

# Expert System

FY18 results

Better visibility

Expert System's FY18 results were in line with guidance set a year ago, confirming that revenue growth approaching 10% was not at the expense of profitability. Management is maintaining its targets for FY19, expecting revenue growth to accelerate to 15–20% as the market for cognitive computing becomes more mature. The strong FY18 performance gives us confidence in Expert's ability to achieve FY19 targets. If this strong revenue and profit momentum can be maintained, the stock looks attractively valued.

Year end	Revenue (€m)	EBITDA* (€m)	EPS* (c)	DPS (€)	P/E (x)	EV/EBITDA (x)
12/17	27.8	1.7	(18.3)	0.0	N/A	39.2
12/18	30.5	4.6	(1.4)	0.0	N/A	14.5
12/19e	34.8	7.6	3.3	0.0	46.7	8.8
12/20e	38.9	9.8	7.9	0.0	19.3	6.8

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

## FY18: Revenue and EBITDA meet expectations

Expert reported revenue growth of 9.6% year-on-year for FY18, and expanded EBITDA from €1.7m to €4.6m over the year. The company met the sales and EBITDA guidance it set a year ago, and beat its targets for net income and net debt. Over the last two years, the company has shifted to selling more licences on a subscription basis, with 72% of licence sales in FY18 from subscriptions compared to 41% in FY17. While this typically results in a lower upfront value per contract, it improves visibility and provides an easier entry point for customers.

## FY19: Growth outlook maintained

Management expects to be able to achieve the FY19 guidance it set a year ago, which equates to sales growth of 15–20% y-o-y and an EBITDA margin of 21–23%. We have revised our cost estimates for FY19 to reflect the lower cost base in FY18, resulting an EBITDA upgrade of 9% to €7.6m, at the mid-point of the guidance range. The company is about to release the next version of its software, Cogito 14.4, which should allow it to retain its strong position in this fast-moving market.

## Valuation: Hitting growth targets key to upside

Expert System trades on an EV/EBITDA of 8.8x FY19e. This is at a discount to all peer groups. Our DCF valuation of Expert System suggests a value of €1.94/share (up from €1.91). Meeting guidance for FY18, both in terms of new business and keeping costs under control, was a positive step for Expert. If the company can maintain the current sales momentum and meet the growth and profit targets it has set for FY19, the valuation discount should start to close. Progress towards net cash generation will also help reduce the discount.

## Software & comp services

9 April 2019

**Price** €1.52

**Market cap** €55m

Net debt (€m) at end FY18 12.6

Shares in issue 35.8m

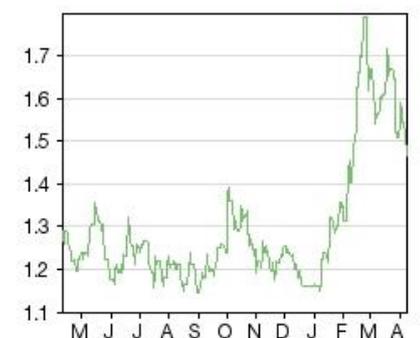
Free float 73%

Code EXSY

Primary exchange AIM Italia

Secondary exchange N/A

## Share price performance



%	1m	3m	12m
Abs	(6.4)	25.2	25.2
Rel (local)	(11.5)	9.8	32.3

52-week high/low €1.8 €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

H119 results September 2019

## Analyst

Katherine Thompson +44 (0)20 3077 5730

[tech@edisongroup.com](mailto:tech@edisongroup.com)
[Edison profile page](#)

