

Keywords Studios

Deeper, wider, higher

FY17 was a transformative year for Keywords with revenues growing by 57% and EPS by 52%. Like-for-like revenue growth accelerated to 15.1% (we estimate 18% stripping out recent acquisitions) highlighting the company's strengthened position in the supply chain. With an expanded debt facility, we believe the company potentially has the acquisition firepower to more than double its EPS run rate exiting FY18, and see no obvious reason why the cycle should not repeat in FY19. The shares price in further strong progress, but nothing is new there, and sustained execution should continue to drive strong returns.

Vasasad	Revenue	PBT*	EPS*	DPS	P/E	Yield
Year end	(€m)	(€m)	(c)	(p)	(x)	(%)
12/16	96.6	14.9	20.3	1.3	99.0	0.08
12/17	151.4	23.0	29.9	1.5	67.1	0.08
12/18e	248.5	36.7	46.8	1.6	42.9	0.09
12/19e	276.0	40.9	50.9	1.8	39.5	0.10

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

15.1% like-for-like growth, 52% growth in EPS

FY17 was a transformative year for Keywords with revenues growing by 57% to €151.4m (Edison €150.5m). Like-for-like (I-f-I) growth of 15.1% highlights the strength of the company's proposition, within a games industry that was estimated by Newzoo to have grown by 10.7% over the same period. Stripping out recent acquisitions, we believe that I-f-I growth was closer to 18%. Adjusted PBT grew by 53% to €23.0m (Edison €22.5m) and adjusted EPS nearly kept up, growing by 53% to 29.9c (Edison 29c), highlighting the company's ability to make accretive acquisitions. Year-end net cash of €11.1m and a new €75m facility (with the potential to extend to €105m) give the company plenty of firepower to continue with its acquisition strategy.

Platform strengthened, more to come

The acquisition of VMC and the company's move into engineering (GameSIM, d3t, Sperasoft) strengthen the company's platform for forging deeper relationships with clients and offering higher value-added services. The company reports some encouraging early wins for co-development services where significant parts of or even full games are developed on behalf of game developers or publishers. The pipeline for further deals looks strong, and the two smaller tuck-in acquisitions announced with the results contribute to a 3% EPS upgrade for FY18 and 19.

Valuation: Sustained execution should deliver returns

Over the past five years, Keywords has generated a revenue and EPS CAGR of 77% and 53%, respectively. Scale effects will come into play but we believe the company has the platform and runway to continue delivering strong double-digit EPS growth. The 40x FY19 P/E clearly prices in continued strong progress, but acquisitions and organic upside can bring this down substantially. We believe that sustained execution should continue to deliver returns.

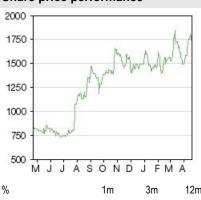
Full-year results

Software & comp services

20 April 2018

Price	1,746p
Market cap	£1077m
	£/€1.15
Net cash (£m) at end FY17	11.1
Shares in issue	61.7m
Free float	83%
Code	KWS
Primary exchange	AIM
Secondary exchange	N/A

Share price performance



%	1m	3m	12m
Abs	4.9	20.1	123.4
Rel (local)	1.2	26.0	116.4
52-week high/low	1,8	44.0p	730.5p

Business description

Keywords Studios is now the largest and most diverse supplier of outsourced services to the games industry. Through regular acquisitions, the company is building its scale, geographic footprint and delivery capability. Its ambition is to become the 'go-to' supplier across the industry.

Next events

AGM End May 2018

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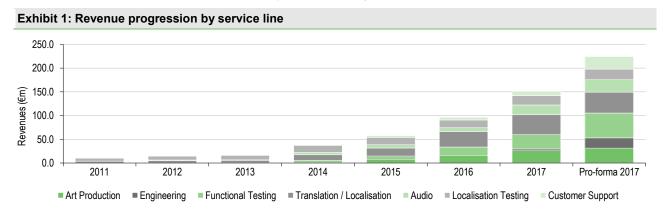
Investment summary

Through a combination of robust organic growth and acquisitions, Keywords has transformed itself from a small specialist supplier of localisation services to the largest and most diverse supplier of services to the global games development industry.

