Media
MediaTech

Discussion Document

October 2022

OC&C
Strategy consultants

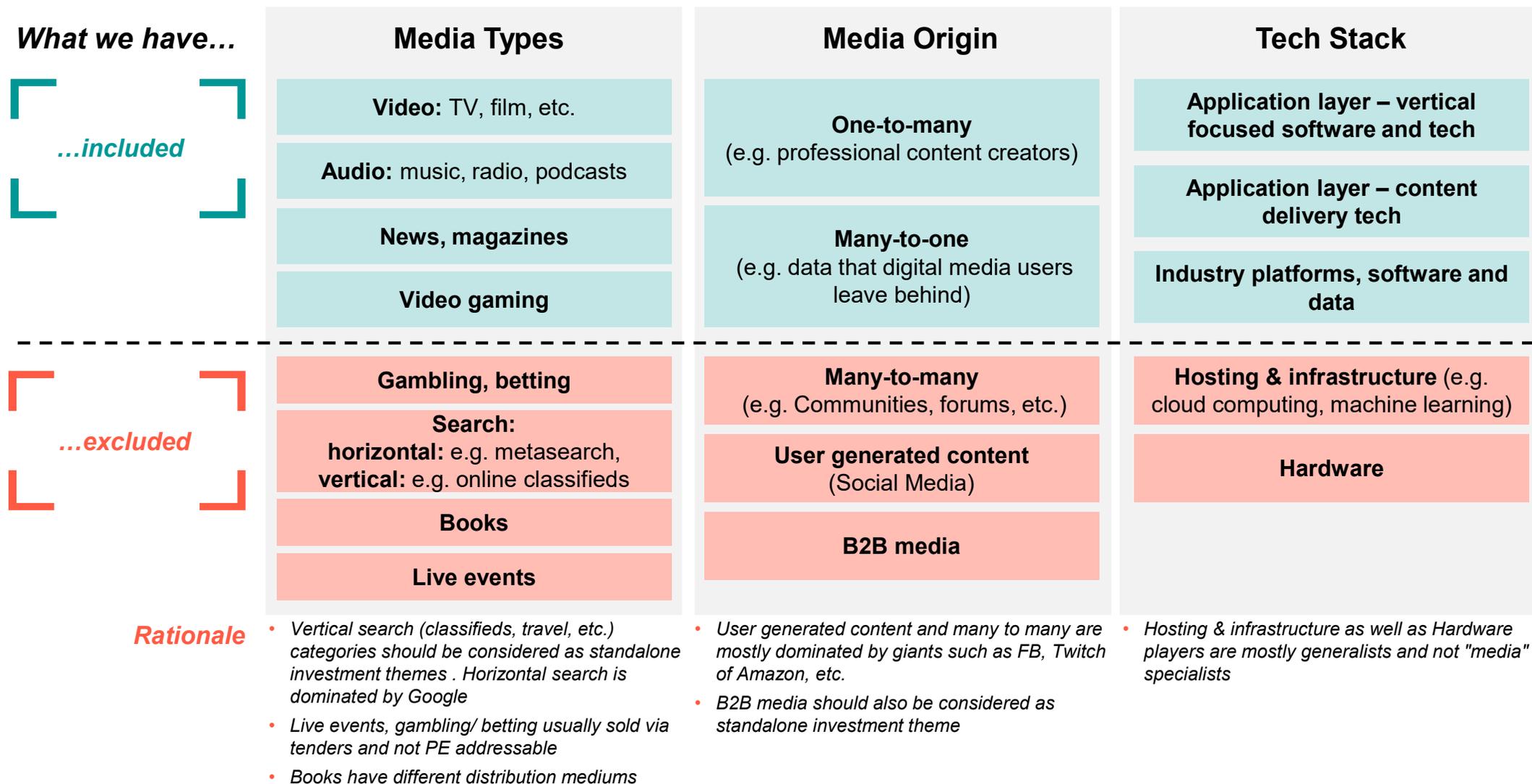uncommon sense

Agenda

Introduction to MediaTech

OC&C Credentials

For this document we have narrowed the definition of "MediaTech" as follows

Our definition of "MediaTech"

