

# Morning Update



19th October 2021

## OSE IMMUNO

Healthcare  
Biotech

## BUY

|              |              |
|--------------|--------------|
| TARGET PRICE | EUR17 (+71%) |
| SHARE PRICE  | EUR9.97      |
| EPS 3Y CAGR  | NM           |

### R&D day highlights the ongoing progress on the clinical and preclinical sides

#### KOL underlined favourable benefit/risk profile of Tedopi in NSCLC

Last week OSE Immunotherapeutics held an R&D day, highlighting its recent clinical and preclinical progress. On the clinical side, the presentation by Dr. Benjamin Besse, Head of the Cancer Medicine Department at Gustave Roussy, highlighted the final results from the phase III Atalante-1 study of Tedopi, recently presented at ESMO 2022 (see our note from [September 23rd](#)). As we discussed previously, in patients with secondary resistance to sequential CT-CPIs (population of interest or Pol), Tedopi improved mOS to 11.1 months compared to 7.5 months for chemotherapy (HR=0.59, p=0.02).

Dr. Besse provided an overview of the standard of care in NSCLC patients post CPI or CT-CPIs (without driver genomic alterations), underlining that SoC in most cases includes docetaxel as majority of the patients would receive CT previously. He highlighted that in Atalante-1, while DCR was similar between the study arms and ORR favoured SoC, Tedopi improved mOS and median post-progression survival in Pol as stand-alone therapy, with 60% of patients receiving subsequent treatment in Tedopi arm vs 42% in SoC. Dr. Besse stressed out a very favourable safety profile of Tedopi, with improved time to ECOG worsening: 8.6 vs 3.3 months (HR=0.45, p=0.0005), and concluded by discussing the evolving treatment landscape in NSCLC post CT-IO (Fig. 1). Among the presented studies, while the competition showed better ORR and PFS (based on early data), safety profile looks much more favourable for Tedopi. According to Dr. Besse, Tedopi had the most favourable benefit/risk ratio as VEGF TKIs and ADCs have shown worse toxicity profile.

As communicated previously, OSE is planning the discussions with the FDA and the EMA regarding the optimal regulatory path for Tedopi in NSCLC post CPI failure and we believe that another study in Pol setting will be required. As per Dr. Besse, the definition of secondary resistance could vary between patients that received only CPIs or CT-CPI together or sequential CT-CPI and we will be looking forward to hear the feedback from the regulators on the potential study design.

#### Combination studies for Tedopi

In our view, with clean safety profile and clinical activity as monotherapy, Tedopi is a promising combination partner. We remind that several combination studies are underway: i) the phase II Comb-TED study (n=105) in mNSCLC with secondary resistance to CT-CPI in combination with Opdivo or docetaxel vs docetaxel alone. The study will receive support from FoRT, Italian oncology foundation, and is expected to readout in 2024; ii) the phase II TEDOVA study (n=180) in ovarian cancer (1st or 2nd platinum sensitive relapse) as monotherapy or in combination with Keytruda vs best supportive care. This study is sponsored by ARCAGY-GINECO, French National Investigators Group for ovarian and breast cancer studies, and the anticipated completion is in 2025; iii) the phase II TEDOPaM study in pancreatic cancer in combination with FOLFIRI vs FOLFIRI alone, sponsored by GERCOR, French oncologists association, and is expected to redout in 2024.

(continued on next page)

Olga Smolentseva, PhD | 33(0) 1 56 68 75 57 | [osmolentseva@bryangarnier.com](mailto:osmolentseva@bryangarnier.com)

[Click here to download](#)

| Market Data            |                  |
|------------------------|------------------|
| Bloomberg / Reuters    | OSE FP/OSE.PA    |
| Market Cap.            | EUR182m          |
| E.V.                   | EUR172m          |
| Free Float             | 0%               |
| Avg. Daily volume (6m) | 77.70            |
| 12m high / low         | EUR15.0 / EUR6.3 |
| Ytd Perf.              | 38.5%            |

| EURM       | 12/20 | 12/21e | * 12/22e | * 12/23e |
|------------|-------|--------|----------|----------|
| Sales      | 10.4  | 18.9   | 18.1     | 35.8     |
| % Change   |       | 81.4%  | -4.3%    | 97.9%    |
| EBITDA     | -19.0 | -18.1  | -10.8    | 1.8      |
| % Change   |       | 4.7%   | 40.2%    | NS       |
| EBIT       | -19.0 | -18.1  | -10.8    | 1.8      |
| % Change   |       | 4.7%   | 40.2%    | NS       |
| Net Income | -16.6 | -11.5  | -6.2     | 5.3      |
| % Change   |       | 30.6%  | 45.8%    | NS       |
| ROE        | NM    | NM     | NM       | NM       |

