EDISON

Expert System

Making good progress towards growth targets

Software & comp services

Expert System's H118 results confirmed year-on-year sales growth of 52% and positive EBITDA. Over the last year, the business has seen strong demand for subscription licensing, resulting in recurring revenue increasing to 50% from 38% in H117. Management remains confident of meeting its FY18 guidance and we make minimal changes to our forecasts. Continued progress towards growth and profitability targets should support share price upside.

Year end	Revenue (€m)	EBITDA* (€m)	EPS* (€)	DPS (€)	P/E (x)	EV/EBITDA (x)
12/16	25.1	(2.2)	(0.22)	0.0	N/A	N/A
12/17	27.8	1.7	(0.18)	0.0	N/A	33.6
12/18e	30.5	4.6	(0.04)	0.0	N/A	12.5
12/19e	34.8	7.0	0.02	0.0	78.6	8.2

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

Solid H118 sales growth drives positive EBITDA

Expert reported sales growth of 52% y-o-y to €12.9m and an adjusted EBITDA of €0.6m. After one-off costs of €0.5m, it reported EBITDA of €0.1m, compared to a reported EBITDA loss of €4.0m in H117. Higher revenues combined with good cost control resulted in a normalised operating loss of €2.0m, significantly below the H117 operating loss of €5.6m. Licence revenues made up 41% of total revenues compared to 33% in H117, and within this, subscription licences made up 79% of licence revenues versus 33% a year ago.

Order momentum supports FY18 guidance

The company has seen sustained interest in its software since H217, helped by growing recognition of its technology by market analysts such as Forrester and Gartner. As a result of the success it has had in signing up customers in the insurance industry, it has introduced insurance-specific solutions. It is also promoting the use of its software for process automation, as the ability of its software to make sense of unstructured data makes it ideal for integration with digital workers. While revenues were down sequentially in H118, we note that Expert typically sees strong demand in Q4. Management is confident of achieving its guidance for FY18 and we have made minimal changes to our forecasts.

Valuation: Hitting growth targets key to upside

Expert System trades on an EV/EBITDA of 12.5x FY18e. This is at a premium to its Italian software and services peers and at a discount to enterprise search and information management companies, and high-growth big data analytics software companies. Our DCF valuation of Expert System suggests a value of €1.91/share (unchanged). Expert's ability to convert customer interest in the fast-growing data mining and analytics market into commercial contracts, combined with achieving the targeted profitability, will be drivers of share price upside from this point.
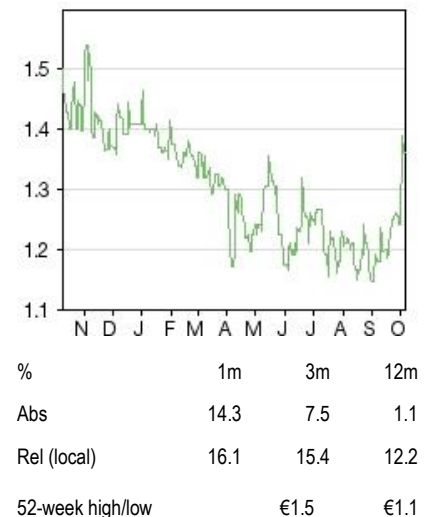
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8 October 2018

Price	€1.36
Market cap	€49m

Net debt (€m) at end H118	10.0
Shares in issue	35.6m
Free float	73.1%
Code	EXSY
Primary exchange	AIM Italia
Secondary exchange	N/A

Share price performance

%	1m	3m	12m
Abs	14.3	7.5	1.1
Rel (local)	16.1	15.4	12.2
52-week high/low		€1.5	€1.1

Business description

Expert System has developed and patented technology that extracts useful information from unstructured text using semantic-based techniques. It applies this technology to a number of verticals including enterprise search, customer experience management and big data analytics.

