The VX4’s first flights

We have made great strides in our flight test programme this quarter. I am immensely proud of the team as we conducted the VX4’s first untethered flights. These flights were conducted over many weeks from June to August in a variety of challenging conditions with the aircraft flight control system handling all conditions successfully.

The aircraft lifted, hovered, flew, and landed all by the thrust of its electric propulsion system and powered only by Vertical’s proprietary battery packs. Over the course of these flight tests, the VX4 reached its target thrustborne speed of 40kts (70 kmph) and demonstrated exceptional overall stability and control, which can be viewed in our video below.

Across a multitude of hover and low speed flights, our VX4 prototype generally exceeded the performance targets we had set by 10–30%. Significant performance was especially impressive in sustained hover, typically the most challenging regime in a VTOL aircraft, where it maintained level flight for longer than we expected.

These recent tests mark a major step forward in understanding the capabilities and performance characteristics of our eVTOL. Whilst our simulations have proved incredibly useful, we have now positively validated how the VX4 behaves across a number of conditions, as well as its low noise levels in line with our expectations.

The aim of these thrustborne flight tests was to verify acceptable stability, battery efficiency and control characteristics, aerodynamics, structural loads, performance and vibration throughout this speed range – all of which we have achieved.

Vertical Flight Test Centre / 51.667755, -2.059666
Crewed Flight Testing

This full-scale VX4 prototype was designed to be crewed, however we elected to run these thrustborne flight missions as uncrewed in order to accelerate through our testing programme.

As the aircraft is simple to convert from crewed to remote piloted mode, we conducted a significant number of tests with a pilot on board. These have included, amongst others, structural coupling tests and aircraft ground runs.

We have stated and believe that flying crewed full-scale demonstrators throughout the certification journey is the best way to maximise learnings and pave the way for a final optimised certification-ready aircraft.

Consequently, with the aircraft successfully completing its remote thrustborne flight campaign, we will now progress to further enhanced mission profiles, including returning a pilot to the aircraft and expanding the flight conditions step-by-step.

We anticipate conducting full-scale crewed thrustborne flights in the coming months. We believe that when we conduct these full-scale crewed flights, we will be the first eVTOL OEM of a piloted four-passenger designed electric aircraft to achieve this milestone.
Thrustborne Flight Test Data:

<table>
<thead>
<tr>
<th>18 take-offs and landings</th>
<th>c.20,000 parameters monitored on the aircraft</th>
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<tbody>
<tr>
<td>Max speed of 40kts airspeed</td>
<td>2600 parameters monitored on the battery system</td>
</tr>
<tr>
<td>Stable hover in ground effect up to 10kts crosswind</td>
<td>3.5TB of data collected to date</td>
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<tr>
<td>Peak power of 1.36MW</td>
<td>Max continuous power of 1.2MW</td>
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Second full-scale VX4 prototype

As we continue to learn from our flight tests, these learnings are being fed into our second full-scale VX4 prototype. Assembly of this next VX4 is commencing, having established our base at our partner GKN’s Global Technology Centre (GTC) facility, as we did with our first demonstrator.

We expect this second demonstrator to be built and being tested after our first prototype’s crewed thrustborne flight tests later this year. This second, upgraded full-scale VX4 demonstrator will have greater capabilities than our first prototype, including improved range and higher performance, particularly in hover.

As we have said before, it takes a village to deliver the VX4 into service, and as with our first prototype, the second VX4 will include the expertise of Solvay, GKN and Honeywell, and also bring in Leonardo’s fuselage and Molicel’s cells into our battery packs. By leveraging the technology of the majority of our tier-one aerospace partners in our second full-scale prototype, we will increase the collaborative learning that will enhance the design, build and test of final certification aircraft.

I am also delighted Stuart Simpson is joining Vertical as our Chief Financial Officer. Stuart has an enormous wealth of experience from listed businesses spanning logistics, technology and automotive. Most recently he was Group CFO of Avast plc, a FTSE 100, before its $8bn acquisition by NortonLifeLock in September 2022.

Stuart is a seasoned leader having held the roles of Interim Chief Executive Officer, Chief Financial Officer and Chief Operating Officer at Royal Mail, also a FTSE 100 company. Stuart has a long history in the automotive industry, working for General Motors, Rolls-Royce and Bentley Motor Car Company. We look forward to working with him when he joins in September.

Delivering against our focused and lean model

To support our ongoing capital requirements and the funding of our future operations, we intend to raise additional capital during 2023. We are funded into the second half of 2024, with our funding requirements expected to be approximately £80 million for the 12 months beginning 1 August 2023. During this timeframe we will be delivering an uncompromising, rigorous and extensive flight test programme, with both our full-scale prototypes. We will be setting out our 2024 planned public demonstrations with our second aircraft in our Q3 2023 letter.

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Having visited Hanwha in Seoul, Molicel in Taipei and Honeywell in Arizona this quarter, I remain confident in our unique partnership ecosystem approach as work with our suppliers to deliver the VX4 to Type Certification, and onto our customers and their passengers.

