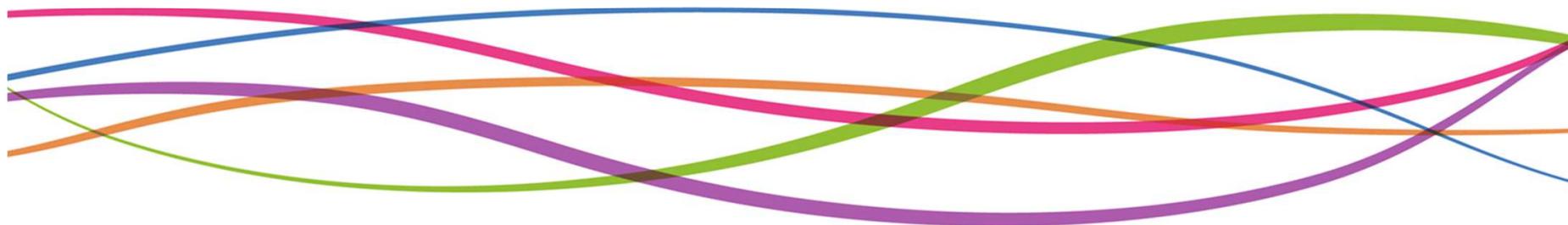




Mission visibilité de la publicité digitale

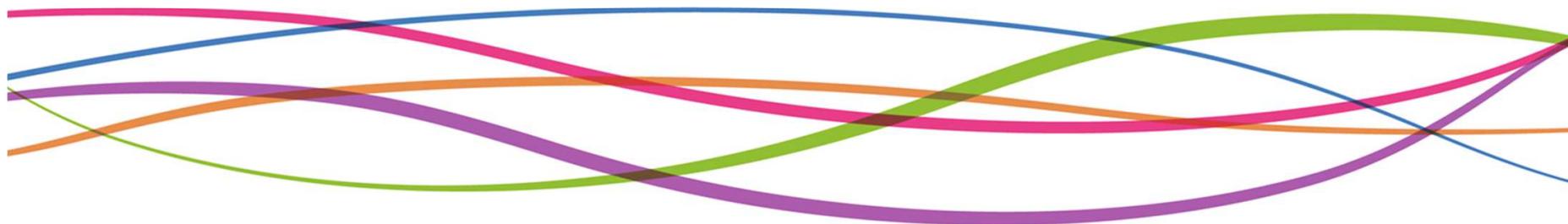
19 Janvier 2016





Introduction

Sophie Poncin
Présidente du SRI
Directrice de Orange Advertising



Agenda



Contexte



L'environnement de la publicité digitale



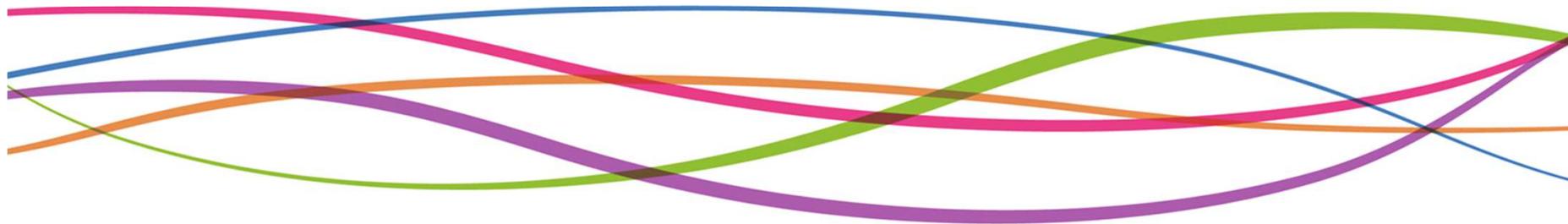
Grille de lecture



Recommandations



Contexte



Vers un nouveau standard pour les campagnes « branding »



De l'impression servie à l'impression visible



Ecarts de mesure entre les différentes solutions



Besoin d'une meilleure compréhension des méthodologies des mesureurs



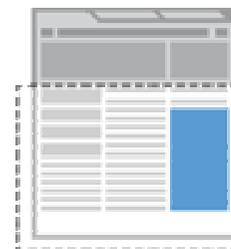
Nécessité de formuler des recommandations pour le marché français

Convention marché : les définitions IAB-MRC



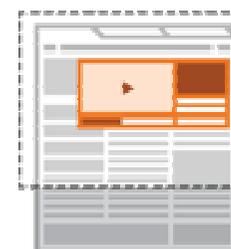
Format *Display* :

50% des pixels, pendant au moins une seconde en continu



Format *Vidéo* :

50% des pixels, pendant au moins deux secondes en continu



Format *Large Banner* (242 500 pixels+) :

30% des pixels, pendant au moins une seconde en continu



Définition de la visibilité



The image shows a tablet displaying a news website. The top of the page features a large blue banner with the text "100% visible". Below this, there are several news articles and sections. Two yellow callouts with an eye icon and the text "Impression visible" point to the top banner and a blue box on the right side of the page that says ">= 50% visible". Below the tablet, there is a separate section labeled "non visible" in a blue box, which contains a list of news items and a "LOCAL AND WEATHER" section with a location input field.

Source : IAB Switzerland

La visibilité se mesure via l'insertion d'un code



Insertion d'un code JavaScript dans la création (invisible pour l'internaute)

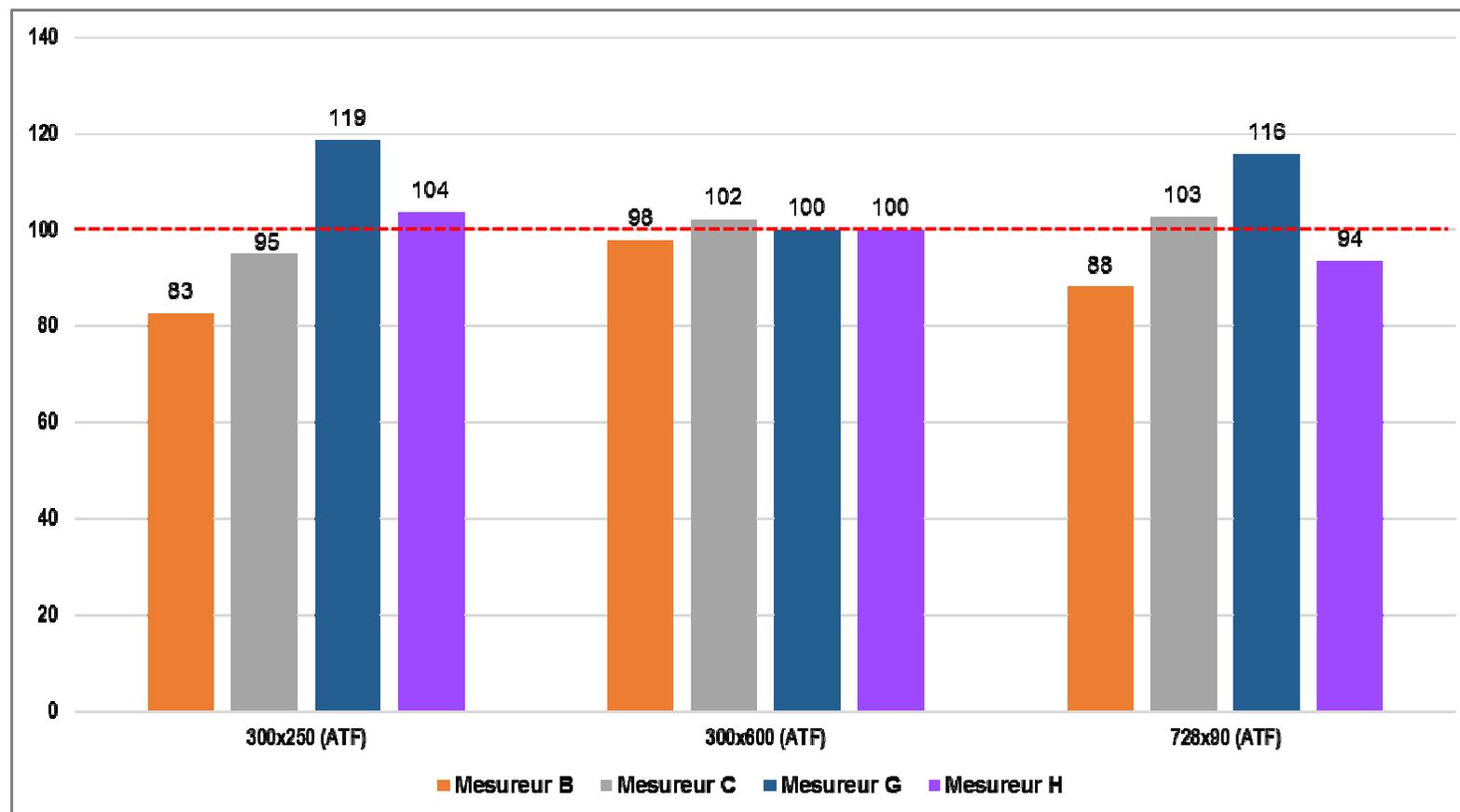
- détection de la création lorsqu'elle est servie
- mesure de la visibilité

Des écarts de mesure de 4 à 36 points

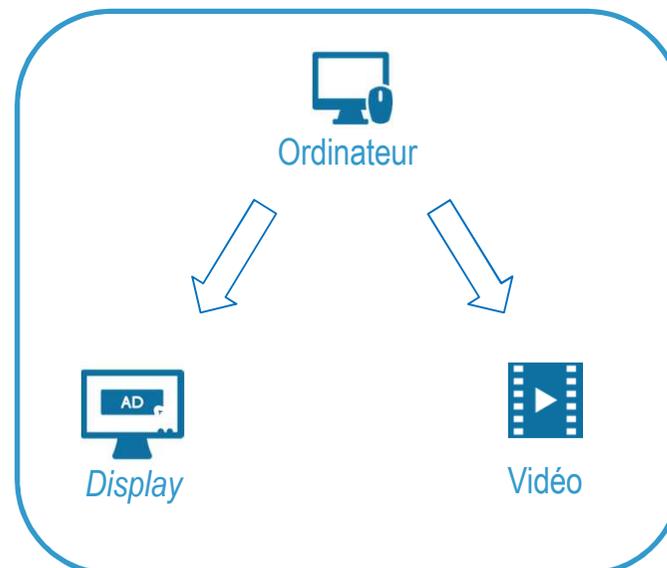


Indice = Taux de visibilité par mesureur (%) / moyenne des taux de visibilité par format (%) * 100