**Expert System is a research client of Edison Investment Research Limited**

## Review of FY18 results

<b>Exhibit 1: FY18 results highlights</b>					
€m	FY17	FY18e	FY18a	Diff	y-o-y
Sales	26.1	29.0	28.7	(1.1%)	9.8%
Other income & grants	1.6	1.5	1.8	17.3%	6.9%
<b>Total revenues</b>	<b>27.8</b>	<b>30.5</b>	<b>30.5</b>	<b>(0.2%)</b>	<b>9.6%</b>
Capitalised development costs & changes in WIP	5.0	5.5	5.1	(8.1%)	0.6%
Production value	32.8	36.0	35.5	(1.4%)	8.2%
<b>EBITDA</b>	<b>1.7</b>	<b>4.6</b>	<b>4.6</b>	<b>1.4%</b>	<b>171.1%</b>
EBITDA margin	6.2%	15.0%	15.2%	0.2%	9.1%
D&A	(4.9)	(5.4)	(5.3)	(2.0%)	
<b>Normalised operating profit</b>	<b>(3.2)</b>	<b>(0.8)</b>	<b>(0.7)</b>	<b>(20.4%)</b>	<b>(79.2%)</b>
Normalised operating margin	-11.5%	-2.7%	-2.2%	0.6%	9.3%
Amortisation of acquired intangibles	(2.6)	(2.3)	(2.6)		
Exceptional items	(0.7)	(0.6)	0.0		
Reported operating profit	(6.5)	(3.7)	(3.2)	13.5%	50.3%
<b>Normalised net income</b>	<b>(5.2)</b>	<b>(1.3)</b>	<b>(0.5)</b>	<b>61.2%</b>	<b>90.2%</b>
Reported net income	(8.3)	(3.9)	(3.8)	3.6%	54.7%
Normalised EPS (c)	(18.3)	(3.7)	(1.4)	61.3%	92.3%
<b>Net debt</b>	<b>8.8</b>	<b>12.7</b>	<b>12.6</b>	<b>(1.0%)</b>	<b>42.7%</b>

Source: Expert System, Edison Investment Research

<b>Exhibit 2: Company outlook – March 2018</b>			
€m	FY17	FY18e	FY19e
Sales	25.6	28.5–30.0	33.0–34.5
Production value	32.8	35.5–37.0	39.8–41.3
EBITDA	1.0	4.0–5.0	7.0–8.0
Net income	(8.3)	(4.6–3.9)	(1.1–0.1)
Net debt	8.8	13.6–12.9	13.0–12.0
EBITDA margin	3.9%	14.0–16.7%	21.2–23.2%

Source: Expert System

Expert reported sales growth of 9.8% year-on-year, and after the inclusion of other income and grants, reported total revenue growth of 9.6% y-o-y, in line with our forecast. The company noted that subscription licences made up 72% of total licences, up from 41% in 2017. On a geographical basis, the company saw strong growth in Italy (+32%), Spain (+95% y-o-y) and the UK (+64% y-o-y), and strong demand from US government customers.

Despite capitalising a lower level of development costs than we expected, EBITDA was in line with our forecast, equating to an EBITDA margin of 15.2%. Both staff costs and other operating costs were lower than we forecast, helped by restructuring during the year.

As depreciation and amortisation was slightly higher than forecast, the normalised operating loss was marginally bigger than forecast. Currency gains resulted in a narrower than expected reported operating loss. Net debt at year-end increased to €12.6m (or €12.4m if short-term investments are included). All financial metrics fell within or beat (net income, net debt) the guidance range set by the company a year ago (see Exhibit 2).

## Business update

Over the last year, the company continued to strengthen its position in the banking and insurance sectors, signing agreements with Generali, Crédit Agricole, Rabobank and AXA XL Risk Consulting. It has also strengthened its position in the cognitive automation market, formalising its partnership with Blue Prism, a leading robotic process automation (RPA) technology company.

Expert recently launched the latest version of the Cogito platform, Cogito 14.4. This is an evolution of the existing Cogito technology, offering the following enhancements:

- **Easier customisation of knowledge graphs.** Knowledge graphs are made up of 350,000 concepts connected by 2.8m relationships. Users can import targeted knowledge from any source in a few clicks, so that the platform can understand references to real-world entities such as people, companies or locations, and link them to knowledge repositories using standardised identifiers.
- **RPA connector.** For customers using both Cogito software and RPA software, the connector enables RPA bots to intelligently classify and route mainstream cases for straight-through processing and to flag exceptions, suspicious patterns and high-risk cases for review by human operators.
- **Active machine learning workflow.** Cogito software already supported machine learning, enabling users to enrich knowledge automatically from text. The new active learning workflow enables users to visualise the quality of data extraction and provide feedback to the engine, which iteratively retrains the engine to reach the user's quality goals. This reduces the amount of manual annotation needed.

## Outlook and changes to estimates

For FY19, the company stands by the guidance given in Exhibit 2. We have revised our forecasts to reflect the lower cost base in FY18 and we introduce forecasts for FY20. Our EBITDA forecast for FY19 is in the middle of the company's guidance range, with revenues at the lower end of guidance. We note that the company is seeking shareholder approval for the authority to issue convertibles worth up to €10m to fund future growth. If this is approved and the funds received, we would expect the company to accelerate investment in headcount to drive faster growth.

