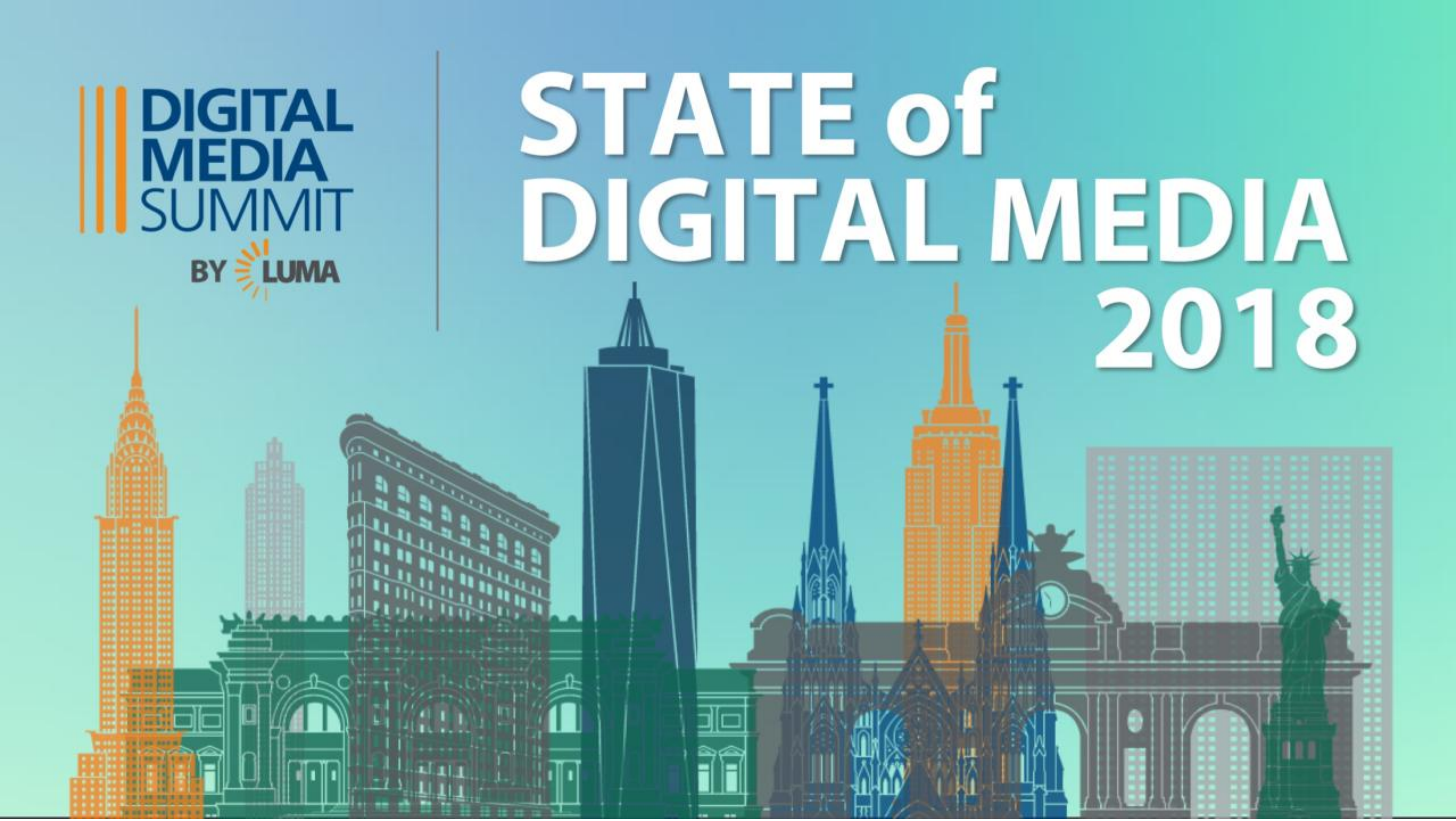
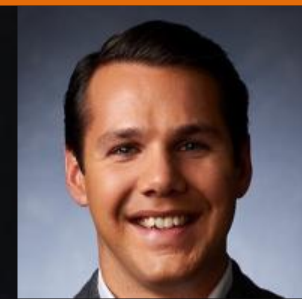
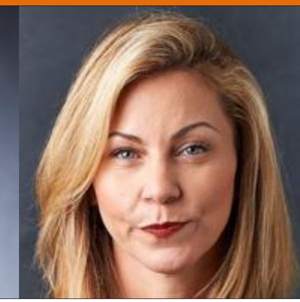
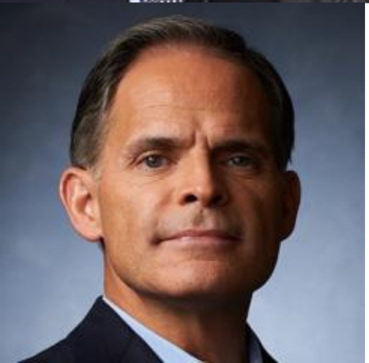



DIGITAL
MEDIA
SUMMIT
BY LUMA

*LUMA presents our annual State of Digital Media, which covers our views on the market, the industry trends and the future of the ecosystem. We hope you enjoy it.*

# Meet the Senior LUMA Team

| Terence Kawaja | Brian Andersen | Mark Greenbaum | Dick Filippini | Conor McKenna | Gayle Meyers |
|---|---|---|---|---|---|
|  |  |  |  |  |  |
| **Founder & CEO** | **Partner** | **Partner** | **Partner** | **Vice President** | **CMO** |
| Terry leads strategy, banking and content for LUMA.<br><br>*He's also head comedy writer and performer.* | Brian is LUMA's marketing technology guru.<br><br>*He excels at coaching both little league and big clients.* | Mark runs M&A strategy and execution for LUMA.<br><br>*He's never met a term sheet he couldn't improve.* | Dick leads LUMA's mobile and gaming banking coverage.<br><br>*You can find him holding court every February in Barcelona.* | Conor ties it all together, managing LUMA's junior teams.<br><br>*He also wrangles the senior team together.* | Gayle runs LUMA's marketing, events, and partnerships.<br><br>*Think of her as top of the LUMA funnel.* |

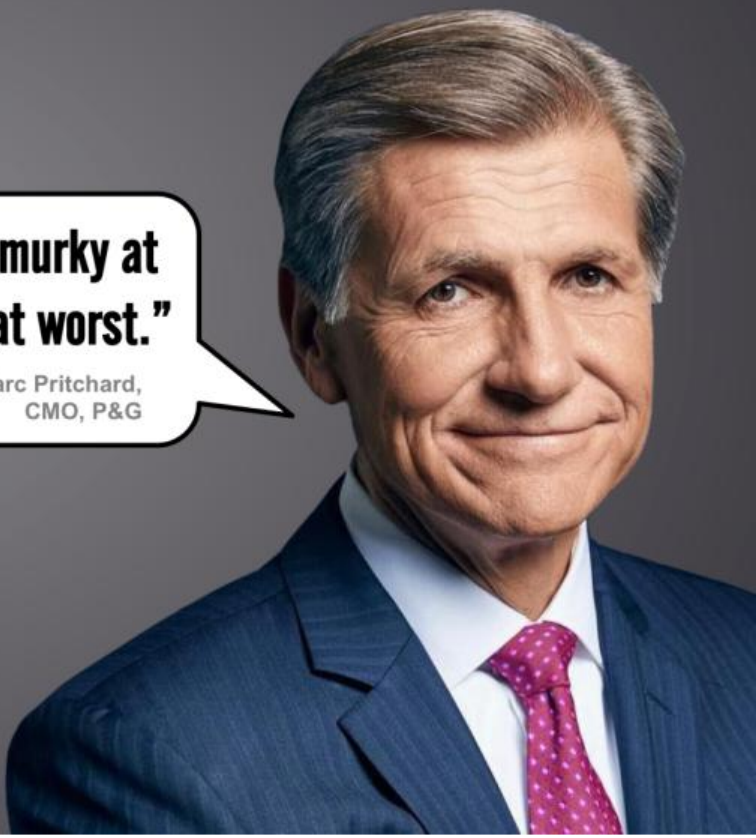
*If we had to summarize the state of digital media in 2018 with one word that word would be "change". Business models are changing, corporate ownerships of assets are changing, consumer expectations around the media experience are changing, television is changing and executive personnel is changing. Everything seems to be in an incredible state of flux with change the likes of which I have not seen before.*

# Digital Supply Chain Challenges

1. Transparency
2. Measurement
3. Header Bidding
4. Privacy
5. Viewability
6. Fraud
7. Adverse Context
8. Ad Blocking
9. Duopoly Dominance
10. Fragmentation

"This supply chain is murky at best, and fraudulent at worst."

Marc Pritchard,
CMO, P&G



*In prior Digital Media Summit conferences, we've talked about the challenges to the digital supply chain. We've been at this for a number of years talking about these issues and of course some of these have really come to bear in the last six months. Marc Pritchard of P&G has been on a roadshow for the last 18 months talking about the broken digital supply chain.*

# Digital Supply Chain Challenges

1. Tra
2. Me
3. Hea
4. Priv
5. Vie
6. Fra
7. Adv
8. Ad
9. Duopoly Dominance
10. Fragmentation

## Consequences

**1) Digital Spend Constricting**

*One of the consequences we warned about around these issues was spend constricting and of course last year we saw just that…*

# Digital Ad Spend Effectiveness in Question

THE WALL STREET JOURNAL.

$200

**P&G Cuts More Than ~~$100~~ Million in 'Largely Ineffective' Digital Ads**

Consumer product giant steers clear of 'bot' traffic and objectionable content

July 27, 2017 5:31 p.m. ET

**"We didn't see a reduction in [P&G's] growth rate. The spending we cut was largely ineffective."**

Jon Moeller, CFO, P&G


*In 2017, P&G pull over $200 million of spend, and as they indicated, without much impact. This is alarming should other marketers follow suit. It's incredibly important to resolve these challenges so that more marketers don't stray away from the digital channel.*

# Digital Supply Chain Challenges

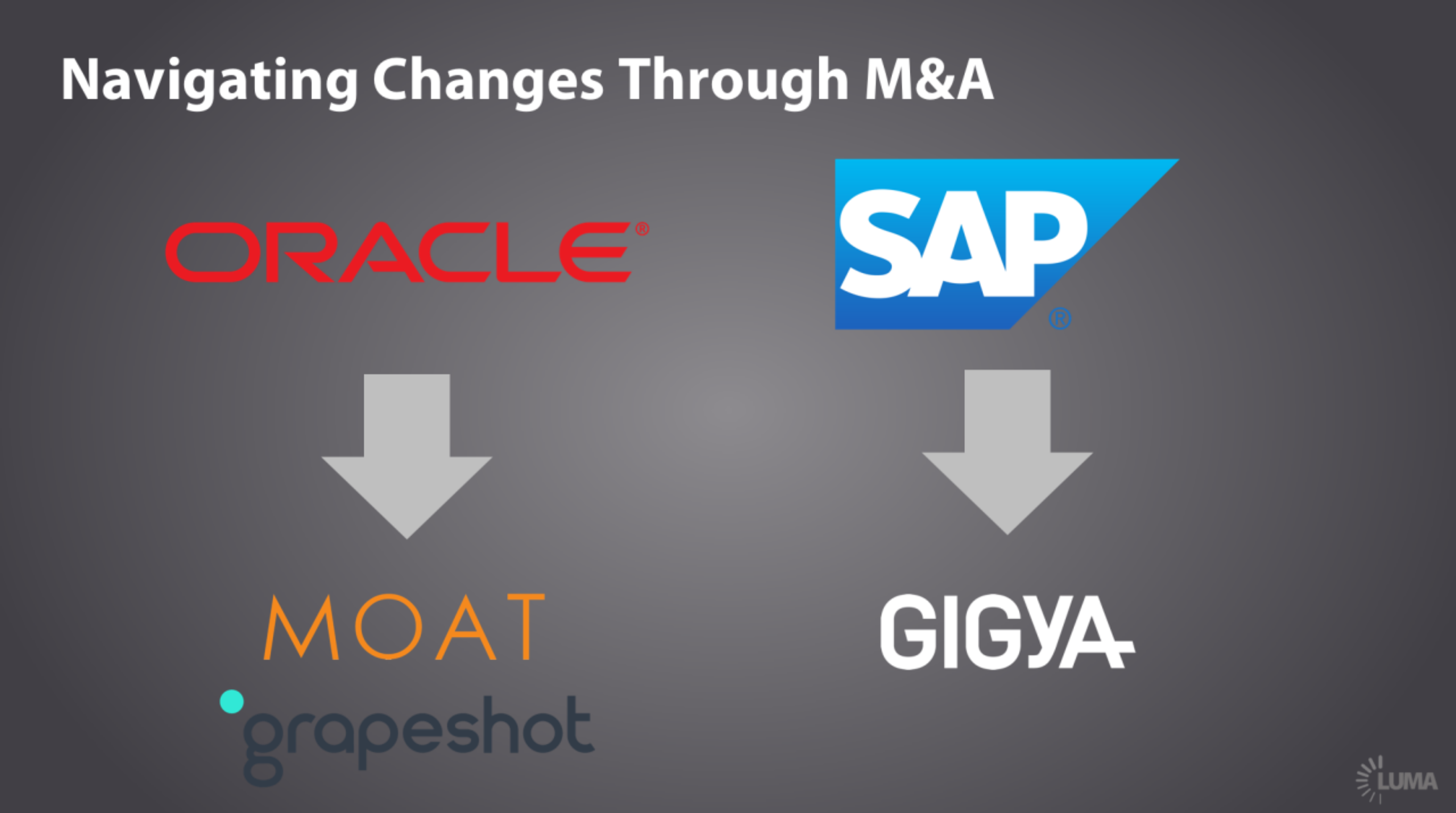
1. Tra
2. Me
3. Hea
4. Priv
5. Vie
6. Fra
7. Adv
8. Ad
9. Duopoly Dominance
10. Fragmentation

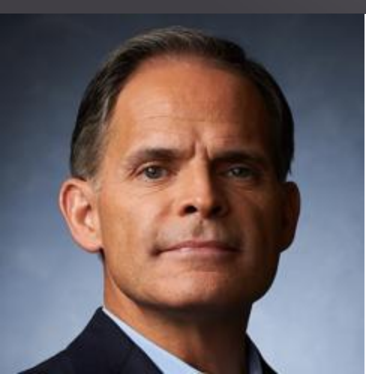
## Consequences

1) Digital Spend Constricting

**2) Consolidation**

*Next is consolidation. Once again, M&A being the tactic tool to solve industry problems.*



*We have seen three major acquisitions where the Marketing Clouds picked up companies that gave them the kind of capabilities necessary to solve problems around viewability, measurement, fraud and identity resolution.*

# Digital Supply Chain Challenges

1. Tra
2. Me
3. Hea
4. Priv
5. Vie
6. Fra
7. Adv
8. Ad
9. Duopoly Dominance
10. Fragmentation

## Consequences

1) Digital Spend Constricting

2) Consolidation

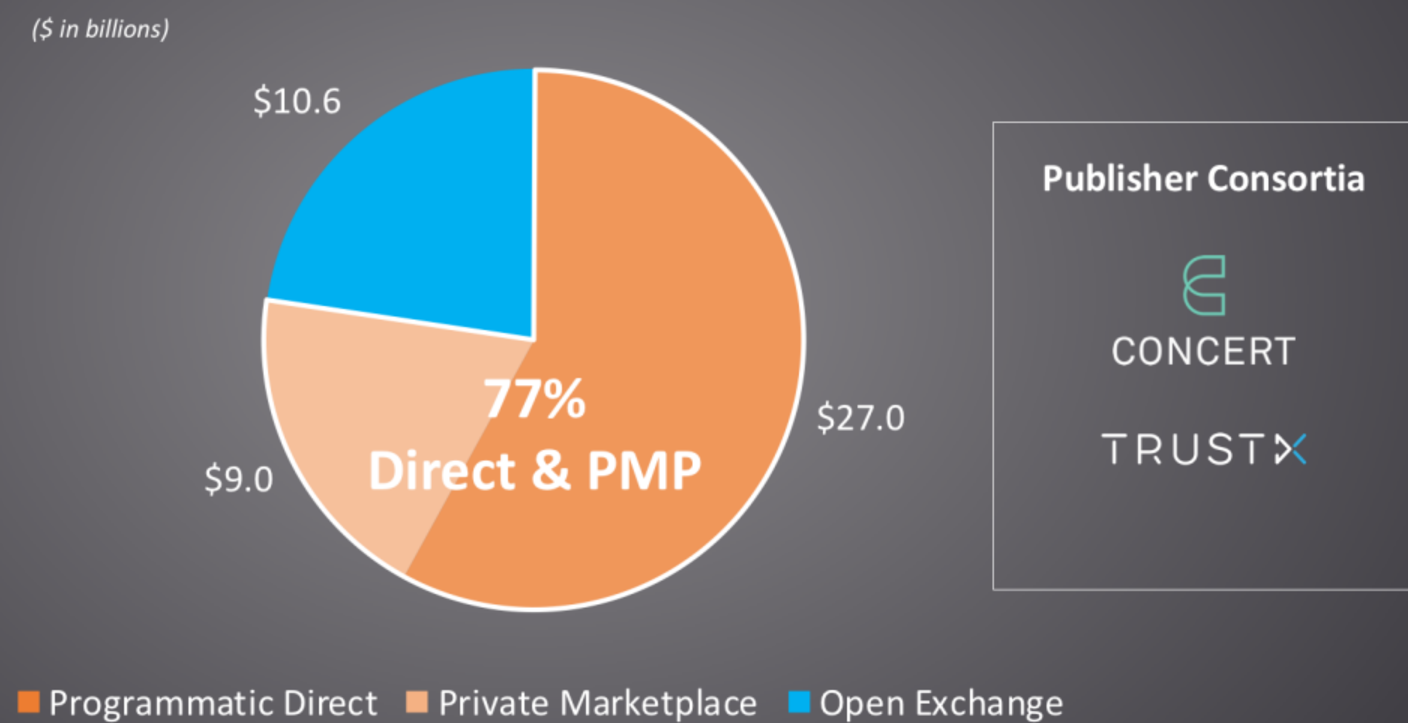
**3) Flight to Safety**

- **A. Private Marketplaces**
- **B. Duopoly Dominance**

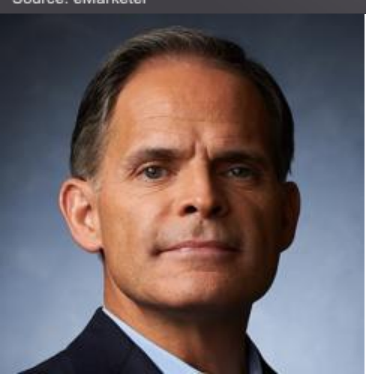
*Finally, flight to safety, which comes in a couple of parameters: private marketplaces and duopoly dominance.*