Delivering against our focused and lean model

To support our ongoing capital requirements and the funding of our future operations, we intend to raise additional capital during 2023. We are funded into the second half of 2024, with our funding requirements expected to be approximately £80 million for the 12 months beginning 1 August 2023. During this timeframe we will be delivering an uncompromising, rigorous and extensive flight test programme, with both our full-scale prototypes. We will be setting out our 2024 planned public demonstrations with our second aircraft in our Q3 2023 letter.
During this thrustborne flight test programme, the flight conditions we successfully tested included:

**Hover:**
In hover, we were able to draw significantly less power from our proprietary battery packs than projected, thus giving this demonstrator aircraft better endurance and range.

**Stable Handling:**
The fly-by-wire flight control system, powered by Honeywell’s advanced control laws, surpassed expectations for flight stability in challenging conditions, precise control of aircraft position, attitude, and speed. This advanced flight control capability allows VX4 pilots the ability to fly precision flight profiles with minimal workload, enhancing mission performance safety.

**Partial Transition:**
We expanded the thrustborne flight regime to over 40% of the total transition envelope. This was a key milestone in preparation for the next phase of the flight test campaign, having tested battery performance and aerodynamics loading.

**Fault Tolerance:**
The prototype seamlessly handled critical faults. We proved the aircraft’s ability to continue safe flight following failures of motors and actuators, with the aircraft remaining airborne and controllable in ground effect. With no single point of failure in the VX4, this will enable the highest safety standards in aviation for our aircraft’s missions.
Intensive VX4 flight test programme

Step 1 – Build and Commissioning
The first VX4 prototype was built through Q1 2022 at our partner GKN’s Global Technology Centre in Bristol where 90% of the build was completed and low voltage systems commissioned. The prototype was then dismantled and transported to our Cotswold Airport Test Facility in Q2 2022 where it was reassembled ready for ground tests and final commissioning.

Step 2 – Crewed Ground Tests
The VX4 prototype completed a series of rigorous ground based tests, a requirement for Permit to Fly, including vibration tests, lift load tests and propeller thrust tests to validating that the build meets the design specifications.

Step 3 – Permit to Fly
The CAA visited our design HQ in Bristol as well as our Cotswold Airport Test Facility, inspecting engineering design and process documentation, test data, and the aircraft itself. In September 2022, the CAA issued a Permit to Fly for our Crewed Tethered Hovers.

Step 4 – Crewed Tethered Hover
With Permit to Fly received, the first flights were a series of taut and loose tethered hovers were conducted in September 2022, demonstrating aircraft stability in take-off and landing, flight control systems, vibration, noise, and ground effects.

Step 5 – Untethered Low Speed Flight
With further regulatory approval, we achieved a series of thrustborne tests at speeds of up to 40kts, from June to August 2023. These uncrewed multi-axis manoeuvres continued to expand the flight envelope, testing stability and control, the flight control system, propeller to propeller interactions, loads, vibrations and system operation during low speed transition. Crewed tests continued to take place including ground runs.

Step 6 – Permit to Fly and Crewed Low Speed Flight
Following a series of successful uncrewed flights, and verification of the aircraft’s critical safety systems, such as batteries and flight control systems, we are ready to return the pilot to the cockpit and carry out crewed untethered flights. By repeating the tests conducted in Step 5, but with crew onboard, the focus will be on the increased safety assurance for crewed operations, as well as handling qualities evaluation, and human factors assessment for passenger comfort in future commercial operations.
Developing Our Propellers

Alongside our proprietary battery packs, our propellers are an area of in-house expertise at Vertical. Our propellers are critical for the safety and efficiency of eVTOL aircraft and we have invested in this technology since our inception.

The low noise profile we are targeting with our propellers is fundamental to operating within urban environments but without the same restrictions placed on loud helicopters. Consequently, we are aiming for a noise profile of less than 70dbA when in hover, the same as a low-level city traffic, and less than 50dbA in cruise, which is likely to be unnoticeable in an urban environment.

Low noise requires very low propeller tip speeds (Mach ~0.4 compared with Mach ~0.8). This necessitates a wide unique shaped blade to permit the thrust needed for VTOL. We have been developing this blade profile for many years across our three full-scale flying prototypes, gathering substantial data by testing a number of propeller systems.

Our ‘Generation 1’ propellers were tested on the VX4 during our recent flights and performed well. However, there is always additional performance that can be derived, and new capabilities required for further tests and environments, which is why our second prototype VX4, that is being assembled at GKN’s GTC, will feature our ‘Generation 2’ propellers.

Generation 2 Propellers

Our in-house experts, together with our manufacturing partners and the UK National Composites Centre have developed an aerodynamic design, we believe balances noise, blade mass and efficiency to maximise aircraft performance in flight.

In the coming weeks, we are beginning testing these new propellers at our Flight Test Centre, by assembling our full-scale ground test propeller using our Gen 2 blades and running this on our rigs for final performance validation.

