



Buyside Deep Dive

for Suresh

Part 1: 19 March 2018 (Suresh in Kirkland)
Part 2: 28 March 2018 (Suresh in New York)
Part 3: 29 March 2018 (Suresh in New York)

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19 March → **Part 1**

Topic	Time	Presenters
Introduction: Product Portfolio, Team Structure	20 min	Payam, Max, Vlad
Business Overview: Ecosystem, Revenue	60 min	Tobias, Roshan
Product Demo: DBM	40 min	Roshan, Karin

28 March → **Part 2**

Topic	Time	Presenters
Product Demo: DCM Product Strategy: 2018 Strategy Overview, DV360	60 min	Luke, Karin, Deepti

29 March → **Part 3**

Topic	Time	Presenters
Product Strategy: Pivot to Video, Other Bets	120 min	Deepti, Glenn, Luke

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Product Portfolio and Overarching Strategy

Payam | 10 min

Google

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Product Portfolio for Buyside Team

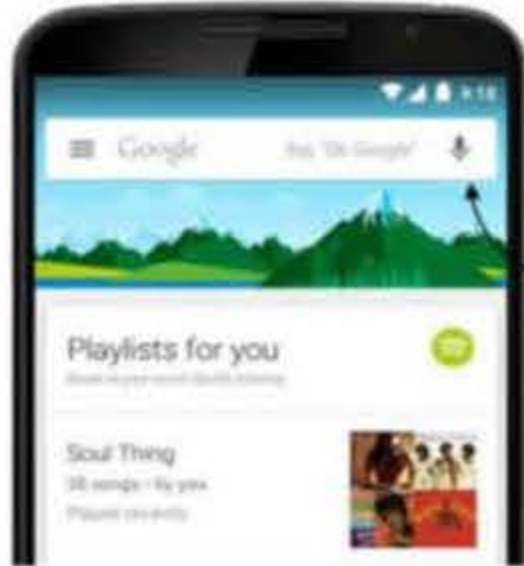


Google

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Overarching Buyside Strategy: Be the Decision Engine

Android: Be the leading mobile OS



How?

Open source | Free | Broad ecosystem support

Drive
O&O
traffic

DV3: Be the leading OS for large marketers



Drive O&O
& network
spend

How?

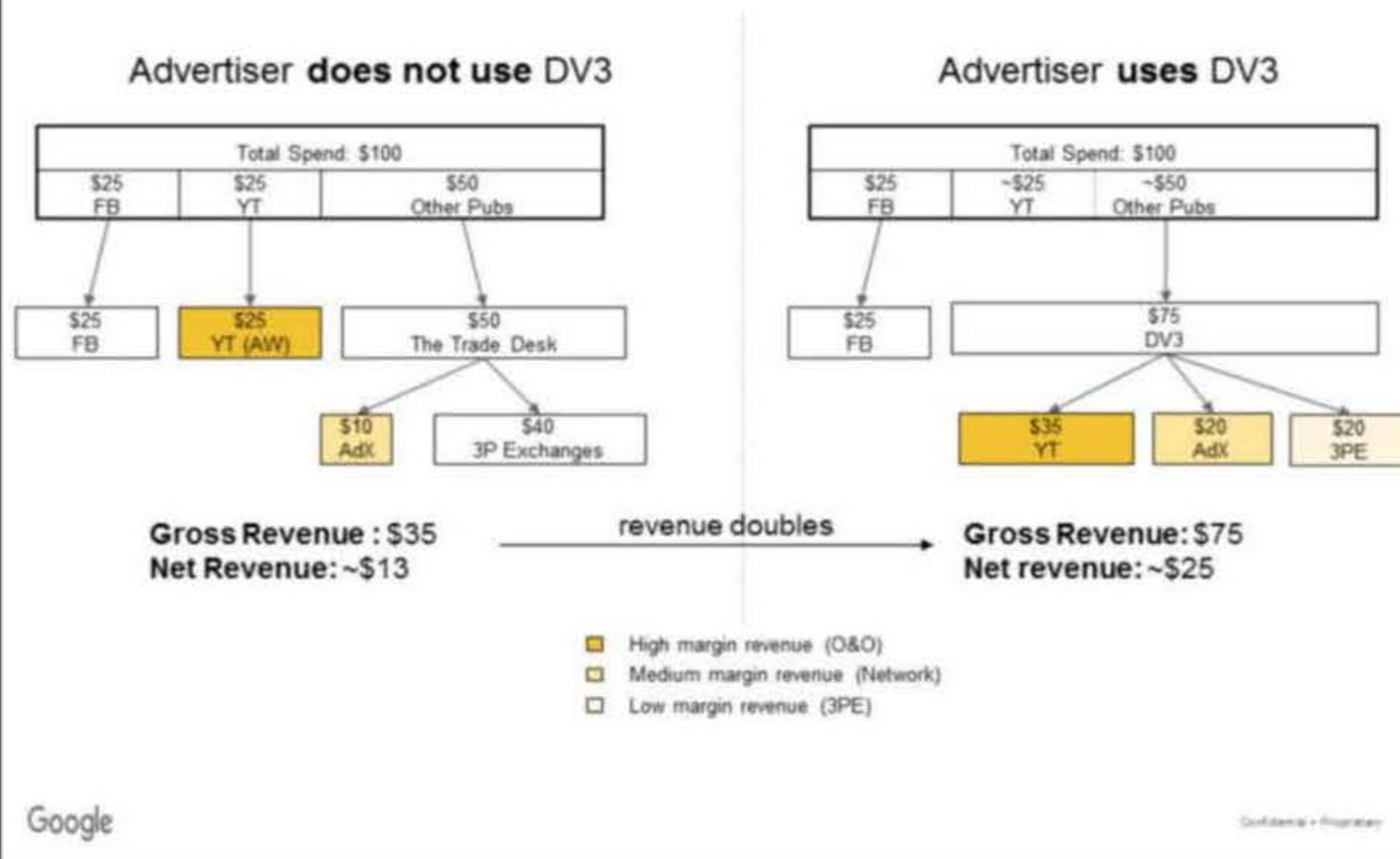
Choice | Channel consolidation |
Source of truth | Superior ROI

} DV3
becomes
decision
engine

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Let's take a look at how this strategy plays out in practice



Team Structure

Payam, Max, Vlad | 10 min

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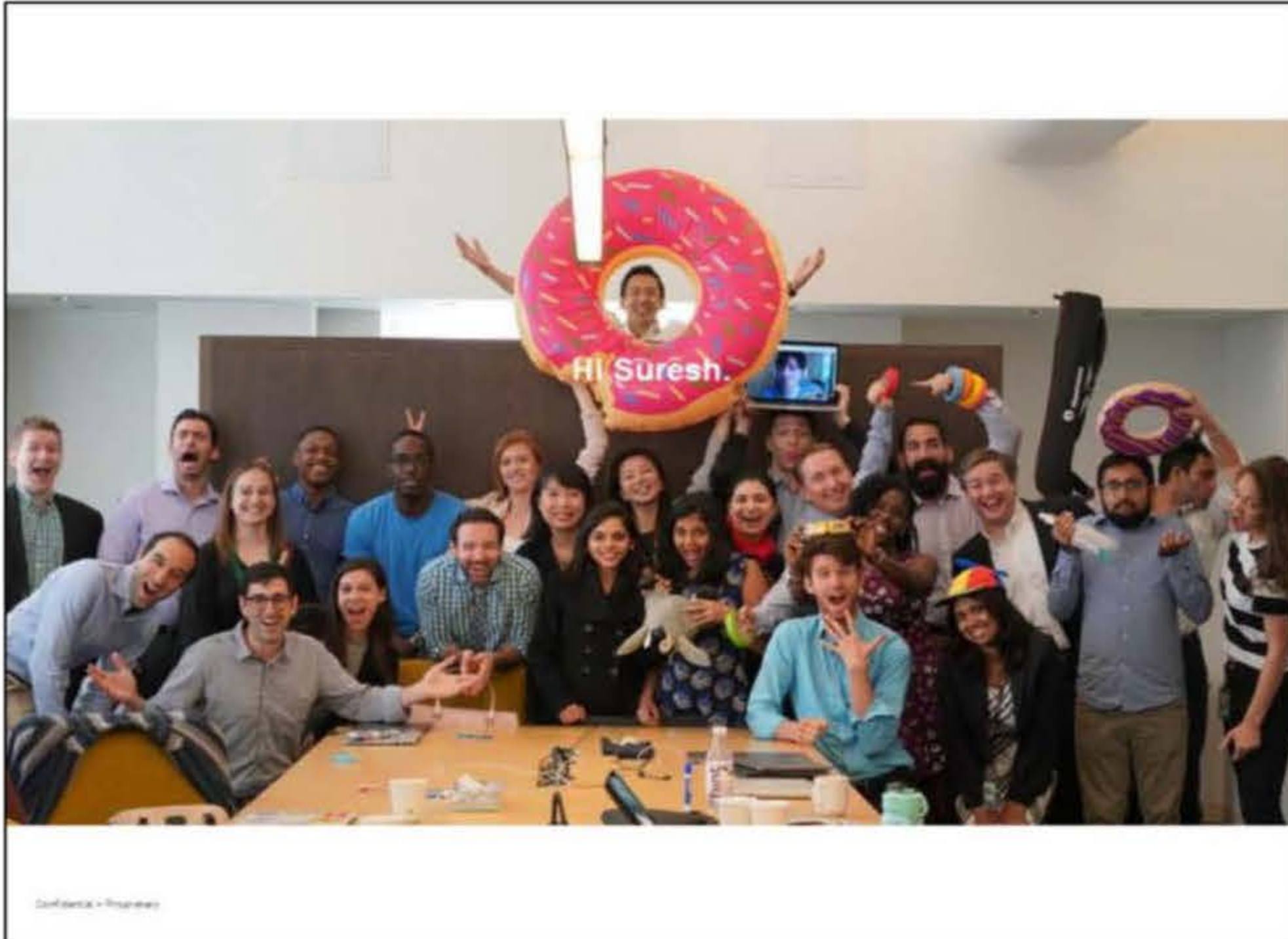
Undated archival photograph, restored.



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When we bought Invite Media in 2010, we had revenues of \$20M/year. Our revenue has since grown 300x to \$6B/year. While our PM team has only grown 6-fold.



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Product Team: 30 PMs, 6 pods across 3 sites (NYC, KIR, MTV)

Pod leads

Karin



1. Creative & Cronut

Deepti



2. Buying (Video & Mobile)

Roshan



3. Deals, Audience & Planning

Luke



4. Actionable Insights

Glenn



5. YouTube and Video Network

Tobias



6. Inventory Access & Quality

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Engineering Team: ~280 engineers across KIR and NYC

KIR team: DBM, Audience Center. ~140 eng



Vivek

	Fang FE, 41 eng. FE infra, deals, API integrations		Ganesh Brand, 25 eng. Custom bidding, forecasting, experiments, lift.
	David BE, 24 eng. Serving support for features, inventory quality, programmatic TV		Alek TrueView and Planning, 22 eng. TrueView, Audio Ads, Planning
	Felix Reporting, 12 eng. Data processing business logic and billing. Infra is being consolidated on top of common infra.		Chris Audience Center, 13 eng. DAC, Audience Module in DV360

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Engineering Team

NYC team: DCM, Studio, DBM creatives and reporting. ~140 eng



Vlad

	Niranjana DCM, 53 eng. DCM, Cronut, Creatives management for DCM/DBM		Steve Brand, 12 eng. Reporting infra (Warp)
	Ranajeet Studio, Formats, 34 eng.		Franky Verification, 15 eng.
	Yuval Reporting, 24 eng. Infra, DCM reporting, DBM reporting FE and DT		

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Ecosystem

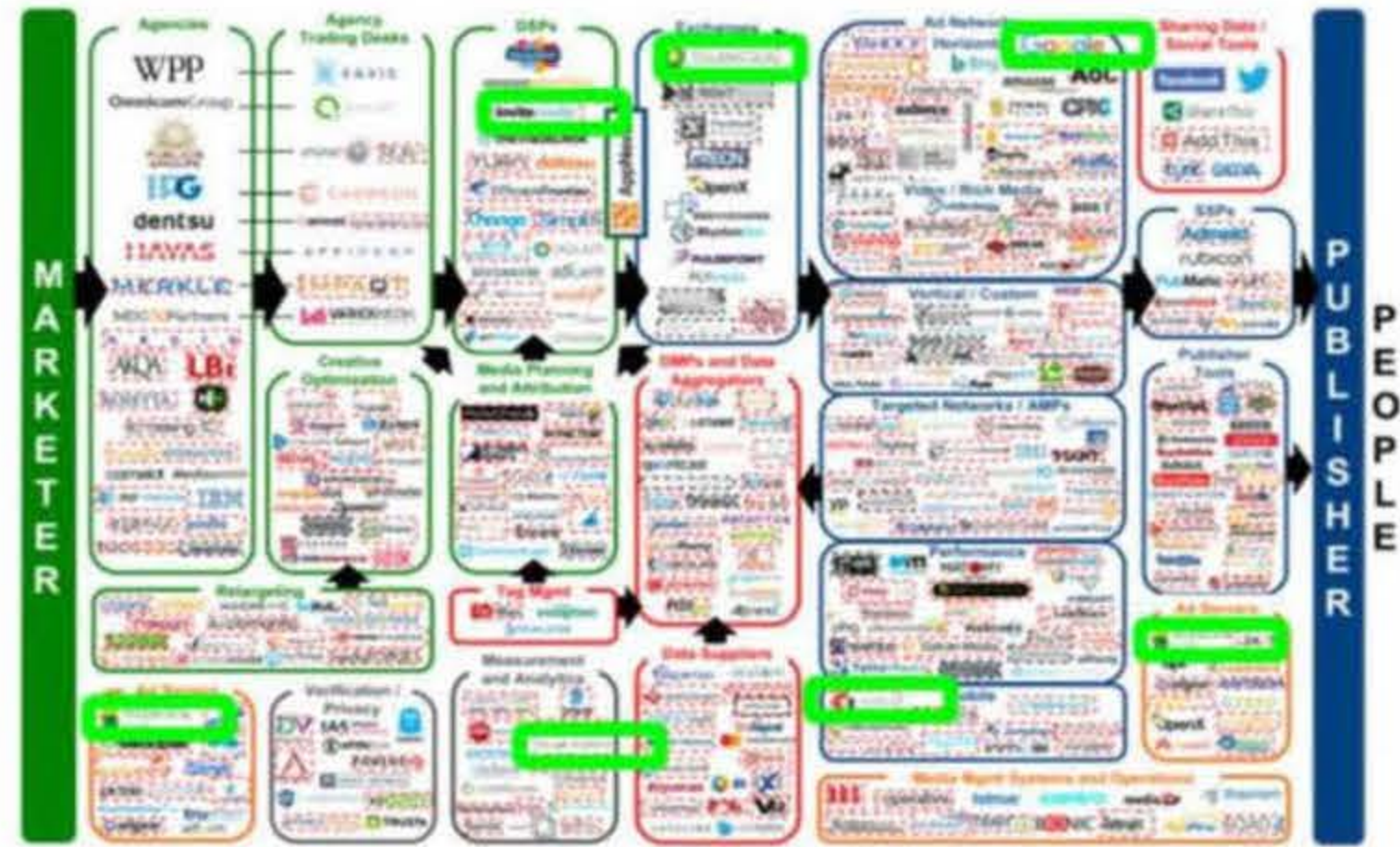
Tobias | 40 mins

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We are operating in a complex and highly inefficient ecosystem.

Google products in green.



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Market Dynamics on Demand Side

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1. Turn - acquired by Amobee, a singtel company. Not a strong competitor. Mostly display.
2. MediaMath - Still a commonly known DSP business, but not known to be strong. Independent.
3. Appnexus - Runs a sell side business and a large exchange. Rumored to be shutting down buy-side platform
4. Adobe® Media Optimizer - Acquired tech, part of Adobe's marketing cloud.
5. DataXu - Small DSP, not known for strength. Mostly display.
6. Rocket Fuel - Had a very rocky public market run, recently was acquired by a large DCM competitor to pursue a 'cronut' strategy.
7. Triggitt - Out of business.
8. Tubemogul (Adobe) - large and highly competitive video DSP. Acquired by Adobe recently. Strong video competitor.
9. Adap.tv (AOL Video) - Video DSP, acquired by AOL, now part of 'OATH' buy-side stack.
10. Videology - Independent Video DSP
11. Criteo - Competitive performance ad network.

12. AdLearn Open Platform by AOL - Display focused DSP that is now part of the combined AOL/YAHOO business, OATH.
13. YAM+ (Yahoo) - see above.
14. The Trade Desk - Probably the most fast growing / aggressive competitor to DBM, focuses on all formats
15. Appendix competitive mega company bubbles Slide 107: Competitive Landscape



- \$308.2M revenue at 16.4% margin in 2017 (52% YoY), 403M 2018 goal
- Platform manages total of 1.55bn spend (51% YoY), 2.1bn 2018 goal
- 657 active customers

Focus on:

- Growing omni-channel (reporting >100% growth in audio, connected TV, mobile video, native)
- Global expansion, especially in China.
- Building an industry-wide identity footprint, amassing publishers, ad exchanges, and SSPs.
- Increase the company's data offering, which remains a large untapped opportunity.
- Building the tools to revolutionize media, planning and buying.

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<https://seekingalpha.com/article/4152132-trade-desk-moving-world>
<http://investors.thetradedesk.com/phoenix.zhtml?c=254422&p=irol-newsArticle&ID=2334119>
and 42% in Q4 (\$102.6M).



"Amazon's advertising business could reach \$5 billion in revenue in 2018"

BUSINESS INSIDER

- Second largest DSP, overall ads revenue expected to grow 4-5x to \$7bn in 2020 [B]
- **Quality intent data.** "FB knows who you are, GOOG knows what you search, AMZN knows what you buy"
- Header bidding has made it easier for them to tap into large amounts of publisher inventory

Focus on:

Lifestyle segments

Reflects broad interest groups such as

- "Recent Movers"
- "Home Owners"
- Upper Funnel Awareness



In-market segments

Customers searching or browsing for certain kinds of products

- "Bedding"
- "Comforters"
- Mid-funnel Consideration



Retargeting segments

Amazon shoppers that have viewed but not purchased your products

- ASIN Retargeting
- Pixel Retargeting
- Bottom Funnel Conversion



(ASIN = Amazon Standard Identification Number); essentially product ID as defined by AMZN

The narrative that will resonate with marketers is that FB knows who you are, Google knows what you search for and Amazon knows what you buy. Amazon's pitch is focused on the quality of their rich shopping intent data which is reflected on their mid to lower funnel targeting products created using this data. Some examples are lifestyle segments like "recently moved", "bought a house" or in-market segments like "I want to buy a playmat for my 6 month old" or "car parts" (data collected from Amazon Garage) or retargeting which uniquely positions them to bring users back to purchase on their site allowing them to close the shopping loop.

Market Dynamics on Supply Side

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50+ Exchanges with direct agreement

50+ Sub-exchanges via Bidswitch and other aggregators

Many of these are struggling, no real unique position in the market, actually buying/selling amongst each other - for example Rubicon.

\$155.5M revenue at 18.5% margin in 2017 (-44.1% YoY, margin dropped from 25%)

Focus on:

Eliminated 100 positions in 2017, \$20M reduction of capital expenditures, expects to EBITA positive in Q4, 2018

Eliminated buyer fees (DBM was impacted by this)

Revamped auction to be first price as default

Exchanges and SSPs: margin compression as header bidding makes yield management ineffective, buyers are smarter



slashed take rate in half over 2017



reduced their take rate even further (8.5%)



~50% of their inventory comes from exchange bidding

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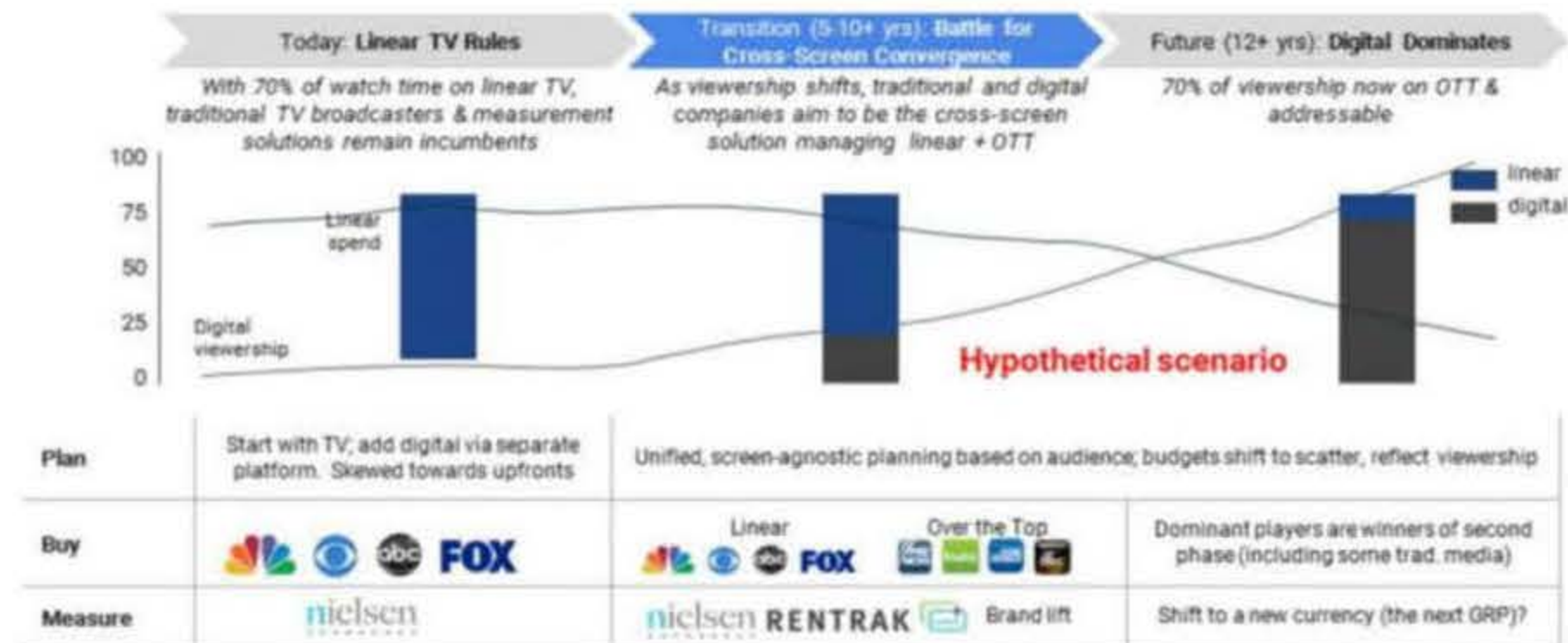


Cookieless isn't only Mobile and logged in...

"Platform to be developed in collaboration with NBCUniversal, Disney, Altice USA, Channel 4, Cox Communications, Mediaset Italia and TF1 Group. **The partnership is aimed at better ad planning, targeting, execution and measurement across screens.**"

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Linear TV & Digital Video will coexist for next 5-10+ years

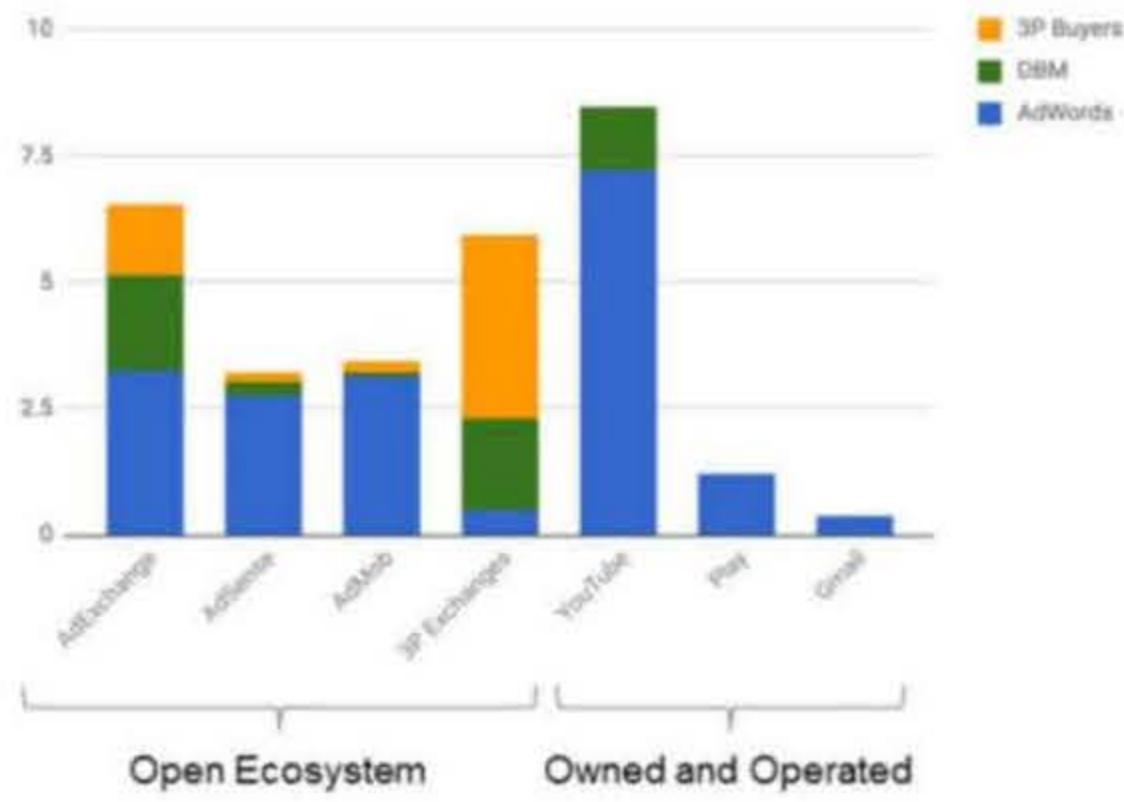


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- Slow transition -- linear will still be important for next 5-10 years (and longer in many markets) → importance of cross screen planning and buying
- To plan for the future, need to better support OTT -- and especially connected TV. When we talk about app strategy, we usually are just thinking of mobile app. But apps on cTV gaining traction, and even more complex than solving for mobile (more device types; HH level instead of individual)

DBM estimated to be largest DSP accounting for 1/3 of 3P Exchange spend



	AdWords	DBM	3P Buyers
AdExchange	\$3,268	\$1,864	\$1,404
AdSense	\$2,748	\$276	\$204
AdMob	\$3,120	\$112	\$216
3P Exchanges	\$508	\$1,808	\$3,616
YouTube	\$7,204	\$1,248	\$0
Play	\$1,204	\$0	\$0
Gmail	\$368	\$0	\$0

Estimates based on 4 x Q1 revenue, 3P buyers on 3P exchanges estimated as 2 x DBM revenue

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Risks



Inventory quality*

Invalid traffic attacks on the rise / no ground truth / don't have best defenses yet / confidence and trust eroding in ecosystem



Inventory access*

Exchanges becoming less relevant / Walled gardens growing / Increasing share of app attention controlled by FB / premium video inventory accessible through subscriptions only



Erosion of identity on the open web*

ITP / EU restrictions / long-term role of 3P exchanges / Goog vs FB identity / "open" identity platforms / partners moving to fingerprinting or going under / Impending de-cert / push for ADH on Google side / Failure of FB negotiations



Sustainable profitability*

Protecting rate card / shifting spend to more profitable media / shifting reservations to programmatic / strategic role of buy-side



Amazon threat (already covered)

Amazon putting pressure on Retail/CPG business / entering DSP space / getting first-look access to inventory through HB



Brand safety spillover*

Masa / FB brand safety issues / impact greatest on video

* will be covered in more details

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Inventory access

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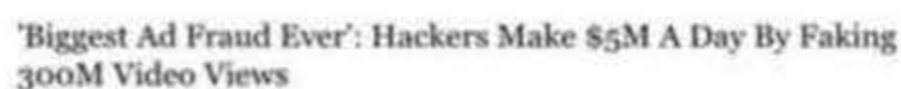
Amazon threat

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/ getting first-look access to inventory through HB

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Google Issuing Refunds to Advertisers Over Fake Traffic, Plans New Safeguard

Some physicians caution against all use, such as before driving or taking other drugs.

Russian Hackers Stole Millions From Video Advertisers, Ad Fraud Company Says

© 2004 Blackwell Publishing Ltd *Journal of Internal Medicine* 255: 103–110

Domain Spoofing Be Gone: Ads.Txt Will Filter Out Imposter Sites

White Ops reports biggest ad fraud botnet found yet: 'Methbot' targeting high-CPM video inventory

The botnet has been siphoning an estimated \$3 to \$5 million in ad revenue per day, making it the largest ad fraud scam uncovered to date.

UBER SUES DENTSU'S FETCH MEDIA FOR FRAUD

Adobe says it will help advertisers and publishers find out if they are getting ripped off by ad tech companies

Healthcare Management

Big brands fund terror through online adverts

Hirschfeld names unwittingly gay extremists and pornographers.



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Contributors & Reviewers

Two major botnet attacks in 2017 led to major cleanup effort across Google and Industry



Chefbot

- large, sophisticated botnet attack
- botnet was discovered by **White Ops** (third party)
- Nissan impacted w/ \$5.7M spend in Q2 alone.

Blackout experiments

- Showed that large amount of inventory continues to transact even when publisher ad server is shut off



What we did

- We proactively refunded ~\$32M net revenue impacted in 2017 (Q2 + Q3)
- Negotiated with all exchanges to have 30 day refund terms; limited default buying to exchanges w/ refund terms
- Initiated major internal effort to align spam crediting/debiting system (ongoing)
- [Externally communicated](#) what protections we offer
- Launched ads.txt and pushed as industry standard (>80% of DBM revenue covered)

2018

- Negotiating licensing deal w/ White Ops
- Investing in Supply chain optimization

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Header Bidding democratizes access to inventory - while walled gardens are inaccessible to Google



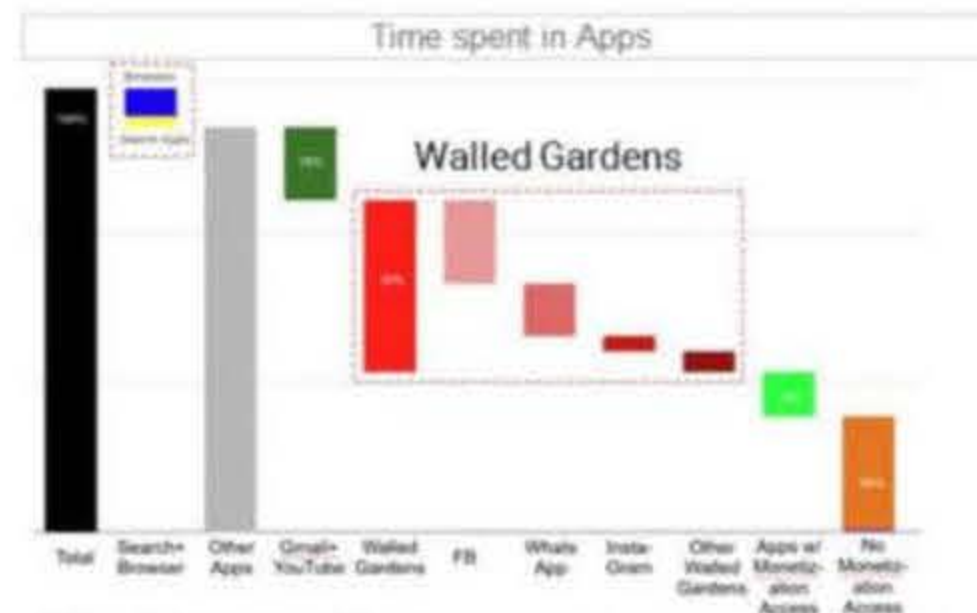
"Amazon pitches publishers a new header bidding wrapper."

DIGIDAY

"Facebook Is Finally Offering Header Bidding to Publishers on a Broader Scale"

ADWEEK

"AppNexus and Index Exchange Are The Header Bidding Leaders"

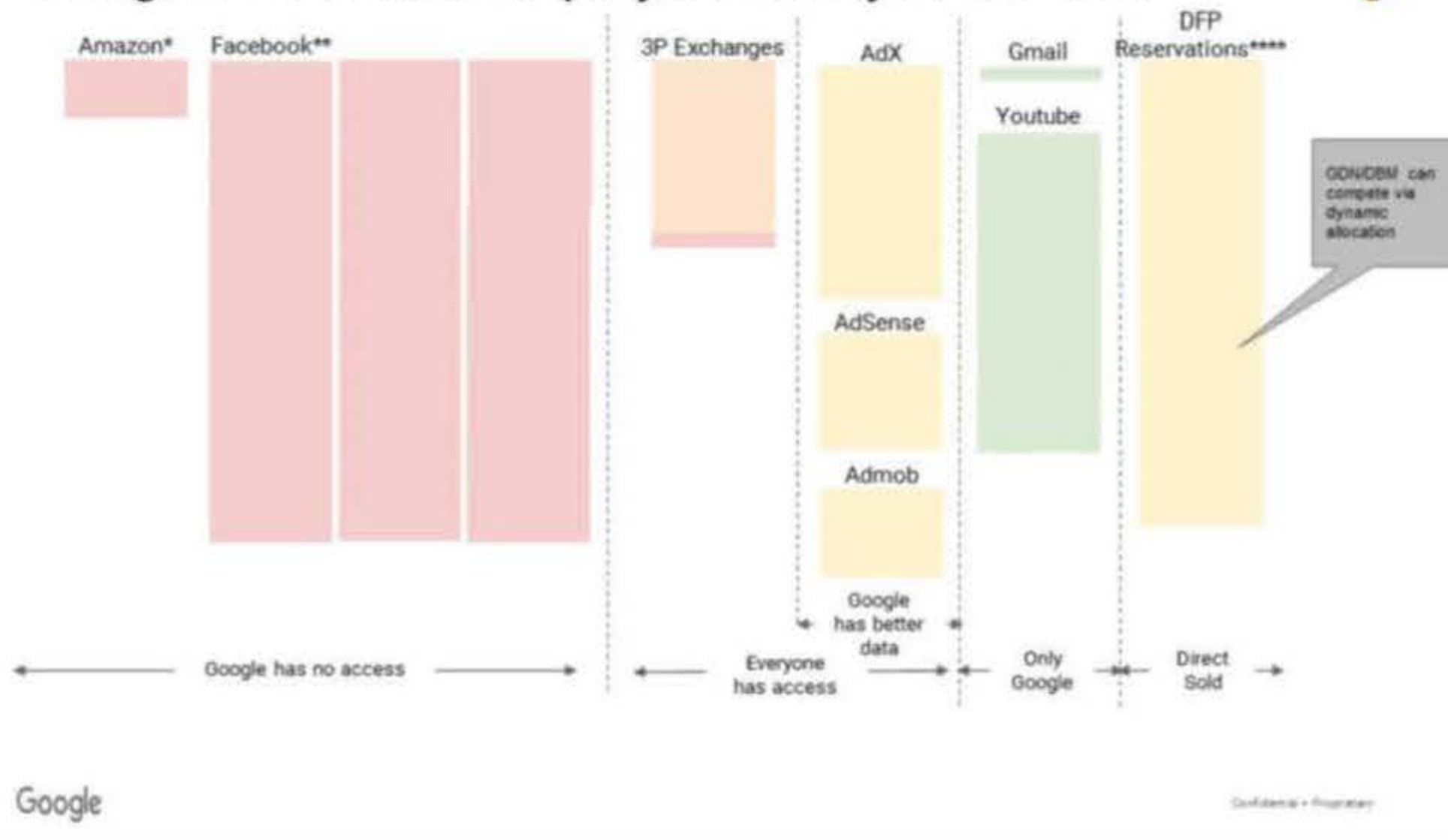


48% of US tracked GAIA do not open a browser on their mobile device in a given day. 20% don't open a browser over 3 weeks. Apps even more important to capture NBU opportunity.

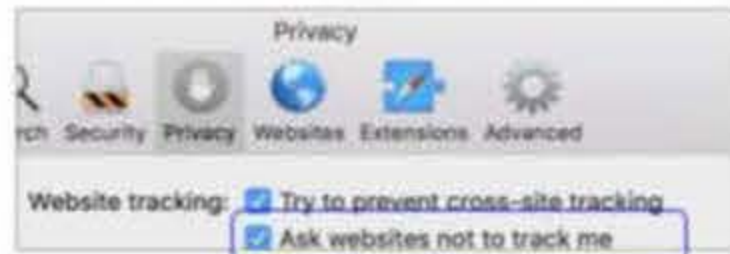
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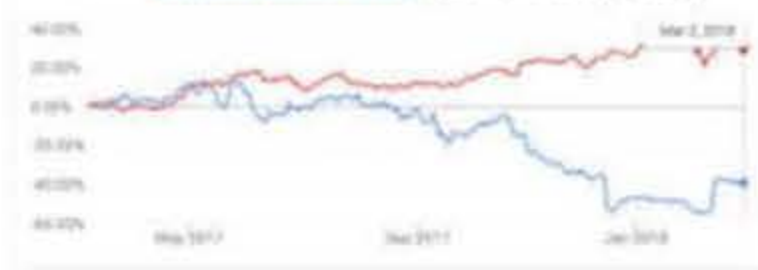
Google Accessible Display Inventory in Context



External factors, such as Safari ITP, EU restrictions contribute to erosion of identity on the open web w/ many players having to decide to comply, do full-on fingerprinting or go under



- Apple announced and launched within 3 months
- 10% queries impacted
- [Crteo stock fell](#) (27% 1-day loss)



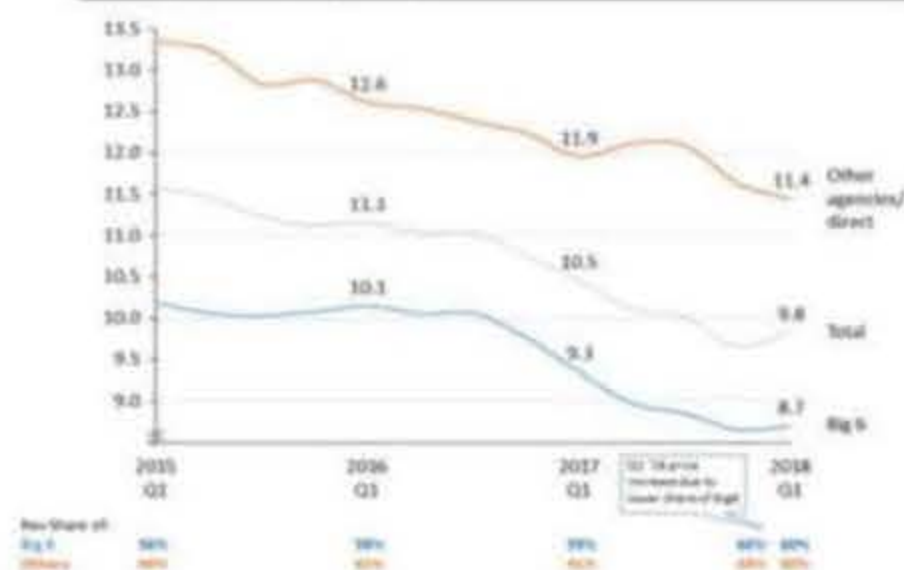
Google

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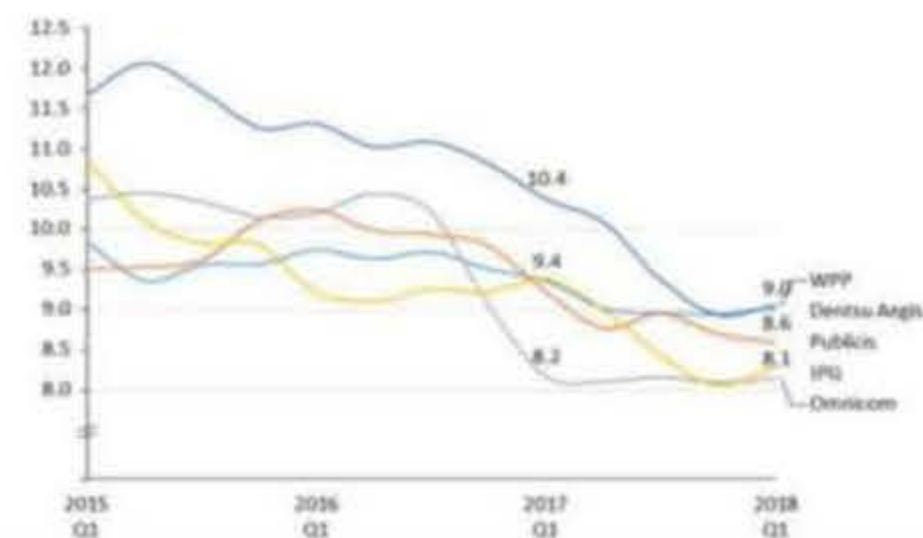
DBM Auction: Declining prices across the portfolio, not driven by any particular buyer segment



Auction prices are declining both for Big 6 and other buyers



All Holding companies pay now between 8%-9%



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Starting Q1 2017, Advertiser

18+

"Guardian pulls ads from Google after they were placed next to extremist material"

March 16th, 2017

The Guardian

"Taxpayers are funding extremism"

March 17th, 2017

THE TIMES

"Advertisers need to go back to basics to protect their brands from serious damage [...]"