# Ad Buying Shifting Towards Closed Environments

**U.S. Programmatic Digital Display Ad Spending**



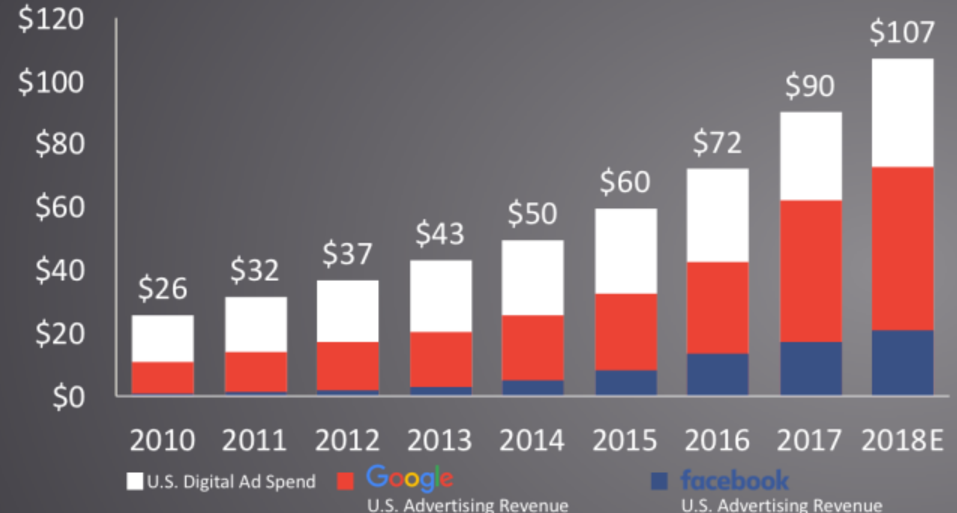

Source: eMarketer



*Today, the vast majority, over ¾ of programmatic advertising spend, is not transacted in open bidding environments. Spend is predominantly either going programmatic direct or private marketplaces. We believe this trend has been a response to some of the aforementioned challenges in the ecosystem. There has also been a white list movement going on where premium publishers are forming consortia, such as Concert and TrustX, to provide solutions with well-lit environments.*

# Duopoly Maintains Hold on the Market

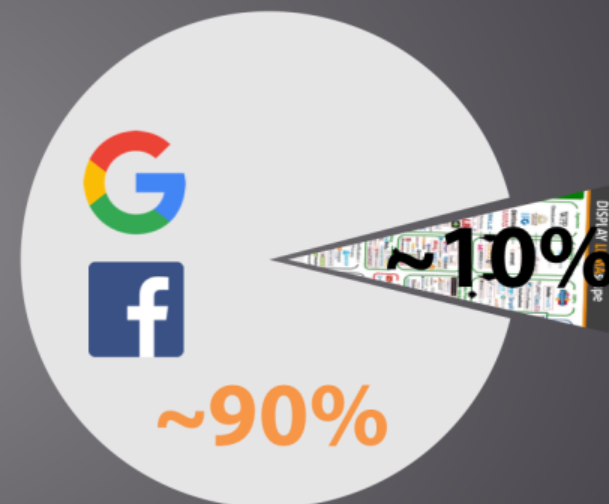
## U.S. Digital Ad Spend



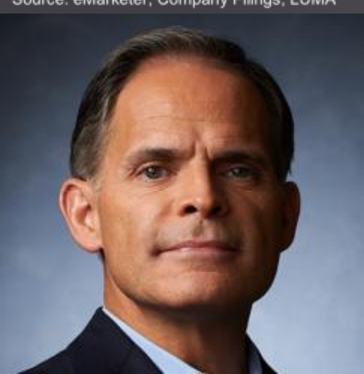

Share %

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018E |
|---|---|---|---|---|---|---|---|---|---|
| Google | 52% | 53% | 55% | 53% | 54% | 52% | 52% | 50% | 48% |
| Facebook | 4% | 6% | 6% | 7% | 10% | 14% | 17% | 19% | 20% |
| **Total %** | **57%** | **59%** | **60%** | **61%** | **65%** | **65%** | **69%** | **69%** | **68%** |

## U.S. Incremental Ad Spend

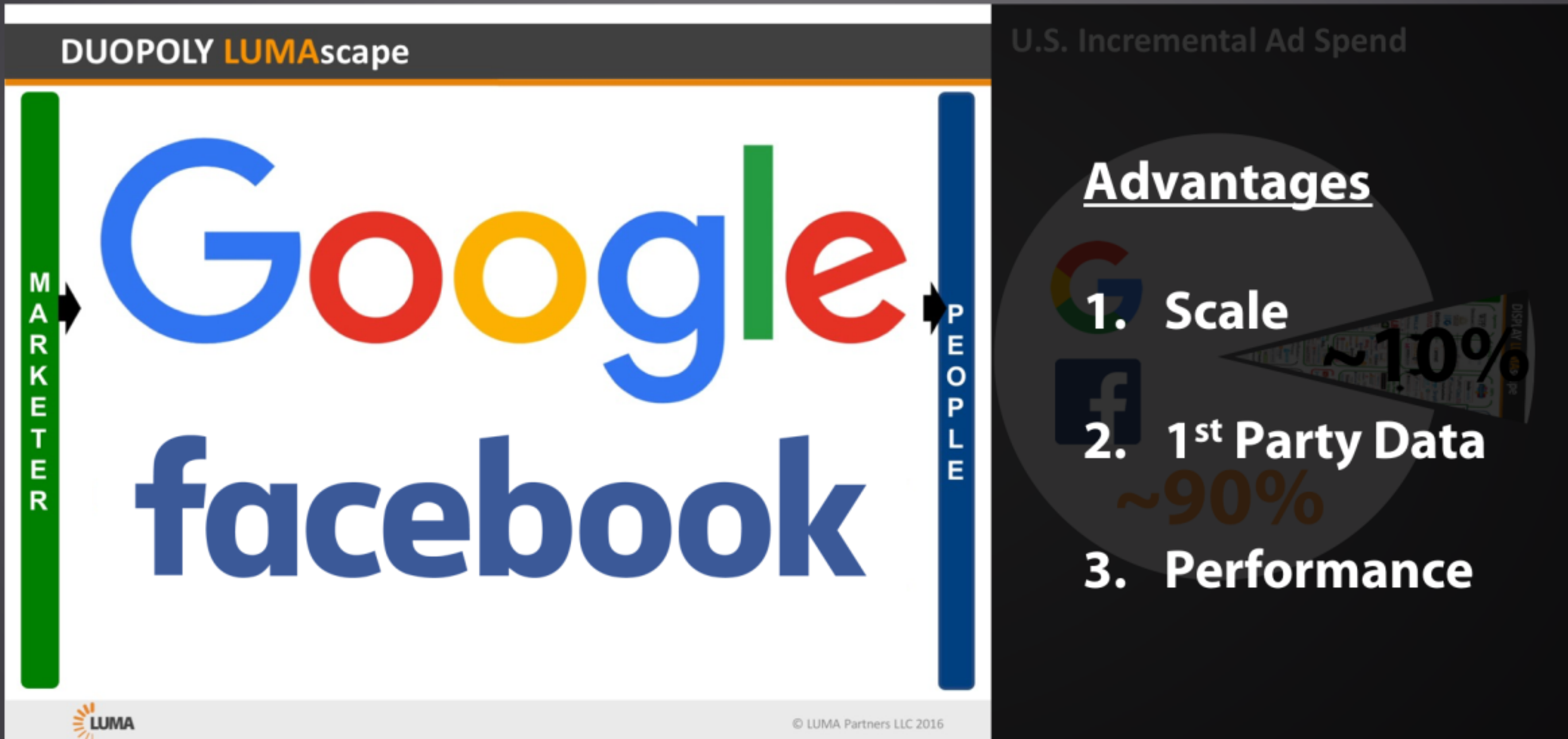



Source: eMarketer, Company Filings, LUMA



*We all know about the dominance of the Duopoly. Facebook and Google maintain over ⅔ of digital spend and almost all of the growth.*

# Duopoly Maintains Hold on the Market

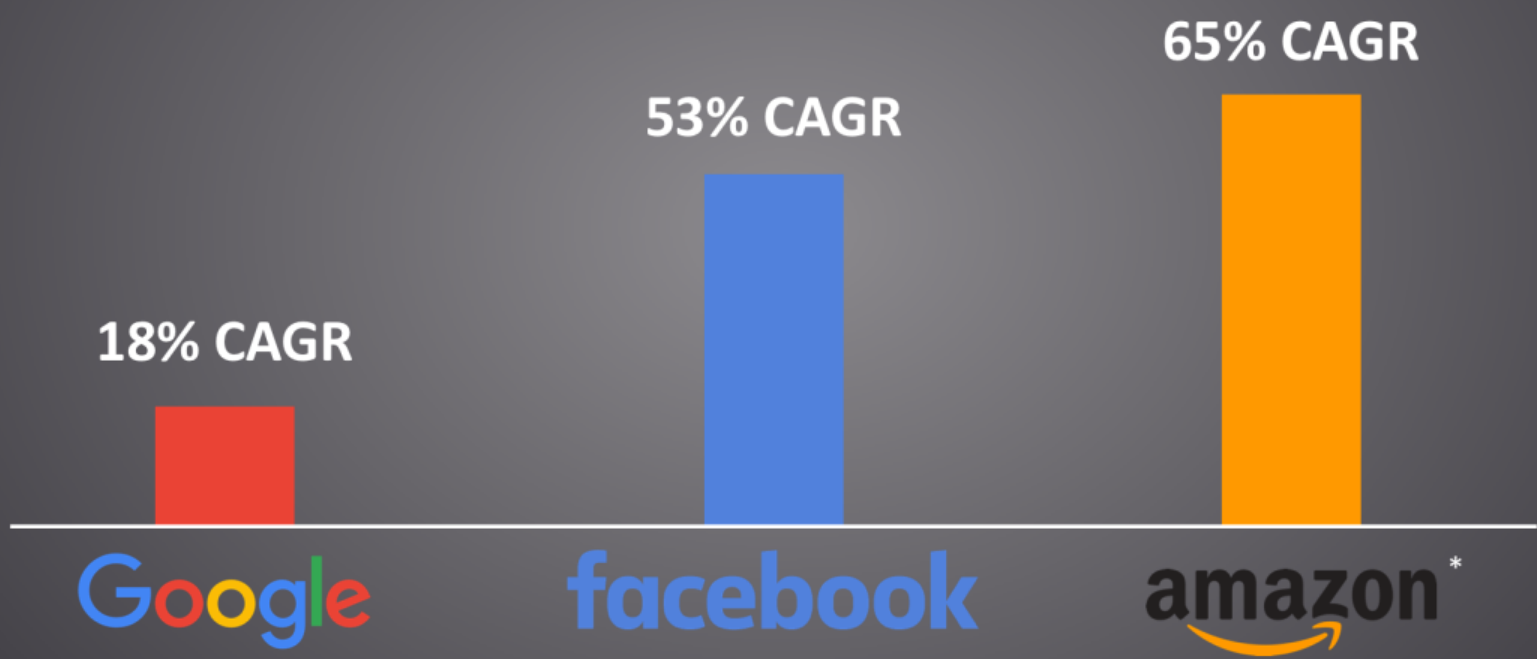



Source: eMarketer, Company Filings, LUMA

*The Duopoly has succeeded in light of the ecosystem's challenges because they have unparalleled scale, use first party data and deliver performance – we'll talk more about that. If this trend continues, it's going to get easy to make LUMAscapes!*

# Amazon Will Be the 3rd Triopolist

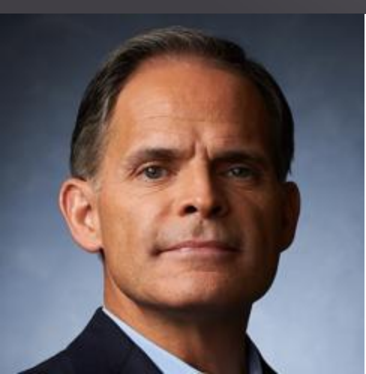
## 2015-2017 Ad Revenue CAGR



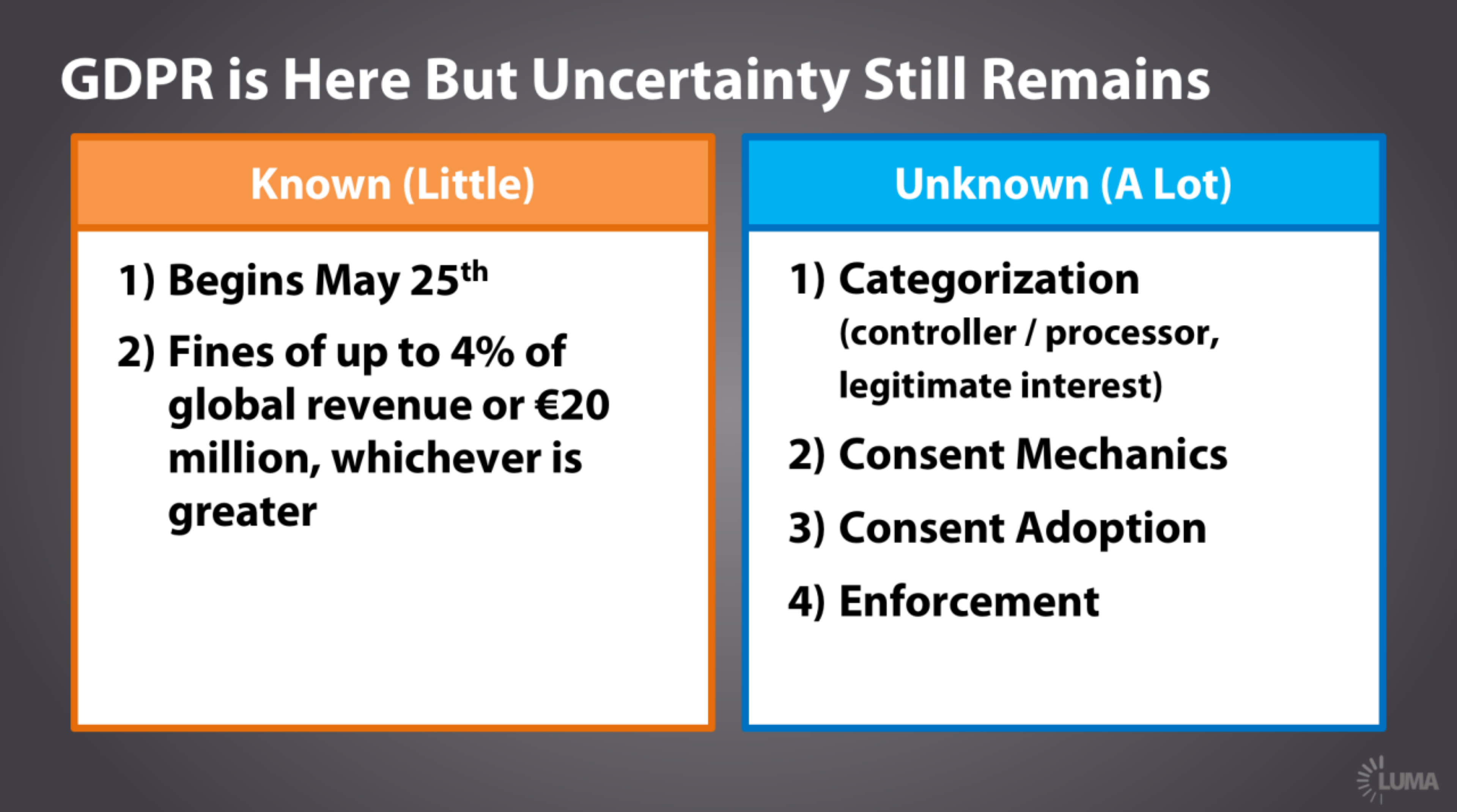

Source: Company Filings
*Amazon "Other" Revenue

*Amazon ranks as the 5th largest company in digital media by advertising revenue in the U.S., but we believe it's no question they'll be the 3rd. Their astounding growth rate, network effects and intent signals give Amazon the kind of capabilities to easily drive to #3 and challenge Google and Facebook.*

# Privacy Concerns Have Heightened

*Amongst the issues of the digital supply chain, privacy has come to the fore. We are finally at the point of implementation of the GDPR in the EU and two months ago we had the Facebook Cambridge Analytica scandal.*




*What we know about the GDPR is very little. We know it begins May 25th and we know that fines will be €20 million or 4% of global annual revenue, whichever is greater. What we don't know are things like who's going to be categorized as what, controller or processor? Consent mechanics, consent adoption, and finally enforcement all remain unknown as well.*

# FB Scandal Sends Shockwaves to Ad Industry

The Atlantic

**This Is So Much Bigger Than Facebook**

MAR 23, 2018

DAILY BEAST

**It's Not Just Cambridge Analytica, Facebook, & Trump—The Whole Web Is Stalking You**

03.20.18 5:15 AM ET

ZDNet

**Facebook fallout: Big Brands' adversarial ad strategies exposed**

April 2, 2018

DIGIDAY

**'The end of the Wild West': Facebook-Cambridge Analytica revelations cast shadow on online ad practices**

MARCH 20, 2018

*The Facebook scandal was huge. It sent shockwaves across the industry but it really was greater than just Facebook and advertising – what we're talking about is the very monetization of the Web.*

# Consequences of Increased Data Scrutiny

## Consequences

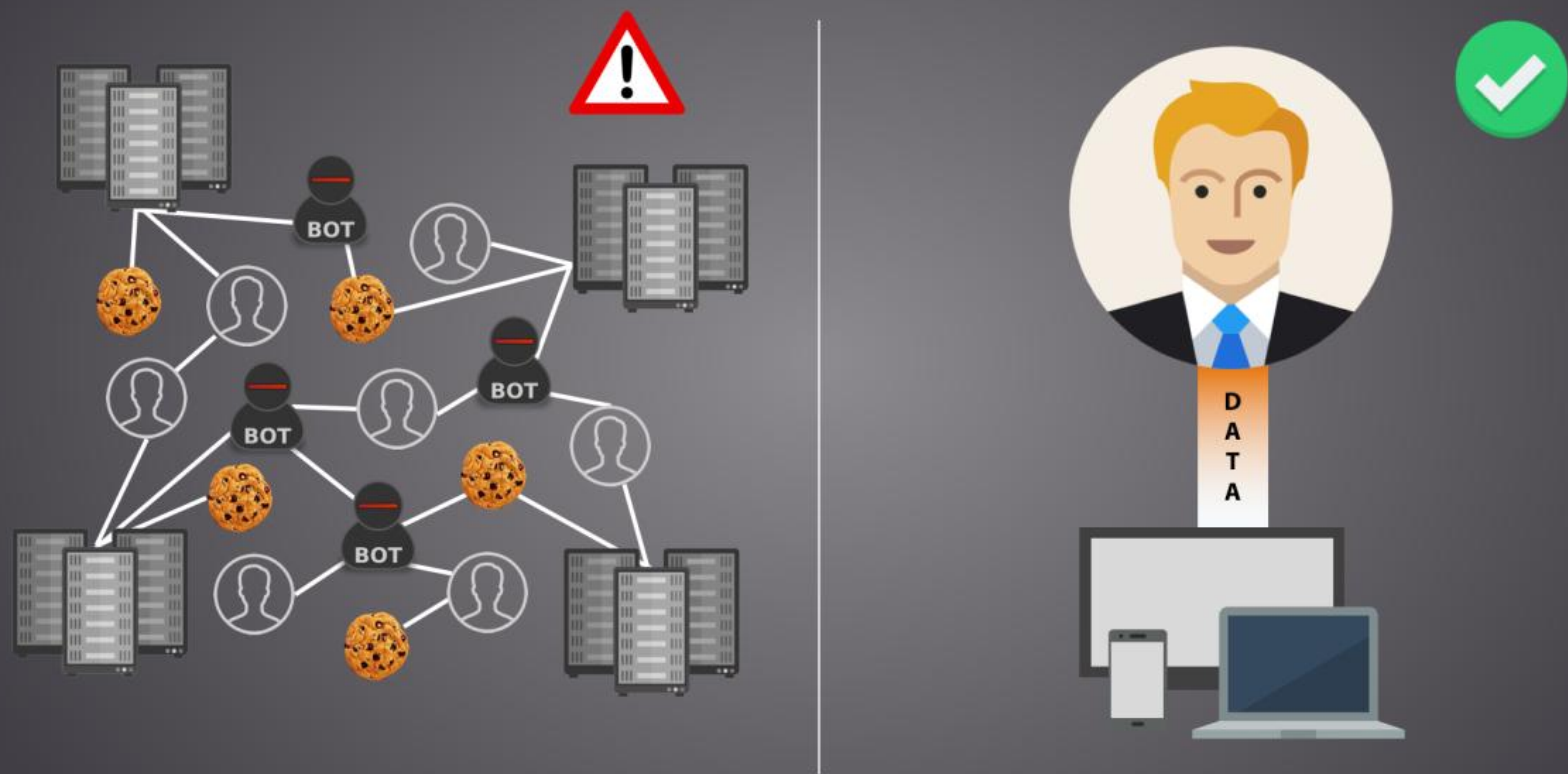
1) New Legislation
2) Accelerating Use of First-Party Data
3) Strengthening the Duopoly
4) Consolidation

