

Capital Markets Day London

5th February 2020



Support | Deliver | Evolve

“Keywords Studios
is becoming the ‘go to’
provider for external
development services”



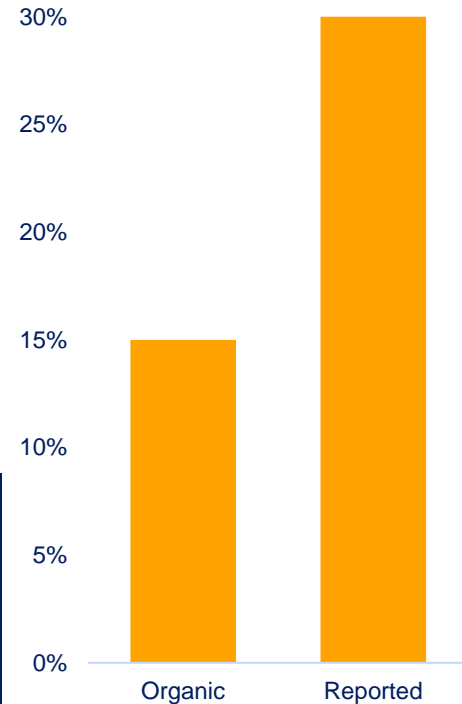
Opening remarks

Topics for today

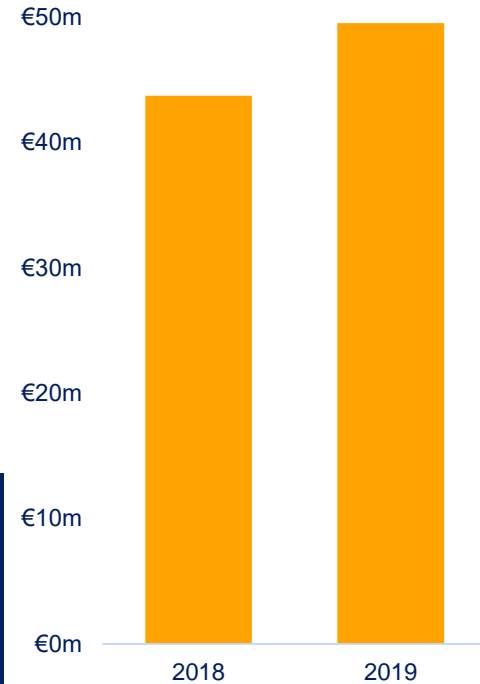
- Service line insights
- Game development case studies
- Marketing services case studies

13:45	Registration
14:10	Opening remarks
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17:00	CFO closing remarks & final Q&A
17:30	Refreshments

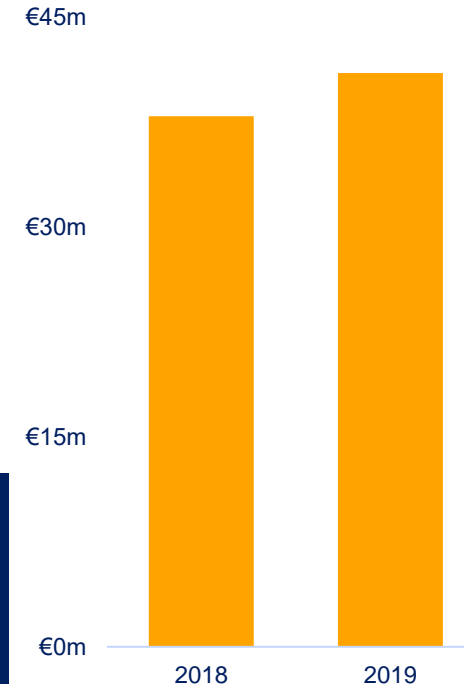
2019 financial highlights*



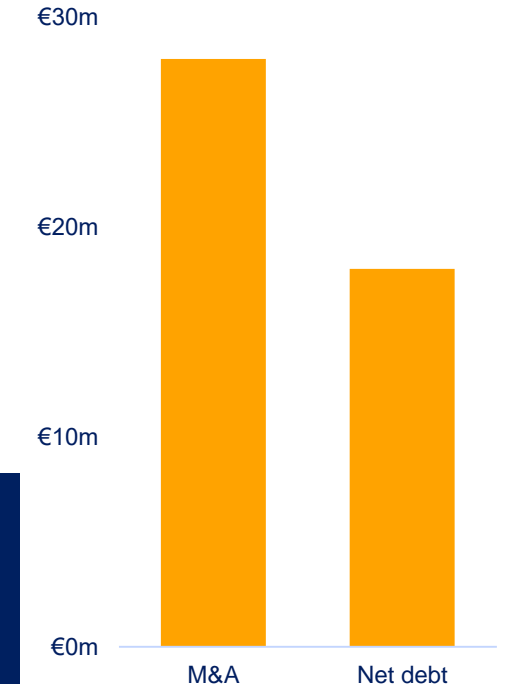
Revenue growth to c. €326m



Adj EBITDA up c.13% to c. €49.5m
Margin: 15.2%



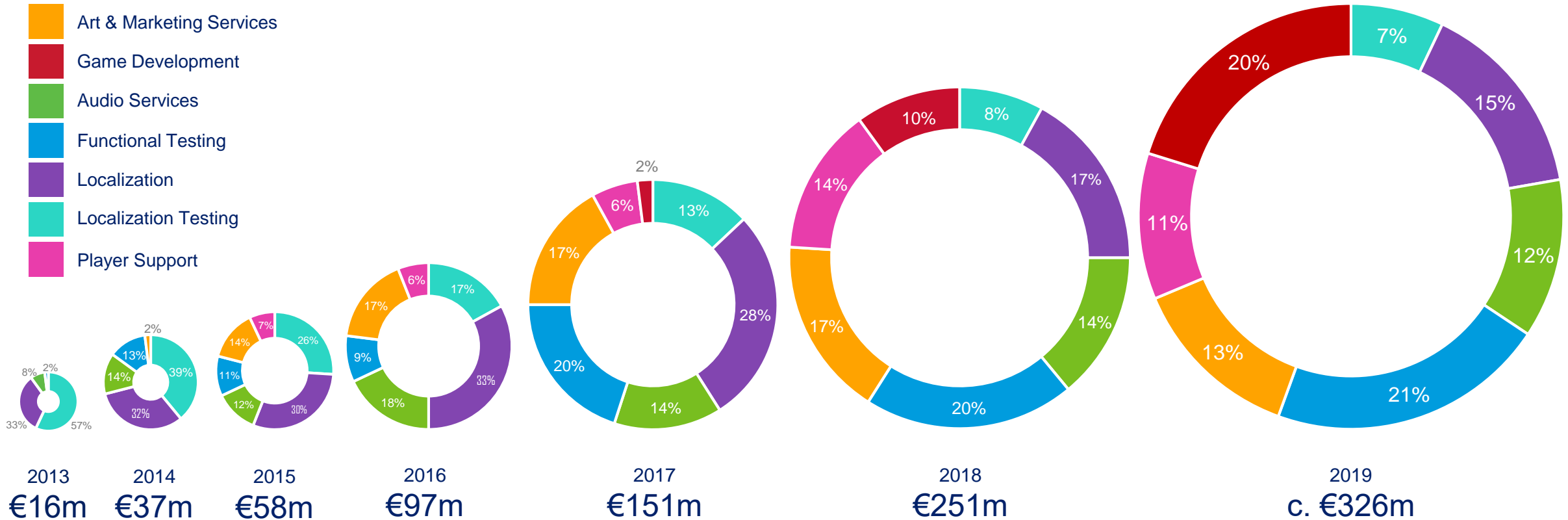
Adj PBT up c. 8% to c. €41m
Margin: 12.6%



M&A cash spend €28m including €15m deferred
Net debt €18m
Underlying cash conversion of 85%

Better balanced business; higher up the value chain

- Increasingly integrated with game development pipelines
- Increasing numbers of client specific, dedicated operations
- Highly attached to game titles & client service infrastructures
- Moving beyond game production budgets to marketing spend



International scale and flexibility across markets is key

- Art & Marketing Services
- Game Development
- Audio Services
- Functional Testing
- Localization
- Localization Testing
- Player Support



An average of c. 7,500 people on the payroll at peak times working in over 50 languages, more than 50 studios, in 21 countries, on 4 continents

Structural factors that power our growth

- Fast growing games industry – c. 8% CAGR
- Trend towards outsourcing as the industry deals with an increasingly complex environment
- Supply chains are becoming more structured as the industry gradually matures
- Scale begets scale in an otherwise highly fragmented market
- Fragmented industry provides opportunities for selective consolidation

- Unique end to end global service platform
- Service lines that deliver strong organic growth
- Relationships with all the top games companies
- Close proximity to our clients around the globe
- Access to talent pools around the world
- Selective acquisitions to further support this growth

“Keywords Studios is becoming the ‘go to’ provider for external development services”

Service line insights

Key messages

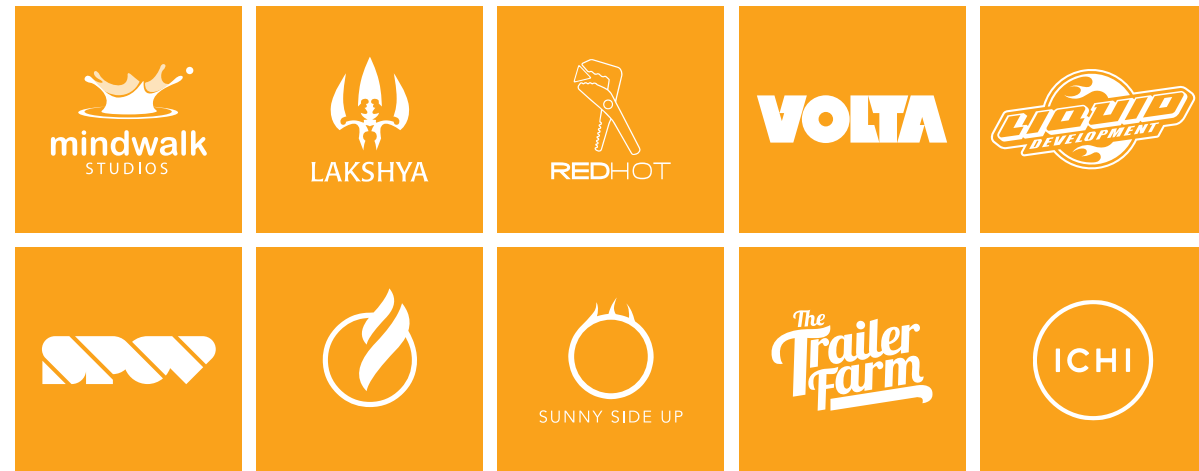
- Drivers behind each
- Barriers to entry
- Keywords strategic offering

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Keywords
Art Services

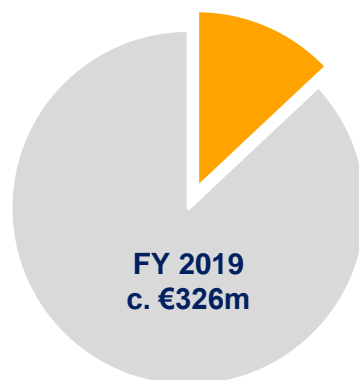
Ashley Liu



15 locations globally, 1,200 employees

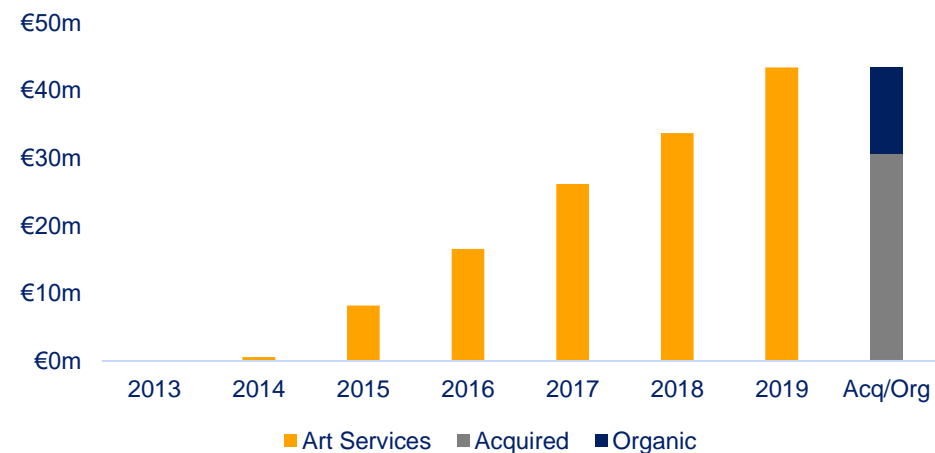


Art Services: c. 13% of revenue

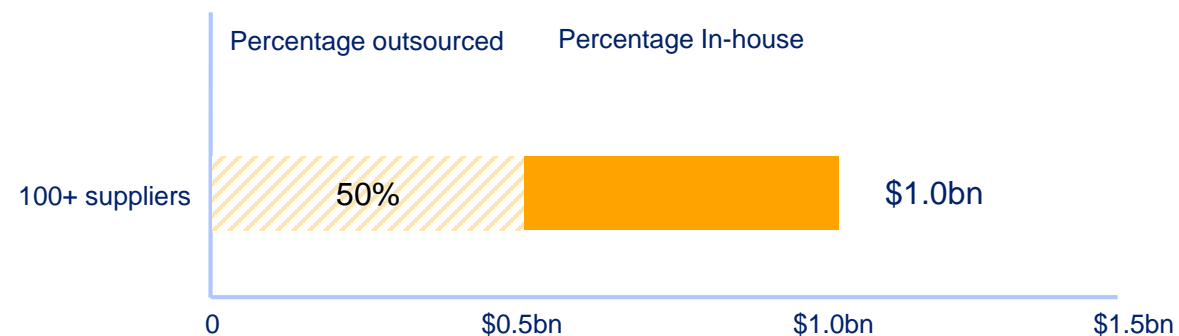


- Creation of video game art including but not limited to concept art, 2D and 3D art asset production & animation
- Marketing services from game conception, marketing trailers, to full campaigns

