

Innovation is a constant force driving the evolution of the digital media ecosystem. Digital channels are expected to provide nearly all incremental spend flowing into global ad budgets through 2020, and programmatic will account for most of that growth. Publishers and media buyers must understand the nuances and key trends impacting the market in order to capitalize on the vast opportunities available.

In such a fast-evolving industry, reliable data is the foundation of good business decisions. This is a compilation of the most significant market developments in the programmatic ecosystem to inform your 2020 strategies. This guide includes global advertising forecasts, growth trends for emerging and evolving formats, trends in header bidding, private marketplaces, and more!

TABLE OF CONTENT

US DIGITAL & PROGRAMMATIC MARKET	2
GLOBAL DIGITAL & PROGRAMMATIC MARKET	11
MOBILE ADVERTISING	19
VIDEO ADVERTISING	25
PRIVATE MARKETPLACES	34



PROJECTED AD REVENUE GROWTH IN THE UNITED STATES, BY MEDIA TYPE

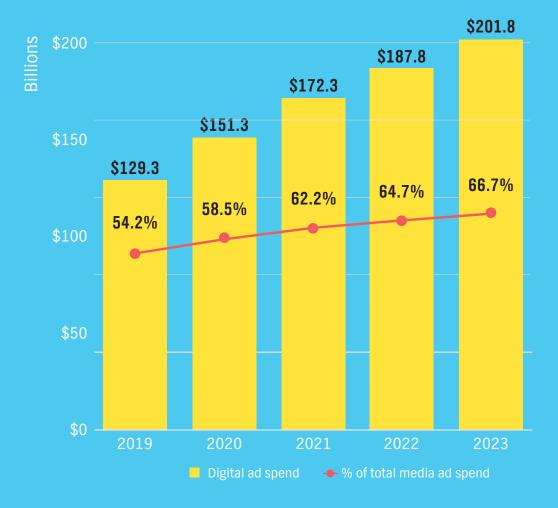
Digital media will continue to drive a significant amount of advertising growth in 2020. The Summer Olympics and US Presidential elections in 2020 will bring incremental advertising revenue and drive local television spending.



Source: Magna Global

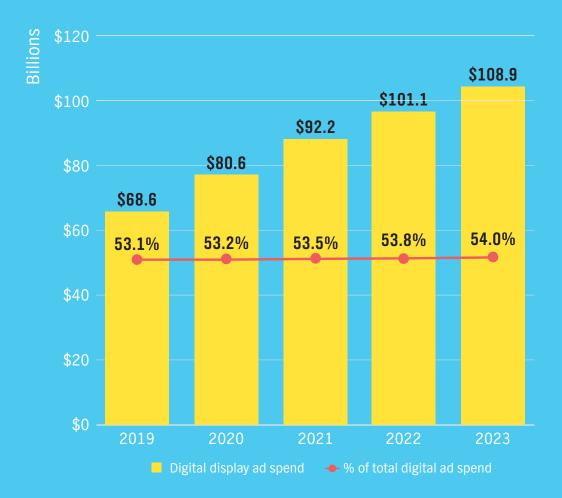
PROJECTED US DIGITAL AD SPEND

For the first time, US digital ad spending surpassed traditional media spending in 2019. Digital is projected to reach over two-thirds of total media spending by 2023.



PROJECTED US DIGITAL DISPLAY AD SPEND

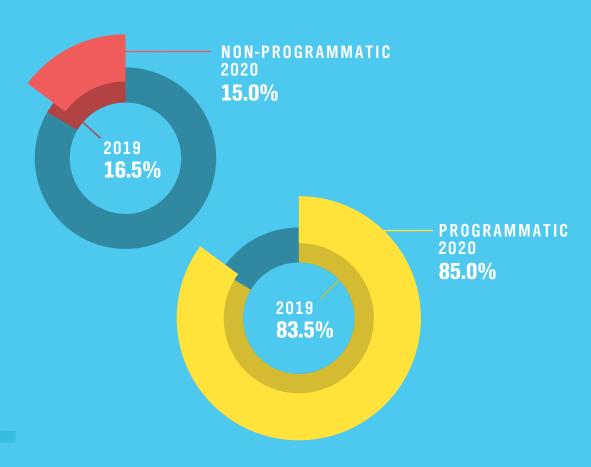
The share of digital spend allocated to display advertising is expected to remain flat over the next four years. However, as digital advertising as a whole rises, display ad spend is projected to grow 59% between 2019 and 2023.



