

Programmatic Transparency Benchmark

Q1 2025 Benchmark Findings



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Programmatic Transparency Benchmark



Executive Summary

Despite progress, a \$21.6 billion programmatic efficiency gain opportunity remains

Launched in 2024, the **ANA Programmatic Transparency Benchmark** is a joint initiative by the Association of National Advertisers (ANA), TAG TrustNet, and Fiducia. It was created in response to the [ANA's 2023 Programmatic Media Supply Chain Transparency Study](#), which revealed that 25 percent of open web ad spending could be better allocated.

Q1 2025 Findings: Progress and Opportunity

The latest Q1 2025 results show that benchmark participants now direct **41 percent** of their programmatic budgets to effective ad impressions — those delivered by publishers meeting their quality requirements. This marks a significant improvement from **36 percent** in 2023, largely driven by a decline in low-quality Made for Advertising (MFA) placements. However, considerable inefficiencies remain.

The new **TrueCPM Index** (see pp. 4–5) reveals a **37.8 percent optimization gap**¹, indicating that over a third of open web ad spending still goes toward impressions that don't meet standard quality metrics (non-IVT, measurable for viewability and viewable).

Closing the Gap with Data-Driven Optimization

Applying the ANA's recommendations (p. 18) — especially using impression-level log data (LLD) to enable closed-loop optimization — could reduce this gap by an estimated **\$21.6 billion (20.8 percent)**¹, in a global programmatic market that has grown from \$88 billion in 2023 to **\$104 billion in 2024**².

Benefits of Participation

By gaining ongoing access to supplier data through the Benchmark platform, marketers can:

- **Evaluate** cost, quality, and brand safety of programmatic buys.
- **Optimize** delivery of quality impressions via daily feedback loops.
- **Automate** decision-making using AI and third-party tools fuelled by real-time impression-level data.
- **Compete** more effectively by gaining higher returns on programmatic investments and beating benchmark averages.

Participants also benefit from third-party data feeds providing insights into **data integrity, privacy, sustainability, and ESG metrics** (see pp. 15–17), helping align media strategies with broader corporate values.

Join the Movement

The ANA invites all marketers to participate in the Programmatic Transparency Benchmark — an important step toward smarter, more accountable media investments.

Find out how your programmatic supply chain stacks up against the industry benchmark.

(Details on how to join on p. 25)

Q1 2025 Benchmark Key Findings

- **TrueCPM Index:** The newly introduced TrueCPM Index reveals an average **37.8 percent** total optimization opportunity across participating marketers representing an estimated global **efficiency gain opportunity of \$21.6 billion**, indicating that considerable inefficiencies remain to be resolved.
- **TrueAdSpend Index:** On average, **41 percent** of ad spending is allocated to media delivering impressions matching index requirements (non-IVT, measurable for viewability, viewable). This is a significant 5 percentage point improvement over 2023, largely driven by a reduction in Made for Advertising (MFA) sites.
- **MFA Under Better Control:** Since the 2023 ANA study, the ad spending on MFA sites in the cost waterfall has decreased from 15 percent to **0.4 percent**. This shift reflects a growing focus on higher-quality ad placements.
- **Supply Partner Optimization:** The median number of supply-side platforms (SSPs) used by marketers grew from **14 to 19**, indicating that many have yet to consolidate their buying into a smaller group of preferred exchanges.
- **Publisher Count Growth:** The median number of domains and apps used by marketers rose from **22,634 to 53,799**. However, **90.3 percent** of all impression were served on the top **3000** domains and apps, indicating an increasingly long tail.
- **Improving CTV Measurements:** CTV now represents **30 percent** of reviewed ad spending compared to 28 percent in Q4 2024. While CTV remains highly fragmented due to the multitude of platforms, access points, device types, and ad serving options, from a measurement perspective it is showing initial signs of maturation. More log files fields are available, median measurability improved to **64.1 percent**, and median viewability increased to **21.4 percent**.

¹The TrueCPM Index of 37.8 percent represents the total potential for optimization, indicating the gap needed to achieve 100 percent of impressions meeting quality standards. Recognizing that this is unrealistic, the 2023 ANA study introduced a simulation that ranked TrueCPM values and reallocated ad spending from the lowest-performing tiers to higher-performing ones. Based on this simulation, the estimated optimization opportunity is 20.8 percent, compared to the 25 percent identified in the 2023 study.

²Source: Madison and Wall (web, mobile, CTV, DOOH, and digital audio) \$52 billion 2024 estimate in the U.S., with global estimated to be twice the size of the U.S.

1. Cost Waterfall

The Cost Waterfall provides a holistic market view generated from impression-level matched data between DSP and ad verification platforms. Each section is processed and shown sequentially.

After accounting for transaction costs and media productivity losses, **41.0** cents of every ad dollar entering a DSP (Demand Side Platform) effectively reaches the consumer.

This represents a small reduction from the **43.9** cents figure in the Q4 2024 data but still is a significant improvement from the **36** cents in TrueAdSpend reported in the original 2023 ANA Study.

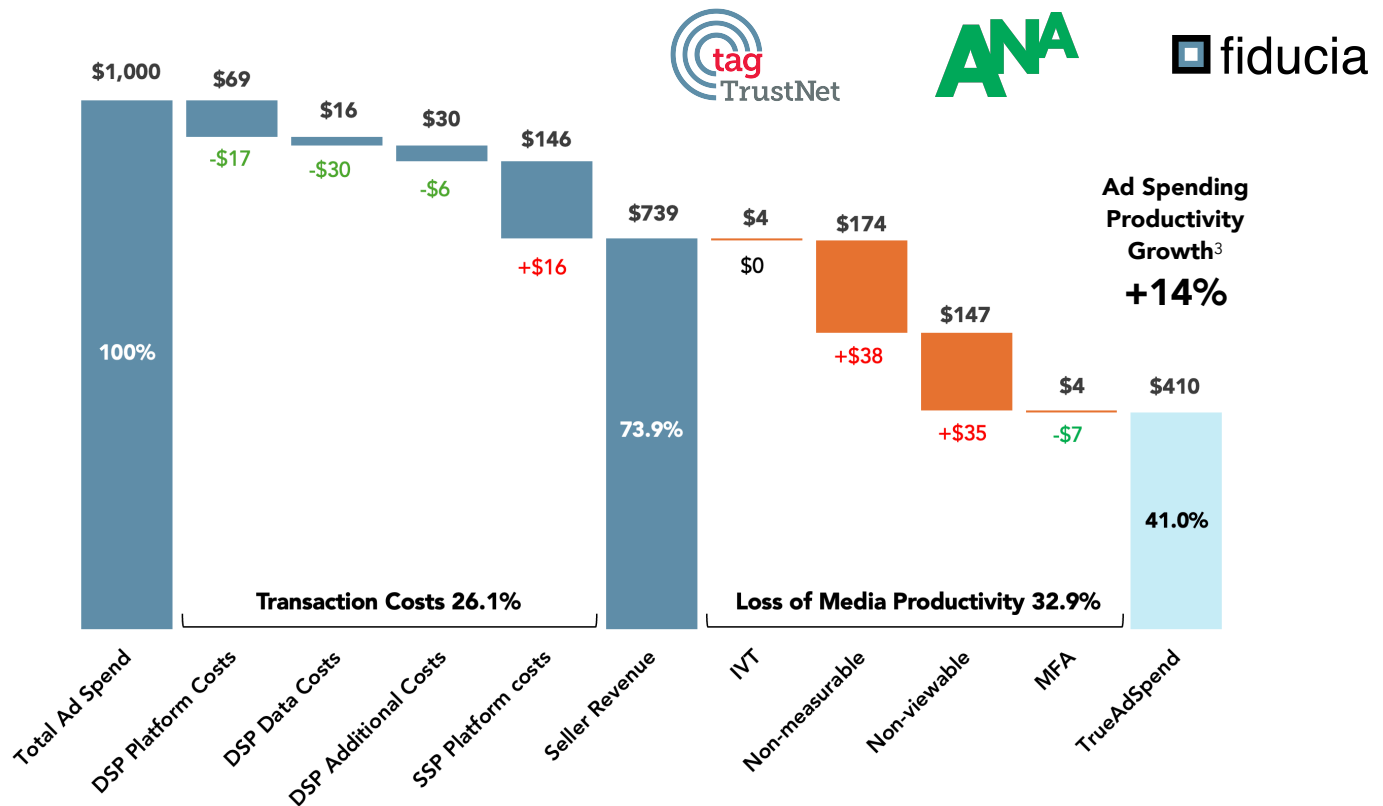
In the context of a **\$104 billion** global open web programmatic marketplace, this improvement translates into an additional **\$5.2 billion** in ad spending productivity.

The primary driver behind the reduction in TrueAdSpend is the inclusion of CTV in this report, with 3.8 and 3.5 percentage-point increases in non-measurable and non-viewable ad spending

respectively. This is partly offset by the 3.7 percentage point reduction in transaction costs going from **29.8** to **26.1** percent.

There remains a continued reduction in ad spending directed to MFA sites. Since the 2023 ANA study, ad spending on MFA sites has decreased from 15 percent to 1.1 percent and is now down to **0.4** percent. This shift reflects a growing focus on higher-quality ad placements.

Transaction costs reduced by 3.7 percentage points while loss of media productivity increased by 6.6 percentage points largely due to CTV



Notes

- Metrics shown in the Cost Waterfall are calculated in sequence using averages across advertisers into account. They differ from the individual metrics shown in the Detailed Findings, taking medians for each individual metric into account. For more information, please refer to [Methodology, FAQ, and Glossary](#).
- Agency fees, ad serving fees, managed service fees, and brand safety metrics are not part of the Cost Waterfall.
- CTV is now included in the underlying Cost Waterfall data. Please refer to the CTV section of this report for metrics specifically related to CTV.
- Values below each bar are the variations from the Q4 2024 ANA Benchmark Report.