What we have…	**Media Types**	**Media Origin**	**Tech Stack**
…included	**Video:** TV, film, etc.	**One-to-many** (e.g. professional content creators)	**Application layer – vertical focused software and tech**
	Audio: music, radio, podcasts		**Application layer – content delivery tech**
	News, magazines	**Many-to-one** (e.g. data that digital media users leave behind)	**Industry platforms, software and data**
	Video gaming		
…excluded	**Gambling, betting**	**Many-to-many** (e.g. Communities, forums, etc.)	**Hosting & infrastructure** (e.g. cloud computing, machine learning)
	Search: **horizontal:** e.g. metasearch, **vertical:** e.g. online classifieds	**User generated content** (Social Media)	**Hardware**
	Books	**B2B media**	
	Live events		

Rationale

- *Vertical search (classifieds, travel, etc.) categories should be considered as standalone investment themes . Horizontal search is dominated by Google*
- *Live events, gambling/ betting usually sold via tenders and not PE addressable*
- *Books have different distribution mediums*

- *User generated content and many to many are mostly dominated by giants such as FB, Twitch of Amazon, etc.*
- *B2B media should also be considered as standalone investment theme*

- *Hosting & infrastructure as well as Hardware players are mostly generalists and not "media" specialists*

At a high level (and to the extent that it is possible to generalise) MediaTech has a number of positive characteristics

