EDISON

# Oryzon Genomics

Q224 results

## Multiple milestones anticipated in H224

Pharma and biotech

**Oryzon's Q224 results summarised an active quarter for its clinical pipeline, with multiple milestones expected in H224. Central to the H224 momentum will be the upcoming FDA end-of-Phase II (EoP2) meeting for vafidemstat in BPD, for which a positive outcome would provide impetus to subsequent plans. Interim data from FRIDA (iadademstat in AML) was encouraging, and with several additional combination trials planned, the second half of the year will continue to be highly active. Operating results threw no surprises, with R&D expenses remaining soft (€2.2m in Q224) following the PORTICO trial completion in late 2023. The period-end gross cash balance of €10.1m was supported by another €4m drawdown from the November 2023 convertible debt facility and should support operations into FY25. As we make minor revisions to our estimates, our valuation adjusts to €774.7m versus €748.8m previously. Our per share valuation remains unchanged (€12.1) on a higher post-conversion share count.**

| Year end | Revenue (€m) | PBT* (€m) | EPS* (€) | DPS (€) | P/E (x) | Yield (%) |
|---|---|---|---|---|---|---|
| 12/22 | 15.7 | (6.6) | (0.07) | 0.0 | N/A | N/A |
| 12/23 | 14.2 | (6.1) | (0.06) | 0.0 | N/A | N/A |
| 12/24e | 8.6 | (4.9) | (0.05) | 0.0 | N/A | N/A |
| 12/25e | 31.6 | 15.5 | 0.28 | 0.0 | N/A | N/A |

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

## Q224 results summarise an active period

Oryzon's Q224 results reflect an active period, and borderline personality disorder (BPD) for vafidemstat and acute myeloid leukaemia (AML) for iadademstat remain top priorities. Notably in AML, Oryzon reported a positive update in June 2024 for the FRIDA trial, with the next update expected in December 2024. Beyond its clinical activities, Oryzon recently received the INNOVATIVE SME seal from the Spanish Ministry of Science and Innovation, and was selected as an associated partner of Med4Cure. In our view, such external recognition serves as an endorsement of Oryzon's R&D capabilities and robust position in the field of epigenetics.

## Next key catalyst: End-of-Phase II meeting for BPD

Management confirmed that it has been granted an FDA EoP2 meeting to discuss a registrational Phase III BPD programme for vafidemstat. While a precise date has not yet been disclosed, FDA guidelines aim to schedule EoP2 meetings within 70 days from the receipt of the request, with formal written minutes from the regulators within 30 days after the meeting. As such, we expect an update within Q424, with the outcome potentially representing Oryzon's next significant upcoming catalyst.

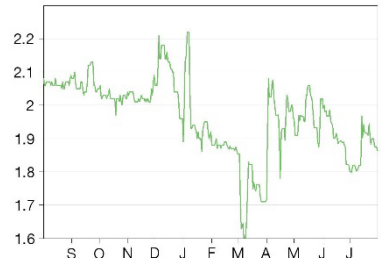
## Valuation: €774.7m or €12.1 per basic share

We have made only minor adjustments to our estimates based on the Q224 results. Our overall valuation benefits (€774.7m vs €748.8m previously) from the model roll-forward and a slightly lower net debt position However, the per share valuation remains unchanged at €12.1 given the higher share count following €3.6m of debt-to-equity conversion in the quarter. Current gross cash balance (€10.1m) should support operations into FY25, although we expect further debt drawdowns in H224.

**1 August 2024**

| | |
|---|---|
| **Price** | **€1.86** |
| **Market cap** | **€119m** |
| Net debt (€m) at 30 June 2024 | 3.2 |
| Shares in issue | 64.0m |
| Free float | 82% |
| Code | ORY |
| Primary exchange | Madrid Stock Exchange |
| Secondary exchange | N/A |

### Share price performance




| % | 1m | 3m | 12m |
|---|---|---|---|
| Abs | 2.4 | (5.0) | (10.3) |
| Rel (local) | 1.3 | (6.8) | (21.8) |
| 52-week high/low | | €2.22 | €1.60 |

### Business description

Oryzon Genomics is a Spanish biotech focused on epigenetics. Iadademstat is being explored for acute leukaemias, small-cell lung cancer and neuroendocrine tumours. Vafidemstat, its central nervous system asset, has completed several Phase IIa trials and a Phase IIb trial in borderline personality disorder (now the lead programme), and is in a Phase IIb trial in schizophrenia.