³Compared to original 2023 ANA study findings.

Cost Waterfall Comments

A simple guide to interpreting Cost Waterfall numbers

The Cost Waterfall is built using sequential calculations based on average data from advertisers where log-level data (LLD) is matched between a DSP and an Ad Verification platform. This method provides a collective view of costs, inefficiencies, and opportunities within the programmatic ecosystem.

- **Left Side: Transaction Costs**

This section captures platform-related fees, excluding agency or contracted fees. Each cost is deducted in order, ending with a seller revenue of 73.9 percent.

- **Right Side: Media Productivity Loss**

Starting from 73.9 percent, this side shows media waste removed sequentially. Each cost is assigned to only one category — for example, if an impression is labeled as IVT, it can't also be counted as non-viewable, non-measurable, or MFA.

Because the Cost Waterfall uses a step-by-step method, its values can't be directly compared to benchmark medians later in the report, which are based on total averages.

DSP Platform Cost

DSP platform costs decreased by **\$17**, primarily due to the impact of **CTV**. The **CTV DSP platform fee** averaged **\$4.38** for approximately 30 percent of total inventory, down from **\$8.75** in Q4 2025. This fee reduction resulted in a \$17 overall decrease, in the context of impressions matched within the waterfall.

DSP Data and Additional Costs

These costs declined by **\$36** overall. The main driver was DSPs, which typically do not charge for some data or targeting segments, resulting in consistently lower percent data and additional costs. In contrast, prior datasets included a larger share of other DSPs, which operate data marketplaces where all data incurs a cost, leading to higher figures in the past.

SSP Platform Costs

SSP costs increased by **\$16** compared to the Q4 2024 report. This increase comes from SSPs which carry both a higher platform cost and share of SSP spending.

IVT (Invalid Traffic)

IVT remained **flat at \$4**, showing no change from previous periods.

Non-Measurable Ad Spending

Non-measurable ad spending increased by **\$38**. This is attributed to a higher volume of matched and reconciled CTV ad spending in the waterfall compared to Q4 2024. In 2024, CTV had limited influence, but now, with more CTV ad spending included, the non-measurable value has grown. Without CTV, the waterfall value would have been **\$85**, and significant improvement on last year's **\$136**.

Non-Viewable Ad Spending

Non-viewable ad spending rose by **\$35**, driven by similar reasons as above: a higher volume of matched and reconciled CTV ad spending in the waterfall compared to Q4 2024. Without CTV, the waterfall value would have been **\$150**, versus **\$112** in Q4 2024 — a decline, but less pronounced.

MFA Spending

MFA spending decreased by **\$7**, continuing a trend of advertisers improving MFA mitigation. It is important to note this value applies specifically to **web inventory**, and some marketers still face challenges with MFA, as seen in the MFA focus page data (p. 17) with the bottom quartile reaching a high of **25** percent of ad spending (calculated on total web ad spending).

2.1 TrueCPM Index explained

Let's call them apples instead of impressions for this analogy

To explain how the **TrueCPM Index** is calculated, the **TrueApple Index** is counting apples as a proxy for impressions. Let's assume that there are good apples, the ones that are good to eat, and bad apples, the ones that are not good to eat, and three scenarios:

- **Scenario A:** You buy 10 apples for \$10 and realize that you bought 6 good apples and 4 bad apples. With the \$10 you paid, the 6 good apples end up costing \$10 divided by 6 = \$1.67 per apple. So for 10 good apples, you would have to pay a true cost of 10 times \$1.67 = \$16.67. The delta between the cost you paid and the true cost is \$6.67, or 40 percent.
- **Scenario B:** You buy 10 apples for \$10 and realize that you bought 8 good apples and 2 bad apples. With the \$10 you paid, the 8 good apples end up costing \$10 divided by 8 = \$1.25 per apple. So for 10 good apples, you would have to pay a true cost of 10 times \$1.25 = \$12.50. The delta between the cost you paid and the true cost is \$2.50, or 20 percent.

- **Scenario C:** You buy 10 apples for \$10 and realize that you bought 10 good apples and no bad apples. With the \$10 you paid, the 10 good apples cost \$10 divided by 10 = \$1 per apple. So for 10 good apples, your true cost is the cost you paid. The delta between the cost you paid and the true cost is zero. This is your best-case scenario.

Counting good and bad apples comes down to the same exercise as counting good impressions (TrueImpressions matching your price, quality, and safety requirements) and bad impressions (not matching these requirements).

The TrueCPM Index serves as a single metric to track the effectiveness of programmatic investments. A low delta indicates that more impressions are meeting the defined requirements. A delta of zero would mean that all delivered impressions meet the requirements. This is far more achievable with apples than it is with programmatic ad impressions.

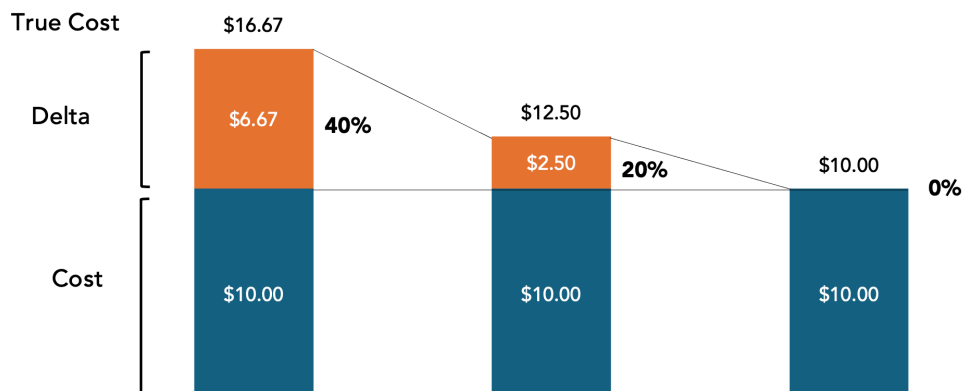


TrueApple Index



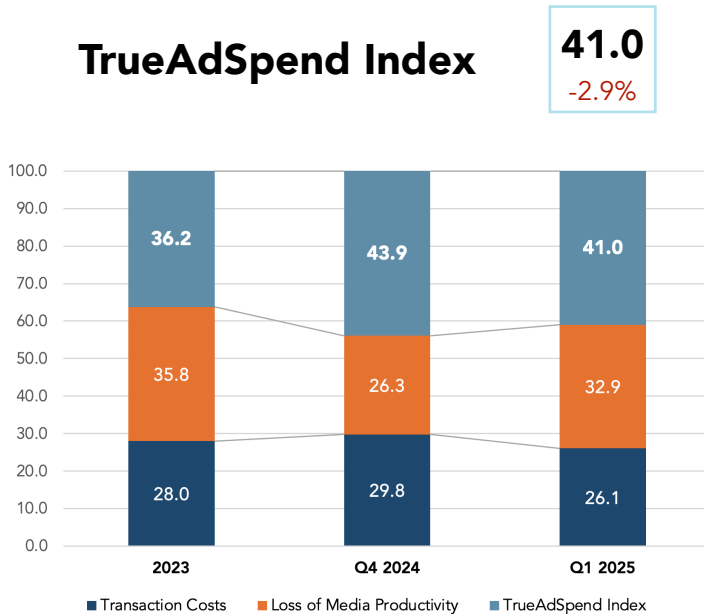
| Scenarios | A | B | C |
|-----------------------------------|---------|---------|---------|
| Number of Apples | 10 | 10 | 10 |
| Good Apples | 6 | 8 | 10 |
| Bad Apples | 4 | 2 | 0 |
| Cost Paid for 1 Apple | \$1.00 | \$1.00 | \$1.00 |
| True Cost Paid for 1 Good Apple | \$1.67 | \$1.25 | \$1.00 |
| Cost Paid for 10 Apples | \$10.00 | \$10.00 | \$10.00 |
| True Cost Paid for 10 Good Apples | \$16.67 | \$12.50 | \$10.00 |
| TrueApple Delta (\$) | \$6.67 | \$2.50 | \$0.00 |
| TrueApple Index (Delta %) | 40.0% | 20.0% | 0.0% |

The **TrueCPM Index** measures ad impressions instead of apples, serving as a single metric to track the effectiveness of programmatic investments

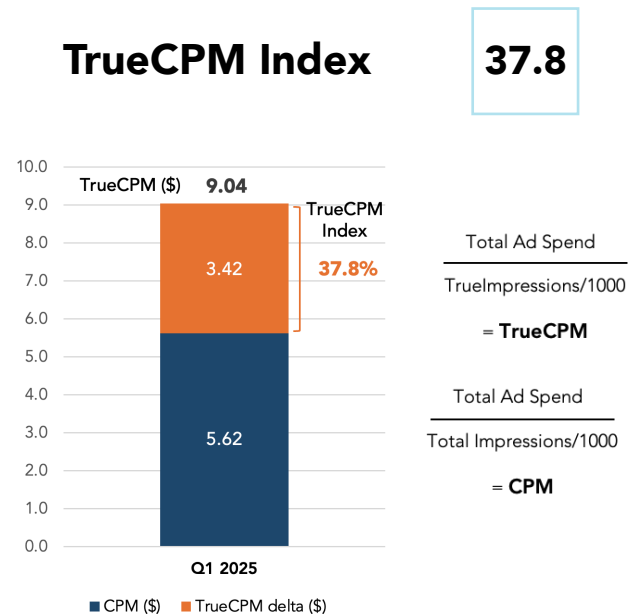


2.2 TrueCPM Index

The ANA Industry Benchmark shows a decrease in ad spending productivity of 2.9 percentage points compared to Q4 2024, and a 37.8 percent TrueCPM total optimization opportunity



The **TrueAdSpend Index** moved from **36.2** in 2023 to **43.9** in Q4 2024 and **41.0** in Q1 2025. This trend indicates that sustaining productivity improvements requires an ongoing effort in using data to drive efficiencies. The difference from Q4 2024 to Q1 2025 is attributed to an increase in loss of media productivity of **6.6** percentage points, which was offset by a **3.7** percentage point decrease in transaction costs. These figures remain an improvement on the 2023 ANA study.