FY17 was the company's most transformational yet, with 11 acquisitions completed for a total €99m consideration (of which €87m was cash), including two of the company's largest to date – VMC for \$66.4m and Sperasoft for \$27m.

Customer depth and diversification

Through its seven service lines, the company now provides service spanning most of the games development cycle – from original concept to going live. The company has a presence in most of the major games development hubs and services 23 of the top 25 games companies globally with no customer accounting for more than 10% of revenues. At the same time, the number of clients using three or more of the Keyword's services rose to 93 from 64 last year, boosted by acquisitions and the improved opportunity for cross selling as the portfolio is expanded.



Source: Company data, Edison Investment Research

Closer to the core; more strategic relationships

A key feature of recent M&A has also been the company's move into domains that are closer to the core games creation operations. This process started with the company's move into art (six acquisitions over the last 24 months) while 2017 saw the company take its first steps into engineering (with the acquisitions of GameSim, d3t and Sperasoft). The acquisition of VMC established the group as the leading global provider of functional testing services, expanding the company's capability to include a global beta testing network and testing services embedded at the client's site.

Promising progress in co-development

This evolution is key to enabling the group to establish deeper, multi-faceted strategic relationships with its client base and early signs are positive. The company has reported a number of early wins for co-development services, whereby clients essentially outsource significant parts of, or even full, games to Keywords. Examples cited by management include remastering an older game as part of a port to a new platform, being chosen as the only external studio (of a total of five or six) to develop a complete segment of a game or developing a complete game.



Platform for sustained organic growth

Accelerating organic growth highlights strengthened position

Keywords reported I-f-I growth of 15.1% in FY17, accelerating from 12% in FY16, although we believe that underlying performance was actually stronger than this, in the 18–20% range. This is because the company reports its like-for-like figures including the pro-forma contribution of acquisitions made during the period. Keywords has a demonstrable track record in accelerating the growth of the company's it acquires, but major acquisition activity in FY17 was back-end weighted and therefore there was not much time for revenue synergies to come through.

We estimate that like-for-like growth excluding in-year acquisitions was c 18%. Stripping out just VMC (pro forma revenues of €50m), which is a turnaround and has not been growing, we estimate I-f-I growth was closer to 20%. Moreover, I-f-I growth in H1 (as reported at the interims), not including VMC, was 17%, implying that I-f-I growth (ex VMC) accelerated in H2.

Outgrowing the games industry

The I-f-I growth rate is also well above that of the 10.3% for the global games industry estimated by Newzoo, we believe driven by a combination of growth in the outsourcing market overall and by market share gains.

The market for outsourced services should continue to outgrow its host

We believe that the trend towards outsourcing in the games industry could accelerate, driven by consolidation in the games production industry, the increased complexity of games, the adoption of leaner operating structures and the industry's shift to a much more recurring, franchise-based subscription model (demanding regular content updates). The extent to which outsourcing has been adopted varies by service line (Exhibit 2), but management believes c 50% of spend in the services it offers is currently outsourced and that this will move to 70–80% over the next five years. This would imply a low- to mid-teens CAGR for the outsourcing industry over this period.

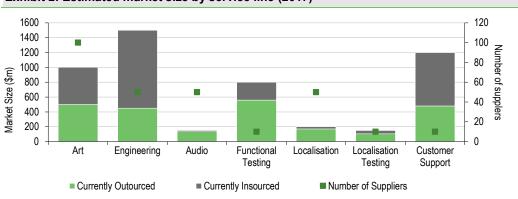


Exhibit 2: Estimated market size by service line (2017)

Source: Keywords Studios, Edison Investment Research

Market share gains and deeper customer relationships

We believe Keywords is well placed to continue gaining market share. The outsourcer supplier landscape remains over fragmented and we believe a greater proportion of business will gravitate to players with more scale, stronger processes and financial strength. As the company's platform grows, so does its platform for cross-selling and developing deeper relationships with clients.