### Next events

| | |
|---|---|
| FDA EoP2 meeting (BPD) outcome | Q424 |
| EVOLUTION trial timeline update | H224 |
| FRIDA trial update | Dec 2024 |
| HOPE trial initiation | 2024 |

### Analysts


Soo Romanoff +44 (0)20 3077 5700

Jyoti Prakash, CFA +44 (0)20 3077 5700

Dr Arron Aatkar +44 (0)20 3077 5700

healthcare@edisongroup.com

Edison profile page

# CNS and oncology pipelines continue to advance

## Vafidemstat – central nervous system indications

Oryzon's lead central nervous system (CNS) programme is developing vafidemstat as a potential treatment for BPD. As part of its Q224 results, the company confirmed that it has been granted an EoP2 meeting with the FDA for a potential registrational Phase III programme, and the current strategic priority for management is focused on preparing for this meeting. While a precise date has not yet been disclosed, we anticipate a meeting in Q324, with an outcome to be reached before year-end (we project an outcome in Q424). As a reminder, the Phase IIb PORTICO trial concluded in January 2024, and while the study fell short of meeting its primary endpoint, nominal statistical significance was achieved in two key secondary endpoints, and vafidemstat was favoured over placebo in all efficacy measures. Oryzon has now completed the full data analysis and final data will be presented at the 37th European College of Neuropsychopharmacology annual conference in September 2024. We highlight that the FDA has in the past provided provisional support for Phase III study proposals in instances where there have been Phase II setbacks if the data is otherwise compelling on other parameters. This was recently exemplified with IRLAB Therapeutics (a Sweden-based company focused on CNS indications), which received the FDA green light for a Phase III programme to evaluate its lead asset for Parkinson's disease levodopa-induced dyskinesias, despite it only meeting the secondary endpoint in its prior Phase IIb study. Given the unmet need in BPD, we remain optimistic on a meaningful discussion with the FDA at the EoP2 meeting. We also note that Oryzon recently received an 'intention to grant' communication from the Japanese Patent Office for vafidemstat as a potential method to treat BPD, providing protection in the Japanese market until at least 2040, contingent on successful clinical progression.

Vafidemstat is also being developed as a potential treatment for schizophrenia, and in its Q224 results, Oryzon stated that it has continued to enrol patients for the Phase IIb EVOLUTION study, which is partially funded by the Spanish Ministry of Science and Innovation. Specifically, this clinical trial has been designed to assess the effectiveness of vafidemstat in addressing negative symptoms (affective flattening, hedonia, avolition) and cognitive impairments (deficits in memory, attention, learning, executive function) associated with schizophrenia. We look forward to management sharing a timeline update within H224.

Beyond these clinical-stage programmes, management has also re-affirmed its plans to submit an investigational new drug (IND) application to the FDA for the planned Phase Ib/II HOPE study by end-2024. This will evaluate vafidemstat as a potential treatment for Kabuki syndrome, a rare congenital disorder characterised by a specific variant in the KMT2D gene, which Oryzon believes it can address through vafidemstat's mechanism of LSD1 inhibition.

## Iadademstat – oncology

Oryzon has also continued to make headway in exploring iadademstat in haematological cancers during the quarter:

- The key highlight in Q224 was the interim results of the FRIDA study, Oryzon's top priority in oncology. FRIDA (expected n=45) is a Phase Ib trial investigating iadademstat in combination with gilteritinib as a potential treatment for relapsed or refractory (r/r) AML in patients harbouring the FLT3 mutation. The latest update related to the first two cohorts (13 patients), which demonstrated desirable safety and efficacy. Encouragingly, 69% of patients reported bone marrow blast cell clearance in the first treatment cycle and 39% of patients achieved complete remission with full or partial hematologic or blood count recovery. As part of its Q224 results, management communicated that enrolment for the third cohort is now complete and

the next data update will be presented at the American Society of Hematology annual meeting in December 2024.