Next events

FY18 results	March 2019

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Expert System is a research client of Edison Investment Research Limited

Review of H118 results

Exhibit 1: Half-yearly results

€m	H117	H217	H118	y-o-y
Sales	**8.44**	**17.69**	**12.86**	**52.4%**
Grants and other income	0.73	0.92	0.69	-4.7%
Total revenue	**9.17**	**18.61**	**13.56**	**47.8%**
Capitalised development costs	2.52	3.03	2.34	-7.3%
Changes in WIP	0.05	(0.58)	0.00	-91.7%
Total production value	11.75	21.06	15.90	35.4%
Staff costs	9.40	9.21	9.13	-2.9%
Other costs	5.98	6.48	6.20	3.8%
Adjusted EBITDA	**(3.63)**	**5.38**	**0.57**	**N/A**
Adjusted EBITDA margin	*-39.6%*	*28.9%*	*4.2%*	*43.8%*
Depreciation & amortisation	2.01	2.89	2.54	26.4%
Normalised EBIT	**(5.64)**	**2.49**	**(1.97)**	**-65.1%**
Normalised EBIT margin	*-61.5%*	*13.4%*	*-14.5%*	*47.0%*
Amortisation of acquired intangibles	1.30	1.30	1.10	-15.6%
Exceptional costs	0.35	0.35	0.50	42.9%
EBIT	**(7.30)**	**0.84**	**(3.57)**	**-51.1%**
Net income	(7.63)	(0.70)	(3.75)	-50.9%
Net debt	**15.12**	**8.82**	**10.00**	**-33.9%**

Source: Expert System

Exhibit 2: Revenues by type

€m	H117	H217	H118
Revenue breakdown			
Subscription licences	0.9	4.0	4.2
One-off licences	1.9	5.1	1.1
Maintenance	2.4	2.3	2.2
Services	3.3	5.6	5.1
Other	0.0	0.2	0.2
Total*	**8.5**	**17.1**	**12.9**
Revenue split			
Subscription licences	10.6%	23.4%	32.6%
One-off licences	22.0%	29.7%	8.7%
Maintenance	27.7%	13.4%	17.3%
Services	39.2%	32.6%	40.0%
Other	0.5%	0.9%	1.5%
	100.0%	100.0%	100.0%
Revenue growth y-o-y			
Subscription licences			365.9%
One-off licences			-40.2%
Maintenance			-5.6%
Services			54.6%
Other			387.5%
Total			**51.6%**

Source: Expert System *Net of changes in WIP

As confirmed in the recent trading update, Expert generated sales growth of 52% in H118 and generated positive EBITDA. Grants and other income were slightly lower than a year ago, resulting in revenue growth of 48% y-o-y. The company controlled costs well during the period, reducing staff costs by 3% y-o-y and increasing other costs by 4% y-o-y. This resulted in positive adjusted EBITDA of €0.6m for the period. The company incurred exceptional costs of €0.5m for restructuring in H118 resulting in reported EBITDA of €0.1m. After depreciation and amortisation, the company reported a normalised operating loss of €2.0m, significantly better than the €5.6m loss a year ago. Net debt at the end of H118 stood at €10.0m, €1.2m higher than at the end of FY17. The increase

is made up of the combination of EBITDA of €0.1m, capitalised development costs of €2.4m, a working capital inflow of €1.2m and a net outflow of €0.1m for tax, interest and FX.

The company is seeing an increasing number of licences signed on a subscription basis rather than as a perpetual licence. Exhibit 2 shows the revenue split on a half-yearly basis. Subscription licences increased 366% y-o-y and 5% h-o-h, with a corresponding decline in perpetual licences. This drives higher recurring revenues (assuming customers renew their licences) and should improve revenue visibility for the company. Revenues from services increased 55% y-o-y, reflecting the higher level of new business compared to a year ago.

Business update

Specialist insurance solutions launched

In H118, Expert launched Cogito for Claims and Cogito for Underwriting. Over the last year or so, Expert has signed up several insurance customers (Lloyds of London, Generali Group and Zurich Insurance Group) and these solutions reflect Expert's expertise in this market.

Crédit Agricole contract demonstrates banking relevance

Crédit Agricole's Corporate and Investment Bank is using Cogito in its PanOptes project to analyse large quantities of newsflow and other public information to provide quick and easy access to relevant information on clients and the sectors in which they operate.

Blue Prism partnership extended

In September, the company announced it had extended its partnership with Blue Prism. Blue Prism provides robotic process automation software, and Expert has been working with Blue Prism on the best way to provide customers with access to the combination of both companies' technology. The idea is for Cogito software to analyse unstructured data in order to provide structured data as an input for Blue Prism's software. The two companies are now working together with shared customers.

Market researchers recognising Expert's technology

Expert has seen inclusion in various market research studies since the beginning of this year.

- **Forrester:** one of eight vendors selected for the Forrester Wave: AI-based text analytics platforms, Q218 report; categorised as a strong performer.
- **Gartner:** included in the Gartner Magic Quadrant for Insight Engines for the second year running; one of 13 vendors.
- **KMWorld:** selected as one of 100 companies that matter in Knowledge Management 2018. The Cogito Discover platform was selected as a trend-setting product for 2018.