The TrueCPM Index shows a **37.8 percent** total optimization opportunity and a **20.8 percent** simulated optimization opportunity, providing room for a significant improvement in TrueASpend by increasing the number of TrueImpressions matching the index requirements (non-IVT, measurable for viewability, and viewable). The TrueCPM Index highlights the relationship between the cost of impressions and the quality of impressions marketers get in return for their investments. The challenge is to find the right balance between the two. The ideal scenario is to reduce the TrueCPM Index (or delta), improving quality, without increasing the CPM, the cost.

Definitions of Key Terms

- **TrueAdSpend Index:** Measurement of ad spending productivity based on the ad spending going to TrueImpressions.
- **TrueCPM Index total delta:** The delta between the CPM and TrueCPM measuring the total optimization opportunity.
- **TrueCPM Index simulated delta:** The delta between the CPM and TrueCPM using a simulation to determine the opportunity marketers can reasonably expect to fulfill by implementing an optimization plan using impression log-level data and following ANA recommendations. The simulation is based on a ranking of TrueCPM values and a reallocation of the tier with the lowest values to the tiers with the higher values.

- **TrueImpression Benchmark Requirements:** Impressions which are non-IVT, measurable for viewability, and viewable.
- **TrueImpression:** Impression matching TrueImpression requirements.
- **CPM:** Cost per thousand impressions charged to advertisers or their agencies.
- **TrueCPM:** Cost per thousand TrueImpressions paid by advertisers taking the full ad spending into account.
- **TrueAdSpend:** The ad spending going to TrueImpressions.

For further information, refer to the Appendix of this report and to the [Methodology](#), [FAQ](#), and [Glossary](#).

3. Detailed Findings

Total and median values not to be compared to sequential waterfall values

Detailed findings should not be compared to the Cost Waterfall, as each metric is calculated individually and not in sequence. Detailed findings presented below either take **total ad spending** into account or show **median values** (the midpoint in the distribution of advertiser data). Medians and related quartiles shown in the following pages are preferred to averages as they provide

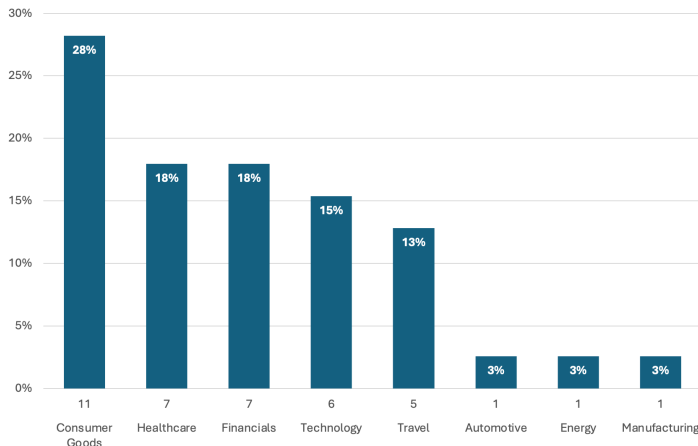
a more consistent representation of data distribution not skewed by outliers. For additional information on the Benchmark methodology, please refer to the Appendix 9.4 of this report and to [Methodology, FAQ, and Glossary](#). Detailed Findings are discussed in Sections 4 to 7 of this report, followed by recommendations in Section 8.

| Metrics | 2023 | Q4 2024 | Q1 2025 | Variation | Values |
|--------------------------------------|------------------|---------------|------------------|--------------|--------|
| PARTICIPANTS | | | | | |
| Timeframe | Sep 22 to Jan 23 | Apr to Sep 24 | Nov 24 to Mar 25 | | Period |
| Participating Marketers ⁴ | 21 | 37 | 39 | +2 | Total |
| Active Marketers ⁴ | 21 | 21 | 23 | +2 | Total |
| Impressions | 35.5 billion | 38.5 billion | 41.9 billion | +3.4 billion | Total |
| Ad Spending | \$123 million | \$235 million | \$242 million | +\$7 million | Total |
| DELIVERY ENVIRONMENT | | | | | |
| Web | N/A | 61.2% | 54.9% | -6.3% | Total |
| Mobile App | N/A | 10.2% | 11.1% | +0.9% | Total |
| CTV | N/A | 27.9% | 30.4% | +2.5% | Total |
| Other | N/A | 1.7% | 3.6% | +1.9% | Total |
| MEDIA BUYING (total) | | | | | |
| OMP Spending | 59.1% | 34.1% | 32.8% | -1.3% | Total |
| PMP Spending | 40.9% | 65.9% | 67.2% | +1.3% | Total |
| CPM | \$3.74 | \$6.03 | \$6.09 | +\$0.06 | Total |
| OMP CPM | \$2.75 | \$3.35 | \$3.03 | -\$0.32 | Total |
| PMP CPM | \$5.83 | \$7.46 | \$10.43 | +\$2.97 | Total |
| MEDIA BUYING (median) | | | | | |
| OMP Spending | 45.2% | 43.8% | 35.5% | -8.3% | Median |
| PMP Spending | 54.2% | 56.2% | 64.5% | +8.3% | Median |
| CPM | \$2.66 | \$5.82 | \$5.62 | -\$0.20 | Median |
| OMP CPM | \$2.23 | \$3.26 | \$3.28 | +\$0.02 | Median |
| PMP CPM | \$6.68 | \$5.67 | \$9.37 | +\$3.70 | Median |
| Number of SSPs | 16 | 14 | 19 | +5 | Median |
| Domains and Apps | 44,000 | 22,634 | 53,799 | +31,165 | Median |
| TRANSACTION COSTS | | | | | |
| DSP Platform Costs | 8.0% | 8.6% | 7.9% | -0.7% | Median |
| DSP Data Costs | 6.0% | 4.6% | 1.0% | -3.6% | Median |
| DSP Additional Costs | 2.0% | 3.6% | 4.5% | +0.9% | Median |
| SSP Platform Costs | 13.0% | 13.0% | 13.7% | +0.7% | Median |
| MEDIA PRODUCTIVITY | | | | | |
| IVT | 0.5% | 0.5% | 0.5% | 0.0% | Median |
| Non-Measurable | 15.0% | 23.8% | 13.3% | -10.5% | Median |
| Non-Viewable | 9.5% | 39.1% | 35.2% | -3.9% | Median |
| MFA (deepsee.io) | 10.0% | 1.1% | 2.3% | +1.2% | Median |

⁴Participating marketers are the ones who have requested their vendors to get access to their LLD and for the permission to use it for the Benchmark. Active participants are the ones who have been granted access to their LLD with the permission to use it for the Benchmark by their vendors.

4.1 Participating Marketers

INDUSTRY BENCHMARK BY INDUSTRY SECTORS



Consumer Goods remains main participant category with 28%

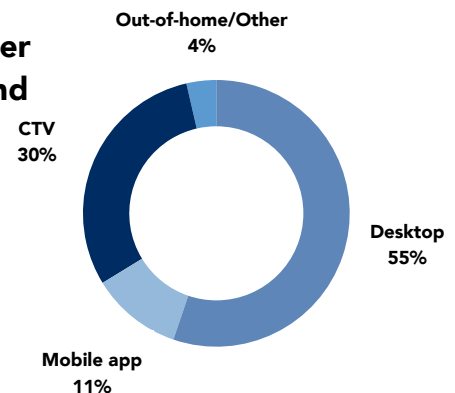
The number of advertisers participating in the benchmark increased from 37 to 39, with consumer goods still dominating the main category. However, this increase is not reflected in the number of advertisers contributing their LLD to the report, which increased from 21 to **23** contributors. The report also showed **\$242** million in ad spending and **41.9** billion ad impressions that ran from **November 1, 2024 to March 31, 2025**. This situation highlights the ongoing data asymmetry problem, where some suppliers continue to restrict marketers' access to their LLD usage.

4.2 Device Type Distribution

Web and mobile app devices collectively dominate programmatic ad spending, accounting for a whopping **66 percent** of the total ad spending. This dominance reflects their status as the primary screens for a significant portion of consumers. CTV, on the other hand, has seen a steady rise in popularity, now accounting for **30 percent** of ad spending, up from 28 percent in the Q4 2024 report. CTV encompasses any television connected to the internet, making it an increasingly attractive platform for advertisers. The remaining 4 percent of ad spending is attributed to other devices, including out-of-home advertising.