Source : tests fournis par le marché
ATF : Above The Fold



Le périmètre de la mission



Avec la contribution :
d'Emmanuel Viennet (Comité Scientifique du CESP) et de

sopra  steria
CONSULTING

Une approche en 3 temps



Analyse des documentations publiées



Retour d'expériences des agences et régions



Groupes de travail avec les mesureurs

Principaux problèmes remontés par le marché

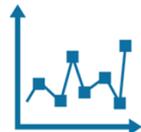


Régies

Agences Media



L'implémentation du tag



Un manque de langage commun autour des résultats



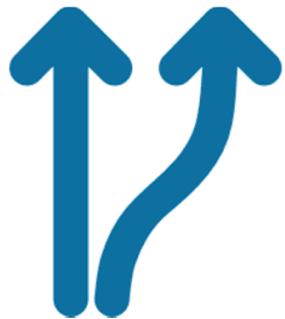
Une difficulté à mesurer l'ensemble des formats



Une dissymétrie dans la communication avec les mesureurs



Deux dimensions à prendre en compte pour comprendre les écarts

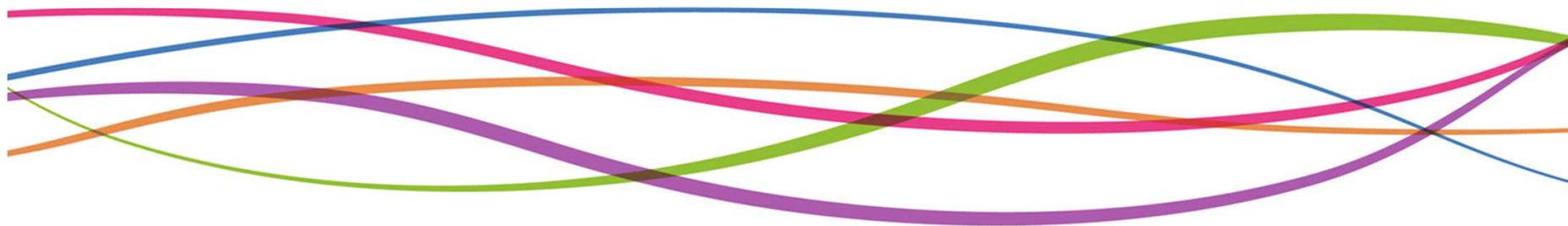


L'environnement de la publicité digitale

Les choix méthodologiques et partis pris des mesureurs



L'environnement de la publicité digitale



Variété des formats publicitaires



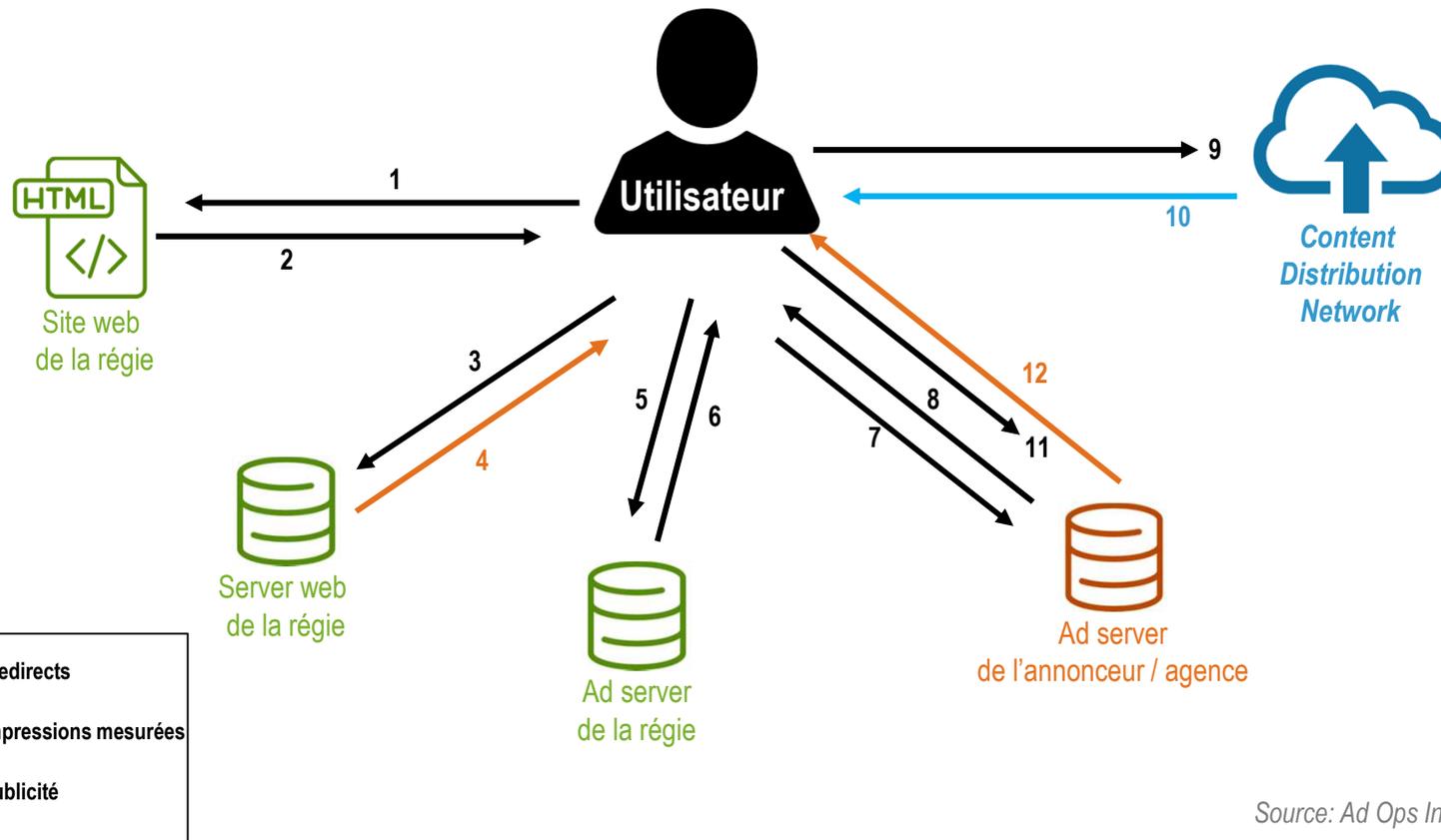
Du classique...

... à l'événementiel

The screenshot shows the Le Monde.fr website interface. At the top, there is a navigation bar with categories like INTERNATIONAL, POLITIQUE, SOCIÉTÉ, etc. Below this, a traditional banner for Air France is visible, advertising a flight to BOLOGNE. The main content area features an article about the French constitution with a photo of François Hollande. A large vertical advertisement for 'CORDON ROUGE' is highlighted with a red box, featuring the brand's signature red ribbon and the text 'LA CUVÉE SIGNATURE DE MUMM'. The ad also includes a 'BUY NOW' button and a warning about alcohol consumption.

The screenshot shows a 6play TV interface. At the top, a large banner for 'GRANDE SOIRÉE HUMOUR' is displayed, featuring 'MARDI 22 DÉCEMBRE 20H55' and 'GOLDEN MOUSTACHE SPÉCIAL PARODIES'. Below the banner, there are several program recommendations and thumbnails, including 'FÉLINS : REGARDEZ UN EXTRAIT INÉDIT', 'DARTY DÉCOUVREZ-LE', 'UN JOUR... UNE HISTOIRE DE NOËL', and 'OBJECTIF TOP CHEF'. The interface includes navigation controls like 'REPLAY', 'DIRECT', and 'CONNECT', as well as search and menu options.

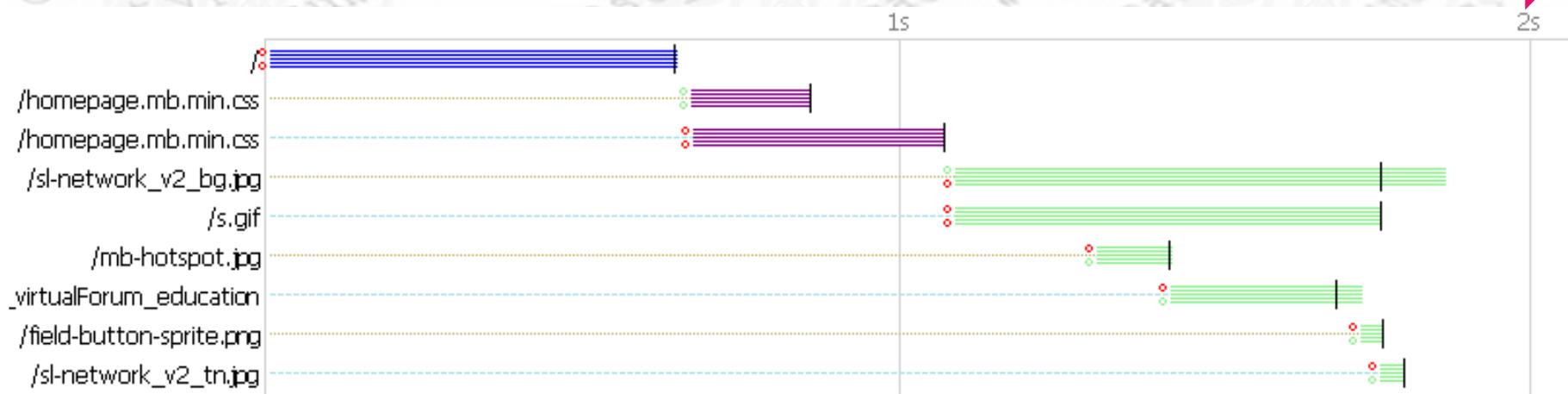
Servir une publicité repose sur de multiples étapes