MediaTech Trends
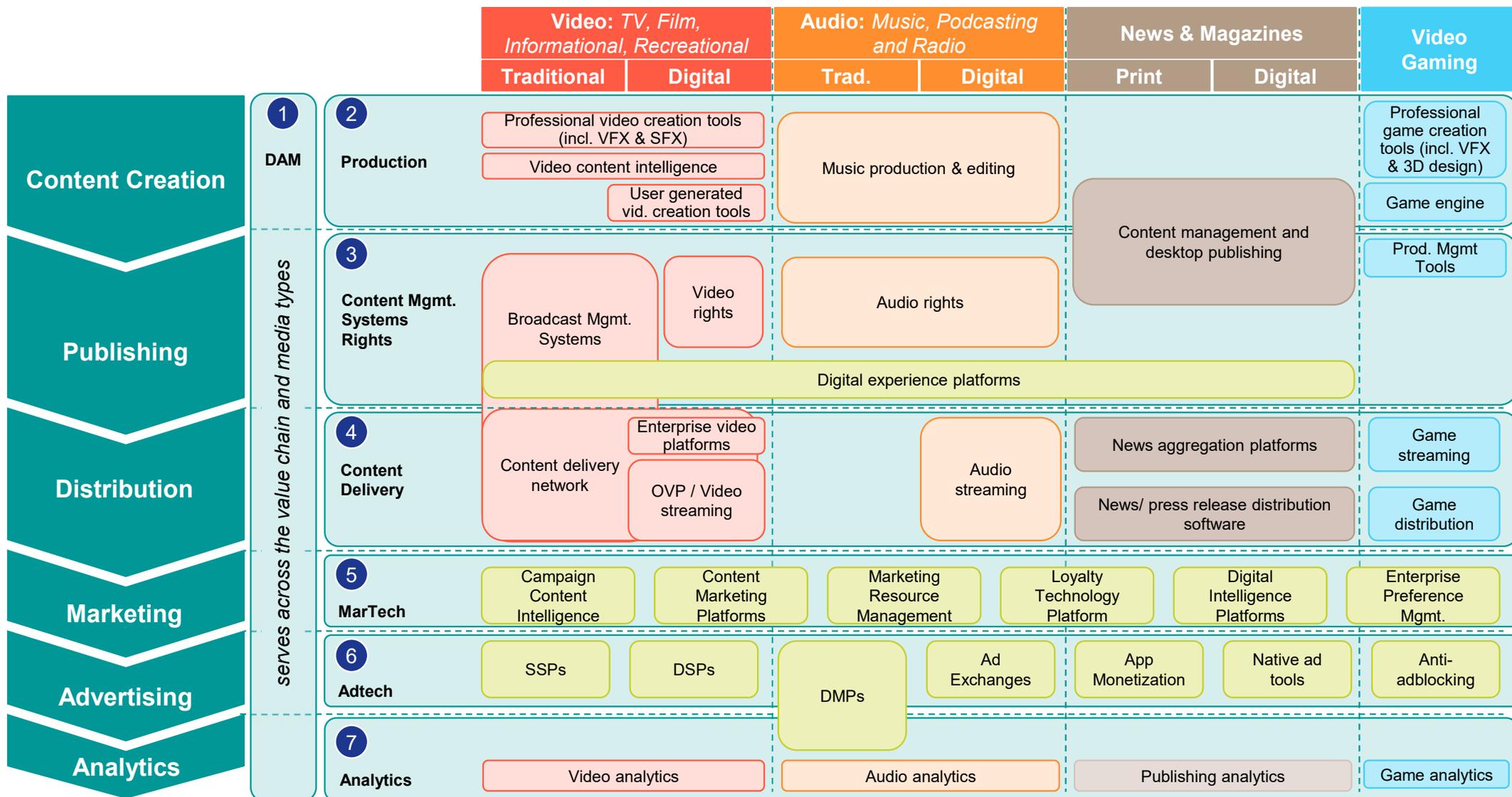
		Key Trends	**Implications for MediaTech**
End Customer Trends	**Explosion of Digital Media Consumption**	*Media consumption growing partly driven by digitisation increasing content accessibility*	*Positive volume growth trajectory in underlying markets*
	Disruption to Incumbents	*New forms of distribution (OTT, streaming) have given rise to a new base of customers and forced traditional incumbents to adapt in order to compete*	*Growing base of potential customers…* *…with incumbents re-evaluating tech investment*
Technology Trends	**Digitisation of Workflows**	*Content production and distribution workflows are increasingly shifting from hardware- to software-based models, enabling huge efficiency improvements*	*Clear 'trigger point' for MediaTech investment decisions…* *…with opportunity for tech to capture a larger slice of customer budgets*
	Cloud Migration	*Legacy technology is being replaced with cloud-based technology with low (or no) cost of infrastructure*	*Transition to high quality, recurring revenue models, with attractive unit economics*
	Importance of Data & Targeting	*End customers are leveraging increasing volumes of first- and third-party data on consumer and customer behaviour as a means to differentiate*	*Clear 'trigger point' for MediaTech investment decisions*

The landscape is complex – technologies are often specific to different parts of the value chain and different media types