Source: eMarketer

PROJECTED SHARE OF US DIGITAL DISPLAY AD SPEND, BY PURCHASE METHOD

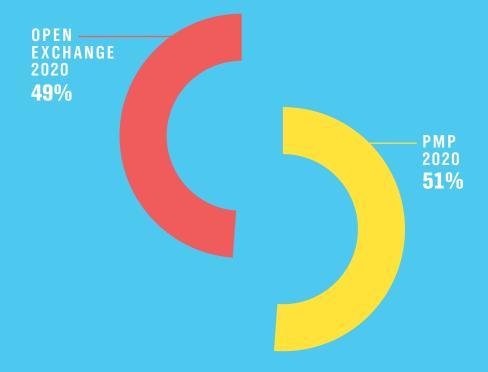
The benefits of automation drives nearly all digital display ads through programmatic advertising. Only a sliver of ad buys are sold directly and manually.



Source: eMarketer

PROJECTED SHARE OF US REAL-TIME BIDDING (RTB) AD SPENDING

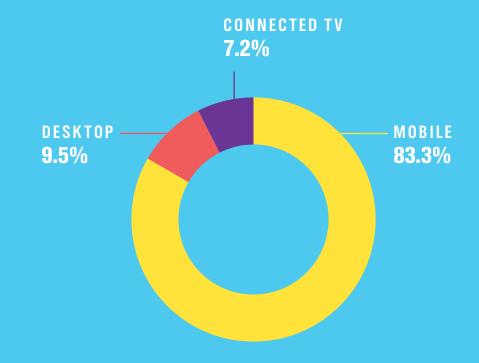
Thanks to continued brand safety and ad quality issues, buyers and sellers are directing more dollars to private marketplaces (PMP) in the US. Private marketplaces will overtake open exchange ad spending for the first time in 2020.



Source: eMarkete

PROJECTED SHARE OF US PROGRAMMATIC DIGITAL DISPLAY AD SPEND, BY DEVICE

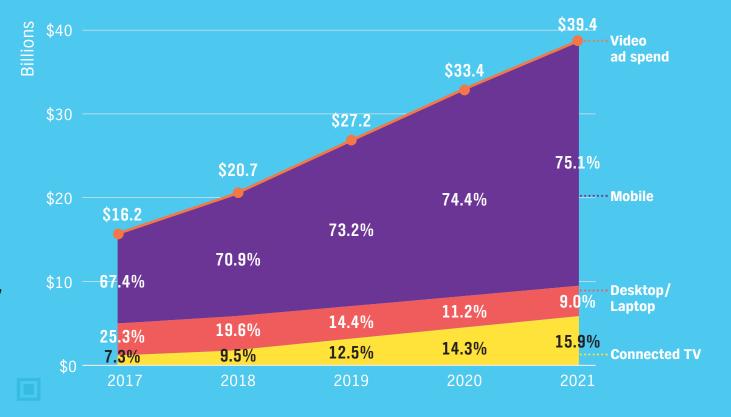
Mobile ad spending will represent the majority of programmatic transactions in the US come 2020. While the share of desktop ad spending declines, connected TV is expected to grow and capture almost 7% of the market.