- Under the cooperative research and development agreement (CRADA) signed with the National Cancer Institute (NCI), a new US-based Phase I trial will focus on iadademstat in combination with venetoclax and azacitidine as a potential first-line treatment regime for AML. Dr Natalie Galanina from the University of Pittsburgh Cancer Institute will be the principal investigator for the trial, which will aim to enrol 45 treatment naïve AML patients. It is due to commence recruitment within Q324.
- Iadademstat in combination with venetoclax and azacitidine for the first-line treatment of AML will also be assessed in another investigator-initiated study (IIS) led by the Oregon Health & Science University. This will be a Phase Ib dose-finding study, for which recruitment is also expected to commence in Q324. We note that Oryzon has already obtained encouraging results in the ALICE trial assessing iadademstat in combination with azacitidine for AML, and now intends to evaluate any potential incremental benefits from a broader combination approach. Management believes that, collectively, the array of trials should open a range of options for its clinical development strategy in this space.
- Oryzon has also announced a new IIS, sponsored by the Medical College of Wisconsin, which will assess iadademstat in combination with azacitidine as a potential treatment for myelodysplastic syndrome, a group of disorders triggered by abnormal functioning of blood-forming bone marrow cells. We await further details and planned timings for this trial.

Beyond these programmes focused on blood cancers, Oryzon has several other ongoing and planned trials seeking to maximise the value proposition for iadademstat in oncology:

- A Phase II basket trial assessing iadademstat in combination with paclitaxel in platinum r/r small cell lung cancer (SCLC) and extrapulmonary high-grade neuroendocrine tumours in collaboration with the Fox Chase Cancer Center is ongoing. Updates are expected in H224.
- In early Q224, Oryzon announced FDA clearance for the IND application to conduct a Phase I/II trial evaluating iadademstat in combination with checkpoint inhibitors for first-line, extensive-stage SCLC. This trial will be conducted under the CRADA agreement signed with the NCI in the US. The study is due to start enrolling patients in Q324 (expected n=45–50), with the Memorial Sloan Kettering Cancer Center as the main trial site.
  - We consider the outcome from this trial to be material as the data from the study will be used to refine the design of the planned STELLAR study, a larger randomised Phase II trial (to be funded by Oryzon) evaluating the same drug in the same indication. Management believes that STELLAR could support an accelerated approval application.

## Earlier-stage programmes

Throughout Q224 Oryzon has continued to advance its preclinical portfolio. ORY-4001 (an inhibitor of histone deacetylase 6, HDAC6) is being developed for the treatment of neurological conditions such as Charcot-Marie-Tooth disease and amyotrophic later sclerosis; it is progressing through IND-enabling studies in preparation for the clinical stages of development.

An overview of Oryzon's active pipeline is shown in Exhibit 1.

**Exhibit 1: Oryzon's clinical pipeline**

| Program | Study | Preclinical | Phase I | | Phase II | | Status | Expected Milestone(s) |
|---|---|---|---|---|---|---|---|---|
| | | | Phase Ia | Phase Ib | Phase IIa | Phase IIb | | |
| **CNS: Vafidemstat (ORY-2001) – CNS optimized LSD1 inhibitor** | | | | | | | | |
| **Borderline personality disorder**<br>Agitation / Aggression & Overall Improvement | PORTICO | | | | | | **Completed.**<br>Study has results | Top line data in January 2024<br>Final Data ECNP-2024<br>EoP2 FDA meeting in 2024 ★ |
| **Schizophrenia**<br>Negative Symptoms & Cognition | EVOLUTION | | | | | | **Recruiting** | Timeline updates in 2024 |
| **Kabuki Syndrome** | HOPE | | | Phase Ib/II | | | **IND in preparation** | IND in 2024 |
| **Oncology: Iadademstat (ORY-1001) – Selective LSD1 inhibitor** | | | | | | | | |
| **AML 1L Unfit Patients**<br>Combination with azacitidine | ALICE | | | | | | **Completed**<br>Study has results | Final positive results published May 2024 (Lancet Haematology) |
| **AML 1L Unfit Patients**<br>Combination with azacitidine and venetoclax | IIS-X002 | | | Phase Ib | | | **IND Approved**<br>Sponsor: OHSU | FPI 3Q 2024 |
| **AML R/R-Flt3mut+**<br>Combination with gilteritinib | FRIDA | | | Phase Ib | | | **Recruiting** | EHA-2024, ASH-2024 ★ |
| **Neuroendocrine High Grade R/R**<br>Combination with paclitaxel | C-X001 NET Basket | | | | | | **Recruiting**<br>Collab Study with FCCC | Study Updates 2H 2024 |
| **ED-SDLC 1L**<br>Combination with ICI | CRADA-SCLC | | | | Phase I/II | | **IND Approved**<br>Sponsor: NCI.<br>Led by MSKCC | FPI 3Q 2024 |
| **ED-SCLC 1L**<br>Combination with ICI | STELLAR | | | | Phase II pivotal | | **IND in preparation**<br>Company sponsored | IND 2025 |
| **Other Programs** | | | | | | | | |
| **ORY-3001 (LSD1i)**<br>Sickle Cell Disease | | | | | | | IND enabling tox completed | |
| **ORY-4001 (HDAC6i)**<br>CMT, ALS | | | | | | | IND enabling tox ongoing | |