Technology Solutions across the Consumer Media Value Chain by Media Type
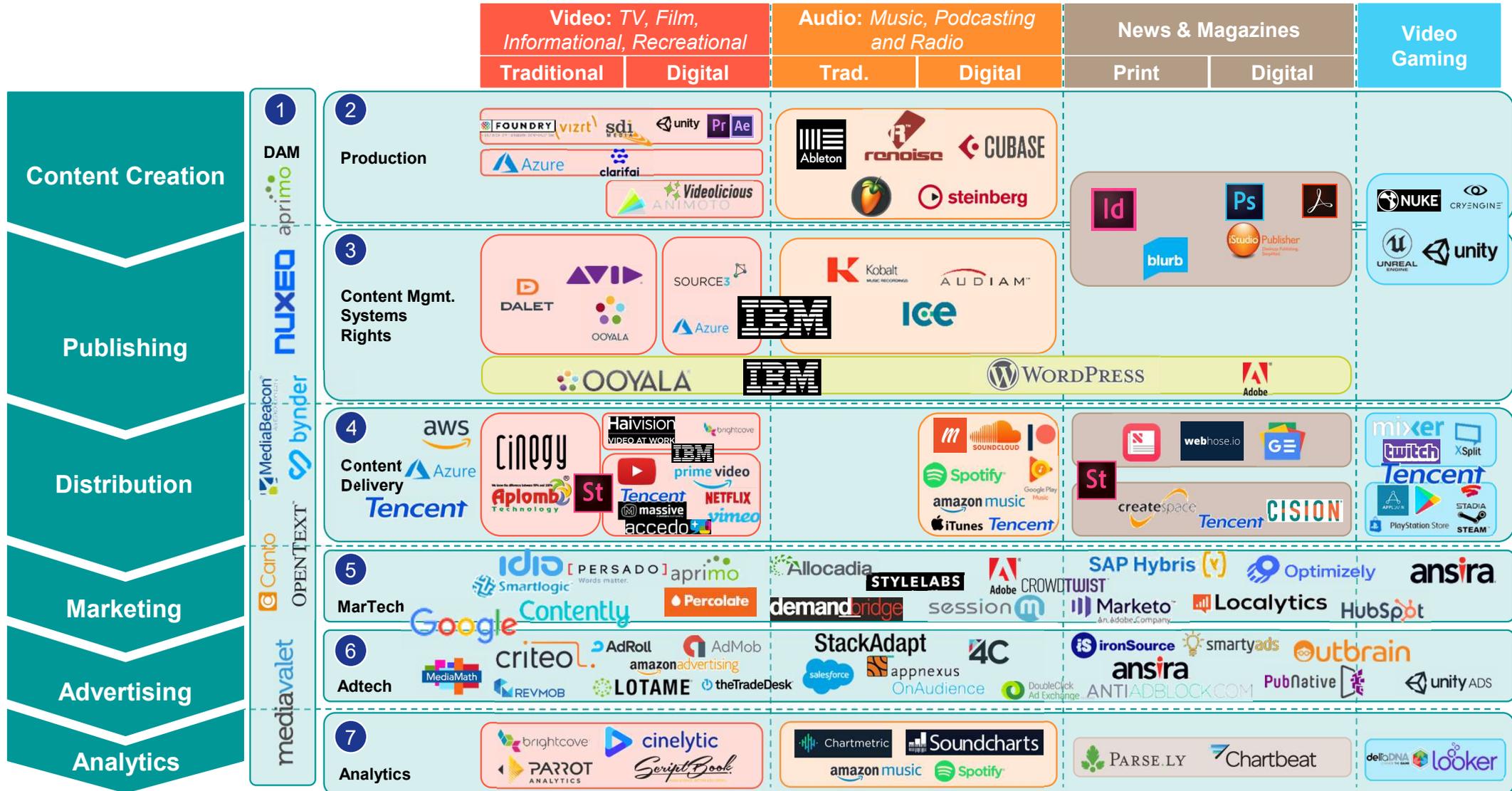
Not Exhaustive

		Video: TV, Film, Informational, Recreational		Audio: Music, Podcasting and Radio		News & Magazines		Video Gaming
		Traditional	**Digital**	**Trad.**	**Digital**	**Print**	**Digital**	
Content Creation	**1** DAM **2** Production	Professional video creation tools (incl. VFX & SFX) / Video content intelligence	User generated vid. creation tools	Music production & editing				Professional game creation tools (incl. VFX & 3D design) / Game engine
Publishing	**3** Content Mgmt. Systems Rights	Broadcast Mgmt. Systems	Video rights	Audio rights		Content management and desktop publishing		Prod. Mgmt Tools
		Digital experience platforms						
Distribution	**4** Content Delivery	Content delivery network	Enterprise video platforms / OVP / Video streaming		Audio streaming	News aggregation platforms / News/ press release distribution software		Game streaming / Game distribution
Marketing	**5** MarTech	Campaign Content Intelligence	Content Marketing Platforms	Marketing Resource Management	Loyalty Technology Platform	Digital Intelligence Platforms		Enterprise Preference Mgmt.
Advertising	**6** Adtech	SSPs	DSPs	DMPs	Ad Exchanges	App Monetization	Native ad tools	Anti-adblocking
Analytics	**7** Analytics	Video analytics		Audio analytics		Publishing analytics		Game analytics