Healthy M&A pipeline, plenty of headroom

M&A activity resumed in April, following a brief pause for breath in Q1, with two smaller tuck-in acquisitions to enhance the audio service line announced with the results. The acquisition of Cord Worldwide and Laced Music, both acquired from Cutting Edge Group for £4.5m (€5.3m), add capabilities in music to complement the company's voice audio capability for a modest 7x PBT multiple. Maximal adds voiceover recording capability in Brazil for an initial cash consideration of €0.3m, with a performance-related deferred consideration of up to €0.2m.

The company reports a healthy pipeline. As in other years, this is likely to include a number of smaller tuck-in acquisitions such as Cord, Laced and Maximal, together with one or two larger, more strategic ones. We expect further activity in engineering as the company builds out its codevelopment operations, while Game Trailers and Analytics have been flagged as potential new areas in which to expand.

The company's headroom to pursue its strategy has been significantly expanded by agreeing terms for three year €75m bank facility, replacing the current €35m facility with the option to extend this to €105m. Factoring in the reinvestment of free cash flows, the €75m facility should give the company at least €90m firepower, which could be deployed before Y/E18. Even without factoring in the EBITDA or cash flows contributed by future acquisitions, this would still leave net debt/EBITDA below a comfortable 1.5x level.

Deployment of capital could support a doubling of EPS in FY18

The earnings accretion driven by future acquisitions is clearly core to Keywords' investment case. While it is not possible to forecast future acquisitions, our scenario analysis in Exhibit 3 examines the potential impact that further acquisition activity could make to EPS over the course of the next 12 months. We assume that the company deploys €95m of cash in acquisitions between now and the end of FY18 and that these acquisitions are two-thirds funded by cash and one-third by equity at 1,750p.

We point out that this analysis is for illustrative purposes and not a forecast. However, it does suggest that if Keywords can maintain a low double-digit organic revenue growth rate and continue making acquisitions at a similar scale to FY16/17 at a 7–10x PBT level, the group's EPS exiting FY18 could reasonably reach c 75c, more than double the FY17 figure and c 60% above our current FY18 EPS estimate. With additional capital from equity and following the company's acquisitive strategy, the cycle could then repeat into FY19.

Exhibit 3: Scenario analysis - EPS run rate exiting FY18 based on varying organic growth and average acquisition multiples (cents), assuming €95m of capital is deployed Average EV/PBT paid for acquisitions FY18 80 80 90 100 11 0 12 0 5.0% 73.9 71.0 68.7 66.8 65.2 Organic growth 10.0% 76.5 73.6 71.3 69.4 67.8 15.0% 79.1 76.2 73.9 72.0 70.4 20.0% 81.8 78.9 76.5 74.6 73.0 84 4 815 79 1 77.2 75.6 25.0% Source: Edison Investment Research

Other key assumptions and comments

Acquisitions are funded two-thirds by cash, one-third by equity (similar to many historical deals), with the shares priced at 1,750p (current share price at the time of writing). As we have seen with VMC, strongly accretive acquisitions can also be funded by raising equity, but there are too many variables to build such deals into this analysis.

If €95m is deployed progressively over 2018, the company should remain comfortably within a 2x net debt/EBITDA ratio.



- Operating cash flows generated by future acquisitions are not recycled to fund further acquisitions.
- No margin expansion of acquired entities after the acquisition and all acquisitions are accretive.
- 3% cost of debt on cash spent in acquisitions.

Financials and estimates

Organic performance and acquisitions prompt a further nudge up to estimates

We upgrade our FY18 and FY19 EPS by 3% small organic upgrades and the acquisitions, but see plenty of scope for the organic and acquisition upgrade cycle to continue (see Exhibit 4 below).