The Forrester Wave report analysed the text analytics offerings of eight software vendors: Expert System, Attivio, Clarabridge, EPAM Systems, IBM, Micro Focus, Open Text and SAS. Expert scored top marks for the depth of functionality of its software, the mix of rules and machine learning, RPA functionality, vertical specialisations and its professional services capability. It received lower scores in several categories that reflect the size of Expert compared to larger competitors such as IBM and SAS, including having fewer data sources, less analytics capability and a limited number of partners. Expert's view is that it is not cost effective to build a comprehensive list of data connectors; instead it focuses on those most commonly requested by customers and will add new integrations if there is sufficient demand. It is developing some new analytics tools, again led by

customer demand. Expert is building out its partner network to widen access to the market and provide additional implementation capacity.

Outlook and changes to forecasts

Management remains confident that it can achieve FY18 results within its previous guidance range (sales €28.5-30.0m, EBITDA €4.0-5.0m). We note that Expert typically sees strong seasonality, with a large proportion of licences signed in Q4. We leave our forecasts substantially unchanged. We have increased our forecast for adjusted EBITDA in FY18, assuming this is before exceptional charges of €0.6m. We have altered the mix of amortisation between capitalised development costs and acquired amortisation, which results in a reduction in normalised operating profit in FY19 but has limited impact on reported operating profit.

Exhibit 3: Changes to forecasts

€m	FY18e old	FY18e new	Change	y-o-y	FY19e old	FY19e new	Change	y-o-y
Sales	29.0	29.0	(0.1%)	11.0%	33.3	33.3	-0.1%	14.6%
Other income & grants	1.5	1.5	0.0%	(8.9%)	1.5	1.5	0.0%	0.0%
Total revenues	**30.5**	**30.5**	**(0.0%)**	**9.8%**	**34.8**	**34.8**	**-0.1%**	**13.9%**
Capitalised development costs & changes in WIP	5.5	5.5	0.0%	9.5%	5.5	5.5	0.0%	0.0%
Production value	36.0	36.0	(0.0%)	9.8%	40.3	40.3	-0.1%	11.8%
Adjusted EBITDA	**4.0**	**4.6**	**13.7%**	**167.4%**	**7.0**	**7.0**	**-0.4%**	**52.7%**
Adjusted EBITDA margin	*13.2%*	*15.0%*	*1.8%*	*8.8%*	*20.2%*	*20.1%*	*-0.1%*	*5.1%*
D&A	(5.2)	(5.4)	3.5%		(5.5)	(5.7)	3.9%	
Normalised operating profit	**(1.2)**	**(0.8)**	**(30.6%)**	**(73.9%)**	**1.6**	**1.3**	**-15.5%**	**N/A**
Normalised operating margin	*-3.9%*	*-2.7%*	*1.2%*	*8.8%*	*4.5%*	*3.8%*	*-0.7%*	*6.5%*
Amortisation of acquired intangibles	(2.6)	(2.3)	(11.8%)		(2.6)	(2.3)	-11.8%	
Exceptional items								
Reported operating profit	**(3.8)**	**(3.7)**	**1.9%**	**42.6%**	**(1.1)**	**(1.0)**	**-6.3%**	**73.5%**
Normalised EPS (c)	(4.5)	(3.7)	19.1%	80.0%	2.4	1.7	-27.8%	N/A
Net debt	**12.6**	**12.7**	**0.6%**	**44.1%**	**12.6**	**12.8**	**1.0%**	**0.4%**

Source: Edison Investment Research

Valuation

The majority of Expert's direct competitors are private companies or subsidiaries of large companies such as IBM or Micro Focus. We have compared Expert's valuation and operating metrics to peers operating in the natural language processing, big data analytics, enterprise search and information management markets, as well as to Italian software and IT services peers.

Based on EV/sales, Expert is trading at a discount to all peer groups. This reflects the fact that the company is still in a growth phase and moving towards operating profitability. On an EV/EBITDA basis it is trading more in line with Italian software and IT services peers, and at a discount to all other groups. If the company can maintain the current sales momentum and meet the growth and profit targets it has set for FY18 and FY19, the valuation discount should start to close. Progress towards net cash generation will also help reduce the discount.

We note that Coveo, a privately owned intelligent search and predictive analytics company, recently attracted a $100m investment from Evergreen Coast Capital for a 27% stake in the company. This values the business at $370m. We understand from press articles that the company has an annualised revenue run rate of $50m, which values it on a price/sales multiple of 7.4x, more akin to high growth companies such as Splunk or Tableau.