serves across the value chain and media types

Thousands of different propositions support this landscape

Tech Companies across the Value Chain

A matrix showing tech companies across the value chain. Columns: Video (TV, Film, Informational, Recreational) — Traditional, Digital; Audio (Music, Podcasting and Radio) — Trad., Digital; News & Magazines — Print, Digital; Video Gaming. Rows (value chain): Content Creation, Publishing, Distribution, Marketing, Advertising, Analytics. Left column categories include DAM (aprimo, NUXEO, MediaBeacon, bynder, Canto, OPENTEXT, mediavalet).

Row 2 Production: FOUNDRY, vizrt, sdi media, unity, Pr, Ae, Azure, clarifai, Videolicious, ANIMOTO; Ableton, renoise, CUBASE, FL Studio, steinberg; Id, Ps, Adobe Acrobat, blurb, iStudio Publisher; NUKE, CRYENGINE, UNREAL ENGINE, unity.

Row 3 Content Mgmt. Systems Rights: DALET, AVID, OOYALA, SOURCE3, Azure, IBM; Kobalt Music Recordings, AUDIAM, ICE; OOYALA, IBM, WORDPRESS, Adobe.

Row 4 Content Delivery: aws, Azure, cinegy, St, Aplomb Technology, Tencent, massive, accedo, Haivision Video at Work, IBM, YouTube, brightcove, Tencent, prime video, NETFLIX, vimeo; SoundCloud, Spotify, amazon music, Google Play Music, iTunes, Tencent; St, webhose.io, GE, createspace, Tencent, CISION; mixer, twitch, XSplit, Tencent, APPLVN, PlayStation Store, STADIA, STEAM.

Row 5 MarTech: idio, PERSADO, aprimo, Smartlogic, Contently, Google, Percolate, Allocadia, STYLELABS, Adobe CROWDTWIST, demandbridge, session m, SAP Hybris, Marketo, Optimizely, Localytics, HubSpot, ansira.

Row 6 Adtech: criteo, AdRoll, AdMob, amazon advertising, MediaMath, REVMOB, LOTAME, theTradeDesk, StackAdapt, appnexus, salesforce, OnAudience, 4C, DoubleClick Ad Exchange, ironSource, smartyads, ansira, ANTIADBLOCK.COM, PubNative, outbrain, unity ADS.

Row 7 Analytics: brightcove, cinelytic, PARROT ANALYTICS, ScriptBook, Chartmetric, Soundcharts, amazon music, Spotify, PARSE.LY, Chartbeat, deltaDNA, looker.

From a diligence perspective, deep understanding of the nuances of individual sub-segments is key

Sub-Segment Attractiveness – Video Tech Example Sub-Segments

Not Exhaustive – Example Sub-Segments Only

NB: Dot refers to Framework on page 6/7

	Large Market, Growing Demand	Differentiated Tech	Defensibility: Criticality & Stickiness	Attractive Business Model Economics	Visibility of Disruptive Threats	Investible Assets
② Live Video Production	4-6% growth overall, with higher growth pockets around (eg) automation, software (vs hardware) propositions	Many specific tech niches (eg live GFX, studio automation)	Highly critical, integrated workflows, high cost of switching	Mixed; some high-margin SW players w/ licence + maintenance model	Key technology changes include use of gaming engines, shift to cloud; likely winners appear relatively clear	High asset availability (but some consolidation)
② Video Post-Production	c.8%pa growth amongst leading players	Many specific tech niches, with point solutions typically winning	High cost of switching; trained industry talent pool	High margin, licence + maintenance model (limited SaaS)	Visible technology changes include cloud shift, gaming engines, AI	High asset availability – given number of point solutions
④ Video Content Delivery: OTT Services	High growth end-market (double digit growth)	Differentiated UI capabilities, but back-end tech more commoditised	High tech criticality, but retendering triggered by replatforming cycle	High margin SW revenue (some subscription), some lower margin PS	Key risk is in-housing by largest platforms (impact is measurable)	High # privately owned assets, incl. larger E2E / small point solutions
③ Video Content Mgmt: Media Asset Mgmt Example	3-4% growth (ie positive, but low for media tech)	Some differentiation between players, but less so vs other segments	Highly sticky, given high level of customisation	Highly customised, prof. service heavy, reducing margin vs pure SW models	Cloud threat, but leading players investing in these capabilities and high stickiness provides defensibility	Assets exist across a range of size bands

