

INDEPENDENT RESEARCH
UPDATE

7th October 2016

TMT

Bloomberg	ATC NA
Reuters	ATCA.AS
12-month High / Low (EUR)	20.3 / 10.0
Market capitalisation (EURm)	17,837
Enterprise Value (BG estimates EURm)	66,417
Avg. 6m daily volume ('000 shares)	1 491
Free Float	41.5%
3y EPS CAGR	
Gearing (12/15)	693%
Dividend yield (12/16e)	NM

YE December	12/15	12/16e	12/17e	12/18e
Revenue (EURm)	14,550	20,417	23,344	23,592
EBITA EURm)	0.0	0.0	0.0	0.0
Op.Margin (%)	8.4	15.1	18.1	22.9
Diluted EPS (EUR)	-0.28	-0.78	0.49	1.29
EV/Sales	3.67x	3.25x	2.81x	2.69x
EV/EBITDA	9.7x	8.2x	6.8x	6.4x
EV/EBITA	NS	NS	NS	NS
P/E	NS	NS	33.5x	12.6x
ROCE	2.1	3.3	4.6	6.0



Altice


Lower risk profile

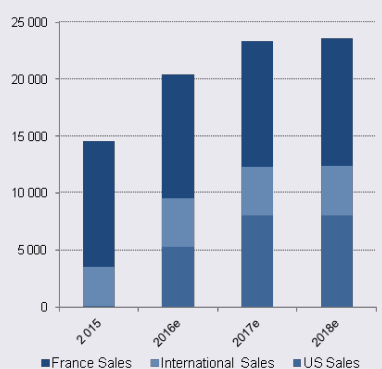
Fair Value EUR19 vs. EUR16.5 (price EUR16.30)

BUY

We believe the risk profile of the company has lowered over the past two quarters, for the conjunction of three reasons: market conditions on the debt side, confirmation of positive outlook at the US and international level, expected return of EBITDA growth at the France level and enhanced cost cutting initiatives offsetting medium term topline pressure. We maintain our Buy recommendation and increase our Fair Value to EUR19 from EUR16.5.

- Current **debt market conditions** are very good and Altice has proven lately its ability to **lead successful refinancing operations**. Moreover Altice has **no major maturity until 2022**, and we expect net debt to fall to **4.5x EBITDA by 2018**. Therefore we see no reason to put an extra stress on refinancing issues, we are removing part of the refinancing risk **penalty** we included in our beta at initiation: we are thus lowering our beta to **1.2** from 1.3.
- The first outlook on the US side since Altice closed the acquisition of Suddenlink and Cablevision is **very good**. We now have strong tangible signs of **significant value creation potential**, and we are confident Altice can deliver **revenue and EBITDA growth at the same time** in the region. Also, in Portugal, revenue trend is improving and EBITDA is seeing **double digit growth**. We are seeing, in US and Portugal, the confirmation that the difficult situation faced in France should **not be extrapolated** to other perimeters in the group.
- Regarding France, although risks around operational efficiency remain **unchanged** at this time, **full year effect of 2016 cost cutting initiatives** in 2017, as well as **significant savings expected from the redundancy plan** will help **offset topline pressure** and give time for investments and operational turnaround to kick in.
- We have upgraded our models accordingly. We maintain our Buy recommendation and increase our fair value to **EUR19 from EUR16.5**.

	Analyst:	Sector Analyst Team:
	Thomas Coudry	Richard-Maxime Beaudoux
	33(0) 1 70 36 57 04	Gregory Ramirez
	tcoudry@bryangarnier.com	Dorian Terral



Company description

Alice NV. Alice NV is a company that operates as a multinational cable, fiber, telecommunications and content provider company. The Company provides cable-based services, such as pay television, broadband Internet and fixed line telephony, and, in certain countries, mobile telephony services, to residential and corporate customers. The Company offers its services in four regions: USA, Western Europe, comprising France, Belgium, Luxembourg, Portugal and Switzerland; Israel; and the overseas territories of the French Caribbean region, including French Guyana, the Indian Ocean region, including Reunion and Mayotte, and the Dominican Republic. Its subsidiaries include, among others, a cable operator based in the United States.