CTV gaining further ground on web and in-app

Percentage of Total Ad Spending by Device Type



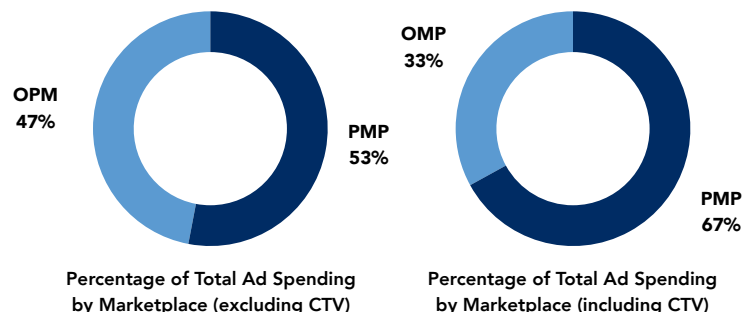
4.3 Marketplace Breakdown

In the 2023 ANA study, **59 percent** of programmatic ad spending from participating marketers was allocated to open marketplace transactions, while the remaining **41 percent** was directed to private marketplaces without any CTV data included.

In the most recent Q1 2025 dataset when excluding CTV, **53 percent** of programmatic ad spending is going to private marketplace transactions, and **47 percent** is allocated to the open marketplace.

By including the 30.4 percent of ad spending allocated to CTV, the share going to private marketplace transactions is even higher at **67 percent**, with just **33 percent** going to the open marketplace.

Private marketplaces continue gaining over open marketplaces



4.4 Connected TV

75% of CTV is traded programmatically⁵ and becoming more measurable as it matures

Connected TV (CTV) refers to any television capable of connecting to the internet to stream content beyond traditional cable or satellite services. This includes smart TVs, gaming consoles, and devices such as Roku and Apple TV. CTV has its own set of unique industry measurement standards and guidelines as defined by MRC⁶.

In 2025, CTV ad spending is projected to reach **\$33.4 billion** in the U.S., reflecting a **15.8 percent year-over-year increase**, with **75 percent of transactions occurring programmatically**. Despite strong growth, CTV will comprise just **9.6 percent of total U.S. digital ad spending**, even as **nearly 70 percent of the U.S. population** is expected to use CTV⁵. This underscores a lag between audience adoption and advertising investment.

CTV Trends and Q1 2025 Benchmark Highlights

- **Advertiser Adoption:** CTV investment remained steady, with 82 percent of advertisers leveraging CTV inventory in Q1 2025, compared to 80 percent in Q4 2024.
- **Share of Ad Spending:** CTV maintained a consistent 30.4 percent share of total ad spending, slightly above the previous quarter.
- **Private Marketplaces Dominance:** 99.5 percent of the CTV ad spending was executed via Deal IDs in private marketplaces (PMPs), up from 97 percent in Q4 2024, reflecting continued preference for controlled environments.
- **Investment Range and Exchange Partners:** Advertiser investment varied from 3 percent to 53 percent, with a median of 30 percent, similar to 28 percent in Q4 2024. The average number of exchange partners rose from four to seven, with a median of six, signalling broader inventory sourcing.
- **Marketplace Stability:** The total number of active domains across all advertisers was stable, declining slightly from over 9,000 to 8,711, with a median of 493, indicating a consistent seller and publisher landscape.

Improved Measurability and Viewability

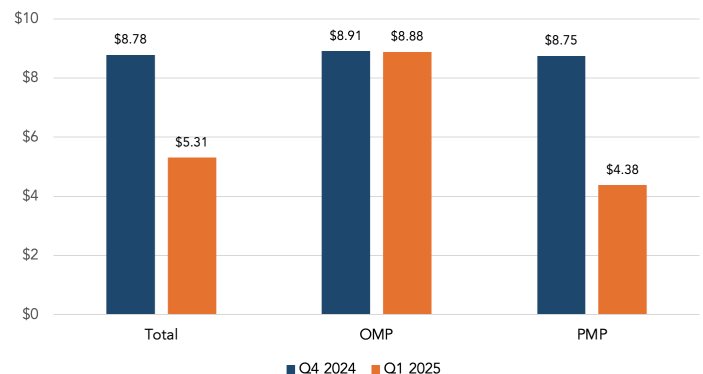
- **Measurability Gains:** In Q4 2024, only 0–1.15 percent of ad spending was measurable. By Q1 2025, this increased to a range of 0–99 percent, with an average of 22.7 percent and a median of 61.6 percent, marking significant progress in measurement capabilities.
- **Viewability Metrics:** Viewability spanned 0–81.9 percent of ad spending, with an average of 33.2 percent and a median of 21.4 percent. Methodology variation across vendors and

Across CTV, Marketers have improved access to measurable and viewable inventory, but IVT problems still exist

definitions (e.g., full-screen with sound on) continues to influence reporting and comparison with traditional viewability metrics.

- **Invalid Traffic (IVT):** IVT remains a challenge in CTV, ranging from 0 to 26.1 percent per marketer, with a median of 3.5 percent — seven times higher than the 0.5 percent median for non-CTV inventory.
- **Lower Ancillary Costs:** DSP data and tech fees were minimal in CTV programmatic buys, accounting for a median of just 0.04 percent of ad spending, compared to 5.65 percent in other digital channels.

DSP Platform Fees for CTV



- **CTV Platform Fees:** DSPs charged marketers \$3.47 less for access to CTV inventory, with a median value decreasing from \$8.78 in Q4 2024 to \$5.31. OMP platform fees were almost unchanged. PMP platform fees drove the overall reduction, with marketers now paying a median of \$4.38 compared to \$8.75.
- **CTV Measurement Needs Further Improvement:** Some progress has been made, but CTV measurement remains problematic. Marketers need to continue to push the ad verification providers, CTV sellers, and platforms to increase measurement coverage, capabilities, and access. In the meantime, it is important to understand how CTV compares to more established programmatic environments, how it differs between platforms, and ultimately which CTV players they are prepared to trust and work with in the absence of complete measurement.

⁵Source: [eMarketer Dec, 2024](#)

⁶MRC measurement standards and guidelines: [MRC CTV Viewability](#), [MRC OTT Guidance](#), [MRC Video](#), [MRC Fraud](#)

4.5 Benchmark Methodology

Medians are used in this report, providing a consistent representation of data distribution across Benchmark participants

What is the median?

Building on the approach used for the 2023 ANA study, the report is using an improved statistical visualization of data that goes beyond simple averages and ranges. The method uses **quartiles** and **median values** to show how data is distributed, giving advertisers more precise and actionable insights.

Here's how it works:

Quartiles divide a set of data into four equal parts. They help show how values are spread out across the:

- **Top Quartile** (best performing)
- **Above Median Quartile**
- **Below Median Quartile**
- **Bottom Quartile** (worst performing)

In an **odd-numbered dataset**, the median is the middle number, whereas in an **even-numbered dataset**, the median is the average of the two middle numbers. The top values for Quartile 1 and Quartile 3 are calculated by estimating positions between data points (interpolation) for better accuracy.

Medians provide a more representative view of the industry midpoint and are not skewed by outliers that can affect averages

Why is this useful?

This refined method helps advertisers:

1. **Set better goals:** For example, aim to reduce costs by moving goals from a higher-cost quartile to a lower-cost quartile.
2. **Make smarter decisions:** Understand how strategies compare across channels and platforms.
3. **Benchmark more effectively:** Compare their performance to industry peers with more detailed and accurate context.

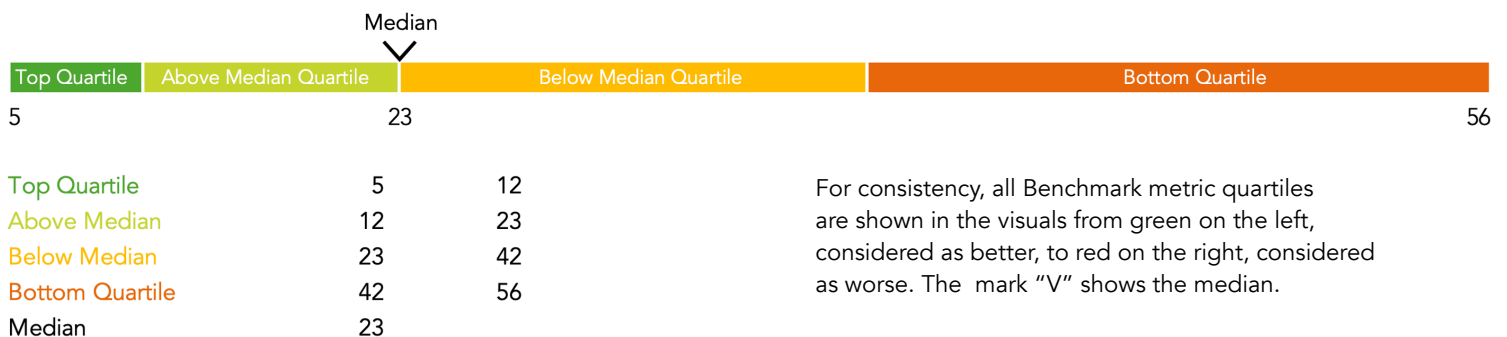
Key advantages:

- **Medians** give a clearer picture of the industry average without being skewed by outliers (extreme values).
- **Quartiles** provide a snapshot of where a company stands within the range of peers and how its position shifts over time.
- **Greater detail:** This method shows not just average performance, but how performance varies, helping advertisers spot trends and improve strategies.

By focusing on medians and quartiles, this method ensures consistent and meaningful insights, even with uneven or smaller datasets. It's a tool for advertisers to understand their market and make data-driven improvements.

For additional information, please refer to the [Methodology](#), [FAQ](#), and [Glossary](#).

Example of data distribution using quartiles and median:



For consistency, all Benchmark metric quartiles are shown in the visuals from green on the left, considered as better, to red on the right, considered as worse. The mark "V" shows the median.