\*Data have been modified by at least +/- 5% from last publication

|           | 12/20 | 12/21e | * 12/22e | * 12/23e |
|-----------|-------|--------|----------|----------|
| EV/Sales  | 16.8x | 9.8x   | 10.6x    | 5.2x     |
| EV/EBITDA | NS    | NS     | NS       | 102.0x   |
| EV/EBIT   | NS    | NS     | NS       | 102.0x   |
| EPS       | -1.06 | -0.64  | -0.35    | 0.29     |
| % change  |       | 40.0%  | 45.8%    | NS       |
| P/E       | NM    | NM     | NM       | 34.8x    |
| Div Yield | NM    | NM     | NM       | NM       |

#### Next Catalyst :

Initiation of the phase II study of BI 765063 - Q4 2021/Q1 2022

#### Last rating Change:

[2020-1-13, Winning by DEALing with early-stage programs](#)

#### Last FV Change:

[2021-4-6, Positive 2021 outlook with anticipated advancements of the lead clinical programmes](#)

#### Last Reports:

[2021-9-23, Shaping up the pipeline of novel therapies in oncologic and autoimmune indications](#)

# Morning Update

We remind that antigens, included in the Tedopi's design (such as MAGE2, MAGE3, CEA, HER2/neu, and P53 with a PADRE), are among broadly expressed tumour-associated antigens. For instance, ovarian cancers express MAGE-A2, MAGE-A3 and PRAME as well. Therefore, Tedopi could potentially be applied in different solid tumours. As we discussed previously, if positive, we believe that clinical updates from the combination studies could strengthen Tedopi's profile for potential in-licensing partner.

**Figure 1: Competitive landscape in NSCLC post CT-CPIs**

| Company              | MIRATI<br>THERAPEUTICS       | Roche<br>EXELIXIS<br>IPSEN   | MERCK<br>Eisai                 | gsk                                | AstraZeneca<br>Daiichi-Sankyo       | SANOFI                  | OSE IMMUNO<br>THERAPEUTICS    |
|----------------------|------------------------------|------------------------------|--------------------------------|------------------------------------|-------------------------------------|-------------------------|-------------------------------|
| Target               | TKIs                         |                              |                                | Immunotherapy                      | ADC                                 |                         | Multi-epitope vacci           |
|                      |                              |                              |                                | TIM-3                              | TROP2                               | CEACAM5                 |                               |
| Study                | MRTX-500                     | CONTACT-01                   | LEAP-008                       | COSTAR Lung                        | Tropion                             | CARMEN-LC03             | ATALANTE-1                    |
| n                    | 500                          | 350                          | 405                            | 250                                | 590                                 | 554                     | 219                           |
| Therapy              | Sitra + Opdivo vs. docetaxel | Cabo+Tecentriq vs. docetaxel | Lenvi + Keytruda vs. docetaxel | Cobolimab + Jemperli vs. docetaxel | datopotamab deruxtecan vs docetaxel | SAR408701 vs. docetaxel | Tedopi vs docetax             |
| Primary endpoints    | OS                           | OS                           | PFS and OS                     | OS and ORR                         | PFS and OS                          | PFS and OS              | OS                            |
| Initiation           | Q3 2019                      | Q3 2020                      | Q2 2019                        | Dec 2020                           | Q4 2020                             | Q1 2020                 | 2017                          |
| Read-out             | H2 2022 (interim)            | 2023                         | 2023+                          | 2024+                              | 2022+                               | 2022e                   | 2021                          |
| Available data       | n=68<br>Secondary resistance | n=30                         | n=21                           |                                    | n=175<br>Dose levels: 4, 6, 8 mg/kg |                         | n=118<br>Secondary resistance |
| mOS                  | 15 mo                        |                              |                                |                                    |                                     |                         | 11.5 mo                       |
| mPFS                 | 5.7 mo                       |                              | 5.9 mo                         |                                    | 4.3 mo, 8.2 mo, 5.4 mo              |                         | 2.7 mo                        |
| ORR                  | 18%                          | 27%                          | 33%                            |                                    | 23%, 21%, 25%                       |                         | 8%                            |
| CR                   | 3%                           |                              | 5%                             |                                    | 0%, 0%, 1%                          |                         |                               |
| mDOR                 | 12.8                         | 5.7 mo                       | 10.9 mo                        |                                    | NE, 10.5 mo, 9.4 mo                 |                         |                               |
| Gr3/4 TRAEs          | 66%                          |                              | 67%                            |                                    | 10%, 16%, 34%                       |                         | 11%                           |
| Discontinuation rate | 22%                          |                              | 13%-15%                        |                                    | 16%, 14%, 24%<br>ILD                |                         | 0%                            |