Simplified Profit & Loss Account (EURm)	2013	2014	2015	2016e	2017e	2018e
Revenues	1,287	3,935	14,550	20,417	23,344	23,592
Change (%)	17.8%	206%	270%	40.3%	14.3%	1.1%
Adjusted EBITDA	518	1,496	5,494	8,139	9,577	9,960
EBIT	41.6	177	1,221	3,082	4,222	5,414
Change (%)	-%	326%	589%	152%	37.0%	28.2%
Financial results	0.0	(880)	(1,215)	(3,918)	(2,895)	(2,815)
Pre-Tax profits	41.6	(703)	6.4	(836)	1,326	2,599
Tax	(7.4)	165	(262)	(124)	(344)	(638)
Minority interests	(22.2)	(139)	99.5	36.6	438	503
Net profit	49.7	(533)	(220)	(848)	990	1,969
Restated net profit	49.7	(533)	(220)	(848)	990	1,969
Change (%)	-%	-1 172%	-58.8%	-286%	-%	98.8%

Cash Flow Statement (EURm)	2013	2014	2015	2016e	2017e	2018e
Operating cash flows	439	1,836	4,636	7,510	8,144	8,946
Change in working capital	25.3	753	(193)	179	(215)	(157)
Capex, net, and licenses paid	(289)	(965)	(2,640)	(4,147)	(4,337)	(4,097)
Dividends	0.0	0.0	0.0	0.0	0.0	0.0
Net debt	2,869	19,510	35,561	48,580	47,669	45,635
Free Cash flow	411	1,935	39.5	351	911	2,034

Balance Sheet (EURm)	2013	2014	2015	2016e	2017e	2018e
Tangible fixed assets	1,134	7,602	11,773	16,231	16,095	15,872
Intangibles assets	1,680	21,035	32,242	51,746	51,746	51,746
Cash & equivalents	1,304	1,564	3,483	1,759	2,671	4,705
current assets	1,562	5,201	8,286	9,467	10,409	12,522
Other assets	800	2,278	3,634	4,059	4,059	4,059
Total assets	5,177	36,115	55,936	81,504	82,309	84,199
L & ST Debt	3,901	21,067	35,894	51,930	51,930	51,930
Others liabilities	1,180	9,829	14,790	29,094	28,909	28,830
Shareholders' funds	95.3	5,196	5,131	453	1,443	3,412
Total Liabilities	5,177	36,115	55,936	81,503	82,309	84,199
Capital employed	3,195	26,771	43,664	68,225	68,304	68,239

Ratios	2013	2014	2015	2016e	2017e	2018e
Operating margin	3.23	4.51	8.39	15.10	18.08	22.95
Tax rate	(17.79)	(23.44)	(4,089)	14.87	(25.91)	(24.54)
Net margin	3.86	(13.55)	(1.51)	(4.15)	4.24	8.34
ROE (after tax)	75.05	(20.26)	(11.10)	182	851	95.76
ROCE (after tax)	0.96	0.49	2.07	3.35	4.58	5.99
Gearing	3,010	375	693	10,727	3,303	1,338
Pay out ratio	0.0	0.0	0.0	0.0	0.0	0.0
Number of shares, diluted	176	219	1,134	1,134	1,134	1,134

Data per Share (EUR)	2013	2014	2015	2016e	2017e	2018e
EPS	0.41	(1.80)	(0.28)	(0.78)	0.49	1.29
Restated EPS	0.41	(1.80)	(0.28)	(0.78)	0.49	1.29
% change	-%	-540%	-84.3%	-177%	-%	166%
BVPS	0.54	8.87	2.54	(0.43)	0.06	1.35
Operating cash flows	2.49	8.38	4.09	6.62	7.18	7.89
FCF	2.33	8.83	0.03	0.31	0.80	1.79
Net dividend	0.0	0.0	0.0	0.0	0.0	0.0

Source: Company Data; Bryan, Garnier & Co ests.

1. A lower risk profile

1.1. Good market conditions on the debt side

Although Altice remains today heavily invested, with **EUR48.6bn net debt** expected by the end of year 2016 at **5.5x proforma 2016e EBITDA**, we think the high debt is **less of an issue** than when we first initiated the coverage of Altice in April.

Current debt market conditions are good: Interest rates are low, investors are looking for high yields and Altice has proven its ability to **lead successful refinancing operations**. Lately Altice has refinanced Optimum's USD3.8bn existing debt, extending maturity from 5.9 years to 6.6 years, while decreasing average cost from 7.4% to 7.2%. Besides, Altice's most significant maturities have already been **pushed back to 2022 and beyond** at no extra cost, giving the time to Altice to deliver the synergies they promised, lower leverage and possibly upgrade their debt ratings: cumulated maturities from 2016 to 2021 amount to **EUR9.9bn**, ie **less than 20% of Altice's total gross debt**. We believe all this make Altice more resilient to operational risks or possible variations in US or EU monetary policies. Thus, we see no reason to put an extra stress on refinancing issues.