Media Buying

4.6 CPM Paid by Marketers

Median CPM
decreased from
\$5.82 to \$5.62

The median cost per thousand (CPM) paid by advertisers decreased slightly from **\$5.82** in Q4 2024 to **\$5.62**. This stability reflects several key trends:

- **Emphasis on ad quality:** Advertisers are willing to pay higher CPMs to ensure higher ad quality. This is evident by the continued reduction in spending on MFA websites. Open market CPMs have remained steady, moving from **\$3.26** in Q4 2024 to **\$3.28** in the latest dataset.
- **CTV driving higher CPMs:** CTV typically commands higher CPMs compared to other channels, contributing to the overall trend of higher CPMs compared to the original 2023 ANA study, which did not include CTV.
- **Continued growth in private marketplace spending:** The average CPM for private marketplace inventory reached **\$9.37**, significantly higher than the **\$3.28 CPM** for the open marketplace. This PMP figure is higher than the **\$5.67** figure from the Q4 2024 dataset. There is a continued strategic shift toward premium, controlled environments.



4.7 Number of SSPs

Median number
of SSPs increased
from 14 to 19

The median number of SSPs per advertiser increased from **14** in the Q4 2025 dataset to **19**. This indicates an uptick in the overall number of supply partners used by advertisers surveyed.

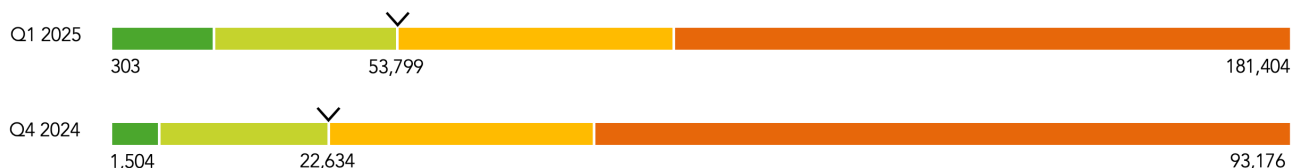
The range has remained relatively similar, with some advertisers using as few as **6** SSPs and others using up to **70**. This contrasts with the range of **5** to **80** in the Q4 2025 dataset. This variation presents a significant opportunity for advertisers to optimize their supply path buying strategies, leading to cost and carbon emissions reductions.

4.8 Number of Sites
and Apps

Top 100 domains
delivering 57.3 percent
of impressions

In the 2023 ANA Study, the median number of sites and apps was **44,000**. In the Q4 2024 dataset, this number significantly decreased to **22,634**, while the most recent dataset witnessed a substantial increase in this figure, reaching **53,799**. Similarly, the highest number of websites and apps for a single marketer rose from **93,176** to **181,404** in our most recent data. The median for PMP was **29,639** and for OMP, **49,442**.

The top 100 unique domains and apps collectively accounted for **57.3** percent of total impressions, compared to 58.1 percent in Q4 2024. The top 500 delivered **75.3** percent of impressions, compared to 75.9 percent in Q4 2024. The top 3,000 made up **90.3** percent of total impressions, compared to 91.3 percent in Q4 2024.



Transaction Costs

5.1 DSP Costs

Total DSP costs dropped by 0.7 points and account for 7.9 percent of ad spending

Overall total DSP platform costs dropped considerably to **13.4** percent of ad spending, down from **16.8** percent in Q4 2024. This was due to growing influence of CTV. The median DSP platform costs dropped by **0.7** percentage points down to **7.9** percent in comparison with the Q4 2024 dataset.

The median data cost was significantly lower, down to just **1.0** percent of ad spending, due to a differing mix of paid-for data costs and those that did not carry a fee.

The median additional cost increased by **0.9** percentage points of ad spending, indicating a small increase in the tools and features bought within the DSP.

DSP Platform Costs



DSP Data Costs



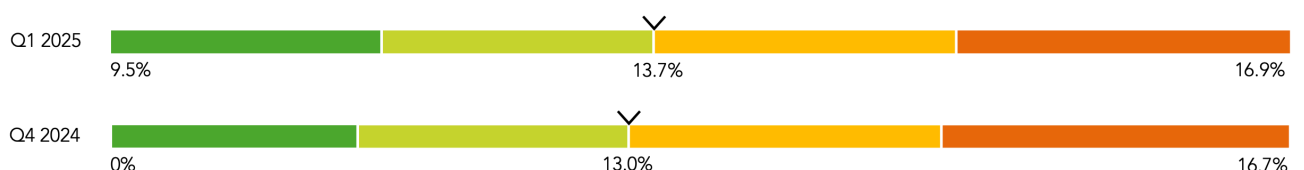
DSP Additional Costs



5.2 SSP Costs

Total SSP costs account for a median value of 13.7 percent of ad spending

SSP costs are stable and the median increased by just 0.7 percent to **13.7** percent in comparison with previous 2023 and Q4 2024 datasets. The quartiles are also consistent across the period, with the top of the range reaching **16.9** percent in Q1 2025 in line with the Q4 2024 findings.



Media Productivity

6.1 IVT

IVT median amount
of ad spending remained
low at 0.5 percent

The median amount of ad spending classified as IVT remained at **0.5** percent, at the same level as in Q4 2024 and in the 2023 Study.

The distribution across advertisers shows a low of **0.02** percent and a high of **11.8** percent; the quartile structure, however, shows that most advertisers have remained below **1.9** percent of ad spending, which is more in line with previous findings.



6.2 Non-Measurable

Non-measurable median
ad spending improved
to 13.3 from 23.8 percent

The median amount of ad spending classified as non-measurable reduced to **13.3** percent in the Q1 Benchmark from a high of **23.8** percent in the Q4 2024 Benchmark. This represents a consistent trend of improvement in overall measurability rates, including CTV.

For the top quartile, the amount of non-measurable ad spending remained in a range of **1.2** to **8.9** percent, an improvement from the 8.3 to 12.3 percent of the previous report.

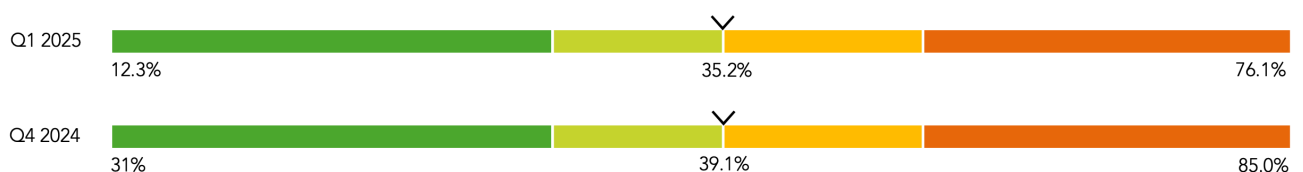


6.3 Non-Viewable

Non-viewable median
ad spending reduced
to 35.2 from 39.1 percent

The median amount of ad spending classified as non-viewable decreased to **35.2** percent from **39.1** percent in the Q4 2024 report, an improvement of **3.9** percentage points on the Q4 2024 figure.

The Q1 2024 range also shows improvements, with a low of **12.3** percent and a high of **76.1** percent. This compares to a low of 31 percent in Q4 2024 and a high of 85 percent.



6.4 Made for Advertising

MFA requires ongoing curation to reach levels below 3 percent of web ad spending

Half of the Benchmark marketers now allocate less than **2.3** percent of their open web ad spending to MFA websites (as defined by [deepsee.io](#)), representing a significant shift from industry levels in 2023 before the release of the ANA Study and subsequent Q4 Benchmark. Nevertheless, a quarter of Benchmark advertisers still allocate **12.9** to **25** percent of their ad spending to MFA websites.

The key factors driving this ongoing shift away from MFA buying:

- Greater knowledge and awareness of MFA websites and their characteristics
- Enhanced stewardship by advertisers and agencies over media investments
- The convergence of MFA definitions and standards within the tools and platforms being used
- Increased availability and use of MFA blocking tools within existing ad verification platforms and integrated into the broader ad tech ecosystem
- Expanded adoption of inclusion lists to ensure higher-quality placements



6.5 Data Integrity and Privacy

Benchmark scores reach a median of 30.9 percent, requiring a closer look at publisher data integrity and privacy compliance

Data integrity and privacy scoring for websites is an emerging framework that evaluates how well a site protects user data and adheres to privacy regulations. By assessing factors such as data collection practices, user consent mechanisms, transparency in privacy policies, and the security measures in place, these scores provide a clear indication of a website's commitment to safeguarding user information. This scoring system applied to impression log-level data not only empowers marketers to make informed decisions about the sites on which they run impressions, but also encourages SSPs and publishers to adopt better privacy practices to enhance their scores. As concerns about data breaches and misuse of personal information grow, privacy scoring could become an essential tool for fostering accountability and trust in the digital landscape.

Compliant has developed the Publisher Compliance Index (PCI) to measure the compliance of programmatic media offered by SSPs and publishers with data privacy regulations across 90 percent of programmatic inventory worldwide. Running these scores against the Benchmark impression-level data offers an independent, scalable method for verification, facilitating privacy-focused decision-making. [Learn more about Compliant and PCI Scores.](#)

The Benchmark includes two different scores for measured impressions:

Publisher Compliance Index Score: Ad-spending-weighted average of the PCI score of the impressions included in this campaign (0-100), with 100 being the best and 0 being the worst.

Publisher Compliance Index Media Risk: Percentage of ad spending on impressions which have a PCI score of 35 or below.