*We believe the potential consequences of increased data scrutiny are manifold: new legislation, accelerated use of first-party data, strengthening the Duopoly and consolidation.*

# Potential for New Legislation


*We don't expect significant legislation at the Federal level given how poorly the issue is understood by lawmakers. Where we do think there could be some activity, however, is at the state level, and we note that there is significant privacy regulation proposed in the upcoming California ballot initiative. These proposed laws could be even more restrictive than the European standards.*

# Accelerating Use of First-Party Data




*We have long been pointing to the higher value of first-party data because it drives better results. Increased data scrutiny will only accelerate its usage and importance.*

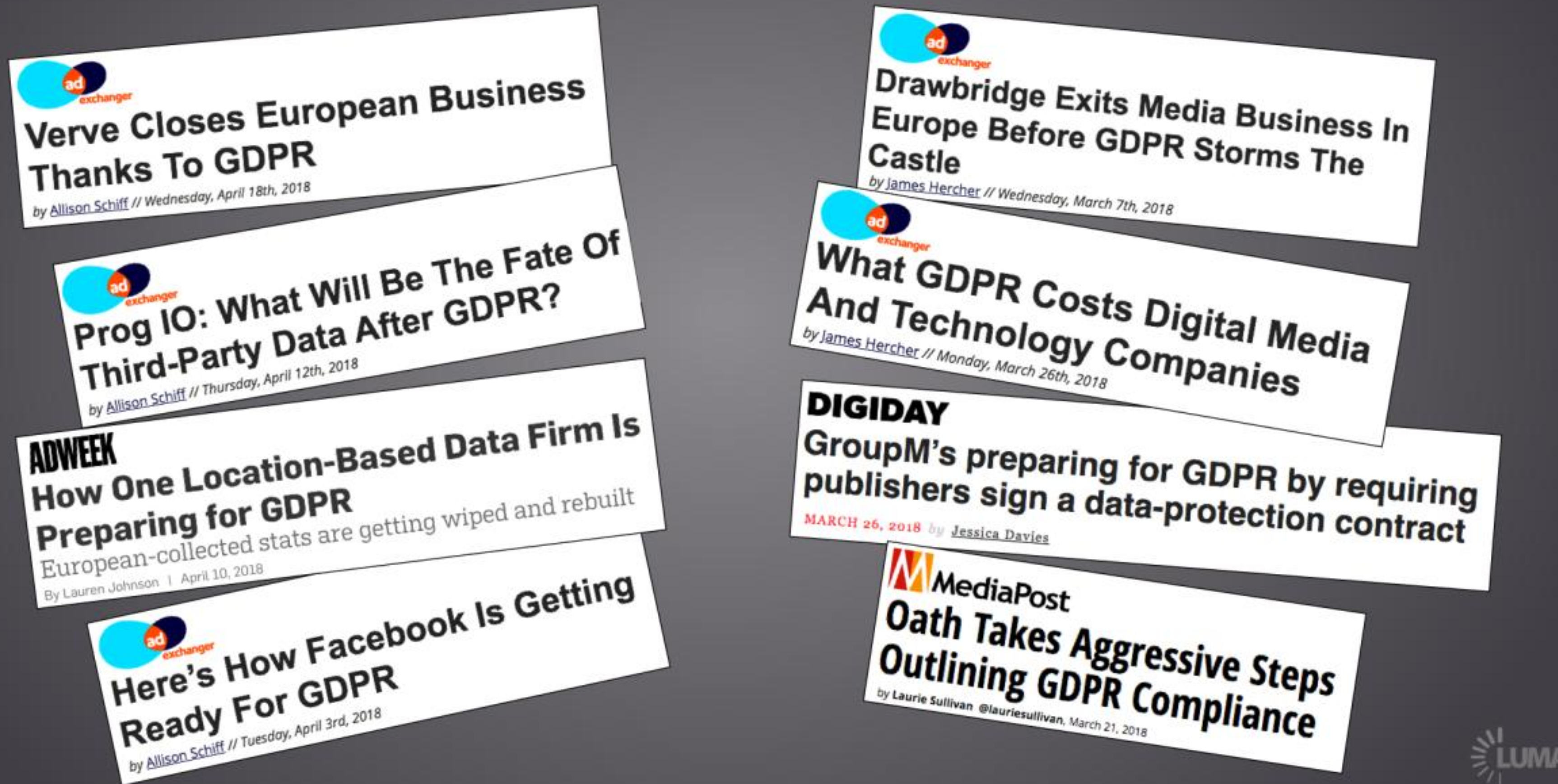
# The Walled Gardens are Getting Higher

- Self-proclaimed "controller"
- Limiting 12 tags per consent
- Removing DoubleClick IDs from data transfers
- YouTube will not support third-party ad serving in EU

- Removed third-party data providers from ad targeting
- More expected soon…

*We believe impending regulation, while not intended, will in fact strengthen the Duopoly. We've begun to see actions taken by both Google and Facebook to restrict third-party data and take measures that, under the guise of privacy, are closing up their walls. We think this will have negative implications for the ecosystem.*

# Consolidation in the Face of Privacy Compliance




*Finally, we predict this will accelerate consolidation. The highly fragmented ecosystem has been in need of rationalization and consolidation for some time and we believe increased privacy regulation will accelerate this trend.*

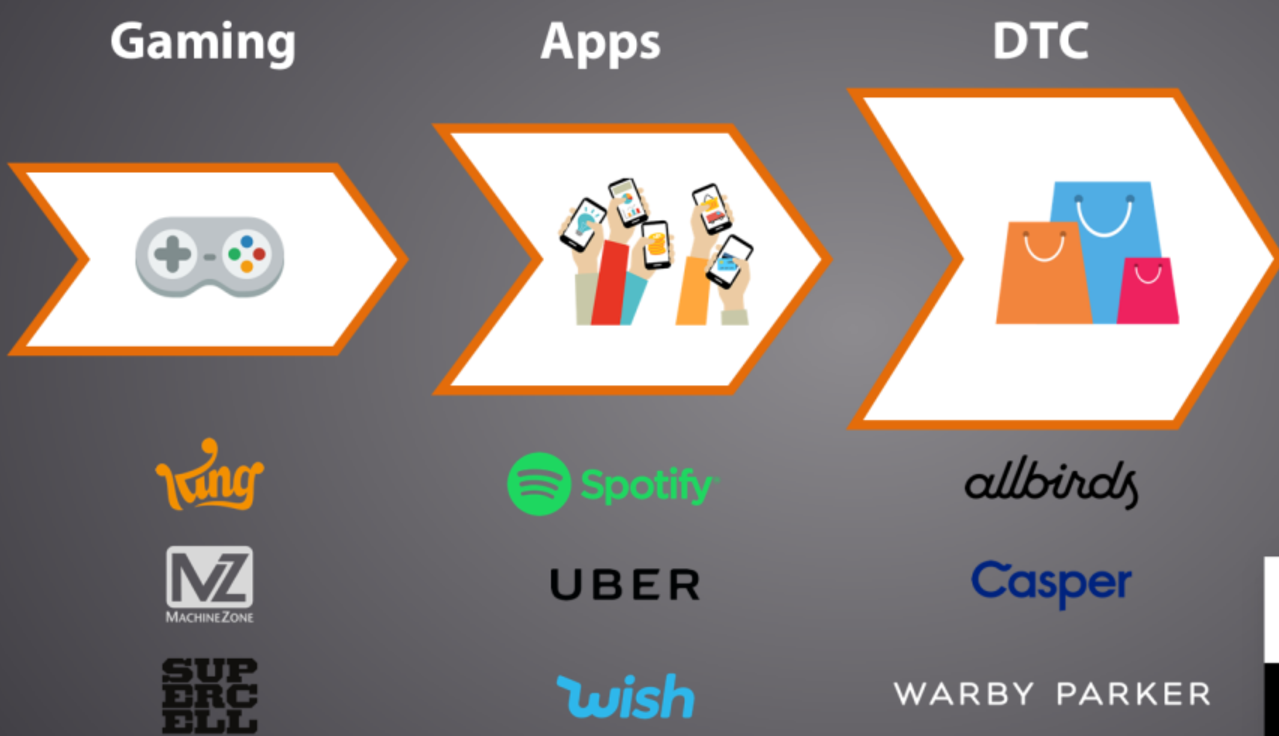
# Consequences of Increased Data Scrutiny

## Consequences

1) New Legislation
2) Accelerating Use of First-Party Data
3) Strengthening the Duopoly
4) Consolidation
5) Regression to "Wanamaker" Advertising

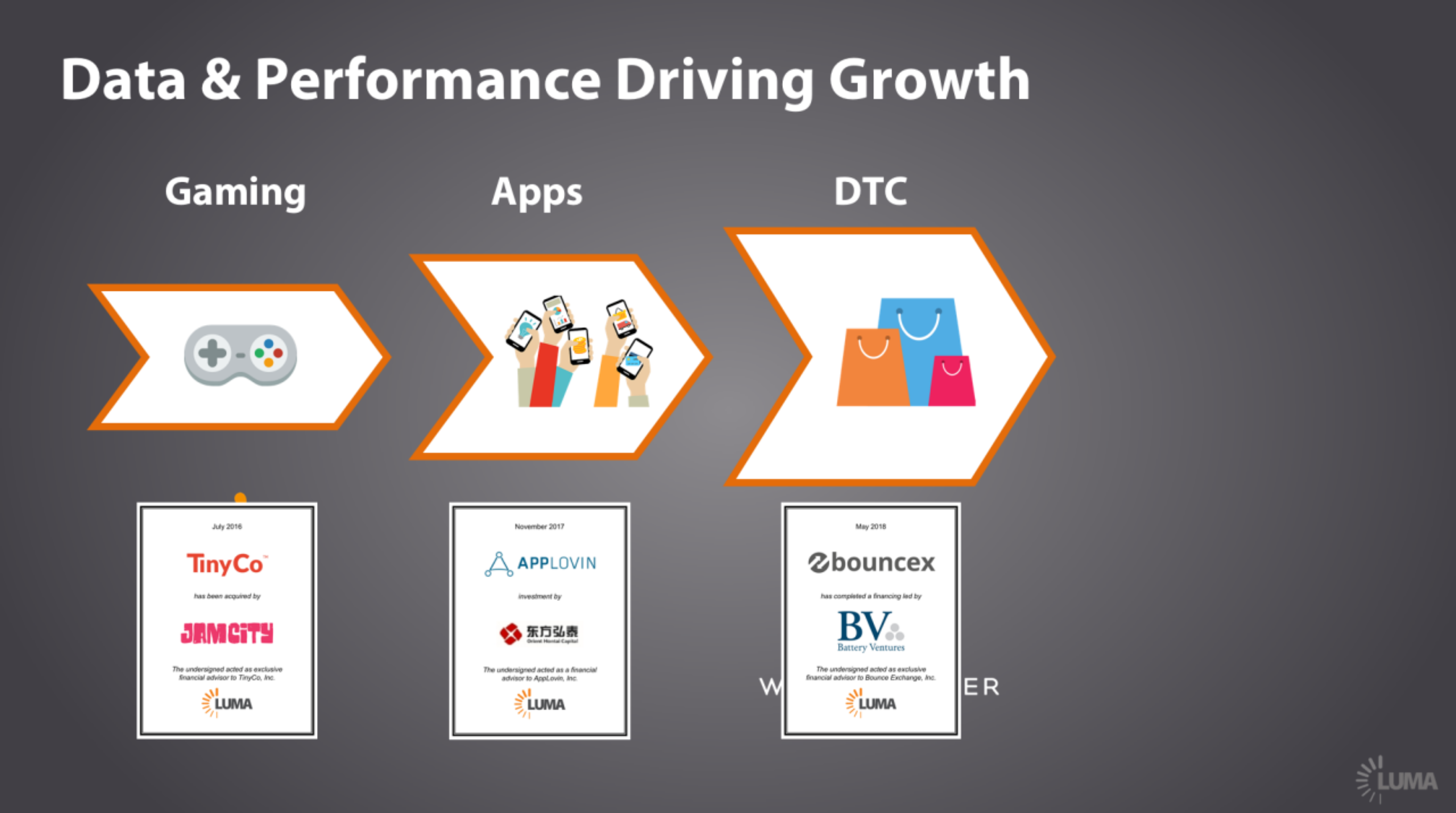
*So the final consequence of increased data scrutiny, we hope, will not be a regression to "Wanamaker" advertising, from which the marketing pioneer John Wanamaker once said, "half the money I spend on advertising is wasted; the trouble is I don't know which half". If we return to "Wanamaker" advertising, we will get away from data, targeting, attribution and relevancy. We believe that won't happen…*

# Data & Performance Driving Growth





*Why? Because of what we are seeing taking place in the direct-to-consumer (DTC) world. Data and performance are driving real growth for marketers. We have seen this with gaming marketers, who have built incredible businesses on the backs of largely digital spend towards customer acquisition. We then saw it expand into the broader app market which has proliferated greatly. What's even bigger than that is the growing direct-to-consumer segment. There is an excellent thought piece from the IAB on DTC.*



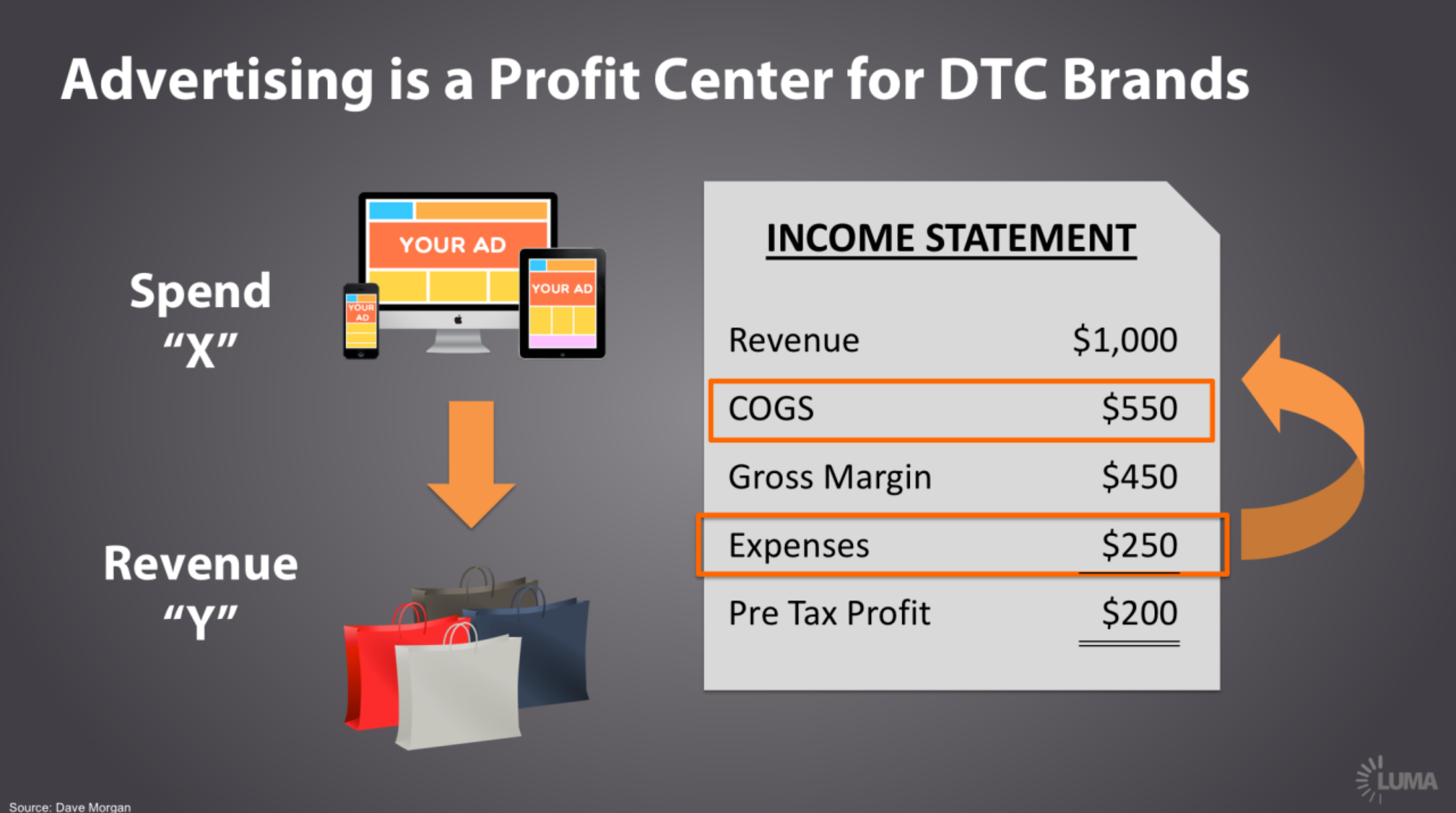

*DTC is a phenomenon where companies can garner incredible amounts of market share by deploying sophisticated strategies as it relates to where they place their ad spend and how. We have an informed perspective on these trends because just in the last year we've intermediated several deals that largely affect each of these segments.*

# Digital Has Enabled DTC at Scale

## Traits of DTC Brands

1) **Digital Native**
2) **Disintermediation** (agencies, retailers, etc.)
3) **Own Customer Relationship**
4) **Performance Oriented**
5) **Growth-Focused Marketing Talent**