ALS: amyotrophic lateral sclerosis; AML: acute myeloid leukemia; CMT: Charcot-Marie-Tooth disease ; NETs: neuroendocrine tumors; SCLC: small cell lung cancer; ICI: immune checkpoint inhibitor; FCCC: Fox Chase Cancer Center; MSKCC Memorial Sloan Kettering Cancer Center; OHSU Oregon Health & Science University; IIS: investigator-initiated study

Source: Oryzon Genomics website. Note: some finalised trials are not yet shown.

# Financials

Oryzon's Q224 results broadly mirrored the performance in the previous quarter. R&D expenses continued to trend down following the completion of PORTICO in late-FY23 and came in at €2.2m, down c 44% from the Q223 figure of €3.9m. The expense run-rate was similar to Q124 (€2.4m). We note that €4.1m of the €4.6m R&D expenses in H124 have been capitalised, which management accounts for as other income in the profit and loss statement. With the FDA EoP2 meeting anticipated in H224, we expect any further development work on BPD to commence only from 2025, and therefore estimate the H224 spending to remain at similar levels to H124. Personnel expenses stayed largely unchanged year-on-year at €1.7m. Given that the company has capitalised the bulk of its R&D expenses in H124, operating loss for the period saw little fluctuation at €1.4m (vs €1.2m in Q223). Net loss was reported at €1.1m, a c 30% improvement over the Q123 figure of €1.6m. The free cash outflow for H124 was €8.1m, an improvement over the €10.0m recorded in H123. Based on the H124 R&D trend and expectation of a similar pace in H224, we have adjusted our R&D expense estimate for FY24 downwards to €9.0m (vs €12.3m previously). Accordingly, we have also reduced our estimate for other income to €8.6m, from €12.9m previously. Our other estimates remain largely unchanged. We now expect the FY24 operating loss to be €4.2m (vs €3.2m previously). The FY25 operating loss estimate stays put at €16.6m (€16.7m previously).

The company ended Q224 with net debt of €3.2m, including a €10.1m cash balance and €10.2m in short-term debt (bonds: €4.8m; credit institutions: €5.4) and €3.1m in long-term bank debt. The cash reserves were supported by another €4m in drawdowns (two tranches of €2m each) from the €45m convertible debt facility, announced in November 2023. As per our calculations, Oryzon has utilised €14m of the facility thus far, of which €11m (equivalent to 1,100 bonds) has been converted to equity to date (including €5.4m in H124) against the issue of 5.0m shares of common stock. Request for the conversion of a further 27 bonds (for 151.2k shares) was raised on 12 July and is pending execution.

Based on our projected burn rates (free cash outflow of €13.6m in FY24) we estimate the available cash balance (excluding upcoming debt repayments) to be sufficient to fund operations into FY25. Readers should note that our estimated burn rates for H224 (€5.5m) are lower than the €8.1m figure in H124 because we expect inflows from R&D tax credits (c €2m) in the second half of the year. This does not consider further drawdowns from the convertible debt facility, which we expect the company to continue to utilise in H224. We model Oryzon drawing down another €6m from the facility in H224, with the remaining €25m in FY25. We continue to reflect these capital infusions as illustrative debt in our model.

# Valuation

We have made minor adjustments to our near-term forecasts to reflect the H124 performance and run-rate, but have kept our long-term assumptions unchanged for now. We also incorporate the latest net debt figure and roll our model forward by a quarter. Our overall risk-adjusted net present value (rNPV) valuation goes up to €774.7m from €748.8m previously. However, the per share valuation remains unchanged at €12.1 given the higher number of shares outstanding following recent debt-to-equity conversions (shares outstanding have gone up to 64m vs 62m at end-Q124).

A breakdown of our rNPV is shown in Exhibit 2.