Exhibit 3: Changes to estimates						
€m	FY19e old	FY19e new	Change	y-o-y	FY20e new	y-o-y
<b>Sales</b>	<b>33.3</b>	<b>33.3</b>	<b>0.2%</b>	<b>16.1%</b>	<b>37.4</b>	<b>12.4%</b>
Other income & grants	1.5	1.5	0.0%	(14.7%)	1.5	0.0%
<b>Total revenues</b>	<b>34.8</b>	<b>34.8</b>	<b>0.2%</b>	<b>14.3%</b>	<b>38.9</b>	<b>11.8%</b>
Capitalised development costs & changes in WIP	5.5	5.1	-7.3%	0.9%	5.2	2.0%
<b>Production value</b>	<b>40.3</b>	<b>39.9</b>	<b>-0.8%</b>	<b>12.4%</b>	<b>44.1</b>	<b>10.6%</b>
<b>EBITDA</b>	<b>7.0</b>	<b>7.6</b>	<b>9.2%</b>	<b>64.5%</b>	<b>9.8</b>	<b>28.4%</b>
<i>EBITDA margin</i>	20.1%	21.9%	1.8%	6.7%	25.2%	3.2%
D&A	(5.7)	(5.7)	0.1%		(6.0)	
<b>Normalised operating profit</b>	<b>1.3</b>	<b>2.0</b>	<b>48.8%</b>	<b>(394.7%)</b>	<b>3.8</b>	<b>94.1%</b>
<i>Normalised operating margin</i>	3.8%	5.6%	1.8%	7.8%	9.7%	4.1%
Amortisation of acquired intangibles	(2.3)	(2.6)	11.6%		0.0	
Exceptional items	0.0	0.0	0.0%		0.0	
<b>Reported operating profit</b>	<b>(1.0)</b>	<b>(0.6)</b>	<b>-37.7%</b>	<b>80.9%</b>	<b>3.8</b>	<b>N/A</b>
Normalised net income	0.6	1.2	88.9%	329.7%	2.8	141.5%
Reported net income	(1.5)	(1.1)	-21.3%	69.8%	2.8	346.8%
<b>Diluted normalised EPS (c)</b>	<b>1.7</b>	<b>3.3</b>	<b>88.2%</b>	<b>329.3%</b>	<b>7.9</b>	<b>(141.5%)</b>
Net debt	12.8	11.9	-7.0%	(5.8%)	9.3	(21.9%)

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 in line with Italian peers and at a discount to all other peer groups. On an EV/EBITDA basis it is trading at a discount to all peer groups. On a FY20e P/E basis, Expert is trading at a small premium to Italian peers, in line with enterprise search and information management peers and at a discount to data analytics peers. Meeting guidance for FY18, both in terms of new business and keeping costs under control, was a positive step for Expert. If the company can maintain the current sales momentum and meet the growth and profit targets it has set for FY19, the valuation discount should start to close. Progress towards net cash generation will also help reduce the discount.

Our 10-year DCF analysis values the company at €1.94/share, up from €1.91. We forecast a 7.6% revenue CAGR from FY18 to FY28, with EBITDA margins rising to 28% by FY28. Assuming the company continues to capitalise development spend, we forecast capex/sales reducing to 10% by FY28. We use a WACC of 9% and long-term growth of 3%. A 1% increase in the WACC results in a valuation of €1.58/share, while a 1% decrease results in a valuation of €2.44.