March 17th, 2017

[Times Corp. Chief Executive Robert Thomson](#)

Advertisers and agencies purchase ads through Google to target people based on demographics and interests.



Source: Staff reports

Google

Display network

The Google Display Network and DoubleClick Ad Exchange hook up to vast pools of websites viewed by people who Google has determined meet the advertisers' criteria.

Ad exchange

YouTube

YouTube runs ads alongside a huge number of videos uploaded by users or media companies.

Websites

Problems arise when ads are placed on sites and pages advertisers don't want to be associated with.

... even though the sites' viewers match the profile of the advertiser's desired audience.

Problems also arise when these ads appear with undesirable videos.

THE WALL STREET JOURNAL

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Revenue

Roshan | 20 mins

Google

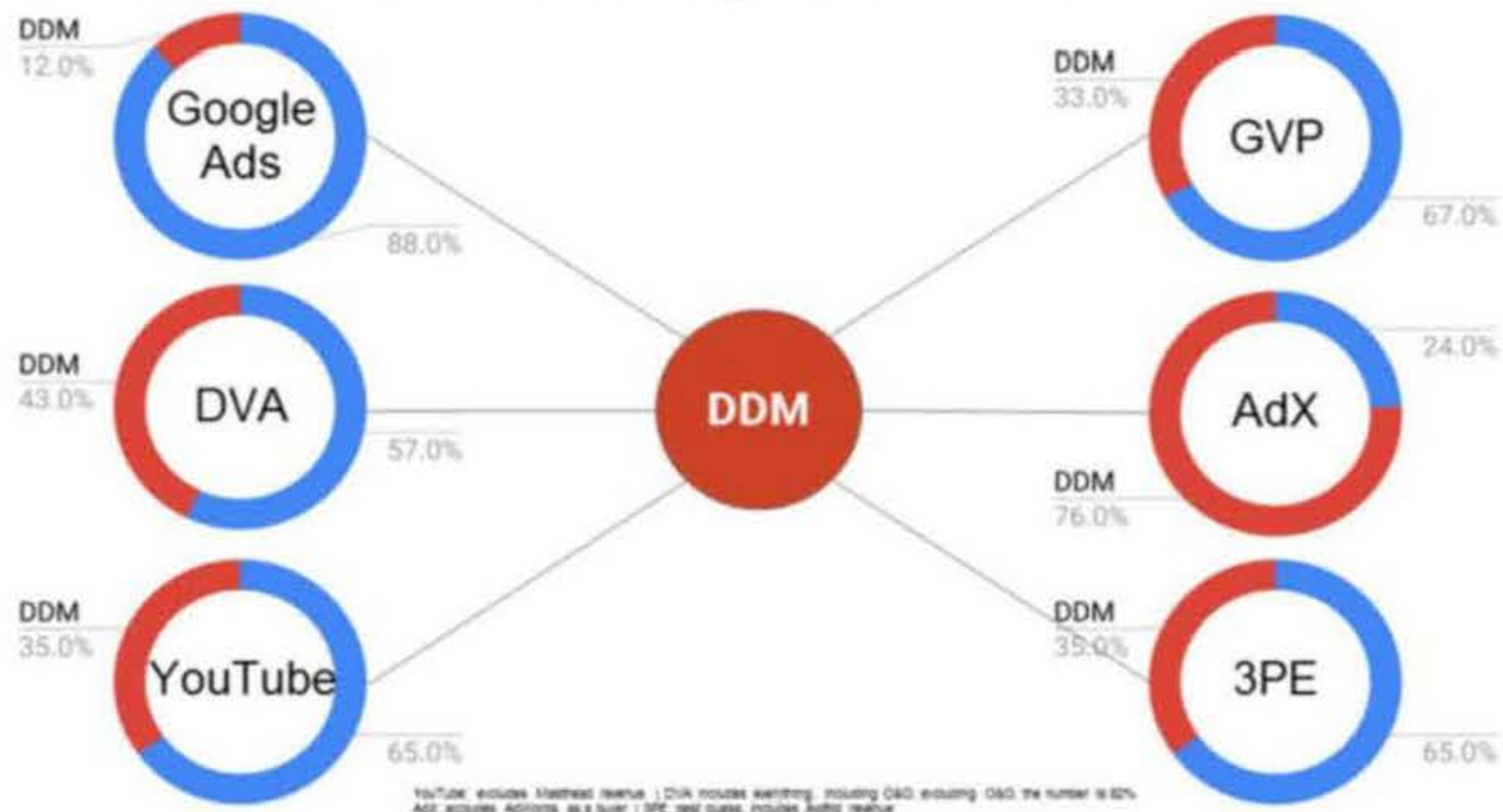
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Share of 2017 Revenue Growth coming from DBM + DCM



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DDM Revenue Overview

102% of Plan (\$5.4B, 52% YoY) in 2017

Product	2017 Plan	2017 EoY % Achievement	2017 Actual	
DBM Media	\$4,765M (53%)	102%	\$4,835M (55%)	% mediacost fee model
DBM Fees	\$563M (31%)	100%	\$563M (31%)	
DBM Total	\$5,328M (50%)	101%	\$5,399M (52%)	
DCM Fees	\$168M (-4%)	111%	\$187M (7%)	CPM fee model
DRM Fees	\$70M (-10%)	121%	\$84M (9%)	
DDM Total	\$5,565M (47%)	102%	\$5,670M (49%)	

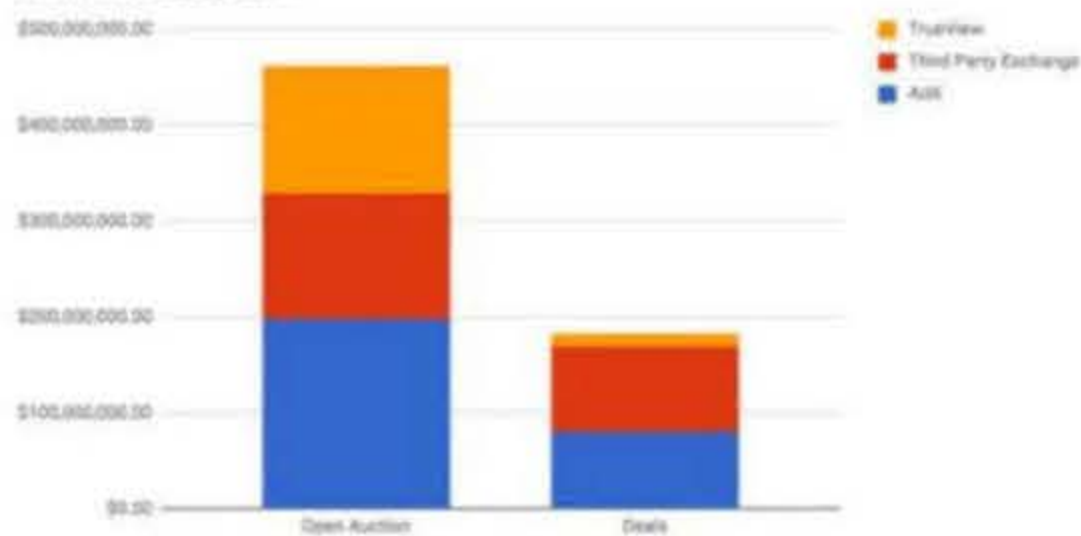
Google

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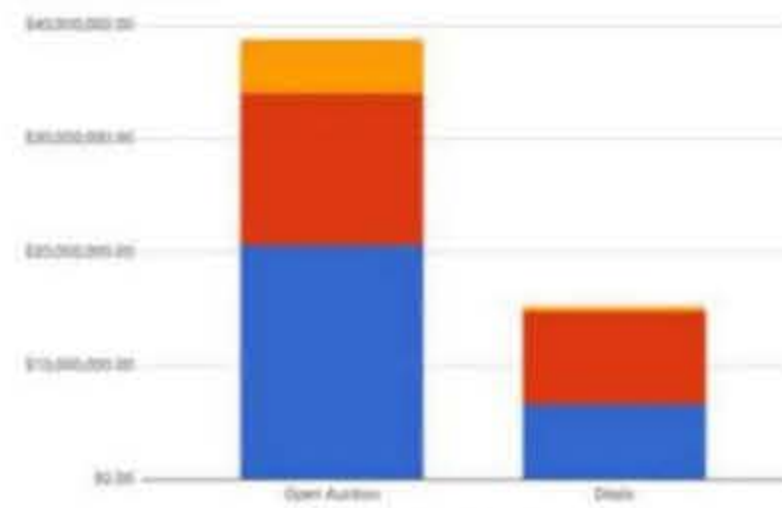
yes, strength was in video and tracking, even despite the served-to-downloaded launch, which was expected to have something like almost a -10% impact (growth more than made up for it)

DBM 2017; Deals were 28% of media cost and fees

DBM Mediacost 2017



DBM Fees 2017



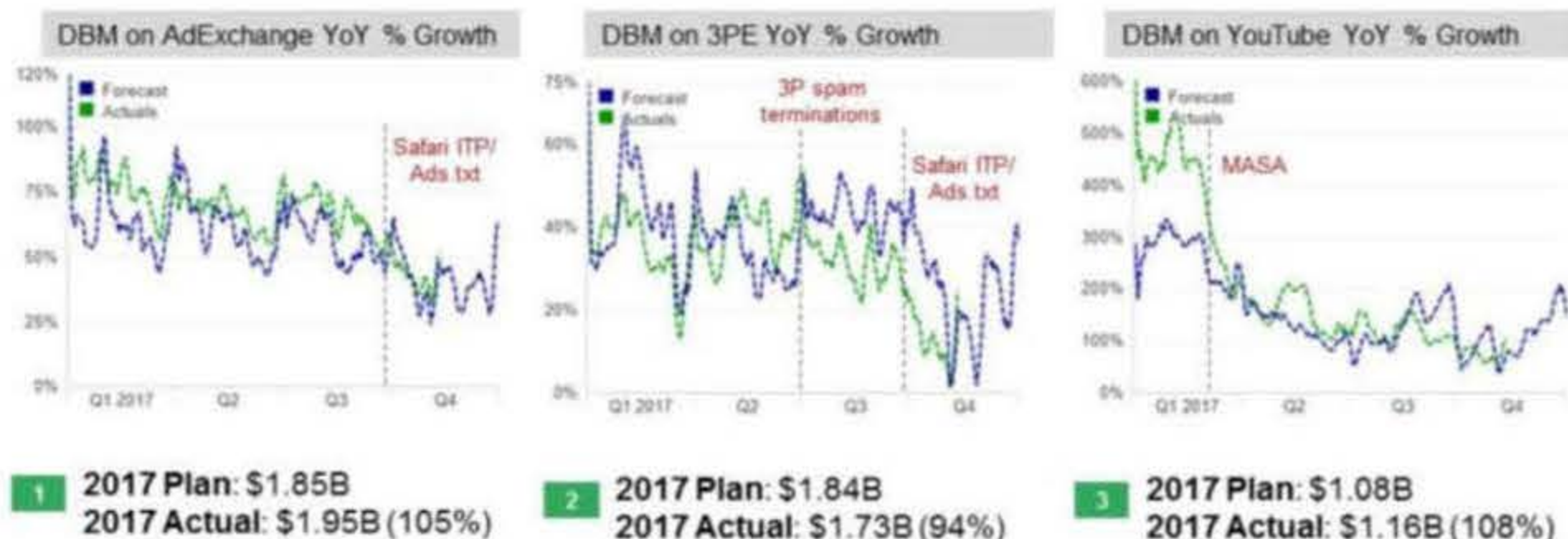
Buyside Rate	Buyside Media Cost			Buyside Fees		
	Open Auction	Always On	Preferred Deals	Private Auction	Programmatic Reservation	DBM Tag Reservation
AdX	10.42%	10.14%	9.59%	9.49%	3.65%	NA
Third Party Exchange	10.10%	9.89%	9.56%	9.40%	4.00%	3.57%
TrueView	3.64%	NA	NA	NA	3.50%	NA

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DBM 2017 Performance v. Annual Plan (media only)

Overall 101.5% to plan, \$4.84B; specific drivers vary by inventory source



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DBM on AdX: Moderate overperformance on AdX through most of 2017; slight deterioration in Q4 due to negative impact from Safari ITP and Ads.txt, although still trending above annual plan

DBM on 3PE: Strong SoY performance trending well above plan, especially thanks to heavy spend from a few top advertisers, e.g. Renault. We've seen growth (and performance) slip from Q3 as a result of deprecating 3P relationships and additional downside/risk in Q4 thanks to Safari ITP and Ads.txt (more later)

DBM on YT: Forecasting was somewhat difficult w/ limited data; did see pullback from Ford and CPG clients.



AdExchange is very display-heavy and YoY growth is coming almost entirely from display; 3P saw video expand in 2016-2017, but inventory quality/fraud concerns (spam and Ads.txt), YouTube is video-only.

2018 Revenue

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DDM Revenue Overview

\$7.9B DDM revenue in 2018, +40% YoY (v. 51% in 2017)

Product	2017 Plan	2017 EoY % Achievement	2017 Outlook	2018 Forecast
DBM Media	\$4,765M (53%)	102%	\$4,835M (55%)	\$6,940M (43%)
DBM Fees	\$563M (31%)	100%	\$563M (31%)	\$726M (30%)
DBM Total	\$5,303M (51%)	102%	\$5,395M (54%)	\$7,666M (42%)
DCM Fees	\$169M (4%)	111%	\$187M (7%)	\$190M (2%)
DRM Fees	\$70M (10%)	121%	\$84M (9%)	\$87M (3%)
DDM Total	\$5,565M (47%)	102%	\$5,670M (49%)	\$7,943M (40%)

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DBM Revenue by Inventory

3/4th of the growth \$ for 2018 are dependent on
Youtube and **Google Display**

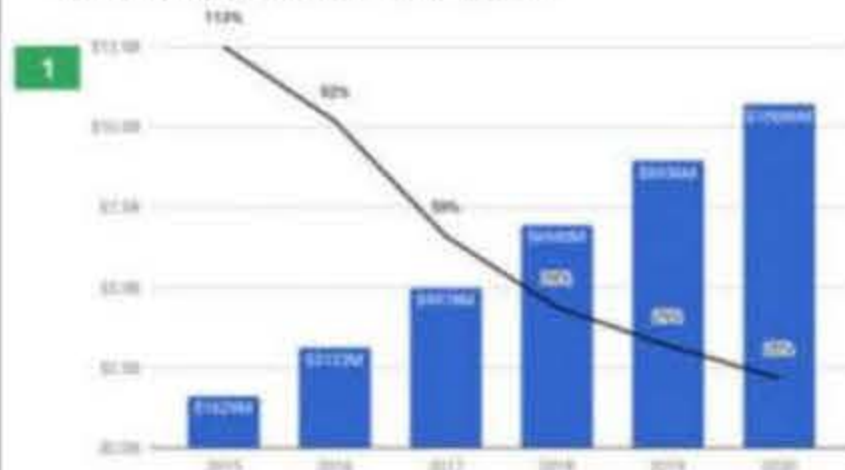


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DBM media only, including YT

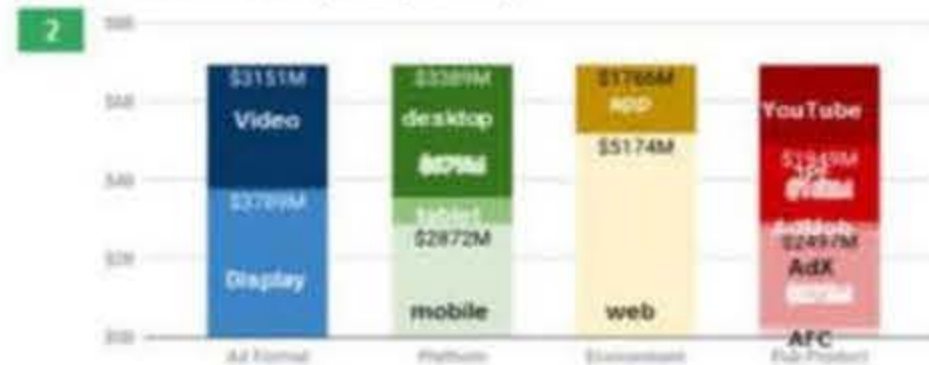
\$6.9B revenue in 2018, +39% Y/Y growth

Revenue and Y/Y Growth %

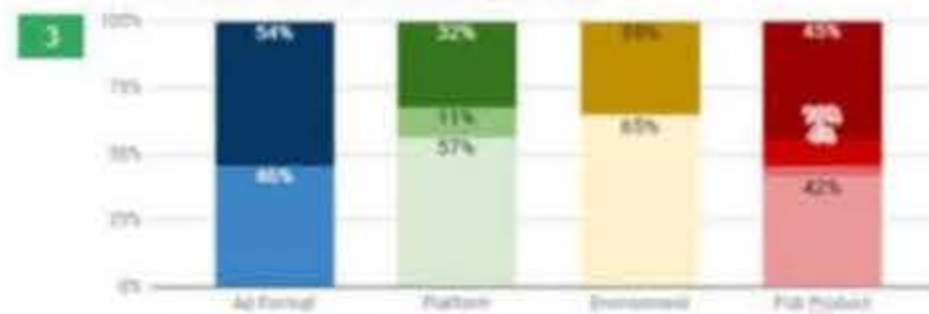


- 1 Relatively sharp growth decline 2016 to 2017 as product matures (especially DBM on YT); anticipate 20 ppt growth drop in 2018 to 39% Y/Y.
- 2 Despite majority of growth on mobile, DBM continues to be the most desktop-heavy front-end.
- 3 Although majority of growth on video overall, excluding YouTube, video growth contribution falls to 23% of total DBM growth.

Revenue Splits (2018)



Growth Contribution (2018)

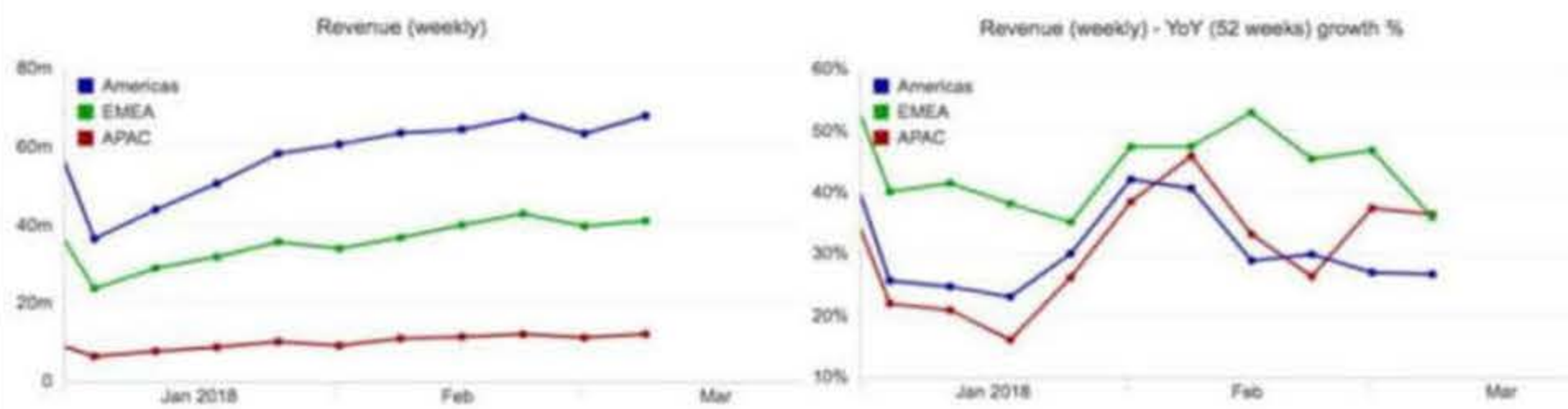


Updated 2019-11-09

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Americas still dominates, but faster growth in ROW



Google

DCM: Video is growing by 39% y/y in 2018



Demos

Roshan, Karin | 40 mins

Google

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DoubleClick Bid Manager by the numbers

\$8B

Media under management

5K

Active accounts

60K

Active advertisers

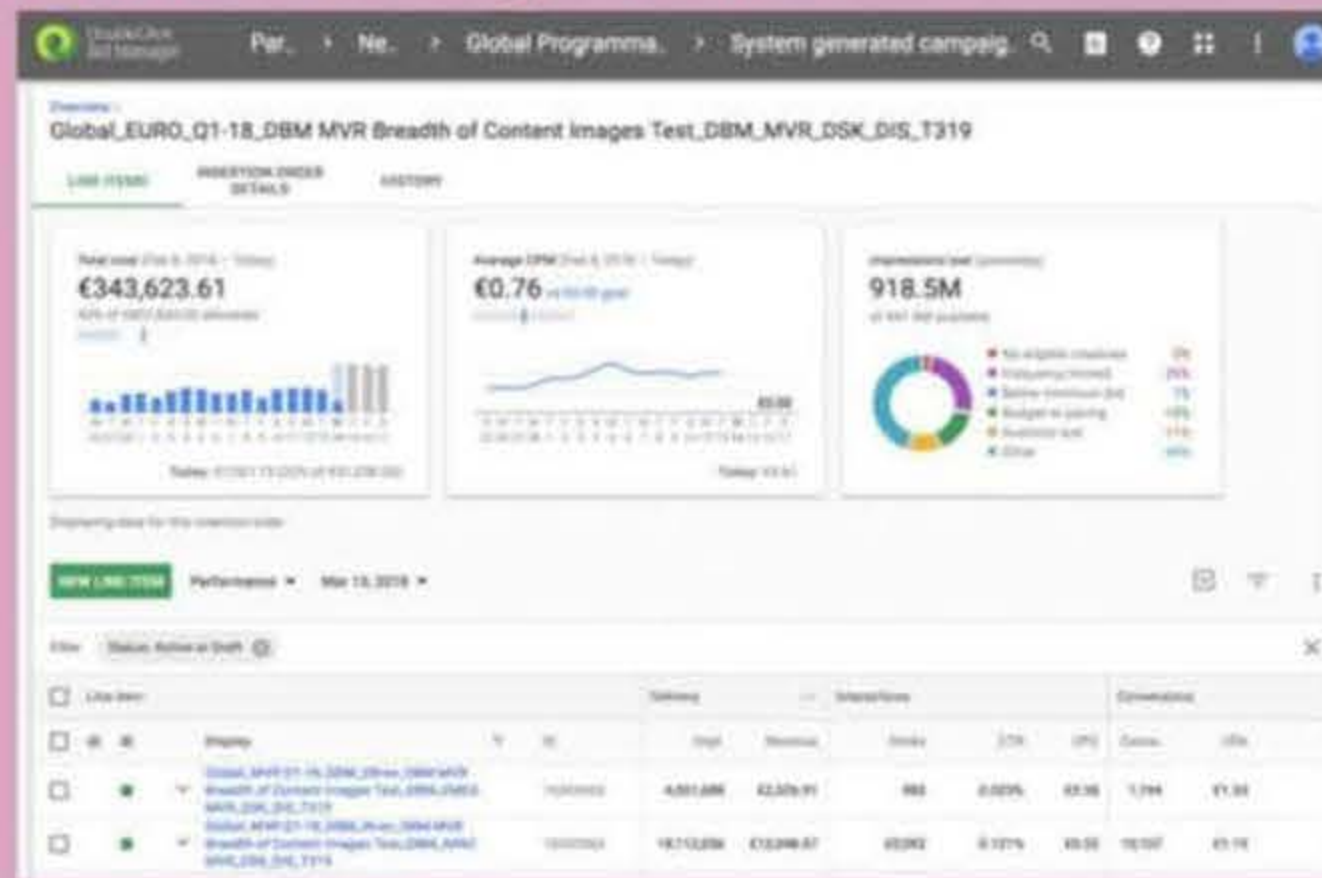
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- There are 12,000 active DCM networks/accounts, and 5,000 DBM accounts
- In DCM, there are 930K active advertisers across all accounts.
- There are 40K DCM advertisers linked to DBM (exclusive DBM autocreated, which means customer-initiated, real advertisers).
- Not to complicate things, but if asked, the reality is that every DBM link doubles the number of DCM advertisers b/c of DCM0 (so the real number of participating advertisers is more like 80K)
- In DBM, 65%ish of advertisers are linked to DCM.
- Of all linked DCM advertisers, 86% of them are only linked to a single advertiser in DBM (a direct, 1:1 link to connect programmatic and reservations attribution/creative).
- Of all linked DCM advertisers, 98% of them have fewer than 5 linked advertisers in DBM, which means it is relatively uncommon for a DCM advertiser to cross-link to many DBM

- advertisers or DBM partners
- However, those who do cross-link tend to be our biggest customers like:
 - Top linked advertisers: Best Buy (439), Zalando, Amex, Telstra, Google, KLM, Verizon, Diagio, HBO
 - For linked advertisers, there are 9M active synched/shared creatives in DBM
 - In DCM, there are 68M active placements/creative tags generally.
 - Almost half of DCM MuM is programmatic,

DoubleClick Bid Manager Demo



Google

DoubleClick Bid Manager



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DoubleClick Campaign Manager Demo

The screenshot displays the DoubleClick Campaign Manager interface. The top navigation bar includes 'Campaigns', 'Adverts', 'Admin', and 'Reports'. The main header shows '1004345 - Google Play Store - NA - US - AR Week - Q1 2018 - Q2 2018'. Below this, a table lists various ad creatives, including 'GooglePlay_AIRWeek_Variation-1_EN_300x250_H1'. The right sidebar provides a detailed view of the selected creative, showing its identification, type, compatibility, and creative assets. A preview of the creative is shown on the right, displaying a Google Play Store advertisement for 'Game on augmented reality'.

Identification

- Creative name: GooglePlay_AIRWeek_Variation-1_EN_300x250_H1
- Type: Display
- Compatibility: Display
- Size: 300x250
- Version: 1
- Status: Active

Creative assets

300 x 250 (Medium Rectangle)

Google

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19 March → **Part 1**

Topic	Time	Presenters
Introduction: Product Portfolio, Team Structure	20 min	Payam, Max, Vlad
Business Overview: Ecosystem, Revenue	60 min	Tobias, Roshan
Product Demo: DBM	40 min	Roshan, Karin

Today → **Part 2**

Topic	Time	Presenters
Product Demo: DCM Product Strategy: 2018 Strategy Overview, DV360	60 min	Luke, Karin, Deepti

29 March → **Part 3**

Topic	Time	Presenters
Product Strategy: Pivot to Video, Other Bets	120 min	Deepti, Glenn, Luke

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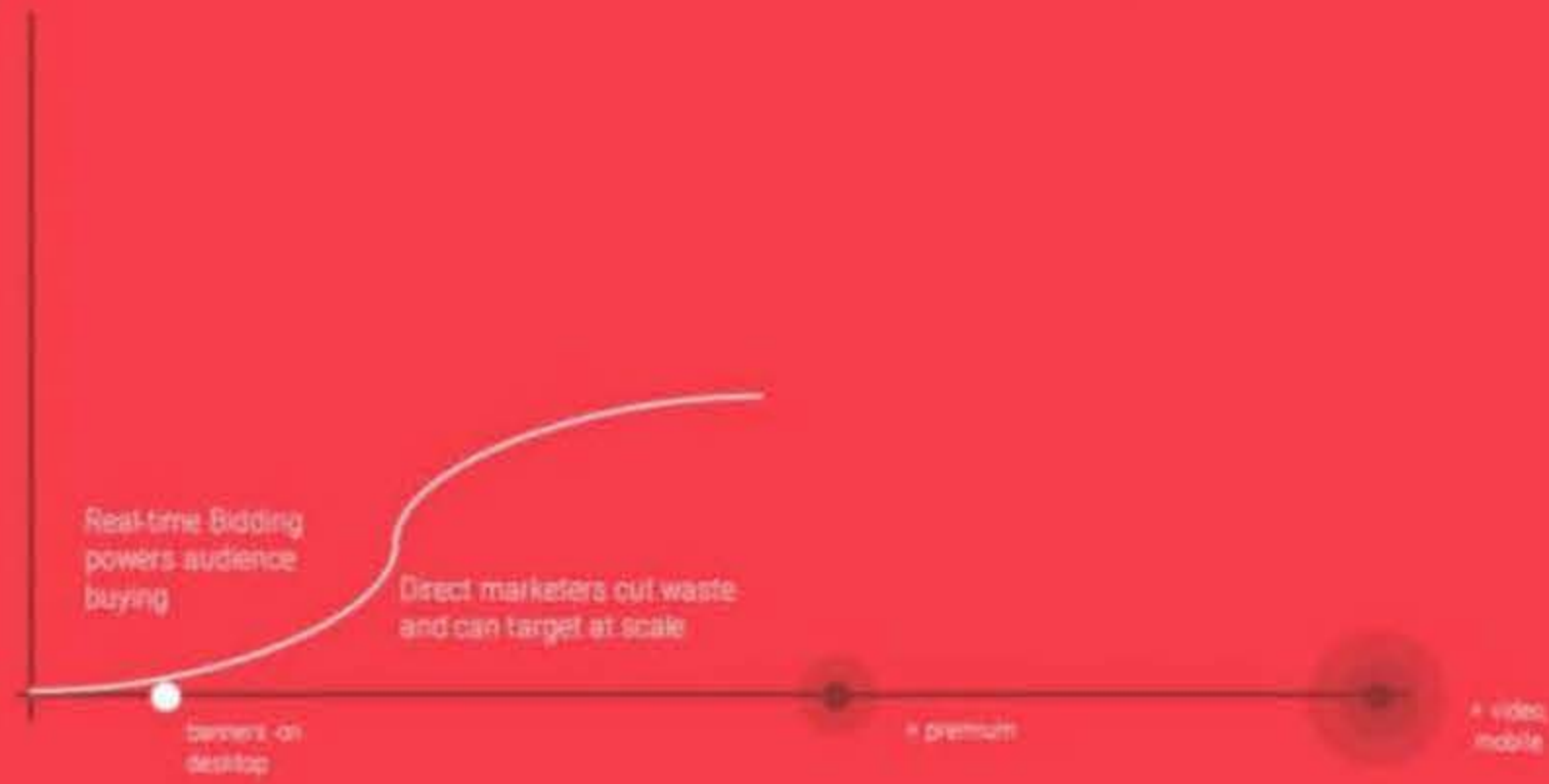
Buyside Product Strategy 2018 Intro

Luke | 10 mins

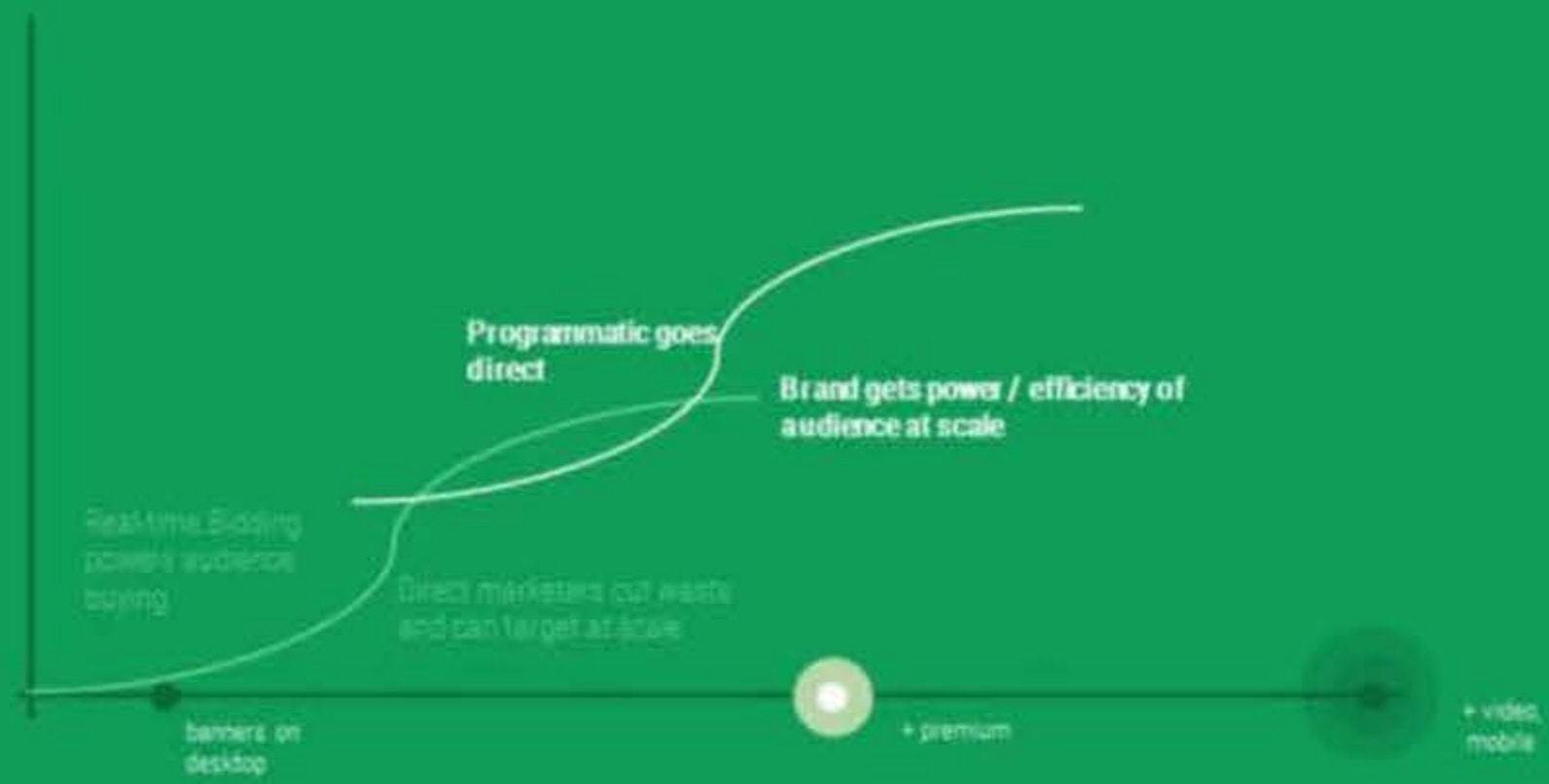
Google

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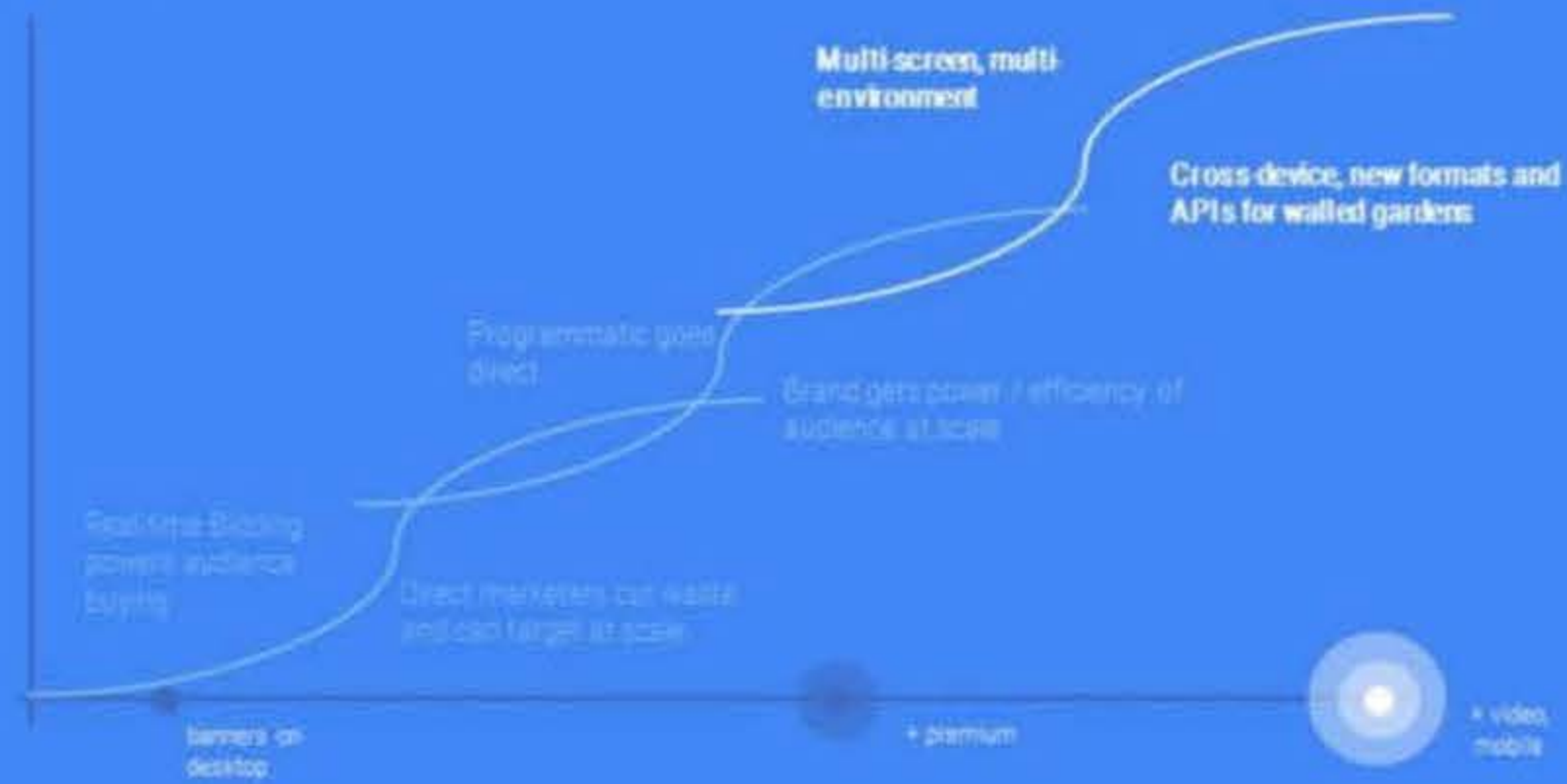
2009: Real-time bidding on remnant inventory



2013: Programmatic goes direct, on full-desktop inventory



2016: Programmatic extends everywhere, cross-screen/device



2018 Buyside Strategy: The Pyramid

Code Yellow Projects
20% of eng resources

Business
Imperatives

- Identity
- Latency
- Inventory quality/access
- Serviceability
- Brand Safety

Big Bets
60% of eng resources

Display &
Video 360

Pivot to
Video

- DV3 launch
- Prominent modules
- Prepare for migrations

- YouTube
- X-Channel
- Living Room
- Discovery, Packaging
& Forecasting

Other Bets
20% of eng resources

Apps

Google
Intelligence

Emerging
and O&O

Enterprise

- App Video
- Rewarded
- App-Install

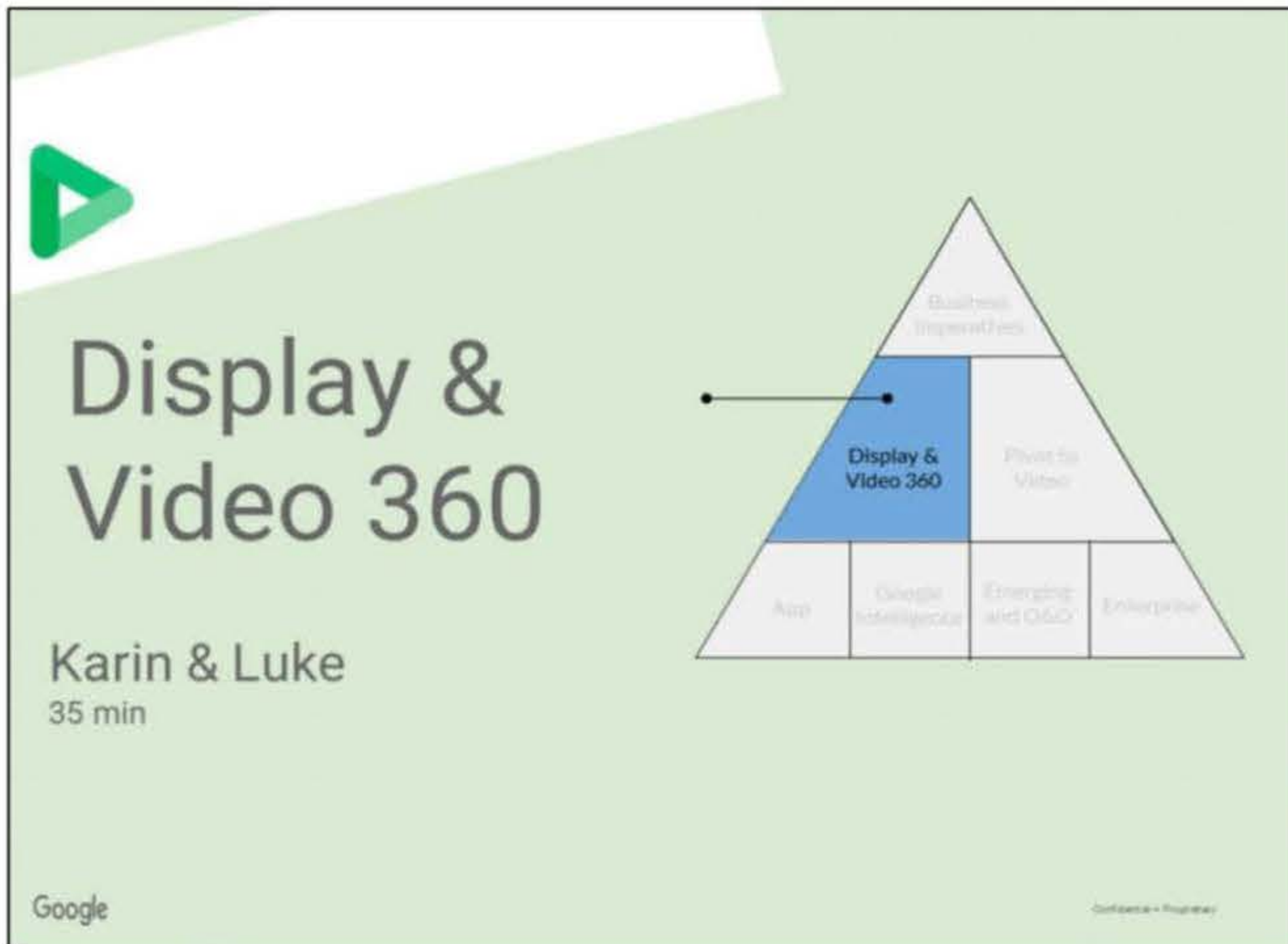
- Auto-Bidding
- Arb buying
- Alerts/Recs