Our 10-year DCF analysis values the company at €1.91/share, unchanged since our last report. We forecast a revenue CAGR of 9.0% from FY17 to FY27, with EBITDA margins rising to 28% by FY27. Assuming the company continues to capitalise development spend, we forecast capex/sales reducing to 9.5% by FY27. We use a WACC of 9% and long-term growth of 3%. A 1% increase in the WACC results in a valuation of €1.51/share, while a 1% decrease results in a valuation of €2.49.

Exhibit 4: Peer group operating and valuation metrics

	Last year end	Market cap (€m)	CY EV/S	NY EV/S	CY EV/ EBITDA	NY EV/ EBITDA	CY P/E	NY P/E	CY sales (€m)	CY EBIT margin	CY EBITDA margin	Sales growth NY	EPS growth NY
Natural language understanding													
Expert System	12/2017	49	1.9x	1.7x	12.5x	8.2x	N/A	78.6x	30.5	-2.7%	15.0%	13.9%	N/A
Nuance Communications	09/2017	4,965	3.3x	3.2x	11.5x	11.0x	15.3x	14.1x	2,058	N/A	28.6%	3.3%	8.3%
Big data analytics													
Splunk	01/2018	14,821	9.6x	7.8x	66.3x	46.7x	105.7x	75.3x	1,701	11.7%	14.5%	23.2%	40.4%
Tableau	12/2017	7,938	8.4x	7.3x	-1690.4x	202.9x	N/A	410.7x	991	N/A	N/A	15.2%	N/A
Teradata	12/2017	3,834	1.9x	1.9x	12.4x	10.6x	30.9x	23.7x	2,145	10.7%	15.3%	2.4%	30.2%
Average			**6.6x**	**5.6x**	**N/A**	**86.7x**	**N/A**	**169.9x**		**5.9%**	**9.8%**	**13.6%**	**N/A**
Enterprise search and information management													
OpenText	06/2018	8,711	4.1x	4.0x	11.2x	10.5x	13.9x	12.8x	2,911	34.2%	35.6%	3.3%	8.9%
IHS Markit	11/2017	18,329	6.8x	6.0x	17.5x	15.3x	23.8x	20.8x	4,017	19.1%	21.7%	12.2%	14.2%
CommVault	03/2018	2,667	3.5x	3.3x	21.7x	17.0x	40.2x	33.8x	747	14.7%	18.3%	8.2%	18.7%
Average			**4.8x**	**4.4x**	**16.8x**	**14.3x**	**26.0x**	**22.5x**		**22.7%**	**25.2%**	**7.9%**	**13.9%**
Italian software & services													
TXT e-solutions	12/2017	121	1.2x	1.0x	11.2x	8.0x	47.6x	36.4x	40	6.9%	8.7%	13.4%	30.8%
Exprivia	12/2017	62	0.5x	0.5x	7.1x	6.3x	30.1x	9.3x	610	3.5%	4.4%	2.3%	225.0%
Piteco	12/2017	83	4.4x	3.5x	11.0x	8.4x	17.7x	12.4x	21	31.0%	33.6%	24.6%	42.3%
Reply	12/2017	2,254	2.1x	1.9x	15.3x	13.5x	24.6x	21.6x	1,025	12.7%	13.0%	11.4%	14.1%
Average			**2.1x**	**1.7x**	**11.2x**	**9.1x**	**30.0x**	**19.9x**		**13.5%**	**14.9%**	**12.9%**	**78.1%**

Source: Edison Investment Research, Bloomberg. Note: Priced at 2 October.