**Exhibit 4: Peer group valuation metrics**

	Y/E	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
<b>Natural Language Understanding</b>													
Expert System	Dec	55	1.9x	1.7x	8.8x	6.8x	46.7x	19.3x	34.8	5.6%	21.9%	11.8%	141.5%
Nuance Communications	Sep	4,909	3.6x	3.4x	12.1x	12.2x	15.2x	14.0x	1,866	26.5%	29.7%	3.9%	8.0%
<b>Big Data Analytics</b>													
Splunk	Jan	16,629	8.2x	6.8x	50.0x	36.1x	76.7x	57.3x	2,220	14.0%	16.4%	21.6%	33.7%
Tableau	Dec	9,617	7.4x	6.3x	50.3x	34.5x	75.7x	57.6x	1,366	12.8%	14.8%	18.9%	31.3%
Teradata	Dec	4,451	2.5x	2.4x	13.4x	11.1x	29.6x	21.8x	2,034	11.5%	18.4%	2.6%	35.9%
<b>Average</b>			<b>6.0x</b>	<b>5.1x</b>	<b>37.9x</b>	<b>27.2x</b>	<b>60.6x</b>	<b>45.6x</b>		<b>12.8%</b>	<b>16.5%</b>	<b>14.4%</b>	<b>33.6%</b>
<b>Enterprise search and information management</b>													
OpenText	Jun	11,922	4.3x	4.1x	11.4x	10.6x	14.1x	13.0x	2,892	34.2%	34.8%	5.2%	8.5%
IHS Markit	Nov	18,884	6.2x	5.8x	15.6x	14.4x	21.5x	19.1x	4,448	23.9%	25.6%	6.0%	12.8%
CommVault	Mar	2,494	3.4x	3.1x	19.3x	14.9x	34.5x	26.3x	719	16.1%	20.0%	8.1%	31.5%
<b>Average</b>			<b>4.6x</b>	<b>4.3x</b>	<b>15.4x</b>	<b>13.3x</b>	<b>23.4x</b>	<b>19.4x</b>		<b>24.7%</b>	<b>26.8%</b>	<b>6.4%</b>	<b>17.6%</b>
<b>Italian software &amp; services</b>													
TXT e-solutions	Dec	119	1.3x	1.2x	11.7x	10.1x	39.4x	32.7x	46	7.6%	8.6%	7.7%	20.5%
Exprivia	Dec	65	0.5x	0.4x	5.9x	5.5x	10.5x	7.0x	625	4.5%	5.0%	3.4%	50.0%
Piteco	Dec	88	4.4x	3.6x	9.7x	8.6x	13.0x	10.8x	24	N/A	N/A	21.4%	20.0%
Reply	Dec	2,136	1.8x	1.6x	12.7x	11.5x	20.5x	18.4x	1,167	12.7%	12.9%	9.2%	11.2%
<b>Average</b>			<b>2.0x</b>	<b>1.7x</b>	<b>10.0x</b>	<b>8.9x</b>	<b>20.8x</b>	<b>17.2x</b>		<b>8.3%</b>	<b>8.8%</b>	<b>10.4%</b>	<b>25.4%</b>

Source: Edison Investment Research, Refinitiv (as at 4 April)