- Gmail/Maps
- Audio
- DOOH

- Custom Algo
- API/Scripty
- ADH

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Creative

https://docs.google.com/presentation/d/1Y8pRpXe7iggl91tdZfizDkX8ovgKRQ5gNjftnr2C83o/edit#slide=id.g259e59bee2_0_349

Inventory

https://docs.google.com/presentation/d/1nkf9hGGsOdvzjFsJyiVmxEh8Jn2LYnU5NF0DeruWIE4/edit#slide=id.g29c52578b1_0_59

Audience

https://docs.google.com/presentation/d/1yaxUNxb1fB8Y5ejKUciC7A_OWvEw3TJ_JgiAzm3C1Hs/edit#slide=id.p

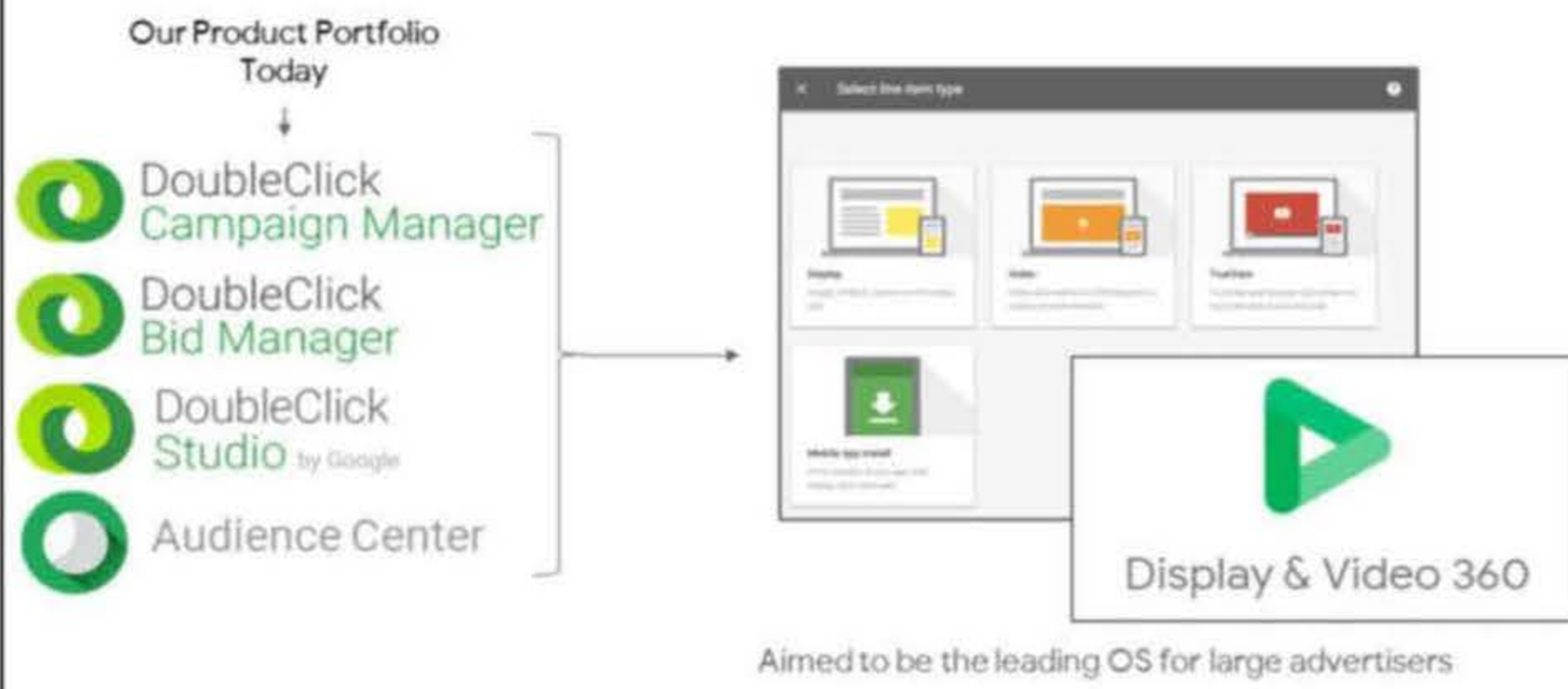
Measurement

<https://docs.google.com/presentation/d/1bpW60UIEkWUMp-ZxthbxRlfYxNLLT11SE4iQ27ygTuc/edit#slide=id.p>

Show less

Id	Date	Text
2	03/27/2018 17:56:16	I guess we could make that point in voiceover on slide 60 but given the prior session I think Suresh will be interested in the reservations >> programmatic margin opportunity
1	03/28/2018 14:22:13	I can voice over this but the margin thing is actually tricky because he very keenly noticed the gross vs net thing, so it's not purely a margin story.
1	03/28/2018 14:26:08	+karinb@google.com Working through these slides today (sorry for the delay). I think we need to include a slide on the point of Cronut from our strategy perspective (i.e. long term goal of shifting reservation >> deals >> programmatic). I think that's an important point to make with Suresh upfront. _Reassigned to Karin Hennessy_
3	03/28/2018 14:26:08	Well, yes, not margin %age, but it definitely leads to more margin \$\$ for Google. But yeah, your call.
<div>Google</div> <div>Confidential - Proprietary</div>		

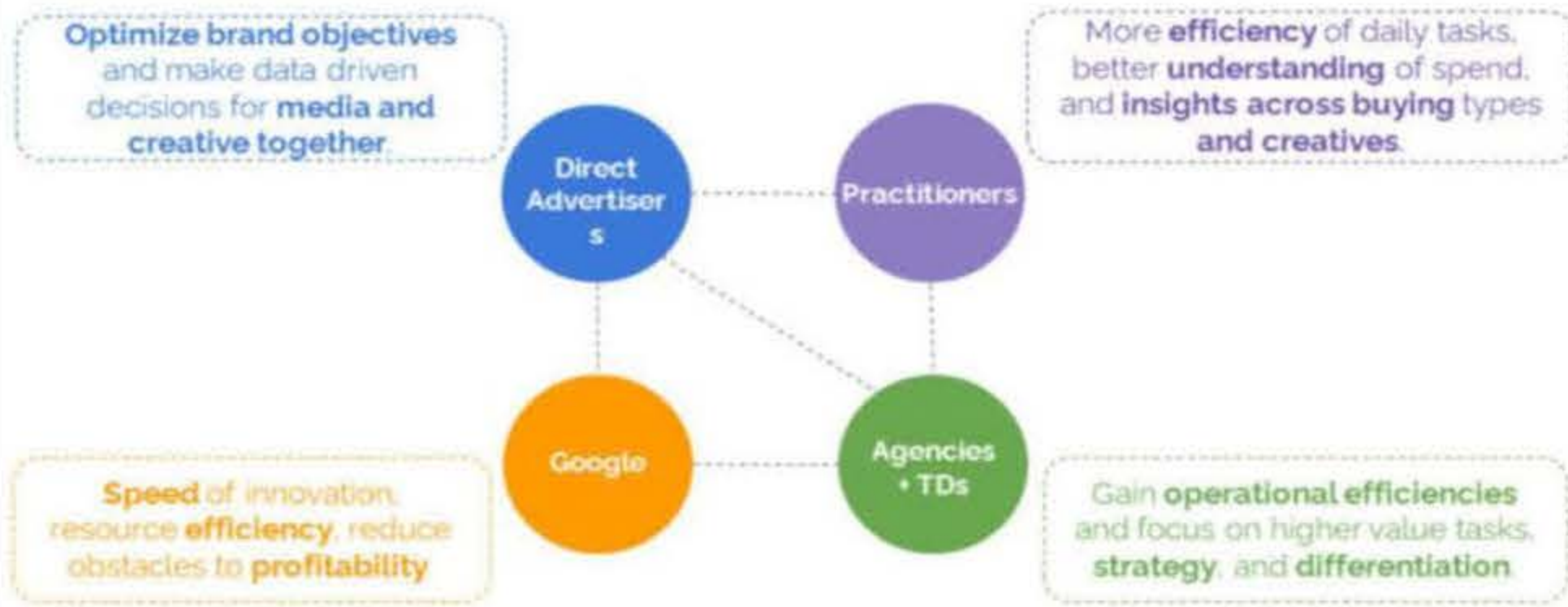
We are launching a unified enterprise display & video advertising platform



Google

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Display & Video 360 benefits



Google

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Launching Display & Video 360

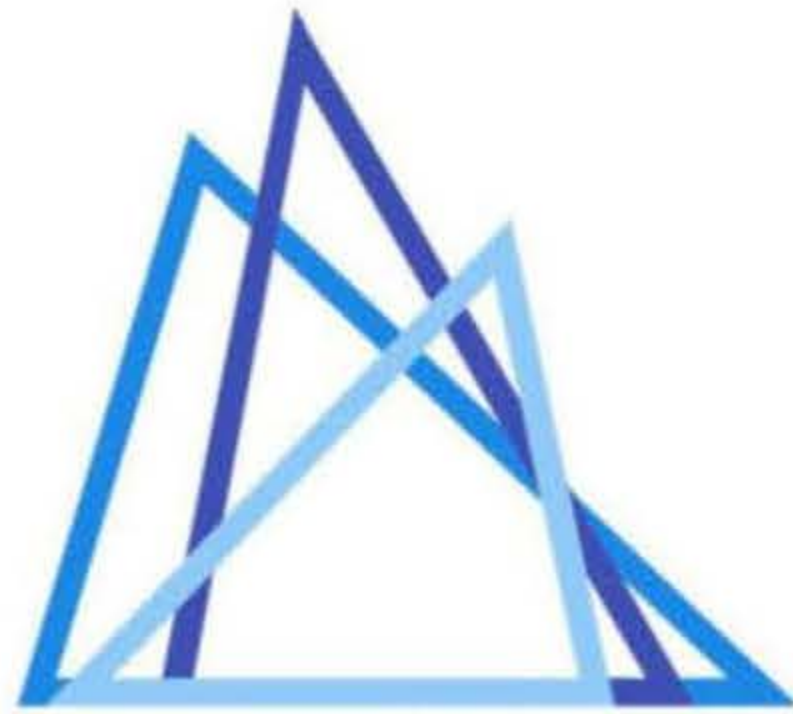
Five Awesome Modules. One Fully Integrated Experience.

Google

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Google

Marketing Live 2018



Google

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Display & Video 360 @ Google Marketing Live 2018

July 2018

DCM, Studio & AC migration work

Google Marketing Platform

Display & Video 360

Campaign (DBM, DCM)

Creative (DCM, Studio)

Inventory (DBM, DCM)

Audience (AC)

Measurement & Attribution (DDM, GA)

Search Ads 360

Analytics 360

Optimize 360

Tag Manager 360

Surveys 360

Google

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Measurement

Partner name > Advertiser name > Campaign name

Accuen > Samsung

Planning
Trafficking
Bid Manager
Reporting & Attribution
Audience Center
More...

Campaigns

Insertion Orders

Line Items

Creatives

Audience Lists

Custom Affinities

Channels & Keywords

Plays

Internal Brand Experiments

Settings

History

Campaigns

NEW CAMPAIGN

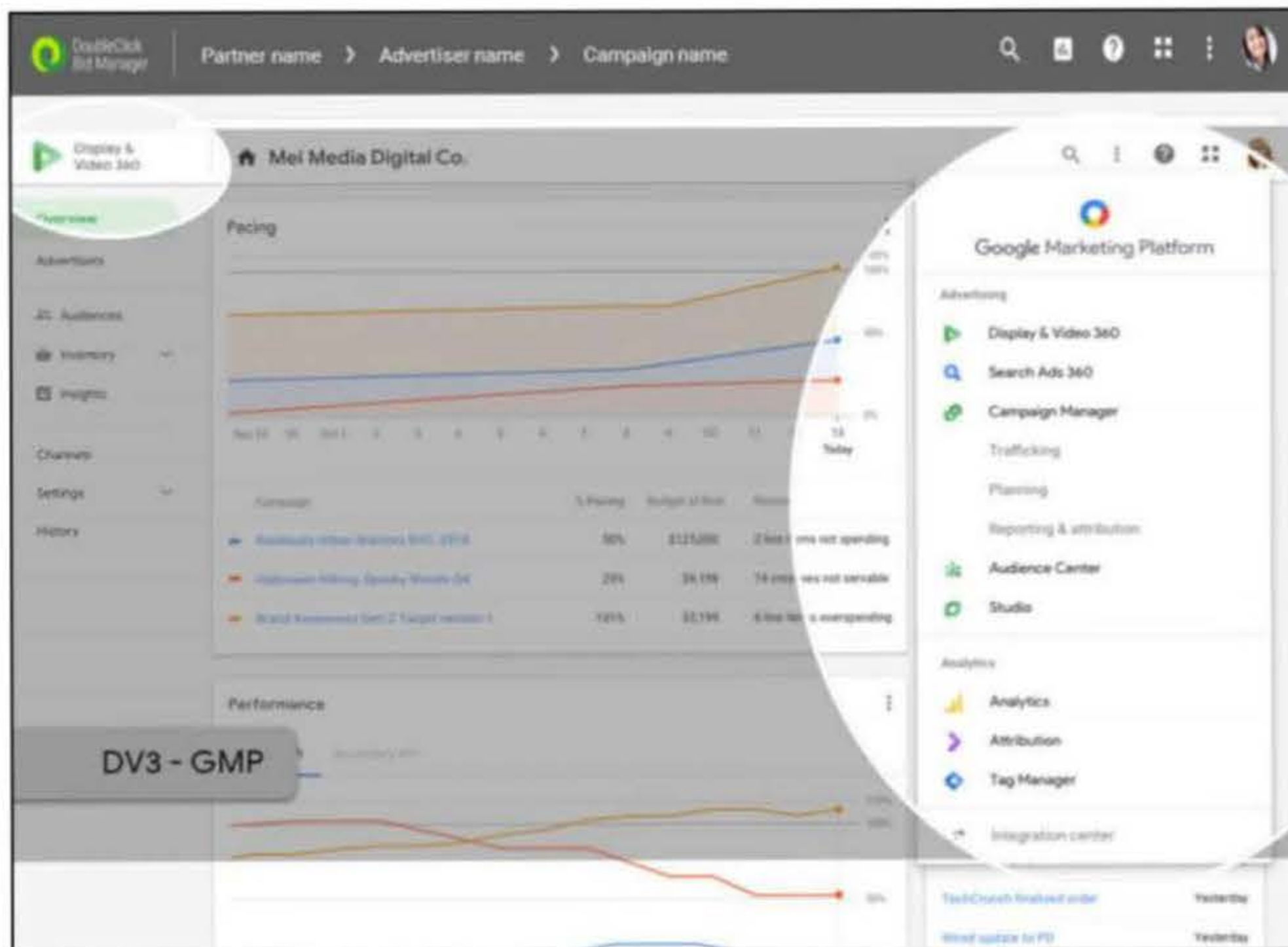
Filter: Status: Active

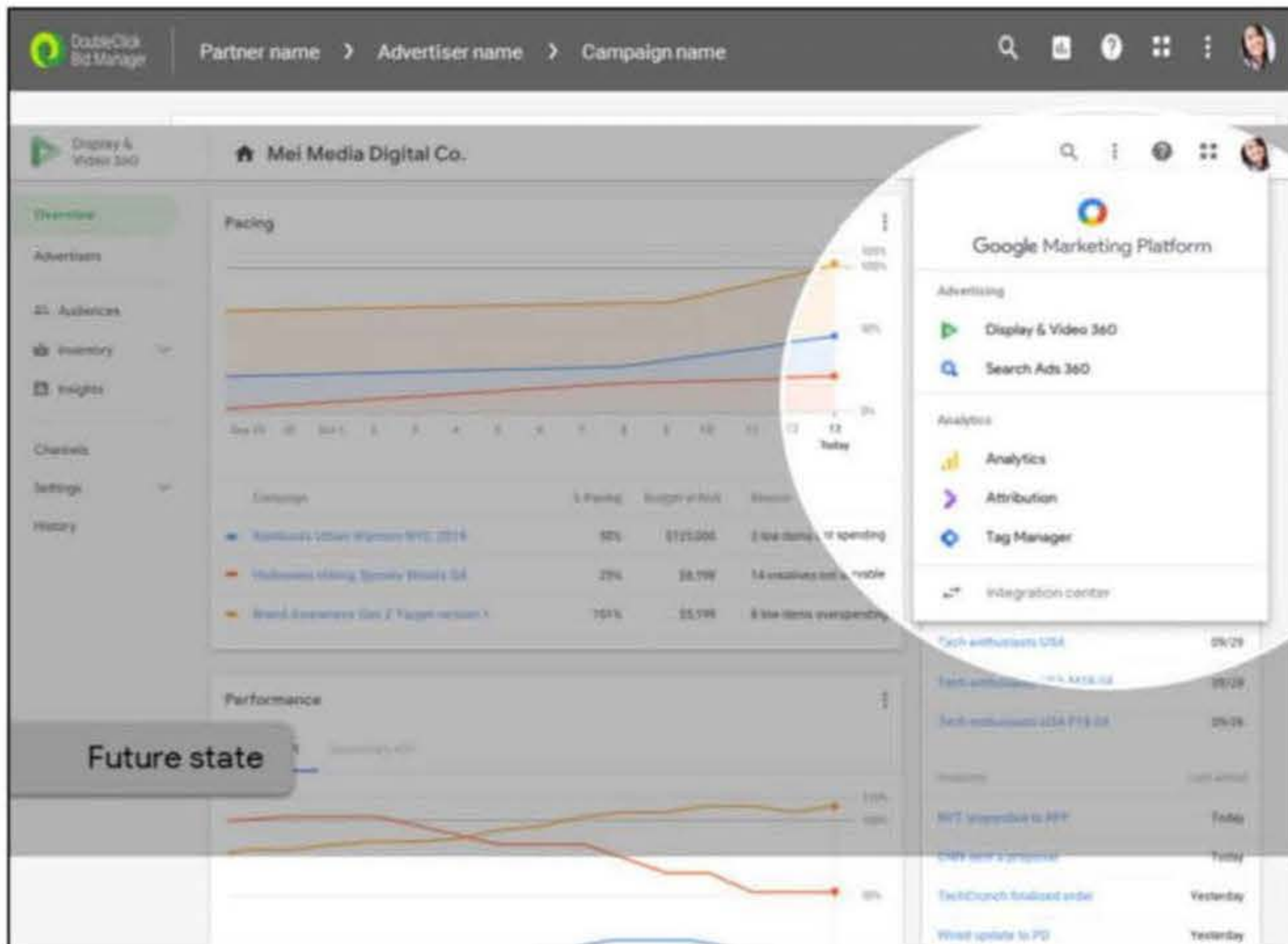
<input type="checkbox"/> Campaign	Delivery				
<input type="checkbox"/> Name	Budget	Spent	RPI Goal	RPI Actual	
System Generated Campaign 157779	Unopened	\$7,353,176.65	\$0.00 CPM	\$12.48 CPM	

Show rows: 20 1-1 of 1

Show Debug Panel

DBM Today





Google Display & Video 360

Five modules, one unified experience



Creative

Creation, management, development and collaboration on creative assets and designs.



Inventory

Encapsulate new and existing relationships with publishers and inventory sources.



Campaign

Enable all forms of media buying and optimization towards advertiser goals.



Measurement

Source-of-truth for all digital media spend, regardless of buying platform.



Audience

Holistic audience creation, management, insights, across identity spaces.

What is the module framework?

Key workflows

Point solutions in the market

Display & Video 360

Media Digital Co. > Tredwell Shoes

Campaigns

Audiences
Creatives
Inventory
Insights
Resources
Settings
History

Campaigns

Top campaigns by reach

Campaign	Reach
US_Nexus5Tablet_Q4 2017	8.2M
EU_SamsungTablet_Q4 2017	7.5M
US_NexusX_Q4 2017	6.4M
LATAM_Nexus9_Q4 2017	5.1M
US_Nexus8_Q4 2017	4.8M

Top creatives by reach

Conversion

Top audiences by reach

- Parents, 24-34
- TV Drama Fans
- Kevin Spacey Fans
- Marvel & DC Fans

NEW CAMPAIGN

Filter
Status: Active

	Campaign	Name	Budget	Spent	KPI Goal	
<input type="checkbox"/>		System generated campaign	322399	Unknown	\$6,569,520.98	\$0.00 CPA
<input type="checkbox"/>		Remarketing 1H2017	137301	\$582,000.00	\$1,251,159.67	\$7.00 CPA



Create

Make making ads awesome

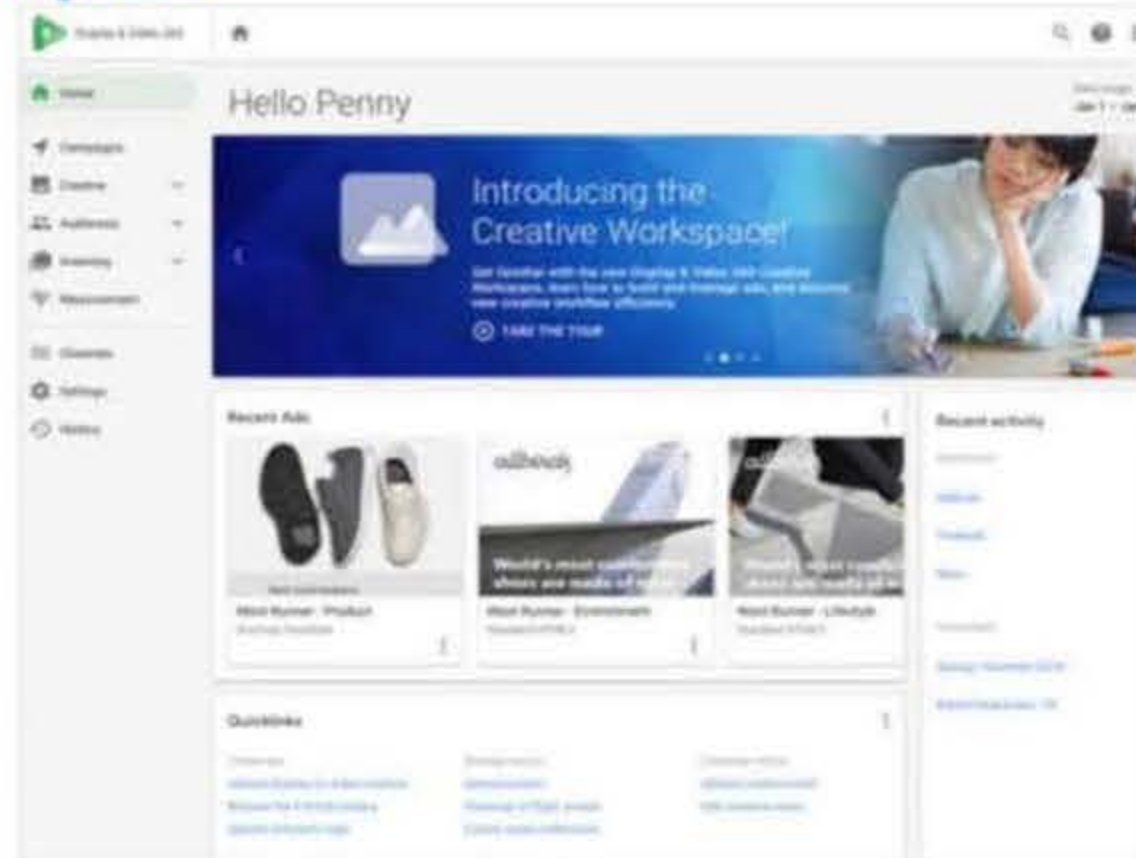


Google



Creative Workspace

- Personalization – your most recent campaigns and creatives front and center.
- Campaign Home – Goals and objectives, creative brief, insights, and the launchpad for creative tasks.
- Collaboration – integrated activity feed keeps media and creative agencies looped in.
- Visual UI – lists are boring, seeing your creatives is delightful.



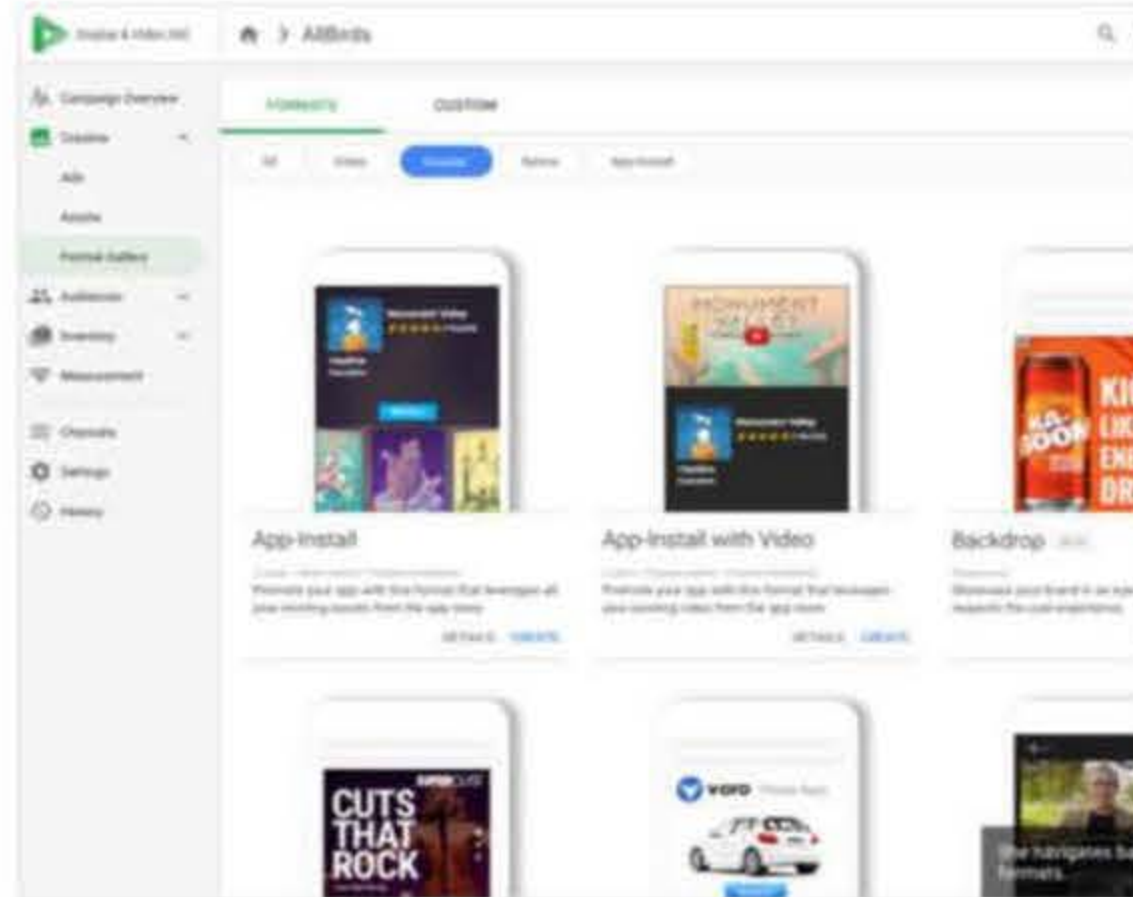
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Format Gallery

- High Impact Formats – Discover new innovative formats.
- Test Drive – See how your assets look in different formats.
- Integrated – Format recommendations based on your campaign goals and past performance.



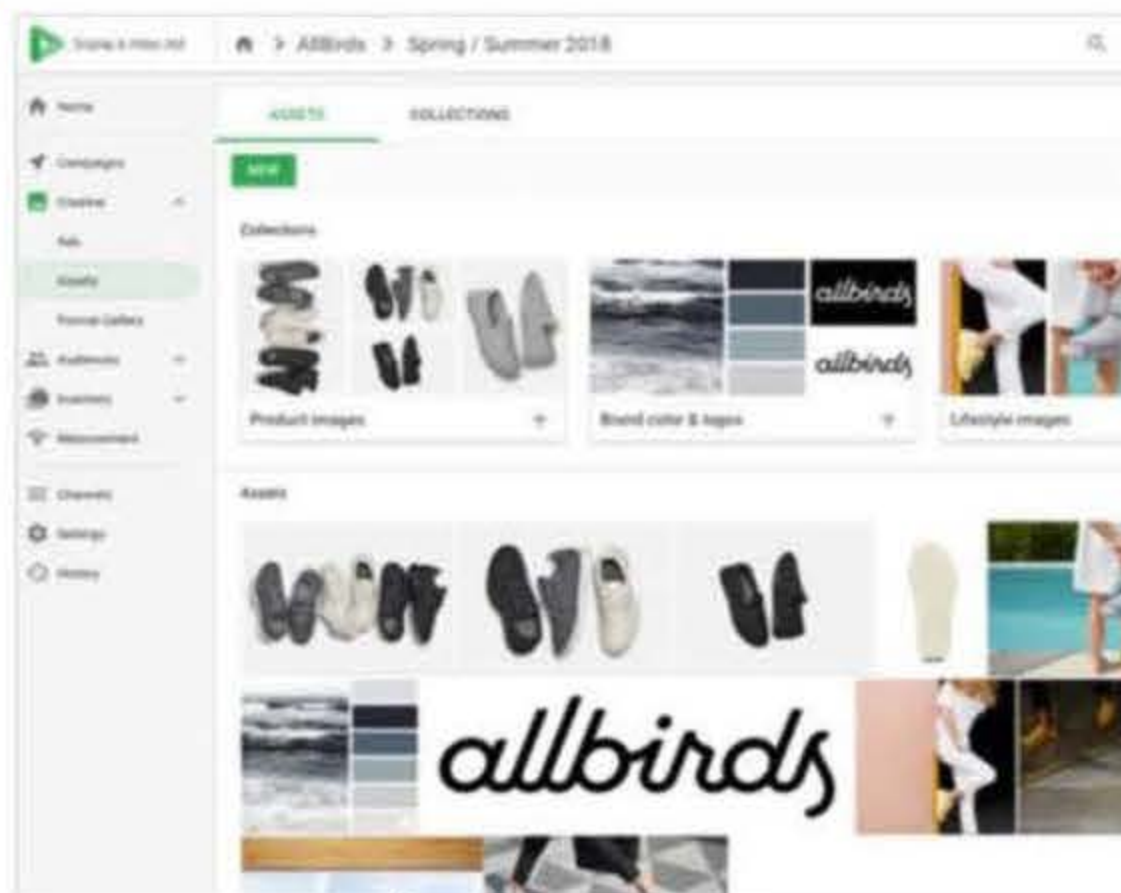
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Asset Library

- Organized – smart asset tagging makes finding and reusing assets a cinch.
- Collections – build moodboards, collect inspirations, and collaborate on creative ideas.
- Powerful – image and video transcoding, live hot swapping, Machine Learning for creative insights.
- Concepting – (flesh out)

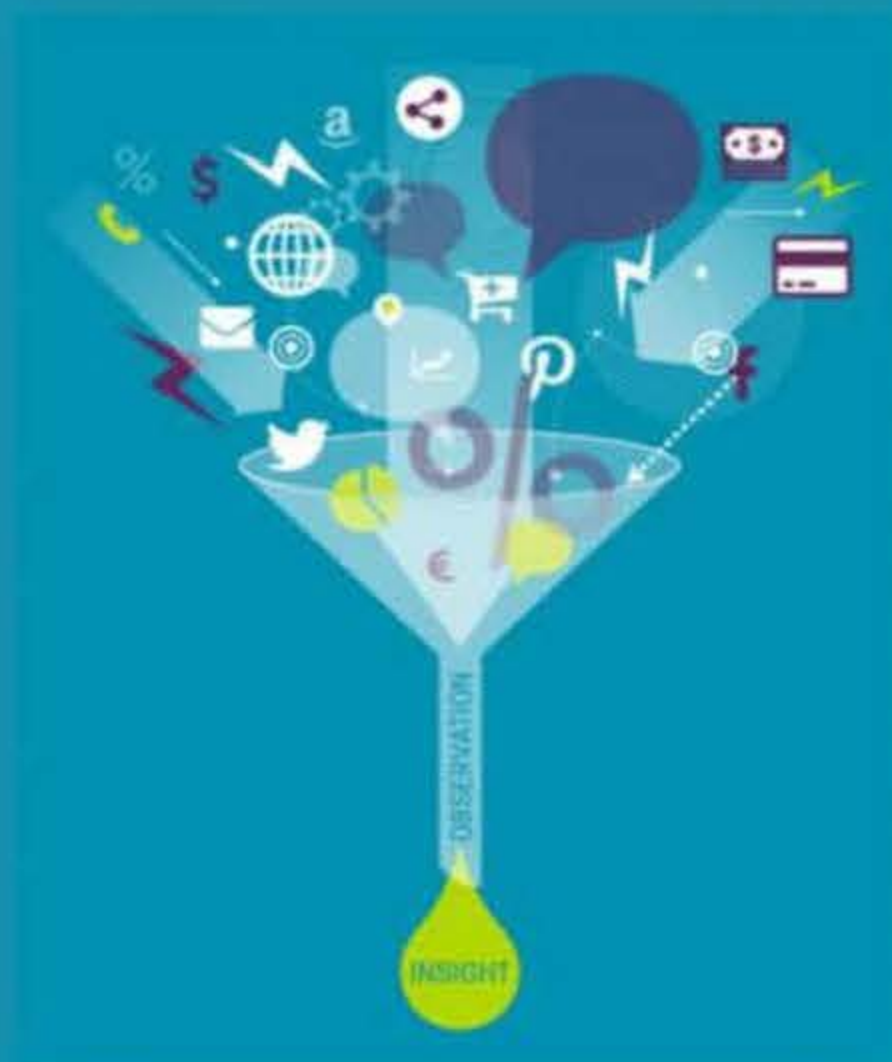


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Measurement

Which ads worked?



Google

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DCM has been the "Operating System" for large, traditional digital advertisers for 15 years

**Advertisers use
DCM to measure**

\$21B+
of display & video ads
(*& \$16B+ of Search ads via DS*)

Including:

\$2.3B on YouTube
\$2.1B of ads bought by non-Google DSPs
\$800M-1.3B on Facebook
\$860M on AOL/Yahoo
\$480M on Amazon
\$400M on Hulu
\$265M on NFL.com
\$265M on Pandora
\$80-300M on Snapchat
\$210M on NBC sites & content
\$180M on CBS sites & content
\$100-200M on Twitter
\$100M on Spotify

Source: [March 2016](#) and [March 2017](#) analyses of DCM Media Under Management. All figures ARR. DBM figures as of Q42017 rates. N.B.: DS covers 30% of LCS Search. ~45% of Display #s are 1x1s only.

75

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Pixel	Non-DBM	DBM	Total
non-1x1	198,553,196,653		117,789,673,496
	316,342,870,149		
1x1	231,136,718,192		35,120,207,230
	266,256,925,422		
Total	429,689,914,845		152,909,880,726
	582,599,795,571		
1x1/total	54%	23%	46%

<https://screenshot.googleplex.com/mD9wAte4hus>

During the transition to DV3, we can't take DCM's successful position in measurement for granted

Increasing success from point players in brand, attribution, app

MOAT
visual
TUNE

Facebook increasingly 'closed' to measurement standards due to fears about viewability



groupm
WPP

Agencies looking to differentiate with cross-platform approaches

76

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For GML, we're pushing DV3 measurement end-to-end



77

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Migrations

Move things, gracefully.

Google

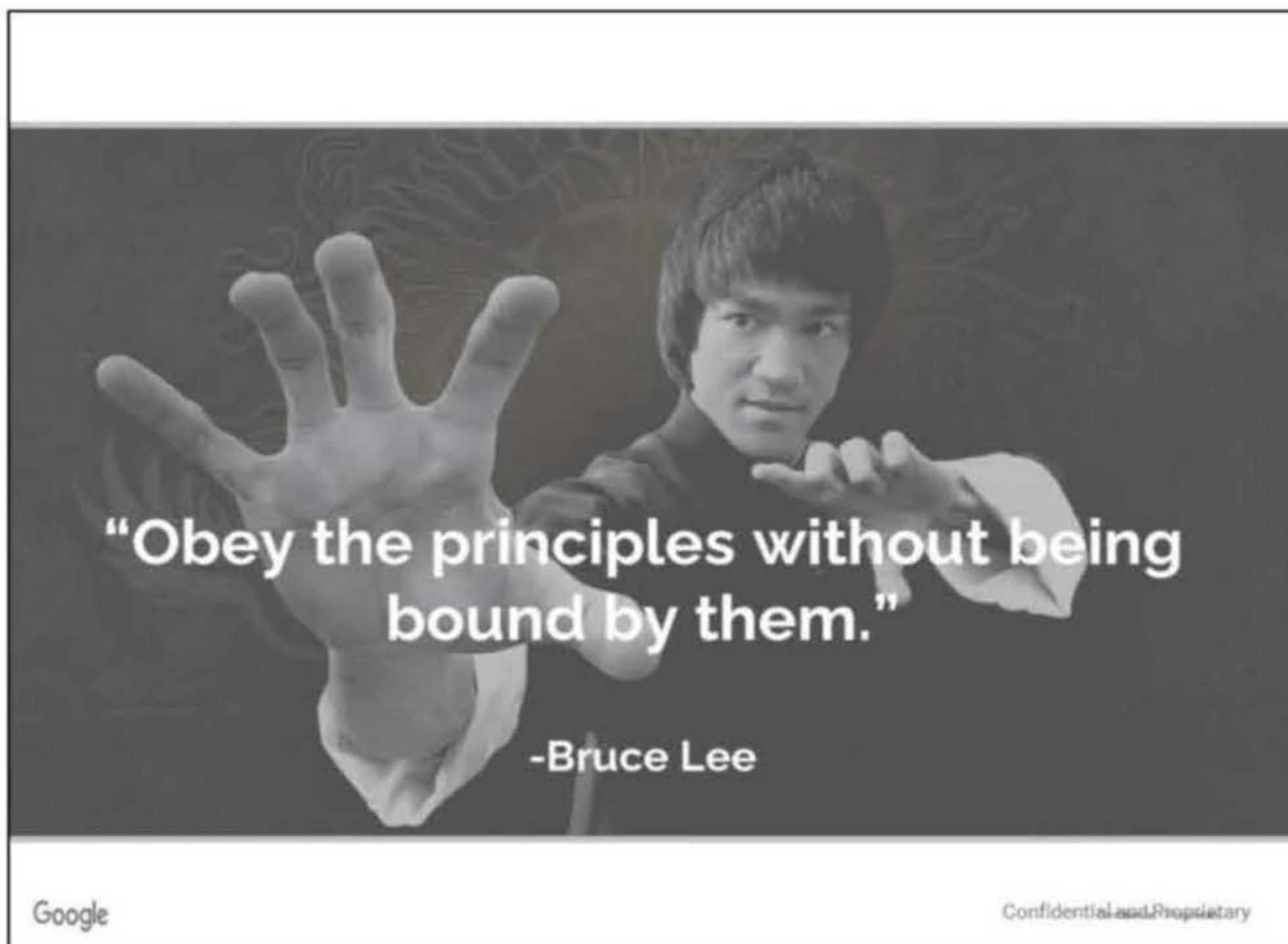
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- There are 12,000 active DCM networks/accounts, and 5,000 DBM accounts
- In DCM, there are 930K active advertisers across all accounts.
- There are 40K DCM advertisers linked to DBM (exclusive DBM autocreated, which means customer-initiated, real advertisers).
- Not to complicate things, but if asked, the reality is that every DBM link doubles the number of DCM advertisers b/c of DCM0 (so the real number of participating advertisers is more like 80K)
- In DBM, 65%ish of advertisers are linked to DCM.
- Of all linked DCM advertisers, 86% of them are only linked to a single advertiser in DBM (a direct, 1:1 link to connect programmatic and reservations attribution/creative).
- Of all linked DCM advertisers, 98% of them have fewer than 5 linked advertisers in DBM, which means it is relatively uncommon for a DCM advertiser to cross-link to many DBM

- advertisers or DBM partners
- However, those who do cross-link tend to be our biggest customers like:
 - Top linked advertisers: Best Buy (439), Zalando, Amex, Telstra, Google, KLM, Verizon, Diagio, HBO
 - For linked advertisers, there are 9M active synched/shared creatives in DBM
 - In DCM, there are 68M active placements/creative tags generally.

