categories. But this leads to a sharp decrease in margins because this content is expensive to produce. There is a desire to resist commoditisation by offering different, more sophisticated formats. [...] We generate a lot of direct sales, because we have a large sales force that allows us to be very proactive. We also have a sizeable local turnover, and the local is very direct. We have almost 400 sales people in the group. This represents quite a cost, especially since finding a good local sales agent in somewhere like Troyes or Dunkerque is difficult"[13].

33. Direct sales are generally made on the basis of a fixed cost per impression, expressed on a cost per mille (hereinafter "CPM") basis. Direct sales are generally priced higher than programmatic sales, particularly as they typically involve the most attractive inventory. Direct sales are also valorised more effectively for the same inventory, insofar as they make it possible to offer advertisers a tailor-made service, exclusivity on certain inventories, useful visibility on volumes and amounts committed, and generate little or no intermediation costs. As such, Le Figaro and Webedia have stated that the same advertising space sold in a programmatic way generates a 30 to 60% less revenue than a direct sale[14].

34. As for programmatic sales, these are a set of automated processes designed to bring together publishers with advertising space to sell, and advertisers. The decision to buy, or not, a given impression is made in "real time", based on information not only about the context (e.g. the web page) in which the ad will be displayed, but also about the user to whom the ad will be displayed. The sales chain thus involves one or more providers of intermediation technologies, which organise a connection, for each impression, in a very short time, generally less than a second.

35. Direct sales account for a significant portion of the advertising revenues of major publishers (typically between 30% and 75%[15]). The share of programmatic advertising, and in particular transactions based on so-called open or private auctions, has nevertheless increased significantly over the recent period[16].

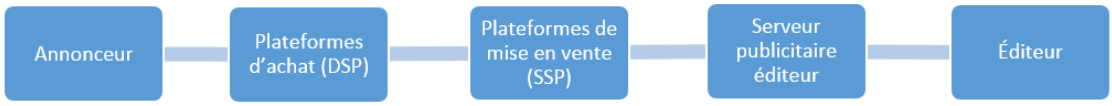
36. Since 2015, a hybrid marketing mode, known as "Programmatic Guaranteed", has gradually developed. This modality follows the commercial rationale of direct sales, i.e. the purchase of a given quantity of inventory at a fixed price, in the context of an agreement between the advertiser and the publisher, but allows it to be done using programmatic tools, rather than by implementing pre-existing manual processes, which makes it possible to improve the efficiency of the advertising staff. This innovation has accelerated the shift in sales from direct to programmatic, as publishers typically count it as part of their programmatic sales.

2. ADVERTISING TECHNOLOGIES FOR PUBLISHERS OF WEBSITES AND MOBILE APPS

37. In order to market their online advertising inventory to advertisers, publishers use ad server technologies (a) and/or different types of ad intermediation platforms (b).

38. These technologies interact in a larger ecosystem that can be illustrated by the simplified diagram below:

[13] Classification mark VC 7385.
[14] Classification marks VC 7233 (VNC 16564) and 7540.
[15] Classification marks VC 7521 (VNC 13041); VC 12032 (VNC 16844); VC 1742 (VNC 17304); VC 12044 (VNC 17523); VC 5577 (VNC 17333), VC 7251 (VNC 17285), 13145 (VNC 17289).
[16] See classification marks referred to above.



	Advertiser
	Demand side platforms (DSP)
	Supply side platforms (SSP)
	Publisher Ad Server
	Publisher

a) Ad servers for publishers

39. Ad servers are the first technological layer involved in the selection and distribution of online advertising. They allow publishers to manage their ad inventories by evaluating their availability, based on their historical properties, and automatically select the most relevant and profitable ads available. As such, publisher ad servers can decide for the publisher which advertiser to sell the ad space to. They differ from advertiser ad servers, which are only solicited after the advertiser has purchased the advertising space to select the ad to be displayed, send it to the Internet user and ensure its follow-up[17].

40. Publisher ad servers have four main features, namely:

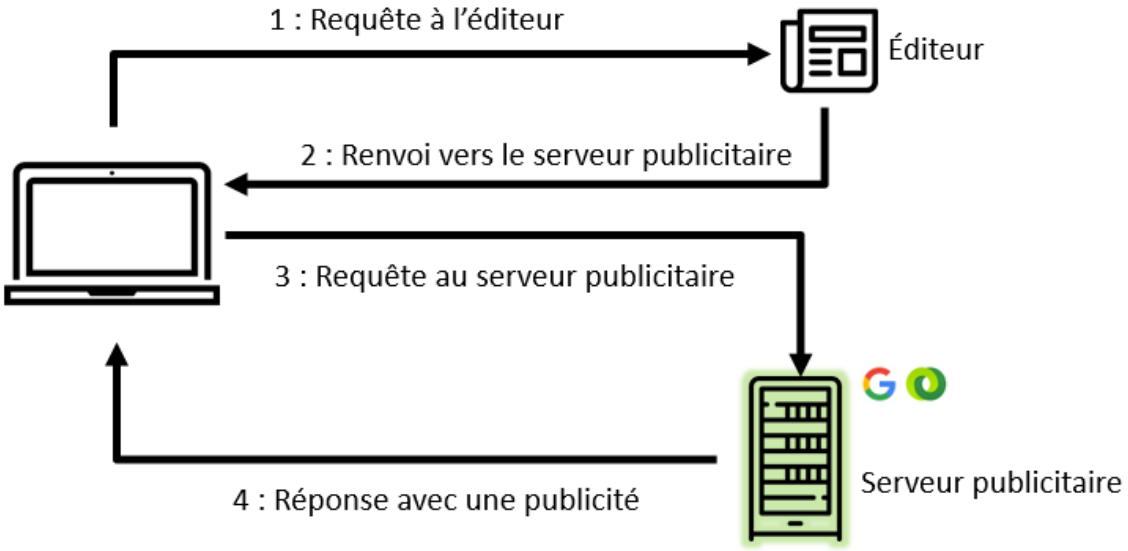
- they allow the implementation, delivery and follow-up of ad campaigns sold directly to advertisers;
- they enable programmatic sales;
- they make it possible to decide on the most profitable ad to display, taking into account both direct and programmatic sales, for each impression; and
- they enable monitoring of sales performance[18].

41. The ad server arbitrates between the proposals made by advertisers, for a given impression, according to the remuneration earned and the opportunity cost associated with displaying a given ad when the publisher has made commitments on volumes of impressions, i.e. generally in the case of direct sales.

42. When an Internet user connects to a website (step 1 in the figure below), their browser is directed to the publisher's ad server (steps 2 and 3). The ad server selects the type of ad content to be displayed for each ad space on the page, and then sends the browser either directly to the ad server of the advertiser who purchased the ad space (step 4, in the case of a direct sale), or to an intermediary who will be responsible for monetising the space. This works in a similar way when a user logs into a mobile app.

How an ad server works in the case of direct sales

[17] In this regard, see *Autorité de la concurrence* Opinion 18-A-03 of 6 March 2018 (cited above) paragraphs 30 et seq.
[18] See, for example, classification marks 14620 et seq.



Source: Autorité de la concurrence

	Request to the publisher
	Publisher
	Forwarding to the ad server
	Ad server request
	Response with an ad
	Ad Server

43. In order to select their ad server solution, publishers typically draft specifications and send them to a selection of providers, the most frequently cited by the publishers interviewed being Google, and two competitors Xandr (formerly known as AppNexus) and Smart Adserver. The selection criteria mentioned mainly relate to[19]:

- access to the broadest possible demand;
- the technical quality of the proposed solution, including the interface, features and compatible formats;
- the provider's capacity to invest in research and development;
- the possibility of obtaining specific developments from the provider;
- the quality of the technical and commercial support.

44. More exceptionally, a publisher may choose to develop its own ad server solution. This was the case, for example, for the Webedia group, which nevertheless indicated that this in-house solution no longer allowed it to meet the criteria listed above and which in the end opted for Google's technological solution in the course of 2019[20]. In fact, only the largest publishers are currently able to effectively operate a technology solution developed in-house (typically social networks such as Facebook, LinkedIn, etc.). In this respect, publishers with significant

[19] Classification marks 14620 et seq, VC 7522 (VNC 13042), 12034, 7387.
[20] Classification mark VC 7543.

resources indicated that it was not feasible for them to develop in-house technology which was capable of meeting their needs[21].

45. In general, it may be preferable for a publisher to use a single ad server to manage all of its inventory. In effect, this standardisation makes it possible to:

- simplify the counting of campaigns sold directly;
- reduce training time for campaign managers;
- offer more favourable pricing due to higher volumes of impressions per server;
- simplify the necessary technical developments.

46. However, when one ad server has specific qualities for a part of the inventory or, conversely, is not capable of handling certain types of inventory efficiently, publishers may have an incentive to use multiple ad servers simultaneously. Different configurations were therefore highlighted by the publishers interviewed, in particular the use of a main ad server, for example the one marketed by Xandr, combined with the ad server of Smart Ad Server for the inventories of apps, or Google for the inventories of videos.

47. The value of such combinations falls as the differences in the quality of the services offered by the different providers also falls. There is therefore a trend towards reducing the number of ad servers used by the publishers interviewed[22], a trend also observed in an internal analysis provided by Google[23].

48. Publishers do not switch from one ad server to another very often[24]. Indeed, switching ad servers represents a significant switching cost and risk for publishers. Besides the management resources required for such a switch, the length of the transition period, the development and operational resources required and the need to train teams in a new technology all represent a significant challenge. In light of these elements, switching ad server is likely to result in significant short-term revenue losses. One major publisher reported losing several million euros in revenue in the months following its switch to a new ad server[25].

49. Most ad servers charge publishers a flat fee for each impression served, which may depend on the size of the impression and the activation of certain features. However, some providers may offer licence-based pricing, which is a fixed, recurring fee that is applied regardless of the number of impressions served. Providers may also offer their ad server free of charge, at least for a limited number of impressions, or at a discounted price as part of a package that includes other services, such as data analysis or intermediation services.

b) Supply-side advertising intermediaries

50. For historical reasons, there are different types of ad intermediation technologies that allow publishers to connect with advertisers (or buyers) in a programmatic way. As the industry has evolved, the differences - in particular functional differences - between these technologies have gradually been eliminated. As such, certain historically distinct technologies now largely overlap in terms of the functionalities they offer, meaning that

[21] Classification marks 12033, 7525 (VNC 13045), 7246, and 5263 (VNC 6424).
[22] Classification marks VC 13146 (VNC 13818), 7544, 7522 (VNC 13042).
[23] Classification mark VC 9830 (VNC 14359).
[24] See, for example, classification mark VC 13146 (VNC 13818).
[25] Classification mark VC 7525 (VNC 13045).

publishers can substitute these different technologies for each other when they sell their online advertising inventories.

51. All of these technologies may or may not be used in conjunction with an ad server. However, to the extent that a single intermediary is generally not capable of marketing all of a publisher's impressions, publishers have a strong incentive to use these intermediaries in conjunction with an ad server in order to optimise their inventory fill rate and, consequently, the revenues they earn. In addition, having several competing intermediaries makes it possible to maximise the return on the inventory. Moreover, the commercial performance tracking features offered by ad servers are essential for the main publishers. The use of serverless intermediation technologies is thus limited to publishers with low advertising revenues.

Advertising networks

52. The first historical intermediaries were the advertising networks, whose model consisted of grouping together the spaces available on the sites of multiple publishers, often according to criteria such as their exposure or the theme of the websites, and marketing them to advertisers, paying the publishers a fixed price.

53. For smaller publishers, i.e. primarily those who do not have a direct relationship with advertisers (and are often not equipped with an ad server), ad networks are an ideal solution. On the other hand, as other intermediation technologies have been developed that offer more extensive control options (in particular with regard to the content of the campaigns displayed), they have become gradually less relevant, particularly for larger publishers[26]. For example, the News Corp Group indicated that using these intermediaries was not envisaged for its main websites[27].

54. Most ad networks have now changed their model or no longer exist[28]. However, there is no consensus on the definition of ad networks[29] and the term is still sometimes used to designate certain actors, in particular those offering limited control to publishers over their inventories. As such, Google's AdSense and AdMob services are generally referred to as ad networks, and continue to be widely used. AdSense is made up of two services, AdSense for Content (AFC) and AdSense for Search (AFS). AFC allows publishers to serve ads on the content pages of websites, while AFS allows them to use a search engine on their site that also sends the keywords to Google to display relevant ads on the publisher's results pages. AdMob is Google's advertising platform for serving ads on mobile apps.

Supply side platforms (SSP)

55. Supply Side Platforms (SSP) emerged after ad networks, and today are the preferred intermediaries of the largest publishers.

56. It should be noted that SSPs were initially connected to advertisers via marketplaces, or *ad exchanges*, which were themselves connected to platforms for purchasing advertising space or demand-side platforms (see paragraphs 62 et seq.). However, the development of direct relationships between DSPs and SSPs, and the organisation of auctions by the SSPs themselves, have called into question the distinction between the two types of actors,

[26] Classification mark VC 5266 (VNC 6427).
[27] Classification mark VC 5263 (VNC 6424).
[28] Classification mark VC 5266 (VNC 6427).
[29] Competition & Markets Authority: Online platforms and digital advertising, *Market study final report,* Appendix M: intermediation in open display advertising, paragraph 116.

meaning that today, for publishers, there are no practical differences between SSPs and the marketplaces. The company Verizon Media states that (translated) "*it is not necessary to distinguish the service offered by the SSPs from those offered by the AdExchanges. Both platforms are based on the same or similar technologies and these terms are increasingly used interchangeably to refer to the same product. As a result, SSPs and AdExchanges are likely to meet the same needs, particularly from the publisher's perspective. As far as we are concerned, both terms refer to the same products/technologies, but we call them "Supply Side Platforms" among publishers, and "exchanges" among buyers*"[30]. Hereinafter, the term SSP will be used to refer to both SSP and *ad exchanges*.

57. Unlike historical advertising networks, SSPs hold an auction for each available impression, and therefore do not offer a fixed remuneration to the publisher. These platforms also offer publishers additional services, including greater control over the content of the campaigns they run, allowing them to better protect their own brand image, for example. For each impression, a publisher's ad server will usually send a request for a bid to multiple SSPs (typically around ten) and will select the best bid that these different SSPs are able to submit.

[30] Classification mark VC 1592; VNC 7068.

58. Most SSPs mainly offer three different transaction modes to publishers, namely open auctions, private auctions, and preferred agreements. These transaction modes are presented in the table below:

Open auction	*Auction-based transactions involving inventory available to all buyers.*
Private auction	*Auction-based transactions involving one or more specific buyers who have been added to a whitelist by a company.*
Preferred agreement	*Transactions negotiated by publishers with one or more specific buyers. Prior to the auction, they are based on a fixed price.*

59. As mentioned above, since 2015, several providers have gradually introduced a new transaction mode, known as "Programmatic Guaranteed", which aims to offer publishers an alternative to their usual direct sales. The transactions based on programmatic guaranteed therefore pertain to inventory with a prior commitment that has been negotiated with a single buyer on the basis of a fixed price.

60. The same impression can be proposed by multiple transaction modes. In principle, transaction modes based on a fixed price take precedence over auctions, and among the latter, private auctions take precedence over open auctions.

61. In general, and regardless of the transaction mode used, the SSP business model is typically based on charging a percentage of the transaction amount. This percentage is determined in the context of a commercial negotiation between the publisher and the platform provider, and is generally between 5% and 25% of the transaction amount, whereas ad networks generally retain between 25% and 50% of the transaction amount[31]. SSPs can also be offered to publishers as stand-alone products or bundled with ad servers by vertically integrated companies such as Google, Xandr or Smart Adserver.

3. DEMAND SIDE PLATFORMS (DSP)

62. In order to make purchases in a programmatic way, advertisers or their agencies use their own advertising intermediation technologies, known as "demand side". These platforms allow participation in auctions organised by SSPs, but also, in some cases, purchases from ad networks, as well as the purchase of inventory within closed ecosystems such as Facebook, Twitter or YouTube.

63. The modalities for managing DSP auctions varies across a broad spectrum, with, at one end, services that optimise bidding strategies using advanced algorithms but are totally opaque to the advertiser, and, at the other, almost total control by the advertiser over the amount of the bids. In this respect, some DSPs propose that advertisers themselves supply the algorithm that evaluates the amount of the bid to be made.

64. DSPs are also likely to offer advertisers a variety of targeting methods, for example of a category of users based on socio-demographic characteristics, but also on interests or

[31] Competition & Markets Authority: Online platforms and digital advertising, *Market study final report*, Appendix R: Fees in the adtech stack, paragraphs 65 and 69.

similarities with a given group. They can also offer advertisers the option of choosing an objective for their advertising campaign, such as maximising site visits or product sales, with the DSP pursuing that objective through advanced statistical techniques.

65. The business model of DSPs depends on the service provided to the user. When the advertiser exercises fine control over the strategy of the DSP, the latter generally retains a percentage, specified contractually, which often varies according to the features used. Conversely, DSPs offering advanced optimisation services will retain a variable and often unspecified contractual share of expenses, as it varies according to the impressions, but generally larger. The *Competition and Markets Authority* (CMA) reports that the fees of DSPs are generally between 5% and 42%, with an average of around 14%[32].

66. Finally, the DSP can charge the advertiser or its agency in various ways, for example by invoicing each click of an Internet user on an ad. Since publishers are most often paid by the number of ads displayed, the DSP will have to predict the probability of the user clicking to convert the cost per click that will be charged to the advertiser into a cost per impression to be paid to the publisher.

C. THE COMPANIES INVOLVED

1. THE COMPANIES NEWS CORP, GROUPE FIGARO, AND GROUPE ROSSEL

67. News Corp, Groupe Figaro and Groupe Rossel are companies specialised in the creation, publication and distribution of content for individuals and professionals, mainly in the area of news and information.

68. The business model of these companies is based on a combination of revenues from subscriptions, licensing fees, the provision of various services, and the sale of advertising space, both for the print and digital versions of their content. As part of their online advertising supply business, these companies are major users of ad servers and supply side platforms for advertising space.

69. In recent years, the development of digitisation has led to a sharp decline in revenues generated by print advertising. According to the Institut de Recherche et d'Études Publicitaires, sales in the print advertising market in France fell between 2011 and 2018 from €3.495 billion[33] to €2.172 billion[34]. This fall was accompanied by a significant increase in online advertising revenues, which did not, however, offset the decline in print advertising. The total digital revenues of TV, radio and press media related to online advertising thus represented a total of €396 million[35] in 2018. In the European Union, paper advertising revenues for newspapers

[32] Competition & Markets Authority: Online platforms and digital advertising, *Market study final report*, Appendix R: Fees in the adtech stack, paragraphs 59 and 60.

[33] The French advertising market in 2011, IREP , Available at the following address: https://www.irep.asso.fr/_files/marche_publicitaire/IREP_MPF_2011.pdf

[34] Unified Advertising Market Barometer 2018, IREP, Available at: http://www.irep.asso.fr/_files/marche_publicitaire/communique-bump-marche-publicitaire-2018.pdf

[35] Idem

and magazines fell from €30 billion in 2011 to €21 billion in 2016[36] according to the European Audiovisual Observatory[37].

The company News Corp

70. News Corp is a diversified group of media and service companies with operations primarily in the US, Australia and the UK.

71. News Corp's news and information services include its subsidiaries Dow Jones, which publishes *The Wall Street Journal*, *Barron's* and *Dow Jones Risk & Compliance*, News UK, which publishes *The Times*, *The Sunday Times* and *The Sun*, News Corp Australia, which publishes *The Australian, The Daily Telegraph,* and *The Herald Sun,* and NYP Holdings, which publishes the *New York Post,* and News America Marketing. All of these publications are published in print versions, but also in a digital version accessible on the web or via a dedicated mobile app.

72. In the fiscal year ending 30 June 2018, News Corp generated turnover of around €7,570,000,000. In 2018, News Corp generated turnover of around [...] by selling online advertising space, itself made up of [...] of programmatic sales (i.e. around [30 - 40] %).[38]

The company Groupe Figaro

73. Groupe Figaro is a diversified group of media and service companies with operations primarily in France.

74. The news and information services of Groupe Figaro are published by its subsidiary Société du Figaro and include *Le Figaro* and *Madame Figaro*. These publications are published in print versions, but also in a digital version accessible on the web or via a dedicated mobile app.

75. In addition, Groupe Figaro markets other types of online services, including its subsidiaries Figaro Classified, which publishes the websites *cadreemploi.fr, keljob.com* and *viadeo.fr*, CCM Benchmark, which publishes the websites *commentcamarche.net, linternaute.com and journaldunet.com,* Meteo Consult, which publishes the website and mobile app *La Chaîne météo,* and Ticketac, which publishes the website *ticketac.com*[39].

76. Since the end of 2015, all the advertising space sold on these sites and mobile apps has been monetised by the Media.Figaro ad network.

77. In 2018, Groupe Figaro generated turnover of around €590,600,000 of which around [...] was by selling online advertising space[40].

The company Groupe Rossel

78. Groupe Rossel is a group of media and services companies mainly present and active in Belgium, France and Luxembourg.

[36] The EU online advertising market Update 2017, European Audiovisual Observatory, Strasbourg, 2017.
[37] The European Audiovisual Observatory was created in 1992 and is part of the Council of Europe which has its headquarters in Strasbourg,
[38] Classification mark VC 5577.
[39] For a complete list of websites and mobile apps published by Groupe Figaro, see classification marks VC 1738 to 1739.
[40] Classification mark VC 1738.

79. Groupe Rossel's news and information services include its subsidiaries Rossel & Cie, which publishes *Le Soir*, Groupe SudPresse, which publishes *La Meuse, La Nouvelle Gazette* and *La Capitale*, Groupe VLAN, which publishes *Vlan, 7Dimanche* and *Le Sillon Belge*, and Groupe Rossel La Voix, which publishes *La Voix du Nord, Le Courrier picard, Nord éclair*, and *L'Union – L'Ardennais*. All of these publications are published in print versions, but also in a digital version accessible on the web or via a dedicated mobile app.

80. In addition, Groupe Rossel sells exclusively online services through its subsidiary Net Events Media, which publishes the websites and mobile apps Cinénews and Rendez-Vous[41].

81. The advertising inventory sold on these sites and mobile apps is marketed by various ad networks, most of which are controlled by Groupe Rossel. The inventories of the French regional daily press titles are nevertheless managed by a common national ad network, called "366", and the inventories in video format by the external ad network IP RTL[42].

82. In 2018, Groupe Rossel generated turnover of €496,435,528.

2. THE COMPANY GOOGLE

83. Google is a multinational company specialising in Internet-related services and products, including online search, software and hardware, cloud computing and online advertising technologies. It provides these services worldwide, excluding certain territories, such as China.

84. In August 2015, Google announced its intention to reorganise its group structure by creating Alphabet, a new holding company. On 2 October 2015, Google effectively became a subsidiary controlled by Alphabet.

85. On 30 September 2017, Google changed its legal form to become a limited liability company (from Google Inc. to Google LLC.). At the same time, a new subsidiary of Alphabet, XXVI Holdings Inc., took control of Google.

86. Google's business model is based primarily on the interaction between services that are provided free of charge, but which allow it to collect personal data from users, and sales of online advertising technology. In addition, Google is itself active on the online advertising market, where it sells its own advertising inventory. In this respect, Google's main source of revenue is the sale of advertising space that it controls, in particular on the results pages of the Google search engine, the YouTube video hosting site and the Google Maps service.

87. Google offers a range of technologies that enable it to provide services across the various segments of online advertising, including full ranges of services for both publishers and advertisers. These services were partly built up through a number of acquisitions, namely of the companies DoubleClick in 2008[43], Admob in 2009, Invite Media in 2010, and AdMeld in 2011.

88. The main online advertising technologies sold by Google to publishers are the DoubleClick for Publishers ("DFP") ad server and the DoubleClick Ad Exchange ("AdX") platform.

[41] For a complete list of websites and mobile apps published by Groupe Rossel, see classification marks VC 1687 to 1692.
[42] Classification mark 7387.
[43] Authorised by a European Commission decision of 11 March 2008, M.4731, Google / DoubleClick.

Google also markets the AdSense and AdMob platforms, the latter offering limited ad serving capabilities for mobile app environments.

89. In June 2018, Google integrated DFP and AdX into Google Ad Manager ("GAM"), which is the server and platform offering for publishers. It states that (translated) "*although these features are now available on the same interface, publishers can choose to use the ad server or ad exchange features separately*," and adds that the two services "*work perfectly together because they share the same technical infrastructure (which means they offer reduced latency) and the user interface and reporting tools have been built on the same format and design*"[44]. For inventory buyers, AdX has been renamed Authorized Buyers and is marketed as a separate offering from GAM.

90. DFP is a server that allows a publisher to program and control the advertising that will appear on their sites. The publisher identifies their pages with DFP tags where they want to display ad content, and the DFP interface allows them to decide which ad will appear where, when and how many impressions will be shown. Unlike AdSense, whose advertising service allows a company to open up their inventory to a large number of buyers and sell it in real time to the highest bidder, DFP allows a publisher to negotiate the sale of impressions directly to an agency or advertiser, and to program the corresponding campaigns. In order to optimise the matching of supply and demand for online advertising, marketplaces such as AdX have been set up. Rather than reserving a volume of inventory for certain buyers at a fixed price, a publisher can also offer it for sale on AdX. Hundreds of buyers are connected to this marketplace, and they have the opportunity to bid for the right to advertise on the impressions they are interested in.

91. DFP is a multi-format, multi-media publisher ad server with a business model split between DFP *Small business* and DFP *Premium*. The first one is free, but limited both in its features and in the number of ads served each month[45]. The second is invoiced to publishers at rates that are generally degressive according to the number of ads displayed and that vary according to the format of the ads (videos, banners, rich media ads in particular). An additional fixed cost is also sometimes applied, such as when the publisher uses the audience management feature, which allows them to segment visitors and display campaigns sold directly to a specific segment. However, ad server fees may be waived for impressions served via AdX when the publisher has subscribed to a combined DFP and AdX offering.

92. For its part, AdX's business model is based on a commission of around 20% on revenues paid to publishers. This commission is based on the average of impressions served, although it may be modulated for a given impression in the context of a "dynamic revenue sharing" feature that is enabled by default in DFP (see further discussion in paragraphs 182 et seq.).

93. Google also offers a range of advertising technologies for advertisers, including the DV360 (formerly DoubleClick Bid Manager, "DBM") and Google Ads (formerly Google AdWords) platforms, as well as the DoubleClick Campaign Manager (now Campaign Manager) ad server. These products are now integrated into the Google Marketing Platform, but as with the supply-side offering, advertisers are still able to purchase and use the server and intermediation features separately.