Source: eMarketer

US PROGRAMMATIC VIDEO AD SPENDING, BY DEVICE

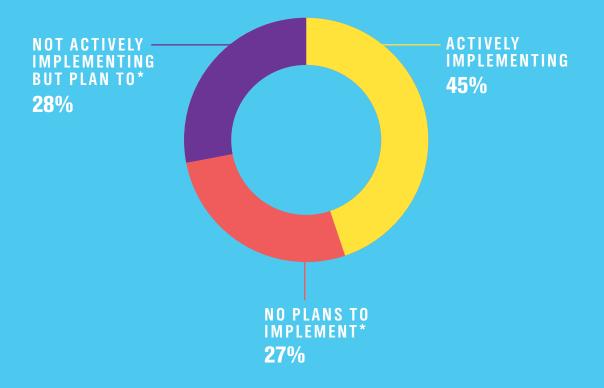
Half of all programmatic ad dollars in the US will come from video by 2021, with mobile accounting for three-quarters of the spending.



Source: eMarketer

BUYERS' SUPPLY PATH OPTIMIZATION PLANS IN 2020

Transparency and efficiency have now become key considerations for marketers. Most US buyers are either actively implementing supply path optimization (SPO) or planning to start within the next year.



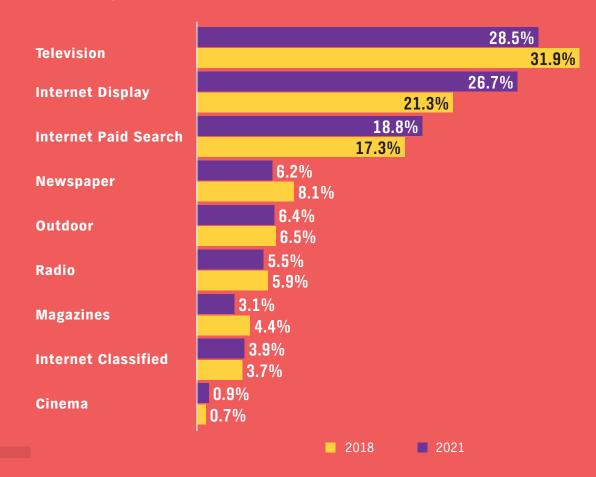
Source: Digiday/PubMatic

within the next 12 months



PROJECTED TOTAL MEDIA AD SPENDING SHARE WORLDWIDE, BY MEDIA, 2018 AND 2021

Digital display ads, including video, is the fastest growing ad format. It will account for over a quarter of total media ad spending in 2021, up from a fifth in 2018. Digital as a whole will contribute to half of total media ad spending worldwide.



Source: Zenith

PROJECTED WORLDWIDE DIGITAL AD SPEND

Global digital ad spend growth rates remain strong. By 2020, digital advertising will represent that majority of total media ad spend worldwide



Source: eMarketer

TOP 5 DIGITAL AD SPEND MARKETS WORLDWIDE

\$ billions and % YOY change

Digital ad spending in China and the US are expected to grow faster than the global average of 16% between 2019 and 2020—expanding their lead as the largest ad markets in the world.



 $_{\odot}$ 2019 PUBMATIC, INC. ALL RIGHTS RESERVED 2020 GLOBAL DIGITAL AD TRENDS $\,/\,\,\,14$

MAJOR DIGITAL AD SPEND MARKETS WORLDWIDE

\$ billions and % YOY change

India is the fastest-growing digital advertising market in the world, followed by Russia. Both are home to large populations of increasingly digital and mobile users.