€000s	2016 2017				2018e			2019e		
	Actual	Estimate	Reported	Change (%)	Old	New	Change (%)	Old	New	Change (%)
Revenue	96,585	150,525	151,430	1	239,710	248,526	4	258,887	276,041	7
Cost of sales	(59,907)	(96,136)	(96,345)	0	(154,479)	(159,270)	3	(165,987)	(177,015)	7
Gross profit	36,678	54,388	55,085	1	85,231	89,256	5	92,899	99,026	7
EBITDA	16,893	25,892	26,645	3	40,859	42,320	4	44,978	47,066	5
Operating profit (before amort. and except.)	15,090	22,991	23,915	4	36,240	37,531	4	39,990	41,747	4
Profit before tax (norm)	14,864	22,531	23,043	2	35,780	36,659	2	39,530	40,875	3
Profit after tax (norm)	11,641	17,800	18,312	3	28,624	29,401	3	32,019	33,109	3
EPS - normalised fully diluted (c)	20.3	29.0	29.9	3	45.6	46.8	3	49.2	50.9	3
EPS - (IFRS) (c)	11.2	13.1	12.4	(6)	35.1	33.3	(5)	40.8	41.2	1
Dividend per share (pence)	1.3	1.5	1.5	0	1.6	1.6	0	1.8	1.8	0
Closing net debt/(cash)	(8,650)	(12,133)	(11,094)	(9)	(29,699)	(25,990)	(12)	(54,265)	(47,438)	(13)

Our FY18 revenue forecast of €249m assumes 7.8% like-for-like growth rate on FY17 pro-forma revenues of €224.4m, although on a constant currency basis, this is more like 13%, due to the c 8% ytd weakening of the US dollar vs the euro. In FY17, 46% of revenues were US\$ denominated but this will grow with the VMC and Sperasoft acquisitions. Costs are typically well matched with revenues, so the impact is largely translational.

We also need to take into account that VMC is likely to be a continued drag on like-for-like growth given the restructuring being implemented.

Nevertheless, given the company's recent accelerating growth profile and good progress in winning co-development services, we see good potential for our forecasts to move up again as the year progresses.

Incremental margin invested back into growth

Operating margins were broadly flat year-on-year at 15.8% in FY17. Our forecast drop to 15.1% factors in the absorption of VMC (which contributed at 11% margin from acquisition to FY17), with expansion again in FY19 as VMC restructuring benefits are released.

We believe there is scope for margins to expand, driven by scale and operational efficiencies but whether this happens depends on how management chooses to balance margins versus growth. Recent performance clearly indicates that investing incremental margin back into growth generates a strong ROI.



Tax efficiencies support EPS growth

Effective tax planning has enabled the group to reduce its tax rate from 22.9% in FY15 to 20.5% in FY17. We expect this trend to continue, with the group making good use of the low corporate tax rate in Ireland supported by the federal corporate tax rate reductions.

Robust cash generation for the underling business

While operating cash flows dropped to €13.6m from €15m in FY16, this was depressed by significant acquisition related items, particularly relating to VMC and the underlying business continues to generate healthy cash flows. Adjusting out these items operating cash flows would have been €21.9m vs €23.9m adjusted operating profit.

	FY15	FY16	FY17	FY18e	FY19e	Comment
Year-end revenue run rate				New	New	
Annual run rate of in-year acquisitions	12.0	39.4	92.3	8.9	0.0	
Group year-end revenue run rate	62.6	111.7	224.5	250.9	276.0	
Reported revenues						
Contribution from acquisitions in year	7.3	24.2	19.6	6.5	0.0	H2 weighting of major acquisition activity in FY17.
Revenues excl in-year acquisitions	50.7	72.4	131.8	242.0	0.0	
Reported revenues	58.0	96.6	151.4	248.5	276.0	
Annual run rate of in-year acquisitions	12.0	39.4	92.3	8.9	0.0	
Group year-end revenue run rate	62.6	111.7	224.5	250.9	276.0	
Like-for-like growth (inc current year acquisitions)	0%	12%	15%	0%	0%	FY18e c 13% in constant currency.
Like-for-like growth (ex-current year acquisitions)	na	na	18%	8%	10%	
Gross profit (exc tax credit)	20.5	34.4	50.7	83.3	93.0	
Gross margin	35.4%	35.6%	33.5%	33.5%	33.7%	
Tax credit	1.3	2.3	4.4	6.0	6.0	Increases due to VMC.
Total operating expenses	(13.6)	(21.6)	(31.2)	(51.7)	(57.3)	
Operating expenses as a % of sales	23.5%	22.4%	20.6%	20.8%	20.8%	
Adj operating income	8.2	15.1	23.9	37.5	41.7	
Operating margin	14.1%	15.6%	15.8%	15.1%	15.1%	Absorbing investment and lower margins of VMC (11% margin in FY17). Release of VM cost synergies could result in expansion in F19, but we assume ongoing investment back into growth.
Interest	(0.3)	(0.3)	(0.9)	(0.9)	(0.9)	
PBT	8.0	14.9	23.0	36.7	40.9	
Tax	(1.8)	(3.2)	(4.7)	(7.3)	(7.8)	
Tax rate	(22.9%)	(21.7%)	(20.5%)	(19.8%)	(19.0%)	Tax rate reducing by 100bp pa.
Adj net income	6.2	11.6	18.3	29.4	33.1	
Ave diluted number of shares (m)	49.0	57.7	61.2	62.8	65.1	
EPS FD	12.6	20.2	29.9	46.8	50.9	