High Attractiveness

Attractive fundamentals: growing underlying markets with increased use of differentiated technology, attractive & scalable economics, defensible competitive positions

Significant sub-segment nuances remain, eg positioning vs disruptive trends, differences in business model economics

Mid-Attractiveness

MAM: Economics can be challenging. Key diligence question re scalable platform vs services-led propositions

MediaTech companies face threats common for quickly evolving technology niches

Risks of investing in MediaTech	Some examples
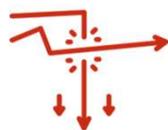
Pace of tech disruption works both ways – *disruptors can be disrupted!*
- Rapid tech change creates a quick devaluation of existing technology and a lower willingness to pay premium
- Game engines and in-house real-time rendering solutions (eg Epic Games' Unreal Engine and Unity3D) are **disrupting and actively taking share of the front-end video processing process**

Controllers of data can "wall-off" adjacent companies
- Scale advantages that data provides (particularly in a world of AI models) benefit controllers of data who can use power to expand and block off competitors
- Google and Facebook have created 'walled gardens' that have left many AdTech companies competitively disadvantaged

Switch of broadcasters to build technologies internally
- In order to capture more value and reduce the leakage of revenue to suppliers and intermediarie`s, broadcasters are increasingly investing in technology internally
- **In 2018, Channel 4 announced it would allow advertisers to make programmatic purchases on BT's sports programming using a tech developed in-house in partnership with FreeWheel**

Incumbent customers are in jeopardy in some areas
- Many incumbents such as TV broadcasters have become **financially at risk, creating customer risk for MediaTech companies**
- Further, consolidation has increased buyer power and reduced the pool of customers – eg **Liberty Global's purchase of Virgin Media**