**Exhibit 5: Financial summary**

	€'000s	2015	2016	2017	2018	2019e	2020e
31-December		IT GAAP					
<b>PROFIT &amp; LOSS</b>							
Revenue		19,368	25,057	27,783	30,457	34,814	38,932
EBITDA		1,463	(2,245)	1,711	4,638	7,629	9,795
Operating Profit (before amort. and except.)		(1,226)	(5,941)	(3,189)	(662)	1,951	3,786
Intangible Amortisation		(2,549)	(2,608)	(2,608)	(2,567)	(2,567)	0
Exceptionals		0	0	(700)	0	0	0
Other		0	0	0	0	0	0
Operating Profit		(3,775)	(8,549)	(6,496)	(3,229)	(616)	3,786
Net Interest		213	(156)	(2,191)	97	(654)	(654)
Profit Before Tax (norm)		(1,013)	(6,097)	(5,380)	(565)	1,297	3,133
Profit Before Tax (reported)		(3,562)	(8,705)	(8,687)	(3,131)	(1,269)	3,133
Tax		277	579	348	(650)	127	(313)
Profit After Tax (norm)		(934)	(5,692)	(5,164)	(508)	1,167	2,819
Profit After Tax (reported)		(3,284)	(8,126)	(8,339)	(3,781)	(1,142)	2,819
Average Number of Shares Outstanding (m)		22.8	25.8	28.1	35.8	35.9	35.9
EPS - normalised (c)		(4.1)	(22.0)	(18.3)	(1.4)	3.3	7.9
EPS - normalised and fully diluted (c)		(4.1)	(22.0)	(18.3)	(1.4)	3.3	7.9
EPS - (IFRS) (c)		(14.4)	(31.5)	(29.6)	(10.6)	(3.2)	7.9
Dividend per share (p)		0.0	0.0	0.0	0.0	0.0	0.0
EBITDA Margin (%)		7.6	-9.0	6.2	15.2	21.9	25.2
Adj Operating Margin (%)		-6.3	-23.7	-11.5	-2.2	5.6	9.7
<b>BALANCE SHEET</b>							
Fixed Assets		20,301	20,379	18,864	16,655	14,010	13,701
Intangible Assets		18,539	18,372	16,944	14,734	12,102	11,821
Tangible Assets		916	915	792	715	702	675
Investments		846	1,092	1,128	1,206	1,206	1,206
Current Assets		42,588	37,012	37,634	38,004	40,067	43,870
Stocks		1,797	627	99	109	109	109
Debtors		10,228	10,233	12,384	15,792	18,003	20,523
Cash		11,249	9,063	11,235	7,883	8,609	11,204
Other		19,314	17,088	13,916	14,220	13,347	12,033
Current Liabilities		(20,517)	(22,679)	(19,480)	(21,170)	(21,732)	(22,406)
Creditors		(15,082)	(16,459)	(14,104)	(15,511)	(16,073)	(16,746)
Short term borrowings		(5,435)	(6,219)	(5,376)	(5,659)	(5,659)	(5,659)
Long Term Liabilities		(22,227)	(18,275)	(17,742)	(18,411)	(18,411)	(18,411)
Long term borrowings		(18,240)	(15,252)	(14,683)	(14,811)	(14,811)	(14,811)
Other long term liabilities		(3,987)	(3,023)	(3,060)	(3,600)	(3,600)	(3,600)
Net Assets		20,145	16,437	19,276	15,077	13,935	16,755
<b>CASH FLOW</b>							
Operating Cash Flow		2,738	2,088	(1,921)	2,583	6,956	8,925
Net Interest		(324)	(155)	(626)	(441)	(630)	(630)
Tax		(1,576)	0	0	0	0	0
Capex		(20,045)	(6,378)	(6,321)	(5,830)	(5,600)	(5,700)
Acquisitions/disposals		3,045	46	1,275	(76)	0	0
Financing		6,573	4,418	11,178	0	0	0
Dividends		0	0	0	0	0	0
Net Cash Flow		(9,588)	18	3,585	(3,764)	726	2,595
Opening net debt/(cash)		2,839	12,426	12,408	8,824	12,587	11,861
HP finance leases initiated		0	0	0	0	0	0
Other		0	0	0	0	0	0
Closing net debt/(cash)		12,426	12,408	8,824	12,587	11,861	9,266

Source: Expert System, Edison Investment Research

---

## General disclaimer and copyright

This report has been commissioned by Expert System and prepared and issued by Edison, in consideration of a fee payable by Expert System. Edison Investment Research standard fees are £49,500 pa for the production and broad dissemination of a detailed note (Outlook) following by regular (typically quarterly) update notes. Fees are paid upfront in cash without recourse. Edison may seek additional fees for the provision of roadshows and related IR services for the client but does not get remunerated for any investment banking services. We never take payment in stock, options or warrants for any of our services.

**Accuracy of content:** All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable, however we do not guarantee the accuracy or completeness of this report and have not sought for this information to be independently verified. Opinions contained in this report represent those of the Edison analyst at the time of publication. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results, estimates of amounts not yet determinable, and therefore involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of their subject matter to be materially different from current expectations.

**Exclusion of Liability:** To the fullest extent allowed by law, Edison shall not be liable for any direct, indirect or consequential losses, loss of profits, damages, costs or expenses incurred or suffered by you arising out of or in connection with the access to, use of or reliance on any information contained on this note.

**No personalised advice:** The information that we provide should not be construed in any manner whatsoever as, personalised advice. Also, the information provided by us should not be construed by any subscriber or prospective subscriber as Edison's solicitation to effect, or attempt to effect, any transaction in a security. The securities described in the report may not be eligible for sale in all jurisdictions or to certain categories of investors.

**Investment in securities mentioned:** Edison has a restrictive policy relating to personal dealing and conflicts of interest. Edison Group does not conduct any investment business and, accordingly, does not itself hold any positions in the securities mentioned in this report. However, the respective directors, officers, employees and contractors of Edison may have a position in any or related securities mentioned in this report, subject to Edison's policies on personal dealing and conflicts of interest.