94. In 2018, Alphabet had worldwide turnover of €115,968,000,000, of which €[0 - 500] million was generated via sales of ad server services to publishers[46] and €[10 - 20] billion via sales

[44] Classification mark VC 677 (VNC 1946).
[45] Within the European Economic Area, this limit is set at 150 million impressions per month (excluding video impressions) in most countries and 200 million per month in the others.
[46] Classification mark VC 966.

of intermediation services to publishers[47] (of which €[1 - 5] billion was after revenue sharing with publishers). Via the AdX platform alone, Google generated worldwide turnover of €[5 - 10] billion in 2018 (of which €[1 - 5] billion after revenue sharing with publishers)[48]. The turnover generated in the EEA from selling ad server services to publishers was at least €[0 - 500] million [49]and at least €[1 - 5] billion[50] from selling intermediation services to publishers (of which €[500 - 1000] million after revenue sharing with publishers). Via the AdX platform alone, Google generated turnover of €[1 - 5] billion in the EEA in 2018 (of which €[0 - 500] million after revenue sharing with publishers)[51].

D. THE IDENTIFIED PRACTICES

95. The *Autorité* has found that Google has implemented practices aimed at ensuring that its DFP ad server favours its AdX ad server platform, to the detriment of both competing providers and the yield of the online advertising inventories of publishers. The *Autorité* has also found that Google has implemented practices to ensure that its AdX platform favours its DFP server.

96. After having presented the different possible modalities of interoperability between DFP and the intermediation platforms (1), we will detail the advantages that AdX enjoys for the purchase of inventories by users of DFP (2), and we will then explain the conditions of interoperability of AdX with ad servers other than DFP (3).

1. THE MODALITIES OF INTEROPERABILITY BETWEEN INTERMEDIATION PLATFORMS AND THE DFP AD SERVER

97. There are different modalities of interoperability between DFP and an ad network or a SSP. Depending on the inventory, DFP can send a request for an auction to these intermediaries using different methods, or even - and this is generally the case for the inventories of the largest publishers - using several modalities simultaneously.

The ad cascade or "mediation"

98. Until the early 2010s, publishers marketed most of their online advertising inventory via direct sales or ad networks, the latter being gradually replaced by SSPs.

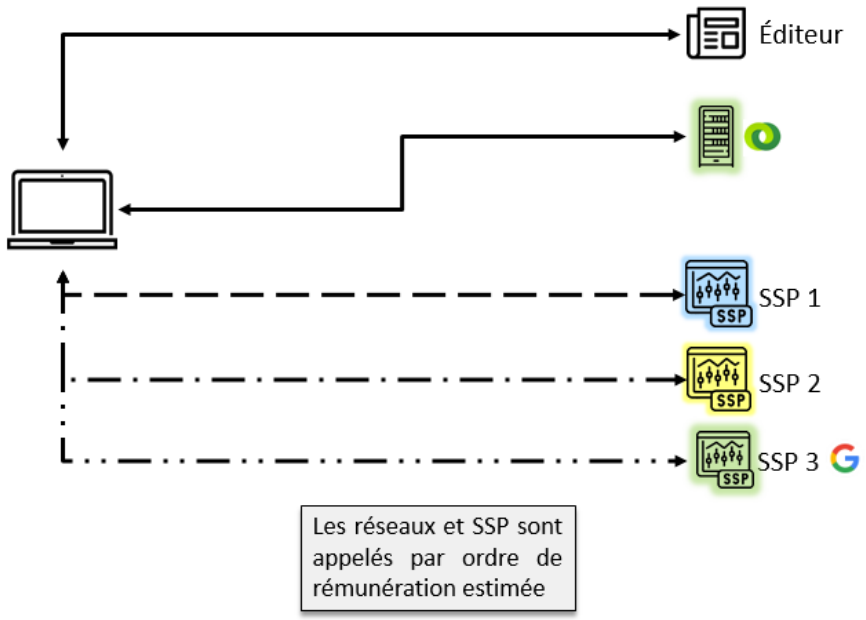
99. These intermediaries interacted with the ad server through instructions called "ad tags". These instructions were sent by the publisher's ad server to the Internet user's browser, so that the latter would connect to the intermediary's server. There was no direct link between the ad server and the server of the advertiser. This type of integration is also called "mediation".

100. In order to link their direct and intermediated sales and maximise the yield of their inventories, publishers have configured a "cascade" process within their respective servers. In the context of this process, the server first prioritises the impressions that are sold directly

[47] Classification mark VC 1097.
[48] Classification mark VC 12 200.
[49] Classification mark VC 967.
[50] Classification marks VC 1098 and 1099.
[51] Classification mark VC 12 201.

- referred to as "guaranteed campaign elements" - so that the publisher meets its contractual obligations. In the absence of an eligible guaranteed campaign element, the server successively refers the Internet user's browser to the intermediaries used by the publisher, until one of the intermediaries decides to buy the impression. This process is illustrated in the figure below, with successive calls to SSP1, SSP2 and SSP3 by the ad server. In this example, Google's SSP is called in third position, only if SSP1 and SSP2 did not propose a purchase price.

The ad cascade



Source: *Autorité de la concurrence*

	Publisher
	SSP 1
	SSP 2
	SSP 3
	The networks and SSPs are called in order of estimated remuneration

101. The lack of constraint on the price an intermediary pays for an impression is compensated for, on the one hand, by the intermediary's remuneration as a percentage of the publisher's revenue and, on the other hand, by the risk of being set back in the cascade (see paragraph 102). The order in which the different intermediaries are contacted determines both the sellable impressions by each intermediary and the return the publisher will get from its inventories[52].

102. In practice, publishers used to determine this order based on the expected revenue from intermediaries. In the case of ad networks that buy impressions at a fixed price, this expected revenue is the contractual price of the impressions, whereas in the case of SSPs, publishers use an estimate of the average historical performance of each SSP for the location in question (for example, by dividing the total revenue generated by a given SSP, net of that SSP's commission, by the total number of impressions sold to that SSP over a recent period). Publishers could regularly reassess this historical SSP performance and adjust the order of their cascade accordingly.

[52] See, for example, classification marks 40 et seq.

103. In fact, this cascading process was inefficient and could expose publishers to missed profits. In particular, it was possible for an intermediary to be called first and win an impression based on its historical performance, even though another intermediary downstream in the cascade would have been able to offer a higher price for that impression[53]. The need to offer the impression sequentially to different intermediaries by redirecting the user's browser to each intermediary also resulted in slower loading times for websites or mobile apps (known as higher "latency"), which both impaired the user experience and led to lost impressions[54].

104. While ad cascading still exists today, and for technical reasons remains particularly common for video inventory or app environments, its use for displaying banners in a web environment has become marginal, due to the development of more efficient ways of allocating impressions.

Dynamic allocation and enhanced dynamic allocation features

105. At some point in the past, but according to Google's statements prior to its acquisition of the company Doubleclick in 2008, a feature called "dynamic allocation" was introduced in DFP. The introduction of this feature was intended to address some of the inefficiencies of ad cascading by allowing publishers to solicit a "real-time" (i.e., per impression) bid from the Doubleclick AdExchange (AdX) platform. A DFP user can only interact with AdX if the dynamic allocation feature is enabled[55]. No other competing provider offered similar functionality to dynamic allocation when Google acquired Doubleclick in 2008.

106. In the context of the dynamic allocation feature, the publisher configures within DFP, for each ad unit[56], both a floor price that AdX will have to beat in order to buy the impression and a set of "non-guaranteed campaign elements", the latter concept being aimed at programmatic intermediaries, including ad networks and SSPs, that can potentially sell that impression. For each intermediary other than AdX, the publisher provides an expected revenue per impression, which Google recommends calculating by using the historical performance of the intermediary. However, it is not necessary to fill in an expected revenue for AdX, because AdX organises an auction for each impression, taking into account the data relating to the user who visits the web page or mobile app, before the other SSPs can be contacted. The publisher can also fill in other conditions of eligibility for the various intermediaries to sell a given impression (for example, specific time slots).[57]

107. The way dynamic allocation makes it possible to sell an impression is therefore sequenced in several steps[58]:

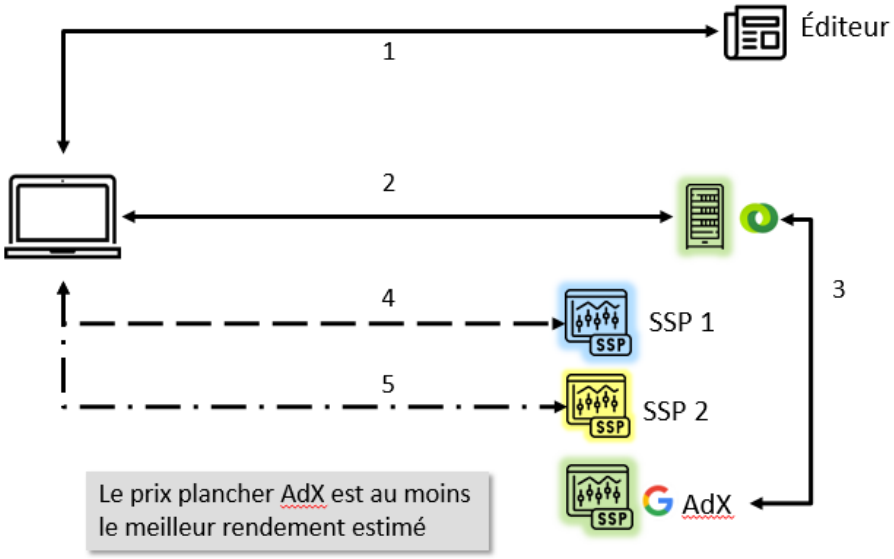
- First, DFP determines whether the inventory can be filled with a guaranteed campaign element. If so, the dynamic allocation feature is not triggered (only steps 1 and 2 in the figure below);
- if not, DFP determines a floor price to beat for the AdX auction, by calculating the maximum between the floor price configured by the publisher, and the expected revenue of the best eligible "non-guaranteed campaign element" filled in by the publisher (step 3);
- AdX then organises an auction, communicating this floor price to the buyers;

[53] See, for example, classification marks 44 and 45.
[54] See, for example, classification mark 42.
[55] Classification mark 47.
[56] An ad unit is a location that can contain one or more ads.
[57] Classification mark 159.
[58] Classification mark 46.

- if AdX receives at least one bid above this floor price, the best bid received wins the impression, but the buyer only has to pay the price of the second best bid received by AdX (or the floor price if there is no second bid above the floor), plus a very small amount (the process stops at step 3);
- if AdX does not receive any offer above this floor price, DFP sends the user's browser to the eligible intermediaries, in descending order of revenue expected by the publisher (steps 4 and 5 in the case of an example with two SSPs called after AdX)

108. The following diagram summarises how dynamic allocation works when AdX wins the impression:

Dynamic allocation



Source: *Autorité de la concurrence*

	Publisher
	SSP 1
	SSP 2
	AdX
	The AdX floor price is at least the best estimated return

109. Dynamic allocation therefore allows publishers to get a "real-time" bid from AdX that is higher than their own estimate of the revenue a given impression is likely to generate or the fixed price negotiated with their other partners. As such, this innovation represents an improvement of the pre-existing ad cascade, since it avoids the situation described in paragraph 103, but only in the case where the platform that can obtain the best price for the impression is AdX, which now has at its disposal, at the time of organising its auction, the estimated selling price of the best third party partner.

110. Subsequently, several sellers offering both a publisher ad server and an SSP have introduced features similar to dynamic allocation, including Xandr, which stated in a hearing that this integration was on the basis of fair competition[59]. According to Xandr, this term refers to the fact that buyers on the SSP of Xandr do not receive any information about the price offered by other SSPs, unlike the situation resulting from the way the AdX auction floor price is calculated.

111. In 2014, Google introduced a new version of dynamic allocation called "enhanced dynamic allocation" (referred to as "dynamic allocation" in the discussion below). This new version replaces the previous one and publishers no longer have the possibility to use the previous version.

[59] Classification mark VC 4424 (VNC 14498).

112. Enhanced dynamic allocation allows publishers to match programmatic demand from each of their intermediation platforms with the best guaranteed campaign element (i.e., the highest paying direct sale), while ensuring their contractual obligations with the buyer are met. [60]

113. In practice, DFP determines a temporary CPM for the contractually guaranteed best impression. This CPM reflects the opportunity cost of not serving this impression. By rising according to the delay in serving the guaranteed campaign, it makes it possible to avoid serving too little guaranteed impressions (and therefore a breach of contract), and to increase the publishers' revenues. This temporary CPM is then used in the calculation of the auction floor organised by AdX. The latter will therefore be equal to the maximum:

- of the floor price configured by the publisher;
- of the estimated revenue of the best eligible non-guaranteed campaign element;
- of the temporary CPM of the best guaranteed campaign element.

114. The introduction of enhanced dynamic allocation allowed programmatic demand sources to win an impression despite the presence of a guaranteed campaign element, when the bid price was higher than the opportunity cost of not serving the contractually guaranteed impression. AdX remains the only intermediary platform which is able to offer a bid for each impression, with other SSPs only being solicited if AdX has not identified a bid above the floor price.

115. Subsequent developments have modified the way this new version of dynamic allocation works. In particular, Google has offered publishers floor price optimisation solutions that make it possible to add to the floor prices set by publishers a second floor price for each query automatically calculated by Google, with the sole purpose of optimising their revenue. This optimisation is opaque for the publishers who choose to use it, as they have no access to the method of calculating the optimised floor, nor to the result per impression. In this context, the floor of the AdX auction will be the maximum:

- of the floor price configured by the publisher;
- of the estimated revenue of the best eligible non-guaranteed campaign element;
- of the temporary CPM of the guaranteed campaign element.
- a floor price automatically optimised by Google.[61]

116. In the European Economic Area, the proportion of publishers using DFP that have enabled the dynamic allocation feature is over [70-80]% over the entire period for which Google was able to provide the data (from 2016 to 2019)[62]. Moreover, according to the information provided by Google[63], [0-5]% of publishers who have enabled the Open Bidding feature (described below) and, a fortiori, dynamic allocation, account for more than [70-80]% of impressions and bidding revenues of DFP users. The proportion of impressions and auction revenues of DFP users affected by dynamic allocation is therefore likely to be well over [70-80]%. Furthermore, publishers who do not enable this feature cannot access AdX demand, or benefit from the ranking of intermediaries by price[64].

[60] Classification mark VC 688 (VNC 1957).
[61] Classification marks VC 13799 et seq. (VNC 13950 et seq.).
[62] Classification mark VC 939.
[63] Classification mark VC 2571.
[64] Classification marks VC 159, and 689.

RTB (real time bidding) protocols and header bidding protocols

117. In order to redress, at least partially, the asymmetry of the dynamic allocation feature in favour of Google[65], Google's competing intermediation service providers have developed protocols that allow all advertising technologies to communicate with each other in "real time". To this end, the OpenRTB consortium was formed in late 2010[66]. The protocols developed were quickly adopted by most providers who gradually implemented solutions that allowed all SSPs to submit their bid for each impression, similar to the dynamic allocation feature between DFP and AdX.

118. A solution referred to as "*header bidding*" has gradually been adopted by publishers. While it is not known for certain exactly when this technology emerged, internal Google documents submitted in response to a request from the investigation services show that several of these solutions were widely used as early as 2015[67], i.e. used by many publishers for a fairly significant part of the available inventory.

119. Header bidding is a tool that organises an auction between the different ad networks and SSPs in order to sell a given ad impression. Initially, header bidding auctions took place directly in the Internet user's browser (i.e. "client-side"), via a code typically inserted in the first part of the publisher's website (the "header"). There are now solutions, also called header bidding, which organise a server-to-server auction (or "server-side" header bidding).[68]

120. A header bidding solution organises an "auction between auctions", i.e. an auction between platforms (ad networks and SSPs) which themselves organise their own auction. This allows all SSPs contacted to provide a bid per impression, rather than being ranked and searched by their average expected return. The header bidding process also maximises the selling price of the impression for publishers.

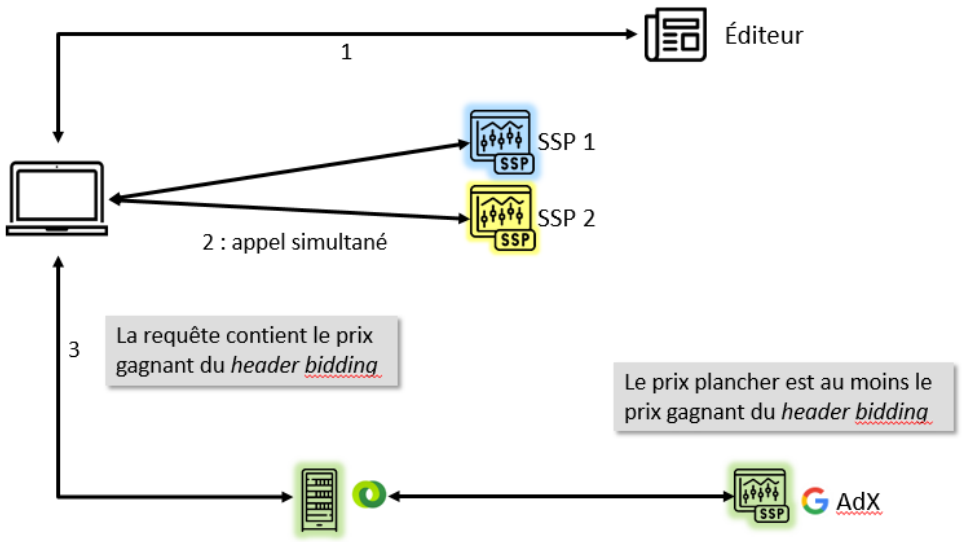
121. In practice, the header bidding solution works as follows: first, it solicits a bid from the networks and SSPs used by the publisher (step 2 in the figure below), which submit a bid in return. It then selects the best bid from among those made by the networks and SSPs and sends it to the publisher's ad server (step 3).

122. When the header bidding solution is implemented by DFP, the bid transmitted by the header bidding will activate a "non-guaranteed campaign element" whose estimated return at the time of configuration is equal to the bid that won the header bidding auction. The best bid received in the context of the header bidding will therefore be used to calculate the floor price of the AdX auction in the dynamic allocation feature.

123. If an actor on AdX wins the auction, the ad server returns the corresponding ad. If there is no winner in the AdX auction, the best bid via header bidding is selected by the ad server.

[65] For a description of this asymmetry, see the discussion in paragraphs 147 et seq.
[66] https://www.iab.com/guidelines/real-time-bidding-rtb-project/
[67] Classification marks VC 13224, 8789 and 8790.
[68] Classification marks VC 49 to 57.

124. The following diagram illustrates how a client-side header bidding solution works:



Source: *Autorité de la concurrence*

	Publisher
	SSP 1
	SSP 2
	Simultaneous call
	The query contains the winning header bidding price
	The floor price is at least the winning header bidding price
	AdX

125. When implemented in the publisher's web pages, i.e. on the client side, header bidding solutions imply certain constraints that affect both the publishers and Internet users. In particular, the implementation of header bidding implies higher latency, i.e. the time required to display the page on the screen of the computer, tablet or smartphone of the user of web pages or mobile apps, which will be even higher as there are more intermediaries queried by the code. However, several publishers interviewed indicated that advances in these technologies have made it possible to mitigate their negative impacts to a significant extent[69].

126. Although these constraints are non-existent when the header bidding solution is implemented on the server side, such implementation does imply a limitation of the information accessible to the bidding partners. Indeed, as the latter are called by the third-party server, they do not have a direct connection with the browser of the Internet user, and therefore cannot read the cookies relating to the Internet user in order to recognise them. The third party server can of course propose the identifiers it has, but the need to create and update mapping tables

[69] See, for example, classification mark VC 12047 (VNC 17526).

("*cookie matching*") generates important losses in the identification of the Internet users, and thus in the partners' capacity to bid[70].

127. Whether it is done client-side or server-side, the integration of a header bidding solution with DFP relies on a mechanism called "key-values", which was not originally designed for this purpose. This mechanism consists in letting the publisher transmit one or more quantities of their choice to DFP. The key will be the name of the quantity, (e.g. sports brand), and the value will be the measurement (e.g. Nike). This value will be used by DFP to determine which campaigns should be considered eligible for the targeted impression. The possibility to use any key makes the mechanism very flexible for publishers.

128. This explains why these solutions are difficult to set up and are a source of configuration errors. In fact, this set-up requires significant technical skills and represents considerable engineering costs, which only publishers with larger resources are able to afford[71].

129. Nevertheless, publishers who have adopted header bidding indicate that this method has significantly improved the return of their advertising inventories and has increased the transparency of the processes, by allowing them to control the modalities of the auction and monitor its execution. For example, News Corp estimates that implementing header bidding has enabled it to increase its revenues by up to 50% (depending on the number of SSPs used, their performance and the quality of the header bidding solution)[72]. In this respect, in internal documents submitted in response to a request from the investigation services, Google employees themselves highlight the potential increase in revenue for publishers adopting header bidding[73].

130. Almost all providers of advertising intermediation technologies have rapidly made their products compatible with header bidding (if this was not already the case). In this respect, the providers interviewed indicated that taking on header bidding involves very limited development work for them. Indeed, for an intermediation platform to be compatible, it simply needs to be able to receive an ad call and give a structured response containing two key elements: the buyer's creative content to be displayed and the price the buyer is willing to pay. However, Google has opted not to make the AdX platform compatible with header bidding technologies, regardless of the ad server used by the publisher.

131. It should be pointed out that header bidding is not compatible with all inventories. In particular, video inventories, AMP inventories[74], audio inventories, or inventories in an app environment are still often monetised by other means, because technical constraints hinder the development of header bidding in these environments[75]. However, several of the publishers interviewed point out that these inventories represent a significant portion of the impressions sold[76].

132. The most widely adopted header bidding solution by publishers is Prebid.js. This solution, available on both the client and server sides, was initially developed by the company AppNexus (now Xandr), which made it available to all publishers, free of charge. It is now

[70] See, for example, classification mark VC 7235 (VNC 16566).
[71] See, for example, classification mark VC 7388.
[72] Classification mark 5188.
[73] Classification mark VC 13217 (VNC 13726).
[74] AMP (Accelerated Mobile Pages) is a format developed under the impetus of Google and is designed to allow faster loading of pages on mobile phones.
[75] See, for example, classification mark VC 1551 (VNC 7136).
[76] See, for example, classification mark 7548.

managed by the consortium Prebid.org, whose members include SSPs, DSPs and publishers[77].

133. However, the business model of some server-side header bidding solutions is a paid service. This is the case, for example, with Amazon's server-side solution "Transparent Ad Marketplace", which is charged at a fixed cost of around one US cent per thousand transactions. Amazon also offers another solution, called "Unified Ad Marketplace", which is charged on a revenue-sharing basis[78]. This difference is due to the fact that Unified Ad Marketplace takes care of the contractual relationship with the buyers and centralises invoicing, unlike Transparent Ad Marketplace.

The Open Bidding feature, formerly Exchange Bidding in Dynamic allocation

134. In response to the growing adoption of header bidding solutions by publishers, Google has introduced an alternative solution within its DFP ad server. Since April 2018, Google has offered all publishers using DFP a feature similar to server-side header bidding, initially called Exchange Bidding in Dynamic Allocation (EBDA), and then renamed "Open Bidding" in summer 2019.

135. This feature allows SSPs other than AdX, which are labelled as "yield partners[79]," to bid "in real time" for each eligible impression. The floor price of their auction is calculated in a similar way to the floor price of the AdX auction in the context of dynamic allocation (see paragraphs 107 and 115). Until recently, however, the result of this calculation could differ from the floor price applied to the AdX auction, as the publisher had the option of setting different reserve prices for AdX and for yield partners. The bid of these SSPs, if higher than the floor price, will be put in competition with the result of the AdX auction in a first price auction, i.e. the closing price is the amount of the highest bid,

136. As such, unlike the case of integrated SSPs in header bidding, the floor price of the AdX auction does not take into account the bid of the yield partners. Moreover, the bids are compared according to the revenue actually received by the publisher, and therefore net of the revenue shares retained by Google or by the yield partners. In effect:

- the offers transmitted to DFP by the yield partners are net of the revenue shares that the yield partners retain;
- Google keeps a share of revenue from bids placed by AdX buyers when they win the impression;
- Google also keeps a revenue share on bids submitted by yield partners when they win the impression, but this revenue share is lower than that retained in AdX auctions.

The contract governing the use of the Google Ad Manager offer combining DFP and AdX details the share of revenue paid to the publisher after revenue sharing in the context of Open Bidding transactions, which varies between [90-100] % and [90-100] % depending on the advertising format selected[80].

137. In order to become a "yield partner", SSP providers must agree to contractual terms specified by Google. These terms lay down in particular that when a transaction is completed via Open

[77] See the list of members of the organisation at: http://prebid.org/partners/partners.html
[78] Classification mark VC 1520 (VNC 3908).
[79] The list of Open Bidding "partner" SSP providers is made available via the Google Ad Manager Help Center at the following address: https://support.google.com/admanager/answer/7128453?hl=en
[80] Classification mark VC 950.

Bidding, Google will collect the payments from the yield partners and take the revenue share mentioned above before paying the publishers their remuneration[81].

The transition to a unified auction and the Unified Pricing Rules

138. In September 2019, Google made a significant change to the way the DFP ad server and AdX SSP work.

139. As discussed above, until September 2019 (translated), "*(the) AdX auction (was) [...] conducted as a 'second price' auction, in which the highest bidder wins the auction and pays the maximum of the applicable reserve price, and the second highest bid. Ad Manager (managed) essentially two auctions for a specific ad impression. First of all, a second price auction in real time (was) organised with the Authorized Buyers*[82]*. Second, a first-price auction (compared) the winning price of the AdX second-price auction with the bids of Exchange Bidding* [Note from the *Autorité*: i.e., Open Bidding yield partners][83] buyers."

140. Since September 2019, a single first-price auction has been organised, in which the participants are the buyers of the AdX service (the Authorized Buyers), and the SSPs using the Open Bidding service. Google indicates that the reserve price calculated by the dynamic allocation feature is no longer communicated to buyers.