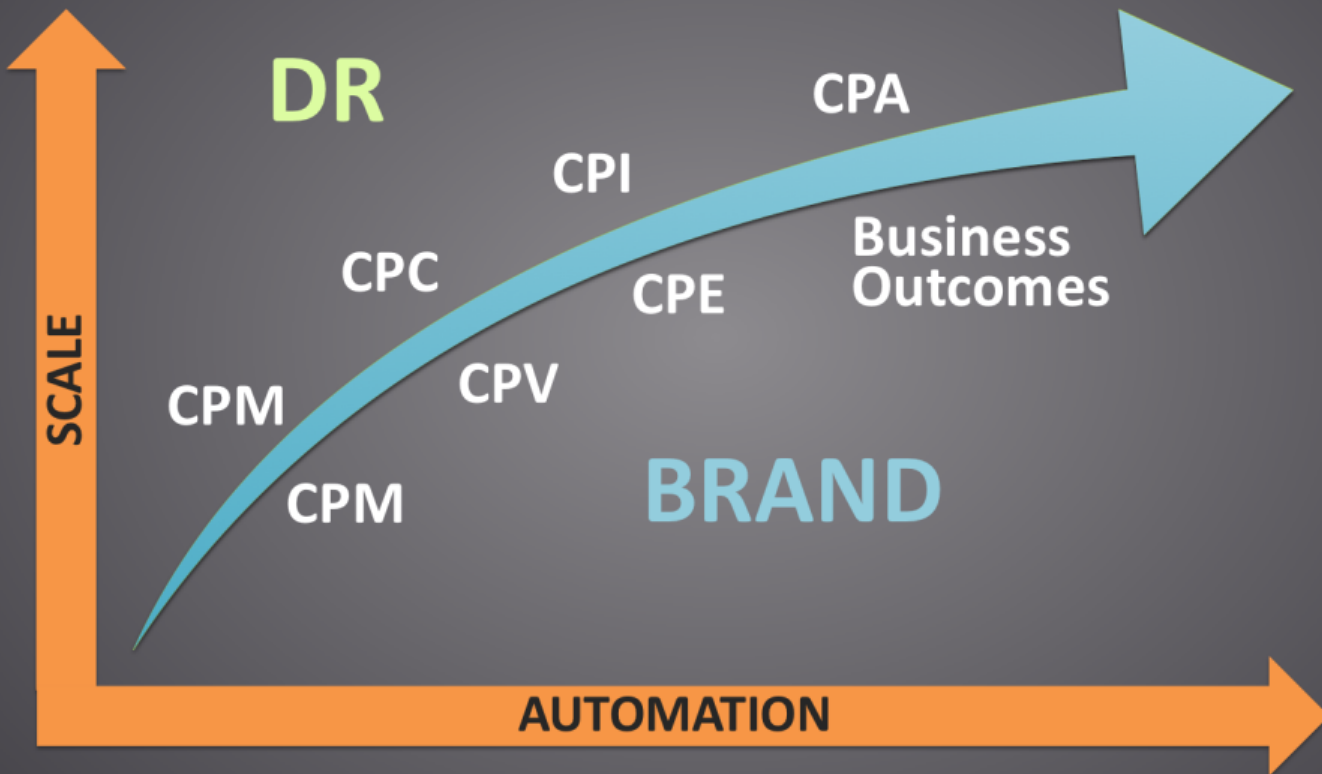
*DTC brands are digitally native, disintermediate middlemen to own the consumer relationship, and tend to have a performance, customer acquisition approach. The background of the person and talent that makes up the CMO often comes from growth and business focuses, and may even have a background in data science.*





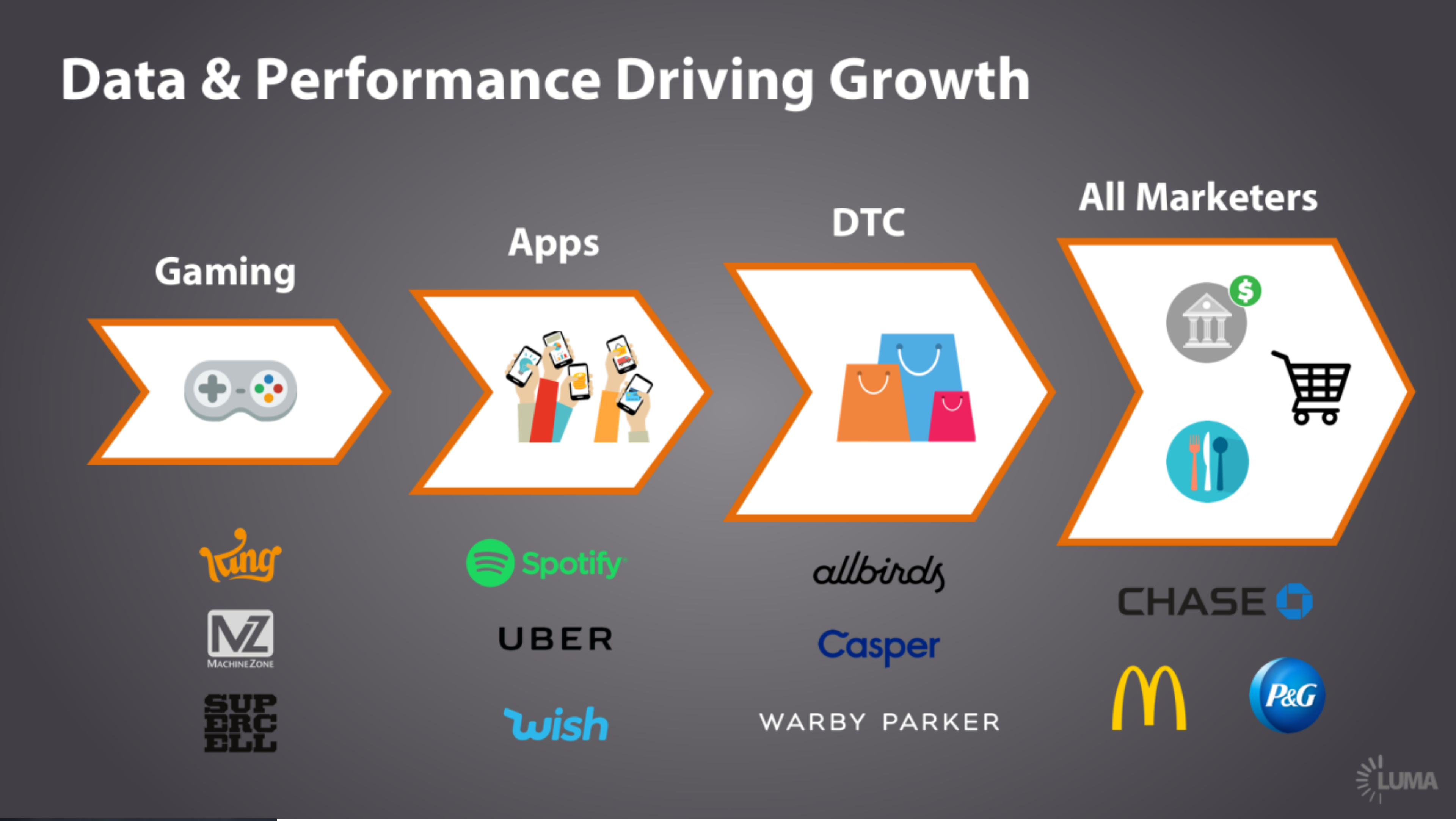
*These DTC brands treat advertising as a profit center, effectively moving it up the income statement from a discretionary expense to a cost of goods sold.*

# Performance Advertising Drives Results & Brand



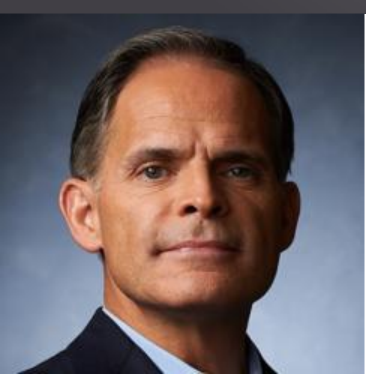

*So, on a performance curve, whether it's DR or brand advertising, DTC brands are migrating away from proxies and impressions, and more towards business outcomes to earn new customers.*


*And it's working! In the razor market alone, Dollar Shave Club and Harry's garnered over 12% of market share, largely at the expense of Gillette, in just five short years.*

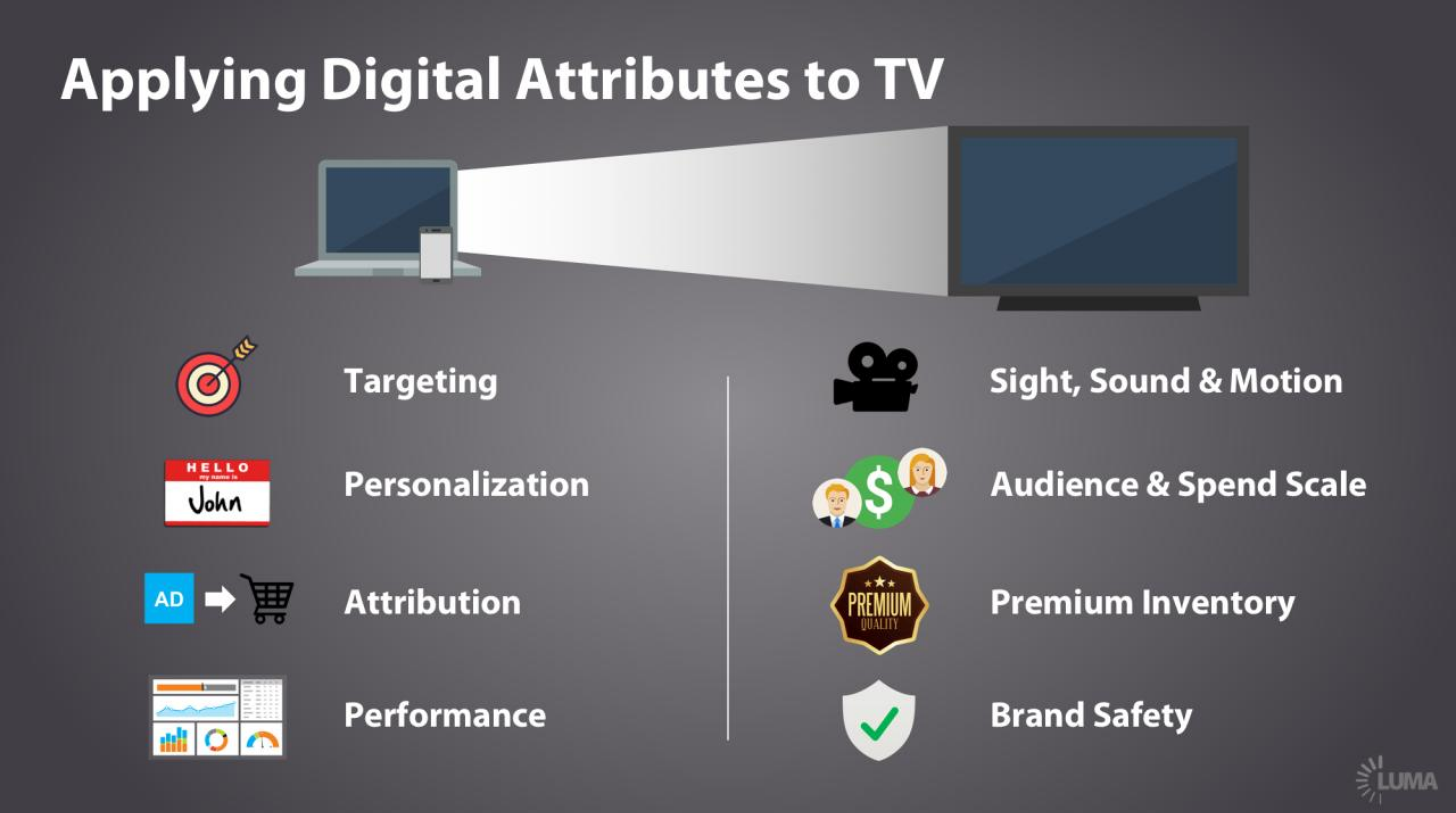



*These tactics clearly work, and we believe they will be employed by all marketers. The biggest companies and marketers in the ecosystem will move away from bulk spend and more toward these targeted strategies.*

# Publishers Also Need to Think This Way

*And by the way, we believe publishers can benefit from a more direct-to-consumer approach as well. Digital publishers have historically lacked direct relationships with their audience and therefore lack valuable data to grow, retain and monetize their users.*

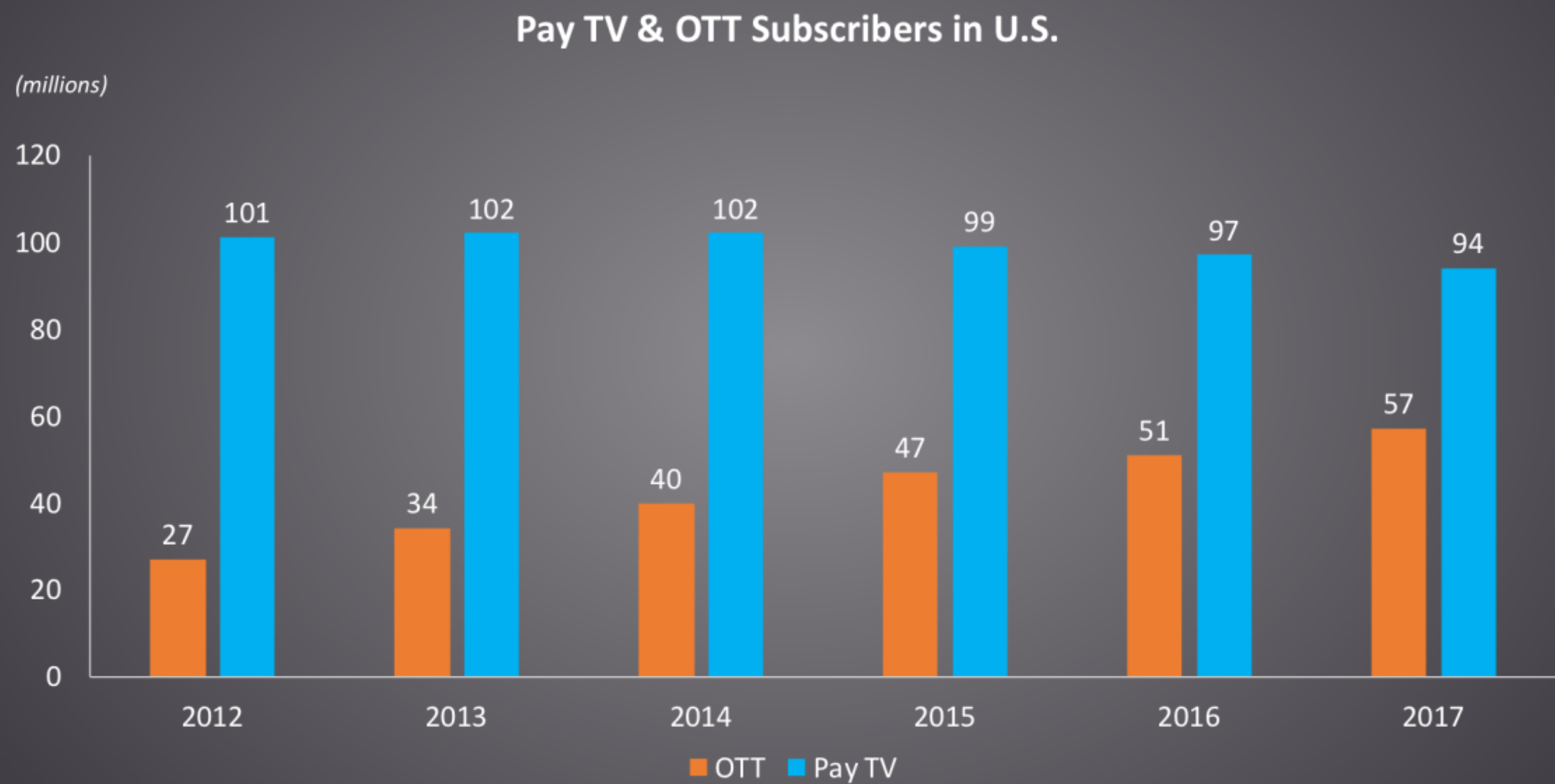



*The DTC and advertising phenomena is largely taking place in the digital channel, but now think about what happens when you bring the best of digital to TV. With full sight, sound and motion, large audience and ad spend scale, premium inventory, and brand safe environments, TV is where it starts to look a lot more interesting.*

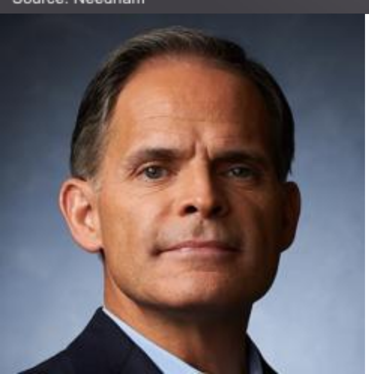
# TV is in a Platinum Age


*We are not in the golden age of TV, but rather in a platinum age. Never have we had the kind of content quality and choice on our big screen than today. It is truly unprecedented.*

# Adoption of OTT Continues to Climb



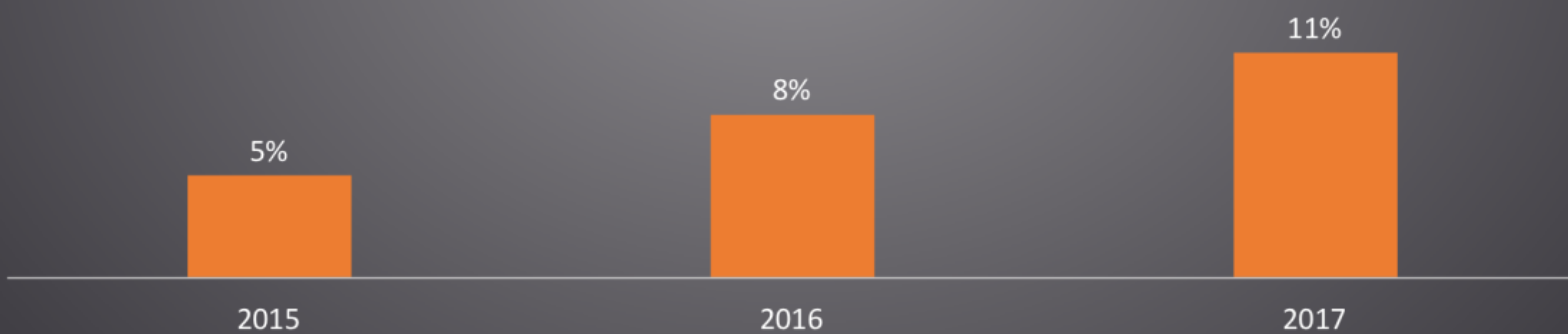

Source: Needham



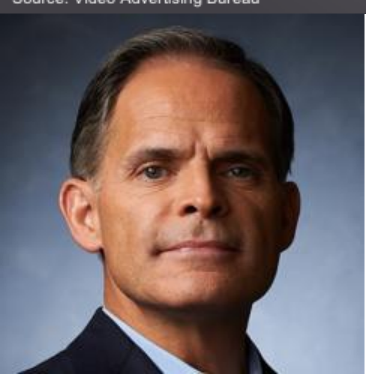
*The market to watch, without question, is OTT while traditional linear TV continues its decline amid the rise of cord cutting.*

# Though Total OTT Viewing is Nascent

Streaming's Share of TV Viewing Hours (Adults 18-49)