**Copyright:** Copyright 2019 Edison Investment Research Limited (Edison). All rights reserved FTSE International Limited ("FTSE") © FTSE 2019. "FTSE®" is a trade mark of the London Stock Exchange Group companies and is used by FTSE International Limited under license. All rights in the FTSE indices and/or FTSE ratings vest in FTSE and/or its licensors. Neither FTSE nor its licensors accept any liability for any errors or omissions in the FTSE indices and/or FTSE ratings or underlying data. No further distribution of FTSE Data is permitted without FTSE's express written consent.

---

## Australia

Edison Investment Research Pty Ltd (Edison AU) is the Australian subsidiary of Edison. Edison AU is a Corporate Authorised Representative (1252501) of Myonlineadvisers Pty Ltd who holds an Australian Financial Services Licence (Number: 427484). This research is issued in Australia by Edison AU and any access to it, is intended only for "wholesale clients" within the meaning of the Corporations Act 2001 of Australia. Any advice given by Edison AU is general advice only and does not take into account your personal circumstances, needs or objectives. You should, before acting on this advice, consider the appropriateness of the advice, having regard to your objectives, financial situation and needs. If our advice relates to the acquisition, or possible acquisition, of a particular financial product you should read any relevant Product Disclosure Statement or like instrument.

---

## New Zealand

The research in this document is intended for New Zealand resident professional financial advisers or brokers (for use in their roles as financial advisers or brokers) and habitual investors who are "wholesale clients" for the purpose of the Financial Advisers Act 2008 (FAA) (as described in sections 5(c) (1)(a), (b) and (c) of the FAA). This is not a solicitation or inducement to buy, sell, subscribe, or underwrite any securities mentioned or in the topic of this document. For the purpose of the FAA, the content of this report is of a general nature, is intended as a source of general information only and is not intended to constitute a recommendation or opinion in relation to acquiring or disposing (including refraining from acquiring or disposing) of securities. The distribution of this document is not a "personalised service" and, to the extent that it contains any financial advice, is intended only as a "class service" provided by Edison within the meaning of the FAA (i.e. without taking into account the particular financial situation or goals of any person). As such, it should not be relied upon in making an investment decision.

---

## United Kingdom

Neither this document and associated email (together, the "Communication") constitutes or form part of any offer for sale or subscription of, or solicitation of any offer to buy or subscribe for, any securities, nor shall it or any part of it form the basis of, or be relied on in connection with, any contract or commitment whatsoever. Any decision to purchase shares in the Company in the proposed placing should be made solely on the basis of the information to be contained in the admission document to be published in connection therewith.

This Communication is being distributed in the United Kingdom and is directed only at (i) persons having professional experience in matters relating to investments, i.e. investment professionals within the meaning of Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "FPO") (ii) high net-worth companies, unincorporated associations or other bodies within the meaning of Article 49 of the FPO and (iii) persons to whom it is otherwise lawful to distribute it. The investment or investment activity to which this document relates is available only to such persons. It is not intended that this document be distributed or passed on, directly or indirectly, to any other class of persons and in any event and under no circumstances should persons of any other description rely on or act upon the contents of this document (nor will such persons be able to purchase shares in the placing).

This Communication is being supplied to you solely for your information and may not be reproduced by, further distributed to or published in whole or in part by, any other person.

---

## United States

The Investment Research is a publication distributed in the United States by Edison Investment Research, Inc. Edison Investment Research, Inc. is registered as an investment adviser with the Securities and Exchange Commission. Edison relies upon the "publishers' exclusion" from the definition of investment adviser under Section 202(a) (11) of the Investment Advisers Act of 1940 and corresponding state securities laws. This report is a bona fide publication of general and regular circulation offering impersonal investment-related advice, not tailored to a specific investment portfolio or the needs of current and/or prospective subscribers. As such, Edison does not offer or provide personal advice and the research provided is for informational purposes only. No mention of a particular security in this report constitutes a recommendation to buy, sell or hold that or any security, or that any particular security, portfolio of securities, transaction or investment strategy is suitable for any specific person.

---

Frankfurt +49 (0)69 78 8076 960  
Schumannstrasse 34b  
60325 Frankfurt  
Germany

London +44 (0)20 3077 5700  
280 High Holborn  
London, WC1V 7EE  
United Kingdom

New York +1 646 653 7026  
1,185 Avenue of the Americas  
3rd Floor, New York, NY 10036  
United States of America

Sydney +61 (0)2 8249 8342  
Level 4, Office 1205  
95 Pitt Street, Sydney  
NSW 2000, Australia