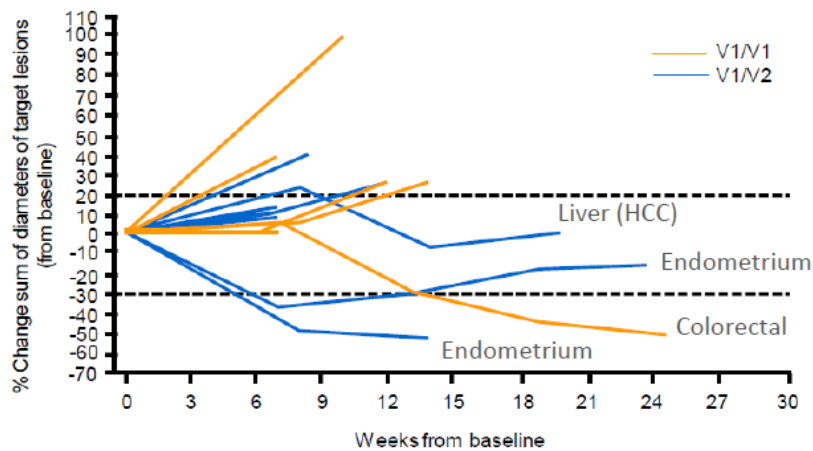
Source: OSE presentation and Bryan Garnier Research

## Highlighting advantages of targeting SIRPα

Another clinical presentation included discussion on OSE's anti-SIRPα therapy, out-licensed to Boehringer Ingelheim, BI 765063. The results from the phase I dose-escalation part of the study of BI 765063 in combination with anti-PD-1 from BI, ezabentlimab, in solid tumours were presented at ESMO 2021 as well (see our note from [September 17th](#)). We remind that out of 16 evaluable patients, who received 2-5 prior lines of systemic therapy, three had confirmed PRs (although one PR was not sustained): two patients with endometrial cancer and one with CRC. Two patients with known tumour characteristic had MSS and PD-L1+ status. Additionally, one patient with HCC achieved stable disease (Fig. 2). We also note that while numbers are limited there was no notable difference between responses in V1/V1 and V1/V2 patients, suggesting that it could be sufficient to target only V1 SIRPα even in heterozygous patients. Although dose-expansion part of the phase I study is expected to include only V1/V1 patients, V1/V2 population could be included in the following phase II. We remind that according to company's estimates, 43% of the study population carried V1/V1 phenotype and 45% - V1/V2, leading to potential total coverage of 88% of target population.

While early, considering MSS status and number of prior lines of therapy, we believe that the combination of BI 765063 and ezabentlimab showed encouraging clinical activity. We note that the competitive asset, an anti-CD47 magrolimab from Forty Seven (now Gilead), did not impress in r/rCRC (although in combination with cetuximab in cetuximab-refractory setting): in the combined phase I+II study, only two out of 30 evaluable KRASwt CRC patients had confirmed PRs for 7.0 and 12.5 months, with mPFS and mOS of 3.6 and 10.1 months, respectively. In our view, BI 765063 and ezabentlimab combo could potentially prove to be a more effective combination in CRC, as well as endometrial cancer. While PD-L1 status does not directly correlate with responses to anti-PD-(L)1 in MSS type of disease (as response to CPI in this setting is very poor in general), we will be watching the data from the dose-expansion part of the phase I to better understand if PD-L1 status could serve as a biomarker for response to this combination.