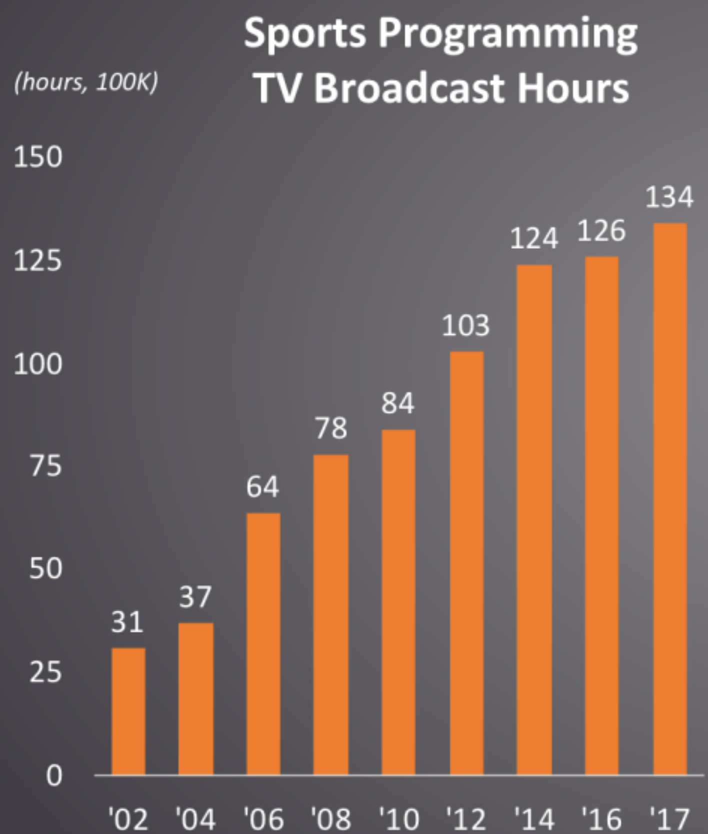


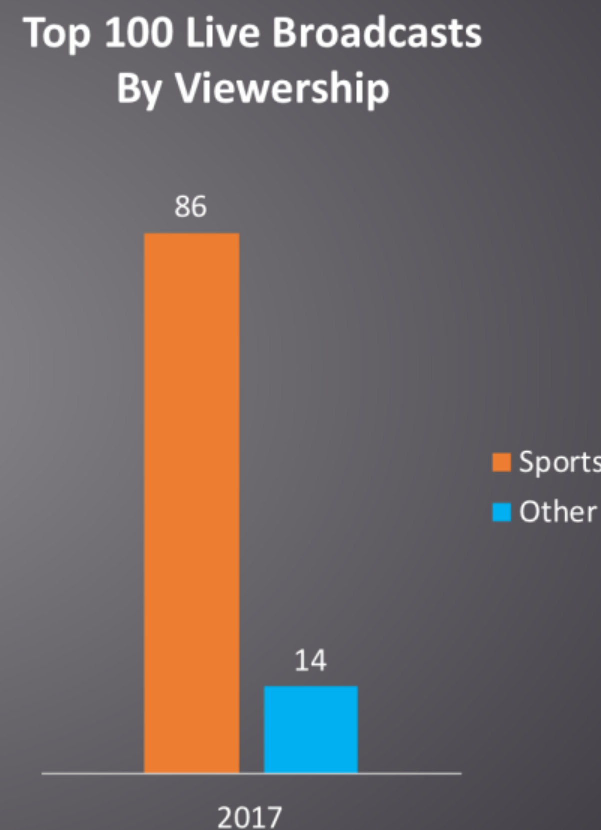

Source: Video Advertising Bureau



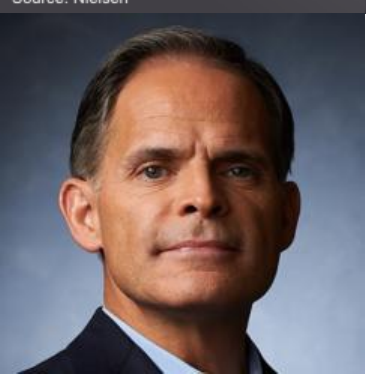
*Although OTT is rising rapidly, it still has a lot of headroom with total viewership barely into double digit penetration.*

# Live Sports Remain the Linchpin of Linear TV




Note: Sports programming includes shoulder programming
Source: Nielsen

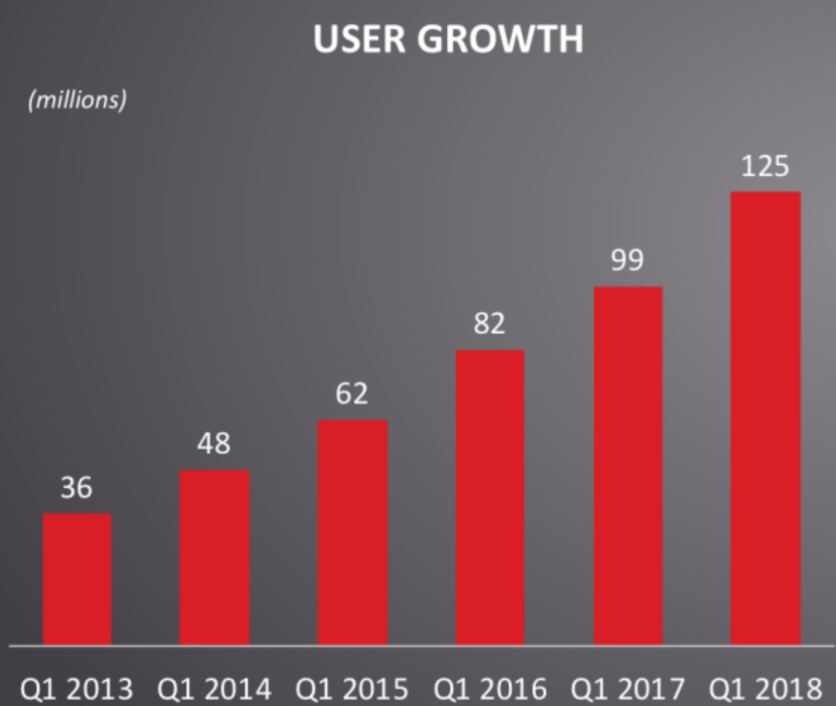


*Interestingly, linear TV's linchpin is still live sports, which remains valuable to a large audience. These contractual rights with the major leagues extend into the next decade.*


*The digital giants do want a piece of sports. We've seen them all bid on inventory, but for now most of the content remains lower tier, non-primetime events. The digital giants are certainly aware of the value of sports and we can expect them to be competitive as major rights expire.*

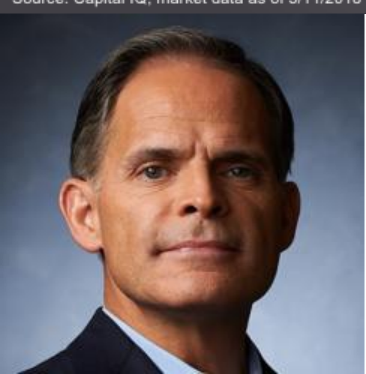
# The Streaming Wars are About to Begin

NETFLIX



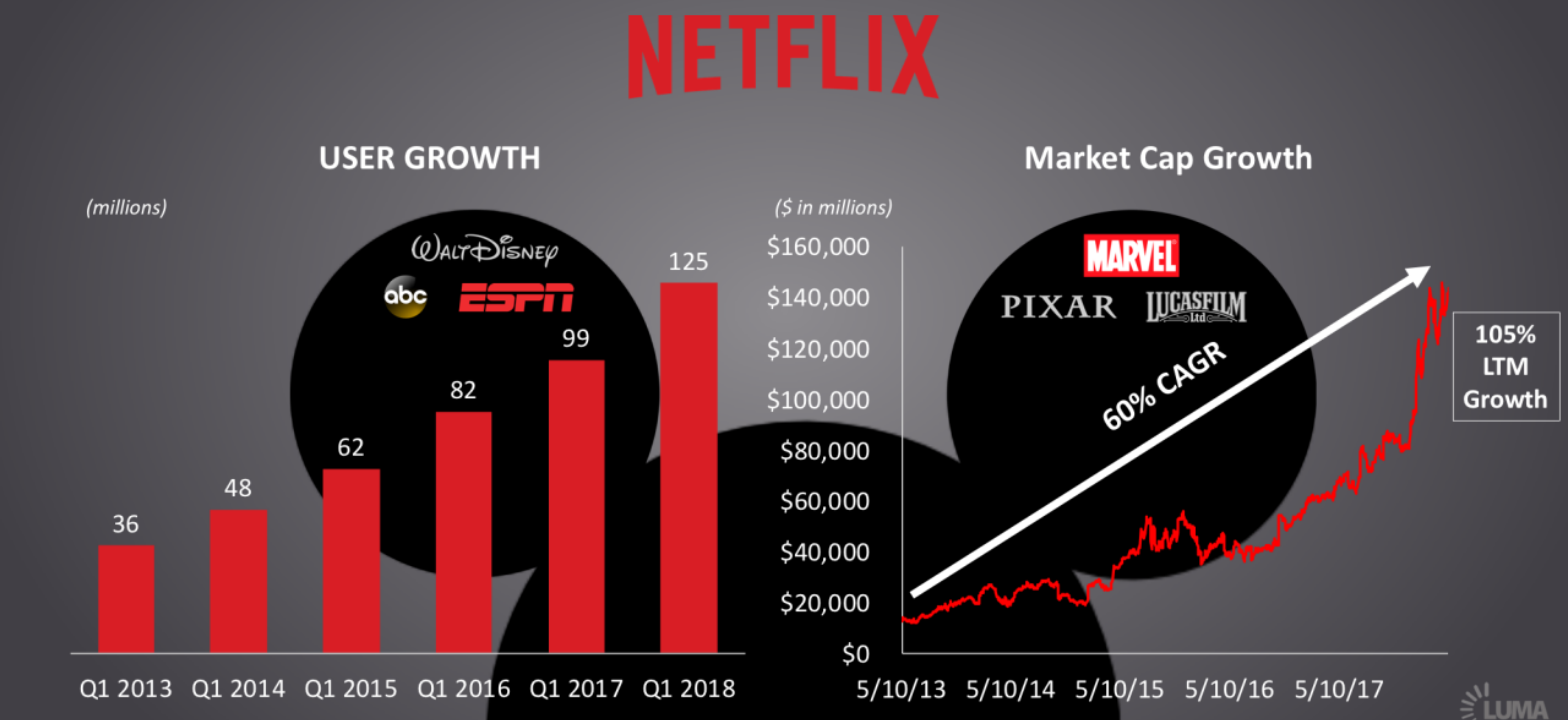


Source: Capital IQ, market data as of 5/11/2018



*The opposite of live sports is on-demand entertainment and we've never seen a bigger success story in TV than Netflix. This is a company that just announced 125M subscribers and its market cap has gone up 60% on a compound annual growth rate in the last 5 years, doubling just in the last year alone. Netflix is a behemoth!*

# The Streaming Wars are About to Begin

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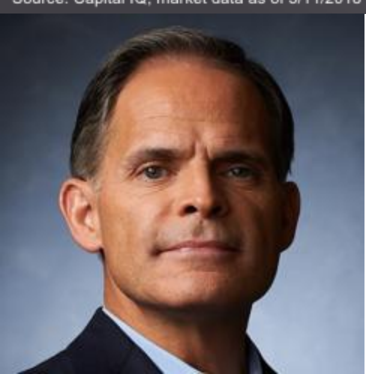


*Disney is one company that could challenge Netflix. The entertainment giant has announced they're taking all their content off the streaming platform starting in 2019. Disney has the strength of must-see content franchises (Disney, Marvel, Pixar and Lucas Film) to give them a fighting shot going head-to-head against a behemoth like Netflix. And Disney has direct consumer relationships via its parks and retail businesses. We believe the streaming wars are about to begin.*

# Challenges in OTT

## Subscription Fatigue

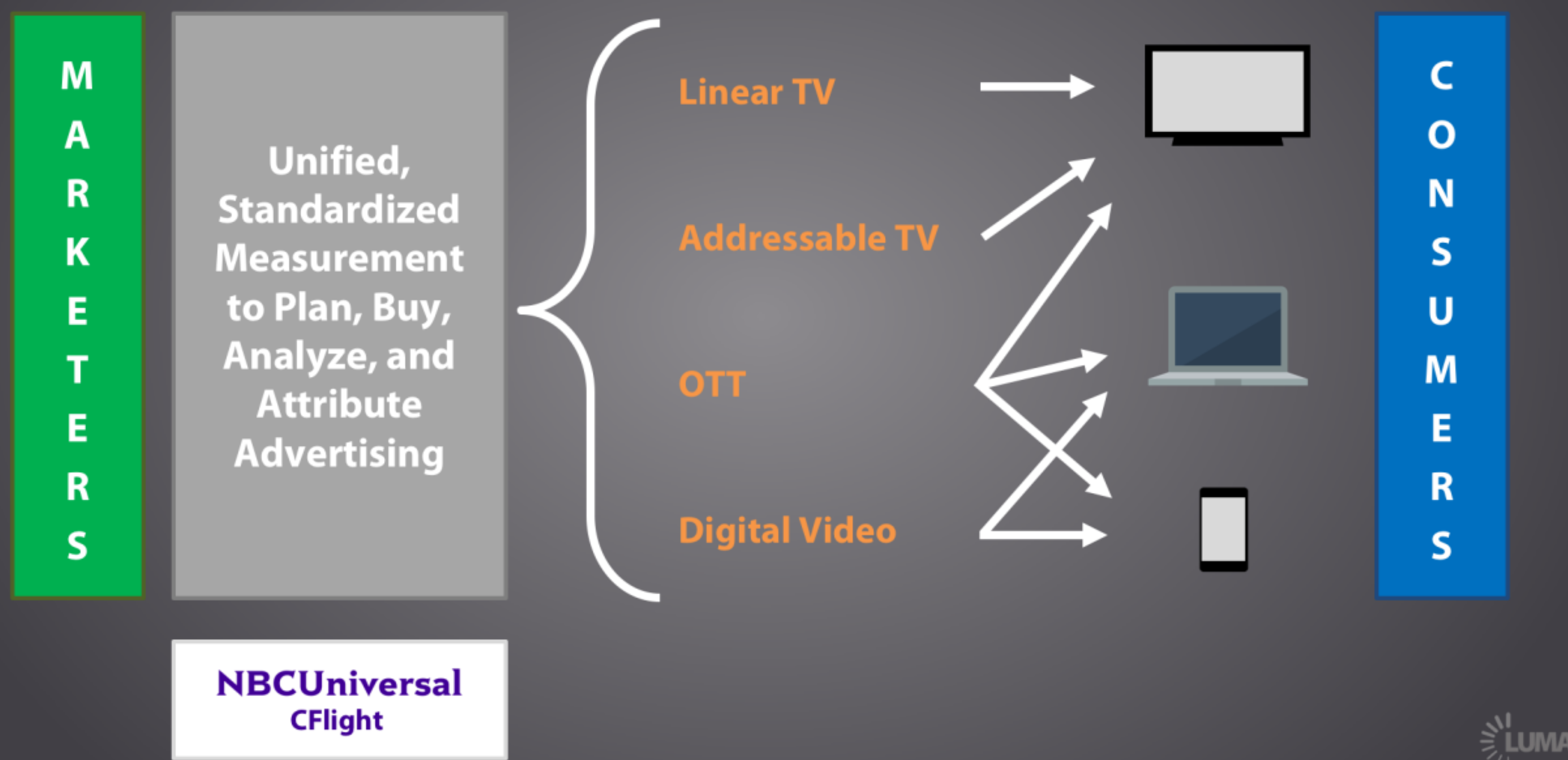
## App Fragmentation

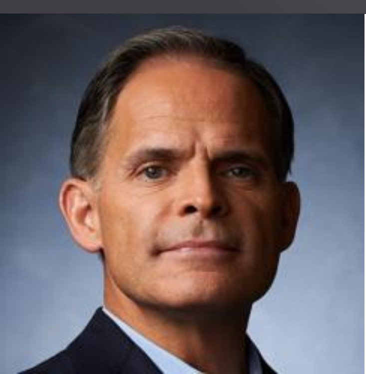

## Lack of Standardization

amazon
NETFLIX
YouTube
Chromecast
hulu
tv
HBO
Roku
sling
DIRECTV NOW
VIZIO
SAMSUNG

*There are, however, challenges in OTT, which affect consumers, marketers, media companies and technology intermediaries. As more subscription services emerge and Netflix and Amazon grow their footprint, subscription fatigue will start to become a growing concern. App fragmentation, which causes poor user experience and challenges to content discovery, remains unsolved. Finally, lack of standardization among hardware and software in OTT presents hurdles for targeted advertising.*

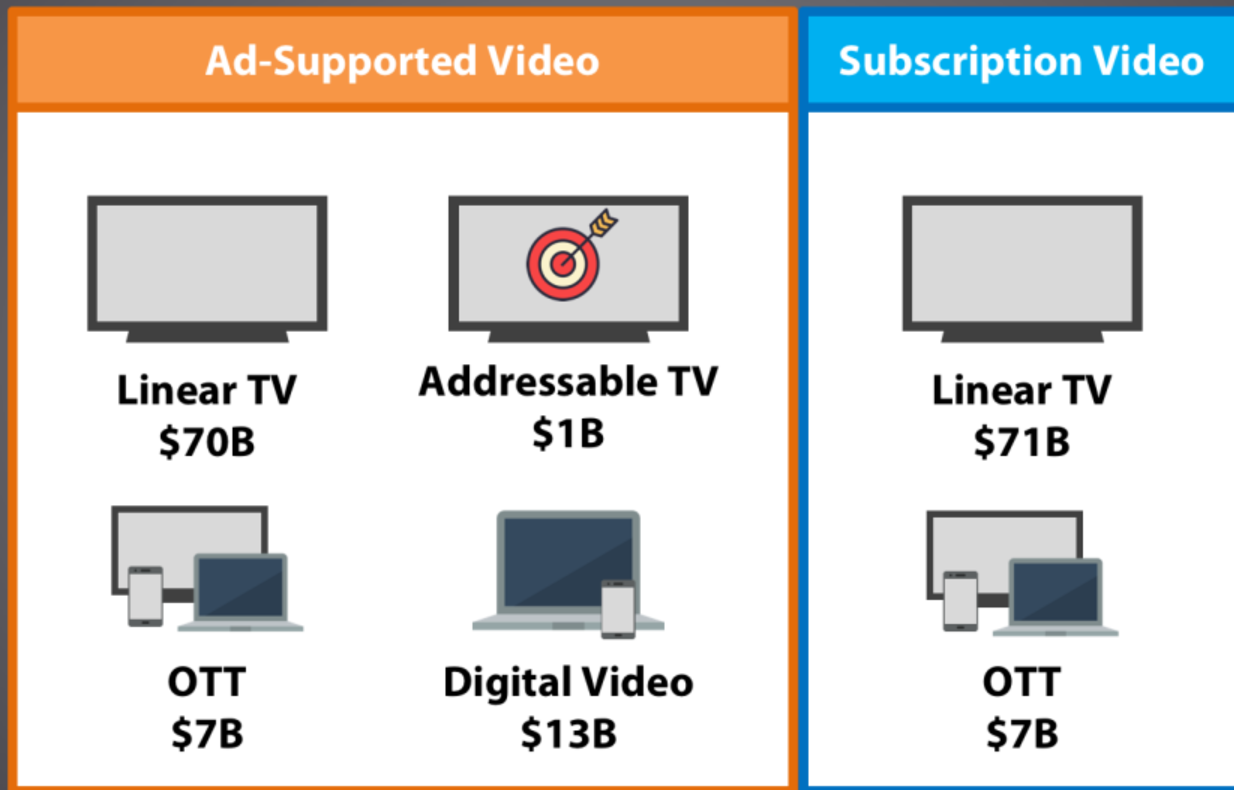
# The Unified TV / Video Challenge and Opportunity