Valuation

Sustained execution should drive robust returns

The company's rating of 43x FY18e earnings, dropping to 40x in FY19e, is a substantial premium to peers (average c 27x for FY19e). The company's track record of generating earnings growth is exceptionally strong; over the past five years Keyword's has generated a revenue and EPS CAGR of 77% and 53% respectively. The company's price/earnings growth ratio (PEG) for FY16/18 is a modest 0.8x.

Moreover, this is a business with a leading market position within a structural growth market and a strategy for strengthening this further, while enhancing its earnings whilst it does so. As a result, we believe that the company has a platform to continue generating robust double-digit earnings growth



without deviating from its current strategy or expanding beyond its core games developer customer base.

Moreover, acquisitions should bring these multiples down substantially. We believe that our like-for-like growth estimates are conservative and there is scope for margin expansion.

As highlighted in Exhibit 3, deployment of the company's acquisition capital could bring the multiple down to c 30x by the end of FY18. With plenty of financial headroom to continue executing its current strategy, Keywords' earnings growth potential should look equally strong looking into 2019 and beyond.

In summary, it is difficult to see a catalyst for a further upwards rating in the short term but if the company continues executing as it has done, it should also continue to deliver robust investor terms on a medium-term time horizon.

Company	Quoted	Current price	Market	EV/sales	EV/sales	EV/EBITDA	EV/EBITDA	P/E	P/E
	currency	(ccy value)	cap m (\$)	FY1 (x)	FY2 (x)	FY1 (x)	FY2 (x)	FY1 (x)	FY2 (x)
Outsourcing									
Keywords Studios	GBP	1,750.0	1,080	4.4	3.9	25.7	23.1	43.0	39.6
Hearts United Group	JPY	1,544.0	348	2.1	1.8	N/A	N/A	28.0	19.2
Learning Technologies Group	GBP	80.8	636	9.1	8.2	30.6	28.1	40.7	38.8
RWS Holdings	GBP	450.0	1,702	4.0	3.6	17.9	16.1	24.5	22.4
Poletowin Pitcrew Holdings	JPY	2,197.0	395	1.6	1.5	N/A	N/A	25.5	19.7
SDL	GBP	430.0	490	1.1	1.0	11.7	10.4	17.0	15.4
Sumo Group	GBP	106.5	214	7.4	6.1	25.8	20.1	26.6	21.7
Wipro	USD	5.5	24,835	2.7	2.6	13.2	12.4	20.6	19.5
Zoo Digital Group	GBP	77.0	78	2.9	2.6	35.8	24.9	118.5	56.1
Average				3.9	3.4	22.5	18.7	37.7	26.6
Games Developers									
Activision Blizzard	USD								
Bandai Namco Holdings	JPY	75.1	56,973	7.5	7.0	19.3	17.1	28.6	25.0
Electronic Arts	USD	3,410.0	7,143	0.9	0.8	6.4	5.9	16.3	14.4
Frontier Developments	GBP	126.1	38,678	6.7	6.2	19.5	16.5	29.4	25.2
Konami Holdings	JPY	1,150.0	612	13.5	6.9	56.9	19.0	359.4	35.5
Square Enix Holdings	JPY	5,550.0	7,515	2.7	2.6	10.1	9.1	22.2	19.7
Take-Two Interactive Software	USD	4,585.0	5,295	1.7	1.6	9.5	8.4	21.4	19.0
Ubisoft Entertainment	EUR	111.9	12,805	5.7	4.0	23.0	14.4	34.7	22.3
Average		66.8	9,220	4.6	3.7	9.3	7.6	35.2	25.4