In total, Altice should start generating more than **EUR2bn FCF by year 2018**, when most synergies are implemented and major restructuring costs are behind. In our estimates, leverage ratio should fall to **4.5x Net Debt / EBITDA in 2018**. For these reasons, as well as the ones presented below, we believe **the risk profile of Altice has lowered** since the beginning of the year. We had initially increased our beta by 0.2, taking into account refinancing risks. We remove 50% of this factor, and thus **decrease our beta to 1.2 from 1.3**.

1.2. US and international confirming positive outlook

Second, on the US side, now **32%** of the group's adjusted proforma 2016e EBITDA, we have strong **tangible signs of significant value creation potential**. Optimum's outlook on the revenue side is **better than expected**, with **1.1%** growth on a comparable basis in Q2 (+2.0% underlying growth excluding specific pay per view event in Q2 2015), and the **best commercial performance** since 2012 with 19k net unique customer relationship additions. In addition, cost cutting is starting to kick in, with **EBITDA up 11.1%** yoy in Q2, although Altice has taken control only in the end of June. Besides, for two consecutive quarters since the closing of the acquisition, Altice has now shown with Suddenlink that it can **deliver both revenue and EBITDA growth at the same time**. Suddenlink revenues were **up 6.7%** in Q1 and **5.2%** in Q2 on a comparable basis, while EBITDA was up **18.5%** in Q1 and in Q2.

These first figures support our initiation thesis that **the US market is much more suited to Altice's DNA and know-how** than the French market, where it will take more time for Altice to deliver strong sustainable value. We remain **prudent on our revenues forecasts** for the US, with Suddenlink up 2% in 2017 and 2018, and Optimum stable, but we have increased our EBITDA forecast by 2% in 2017 and 2018, with Suddenlink 2017-2018 EBITDA CAGR at **7.1%** and Optimum 2017-2018 EBITDA CAGR at **5.5%**. We have also included extra restructuring costs.

Also, in Portugal, **revenue trend is improving**, with revenues down **3.0%** yoy in Q2, vs **-3.5%** in Q1 and **-7.5%** in 2015, with good turnaround of BtoB and progressive stabilization of BtoC. At the same time, EBITDA was up **20.9%** in Q1 and **22.5%** in Q2. Nevertheless we still remain prudent at this

point: on the revenue side, we expect a **stabilisation in 2017**, and we have updated our EBITDA assumptions by 2% in 2017 and 2018, with expected 2017-2018 EBITDA CAGR at **1.0%**

We are seeing, in US and Portugal, the confirmation that **the difficult situation faced in France should not be extrapolated** to other perimeters in the group.

1.3. France: increased cost cutting offsetting topline pressure

With regards to France, which represents **48%** of Altice's adjusted proforma 2016 EBITDA, we think doubts and risks around operational efficiency remain roughly **unchanged** since the beginning of the year, but consensus has appropriately adjusted to price this in more accurately. Indeed, commercial trend is **still unsatisfactory**: over H1 revenues are down **5.3%** yoy, SFR lost **324k** postpaid mobile customers and **118k** fixed customers when all competitors showed positive net adds. The management has **yet to regain confidence**, and **reinforced investments to produce their effects**. We think full recovery is still far ahead, and the challenge of **combining top line recovery and strong cost cutting** remains intact. Nevertheless, we expect a **return to EBITDA growth in Q3 at +3.3%** yoy (excluding media), and we believe guidance of EBITDA 2016 above EBITDA 2015 should be achieved. Also, **full year effect of 2016 cost cutting initiatives** in 2017, as well as **significant savings expected from the redundancy plan** will help **offset top line pressure and give time** for investments and operational turnaround to kick in.

Accordingly, we have impacted our model for France with run-rate **EUR335m OPEX savings in 2018**, of which **EUR202m** in 2017, and associated restructuring costs of **EUR800m** spread over 2016 and 2017. We have downgraded our assumptions for mobile and fixed net adds over 2017 and 2018 as shown in the table below. Excluding media, we expect France revenues to be flat in 2017, and **up 1.2%** yoy in 2018, vs down **-4.1%** in 2016, and we forecast EBITDA up **8.7%** in 2017 and **5.4%** in 2018, vs **3.3%** in 2016. We have also included the newly acquired media activities, which account for a full year additional **EUR80m** in post synergies EBITDA.