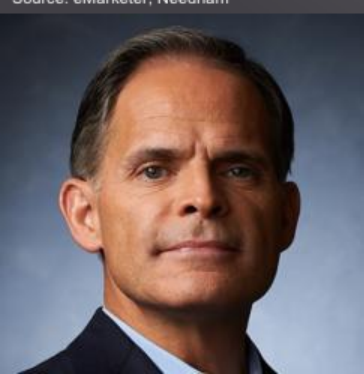



*If you're a marketer trying to figure out how to unify a buy across all forms of video, whether it may be linear, addressable, OTT or digital, it's very difficult, if not impossible right now. What we need is a unified, standardized way of being able to plan and buy media. NBCUniversal recently came out with their own approach to unify all screens, which seems promising and will certainly help push more innovation across the industry.*

# What's at Stake

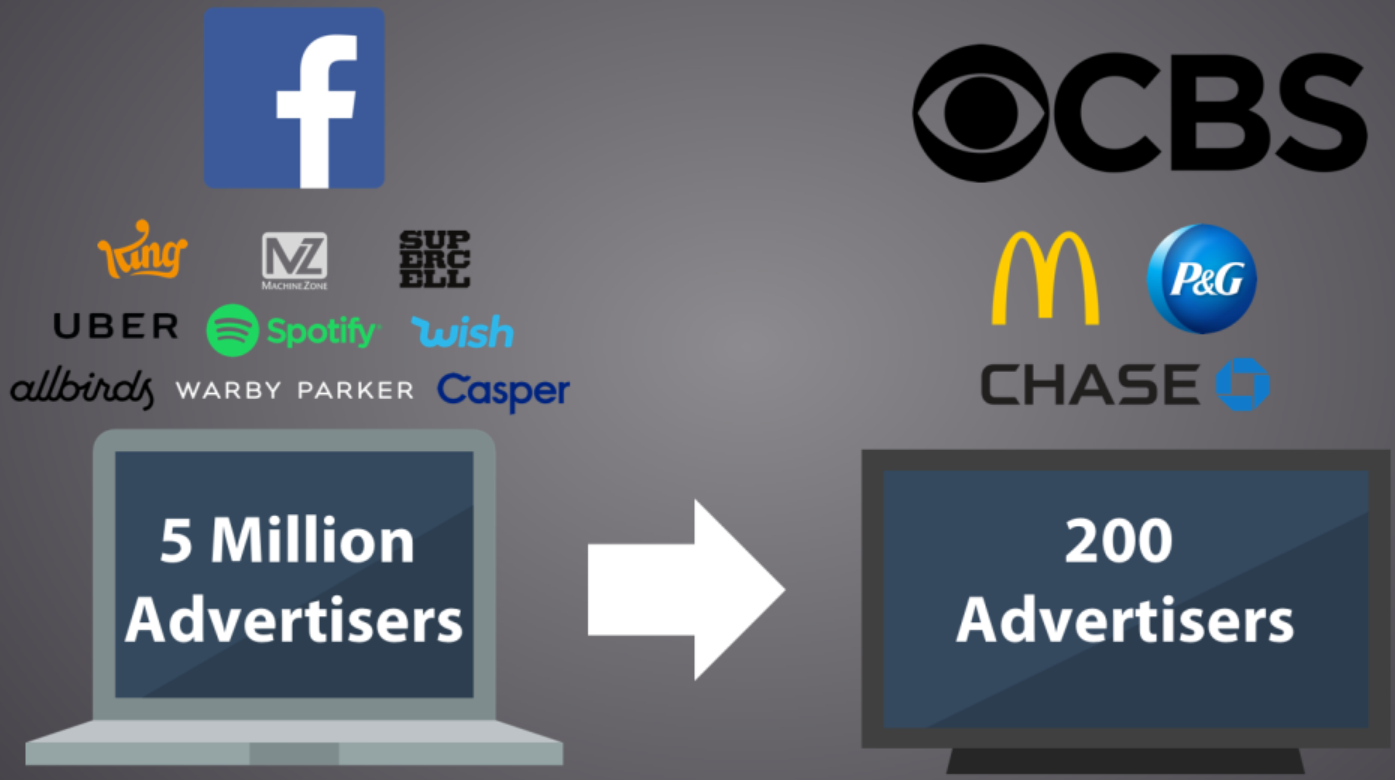



Source: eMarketer, Needham



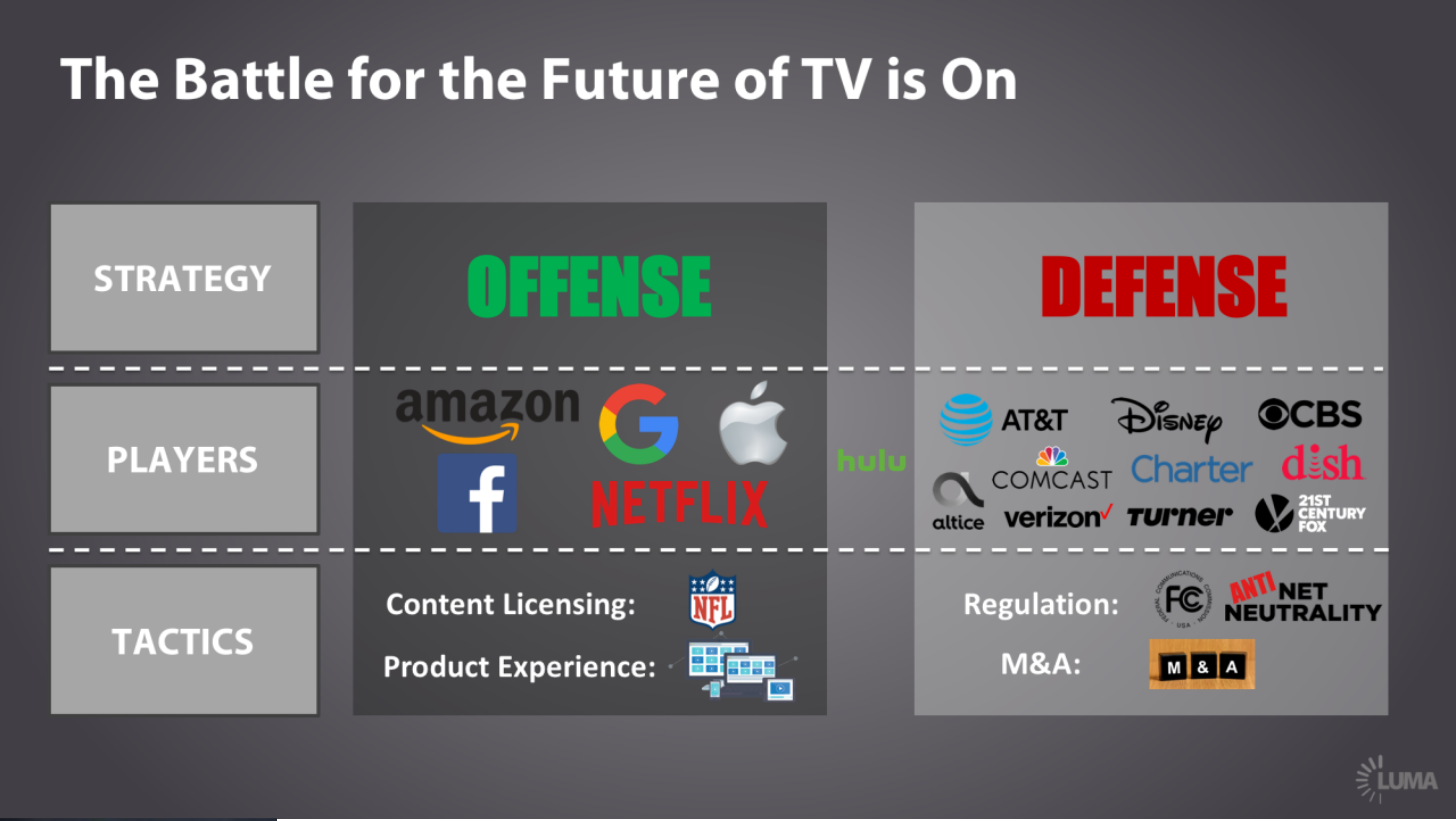
*There's a lot at stake. Video is a massive marketplace both in ad supported ($92B) and subscription ($78B) worth over $170B across TV and digital video. As linear TV falls, OTT will grow and capture the value that it has lost and grow into a massive market.*

# Addressability Democratizes TV Ad Spend



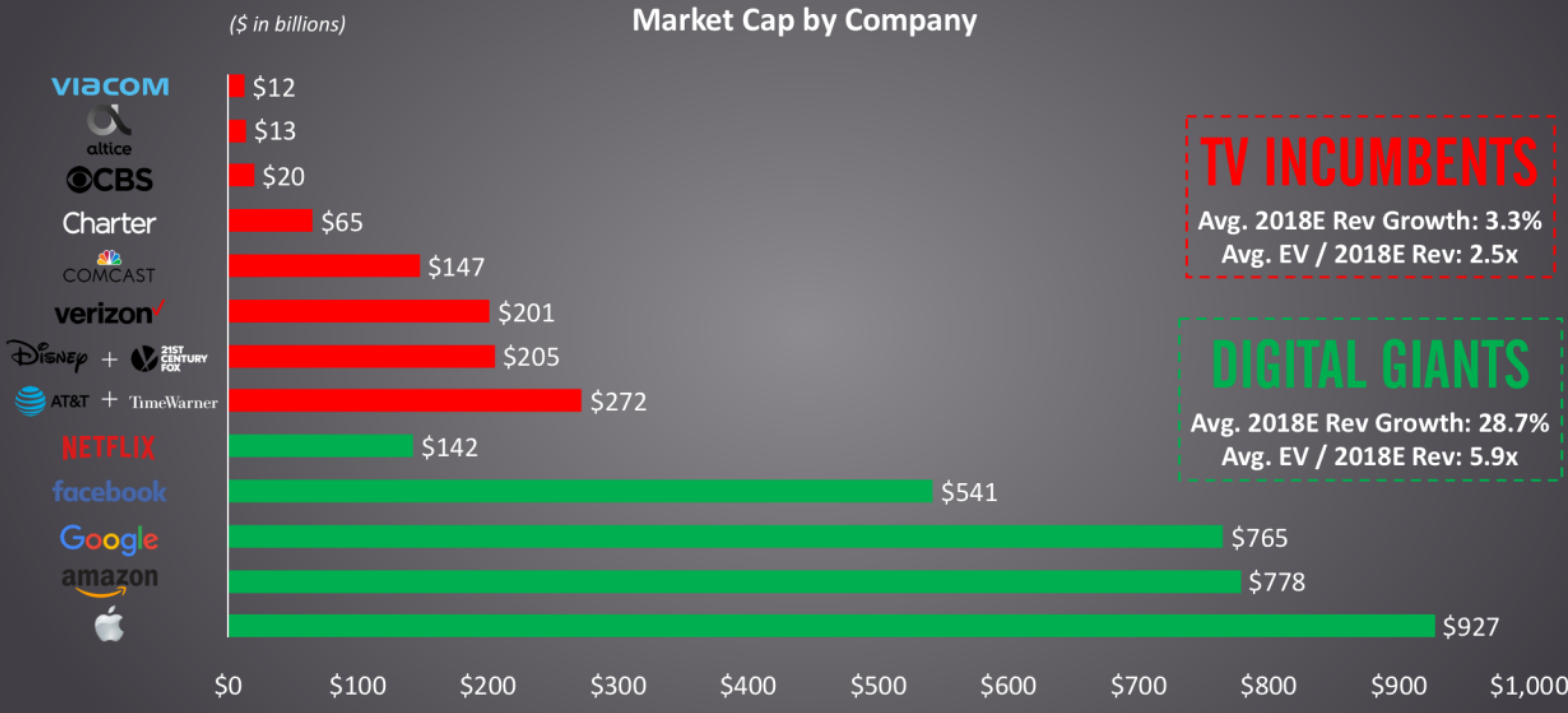



*Facebook has 5 million advertisers while CBS has 200. Think of a world where TV ad spend becomes democratized and you allow those small advertisers to target audiences with precision and performance on TV just as they would in digital. Advertising becomes more economical and small advertisers will migrate to TV. This movement could materially reinvigorate the TV marketplace.*



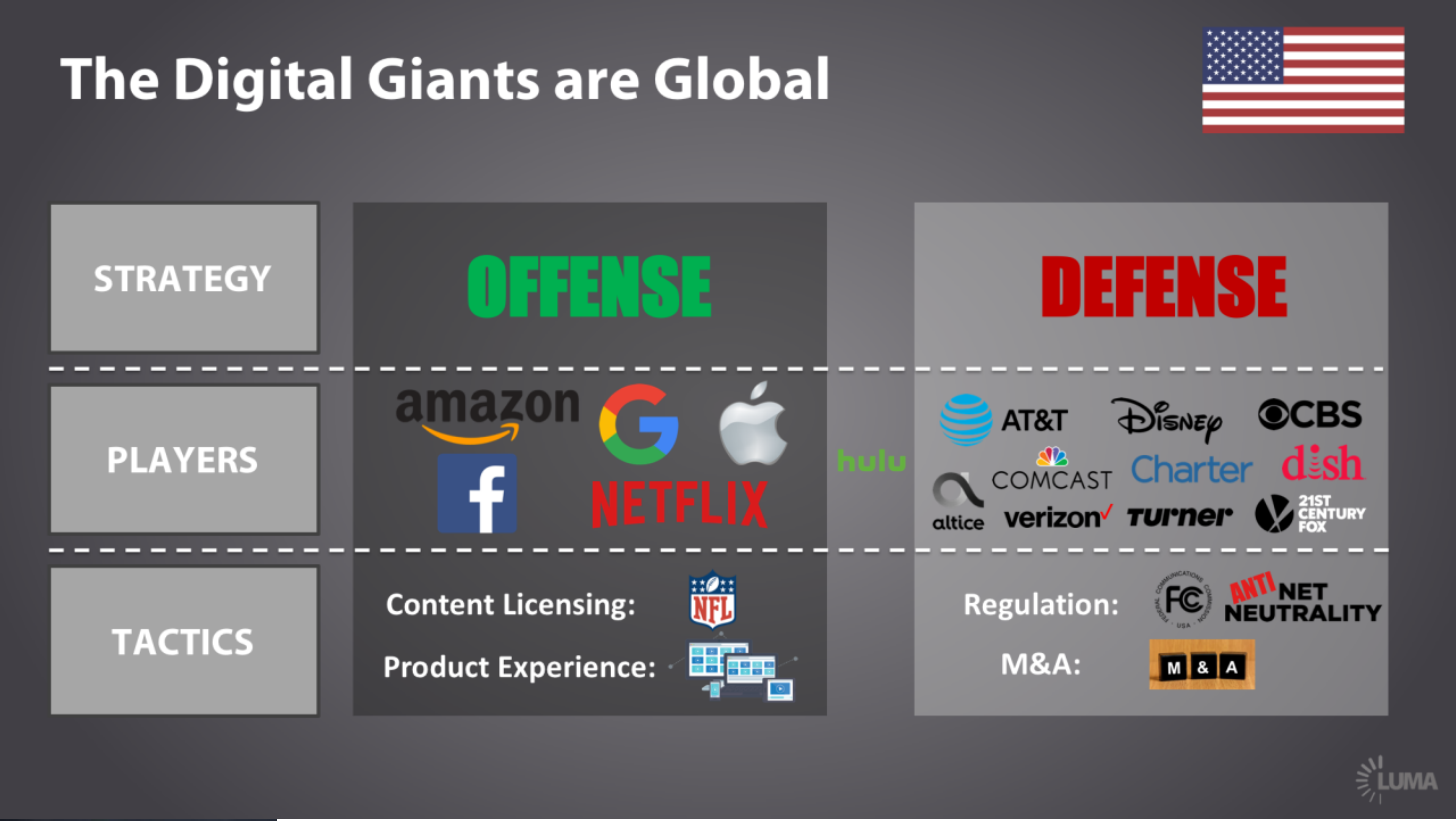

*A big battle for the future of TV is looming. The big digital giants are on offense and the traditional content and distribution companies are on defense.*

# It's Not a Fair Fight




Source: Capital IQ, market data as of 5/11/2018

*But it's not really a fair fight. If you look at the market cap and valuation multiples of these companies they just don't even compare. Even the largest combination of AT&T and Time Warner pails relative to the digital giants.*




*When you map out the players in every market, the left side of the page does not change. The digital giants are global companies that amortize massive spend across billions of audiences. Again, it's not a fair fight.*


The Digital Giants are Global
STRATEGY
PLAYERS
TACTICS
OFFENSE
DEFENSE
amazon
NETFLIX
Bell Media
ROGERS
TELUS
VIDEOTRON
corus.
CBC
Shaw)
Content Licensing:
NFL
Product Experience:
Regulation:
Canada
CRTC
M&A:
M & A
LUMA

*In Canada…*

# The Digital Giants are Global

| | | |
|---|---|---|
| STRATEGY | OFFENSE | DEFENSE |
| PLAYERS | amazon, Facebook, Google, Apple, NETFLIX | BBC, ITV, UK TV, 4, Virgin media, sky |
| TACTICS | Content Licensing: NFL<br>Product Experience: | Regulation: Ofcom<br>M&A: M & A |

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*The U.K…*

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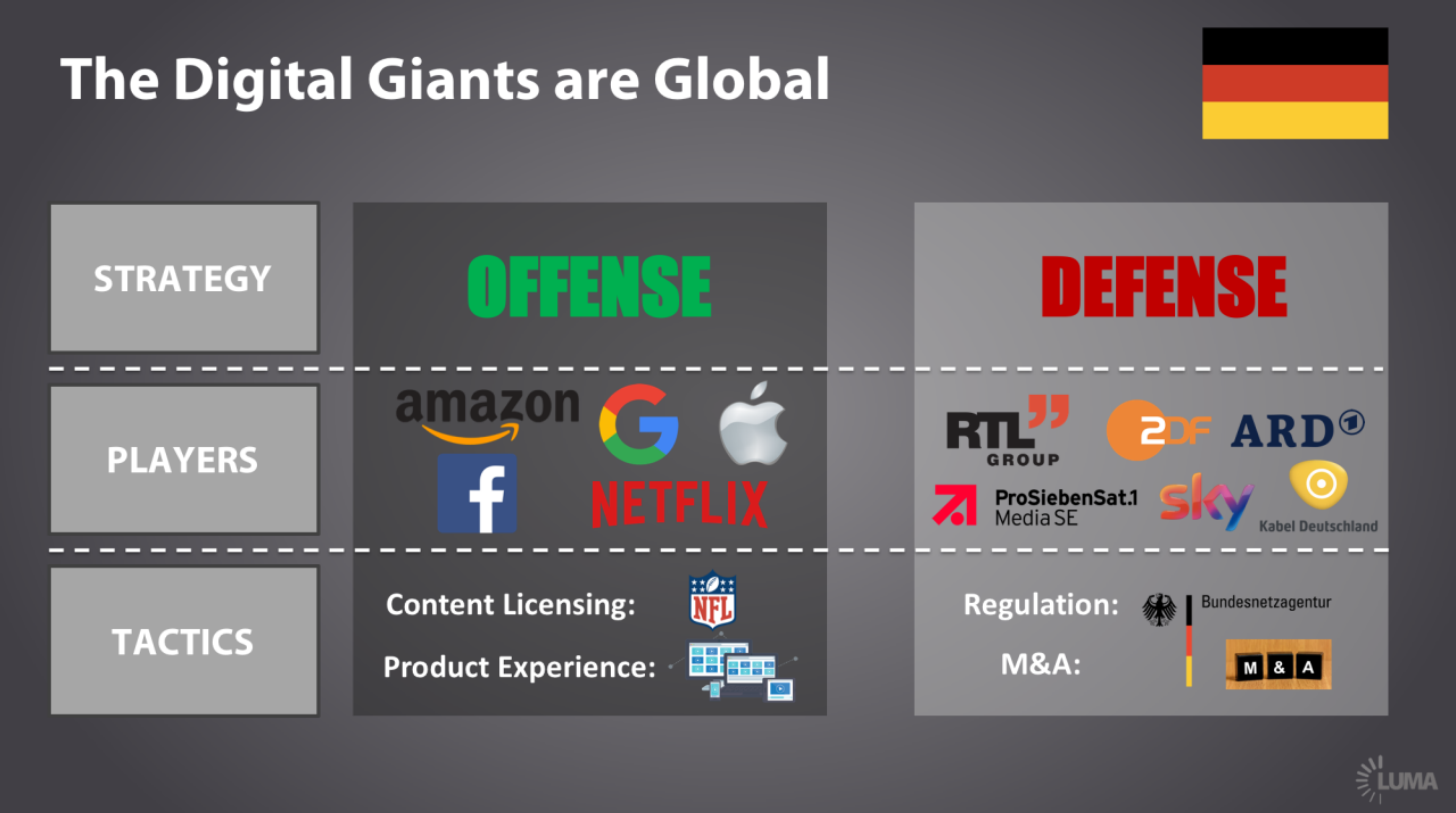
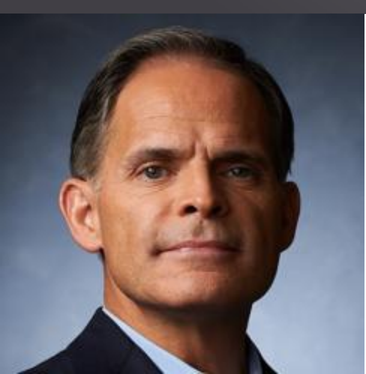
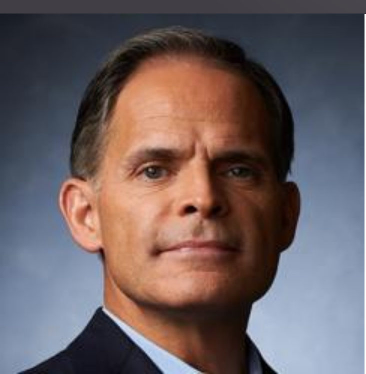