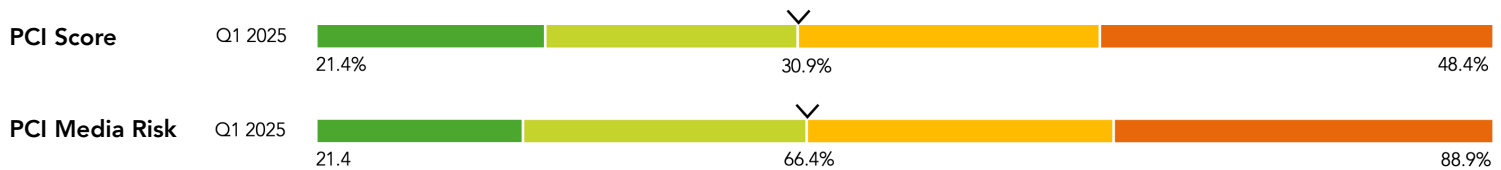
Media Productivity

Benchmark marketers achieved PCI scores ranging from **21.4** to **48.4** percent, with a median of **30.9** based on ad spending directed towards domains rated by Compliant, indicating that there is room for improvement in buying impressions on sites with better data integrity and privacy ratings.

This is confirmed by the PCI Media Risk scores of participating advertisers ranging from **21.41** to **88.91**, with a median of **66.35**, indicating the percentage of media investments going to impressions with a PCI score of **35** or below.

Benchmark participants can access their own PCI scores by domains and create inclusion lists, using PCI scores as an additional inclusion metric on top of existing metrics.

New Metrics



6.6 Carbon Emissions

First greenhouse gas emission data correlated to programmatic impressions using the GMSF model, showing a median 0.53 kg of CO₂ emissions for 1000 impressions and a median 0.10 kg of CO₂ emissions per dollar of ad spending

Digital media is a big contributor to **greenhouse gas** (GHG) emissions. According to a 2020 analysis⁷, the Information and Communication Technology (ICT) sector was responsible for around 4 percent of global electricity consumption from the usage of servers, networks, and digital devices, amounting to 1.4 percent of global GHG emissions. Compared to physical media, digital advertising introduces a host of new digital processes and energy requirements which contribute to the overall global carbon footprint of the ICT industry.

Over the past year, the WFA and AdNetZero — which took over GARM's sustainable work to standardize media decarbonization — have been collaborating with other industry and climate science experts to develop the first version of a [Global Media Sustainability Framework](#) (GMSF) for estimating the **GHG emissions from digital advertising**. Prior to the introduction of the GMSF, there was misalignment within the industry on the scope of the estimation, calculation inputs, and even naming conventions for emission sources.

Using the newly developed GMSF omni-channel model, Good-Loop has been pulling together data from various advertisers, ad formats, and regions to get a picture of the GHG emissions of programmatic ad impressions. Learn more about [Good-Loop and the GMSF model](#).

Using the GMSFv1 guidance on GHG calculations from the distribution and consumption phase of a digital ads lifecycle, emissions have been calculated for the Benchmark in two ways:

- **CO₂ePM**: kilograms of CO₂ emissions per thousand impressions
- **CO₂e/\$**: kilograms of CO₂ emissions per dollar of ad spending

Benchmark marketers achieved CO₂ePM scores ranging from **0.19** to **0.87 kg**, with a median of **0.53 kg** and CO₂e/\$ scores of **0.02** to **0.73 kg**, with a median of **0.10 kg**. These initial measurements provide an idea of the wide range

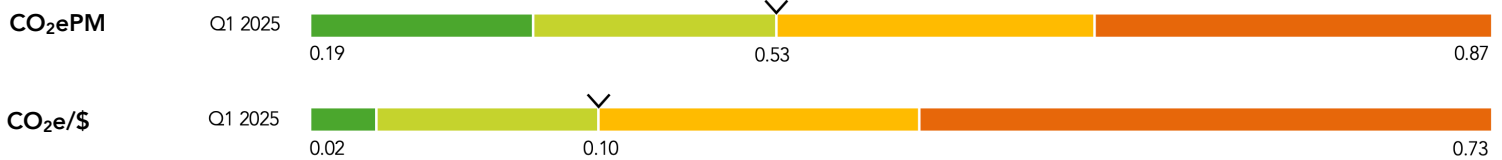
⁷Source: [ICT sector electricity consumption and greenhouse gas emissions — 2020 outcome](#)

Data Exchange

of emissions depending on creative formats, device types, and public and private marketplaces. Initial indicators show that video ads have a higher CO₂ePM and that display ads emit less per impression, but more per dollar. Tablets and PCs ads emit more CO₂ePM, while CTV, despite its high energy use, has a lower cost-efficiency impact. PMPs generate more emissions per impressions and per dollar than OMPs.

Benchmark participants can access their own impression-level carbon emission scores and determine measures to reduce their programmatic advertising carbon footprint in line with their corporate policies, deciding on creative formats, device types, and PMP/OMPs.

New Metrics



6.7 ESG

Median ESG scores reaching 49.9%, above overall market average of 45 percent

Environmental, Social, and Governance (ESG) considerations are increasingly shaping the landscape of programmatic advertising, as brands recognize the importance of aligning their marketing strategies with sustainable and ethical practices. By integrating ESG principles, advertisers can promote their commitment to social responsibility and also engage with consumers who prioritize ethical consumption. This shift encourages the use of data-driven insights to target audiences in ways that are both effective and respectful of user privacy and preferences. As the demand for responsible advertising grows, integrating ESG into programmatic strategies is becoming essential for building trust and loyalty with consumers, ultimately driving long-term business success.

The GoodNet uses a range of data sources and custom algorithms to analyze and weight over 150 data points to assign an ESG score to domains. A subset is used to determine an ESG Risk Media score, allowing marketers to identify impressions running on domains considered risky from an ESG standpoint. [Learn more about The GoodNet and ESG scores.](#)

Benchmark marketers achieved ESG scores ranging from **43.0** to **55.1** percent, with a median of **49.9** percent, based on ad spending directed towards domains rated by The GoodNet. This falls slightly above The GoodNet's overall market average of **45** percent.

Individual ESG scores typically range from the mid-30s to mid-60s, with higher ESG scores getting achieved by brands with corporate ESG strategies.

For the observed ad spending, another finding is that a median **0.40** percent was delivered on domains categorized as ESG Risk Media, with a range of **0.04** percent to **5.73** percent.

These scores can be correlated by participating marketers with any other Benchmark impression metrics and enable brands to avoid environments that conflict with their ESG values.

New Metrics



7. Recommendations

1. Assess log-level data

- Request LLD access from suppliers based on the [TAG Trust-Net Requirements](#) to identify optimization opportunities and make informed decisions to boost TrueAdSpend productivity.
- Ensure that all available supplier LLD fields are included. Recent integrations and analysis have shown that more specialized fields are being made available to support different types of analysis, particularly around CTV.
- Marketers must continue to stitch together DSP and ad verification data with the most coverage possible to show where value is hiding and where there is no value at all.
- Periodically perform an audit of your supply chain with a focus on availability and accessibility of LLD.

2. Leverage Benchmark Insights and Industry Best Practices

- Participate in industry initiatives, like the ANA Programmatic Transparency Benchmark, to enhance programmatic advertising accountability, responsibility, efficiency, and growth.
- Analyze the ANA Benchmark quarterly findings to compare your individual metrics with broader industry metrics and identify areas where you excel or fall short.
- Define an optimization plan to move from less performing to better performing Benchmark quartiles and measure progress against your goals and Benchmark findings.
- Stay informed about the latest trends and developments in data-driven programmatic optimization by attending [ANA half-day trainings](#) related to the Benchmark and enrolling in the [free TrueCPM optimization course](#) developed in partnership with U-of-Digital.
- As an ANA member, you can also access a [free online version of the ANA Industry Benchmark](#) quarterly findings, providing trends over time.

3. Measure Ad Quality and Price

- Use the TrueKPI Framework to evaluate ad impressions based on their quality relative to cost and reduce the gap between CPM and TrueCPM.
- Monitor the progress for your different brands, divisions, and markets over a daily feedback loop, continuously enhancing the return on your programmatic investments.
- Consider the areas to be optimized “manually” using your data daily feedback loop, which can deliver significant benefit, and areas requiring automation using your data with AI and other optimization technologies.

4. Balance Cost and Quality

- Strike a balance between pursuing low-cost inventory in programmatic media and prioritizing ad quality, using the Benchmark media productivity metrics to ensure that ads are fraud-free, measurable, viewable, and non-MFA.
- Analyze individual transaction costs to optimize access to various buy types, focusing on direct, ads.txt-compliant supply paths for safer and more efficient buying.
- Understand the relationship between the cost and quality of delivered impressions using the delta between your CPM and TrueCPM as the key indicator.
- Use the Benchmark detailed findings to identify specific areas of improvement to reduce that gap, while keeping your CPM under control. The ideal scenario is to reduce your TrueCPM to the level of your existing CPM, indicating that you are getting more impressions matching your quality requirements without increasing their cost.

5. Manage CTV Effectively

- As part of your CTV strategy, consider building a framework of acceptance parameters for CTV sellers and platforms using LLD. This will help you to prioritize measurement coverage and understand which platforms and providers support measurability, viewability, brand safety, and fraud, and which do not.
- Create a subset of sellers and platforms that can be more effectively optimized.
- Ensure campaigns run in premium, brand-safe environments to the greatest extent possible through private marketplace buying.
- Focus on direct supply paths when feasible, and closely evaluate indirect paths when they are used.
- Whenever possible, transact through app-ads.txt-compliant supply to ensure safer CTV and OTT transactions.

6. Fight Invalid Traffic

- IVT remains a serious concern. It is particularly prevalent in CTV where high CPMs attract more fraudsters.
- Continue to work with your internal teams or your agency to develop plans for identifying and filtering IVT and monitor progress over your LLD, using not just impressions but ad spending.
- Ensure use of both pre-bid and post-bid IVT avoidance tools.