Id	Date	Text
4	03/27/2018 18:08:40	+karinb@google.com Suggest we cut for time
<div>Google</div> <div>Confidential - Proprietary</div>		



Display & Video 360 Unification Principles

Simplify account, product and commercial states while building for users of the future.

Single Product Experience

Offer a single product to our customers. Customers may decide to use a subset of modules.

Unified Contract

Offer a simpler, unified contract, but grandfather customer base to enable migration

Single Account

Merge full stack customers where possible to help realize value of consolidation.

Keep our customers

Making thoughtful cost/benefit trade offs and try to satisfy or improve customer use cases.

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[Slide 148](#)

Id	Date	Text
5	03/28/2018 14:06:34	+karinb@google.com Suggest we keep this as the last slide, it's probably an important discussion to have with Suresh but we won't make it past this slide :)
2	03/28/2018 14:06:34	fine with me, moved it!

Google

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19 March → **Part 1**

Topic	Time	Presenters
Introduction: Product Portfolio, Team Structure	20 min	Payam, Max, Vlad
Business Overview: Ecosystem, Revenue	60 min	Tobias, Roshan
Product Demo: DBM	40 min	Roshan, Karin

28 March → **Part 2**

Topic	Time	Presenters
Product Demo: DCM Product Strategy: 2018 Strategy Overview, DV360	60 min	Luke, Karin, Deepti

Today → **Part 3**

Topic	Time	Presenters
Product Strategy: Pivot to Video, Other Bets	120 min	Eve, Sara, Deepti, Glenn

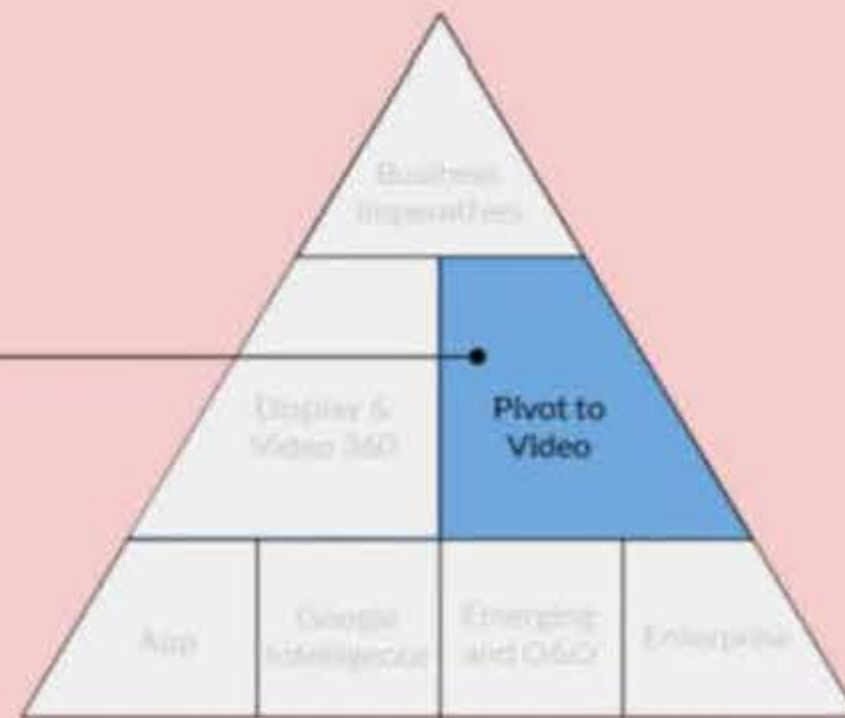
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Video

Deepti & Glenn
90 min minutes



Google

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Market Overview

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- Market = not just digital video, but also traditional TV and emerging growth areas like Over the Top services.
- Traditional TV still holds majority; OTT and digital growing fast → Overall pie is growing
- Creates a significant opportunity for our business

Goal: Provide smarter ways for marketers to reach their audiences while they are consuming content, no matter how, where or when they choose to watch

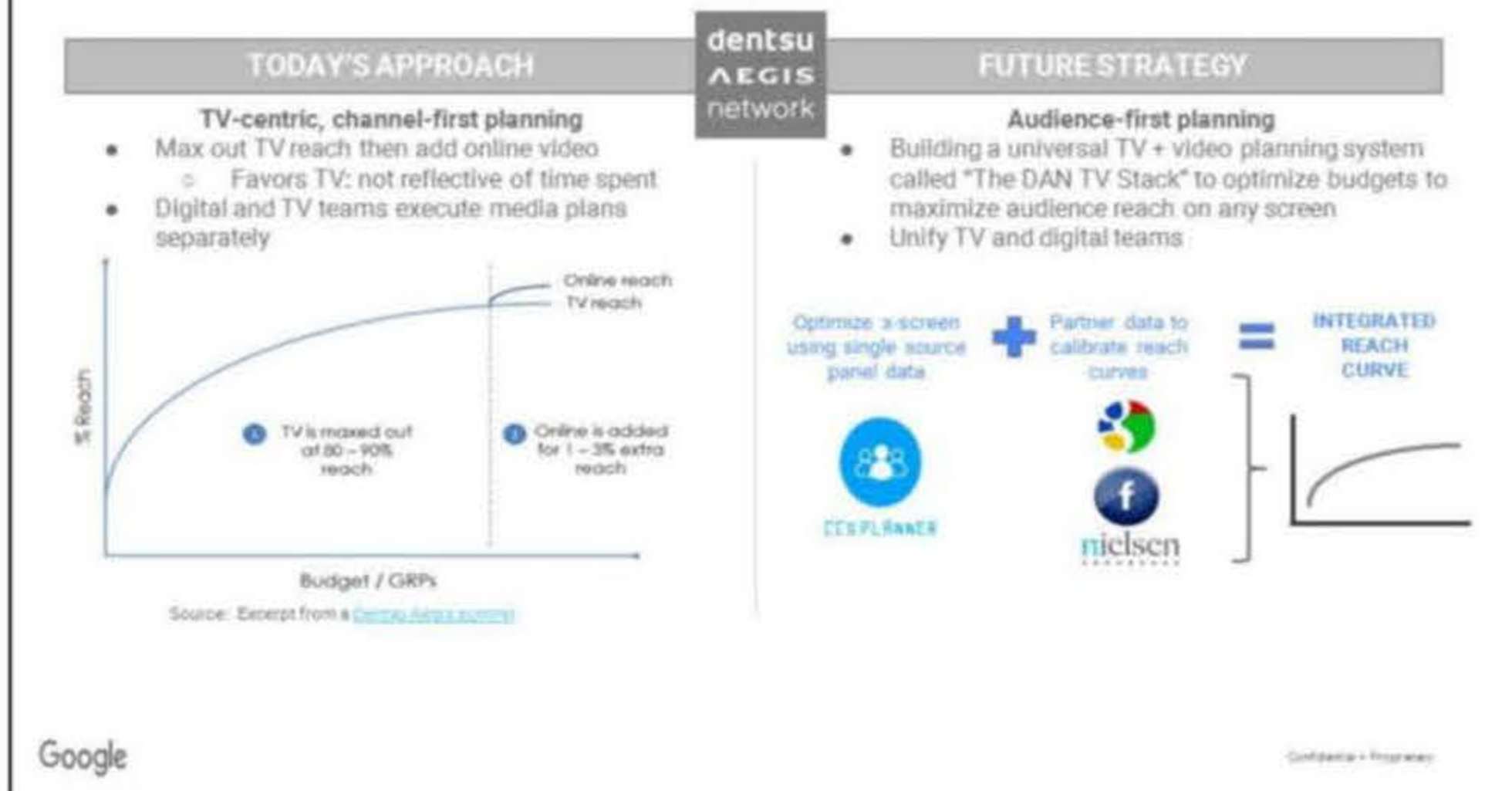


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- As all of these options for consumers creates complexity for advertisers and agencies
 - Our goal is for DDM to be the platform where advertisers can plan, buy and measure across all video content
 - HOW/WHERE: devices and all channels
 - WHEN: live, on demand
- This vision / goal is well-aligned with what our customers are trying to do

Today, video buyers are still largely planning TV and digital video separately, but are looking to shift



Summary: Clients want to plan across TV+digital video

- Historically, advertisers used to think about video and TV separately.
- They would plan TV first and then the digital video teams would get the leftover budgets
- But that's starting to change now
- Advertisers are starting to think about TV and video together
- They are looking to plan them together and build an integrated reach curve to help them understand where to spend their budget most effectively
- Dentsu Aegis or DAN is one of the big 5 holding companies
- As an example, they've built a universal planner that lets them pull data from many different systems and optimizes for reach across platforms
- These agencies are also starting to unify the TV and the digital teams in order to accelerate this trend

Both traditional TV buyers and sophisticated digital-first marketers are looking to find audiences x-screen with DBM



Traditional TV buyers aim to maximize reach for their target demographic (e.g. Adults 18-54)

COMMON TACTICS:

- TV
- Non-skippable pre-roll
- Mastheads

EXAMPLE KPIs:

- Cost per Point (CPP)
- Total unique reach (TRP, GRP) and frequency

Sophisticated digital-first buyers use precise targeting to reach people most likely to convert

COMMON TACTICS:

- Pre-roll, digital-first formats (TrueView, Bumpers)
- 1st party targeting (incl. remarketing)

EXAMPLE KPIs:

- Completed views (viewable and audible)
- Conversions, CPA

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- Summary: DBM's customers come from both traditional TV mindsets, and more digital mindsets - and therefore have different needs
- On the one hand we have traditional TV buyers like P&G and Chevrolet, that want to buy on reach for their target demographic
- And on the other hand side we have advertisers like Netflix and Booking that use very precise targeting and care about conversions
- TV buyers use formats that are very similar to TV like non-skip pre-rolls and mastheads, while the digital first buyers use digital strategies like 1p targeting
- They differ in their KPIs too. The TV buyers use metrics from the TV world like cost per point and frequency while the digital buyers use metrics like conversions and completed views

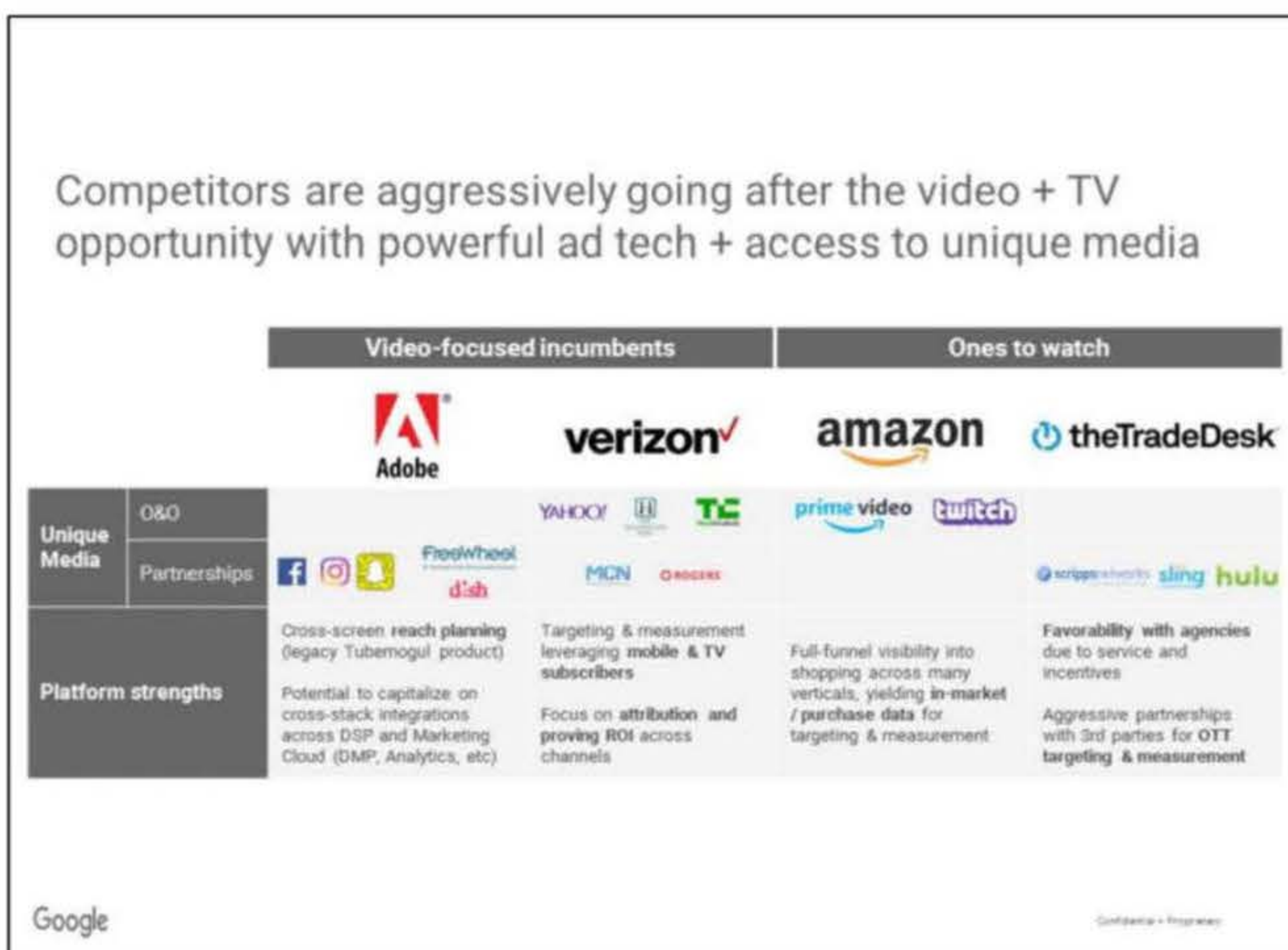
All advertisers care about both "brand" and "performance": this distinction is made at the campaign or creative level



Google

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- Traditional tv buyer often equated to brand, where digital buyer is performance
 - For example, even a traditional TV buyer like P&G has campaigns and creatives that go after both of those things
 - At the end of the day they also have products they are trying to sell
 - For example at the top of the slide is their "Like a girl" ad that went viral which was obviously geared towards building brand affinity, no specific call to action
 - And on the bottom is an example of the tide ad with a clear call to action
- Most of them are leading users through a funnel
Need to solve for both brand and perf use cases to enable this



- competitors going after this opportunity with cross-screen video advertising for brand and performance use cases, each with different strengths

- Adobe is a full stack competitor and their main strength has been cross-screen planning
 - Verizon's DSP is Oath which is basically a combination of AOL One and Adap.tv. They are interesting to look at given the strength of their data and O&O assets.

And then we have the emerging digital first competitors like Amazon and The Trade Desk
 - Amazon is full-funnel, but important to note that they have strengths in certain verticals (like retail), and weaknesses in others (travel, telco, fin services, etc)
 - Trade Desk has become quite popular with agencies due to their services and incentives. And they are going for aggressive partnerships with 3rd parties on the OTT front.

Revenue Overview

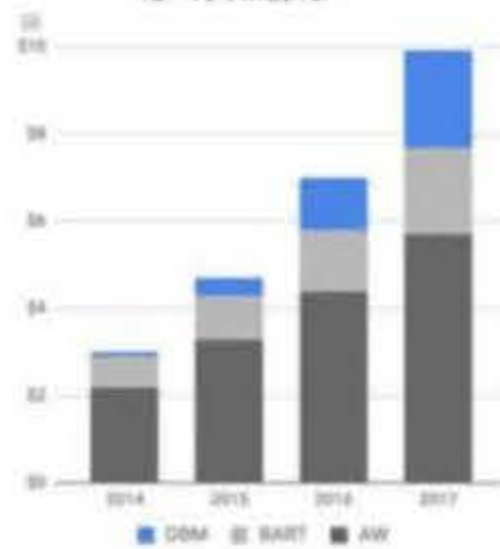
Google

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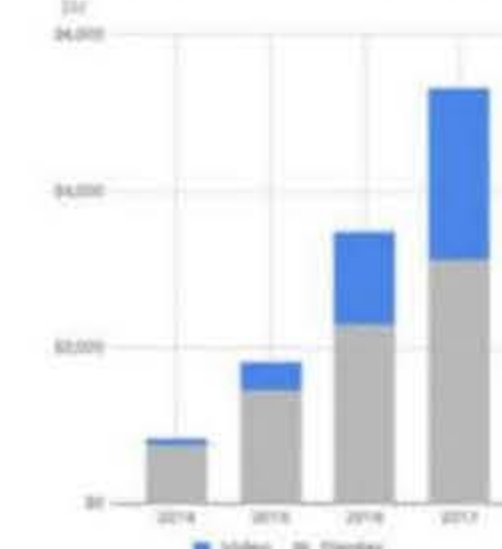
2017 in Review: \$2.2B on DBM video, 86% YoY Growth

DBM accounts for 23% of total Google video revenue; video now accounts for 40% of total DBM revenue

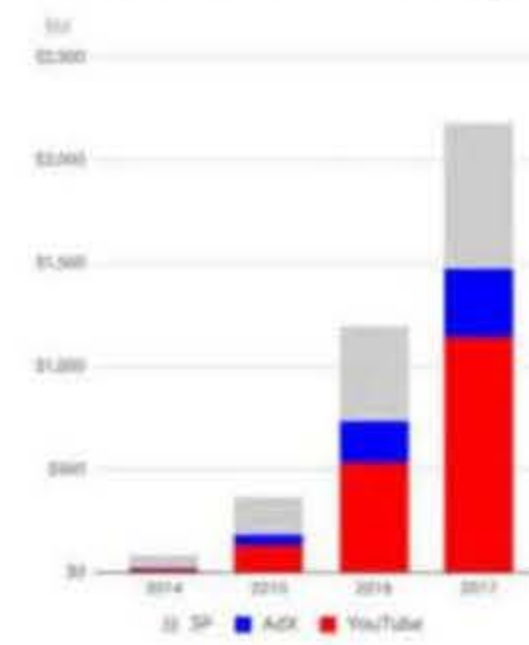
DBM video accounts for 49% of overall video revenue growth, now 23% of spend vs. >10% in 2015*



Video is now 40% of total revenue in DBM, and the fastest growing segment of revenue



Within DBM Video, YouTube is driving the majority of growth and now accounts for over 50% of total DBM video spend



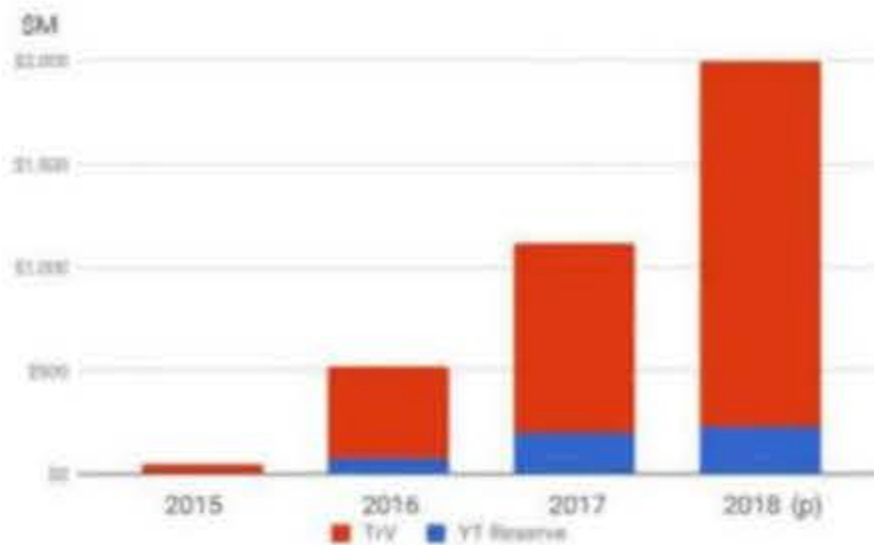
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- Last year was a huge year for DBM video
- Now it is a massive part of not only DBM business, but also of the overall Google video business
- The chart on the left shows video as part of DBM. So Video is now 40% and still the fastest growing part of DBM.
- The second chart from the left is DBM as a percentage of overall video revenue. It is now roughly 23%.
- Within DBM video, YT is driving majority of the growth and is now more than 50% of the video revenue
- This also varies by the region
- There are some regions which are very heavy on YT like Australia

2017 in Review YouTube: \$1.2B driven by TrueView

2018 OKR to deliver \$1.8B of YT revenue via DBM - 50% YoY Growth, with ~90% from auction TrueView



- \$1.21B in FY 2017 (87% auction, 13% reserve)
- \$431M in Q4 '17, representing 75% YOY growth
- 22% of total DBM revenue in FY 2017

Multiple Studies Show 60-80c of every DBM TrV \$1 are incremental to Google

Fargo Forecasting: 64-81c

Forecast AW TrV spend for DBM adopters to create counterfactual, compare with actuals

Casual Impact: 61-75c

Forecast AW TrV spend using statistical relationship between adopters vs. non; compare with actuals

Key reasons driving incrementality:

- Media & workflow consolidation
- Accessing new dollars allocated to programmatic
- Unique feature sets (freq capping across media)

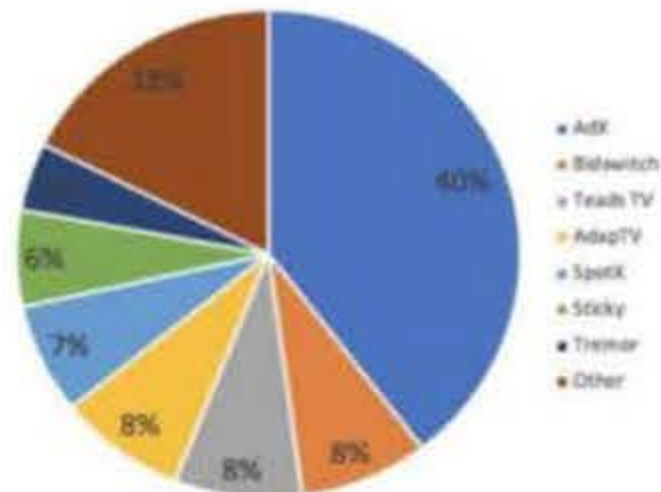


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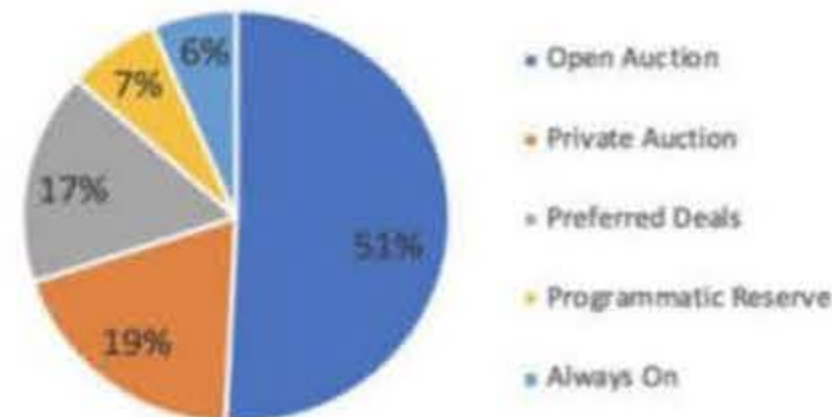
2017 in Review non YouTube: 40% of spend on Google Media, accelerated by ads.txt

AdX captured 40% of non YT video-spend in 2017



- AdX share of DBM non-YT grew 16% in 2017 to 40%
- Key drivers include "flight to quality": ads.txt, mApp growth (player size classification change) and adoption of PG

Open Auction makes up half of total spend, with preferred deals and private auction capturing 1/3



- Auction (open+private) still majority of video spend at 73%
- Deals growth outpacing that of open auction, especially PG (150% YoY) and Preferred Deals (79% YoY)

Google

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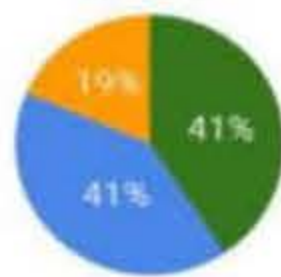
On the non-YT side, here's how the revenue splits by exchange and by deal type

- On the exchange side, AdX was almost 40% of the revenue in 2017 compared to maybe about 30% a year earlier.
- This was driven in part of the ads.txt launches where we stopped buying unauthorized inventory
- On the deals front, auction is still majority of spend at 73%
- But deals are growing much faster, with PG at 150% and PD at 79% yoy

We want customers to use DBM for all video spend, to gain visibility into and capture share of wallet

★ All Media Buyers

Buyers adopting DBM for YT and non-YT media

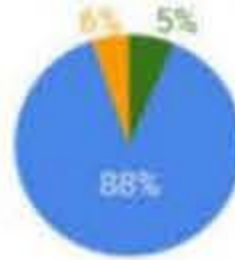


Active Buyers: 80
L4Q Spend: \$351M

Most desirable segment: access to see (and win) broader media budgets

YouTube Only Spenders

DBM buyers: spending on YT only via DBM (80%+)



Active Buyers: 45
L4Q Spend: \$177M

High YT spenders, but lack visibility into all other video spend

3P Media Centric

Buyers adopting DBM video, but spending minimally on YT (<20%)



Active Buyers: 27
L4Q Spend: \$93M

Current DBM clients with opportunity to capture spend on YT

■ YouTube ■ AdX ■ 3rd party exchanges

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Summary: Just from a strategic perspective, we want everyone to buy all media with us- both YT as well as 3P

If advertisers only buy YT, then we don't get visibility into all of their video spend or get a share of their spend

Similarly, if they only buy 3P video from us, then we have limited ability to influence their how they spend thier budgets

SWOT for DBM Video

Strengths

- Unique access to **YouTube** as anchor for digital video buying
- Leading buy-side **platform** (DDM) across search and display, with strong client adoption
- Partnership with **DRX** offers unique opportunity for unique inventory access and efficiency

Weaknesses

- Lack of penetration in **traditional TV** solutions (inventory, planning, measurement)
- Limited x-media adoption for impact-based **measurement** solutions (brand / search lift)
- Video capabilities not yet fully front-and-center in platform

Opportunities

- Unique Google cross-device **identity** & measurement
- Leverage strong adoption with **consumer** products (chromecast, YouTube TV, android TV) to disrupt TV market, and accelerate digital / connected TV growth
- Expand our display **performance** business to video
- Move to **addressable** / data-driven TV buying creates opportunity to capture incremental TV budgets

Threats

- Inability to access premium inventory due to walled gardens, **relationship** dynamics (e.g. FW, Amazon, FB)
- Strong competition from **walled** gardens, TV incumbents and agile video point-players
- Inability to prove **efficacy** over existing TV models and change the currency (or others do it first / better)
- "Light-touch" **investment** in linear TV may not be enough to win market long-term

Google

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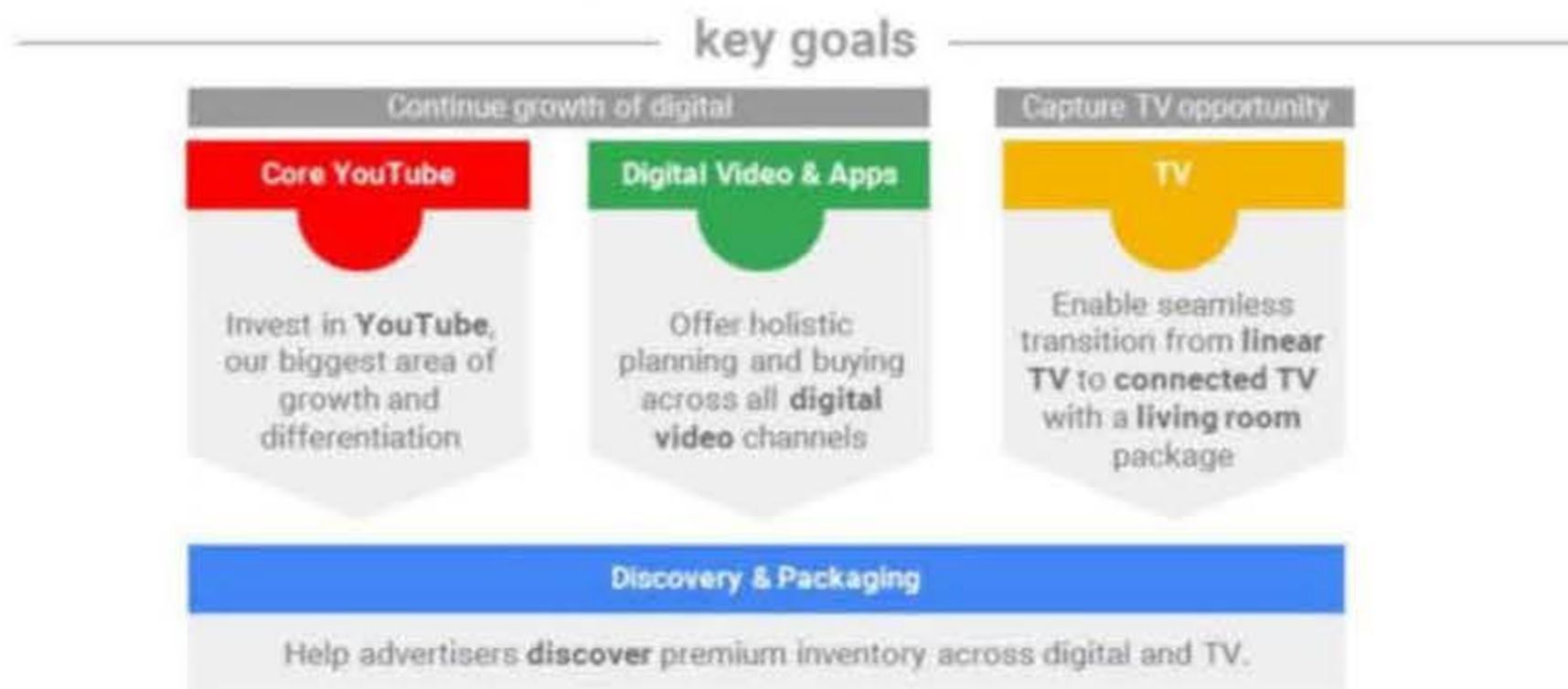
- We are only covering video specific ones

Product Strategy

Google

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2018 Video Strategy: develop solutions to address the \$200B in video revenue converging across TV and Digital



Google

Confidential - Proprietary

- Our strategy is actually really simple: (1) we want to be the best platform for buying digital video and (2) we want to capture the TV opportunity (3) And we want to make all of our products discoverable by users.
- To be the best platform for digital video, we want to do 3 things
 - First, we want to invest in our crown jewel, YouTube, which is also our big differentiator compared to other platforms
 - Second, we want to give customers a reason to consolidate all their digital spend with us by offering cross-channel features.
 - Advertisers buy YT in DBM and pay a tech fee to consolidate their video spending in one platform
 - In return they expect to realize gains in efficiency and effectiveness
 - To realize these gains, our best features must work across YT and non-YT (cross-channel) seamlessly
 - If all channels are siloed, there is no advantage over buying via multiple platforms
 - Being strong in cross-channel allows sales to upsell DBM buyers who mostly buy YT, getting larger share of wallet
 - We'll get to what these features are in a few slides.
- Third we want to make app video a big part of our advertiser's portfolio since apps are where we're seeing the most growth in supply

- On the TV front, we want to set ourselves up for the future by being the platform of choice for buying connected TV in the long run
- But because TV is going through this transition phase, we need to invest in both connected TV and programmatic linear TV and position this as a living room package for our customers
- And of course, having access to all of this inventory is meaningless if advertisers can't find it
- So we want to invest in discovery and packaging, so advertisers can easily find what they are looking for

We launched YouTube in DBM in 2015 to capture incremental budgets as the industry adopted programmatic platforms



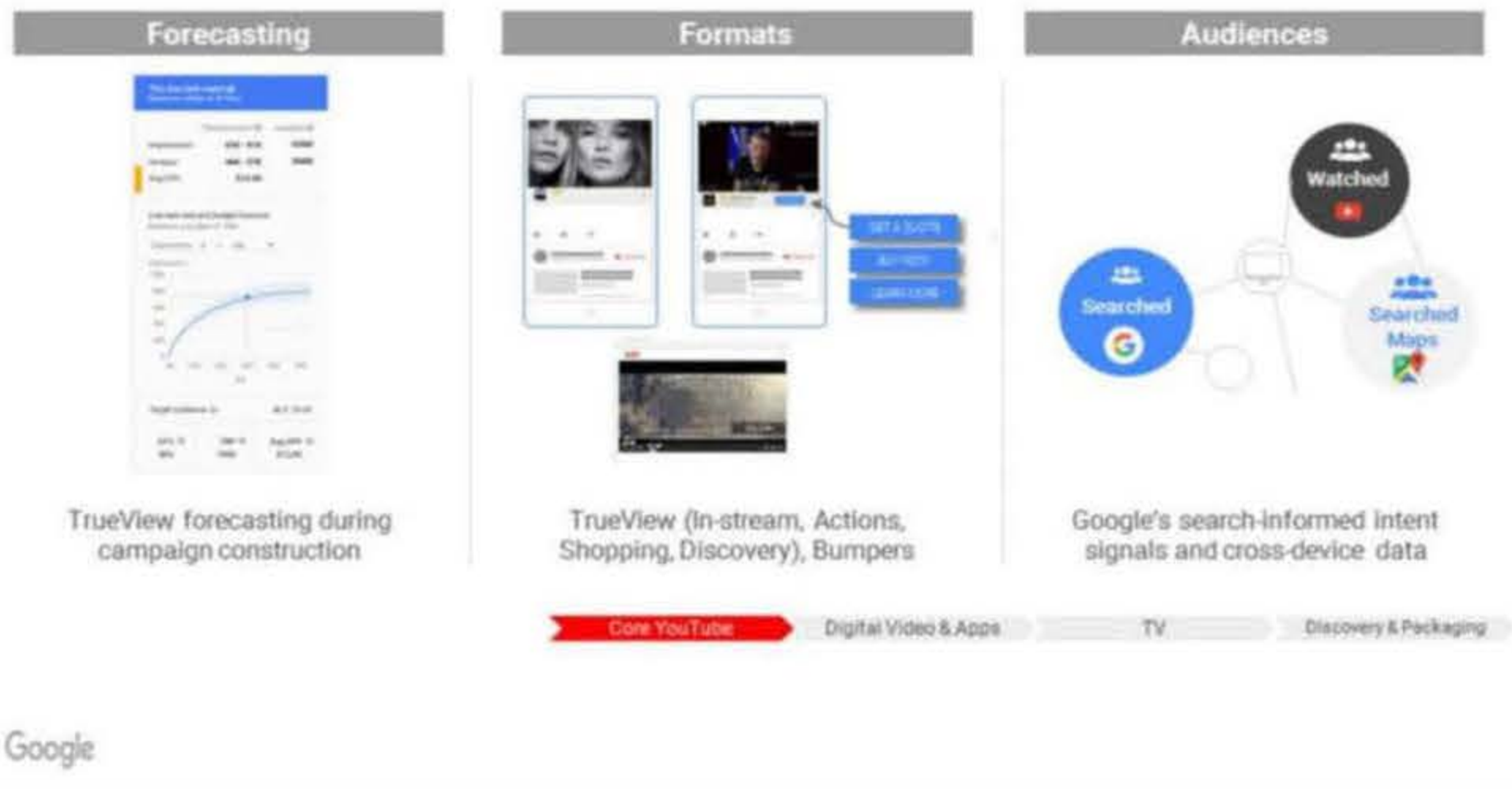
Benefits of YouTube via DBM today:

- Manage ALL YouTube + non-YouTube video media across auction and reserve in one place
- Compare performance of all media using key metrics like Brand Lift, Unique Reach and de-duped conversions
- Consolidated reporting and billing across all media in one system

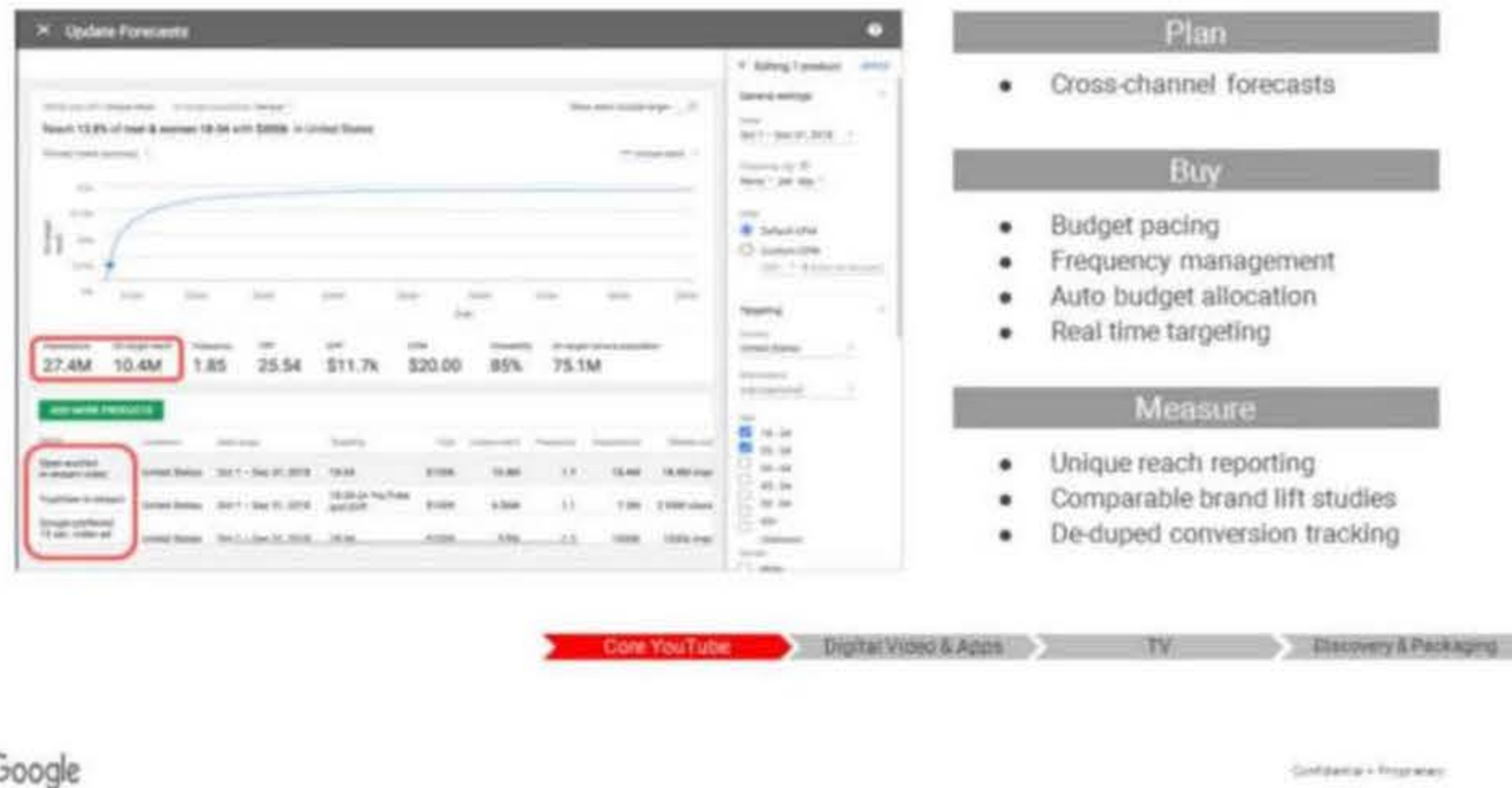


Google

DBM offers the same key formats and targeting for YouTube as AdWords and BART



Cross Channel Video leverages our tech and data to realize the benefits of consolidation across YT and non-YT