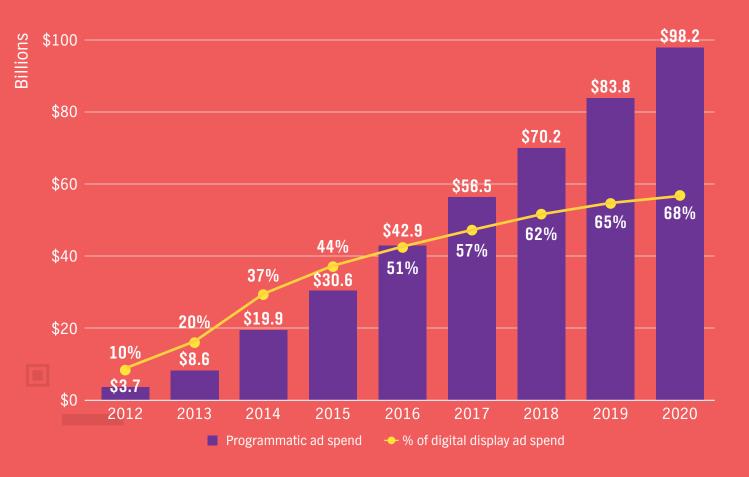


© 2018 PUBMATIC, INC. ALL RIGHTS RESERVED 2029 GLOBAL DIGITAL AD TRENDS $\,/\,\,\,1$

PROJECTED PROGRAMMATIC AD SPEND WORLDWIDE

\$ billions and % of digital display ad spend

Programmatic transactions will represent more than two-thirds of digital display ad spend around the globe in 2020.



Source: Zenith

TOP 5 PROGRAMMATIC* DIGITAL AD SPEND MARKETS WORLDWIDE

\$ billions and % YOY change

Double-digit YOY growth rates remain the norm among the largest programmatic advertising markets in the world. China (+19%), Japan (+18%) stand out, however, highlighting revenue growth opportunities for APAC publishers whom are prepared to offer ad inventory through automation next year.



 $^{\odot}$ 2018 PUBMATIC, INC. ALL RIGHTS RESERVED 2020 GLOBAL DIGITAL AD TRENDS / 17

MAJOR PROGRAMMATIC* DIGITAL AD SPEND MARKETS WORLDWIDE

\$ millions and % YOY change

Indonesia, India and Brazil will be the fastest-growing programmatic digital ad markets in 2020. Brazil will become the seventh largest programmatic market to reach a billion-dollar valuation next year.





PROJECTED MOBILE AD SPEND WORLDWIDE

Mobile advertising surpassed \$200 billion worldwide in 2019. It is expected reach \$400 billion by 2023, at which point mobile is projected to represent 80% of global digital ad spend.



TOP 5 MOBILE AD SPEND MARKETS WORLDWIDE

\$ billions and % YOY change

The top 5 markets account for 85% of the worldwide mobile ad spending. The US will expand most in absolute terms, adding more than half of the incremental spending between 2019 and 2020. China is expected to grow the fastest among the five largest mobile advertising markets.



© 2019 PUBMATIC, INC. ALL RIGHTS RESERVED 2020 GLOBAL DIGITAL AD TRENDS / 21

MAJOR MOBILE AD SPEND MARKETS WORLDWIDE

\$ billions and % YOY change

India and Thailand will see the fastest mobile advertising growth in 2020, with each market expected to rise over 40% year-over-year. Additionally, Denmark is projected to surpass \$1 billion in mobile ad spend for the first time in 2020, coming in at 19th largest market in the world.



2020 GLOBAL DIGITAL AD TRENDS / 22

MOBILE INTERNET USERS WORLDWIDE

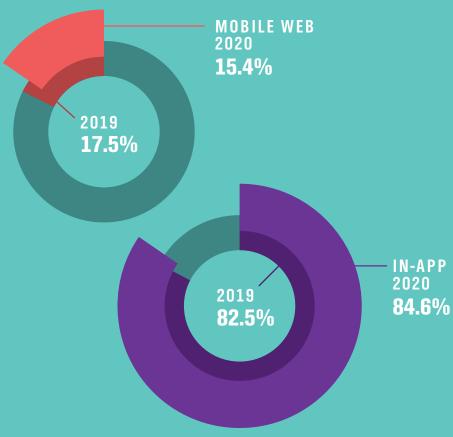
Mobile internet uptake has reached maturation among consumers, with over 85 percent of internet users accessing the it via handheld devices. This provides advertisers and publishers alike with a strong incentive to increase investment in mobile strategies.