Revenue – 107% CAGR FY 2015 - 2019



Market size and proportion of art outsourcing*



Barriers to entry

- Clients increasingly integrating their production pipelines with us. Requires top security. Audited by all the major Publishers/developers/IP holders such as Disney, EA, Microsoft, Activision
- Scale – AAA games are getting ever larger. Clients need vendors of scale that can apply teams of 100+ per game. Few providers can do this
- Clients increasingly have fewer in house art talents, thus need a wider breadth of services to be delivered in unison
- Investment in latest production software, workflow and tools



Strategy

- Become the go to provider for Art Outsourcing
 - Growing capacity and service capabilities so we always have a solution for our clients
 - Seen as the industry innovators so are able to produce higher quality and volumes of art with less resources
 - Expand the dual shore model
- Build the world's first global games marketing agency. When Marketing services reaches €30m it will be run and reported separately

Outlook

- Further organic growth
- Acquisitions in marketing services to extend range of services and geographic reach



Keywords Game Development

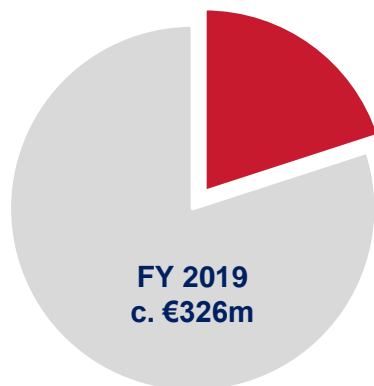
Jamie Campbell



12 locations globally, 900 employees

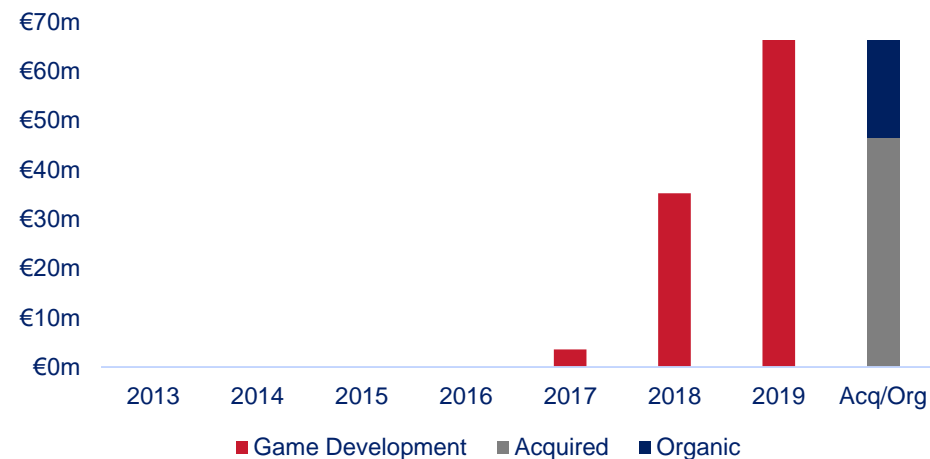


Game Development: c. 20% of revenue

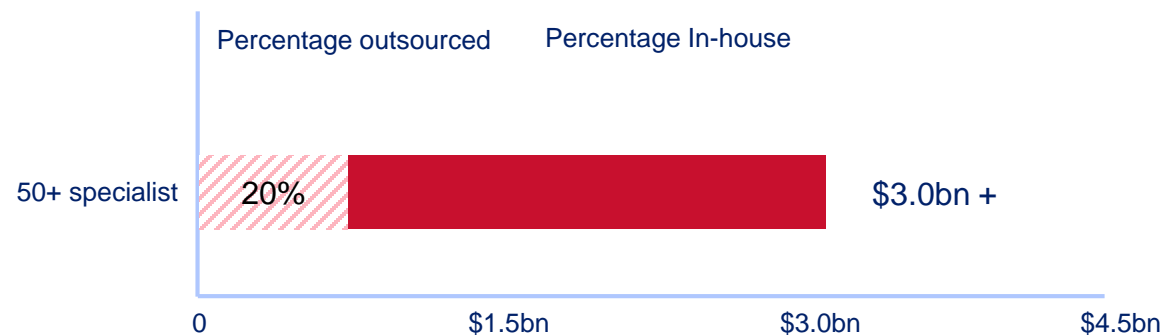


- Full game development, co-development & porting
- Proprietary software solutions for analytics
- Player behaviour research consulting

Revenue from FY 2017 - 2019

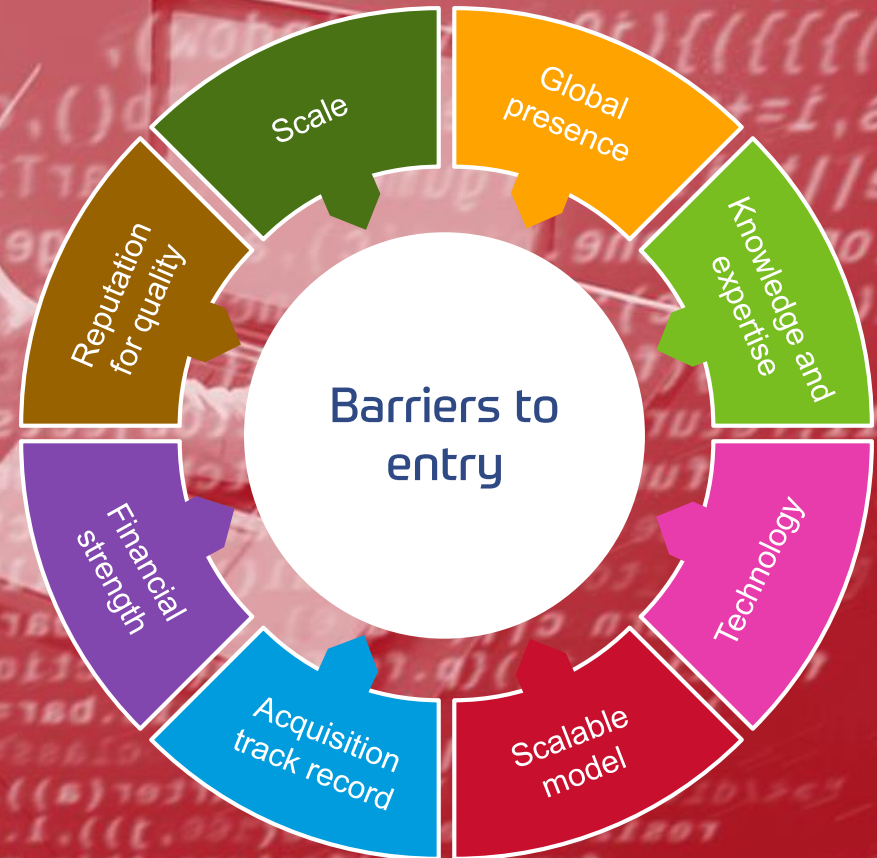


Market size and proportion of outsourcing*



Barriers to entry

- Credentials – past success at working on top games
- Scale – takes a village to develop an AAA game. Few studios of sufficient scale to do full development or co-development on major IPs
- Own research and development for key tools and middleware
- Experience of client proprietary game engines

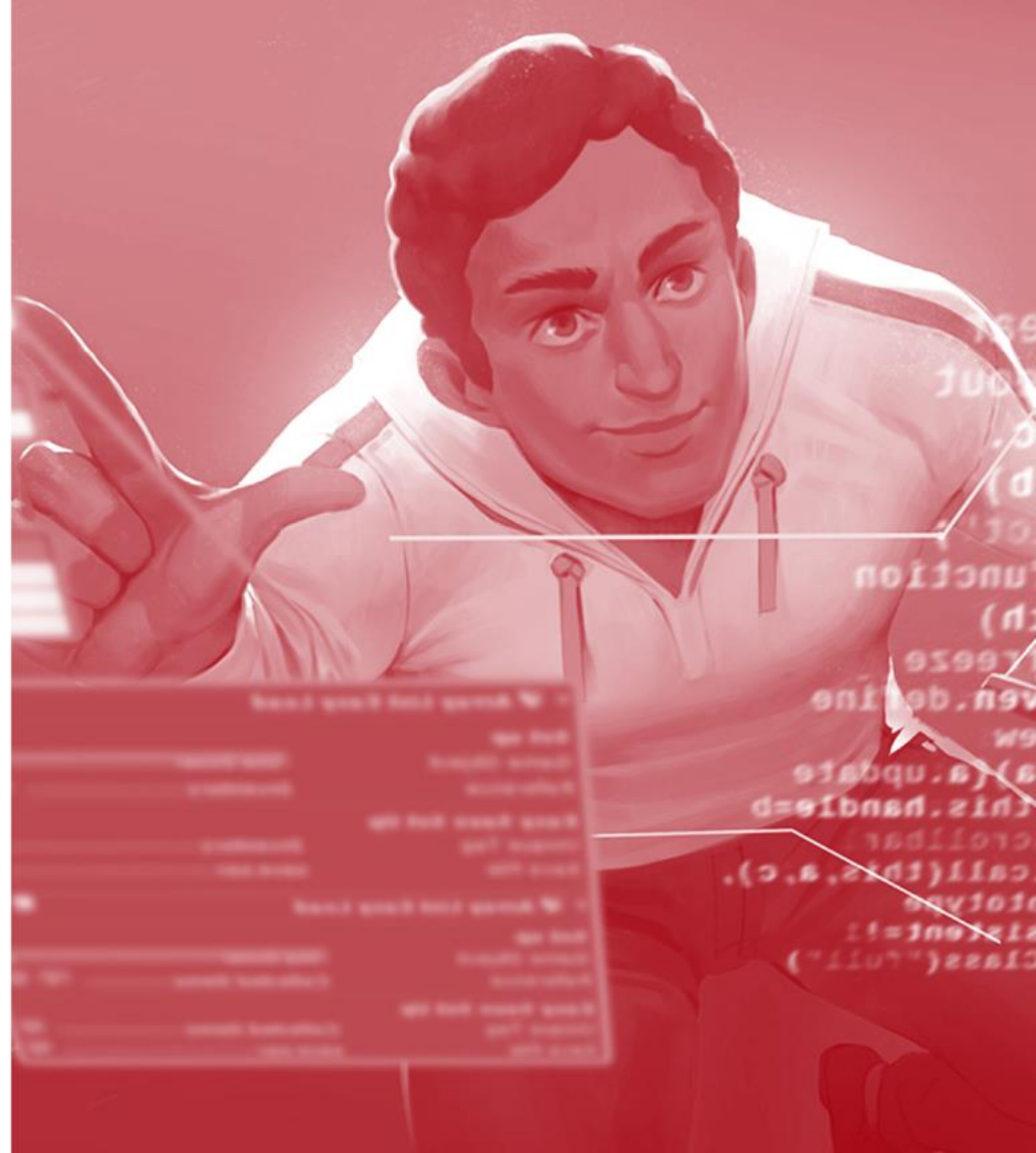


Strategy

- Become the go to provider by increasing scale and geographic reach
- Further scale through new studio openings and scaling up of existing offices. Active acquisition pipeline focussed on additional geographies, expanded specialisations and expanding client base
- Studios developing their breadth of offerings over time

Outlook

- Continued expansion and recruitment to meet demand in all locations
- Further acquisitions to maintain a balanced offering



 **Keywords**
Audio Services

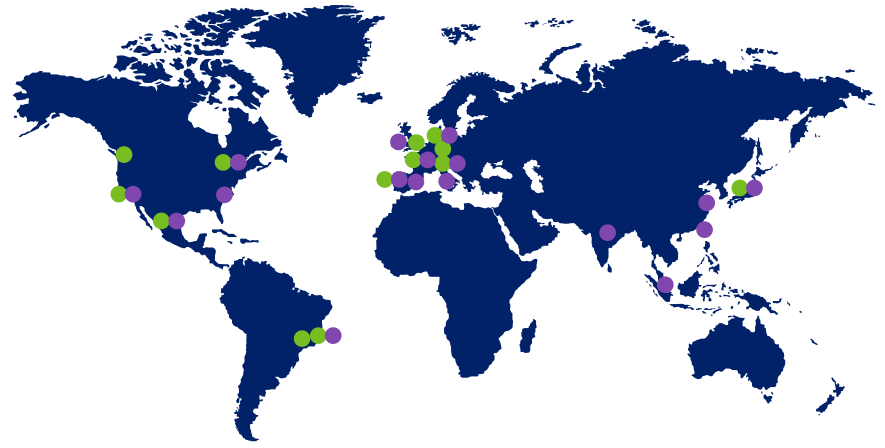
 **Keywords**
Localization

Fabio Minazzi

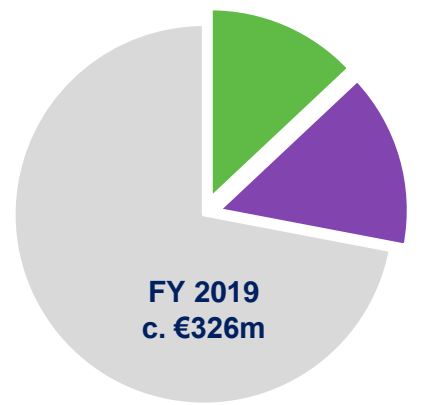


- Multi-language voiceover recording & original language
- Music management, sound effects & related services
- Translation of in-game text/audio, cultural adaption