Source: Ad Ops Insider

Le chargement des tags est asynchrone

TEMPS



Source: trueido.com

Toutes les publicités ne sont pas vues par des humains



Robots

Impressions non-humaines

Clics non-humains

Publicités cachées



Appareils infectés

Tags pirates

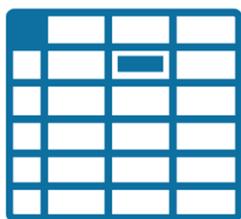
Logiciels malveillants, chevaux
de Troie

Incitation frauduleuse

D'autres prérequis techniques s'imposent aux mesureurs



- Le navigateur internet doit supporter le JavaScript
- Le visionneur vidéo doit être compatible VPAID basé sur Flash ou HTML5
- Les *cross-domain iframes* nécessitent de développer des approches spécifiques



Les choix méthodologiques et partis pris des mesureurs

Grille de lecture



Description de la grille de lecture



77 questions

7 grandes catégories

Environnement de mesure

Cas spécifiques

Processus de taggage

Limitations

Trafic invalide

Tests

Résultats et Publication

Points de convergence



Environnement de mesure :

Tous les mesureurs suivent les définitions IAB/MRC de la visibilité pour le display, la vidéo et *large banner*

Méthode de mesure :

Toutes les solutions utilisent la méthode géométrique – un repérage de la publicité par ses coordonnées xy (~65%*) - et l'optimisation du navigateur (~35%*)

Des documents méthodologiques existent pour toutes les solutions

**Proportions estimées à partir des informations communiquées par les mesureurs*

Principaux éléments de différenciation



Accréditation MRC :

- ❖ Display : 6/8 sont accrédités
- ❖ Vidéo : 4/8 accrédités
- ❖ Large Banner : 3/7 accrédités



Cas spécifiques :

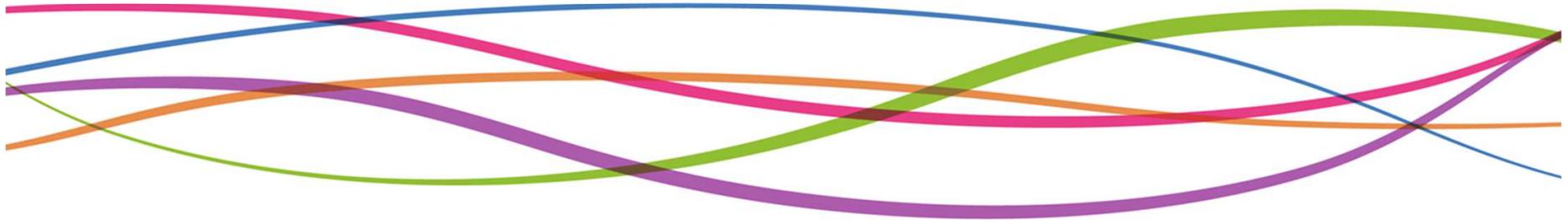
- ❖ Auto-refresh : 5/8 mesureurs considèrent qu'un auto-refresh trop fréquent correspond à du trafic invalide et l'excluent et 1 ne l'autorise pas du tout
- ❖ facebook : 1/8 habilité à mesurer à date
- ❖ YouTube : 1/8 habilité à mesurer à date
- ❖ Habillage de page: 7/8 le mesurent dont 6 selon la recommandation du MRC (mesure séparée de chaque élément) mais le *reporting* peut différer

2/8 mesureurs combinent les deux méthodes de mesure afin de :

- ❖ Vérifier et valider la méthode d'optimisation du navigateur
- ❖ Obtenir des informations sur la page active
- ❖ Détecter la fraude



Recommendations



Des recommandations pour réduire les écarts et améliorer les mesures de visibilité



Périmètre et environnement

Implémentation de la solution de mesure

Méthode de mesure

Trafic invalide : identification et traitement

Comparabilité des indicateurs



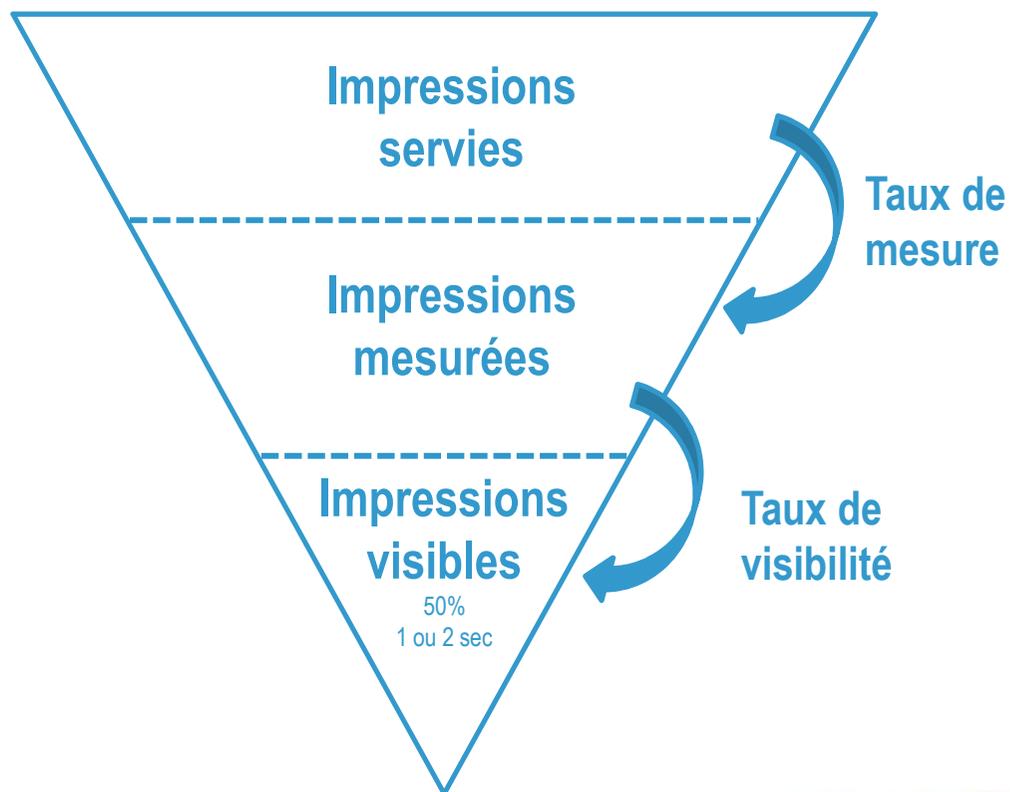
1

- Insérer le tag au plus près de la création (ad-servers de l'agence)
- Encourager les mesureurs à insérer les tags via l'API des adservers
- Préférer une implémentation automatique
- Limiter le multi-taggage et le cas échéant, informer les équipes sur les différents tags implémentés dans une même campagne

S'entendre sur une liste d'indicateurs communs



2



Demander plus de transparence sur le trafic invalide



3

- Exiger davantage d'explications sur la définition de trafic invalide et les niveaux de filtre appliqués
- Demander un accès au volume d'impressions exclu à chaque niveau de filtre ou catégorie de trafic invalide

4

Interpréter les résultats en tenant compte

- Des limites liées aux solutions techniques développées par les mesureurs
- Des pratiques commerciales de Google et facebook

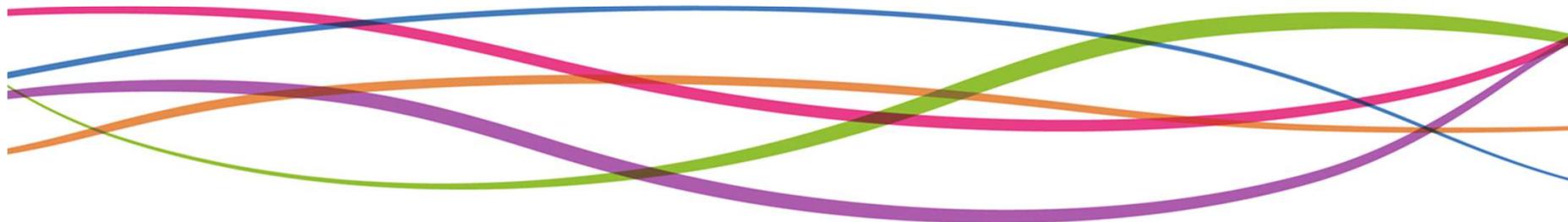
5

Mettre à disposition des clients les *guidelines* de mise en œuvre de la solution dans l'interface utilisateur



Conclusion

Raphaël Grandemange
Président Commission Digitale Udecam
Directeur Général Starcom





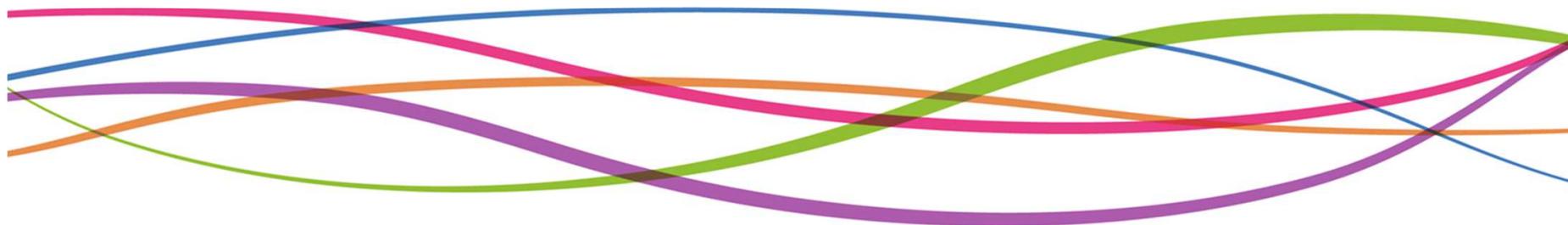
Merci de votre attention

Retrouvez la grille de lecture complète,
les conclusions et recommandations sur nos sites:

www.cesp.org

www.sri-france.org

www.udecam.fr



Analysis Grid of 8 solutions



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MRC ACCREDITATION

Are you a platform?	No	No	No	No	No	No
Are you a third-party vendor?	Yes	Yes	Yes	Yes	Yes	Yes
Has your solution been accredited by MRC for display viewability measurement? (yes / no)	No	Yes	Yes	Yes	Yes	Yes
If yes, are you planning a renewal process with MRC in order to take into account the update of their recommendations?	Not Applicable	Yes	Yes	Yes	Yes	Yes, we have annual reviews with the MRC
If yes, when was your last accreditation for display?	Not Applicable	November 2014	August 2015	January 2016	December 2014	Our last accreditation was January 2015 for desktop display
If yes, are you accredited for the latest guidelines published by the MRC?	Not Applicable	No, Update accreditation pending	Yes	Yes	Yes, interim update and review was conducted	Yes
If no, when will your solution for display viewability measurement be accredited by MRC?	Currently under the MRC certification process, which should come to its end around late Q1 / early Q2 2016	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Has your solution been accredited by MRC for video viewability measurement? (yes / no)	No	No	Yes	Yes	Yes	Yes
If yes, are you planning a renewal process with MRC in order to take into account the update of their recommendations?	Not Applicable	Not Applicable	Yes	Yes	Yes	Yes, we have annual reviews with the MRC
If yes, when was your last accreditation for video?	Not Applicable	Not Applicable	July 2015	January 2016	December 2014	Our last accreditation was January 2015 for desktop video
If yes, are you accredited for the latest guidelines published by the MRC?	Not Applicable	Not Applicable	Yes	Yes	Yes, interim update and review was conducted	Yes
If no, when will your solution for video viewability measurement be accredited by MRC?	Currently under the MRC certification process, which should come to its end around late Q1 / early Q2 2016	Video viewability measurement was tested in 2015. Accreditation will occur in 2016.	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Have you been accredited by MRC for large banner?	No but in the scope of the current process accreditation (Q2 2016)	No but in the scope of the current process of accreditation	Yes, included in the service since March 2015	Yes	Yes, based on stated information, will be reviewed during next audit in Q1 2016	Yes

Yes
No
Yes
Yes
March 2016
Yes
Not Applicable
No
Not Applicable
Not Applicable
Not Applicable
Not Applicable
Video viewability measurement is tested in Q4 2015. Deployment is planned for early 2016. Accreditation will occur in 2016.
Yes

Yes, an AdNetwork, a publisher and a DSP
No
Yes
Yes
In 2013
Q1 2016
Not applicable
No
Not applicable
Not applicable
Not applicable
Audit is underway
No

VIEWABILITY DEFINITIONS

What is your definition of ad viewability for display?	Following IAB / MRC standards: at least 50% viewable for 1 consecutive second	Following IAB / MRC standards: at least 50% viewable for 1 consecutive second	Following IAB / MRC standards: at least 50% viewable for 1 consecutive second	Following IAB / MRC standards: at least 50% viewable for 1 consecutive second	Following IAB / MRC standards: at least 50% viewable for 1 consecutive second	Following IAB / MRC standards: at least 50% viewable for 1 consecutive second
What is your definition of ad viewability for video?	Following IAB / MRC standards: at least 50% viewable for 2 consecutive seconds	Following IAB / MRC standards: at least 50% viewable for 2 consecutive seconds	Following IAB / MRC standards: at least 50% viewable for 2 consecutive seconds	Following IAB / MRC standards: at least 50% viewable for 2 consecutive seconds	Following IAB / MRC standards: at least 50% viewable for 2 consecutive seconds	Following IAB / MRC standards: at least 50% viewable for 2 consecutive seconds
Do vendors require custom viewability thresholds to be at least as stringent as the existing MRC viewable impression thresholds?	Yes	Yes	Yes	Yes	Yes	Yes
When custom thresholds are used, does the vendor also report the viewability based on Standard thresholds?	Yes	Yes	Yes	Yes	Yes	Yes
If the vendor does permit thresholds below the existing standard, are they labeled something other than "Viewable Impressions (e.g. Zero Time Impressions where there is a pixel threshold but no time requirement)?	Yes	No	At this time, clients have not requested thresholds below MRC Standards. However, we do plan to address this accordingly if the need arises	Yes	No other term - but the respective threshold values are always shown next to the impression counts.	Yes

Following IAB / MRC standards: at least 50% viewable for 1 consecutive second
We are currently testing the IAB definition (50% of pixels for 2 seconds) for our video viewability solution.
No
Custom definitions are provided on top of IAB definition.
Viewability results based on custom definitions are reported with specific naming conventions to distinguish them from the standard viewability metrics.

Following IAB / MRC standards: at least 50% viewable for 1 consecutive second
Following IAB / MRC standards: at least 50% viewable for 2 consecutive seconds
Not applicable
Not applicable
Not applicable

METHOD OF MEASUREMENT OF VIEWABILITY

Do you use a geometric method to determine whether an ad is viewable?	Yes	Yes	Yes	Yes	Yes	Yes
Do you use a browser optimization method to determine whether an ad is viewable?	Yes	Yes	Yes	Yes	Yes	Yes
Do you use the IAB SafeFrame API?	No	Yes	No	No (because we can track viewability with our standard methods in those instances)	Yes	Yes
If yes, how do you restore its results in your viewability measurement method?	Not Applicable	Undisclosed	Not Applicable	Not Applicable	Optional feature in specific setups to gather position data	If IAB SafeFrame API is available: combination with Moat geometric triangulation approach to calculate viewability If IAB SafeFrame API is not available: using Flash browser optimization signals in desktop browsers, i.e. IE, Chrome and Safari
Do you use any other API?	Yes	Yes	Yes	Yes	Yes	Yes
If yes, please provide CESP with the list of API used?	Page Visibility API API Flash Throttle	Undisclosed	Page Visibility API that is present in modern browsers API Flash Throttle that is relevant to comScore's Timing Method (cf. comScore's browser optimization).	Page Visibility API	PageVisibilityAPI	Specific browser API (e.g. JavaScript APIs native to Firefox)
If yes, please indicate which information is taken into account for your viewability measurement	We use the page visibility API to detect the tab focus, and over native events. We use the flash throttle event for the BO method	Undisclosed	The Page Visibility and Flash Throttle APIs are used in combination with comScore's other own (independent) measurements. In the event that the Page Visibility API reflects that the page is visible, we independently measure the viewability of the ad (creative) itself. So you should view this as (a) when the page visibility API tells us that the page isn't visible, the ad cannot be visible and (b) when the page visibility API tells us the page is visible, we must still determine whether the ad itself is visible (within the viewable area of the screen, meeting required pixel and time thresholds). With respect to the Flash Throttle indicator, we also independently measure the frame rate to assure that the ad creative is actually painted to the screen.	To detect when a webpage is visible or in focus	The PageVisibility API contains information about the tab focus in some situations that is used during the viewability calculation	We use the same information as the geometric calculation, so position of the safeFrame on the page, position of the scroll bar and size of the browser viewport.
In some situations do you mix your geometric method and your browser optimization?	No	Undisclosed	No	Yes for sanity check and fraud detection	Yes	No
If yes, how do you deal with discrepancies in results between two measurement methods?	Not Applicable	Undisclosed	Not Applicable	Discrepancies will lead us to consider those impressions either as fraudulent or unmeasured	Browser optimization is only used as enriching data in order to obtain page focus information where other methods to retrieve this data are not available. So there cannot be conflicting results	Not Applicable

Yes
Yes
No
Not Applicable
Yes
Browser viewability API when available
Everything that is relevant, including system information.
Yes, when some signals are available.
Used in order to validate the browser optimization approach.

Yes
Yes
No
Not applicable
No
Not applicable
Not applicable
No
Not applicable

Analysis Grid of 8 solutions

						
Do you filter on auto-refresh impressions considering an excessive refresh rate as a risk of IVT?	No filter of auto-refresh impressions	Yes	Yes	Yes	No	Yes
<i>If yes, what is the threshold / rate defined (high level of frequency of auto-refreshes)?</i>	Not Applicable	Undisclosed	comScore IVT treatments consider excessive activity as a sign of invalid traffic but it's important to note the same phenomenon could be triggered by automated traffic (bots) rather than an auto-refresh command on the page. We would capture both. But we do not exclude auto-refresh activity unless it triggers the relevant IVT detection flags. In those (legitimate) cases, each refresh would typically serve a different ad, each of which would be subject to standard viewability thresholds.	Undisclosed	Not Applicable	Note that MOAT has developed Viewability Diagnostic Metrics which detect the portion of impressions served in a backgrounded tab. High rates of "Out of Focus" impressions are likely indicative of AutoRefresh. We are not trying to exclusively detect auto-refresh rates but measure the percent of impressions we are delivered in a minimized or backgrounded tab. In many cases high auto-refresh rates significantly impact "Out of Focus" rates.
Do you measure page takeover ads?	Yes	Yes	Yes	Yes	Yes	Yes
<i>If yes, do you measure each component of the page takeover separately?</i>	Yes	Undisclosed	Yes	Yes	Yes (default)	If the ad is a roadblock, meaning multiple ad slots on a page are serving ads for the same advertiser then, we measure each ad separately. If the ad is a pop-up that covers the entire page we count and measure that as a single ad unit
<i>If yes, do you develop a customised approach with the client based on a test page?</i>	No	Yes	No	No	Other options possible on request - will be disclosed to involved parties	Yes, if the ad is a custom ad with non-standard behavior
<i>If yes, how do you report page takeover viewability? A) you report a figure for each component measured (as per MRC viewable impression guidelines)</i>	Yes	Undisclosed	Yes	Yes	Yes (default)	If the ad is a roadblock, meaning multiple ad slots on a page are serving ads for the same advertiser then, we measure each ad separately. If the ad is a pop-up that covers the entire page we count and measure that as a single ad unit
<i>If yes, how do you report page takeover viewability? B) you report the highest figure attained by a component</i>	No	Undisclosed	Not Applicable	No	No	No
<i>If yes, how do you report page takeover viewability? C) you aggregate the figures of each component into one figure</i>	No	Undisclosed	Not Applicable	Other options possible on request - will be disclosed to involved parties	No	Not applicable
Do you measure rising star formats?	Yes	Yes	Yes	Yes, partially	Yes	Yes
<i>If yes, please specify which format you measure?</i>	All	All	All Sizes	IAB Rising Stars, with the exception of Portrait, Sidekick, and Slider in cross-domain frames	Billboard, Filmstrip, Portrait, Pushdown, Sidekick, Slider	Most measures all rising star formats
<i>If yes, how frequently do you update your list of rising star formats?</i>	Not applicable because the size is being calculated on the fly	Depending on live campaigns, can be every week	N/A - our measurement is not impacted by introduction of new Rising Star ad sizes.	IAB updates are closely followed	Each time there are new formats used by customers	Daily
Does Facebook allow you to measure viewability on their inventory?	No	No	No, however in development	No	No	Yes
<i>If yes, which method do you use?</i>	Not Applicable	Not Applicable	We will receive viewability data from Facebook and validate it independently	Not Applicable	Not Applicable	Geometric approach
Does Youtube allow you to measure viewability on their video inventory?	No	No	No, however in development	No, however in development	No. Only Completion Rate with Vast tracking until JS is accepted	No, however in development
<i>If yes, which method do you use?</i>	Not Applicable	Not Applicable	We will receive viewability data from YouTube and validate it independently	Not Applicable	Not Applicable	Not Applicable
Do any other website (e.g. Microsoft, Yahoo!, Orange, Amazon) allow you to measure viewability on their inventory?	Yes	Yes	Yes	Yes	Yes, all listed ones	We have measured viewability on all these platforms. In general so long as a publisher accepts 3rd party JavaScript tags we can measure ad viewability.
<i>If yes, please specify which ones?</i>	Microsoft, Yahoo!, Orange	MSN, AppNexus, Amazon, Yahoo!, Orange, Google	vME, our publisher solution, currently has 25 publisher clients. However, we do not have their permission to disclose them by name.	Every website allowing 3rd party viewability measurement to run on their inventory	Microsoft, Amazon, Yahoo!, Orange	Microsoft, Amazon, Yahoo!, Orange