Source: eMarketei

PROJECTED SHARE OF US MOBILE AD SPEND, BY PLATFORM

In-app continues to drive incremental mobile ad spend in US. Spending will surpass \$100 billion by 2020, with 85% of mobile ad dollars being purchased in-app. Similar estimates are not yet available worldwide, but growing app uptake among global consumers is likely to spur in-app ad spend around the globe next year. In Q3 2019 alone, nearly 31 billion apps were downloaded worldwide, up 10% year-over-year.

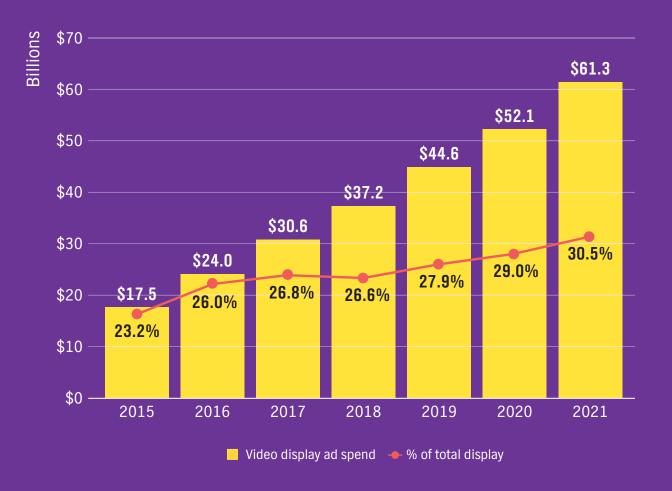


Source: eMarketer; AppAnnie



PROJECTED DIGITAL VIDEO AD SPEND WORLDWIDE

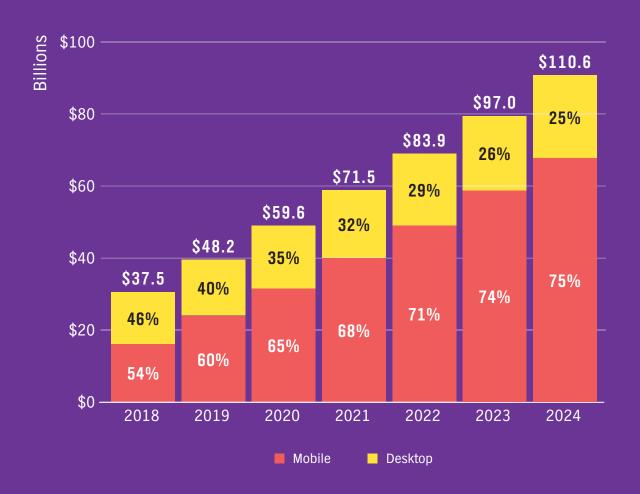
Video will remain a key driver of advertising expenditures on display, projected to account for 31% of overall display ad spending next year.



Source: Zenith: PubMatic calculations

PROJECTED DIGITAL VIDEO AD SPEND WORLDWIDE, BY PLATFORM

Two-thirds of all global video ad spend is purchased on a mobile device. The continued shift towards mobile dominance will push this share to three-quarters of all video ad spend by 2024.



Source: Cowen and Company; PubMatic calculations

DIGITAL VIDEO METRICS WORLDWIDE

Mobile has secured a stronghold in its share of global digital video ad spending and video viewership. While its continued growth is cannibalizing from desktop viewership, ad spending on desktop continues to grow.