141. Google says that, from now on (translated), "*all bids from AdX buyers will be treated as first-price auctions. This means that the buyer who wins the impression will pay the amount they have bid in the auction.*

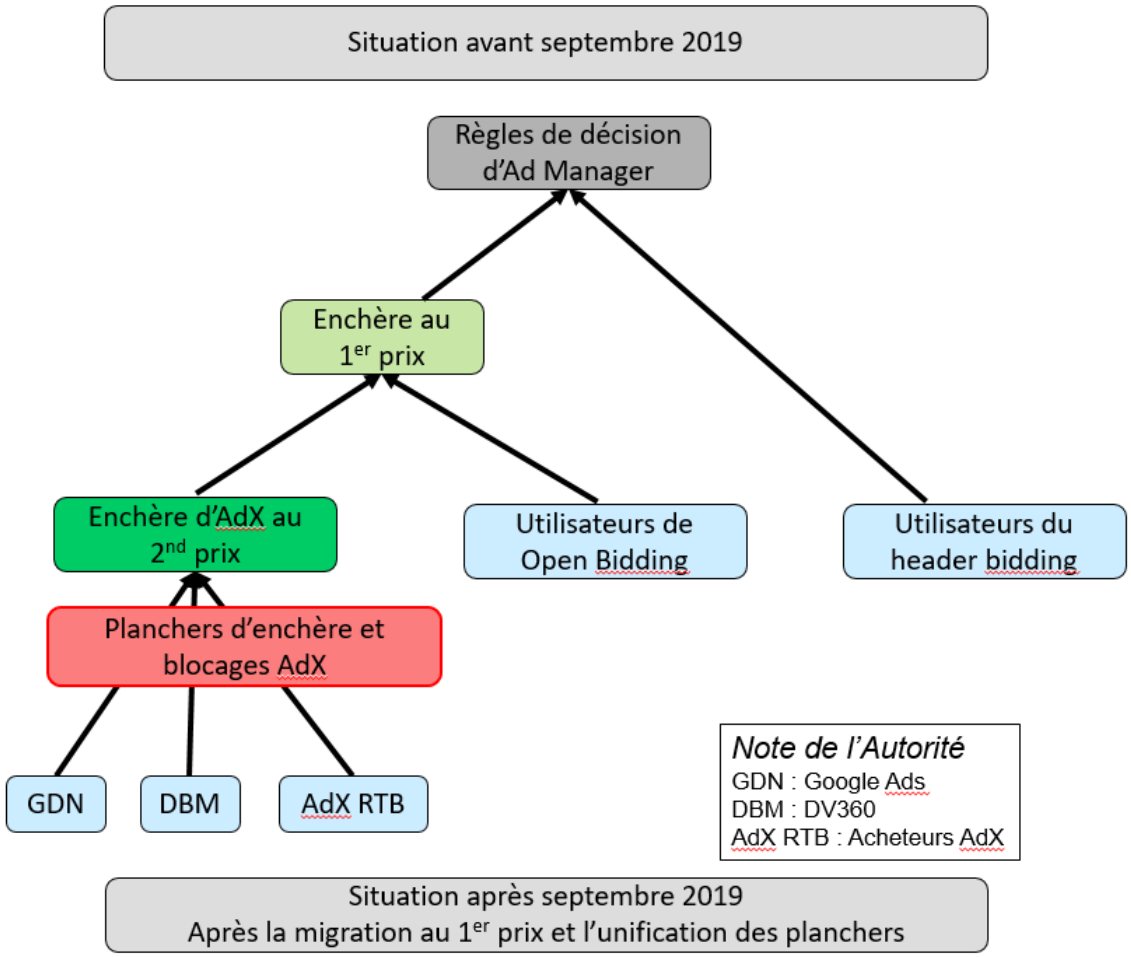
Making this migration from AdX to a first-price auction will make it possible to unify the auction mechanism for AdX and Exchange Bidding. Auctions from AdX and Exchange Bidding [Note from the *Autorité*: now called Open Bidding] *will compete with each other at the same level, with the highest first-price bid winning the auction. This unified auction will be managed by Ad Manager's ad server feature. Given that Exchange Bidding has always operated on a first-price auction system, this feature will not be affected by AdX's migration to this system.*"[84]

142. In the same period, Google changed the way publishers can manage reserve prices for the sale of their inventories, via their "Unified Pricing Rules".

143. The main change in the new Rules is that publishers are no longer able to set different reserve prices for different buyers. The reserve price configured by the publisher will therefore be applied in the same way to buyers using AdX, to SSPs using header bidding and to SSPs using EBDA.

144. This change can be illustrated by the following graphs:

[81] Classification mark 7390.
[82] Authorized Buyers are all the buying platforms (DSPs) that transact through the AdX marketplace, including Google Ads (formerly AdWords) and DV360 (formerly DBM).
[83] Classification mark VC 698 (VNC 1967).
[84] Classification mark VC 699 (VNC 1968).



	Situation before September 2019

	Ad Manager decision rules
	1st price auction
	2nd price AdX auction
	Auction floors and AdX blocks
	GDN
	DBM
	Adx RTB
	Open Bidding users
	Header Bidding users
	Note from the *Autorité* GDN: Google Ads DBM: DV360 AdX RTB: Adx Buyers
	Situation after September 2019 After the migration to the 1st price and the unification of the floors
	Ad Manager decision rules
	Unified 1st price auction
	Auction floors and unified blocks
	GDN
	DBM
	AdX RTB
	Open Bidding users
	Header Bidding users

2. ADVANTAGEOUS CONDITIONS GRANTED TO ADX FOR THE PURCHASE OF DFP USERS' INVENTORIES

145. As explained above, an SSP wishing to buy the inventories of a publisher in a programmatic way using DFP will be able to interact with this server when it is integrated into either an ad cascade (also called mediation), or header bidding technologies (frequently used since 2015), or finally, the Open Bidding feature, when the SSP is a yield partner, and the publisher has activated this feature (since April 2018). It is common, at least for the inventories of the largest publishers, for an SSP to be solicited using several of these modalities simultaneously.

146. According to the complainants, these modalities are all less favourable than the interaction between DFP and AdX enabled by the dynamic allocation feature. This finding still stands despite the changes in the way the DFP and AdX services work, made during 2019.

a) The ability to make a bid for each impression

147. In the context of the dynamic allocation feature implemented by Google, the ability of SSPs integrated in mediation to compete with AdX for the purchase of advertising space from publishers using DFP is limited by two mechanisms:

- firstly, this feature implies that DFP compares the average yield of the SSP to the bids obtained by AdX for each impression (in "real time"), whereas an average yield does not make it possible to take into account the characteristics of the users and their influence on the value of the impressions;
- secondly, this feature only allows SSPs competing with AdX to bid on a small portion of impressions, as a competing SSP is only called if neither AdX nor the higher ranked SSPs in the cascade have found a buyer who can beat their respective price floor.

148. The first mechanism of comparison with the expected price of the third-party SSP implies that AdX only needs to beat that price in order to sell the impression. However:

- the revenue that publishers can earn from impressions is highly variable, as advertisers' willingness to pay is highly dependent on the data they have about the user;
- publishers cannot predict the revenue they will earn for a given impression, as this price depends on the ability of SSPs and buyers to recognise the user, and the characteristics of the latter. The reserve prices used and the yields estimated by the publishers therefore do not reflect the variability of prices offered by buyers;
- There is at least a partial correlation between the prices offered by the different SSPs, due to the presence of buyers who are on the different marketplaces, but also to the characteristics of Internet users making impressions more or less useful for advertisers. Consequently, when an impression is valuable to a third-party SSP, it is also likely to be valuable to AdX.

149. As the SSP providers interviewed indicate, the above way of working means that the highest value impressions are mostly purchased by the ad buyers on AdX. While it is true that this mechanism benefits third-party SSPs when they pay a price lower than their estimated yield, these situations mechanically lead to a decrease in the expected yield of third-party SSPs, and therefore a decrease in the share of impressions to which they have access.

150. Regarding the second mechanism, in the context of the mediation, only impressions for which AdX has not found a buyer willing to pay a price higher than the reserve price are offered to third-party SSPs. The latter therefore only have a limited number of impressions to offer to buyers. As such, in the context of mediation, Xandr highlighted the fact that (translated) "*only a small volume of lower quality impressions (reach) Xandr's SSP*"[85].

151. The development of header bidding technologies has gradually enabled third-party SSPs to bid on every impression, resulting in a reduction in the ability to bid on every impression for the inventories on which these technologies are used. In this respect, the evidence in the file

[85] Classification mark VC 4423 (VNC 14497).

suggests that mediation integration is used to a much smaller extent than header bidding when this technology is available, as it is less effective[86].

b) The use of the actual or estimated bid of competing auction platforms

152. At least until September 2019, Google was using the bid amount of AdX's competitor SSPs integrated via ad cascade or via header bidding to adjust the behaviour of its own services. In particular, using this information implied three advantages which could not be replicated by competing providers:

- a 'right of last look' granted to the AdX platform;
- the ability to adjust its revenue share dynamically;
- the ability to optimise the operation of its AdX platform.

The right of last look

153. In the context of the dynamic allocation feature as it functioned prior to the switch to the unified first price auction in September 2019, the reserve price used in the AdX auction was an effective reserve price, i.e., the auction winner, if it had bid a price higher than that reserve price, was guaranteed to win the impression, at least until the introduction of the Open Bidding feature. After the introduction of this feature, the winner of the auction always had the guarantee that if it bid above the reserve price, it would not lose the impression to an integrated SSP in mediation or header bidding.

154. These guarantees assumed that DFP would use the price - proposed or estimated - of the competing SSPs integrated in the mediation or header bidding process in the calculation of the reserve price of the AdX auction. It was therefore not possible for competing SSPs to replicate this guarantee.

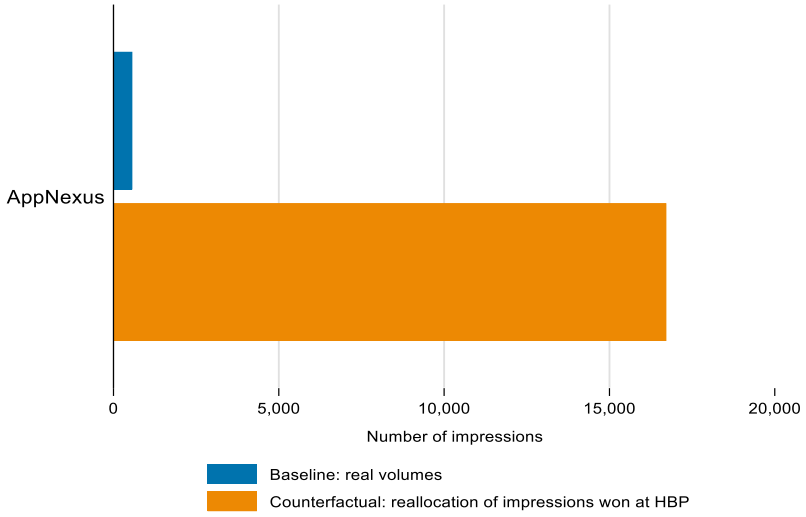
155. According to the complainants, this way of working amounts to granting AdX a "right of last look", i.e. it allows it to buy the most attractive inventories by paying a price that is almost equal to that of the best competing SSP. As a result, it would have deprived AdX's competitor SSPs of a significant volume of transactions. In so doing, it enables AdX to be sure of winning the auction with a minimally higher bid. This observation is shared by several of the providers interviewed. For example, one provider stated that by knowing the CPM that serves as the floor price for the auction, AdX has the last look on the impression and can then simply outbid by €0.01 to win[87]. In this respect, the *Autorité* notes that AdX does indeed enjoy an advantage which can be described as a 'right of last look', but that the description of this advantage by these providers is partly inaccurate, in that it does not take into account the way in which the AdX auction is conducted, and in particular the fact that the price paid by AdX for an impression depends on the bids received in the auction.

156. In addition to its complaint, News Corp submitted a financial study which proposes measuring the proportion of its inventory purchased through AdX at a price almost equal to the price offered by the best competing SSP[88]. Analysing a set of impression data from its "News UK" unit, which publishes News Corp's sites and mobile apps in the UK, this study found that (translated), "*about 30-40% of auctions using header bidding involve Google beating its rivals by just one cent,*"[89] i.e., at less than 2 cents (CPM) above the header bidding

[86] See, for example, classification marks VC 13627, and VC 13381 (VNC 14395).
[87] See paragraph 144 of the confidential version of the Statement of Objections, classification mark 17812.
[88] Classification marks VC 5139 to 5247.
[89] Classification mark 5146.

price. For reference, the average revenue per impression after News Corp implemented header bidding was between $1 and $1.5[90].

157. This study evaluates the volume of impressions that Google deprives competing SSPs of by reallocating the impressions won by AdX, at a price barely higher than the header bidding, to the SSP that made the bid selected by the header bidding. On this basis, and using the Xandr SSP as an example, the study concludes that the loss relates to a significant part of the impressions that Xandr (formerly AppNexus) could have sold:



Legend: Blue, *Base: Actual volumes*; Orange, *Counterfactual: reallocations of impressions won at the* header bidding price.
Source: classification mark 18278

158. The study specifies that this evaluation should be considered as an upper limit, insofar as AdX could still have sold part of the impressions won at the header bidding price in the absence of the right of last look[91], for example by modifying the modalities of the auctions organised by DFP. In this respect, the *Autorité* notes that the proportion of impressions sold at a price almost equal to the header bidding price is not sufficient, on its own, to characterise an advantage, since it does not make it possible to assess the proportion of impressions that would not have been won by AdX in the absence of the right of last look.

159. Before estimating more precisely the advantage of the right of last look for AdX, it can be illustrated by a simple example.

Illustration of the advantage of having the right of last look

160. Let us consider the case where two SSPs (SSP *SA* and SSP *SB*) are integrated in a header bidding process, and are competing with AdX to buy an ad space. The SSP *SA* organises first price auctions, while *SB* organises second price auctions.

161. In the context of second-price auctions organised by SB, the most rational strategy for buyers is to bid an amount equal to their willingness to pay, since this strategy ensures that, if they win, they will pay the minimum amount necessary to win the auction and, at the same time, that they will only lose the auction if the closing price is higher than their willingness to pay.

[90] Classification mark 5188.
[91] Classification mark 5192.

162. In the context of first-price auctions organised by SA, the most rational strategy for buyers is to bid strictly lower than their willingness to pay, so as not to pay more for the impression than is necessary, i.e. to apply a discount R to their willingness to pay. The amount of this reduction depends on various factors, including the buyers' anticipation of the closing price.

163. Furthermore, let us consider the simple case where only two buyers *AA* and *AB* are present on the SSPs *SA*, *SB* and AdX, where these buyers have access to the same information, regardless of whether the impression is offered by *SA*, *SB* or AdX, and where these buyers apply the same discount *R* to their first price auctions. Finally, let us consider that the reserve prices set by the publisher do not intervene, and that the revenue shares retained by the SSPs are all equal.

164. Finally, let us consider - without losing the general applicability of the reasoning - that *AA* has a higher willingness to pay (*WTP-A*) than *AB*'s willingness to pay (*WTP-B*) for this impression, and that the revenue shares retained by the three SSPs are identical and therefore equal to zero.

165. In this hypothesis, the bids will be as follows:

	SSP *SA* Auction	SSP *SB* Auction	AdX Auction
AA buyer	*WTP-A - R*	*WTP-A*	*WTP-A*
AA buyer	*WTP-B - R*	*WTP-B*	*WTP-B*

166. So:

- the buyer *AA* wins the auction of *SA* at the price *WTP-A - R*;
- the buyer *AA* wins the auction of *SB* at the price *WTP-B*;
- the reserve price of the AdX auction is set to the maximum of *WTP-A - R* and *WTP-B*;
- the *AA* buyer wins the AdX auction at the maximum price of *WTP-A - R* and *WTP-B*, and wins the impression, because this auction is at the second price.

167. As such, we can see that, on equal merits, i.e. with the same buyers, the same information and the same retained revenue shares, AdX wins all the impressions. It can also be seen that in this illustration, the price paid by AdX is just above the best price offered by competing SSPs.

168. We can also see that, in order to compensate for this advantage, the SSP *SA* would have to increase, through better buyers, better information, or a lower retained revenue share, the final bid by an amount equal to the discount applied by the buyers at the first price auction.

169. For its part, the SSP *SB* would have to increase the final bid by the difference between the best and the second best bid in order to compensate for the advantage of the right of last look. This handicap is then all the more important as the number of buyers for the impression in question is low.

Estimate of the advantage of the right of last look

170. The investigation services provided a more precise estimate of the quantity of impressions that would not have been won by AdX in the absence of access to this effective reserve price. To do this, they considered the realistic auction modalities in the absence of this mechanism, i.e. if the bids of competing SSPs were not used in the calculation of the reserve price of the AdX auction, but were competing with the result of this auction.

171. Initially, it may seem possible for AdX to retain the modalities of second-price auctions, without using the actual or estimated revenue of competing SSPs in the calculation of the bidding floor. However, such a mechanism implies that in the case where, on the one hand, the auction floor is effectively set by the price of a third-party SSP, i.e. by the CPM of a non-guaranteed campaign element, and on the other hand, AdX has received only one valid bid higher than this floor, AdX will lose the impression, which was not the case in the actual course of the dynamic allocation.

172. In particular, where AdX has won the impression at a price almost the same as the price resulting from the header bidding process, it is likely that the conditions identified above will be met in the vast majority of cases. In such a scenario, the estimates provided by News Corp make it possible to assess the proportion of impressions that would have been won by third party SSPs, and demonstrate that the adoption of these modalities would have led some competing SSPs to win a very significantly higher number of impressions.

173. However, it is also possible that, in the absence of access to this effective reserve price, AdX may have modified the progression of its auction, for example by using first price auctions. In effect, the *Autorité* notes that:

- firstly, the SSP Rubicon Project, faced with the development of header bidding, which implied the existence of a second auction in which the result of its own auction was in competition, switched to first price auctions by default[92];
- secondly, the documents in the file attest that the need for the AdX auction result to be higher than the bids of the Open Bidding yield partners is one of the reasons that led to the switch to a first price auction[93].

174. If AdX had chosen to hold a first-price auction, the buyers on the platform would have had to adapt their bidding strategy, by lowering their bid amount. Indeed, while in a second-price auction, the optimal strategy for buyers is to make a bid equal to their willingness to pay, in a first-price auction, buyers have an incentive to incorporate a discount in the amounts they bid.

175. It is possible to estimate, at least in order of magnitude, the bids that AdX buyers would have made if they were to compete in a first-price auction with the other SSPs. In effect, in the context of their switch to a first-price auction, Google offered buyers an "auction translation" service aimed at adapting auctions proposed by actors who had not had time to adapt to the switch from second-price to first-price auctions. This feature significantly reduced the amount of the bid offered by buyers on AdX[94].

176. As such, we can assert that when the best bid received by AdX in an impression in the context of dynamic allocation is not significantly higher than the bidding floor corresponding to the price proposed by the header bidding, AdX would probably not have won the impression by organising a first price auction.

177. In the absence of AdX's use of their bid as a bidding floor, the third-party SSPs would likely have won a significant number of additional impressions from the impressions won by AdX for which those SSPs had bid. As AdX is the number one SSP in terms of revenue for almost all publishers using DFP, we can assert that without the right of last look, third-party SSPs would likely have won a significantly higher percentage of impressions. Moreover, as the

[92] Classification mark 16090.
[93] See paragraph 162 of the confidential version of the Statement of Objections, classification mark 17815.
[94] This feature is only enabled by a minority of buyers on AdX.

study provided by News Corp. specifies, the impressions that would have been won by AdX would have been won at a higher price.

178. Finally, the *Autorité* notes that the dynamic allocation mechanism as implemented by DFP does not guarantee that the actor with the highest willingness to pay wins the impression, insofar as the bids of the buyers present on the third-party SSPs are lower than their willingness to pay, either because the latter organise first-price auctions or because these third-party SSPs organise second-price auctions whose closing price is by nature lower than the best bid received. As this bid is the floor for the second-price auction organised by AdX, a buyer on AdX can win an impression without having the highest willingness to pay.

179. The fact that there is a right of last look is recognised by Google employees, who highlight it in several internal documents sent in response to requests from the investigation services. One of these documents expressly mentions the unfairness of the right of last look enjoyed by AdX[95].

180. Google clarified that in the context of the unified first-price auction being implemented in the course of 2019, the AdX auction floor price no longer takes into account the actual or estimated bid of third-party SSPs. This change would therefore imply the end of the right of last look[96].

Conclusion

181. It is clear from the foregoing that by using the bid amount of AdX's competing SSPs to adjust the behaviour of its own services, Google has been able to gain three advantages over competing providers:

- a 'right of last look' granted to the AdX platform;
- the ability to adjust its revenue share dynamically according to the competitive pressure;
- the ability to optimise the operation of its AdX platform.

Dynamic adjustment of the revenue share retained by AdX

182. Since May 2016, a so-called "*dynamic revenue sharing*" feature has been enabled by default for all DFP users. In the context of this feature, AdX may modify its revenue share for each impression, provided that, on average, this share is equal to the contractually agreed share of the transactions made.

183. According to Xandr, the way the "dynamic revenue sharing" feature works allows Google to (translated) "*reduce (its) fees to win impressions when competition with SSPs is strong and (increase) (its) fees when competition is weak, while maintaining (its) desired overall catch rate*."[97] The company Hubvisor, which provides consulting and support services to publishers, adds that (translated) "*developing such a capability is not possible for integrated header bidding actors because they do not have access to the auction floor*[98]."

184. In these respects, the *Autorité* notes that, in the context of DFP:

- the dynamic revenue sharing feature allows AdX to adjust its revenue share, in particular, according to the bids of competing SSPs;

[95] Classification mark VC 8911.
[96] Classification mark 1390.
[97] Classification mark VC 4424 (VNC 14498).
[98] Classification mark VC 12071 (VNC 12092).

- it is not possible for a third-party SSP to develop equivalent functionality, in the absence of information on the minimum price to be offered to be guaranteed to win the impression;
- Google is thus the only provider able to compensate for a fall in revenue when competition is strong (for example when a bid is made via a header bidding solution) by an increase in its costs when there is less competition;
- this capacity is all the more significant as the proportion of impressions on which AdX has the ability to increase its revenue share due to limited competition is significant, in particular as the proportion of impressions on which header bidding is enabled is generally a minority. For example, News Corp has indicated that this proportion is around 30% for its inventories[99] and data from Google for individual publishers indicates that between [50-60] and [90-100] % of impressions won by AdX or Open Bidding yield partners are not bid on via a header bidding solution[100];
- it follows from the above that the dynamic revenue sharing feature implies that a third party SSP will have to offer the publisher a net price higher than the best gross price offered by buyers on AdX in order to sell an impression.

185. According to Google, this feature nevertheless has a (translated) "*generally positive*" impact on the revenue share paid to the publisher. In particular, it states that (translated) "*in a situation where the highest bid does not reach the floor price if Google receives its full share of revenue (and therefore the transaction does not take place at all), Google could waive its share of revenue, allowing the transaction to proceed and the publisher to be paid"*.[101]

186. Google also underlines the fact that some publishers may have access to an evaluation of the impact of this feature on their revenues. However, the evaluation methodology explained by Google[102] only makes it possible to measure the change in revenue from AdX, and therefore does not show the impact of this feature on the publisher's total revenue. Unsold campaign elements are non-guaranteed campaign elements that do not correspond to AdX or AdSense services.

187. In response to questions from the investigation services, Google indicated that it expects that a publisher's revenue from unsold campaign elements is likely to be affected by the revenue sharing feature. According to Google, while a publisher's revenue from unsold campaign elements may decrease slightly as a result of the dynamic revenue sharing feature, such a decrease should be significantly smaller than the correlating increase in a publisher's AdX revenue. In this regard, Google indicates that in many cases, dynamic revenue sharing has allowed an AdX buyer to exceed the publisher's configured floor, while it was unlikely that any unsold campaign elements were rolled out. Of the remaining cases, this feature may have led to a buyer on AdX winning an impression when, without this feature, an unsold campaign element might have won the impression.

188. Google was unable to provide an evaluation of the impact on unsold campaign elements from the experimental data, but was able to provide a rough estimate of that impact from aggregate statistics calculated at the time of the feature's initial launch in 2016. Google's interpretation of this data suggests that, while there may have been a negative effect on unsold campaign elements, such a negative effect is likely to have been small to negligible in practice, and perhaps statistically insignificant. According to Google, this data is

[99] Classification mark 5188.
[100] Calculation by the instruction services from the data transmitted by Google.
[101] Classification mark VC 707 (VNC 1976).
[102] Classification mark VC 13973 (VNC 14453).

consistent with its prediction that, in absolute terms, any negative impact of dynamic revenue sharing on revenues of unsold campaign elements will be minimal, and necessarily less than the (positive) impact on AdX revenues[103].

189. Google did not specify how the impact on revenue generated via third-party SSPs was necessarily less than the impact on revenue generated via AdX. Google did not provide any more recent evidence of this impact either.

190. In this respect, the *Autorité* notes that in order to assess the impact of the dynamic revenue sharing feature on publishers' revenues, a distinction must be made between two situations: on the one hand, impressions for which the auction floor calculated in the context of the dynamic allocation is equal to the price of an "unsold campaign element", and on the other hand, the rest of the impressions. In this second case, it is likely that the impact of the dynamic revenue sharing feature on publishers' revenue is indeed positive.

191. On the other hand, in the first case, a transaction would have been possible and the publisher's revenue would have been equal to the reserve price of the AdX auction, regardless of whether this equality is true on average in mediation, or for a given impression in header bidding. By compensating in a subsequent transaction for the revenue that AdX gave up to reach the floor price, the dynamic revenue sharing adjustment then decreases not only the amount of impressions won by the third-party SSPs, but also the publisher's total revenue.

192. This mechanism can be illustrated by the following example, where AdX and a competing SSP bid the following for two separate impressions:

	AdX	SSP 1
Gross closing price - 1st impression	1 €	1 €
Gross closing price - 2nd impression	1 €	0 €

193. So if AdX retains a contractual revenue share of 0.20 and the competing SSP retains 0.10, the dynamic revenue sharing will have the effect of decreasing the publisher's revenue, as illustrated in the following table:

[103] Classification marks VC 14665 and 14666 (VNC 16270).

	Without dynamic revenue sharing		With dynamic revenue sharing	
	AdX	SSP 1	AdX	SSP 1
First net bid	0.80 €	**0.90 €**	**0.91 €**	0.90 €
Second net bid	**0.80 €**	0 €	**0.69 €**	0 €
Total revenue publisher	**1.70 €**		**1.60 €**	

194. The dynamic revenue sharing feature was suspended in September 2019 and is currently being updated in the context of the switch to a single first price auction system and the introduction of the Unified Pricing Rules.

195. In conclusion, the modalities of the dynamic revenue sharing feature have allowed Google to adjust its revenue share based on the offerings of competing SSPs, to the detriment of publishers. Google is the only provider able to reduce its revenue share to win impressions when there is strong competition between AdX and SSPs or, conversely, to increase them when there is weak competition.

The ability to optimise the functioning of AdX.

196. Finally, the documents sent to the investigation services show that Google has used information on the offerings of competing SSPs to monitor the roll-out of header bidding and its impact on competition between SSPs, and to adapt to the roll-out of this technology in order to consolidate AdX's position and the advantages described above.

197. In the first instance, several internal documents submitted by Google show the methods developed to use the DFP data to assess the adoption of header bidding by competing providers and their position on the market[104].

198. Secondly, a document also provided by Google indicates that even when a publisher uses a header bidding solution, DFP retains control of the decision-making process. This document states that control of the decision-making process benefits Google by protecting its own pricing data, while giving it visibility into how other marketplaces valorise impressions[105]. In the same vein, several documents transmitted by Google underline Google's interest in retaining control of the decision-making process, in order to obtain both transparency on the competitiveness of third-party SSPs and the possibility of optimising the AdX service[106]. One of these documents[107] states, with respect to the DFP ad server, that dynamic allocation and ability to see all other technologies is "priceless" and that this full transparency creates an ideal scenario for optimising its prices without inconsistency[108].

199. In conclusion, Google has used information about the offerings of competing SSPs to monitor the development of header bidding and adapt its technology accordingly, in order to maintain AdX's advantages over competing SSPs.