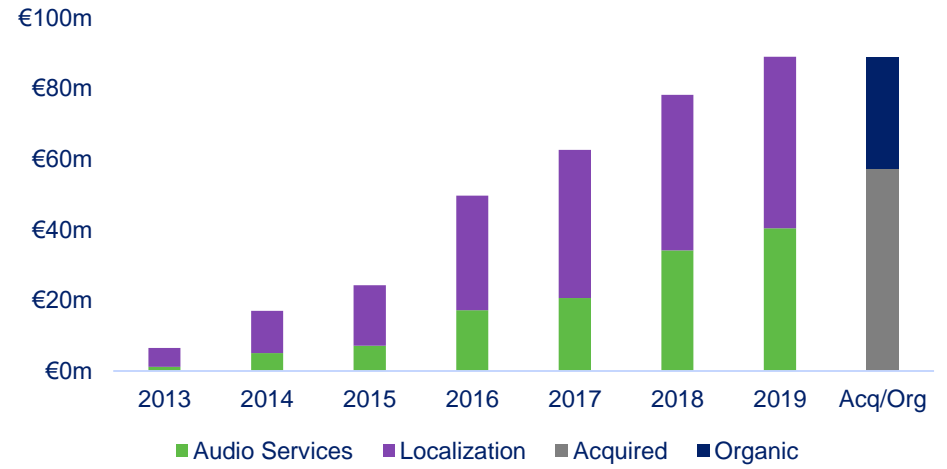
20 locations globally, 650 employees



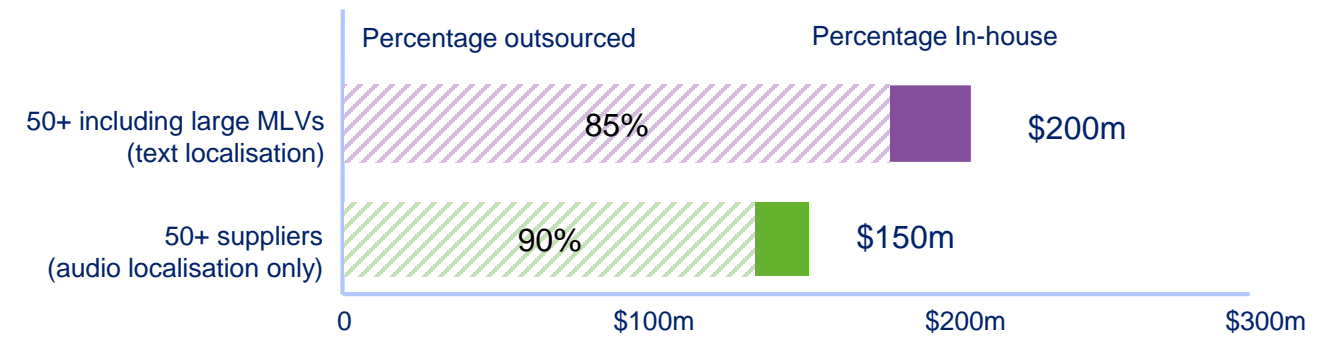
Audio Services: c. 12% Localization: c. 15%



Revenue from FY 2013 - 2019



Market size and proportion of outsourcing*



* Based on management's estimates

Barriers to entry

- Network of specialized audio studios in the main target countries
- Complexity of production and talent management
- Sticky revenues by game title

Barriers to entry

- Multilingual capabilities. Unrivalled pool of video game translators built over 20 years
- Unique credentials across all genres and game sizes
- Access to own machine translation engines and software development increases gap between Keywords and others





Strategy & Outlook

- Cross skill studios for games and film/TV
- Securing vendor status for online streaming platforms (3 studios currently certified by Netflix)
- Consider acquisitions in key locations



Strategy & Outlook

- Continue to lead the games localization market
- Acceleration of our efforts to bring machine translation to games now powered by proprietary AI, ML and workflow management software with Kantan integration
- Low acquisition component





Keywords



Functionality QA

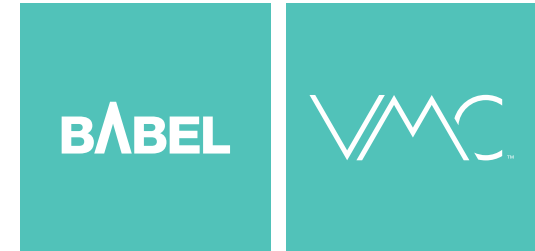
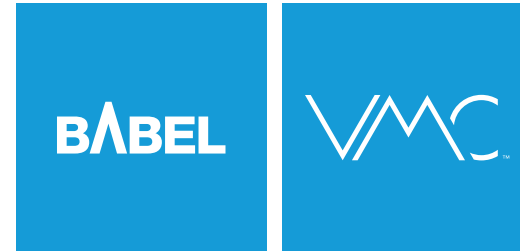


Keywords

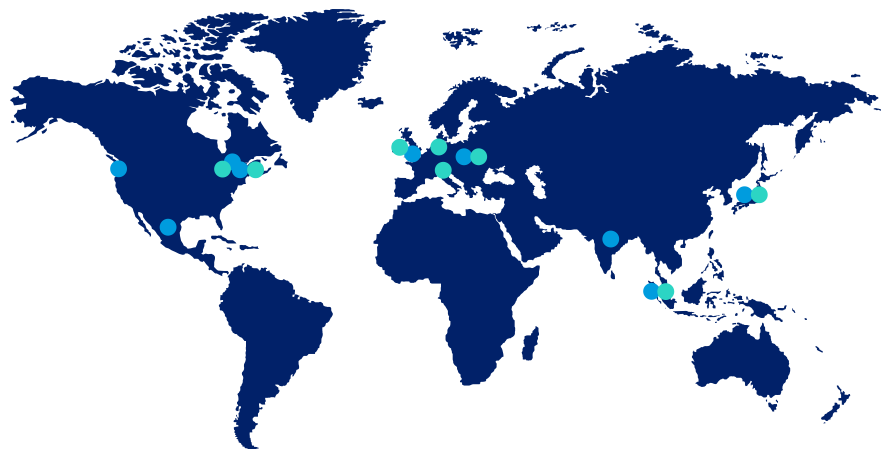


Localization QA

Mathieu Lachance

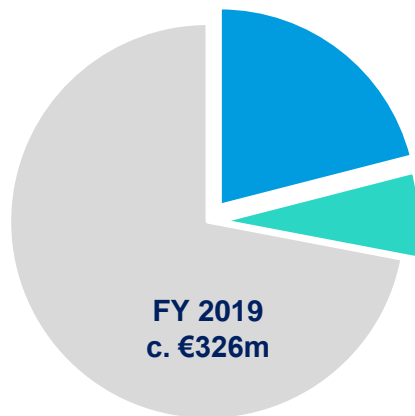


11 locations globally, 2,700 employees



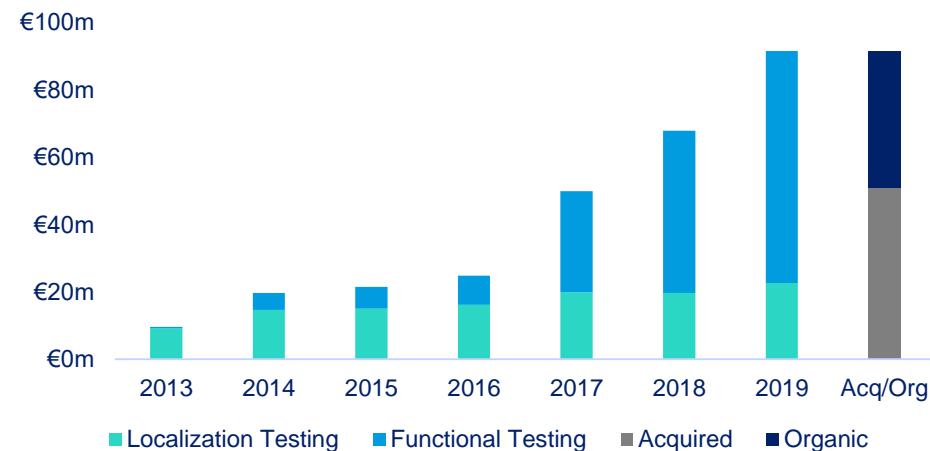
Functional Testing: c. 21%

Localization Testing: c. 7%

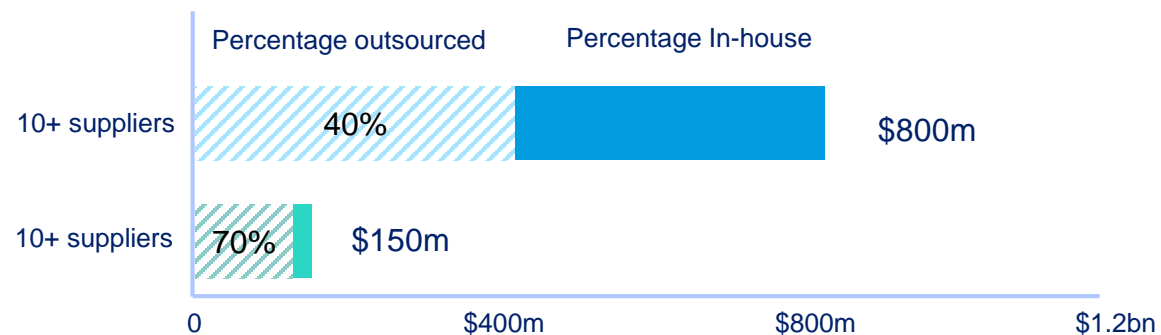


- Quality assurance, discovery/documentation of defects
- Testing game compliance with manufacturers' hardware
- Testing out of context content in over 30 languages

Revenue from FY 2013 - 2019



Market size and proportion of outsourcing*



Keywords

Functionality QA

Barriers to entry

- Secure facilities, authorized among others by hardware manufacturers Microsoft, Sony and Nintendo
- Unrivalled scale in North America brings economies of scale and adds relevancy for major clients
- Very flexible operations

Keywords

Localization QA

Barriers to entry

- Secure facilities, authorized among others by hardware manufacturers Microsoft, Sony and Nintendo
- Complexity of language, combined with flexibility of operations
- Specialism in games important given the complexity of localisation





Strategy & Outlook

- Continue to consolidate market leadership outside North America
- Further strong organic growth and improving margins



Strategy & Outlook

- Continued organic growth, expand in Katowice, and Ottawa
- Improving global resourcing flexibility through standardization of tools and processes, bringing increased revenue, uptime, quality and profitability





Keywords

Player Support

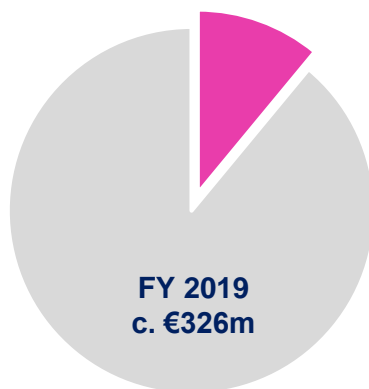
Fred Arens



11 locations globally, 1300 employees

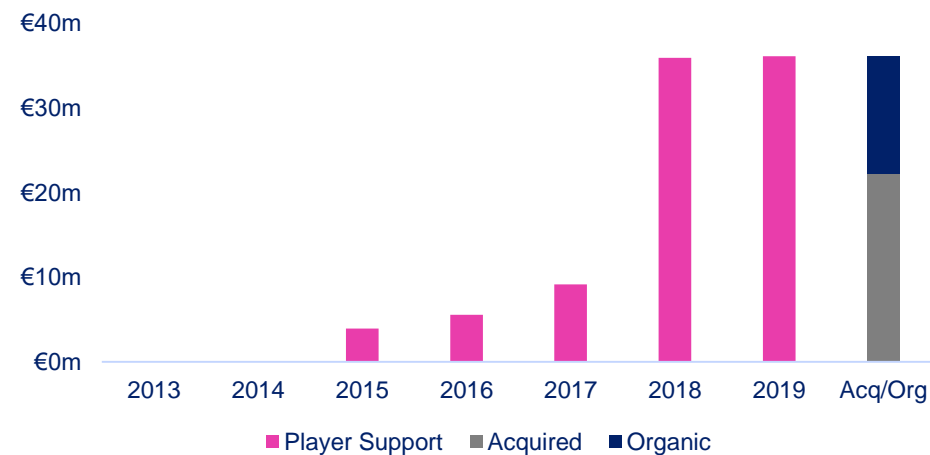


Player Support: c. 11% of revenue

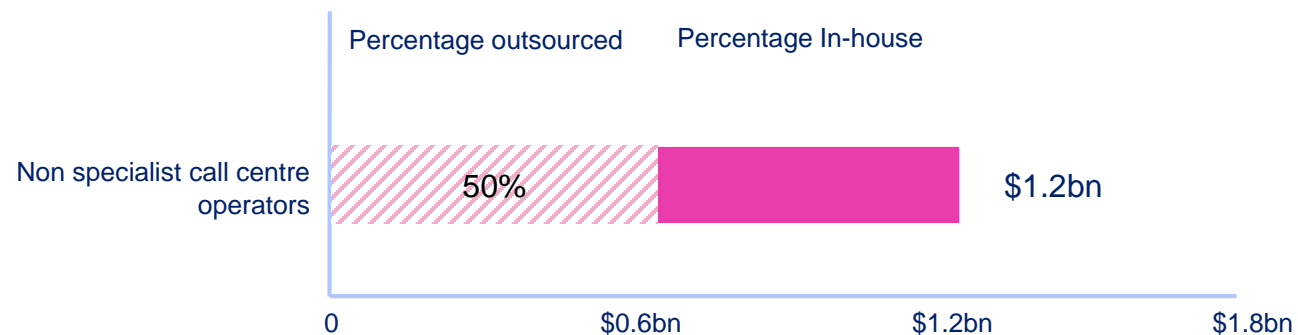


- 365/24/7, multilingual support for gamers
- Live operation, forum monitoring and moderation
- Social media engagement on behalf of the game brand