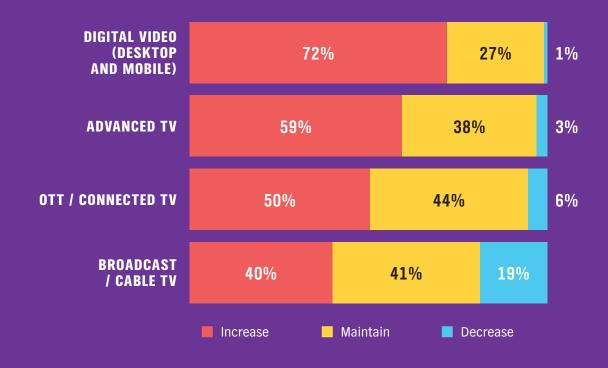
	DESKTOP		MOBILE	
	2019	2020	2019	2020
Video ad spend (\$ billions)	\$19.3	\$20.8	\$28.9	\$38.8
% YOY change	11%	8%	44%	34%
% share of digital video ad spend, by device	40%	35%	60%	65%
Viewership (billions)	0.47	0.49	2.2	2.3
% YOY change	-2%	-3%	9%	8%
% penetration of digital video viewers	12.4%	11.6%	56.4%	58.6%

Source: eMarketer, Cowen and Company; PubMatic calculations

DIGITAL VIDEO AD SPEND INTENT IN THE NEXT 12 MONTHS AMONG US AD BUYERS

% of Respondents, April 2019

Nearly three quarters of advertisers plan to increase their digital video ad budgets between 2019 and 2020. Only 1% of advertisers reported a decrease in their digital video ad spending.



Source: Interactive Advertising Bureau

IMPORTANCE OF A CROSS-PLATFORM VIDEO BUYING SOLUTION ACCORDING TO ADVERTISERS

% of Respondents, April 2019

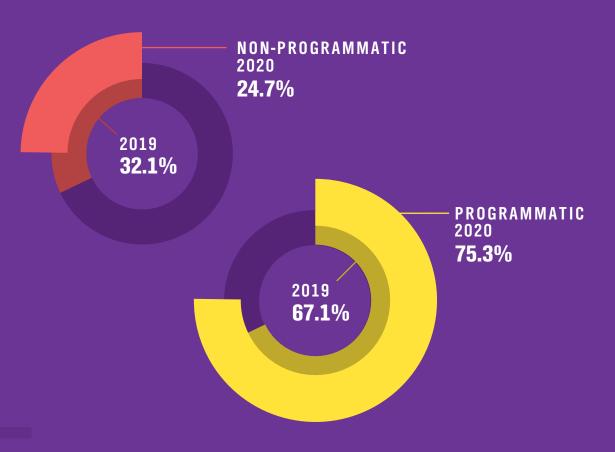
8 in 10 advertisers consider a cross-platform video (CTV, OTT, and digital video) buying solution to be important to them in 2019.



Source: Interactive Advertising Bureau

PROJECTED DIGITAL VIDEO AD SPEND SHARE WORLDWIDE, BY PURCHASE METHOD

Two-thirds of digital video ad spend outside the walled gardens of social media was transacted programmatically in 2019. The programmatic share worldwide should rise above 75% in 2020.

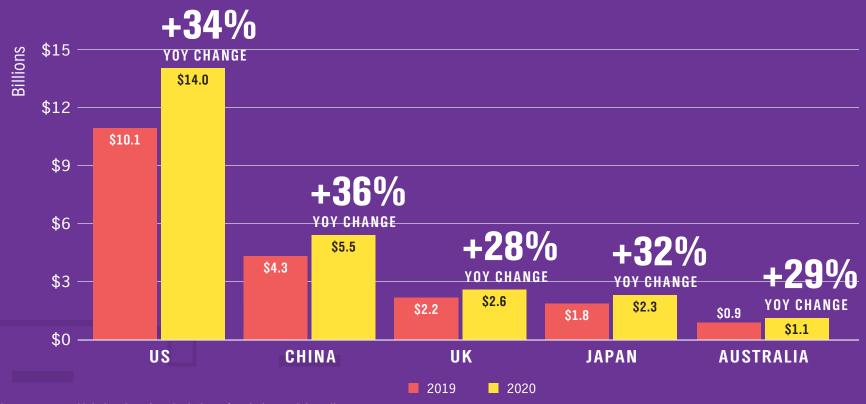


Source: PubMatic calculations based on Zenith and Magna Global estimates; *excludes search and social media

TOP 5 PROGRAMMATIC* VIDEO AD SPEND MARKETS WORLDWIDE

\$ billions and % YOY change

Programmatic video ad placements are accelerating worldwide, thanks to the rapid growth in automation technology. Large markets like the US are still seeing robust double-digit growth rates. China will be the fastest-growing market in this group, rising 36% to surpassing \$5 billions in 2020.