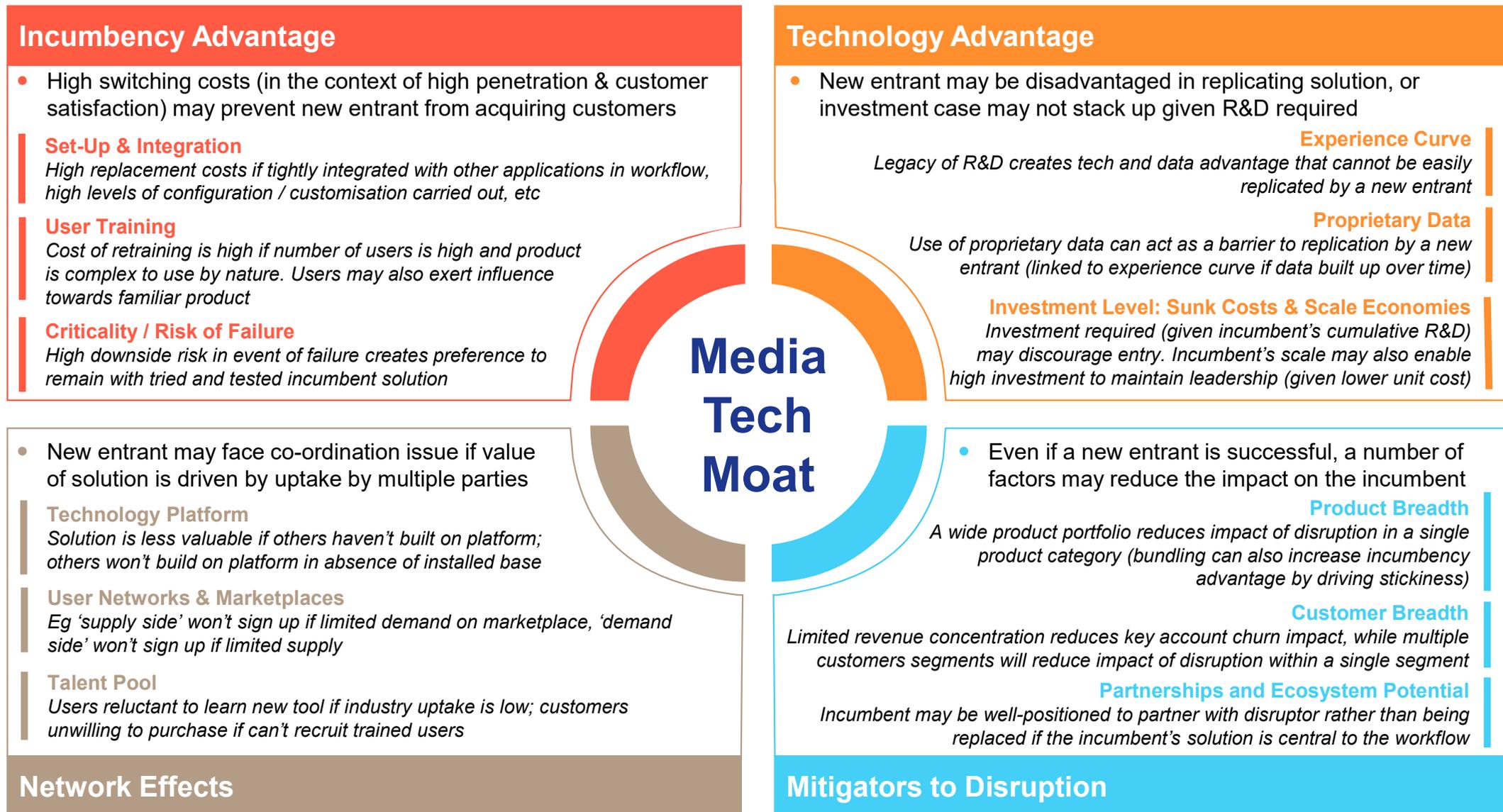**Some parts of the landscape are already mature with sky-high multiples**
- Recent deals have experienced significant competition between equity investors, resulting in very high multiples
- **53% of the adtech deals** were realized with an average **revenue multiple of 3.0x and above** in 2017 while the comparables were around **1.5x** for public companies[1]

1. Excluding social media and search advertising

It is therefore especially important to "dial up" specific areas of diligence and look for some key attributes which will make assets resilient

MediaTech Moat Framework

Incumbency Advantage

- High switching costs (in the context of high penetration & customer satisfaction) may prevent new entrant from acquiring customers

Set-Up & Integration
High replacement costs if tightly integrated with other applications in workflow, high levels of configuration / customisation carried out, etc

User Training
Cost of retraining is high if number of users is high and product is complex to use by nature. Users may also exert influence towards familiar product

Criticality / Risk of Failure
High downside risk in event of failure creates preference to remain with tried and tested incumbent solution

Technology Advantage

- New entrant may be disadvantaged in replicating solution, or investment case may not stack up given R&D required

Experience Curve
Legacy of R&D creates tech and data advantage that cannot be easily replicated by a new entrant

Proprietary Data
Use of proprietary data can act as a barrier to replication by a new entrant (linked to experience curve if data built up over time)

Investment Level: Sunk Costs & Scale Economies
Investment required (given incumbent's cumulative R&D) may discourage entry. Incumbent's scale may also enable high investment to maintain leadership (given lower unit cost)