2. Updated assumptions and models

2.1. Valuation

Our fair value is based on the combination of discounted cash flow and sum of the parts methods, as presented below.

Fig. 1: Altice share valuation

Valuation method	Share price	Weight
DCF	24	50%
SOTP	14	50%
Fair Value	19,0	100%

Source: Bryan, Garnier & Co ests.

We have applied a growth rate to infinity of 1%, and a discount rate of 6%.

Fig. 2: Summary of DCF approach

Sum of disc. FCF	31 954
+ disc. terminal value	50 213
- net debt, 2016	- 48 580
- minority interests	- 4 377
- Provisions	1 643
Valuation	27 567
Nbre of shares (fully diluted)	1 134
Value per share	24

Source: Company Data; Bryan, Garnier & Co ests.

2.2. Financial data

Fig. 3: Updated Altice forecasts

	New estimates							Old estimates			% change		
	Q1 2016	Q2 2016	Q3 2016	Q4 2016	FY 2016	FY 2017	FY 2018	FY 2016	FY 2017	FY 2018	FY 2016	FY 2017	FY 2018
Revenues	4259	4522	5795	5841	20417	23344	23592	20068	23181	23474	1,7%	0,7%	0,5%
of which France	2569	2713	2772	2815	10869	11081	11204	10538	10644	10812	3,1%	4,1%	3,6%
of which US	570	731	1974	1984	5258	8025	8071	5066	8025	8071	3,8%	0,0%	0,0%
of which internat.	1120	1078	1049	1042	4289	4238	4317	4464	4512	4590	-3,9%	-6,1%	-6,0%
Adj. EBITDA	1615	1857	2322	2344	8139	9577	9960	7960	9435	9810	2,2%	1,5%	1,5%
of which France	869	1032	1107	1117	4124	4479	4713	4046	4335	4570	1,9%	3,3%	3,1%
of which US	242	322	722	743	2029	3097	3205	1900	3045	3143	6,8%	1,7%	1,9%
of which Internat.	505	504	493	485	1986	2002	2043	2015	2055	2096	-1,4%	-2,6%	-2,5%

Source: Company Data; Bryan, Garnier & Co ests.

Note: France consolidated in Altice, including Media. US including Optimum from end of June 2016.

Fig. 4: Breakdown of International revenues

	New estimates							Old estimates			% change		
	Q1 2016	Q2 2016	Q3 2016	Q4 2016	FY 2016	FY 2017	FY 2018	FY 2016	FY 2017	FY 2018	FY 2016	FY 2017	FY 2018
Total Revenues	1120	1078	1049	1042	4289	4238	4317	4464	4512	4590	-3,9%	-6,1%	-6,0%
Portugal	568	567	562	562	2260	2256	2284	2256	2256	2284	0,2%	0,0%	0,0%
Israël	231	235	231	224	921	939	965	916	939	965	0,5%	0,0%	0,0%
Dom. Rep.	177	174	175	177	704	723	748	734	763	788	-4,1%	-5,2%	-5,1%
FOT	48	50	47	47	192	186	186	188	186	186	1,9%	0,0%	0,0%
Others	95	52	34	34	214	134	134	371	368	368	-42,3%	-63,6%	-63,6%

Source: Company Data; Bryan, Garnier & Co ests.

Note: decrease in line "others" is mostly due to transfer of Nextradio TV from Altice to SFR.

Fig. 5: Breakdown of International EBITDA

	New estimates							Old estimates			% change		
	Q1 2016	Q2 2016	Q3 2016	Q4 2016	FY 2016	FY 2017	FY 2018	FY 2016	FY 2017	FY 2018	FY 2016	FY 2017	FY 2018
Total EBITDA	505	504	493	485	1986	2002	2043	2015	2055	2096	-1,4%	-2,6%	-2,5%
Portugal	275	277	274	268	1094	1105	1119	1076	1085	1099	1,7%	1,8%	1,8%
Israël	106	111	106	102	425	432	445	419	432	445	1,2%	0,0%	0,0%
Dom. Rep.	95	89	90	91	366	373	387	381	393	407	-4,1%	-5,1%	-4,9%
FOT	21	19	19	19	78	75	75	92	95	95	-15,7%	-21,1%	-21,1%
Others	23	16	11	11	62	45	45	82	79	79	-24,3%	-42,4%	-42,4%
Corp. Costs	-15,2	-9,2	-7	-7	-38,4	-28	-28	-36,2	-28	-28	6,1%	0,0%	0,0%

Source: Company Data; Bryan, Garnier & Co ests.