Revenue –182% CAGR FY 2015 - 2019



Market size and proportion of outsourcing*



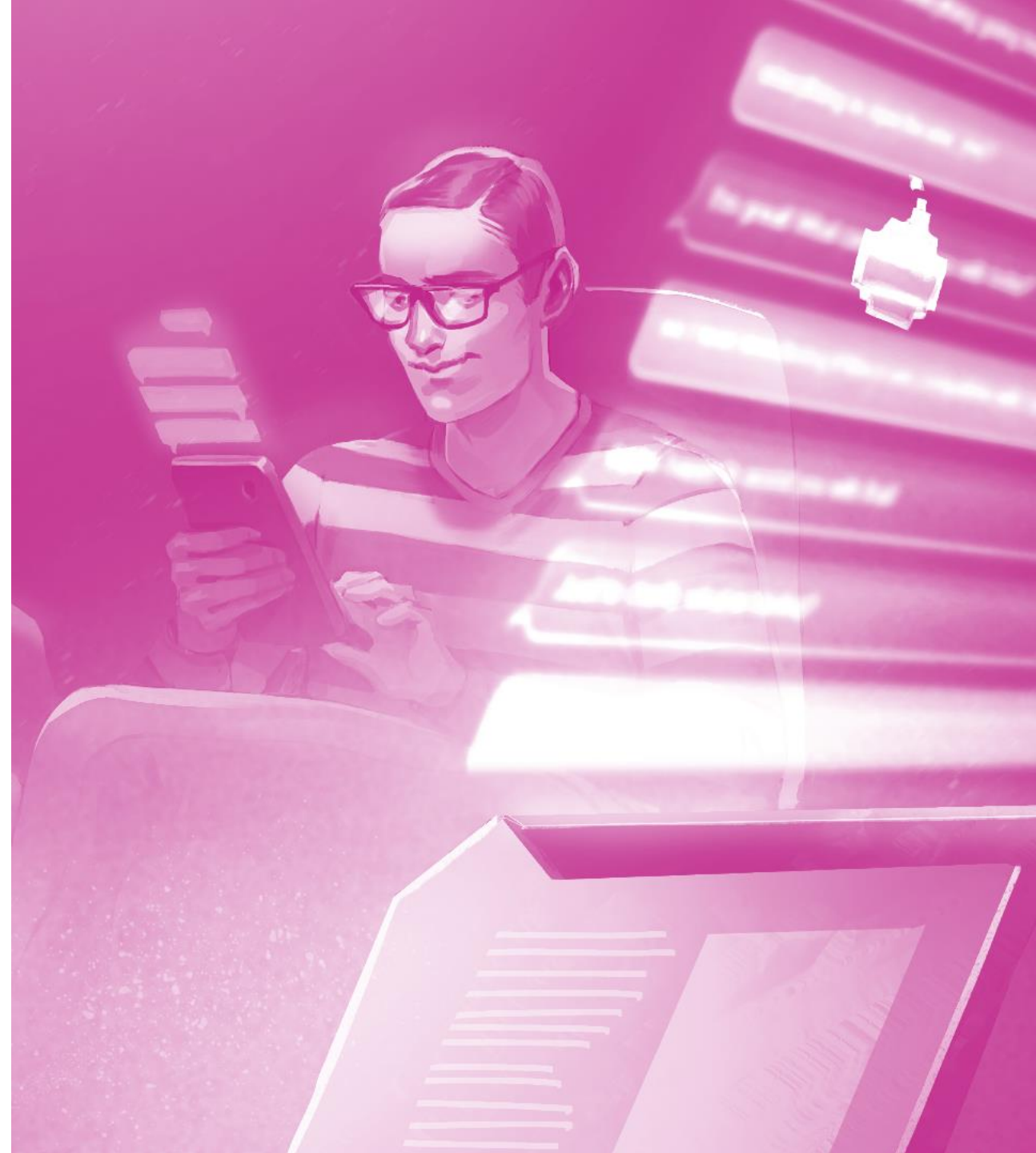
Barriers to entry

- Video game focus
- Credentials
- Own, secure facilities
- Multi lingual, 24/7 service
- Multi cultural, 24/7 service
- Multi Platform CRM skills



Strategy & Outlook

- Differentiate our video game specific service from other large providers in the wider customer support market
- Extend our service offering to cover more touch points of gamer engagement: community, social channels and VIP
- Consolidate our position within Video Gaming with strategic key account wins and growth
- Grow and strengthen our technological capability with tools that support our service discipline
- Augment AI and Machine learning with tech from Kantan



Q&A for service line presenters



Jamie Campbell



Fabio Minazzi



Mathieu Lachance



Fred Arens

Game Development

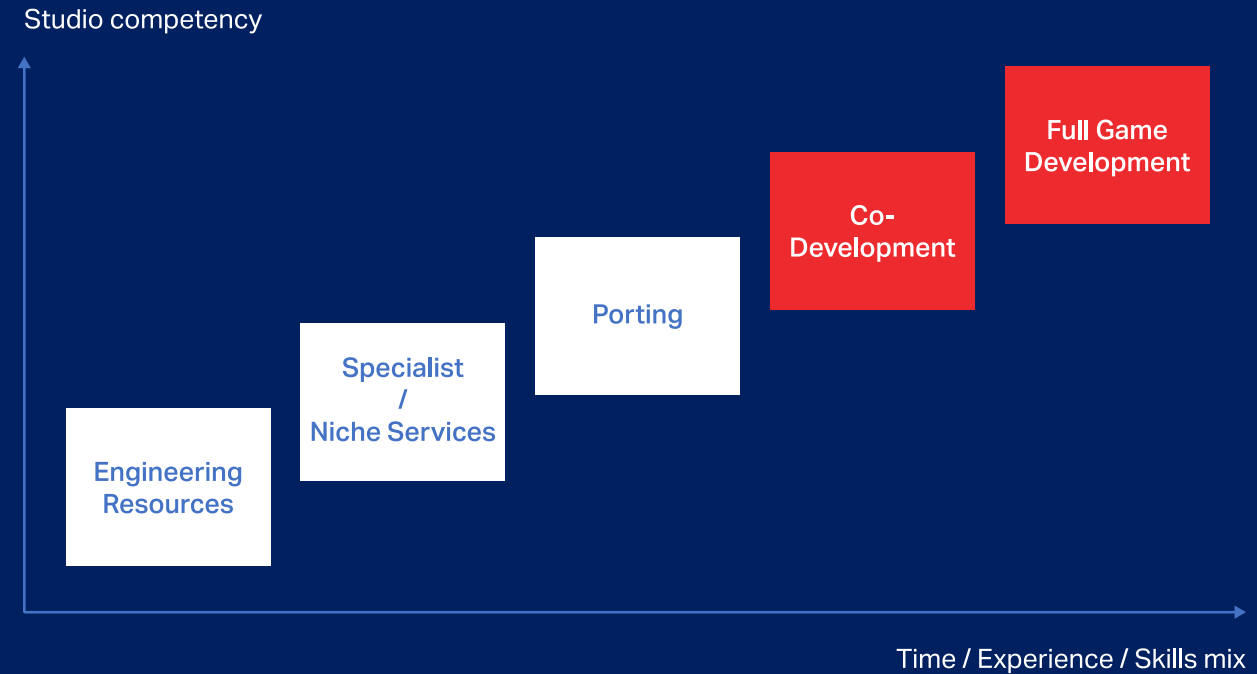
Case studies

- d3t - Shenmue I & II
- Sperasoft – Assassin’s Creed Origins
- Studio Gobo - Synced: Off Planet
- Electric Square - Forza Street

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Game Development

- A look at high-value services



	Engineering Resources	Specialist / Niche Services	Porting	Co-Development	Full Game Development
Gamesim	Y	Y	Y		
Snowed In	Y	Y	Y		
d3t	Y	Y	Y	Y*	
Wizcorp	Y	Y	Y		Y
Sperasoft	Y	Y	Y	Y	Y
Studio Gobo				Y	
Electric Square				Y	Y

* Moving into Co-Development in 2020

Game Development

- A look at high-value services

Porting 20 year old games
to current platforms
Jamie Campbell

Assassin's Creed Origins:
Co-Development with Ubisoft
Alan Van Slyke

Synced: Off Planet
Co-Development with Tencent
Xu Xiaojun

Full Client Development
with Microsoft's Turn 10 Studios
Jonathan Gibson



A KEYWORDS STUDIO

Porting 20 year old games to current platforms

Jamie Campbell



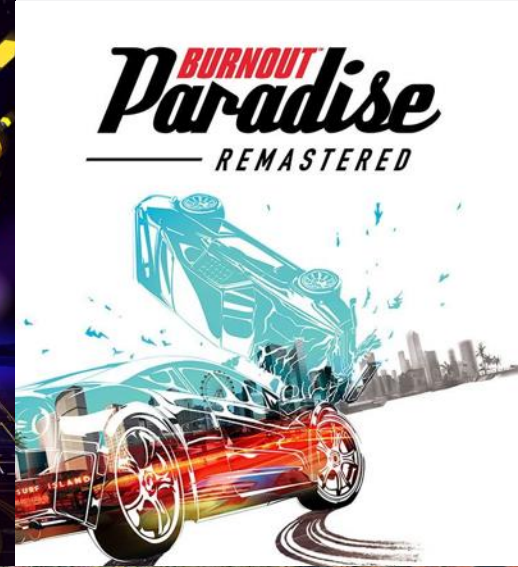
d3t

Location: Cheshire (UK)

Project Type: Technical Multi-platform Port

Studio background

- Established in 2011 as 'pure' engineering
- Joined Keywords in 2017 with ~45 staff
- Current headcount ~85
- Still a strong technical bias
- Growing creative team





Shenmue I & II HD

Shenmue I

- Released in 1999
- Dreamcast
- At the time, the most expensive game ever made
- A "Life Simulator" and RPG

Shenmue II

- Released in 2001
- Dreamcast + Xbox

Challenges and victories

Assets

- Identifying and auditing source code
- Games within games
- Enormous open worlds
- ...and hidden worlds

Technology

- Architecture
- Emulating hardware
 - Graphics
 - Audio





Challenges and ...

...workarounds 😊

- Cut-scenes

Outcomes

Two 20 year-old games brought to life on PC, Xbox1 and PlayStation 4

- Metacritic User scores of 7.9, 8.1 and 8.3
- Significant upskilling of staff throughout the project
- Another branch up the value tree towards Co-Development