- Cross channel is a very important pillar of our strategy
- Advertisers buy YT in DBM and pay a tech fee to consolidate their video spending in one platform
- In return they expect to realize gains in efficiency and effectiveness
- To realize these gains, our best features must work across YT and non-YT (cross-channel) seamlessly
- If all channels are siloed, there is no advantage over buying via multiple platforms
- Being strong in cross-channel allows sales to upsell DBM buyers who mostly buy YT, getting larger share of wallet

Examples include planning features that help advertisers understand their unified & de-duplicated reach across YT and RTB

Then there are the buying/execution features like helping you manage your budget effectively, both with unified pacing controls but also features like ABA

Similarly cross-channel frequency management which helps you save wasteful impressions and drives more efficiency

- Lastly on the measurement front, having unified reporting helps you understand your unified reach
- If the campaign goal is brand awareness, comparable brand lift studies help you understand the effectiveness of spend on driving awareness
- And if your goal is conversions, conversion tracking attributes conversions appropriately, de-duplicating across all your impressions

YouTube in DBM: Areas of Opportunities

Get to Parity with AdWords for Betas

- Launch alphas, betas and labs simultaneously in AW and DBM for key features (new ad formats, targeting capabilities)

Manage Silo'd Buying

- Help buyers more easily manage across YouTube and non-YouTube video given unique YouTube formats, audiences and identity spaces

Create Clear Platform Differentiation

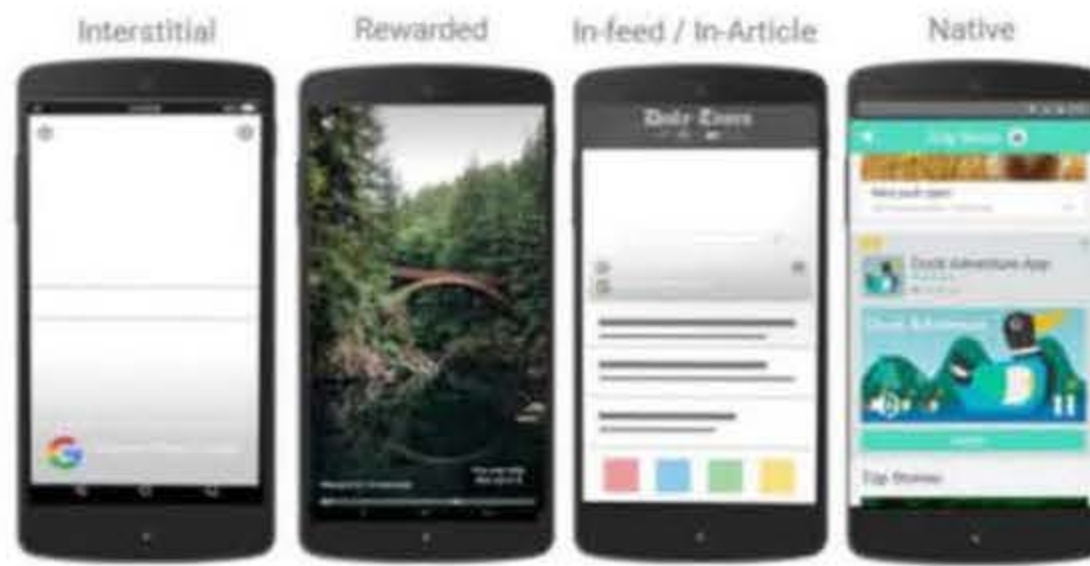
- Re-establish clear customer value proposition (4% fee) and support more programmatic capabilities on-and-off YouTube (frequency management, cross-channel buying)
- Commercialize clear customer segmentation between AdWords and DBM



Google

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Apps: 86%+ of daily user time is now spent in apps, creating a pool of quality video inventory for buyers



Formats

Enable targeting of rewarded, outstream and vertical video formats

Buying

Expose app inventory to eligible demand by fixing the blockers (e.g. viewability, brand safety)

Packaging

Win over opted-out advertisers with a video-focused, premium offering

Core YouTube → Digital Video & Apps → TV → Discovery & Packaging

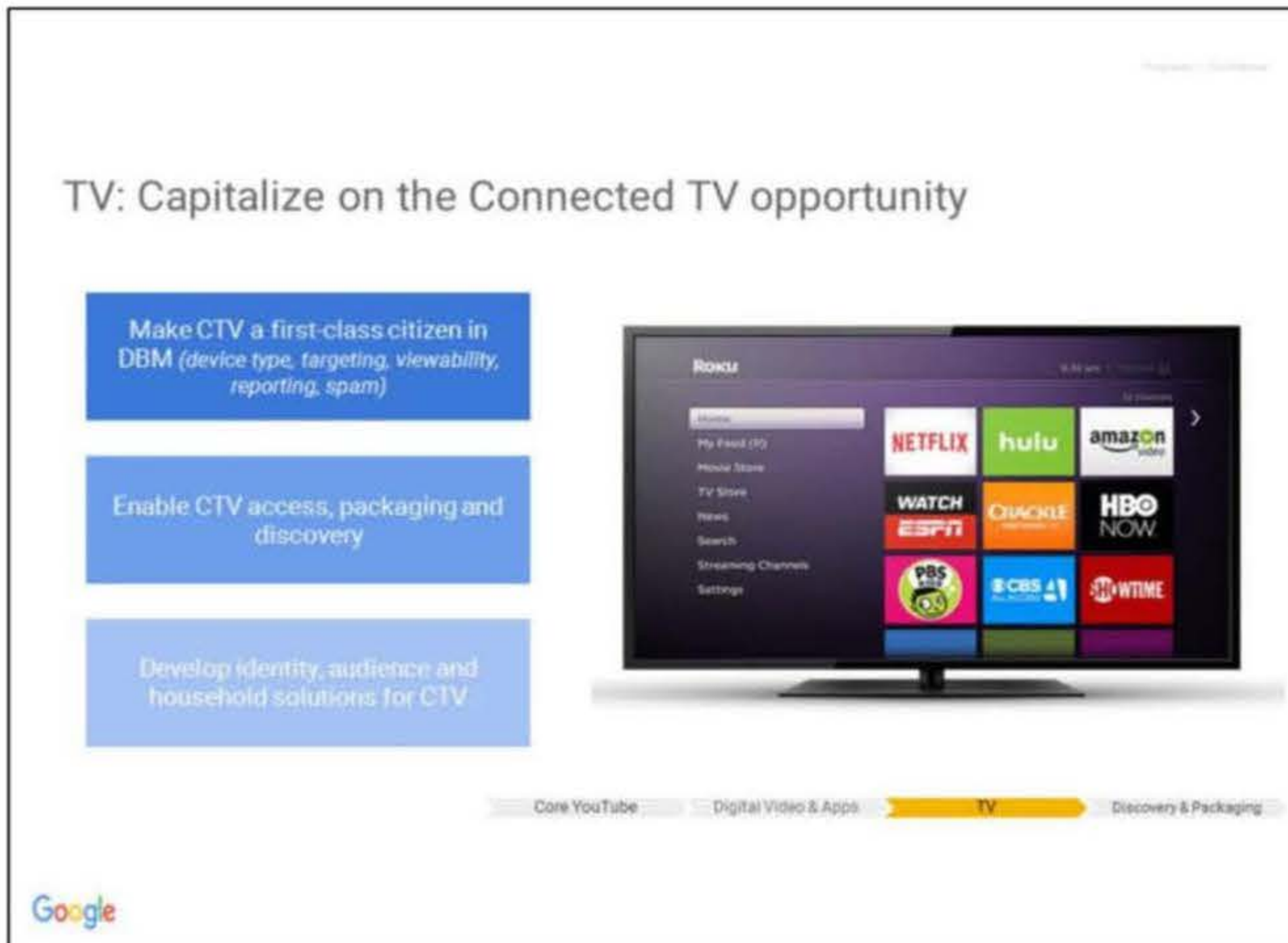
Google

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We'll talk more about apps in the "Innovation" section but our overall strategy includes 3 pillars:

- Offer more targeting options that enable video buyers to find the inventory they are looking for
- Minimize reasons to say "no", by fix the blockers including viewability and brand safety
- Create reasons to say "yes" by creating packages of video-focused inventory that meet their key criteria

p inventory to eligible demand by fixing the blockers (e.g. viewability, brand safety)



- Roughly the same strategy for CTV as well
- Minimize reasons to say no by making CTV a first class citizen in DBM
- Believe it or not, right now advertisers can't explicitly target or report on CTV devices
- We want to fix that by making CTV a first class citizen
- Same as apps, we want to enable better discovery and packaging of CTV inventory
- The last thing here is somewhat unique to CTV though
- One of the challenges we face with CTV is that we don't have a very well developed notion of identity
- This also means that we can't do some of the things we do for digital, like demographic targeting
- We want to invest in that this year and

Peentoo

So far, no one is filling CTV inventory well, so we've taken a more thoughtful approach

The reality is w/ indirect monetization via server side DAI, buyers lose out on some key signals

generally this causes low fill for CTV inventory
Working hand in hand w/ Roku and Apple TV to ensure proper signals are
being passed to buyers
You all have seen the fruits of these efforts - we launched HBO deal last
month, \$31 CPMs, we sourced the demand from our DSP - DBM
We have an entire programmatic deal team whose role is to connect buyers
and sellers and source these deals and we look forward to continuing to add
value to your current stack with this demand

TV: Bring data-driven buying and faster, better metrics to Traditional TV (Linear and Addressable)

Programmatic TV Buying

Google fiber clypd
WIDEORBIT

FOX NATIONAL GEOGRAPHIC
ESPN FX HGTV BBC

Enable data-driven execution and workflow efficiency for linear and addressable TV across national & local spots

TV Attribution with Search Lift

Measure impact of TV airings with Search Lift integration in DBM

TV Ad Explorer

Explore next day TV airing data and measure reach of TV ads by daypart, demographics, genres, networks & shows

Core YouTube Digital Video & Apps TV Discovery & Packaging

Google


- As we discussed earlier in the presentation, programmatic TV is becoming more important given the convergence of digital and linear TV and how they are increasingly planned together
- We are somewhat behind Tube in this space, but we're making good progress
- We have a few integrations under way with WideOrbit (local broadcast), Google fiber (which is our own MVPD) and Clypd (national cable)
- The beta tests that we've done so far with WO have shown very promising results
- We managed to get quite a bit of scale at very attractive CPMs and had no problems spending hundreds of thousands of dollars
- The goal this year is to get enough scale with these integrations that we can go to market with a compelling offering
- Our key product differentiator for programmatic TV is the search lift measurement we provide to customers
- This will help them understand the effectiveness of their TV spend across multiple channels and day parts
- So for example, for our programmatic TV beta that we recently ran with a customer we saw that while their ads in the primetime slots were more effective,
- If you adjusted for cost, they were actually less efficient
- They found that insight very helpful and wanted to use that for future planning purposes

The last product we're building for bridging the TV spend with digital spend is TV ad explorer

This feature gives customers access to linear TV campaign data directly in DBM through a new reporting dashboard where advertisers can analyze TV campaign performance.

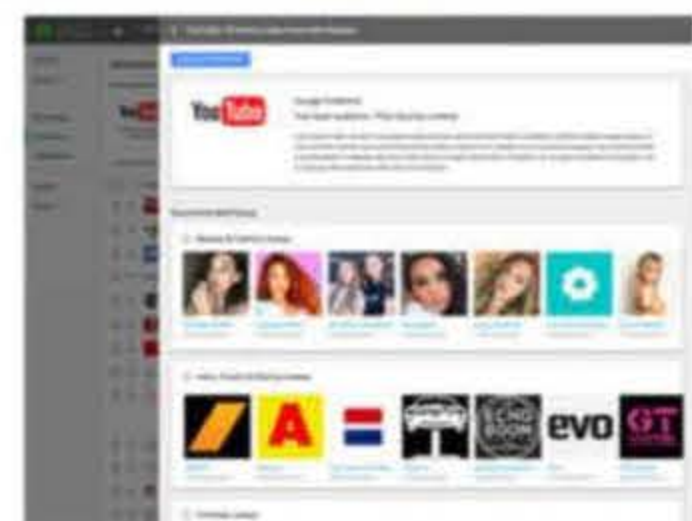
Discovery and Packaging: Help advertisers find scarce premium video inventory for their campaigns

Discovery



- Marketplace for YouTube & Premium Video publishers
- Planning workspace
- TV Content Cards

Packaging



- Curated video packages, including Top Video Picks
- Dynamic guaranteed packages with MarketMaker

Core YouTube → Digital Video & Apps → TV → Discovery & Packaging

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Discovery

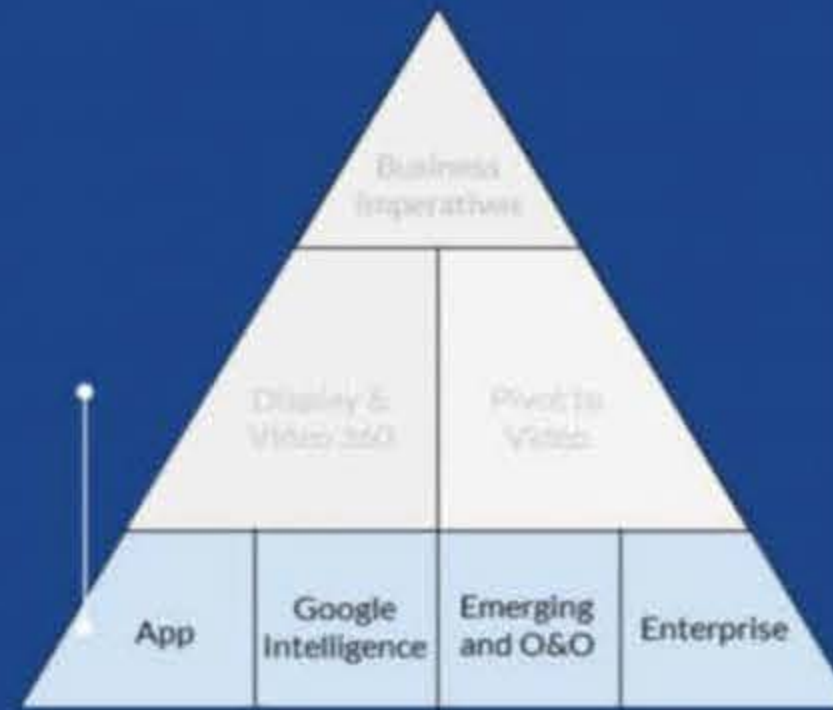
- Having access to all this inventory is meaningless unless advertisers can actually find it
- Therefore we are investing heavily in improving our discovery capabilities with marketplace
- Marketplace is a tool in DBM that lets you discover publishers you could strike a deal with
- You can input your key targeting criteria like demo & country and we'll tell you the top pubs
- We are also introducing this section in marketplace called spotlight which you can almost think of as featured publishers
- Initially it will be based on static input from sales/internal teams, but in the long run it'll be picked automatically by our algorithms

Packaging

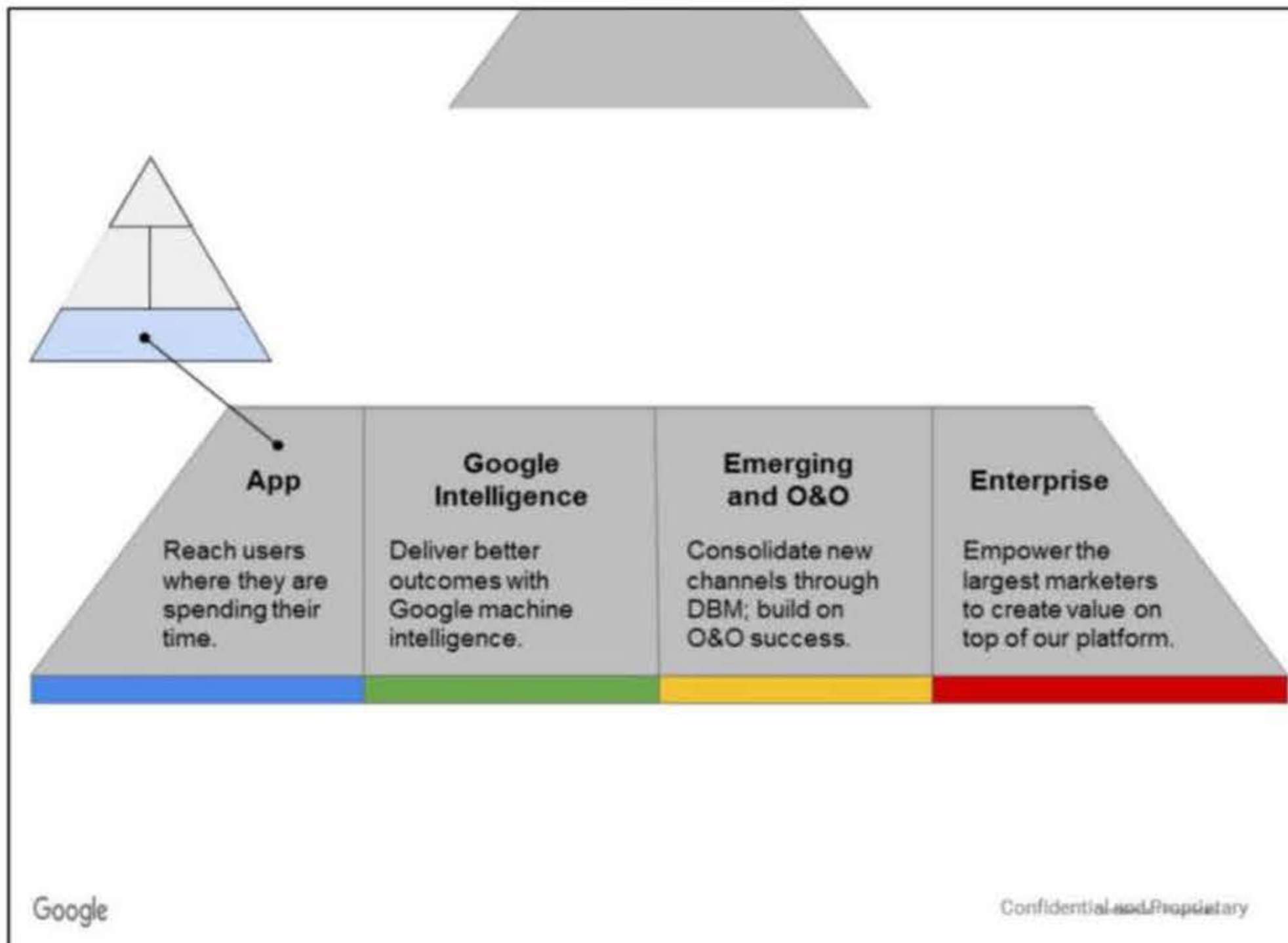
- On the packaging side, we're working to introduce curated sets of packages that span multiple publishers
- Google can play a role here by providing supply to advertisers through efforts like Top Video Picks or MarketMaker, and third parties can offer bundles of inventory as well.
- For example, the screenshot you see here is how we surface lineups in YT

Other Bets

Deepti | 30 minutes



Google



As Luke talked about, these are our other bets

App

critical innovation bucket
user time dominated by apps

Google Intelligence

leverage Google's core competency
balance automatically vs. augmenting a user's decision

Emerging and O&O

invest in nascent channels that will provide NBD
build differentiated offerings (planning, targeting, measurem.)

Enterprise

70% of DBM revenues, DBM has 35% share of wallet
Expected to grow w/ TV spend moving to digital
empower largest advertisers/agencies to operate at scale

Apps

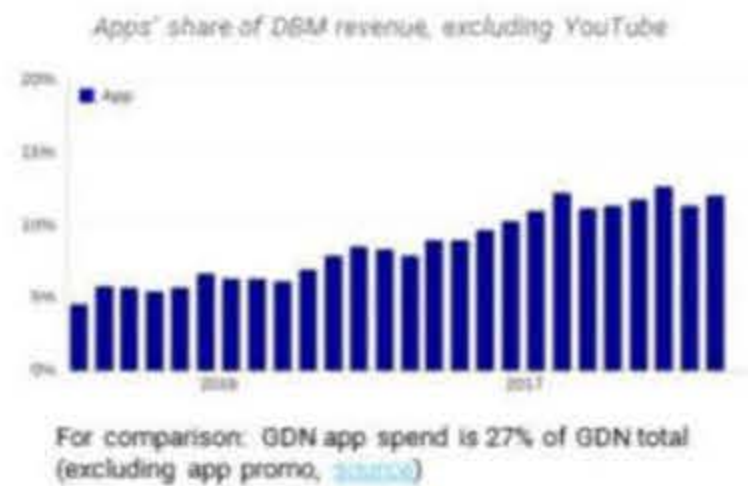
Google

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Id	Date	Text
1	03/26/2018 18:21:06	+deeptib@google.com FYI, added the following 3 slides
<div>Google</div> <div>Confidential - Proprietary</div>		

There is an untapped growth opportunity in apps

While DBM demand for app inventory steadily increases, there is a very large percentage of demand that is excluding app inventory altogether



Revenue by environment targeting:

	App-only	Web-only	Both or no targeting
Display	6%	57%	37%
Video	9%	43%	48%

Google

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Summary: There's an untapped opportunity in apps

- As you can see, we've made a lot of progress in the last couple of years with apps, but there's still a long way to go
- Over the last year, app spend as % of overall DBM spend has gone from 6% to 13% which means that apps have been growing twice as fast as DBM
- And while that's great, 13% is still lower than where we'd like it to be and so we want to invest in increasing that further over the next year
- A big reason for this number being lower is opt outs
- As you can see on the right hand side table, a big fraction of our spend is opted out on apps

How do we unlock more apps spend? Fix the plumbing and focus on brand.

Expose app inventory to eligible demand



Viewability: an industry standard for viewability in apps that will expand coverage for app inventory

Same-device conversions: Changes to DCM attribution reporting so that web to app conversions are displayed in the same reports and used for optimization

Reportable sites: Ensures that top apps are included in a commonly used inventory targeting option

Brand safety: do the work so that common brand safety features don't implicitly exclude apps

Win over opted-out advertisers with a video-focused, premium offering



Overhead

Unfold / rotate

Pause

Severed

Grow demand by driving DBM adoption for programmatic performance



App promo & traditional performance

Google

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- In many cases, it's not because they don't want to advertiser on apps
- Success of walled gardens like instagram, fb and even yt on apps has shown that advertisers are actually okay with spending on apps
- The challenge on DBM has been fixing the basic plumbing and battling the perception that exchange bought app inventory is not premium

We have a 3 pronged strategy to fix that:

1. First is to match the existing demand to the existing supply by fixing basic plumbing. These are things like viewability which many of our customers consider as prerequisites for spending on apps.

2. Second is actually creating a package with apps that our advertisers would consider premium and would meet other key requirements like high viewability Instead of going to customers and asking them "why aren't you opted in", we want to go to them with this package and see how they react

3. We want to grow demand from performance customers

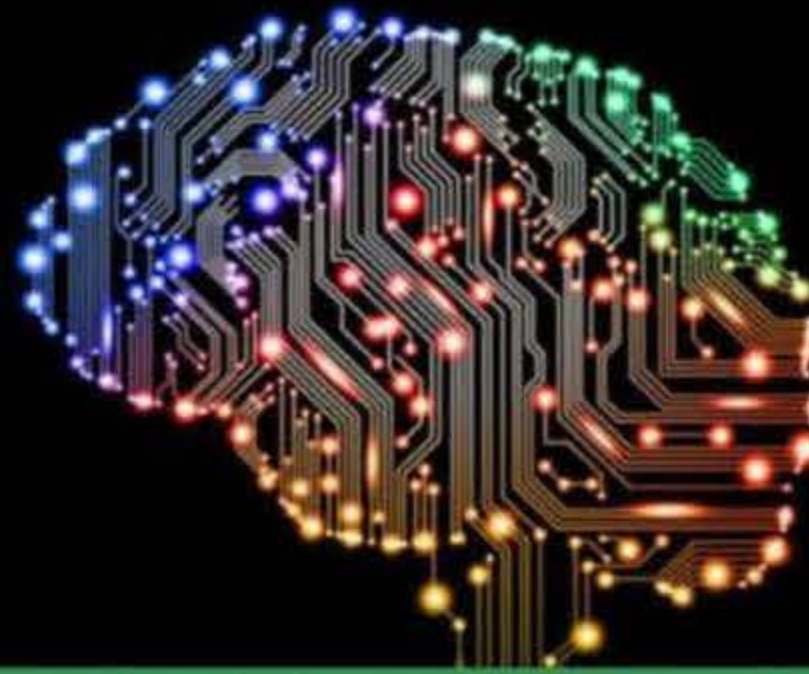
This includes all our initiative around app promo but also making traditional DBM performance spend flow with fixes like same device conversions

Google Intelligence

Google

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Better outcomes with **Google machine intelligence** across all modules



Automate

Grow auto bidding spend to 40% , pay-per-outcome, custom algo and reach opt for brands

Assist

Alert on campaign while running but also during creation; suggest ways to resolve issues that might lead to underperformance

Create

Optimization, visual search for creatives, and creative recommendations

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Summary: As Luke mentioned, this is our main strategy for being able to charge higher margins

Automate

- First thing here is automation. We want to increase the overall adoption of our automation features to 40% (it's around 26% today). And it was 15% a year ago.
- This includes pay per outcome which is where we charge customers for clicks but pay pubs for impressions so we can charge them a higher non-transparent margin
- We also want to invest in a reach and frequency optimization feature for brand customers, so we bring automation benefits not only for our perf customers but brand as well

Assist

- For customers who don't want full automation, we still want to provide them guidance on what to do next
- This includes alerting them when things are not going right, and also providing suggestions on how to improve their performance
- We recently launched budget reallocation suggestions in DBM and are continuing to add more (including raise bids, add additional targeting)

Create

- We're launching optimization for creative selection, which we know improves

performance for all customers who have more than one creative concept. This is the first step in helping advertisers measure the impact on performance good creative can have.

-For the first time, Google's expertise in visual search to the asset selection and creative development process - helping designers find and manage their artwork easier than ever

-We'll also introduce creative recommendations to help advertisers understand what messages and formats worked well for them, or might work well for their category or brand objectives.

We've been using machine learning in ads for years (adspam, bidding, classifiers, viewability).

Now expanding use cases to create additional value for customers:

Auto Bidding

Grow spend to 40%

Reach opt for brand

Incremental conversion opt for performance

Assist

Alert on campaign while running but also during creation

Suggest ways to resolve issues that might lead to underperformance

Creative

Creative optimization


Visual search for creative content recommendations

Emerging and O&O

Google

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Emerging Channels, Direct Integration and O&O increase reach



will I need an umbrella at Twickenham today

outdoorplus III

Ask the Google app

New Channels	Expanding O&O	Direct Access
DOOH - Digital out-of-home - 40B market, Audio, increased importance, Google Play Music potential anchor property	Building on success of YouTube and Gmail, explore and expand into Waze, Maps, Photos, News	Direct integration with key publishers to ensure best access, signals

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- The third "other bet" that we have is emerging channels.
- These are new ways we are expanding the inventory that DBM can buy that we expect to bear fruit in the next few years
- We have brand new type of media like OOH and audio
- We have our own o&o that we want to expand into
- And we also want to provide direct access to publishers through project yavin aka demand platform

Picture shows actual ad from sales driven pilot in the UK via PG using DBM/DRX.

OOH is worth \$38B ARR. Exciting new market with new formats. We are uniquely positioned to measure.

Gmail/YT are a success story, we want to expand into other owned and operated properties across Google.

Direct Access, while still providing the broadest access to inventory, we want to be more explicit about the quality of our access and actively work on ensuring we have the best shot at winning each impression.

Id	Date	Text
6	03/19/2018 18:19:45	+tmaurer@google.com If we're not talking about Demand Product on Day 1, here's another place we could add any key points on Day 2 _Reassigned to Tobias Maurer_
7	03/19/2018 18:19:45	+deeptib@google.com FYI
<div>Google</div> <div>Confidential - Proprietary</div>		

Audio Ads in DBM allow buyers to seamlessly execute their audio campaign via programmatic pipes.

Audio lets advertisers reach mobile users in new context

197

minutes per day
spent on mobile

27%

spent in audio
only mode

Audio Ads in DBM are a great opportunity for our buyers for a few key reasons

Digital Audio Drives Brand Results

Audio drives +60% Brand Recall and +52% Brand Interest over benchmarks. Nielsen Catalina Solutions found that for top brands, each \$1 in spend drove \$6 in sales.

Seamless

Direct integration with DBM allows buyers to use this new format with the same programmatic functionality they know and love.

We are fully launched with Soundcloud, Spotify, and Google Play Music



Id	Date	Text
1	03/27/2018 14:38:31	27% of mobile time spent is in audio-only mode

OUT OF HOME is the fastest growing traditional media (\$42B market, +6% Y/Y)

WHAT WE GET

Business expansion
Incremental marketing dollars
for Google

Business diversification
Brand safe, not susceptible to
ad blocking, zero fraud

Greenfield opportunity
No other tech giants here yet

WHAT WE PROVIDE



- OOH is also a perfect example of the kind of disruptive thinking we can bring to a new industry and also generate incremental budgets for Google
- We can use the assets we have like the location history, GAIA identity and the audience data to change how advertisers buy this inventory
- Let's say a user was at time square at 2pm and saw a BMW ad and later visit the BMW website
- We can put all of that together for the customer and provide the level of insights that no one can

O&O properties collectively have monetization goals exceeding ~\$1B ARR for 2018 and ~\$3B+ by 2020. Each of these properties have the potential to be \$B+ properties as evidenced by similar-sized competitors.

		2017 DAU	2017 Revenue	Est 2018 ARR	Est 2020 ARR
	Gmail	450M	\$400M	\$750M	\$1B
	Image Search	340M	\$0 (display) \$130M (PLAs)	\$100M (display)	\$650M (display)
	Feed	110M	\$0	\$50M	\$830M
	Photos	120M	\$0	\$50M	\$350M
	News 2.0		\$0	\$50M	\$220M*
	Instagram	~500M	~\$4B	\$6.8B (2018E)	-
	Pinterest	~50M	~\$490M	\$770M (2018E)	-
	Snapchat	187M	\$825M	\$1.3B (2018E)	-

* Excluding properties like Play that are 100% tied to Universals.

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We are just scratching the surface of what we've done with O&O

<https://www.forbes.com/sites/greatspeculations/2017/11/13/how-much-revenue-can-instagram-drive-for-facebook-in-the-future/#591a33517b4f>

<https://www.fool.com/investing/2017/03/26/instagram-is-set-to-make-a-killing-in-advertising.aspx>

<https://docs.google.com/spreadsheets/d/1FxT-KnwBnTRQkyNouN16OFNPf01TjA8FUIQ024mTaiQ/edit#gid=1274630613>

https://www.sec.gov/Archives/edgar/data/1564408/000156459018001409/snap-ex991_6.htm

<https://www.theinformation.com/pinterest-after-just-missing-2017-revenue-target-plans-sales-ramp-up>

<https://screenshot.googleplex.com/5Mpiy3HnakE.png>

Gmail 2020 ARR:

Momentum: \$900M

Assuming 20% YoY: \$1.08bn. So let's use a round \$1bn

IS - \$850M (based on book rev estimate for 2021, this includes also queryless

monetization)

Photos - assuming pursuit of both formats, 5X growth for assistant tab visits, and 3X growth of big-image views by 2020, we get around \$600M (lower scenario would be 3X growth for assistant visits, and 1.5X for big-image: \$350M)

Feed Ads estimates are \$1.8B ARR by EOY 2020, \$2.5B ARR by EOY 2021, \$3.0B ARR by EOY 2022.

Here is the modeling we did with the Finance team:

<https://docs.google.com/spreadsheets/d/1KSkwhMsdCmmv7920RFNDiqz61YpJ0jSD3xfuyZgq6mo>

SNAP: Brian Nowak, a Morgan Stanley who covers tech well (and usually asks Ruth a question on our earnings calls), has them at 1.3B for 2018E (59% YoY).

Insta: Nothing reliable because FB doesn't break out Insta, but seems like \$6.8B for 2018 is a standard estimate. That's massive YoY of 87% rev compared to estimated \$3.6B for 2017A, but I think it makes sense given their massive user growth (they more than doubled between Q2 and Q3 2017 to over 500M DAU).

Pinterest: Let's say they can grow at Snap's clip of 57%. Pinterest's rev grew 63% YoY from 2016 to 2017. That puts them at \$770M.

ARPU check for 2017 numbers:

Insta = \$7.28

Snap = \$4.41

FB overall = \$29.04

Pinterest = \$11.95

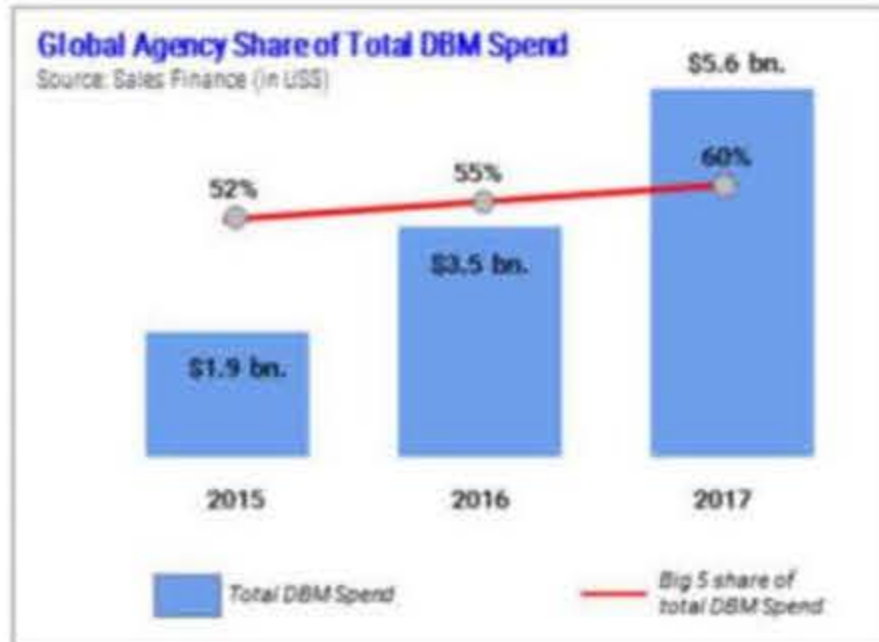
Seems reasonable, although Insta seems too low to me so the revenue estimates I found may be low. Added numbers to the slides. It wouldn't be objectionable to increase Insta to as much as \$7.5B (I currently have it at 6.8). Their ad load isn't so far off that of FB, and CPMs aren't encumbered by FAN there

Enterprise

Google

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Big 5 Agencies continue to be an important revenue source for DBM...



- At the end of 2017, Big 5 Global agencies accounted for **60% of total DBM revenue**
- The share of revenue has **consistently grown** over the last 3 years

Google

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Last but not the least we want to talk about enterprises

- Big 5 agencies continue to be a big part of our revenue
- At the end of 2017, big 5 agencies accounted for 60% of total spend
- And as you can see, the share of revenue has grown over the last 3 years

Video (45% 2017)

2017: \$390M

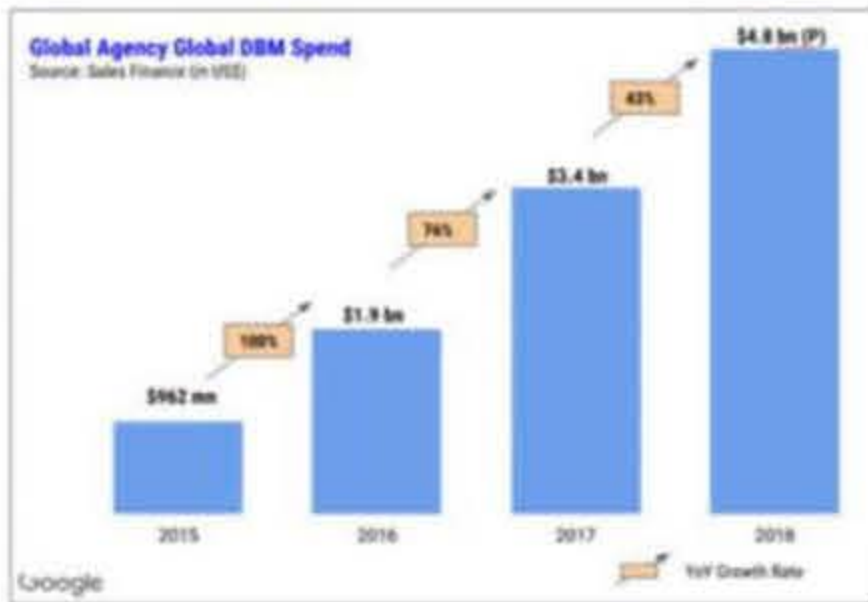
2018: \$550M

Non-Video

2017: \$494M

2018: \$893M

But we need to strengthen our product p'ship to address declining growth...