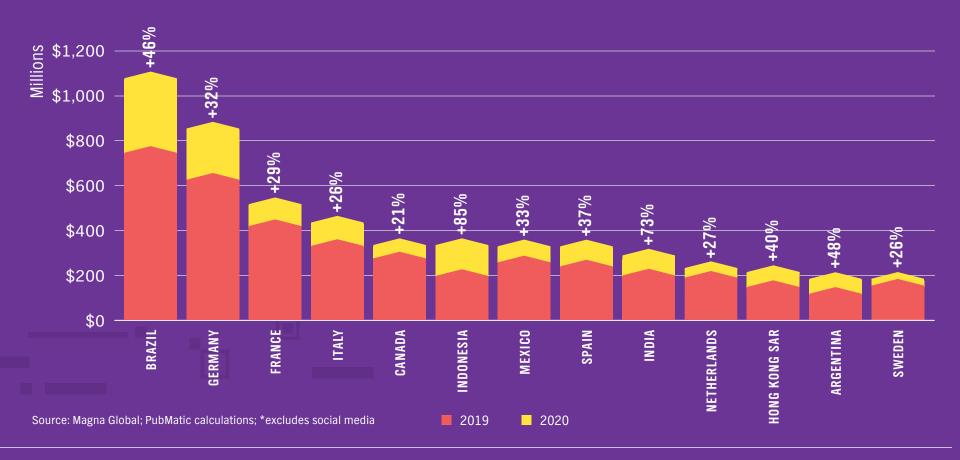


Source: Magna Global; PubMatic calculations; *excludes social media

MAJOR PROGRAMMATIC* VIDEO AD SPEND MARKETS WORLDWIDE

\$ millions and % YOY change

Indonesia will see programmatic video ad spend almost double in 2020, making it the fastest-growing market for the format in the world. Brazil will reach \$1 billion in 2020, making it the 6th largest programmatic video ad market in the world.





GLOBAL PROGRAMMATIC AD SPEND, BY TRANSACTION METHOD

\$ billions and % of programmatic ad spend

Global private marketplaces (PMPs) account for a third of all programmatic spending. As concerns for fraud and brand safety persist, ad budgets will increasingly swing into the safe shelters of restricted auctions.



Source: eMarketer; *excludes programmatic direct

PROJECTED US PRIVATE MARKETPLACE DIGITAL DISPLAY AD SPEND

US private marketplaces (PMPs) will be the dominant transaction method in 2020. It will grow at double digit rates through 2021 as buyers and sellers of digital impressions seek more control over their transactions.



Source: eMarketer

PROJECTED US PRIVATE MARKETPLACE AD SPENDING, BY DEVICE

Mobile will account for two-thirds of all US PMP ad spending by 2020. However, it will continue to trail the share the device achieves of overall programmatic ad spend.