[104] Classification marks VC 13224, 8789 and 8790.
[105] Classification mark VC 13257.
[106] Classification marks VC 13226 and 13253.
[107] Classification mark VC 15222 (VNC 13704).
[108] Classification mark VC 15222 (VNC 13704).

c) The advantages resulting from the way Open Bidding works and the conditions imposed on the yield partners

200. The way Open Bidding works means that bids from yield partners are not used in order to grant AdX a right of final look, nor to modulate the share of revenue retained by AdX.

201. Nevertheless, as indicated by the competing providers of Google, the introduction of Open Bidding is only a partial answer to the asymmetries they face when interacting with DFP. These competitors therefore point out that:

- the revenue share retained by Google on the amount of their bids would not allow them to compete with AdX;
- the transactions of buyers in the same group are not eligible;
- the formats that may be offered by certain providers are not supported and video formats must be displayed via Google's proprietary media player;
- their targeting capacity is necessarily limited compared to that offered by Google, since Open Bidding is a server-side solution.

202. Firstly, the revenue share retained by Google on the amount of transactions realised via Open Bidding has an impact on the competitiveness of competing SSPs. In this regard, Smart Adserver states that (translated) "*[in the context of Open Bidding] we do not control the actual functioning of Google's algorithm and in any case Google collects 5% to 12% [in commission] on revenues from our SSP. As such, we are 5 to 12% less competitive than Google AdX in Open Bidding ([this commission] is negotiated by each DFP publisher)*"[109].

203. Secondly, the contractual conditions imposed on yield partners prevent an actor that operates both an SSP and a DSP from having the latter participate in auctions of its SSP organised through the Open Bidding feature. Google states that the purpose of these conditions is (translated) "*to ensure that* [Open Bidding] *is used by ad exchanges, and not DSPs, trading desks or ad networks. Indeed, DSPs, trading desks and ad networks buy on AdX through the Authorized Buyers solution*"[110]. According to Google, these restrictions are necessary to provide protections for publishers from malicious or unwanted ads that would not be offered by the DSPs. However, Google did not explain how an SSP that would offer these protections for buyers other than a DSP of the same group could not offer equivalent protection to end buyers using its own DSP. Nevertheless, Google has produced an internal document[111] which states that the goal is to ensure that the request an AdX buyer makes through AdX is not transferred to Open Bidding.

204. According to Xandr and Adform, who offer both an SSP and a DSP, this restriction affects their competitiveness to a significant extent, by depriving them of direct access to their own demand. In particular, Xandr stated that (translated): "*Xandr has not yet joined the EBDA programme, for various reasons: [...] One of Xandr's best selling points is its direct access to its own demand (Xandr Invest, our DSP). However, if Xandr were to integrate EBDA, Google would not allow Xandr to increase demand for our own DSP via our EBDA*

[109] Classification marks 1390, 1557 (VNC 17575).
[110] Classification mark VC 13176 (VNC 13552).
[111] Classification mark VC 13670.

integration"[112]. In this respect, the evidence in the file shows that vertical integration between an SSP and a DSP can have various effects which are beneficial to competition[113], including savings in transaction costs, better data circulation, better legal certainty (e.g. to obtain the Internet user's consent for using their personal data) and technical certainty (e.g. reduced latency). Google's own behaviour corroborates these effects, to the extent that the DSPs controlled by Google, i.e. the services DV360 and Google Ads, buy to a significant extent on AdX[114].

205. Third, the Open Bidding feature is not compatible with all formats that are available, and video displays must be transmitted via Google's proprietary player. As such, the company Teads, which offers publishers intermediation services specialising in *outstream* video formats that are displayed in the surrounding content, states (translated): "(Open Bidding) is detrimental for our business because Google does not allow third parties who want to bid on outstream formats in Open Bidding to do so without using their own outstream video player. As such, we cannot currently work with Open Bidding. *What is more, Open Bidding is a server-side solution which limits the formats to those supported by Google. Also many of our display formats do not work in Open Bidding"*[115](emphasis added).

206. Fourth, like all server-side solutions, Open Bidding does not allow yield partners to offer their buyers as effective targeting as with client-side header bidding[116], particularly because of the way the cookie matching process works.

207. The documents in the file show that the Open Bidding feature was not designed to allow SSPs access to the inventories of DFP users under conditions equivalent to AdX, but to slow down the development of header bidding. For example, a preparatory document provided by Google[117] sets the objective to make Open Bidding just slightly better than header bidding. Another document contains a table[118] showing that the Open Bidding revenue share was intended to be competitive with header bidding, but not to allow yield partners to be competitive with AdX.

208. Furthermore, the information provided by the publishers who were interviewed shows that this feature currently represents only a very small part of their revenues, particularly in comparison with revenues from header bidding[119] integrations. Similarly, data provided by Google shows that gross spending in the context of Open Bidding has never exceeded [5-10] % of AdX revenues[120]. The Open Bidding feature cannot therefore be regarded as a solution that, on its own, allows for fairer competition than header bidding integration. These two modalities of integration are nevertheless used in a complementary way by publishers. As such, the Open Bidding feature is used by publishers to evaluate an SSP before granting it a place in the client-side header bidding integration, which has limited capacity[121]. In effect, multiplying the number of integrated header bidding partners on the client side is likely to significantly increase the latency of the ad display. Professionals therefore limit themselves to between 5 and 10 SSPs integrated in this way (depending on the technologies

[112] Classification marks 4428,VC 4116 (VNC 4153), 4132 and 4133 (VNC 4168).
[113] Competition & Markets Authority: Online platforms and digital advertising, *Market study interim report*, paragraph 5.187.
[114] Classification marks VC 2576 (VNC 3998), 708 and 709 (VNC 1977 and 1978).
[115] Classification mark 14601.
[116] See, for example, classification mark VC 7399 (VNC 12113).
[117] Classification mark VC 8814.
[118] Classification mark VC 13244.
[119] See, for example, classification mark VC 11866 (VNC 13074).
[120] Classification mark VC 12201.
[121] Classification mark 7546.

and the users' requirements). The Open Bidding feature is also used to create competition between SSPs on impressions for which header bidding is not available[122].

d) The advantages resulting from the switch to the unified first-price auction and the implementation of the Unified Pricing Rules

Standardisation of reserve prices applied to SSPs by publishers

209. As explained in paragraph 143, the main change brought about by Google's introduction of Unified Pricing Rules, finalised in September 2019, is that publishers are no longer able to set different reserve prices for different buyers.

210. There are various reasons why publishers are likely to differentiate the reserve price for buyers. Among other things, publishers can use this differentiation in order to[123]:

- optimise the auction process to maximise the price obtained;
- impose a handicap on buyers whose ads are deemed by the publisher to be the most detrimental to the user experience. This assessment is specific to each publisher, and depends in particular on the type of content it offers and the profile of its audience. In this regard, an internal Google analysis[124] summarising the feedback of publishers on the Unified Pricing Rules finds that not being able to set different floors for different actors has an impact on the quality of ads that win auctions;
- reflect the contractual conditions obtained by the publisher with the various SSPs. In this regard, the above-mentioned document cites the name of a publisher who considers that it should have the right to retain price control in accordance with the agreements concluded with each SSP. The opinion of this publisher is that the Unified Pricing Rules appear to be rules made to benefit Google rather than being fair rules.

211. As such, the differentiation of reserve prices allows publishers to take into account the comparative advantages of the different SSPs, especially when AdX is less attractive than its competitors, for example in terms of the revenue share retained or the quality of the advertising content.

212. Moreover, publishers frequently applied higher reserve prices to AdX than to other SSPs, both in the context of header bidding and the Open Bidding feature, in order to maximise the bids coming from this platform. In an internal analysis provided in response to a request from the investigation services, Google employees observe that publishers offer their inventory on multiple SSPs, and the floor prices tend to be higher on AdX.

213. News Corp believes that this development therefore threatens to (translated) "*remove the competitive pressure exerted by header bidding and appears to increase the margin available to Google*"[125].

The transmission of strategic information to buyers through AdX or Open Bidding yield partners

214. In the context of the unified first price auction, Google provides buyers who have participated in an auction on AdX and Open Bidding yield partners with information called

[122] See, for example, classification mark VC 4422 (VNC 14496).
[123] See, for example, classification marks VC 14680 et seq.
[124] Classification marks 14680 et seq.
[125] Classification mark 7020.

minimum_bid_to_win about the minimum amount the buyer should have bid to win the auction.

215. This information allows the buyer to adapt its bidding strategy, and thus optimise its return on investment, for example by avoiding overpaying for impressions by offering buyers services to adapt the amount of the bid. These services are offered by Google, Rubicon Project and Index Exchange[126], among others.

216. For their part, the SSPs integrated in header bidding do not have the *minimum_bid_to_win*. In effect, Google does not provide any feedback on the course of the auction when DFP responds to the user's browser. The company Hubvisor, which provides consultancy and support services to publishers, states that in such cases (translated), "*if the header bidding winner is not displayed, it is possible (for the publisher) to find out whether another impression was displayed (...) (but it) is not possible to find out why the display did not take place, nor at what price the impression was sold within (DFP).*"[127]

3. THE LIMITED INTEROPERABILITY OF ADX WITH THIRD-PARTY AD SERVERS

217. The AdX platform does not offer publishers using ad servers other than DFP the same technical and contractual conditions as those offered to publishers using DFP (a). Since AdX is used by its main buyers on an exclusive or preferential basis (b), this asymmetry encourages publishers to use the DFP ad server rather than a competing service (c).

a) Lack of "real-time" communication with third-party servers and contractual restrictions

218. The ad servers competing with DFP, such as the one offered by Xandr or Smart Adserver, cannot interact with AdX in the same way as DFP, nor in the same way as with other intermediation platforms available on the market.

219. In effect, the only way for publishers using these third-party servers to provide an impression with creative content from AdX is to send the browser directly to the AdX servers. This process is known as client-side redirection, or "*passback*," and involves the ad server handing over control of the page to AdX, so that AdX makes its own ad call and delivers its own impression.

220. When using client-side redirection, the ad server has no "real-time" indication of the price level of the AdX request and the publisher must simply estimate the value that can be delivered by AdX.

221. In practice, the publisher must therefore configure its ad server:

- either to use AdX to monetise only their unsold inventory (at the lowest priority of their cascade model), which then limits their ability to maximise their yield for each impression;

[126] See classification marks VC 13170, 1545 (VNC 7131 and VC 1646), VNC 7163, as well as: https://kb.indexexchange.com/Demand/IX_Bid_Translation_for_Buyers.htm
[127] Classification mark VC 12068 (VNC 12089).

- or to boost AdX's demand price with a fixed CPM that also limits its ability to maximise its yield. In this regard, in an internal exchange[128] on how to deal with a publisher wanting to integrate AdX via a header bidding solution, a Google manager found that when using a third-party ad server, a publisher will not be able to get the best yield because of the manual configuration of an average CPM for AdX;
- or with a configuration referred to by Google as an "unsold campaign element" and by some competitors as "last look mediation", which systematically calls AdX with a dynamically calculated bidding floor. This solution, which is not officially approved or documented by Google, requires a significant initial investment, increases the cost of display delivery, and increases page latency[129].

222. The providers interviewed stated that, compared to the integration of AdX by DFP, client-side integration is less efficient both in terms of monetisation, since it does not allow for price competition for each impression, and in terms of implementation, since it increases the time required to serve an ad and therefore negatively affects the user experience. Furthermore, the use of client-side redirection does not allow third-party server providers to integrate AdX into their advertising products (e.g. programmatic guaranteed)[130].

223. All of the ad technology providers interviewed indicated that client-side integrations are now obsolete and that alternatives to improve the interoperability of different ad technologies, particularly header bidding, have been available for several years.

224. Some ad server providers have reported that they have approached Google to improve the integration of AdX with their offerings, but to no avail[131].

225. In any event, Google imposes contractual restrictions on the interoperability of third-party servers with AdX. The general terms and conditions of AdX prohibit the result of the AdX auction competing with other intermediaries, i.e. if the AdX auction makes it possible to beat the reserve price indicated in the request to the AdX service, AdX must sell the impression.

b) The ability of publishers to compensate for restrictions on interoperability with AdX through other channels

226. According to the complainants, it is difficult to compensate for the restrictions on interoperability with the AdX platform because a publisher's ability to sell its inventory to buyers on AdX through other channels is limited. In particular, they point out that:

- the demand controlled by Google, i.e. generated by the platforms Google Ads and DV360, is an important part of the demand on AdX;
- the Google Ads service buys exclusively or almost exclusively on AdX;
- the DSP DV360 directs its clients' purchases to the AdX SSP.

[128] Classification mark VC 13647.
[129] Classification marks VC 13380 and 13381 (VNC 14394 and 14395), 11 961 (VNC 17020).
[130] Classification marks VC 7169 (VNC 7186), 1375, 1448, 4126 (VNC 4162), VC 1437 (VNC 17609), 14776, 1770 (VNC 17327).
[131] Classification marks VC 7339, 14857, 11961 (VNC 14393).

227. First of all, the breakdown of buyers present on the AdX platform shows the significant place occupied by the DSPs Google Ads and DV360[132]:

Year	Google Ads	DV360	Others
2014	[80-90]%	[0-5]%	[10-20]%
2015	[70-80]%	[5-10]%	[10-20]%
2016	[70-80]%	[10-20]%	[10-20]%
2017	[60-70]%	[10-20]%	[10-20]%
2018	[60-70]%	[10-20]%	[20-30]%
2019	[50-60]%	[10-20]%	[20-30]%

Source: Google

228. Second, many publishers indicated that the demand generated via Google Ads was exclusive to the AdX SSP[133]. However, Google stated that it offers a service to some third-party SSPs called AWBid, in the context of which the Google Ads platform can buy inventory from marketplaces other than AdX. Nevertheless, there are a number of factors that qualify the impact of this service:

- first, as evidenced by an internal document provided by Google, on the one hand, Google Ads retains a significantly higher proportion of advertisers' spend when buying from third-party marketplaces under the AWBid service, thereby reducing the net bidding of advertisers, and on the other hand, the technical limitations of this service restrict the eligible demand[134];
- second, only a portion of the Google Ads demand for retargeting campaigns is eligible in the context of this service. Xandr stated that around 30% of the Google Ads demand would be potentially eligible, but specified that this figure should be treated with caution[135]. An internal Google analysis relating to France nevertheless appears to confirm this order of magnitude[136];
- thirdly, Google does not allow the SSPs on which the AWBid service buys to use the name Google Ads (or AdWords) with publishers and uses its privileged interoperability with Google Ads in the context of its commercial communication. In this regard, the company LBC France forwarded a quotation received from Google[137], which states: "*Google AdX open auction revenue share (80%): Is often said to be lower than competing SSPs (…) but is also known to generate significantly higher net eCPMs for publishers (...) notably thanks to the proprietary Adwords demand generated by significant investment from Google sales teams"* [138];
- fourthly, Google has provided figures on the purchases of the Google Ads service, showing that AWBid represents a very limited part of the total purchases made via this platform[139]:

[132] Classification mark VC 945.
[133] Classification marks VC 13147 (VNC 13819), 12046 (VNC 17525), 7387, 7524 (VNC 13044).
[134] Classification mark VC 13629.
[135] Classification marks 4417 and 4418.
[136] Classification mark VC 15786.
[137] Classification mark VC 11847 (VNC 13120).
[138].
[139] Classification mark VC 2576.

Quotation	Proportion of Google Ads revenue	Proportion of Google Ads impressions
Ad Manager	[30-40]%	[30-40]%
AdMob	[30-40]%	[20-30]%
AdSense	[20-30]%	[30-40]%
Third party platform (AWBid)	[0-5]%	[0-5]%

Source: Google

229. Finally, the DSP DV360 directs its clients' purchases to the AdX SSP[140]:

- first, Google stated that enabling certain features of DV360 restricts purchases to the AdX SSP only. These features, as well as the - very limited - proportion of the expenditure in question, are presented in the following table[141]:

Feature	2016	2017	2018	2019	Jan-March 2020
Client correspondence	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Targeting by parental status	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Targeting by "household income demographics"	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Life events	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Detailed Demographic Data	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Frequency management for Programmatic Guaranteed	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Targeting on the same mobile device, [142]	Not supplied	Not supplied	Not supplied	Not supplied	Not supplied

Source: Google

- secondly, it appears from the findings of the investigation service that other features, significantly more used than the above mentioned features, which Google states are now compatible with purchases on third party SSPs, nevertheless restricted the spending of DV360 to the AdX SSP only until recently[143]. The proportion of the

[140] See, for example, classification marks VC 12062 and VC 7523 (VNC 13043).
[141] Classification marks VC 13972, 14452 and 14453.
[142] Classification mark VC 14694 (VNC 16286).
[143] See classification marks VC 13796 (VNC 13945), 4418 , 14666 and 14667 (VNC 16271).

expenditure of the service DV360 on which these features are enabled is detailed in the following table[144]:

Feature	2016	2017	2018	2019	Jan-March 2020
Affinity Audience Targeting	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[20-30]%
Personalised affinity	[0-5]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%
Personalised intention	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%

Source: Google

- thirdly, so-called programmatic guaranteed offerings from third-party SSPs have only been made available to DV360 users as of April 2019, for a limited number of third-party SSPs. For their part, the programmatic guaranteed offerings of AdX began to be offered to DV360 users during the course of 2015 and were made available to all such users in April 2017.[145]In this regard, one major publisher indicated that the exclusivity of the programmatic guaranteed agreements over the period 2015-2019 was a key factor in its choice to use the DFP ad server[146];
- fourthly, it appears from the documents provided by Google that Google actively sought to direct purchases made via DV360 towards AdX. One of these documents, for example, states that DV360 allows for smarter buying when mediation or header bidding is detected, favouring AdX when possible[147].

c) The impact of these modalities on publishers' choice of ad server solution

230. All the publishers interviewed stated that the preferred interoperability between DFP and AdX is one of the main, if not the main, reason for the attractiveness of DFP[148]. One publisher, for example, stated that Google's tools generate more revenue, especially given the exclusive demand for Google's DSPs (DV630 and Google Ads), which are not available for header bidding. According to this publisher, Google's on-demand access is the key criterion that makes it possible to differentiate between the DFP server and its competitor Appnexus.

231. In fact, AdX demand is the primary source of programmatic revenue for publishers using DFP. It represents between 40 and 90% of their programmatic revenues[149]. In this regard, News Corp states that (translated) "*disabling AdX would result in a loss of up to 83% [of the programmatic revenues of Dow Jones]*"[150].

232. For their part, the publishers who do not use DFP have significantly lower AdX SSP revenues than publishers who use DFP, but also than the average of similar publishers[151]. Altice, which uses the Smart AdServer service, stated: "*Smart doesn't allow us to access*

[144] Classification mark VC 13973 (VNC 14452 and 14453).
[145] Classification mark VC 13208 (VNC 13722).
[146] Classification marks 7542 and 7543.
[147] Classification mark VC 13629.
[148] Classification marks VC 12046 (VNC 17525), 12034 (VNC 16845), 7524 (VNC 13043 and 13044).
[149] See, for example, classification marks VC 12067 (VNC 12088), 13321, 13386 (VNC 17291).
[150] Classification mark 42.
[151] Classification marks VC 12070 (VNC 12091) and 12058 (VNC 13350).

Google's programmatic demand and this is a real problem because it cuts us off from 20-30% of the potential for additional programmatic revenue"[152].

233. It should be noted that the fact that this revenue share is available only to DFP users is highlighted by Google's sales departments in their responses to the invitation to bid of publishers[153]. In this regard, the publishers that have recently adopted Google's ad server solution anticipate or are actually seeing a significant increase in programmatic revenues and are primarily attributing this to the additional demand represented by AdX[154].

234. Consequently, most ad server providers interviewed indicate that AdX's lack of compatibility with "real-time" calls does not allow them to propose a competitive ad server offering[155]. AdSpirit therefore states that "*the main problem is that AdX does not allow external publishers to sell their inventory through AdX [...] In order to be competitive we would need to be able to connect to the adx using openrtb or any real time bidding protocol in order to enable our clients to sell their inventory"*.[156][157] For its part, Adzerk adds[158] that it chose not to place its ad server offering in direct competition with Google's and that "*A factor strongly contributing to the decision was that Adzerk does not have access to AdX advertiser demand"*[159].

Conclusion

235. Google has engaged in two distinct practices, with the intention that its DFP ad server favours its AdX SSP and, conversely, its AdX SSP favours its DFP ad server.

236. First, the DFP ad server organises asymmetric competition between the AdX bidding platform and its competitors. The exact details of this practice have varied over the period in question, particularly as there are several methods by which a competing platform can interact with DFP. One of the most notable asymmetries is that until recently, DFP provided AdX with the price offered by competing platforms, and AdX used this information to optimise its auctions, in particular by varying its commission according to the competitive pressure.

237. The table below compares the conditions of DFP inventory purchases offered to AdX versus third-party SSPs:

[152] Classification mark 12061.
[153] Classification mark VC 11847 (VNC 13120).
[154] See, for example, classification marks VC 7524 (VNC 13044), 7543, 12 046 (VNC 13340), 7210.
[155] See, for example, classification marks VC 1770 and 1771 (VNC 17327, 7297 and 7298), 1437 (VNC 17609), 4126 (VNC 4162).
[156] Classification mark VC 1448.
[157].
[158] Classification mark VC 7169 (VNC 7186).
[159].

Situation	Conditions of interaction
Third party SSP via mediation	Disadvantages for third-party SSPs compared to AdX - impossible to submit an offer in "real time" *After September 2019*: - elimination of bidding thresholds per buyer
Third party SSP via header bidding	Disadvantages for third-party SSPs compared to AdX *Before September 2019*: - right of last look granted to AdX - non-reproducible dynamic revenue share of AdX *After September 2019*: - lack of information about the auction process - elimination of bidding thresholds per buyer
Third party SSP via Open bidding	Disadvantages for third-party SSPs compared to AdX - limited targeting capacity - impossible to use innovative formats - impossible to benefit from the effects of integration with a platform for the purchase of advertising space (DSP) - competitive disadvantage linked to the share of revenue retained by Google *After September 2019*: - elimination of bidding thresholds per buyer
AdX via dynamic allocation	Advantages of AdX - real time *Before September 2019*: - last look - dynamic revenue sharing *After September 2019*: - information about the progress of the auction

238. Secondly, the AdX platform is only partially interoperable with ad servers competing with DFP, and does not allow the latter to organise competition between AdX and its competitors - even though AdX itself has privileged access to a significant part of advertiser demand, and all of these competing ad servers have adopted standards allowing for fairer competition.

239. Comparison of conditions of interoperability offered by AdX to DFP vs. third-party ad servers:

Situation	Conditions of interaction
DFP	**Advantages for DFP** - real-time comparison - minimum latency
Third party server - "AdX direct" configuration	**Disadvantages for third-party servers** - lack of real-time comparison limits yield - right of last look for AdX
Third party server - second configuration	**Disadvantages for third-party servers** - additional latency - additional ad server fees - configuration not known and complex - lack of official documentation

E. REMINDER OF THE NOTIFIED OBJECTIONS

240. On 1 and 19 October 2020, Alphabet Inc., Google LLC and Google Ireland Ltd. were notified of two objections relating to practices in the sector of technologies for online display advertising:

First objection

(Translated) "

Google LLC (formerly Google Inc.) and Google Ireland Ltd., as authors, and Alphabet Inc. and Google LLC, as parent company, are accused of having abused their dominant position in the European market for ad servers for website and mobile app publishers by applying technical and contractual terms to third-party technologies of non-search supply side platforms that are less favourable than the terms applied to their own technologies.

In particular, Google LLC (formerly Google Inc.) and Google Ireland Ltd granted the DoubleClick Ad Exchange supply side platform, now incorporated into Google Ad Manager, preferential terms for the purchase of inventories managed by the DoubleClick for Publishers ad server, now incorporated into Google Ad Manager.

This practice is likely to have, and has already had, anti-competitive effects on the European market for non-search supply side platforms; contravenes the provisions of Article L.420-2 of the code de commerce [French Commercial Code] and Article 102 of the TFEU; has been implemented at least since 1 January 2014 and is still ongoing.

."

Second objection

(Translated) "

Google LLC (formerly Google Inc.) and Google Ireland Ltd., as authors, and Alphabet Inc. and Google LLC, as parent company, are accused of having abused their dominant position in the European market for ad servers for website and mobile app publishers by applying technical and contractual terms to third-party ad server technologies for website and mobile app publishers that are more restrictive than the terms applied to their own technologies.

In particular, Google LLC (formerly Google Inc.) and Google Ireland Ltd granted the DoubleClick for Publishers ad server, now incorporated into Google Ad Manager, preferential conditions of interoperability with the DoubleClick Ad Exchange supply side platform, now incorporated into Google Ad Manager.

This practice is likely to have, and has already had, anti-competitive effects on the European market for ad servers for website and mobile app publishers; contravenes the provisions of Article L.420-2 of the code de commerce and Article 102 of the TFEU; has been implemented at least since 1 January 2014 and is still ongoing"

II. Assessment

A. ON THE IMPLEMENTATION OF THE SETTLEMENT PROCEDURE

241. Article L. 464-2 (III) of the French Commercial Code (Code de commerce) provides that (translated) "*where a body or a company does not contest the reality of the objections brought against it, the General Rapporteur may submit to it a proposal for a settlement setting the minimum and maximum amounts of the financial penalty envisaged. Where the company or body undertakes to change its conduct, the General Rapporteur may take this into account in its settlement proposal. If, within a time limit set by the General Rapporteur, the body or company agrees to the proposed settlement, the General Rapporteur shall propose to the Autorité de la concurrence, which shall hear the company or body and the representative of the Minister of the Economy without the prior establishment of a report, to impose the financial penalty provided for in I within the limits set by the settlement*".

242. Moreover, point 23 of the Procedural Notice of the *Autorité* of 21 December 2018 on the settlement procedure (hereinafter "**Notice on the settlement procedure**") provides: "*In the event that the company in question has also offered commitments, the General Rapporteur shall assess whether it is relevant to take them into account given the particular circumstances of the case and, in particular, the nature of the objections raised. If this is the case, the General Rapporteur then ensures that the proposed commitments are substantial, credible and verifiable.*" Point 27 of the Notice on the settlement procedure states that: "*When the General Rapporteur considers it appropriate to propose to the Autorité that the commitments submitted by the company be made binding, they also take them into account in their proposed settlement*".

243. The parties entering into a settlement procedure must provide all sufficient guarantees, in particular in terms of deadlines for compliance, to ensure that the practices which are the subject of the notified objections cease as soon as possible[160]. Compliance with competition law, which is the necessary consequence of a decision to impose a sanction that establishes objections, cannot therefore be the subject of a specific compensation in the context of a settlement procedure.

244. However, where the company in question has, in the course of the settlement procedure, also proposed behavioural remedies, the General Rapporteur may annex them to the official settlement report if he considers them relevant to the particular circumstances of the case and if they are substantial, credible and verifiable.

245. The fact that these remedies are made binding by the *Autorité* does not in any way exempt the company from full compliance with competition law. Beyond the remedies proposed by the company in question, it will also have to take all necessary measures to comply with competition law, in particular with regard to the objections raised by the *Autorité*.