SPERASOFT
A KEYWORDS STUDIO

Assassin's Creed Origins: Co-Development

Alan Van Slyke



Company overview

15 years

5 offices in 3 countries

~ 600

Game development professionals

**Sperasoft joined the
Keywords family in
2017**



FRANCHISES

HALO
INFINITE



ASSASSIN'S
CREED



TOM CLANCY'S
RAINBOW SIX | SIEGE



MORTAL KOMBAT



MASS
EFFECT



STAR WARS
BATTLEFRONT



ASSASSIN'S CREED

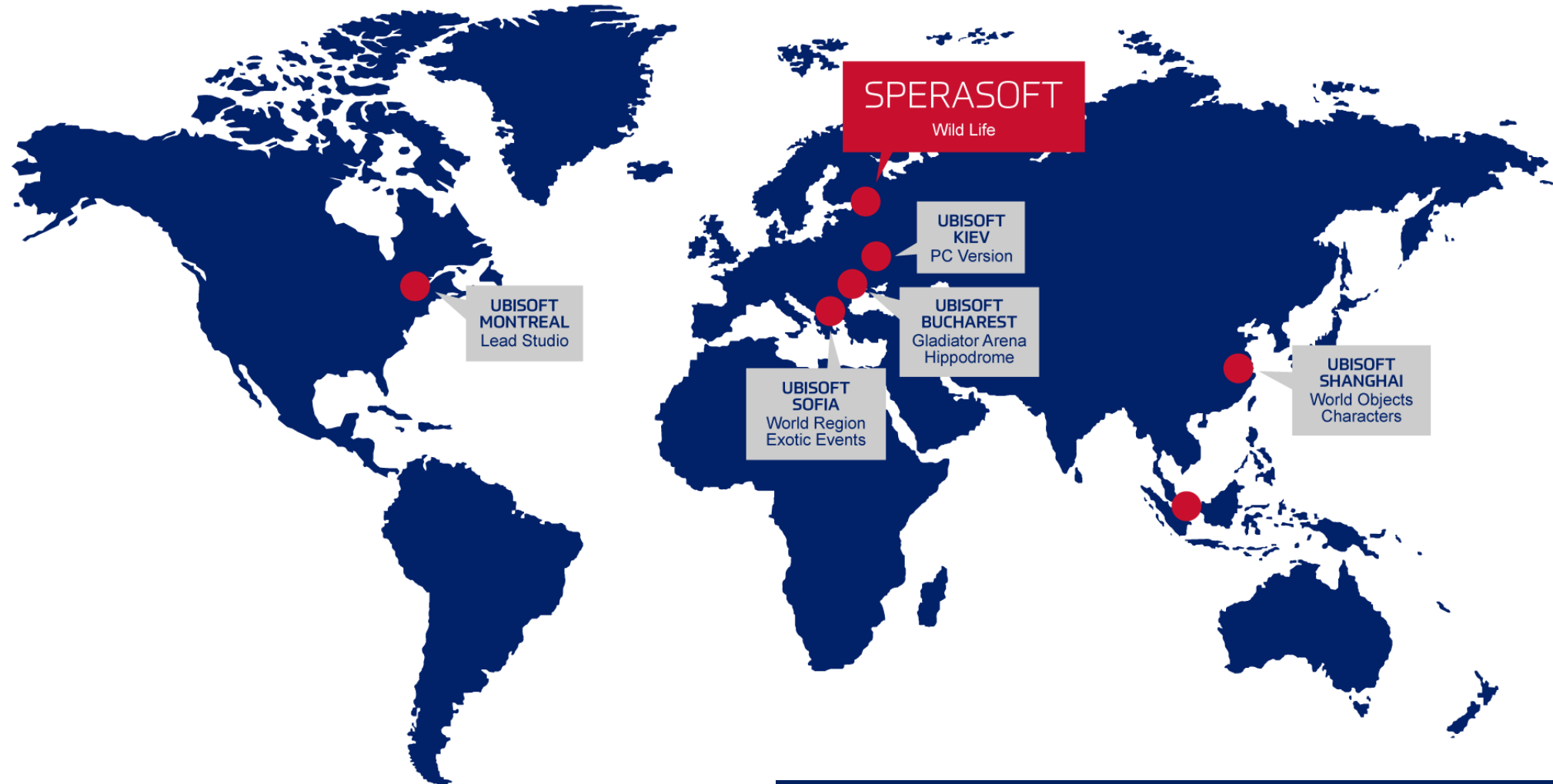
Co-Development CASE STUDY



SPERASOFT
A KEYWORDS STUDIO



ASSASSIN'S CREED ORIGINS: Co-Development



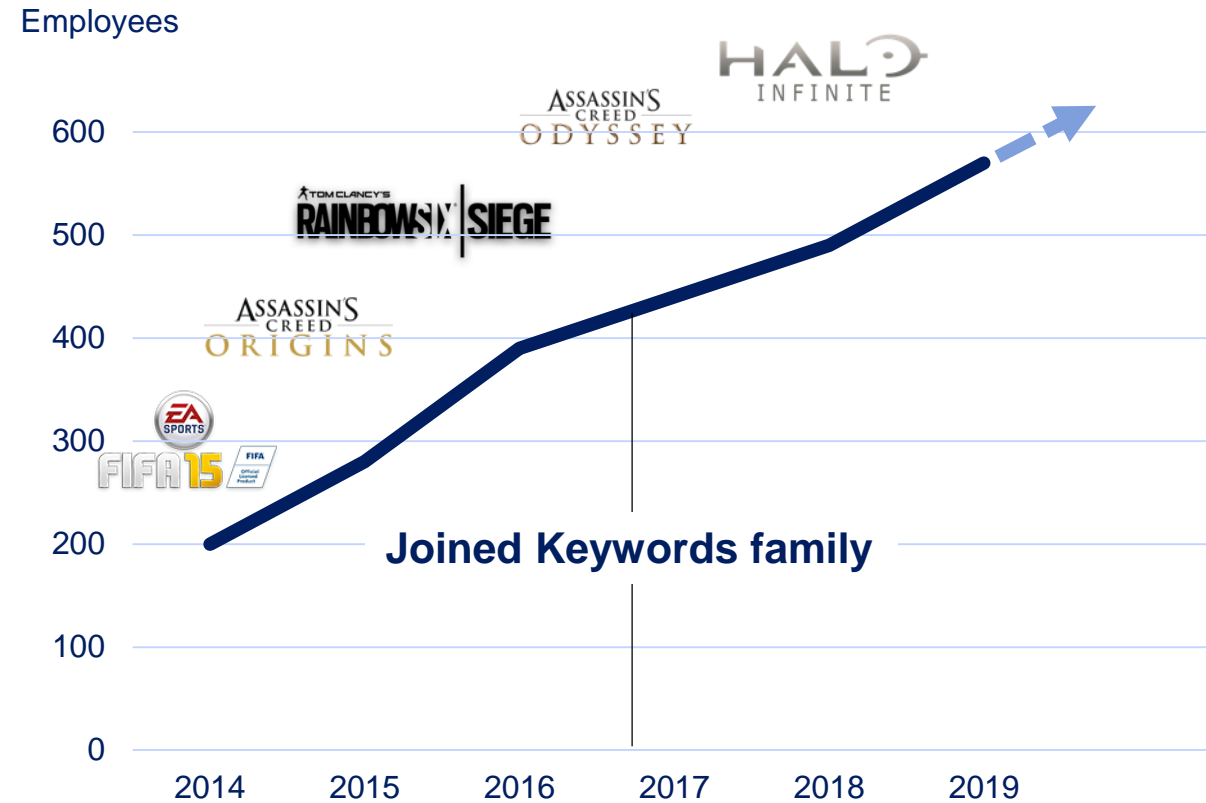
WAR ELEPHANT



Opportunities

- Serialized engagements
- Development cycle, and beyond
- 'Day 0' studio strategies
- Keywords umbrella

Growth





A KEYWORDS STUDIO

Synced: Off Planet Co-Development with Tencent

Xu Xiaojun



Synced: Off Planet

Competitive multiplayer

- 50 Players
- 1000+ AI Cyborgs (Nanos)
- Escape earth

Key differentiator - narrative

- Earth is infected by the growing number of Nanos, your only hope is to find a space shuttle and leave the planet.
- Different characters meet in Haven and story develops between matches

Players in the west perhaps don't realise how big Tencent is, and its development capabilities: SYNCED may well be the game that changes this, and the NExT step towards its global gaming domination.

- KOTAKU





Studio Gobo

Co-Development

- Cross disciplinary
- Creative led engagement

Mandates on Synced

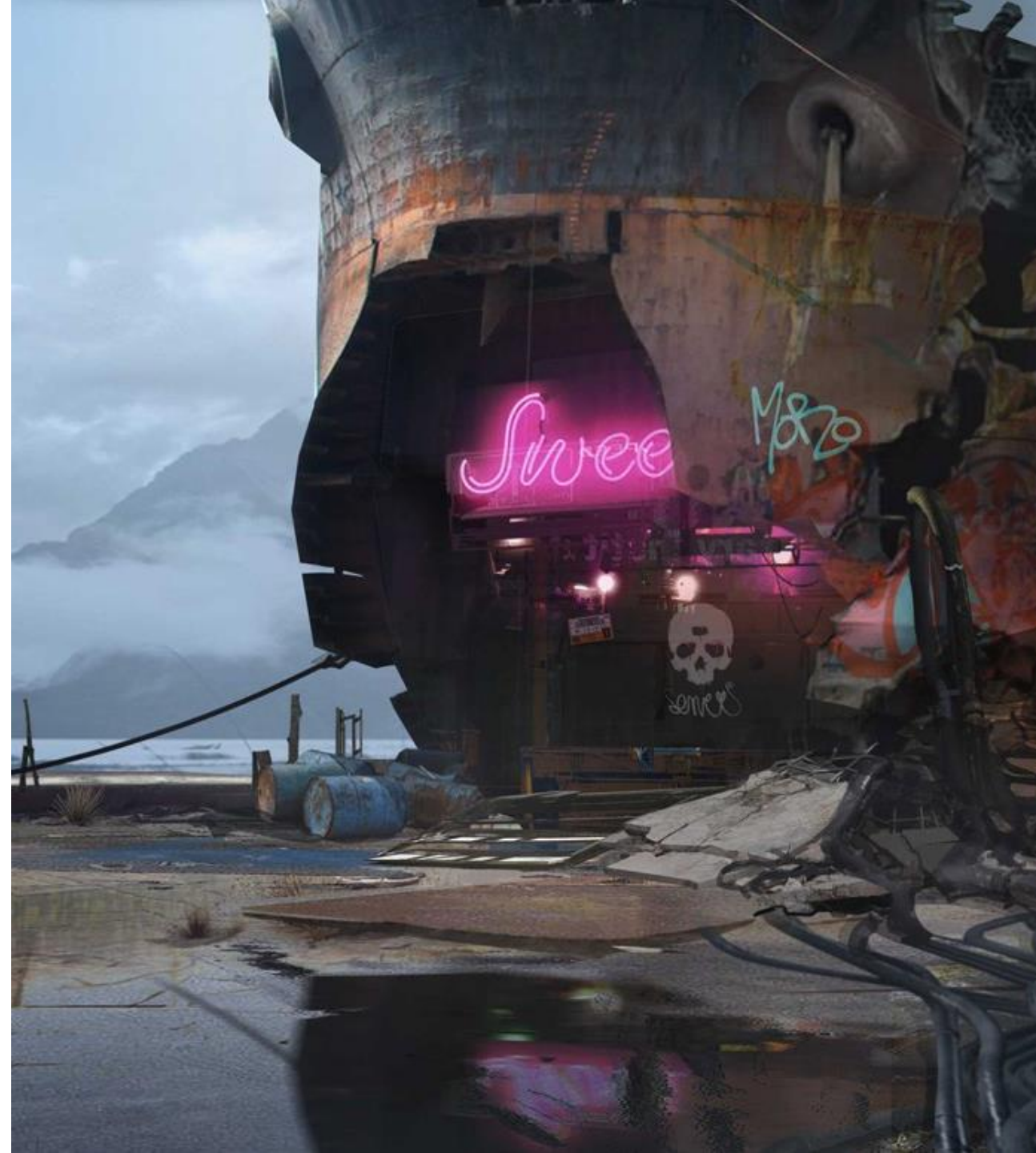
- Haven - Player's homestead, where the story and characters develop
- Narrative, progression and monetization
- New game mode
 - One third of the game content

New Milestone

- Studio Gobo's first engagement with China
- Cross collaboration with SPOV
- Project in production with live service post release
- Long term partnership and potentially more collaboration opportunities with other Keywords teams

"[Gobo] are really experienced. [Working with them], we can produce more content and at the same time use their experience to help us, and their expertise and international talent pool."

– Clark Yang, creative director from Tencent, speaking to [Gameindustry.biz](https://www.gameindustry.biz)





ELECTRIC SQUARE
A KEYWORDS STUDIO

Full Client Development with Microsoft's Turn 10 Studios

Jonathan Gibson



Electric Square studios

Founded: 2015

Locations: Brighton, Leamington Spa, Singapore

Staff: 150 (targeting 200 by end of 2020)

Focus: Full Game Development

Expertise: Racing, Mobile and Free To Play

Partners include:

- Microsoft
- Mattel
- Amazon



Forza Street

- Commissioned by Microsoft's Turn 10 Studios
- Free-to-play version of their hit franchise, designed for a casual audience
- Already out on Win10 - mobile to follow soon
- Full client development by Electric Square



Why Turn 10 chose Electric Square

- Rich racing game heritage
- Prior experience developing mobile and free-to-play games
- Successful prototype phase lead to full development contract



Our responsibilities

Full client development:

- Concept through to Launch
- Art, Design, Programming, Production, QA, Audio, Analytics and Community Management
- Post-launch Live Operations



Working with Microsoft

- Close partnership with Turn 10's Forza Street leadership team
- Weekly 1-2-1 and team meetings over Skype
- On-site visit every 6 weeks.



Internal collaboration

- Initial team seeded by Studio Gobo
- QA support provided by Keywords
- Environment Art supplied by Mindwalk



Q&A for Game Development presenters



Jamie Campbell



Alan van Slyke



Xu Xiaojun



Jon Gibson

Marketing services

Case studies

- ICHI Worldwide - Creative Agency
- Fire Without Smoke – How to make a trailer
- The TrailerFarm – Happy Together

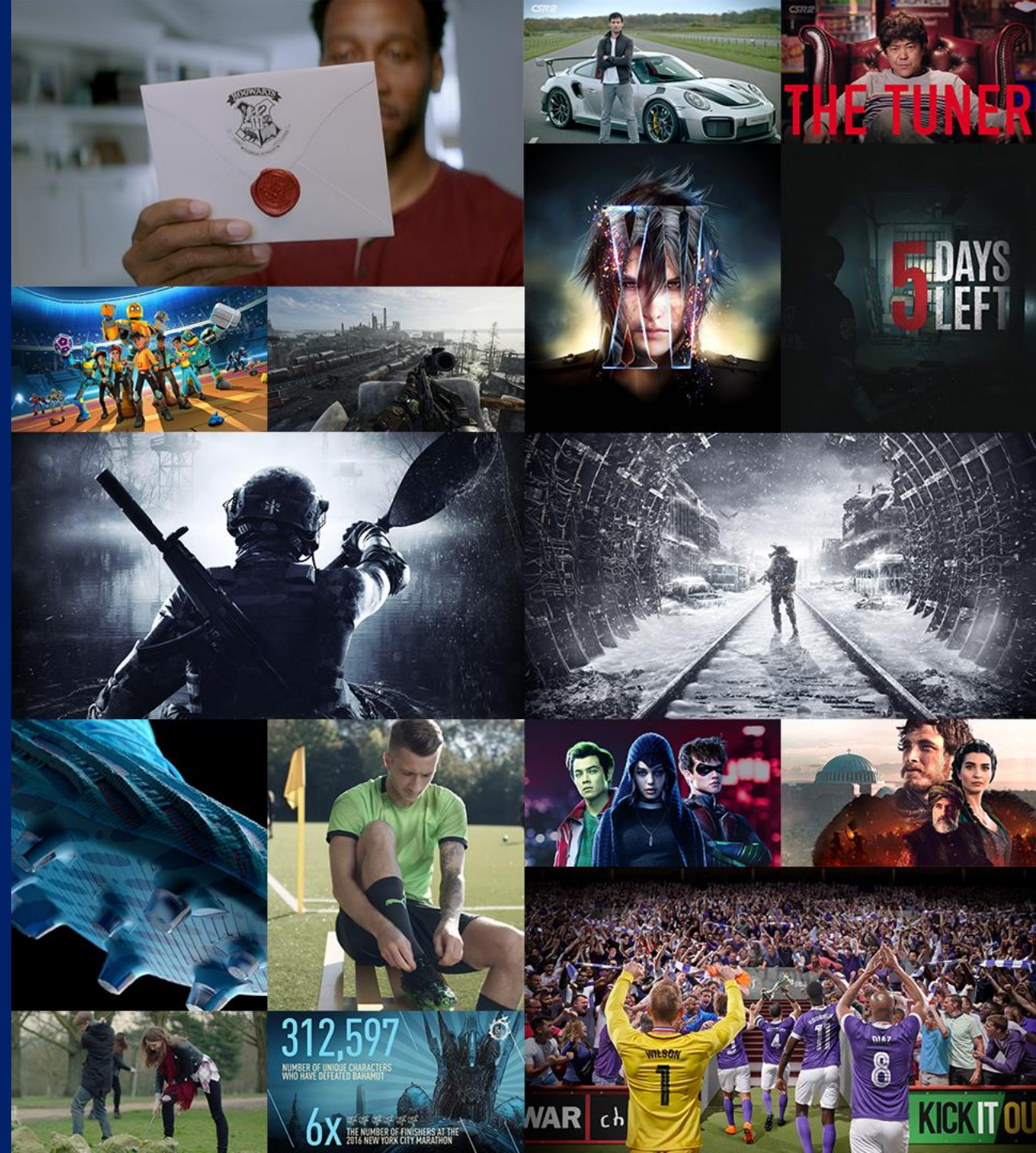
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A KEYWORDS STUDIO