Exhibit 5: Financial summary

€'000s	2012	2013	2014	2015	2016	2017	2018e	2019e
31-December	IT GAAP	IT GAAP	IT GAAP	IT GAAP	IT GAAP	IT GAAP	IT GAAP	IT GAAP
PROFIT & LOSS								
Revenue	11,593	11,109	13,045	19,368	25,057	27,783	30,516	34,750
EBITDA	2,624	2,014	2,339	1,463	(2,245)	1,711	4,575	6,986
Operating Profit (before amort. and except.)	1,765	916	609	(1,226)	(5,941)	(3,189)	(832)	1,311
Intangible Amortisation	0	0	0	(2,549)	(2,608)	(2,608)	(2,300)	(2,300)
Exceptionals	(319)	45	59	0	0	(700)	(600)	0
Other	0	0	0	0	0	0	0	0
Operating Profit	1,446	961	669	(3,775)	(8,549)	(6,496)	(3,732)	(989)
Net Interest	(298)	(376)	29	213	(156)	(2,191)	(624)	(624)
Profit Before Tax (norm)	1,467	539	638	(1,013)	(6,097)	(5,380)	(1,456)	687
Profit Before Tax (reported)	1,148	584	697	(3,562)	(8,705)	(8,687)	(4,356)	(1,613)
Tax	(452)	(359)	(609)	277	579	348	436	161
Profit After Tax (norm)	1,015	180	29	(934)	(5,692)	(5,164)	(1,311)	618
Profit After Tax (reported)	697	225	89	(3,284)	(8,126)	(8,339)	(3,921)	(1,452)
Average Number of Shares Outstanding (m)	22.0	22.0	22.0	22.8	25.8	28.1	35.7	35.7
EPS - normalised (c)	4.6	0.8	0.1	(4.1)	(22.0)	(18.3)	(3.7)	1.7
EPS - normalised and fully diluted (c)	4.6	0.8	0.1	(4.1)	(22.0)	(18.3)	(3.7)	1.7
EPS - (IFRS) (c)	3.2	1.0	0.4	(14.4)	(31.5)	(29.6)	(11.0)	(4.1)
Dividend per share (p)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA Margin (%)	22.6	18.1	17.9	7.6	-9.0	6.2	15.0	20.1
Adj Operating Margin (%)	15.2	8.2	4.7	-6.3	-23.7	-11.5	-2.7	3.8
BALANCE SHEET								
Fixed Assets	6,691	9,905	5,719	20,301	20,379	18,864	17,357	15,383
Intangible Assets	1,111	2,462	4,640	18,539	18,372	16,944	15,537	13,677
Tangible Assets	635	606	692	916	915	792	692	577
Investments	4,945	6,836	387	846	1,092	1,128	1,128	1,128
Current Assets	12,767	15,491	32,681	42,588	37,012	37,634	35,166	36,222
Stocks	722	476	1,563	1,797	627	99	99	99
Debtors	5,488	5,820	7,866	10,228	10,233	12,384	13,870	15,812
Cash	2,065	2,967	4,900	11,249	9,063	11,235	7,344	7,298
Other	4,492	6,228	18,352	19,314	17,088	13,916	13,852	13,013
Current Liabilities	(8,871)	(10,333)	(13,639)	(20,517)	(22,679)	(19,480)	(19,925)	(20,459)
Creditors	(6,538)	(7,350)	(10,698)	(15,082)	(16,459)	(14,104)	(14,549)	(15,083)
Short term borrowings	(2,332)	(2,984)	(2,940)	(5,435)	(6,219)	(5,376)	(5,376)	(5,376)
Long Term Liabilities	(4,642)	(5,172)	(7,803)	(22,227)	(18,275)	(17,742)	(17,242)	(17,242)
Long term borrowings	(4,642)	(5,172)	(4,799)	(18,240)	(15,252)	(14,683)	(14,683)	(14,683)
Other long term liabilities	0	0	(3,005)	(3,987)	(3,023)	(3,060)	(2,560)	(2,560)
Net Assets	5,945	9,890	16,958	20,145	16,437	19,276	15,355	13,903
CASH FLOW								
Operating Cash Flow	8,077	2,891	737	2,738	2,088	(1,921)	2,922	6,570
Net Interest	(298)	(376)	29	(324)	(155)	(626)	(612)	(617)
Tax	(452)	(359)	(609)	(1,576)	0	0	0	0
Capex	(3,095)	(2,384)	(3,905)	(20,045)	(6,378)	(6,321)	(6,200)	(6,000)
Acquisitions/disposals	0	0	(6,436)	3,045	46	1,275	0	0
Financing	0	0	12,341	6,573	4,418	11,178	0	0
Dividends	0	(180)	0	0	0	0	0	0
Net Cash Flow	4,232	(408)	2,156	(9,588)	18	3,585	(3,890)	(47)
Opening net debt/(cash)	6,352	4,909	4,822*	2,839	12,426	12,408	8,824	12,714
HP finance leases initiated	0	0	0	0	0	0	0	0
Other	(2,788)	128	(173)	0	0	0	(0)	0
Closing net debt/(cash)	4,909	5,189*	2,839	12,426	12,408	8,824	12,714	12,761

Source: Expert System, Edison Investment Research **FY14 was first year of consolidation for some subsidiaries.