Note: decrease in line "others" is mostly due to transfer of Nextradio TV from Altice to SFR.

Fig. 6: Updated SFR Forecasts

	New estimates							Old estimates			Change		
	Q1 2016	Q2 2016	Q3 2016	Q4 2016	FY 2016	FY 2017	FY 2018	FY 2016	FY 2017	FY 2018	FY 2016	FY 2017	FY 2018
Total Revenues	2573	2723	2782	2826	10904	11122	11247	10553	10658	10827	351	464	419
Excl. Media	2573	2655	2656	2700	10584	10618	10743	10553	10658	10827	31	-40	-85
YoY growth	-6,1%	-4,5%	-4,2%	-1,6%	-4,1%	0,3%	1,2%	-4,4%	1,0%	1,6%			
BtoC	1763	1813	1835	1873	7283	7258	7274	7314	7353	7416	-31	-95	-142
BtoB	515	509	512	517	2053	2089	2145	2071	2113	2171	-18	-25	-25
Wholesale	295	333	310	310	1248	1271	1323	1169	1192	1240	80	80	83
Media	0	68	126	126	320	504	504	0	0	0	320	504	504
Adj. EBITDA	851	993	1087	1097	4028	4399	4633	3977	4266	4501	52	133	132
Excl. Media	851	979	1067	1077	3974	4319	4553	3977	4266	4501	-2	53	52
YoY growth	-9,0%	-6,7%	3,3%	27,9%	3,0%	8,7%	5,4%	3,0%	7,3%	5,5%			

Source: Company Data; Bryan, Garnier & Co ests.

Note: Figures differ from France figures in Altice because of intragroup adjustment effects at the Altice Group level.

Fig. 7: SFR BtoC KPIs

	New estimates							Old estimates			Change		
	Q1 2016	Q2 2016	Q3 2016	Q4 2016	FY 2016	FY 2017	FY 2018	FY 2016	FY 2017	FY 2018	FY 2016	FY 2017	FY 2018
Broadband net adds	-60947	-57517	-30000	-5000	-153464	-102500	-53001	-150947	-84173	-49501	-2517	-18327	-3500
Broadband ARPU	33,9	35,6	35,8	35,7	35,3	35,9	36,2	34,7	35,4	35,8	0,5	0,6	0,4
YoY growth	-1,2%	0,8%	0,1%	2,2%	0,5%	2,0%	0,8%	-1,0%	1,9%	1,2%			
Postpaid mob. net adds	-28137	-199495	-40000	70000	-197632	-113649	-15000	-48137	33211	33211	-149495	-146860	-48211
Postpaid mob. ARPU	24,6	25,0	25,9	25,3	25,2	25,5	25,9	25,3	25,7	26,1	-0,2	-0,2	-0,2
YoY growth	-3,5%	-4,2%	-2,6%	-0,2%	-2,6%	1,2%	1,4%	-2,1%	1,4%	1,4%			

Source: Company Data; Bryan, Garnier & Co ests.

Price Chart and Rating History

Altice



Ratings

Date	Ratings	Price
11/04/16	BUY	EUR13.8

Target Price

Date	Target price
19/07/16	EUR16.5
11/04/16	EUR16.3

Page left blank intentionally

Bryan Garnier stock rating system

For the purposes of this Report, the Bryan Garnier stock rating system is defined as follows:

Stock rating

BUY	Positive opinion for a stock where we expect a favourable performance in absolute terms over a period of 6 months from the publication of a recommendation. This opinion is based not only on the FV (the potential upside based on valuation), but also takes into account a number of elements that could include a SWOT analysis, momentum, technical aspects or the sector backdrop. Every subsequent published update on the stock will feature an introduction outlining the key reasons behind the opinion.
NEUTRAL	Opinion recommending not to trade in a stock short-term, neither as a BUYER or a SELLER, due to a specific set of factors. This view is intended to be temporary. It may reflect different situations, but in particular those where a fair value shows no significant potential or where an upcoming binary event constitutes a high-risk that is difficult to quantify. Every subsequent published update on the stock will feature an introduction outlining the key reasons behind the opinion.
SELL	Negative opinion for a stock where we expect an unfavourable performance in absolute terms over a period of 6 months from the publication of a recommendation. This opinion is based not only on the FV (the potential downside based on valuation), but also takes into account a number of elements that could include a SWOT analysis, momentum, technical aspects or the sector backdrop. Every subsequent published update on the stock will feature an introduction outlining the key reasons behind the opinion.