ICHI Worldwide

Liz Corless



ICHI Worldwide

- Creative agency founded in 2009, offices in London and LA
- Core focus on games, but also work on leading entertainment and youth brands
- Strategy, branding, design, video and social content
- Repeat work as important as new business: our first client is still a client



Typical client engagements

Dual process, singular approach

Early-stage Engagement

Working on a title up to three years prior to release

Strategy
Proposition
Branding

Creative
consultants
throughout game
development

Well
positioned
for creative
executions

Standalone or Campaign Work

Brief for delivery within 6-9 months

Embracing
a core
idea/message

High
production
value

Audience
cut-through/
engagement

Strategically Armed Creative

Clarity of concept
Brand cohesion
Creative accountability

Early stage engagement

Metro Exodus

- Initial strategy/branding/artwork began Q4 2016
- Close collaboration throughout development process
- 360 launch campaign assets Q2 2019



METRO EXODUS

WEAPON CLASS

SPECIAL WEAPONS

Standalone creative

CSR2: Legends

- Isolated asset without a campaign
- Clear distillation of nostalgic message = clear takeaway
- High production value, high financial performing asset



CSR2
LEGENDS



Launch campaign creative

Blood & Truth

- Supporting a wider campaign with a marquee asset
- Strategic mixture of live action and VR gameplay to communicate immersion
- Repurposing marquee asset to create more content value





Joining Keywords

Same ICHI, but different

- We'll continue to develop our brand, the team and our core capabilities within the Keywords group
- Integration with Keywords allows us to expand our client base
- Greater collaboration with companies within the Keywords family equals better synergies
- We expect to expand more aggressively in 2020 and beyond



A KEYWORDS STUDIO

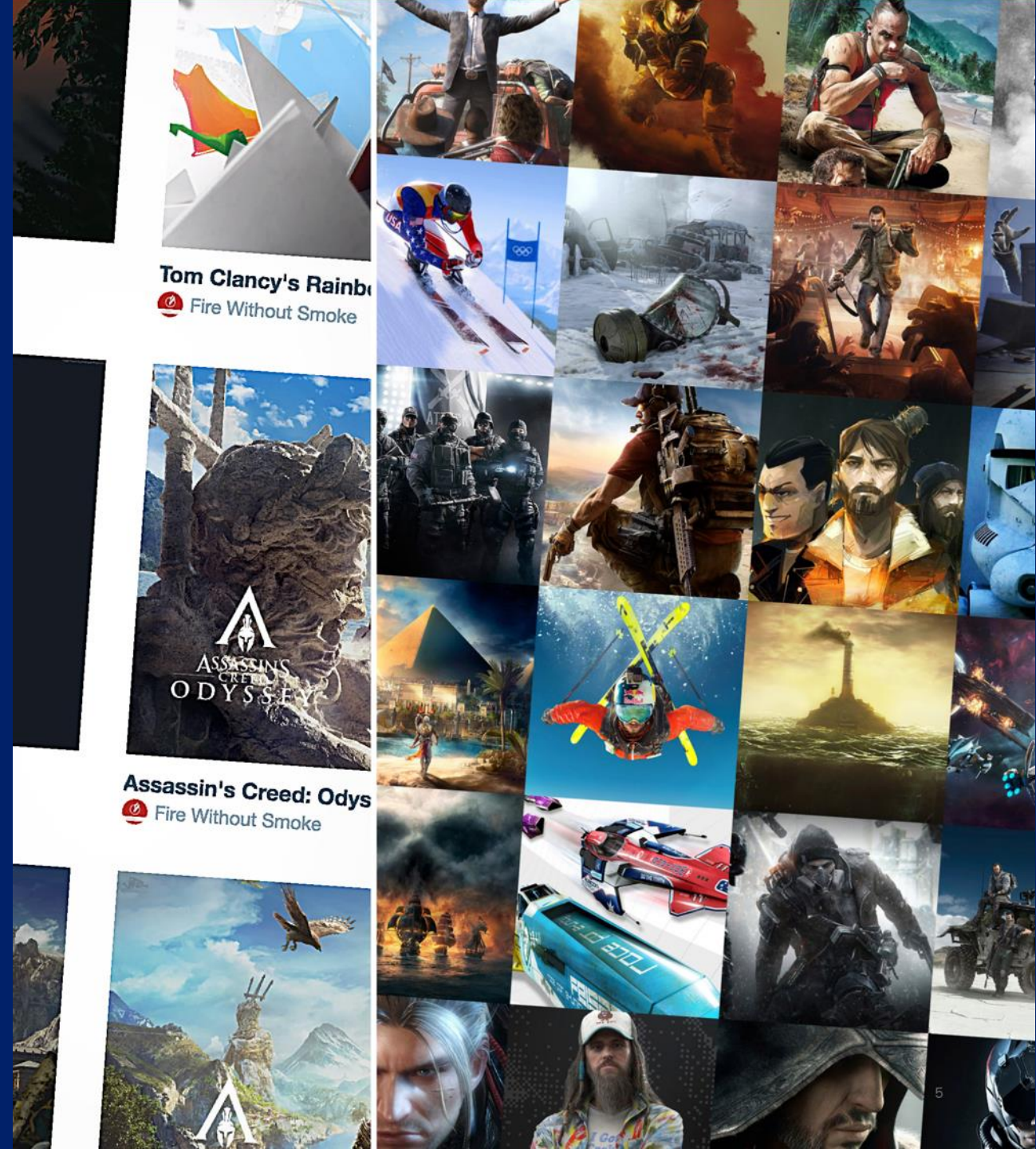


firewithoutsmoke

A KEYWORDS STUDIO

How A Trailer Is Made

Richard Parnes



Fire Without Smoke

Who We Are

We Love Games

- 50+ passionate gamers based in London and Montreal.
- Hundreds of thousands of game hours played.
- Thousands of pieces of game content created.
- Hundreds of happy clients.
- Zero staff turnover.



What We Do

End to End Creative Services



In House Production Services

Script & Copywriting
Art Direction
Narrative & Lore Development
Story boarding

Print & Web Design
Motion Graphics
CG & Cinematics
3D Modelling

In-Game Cinematography
Sequence Editor Capture
Video Editing
Live Action

Social Media Campaigns
Brand Activation Events
Localisation

Technical Support
Marketing Camera Development
Build Testing

**What is unique about us making a
gameplay trailer?**

We make the movie
We're the scriptwriters
We're the actors
We're the director
We're the audience

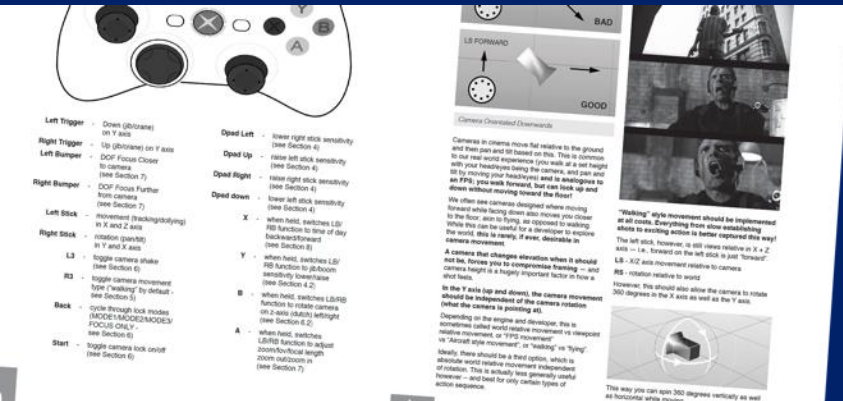
Fire Without Smoke

Thinking Like a Film Maker

The Camera

The Creative

The Team



Left Trigger - Down (obscure) on Y axis

Right Trigger - Up (obscure) on Y axis

Right Bumper - DOF Focus Closer (see Section 7)

Right Bumper - DOF Focus Further from camera (see Section 7)

Left Stick - movement (tracking/staying in X and Z axis)

Right Stick - rotation (yaw/roll) in Y axis and X

R3 - toggle camera shake (see Section 6)

Back - cycle through lock modes (MODE1/MODE2/MODE3/FOCUS ONLY - see Section 6)

Start - toggle camera lock on/off (see Section 6)

Open Left - lower right stick sensitivity (see Section 4)

Open Up - raise left stick sensitivity (see Section 4)

Open Right - raise right stick sensitivity (see Section 4)

Open Down - lower left stick sensitivity (see Section 4)

X - when held, switches L/R/RB function to 1/2 of day (back/forward)

Y - when held, switches L/R/RB function to 3/4 of day (back/forward)

B - when held, switches L/R/RB function to rotate camera (in X-axis (yaw)) left/right (see Section 4.2)

A - when held, switches L/R/RB function to rotate camera (in Z-axis (pitch)) left/right (see Section 4.2)

Camera Orientation Overview

Camera in cinema mode will rotate to the ground and then pan and tilt based on this. This is common with your head when you walk at a set height by moving your hands and arms and eventually to down without moving toward the feet

We often see camera designed where moving forward while being shot also moves you closer to the floor, so to fly, as opposed to walking. This can be useful for a developer to explore camera movement.

A camera that changes elevation when it should rotate, forces you to compromise framing – and camera height is a highly important factor in how a scene is shot.

In the Y axis up and down, the camera rotation should be independent of the camera rotation (what the camera is pointing at).

Depending on the engine and developer, this is sometimes called 'relative movement' vs 'camera' vs 'world' movement, or 'YTP' movement.

Ideally, there should be a 'real' option, which is absolute world relative movement independent of rotation. This is actually less generally useful however – and best for only certain types of action sequences.

This way you can spin 360 degrees vertically as well as horizontally while flying.

CAMERA OPERATION

6 CAMERA MOUNTING

4.1 Camera Dampening / Smoothing / Momentum

Camera dampening/smoothing/momentum is an absolute necessity.

We must be able to change direction mid-shot to react to a player or NPC being in a different path than expected, catch heavy enemies in the physics based collision, or mitigate the difficulty of opening a handheld camera view.

Dampening/smoothing/momentum is as much an effort spent to explain – it will just feel right.

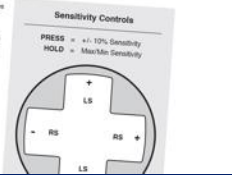
The closest analogue we have to this generally comes in a FPS where the camera is aiming (dependent on the speed of the gun) and the player is moving. The speed of the gun and the player's movement are both important to the camera's damping/smoothing/momentum.

The applies to Y-LB and Y+RB for Y-axis sensitivity.

Sensitivity Controls

PREES + -10% Sensitivity

HOLD + -50% Sensitivity



4.2 Camera Sensitivity

Camera sensitivity in all axis should be as fast as possible.

No movement is useful for looking at a camera once positioned. Maximum speed required is relevant to the game, but it is usually useful to have a camera that moves faster than the fastest moving object in the scene. If your game has lighter guns, for instance, it's speed slightly faster than the player.

Sensitivity adjustment is best configured in 0-1 ranges. A 10% increase will increase the camera's speed by 10% (as opposed to 0.10%, 100%, or 1000% for instance). We suggest 10% increments. It's very easy to say when this is too high, but the game's speed and camera speed are both important to the player's experience.

The applies to Y-LB and Y+RB for Y-axis sensitivity.

6.1 Locking To Characters / Objects

Camera lock modes would allow you to move the camera as normal, but those moves are now relative to the object you lock to.

The three lock modes that are of use to us are:

- Mode 1: Transform Lock To Origin (With Rotation)** - Camera moves with object if it is locked mode. If it does not rotate with it. This is our most used mode. It has a wide range of uses, cinematic and non-cinematic movement.
- Mode 2: Transform Lock to Origin (With Offset)** - If left alone, the camera will stay in position but normally to offset height. Extremity useful for fast moving objects.
- Mode 3: Transform Lock To Origin (With Rotation)** - Camera moves and rotates with the normal camera movement. This is useful for offsetting a frame, at which point you can usually just to find a frame, at which point you can usually just to find a frame.

6.2 Camera Shake / Roll

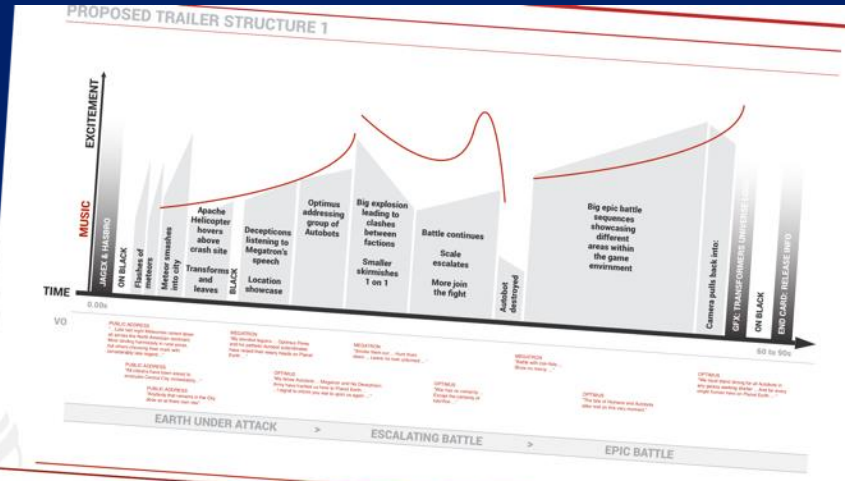
Toggle-on camera shake helps enormously with making a camera feel more organic and real, very subtle – almost unnoticeable – to make a shot feel more real.

'Shaky' (shaking that obscures action) is not the desired effect, however it is the replication of an experienced handheld camera operator.

Shaking should occur in all six axes, to varying degrees.