Figure 2: Clinical activity of BI 765063 and ezabenlimab combination



Source: OSE's R&D day presentation

We also previously discussed that beyond improved safety profile, one of the advantages of selective SIRP $\alpha$ -targeting (vs CD47) is the avoidance of SIRP $\gamma$  inhibition as CD47 could interact with this receptor as well (see our note from [January, 2020](#)). Unlike SIRP $\alpha$ , SIRP $\gamma$  is expressed on T-cells and might be important for their migration to the tumor site. OSE's CSO Dr. Nicolas Poirier highlighted the potential role of SIRP $\gamma$  in T cell proliferation during PD-1/L1 blockade as it was one of the few upregulated genes that differentiated responders vs non-responders. These conclusions are based on the melanoma, renal and gastric cancers samples, which showed that SIRP $\gamma$ + T cells were enriched in anti-PD-1 responders. According to Dr. Poirier, the preclinical models would not be able to show this important feature of SIRP $\gamma$  as its expression is specific to primates. Overall, the selective inhibition of SIRP $\alpha$  could bypass a potential 'off-target' inhibition of SIRP $\gamma$ , potentially representing a better combination partner for CPIs.

## Preclinical pipeline focus

Among myeloid checkpoint inhibitors, like SIRP $\alpha$ /CD47 pathway, OSE also highlighted a novel preclinical asset, which targets CLEC-1 pathway and could be moved into the clinic in H2 2023. Under normal conditions CLEC-1, a C-type lectin receptor that is expressed on dendritic cells and macrophages, helps to prevent immune cell mediated tissue damage by suppressing the activation of myeloid cells. Albeit, in the tumor context CLEC-1 signalling helps to evade the immune response. Notably, expression of the CLEC-1 ligand surges in 'stressed' tumour cells and inhibits tumour phagocytosis and cross-priming to T cells. The preclinical data, presented by the company earlier at AACR 2020 meeting showed that targeting CLEC-1 signalling with antagonistic antibody synergized with chemotherapy and induced complete response in 37% of mice versus 0% in chemotherapy group (context of stressed tumour cells). CLEC-1 antagonist also showed synergy with tumour-targeting antibodies, such as rituximab, cetuximab and trastuzumab in *in vitro* studies. Thus, we believe that targeting CLEC-1 could represent a novel and promising therapeutic strategy in multiple tumor types.

Among the preclinical pipeline, the company also highlighted its bispecific BiCKI platform, which is based on the backbone of in-house anti-PD-1 antibody (OSE-279). The first clinical asset is expected to target PD-1 and simultaneously induce IL-7 signalling. We remind that the preclinical studies of OSE-279 showed full inhibition of PD-1 signalling and the ability to suppress tumor growth (see our note from January 2020). As per IL-7, it binds to the IL-7 receptor (IL-7R $\alpha$ ) on the surface of T cells and triggers their proliferation and long-term survival. Importantly, IL-7 induces naïve and memory T cells proliferation without expansion of immuno-suppressive T regs (like earlier IL-2 assets). Dr. Poirier also discussed the [academic paper](#) published in Nature in 2021, which showed that while TILs have lower IL-7R expression those are exhausted apoptotic populations and anti-PD-1 non-response specifically had lower IL-7R expression. The authors suggested that because IL-7 signalling is a requisite for maintenance of T cell homeostasis and long-lived memory, targeting the IL-7 pathway could enhance response to CPIs, which bodes well for OSE's first BiCKI asset. OSE's preclinical studies have shown that BiCKI-IL-7 could prevent T-cells exhaustion and restore TILs reactivation. BiCKI-IL-7 is currently expected to reach the clinical phase in H2 2022.

We also note that the preclinical data on both assets will be presented at SITC 2021, which will take place on November 12-14, and the abstracts are expected to be released on November 9th.

Overall, we highlight the expanding OSE's pipeline and the ongoing progress on both clinical and preclinical sides. Considering OSE's track-record in securing early partnership agreements, we believe that the company has all cards in hands to reproduce previous success in the future as well as to continue the progress on clinical side.