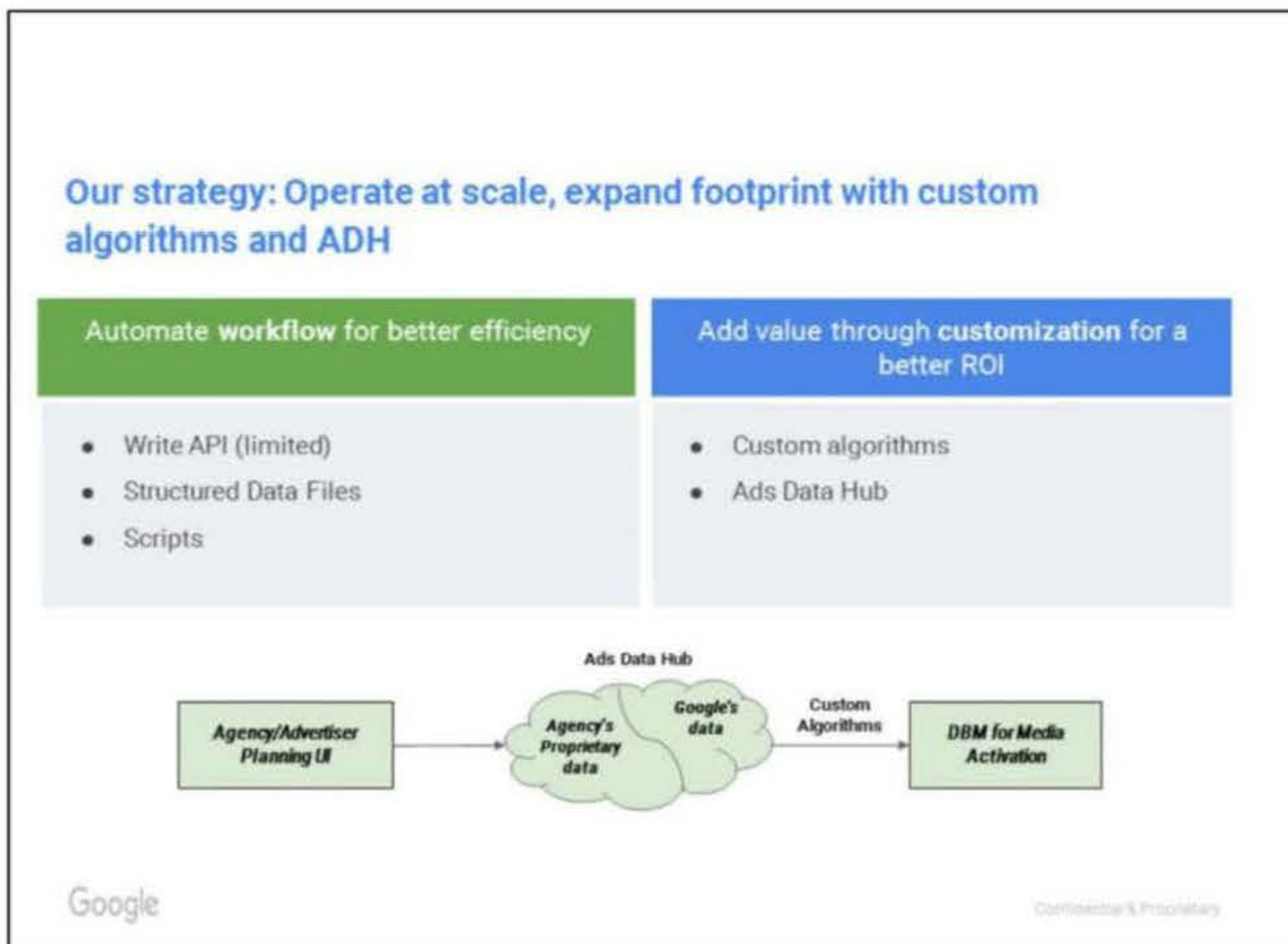


- Recently, we have **lost some share to competition** as they've been more flexible to customization:
 - Trade Desk** is agency favorite for **quality of service** and **usability**/ease of use point of view. Though they don't have any proprietary data or full-stack offerings
 - Appnexus** allows really deep **customization** where agencies like WPP/Xaxis and DAN/Accordant have custom bidder build into Appnexus. But it's not a DSP for everyone, agencies with real assets make the most of their offering
 - Amazon** AAP offers their **shopping data** in a way that helps us predict future buys and targeting. They close the gap between ads & shopping for true ROI
 - Adobe** is emerging a strong **full stack** player, with a slew of recent acquisitions and is offering strong/closed-loop solutions to agencies

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- I know that we've mostly covered this content in the intro session, but just to reiterate
- We hear a lot about TTD and AppNexus from agencies in a different context



Agencies have two main goals- automate workflow for better efficiency and add value for their clients through customization

- For automating the workflow, we want to provide agencies a menu of options that they can pick from depending on their use case
- They can use the Write API for creating campaigns, but you can't use that for editing targeting or bids due to disintermediation concerns
- To help them edit targeting and bids, we offer structured data files where you can make changes in bulk in a CSV format and then upload back to us
- We are also exploring offering a scripts like functionality that agencies can use to automate their workflow but within our platform

Our second pillar is customization. And the main goal here is to enable the agencies to build on top of our platform, so they can add value and justify the margin they charge customers

- Custom algorithms is a really cool feature that helps customers use their 1P data or unique insights to optimize towards a business objective
- We've seen some really good success with our early customers and our goal is to scale that more broadly this year

And then we have ads data hub, that lets customers bring in their 1P data into

google cloud and join with Google data to derive unique insights

Video (45% 2017)

2017: \$390M

2018: \$550M

Non-Video

2017: \$494M

2018: \$893M

APPENDIX

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Three focus areas (further detail)

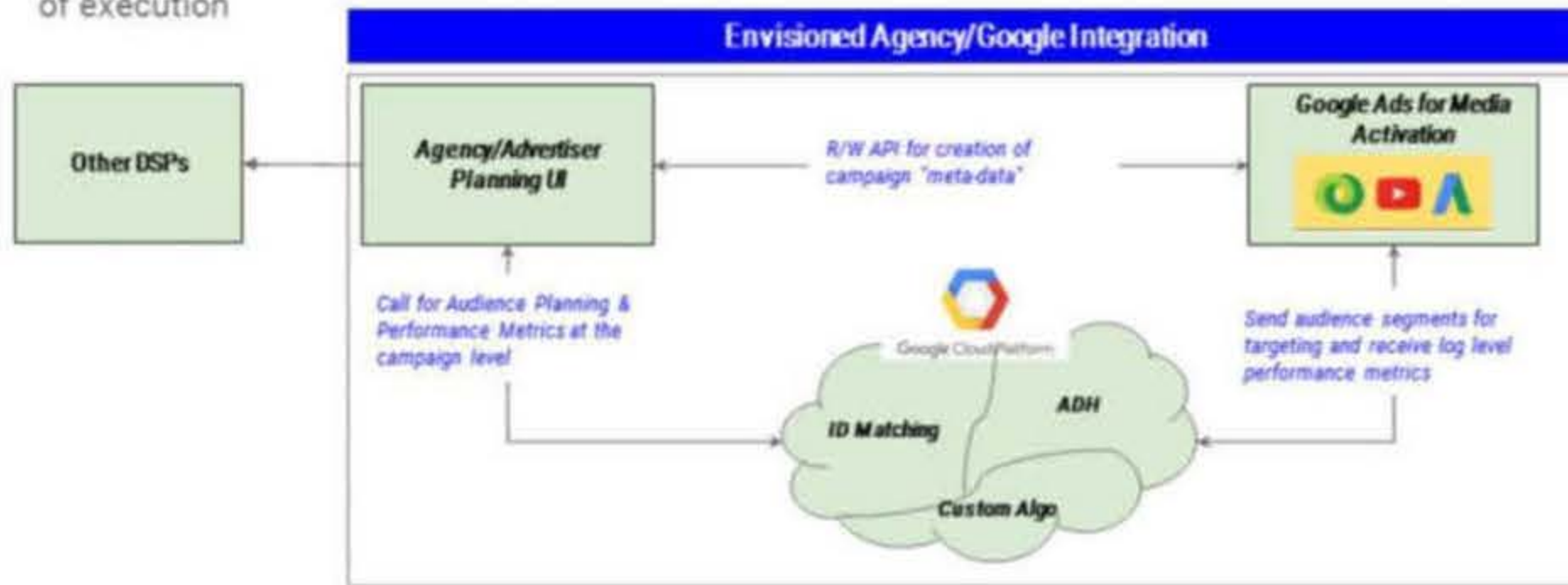
	Focus area	Current challenges	What we're doing
1.	Expose app inventory to eligible demand	Popular features have low coverage in app inventory (viewability measurement, 3rd party brand safety lists, verification, etc.); reporting on same-device conversions is broken	Prioritizing and addressing each issue; some large efforts will have a big impact (" Fountain " for viewability); many small fixes will have a large impact in sum. Report on same-device , cross-ID space conversions in line-item reporting
2.	Build a great package of inventory, formats, and control to win over opted-out advertisers	Agencies, large buyers, and internal sales teams have a negative view of exchange-bought app inventory due to perception of low quality and low brand safety	Work across buy- and sell-side to create a package of high-quality inventory that is safe & measurable with great formats. Sell it proactively to well-suited advertisers. Get momentum and feedback.
3.	Grow demand by driving DBM adoption for programmatic performance	Large performance advertisers use competing DSPs for in-app spend. App promo features still being built out for a full offering	Deep-dive with advertisers to understand which features could bring their budget to DDM. App promo: Easy conversion tracking with AAP integration. Leverage Craray to serve GDN templates . Build out video formats.

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What they're asking for...

Every agency is aiming to (a) Automate Workflow (b) Generate Advanced Insights and (c) Activate/Optimize Audience. Differentiation for an agency is derived via data, talent & flawless/speed of execution



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Video (45% 2017)
2017: \$390M
2018: \$550M

Non-Video
2017: \$494M
2018: \$893M

2. Cross Channel Video leverages our tech and data to realize the benefits of consolidation across YT and non-YT



Examples	Plan	Execute	Measure
	Cross-channel forecasting	Unified budget pacing, frequency caps, optimization with A/B & quality reach	Brand lift, conversion tracking

Google

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- To realize gains from consolidation, our best features must work across YT and non-YT (cross-channel) seamlessly

Google

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3rd Party Tech: Where are we today?

7 Event Sync



1 Brand Format

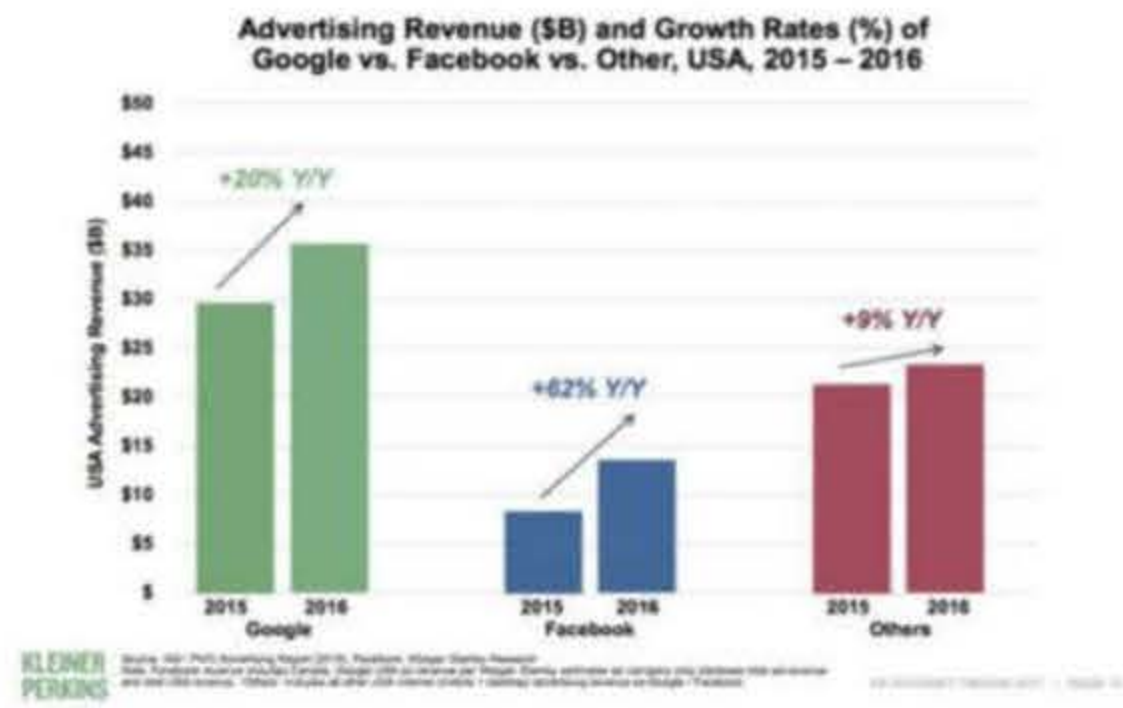


3 Ad verification



INTERNAL: Google Confidential & Proprietary

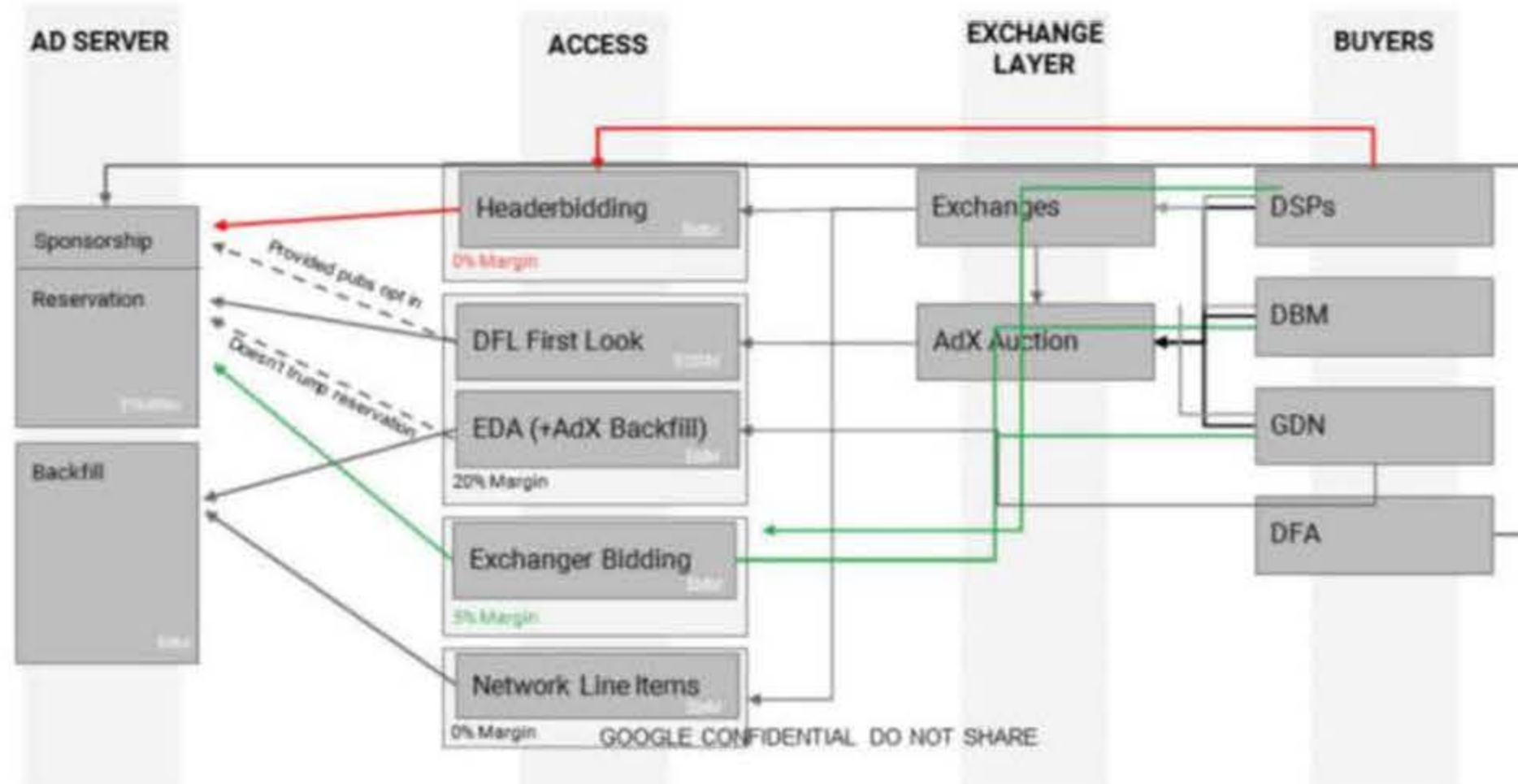
There are other tech partners which we are in contact with but not utilising and may make use of in future such as video contextual classification tech, native format tech providers.



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Various layers of access define our ability to buy



Google

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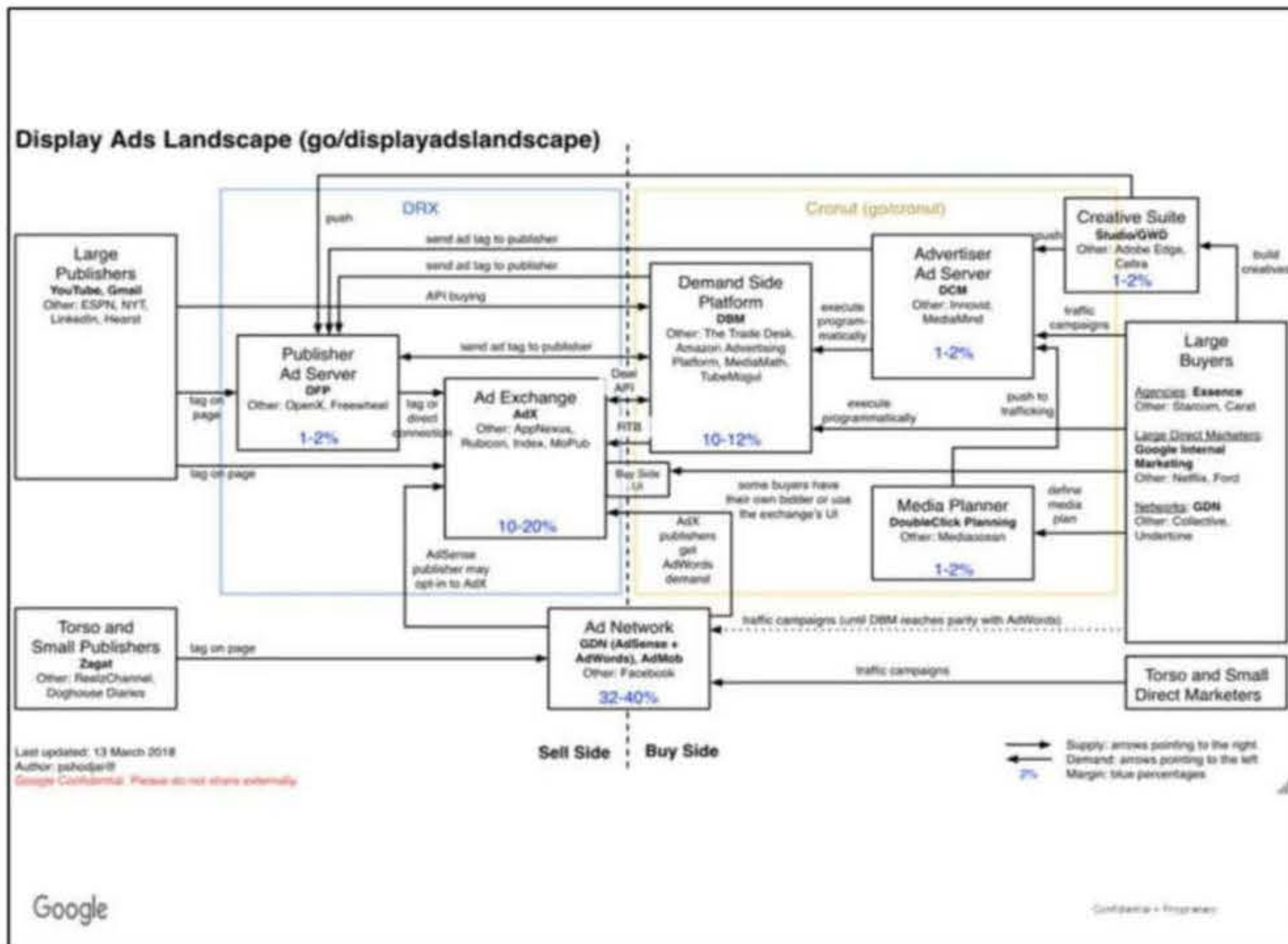
Executive Summary

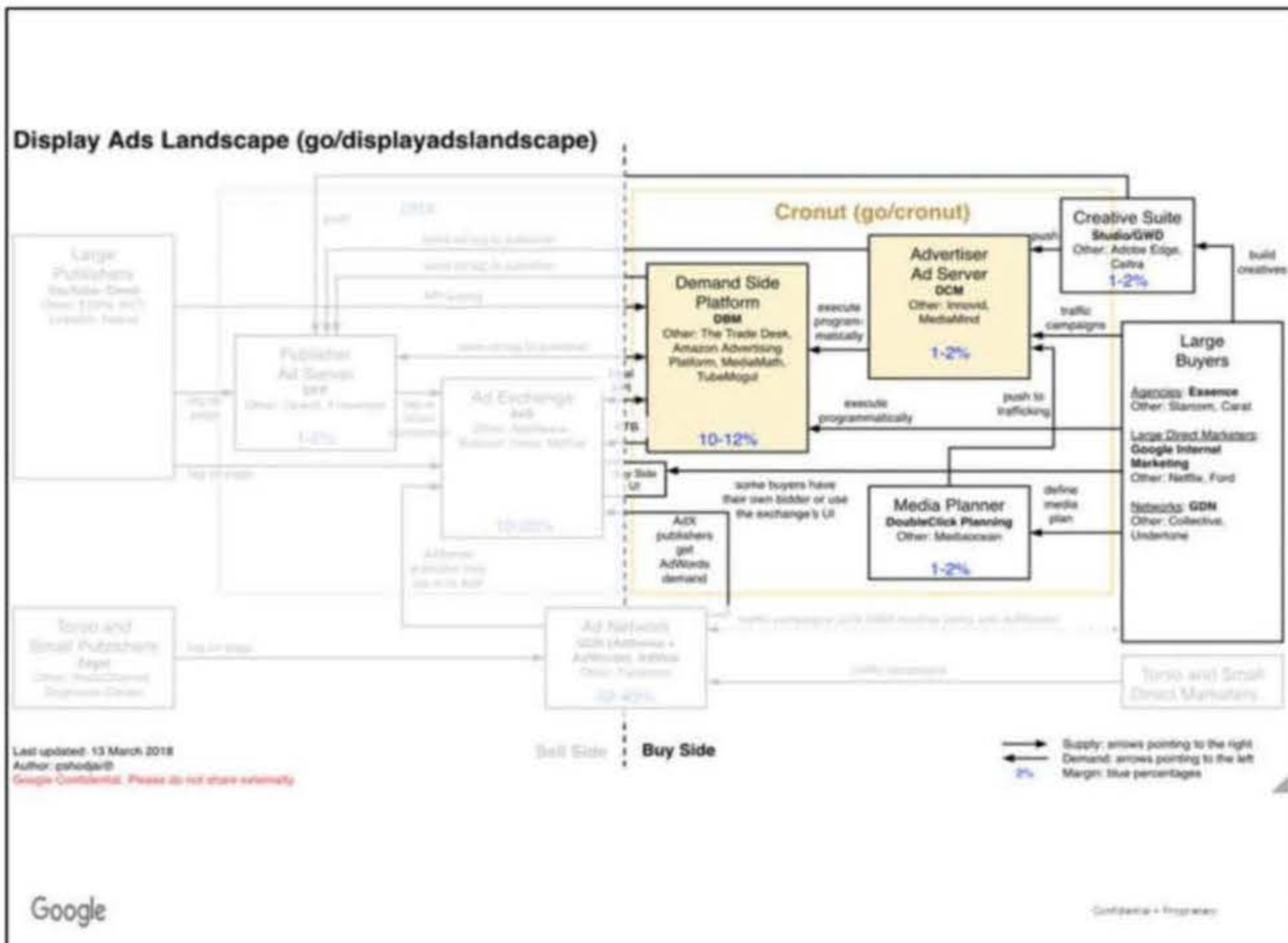
(scope is GDN + DBM unless stated otherwise)

1. Level-setting how we source inventory today
 - a. evolution of display ads ecosystem
 - b. inventory makeup (50 exchanges, adx, adsense, admob)
 - c. DSPs used to be all around enabling broad access as neutral buying tool, but 2, 3, 4 challenge this
2. inventory quality is a huge challenge
 - a. Spam
 - b. counting discrepancies
 - c. misrepresented inventory
 - d. brand safety concerns
 - e. Price gouging strategies
3. competition has changed significantly
 - a. used to be Turn/MediaMath and many others, now its heavily consolidated (TTD, AAP, FB)
 - b. walled-gardens create all kinds of issues for us / what we have access to vs. not
 - c. unique value of DFP access is challenged by Header Bidding and ecosystem incentives
 - d. attribution challenges, in addition to self-prosion
4. New types of inventory are emerging
 - a. challenging our policies/infrastructure
5. External factors
 - a. ITP
 - b. GDPR
 - c. Brand safety

(for each of these problem statement, what we are doing on DBM and impact, how it compares to competitors)

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Overarching Buyside Strategy

Step 1: Be a media-agnostic platform for large marketers

Why? Large buyers control vast majority of spend and want media-agnostic tools to manage their business.



Step 2: Consolidate all channels through programmatic technology

Why? So we can maximize share-of-wallet with large advertiser.

Step 3: Deliver superior ROI across all channels

Why? So we can influence spend and grow Google O&O/network revenue.

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- \$155.5M revenue at 18.5% margin in 2017 (-44.1% YoY, margin dropped from 25%)

Focus on:

- Eliminated 100 positions in 2017, \$20M reduction of capital expenditures, expects to EBITA positive in Q4, 2018
- Eliminated buyer fees (DBM was impacted by this)
- Revamped auction to be first price as default

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<http://investor.rubiconproject.com/news-releases/news-release-details/rubicon-project-reports-fourth-quarter-and-full-year-2017>



Inventory quality major concern starting early 2017

"What gives advertisers pause on programmatic?"




Media Buyers

1. Bots/Fraud	27%
2. Verification	22%
3. Lack of human interaction	22%
4. Placement transparency	19%
5. Poor inventory quality	19%
6. Brand safety	17%
7. Pricing transparency	17%

Based on Q1 2017 Programmatic Intelligence Report collecting feedback from top 200 advertisers in US and >1000 key decision makers

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'Biggest Ad Fraud Ever': Hackers Make \$5M A Day By Faking 300M Video Views

Google Issuing Refunds to Advertisers Over Fake Traffic, Plans New Safeguard

Google announced a \$100 million refund to advertisers, and plans to add a new safeguard to protect against fake traffic.

Russian Hackers Stole Millions From Video Advertisers, Ad Fraud Company Says

White Ops says Russian hacking operations stole millions of dollars from video advertisers, and plans to help them get their money back.

Domain Spoofing Be Gone: Ads.Txt Will Filter Out Imposter Sites

White Ops reports biggest ad fraud botnet found yet: 'Methbot' targeting high-CPM video inventory

The botnet has been siphoning an estimated \$3 to \$5 million in ad revenue per day, making it the largest ad fraud scam uncovered to date.

UBER SUES DENTSU'S FETCH MEDIA FOR FRAUD

Adobe says it will help advertisers and publishers find out if they are getting ripped off by ad tech companies

News organization

Big brands fund terror through online adverts

Household names unwittingly pay extremists and pornographers

Q4 '16

Methbot

Q1 '17

Brand Safety

Q2 '17

Ads.Txt

Q3 '17

Accountability

Q4 '17

Moving Forward

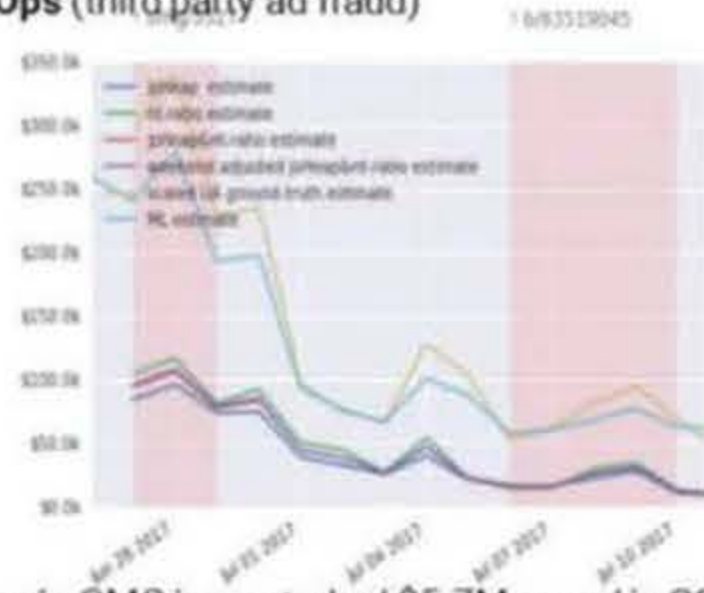
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Two major attacks over 2017, impact in excess of \$32M



Chefbot: large, sophisticated botnet attack, likely via infected residential computers; ~\$32M net revenue impacted in 2017 (Q2 + Q3); botnet was discovered by **White Ops** (third party ad fraud)



Nissan via OMG impacted w/ \$5.7M spend in Q2 alone.

- We proactively refunded ~\$32M net revenue impacted in 2017 (Q2 + Q3)
- Negotiated with all exchanges to have 30 day refund terms; limited default buying to exchanges w/ refund terms
- Initiated major internal effort to align spam crediting/debiting system (ongoing)
- [Externally communicated](#) what protections we offer
- In active negotiations with White Ops to strengthen our ability to detect botnets pre-bid

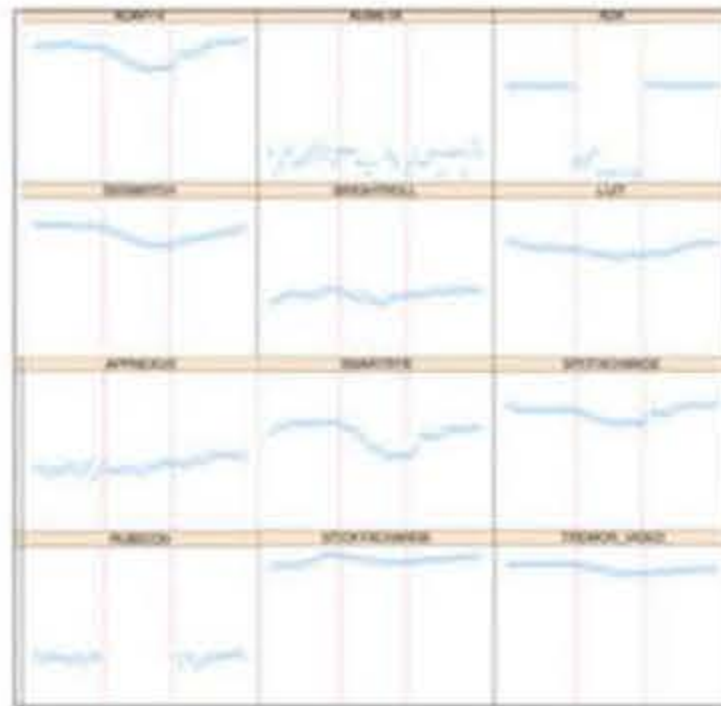
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Misrepresented/Counterfeit Inventory



Blackout Experiments: when turning off publisher ad serving for 5 minutes, impressions on many exchanges continued to serve.



Established Adx.txt as industry standard, launched support across Buy- and Sell-side.



- **80% of DBM** spent adopted.
- Unauthorized inventory overlapped w/ botnet traffic.

Google

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Buy-side and specifically DSPs (DBM) used to be primarily focused on securing access. However this position is challenged:

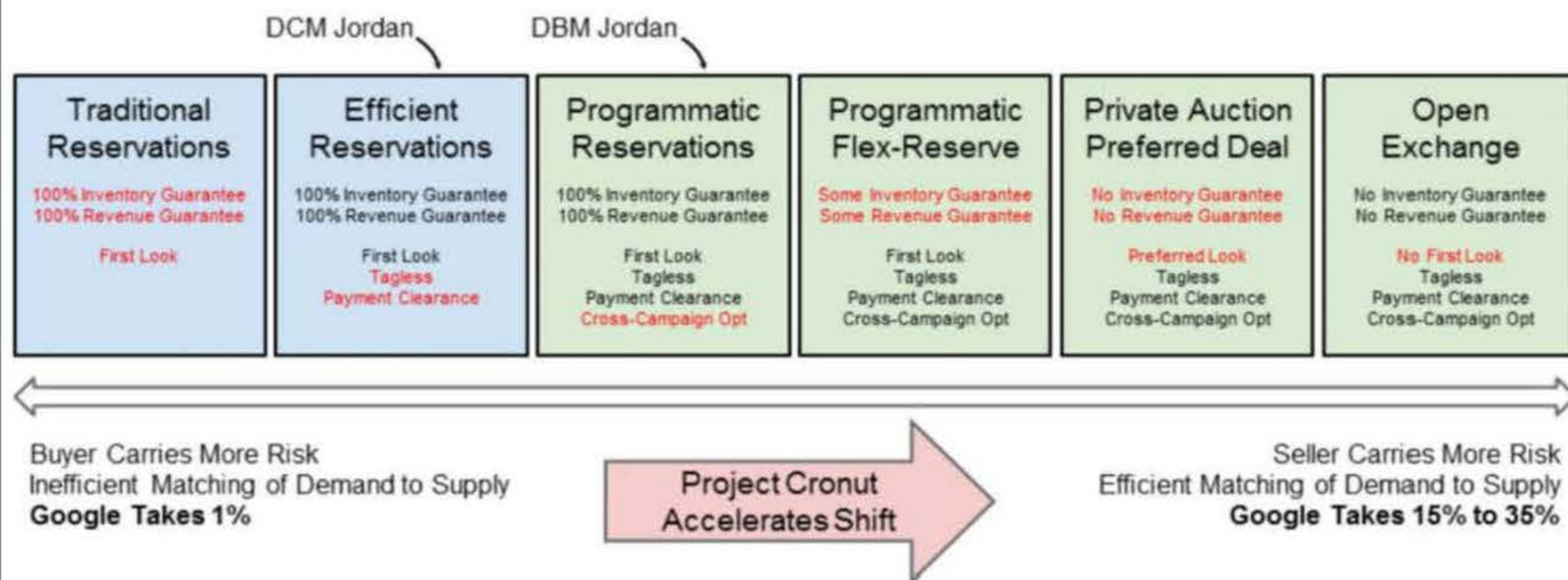
Executive overview of following slides:

- 1. inventory quality is a huge challenge**
Botnet attacks, spam, discrepancy deltas led to a loss of about 95M over 2017 - most of which has since been mitigated. In light of brand safety concerns in early 2017, advertisers demand better protections and guarantees on how their \$ is spend.
- 2. competition has changed significantly**
of programmatic buyers is declining as standalone companies in data management, ad buying, and measurement are struggling or being acquired. Survivors are those with scale TDD, AAS
- 3. external factors are consistently challenging our business**
New inventory doesn't always work well with existing policy/spam processes and often leads to revenue not flowing as a default. Ecosystem/Regulatory changes have huge impact (Brand Safety, ITP, GDPR)

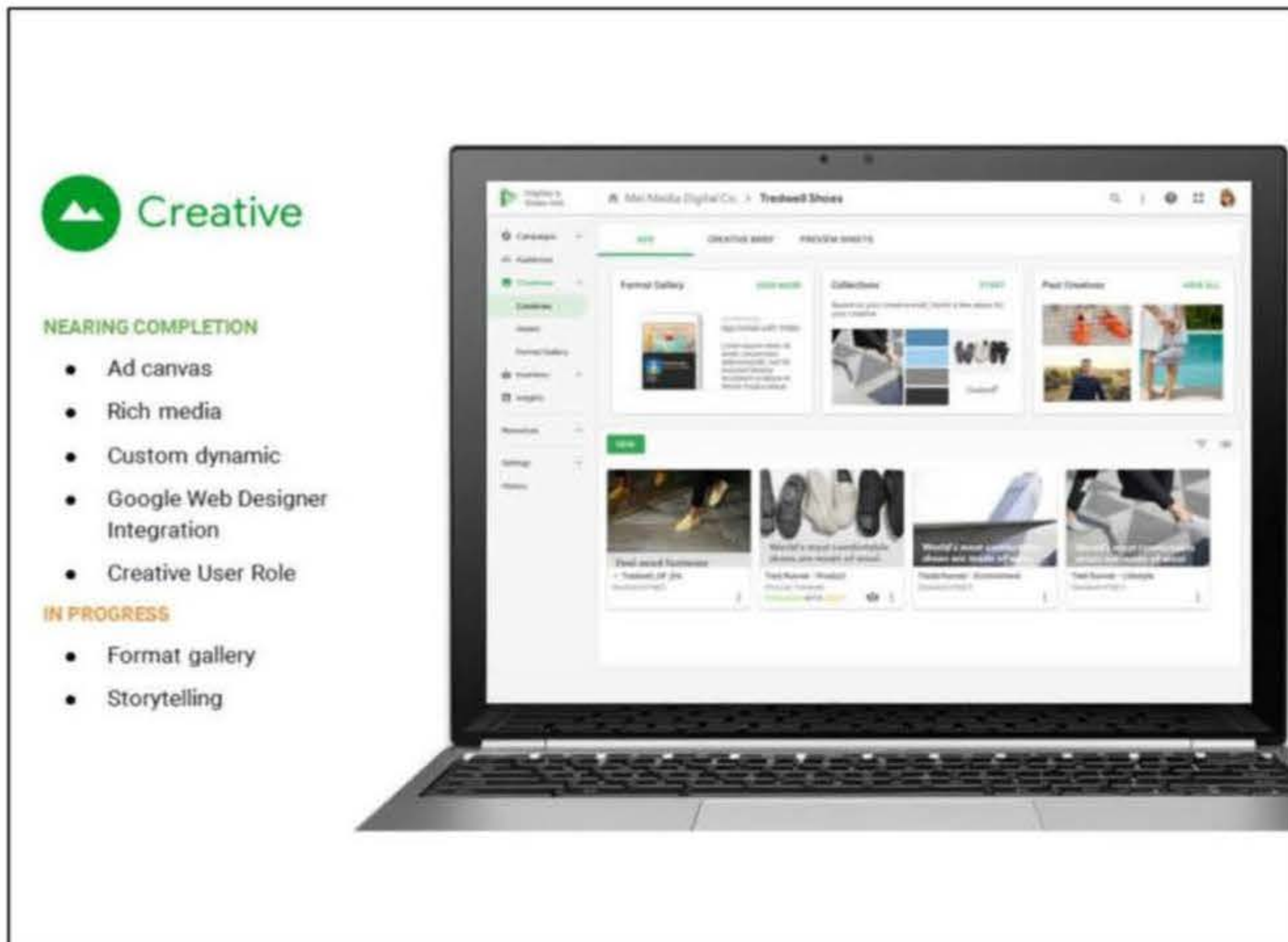
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**By accelerating the move to programmatic deal types,
Project Cronut creates a more efficient marketplace,
defensible product offering and profitable business.**



Id	Date	Text
9	03/27/2018 18:29:28	Taken from: https://docs.google.com/presentation/d/1ztPjfx-m50YQYpaMrcFdoegZ57bPxdiG6NgGQbiWB8w/edit#slide=id.g2a507948c_00
8	03/28/2018 14:23:04	+karinb@google.com This slide is probably overkill but it's what I had in mind about the margin side of "Why Cronut" _Reassigned to Karin Hennessy_
3	03/28/2018 14:23:04	yeah i think this takes away a little bit from the product story, moving to appendix, we'll cover via discussion if needed



- A workspace for creative agencies to design, produce, and manage ads at scale
- The ad canvas is a visual-first UI for building custom rich media and dynamic creative
 - Integration with GWD allows creative developers to seamlessly push ads directly to A3
 - Format gallery highlights Google's newest high impact formats
 - Storytelling allows cross format creative sequencing - allow brands to create personalized messaging as they move their consumers down the marketing funnel

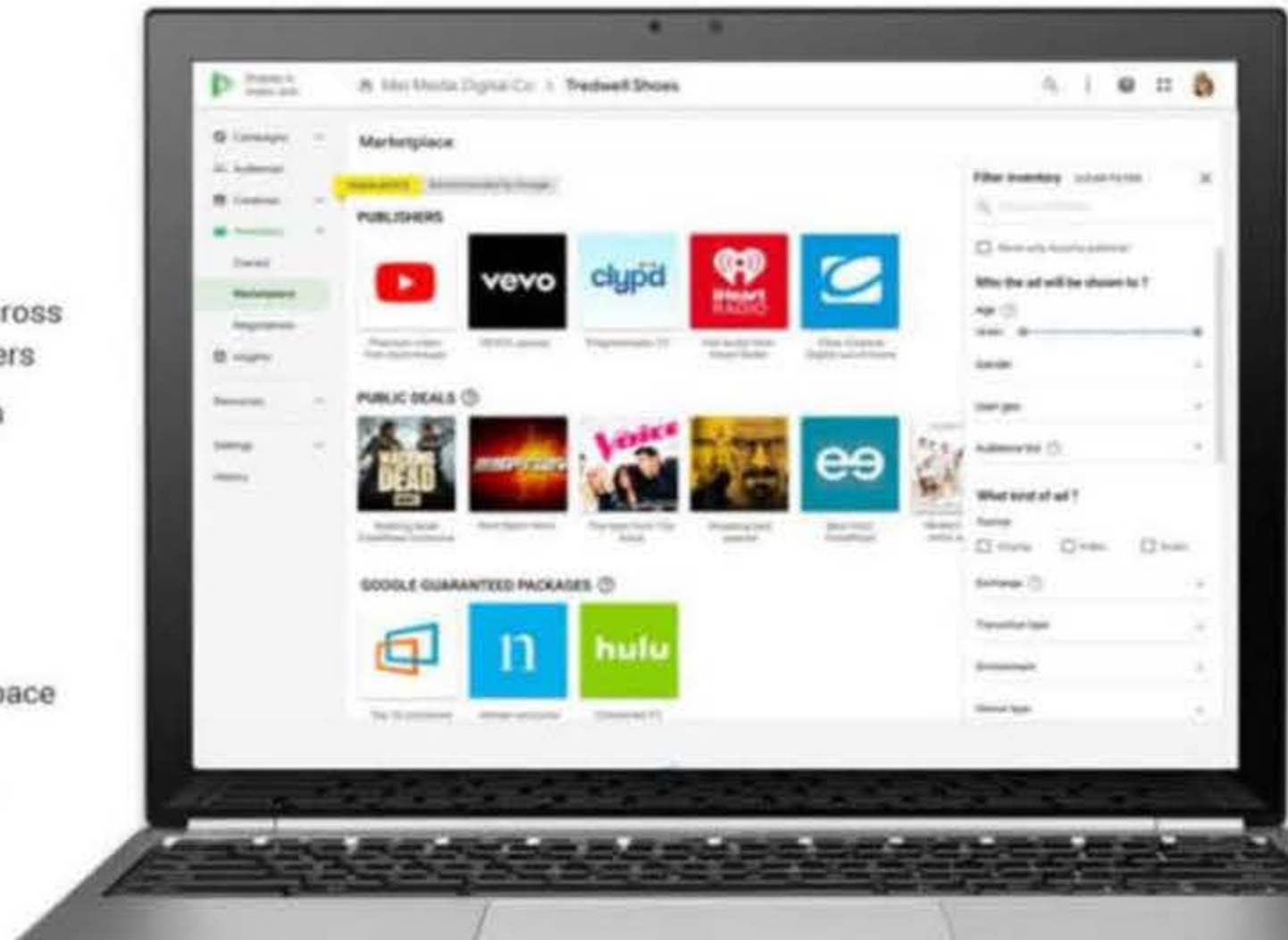


NEARING COMPLETION

- Unified negotiations across deal types and publishers
- Deal type simplification
- Tracked inventory
- Spotlight in Discovery
- Inventory planning workspace
- Reach planning workspace

STRETCH

- Packages in Discovery





NEARING COMPLETION

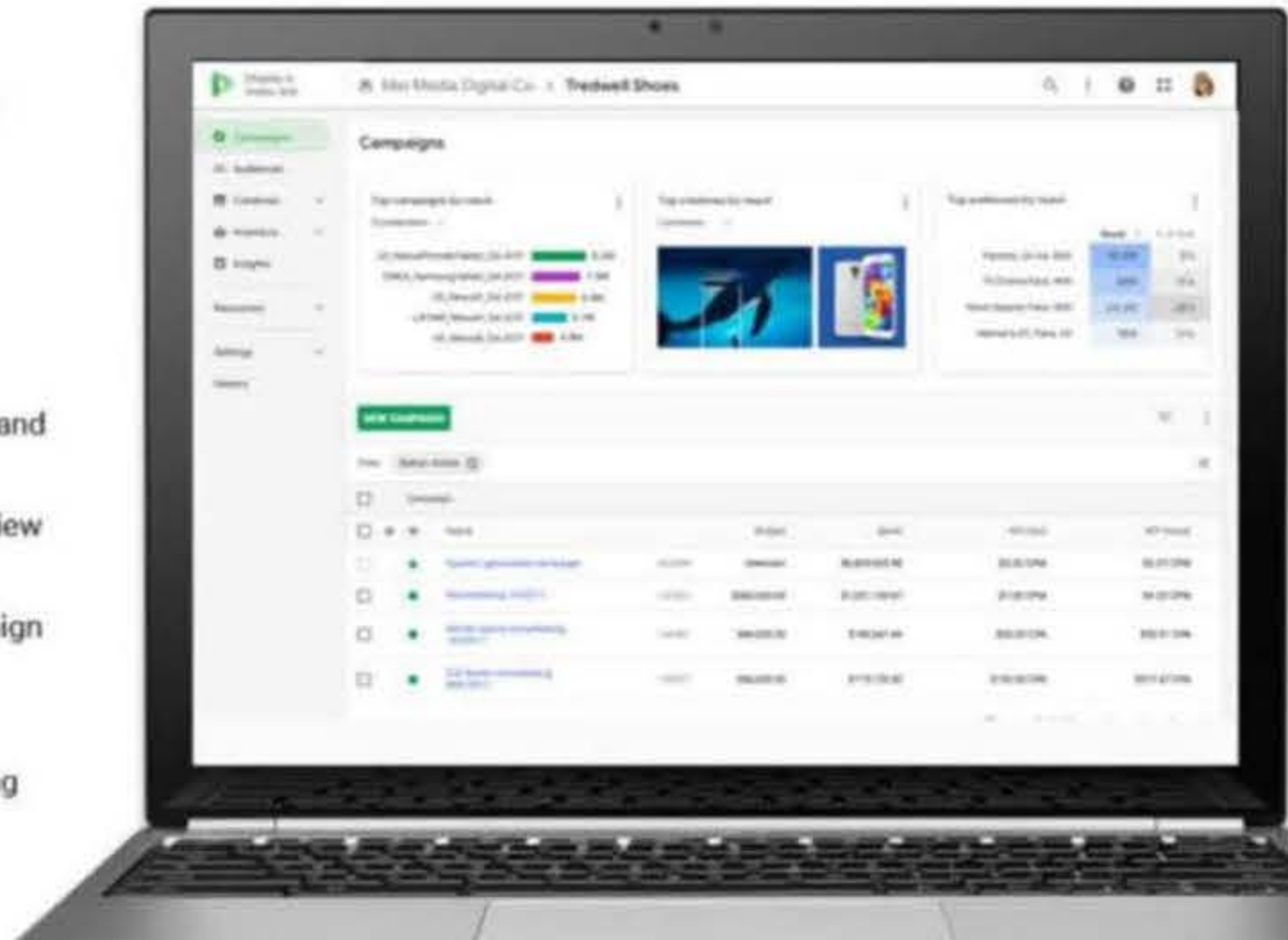
- Campaign object

IN PROGRESS

- CCO/CAO across RTB and reservations
- Campaign trafficking view (CE)
- Reservations in Campaign Context

STRETCH

- Full Reservations buying workflow.