Video						
Does your solution measure viewability of videos published in formats other than Flash? (HTML 5)	Yes	Yes	Yes	Yes	Yes	Yes
Is your solution able to measure video ads without VPAID protocol (only VAST)?	Yes, implementing a specific technical integration in order to follow the MRC guidelines	Yes, implementing a specific technical integration in order to follow the MRC guidelines	Yes, implementing a specific technical integration in order to follow the MRC guidelines	Yes, implementing a specific technical integration in order to follow the MRC guidelines	Yes, implementing a specific technical integration in order to follow the MRC guidelines	Yes, implementing a specific technical integration in order to follow the MRC guidelines
Is your solution compliant with VPAID?	Yes	Yes	Yes	Yes	Yes	Yes
For some specific cases, do you provide custom measurement not based on VPAID or VAST? (ad-loc plugins, wrappers, etc.)	Yes	Yes	Yes. Note that both VPAID wrapper and plugins have been tested compliant with MRC (and IAB) measurement standards	Yes	Yes	Yes, we can provide direct player integrations
Cross-domain frames						
Does your solution measure ads served on cross-frames within browsers that do not support Flash?	Yes	Yes	Yes. Flash support is only required for webkit browsers and IE10 and higher.	Yes (Firefox)	Yes	Yes, for Firefox we use a non-flash approach and for other browsers we will use a safe frame API. If neither of these are an option then we would declare the impression unmeasurable
Does your solution have limitations on Chrome?	No	No	No	No	No	No
<i>If yes, please indicate which ones?</i>	Not Applicable	Not Applicable	N/A	Not Applicable	Not Applicable	Not Applicable
Does your solution have limitations on Firefox?	No	No	No	No	No	No
<i>If yes, please indicate which ones?</i>	Not Applicable	Not Applicable	N/A	Not Applicable	Not Applicable	Not Applicable
Does your solution have limitations on Safari?	No	No	Yes	No	No	No
<i>If yes, please indicate which ones?</i>	Not Applicable	Not Applicable	comScore do not currently report viewability for cross-domain impressions delivered via Safari (note that comScore use projection techniques to estimate viewability in the iCE Audience component)	Not Applicable	Flash required	Not Applicable


Yes, high frequency auto refreshes are filtered (no impression is served)
Complex set of rules
Yes
Yes
No
Yes
No
Yes
No
No
Yes
No list of formats is required. Set-up is automatic.
No
Not Applicable
No
Not Applicable
Yes
Microsoft, Yahoo!, Amazon, Orange allow AppNexus to measure viewability. Others allow AppNexus too without mentioning it explicitly

In development
In development
In development
In development
On some versions of IE and on Firefox, yes. On webkit browsers, no.
No
Not Applicable
No
Not Applicable
No
Not Applicable


Yes
Google does not allow auto refresh ads on O&O properties (e.g. YouTube.com, google.com) See https://support.google.com/deniedaccess/answer/1346295?hl=en# Auto-refreshing ads Moreover, regarding Doubleclick For Publisher: Google does not have direct control over publisher's site-initiated auto refresh
No
Not applicable
Not applicable
Not applicable
Not applicable
Yes
All listed there http://www.tab.com/guidelines/rising-stars-ad-unit/
Not applicable (done at the ad server level)
No
Not applicable
Yes
Geometric
Yes
All publishers either using Google SDK or all publishers part of AdExchanges available on DBM that allow video viewability measurement

Yes on AdWords DCMDBM coming soon
Yes
No
Not applicable
Yes
We cannot measure within cross-domain frames when Flash is not available
No
Not applicable
Yes
We cannot measure within cross-domain frames when Flash is not available

Analysis Grid of 8 solutions

									
TAGGING PROCESS	If you are a third-party vendor, do you have deals with ad-serving platforms or DSP?	There are no deals, but we are integrated with partners like Videoogy or Masstronix	Yes	Yes	Yes	Yes	Yes	Yes	
	If you are a platform, what about ad visibility measurement outside your platform?	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	
	If your solution relies on a tag, do you provide your clients with detailed documentations to help them in the tag implementation?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	Is it possible to automate the tag insertion?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	If yes, please specify when it is the case	If the partner can integrate our tag to its system (DSP for instance)	when the advertiser or dsp is willing to open the door to such a dev...	macros have been developed with all major ad servers	Macros-enabled tags are available for all the major ad servers/USP/DSP and can be specifically built for additional / proprietary platforms.	Many ad serving systems offer ways to permanently insert a generic tracking code (e.g. DFP creative wrapper option in network settings or DCM Event Tags).	See Appendix 1 Question "If there are manual steps, please describe them"	Always enabled by default automatically	Not applicable
TESTING PROCEDURE / Quality Assurance	Do you have a specific QA (Quality Assurance) procedure helping clients to ensure that the tag is correctly implemented for a specific campaign?	Yes	Yes	Yes	Yes	For first time implementations we are asking for a testpage from our customers. For regular campaigns our campaign management teams is using an internal testing system.	Yes	Not applicable (automatic tagging)	Not applicable. There is no tag insertion
INVALID TRAFFIC	How do you define invalid traffic?	Currently: * absolute data version, * badly formatted data, * incoherent data * black listed ips * black listed user agent	We rank each impression/campaign/provider/rechange	Traffic to a website or application that is generated, either intentionally or unintentionally, by invalid sources. This includes non-human and fraudulent traffic, as well as other sources of online traffic that is not generated by genuine human interest. IVT is also referred to as non-human traffic. [NHT] The Media Rating Council has established two categories of IVT - General IVT and Sophisticated IVT. * General IVT: consists of traffic identified through routine means of filtration and includes but is not limited to known data-center traffic, bots, spiders and crawlers. * Sophisticated IVT: consists of more difficult-to-detect activity that requires significant human intervention, advanced analytics and multi-point corroboration that includes data assets well beyond simple campaign data. Examples of Sophisticated IVT include but are not limited to hijacked devices, adware, malware and incentivized traffic. Importantly, comScore detects and reports both General and Sophisticated IVT.	Deliberate practice of attempting to serve ads that have no potential to be viewed by a human user	Meetrics consider non-human traffic (NHT) or other forms of fraudulent traffic as invalid. We follow General as well as Sophisticated Invalid Traffic Detection practices as defined by the MRC.	Moat follows the MRC guidelines on classifying and reporting Invalid or Non-Human Traffic. These include two broad categories: General and Sophisticated. Examples of General are spiders and bots, traffic coming from known data centers, etc. Examples of Sophisticated include browser spoofing, hijacked devices, and other forms of invalid traffic that aims to present itself as valid	See below Google create a specific website: https://www.google.com/ads/ads TraffQuality/	
	Which different categories of invalid traffic do you identify?	* Robots, * blacklisted ips, * Invalid browsers, * Invalid data	We cover everything known in this doc: http://iijwebs.org/images/JCWESS_Traffic_Taxonomy_October_2015.pdf	VCE detects and filters both General and Sophisticated IVT as defined in the MRC Invalid Traffic Guidelines Addendum. We do not disclose the details of our detection methods in order to protect the security/integrity of the process. A very basic description would include: General / 2-pass: Browser based on the IAB Robots & Spiders and Valid Browser lists, comScore and Publisher Internal Traffic. Outlets and specific identification of (Sophisticated) IVT. While we do not report detection/filtration on an individual filter level, we do report Spider & Bot Impressions, Invalid Browser Impressions, IVT/Non-Human Traffic Impressions and high level categories of invalid traffic as follows: Invalid User Characteristics, Non-human behavior and Anomalous Traffic Trends. Within these, we are capturing invalid activity from Bot nets, hijacked devices, click farms, data center traffic, adware traffic, spiders, content scrapers, pay per view networks, hidden ads, ad stacking, domain lander and outlier activity.	General and Sophisticated Invalid Traffic based on MRC guidelines	General Invalid traffic (i.e. declared crawler or spider traffic) as well as Sophisticated Invalid traffic resulting from fraudulent activities.	We identify both general and sophisticated invalid traffic based on MRC guidelines	Apptentia defines 7 types of invalid traffic: Non-human generated impressions Hidden ads Misrepresented source "No quality" site - sole purpose is to serve ads Malicious ad injection Policy-violating content - e.g. porn, piracy https://www.google.com/ads/ads TraffQuality/	
	Do you take into account the IAB's Robots & Spiders lists in your filtering process?	Yes	Yes	Yes We also use IAB's Valid Browser list as required by IAB and JCWESS Standards together these comprise "2-pass" filtration to eliminate known bots and unknown user agents	Yes	Yes	Yes	Yes	Yes https://www.google.com/ads/ads TraffQuality/
	Do you exclude invalid traffic when you measure viewability?	Yes	Yes	Yes	Yes	Yes	General invalid traffic is removed from total gross impression numbers in order to get rendered served (valid) impressions. Viewable impressions are shown initially including impressions that were deemed fraudulent based on Meetrics' sophisticated fraud detection mechanisms to ensure compatibility to other vendors. In a "Meetrics Fraud Filtered Viewable Impressions" column the number of viewable and non-fraudulent impressions is shown.	We provide filtered and unfiltered counts	Note that invalid traffic is filtered out of the platform before the auction. No impression is generated, so no post-bid filtering is necessary on Apptentia
	Do you apply a second step of processing on historical data (logs...) to detect a posteriori invalid traffic to deliver viewability results?	No	Yes	Yes	Yes	Yes	Yes	No	Historical analysis is performed to improve the prebid filtering
Can you please provide CESP with the volumes of invalid traffic split into the different categories of invalid traffic in France (average, minimum and maximum)?	Average of invalid traffic 5% (min: 3% - max: 6%) Split per display / video not available	Undisclosed	Display: 1.9% (min: 0.3% - max: 13.8%) Video: 0.6% (min: 0.1% - max: 0.5%) Figures include both general and sophisticated invalid traffic	Average Q3 2015 France = 7,1% of impressions Split per display / video not available in the benchmark	Declared crawlers: in average 0,2%, individual domains between 0 - 3% Sophisticated fraud patterns: in average 3%, individual domains between 0 - 100%	No	No	Not available, as invalid traffic is not transacted	Undisclosed