# Morning Update

## OSE IMMUNO

|              |              |
|--------------|--------------|
| <b>BUY</b>   |              |
| Target price | EUR17 (+71%) |
| Share price  | EUR9.97      |
| Market Cap.  | EUR182m      |
| EPS 3Y CAGR  | NM           |

| Fiscal year end 31/12                   | 2019    | 2020    | * 2021e | * 2022e | * 2023e |
|---|---------|---------|---------|---------|---------|
| <b>Financial Summary</b>                |         |         |         |         |         |
| EPS (EUR)                               | -0.31   | -1.06   | -0.64   | -0.35   | 0.29    |
| Restated EPS (EUR)                      | -0.31   | -1.06   | -0.64   | -0.35   | 0.29    |
| % change                                | -184.5% | -239.9% | -40.0%  | -45.8%  | -       |
| Net dividend (EUR)                      | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| Average yearly Price                    | 3.7     | -       | -       | -       | -       |
| Avg. Number of shares, diluted (m)      | 14.8    | 15.6    | 18.0    | 18.0    | 18.0    |
| Historical Enterprise value (EURm)      | 8.61    | -       | -       | -       | -       |
| <b>Valuation (x)</b>                    |         |         |         |         |         |
| EV/Sales                                | 0.3x    | -       | 9.65x   | 10.38x  | 5.07x   |
| EV/EBITDA                               | -5.9x   | -       | NM      | NM      | 99.87x  |
| EV/EBIT                                 | -5.9x   | -       | NM      | NM      | 99.87x  |
| P/E                                     | -11.9x  | -       | NM      | NM      | 34.12x  |
| Net dividend yield (%)                  | 0.0%    | -       | NM      | NM      | NM      |
| <b>Profit &amp; Loss Account (EURm)</b> |         |         |         |         |         |
| Revenues                                | 26.0    | 10.4    | 18.9    | 18.1    | 35.8    |
| Change (%)                              | 6%      | -60%    | 81%     | -4%     | 98%     |
| R&D                                     | -21.6   | -22.4   | -27.0   | -22.0   | -27.0   |
| Adjusted EBITDA                         | -1.4    | -19.0   | -18.1   | -10.8   | 1.8     |
| EBIT                                    | -1.4    | -19.0   | -18.1   | -10.8   | 1.8     |
| Change (%)                              | -1.3    | -12.1   | 0.0     | -0.4    | -       |
| Financial results                       | 0.0     | -0.3    | -0.2    | -0.4    | -0.4    |
| Pre-Tax profits                         | -1.5    | -19.2   | -18.3   | -11.2   | 1.4     |
| Exceptionals                            | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Tax                                     | -3.2    | 2.7     | 6.8     | 5.0     | 3.8     |
| Profits from associates                 | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Minority interests                      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Net profit                              | -4.6    | -16.6   | -11.5   | -6.2    | 5.3     |
| Restated net profit                     | -4.6    | -16.6   | -11.5   | -6.2    | 5.3     |
| Change (%)                              | -185%   | -257%   | -31%    | -46%    | -       |
| <b>Cash Flow Statement (EURm)</b>       |         |         |         |         |         |
| Operating cash flows                    | -5      | -17     | -11     | -6      | 5       |
| Change in working capital               | 9       | -3      | 0       | 0       | 0       |
| Capex, net                              | 5.27    | -0.02   | 0.88    | 0.88    | 0.88    |
| Free Cash flow                          | 9       | -19     | -11     | -5      | 6       |
| Financial investments, net              | 2.4     | -0.5    | 0.0     | 0.0     | 0.0     |
| Dividends                               | 0       | 0       | 0       | 0       | 0       |
| Capital increase                        | 6       | 24      | 10      | 10      | 0       |
| Other                                   | -1      | -1      | 0       | 0       | 0       |
| Net debt (+)/cash (-)                   | -15     | -11     | 0       | 5       | -1      |
| <b>Balance Sheet (EURm)</b>             |         |         |         |         |         |
| Tangible fixed assets                   | 1.0     | 0.9     | 0.9     | 0.9     | 0.9     |
| Intangibles assets                      | 52.6    | 52.6    | 51.7    | 50.8    | 50.0    |
| Cash & equivalents                      | 25.8    | 29.4    | 28.5    | 32.9    | 38.8    |
| current assets                          | 7.2     | 10.5    | 10.5    | 10.5    | 10.5    |
| Other assets                            | 2.3     | 3.6     | 3.6     | 3.6     | 3.6     |
| Total assets                            | 88.9    | 97.0    | 95.2    | 98.7    | 103.8   |
| L & ST Debt                             | 11.2    | 18.9    | 28.7    | 38.4    | 38.2    |
| Provisions                              | 0.4     | 0.5     | 0.5     | 0.5     | 0.5     |
| Others liabilities                      | 16.8    | 13.5    | 13.5    | 13.5    | 13.5    |
| Minority interests                      | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| Shareholders' funds                     | 58.5    | 61.4    | 49.9    | 43.6    | 48.9    |
| Total Liabilities                       | 30.4    | 35.6    | 44.8    | 54.5    | 54.3    |
| <b>Ratios</b>                           |         |         |         |         |         |
| Gross margin                            | 100.0%  | 100.0%  | 100.0%  | 100.0%  | 100.0%  |
| EBITDA margin                           | -5.6%   | -182.3% | -95.7%  | -59.8%  | 5.1%    |
| Operating margin                        | -5.6%   | -182.3% | -95.7%  | -59.8%  | 5.1%    |
| Tax rate                                | -       | -       | -       | -       | -       |
| Net margin                              | -17.9%  | -158.9% | -60.8%  | -34.5%  | 14.7%   |
| Dividend payout                         | 0.0%    | 0.0%    | 0.0%    | 0.0%    | 0.0%    |