**Exhibit 2: Valuation of Oryzon (rNPV)**

| Product | Indication | Launch | Peak sales (US$m) | Value (€m) | Probability | rNPV (€m) | NPV/share (€/share) |
|---|---|---|---|---|---|---|---|
| Iadademstat | 2L AML | 2029 | 555 | 541.9 | 30% | 154.5 | 2.4 |
| | 1L SCLC | 2030 | 720 | 635.1 | 20% | 120.0 | 1.9 |
| Vafidemstat | BPD | 2028 | 1,625 | 830.1 | 20% | 245.0 | 3.8 |
| | Schizophrenia, negative symptoms | 2029 | 702 | 582.1 | 15% | 120.8 | 1.9 |
| | Aggression related to AD | 2029 | 911 | 686.4 | 15% | 137.8 | 2.2 |
| Net debt at end-June 2024 | | | | (3.2) | 100% | (3.2) | (0.1) |
| **Valuation** | | | | **3,272.3** | | **774.7** | **12.1** |

Source: Edison Investment Research

As indicated in our previous notes, our model reflects licensing deals in FY25 and FY26, associated with cash inflows that should support break-even in FY26. If Oryzon does not finalise a partnership deal, and self-commercialises all programmes, we continue to see the need to raise €45m in capital across FY26 and FY27 (modelled as illustrative debt) before becoming self-sustainable in FY28. Assuming all funding requirements across FY24–27 (c €76m) are realised through equity raises, Oryzon would have to issue 40.8m shares (assuming the current trading price of €1.86/share). Our per share valuation would be diluted to €8.1/share, from €12.1/share currently (shares outstanding would increase from 64m to 104.8m).