7. Renew Focus on Reducing MFA Inventory

- Regularly audit your programmatic activity to assess the percentage of impressions and ad spending attributed to MFA sites.
- Ensure your MFA avoidance partners are meeting the defined industry standards for MFA detection, ensuring that all possible types of MFA are categorized and subsequently removed.
- Implement an inclusion list strategy for programmatic advertising to ensure higher-quality placements across both open marketplace and private marketplaces alike.
- The Benchmark demonstrates that MFA usage can be dramatically reduced, from an average of 15 percent in 2023 to 1.1 percent in 2024 to just 0.4 percent in the latest Cost Waterfall. This is enabled by ongoing detection, monitoring, and filtering: there are over 75,000 domains within the Deepsee.io MFA list, and over 1,000 domains are added every month.

8. Develop and Use Inclusion Lists

- Continue to prioritize the creation and use of website “inclusion” lists versus focusing on “exclusion” lists.
- An inclusion list is a better solution to help reduce exposure to MFA but also to a range of other metrics, including domains not respecting data privacy regulations, generating high carbon emissions, or with poor ESG scores.
- Expand and be creative. Curate publisher domain, app, and seller ID lists you trust that meet your desired standards and monitor impact using LLD.

9. Optimize Supply Path and Partner Selection

- Reduce SSPs from the current median of 19. Numerous SSPs can lead to increased auction competition and inflated CPM prices.
- Use impression LLD to identify SSPs with the most desirable TrueKPI metrics, delivering direct publisher connections across trusted sellers to minimize reliance on intermediaries while ensuring brand-safe, premium inventory across web, mobile apps, and CTV inventory.
- Select and monitor SSP partners that offer broad access to premium supply across all channels, prioritizing brand safety and efficiency in campaign execution.
- Monitor how overall SSP platform fees change over time as you optimize the distribution of ad spending between different partners and channels.
 - Focus on end-to-end supply paths. Every publisher works with their SSP partners in different ways at different price and quality points. Use LLD to determine which combinations are right for you.

10. Optimize and Understand Measurability

- In consultation with your ad verification partner, continue to prioritize publishers that accept ad verification tags and apps supporting open measurement to get access to the related data in your impression LLD.
- Inclusion lists should be updated to include only such publishers and apps.
- For CTV, a special attention should be provided to the measurement capabilities supported by different CTV platforms and integrated ad verification partners, as well as the granularity of data that can be accessed.

11. Optimize the Number of Websites

- Consider the number of websites you realistically need to include to reach your goals.
- This report found that 90 percent of web ad spending is delivered on 3,000 websites. Evaluate the value delivered by websites compared to the risks they represent using Benchmark metrics.
- Using your own mix of Benchmark metrics to reduce the number of websites and the path to reach them. Each website and supply path are a unique opportunity to enhance your programmatic investments.

12. Experiment with OMPs

- Understand how open marketplace and private marketplace transaction costs differ and whether well-managed open marketplace activity can out-perform higher priced private marketplace deals.
- Consider the type of marketplace deals (OMP vs. PMP) that best align with your brand objectives and safety standards.

13. Correlate LLD with Other External Data Sources

- Similar to the approach used with deepsee.io for MFA, we have correlated additional external data sources covering data integrity and privacy risks, carbon emissions, and ESG scores in this report.
- Marketers can now align their programmatic investments with their corporate values and goals by correlating new impression and ad spending metrics with their existing data. These metrics can be used to refine TrueImpression requirements.
- As an example, MFA ad spending contributed to 26 percent higher carbon emissions compared to non-MFA ad spending.

The industry is making progress, and some marketers are taking advantage of the **\$21.6 billion opportunity**.

What about you?

Launched in 2024, the ANA Programmatic Transparency Benchmark is an ongoing initiative developed in response to the [2023 ANA Programmatic Media Supply Chain Transparency Study](#), which found that \$22 billion in open web ad spending could be more effectively allocated.

The Benchmark is designed to help marketers maximize returns on their programmatic media investments by leveraging impression-level log data to bring greater accountability, responsibility, and efficiency to programmatic supply chains. Built in partnership with TAG TrustNet and Fiducia — the same LLD platform provider used in the 2023 study — the initiative aims to resolve data asymmetry by granting marketers the same access to LLD as their supply chain partners.

By securing ongoing access to supplier data, Benchmark participants gain a competitive advantage by having greater control over their programmatic ad impressions. Using the platform enables you to match LLD across your suppliers, contributing to the Benchmark while also enhancing your own capabilities to:

- **Evaluate** the cost, quality, and safety of your programmatic investments.
- **Optimize** the delivery of ad impressions that meet your standards with daily feedback loops tracking progress.
- **Automate** the decision-making using AI and third-party tools, powered by real-time impression-level data.
- **Compete** more effectively by gaining higher returns on programmatic investments than Benchmark averages.

Sign up for the [ANA Programmatic Transparency Benchmark](#) to take control of your supply chain and improve your ad spending productivity.

Learn more by participating in the ANA half-day virtual workshop [Navigating Transparency in Programmatic Advertising](#)
Email training@ana.net to bring this training to you!

Take the free course developed in partnership with U-of-Digital [Benchmark and TrueCPM Optimization Course](#)

For more information contact:

Bill Duggan, ANA, bduggan@ana.net

Julie Weitzner, ANA, jweitzner@ana.net

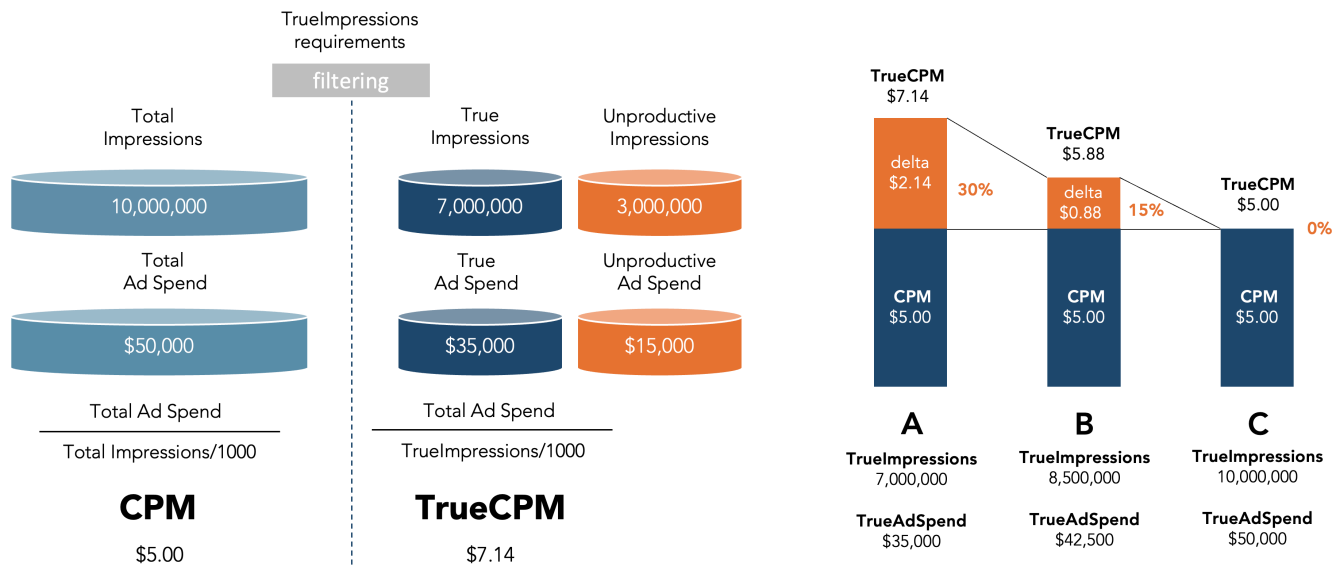
Mike Zaneis, TAG TrustNet, mike@tagtoday.net

Tim Brown, Fiducia, tim.brown@fiducia.eco

8.1 TrueKPI Framework

Optimizing value by pricing impressions on quality metrics

The TrueKPI Framework was created for the ANA study and is now getting implemented by Benchmark participants. It was developed to provide marketers with a toolkit to increase ad spending productivity by reducing transaction costs and increasing working media using impression LLD of campaigns.



The TrueKPI Framework evaluates ad impressions based on their quality relative to price using three key metrics:

- **TrueImpressions:** The impressions that meet defined cost, quality and safety requirements
- **TrueAdSpend:** The ad spending going to TrueImpressions
- **TrueCPM:** The CPM paid by advertisers for TrueImpressions taking the full ad spending into account

Custom TrueImpression requirements

Marketers can define their own TrueImpressions criteria by selecting specific metrics and assigning values to each. Using the **TrueCPM Decision Tree** (see next page) and Benchmark data as reference values, they can set their own price and quality thresholds to determine which impressions qualify as TrueImpressions.