	000s 2016	2017	2018e	2019€
31-December	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS	20.505	151 100	0.40.500	070.04
Revenue	96,585	151,430	248,526	276,041
Cost of Sales	(59,907)	(96,345)	(159,270)	(177,015
Gross Profit (inc multimedia tax credits)	36,678	55,085	89,256	99,026
EBITDA	16,893	26,645	42,320	47,066
Operating Profit (before amort. and except.)	15,090	23,915	37,531	41,747
Intangible Amortisation Exceptionals	(1,629)	(3,038)	(4,000)	(4,400
Other	(1,316) (686)	(3,016)	(2,784) (1,854)	(2.410
Operating Profit	11,459	(1,426) 16,435	28,893	(2,410)
Net Interest	(287)	(872)	(872)	(872
FOREX	(1,737)	(3,569)	(072)	(012)
Profit Before Tax (norm)	14,864	23,043	36,659	40,875
Profit Before Tax (FRS 3)	9,435	11,994	28,021	34,065
Tax	(3,223)	(4,731)	(7,259)	(7,766
Profit After Tax (norm)	11,641	18,312	29,401	33,109
Profit After Tax (FRS 3)	6,212	7,263	20,763	26,299
Average Number of Shares Outstanding (m)				
EPS	55.9	58.7	62.4	63.8
EPS - normalised (c)	20.9	31.2	47.1	51.9
· /	20.3	29.9	46.8	50.9
EPS - (IFRS) (c) Dividend per share (p)	11.2 1.33	12.4 1.46	33.3 1.61	41.2 1.77
Gross Margin (%)	38.0%	36.4%	35.9%	35.9%
EBITDA Margin (%)	17.5%	17.6%	17.0%	17.1%
Operating Margin (before GW and except.) (%)	15.6%	15.8%	15.1%	15.1%
BALANCE SHEET				
Fixed Assets	61,873	143,872	146,543	144,189
Intangible Assets	55,495	132,555	133,448	130,049
Tangible Assets	5,498	10,111	11,889	12,934
Investments	880	1,206	1,206	1,206
Current Assets	38,677	80,182	102,737	127,699
Stocks	0	0	0	(
Debtors	13,879	27,473	35,133	38,646
Cash	17,020	30,374	45,270	66,718
Other	7,778	22,335	22,335	22,335
Current Liabilities Creditors	(27,830)	(52,503)	(47,187)	(43,216)
Short term borrowings	(19,805)	(33,560)	(28,244)	(24,273)
Long Term Liabilities	(8,025)	(18,943)	(18,943)	(18,943)
Long term borrowings	(6,016) (345)	(10,420)	(10,365)	(10,365)
Other long term liabilities	(5,671)	(10,083)	(10,028)	(337)
Net Assets	66,704	161,131	191,728	218,308
	00,704	101,131	131,720	210,000
CASH FLOW	47.400	40.070	25.040	20.00
Operating Cash Flow Net Interest	17,168	18,373	35,612	38,694
Tax	(58)	(253)	(872)	(872)
Capex	(2,129) (2,306)	(4,731) (3,803)	(7,259) (6,121)	(7,766)
Acquisitions/disposals		(87,074)	,	(6,364)
Financing	(21,104) 643	82,936	(5,437)	(1,112)
Dividends	(825)	(867)	(1,026)	
Net Cash Flow	(8,611)	4,581	14,897	(1,132) 21,448
Opening net debt/(cash)	(17,284)	(8,650)	(11,094)	(25,990)
Forex gain on cash	(17,204)	(0,000)	(11,094)	(25,990)
i oren gain on casit	I			
	(24)	(1) 1 261		
Other Closing net debt/(cash)	(24) (8,650)	(2,136) (11,094)	(1) (25,990)	(47,438)



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