Distribution of stock ratings

BUY ratings 56,5%

NEUTRAL ratings 31,8%

SELL ratings 11,7%

Research Disclosure Legend

1	Bryan Garnier shareholding in Issuer	Bryan Garnier & Co Limited or another company in its group (together, the "Bryan Garnier Group") has a shareholding that, individually or combined, exceeds 5% of the paid up and issued share capital of a company that is the subject of this Report (the "Issuer").	No
2	Issuer shareholding in Bryan Garnier	The Issuer has a shareholding that exceeds 5% of the paid up and issued share capital of one or more members of the Bryan Garnier Group.	No
3	Financial interest	A member of the Bryan Garnier Group holds one or more financial interests in relation to the Issuer which are significant in relation to this report	No
4	Market maker or liquidity provider	A member of the Bryan Garnier Group is a market maker or liquidity provider in the securities of the Issuer or in any related derivatives.	No
5	Lead/co-lead manager	In the past twelve months, a member of the Bryan Garnier Group has been lead manager or co-lead manager of one or more publicly disclosed offers of securities of the Issuer or in any related derivatives.	No
6	Investment banking agreement	A member of the Bryan Garnier Group is or has in the past twelve months been party to an agreement with the Issuer relating to the provision of investment banking services, or has in that period received payment or been promised payment in respect of such services.	No
7	Research agreement	A member of the Bryan Garnier Group is party to an agreement with the Issuer relating to the production of this Report.	No
8	Analyst receipt or purchase of shares in Issuer	The investment analyst or another person involved in the preparation of this Report has received or purchased shares of the Issuer prior to a public offering of those shares.	No
9	Remuneration of analyst	The remuneration of the investment analyst or other persons involved in the preparation of this Report is tied to investment banking transactions performed by the Bryan Garnier Group.	No
10	Corporate finance client	In the past twelve months a member of the Bryan Garnier Group has been remunerated for providing corporate finance services to the issuer or may expect to receive or intend to seek remuneration for corporate finance services from the Issuer in the next six months.	No
11	Analyst has short position	The investment analyst or another person involved in the preparation of this Report has a short position in the securities or derivatives of the Issuer.	No
12	Analyst has long position	The investment analyst or another person involved in the preparation of this Report has a long position in the securities or derivatives of the Issuer.	No
13	Bryan Garnier executive is an officer	A partner, director, officer, employee or agent of the Bryan Garnier Group, or a member of such person's household, is a partner, director, officer or an employee of, or adviser to, the Issuer or one of its parents or subsidiaries. The name of such person or persons is disclosed above.	No
14	Analyst disclosure	The analyst hereby certifies that neither the views expressed in the research, nor the timing of the publication of the research has been influenced by any knowledge of clients positions and that the views expressed in the report accurately reflect his/her personal views about the investment and issuer to which the report relates and that no part of his/her remuneration was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in the report.	Yes
15	Other disclosures	Other specific disclosures: Report sent to Issuer to verify factual accuracy (with the recommendation/rating, price target/spread and summary of conclusions removed).	No

Summary of Investment Research Conflict Management Policy is available www.bryangarnier.com



BRYAN, GARNIER & CO

London	Paris	New York	Munich
Beaufort House	26 Avenue des Champs Elysées	750 Lexington Avenue	Widenmayerstrasse 29
15 St. Botolph Street	75008 Paris	New York, NY 10022	80538 Munich
London EC3A 7BB	Tel: +33 (0) 1 56 68 75 00	Tel: +1 (0) 212 337 7000	Germany
Tel: +44 (0) 207 332 2500	Fax: +33 (0) 1 56 68 75 01	Fax: +1 (0) 212 337 7002	+49 89 2422 62 11
Fax: +44 (0) 207 332 2559	Regulated by the	FINRA and SIPC member	
Authorised and regulated by the	Financial Conduct Authority (FCA) and the		
Financial Conduct Authority (FCA)	Autorité de Contrôle prudentiel et de		
	resolution (ACPR)		

Important information

This document is classified under the FCA Handbook as being investment research (independent research). Bryan Garnier & Co Limited has in place the measures and arrangements required for investment research as set out in the FCA's Conduct of Business Sourcebook.