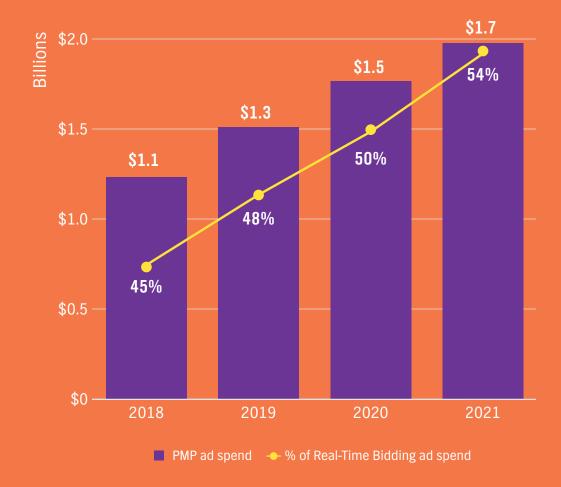


Source: eMarketer; *excludes programmatic direct

© 2019 PUBMATIC, INC. ALL RIGHTS RESERVED 2020 GLOBAL DIGITAL AD TRENDS / 3

PROJECTED UK PRIVATE MARKETPLACE DIGITAL DISPLAY AD SPEND

UK private marketplaces (PMPs) will reach half of all real-time ad buys in 2020. It will grow at double digit rates through 2021 as buyers and sellers seek more control over their transactions.



Source: eMarketer

PROJECTED UK PRIVATE MARKETPLACE AD SPENDING, BY DEVICE

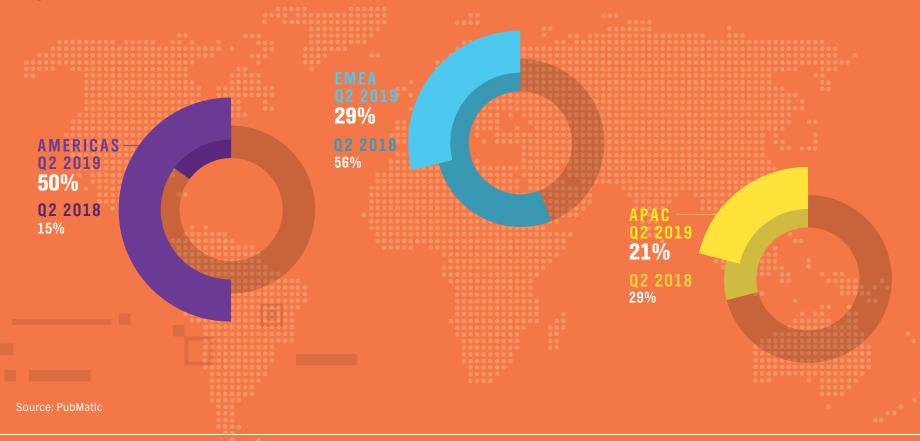
Mobile will almost reach three-quarters of all PMP ad spending in 2020, ahead of the US market.



Source: eMarketer; *excludes programmatic direct

MONETIZED MOBILE PRIVATE MARKETPLACE MARKET SHARE, BY REGION

Globally, the expansion of mobile private marketplace volume has been fueled by the Americas region; its share accounts for half of all worldwide mobile PMP ad impressions.



© 2019 PUBMATIC, INC. ALL RIGHTS RESERVED 2020 GLOBAL DIGITAL AD TRENDS / 4(

About PubMatic

PubMatic is a digital advertising technology company for premium content creators. The PubMatic platform empowers independent app developers and publishers to control and maximize their digital advertising businesses. PubMatic's publisher-centric approach enables advertisers to maximize ROI by reaching and engaging their target audiences in brand-safe, premium environments across ad formats anddevices. Since 2006, PubMatic has created

an efficient, global infrastructure and remains at the forefront of programmatic innovation. Headquartered in Redwood City, California, PubMatic operates 13 offices and six data centers worldwide.

PubMatic is a registered trademark of PubMatic, Inc. Other trademarks are the property of their respective owners.

PUBMATIC CONTACT

Research Contact:

Press Contact:

SUSAN WU

NORTH 6TH AGENCY

Director, Marketing Research susan.wu@pubmatic.com

pubmatic@N6A.com

Sales Contacts:

JEFFREY HIRSCH

Chief Commercial Officer jeffrey.hirsch@pubmatic.com

EMMA NEWMAN

Chief Revenue Officer, EMEA emma.newman@pubmatic.com

JASON BARNES

Chief Revenue Officer, APAC jason.barnes@pubmatic.com

JAAN JANES

VP, Customer Success, US jaan.janes@pubmatic.com

KYLE DOZEMAN

VP, Advertiser Solutions, US kyle.dozeman@pubmatic.com