Analysis Grid of 8 solutions

								
RESULTS & REPORTING	Do you deliver the MRC standard metrics for viewability?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Do you provide your clients with methodological documentations? Yes in UI, yes on request, no	Yes on request	Yes on request	Yes, in the UI	Yes in UI, Yes on request	Yes	Yes in UI, yes on request	Yes, on request
	Do you provide publishers with a DOM of your solution?	Yes	Yes	Yes, The DOM is available to all publisher clients.	Yes	Yes, if they are clients Clients are informed of all important changes in the methodology (communication of a DOM update and information displayed in a message window on the login page)	Yes	Yes on request
	Do you provide agencies with a DOM of your solution?	Yes	Yes	Yes, The DOM is available to all agency clients.	Yes	Yes, if they are clients Clients are informed of all important changes in the methodology (communication of a DOM update and information displayed in a message window on the login page)	Yes	Yes on request
	What standard metrics do you provide to all your clients?	See sheet "Metrics"	Undisclosed	See sheet "Metrics"	See sheet "Metrics"	See sheet "Metrics"	See sheet "Metrics"	See sheet "Metrics"
	Regarding the list of metrics, please provide CESP with the method of calculation of the different indicators?	See sheet "Metrics"	Undisclosed	See sheet "Metrics"	See sheet "Metrics"	See sheet "Metrics"	See sheet "Metrics"	See sheet "Metrics"
What is the frequency of metric's publication on your platform ? (D, D+1, D+2, D+n...)?	One hour	Different options, live or day -1 depending on capabilities of client.	Daily, reported overnight for the prior day	Results are published daily	The reporting is offered on a daily basis (D), based on CET	All metrics are provided in real-time	AppNexus processes data every hour	see sheet "Metrics" https://support.google.com/ads/partner/faq/81886677n1 Data's refreshness: https://support.google.com/ads/partner/faq/81886677n1
COMPANY PROFILE	Please, specify the location of the headquarters?	Paris	Paris	Reston, Virginia (USA)	New York	Beijn	New York	Dublin
	Do you have a local office?	Yes	Yes	Yes	Yes	Yes	No. Most currently has an office in Germany and plans on opening an office in London and add local Paris support early 2016	Yes
	Do you have a local team support base in France to specific topics / issues about viewability measurement?	Yes	Yes	Yes	Yes	Yes	No. Most plans on opening an office in London and add local Paris support early 2016	Yes



Update: 19/01/16

Update: 19/01/16

<p>RESULTS & REPORTING</p>	<p>5) What standard metrics do you provide to all your clients?</p>	<ul style="list-style-type: none"> number of served impressions percentage of served impressions number of valid impressions percentage of valid impressions number of measured impressions percentage of measured impressions measure rate number of exposures that are considered as not visible enough (less than x% of surface seen, less than y seconds of visibility) percentage of exposures that are considered as not visible enough (less than x% of surface seen, less than y seconds of visibility) number of videos percentage of videos number of click-to-play percentage of click-to-play number of auto-play percentage of auto-play number of impressions considered as safe percentage of impressions considered as safe number of detected robots percentage of detected robots number of disabled browsers percentage of disabled browsers number of invalid IP addresses percentage of invalid IP addresses number of impressions owed to invalid traffic percentage of impressions owed to invalid traffic the URL'S percentage of exposures that are considered as visible (visible enough) percentage of exposures that are never seen number of viewable impressions
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Update: 19/01/16

RESULTS & REPORTING		
	6) Regarding the list of metrics, please provide CESP with the method of calculation of the different indicators?	
	number of served impressions	impressions on which our tag is executed and can communicate with our servers
	number of valid impressions	impressions that are considered valid after fraud filtering
	number of measured impressions	valid and safe impressions that could be measured
	percentage of served impressions	impressions on which Adledge tag is executed and can communicate with our servers for the considered item of the considered perimeter / impressions on which Adledge tag is executed and can communicate with our servers for the considered perimeter
	percentage of valid impressions	number of valid impressions / number of served impressions
	measure rate	impressions that were measurable over the number of served impressions
	number of viewable impressions	number of impressions that were viewable according to the MRC definition
percentage of viewable impressions	number of viewable impressions / number of measured impressions	



Update: 19/01/16

RESULTS & REPORTING	5) What standard metrics do you provide to all your clients?	<ul style="list-style-type: none"> % viewed Alert Type Alerted Impressions Alerted Keyword Blocks Campaign Category Grouping CDIW Impressions Country Creative Daily Unique Cookies Delivery Partner Direct View Time >= 60s Direct View Time 1<5s Direct View Time 5<60s Domain Domain Blocks Domain Impressions Engaged Impressions Engaged Rate Enters Exceptions External Campaign ID
		<ul style="list-style-type: none"> External Creative ID External Placement ID Filtered Impressions Gross Impressions Gross US GRP Human Impressions Human US GRP Iframed Impressions Internal Traffic Invalid Browser Impressions Measured Impressions Measured Views Network/Server Domain Impressions Non-Human Traffic Impressions Non-PC Impressions



Update: 19/01/16

RESULTS & REPORTING

PC Impression Distribution – Non-Rendered
PC Impression Distribution - Not Viewable
PC Impression Distribution – Undetermined
PC Impression Distribution - Unintended
PC Impression Distribution - Viewable
PC Impressions
PC Measured Impressions
PC Measured Rate
PC Measured Views
PC Non-Rendered Impressions
PC Not Viewable - Invalid
PC Not Viewable - Measured
PC Not Viewable – Total

PC Undetermined
PC View Rate
PC Viewability Intended Impressions
PC Viewability Unintended Impressions
Pixel Impressions

Update: 19/01/16



RESULTS & REPORTING	6) Regarding the list of metrics, please provide CESP with the method of calculation of the different indicators?	
	PC Impressions	Worldwide Desktop Impressions, across tag types, with MRC recommended filtration (MRC Bots and Spiders, Invalid Browsers, and Internal Traffic). These are served Impressions delivered to a desktop computer (based on user agent), then filtered for Robots and Spiders, (In)Valid Browsers, Internal Traffic and Specific identification of (General and Sophisticated) IVT.
	PC Viewability Intended Impressions	Worldwide JavaScript tagged impressions that have been set up for Viewability measurement by comScore at the Desktop level
	PC Measured Impressions	The amount of Worldwide JavaScript tagged impressions comScore can measure for viewability on Desktops, including Display and Video
	PC Measured Rate	The rate at which comScore can measure viewability at the Desktop level. Calculated as PC Measured Impressions / PC Viewability Intended
	PC Measured Views	The amount of Worldwide JavaScript tagged impressions comScore determined were Viewable on Desktops, including Display and Video
	PC Non-Rendered Impressions	Worldwide JavaScript impressions that were not found by the comScore tag due to reasons such as Pre-fetching on google or, in a few cases tagging implementation
	PC Not Viewable - Invalid	The amount of Worldwide Viewability Intended Impressions comScore determined were Not Viewable at the Desktop level because it was flagged as NHT. Note: Only impressions set up for viewability measurement and flagged as NHT are included in this metric. The "NHT" column in the Summary Export reflects all NHT, regardless of whether Viewability was enabled
	PC Not Viewable - Measured	The amount of Worldwide Viewability Intended Impressions comScore determined were Not Viewable at the Desktop level because it did not meet the MRC requirements for viewability (50% pixels in-view for 1+ second)

Update: 19/01/16

		
RESULTS & REPORTING	PC Not Viewable – Total	<p>The amount of Worldwide Viewability Intended impressions comScore determined were Not Viewable at the Desktop level, including Display and Video</p> <p>Notes: Non-Human Traffic by default is set as Not Viewable.</p>
	PC Undetermined	<p>The amount of Worldwide Viewability Intended Impressions at the Desktop level that comScore could not measure for viewability.</p> <p>This includes – PC: CDIW in Safari (5% of the PC traffic) and CDIW in Webkit browsers where flash is disabled (less than 1% of the PC Traffic) and Mobile cross-domain impressions, All impressions from ads that could not be found by the comScore ad tag. These can be generated by a variety of reasons, including incorrectly implemented tags.</p>
	PC View Rate	<p>The Desktop View Rate currently including Worldwide Display and Video.</p> <p>This metric is calculated as PC Measured Views / PC Measured Impressions</p>



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RESULTS & REPORTING

5) What standard metrics do you provide to all your clients?