246. As such, mere compliance with the remedies proposed in the context of a settlement does not exempt the company in question from a new risk of sanctions if the measures it has adopted, and in particular the remedies it has given, are not sufficient to remedy the infringement sanctioned in the decision issued by the Board.

[160] Decision 19-D-21 of 28 October 2019 regarding practices implemented in the road freight transport sector, paragraph 71.

247. In the present case, by a settlement minutes signed on 12 March 2021, due to circumstances specific to them, and without acknowledging their culpability, Alphabet Inc., Google LLC and Google Ireland Ltd. undertook not to contest the objections notified to them. Accordingly, the objections set out in paragraph 240 of this Decision are established in respect of the relevant companies of the Google group.

248. Moreover, the companies Alphabet Inc., Google LLC and Google Ireland Ltd. have proposed various commitments consisting, on the one hand, of strengthening interoperability between DFP and third-party SSPs according to the modalities of header bidding in order to allow competition on the merits between AdX and third-party SSPs for the purchase of inventories from publishers using DFP and, on the other hand, of modifying the existing configurations of some of its technologies in order to allow publishers using third-party ad servers to have access to AdX's demand in real time. These commitments, which were annexed to the settlement minutes, are summarised in paragraphs 468 et seq. and are annexed to this Decision.

249. At the hearing of 7 May 2021, Google officially confirmed its agreement with the terms of the settlement, the legal consequences of which it accepted, in full knowledge of the facts, in particular as regards the amount of the financial penalty.

250. As the practices have not been challenged, the *Autorité* will limit itself to a discussion of the applicability of EU law, the relevant markets and Google's position on these markets.

B. ON THE APPLICABILITY OF EU LAW

251. Article 102 of the Treaty on the Functioning of the European Union (hereinafter TFEU) states that any abuse by one or more undertakings of a dominant position within the internal market or in a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States.

252. In accordance with settled case law, the courts of the Union and European Commission Notice - Guidelines on the effect on trade concept contained in Articles 81 and 82 of the Treaty establishing the European Community (now Articles 101 and 102 TFEU), three elements must be present in order for practices to appreciably affect trade between Member States: the existence of trade, or at least potential trade, between Member States in the services in question (i), the existence of practices that are capable of affecting such trade (ii), and the appreciable nature of that possible effect (iii).

253. In this case, advertising technologies are likely to be supplied without taking borders into account. In particular, the servers do not have to be located in the Member State in which the ad server services are sold - in other words, they do not have to be located in the same Member State as the advertiser, the publisher, or the user viewing the ads. Secondly, the reported practices are likely to affect the structure of competition throughout the European Economic Area (hereinafter "EEA") by restricting competition between providers of ad servers for publishers and platforms for selling advertising space within the EEA. Finally, Google implemented the reported practices throughout the EEA.

254. It follows from the above that the reported practices are likely to significantly affect trade between Member States and be qualified under Article 102 TFEU.

C. ON THE RELEVANT MARKETS

1. REMINDER OF THE APPLICABLE PRINCIPLES

255. The definition of product market and geographic market, in the context of the application of Articles 102 TFEU and L. 420-2 of the French Commercial Code (Code de commerce), is made in order to determine whether the undertaking in question holds a dominant position and whether this position enables it to prevent effective competition on the relevant market, by giving it the power to behave to an appreciable extent independently of its competitors and customers and of consumers.

256. The concept of a relevant market implies that there can be effective competition between the products and services that belong to that market. This presupposes that there is a sufficient degree of substitutability between all products and services belonging to the same market with respect to a specific use of the product or service[161].

257. An examination limited to the objective characteristics only of the relevant products cannot be sufficient: the competitive conditions and the structure of supply and demand on the market must also be taken into consideration[162].

258. The identification of relevant product markets is implied from the existence of competitive constraints. In this regard, companies are subject to three sources of competitive constraints: demand-side substitutability, supply-side substitutability, and potential competition. From an economic perspective, for the definition of the relevant market, demand substitutability is the most immediate and effective disciplining factor vis-à-vis suppliers of a given product[163].

259. Supply-side substitutability may also be taken into account when defining markets in those situations in which its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy. This means that suppliers are able to switch production to the relevant products and market them in the short term without incurring significant additional costs or risks in response to small and permanent changes in relative prices. When these conditions are met, the additional production that is put on the market will have a disciplinary effect on the competitive behaviour of the companies involved[164].

260. The geographic market, on the other hand, comprises the territory in which the companies are engaged in the relevant supply and demand and in which the conditions of competition are homogeneous.

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[161] See, in this sense, the judgment of the Court of Justice in Case 85/76, Hoffmann-La Roche v Commission, paragraph 28. See also Commission Notice on the definition of the relevant market for the purposes of Community competition law (Commission Notice) OJ No C 372, 9.12.1997, paragraph 5.

[162] See, in this sense, the judgments of the Court of Justice and the Court of First Instance in Cases 322/81, Nederlandsche Banden Industrie Michelin v Commission, paragraph 37; T-556/08, Slovenská pošta v Commission, paragraph 112.

[163] See paragraphs 13 et seq. of the above-mentioned Notice.

[164] See Commission Notice on the definition of the relevant market for the purposes of Community competition law, 9 December 1997, paragraph 20.

2. AD SERVERS FOR WEBSITE AND MOBILE APP PUBLISHERS

261. The decision-making practice of the *Autorité de la concurrence* and the European Commission distinguishes a specific market for the supply of advertising services, and notes that this market is likely to be subdivided according to whether the services are provided to advertisers or to publishers[165].

262. As regards the geographic scope of such a market, the Commission found that it extended to at least the European Economic Area[166].

a) On the market for products

263. The market for ad servers for the publishers of websites and mobile apps is a relevant market. In effect, the evidence in the file shows:

- that the market for ad servers must be segmented according to whether these servers are intended for publishers or advertisers;
- that there is a specific market for the supply of ad servers for display advertising, separate from the market in which the SSPs are active;
- that the ad server offering for the publishers of websites and mobile apps is, however, very different from that for the - emerging - ad server technologies for serving ads to connected televisions;
- that it is not, however, relevant in the context of this case to segment this market further in terms of media or format.

On the distinction between ad servers for publishers and for advertisers

264. As highlighted by the European Commission in the above-mentioned Google/DoubleClick decision, the *Autorité* considers that ad servers for advertisers are not substitutable for ad servers for publishers.

265. Firstly, the main features of a publisher ad server (see arguments in paragraphs 40 et seq) differ significantly from those of advertiser ad servers. In particular, the latter do not offer any functionality for forecasting inventories to be supplied, nor an algorithm that makes it possible to arbitrate between the various possibilities for monetising an inventory. However, implementing these features requires advanced technologies, and they are essential to the attractiveness of an ad server[167].

266. Secondly, providers of publisher ad servers and advertiser ad servers are largely separate. As such, various companies only market publisher ad servers (e.g. Adhese or Smart AdServer) or advertiser ad servers (e.g. Flashtalking, Sizmek, or Weborama). Moreover, when the same company sells both types of technology, it does so under different brand names. For example, Google markets its publisher ad server under the Google Ad Manager brand (formerly Doubleclick for Publishers), and its advertiser ad server under the Google Marketing Platform brand (formerly Doubleclick Campaign Manager).

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[165] See paragraphs 74 to 81 of European Commission decision of 11 March 2008, M.4731, Google / DoubleClick. See also paragraphs 162 and 167 of European Commission decision of 17 December 2020, M.9660, Google/Fitbit and paragraph 184 of Opinion No. 18-A-03 of 6 March 2018 on data processing in the online advertising sector.

[166] See paragraphs 85 to 91 of European Commission decision Google / DoubleClick, cited above.

[167] See, for example, classification marks VC 4313 and 4314 (VNC 4352 and 4353).

267. Furthermore, this distinction is not contested by Google, according to whom (translated) "*if the Autorité were to consider that ad servers constitute a separate market, the distinction between publisher ad servers and advertiser ad servers could then be justified*"[168].

On the existence of a specific market distinct from that on which SSPs are active

268. According to Google (translated), *"the distinction between publisher ad servers and supply-side ad intermediation platforms ("SSPs") does not reflect the many common features currently offered by both products with respect to ad inventory and inbound ad traffic management. Many products that are regarded as publisher ad servers are also regarded as SSPs. Most of the major ad server tools for publishers now include - at least to some extent - SSP-like functionality. There is no longer really a market for stand-alone ad serving, which is a fully standardised service".*[169]

269. However, the *Autorité* is of the opinion that the market for ad servers remains distinct from the market in which the SSPs are active. This is because these products are not substitutable on either the supply or the demand side, and the conditions under which competition occurs for these two types of activity are different.

270. On the demand side, the publishers interviewed suggested that it is impossible to do without an ad server, even by replacing the ad server with an SSP, since:

- using an ad server is essential for generating direct sales. Yet, on the one hand, these sales represent a significant portion of the revenues of the largest publishers, and on the other hand, for the same inventory, the revenue that a publisher earns from a direct sale is on average much higher than the revenue earned from a programmatic sale[170]. Groupe Figaro indicated for example that an inventory sold programmatically is between 30 and 60% less profitable[171], and Webedia stated that a format to the standards of the IAB earns, on average, 4 euros CPM (costs per thousand impressions) when it is sold directly, against 0.80 euros CPM when it is sold programmatically[172];
- using an ad server is essential to create competition between multiple SSPs for the same inventory, while taking into account direct sales, and ensuring the follow-up of the sales performance. However, as explained above, this competition directly and significantly increases the selling price of inventories[173].

271. On the supply side, there are technological barriers to providing ad server services for an SSP provider. In effect, ad servers need to offer various features that SSPs do not offer and that require significant development (this is the case, for example, for inventory forecasting functions). Several internal documents provided by Google attest to the importance of the technological investments required to supply ad servers compared to the investments required to supply an SSP, for which the competitiveness is primarily correlated to its ability to satisfy the widest possible demand.

[168] Classification mark VC 13158 (VNC 13534).
[169] Classification mark 13157.
[170] Classification marks VC 7521 (VNC 13041), 12032 (VNC 16844), 1742 (VNC 17304), 12044 (VNC 17523), 5577 (VNC 17333), 7251 (VNC 17285), 13145 (VNC 17289) and
[171] Classification mark VC 7233 (VNC 16564).
[172] Classification mark 7541.
[173] In this respect, see in particular classification marks VC 5187 and 5188.

272. Secondly, many SSP providers, including some of the largest (e.g. Index Exchange[174] and Rubicon Project[175]) do not market an ad server. Some providers that used to offer both technologies have abandoned their ad servers and only provide SSPs, precisely because the investment required to maintain a competitive ad server was too high (e.g. OpenX and Verizon Media). Furthermore, companies that offer both types of technology routinely offer server and SSP functionality separately. This is the case, for example, for Smart Adserver and Xandr, but also for Google, whose AdX direct offering, i.e. using the SSP without the DFP ad server, accounted for [0-10]% of total transactions realised by AdX in 2018[176].

273. Finally, the conditions under which competition occurs in the two markets are very different. As such:

- on the one hand, publishers generally use one, or sometimes two, ad server(s) to manage all of their inventories. If they use two, this is typically to manage different inventories, for example banners and videos, or app and web media. The publishers select their ad servers following a bidding process, and for periods of several years, given the difficulties involved in changing technological solutions. The ad servers are almost always charged on a cost-per-impression basis, with additional costs for certain features, such as the use of data segments;
- on the other hand, publishers use a large amount of SSPs at the same time, around a dozen[177], whether for mediation, header bidding, or other similar functions, such as Open Bidding. These SSPs are in competition for each impression, and various publishers have indicated that they regularly change the SSPs used when one of these SSPs is unsatisfactory, and that the switch to another SSP is done without any particular difficulty. The SSPs generate revenue almost systematically by retaining a percentage of the revenues earned by the publisher.

274. In conclusion, the ad server market is distinct from the market in which SSPs are active.

On the distinction between ad servers for publishers of websites and mobile apps and ad servers for display advertising on connected television, internet boxes and similar devices

275. The offerings of ad servers for the publishers of websites and mobile apps are very different from the offerings of ad servers for display advertising on connected TVs, which are currently not very widespread in the EEA.

276. Firstly, ad servers for display advertising on connected televisions do not address the same demand, as they are not marketed to publishers of websites and mobile apps.

277. Secondly, the infrastructure and technical operation of ad servers for display advertising on connected televisions are distinct from those of ad servers for advertising on a website or mobile app. In particular, the modalities of interaction with the server and the targeted advertising are based on different techniques. Furthermore, the ad selection features offered by the servers for connected television are much more sophisticated[178]. For example, they block the display of competitor ads within the same commercial break.

[174] Classification mark VC 2725.
[175] Classification mark VC 1550 (VNC 7135).
[176] Classification mark VC 2476.
[177] See, for example, classification marks VC 7546, 12034 (VNC 16846), 12047 (VNC 17526), and 13147 (VNC 13819).
[178] Classification marks VC 13 372 to 13 375 (VNC 14386 to 14389).

278. Third, the cost of advertising technologies used for connected TV is significantly higher than the cost of technologies used for websites and mobile apps.

279. Fourth, regulatory constraints specific to connected television limit the possibilities of targeted advertising on this medium in certain countries, including France.

280. In this context, the *Autorité* is of the opinion that these display technologies on connected TVs, internet boxes and similar devices constitute a separate market from the market for ad servers for publishers of websites and mobile apps.

On the distinction between ad server technologies for publishers of websites and mobile apps in terms of media or format

281. As discussed above, some publishers of websites or mobile apps may use a separate ad server for mobile or video display in addition to their primary ad server. Moreover, some ad server offerings may themselves be specialised in a specific format, such as video or native. This is the case in particular for the offering of the company FreeWheel, which is primarily dedicated to video format.

282. From a technological and commercial perspective, there are features which are specific to the medium of mobile apps, particularly with regard to the use of advertising identifiers and software development kits (SDK) for adding functionality to a programme or app, which explain the low level of development of header bidding on this medium. Similarly, take-up of the video format by ad servers implies specific constraints, relating in particular to the weight of the hosted content (a video is many more MB than a banner) and the need to integrate with a video player. These differences result in a significant cost of entry into the video ad server segment (estimated at several million euros by one of the providers interviewed) as well as a much higher price for video ad services (the price of a video ad being 10 to 20 times more than the price of a banner[179]).

283. However, publishers market direct campaigns common to their app and web inventories and there are also joint or complementary campaigns between video and banners. In this regard, almost all of the publishers interviewed stated that they use, or plan to use in the short term, a single ad server that supports all media and web and mobile app formats.

284. What is more, ad servers dedicated to video and those dedicated to other formats are increasingly converging. As such, all of the major offerings of ad servers for publishers of websites and mobile apps are now omni-format and multi-support. In this regard, the ad server of FreeWheel, although the most specialized in video, also offers support for other ad formats.

285. While it cannot be ruled out that the overall market for ad servers for publishers of websites and mobile apps may be segmented according to format or medium considerations, such a segmentation may be left open in the context of the present case, since the practices are implemented on the entire market for ad servers for publishers of websites and mobile apps.

b) On the geographical dimension of the market

286. The *Autorité* is of the opinion that the market for ad servers for publishers of websites and mobile apps is EEA-wide.

287. Firstly, according to Google (translated) "*whatever the envisaged definition of markets for publisher ad servers - Google considers it to be at least EEA-wide, if not worldwide.*

[179] Classification mark VNC 7554.

Publisher ad servers leverage the same technology and provide the same functionality worldwide. The servers do not have to be located in the Member State in which the ad server services are sold - in other words, they do not have to be located in the same Member State as the advertiser, the publisher, or the user viewing their ads. Clients often purchase ad server services on a cross-border basis. Google's contracts pertain to services for the supply of impressions around the world"[180].

288. Secondly, there are significant regulatory barriers to supplying ad servers in the EEA, the main one resulting from the requirement to comply with the GDPR. Several actors, including Google and Xandr, have identified the GDPR as a key regulatory framework for providing ad servers, and have detailed the changes in the use policy for services and the tools that needed to be developed to enable full compliance with the GDPR[181].

289. Thirdly, there are significant technical barriers to supplying ad servers from a remote geographical area of the EEA, which relate to the need - for latency reasons - to locate the servers in relative geographical proximity to the Internet users to whom the displays will be served. As such, while the server does not have to be located in the immediate vicinity of the Internet user, for example on the territory of the same State, it cannot be located too far away. For example, an ad server located in Australia will have great difficulty serving an impression to a French Internet user.

290. Fourthly, publishers typically sign cross-border contracts across a geographic area such as Europe or North America. Moreover, the technologies used are homogeneous in the EEA and, although this is not the most common case, ad server providers may market their services in countries where they do not have a commercial presence. There is also a significant difference in maturity between the markets for the sale of programmatic inventories in Europe and North America[182] (share of direct and programmatic, transaction methods offered, number of firms, etc.).

291. Fifth, publishers place significant importance on the benefit of local technical support, i.e., at least in the same geographical area.

292. Finally, internal documents supplied by Google show that its teams analyse the development of competition on the scale of limited geographical areas, whether EEA-wide or sub-regions of the EEA[183].

3. SUPPLY SIDE PLATFORMS FOR ONLINE NON-SEARCH ADVERTISING

293. In its Google/AdSense decision[184], the European Commission distinguished a market for intermediation services for the sale of online advertising, before establishing that intermediation services for online search advertising had limited substitutability with intermediation services for online non-search advertising.

[180] Classification marks 13159 and 13160.
[181] Classification marks VC 678 to 682 (VNC 1947 to 1951) and 13376 to 13377.
[182] See, for example, classification mark VC 7398 (VNC 12112).
[183] Classification marks VC 14982, 8587 and 8599.
[184] See confidential version of the European Commission's decision in the Google/AdSense case, paragraphs 189-197.

a) On the market for products

294. The *Autorité* is of the opinion that the market for platforms for the sale of online non-search advertising space is a relevant market. In effect, the evidence in the file shows that:

- intermediation services for online non-search advertising are present in a separate market from intermediation services for online search advertising; and
- demand side platforms (DSPs), are not currently substitutable for platforms for selling online advertising space.

295. Such a market includes SSP offerings, such as Google's AdX service, as well as Xandr Monetize or Smart RTB+, and Ad Exchange services, including Index Exchange services. It also includes services such as the content recommendation services Taboola and Outbrain, or ad networks such as AdSense, or MoPub, to the extent that they are likely to be interoperable with an ad server. In contrast, DSPs such as Google DV360 or TheTradeDesk are not present on this market.

On the distinction between intermediation platforms for online non-search advertising and intermediation platforms for online search advertising

296. As the European Commission held in the Google/AdSense decision[185], the *Autorité* is of the opinion that intermediation platforms for online search advertising are not substitutable for intermediation platforms for online non-search advertising.

297. Firstly, the key principle of search intermediation involves targeting the user's search terms, which reflect an intention on their part. It is not possible to use the same technologies for intermediation if there is no search by the Internet user.

298. Secondly, display ads currently have a variety of formats (simple banner, enriched, native, video, audio, etc.), while search ads are primarily text-based.

299. Given these different aspects, it appears that the intermediation platforms for online non-search advertising and intermediation platforms for online search advertising constitute separate markets.

300. In any event, such a distinction has no bearing on the competitive analysis. Indeed, if an overall market for intermediation platforms for online advertising were envisaged, Google would be dominant on this market, as it holds a dominant position in both segments. In this respect, the European Commission recently found that Google is largely dominant on the market for intermediation platforms for online search advertising[186]. Moreover, Google also holds a dominant position on the market for intermediation platforms for online non-search advertising (see paragraphs 317 et seq. below).

On the distinction between supply side platforms and demand side for the selling and purchase of advertising space

301. It can be seen from the evidence in the file that demand side platforms for the purchase of advertising space (DSPs) have very limited substitutability with supply side platforms for the sale of advertising space (SSP).

[185] European Commission decision of 20 March 2019, AT.40411 - Google Search (Adsense).
[186] See the Google/AdSense decision mentioned above.

302. Firstly, DSPs do not establish direct relationships with publishers, whereas SSPs require significant technological and, above all, commercial investments to develop such relationships with publishers. SSPs integrate specific features for publishers, which allow them to sort or block certain categories of ads so that they are not displayed on their site.

303. In this regard, Xandr stated (translated)[187]: "*it is difficult for DSPs to successfully create connections directly with publishers via header bidding. From an operational perspective, implementing each publisher and keeping them integrated represents a significant overhead and requires adequate support teams.*

From a technical perspective, publishers often require certain features to control how their inventory is sold to buyers. For example, a publisher such as Le Figaro would want to prevent a competitor such as Le Monde from displaying ads on its website which promotes subscriptions to news services. A DSP would generally not develop this feature, since it is a tool intended to be used by sellers rather than advertisers, who are the primary users of DSPs. Direct connection to publishers via header bidding may therefore require significant product development for the DSP.

Finally, from a commercial perspective, publishers generally limit the number of partners they connect through header bidding for latency reasons. The more partners are called from the page, the more network requests the browser has to process. This can be problematic because browsers use different techniques to maintain their performance and responsiveness, for example, limiting the number of network requests made in parallel. Consequently, publishers must carefully choose the partners they call through header bidding to maximise their revenue while minimising the impact on latency. Since a DSP is a single source of demand, it could be difficult to generate as much revenue for the publisher as an SSP connected to multiple DSPs and, therefore, not be chosen as a header bidding partner.

DSPs provide tools designed for advertisers to manage their ad buys across multiple SSPs and publishers and optimise those ad buys to meet the advertiser's goals (e.g., views, clicks, conversions, etc.). SSPs provide tools designed for digital properties to sell their ad space via auctions and private marketplaces and to maximise the selling price of their available ad inventory. While DSPs and SSPs interact with each other to a significant extent, they are each designed to address a very distinct set of problems for their customers".

304. Secondly, the offerings on the market differentiate between those intended for SSPs and those intended for DSPs. In this sense, Google states that it has limited the eligibility of its Open Bidding offering to SSPs and ad networks only, to the exclusion of DSPs, as the latter would not provide sufficient control over the content displayed to publishers[188].

b) On the geographical dimension of the market

305. The *Autorité* is of the opinion that the market for supply side platforms for advertising space is EEA-wide.

306. Firstly, Google believes that the geographical dimension of the markets for intermediation platforms is at least at the European scale[189].

307. Secondly, as with ad servers, there are significant regulatory barriers to supplying ad server platforms, foremost among which is compliance with the GDPR. All of the providers

[187] Classification marks VC 13375 and 13376 (VNC 14389 and 14390).
[188] Classification mark VC 13176 (VNC 13552).
[189] Classification mark 13161.

interviewed - including Google - stressed the extent of the costs involved in order to be in compliance[190].

308. Third, while publishers often purchase intermediation services on a cross-border basis, the attractiveness of a platform is nevertheless directly correlated to its capacity to establish relationships with the various sources of demand present in a geographical area that is generally measured on scales such as Europe or America[191]. In this respect, the evidence in the file shows that the technologies used are homogeneous in the EEA.

309. Finally, publishers place significant importance on having technical support available, which they believe would not be possible without having technical teams located in the same geographic area (for example, if an SSP provider were to market to European publishers solely from the US).

4. THE CLOSE CONNECTION OF THE MARKETS

310. According to the Cour d'appel de Paris (Paris Court of Appeal), two distinct markets are nevertheless likely to have a close nexus (translated) "*either because they are upstream or downstream of each other, or because they concern similar services, if not completely substitutable*"[192].

311. In the present case, the functional interdependence of ad servers and advertising intermediation platforms creates a particularly close nexus between the market for publisher ad servers and the market for programmatic ad server platforms, which cannot function without a supply source. In this respect, Google, like all the providers and publishers interviewed, stresses that ad servers and SSPs interact in the same ecosystem.

312. The market for publisher ad servers and programmatic ad server platforms (SSPs) are considered by the *Autorité* to be closely associated.

D. GOOGLE'S POSITION IN THE RELEVANT MARKETS

1. REMINDER OF THE APPLICABLE PRINCIPLES

313. Dominance is defined as "*a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers. In general, a dominant position derives from a combination of several factors which, taken separately, are not necessarily determinative*"[193].

314. One of the main criteria for determining dominance is the existence of significant market shares. "*Very large market shares are in themselves, save in exceptional circumstances, evidence of the existence of a dominant position. An undertaking which has a very large*

[190] Classification mark VC 13376 (VNC 14389 and 14390).
[191] See, for example, classification marks VC 12045 (VNC 17524) and 7399 (VNC 12113).
[192] See the ruling of the Cour d'appel de Paris (Paris Court of Appeal), 1st Chamber – Section H, of 31 March 2009, 2008/11353.
[193] See, for example, the judgment of the Court of Justice in Case 27/76, United Brands v Commission, paragraphs 64 and 65.

market share and holds it for some time, by means of the volume of production and the scale of supply which its stands for – without those having much smaller market shares being able rapidly to meet the demand from those who would like to break away from the undertaking which has the largest market share – is in a position of strength which makes it an unavoidable trading partner and which, already because of this, secures for it, at the very least during relatively long periods, that freedom of action which is the special feature of a dominant position"[194]. According to the case law of the CJEU, a market share of 50% constitutes in itself a clear indication, save in exceptional circumstances, of the existence of a dominant position[195].

315. In addition to the level of market shares of the undertaking concerned, the ratio of the market shares held by the undertaking concerned to those held by its competitors must also be taken into account. A significant distance to the nearest competitor is also considered to be an indication of an undertaking's market power, as has been repeatedly stressed by both European and national competition authorities.

316. Factors other than the market share of the undertaking and its competitors also need to be taken into account in assessing the market power of the undertaking, such as particular brand recognition, an extensive distribution network or proximity to specifiers[196].

2. GOOGLE'S DOMINANT POSITION IN THE EUROPEAN MARKET FOR AD SERVERS FOR PUBLISHERS OF WEBSITES AND MOBILE APPS

317. In 2008, the European Commission found that Doubleclick had the strongest position in the market for publisher ad servers, with a market share of between 40% and 50% in the EEA.

318. It can be seen from the evidence presented in the discussion that since January 2014, when it was possible to obtain reliable data from a large number of providers, this position has been significantly strengthened, and that DFP has a dominant position in the European market for ad servers for publishers of websites and mobile apps.

319. This assessment is based on the market shares of Google and competing providers (a), the existence of significant barriers to entry, retention and expansion (b), the absence of countervailing buying power (c), the unparalleled reputation of Google and its advertising technologies (d), the position of Google at all levels of the online advertising value chain and the resulting synergies (e).

a) On Google's market share

320. The market share of an ad server offering can be calculated in two different ways: in terms of value, i.e. as a proportion of the revenues earned by ad server providers, or in terms of volume, i.e. as a proportion of impressions served to publishers.

321. In the first instance, based on the evidence provided by the main actors on the European market[197], the *Autorité* considers that, at least since 2014, Google has had a market share in value terms of more than 50%.