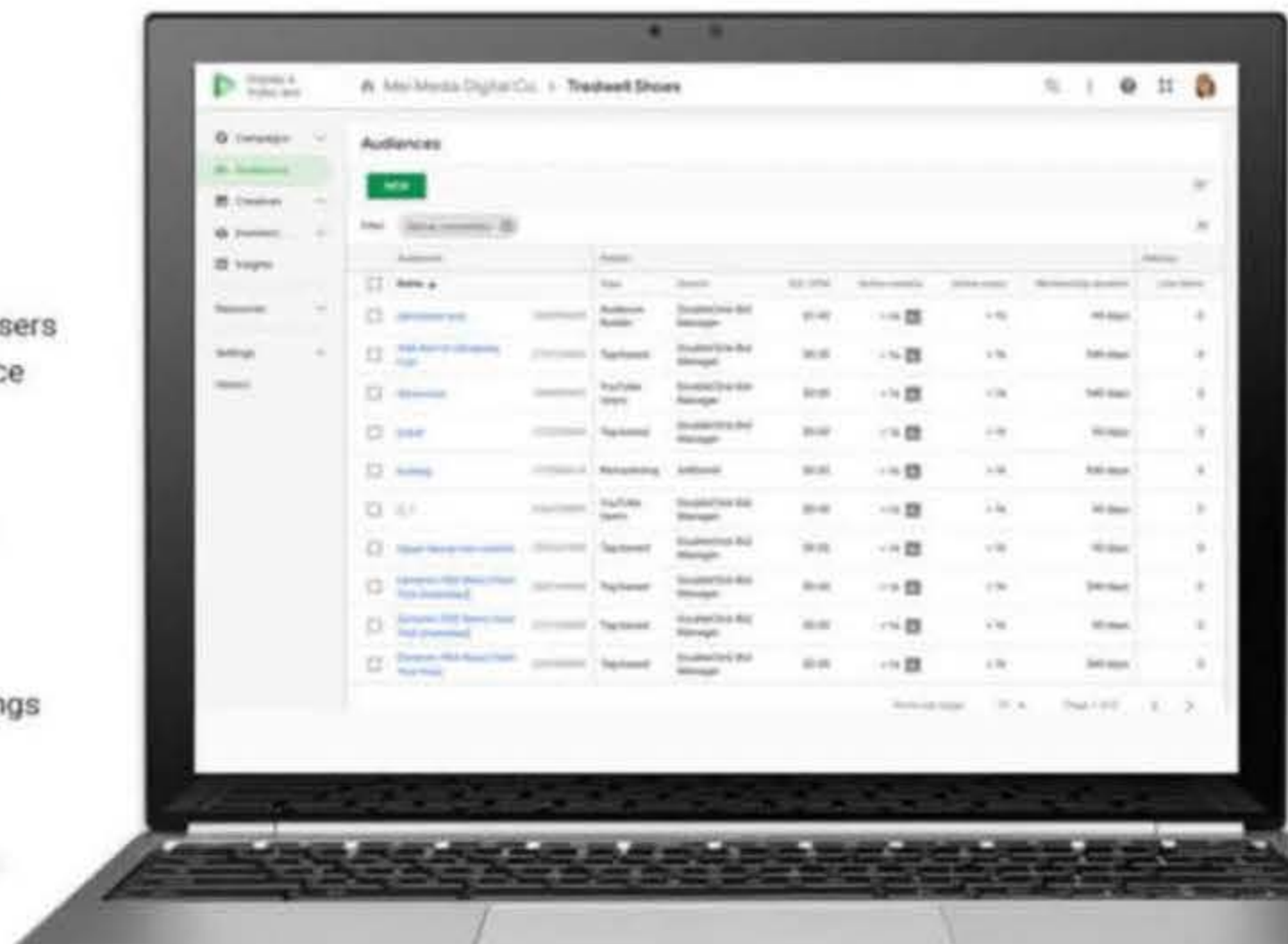


IN PROGRESS

- Supporting Signed-In users
- New Building Experience
- Event-based audience building
- GAIA list management

PLANNED

- Account Linking (Settings Tab)
- More Google Data
- Audience Composition



Builder and Composition -- management
Signed in users - YT audiences



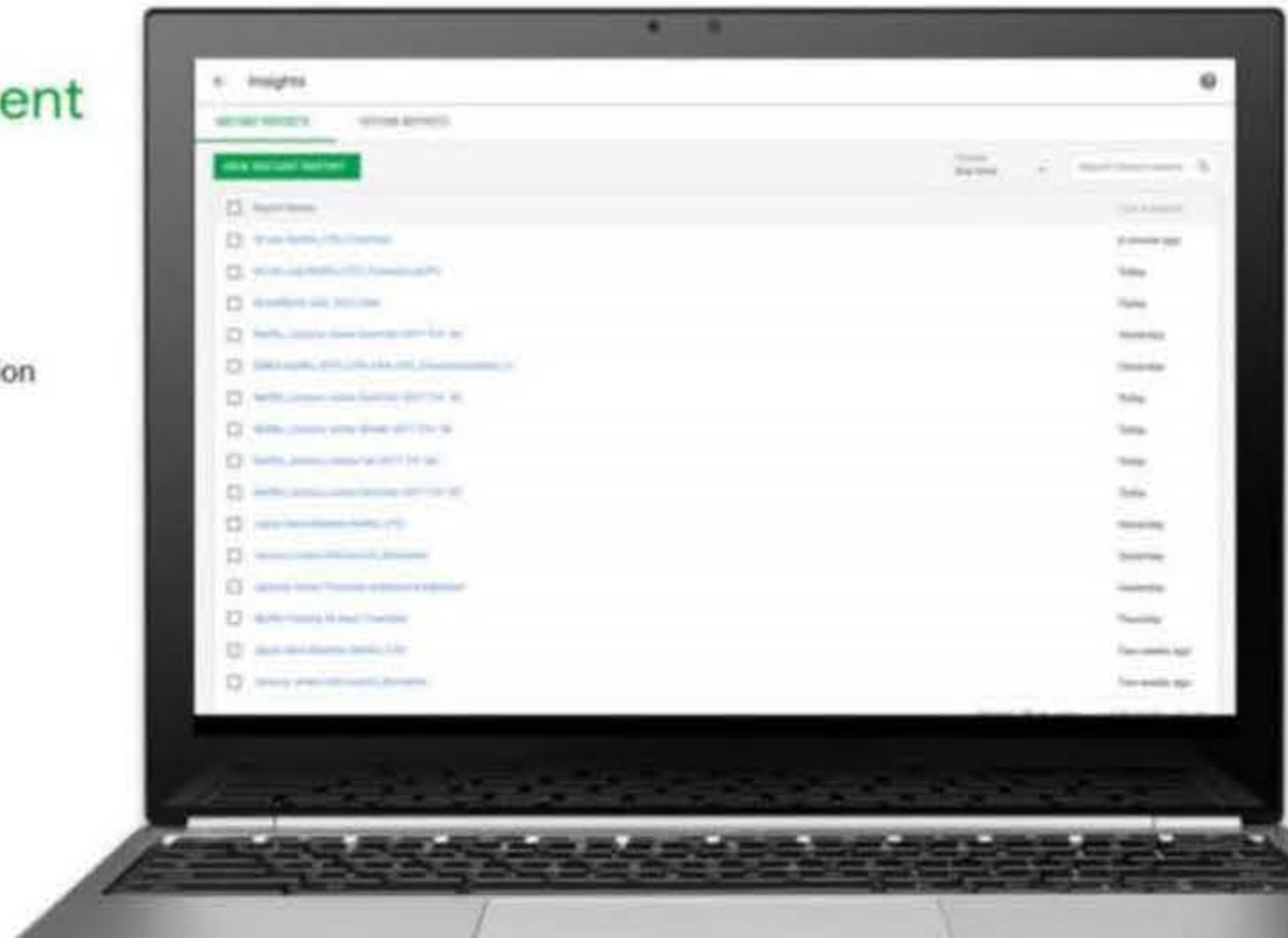
Measurement

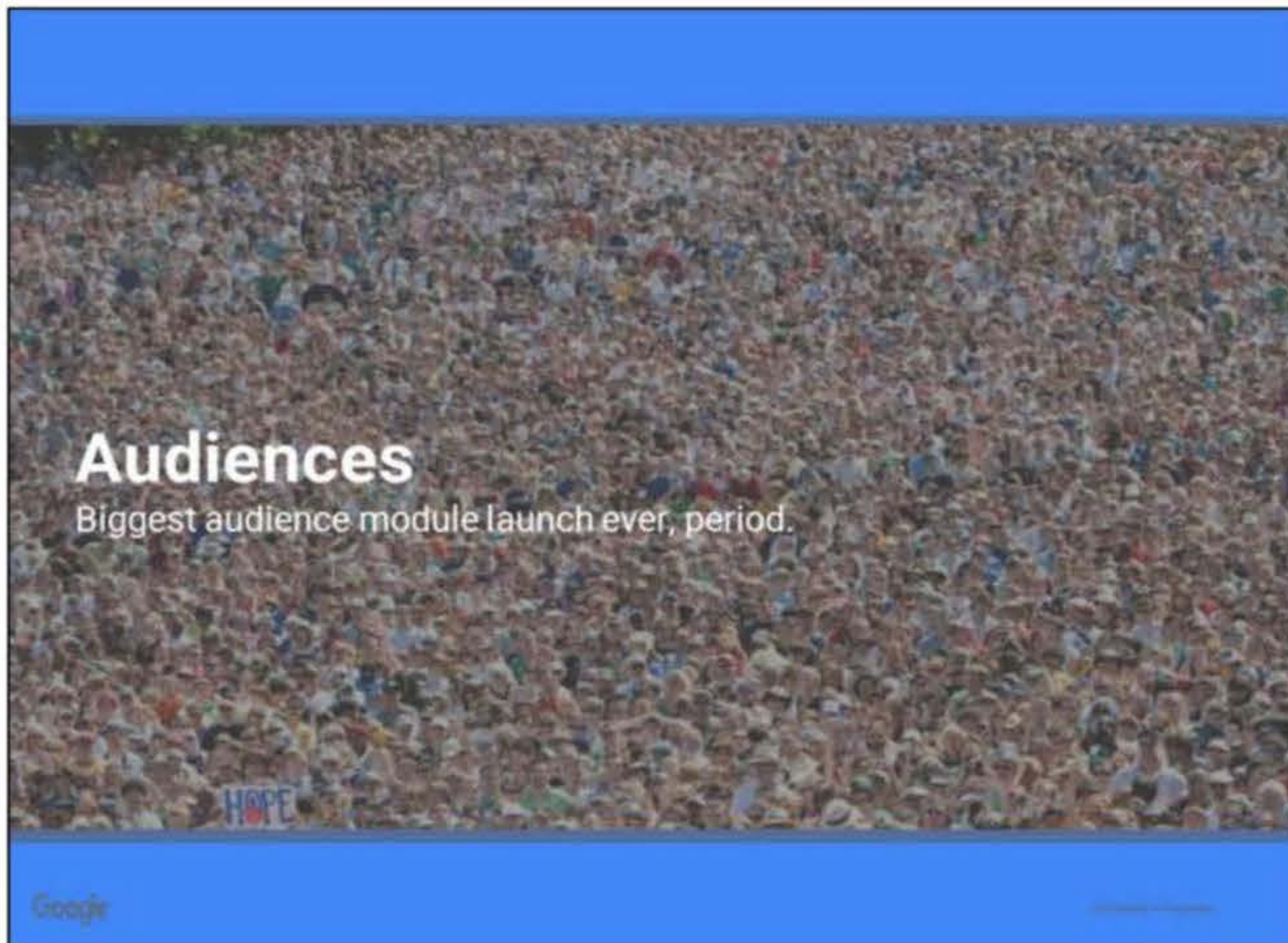
IN PROGRESS

- Instant Reporting
- Ads Data Hub Integration
- Unified Floodlight workflow
- Unified Reporting
- Data Transfer V3

STRETCH

- Landing Page





Id	Date	Text
13	03/28/2018 16:17:40	+karinb@google.com Suggest we cut this section for time
5	03/28/2018 16:17:40	k
<div>Google</div> <div>Confidential - Proprietary</div>		

An Audience Builder to Rule Them All

The screenshot displays the Google Audience Builder interface. On the left, a sidebar lists existing audiences, including 'PA 12 (Google Ads Search Local Mobile Ad - India - Google - Google) Q3 2017' and others. The main area is titled 'NEW AUDIENCE' and features a grid of options:

- Mixed audience types:**
 - Combine Audiences:** Create an audience by combining existing ones.
- First-party data:**
 - Tag-based audiences:** Create an audience based on Knowledge activity data.
 - YouTube User Builder:** Create an audience based on your YouTube channel.
 - Custom Lists:** Create an audience based on user behavior or interests.
- Uploaded data:**
 - Tag-based Audiences:** Identify and upload Tag-based audiences.
 - Emails from YouTube Customers:** Create an audience by uploading emails from YouTube customers.
 - Mobile Device IDs:** Create an audience by uploading YouTube mobile device IDs.
 - CRM Data:** Import a CRM marketing service and upload CRM data to create an audience.

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A New Audience Building Experience

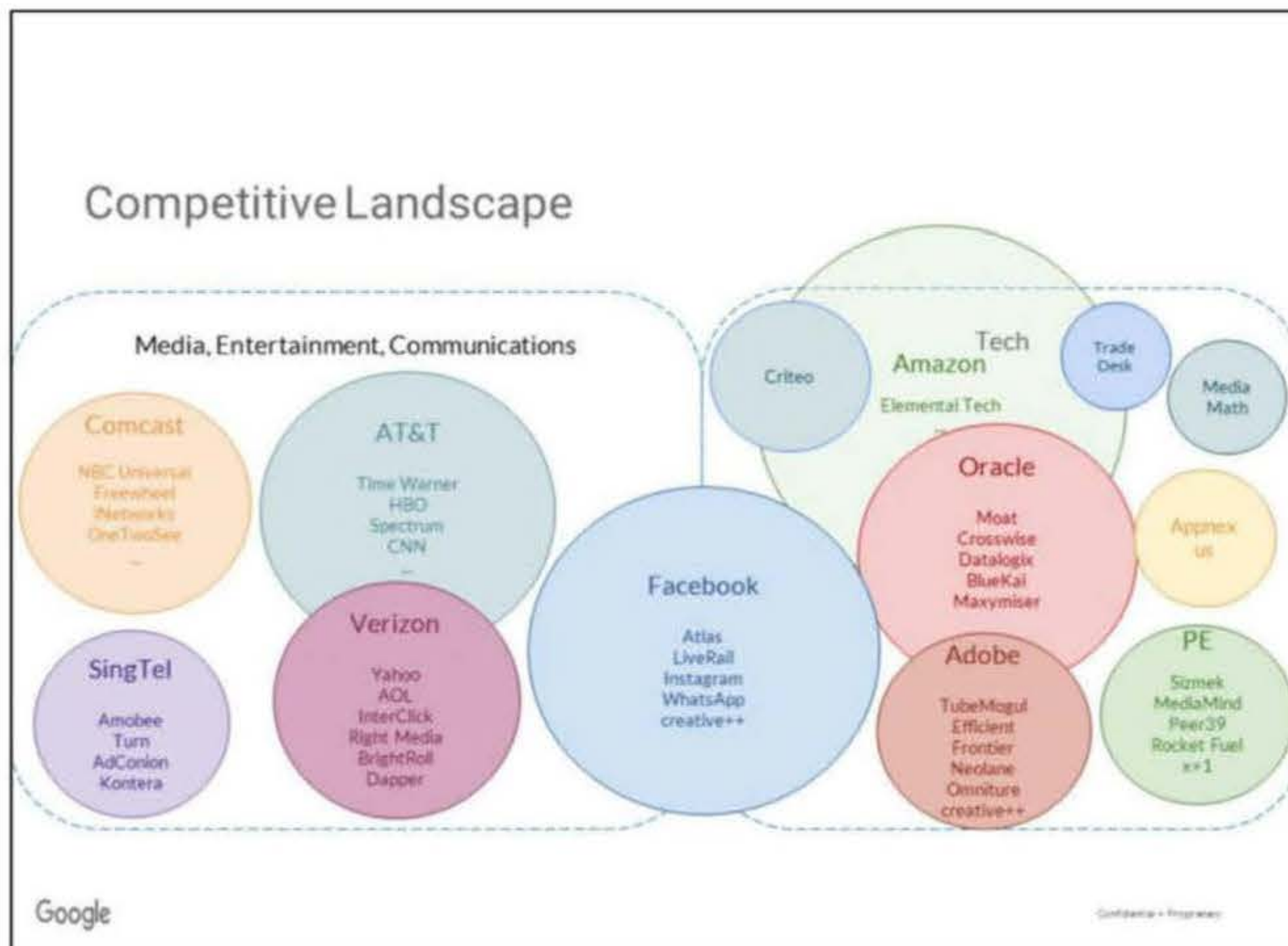
The screenshot shows the 'Audience Builder' interface in Google Ads. It features a central list of audiences, a left sidebar for creating new audiences, and a right sidebar with analytics. Three callout boxes highlight key features:

- Create audience once, use in many campaigns:** Points to the 'Audience Builder' header and the list of existing audiences.
- Bring in DAC UX for combining audiences, with DBM audience creation in REAL TIME:** Points to the 'Audience Builder' sidebar on the left.
- Dynamically updated metrics as Audience is defined:** Points to the analytics sidebar on the right, which includes charts for 'Audience Size', 'Demographics', and 'Eligibility'.

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More info: <https://docs.google.com/presentation/d/140k4P2CyaBPZMf5XHKPZ5aC5-bmgAWNRI3C6pBqY6UQ/edit#slide=id.p>

CTV support across DBM Targeting, Reporting, and Creative Management

4 of 5

Advertiser enables Connected TV device type targeting and augments additional detailed targets at the Make & Model level (i.e. Roku, Apple TV, etc.)

Device

Target the following device types

Type to search

2 device types

- ☒ Connected TV (Device Type)
- ☒ Smartphone (Device Type)

AND the following makes and models

Type to search

- ☒ Panasonic (All Models) (Mobile Make/Model)
- ☒ Panasonic LUMIX Phone P-022 for DuCoMo (P-022) (Mobile Make/Model)
- ☒ Samsung (All Models) (Mobile Make/Model)
- ☒ Roku (All Models) (Connected TV Make / Model)
- ☒ Samsung Exhibit 9-40 (S204-1970) (Mobile Make/Model)

Advertiser configures additional targeting & notes that their viewability targeting will not prohibit CTV buying while still being respected across other device types

Brand Safety

Excluded channels

Channels & URLs

Excluded channels

Viewability

Active view

90% or greater (most viewable)

Exclude connected TV from viewability targeting for video line items

Ad position

Above the fold

Only TAKES TIME

Other cTV efforts across:

- Reporting
- Creative management
- AdSpam
- Sell side / audience data collaboration

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Price Gouging

There are roughly three types of auctions

- Second price (buyer bids truthfully)
- First price (buyer has to shave bids)
- Dirty (called second price, but really more like first price)

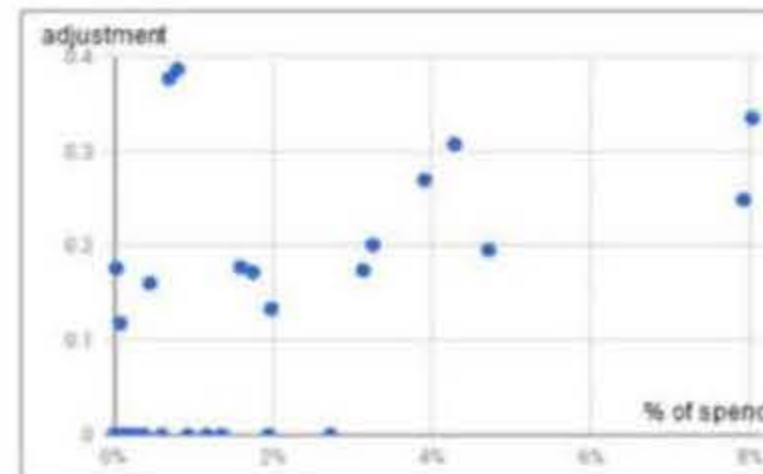


Exchange	Cost / Bid
United	27%
Adx	29%
Appnexus	65%
Openx	62%
PubMatic	60%

All these auctions are "second price", however the [auction design / restriction](#) varies widely.

Project Poirot

uses machine learning to detect non-second price auctions and adjusts bids down to win the same impression at lowest price



Impact:

+7% AdX (\$210M ARR)

RASTA

Google

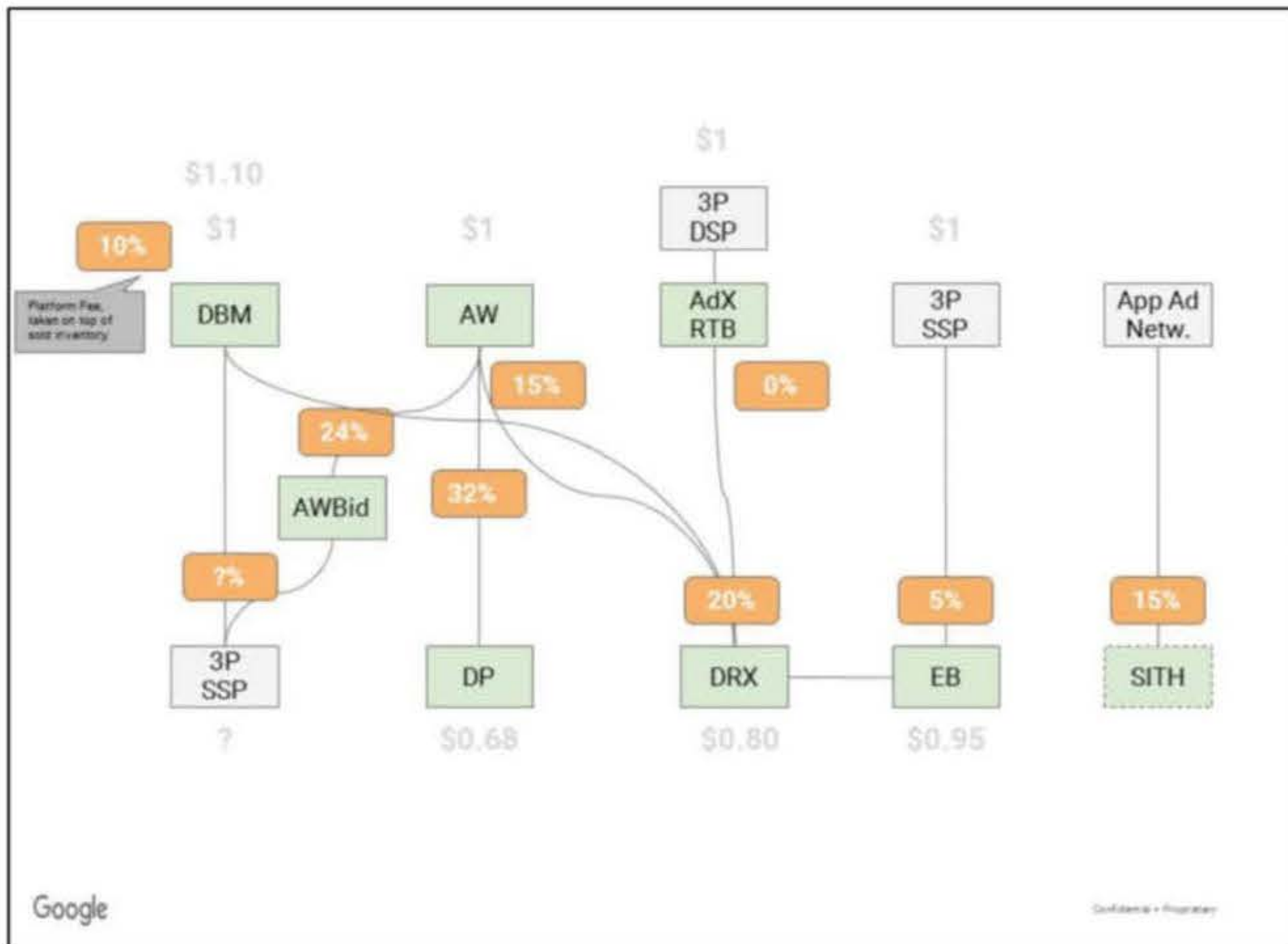
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Dirty Auction

Reserve prices (RP) are common in second price auctions

Dirtiness is introduced using a new type of floor called a "Soft-floor". Unlike with hard-floor, advertiser wins even if bid < soft-floor, in this case price = bid (i.e. first price)!

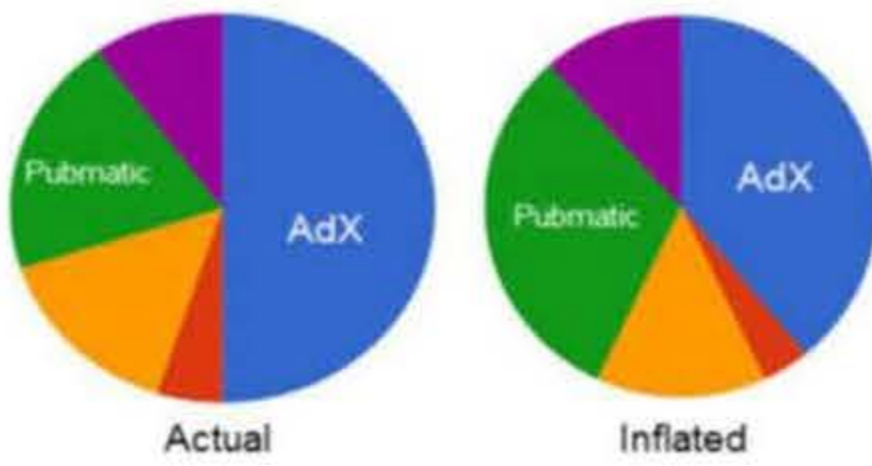
Soft-floor is a knob that SSPs use to achieve a continuum of auctions from second price (soft-floor=0) to 1st price (soft-floor=infinity), opaque to the advertiser



Inflated Queries



Exchangers send multiple calls for single query to get multiple shots at budget throttling and then choose highest bid.



Project Elmo

leverage cookie based budget throttling to ensure more consistent bids across calls

+7.8% (\$220M) increase on AdX

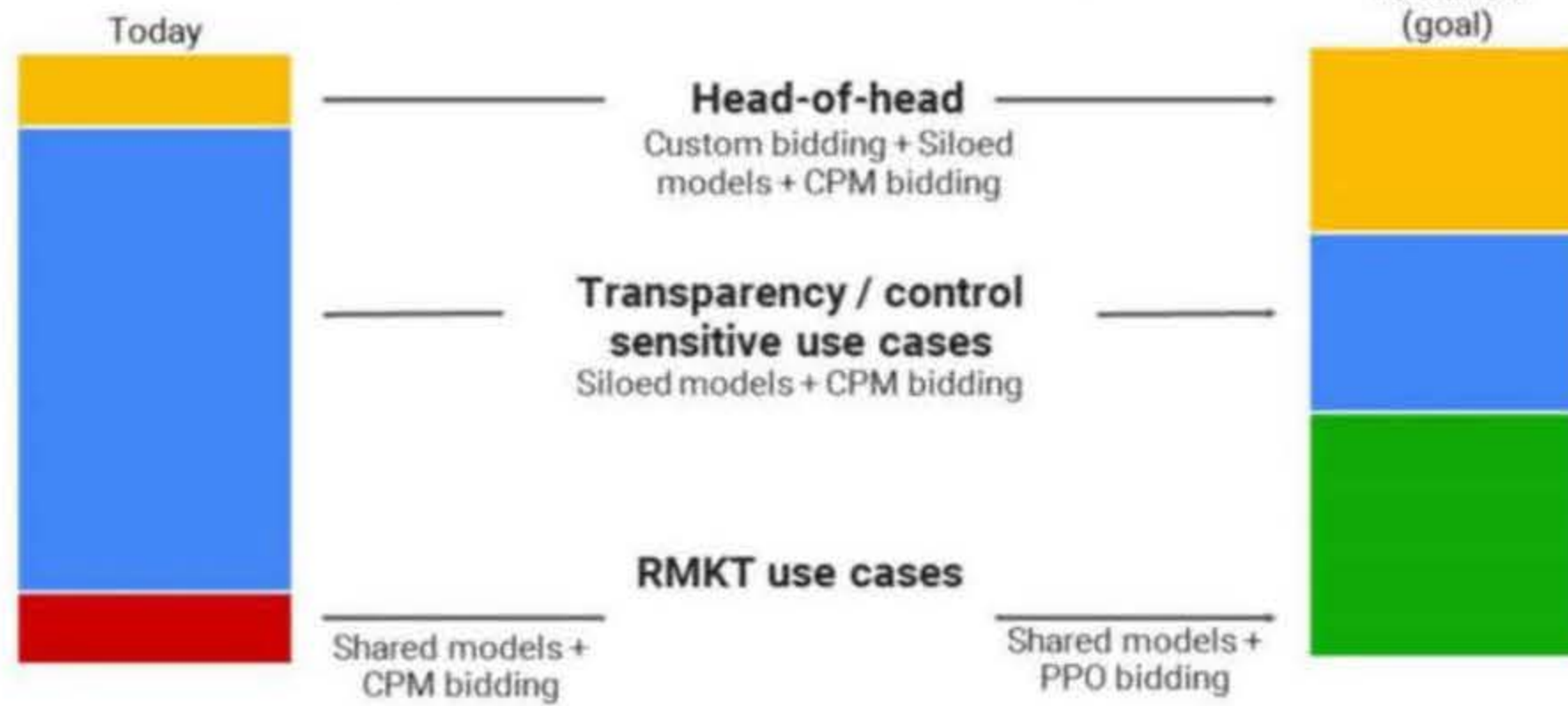
[RASTA](#)

Google

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elmo is another 7.8% increase on AdX. so another 220M shifting.

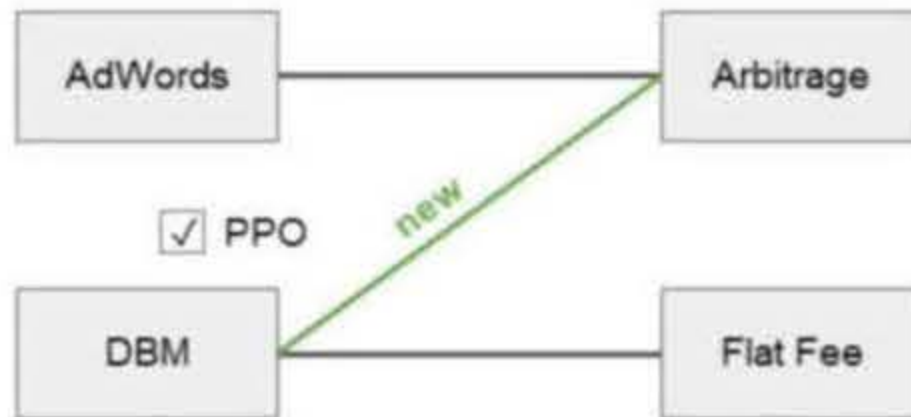
We expect more performance based buying modes in DBM to primarily use Outcome-based buying (PPO)



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Outcome-based buying (PPO) delivers better performance to advertisers, brings margin flexibility



Intuitively, majority of performance difference GDN/DBM is due to arbitrage, mostly due to pricing and network optimization (Bernanke etc.)

How does this compare to other DSPs? Doesn't matter as much - the rest of DBM really competes w/ other DSPs, this is more about competing w/ Criteo and others.

Four options in GDN today

- Pay per engagement
- Pay per click
- Per per conversion
- Pay per active view

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Publisher Ecosystem is Changing



key points

Some strategic publishers moving off DFP to proprietary Ad Servers

Walled Gardens refuse to work with Google Platform technologies

Buyers are now able to bid on a per impression basis as a result of Header Bidding

Large buyers (Amazon, Facebook & Criteo) are establishing direct relationships with pubs

► There's a need for a new product maintaining **Fair access**, privileged **direct relationships** and **first party signals**

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Demand Product as a direct way to access off-platform inventory



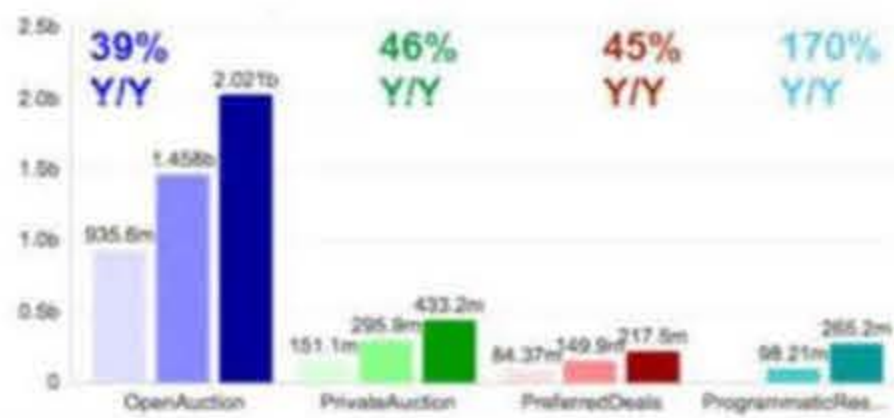
	Direct pub relationship	Per-query pricing	First party buying signals	Fair Access	Google Margin
Platform products <i>DFX, AdMob, AdSense</i>					High
Off-Platform Products <i>AdX, AdMob in other AdServers</i>					High
Cross-Exchange <i>DBM or AdWords/AdSense on other SSPs</i>			X	X	Low
Demand Product					High

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DBM to remain a largely auction driven business with Preferred Deals, PG and TG contributing to less than <15% of revenue

Deal Growth on AdExchange (2016 vs 2017 vs 2018)



Deal Growth on Non-Google (2016 vs 2017 vs 2018)



Video Revenue by Auction (2016 vs 2017 vs 2018)

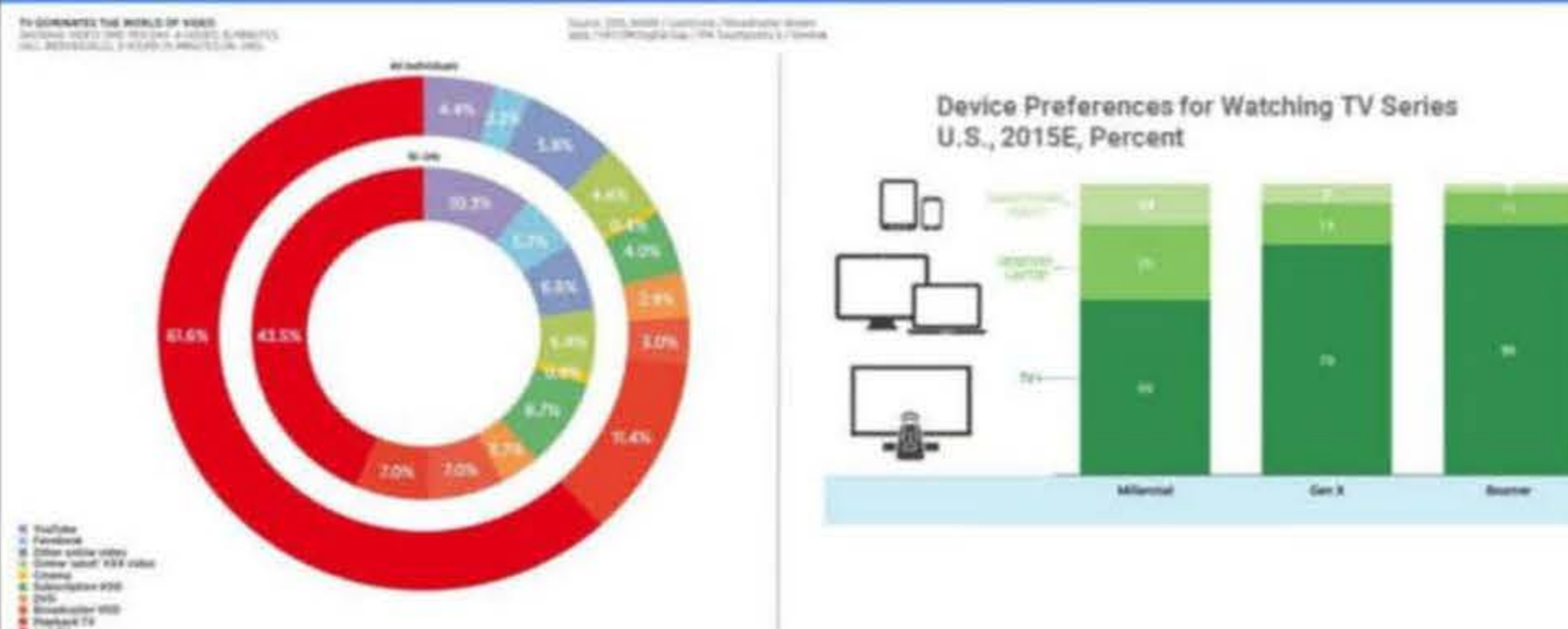


Opportunities

- PG/TG : Last year we did not see a lot of holiday spend come via deals. Possible these advertisers have direct relationships
- Safari ITP will mitigate a lot of targeting efforts on iOS web. Deals can help bridge the gap. Browser based PD deals can help maintain reach for the advertiser and not sacrifice pricing for the publisher.