The Digital Giants are Global
STRATEGY
OFFENSE
DEFENSE
PLAYERS
amazon
NETFLIX
RTL GROUP
2DF
ARD
ProSiebenSat.1 Media SE
sky
Kabel Deutschland
TACTICS
Content Licensing:
NFL
Product Experience:
Regulation:
Bundesnetzagentur
M&A:
M & A
LUMA

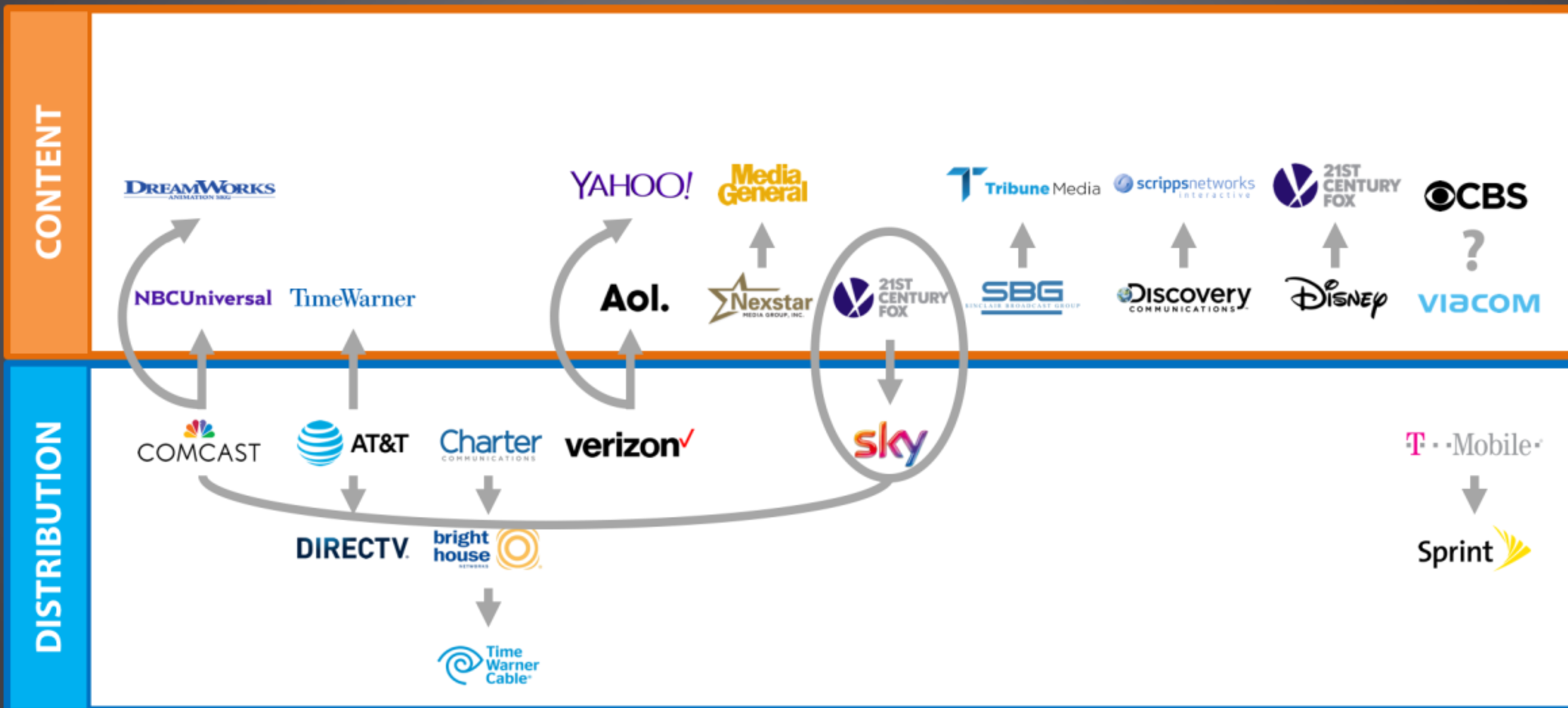


*Germany…*

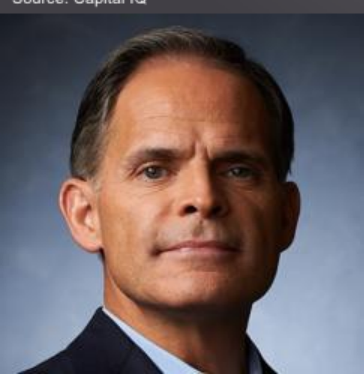



*Even Australia!*

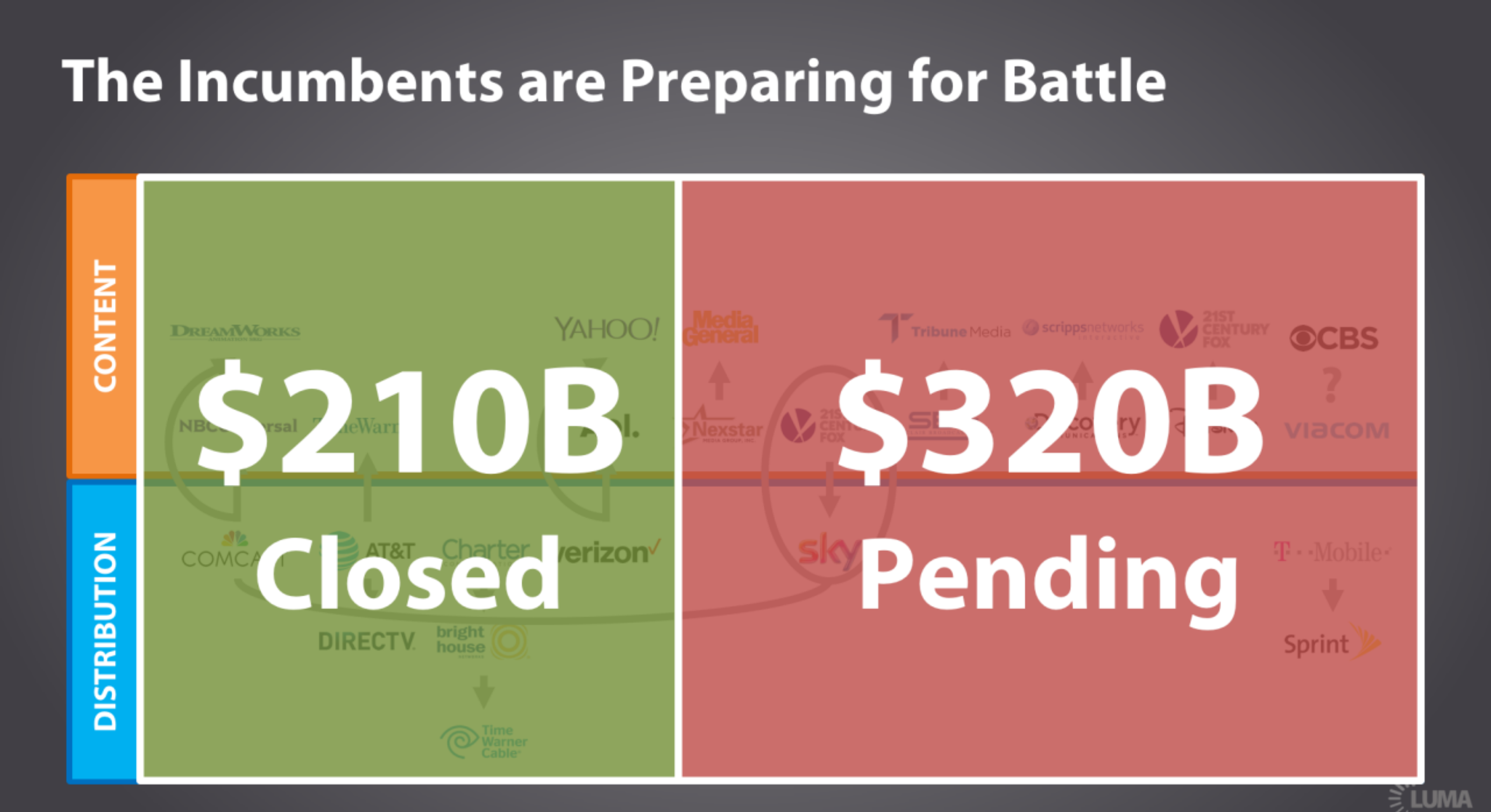
# The Incumbents are Preparing for Battle




Source: Capital IQ



*The incumbents know the traditional model and their businesses are being disrupted, which is why they are preparing for battle, largely through M&A. We have not seen the kind of M&A activity in the media / telecom arena like this in a long time.*

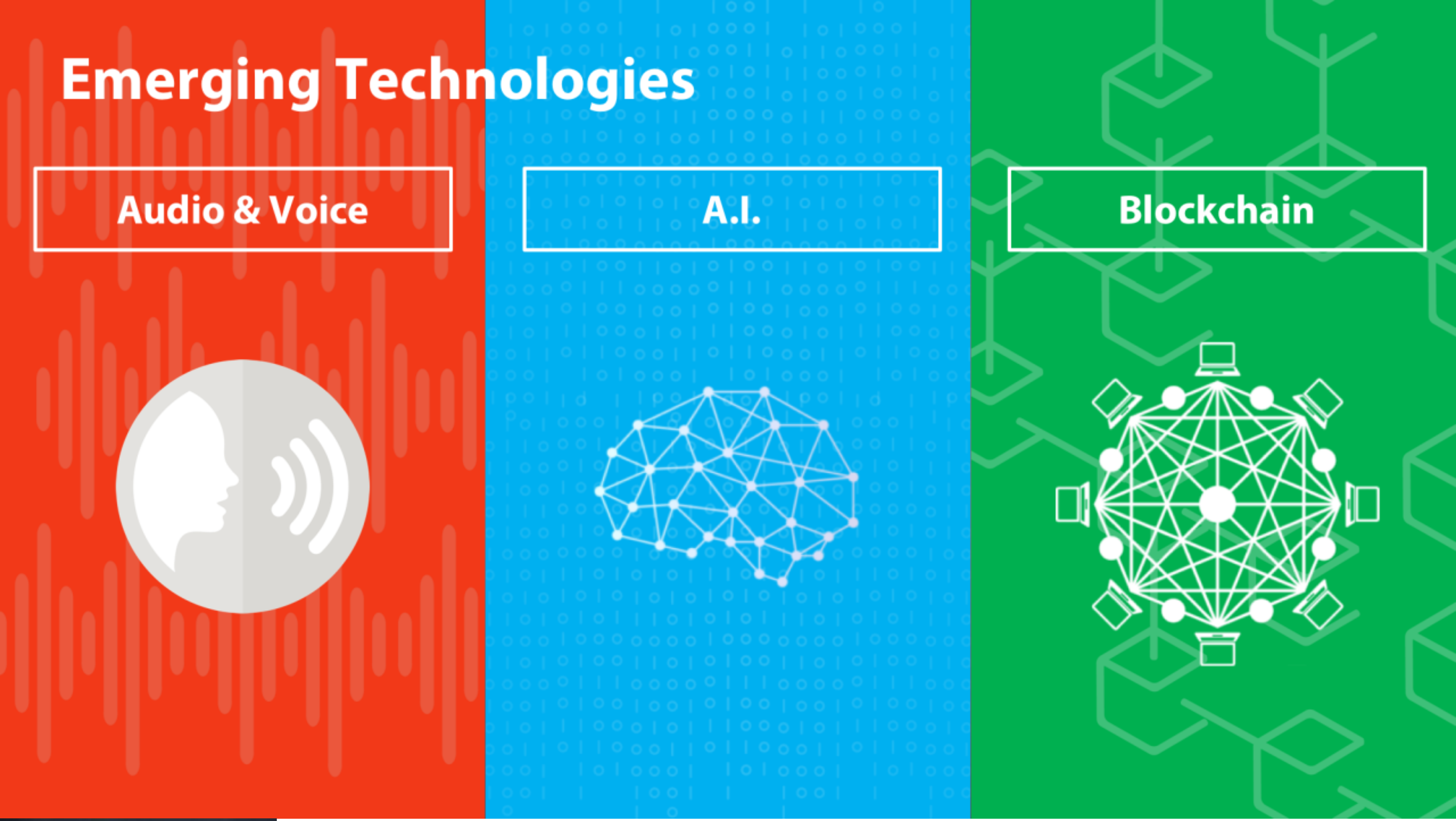



Source: Capital IQ

*In fact, we've seen over half a trillion dollars in deals on this page alone. $320B in deals remain pending and that's only from the time of the AT&T & Time Warner merger announcement in October 2016.*

# Awaiting Outcomes of Mega Mergers

*Tectonic plates are shifting in the media world and all eyes are on the outcomes of two massive deals, AT&T / Time Warner and Disney / 21st Century Fox: one vertical merger and one horizontal merger. Both deals will play out in the courts and have significant implications on the rest of the ecosystem.*

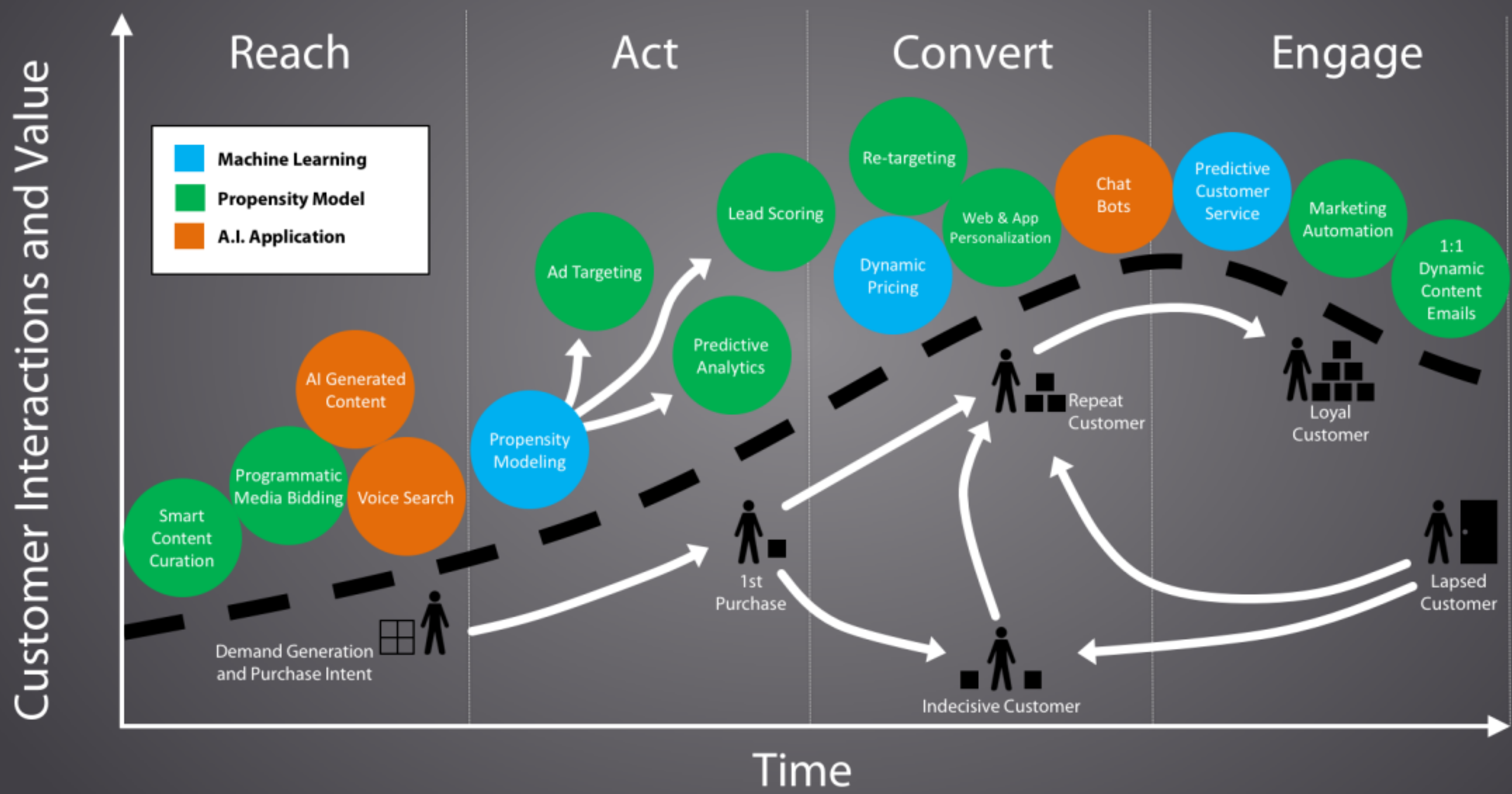



*What's on the horizon? We note 3 emerging technologies; audio and voice, A.I. & blockchain.*

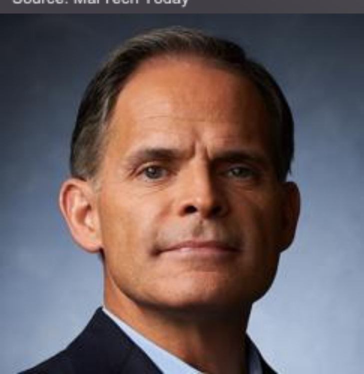
# Audio & Voice: The New Media Battleground