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

# Bryan Garnier stock rating system

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

## Stock rating

|                        |  |
|------------------------|--|
| <b>CONVICTION BUY</b>  | The highest possible rating, based on a very strong conviction in the mid/long-term outlook and strategic choices made by a company, and should therefore be reflected in the extent of upside in the associated target price. There is no reason to limit the number of CONVICTION BUY ratings, however they must also reflect some kind of preference in relative terms within a sector.   |
| <b>BUY</b>             | This rating should traditionally be applied to companies for which we expect a positive absolute share price performance over a 6 to 12 month period. The opinion is based not only on the TP (which represents theoretical upside relative to the current share price over a 12-month period) but also takes into consideration a number of other factors that may include a SWOT analysis, momentum, technical aspects or the sector backdrop.   |
| <b>NEUTRAL</b>         | This rating is the equivalent of a recommendation not to trade in a stock in the short term, either as a buyer or a seller, for many potential reasons. The view is intended to be temporary since it has been proven that few stocks actually remain within a narrow -5%/+5% range over a long period of time. The rating is particularly valid in exceptional market conditions. Our intention is to limit the total number of NEUTRAL ratings to 20%.   |
| <b>SELL</b>            | This rating should traditionally be applied to companies for which we expect a negative absolute share price performance over a 6 to 12 month period. The opinion is based not only on the TP (which represents theoretical downside or overly-low upside from the current share price over a 12-month period) but also takes into consideration a number of other factors that may include a SWOT analysis, momentum, technical aspects or the sector backdrop.   |
| <b>CONVICTION SELL</b> | This is the lowest possible rating reflecting a strong disagreement with the main strategic choices made by a company, pointing to the risk of de-rating and value destruction and which is obviously also reflected in downside potential between the share price and the target price.   |
| <b>NOT RATED</b>       | Covered stocks may be "Not rated" when we view them as being interesting for one or several strategic themes in our universe, but consider that we do not have a general enough perspective or overall assessment of them to be able to issue a rating. As such, our comments are limited to topics where we believe we can add value. More specifically, quarterly earnings will not be commented on per se.  |
| <b>TOP PICK</b>        | At the start of every calendar quarter, we issue a list of our preferred stocks across the coverage universe and specific to each sector. Top Picks are stocks for which we expect the quarterly performance to be very positive, on the back of short-term catalysts. Unlike recommendations that usually rely on fundamental aspects and reflect mid to long-term opinions, Top Picks must represent a selection of expected strong performers over a short period of time, therefore focusing on momentum. Top Picks must be either BUY or CONVICTION BUY-rated stocks and must show upside potential to their TP. Top Pick is not a recommendation per se but an extra status for a stock.   |
| <b>TARGET PRICE</b>    | As of September 2020, we are moving our historical FV (Fair Value) system to share our views on the theoretical valuation of a company, to a TP (Target Price) system. The main reason behind this change is to provide flexibility in reflecting the different scenarios and assumptions we make for each investment case. FV was the theoretical valuation of a company NOW. TP will be the theoretical value of a company over a standard 12-month period. With this new system, it will therefore be possible to include many more scenarios, to make more accurate and precise assumptions and to some extent, to project ourselves at the right time for the purpose of the investment case. With TP instead of FV, we should also be more aligned with our ratings, which is always better for a good global understanding of our opinions. |