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[194] See judgment of the Court of First Instance in Case T-57/01, Solvay v Commission, paragraphs 275 to 279.
[195] See judgment of the Court in Case C-62/96, AKZO v Commission, paragraph 60.
[196] See, in this regard, *Autorité de la concurrence* decision 05-D-32, Royal Canin, paragraphs 169 to 174.
[197] Besides Google, the following actors were interviewed: FreeWheel, Smart AdServer, Verizon, Xandr, AdSpirit, AdZerk, Adhese, AdForm and OpenX. See classification marks VC 967, VC 1778 to 1785 and 1810

Evolution of Google's market share by value on the European publisher ad server market since 2014 (EEA)

2014	2015	2016	2017	2018	2019 - estimate[198]
[50-60]%	**[50-60]%**	**[50-60]%**	**[60-70]%**	**[60-70]%**	**[60-70]%**

Source: Google, FreeWheel, Smart AdServer, Verizon, Xandr, AdSpirit, AdZerk, Adhese, AdForm and OpenX

322. This conclusion is backed up by the fact that the data used to calculate these market shares is likely to lead to an underestimate of Google's actual value market share, for two reasons:

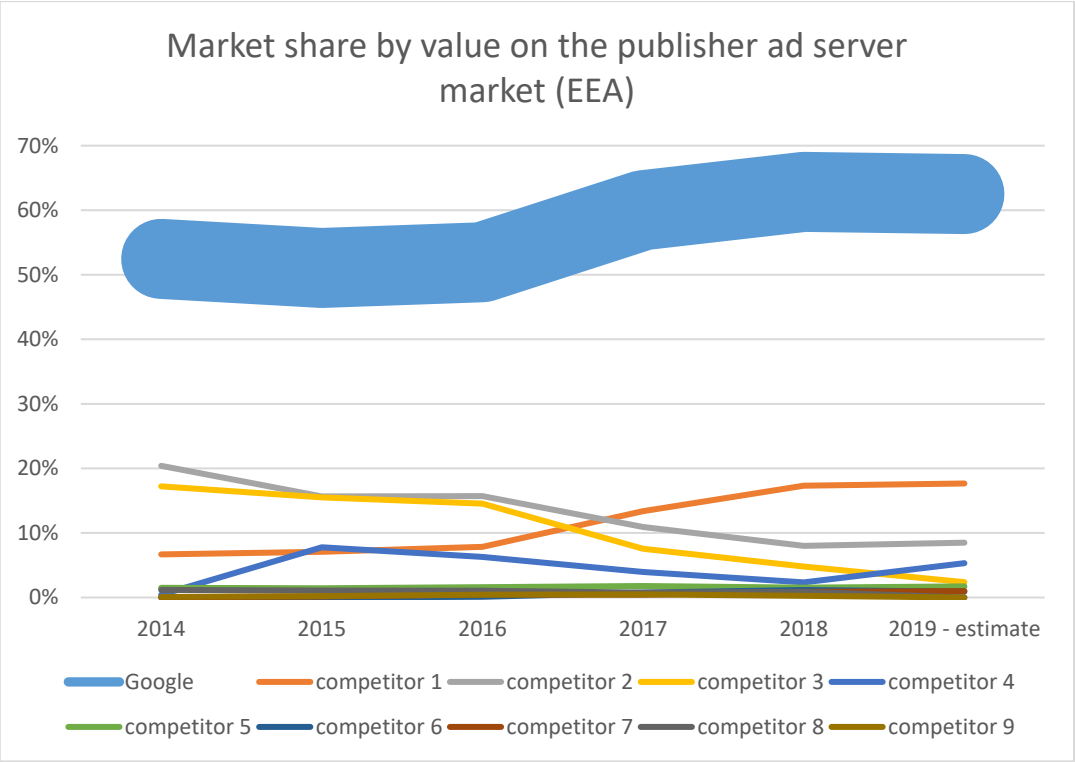
- on the one hand, some smaller providers did not provide separate revenues for their ad server and SSP offerings; the activity of these suppliers in the market for ad servers for publishers of websites and mobile apps is therefore overestimated in the graphs presented below;
- on the other hand, the investigation services were unable to rule out, in calculating market shares, FreeWheel's revenues relating to ads served on connected televisions, Internet boxes and similar devices (the company did not provide a breakdown of its revenues linked to these serving methods); this supplier's revenues on the market for publisher ad servers are therefore also overestimated.

323. It will be further highlighted that over the same period, Google's market share is significantly increasing, at the same time that the European market was growing strongly, from €57 million in 2014 to €87 million in 2019. In addition, the individual value market share of each of Google's main competitors has never been greater than 20%, nor has it increased in a similar way to Google's. As shown in the graph below, the only provider competing with Google that has seen its market share grow is FreeWheel, which offers a dedicated video ad server aimed primarily at TV companies, a limited segment of the market[199].

to 1812 (VNC 17329), 1371, VC 1442 (VNC 17339) VC 4319 to 4322 and VC 13372 (VNC 17341), 1446 and 1447, VC 7172 (VNC 17325), 14781 to 14855, VC 4075 (VNC 17323), VC 4498 (VNC 17376).

[198] Data estimated on the basis of part of the year.

[199] Classification mark VC 1762 (VNC 7290).



Source: Google, Freewheel, Smart AdServer, Verizon, Xandr, AdSpirit, AdZerk, Adhese, AdForm and OpenX

324. Secondly, it is relevant to also take into account Google's market share in terms of volume. Indeed, as explained in paragraph 91, a significant proportion of impressions served by DFP are exempt from fees for running an ad, whether under the DFP Small Business solution, the exemption from fees for serving ads for AdX and AdSense impressions, or other commercial offerings.

325. For example, Google stated that between 2016 and 2019, between [40-50] and [50-60]% of the ads served to DFP on behalf of its European clients had not been charged.

Proportion of ads not charged for each year since 2016 (EEA)[200]

Year	EEA
2016	[40-50]%
2017	[40-50]%
2018	[50-60]%
2019	[50-60]%

Source: Google

326. The investigation services therefore calculated the market share as a proportion of impressions served over the same period. It can be seen that Google has a market share in terms of volume of more than approximately [60-70]% over the whole period, and that this market share is also growing.

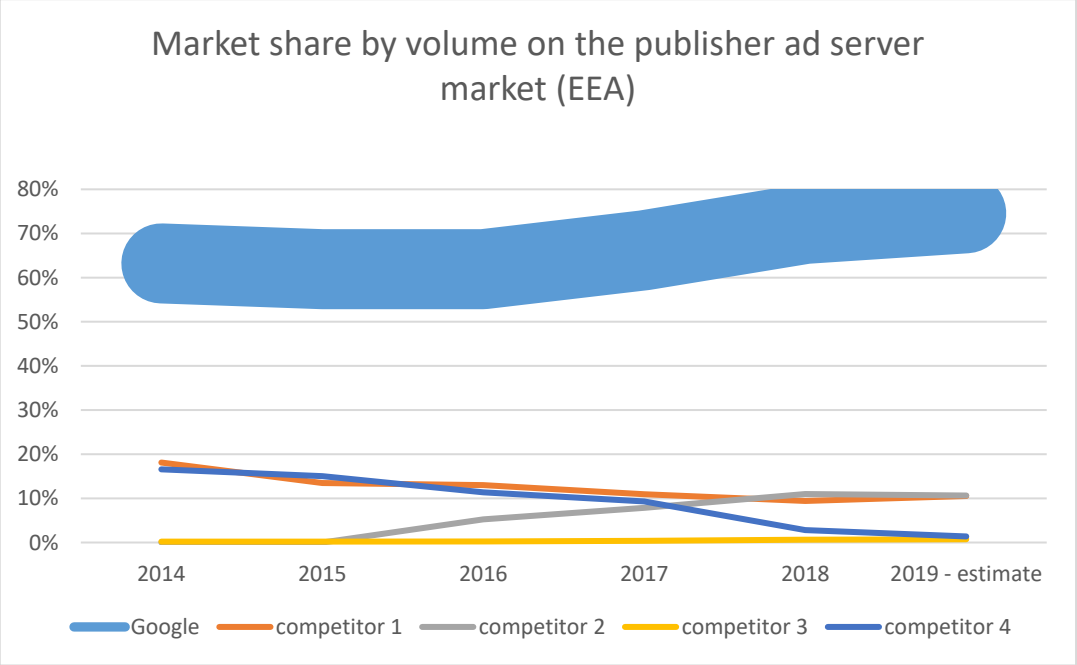
[200] Classification mark VC 13776.

Evolution of Google's market share in terms of volume since 2014 (EEA)

2014	2015	2016	2017	2018	2019 - estimate
[60-70]%	**[60-70]%**	**[60-70]%**	**[60-70]%**	**[70-80]%**	**[70-80]%**

Source: *Autorité de la concurrence*[201]

327. Over this same period, the market share in terms of volume of each of Google's main competitors has never been greater than 20%, nor has it increased in a similar way to Google's.



Source: Google, Smart, Xandr-APAS, FreeWheel and Verizon (the colours and numbering used in this graph are not correlated with those used in the previous graph).

328. In conclusion, Google has maintained particularly high market shares in terms of value and volume during a period when almost all of its competitors have seen their market share shrink, or have even exited, or are in the process of exiting, the market (this is the case, for example, for Verizon Media and OpenX).

b) On the barriers to entry, retention and expansion

329. The evidence in the file shows that there are significant barriers to entry, retention and expansion in the market for ad servers for publishers of websites and mobile apps, since:

- the publishers use only one, at most two, ad servers[202];

[201] As some providers were unable to provide the number of impressions served over part of the period, the investigation services applied the hypothesis that these providers charged a cost per impression similar to the market average, an assumption consistent with the statements made by publishers. These suppliers accounted for a market share in terms of value of 7% in 2015, 6% in 2016, 3% in 2017, 1% in 2018 and 1% in 2019 (estimated based on part-year data).

[202] Classification marks 7542, 7386, 7522 (VNC 13042), 12035 (VNC 16845), 12046 (VNC 17525), 13146 (VNC 13818), 7245 (VNC 16747).

- publishers only have ad server providers compete with each other every few years;
- changing ad servers is a time-consuming, relatively expensive, and highly risky operation for publishers;
- developing a competitive ad server requires significant investments;
- actors with significant resources, Facebook in particular, have given up developing their ad server offering for publishers, or have withdrawn from the market.

330. First, the publishers and providers interviewed indicate that they never use more than two ad servers simultaneously; that, in this case, the second server is typically restricted to the mobile app medium or the video format; that there is a strong tendency for actors to increasingly favour the use of a single server which is capable of handling all formats on all web and application media. In this respect, there is a trend towards longer contracts governing the use of ad servers[203].

331. Second, publishers indicated that they did not have different ad server providers compete with each other very often, typically every few years. Representatives of the companies M Publicité[204] and Orange Advertising[205], for example, stated their last call for tenders was in 2016.

332. Third, given the costs of switching involved, changing ad server is a time-consuming, expensive and risky operation for a publisher[206]. The figures provided by the publishers vary, but all indicate a duration of several months and a significant cost in relation to the cost of the service provided. These difficulties are confirmed by the ad server providers. For example, the company Adform stated that (translated) "*the complexity for a publisher to change ad servers depends on the number of websites, the structure of the site and other needs. Usually, publishers plan the switchover 6 months in advance and invest a lot of time and effort*"[207].

333. In addition to the intrinsic costs associated with changing ad servers, the risk of such a change should be highlighted, in particular a loss of impressions and therefore revenue for the publisher. As such, one major publisher reported losing several million euros when it changed its ad server[208].

334. Fourth, developing an ad server solution requires significant investment, which will be all the larger the more formats and media are supported[209]. Moreover, maintaining the competitiveness of an ad server offering also requires significant investment in research and development[210].

335. Finally, some competitors have failed to enter the publisher ad server market, even though they had very significant resources. This was the case, for example, with Facebook, which, after acquiring ad server provider Liverail in 2014, finally pulled out of this sector in 2016[211].

[203] Classification mark VC 9830.
[204] Classification mark VC 12034 (VNC 16846).
[205] Classification mark VC 13147 (VNC 13819).
[206] Classification marks VC 7525 (VNC 13045) and 12045 (VNC 17524).
[207] Classification mark VC 4127 (VNC 4163).
[208] Classification mark VC 7525 (VNC 13045).
[209] Classification marks VC 7523 (VNC 13043) and 1456.
[210] Classification mark VC 7523 (VNC 13043).
[211] Classification marks VC 14750, 14751, 4495, and 1432 (VNC 7036).

c) On the absence of countervailing buying power

336. Publishers are not in a position to counterbalance Google's market power, given that:

- on the one hand, no publisher represents a significant proportion of Google's revenues. Data provided by Google indicate that DFP's largest customer in the EEA accounts for less than [0-5]% of the service's revenues[212];
- on the other hand, Google is able to unilaterally impose changes to its technologies against the wishes of its customers. In this regard, in an internal exchange relating to the implementation of the Unified Pricing Rules, Google employees note that despite strong opposition from customers to the removal of price floors by buyers at the time the Unified Pricing Rules were announced, most publishers resigned themselves to it when Google informed them that it was non-negotiable[213]

d) On Google's unrivalled reputation and the existence of reputation effects

337. Google and its advertising technology offerings enjoy unparalleled reputation and reputation effects in the online advertising sector.

338. As such, Google is systematically cited by the publishers of websites and mobile apps interviewed about the providers of advertising technologies aimed at them. Furthermore, Google is also consistently cited by ad technology providers when asked about the identity of their main competitors.

339. Moreover, there are important reputation effects associated with this reputation. For example, one publisher interviewed indicated that they considered the fact that the DFP ad server was used by their major competitors in their decision to select Google's technology. For its part, one provider, a Google competitor, stated "*It is the easy solution, nobody ever gets fired for using Google*.[214]

e) On the presence of Google at all levels of the value chain and the resulting synergies

340. Google's position at every level of the online advertising value chain gives it significant market power, as these levels can benefit from technical or legal synergies and Google has prescriptive power.

341. First, Google has an unparalleled capacity to collect targeting data. In addition to the data collected through the services that Google provides directly to users, such as Google Search, Google Maps or Gmail, Google also collects vast amounts of data through advertising cookies that are present on about 80% of websites[215]. The ability to benefit, directly or indirectly, from the targeting capabilities enabled by this data provides an incentive for both advertisers and publishers to use Google's products, as access to these capabilities through third-party technologies is more difficult, for example, due to privacy considerations (see in particular the discussion on targeting restrictions in paragraph 206).

[212] Classification mark VC 13179.
[213] Classification mark VC 3864.
[214] Classification mark 14775. See also paragraphs 7387 and 7388.
[215] Englehardt, Steven, and Arvind Narayanan. "Online tracking: A 1-million-site measurement and analysis." Proceedings of the 2016 ACM SIGSAC conference on computer and communications security. 2016.

342. Second, Google has a strong position in the web browser market through its Chrome browser, which has a market share of around 60% in Europe[216]. This position allows Google to significantly influence publishers' decisions in the development of their websites, and has an impact on the choice of advertising technologies used[217], including ad server technologies for publishers.

343. Third, Google's advertising technology offering spans the complete advertising intermediation value chain. Among other things, Google is present on:

- the market for platforms for the programmatic sale of advertising space (see discussions below in paragraphs 345 et seq.), related to the market for advertising servers for publishers of websites and mobile apps;
- the market for platforms for the programmatic purchasing of ad space. Through its AdWord (now Google Ads) and DBM (now part of Display & Video 360) offerings, Google can play a significant influencing role in the online non-search advertising market, as evidenced by both the data provided by Adomik (which provides market research to publishers, among other things)[218] and the final report on online advertising in the UK published on July 1, 2020 by the CMA[219]. This position has a direct impact on publishers' choice of ad server solution, for example insofar as Programmatic Guaranteed or private auction transactions are simplified between an ad server and a DSP provided by the same company[220], but also because of technical synergies related to latency or the use of the same cookies;
- the market for advertiser ad servers, where Google's Doubleclick Campaign Manager (part of the Google Marketing Platform) has an unrivalled position, according to internal Google documents[221] and the CMA's UK Online platforms and digital advertising report[222]. This position is an advantage because it allows consistent tracking of the number of impressions between advertisers and publishers, and therefore avoids disputes relating to differences in counting systems[223];
- the market for intermediation platforms for search advertising, where the Commission recently found that Google holds a dominant position[224]. This market is linked to the online non-search advertising markets because Google offers joint campaigns for search results pages and third-party sites via Google Ads. These campaigns, called Search +, accounted for [5-10]% of all Google Ads campaigns by volume in 2014 and [5-10]% in 2018[225].

344. Finally, Google captures a very significant share of global online advertising spending and therefore has an unparalleled capacity for investment, particularly in research and

[216] See https://gs.statcounter.com/browser-market-share/all/europe#monthly-200901-202006
[217] Classification marks 7386 and 7544.
[218] Classification marks VC 7487 (VNC 17392), and 13130 et seq. (VNC 17394 et seq.).
[219] Competition & Markets Authority: Online platforms and digital advertising, *Market study final report*, Annex C: Market outcomes, paragraphs 253 to 254. In the UK, Google controls between 40% and 60% of the DSP market.
[220] Classification mark VC 12062 (VNC 16759).
[221] Classification mark VC 15774.
[222] Competition & Markets Authority: Online platforms and digital advertising, *Market study final report* Appendix M : *intermediation in open display advertising*, paragraph 145: In the UK, Google's Ad Server accounts for over 80% of ads served.
[223] Classification mark 14776.
[224] AdSense Decision mentioned above, and Decision 19-D-26 of 19 December 2019 regarding practices implemented in the online search advertising sector, paragraph 321.
[225] Classification mark VC 946.

development. In 2019, online advertising therefore represented a total market of $333 billion (€297.5 billion)[226], of which Google accounted for $134 billion (€119.7 billion)[227] and Facebook for around $70 billion (€62.5 billion)[228], the second largest actor.

3. GOOGLE'S UNQUESTIONABLE POSITION AS A LEADER IN THE MARKET OF PLATFORMS FOR THE SALE OF ONLINE NON-SEARCH ADVERTISING SPACE

345. In 2008, the European Commission found in the above-mentioned Google/DoubleClick decision that Google held a dominant position in the "*overall intermediation market*" within the EEA "*and/or in the two possible sub-segments (search and non-search ads)*" of that market.

346. The evidence in the file shows that since January 2014, when it became possible to obtain reliable data from a large number of providers, Google has held a position that is, at the very least, pre-eminent on the market for supply side platforms for non-search advertising space.

347. This assessment is based on the revenues of Google and competing providers (a), the unparalleled attractiveness of the AdX platform (b), the capacity of Google to act independently of the market and the absence of countervailing buyer power (c), and the absence of competitive pressure from direct sales (d). It is also strengthened by Google's unrivalled reputation and the synergies resulting from its integration across the entire value chain, as described above.

a) On the revenues of Google and competing providers

348. As explained above, the supply side platforms for advertising space typically earn money by retaining a proportion of the revenue generated by the transactions they organise. These revenues may be gross, in which case they correspond to all the sums received, or net, in which case they correspond to the revenue retained after payment of the share of expenses due to the publishers.

349. Between 2015 and 2019, Google generated between €[1-5] billion and €[1-5] billion gross revenue in the EEA each year via its various platforms (AdX, AdSense and AdMob), of which between €[500-1000] million and €[1-5] billion via the AdX SSP alone, representing an average annual growth of [20- 30]% for Google's three services (AdX, AdSense and AdMob) and [30- 40]% for the AdX SSP alone. For its part, net revenue was between €[0-500] million and €[500-1000] million, of which between €[0-500] million and €[0-500] million via the AdX SSP alone, i.e. an average annual growth of [10-20]% for the three Google services (AdX, AdSense and AdMob) and [20-30]%. These revenues are growing strongly year-on-year over this period.

Gross (in millions of euros)	**2015**	**2016**	**2017**	**2018**	**2019**
Total Google	€[1000-5000]	€[1000-5000]	€[1000-5000]	€[1000-5000]	€[1000-5000]
AdX	€[500-1000]	€[1000-5000]	€[1000-5000]	€[1000-5000]	€[1000-5000]

[226] Approximately €297 billion, E-Marketer estimate.
[227] Approximately €120 billion, Alphabet 10-K.
[228] Approximately €62.5 billion, Facebook 10-K.

AdSense	€[500-1000]	€[500-1000]	€[500-1000]	€[500-1000]	€[500-1000]
AdMob	€[0-500]	€[0-500]	€[0-500]	€[500-1000]	€[500-1000]

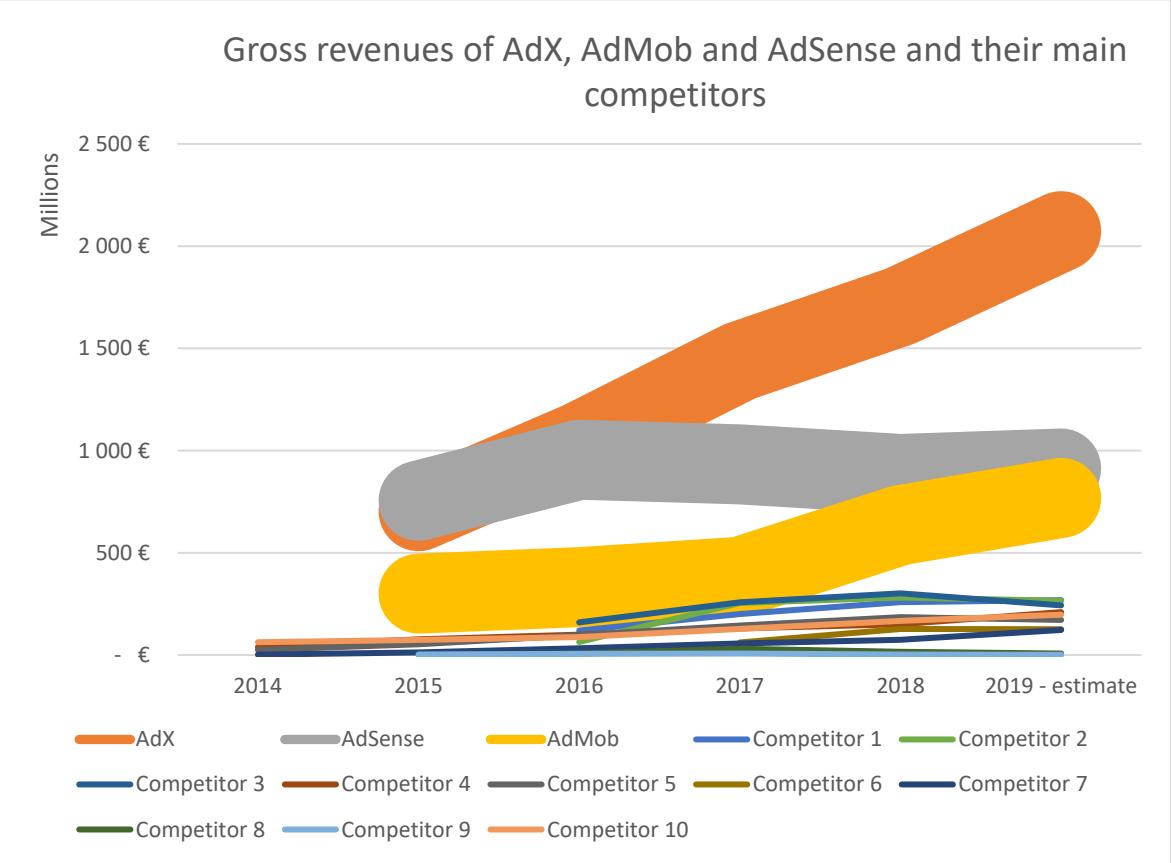
Source: Google

Net (in millions of euros)	2015	2016	2017	2018	2019
Total Google	€[0-500]	€[500-1000]	€[500-1000]	€[500-1000]	€[500-1000]
AdX	€[0-500]	€[0-500]	€[0-500]	€[0-500]	€[0-500]
AdSense	€[0-500]	€[0-500]	€[0-500]	€[0-500]	€[0-500]
AdMob	€[0-500]	€[0-500]	€[0-500]	€[0-500]	€[0-500]

Source: Google

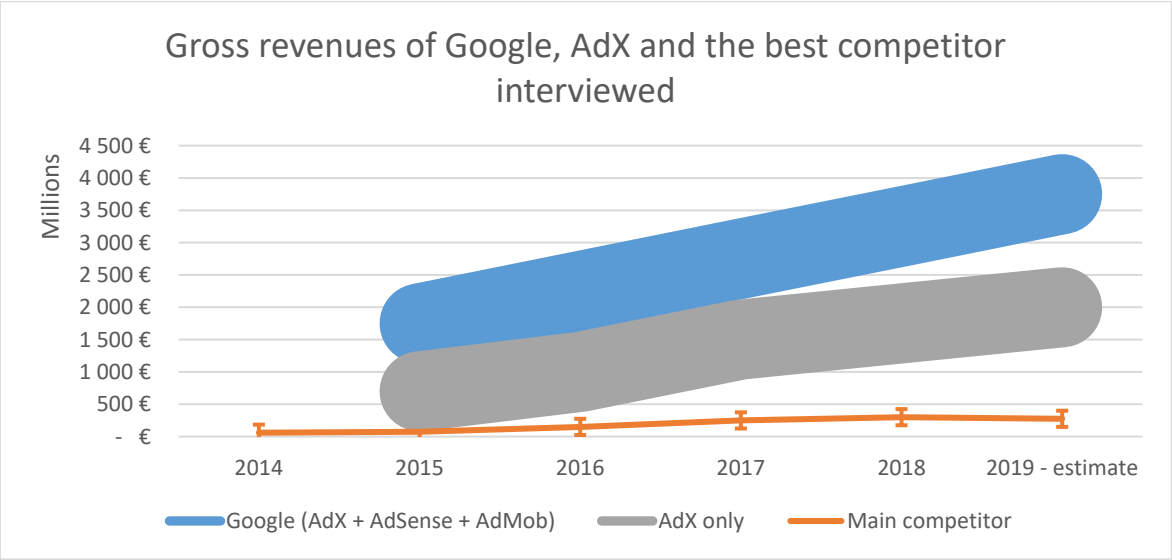
350. Over the same period, the gross revenue generated in the EEA by each of the competing platforms interviewed never exceeded €210,000,000, and it is clear from the evidence on the file that no competing provider was likely to generate a higher gross revenue than AdX.

351. The following graphs illustrate the evolution of revenues generated by Google's platforms and their main competitors interviewed over the period[229]:



Source: Google, Xandr, Rubicon, AdForm, Outbrain, Taboola, Index, Smart, Verizon, Telaria, Teads

[229] Source: calculation of the instruction services from the data transmitted by the companies listed. The revenues taken into account are those from publishers in the EEA. Classification marks VC 1098, 1099 and 12 201, VC 4433 to 4438 (CN 17341), VC 1567 to 1574 (CN 17578), VC 4073 and 4074 (CN 17323), 7334, 7110, VC 17159 to 17162 (CN 17621), 1458, VC 7056 and 7057 (CN 17339), VC 4183 and 4184 (CN 17337), 14603 and 14604



Source: Google, Xandr, Rubicon, AdForm, Outbrain, Taboola, Index, Smart, Verizon, Telaria, Teads

352. These graphs should be compared with the data supplied by the company Adomik. The data provided by Adomik only concern publishers with revenues of more than €1,000,000, and only a part of the countries in the EEA. Adomik also states that the data provided is likely to over-represent the share of the Xandr service[230]. Finally, these data represent only those services that can be integrated through an ad server.