Generally speaking, a good handheld operator moving on a mostly flat surface will notice:

- roll in the X-axis - moderate (increasing with speed)
- roll in the Y-axis - slight (increasing with speed)
- movement in the Z-axis - very slight - determined by movement of operator
- movement in the Y-axis - slight (increasing to moderate with speed)
- movement in the X-axis - effectively none (determined by movement of operator)



CONCEPT 03 / 'The Dream Conductor' - Act 1

TRAVEL BY MAP

CONCEPT 01 / Concept Overview

CONCEPT 02 / Concept Overview



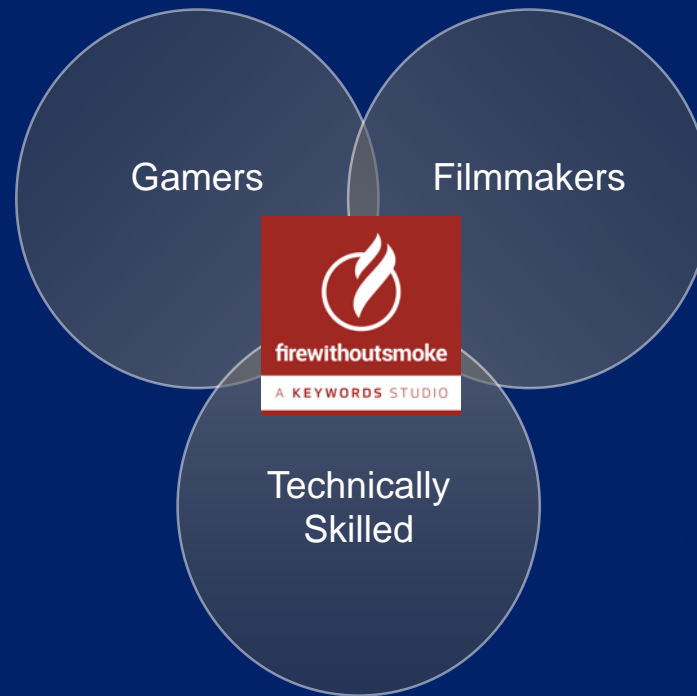

Fire Without Smoke

In Engine Expertise

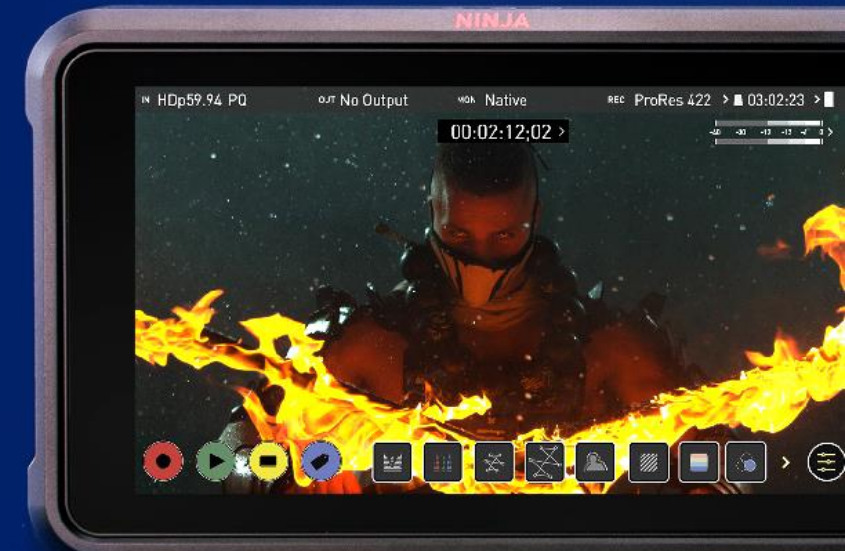
Build Proficiency



The Perfect Mix



The Execution



Fire Without Smoke

The Timeline



Creative



Cinematography



Shoot



Post Production

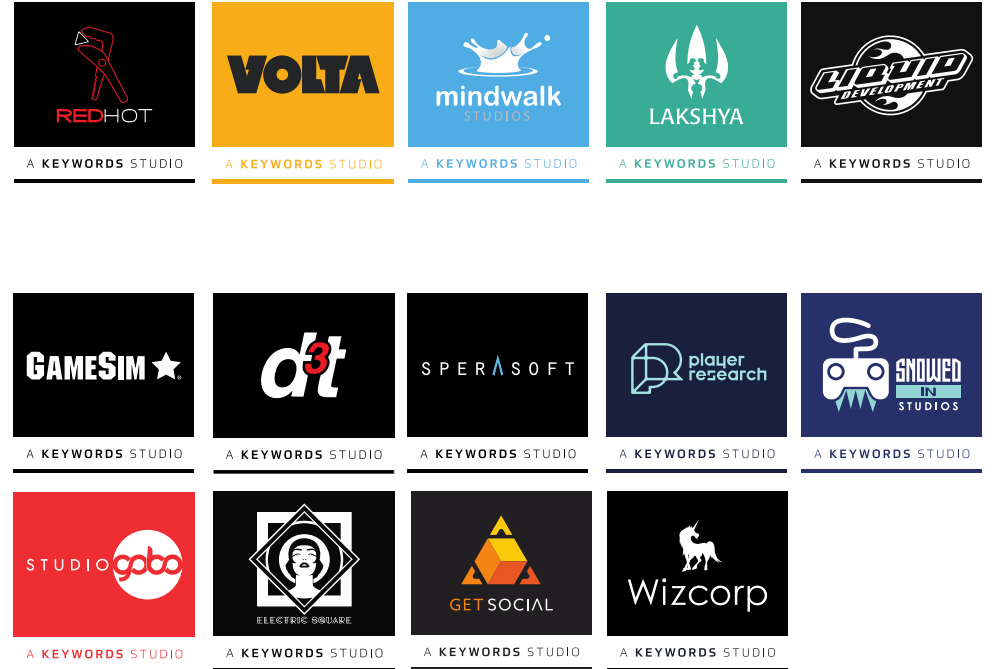
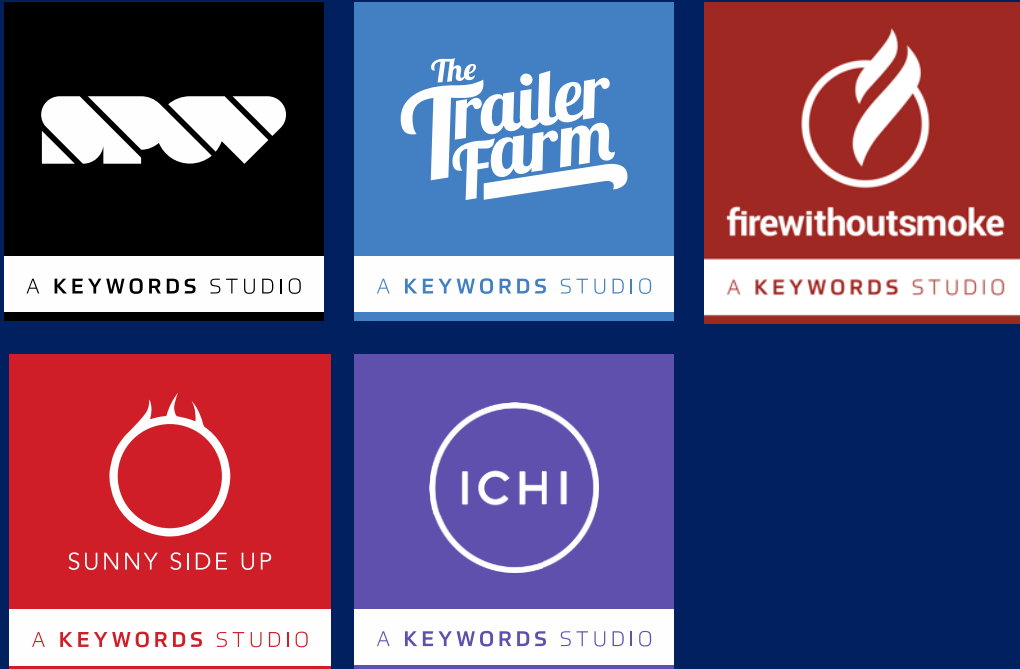


Delivery

Fire Without Smoke

Current Production

Future Production Possibilities



The Trailer Farm

A KEYWORDS STUDIO

Happy Together -
delivering an award
winning game trailer

Hollie Bedwell



Who is The TrailerFarm?

We are a full-service creative agency and production house specialising in video production for the games industry

Founded: 2011

Team Size: 25 in-house

Location: Brighton (United Kingdom)



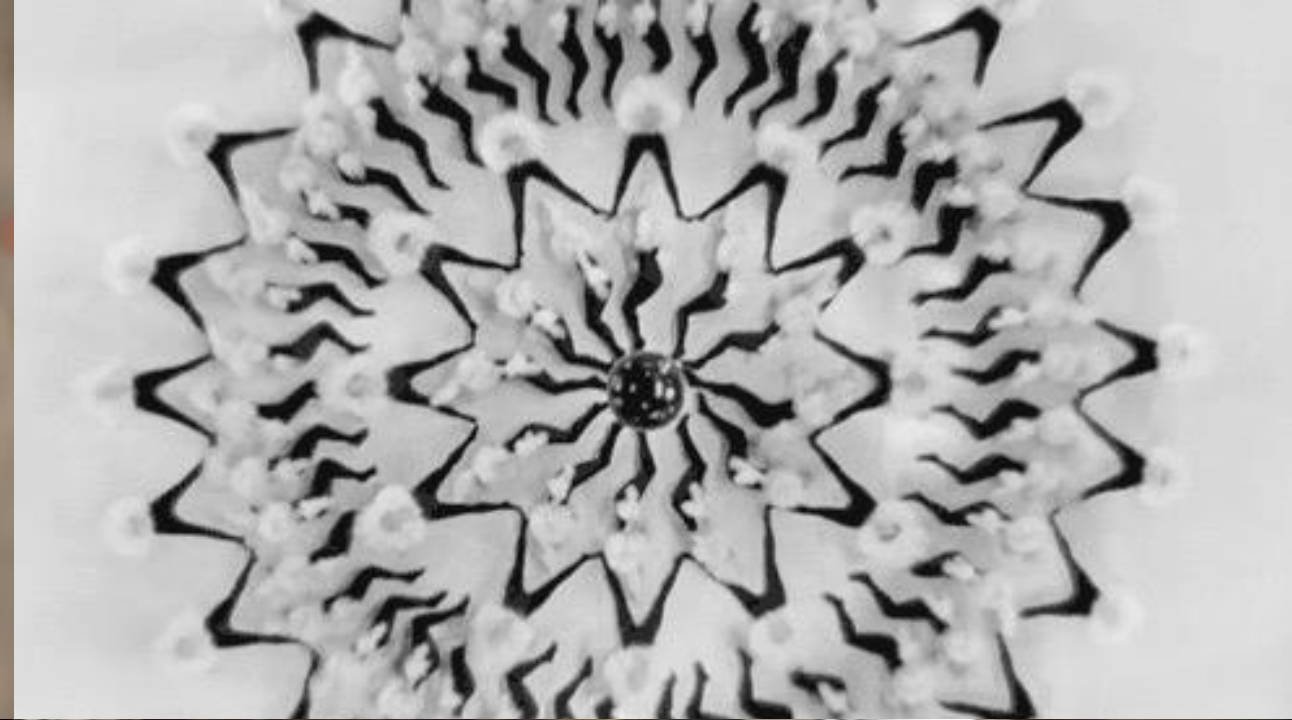


The story of Happy Together

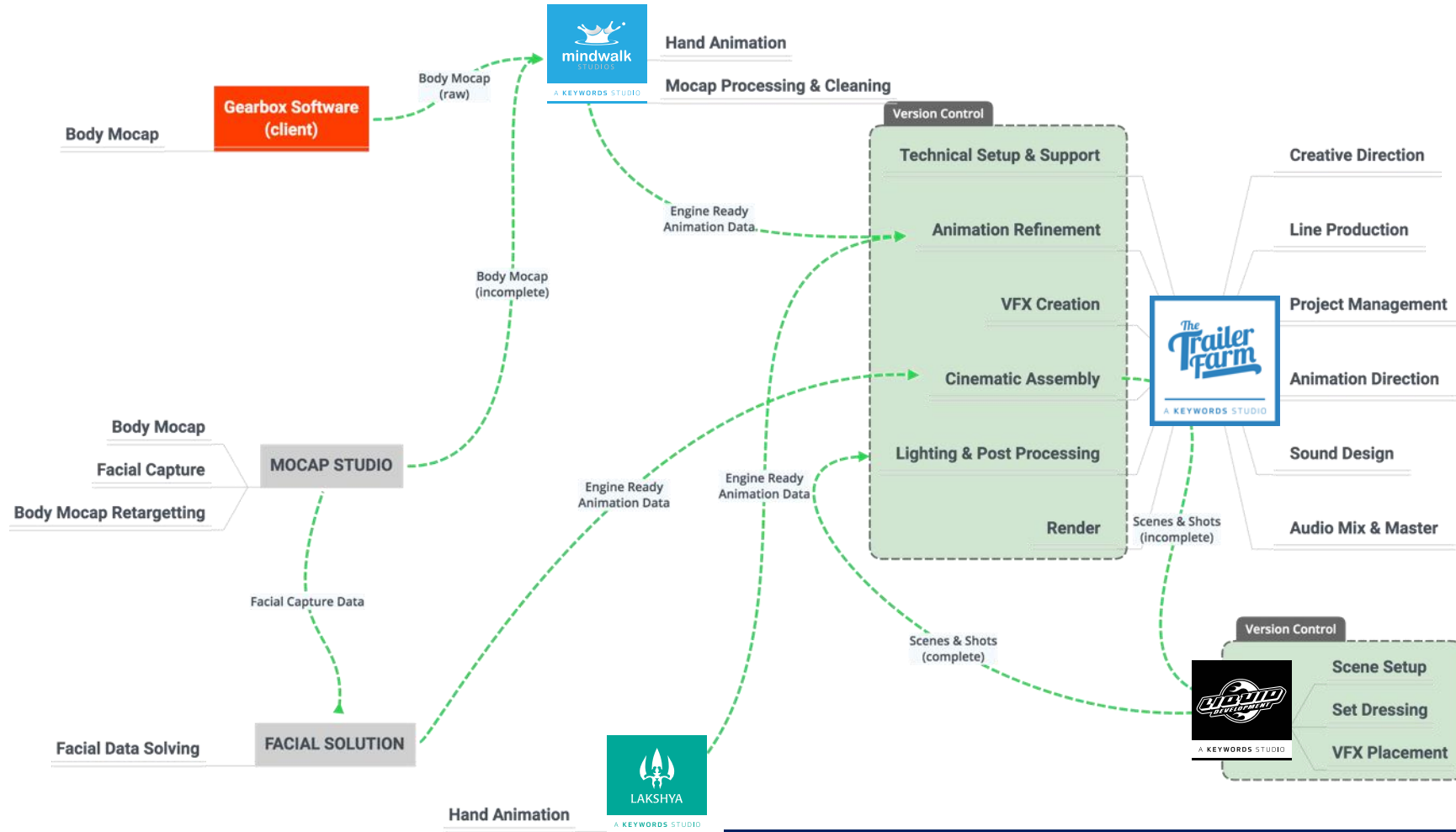
Character trailers - project timeline

Sept 2018	Introductions & studio overview
Mar 2019	2D animatic brief
Early Apr	3D blockout
Late Apr	Full trailer project
End Jun	First delivery
End July	Final delivery