## Distribution of stock ratings

Conviction BUY ratings 6.5%      BUY ratings 61.2%      NEUTRAL ratings 18%      SELL ratings 14.4%      Conviction SELL ratings 0%

## ESG

|              |               |   |
|--------------|---------------|---|
| <b>E S G</b> | <b>GREEN</b>  | The highest possible rating, reflecting a positive overall assessment of the company re pre-defined criteria.                   |
|              | <b>ORANGE</b> | The rating means that we have identified at least one topic which deserves attention and would require corrective measures.     |
|              | <b>RED</b>    | This is a red flag. The rating says that there is at least one topic identified that is simply not acceptable at present state. |
|              | <b>GREY</b>   | Not rated, mainly because of insufficient data.   |

## 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.  | YES |
| 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  |

A copy of the Bryan Garnier & Co Limited conflicts policy in relation to the production of research is available at [www.bryangarnier.com](http://www.bryangarnier.com)

| London  | Paris   | Munich   | New York  |
|---|---|--|---|
| 16 Old Queen Street<br>London SW1H 9HP<br>United Kingdom              | 26 Avenue des Champs-Élysées<br>75008 Paris<br>France | Widenmayerstrasse 29<br>80538 Munich<br>Germany      | Bryan Garnier Securities LLC<br>750 Lexington Avenue<br>16th floor<br>New York, NY 10022<br>United States |
| +44 207 332 2500  | +33 1 56 68 75 20                                     | +49 89 2422 62 11                                    | +1 212 337 7000   |
| Oslo  | Stockholm   | Reykjavik  |   |
| Beddingen 8, Aker Brygge<br>Postbox: 0117 Oslo<br>Oslo 0250<br>Norway | Nybrokajen 5<br>111 48 Stockholm<br>Sweden            | Höfðatorg, Katrínartún 2<br>105 Reykjavík<br>Iceland |   |
| +47 908 45 025  | +46 722 401 080                                       | +354 554 78 00                                       |   |

## IMPORTANT INFORMATION

|   |  |   |  |
|---|--|---|--|
| <p>This Report is produced by:<br/>BRYAN GARNIER &amp; Co Limited</p> <p>A company under UK law, whose head office is located at 16 Old Queen Street, SW1H 9HP, London (UK), recorded in the UK Commercial Register under the number 03034095</p> <p>Bryan Garnier &amp; Co Limited is approved and regulated by the FCA.</p> <p>Head of Research at the branch office in France: Mr Thomas COUDRY</p> <p>This Report is distributed by:<br/>BRYAN GARNIER SECURITIES</p> <p>A joint-stock company, whose head office is located at 26 avenue des Champs Elysées, 75008 Paris (France), registered in the Paris Commercial Register under the number 849,438,478,</p> <p>Bryan Garnier Securities is approved and regulated by the ACPR and the AMF.</p> <p>Person responsible for the publication: Mr Gregoire Gillingham</p> <p>Hereinafter, the unit made up of Bryan Garnier &amp; Co Limited and Bryan Garnier Securities will be designated as "Bryan Garnier".</p> <p>This document is classified as being investment research (independent research). Bryan Garnier has in place the measures and arrangements required for investment research as set out in the regulation. .</p> | <p>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.</p> <p>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.</p> | <p>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.</p> <p>This Report is based on information obtained from sources that Bryan, Garnier &amp; 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 &amp; 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.</p> <p>Bryan Garnier and/or its affiliates, 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).</p> | <p>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.</p> <p>Disclosures specific to clients in the United Kingdom:</p> <p>This Report has not been approved by Bryan, Garnier &amp; 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 &amp; Co Limited as professional clients or eligible counterparties. Any recipient who is not such a person should return the Report to Bryan Garnier &amp; Co Limited immediately and should not rely on it for any purposes whatsoever.</p> <p>Notice to US investors</p> <p>This research report (the "Report") was prepared by Bryan Garnier &amp; 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.</p> |
|---|--|---|--|