This report is prepared by Bryan Garnier & Co Limited, registered in England Number 03034095 and its MIFID branch registered in France Number 452 605 512. Bryan Garnier & Co Limited is authorised and regulated by the Financial Conduct Authority (Firm Reference Number 178733) and is a member of the London Stock Exchange. Registered address: Beaufort House 15 St. Botolph Street, London EC3A 7BB, United Kingdom

This Report is provided for information purposes only and does not constitute an offer, or a solicitation of an offer, to buy or sell relevant securities, including securities mentioned in this Report and options, warrants or rights to or interests in any such securities. This Report is for general circulation to clients of the Firm and as such is not, and should not be construed as, investment advice or a personal recommendation. No account is taken of the investment objectives, financial situation or particular needs of any person.

The information and opinions contained in this Report have been compiled from and are based upon generally available information which the Firm believes to be reliable but the accuracy of which cannot be guaranteed. All components and estimates given are statements of the Firm, or an associated company's, opinion only and no express representation or warranty is given or should be implied from such statements. All opinions expressed in this Report are subject to change without notice. To the fullest extent permitted by law neither the Firm nor any associated company accept any liability whatsoever for any direct or consequential loss arising from the use of this Report. Information may be available to the Firm and/or associated companies which are not reflected in this Report. The Firm or an associated company may have a consulting relationship with a company which is the subject of this Report.

This Report may not be reproduced, distributed or published by you for any purpose except with the Firm's prior written permission. The Firm reserves all rights in relation to this Report.

Past performance information contained in this Report is not an indication of future performance. The information in this report has not been audited or verified by an independent party and should not be seen as an indication of returns which might be received by investors. Similarly, where projections, forecasts, targeted or illustrative returns or related statements or expressions of opinion are given ("Forward Looking Information") they should not be regarded as a guarantee, prediction or definitive statement of fact or probability. Actual events and circumstances are difficult or impossible to predict and will differ from assumptions. A number of factors, in addition to the risk factors stated in this Report, could cause actual results to differ materially from those in any Forward Looking Information.

Disclosures specific to clients in the United Kingdom

This Report has not been approved by Bryan Garnier & Co Limited for the purposes of section 21 of the Financial Services and Markets Act 2000 because it is being distributed in the United Kingdom only to persons who have been classified by Bryan Garnier & Co Limited as professional clients or eligible counterparties. Any recipient who is not such a person should return the Report to Bryan Garnier & Co Limited immediately and should not rely on it for any purposes whatsoever.

Notice to US investors

This research report (the "Report") was prepared by Bryan Garnier & Co Limited for information purposes only. The Report is intended for distribution in the United States to "Major US Institutional Investors" as defined in SEC Rule 15a-6 and may not be furnished to any other person in the United States. Each Major US Institutional Investor which receives a copy of this Report by its acceptance hereof represents and agrees that it shall not distribute or provide this Report to any other person. Any US person that desires to effect transactions in any security discussed in this Report should call or write to our US affiliated broker, Bryan Garnier Securities, LLC, 750 Lexington Avenue, New York NY 10022. Telephone: 1-212-337-7000.

This Report is based on information obtained from sources that Bryan Garnier & Co Limited believes to be reliable and, to the best of its knowledge, contains no misleading, untrue or false statements but which it has not independently verified. Neither Bryan Garnier & Co Limited and/or Bryan Garnier Securities LLC make no guarantee, representation or warranty as to its accuracy or completeness. Expressions of opinion herein are subject to change without notice. This Report is not an offer to buy or sell any security.

Bryan Garnier Securities, LLC and/or its affiliate, Bryan Garnier & Co Limited may own more than 1% of the securities of the company(ies) which is (are) the subject matter of this Report, may act as a market maker in the securities of the company(ies) discussed herein, may manage or co-manage a public offering of securities for the subject company(ies), may sell such securities to or buy them from customers on a principal basis and may also perform or seek to perform investment banking services for the company(ies).

Bryan Garnier Securities, LLC and/or Bryan Garnier & Co Limited are unaware of any actual, material conflict of interest of the research analyst who prepared this Report and are also not aware that the research analyst knew or had reason to know of any actual, material conflict of interest at the time this Report is distributed or made available..