← Final endcard for Borderlands 3 character trailers



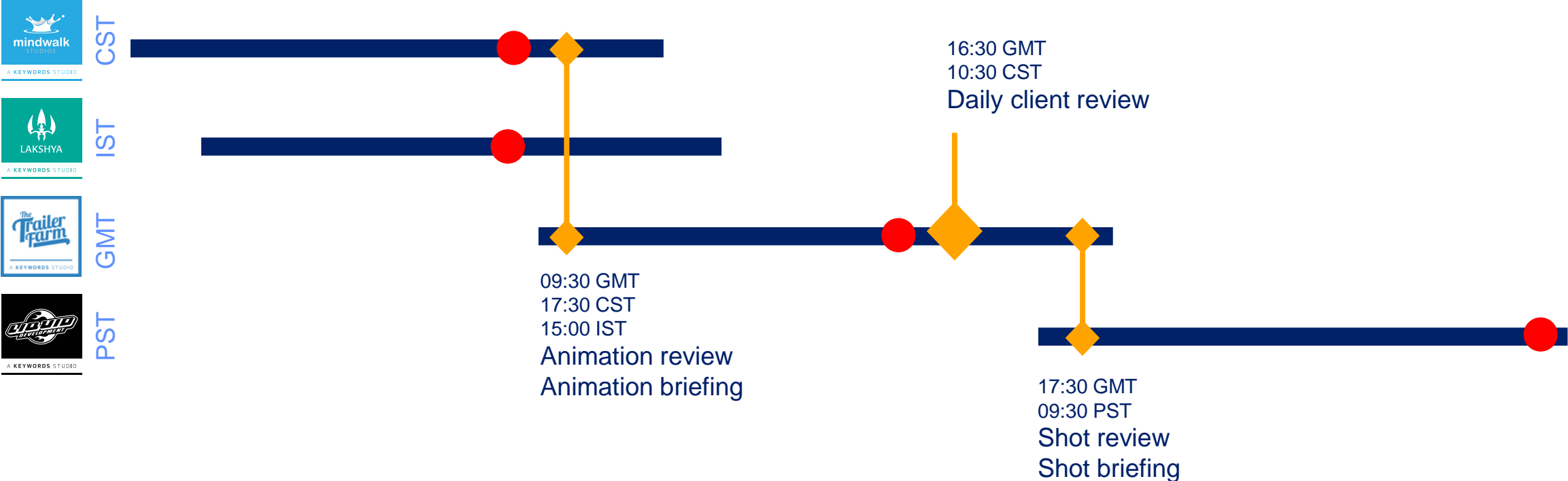
Studio pipeline



24 Hour production

● Submission

◆ Call



We did it!

Quantitative

- Scaled team size from x14 to x40 Keywordians
- Safeguarded 27 other projects and clients that were in production in the studio
- The trailer won two 2019 CLIO Entertainment awards:
 - Silver, Games: Audio/Visual, CGI Trailer
 - Bronze, Games: Audio/Visual Technique, Sound Design

Qualitative

- We worked with trusted studios from within the family
- Fostered key inter-studio working relationships, and friendships!
- Set a level of quality and competency with Gearbox Software

Q&A for service line presenters



Liz Corless



Richard Parnes



Hollie Bedwell

CFO closing remarks

13:45	Registration
14:10	Opening remarks
14:25	Service lines insights
15:10	Panel Q&A
15:20	<i>10 min Break</i>
15:30	Game Development case studies
16:10	Panel Q&A
16:20	Marketing services case studies
16:50	Panel Q&A
17:00	CFO closing remarks & final Q&A
17:30	Refreshments

2019 financial highlights*

FY19 Revenue of approximately €326m (+30%)
15% organic growth

Adj. EBITDA of approximately €49.5m (+13%)
Adj. EBITDA margin 15.2%

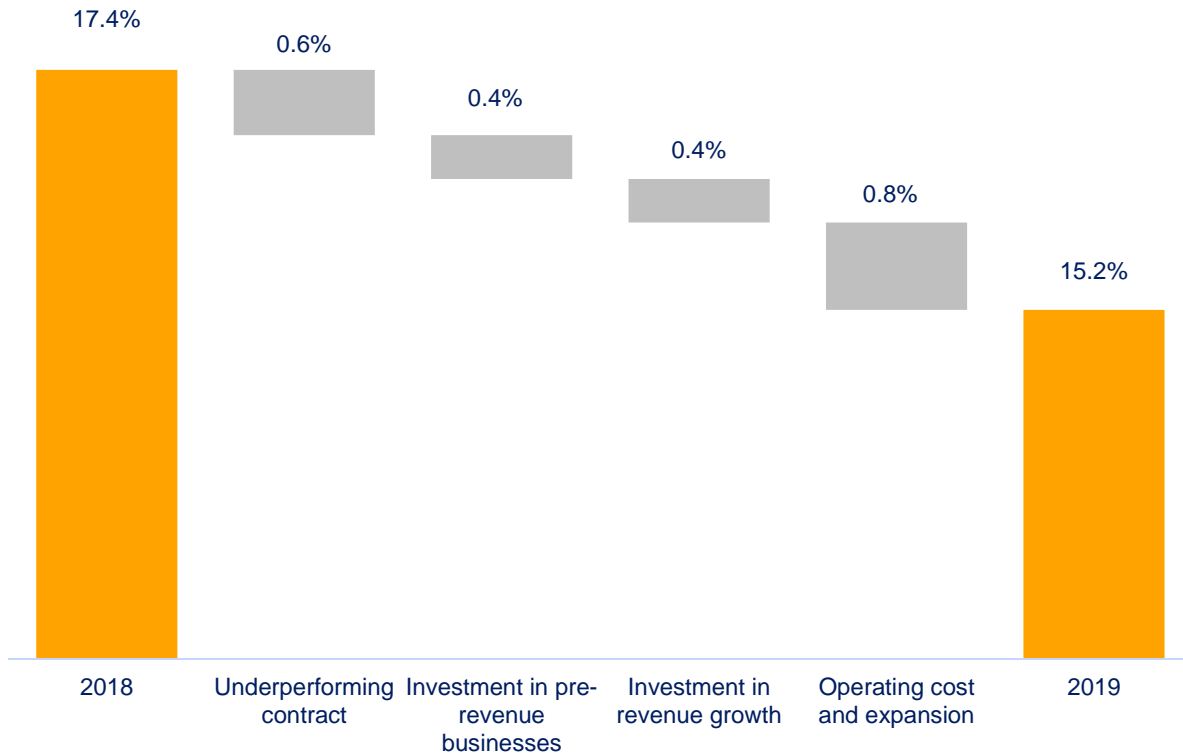
Adj. PBT of approximately €41m (+8%)
Adj. PBT margin 12.6%

8 acquisitions in 2019
€13m for acquisitions in the year

Total M&A spend of €28m
(Acquisitions and €15m in deferred considerations)

Net debt of approximately €18m
(up from €9.0m in H1, €0.4m in 2018)

2019 EBITDA* margin bridge



2019 impacts

- Underperforming fixed price contract finalised at the end of 2019
- Investment in pre-revenue businesses
- Investment to support strong revenue growth – both short term demand and longer term expansion
- Investment in operating costs – improved technology, strengthened management and additional functional support

2020 targets for progress

- Underperforming contract finalised at the end of 2019
- Pre-revenue businesses continue to be evaluated
- Continued investment in growth - should show signs of leverage in 2020
- Leverage OPEX investments through 2020

2019 cash flow*

€m	2019		2018	
	FY		FY	Movt
Adjusted PBT	41		38	3
Movement in MMTC / VGTR	(6)		(0)	(6)
Capex	(14)		(11)	(3)
Other	(7)		(6)	(1)
Adjusted free cash flow	14		21	(7)
Acquisition spend	(32)		(31)	(1)
Dividend	(1)		(1)	(0)
Underlying increase in debt	(19)		(11)	(8)
FX and other items	1		0	1
Increase in net debt	(18)		(11)	(7)
Opening net debt	(0)		11	(11)
Closing net debt	(18)		(0)	(18)
Adjusted free cash flow	14	46%	20	65%
Add back MMTC / VGTR	6		0	
Adjusted free cash flow before MMTC / VGTR	20	66%	21	66%
Add back capex ahead of depreciation	6		6	
Underlying free cash flow	26	85%	27	84%

Key movements

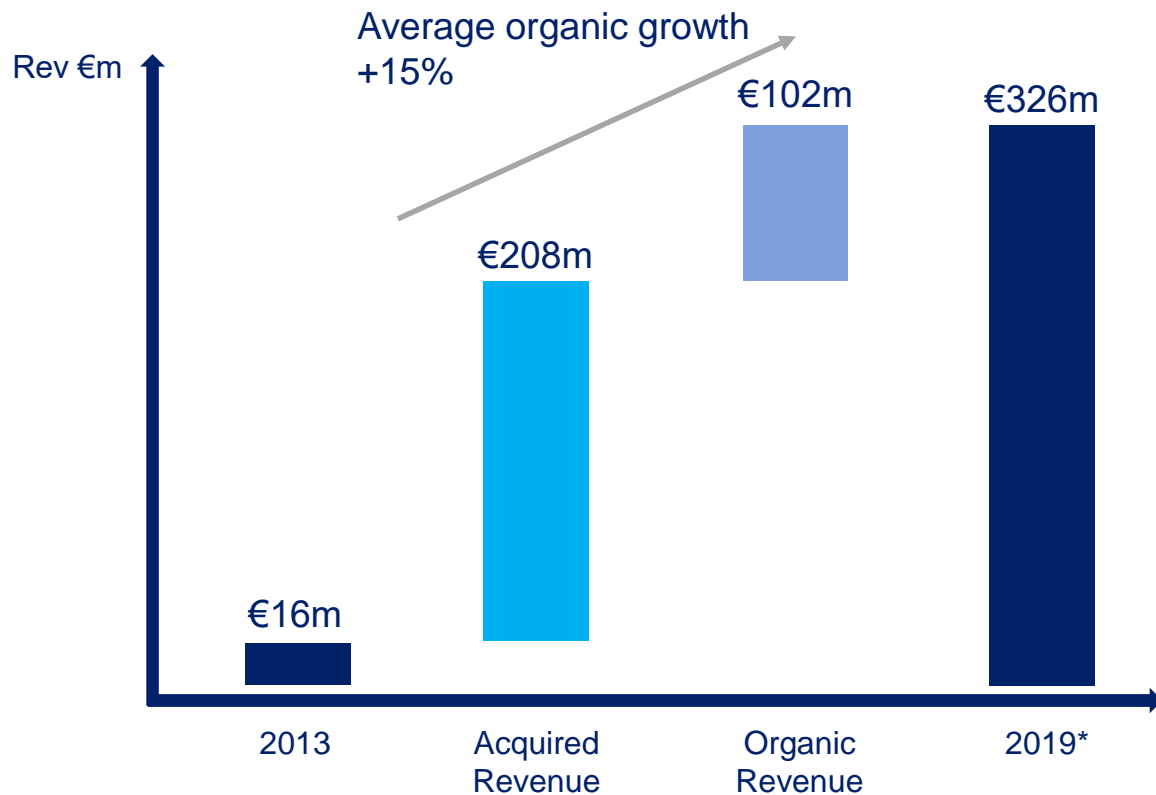
- €7m reduction in adjusted free cash flow after tax driven by:
 - €6m timing difference for MMTC/VGTR credits reflecting the strong growth in Canada and the UK
 - Capex spend expanded as we invested behind growth
- Acquisition and integration spend of €32m including €15m deferred consideration for prior year acquisitions
- Increase in net debt of approximately €18m versus €11m in 2018
- Increase in underlying adjusted free cash flow conversion of 85% up from 84% in the prior year

Barriers to entry

- **Scale** - Large clients need large suppliers
- **Global presence** – proximity to talent and clients, multiple time zones
- **Knowledge and expertise** – Breadth and depth of capability
- **Technology** - Regular investment, security
- **Scalable model** – flexibility to meet clients needs
- **Acquisition track record** – disciplined, build out the platform, cultural fit, integration
- **Financial strength** – performance, stability and resilience
- **Reputation for quality** – culture of delivery



Building a global service delivery platform through M&A and organic investments



44 targeted acquisitions across 18 geographies:

- Building out global service line platform
- Achieving scale (e.g. Functional Testing in North America)
- Geographic proximity to customer and labour pools

Disciplined and targeted investments - €208m of 'acquired' revenue at ~1.2x revenue multiple

Complemented by strong organic revenue growth through organic investments and benefits of service platform

Keywords structural growth drivers

- 2020 console cycle
- Organic growth
- Selective acquisitions
- Building platform
- Platform
- Integration
- Scale

“Keywords Studios is becoming the ‘go to’ provider for external development services”

Final Q&A



Andrew Day



Jon Hauck