Media Tech Moat

- New entrant may face co-ordination issue if value of solution is driven by uptake by multiple parties

Technology Platform
Solution is less valuable if others haven't built on platform; others won't build on platform in absence of installed base

User Networks & Marketplaces
Eg 'supply side' won't sign up if limited demand on marketplace, 'demand side' won't sign up if limited supply

Talent Pool
Users reluctant to learn new tool if industry uptake is low; customers unwilling to purchase if can't recruit trained users

Network Effects

- Even if a new entrant is successful, a number of factors may reduce the impact on the incumbent

Product Breadth
A wide product portfolio reduces impact of disruption in a single product category (bundling can also increase incumbency advantage by driving stickiness)

Customer Breadth
Limited revenue concentration reduces key account churn impact, while multiple customers segments will reduce impact of disruption within a single segment

Partnerships and Ecosystem Potential
Incumbent may be well-positioned to partner with disruptor rather than being replaced if the incumbent's solution is central to the workflow

Mitigators to Disruption

Agenda

Introduction to MediaTech

OC&C Credentials

OC&C has vast experience across the Media and MediaTech landscape

Media & MediaTech Clients or Targets Reviewed

Not Exhaustive

OC&C's work in MediaTech benefits from wider experience in vertical software

OC&C Vertical-Software Clients or Targets Reviewed

Not Exhaustive

A matrix of company logos organized into columns by vertical software sector:

Accountancy	Legal & Professional Services	Retail & Hospitality	Travel	Supply Chain, Logistics & Auto	Education	Construction & Proptech	Healthcare	Public Sector	Manufacturing & Industrials	Media & Marketing

Accountancy: IRIS, VISMA, Wolters Kluwer, Drake Software, SOVOS, Dext, accountor, caseware, VERTEX, suralink, xcm

Legal & Professional Services: Legal — LexisNexis, TransUnion, OPUS2, BigHand, nd netdocuments, CPA GLOBAL THE IP PLATFORM, ANAQUA, Clarivate, Aderant; Other PS — UNIT4, BIGTIME, tmgroup, KMD An NEC Company

Retail & Hospitality: Integrated ERP + POS — access, LS Retail an aptos company, Torex, cegid; POS Specialists — Zonal, micros; Workforce Management & Labour — Fourth, REFLEXIS; Analytics & Logistics — SCANDIT, ReBOUND, METAPACK, RI

Travel: Skyscanner, THE ATCORE GROUP, PEAKWORK, INFARE, AMADEUS, newmarket an amadeus company, TRAVELPORT

Supply Chain, Logistics & Auto: NEXUS Vehicle Rental, Anite, epyx, cartrawler with you all the way, AMADEUS, METAPACK, White Clarke Technologies

Education: IRIS, access, UNIT4, GL Education, TRIBAL, skillsoft, raet, GROUP IMD

Construction & Proptech: DOCUnordic, CAUSEWAY, mri REAL ESTATE SOFTWARE, CIVICA, Constructionline Part of Capita plc, Building Engines, sms assist, cbord, learnd, DMP LIGHTBOX, CoStar

Healthcare: access, ALLOCATE an RLDatix company, CIVICA, CliniSys A CLINISYS GROUP COMPANY, Famed, advanced, MEDIFOX, CGM CompuGroup Medical, NEC Software Solutions

Public Sector: NEC Software Solutions, Detica, CIVICA, carval, Coldharbour Part of the Civica Group, VISMA, UNIT4, KMD IT WITH INSIGHT, ALLOCATE an RLDatix company

Manufacturing & Industrials: FORTERRO, metrologic group, AVEVA, PRO ALPHA, proactis, HEXAGON

Media & Marketing: vizrt, deltatre, massive, FOUNDRY, edios MEDIA, Amplience, soundrop, Confirmit, SMARTLY.IO, Peach, arqiva, MiQ

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Thank you!

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Strategy consultants

uncommon sense