## Exhibit 3: Financial summary

| Accounts: Spanish GAAP. Year end 31 December (€000s) | 2021 | 2022 | 2023 | 2024e | 2025e |
|---|---|---|---|---|---|
| INCOME STATEMENT | | | | | |
| Total revenues | 10,615 | 15,698 | 14,192 | 8,550 | 31,550 |
| Cost of sales | (746) | (464) | (244) | (317) | (333) |
| Gross profit | 9,869 | 15,234 | 13,948 | 8,233 | 31,217 |
| Gross margin % | 93% | 97% | 98% | 96% | 99% |
| SG&A (expenses) | (3,782) | (3,163) | (3,390) | (3,424) | (3,458) |
| R&D costs | (9,746) | (13,681) | (12,177) | (9,000) | (11,000) |
| Other income/(expense) | (3,203) | (3,714) | (2,777) | 74 | 0 |
| Exceptionals and adjustments | (4) | 0 | 0 | 55 | 0 |
| Reported EBITDA | (6,866) | (5,323) | (4,396) | (4,062) | 16,759 |
| Depreciation and amortisation | (144) | (167) | (153) | (129) | (110) |
| Reported EBIT | (7,011) | (5,490) | (4,549) | (4,191) | 16,649 |
| Finance income/(expense) | (169) | (1,067) | (1,555) | (755) | (1,172) |
| Other income/(expense) | 0 | 0 | 0 | 0 | 0 |
| Reported PBT | (7,180) | (6,557) | (6,104) | (4,946) | 15,477 |
| Income tax expense (includes exceptionals) | 2,493 | 2,325 | 2,751 | 1,878 | 2,315 |
| Reported net income | (4,687) | (4,231) | (3,353) | (3,067) | 17,791 |
| Basic average number of shares, m | 53.1 | 53.3 | 57.6 | 62.6 | 64.0 |
| Basic EPS (€) | (0.09) | (0.08) | (0.06) | (0.05) | 0.28 |
| | | | | | |
| Adjusted EBITDA | (6,862) | (5,323) | (4,396) | (4,117) | 16,759 |
| Adjusted EBIT | (7,007) | (5,490) | (4,549) | (4,246) | 16,649 |
| Adjusted PBT | (6,896) | (6,320) | (6,004) | (5,001) | 15,477 |
| Adjusted EPS (€) | (0.08) | (0.07) | (0.06) | (0.05) | 0.28 |
| Adjusted diluted EPS (€) | (0.08) | (0.07) | (0.06) | (0.05) | 0.28 |
| | | | | | |
| **BALANCE SHEET** | | | | | |
| Property, plant and equipment | 682 | 611 | 481 | 379 | 298 |
| Intangible assets | 60,254 | 75,843 | 89,895 | 98,418 | 109,939 |
| Investments | 29 | 31 | 26 | 26 | 26 |
| Deferred tax assets | 1,812 | 2,050 | 2,222 | 2,222 | 2,222 |
| Total non-current assets | 62,778 | 78,535 | 92,624 | 101,045 | 112,484 |
| Cash and equivalents | 28,725 | 21,317 | 12,257 | 4,903 | 34,154 |
| Trade and other receivables | 3,645 | 3,709 | 1,909 | 2,809 | 2,359 |
| Inventories | 104 | 10 | 6 | 6 | 6 |
| Other current assets | 132 | 129 | 104 | 104 | 104 |
| Total current assets | 32,606 | 25,165 | 14,276 | 7,822 | 36,623 |
| Deferred tax liabilities | 1,812 | 2,050 | 2,222 | 2,222 | 2,222 |
| Long term debt | 13,354 | 10,346 | 6,335 | 3,172 | 3,148 |
| Other non-current liabilities | 285 | 0 | 155 | 155 | 155 |
| Total non-current liabilities | 15,451 | 12,396 | 8,711 | 5,549 | 5,525 |
| Trade and other payables | 3,518 | 5,742 | 4,210 | 2,986 | 3,598 |
| Short term debt | 4,306 | 12,920 | 12,194 | 16,194 | 38,056 |
| Other current liabilities | 847 | 70 | 11 | 11 | 11 |
| Total current liabilities | 8,672 | 18,732 | 16,414 | 19,190 | 41,664 |
| Equity attributable to company | 71,262 | 72,572 | 81,775 | 84,127 | 101,919 |
| | 0 | 0 | 0 | 0 | 0 |
| **CASH FLOW STATEMENT** | | | | | |
| Profit before tax | (7,180) | (6,557) | (6,104) | (4,946) | 15,477 |
| Cash from operations (CFO) | (3,626) | (1,848) | (575) | (5,062) | 18,964 |
| Capex | (175) | (76) | 0 | 0 | 0 |
| Acquistion of intangible assets | (11,586) | (14,195) | (14,503) | (8,550) | (11,550) |
| Other investing activities | 37 | (1) | (1) | 0 | 0 |
| Cash used in investing activities (CFIA) | (11,724) | (14,271) | (14,504) | (8,550) | (11,550) |
| Net proceeds from issue of shares | 0 | (932) | (1,880) | 5,420 | 0 |
| Movements in debt | 4,123 | 9,642 | 7,901 | 838 | 21,838 |
| Other financing activities | 0 | 0 | 0 | 0 | 0 |
| Cash from financing activities (CFF) | 4,123 | 8,710 | 6,021 | 6,258 | 21,838 |
| Increase/(decrease) in cash and equivalents | (10,880) | (7,408) | (9,060) | (7,354) | 29,251 |
| Currency translation differences and other | 348 | 1 | (3) | 0 | 0 |
| Cash and equivalents at start of period | 39,605 | 28,725 | 21,317 | 12,257 | 4,903 |
| Cash and equivalents at end of period | 28,725 | 21,317 | 12,257 | 4,903 | 34,154 |
| Net (debt) cash | 11,065 | (1,948) | (6,272) | (14,464) | (7,050) |
| Free cash flow (CFO + Net capex + Intangible assets) | (15,388) | (16,118) | (15,078) | (13,612) | 7,414 |

Source: Company reports, Edison Investment Research

## General disclaimer and copyright

This report has been commissioned by Oryzon Genomics and prepared and issued by Edison, in consideration of a fee payable by Oryzon Genomics. Edison Investment Research standard fees are £60,000 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 research department of Edison 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 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.



## Australia

Edison Investment Research Pty Ltd (Edison AU) is the Australian subsidiary of Edison. Edison AU is a Corporate Authorised Representative (1252501) of Crown Wealth Group Pty Ltd who holds an Australian Financial Services Licence (Number: 494274). 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

This document is prepared and provided by Edison for information purposes only and should not be construed as an offer or solicitation for investment in any securities mentioned or in the topic of this document. A marketing communication under FCA Rules, this document has not been prepared in accordance with the legal requirements designed to promote the independence of investment research and is not subject to any prohibition on dealing ahead of the dissemination of investment research.

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.

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

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.

London | New York | Frankfurt
20 Red Lion Street
London, WC1R 4PS
United Kingdom