Observation of the distribution of revenues generated by publishers via each of the main supply side platforms for advertising space carried out by the company Adomik during 2019[231]

	France	United Kingdom	Netherlands	Spain
Google	[40-50]%	[50-60]%	[50-60]%	[70-80]%
Xandr	[30 – 40]%	[30 – 40]%	[30 – 40]%	[20 – 30]%
Rubicon	[5 – 10]%	[0 – 5]%	[0 – 5]%	[0 – 5]%
Index Exchange	[0 – 5]%	[0 – 5]%	N/A	[0 – 5]%
OpenX	N/A	[0 – 5]%	N/A	N/A
Pubmatic	N/A	[0 – 5]%	N/A	N/A
Improve Digital	N/A	N/A	[5 – 10]%	N/A
Smart	[10 – 20]%	N/A	N/A	N/A
FreeWheel	[0 – 5]%	N/A	N/A	N/A

Source: Adomik

353. These data show that the share of publishers' revenues generated via AdX is between [40-50] and [70-80]% in France, Spain, the United Kingdom and the Netherlands.

[230] Classification mark VC 7535 (VNC 17283).
[231] Classification marks VC 7487 (VNC 12117), and 13130 et seq. (VNC 17394 et seq.).

b) On the unparalleled attractiveness of the AdX platform

354. As explained above, AdX is the only supply side platform for ad space that is able to fully meet the demand of buyers using the Google Ads (formerly Google Adwords) and Google DV360 (formerly Doubleclick Bid Manager) buying platforms.

355. In the first instance, the purchases that may be made by Google Ads via third-party selling platforms are, at the very least, marginal compared to the purchases made by Google Ads on AdX. As a result, the revenue a publisher can earn from Google Ads without going through AdX is significantly lower than the revenue that can be earned through AdX.

356. Secondly, the revenue that a publisher can earn from DV360 through platforms competing with AdX is also lower than the revenue that can be earned through AdX since, on the one hand, some of DV360's features restrict purchases to the AdX platform only and, on the other hand, DV360 favours purchases on that platform.

357. Nevertheless, the combination of DV360 and Google Ads is the leading programmatic buyer of advertising space. The company Adomik has stated that the combined share of these two services is over 40% in France, the United Kingdom, the Netherlands and Spain[232]. Finally, the CMA notes that a significant portion of the customers of the DSPs Google Ads and Google DV360 only use one buying platform[233].

c) On the capacity to act independently of the market and the absence of countervailing buyer power

358. Google is the only supplier of supply side platforms for advertising space that can extricate itself from market standards by imposing its own technical solutions on competing suppliers and on publishers by changing the rules for the use of its services in a way that is disadvantageous for them. As such:

- in the context of the entry into force of the GDPR, while almost all market actors had adopted a mechanism for transmitting Internet users' consent, known as the Transparency and Consent Framework ("TCF")[234], Google chose to adopt a different mechanism. In so doing, Google obliged providers wishing to interact with its platforms to perform the corresponding developments for both mechanisms[235];
- In the course of 2020, Google finally agreed to participate in the TCF, but at the same time introduced new usage rules[236] that block the serving of ads - including non-targeted ads - through Google Ad Manager services if the publisher did not consent to setting up a "personalised ad profile". In so doing, Google obliged publishers to authorise it to use their data to build its own audience segments, even though, according to Smart (translated), "*a buyer does not - technically speaking - need to perform this processing to do ad targeting*"[237]. In particular, neither Smart nor Xandr performs such processing;

[232] Classification marks VC 7487 and 13129 to 13132.
[233] Competition & Markets Authority: Online platforms and digital advertising, *Market study final report.*
[234] See Decision 21-D-07 of 17 March 2021 regarding a request for interim measures submitted by the associations Interactive Advertising Bureau France, Mobile Marketing Association France, Union Des Entreprises de Conseil et Achat Media, and Syndicat des Régies Internet in the sector of advertising on mobile apps on iOS.
[235] Classification mark VC 13 377 (VNC 14391).
[236] See: https://support.google.com/admanager/answer/9805023?hl=en&ref_topic=28145
[237] See: https://www.journaldunet.com/ebusiness/publicite/1491759-comment-google-veut-recuperer-la-data-des-editeurs-gratuitement/

- AdX is the only platform for the sale of inventories that does not accept being questioned according to the header bidding modalities, at least among the main SSPs (see discussion in paragraphs 218 et seq.).

d) On the competitive pressure exerted by direct sales on supply side platforms for advertising space

359. Finally, the *Autorité* notes that AdX's freedom of action is not restricted by the competitive pressure exerted by direct sales. Indeed, as the European Commission already found in its Doubleclick and AdSense decisions mentioned above, direct sales are not substitutable for programmatic sales. This assertion remains valid, given the way the market works.

360. First, direct sales involve significant transaction costs, since they require large-scale sales departments to be set up[238]. Many publishers do not have the means to make direct sales. Moreover, even when publishers have shared sales teams within a joint ad network for multiple websites or mobile apps, only a portion of these sites and apps are concerned by direct sales, and in varying proportions. In fact, a significant portion of the inventory of most publishers - with the exception of companies that have developed their own programmatic bidding system, such as Facebook or Twitter - is never the subject of direct sales[239].

361. Second, when publishers are able to make direct sales, programmatic sales are typically used to market unsold inventory. As mentioned above, the money earned by a publisher for a programmatic sale is significantly lower than that for a direct sale.

362. Finally, direct sales and programmatic sales do not meet the same needs of advertisers. For example, various publishers indicated that programmatic sales are generally used to generate an immediate response from users, while direct sales are generally used to build brand image[240].

E. THE MERITS OF THE NOTIFIED OBJECTIONS

1. REMINDER OF THE APPLICABLE PRINCIPLES

363. An undertaking in a dominant position has a special responsibility not to allow its conduct to impair genuine undistorted competition on the common market.[241] The system of undistorted competition can only be ensured if equal opportunities for the different economic operators are guaranteed[242]. The actual scope of the special responsibility imposed on a dominant undertaking must be considered in the light of the specific circumstances of each case[243].

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[238] In this regard, see, for example, classification mark 7385.
[239] In this regard, see, for example, classification mark 7540.
[240] Classification mark 7541.
[241] See, in this regard, the judgment of the Court of Justice in AstraZeneca, paragraph 64 supra, paragraph 355, and the case law cited.
[242] See, in this regard, the judgments of the Court of Justice and the General Court in Cases C-280/08 P, Deutsche Telecom v Commission, EU:C:2010:603, paragraph 230; T-336/07, Telefónica SA v Commission, EU:T:2012:172, paragraph 204
[243] See, in this regard, the judgments of the Court of Justice in Cases C-395/96 P and C-396/96 P, Compagnie Maritime Belge Transports and Others v Commission, EU:C:2000:132, paragraph 114; C-52/09, Konkurrensverket v TeliaSonera Sverige AB, EU:C:2011:83, paragraph 84.

364. Articles 102 TFEU and L. 420-2 of the French Commercial Code (Code de commerce) prohibit abusive practices that are likely to harm consumers directly, but also those that harm them indirectly because of their impact on the competitive structure of markets[244].

365. The concept of abuse is an objective concept relating to the behaviour of an undertaking in a dominant position which is such as to influence the structure of a market where, as a result of the very presence of the undertaking in question, the degree of competition is weakened and which, through recourse to methods different from those which condition normal competition in products or services on the basis of the transactions of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition[245].

366. Articles 102 TFEU and L. 420-2 of the French Commercial Code (Code de commerce) prohibit not only practices by undertakings in a dominant position which seek to strengthen that position[246], but also behaviour by undertakings in a dominant position in a given market which seek to extend that position onto a related but separate market, thereby distorting competition[247]. As such, the fact that the abusive conduct of a dominant undertaking produces its effects on a market which is separate from the dominated market does not prevent the application of Article 102 TFEU and Article L. 420-2 of the French Commercial Code (Code de commerce)[248].

367. Moreover, where certain specific circumstances are met, behaviour which is implemented in a market other than the dominated market and which has effects either on the dominated market or on the non-dominated market itself may be considered abusive. These particular circumstances must be such as to establish a link between the behaviour of an undertaking on the non-dominated market and the dominant position held by that undertaking on the other market. In particular, they may result from the fact that these markets are related and from the pre-eminence of that undertaking on the non-dominated market[249].

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[244] See, in this regard, the judgments of the Court of Justice in Cases C-286/13 P, Dole Food and Dole Fresh Fruit Europe v Commission, EU:C:2015:184, paragraph 125; in Case C-202/07 P, France Télécom v Commission, EU:C:2009:214, paragraph 105; in Joined Cases C-501/06 P, C-513/06 P, C-515/06 P and C-519/06 P, GlaxoSmithKline Services and Others v Commission and Others, EU:C:2009:610, paragraph 63; in Case C-52/09, Konkurrensverket v TeliaSonera Sverige AB, EU:C:2011:83, paragraph 24.

[245]See, in this regard, the judgments of the Court of Justice in Cases 85/76, Hoffmann-La Roche v Commission, EU:C:1979:36, paragraph 91; 322/81, NV Nederlandsche Banden Industrie Michelin v Commission, EU:C:1983:313, paragraphs 57 and 70; C-62/86, Akzo v Commission, EU:C:1991:286, paragraph 69; C-95/04 P, British Airways v Commission, EU:C:2007:166, paragraph 66; Case C-202/07 P, France Télécom v Commission, EU:C:2009:214 , paragraph 104; C-280/08 P, Deutsche Telecom v Commission, EU:C:2010:603, paragraph 173; C-52/09, Konkurrensverket v TeliaSonera Sverige AB, EU:C:2011:83, paragraph 27 and the case-law cited.

[246] See, in this regard, the judgments of the Court of Justice in Cases 6/72, Europemballage Corporation and Continental Can Company Inc. v. Commission, EU:C:1973:22, paragraph 26; 85/76, Hoffmann-La Roche & Co. AG v Commission, EU: C:1979:36, paragraph 91; 322/81, NV Nederlandsche Banden Industrie Michelin v Commission, EU:C:1983:313, paragraph 57.

[247] See, in this regard, the judgments of the Court of Justice and the Court of First Instance in Cases 311/84, Centre belge d'études de marché - Télémarketing (CBEM) v SA Compagnie luxembourgeoise de télédiffusion (CLT) and Information publicité Benelux (IPB), EU:C:1985:394, paragraph 27; C-333/94 P, Tetra Pak v Commission, EU:C:1996:436, paragraph 25; T-228/97, Irish Sugar plc v Commission, EU:T:1999:246, paragraph 166; Case T-201/04, Microsoft v Commission, EU:T:2007:289, paragraph 1344

[248] See, in this regard, the judgments of the Court of Justice in Cases C-333/94 P, Tetra Pak v Commission, EU:C:1996:436, paragraph 25; C-52/09, Konkurrensverket v TeliaSonera Sverige AB, EU:C:2011:83, paragraph 85.

[249] See, in this regard, the judgment of the Court of Justice in Case C-333/94, Tetra Pak v Commission, paragraphs 21 to 33 and the judgment of the Commercial Chamber of the Court of Cassation of 17 March 2009 in Glaxosmithkline France.

368. Secondly, although Article 102 TFEU and Article L. 420-2 of the French Commercial Code (Code de commerce) cover certain abusive practices, these are only mentioned by way of illustration and do not constitute an exhaustive list of practices that may be qualified as abuse of a dominant position[250].

369. In order to determine whether the dominant undertaking has abused its position, it is necessary to assess all the relevant factual circumstances and examine whether the practices tend, for example, to limit access to the market by competitors, to impose on the latter a competitive disadvantage by applying to them less favourable technical (in particular interoperability[251]) or legal conditions in comparison with its own products or services[252], to strengthen the dominant position by distorting competition[253], or even whether or not these practices fall within the scope of competition on the basis of merit[254].

370. The Court of Justice has held that a practice implemented by a dominant undertaking may be abusive and prohibited by Article 102 TFEU "*regardless of the means or procedure by which it is achieved*", provided that such practice would have anticompetitive effects[255]. It follows from the nature of the obligations imposed by Article L. 420-2 of the French Commercial Code (Code de commerce) and Article 102 TFEU that, in specific circumstances, undertakings in a dominant position may be deprived of the right to adopt behaviour, or perform acts, which would not in themselves be abusive if adopted or performed by non-dominant undertakings[256].

371. While demonstrating anticompetitive intent is therefore not necessary for demonstrating an abuse, it is nevertheless a criterion that may be taken into account in assessing conduct under Article 102 TFEU[257].

372. With regard to the effects of the conduct of the dominant undertaking, Articles 102 TFEU and L. 420-2 of the French Commercial Code (Code de commerce) prohibit conduct that tends to restrict competition or is likely to have such an effect[258], without it being necessary

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[250] See, in this regard, the judgments of the Court of Justice in Cases 6/72, Europemballage and Continental Can v Commission, EU:C:1973:22, paragraph 26; Deutsche Telekom v Commission, EU:C:2010:603, paragraph 173; C-52/09, Konkurrensverket v TeliaSonera Sverige AB, EU:C:2011:83, paragraph 26.

[251] See, in this regard, the Report to the European Commission "Competition policy for the digital era" by Jacques Crémer, Yves-Alexandre de Montjoye, and Heike Schweitzer (2019).

[252] See for example the judgment of the Court of Justice, C-165/19, Slovak Telekom a.s./Commission, the decision of the European Commission in Case AT.39740, Google Shopping and *Autorité de la concurrence* Decision 10-MC-01, in the Navx case, and in particular paragraph 183, which states (translated): "*this situation may arise where a vertically integrated undertaking enjoys privileged access to certain goods or services which it controls upstream and which are useful or even essential for the exercise of a downstream activity in which it is also present. Such behaviour falls within the category of so-called foreclosure abuses, in that it generally stems from an undertaking's strategy of using its market power to weaken one or more of its competitors and ultimately to drive them out of business*" (emphasis added).

[253] See, in this regard, the judgment of the Court of Justice in Case C-280/08P, Deutsche Telekom v Commission, EU:C:2010:603, paragraph 175 and the case law cited.

[254] See, in this regard, the judgments of the Court of Justice and the Court of First Instance in Cases C62/86, Akzo v. Commission, paragraph 70; T-65/98, Van den Bergh Foods v. Commission, paragraph 157; and the decision of the European Commission in Case AT.39813, Baltic Rail, paragraphs 182 to 201.

[255] See, in this regard, the judgments of the Court of Justice and the Court of First Instance in Cases 6/72, Europemballage and Continental Can v Commission, EU:C:1973:22, paragraphs 27 and 29; T-128/98, Aéroports de Paris v Commission, EU:T:2000:290, paragraph 170.

[256] See, in this regard, the judgment of the Court of First Instance of 17 July 1998, ITT Promedia NV v Commission, T-111/96, paragraph 139.

[257] See, in this regard, the judgment of the Court of Justice in Case C-549/10 P, Tomra Systems and others v Commission, paragraphs 19 to 22.

[258] See, in this regard, the judgment of the Court of Justice in Case C-549/10 P, Tomra Systems and others v Commission, EU:C:2012:221, paragraph 68.

for the latter to actually materialise[259]. Such a restriction occurs not only where the dominant undertaking's conduct makes it impossible for competitors to enter the market, but also where that conduct is likely to make such entry more difficult, thereby interfering with the structure of competition on that market[260]. Customers and users should have the opportunity to benefit from whatever degree of competition is possible on the market and competitors should be able to compete on the merits for the entire market and not just for a part of it[261]. Therefore, an undertaking in a dominant position cannot justify abusive behaviour in a limited market segment by the fact that its competitors retain the ability to compete in other segments[262].

373. It is nevertheless possible for a dominant undertaking to provide a justification for conduct that may be prohibited by Article 102 TFEU and Article L.420-2 of the French Commercial Code (Code de commerce). To this end, a dominant undertaking may establish either that its conduct is objectively necessary or that the exclusionary effect produced may be counterbalanced, outweighed even, by advantages in terms of efficiency that also benefit consumers[263].

2. THE MORE FAVOURABLE TREATMENT OF ADX BY DFP COMPARED TO THIRD-PARTY PLATFORMS FOR SELLING AD SPACE

a) On the more favourable characterisation

374. As explained in paragraphs 145 et seq., SSPs other than AdX may, depending on the period under consideration, use multiple solutions - if necessary simultaneously - to access the inventories of publishers using the DFP ad server, namely:

- being integrated via an ad tag within the ad cascade set up by the publisher since at least 2014;
- being integrated according to the header bidding modalities, since the launch of the latter around 2015;
- being "yield partners" in the context of the Open Bidding feature marketed by Google since April 2018.

375. None of these modalities allow for fair competition on the merits between third-party SSPs and AdX for the purchase of inventory from publishers who use DFP.

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[259] See, in this regard, the judgments of the Court of Justice and the General Court in Cases C-457/10 P, AstraZeneca v Commission, EU:C:2012:770, paragraphs 109 and 111; T-286/09, Intel v Commission, EU:T:2014:547, paragraph 186 (and the case law cited).

[260] See, in this regard, the judgments of the Court of Justice and the General Court in Cases C-52/09, Konkurrensverket v TeliaSonera Sverige AB, EU:C:2011:83, paragraph 63; T-286/09, Intel v Commission, EU:T:2014:547, paragraphs 88, 149 and 201

[261] See, in this regard, the judgments of the Court of Justice and the General Court in Cases C-549/10 P, Tomra Systems and Others v Commission, EU:C:2012:221, paragraph 42; T-286/09, Intel v Commission, EU:T:2014:547, paragraphs 117 and 132

[262] See, in this regard, the judgment of the General Court in Case T-286/09, Intel v Commission, EU:T:2014:547, paragraph 132.

[263] See, in this regard, the judgment of the Court of Justice in Case C-209/10, Post Danmark A/S v Konkurrencerådet, EU:C:2012:172, paragraphs 40 and 41.

The case of integration by ad tag in the context of mediation

376. As explained in paragraphs 147 et seq., the SSPs integrated into DFP in the context of mediation are subject to significant disadvantages owing to their inability to bid for each impression, and also because of the right of last look enjoyed by AdX. As a result, SSPs have, when possible, favoured integration in the context of header bidding over integration in the context of mediation.

The case of integration according to the header bidding modalities prior to the entry into force of the unified first-price auction

377. As explained in paragraphs 152 et seq., prior to the entry into force of the unified first-price auction, the SSPs integrated in the context of header bidding were subject to significant disadvantages, owing to the fact that Google used the amount bid by the SSPs to adjust the price of its own services. Exploiting this information allowed Google:

- to grant AdX a right of last look;
- to adjust the dynamic revenue share of AdX;
- to optimise the functioning of the AdX service.

The case of integration according to header bidding procedures after the entry into force of the Unified Pricing Rules

378. As set out in paragraphs 209 et seq, while the changes to the operation of DFP in September 2019 ended certain advantages enjoyed by AdX and Open Bidding yield partners over SSPs integrated in header bidding, the change otherwise created new advantages for Google by providing strategic and non-replicable information only to buyers passing through AdX and the yield partners. In addition, this change severely limited the ability of publishers to set reserve prices based on multiple criteria, even though AdX's performance on certain criteria (such as price or lack of header bidding compatibility) is inferior to that of its competitors.

The case of an integration as a "yield partner" in the context of the Open Bidding feature

379. As explained in paragraphs 200 et seq, third-party SSPs integrated in the context of the Open Bidding feature are subject to several disadvantages compared to AdX, namely:

- a more limited targeting capacity;
- the impossibility of using innovative formats;
- the impossibility of benefiting from the effects of integration with a platform for the purchase of advertising space;
- a competitive disadvantage owing to the revenue share retained by Google.

380. Furthermore, since September 2019, the SSP yield partners, in the same way as SSPs integrated in header bidding, are also unable to negotiate more favourable terms with publishers in return for, for example, higher quality ad content or a lower revenue share.

381. Finally, it appears from the above observations that, although it allows better access to inventories for which header bidding is not available, the Open Bidding feature does not allow for more effective competition between AdX and third-party SSPs for inventories for which header bidding is already available.

b) On the anticompetitive effects of the practice

382. The evidence in the file shows that the practices described above have significantly reduced the attractiveness of SSPs competing with AdX, and that this situation has enabled AdX to maintain its share of revenue at a high level.

Impaired attractiveness of third-party SSPs

On the capacity to bid for the inventories of publishers using DFP

383. Regardless of the modality of interoperability used, an SSP wishing to purchase the inventories of a publisher using DFP will be subject to a disadvantage at least as restrictive as that to which an SSP contacted under the header bidding modality is subject.

384. As noted above, prior to September 2019, this disadvantage results from the need to have buyers for a given impression with a net willingness to pay that is tens of percent higher than the net willingness to pay of the best buyer present on the AdX platform. These amounts are significant in relation to the revenue of the SSPs, which is generally between 10 and 15% of the transaction value. Consequently, an SSP who would like to fully compensate for their disadvantage with a lower revenue share would have to give up a significant portion or even all of their revenue.

385. The introduction of the unified first price auction and Unified Pricing Rules during the course of 2019 changed the advantage AdX has over third-party SSPs, but did not eliminate it. It also introduced additional barriers restricting in particular the ability of third-party SSPs to offset the advantages enjoyed by AdX.

On the effect on the market of platforms for the sale of advertising space

386. By impairing the attractiveness of third-party SSPs for the purchase of inventory from publishers using DFP, the practice has limited the opportunities for these SSPs.

387. Firstly, DFP is a major source of inventories for SSPs. On the one hand, DFP has a market share in terms of volume of over 60% on the market for ad servers for publishers of websites and mobile apps; on the other hand, other sources of inventory, namely publishers such as Twitter and Facebook using an internal server solution and publishers not using an ad server, represent a marginal share of the inventory accessible to SSPs. In particular, the sites of publishers that do not use an ad server generally have low brand recognition and a limited audience, so their inventories offer limited appeal to advertisers. Moreover, without an ad server, these publishers cannot compete with intermediation services and therefore use only one service, choosing the latter on the basis of the total remuneration that it can offer, and therefore in particular on the inventory fill rate. In order to be attractive to this category, an intermediation service will need to be connected to a large amount of buyers. The barriers to entry in this segment are therefore significantly higher than for the inventories of publishers who have multiple SSPs compete per impression, especially since AdSense and Admob have a strong position in this segment, in particular thanks to the demand controlled by Google via the DV360 and Adwords services.

388. Secondly, the impaired attractiveness of the SSPs on the majority of the accessible inventories has an effect on their investment capacity, to the extent that the SSPs have to cover the same fixed costs, especially engineering costs, while their capacity to generate revenue is impaired. Limiting access to a major portion of the available inventory also reduces the effectiveness of the cookie syncing processes of SSPs, and therefore reduces the

attractiveness of SSPs for DSPs, including for inventory from publishers who do not use DFPs, since SSPs cannot offer advertisers as precise and effective targeting as Google's tools[264].

389. In conclusion, the practice is likely to restrict the ability of third party SSPs to compete with AdX for the purchase of inventories of users of DFP and, therefore, could constitute a foreclosure effect on the market for platforms selling ad space.

Keeping prices high on the part of AdX

390. Since 2015, AdX has been able to maintain a stable and, at the end of the period, higher revenue share than the average of its direct competitors, without this hindering its growth.

391. For their part, the most comparable competitors to AdX:

- retained a lower revenue share than AdX over the period as a whole, which was the case for Xandr and Index Exchange; or
- significantly reduced their revenue share, such that the revenue share retained at the end of the period is lower than the revenue share retained by AdX. In particular, the company Rubicon Project had to gradually reduce its retained revenue share to a significant extent in 2017 - impairing its profitability in the process - in order to maintain transaction volume growth on its platform[265].

392. The following table shows the revenue share retained by the main SSPs in the EEA since 2015:

	2015	**2016**	**2017**	**2018**	**2019**[266]
AdX	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%
AdX - excluding Programmatic Guaranteed[267]	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%
Xandr		[5-10]%	[5-10]%	[5-10]%	[5-10]%
Rubicon Project - World[268]	[20-30]%	[20-30]%	[10-20]%	[10-20]%	[10-20]%
Index Exchange			[10-20]%	[10-20]%	[10-20]%

Source: analysis of data from Google, Xandr, Rubicon and Index Exchange

393. Furthermore, maintaining higher prices than its direct competitors has not prevented AdX from maintaining higher absolute growth and comparable or, at times, higher relative growth to its competitors.

394. The following table shows the absolute and relative growth in gross revenues of the main SSPs in the EEA (€ million) since 2015:

[264] Competition & Markets Authority: Online platforms and digital advertising, *Market study final report* Appendix M : *intermediation in open display advertising*, paragraphs 241 to 244.
[265] Classification marks VNC 16089 and 16090.
[266] Estimate made based on data for part of 2019 if applicable.
[267] In order to compare with the closest possible perimeters, we should take into account, to the extent possible, the total perimeter of AdX, but also the perimeter of AdX excluding transactions in the context of programmatic guaranteed. These transactions, for which the revenue retained by the SSP is significantly lower, correspond to a distinct service that is not substitutable for open auctions.
[268] Rubicon Project did not provide EEA-specific net data, the revenue share shown is the "take rate" stated in Rubicon Project's 10-K filings for 2015 through 2018, and Magnite's 10-K filing for 2019.

	2015	2016	2017	2018	2019 - estimate[269]
AdX	Not available	+[250-500] (30-40%)	+[250-500] (30-40%)	+[250-500] (10-20%)	+[250-500] (20%)
Xandr		Not available	+[50-100] [60 – 70]%	+[50 – 100] ([20 – 30]%)	+[0 – 25] ([0 – 10]%)
Rubicon Project		Not available	+[150-200] ([250 – 300]%)	+[0 – 25] ([10 – 20]%)	-[10 – 20] (-[0 – 10]%)
Index Exchange			Not available	+[50 – 100] ([100 – 150]%)	-[0 -25] (-[0 – 10]%)

Source: analysis of data from Google, Xandr, Rubicon and Index Exchange

395. In conclusion, the practice has allowed AdX to maintain high prices for the purchase of inventory from publishers using DFP compared to third-party SSPs, regardless of how the latter interact with DFP, and without these prices holding back AdX's growth. The practice has also limited the ability of AdX's competitors to maintain their revenue share (Xandr, Index Exchange), or even resulted in lower profitability for them in order to maintain their transaction volume (Rubicon Project).

c) On the possible objective justifications

396. Google's practices described above do not appear to be objectively justified and no efficiency gains shared with publishers or advertisers can offset their anticompetitive effects.

397. This is the case in particular:

- for their use of the offering - actual or estimated - of competing SSPs in the calculation of the AdX auction floor and in the dynamic revenue sharing feature;
- for the contractual terms of use of the Open Bidding feature;
- for the amount retained by Google in the context of transactions made by Open Bidding yield partners*;*
- for the absence of a mechanism to provide information on the progress of auctions to SSPs connected in header bidding;
- for the standardisation of reserve prices which are likely to be applied to SSPs by publishers.