3MS report:

- Total Unblocked Impressions
- In-View Impressions
- Out-of-View Impressions
- Suspicious Unblocked Impressions
- Total Out of View Impressions
- Measured Impressions
- Unmeasured Impressions
- Viewable Rate (%)
- Measured Rate (%)
- Impressions Distribution - % In View
- Impressions Distribution - % Out of View
- Impressions Distribution - % Unmeasured

Integral provides many more metrics that are undisclosed in this grid

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RESULTS & REPORTING	6) Regarding the list of metrics, please provide CESP with the method of calculation of the different indicators?	
	Total Unblocked Impressions	The number of impressions in the campaign that were not blocked
	In-View Impressions	The number of viewable impressions in the campaign where at least 50% of the ad was in view for a cumulative time of at least 1 second (2 seconds for video) as per IAB Standards
	Out-of-View Impressions	The number of impressions in the campaign that were unviewable
	Suspicious Unblocked Impressions	The number of impressions in the campaign that were identified as potentially originating from non-human traffic and likely to be fraudulent.
	Total Out of View Impressions	The number of impressions in the campaign that were unviewable or likely to be fraudulent. [Out-of-View Impressions + Suspicious Impressions]
	Measured Impressions	The number of impressions for which we were able to collect viewability data. [In-View Impressions + Out-of-View Impressions + Suspicious Impressions]
	Unmeasured Impressions	The number of impressions in the campaign that were not blocked but for which we were unable to make a viewability or fraud measurement. [Total Unblocked Impressions - Measured Impressions]
	Measured Rate (%)	Measured Impressions as a percentage of Total Unblocked Impressions. [Measured Impressions / Total Unblocked Impressions]
	Viewable Rate (%)	In-View Impressions as a percentage of Measured Impressions. [In View Impressions / Measured Impressions]
	Impressions Distribution - % In View	In-View Impressions as a percentage of Total Unblocked Impressions.
	Impressions Distribution - % Out of View	Out-of-View Impressions as a percentage of Total Unblocked Impressions.
Impressions Distribution - % Unmeasured	Unmeasured Impressions as a percentage of Total Unblocked Impressions.	



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RESULTS & REPORTING		
	5) What standard metrics do you provide to all your clients?	Viewable Impressions Non-Viewable Served Impressions with Viewable Status Undetermined Rendered, Served Impression Measured Rate Viewable Rate Impression Distribution (a) Viewable (%) (b) Non-Viewable (%) (c) Undetermined (%) + Possibility to define personalised metrics (eg: 70% & 2 seconds)
	6) Regarding the list of metrics, please provide CESP with the method of calculation of the different indicators?	
	Rendered, Served Impression	All non-crawler (GIVT) impressions where the Measurement script has been added, irrespective of whether their viewability status was determined or not.
	Viewable Impressions	All impressions that became viewable based on the MRC definition.
	Non-Viewable Served	All impressions that were measured but not viewable are non-viewable served impressions.
	Impressions with Viewable Status Undetermined	Is obtained by subtracting the sum of viewable and non-viewable impressions from the total served impression count.
	Measured Rate	Measured impressions divided by Total rendered, served impressions
Viewable Rate	Viewable impressions divided by Number of Measured impressions	



Update: 19/01/16

		MOAT
RESULTS & REPORTING	5) What standard metrics do you provide to all your clients?	<p>Display:</p> <ul style="list-style-type: none"> Impressions Analyzed (MRC accredited metric) Percentage of Total Impressions In-View Measurable Impressions (MRC accredited metric) In-View Impressions (MRC accredited metric) In-View Rate (MRC accredited metric) Fully on-screen Measurable Impressions (MRC accredited metric) Fully on-screen Measurable Impressions no Time minimum (MRC accredited metric) 1 Sec Fully on-screen Impressions (MRC accredited metric) 1 Sec Fully on-screen Rate (MRC accredited metric) In view time (MRC accredited metric) Total Exposure Time Average Minute Audience Universal Interaction Rate Universal Interaction Time Total Ad Dwell Time Hover Rate Time Until Hover Attention Quality Scroll Rate (MRC accredited metric) Time Until Scroll Universal Touch Rate Time Until Touch Active Page Dwell Time Click Rate Moat Index Moat Score Moat In-View Time Buckets
		<p>Video:</p> <ul style="list-style-type: none"> Impressions Analyzed (MRC accredited metric) Percentage of Total Impressions In-View Measurable Impressions and Rate (MRC accredited metric) 1 Sec In-View Impressions and Rate 2 Sec In-View Impressions and Rate (MRC accredited metric) 5 Sec In-View Impressions and Rate Fully On-Screen Measurable Impressions (MRC accredited metric) Fully On-Screen Impressions and Rate (No Time Minimum) (MRC accredited metric) 1 Sec Fully On-Screen Impressions and Rate Averaged Ad Duration In-View Time % of Video Played In-View (MRC accredited metric)

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		MOAT
RESULTS & REPORTING		Exposure Time Average Minute Audience Reached 1st Quartile Rate Reached 2nd Quartile Rate Reached 3rd Quartile Rate Reached Complete Rate <small>(MRC accredited metric)</small> Audible On 1st Quartile Rate <small>(MRC accredited metric)</small> Audible On 2nd Quartile Rate <small>(MRC accredited metric)</small> Audible On 3rd Quartile Rate <small>(MRC accredited metric)</small> Audible On Complete Rate <small>(MRC accredited metric)</small> Visible On 1st Quartile Rate <small>(MRC accredited metric)</small> Visible On 2nd Quartile Rate <small>(MRC accredited metric)</small> Visible On 3rd Quartile Rate <small>(MRC accredited metric)</small> Visible On Completion Rate <small>(MRC accredited metric)</small> Audible and Visible at 1st Quartile Rate Audible and Visible at 2nd Quartile Rate Audible and Visible at 3rd Quartile Rate Audible and Visible on Complete Rate <small>(MRC accredited metric)</small> Audible and Fully On-Screen for Half of Duration Impressions and Rate <small>(MRC accredited metric)</small> Completion Quality Hover Rate Time Until Hover Small Player Rate Below the Fold Rate Out of Focus Rate
	6) Regarding the list of metrics, please provide CESP with the method of calculation of the different indicators?	
	Impressions Analyzed	The number of impressions tracked by Moat
	In-View Measurable Impressions	The number of impressions where viewability was measurable
	In-View Impressions	Number of impressions where at least 50% of an ad was In-View for at least one continuous second
In-View Rate	Percentage of impressions where at least 50% of an ad was In-View for at least one continuous second. If the ad is larger in area than 970x250 (eg. 300x1050 or 970x418), then it only needs to have 30% of its area In-View	



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		 appnexus
RESULTS & REPORTING	5) What standard metrics do you provide to all your clients?	AppNexus report on all the metrics required by the MRC: Downloaded impressions View-Measured Impressions Viewability Measurement Rate Viewable Impressions Viewability Rate Non viewable impressions Undetermined impressions Distributions: undetermined, viewable, non viewable However, it is possible to add some viewable metrics, defined custom viewability definitions on top of the standard IAB ones
	6) Regarding the list of metrics, please provide CESP with the method of calculation of the different indicators?	
	View-Measured Imps	The total number of impressions that were measured for viewability
	Viewability Measurement Rate	The percentage of impressions measured for viewability out of the total number of impressions. (View Measured Imps / Imps)
	Viewable Imps	The number of measured impressions that were viewable, per the IAB Viewability definition, which states that 50% of the pixels of a creative are in-view during 1 consecutive second
	Viewability Rate	The percentage of impressions that were viewable out of the total number of impressions measured for viewability. (Viewed Imps / View Measured Imps)



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RESULTS & REPORTING	5) What standard metrics do you provide to all your clients?	Viewable Count Non-Viewable Count Measurable Count Unmeasurable Count Eligible Count Total Count Measurable Rate Viewable Rate Viewable / Eligible Non-Viewable / Eligible Unmeasurable / Eligible Average Viewable Time
	6) Regarding the list of metrics, please provide CESP with the method of calculation of the different indicators?	https://support.google.com/dcm/partner/faq/6188567?hl=en
	Active View - % measurable impressions	The percentage of impressions that were measurable with Active View, out of the total number of eligible impressions
	Active View - % viewable impressions	The percentage of viewable impressions out of all measurable impressions For example, say the ads on a given site had 100 measurable impressions. That means there were 100 impressions where Active View tags were able to measure viewability. If only 10 of those 100 impressions were measured as viewable, then the site would have 10% viewable impressions
	Active View - eligible impressions	The total number of impressions that were eligible to measure viewability. An impression is eligible if the ad unit has a supported creative format and tag type
	Active View - impression distribution (not measurable)	Percentage of measurable impressions where measurement was attempted, but failed. Impression Distribution (not measurable) is calculated using the following formula: Not measurable impressions / Active View eligible impressions
	Active View - impression distribution (not viewable)	Percentage of measurable impressions where measurement was attempted, succeeded and the ad was deemed non-viewable. Impression distribution (not viewable) is calculated using the following formula: Not viewable impressions / Active View eligible impressions

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RESULTS & REPORTING	Active View - impression distribution (viewable)	<p>Percentage of measurable impressions where measurement was attempted, succeeded and the ad was deemed viewable.</p> <p>This metric differs from % Viewable Impressions, as it is the number of viewable impressions of ads where measurement is eligible, but not necessarily successful. This metric will be less than or equal to % Viewable Impressions, because the number of measurable impressions is always less than or equal to the total number of impressions.</p> <p>Impression distribution (viewable) is calculated using the following formula: $\text{Viewable impressions} / \text{Active View eligible impressions}$</p>
	Active View - measurable impressions	The total number of impressions that were measurable with Active View. An ad is measurable when the Active View tag successfully captured viewability information about the impression.
	Active View - not measurable impressions	The total number of impressions that were not measurable with Active View. An ad is not measurable when the Active View tag fails to capture viewability information about the impression.
	Active View - not viewable impressions	Total number of impressions that were measured, but deemed not viewable. An ad is counted as viewable if at least 50% of its pixels appeared on screen for at least one second for display ads or two seconds for video ads, regardless of screen resolution.
	Active View - viewable impressions	The number of impressions on the site that were viewable out of all measurable impressions. An ad is counted as viewable if at least 50% of its pixels appeared on screen for at least one second for display ads or two seconds for video ads, regardless of screen resolution. All viewable ads are measurable, because you can't confirm that an ad has met the criteria for viewability unless it can be measured.