TREND #1: VIEWERSHIP

Linear TV still dominates watchtime, but will decline in favor of digital, especially with the younger demographic



IMPACT: Agencies & brands will partner with companies that can provide *cross-screen* planning, buying and measurement solutions: including linear and cTV

Google

Conclusions & Perspectives

We are definitely seeing a shift in watchtime to digital and over-the-top especially with millennial audiences - , but linear TV continues to dominate the lion's share of watch time and budgets. This chart is UK, but most countries are still seeing 70%+ of total viewership happen on linear. Which means this shift over to digital is going to take time. But across buyers & publishers we are seeing the need for cross-screen solutions for planning, buying & measurement that look holistically at audiences. This concept of siloed ad budgets will eventually dissolve.

http://www.digitalstrategyconsulting.com/intelligence/2016/03/tv_trends_youtube_and_netflix_rise_but_tv_still_king.php

Linear TV will decline, but slowly and in key demos

Linear TV is far from dead. In the US, linear TV accounts for 70% of total viewer watchtime and remains the single largest recipient of all ad budgets, capturing 37% of all spend as it continues to offer marketers mass audience reach against brand safe content. In countries like Italy and Germany, traditional TV viewership makes up over 80% of total of watch-time. We are seeing substantial changes in how TV is being watched, and by whom.

OTT will eventually lead, but this will take time

Silo'd TV and Digital ad budgets will dissolve, as buyers think cross-screen for audience reach.

TREND #2: INVENTORY

Premium video is hard to find; plagued by brand safety and IVT concerns

DIGIDAY

NEWS — PODCASTS — DIGIDAY+ — EVENTS — AWARDS — CAREERS

The Advertising Publisher

The FT warns advertisers after discovering high levels of domain spoofing

SEPTEMBER 4, 2017 — Anna Jones

OpenSlate

2017 News

September 3, 2017

Ad Firms Enlist OpenSlate to Make Sure Ads Bureaus 'Safe' YouTube Videos

September 1, 2017

Big Agency Meeting Unleashes To Use OpenSlate To Audit Brand Safety on YouTube

September 1, 2017

The Social Video Analytics Company Has Qualified in Auditing Business Since YouTube's Brand Safety Launch

After a year of trying to prove out PMPs, Netflix is *pulling away from direct deals* with publishers as the human effort and spend wasn't worth the ROI. They do like Top Video picks, and wish it was more scalable globally.

NETFLIX

DIGIDAY

NEWS — PODCASTS — DIGIDAY+ — EVENTS — AWARDS — CAREERS

The Advertising Publisher

Ads.txt, created to help publishers fight fraud, isn't being adopted by publishers

SEPTEMBER 4, 2017 — Ben Brink

IMPACT: Brands are turning to TV, premium reservation deals, whitelists and 3rd party validation to ensure quality – not easy to scale

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TREND #3: BUYING

Marketers are shifting from the "brand vs. performance" paradigm, in support of Byron Sharpe's philosophy on *How Brands Grow*



IMPACT: Clients increasingly care about maximizing reach (to build brand salience), but also about measuring "performance" in terms of attribution and sales lift

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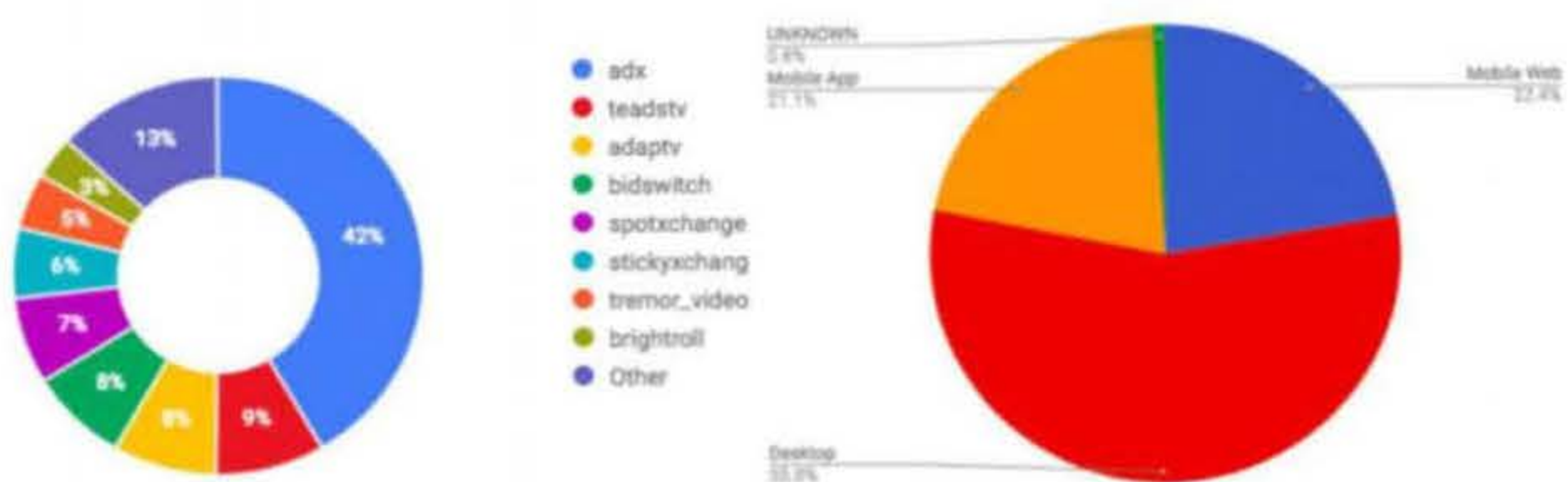
L'Oreal has underlying reach goal, but media planning occurs on a more niche audience (mascara lovers)
For CPG, sales lift; for M&E, tune in

Competitive response

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DBM open auction video revenue by exchange and environment



Analysis over 2018-Q1

Market context: 3 key trends

Google

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Client segmentation

Google

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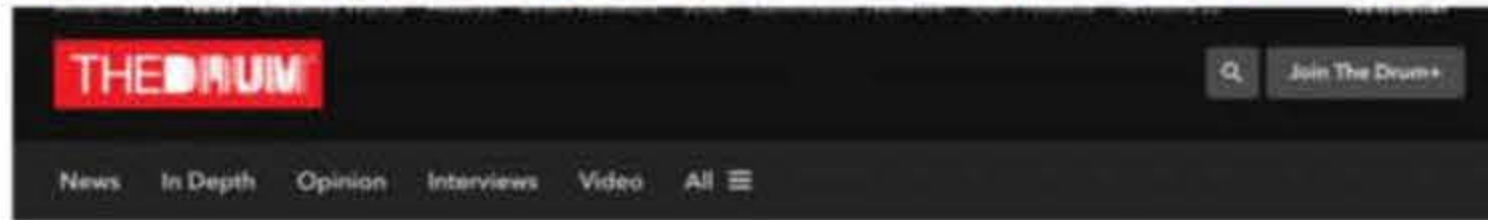
To grow "All Media" segment, must differentiate with further investment in consolidation, and parity with AW/competitors



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Agency advanced TV teams are becoming formidable competitors (vs. target customers) to our pTV product

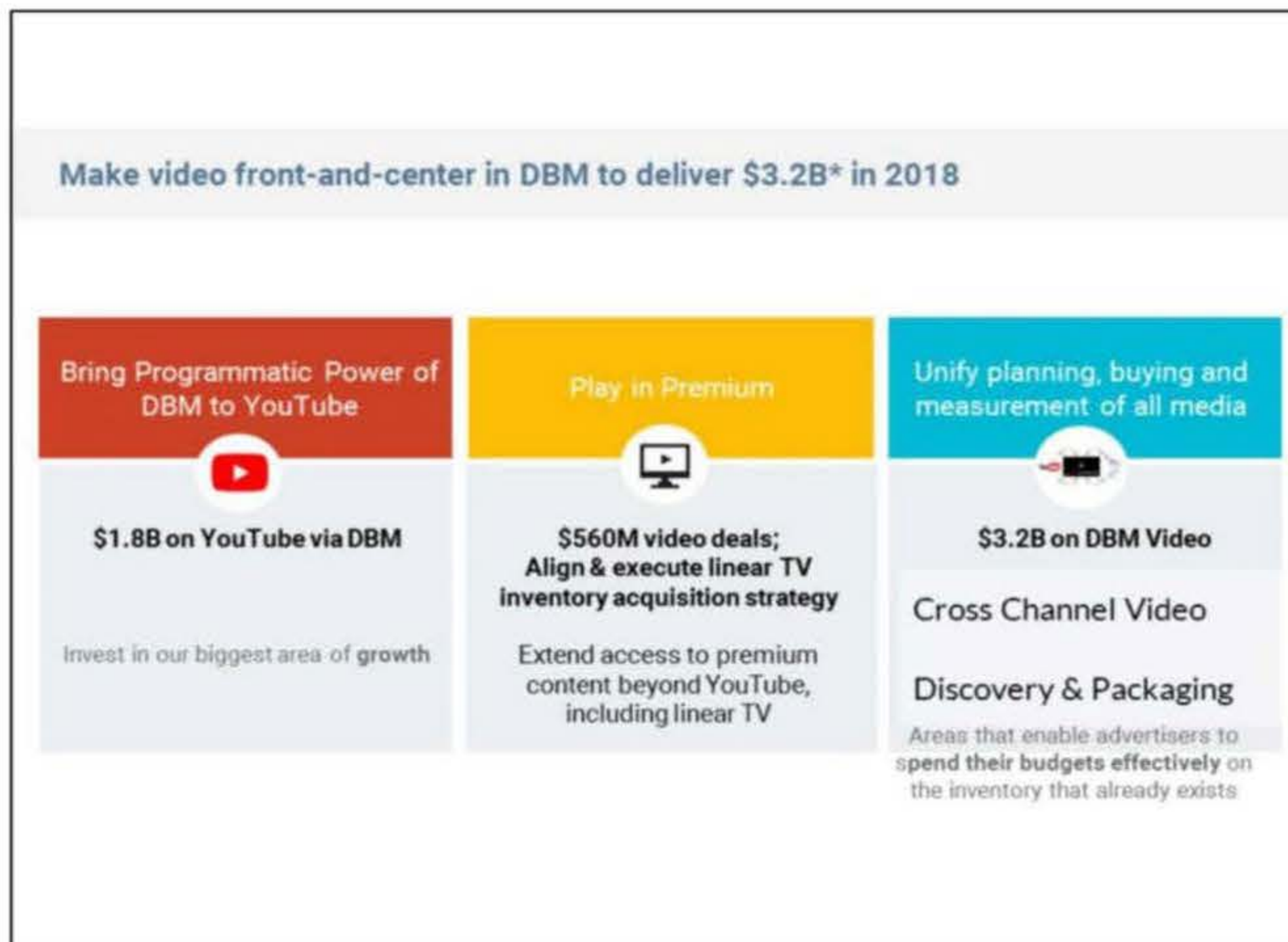


GroupM's addressable TV outfit, Finecast, to find a common currency in the 'walled gardens' of online TV

It has inventory commitments from broadcasters [Channel 4](#), [Channel 5](#) and STV, set-top box partners [Sky](#), [Virgin Media](#) and BT's YouView, and video-on-demand (VOD) access to Discovery, [Disney](#), [Fox](#) and others. Its live partners are currently limited to free-to-air service TVPlayer and STV, but GroupM promises that more are coming soon.

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YouTube is increasingly important, have to get that right
But we can't succeed with YT alone -- hence focus on strengthening consolidation,
and expanding on efforts in Premium video with deals, connected TV and linear TV
Video is a critical focus for DBM Make it seamless to buy across YT and all video

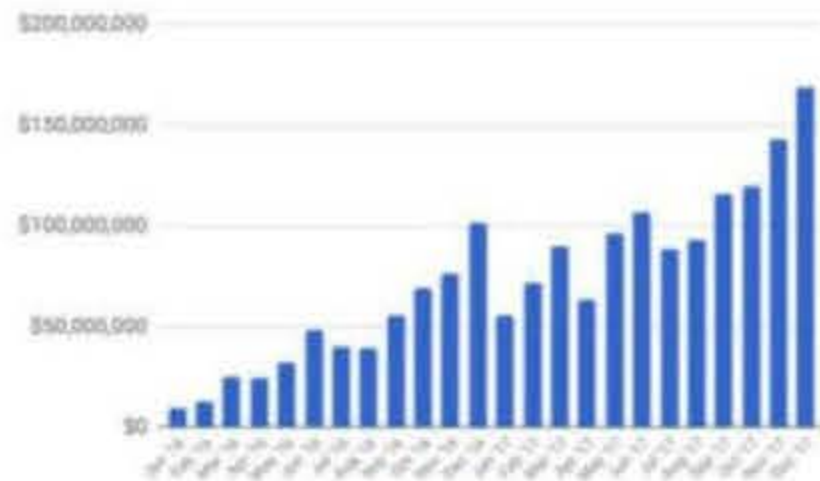
OLD

Google

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YouTube performance review

DBM-YouTube Monthly Revenue



- \$1.21B in FY 2017 (87% auction, 13% reserve)
- \$431M in Q4 '17, representing 75% YOY growth
- 72% of revenue on mobile, representing 34% of all DBM mobile revenue (Q4 '17)

DBM YouTube Monthly Business Contributions



- DBM-YT was 16% of FY '17 total YT auction + reserve revenue (17% of auction, 11% of reserve)
- DBM-YT was 22% of FY '17 total DBM revenue, and 55% of total DBM video revenue

2018 DBM YT revenue OKRs: \$1.79B total, \$1.59B auction, \$194M reserve

Google

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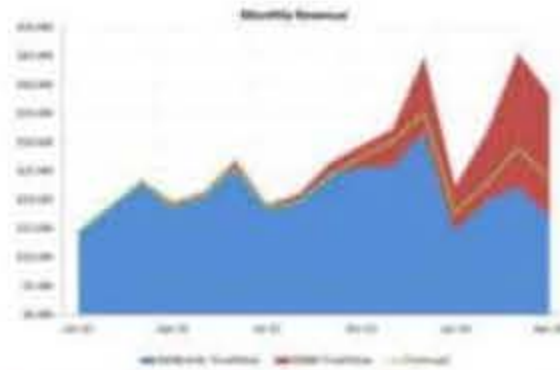
* TrueView + bumpers only. Non-skips, sparkles, etc not included.

Incrementality Analysis - Counterfactual Methodologies

1

Fargo Forecasting

Use Fargo to forecast AdWords TrV spend for DBM TrV adopters to create counterfactual. Compare with actual DBM+AW TrV spend to measure incrementality.

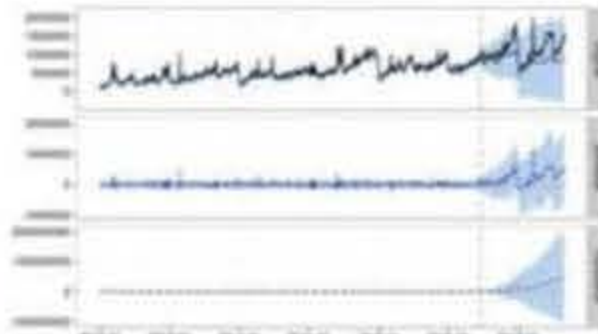


64-81c of every DBM TrV \$1 are incremental

2

Causal Impact

Forecast AdWords TrV spend using a statistical relationship between DBM adopters and non-adopters. Compare forecast with actuals to measure incrementality.

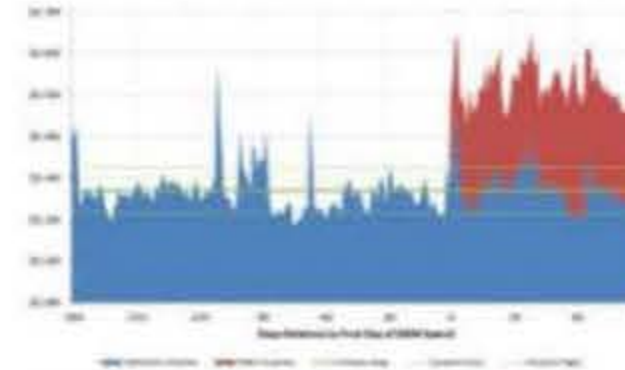


61-75c of every DBM TrV \$1 are incremental

3

Linear Regression

Set first date of DBM TrV spend as day 0 ($t=0$). Train a linear regression model to forecast AdWords TrV revenue and measure incrementality.



Inconclusive due to Q4 seasonality impact

Result: 60-80c of every DBM TrV \$1 are incremental. Our best estimate for future impact is ~60c.

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[Incrementality details. Incrementality calcs over 9/24/15 \(launch\) - 04/30/16.](#)

Id	Date	Text
1	03/26/2018 15:54:07	Move this stat to the previous slide and then delete this slide
<div>Google</div> <div>Confidential - Proprietary</div>		

Advertisers are increasingly leveraging data to maximize audience reach across screens, while measuring performance

L'ORÉAL
PARIS

"I want to reach beauty buyers"

We can help you find people who have...

facebook

liked beauty
pages
(people
marketing)

amazon

purchased
beauty products
(purchase data)

Google

searched for beauty
products, beauty stores
or watched beauty
videos
(search data)

COMCAST

watched TV
shows related to
beauty
(STB data)





verizon

interests in
beauty from
(mobile & TV
data)

Google

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Competitors are aggressively building solutions to capture the video + TV opportunity

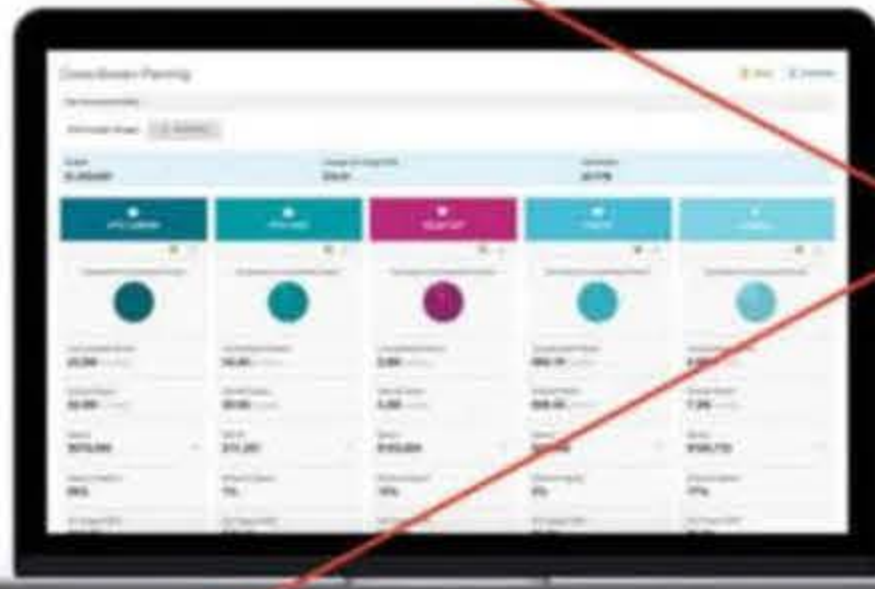
	Video-focused platforms	Ones to watch		
	 Adobe "Marketing & advertising cloud across TV & digital"	 verizon "Brand building & content experience on mobile"	 facebook "People marketing"	 amazon "Reach customers who search & buy on Amazon"
Inventory	<ul style="list-style-type: none">- Linear TV SSPs- Facebook, Instagram, Freewheel	<ul style="list-style-type: none">- Linear TV: MCN, Rogers- AOL, Adap.tv, Brightroll	<ul style="list-style-type: none">- O&O: Facebook, IG, messenger- FB Audience Network	<ul style="list-style-type: none">- Amazon
Planning & buying	<ul style="list-style-type: none">- Tubemogul cross-screen reach planning- Adobe Audience Mgr, Nielsen MRI	<ul style="list-style-type: none">- Oath (AOL One / Adap.tv DSP)- Mobile & TV subscriber data	<ul style="list-style-type: none">- Social graph- Nielsen partnership	<ul style="list-style-type: none">- In-market / shopper data
Mgmt	<ul style="list-style-type: none">- Brand surveys- Nielsen XCR- Sales lift (DLX)	<ul style="list-style-type: none">- Convertro attribution- Site visitation lift	<ul style="list-style-type: none">- Atlas pixel	<ul style="list-style-type: none">- Sales lift

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The Trade Desk (maybe just for talking) --> doubling down in flexibility for PG/reservation and identity solutions (e.g. cTV announcement)

~~Adobe / Tubemogul is gaining traction with planning & measurement that spans TV and digital~~



~~Plan cross-screen campaign to optimize for incremental reach~~

- Upload your base TV plan, or choose from historical plans
- Planning tool models desktop, mobile, TV to the network level using Nielsen XCR panel data

~~Execute campaigns across TV and premium digital inventory:~~

- National and local linear TV; Full Episode content streamed OTT; Facebook, Instagram, etc
- Target Nielsen demo and MRI (eg. "mascara lovers")

~~Measure results of your plan:~~

- Nielsen-verified demo
- Sales Lift

184

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Next evolution of the PTV product is cross screen planner

Id	Date	Text
1	03/26/2018 22:49:27	missing competitors: videology TTD (include content on cTV investments) +bitetti@google.com are there existing slides we can use to bolster this section?
1	03/26/2018 22:49:27	we decided in the meeting to consolidate the competitive update into one simpler slide that just hits on the highlights for tech competitors, while also addressing the media angle. Check slide 109 (just added) and lmk what you think!
<div>Google</div> <div>Confidential - Proprietary</div>		

TV/Video is a \$200B+ global market; Video viewership and growth will be driven by OTT and Digital Video & Apps

Traditional TV

Linear TV, Addressable TV, IPTV, DVR, VOD



Ads Market: \$180B
\$192B (2022)

Over-the-Top (OTT) Services

Subscription (VOD):



Virtual MVPDs (Live TV, DVR / VOD):



Direct to Consumer (Live TV, VOD):



\$6B
\$20B (2022)

Digital Video & Apps

Watch, Scroll, Snap, Tweet, Play, Listen

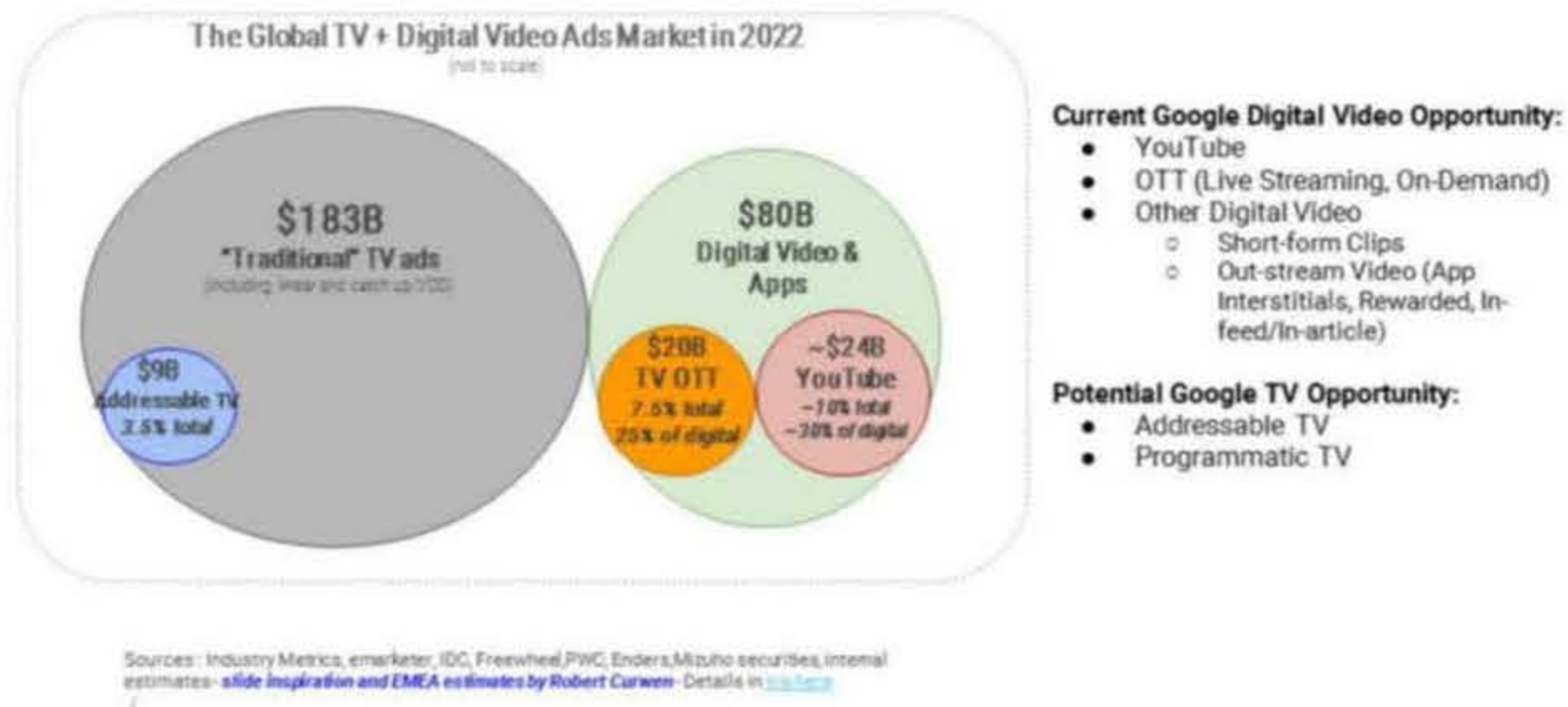


\$20-24B
\$60B (2022)

See [Appendix A](#) for more Comcast strategy and business details



Opportunity: Capture video spend across digital, OTT and traditional TV market as video market converges



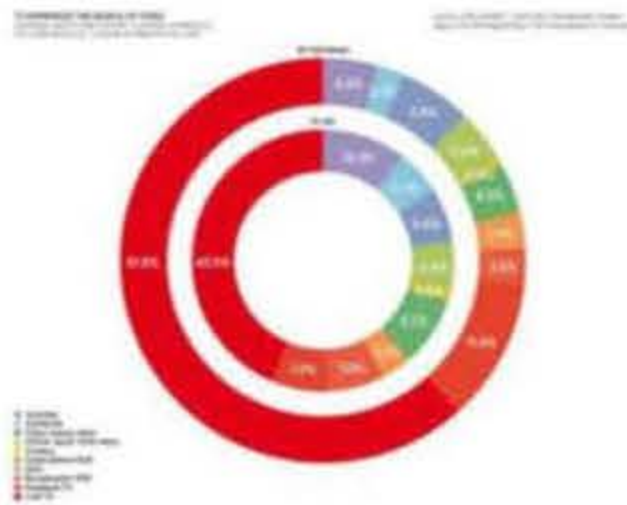
Google

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Expected to increase fast;

As per my projection tV OTT est to grow to \$19B YT faster to \$25B

Traditional TV still dominates watchtime, but will decline in favor of OTT & Digital Video & Apps, especially with the younger demographic



Traditional TV viewership is still about 4.5 hours per day, but younger demographics are spending more time on digital video vs live TV



March Madness viewership grew +2% YoY overall driven by digital devices (roku, apple TV, desktop, tablet) but traditional Linear TV still dominated watchtime

- Digital Devices: +10x YoY, 420K viewers
- Linear TV: -3% YoY, 8.3M viewers

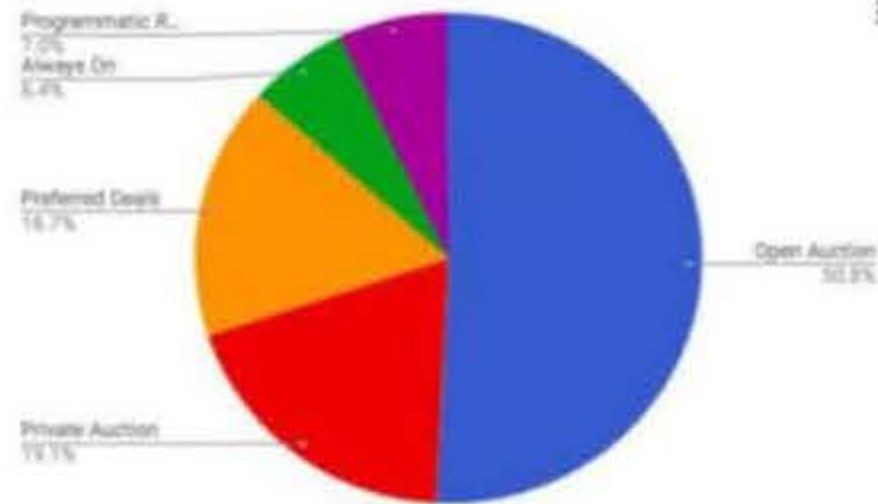
Source: [SIA](#)



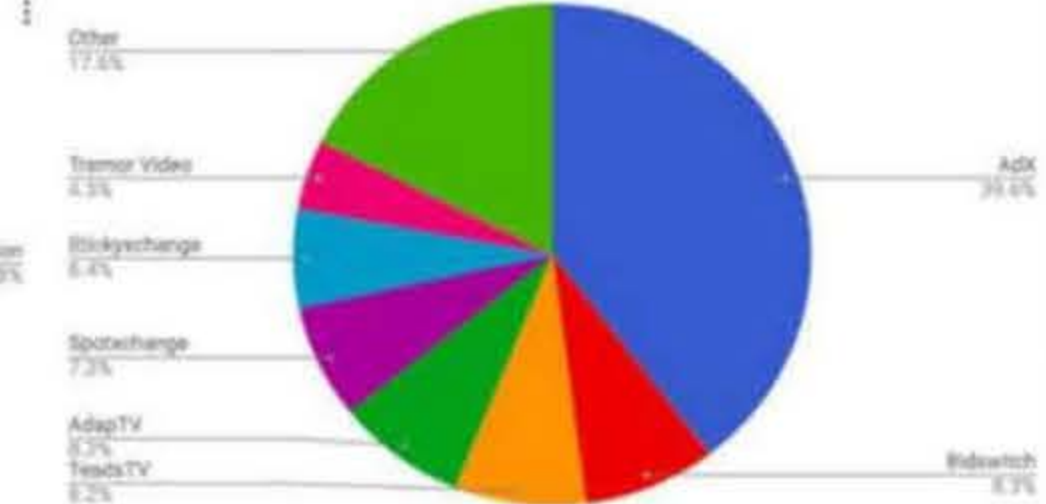
Id	Date	Text
1	03/26/2018 21:26:51	+bitetti@google.com The donut chart on the left always bothers me because its so difficult to read the legend or the percentages. Can we just make the point that TV still dominates on the previous slide as voice over? +deeptib@google.com
2	03/26/2018 21:26:51	I agree with you! I thought we were deleting this slide (#101 and 102), and just keeping 103 ("The Global TV + Digital Video Ads Market in 2022")?

DBM non-TrV video revenue

2017 Revenue by deal type



2017 Revenue by Exchange



- \$1B in FY 2017
- 73% auction (open + private), 27% reserve

Google

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2. Cross Channel Video leverages our tech and data to realize the benefits of consolidation across YT and non-YT



- To realize gains from consolidation, our best features must work across YT and non-YT (cross-channel) seamlessly

Id	Date	Text
2	03/27/2018 02:55:47	+deepthi@google.com add prospective features too? <ul style="list-style-type: none">- A/B testing- R&F opt- unified brand lift studies
<div>Google</div> <div>Confidential - Proprietary</div>		

3. Discovery and Packaging help advertisers find scarce premium video inventory for their campaigns

Examples

Discovery

MarketPlace for YT & Premium Video Pubs

Planning workspace

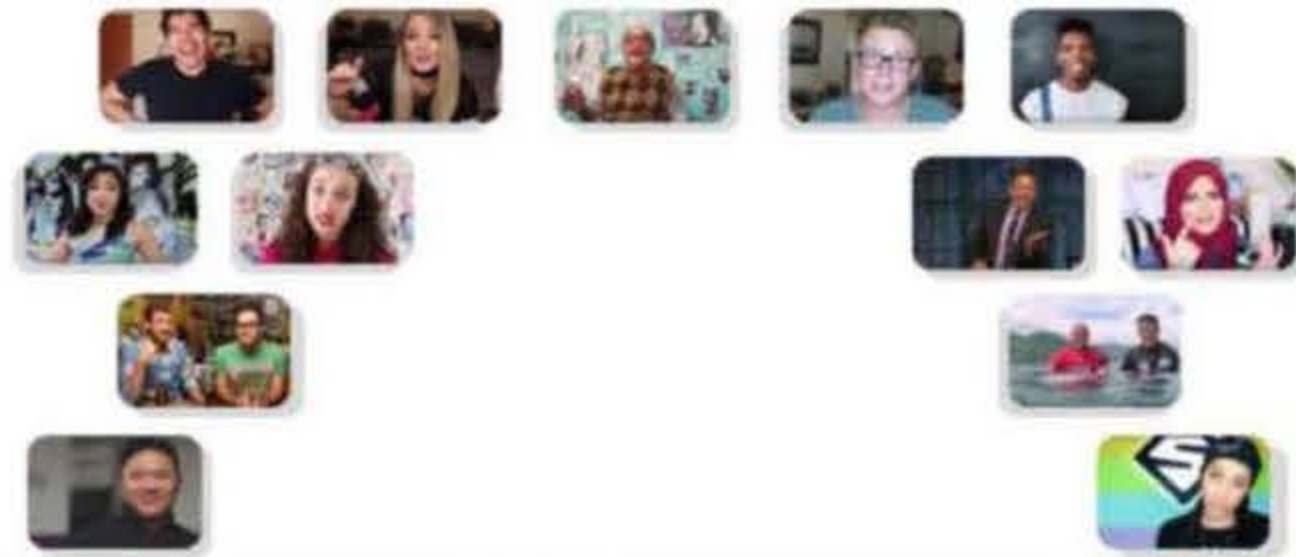
Packaging

Dynamic packages with MarketMaker, including Top Video Picks

Google

Configure & Program

YouTube anchors our video offering with high-quality, attentive reach at **scale**



Formats

Examples

Auction (TrueView, Bumpers) & Reserve
TrueView for Shopping, Action, Q&A

Audience

CSAM Audiences
Consumer Patterns, Life Events, YTAA

Measurement

Automated DCM tracking
Comparable brand lift with RTB

Opportunity: capture video spend across digital, OTT and traditional TV market as video market converges



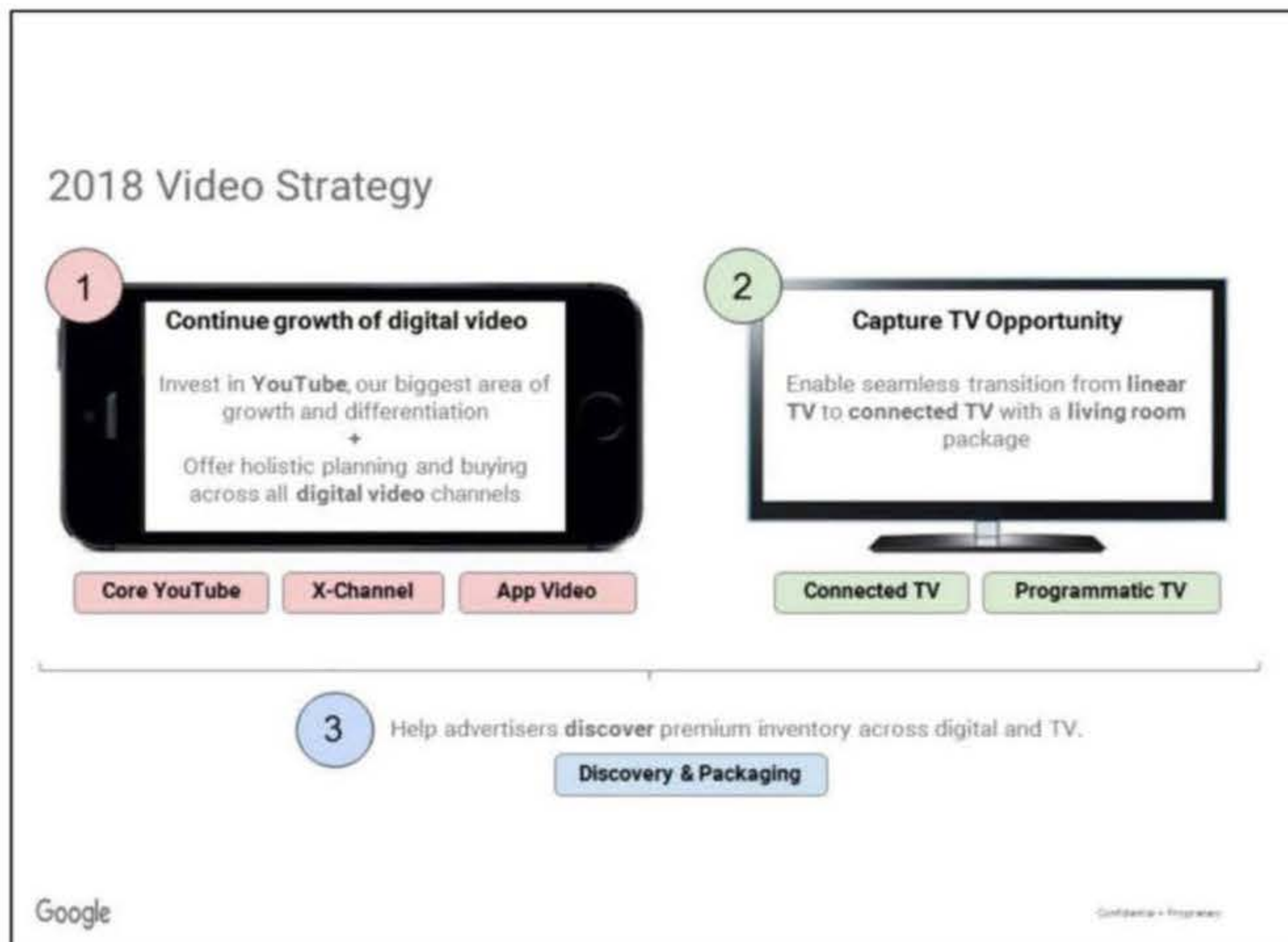
Google

Confidential + Proprietary

Expected to increase fast;

As per my projection tV OTT est to grow to \$19B YT faster to \$25B

Long term opportunity



- Our strategy is actually really simple: (1) we want to be the best platform for buying digital video and (2) we want to capture the TV opportunity.
- To be the best platform for digital video, we want to do 3 things
- First, we want to invest in our crown jewel, YouTube, which is also our big differentiator compared to other platforms
- Second, we want to give customers a reason to consolidate all their digital spend with us by offering cross-channel features. We'll get to what these features are in a few minutes.
- Third we want to make app video a big part of our advertiser's portfolio since apps are where we're seeing the most supply
- On the TV front, we want to set ourselves up for the future by being the platform of choice for buying addressable TV in the long run
- But because TV is going through this transition phase, we need to invest in both connected TV and programmatic linear TV and position this as a living room package for our customers
- And of course, having access to all of this inventory is meaningless if advertisers can't find it
- So we want to invest in discovery and packaging, so advertisers can easily find what they are looking for

Differentiating our Buying Front-Ends for YouTube / video to meet client needs

AdWords
AdWords is a
buyer's Assistant to
Google Media

DBM
DBM applies Google
technology to empower
buyers to holistically
manage all of their media

In order to differentiate the experience of buying Google media,
the **media offering must be identical: Formats, Inventory, Audience and Measurement**

Core YouTube

Digital Cross-Channel

TV Extension

Discovery & Packaging

Google

Id	Date	Text
3	03/28/2018 14:33:16	+bitetti@google.com +eveg@google.com do you think we can work this into previous slide? would rather frame this as a challenge than a finalized segmentation; don't think all parties have agreed to this yet
1	03/28/2018 14:33:16	move this out

December 2018 Headlines

"The place to buy digital video. Period."
-AdExchanger

"Everyone is talking about Display & Video 360...."
-Digiday

"So fast, so beautiful."
- Anonymous Customer

"How do we drive the best results for our advertisers? Easy. We extend the best technology Google has to offer with our proprietary insights."
- Agency Holding Company

"The first time brands can truly turn insights into actions for their digital campaigns."
-Business Insider

"You're really starting to see advertisers leverage the power of Google for the good of users."
-AdAge

Imagine this time next year. You've been getting nonstop emails from CMOs about their desire to get on the new platform DV3, ASAP. You're getting constant linked in requests from people working at Adobe and Amazon. Everyone you know from Facebook has stopped speaking to you. PMs that left for Neal's org are begging to come back to DVAA.

It's December 2018 and we've had a banner year, with a massive product launch, explosive growth in video, and major kudos for finally bringing some much needed innovation to ecosystem (formats! Audiences! New mediums!). Everyone wonders how we did it, it was such an ambitious effort. We mobilized 250+ engineers, 40+ PMs, and hundreds of sales, services and other support teams around this charter. Here is what we told them.