*The new media battleground is audio and voice. With the rise and ubiquity of streaming, audio has become a very important market. Startups and the digital giants are pouring billions into the opportunity. Voice technologies are seeing the same kind of investment and focus. Smart speakers, which are leading the way, are creating new instances where consumers interact with technology, which lead to many new possibilities.*

# A.I. Will Underpin All of Marketing

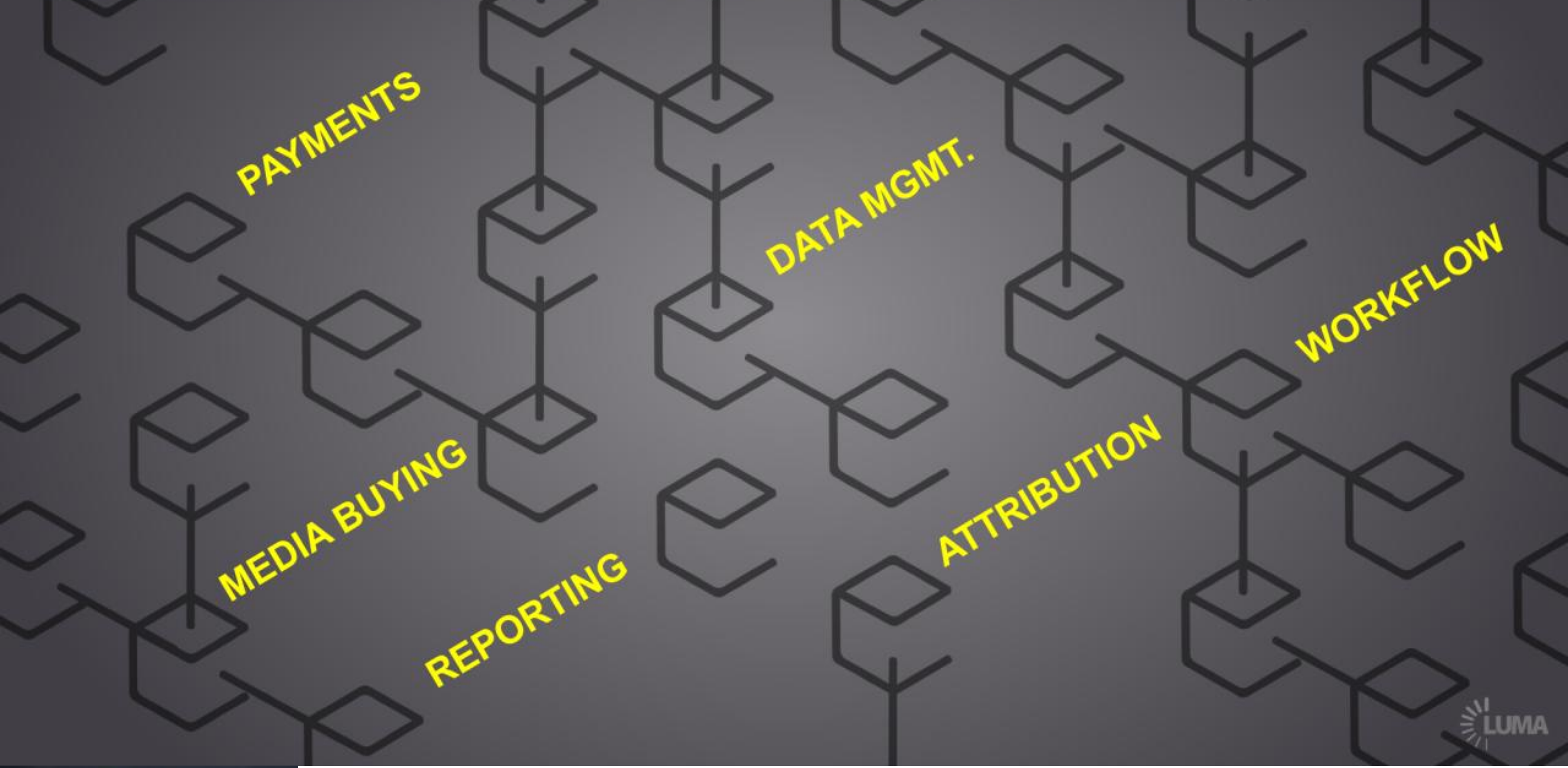



Source: MarTech Today



*A.I. will be like "Intel Inside". It will be everywhere, embedded in everything, as opposed to specific A.I. companies. There are lots of A.I. applications in the marketing chain and more yet to come.*

# Blockchain Has Limitless Potential



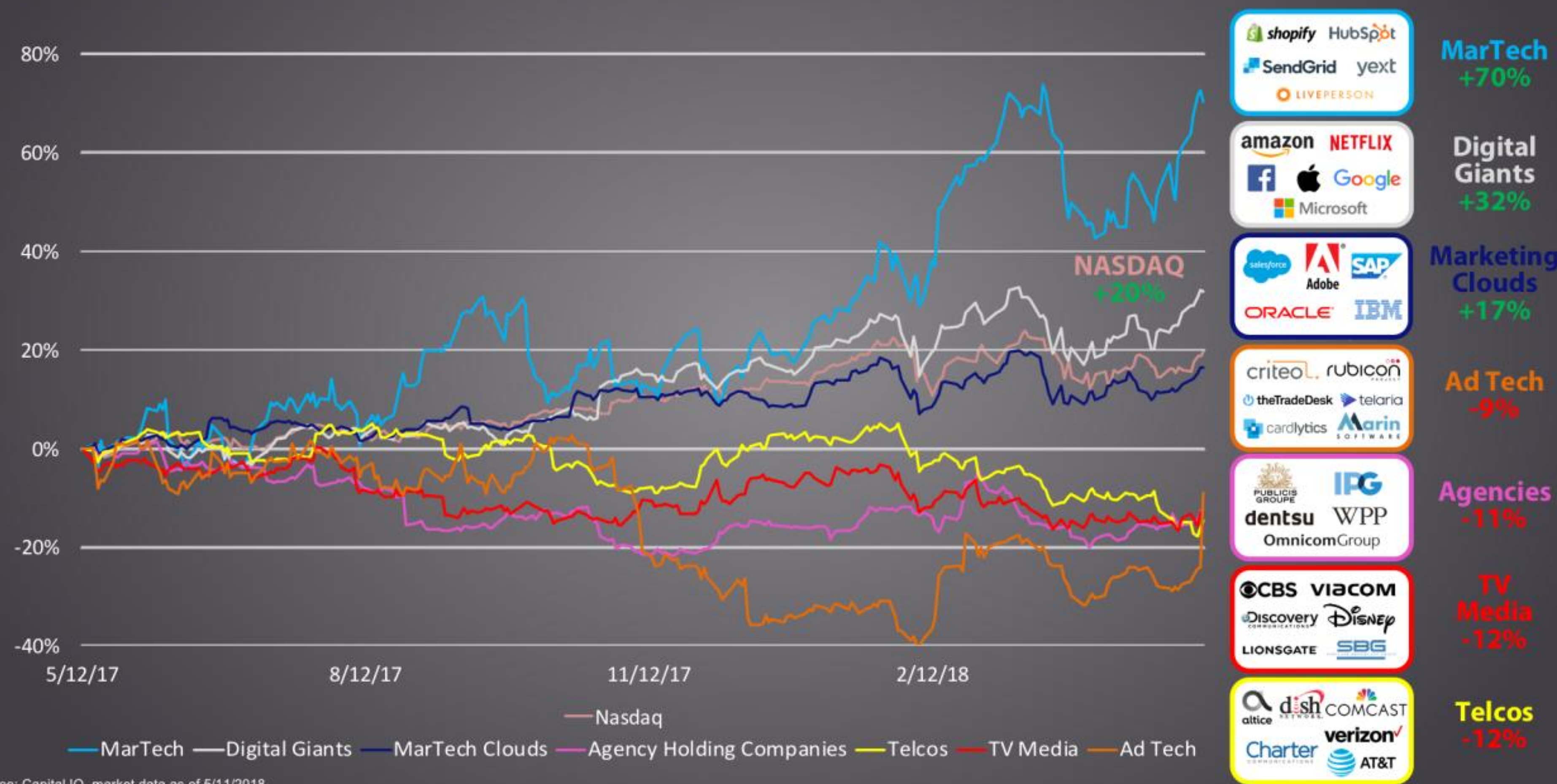

*Blockchain is arguably the technology with the most upside because it has applications across almost every facet of the marketing equation. However, blockchain still just remains as an interesting idea and not much else beyond experiments and proof of concept projects. What will be the catalyst that pushes the technology and adoption to its tipping point?*

# State of the Market

# The IPO Window Has Reopened


*Unlike the last handful of Digital Media Summit conferences, this year we've actually seen an open IPO window. Half a dozen companies went public last year and after-market trading has been quite strong, so that's an encouraging sign.*

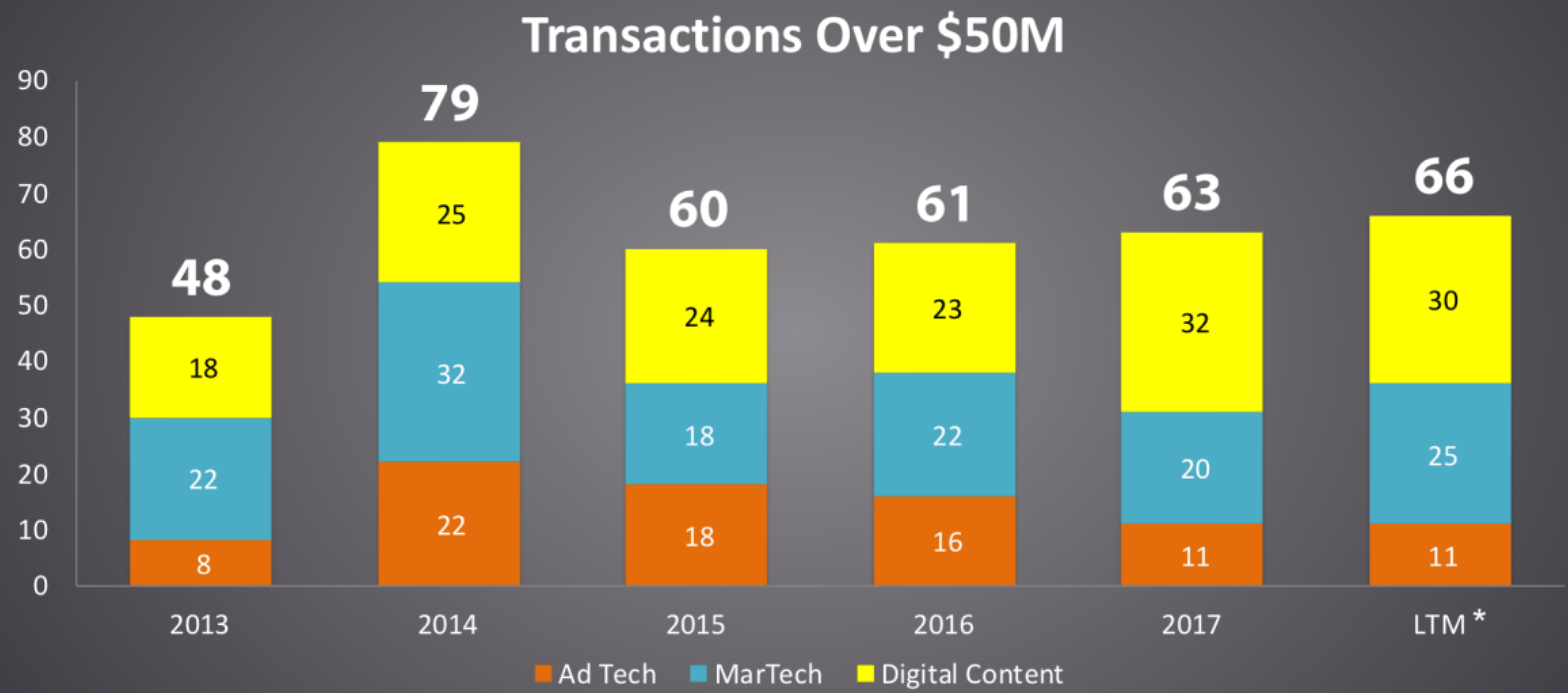
# LTM Stock Performance Has Benefited Tech




Source: Capital IQ, market data as of 5/11/2018

*In the public markets, it was a strong year overall for tech with the NASDAQ up around 20%, although the rising tide did not lift all boats equally. MarTech continued to be on fire, growing 70% on the back of Shopify. The Digital Giants were up over 30% and that's on pretty massive market caps, and the Marketing Clouds also continue to surge. Much of this growth came at the expense of the traditional players as Ad Tech, Agencies, TV media and Telcos were all down.*

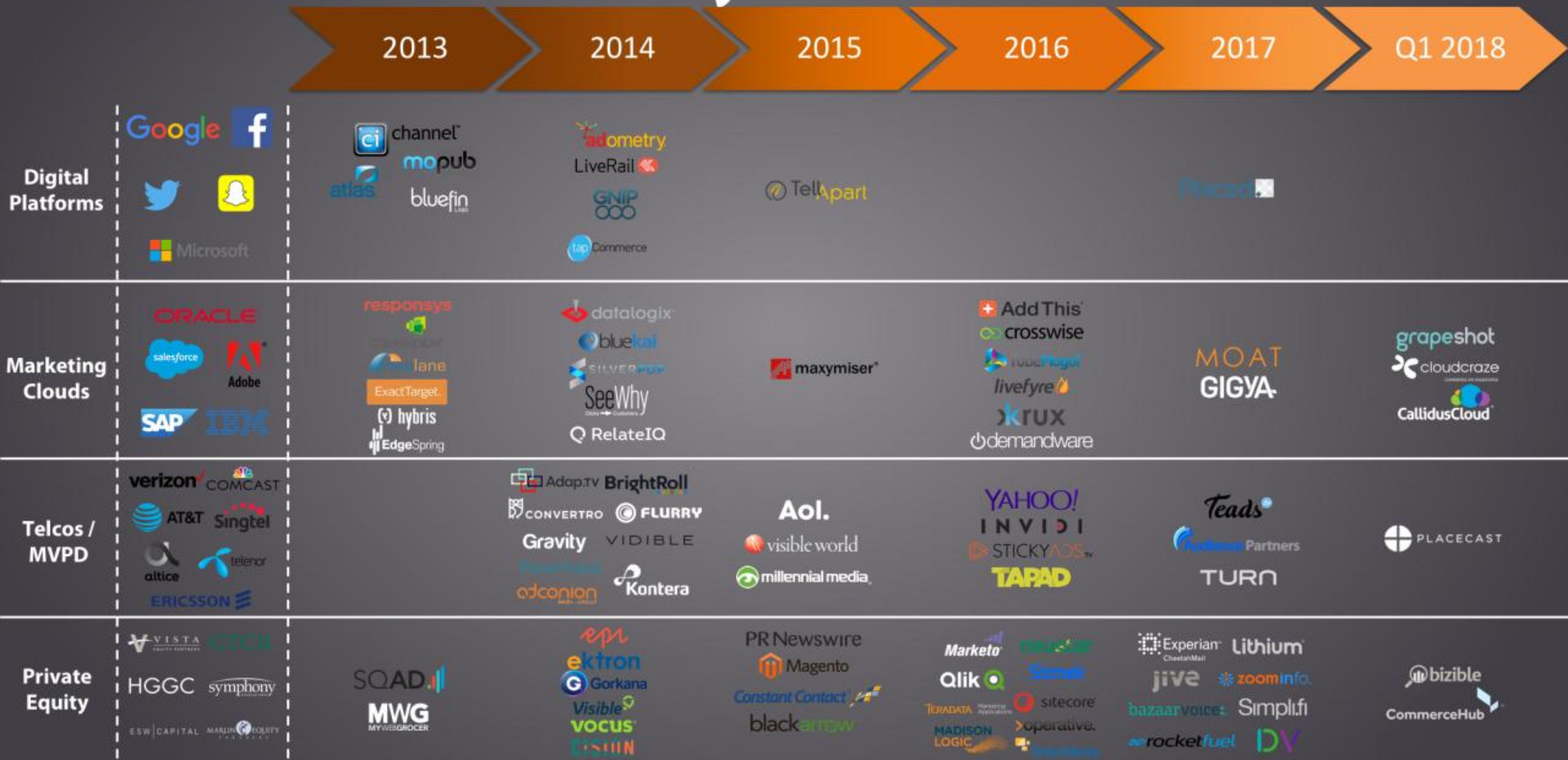
# M&A Remains the Primary Source of Scaled Exits




*LTM as of Q1 2018; Source: LUMA

*M&A continues to be the primary source of exits for scaled companies in the sector. We saw over 60 deals in the last year compared to the half dozen IPO's, so even with the uptick in IPO activity, M&A outpaced IPOs 10 to 1.*

# Ad Tech & MarTech Buyers




*Historically, much of the buying in Ad Tech and MarTech came from the Digital Platforms, but over the last five years, as they built out their stacks, the buyer universe has become consistently broader. We've seen continued activity across the Marketing Clouds and Telcos, and Private Equity has shown an increased focus on this space in recent years.*

# Ad Tech & MarTech Buyers

| | 2013 | 2014 | 2015 | 2016 | 2017 | Q1 2018 |
|---|---|---|---|---|---|---|
| Deals | 48 | 79 | 60 | 61 | 63 | |
| Buyers | 38 | 64 | 48 | 52 | 56 | |
| Buyer to Acquisition Ratio | 85% | 80% | 90% | 85% | 90% | |

*In 2017, we saw 63 scaled M&A deals from 56 different buyers, reflecting nearly a different buyer for each deal. We continue to see the broad base of different strategic buyers looking at digital media and data-driven marketing as one of the most encouraging signs for continued M&A in the sector.*

# M&A is a Balance Between Risk and Opportunity

**Uncertainties**

- Supply Chain Challenges
- Privacy
- Fragmentation
- M&A Regulatory Environment

**Opportunities**

- Growing Media Spend
- Convergent TV
- Identity
- New Technologies

LUMA

*What do we see going forward? Uncertainty tends to dampen M&A and there are a number of them in the near-term. However, we remain encouraged by the big opportunities in the market: growing media spend, convergent TV, identity solutions and new technologies. Perhaps unsurprisingly, LUMA expects continued robust M&A activity.*

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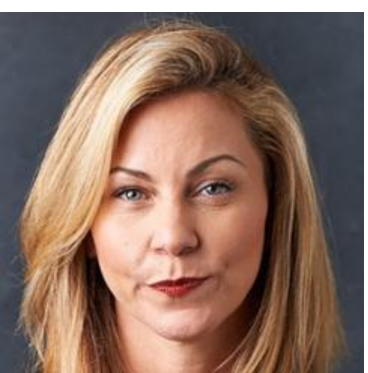

*The mission of the LUMA Corporate Partners program is to provide education, insights and market development to all constituents of the digital ecosystem. LUMA's Corporate Partners are comprised of leading media, marketing and technology companies for whom LUMA's leadership team provides strategic advice on the latest industry trends and a fresh perspective to aid in making critical growth decisions. LUMA's proprietary insights, research, content and events initiatives afford personalized guidance and education at leadership off-sites, teach-ins and customer events. If LUMA can help your organization sort through this complicated and dynamic sector, contact Gayle Meyers, CMO at Gayle@lumapartners.com.*