Additional technical explanations - Appendix 1



	adage	adloox	comScore	Integral	Meetrics	MOAT	appnexus	Google
Are you a platform?	No	No	No	No	No	No	Yes	Yes, an AdNetwork, a publisher and a DSP
Are you a third-party vendor?	Yes	Yes	Yes	Yes	Yes	Yes	No	No
In which contexts or circumstances is a geometric method used?	Used for non-Frame or friendly-iframe (the ad position and size are compared to the viewport)	Undisclosed	Used for non-Frame or friendly-iframe (the ad position and size are compared to the viewport) and for cross domain in non-webkit browsers including IE9, IE8, Firefox (all versions). For IE10 and above, we also use specific browser API functions. Used for cross-domain-iframe for webkit browsers (Chrome, Safari) (specific browser API); analyses indirect properties of the ad	Direct placements / Friendly-IFrames / Cross-domain-IFrames (Firefox)	Used for non-Frame or friendly-iframe (the ad position and size are compared to the viewport) + the detailed vertical and horizontal scrolling history of the user in milliseconds	Used for non-Frame or friendly-iframe (the ad position and size are compared to the viewport)	Used for non-Frame or friendly-iframe (the ad position and size are compared to the viewport) Moreover there is a combination with browser API for Internet Explorer (versions 7 to 11) and Firefox (all versions)	Used for non-Frame or friendly-iframe (the ad position and size are compared to the viewport)
In which contexts or circumstances is browser optimization used?	Used for non-friendly-iframe for IE11, Edge, Chrome and Safari Exploit Flash plugin specific properties	Undisclosed	Implementation of multiple patent-pending techniques to find out if the user has the opportunity to see the ad and if more than 50% of the ad surface is visible: -> evaluating the relative positions of the mouse cursor within the screen area and the ad container (IFrame) object's X,Y coordinates relative to the screen to be able to derive the location of the tagged ad container for comparison to the browsers viewport area -> use "browser state" properties -> use of the Page Visibility API	Cross-domain-IFrames (Chrome, IE, and Safari)	Used for non-friendly-iframe in webkit browsers (specific browser API); analyses indirect properties of the ad	Used for non-friendly-iframe (specific browser API); analyses indirect properties of the ad to determine measurability MOAT Proprietary technology available for both display and video ad impressions	Used for non-friendly-iframe on all webkit browsers (Safari, Chrome and Internet Explorer 11+)	Used for non-Friendly-IFrames where browser-specific capabilities do not exist that allow measurement using the geometric method
How do you ensure that the data collected by your measurement servers really come from the relevant tags and can't be tampered by malicious attackers?	* We discard obsolete versions and soon obsolete code revisions. * We check the format validity of the data * We check the coherence of the whole data as numerous fields presence and values are correlated with others. * We are developing the encryption of the data, made on the server side and using a secret phrase (not present on the client code obviously). The encrypted data will contain a server stamp, so it will always differ from one call to another. Therefore we will filter all data with an abnormally old (or futuristic) timestamp.	- use of heavy obfuscation on the client js code - only allow js action from our domain name if the use of https - use of an unique id for each of the impression - daily check of the data by our fraud application (looking for repetitive patterns in the campaign)	We only allow the code to be loaded from our domain (no self-hosted JS). The measurements get transmitted straight from our code at the end-user to our domain. HTTPS transfers are used where needed. The code does not allow for external manipulation. Bad client and campaign IDs are rejected as are malformed URLs (these records would be rejected). Additionally, if we see a client generate more than 10k unique campaign IDs in a day we consider it a tagging error and alert our ad operations team to investigate.	IAS leverages a series of detection methods which includes but not limited to: analyzing browser signals in comparison to user agent; period manual checks for expected values and sophisticated invalid traffic detection.	We are using encrypted feedback that use a meetrics specific structure including validation tokens to transmit the data back to our server.	We have various proprietary checks which we are happy to share with you, but do not want published in the appendix.	Each impression is uniquely identified and matched to a unique tracked impression.	There is no tag insertion

**APPENDIX 2 -
Latest update on MRC accredited vendors**

based on MRC publication (6 January 2016) and direct information from vendors

MRC Accreditation - Display																					
Accreditation Status (Date Accredited by MRC)	Viewability Capabilities	Accreditation Status by Verification Service Line						Adoption of Reconciliation Guidance					Adoption of Updated Reconciliation Guidance					Adoption of Third Reconciliation Guidance			
		Technology approach	Ad Placement	Site Context	Geotargeting	Competitive Separation	Fraud Detection	100 milliseconds min snapshots	No "Count on Decision" Served Ads	Processing Order Processes Applied	Disclosure of Ad vs. Ad Container	Account for Out of Focus Tabs	Large Size Display Ad Pixel Threshold	Proper Multi-Ad Unit Treatment	Proper Use of Page Visibility API	Proper Use of Throttle Indicator	Enhanced Invalid Traffic Filtered	Rendered Performance Rates	Proper Mobile Viewability Segregation	Disclosure of Non-Measurement of Ads Served By Others	Proper Segmentation of Verification
	adledge not already accredited. Pending						adledge not already accredited. Pending					adledge not already accredited. Pending									
	Accredited (November 2014)	Page Geometry / Browser Optimization	N/A	N/A	N/A	N/A	N/A	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes, Except for Safari (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Covered under IVT Addendum	Yes (Audited)	Yes (Audited)	Yes (Audited)	N/A
	Accredited (March 2016)	Page Geometry / Browser Optimization	N/A	N/A	N/A	N/A	N/A	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Covered under IVT Addendum	Yes (Audited)	Yes (Audited)	N/A	N/A
	Accredited (July 2012)	Page Geometry / Browser Optimization	Accredited	Accredited	Accredited (U.S./non-U.S. level only)	Not Offered	Accredited	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Covered under IVT Addendum	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)
	Accredited (April 2013)	Page Geometry	N/A	N/A	N/A	N/A	N/A	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Covered under IVT Addendum	Yes (Audited)	Yes (Audited)	Yes (Audited)	N/A
	Accredited (for Display Viewability: November 2013; for Additional Verification Functions: December 2013)	Page Geometry / Browser Optimization	Accredited	Accredited	Accredited (U.S./non-U.S. level only)	N/A	Accredited	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Covered under IVT Addendum	Yes (Audited)	Yes (Audited)	N/A	Yes (Audited)
	Accredited (December 2014)	Page Geometry / Browser Optimization	N/A	N/A	N/A	N/A	N/A	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	N/A	Covered under IVT Addendum	Yes (Audited)	Yes (Audited)	N/A	N/A
	Accredited (December 2013)	Page Geometry / Browser Optimization	N/A	N/A	N/A	N/A	N/A	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	N/A	Covered under IVT Addendum	Yes (Audited)	Yes (Audited)	Yes (Audited)	N/A

**APPENDIX 2 -
Latest update on MRC accredited vendors**

based on MRC publication (6 January 2016) and direct information from vendors

MRC Accreditation - Video																					
Desktop Video Viewability Accreditation Status (Date Accredited by MRC)	Technology Approach	Accreditation Status by Verification Service Line						Adoption of Reconciliation Guidance					Adoption of Updated Reconciliation Guidance					Adoption of Third Reconciliation Guidance			
		Ad Placement	Site Context	Geotargeting	Competitive Separation	Fraud Detection	200 milliseconds min snapshots	No "Count on Decision" Served Ads	Processing Order, Processes Applied	Disclosure of Ad vs Ad Container	Account for Out of Focus Tabs	Large Size Display Ad Pixel Threshold	Proper Multi-Ad Unit Treatment	Proper Use of Page Visibility API	Proper Use of Throttle Indicator	Enhanced Invalid Traffic Filtered	Rendered Performance Rates	Proper Mobile Viewability Segregation	Disclosure of Non-Measurement of Ads Served By Others	Proper Segmentation of Verification	
		adledge not already accredited. Pending						adledge not already accredited. Pending					adledge not already accredited. Pending					adledge not already accredited. Pending			
		adloox not already accredited. Pending						adloox not already accredited. Pending					adloox not already accredited. Pending					adloox not already accredited. Pending			
		AppNexus not already accredited. Pending						AppNexus not already accredited. Pending					AppNexus not already accredited. Pending					AppNexus not already accredited. Pending			
	Accredited (August 2015)	Page Geometry / Browser Optimization	Accredited	Accredited	Accredited (U.S./non-U.S. level only)	Not Offered	Accredited	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	N/A	Yes (Audited)	Yes (Audited)	Yes (Audited)	Covered Under IVT Addendum	Yes (Audited)	Yes (Audited)	N/A	Yes (Audited)
		Google Active View (DFP) not already accredited. Pending						Google Active View (DFP) not already accredited. Pending					Google Active View (DFP) not already accredited. Pending					Google Active View (DFP) not already accredited. Pending			
	Accredited (February 2015)	Page Geometry / Browser Optimization	Accredited	Accredited	Accredited (U.S./non-U.S. level only)	N/A	Accredited	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	N/A	Yes (Audited)	Yes (Audited)	Yes (Audited)	Covered Under IVT Addendum	Yes (Audited)	Yes (Audited)	N/A	Yes (Audited)
	Accredited (December 2014)	Page Geometry / Browser Optimization	N/A	N/A	N/A	N/A	N/A	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	N/A	Yes (Audited)	Yes (Audited)	N/A	Covered Under IVT Addendum	Yes (Audited)	Yes (Audited)	N/A	N/A
	Accredited (April 2014)	Page Geometry / Browser Optimization	N/A	N/A	N/A	N/A	N/A	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	Yes (Audited)	N/A	Yes (Audited)	Yes (Audited)	N/A	Covered Under IVT Addendum	Yes (Audited)	Yes (Audited)	Yes (Audited)	N/A