The platform processes these inputs across various data sources to generate TrueKPI metrics, which are then compared to the marketer's TrueImpressions requirements. Each data run serves as a feedback loop, enabling timely and informed decisions to:

- Increase the count of TrueImpressions
- Reduce the delta between CPM and TrueCPM
- Optimize TrueAdSpend allocation

Reducing the TrueCPM Delta to enhance efficiency

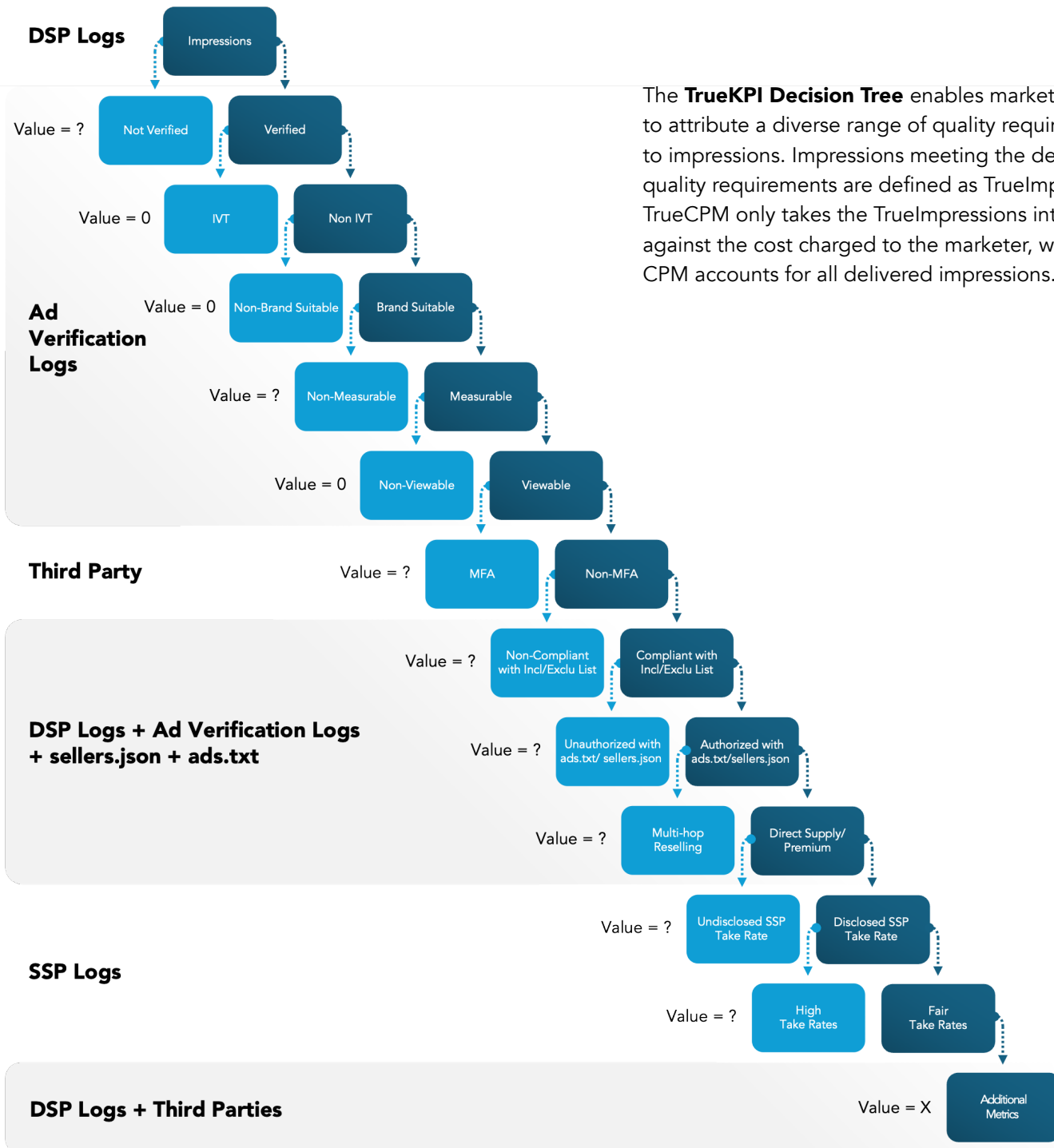
As illustrated in the example above, the difference between a \$5.00 CPM and a \$7.14 TrueCPM (Scenario A) represents a \$2.14 **TrueCPM Delta**, indicating ad spending on non-productive impressions. This delta signifies a 30 percent total optimization opportunity.

If all non-productive impressions were converted to TrueImpressions, CPM would equal TrueCPM (Scenario C). A more realistic scenario (Scenario B) involves cutting unproductive impressions in half, reducing the TrueCPM delta to \$0.88 (a 15 percent optimization opportunity). This shift would increase TrueImpressions by 1.5 million and boost TrueAdSpend by \$7,500 — a 21.4 percent increase — assuming additional TrueImpressions are purchased at a \$5 CPM.

Narrowing the gap between CPM and TrueCPM while maintaining CPM levels in range is the key to driving incremental returns on programmatic investments.

8.2 TrueKPI Decision Tree


























































































The **TrueKPI Decision Tree** enables marketers to attribute a diverse range of quality requirements to impressions. Impressions meeting the decision tree quality requirements are defined as TrueImpressions. TrueCPM only takes the TrueImpressions into account against the cost charged to the marketer, whereas the CPM accounts for all delivered impressions.






















































































8.3 TAG TrustNet LLD Register

Appendix

The TAG TrustNet LLD Register provides information on the access and availability of LLD feeds to advertisers provided by the main intermediaries part of the programmatic advertising supply chain. The LLD Register is updated and published quarterly as a resource for general information.

| Company | | CFT/TTN | Log-Level Data Supported | Required Data Fields |
|------------------------|---|---|---|---|
| DSP | | | | |
| AdForm |  |   |  |  |
| AdLook |  |   |  |  |
| Adobe |  |  |  |  |
| AdTheorent |  | |  |  |
| Amazon Advertising |  | |  |  |
| Basis |  |  |  |  |
| Beeswax |  | |  |  |
| DeepIntent |  | |  | In Review |
| Google DV360 |  |  |  |  |
| Microsoft Invest |  |   |  |  |
| Nexxen |  |  |  |  |
| Octillion/Premion |  |   |  |  |
| The Trade Desk |  |  |  |  |
| Viant |  |  |  |  |
| Yahoo |  |   |  |  |
| Zeta |  | | In Review | In Review |
| Ad Verification | | | | |
| DoubleVerify |  |   |  |  |
| Fou Analytics |  | |  | Unknown |
| Integral Ad Science |  |   |  |  |
| Protected |  |   |  |  |
| SSP | | | | |
| Amazon Pub Services |  | |  | Unknown |
| Criteo |  |   |  |  |
| DailyMotion |  |  |  |  |

Appendix

| Company | CFT / TTN | Log-Level Data Supported | Required Data Fields |
|---|---|---|---|
| Digital Turbine |  |  |  |
| Equativ |   |  |  |
| Frameplay |   |  |  |
| Freewheel |  |  | Unknown |
| Google Ad Manager |  |  |  |
| GumGum |  |  | Unknown |
| Index Exchange |   |  |  |
| Inmobi |   |  |  |
| Kargo |  |  |  |
| Magnite DV+ |   |  |  |
| Magnite Streaming |   |  |  |
| Media.net |   |  |  |
| Microsoft Monetize |   |  |  |
| Nexxen |  |  |  |
| OpenX |   |  |  |
| PubMatic |  |  |  |
| Sovrn |  | Unknown | Unknown |
| Spectrum Reach |   |  |  |
| Ströer |   |  |  |
| TripleLift |   |  |  |
| TrustX |   |  |  |
| Yield Lab |   |  | Unknown |
| Walled Gardens/Social Media/Retail Media | | | |
| Google (owned) |   |  |  |
| LinkedIn |  | Unknown | Unknown |
| Meta |  | Unknown | Unknown |
| Pinterest |  | Unknown | Unknown |
| SnapChat |  | Unknown | Unknown |

| Company | | CFT/TTN | Log-Level Data Supported | Required Data Fields |
|---|--|---------|--------------------------|----------------------|
| TikTok | | | Unknown | Unknown |
| X | | | Unknown | Unknown |
| Walmart | | | | Unknown |
| Agencies (agencies in this section are TAG Certified for Transparency) | | | | |
| Horizon | | | | |
| OMG | | | | |

Definitions



CFT: TAG Certified for Transparency



TTN: TAG TrustNet Data Connector

| Rating | Log-Level Data Supported | Required Data Fields |
|--------|--------------------------|----------------------|
| | Yes | Available |
| | In Development | Partially Available |
| | No | Not Available |

Log-Level Data Supported: The supplier provides access to an always-on impression LLD feed to all advertisers and their agencies, as specified in the [TAG Certified for Transparency Guidelines](#).

Required Data Fields: The impression LLD feed provided by the supplier includes the data fields and the related data specified in the [TAG TrustNet Requirements](#).

Transparency Requirements

TAG TrustNet (www.tagtrust.net) was launched jointly by TAG (www.tagtoday.net) and Fiducia (www.fiducia.eco), provider of the LLD management platform, as the major industry initiative to create a single transparent, fair, and responsible programmatic marketplace based on data symmetry.

Data symmetry can become a reality if suppliers comply with some minimum requirements:

Verification and Identification: All participants need to be verified as legitimate legal entities and always identifiable by an ID provided by a recognized industry trade association.

Data Access: All suppliers need to make a contractual commitment to provide ongoing access to impression LLD to any advertiser or publisher asking for it.

In Review: In active review.

Unknown: It is unknown whether the vendor supports LLD, or it requires initial review and further evaluation before a classification of providing the required LLD fields can be determined.

Data Fields: The LLD provided by the supplier needs to comply with specified data fields, including quantitative, qualitative, and financial information.

Matching IDs: The impression LLD needs to include an ID (as defined by oRTB standards) to deterministically match impression LLD across suppliers.

Data Matching: All parties involved in a transaction need to use an independent platform recognized by industry trade associations. This platform needs to act as a utility connecting, harmonizing, and reconciling impression LLD across the parties to come up with a unified record for every single impression, recognized by all parties as “shared truth.” Authorized parties need to have the option to export and share the reconciled data over the platform for their internal use and with their authorized business partners.

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