398. First, using the offerings of competing SSPs in the context of the dynamic allocation and dynamic revenue sharing features is not technically necessary for the functioning of the SSPs, and does not earn additional revenue for publishers. Furthermore, it does not guarantee that the advertiser with the highest willingness to pay wins the impression, and therefore does not benefit the buyers.

399. Second, many of the conditions imposed on Open Bidding yield partners do not reflect technical or legal constraints, and do not benefit publishers or advertisers.

400. Thirdly, the fact that no "minimum_bid_to_win" information is provided to buying SSPs carrying out transactions via header bidding, as opposed to buyers who have participated in an auction on AdX and to Open Bidding yield partners, is not the result of technical or legal constraints.

[269] Estimate made based on data for part of 2019.

401. Finally, the standardisation of reserve prices imposed by the Unified Pricing Rules is not technically necessary in the context of a single first-price auction.

Conclusion

402. The more favourable treatment of AdX by DFP could constitute, and has already had, significant anticompetitive effects. Moreover, this practice does not appear to be objectively justified.

3. THE MORE FAVOURABLE TREATMENT OF DFP BY ADX COMPARED TO THIRD-PARTY AD SERVERS

a) On the more favourable characterisation

403. As explained above, while third-party ad servers, i.e. other than DFP, can be used in conjunction with AdX, such use is only possible under very limited conditions of interoperability, since Google imposes technical and contractual limitations on the use of the AdX platform through a third-party ad server.

404. The modalities of interaction offered to clients of third-party ad servers are therefore inferior both as regards the modalities of interaction between DFP and AdX, in the context of dynamic allocation, and to the modalities of interaction between third-party ad servers and third-party sources of demand, in particular in the context of header bidding. Consequently, they do not allow third-party servers to meet the demand from AdX under conditions equivalent to those offered by DFP.

b) On the anticompetitive effects of the practice

405. By not allowing competing ad server providers to meet AdX's demand with equivalent conditions to those offered by DFP, Google significantly impairs their competitiveness and limits their ability to compete on the merits. This practice has therefore strengthened the dominant position of DFP on the market for ad servers for publishers of websites and mobile apps.

406. First, as discussed above, the ability to access as many sources of demand as possible has a significant impact on publishers' revenues. This impact will be all the more important as the proportion of revenue from programmatic sales is high. In this regard, the publishers interviewed stated that access to demand sources is one of the key criteria used to select their ad serving solution.

407. Secondly, as explained above, AdX enjoys unrivalled attractiveness, since it is the only supply side platform for ad space that is able to fully meet the demand of buyers using the Google Ads (formerly Google Adwords) and Google DV360 (formerly Doubleclick Bid Manager) buying platforms. Yet, on the one hand, the combination of the DV360 and Google Ads platforms constitutes the leading programmatic buyer of advertising space, and on the other hand, a significant portion of the customers of the Google Ads and Google DV360 DSPs use only one buying platform[270].

[270] Competition & Markets Authority: Online platforms and digital advertising, *Market study final report* Appendix M: *intermediation in open display advertising*, paragraphs 186 and 395.

408. Third, the publishers interviewed stated that they anticipate significantly higher revenue by using DFP rather than another ad server, which they partly attribute to the full interoperability of DFP with AdX. In some cases, Google itself uses the additional revenue enabled by the superior interoperability of DFP and AdX as a selling point in their invitations to bid. For the publisher [...], the loss of revenue linked in particular to the limited interoperability between AdX and third-party servers has therefore been estimated by staff at
Google at between €[5-10] and [10-15] million per year (for an initial revenue of approximately €[50-60] million)[271]. This amount can be compared to the price proposed to the publisher for using DFP, which was k€[500-1000] per year. The annual loss of revenue therefore represented between 6 and 12 years of ad server costs. Another publisher, who had a free licence with one of DFP's main competitors, said that it switched to the DFP service anyway because the advantage of the free licence did not compensate for the loss of revenue due to the lack of integration with AdX. More generally, the on-demand access of AdX was highlighted by all the publishers interviewed as a major factor in the attractiveness of DFP, if not the main reason for choosing it[272].

409. Fourth, DFP's market share increased by more than 10 percentage points between 2014 and 2019, and several providers indicated having experienced significant difficulties, which they primarily attributed to not being able to access AdX with conditions equivalent to DFP. For example, AdSpirit stated that "*the main problem is that AdX does not allow external publishers to sell their inventory through AdX [...] In order to be competitive we would need to be able to connect to the adx using openrtb or any real time bidding protocol in order to enable our clients to sell their inventory*".[273][274] For its part, the ad server provider Adzerk stated[275] that it chose not to place its ad server offering in direct competition with Google's and that "*A factor strongly contributing to the decision was that Adzerk does not have access to AdX advertiser demand*"[276].

c) On competition on the merits

410. The limitation on interoperability between AdX and third-party ad servers is not competition on the merits. On the one hand, it does not correspond to the market standard, and on the other hand, it reduces the revenue of the AdX service.

411. First, the lack of compatibility with "real-time" bidding from third-party ad servers is a unique feature of AdX, which sets it apart from the standard functioning of the market. In fact, all of AdX's leading competitors offer "real-time" modalities of interaction that are superior to those offered by AdX.

412. Second, the lack of compatibility with "real-time" bidding affects the revenues of the AdX service by limiting AdX's access to inventory from publishers using ad servers other than DFP. Such a strategy would therefore not have been rational in the absence of DFP's dominant position in the market for ad servers for publishers of websites and mobile apps, which ensures that AdX buyers retain a significant amount of inventory on which they can bid.

[271] Classification mark VC 11846 (VNC 13119).
[272] See, in particular, classification mark VC 12046 (VNC 17525).
[273] Classification mark 1448.
[274].
[275] Classification mark VC 7169 (VNC 7186).
[276].

d) On the possible objective justifications

413. Google has not provided any evidence to justify the more favourable treatment of DFP by AdX.

414. Google only stated that AdX's lack of compatibility with header bidding technologies was due to:

- the lack of transparency of these technologies;
- their protection of the bidding data of Authorized Buyers;
- opposition to header bidding practices.

415. Regarding the first statement, Google stated (translated): "*There is a lack of transparency in header bidding, because although the publisher "accepts" the impression at a certain price, the header bidder may not actually pay the amount stated in its bid. In addition, because header bidding bidders often provide aggregate reports, the publisher may not know if they have earned their commissions based on the number of impressions*".

416. However, because the publisher has access to the selling price of each impression, it is able to verify the commercial performance and payments of the different platforms. In contrast, with a few exceptions, Google does not provide data per impression to publishers, and the opacity of Google's systems is widely criticised by publishers and ad technology providers. In this regard, the publishers interviewed believe that header bidding provides them with more, not less, transparency, contrary to Google's claims.

417. Regarding the second statement, it should be noted that, on the one hand, Authorized Buyers generally represent only a minority of the demand on the AdX platform and, on the other hand, Google's contractual commitments cannot constitute an objective justification for an anticompetitive practice.

418. Regarding the third statement, the unsubstantiated claim of the existence of harmful practices by certain actors cannot be regarded as an objective justification for an anticompetitive practice. Furthermore, Google has in any event not demonstrated that its conduct would be the least restrictive solution to avoid the alleged practices.

Conclusion

419. The more favourable treatment of DFP by AdX could constitute, and has already had, significant anticompetitive effects. This practice, which does not satisfy the conditions of competition on the merits, does not appear to be objectively justified.

4. THE OTHER REPORTED PRACTICES

420. Besides the practices detailed above, the complainants also reported (a) the application by Google of a predatory strategy aimed at strengthening its dominant position in the market for ad servers for publishers of websites and mobile apps, and (b) Google's exploitation of its vertical integration in the ecosystem of advertising technologies in order to generate additional margins that are not disclosed to publishers and advertisers.

a) On the implementation of a predatory strategy

421. According to the complainants, Google has implemented a predatory strategy by offering DFP at a very low cost, and often for free. As such, News Corp is of the opinion that (translated) "*the fees charged in the case of DFP Premium are extremely low and it is very likely that Google does not cover these costs. In any event, DFP Small Business is offered virtually free of charge*."

422. However, the evidence provided by Google shows that:

- the total worldwide revenue attributable to the DFP service in 2018 was €[0-500] million;
- the total worldwide direct costs of the DFP service in 2018 were approximately €[0-500] million, although Google indicated that this figure was only an estimate to be treated with caution due to the difficulties in identifying these costs;
- the difference between the average worldwide price per impression and that in the EEA in 2018 was less than [0-5]%.

423. On the basis of the evidence in the file, therefore, it appears that the revenues of the DFP service cover its costs at the global level, and that the prices charged in the EEA are very similar to the prices charged at the global level. Moreover, none of the evidence in the file shows that Google actually pursues a predatory strategy with regard to this service.

424. In this context, it should be noted that these practices reported by the complainants are not corroborated by sufficient evidence.

b) On Google's exploitation of its vertical integration in the advertising technology ecosystem

425. According to the complainants, Google exploits its vertical integration in the advertising technology ecosystem and the opacity of its contracts and services to generate undisclosed margins for publishers and advertisers. In particular, they highlight the fact that Google does not disclose to publishers the commission retained by the Google Ads service when it buys inventory on the AdX marketplace.

426. In this respect, while the contracts between Google and publishers specify the commission retained by the AdX service, this is not the case for the commission generated by Google's DSPs (i.e. the Google Ads and DV360 services). Furthermore, while the commission retained by Google for using DV360 is contractually agreed with advertisers, this is not the case for the Google Ads service.

427. Nevertheless, the method of calculating revenue sharing by AdX is an industry standard. On the basis of the evidence presented, the lack of transparency regarding Google's margins does not in itself appear to have a causal link with anticompetitive effects.

428. In this context, it should be noted that these practices reported by the complainants are not corroborated by sufficient evidence.

F. DURATION OF THE PRACTICES

429. In order to determine the duration of an infringement of the rules of competition law, it is necessary to look at the period between the date on which the practices started and the date on which they were brought to an end[277].

430. In accordance with the principles established by the case law, any doubt in the mind of the Court regarding the duration of the infringement must operate to the advantage of the undertaking to which the decision finding the infringement was addressed[278].

431. With regard to the date when the infringement started, the *Autorité* notes that the highlighted practices were implemented at least since the acquisition of Doubleclick by Google (i.e. during 2008). However, it was not possible to establish Google's dominant position in the market for ad servers for publishers of websites and mobile apps from 2014 on. In effect, Google - like most of the providers interviewed - was not able to provide any information regarding the prior situation. In this context, the date of 1 January 2014 will be used as the starting date of the infringement.

432. With regard to the date when the infringement ended, the *Autorité* notes that, while the modalities of interoperability between DFP and the competing SSPs of AdX have fluctuated since
1 January 2014, the more favourable treatment of AdX by DFP is still the case today. For their part, the modalities of interoperability of AdX with third-party ad servers have not fluctuated, and the more favourable treatment of DFP by AdX is also still the case today.

433. In view of the above, we can pinpoint the date when the practices started as 1 January 2014, and they continued at least until 30 September 2020, the date on which the statement of objections was sent.

G. IMPUTABILITY

1. THE APPLICABLE PRINCIPLES

434. It is settled case law that Articles L. 420-2 of the French Commercial Code (Code de commerce) and 102 TFEU refer to infringements committed by undertakings, a concept which designates an economic unit, even if, from a legal perspective, that unit consists of several natural or legal persons. When such an economic entity infringes the competition rules, it falls, according to the principle of personal responsibility, to that entity to answer for that infringement[279].

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[277] See, in this regard, the judgments of the Court of First Instance of 27 July 2005, Brasserie nationale and Others v. Commission, T-49/02 to T-51/02, ECR p. 113033, paragraph 185, and of 5 December 2006, Westfalen Gassen Nederland v. Commission, T-303/02, ECR p. 114567, paragraph 138; or *Autorité de la concurrence* Decision 13-D-12 of 28 May 2013 on practices implemented in the commodity chemicals marketing sector, paragraphs 740 to 742.

[278] See, in this regard, the judgment of the General Court of 17 May 2013, Joined Cases T-147/09 and T-148/09, Trelleborg v Commission, paragraphs 50 et seq.

[279] See, in particular, the judgments of the Court of Justice of 10 September 2009 in Case C-97/08 P Akzo Nobel and Others v Commission, ECR. p. I-08237, paragraphs 55 and 56, and of 20 January 2011, General Quimica v. Commission, C-90/09 P, ECR p. I-0001, paragraph 36; see also the judgment of the Cour d'Appel de Paris (Paris Court of Appeal) of 29 March 2012, Lacroix Signalisation and Others, paragraphs 18 and 20.

435. As such, within a group of companies, the conduct of a subsidiary may be imputed to the parent company in particular where, although it has a separate legal personality, that subsidiary does not decide independently upon its own conduct on the market, but carries out, in all material respects, the instructions given to it by the parent company, having regard in particular to the economic, organisational and legal links between those two legal entities[280].

436. In the specific case where a parent company holds, directly or indirectly through an intermediary company, all or almost all of the capital of its subsidiary which has committed an infringement, there is a presumption that the parent company has a decisive influence on the conduct of its subsidiary, a presumption which is compatible with the principles of personal responsibility and individualisation of penalties. In this hypothesis, it is sufficient for the competition authority to provide proof of this capital holding in order to impute the conduct of the subsidiary responsible for the practices to the parent company. The parent company may rebut this presumption by adducing sufficient evidence to show that its subsidiary acts independently on the market. If the presumption is not rebutted, the competition authority will be able to hold the parent company jointly and severally liable for the fine imposed on its subsidiary[281].

2. ASSESSMENT OF THE PRESENT CASE

437. In the first instance, the practices can be imputed to Google LLC, formerly Google Inc. as the offender. On the one hand, the products or services in question are designed by Google LLC, on the other hand, the strategy implemented on the relevant markets is very much defined by Google LLC.

438. The practices can also be imputed to Google Ireland Ltd. as the offender. Indeed, Google Ireland Ltd. is the contracting entity for all publisher clients located in the EEA.

439. Second, the practices can be imputed to Alphabet Inc. as the parent company of these two offending companies, as of 2 October 2015. As of that date, Alphabet Inc. replaced Google Inc. (which became Google LLC in September 2017) as the consolidating entity. As of 2 October 2015, Google LLC therefore became a wholly owned subsidiary of Alphabet Inc. For its part, Google Ireland Ltd. is a wholly owned subsidiary of Google Ireland Holdings, whose ultimate parent company is also Alphabet Inc. since 2 October 2015.

440. The practices can also be imputed to Google LLC as the parent company of Google Ireland Ltd., for the period from 1 January 2014 to October 2015, when Alphabet Inc. was incorporated.

[280] See the above-mentioned judgments in Akzo Nobel and Others v Commission, paragraph 58, General Quimica v Commission, paragraph 37, and Lacroix Signalisation and Others, paragraphs 18 and 19.
[281] See the judgments of the Court of Justice in Akzo Nobel and Others v. Commission, paragraphs 60 and 61, and General Quimica v. Commission, paragraphs 39 and 40; the Paris Court of Appeal in Lacroix Signalisation and Others, mentioned above, paragraphs 19 and 20.

H. ON THE FINES AND THE COMMITMENTS

1. ON THE PRINCIPLES RELATING TO THE DETERMINATION OF FINES AND ACCEPTANCE OF COMMITMENTS

a) On the fines

441. Article L. 464-2(I) of the French Commercial Code (Code de commerce) and Article 5 of Regulation No 1/2003 empower the *Autorité* to impose a fine on companies and bodies that engage in anticompetitive practices prohibited by Article L. 420-2 of the French Commercial Code (Code de commerce) and Article 102 TFEU.

442. Furthermore, the third paragraph of Article L. 464-2(I) of the French Commercial Code (Code de commerce) provides that (translated) "*the financial penalties shall be proportionate to the seriousness of the reported acts, to the extent of the damage caused to the economy, the individual situation of the body or company sanctioned or of the group to which the company belongs and to possible repeated infringements prohibited by [Title VI of Book IV of the French Commercial Code (Code de commerce)]. They shall be determined individually for each company or organisation sanctioned and a reasoned decision shall be given for each fine*".

443. Under the terms of the fourth paragraph of Article L. 464-2(I) of the French Commercial Code (Code de commerce) (translated), "*the maximum amount of the fine is, for a company, 10% of the highest worldwide turnover, excluding tax, during one of the financial years closed since the financial year preceding that in which the practices occurred. If the accounts of the company in question have been consolidated or combined under the laws applicable to its corporate form, the turnover taken into account is that shown in the consolidated or combined accounts of the consolidating or combining company*".

444. Article L. 464-2(III) of the French Commercial Code (Code de commerce) provides that (translated) "*Where a body or a company does not contest the reality of the objections brought against it, the General Rapporteur may submit to it a proposal for a settlement setting the minimum and maximum amounts of the fine envisaged. Where the company or body undertakes to change its conduct, the General Rapporteur may take this into account in its settlement proposal. If, within a time limit set by the General Rapporteur, the body or company agrees to the proposed settlement, the General Rapporteur shall propose to the Autorité de la concurrence, which shall hear the company or body and the representative of the Minister of the Economy without first drawing up a report, to impose the fine provided for in I within the limits set by the settlement*".

445. Moreover, the particular circumstances resulting from the implementation, in this case, of the settlement procedure based on the above-mentioned provisions of Article L. 464-2(III) of the French Commercial Code (Code de commerce) justify that the fines imposed are not motivated by reference to the method for determining financial penalties set out in the press release of the *Autorité* of 16 May 2011 (see Decision 17-D-20 of 18 October 2017 regarding practices implemented in the hard-wearing floor covering sector, paragraph 452, the Procedural Notice of 21 December 2018 on the settlement procedure, paragraph 37 and the judgment of the Cour d'Appel de Paris (Paris Court of Appeal) of 13 June 2019, Alcyon SA, No. 18/20229).

b) On the commitments

446. Under the terms of Article L. 464-2(III) of the French Commercial Code (Code de commerce), a company wishing to use the settlement procedure may undertake to change its conduct. In such cases, the General Rapporteur may take this into account in their proposal for a settlement.

447. If the General Rapporteur agrees to include the commitments in the settlement proposal, he or she shall take them into account, where appropriate, in determining the minimum and maximum amount of the envisaged fine. When considering the case, the Board shall assess whether the commitments proposed by the company are likely to prompt a return to compliance for the company in question and have a positive effect on the competitive functioning of the market.

2. ON THE SERIOUSNESS OF THE PRACTICES

448. The objections pertain to discriminatory practices by Google to the effect that its own DFP ad server and AdX programmatic advertising platform technologies benefit each other to the detriment of both competing technology providers and the yield of online publishers' advertising inventory.

449. With regard to the persons likely to be affected by the practices, the practices implemented by Google were likely to affect, and did actually penalise, operators in the online advertising intermediation sector, most of whom are emerging actors or still in development. It should be noted that the effects of the reported practices are particularly disadvantageous to small players with limited resources.

450. The practices have not only affected Google's competitors. The publishers of sites have also been deprived of the possibility of fully exploiting competition between the various SSPs. As a result, they have lost revenue that should have been linked to the sale of their inventories at the prices resulting from the auction to allocate them. In particular, publishers were not able to earn higher purchase prices from the SSPs, and in particular from Google's AdX platform, which, already pre-eminent, saw the competitive pressure exerted by its competitors fall on account of the practices. The end customers affected by these practices are all publishers of websites and mobile apps, and in particular press groups - some of which lodged the complaint to the *Autorité* in the present case - and their business model has been seriously impaired by the decline in sales of paper subscriptions and the fall in associated advertising revenue.

451. The objections in question constitute particularly serious practices on the part of a dominant undertaking, insofar as they have the effect of preventing the entry and development of competitors on the market by means not based on competition on the merits, and of reducing the revenue of publishers of websites and mobile apps who use Google's advertising services.

452. These practices are all the more serious as they took place in a market that is still emerging and growing rapidly, and could have affected the ability of competitors to innovate and develop on the market. In particular, these practices undermined the advantages of the header bidding process that had been put in place by AdX's competitor SSPs in the advertising intermediation market with the objective of remedying the asymmetries of the dynamic allocation feature and maximising the selling price of the impression for publishers. By directly impairing the ability of Google's competitors to survive or expand in an emerging

market, the practices also affected the market's ability to generate innovations that benefit end customers.

453. The seriousness of the practices must also be assessed with regard to Google's position at every level of the online advertising value chain, which gives it significant market power to the extent that these levels can benefit from technical or legal synergies, but also insofar as this position gives Google prescriptive power over the market players (see paragraphs 340 et seq.).

454. This conduct took place at a time when Google has been regularly warned about the importance of compliance with competition rules, both by the European Commission and by the *Autorité*. For example, the Commission sanctioned Google in the Google Shopping case (27 June 2017), Google Android case (18 July 2018) and the Google Search AdSense case (20 March 2019)[282]. The *Autorité* also sanctioned Google in the Google Gibmedia case (19 December 2019)[283].

3. ON THE DAMAGE TO THE ECONOMY

455. Irrespective of the intrinsic gravity of the infringement, it is advisable to assess the impact that Google's conduct may have had on competition.

456. In this case, the practices were implemented by an operator enjoying significant market shares in the market for ad servers for publishers of websites and mobile apps throughout the period in question. Moreover, Google has experienced consistent, significant growth in market share and revenue throughout the duration of the practices.

457. These practices have had considerable anticompetitive effects on the markets for online non-search advertising sales platforms and ad servers for publishers of websites and mobile apps. In particular, they have limited the attractiveness of ad servers and third-party SSPs from the perspective of publishers. They have also allowed Google to significantly increase its already high market share and revenues in a rapidly growing market. Moreover, no objective justification for these practices seems likely to be forthcoming.

458. In particular, News Corp's complaint identified a number of actors who had experienced significant difficulties during the period when the practices occurred, while Google enjoyed strong business growth[284].

459. Conversely, AdX was able to make significant profits as a result of the disputed practices, in particular those which were the subject of objection No 1.

460. This right of last look would have likely allowed AdX to win a significant number of impressions for which a header bidding bid was received by the publisher. These impressions would not have been won without the disputed practices. AdX charges a commission of around 20% on these additional impressions they serve.

461. Secondly, AdX was also able to derive additional revenue and profits from the so-called dynamic revenue sharing feature, which was introduced in 2016.

[282] Commission decisions of 27 June 2017, AT.39740 - Google Search (Shopping); of 18 July 2018, AT.40099 - Google Android; of 20 March 2019, AT.40411 - Google Search (Adsense).
[283] Decision 19-D-26 of 19 December 2019 regarding practices implemented in the sector of online search advertising sector.
[284] Classification marks 86 and 87.

462. Finally, the practices may have allowed AdX to maintain its retained revenue share on the bids of advertisers, unlike some competitors who reduced theirs. Each percentage point of revenue share retained represents several million euros per year.

463. The damage to the economy is therefore certain and significant.

4. ON THE ADAPTATION OF THE FINE TO THE SIZE OF THE GROUP

464. The assessment of the individual situation may prompt the *Autorité* to take into account the size of the company under investigation or of the group to which it belongs. The *Autorité* may thus adjust the fine in the light of the size, economic power and overall resources of the group to which the offender belongs.

465. In the present case, the infringement has been imputed to Google LLC and Google Ireland Ltd. as the offenders and to Google LLC and Alphabet Inc. as the parent companies, which together constitute one company within the meaning of competition law. To appreciate the power and tax capacity of the companies concerned, it should be noted that Google's consolidated revenue is $182.527 billion in 2020[285].

5. ON THE AMOUNT OF THE FINE

466. In the light of all these elements and with due observance of the terms of the settlement, the amount of the fine imposed on Google is set at €220 million.

467. This amount is lower than the legal maximum fine provided for in Article L. 464-2 of the French Commercial Code (Code de commerce).

6. ON THE COMMITMENTS PROPOSED BY GOOGLE IN THE CONTEXT OF THE SETTLEMENT PROCEDURE

468. Google proposed various commitments during the discussions with the General Rapporteur on the settlement procedure, as permitted by Article L. 464-2(III) of the French Commercial Code (Code de commerce), which provides that (translated): "*when the company (...) undertakes to modify its conduct, the General Rapporteur may take this into account in their settlement proposal*".

469. In the first instance, Google proposed commitments in relation to the practices sanctioned under the first objection. These commitments aim to ensure that Google offers third-party SSPs a way to interoperate with the DFP server, allowing merit-based competition between AdX and third-party SSPs for buying inventory from publishers using DFP.

470. To this end, Google proposed enhancing interoperability between DFP and third-party SSPs according to the modalities of header bidding, and in particular:

- allowing fair access to information on the progress of auctions for third-party SSPs involved via header bidding (commitment no. 1);

[285] https://abc.xvz/investor/static/pdf/20200204alphabet10K.pdf
https://abc.xyz/investor/static/pdf/2020Q4_alphabet_earnings_release.pdf

- preserving the full contractual freedom of third-party SSPs so that they can negotiate specific conditions with publishers or have competition among the buyers they wish (commitment no. 2);
- ensuring that AdX no longer uses its competitors' prices to optimise its bids in a way that cannot be replicated by third-party SSPs (commitment no. 3);
- offering guarantees of technical stability for both third-party SSPs and publishers (commitment no. 4).

471. Secondly, Google committed to making changes to the existing configurations (AdX Direct and Unsold Campaign Element) that allow publishers using third-party ad servers to access AdX demand in real time.

472. Google also undertook to appoint an independent trustee to monitor the implementation of these commitments.

473. The *Autorité* considers that these commitments make it more likely for Google to be once more in compliance with the law, and improve the competitive functioning of the market for ad servers and SSP platforms. It therefore makes these commitments mandatory for a period of three years from the date of notification of the decision or, where appropriate, from their actual implementation date.

DECISION

Article 1: It is hereby established that Google LLC and Google Ireland Ltd., as the offenders behind the practices, and Alphabet Inc., as parent company, have infringed the provisions of Article 102 of the TFEU and Article L. 420-2 of the French Commercial Code (Code de commerce), by having implemented practices aimed at ensuring that the DFP ad server favours the AdX platform for the sale of advertising space and that, conversely, the AdX platform for the sale of advertising space favours the DFP ad server.

Article 2: A fine of €220,000,000 is hereby imposed jointly and severally on Alphabet Inc., Google LLC and Google Ireland Ltd. for the practices referred to in Article 1.

Article 3: The *Autorité de la concurrence* notes the commitments made by Alphabet Inc., Google LLC and Google Ireland Ltd., which form an integral part of the decision to which they are annexed. These commitments are made mandatory for a period of 3 years from the date of notification of the decision or, where appropriate, from their actual implementation date.

Deliberated on the oral report by Mr Clément Chazelas and Mr Damien Seux, Case handlers, and the statement of Ms Pascale Déchamps, Deputy General Rapporteur, by Mrs Isabelle de Silva, Chairperson, Mrs Fabienne Siredey-Garnier, Vice-President and Mr Henri Piffaut, Vice-President.

Hearing secretary,

Caroline Orsel

The Chairperson,

Isabelle de Silva