Our new Gen 2 propellers are aimed at achieving significant reductions in mass, hover power demand and hover noise, as well as improved birdstrike capability. Our initial verification analysis and tests to date confirm that all these objectives will be achieved by these new propellers.
Certification Progress

Vertical has continued to work closely with the UK Civil Aviation Authority (CAA) – our primary certification agency – throughout the thrustborne flight test campaign. The tests were conducted with the regulator’s approval and follow its recent decision to award Vertical its Design Organisation Approval (DOA).

In addition, we continue to make progress with our certification activities for the VX4 aircraft, including having conducted a detailed familiarisation session with the CAA on the aircraft design and certification basis. Further technical discussions are being advanced with the CAA. These are an opportunity to underscore the maturity of Vertical’s design and technology. We expect to have technical familiarisation sessions with European Union Aviation Safety Agency (EASA) and the US’ Federal Aviation Administration (FAA) before the end of 2023.

The steps for the VX4 reaching Type Certification are:

<table>
<thead>
<tr>
<th>Step</th>
<th>What it means</th>
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<tr>
<td>1</td>
<td>Develop Standard</td>
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<tr>
<td>2</td>
<td>Regulator Confirms Standards</td>
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<td>3</td>
<td>Basis of Certification</td>
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<td>4</td>
<td>Confirm Capability</td>
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<td>5</td>
<td>Technical Familiarisation</td>
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<tr>
<td>6</td>
<td>Means of Compliance &amp; Test Plan</td>
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<tr>
<td>7</td>
<td>Compliance Demonstrations &amp; Testing</td>
</tr>
<tr>
<td>8</td>
<td>Type Certification</td>
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Finally, in June, Brazil’s National Civil Aviation Agency (ANAC) informed the UK CAA that it has accepted our application for validation of our type certificate in Brazil, which will enable operations in this critical market. Vertical is the only eVTOL manufacturer to have live certification and validation programmes with five regulators – the CAA, EASA, FAA, the Japan Civil Aviation Bureau and now ANAC.

“The acceptance of Vertical’s application for validation of type certificate is an essential step on our journey bringing an eVTOL aircraft into service in Brazil. This concurrent validation UK CAA and ANAC will lead to a new path towards the certification process, building together a safe new air transport ecosystem. We are proud to be part of it.” – Captain Sérgio Quito, Senior Advisor, Safety & Flight Operations at GOL.
Go to Market

Vertical Pioneers

Our simple business model of designing, manufacturing, selling and supporting the VX4 means that our relationships with our customers and operators are key, which is why in June, we hosted our second Vertical Pioneers Focus Group event.

Whilst we have regular Joint Working Groups with all our customers, to ensure we are supporting them on their operating plans, it is critical to bring them all together to develop their thinking and collaborate.

The Focus Group covered a range of topics from passenger experience to charging, and infrastructure to financing. We brought together leaders from our customers and partners for two full days to shape the future of eVTOL operations.

Our customers, who between them have operations on six continents and include helicopters, airliners, business jets, tourism and ride-sharing businesses, shared insights on how the VX4 operations could transform their business models and deliver innovative passenger experiences.

Customers discussed details of their business strategies for commercial operations and how to scale these in the first few years after entry into service. In total, 91 launch routes were reviewed by customers allowing them to learn from each other in launching eVTOL missions and building their business case. Understanding this market is key for Vertical to anticipate VX4 pilot and maintenance training needs, production ramp-up and in-service support requirements. Based on our diverse portfolio of customers, as a result of the Focus Group, Vertical has gained invaluable insights in how our customers, as a whole, wish to launch their respective VX4 operations.

Involving our customer community at each step of the VX4 development programme will ultimately enable us to deliver an aircraft that is designed to our customers’ commercial needs, whilst being ever-reliable and safe to fly.
As South Korea’s pre-eminent ride-sharing platform, Kakao Mobility brings both South Korea into our portfolio of our launch markets, as well as adding to the diversity of customer route to market via mobility companies.

Kakao Mobility is the mobility subsidiary of South Korean internet giant, Kakao Corporation, and the largest Mobility-as-a-Service (MaaS) platform in South Korea with more than 30 million registered users. Kakao T, the country’s most popular taxi-hailing app, provides taxi-hailing, designated driver booking and parking space search. Kakao Navi app provides real-time traffic information services.

South Korea is one of the largest economies in the world and is home to globally leading technology companies. Seoul, as well as other regions including Busan, is expected to have significant Urban Air Mobility (UAM) market potential.

In May, we announced Kakao Mobility’s pre-order of up to 50 VX4s and in the same month, at our Vertical Pioneers event, shared with the VX4 customer community on how they were planning to develop an end-to-end integrated passenger journey using the B2C mobile app, for their initial UAM network in Seoul.

We have now established our Joint Working Group (JWG) with Kakao Mobility to drive the commercialisation of UAM services in South Korea, including the exploration of network and fleet planning, infrastructure requirements, regulatory development, and consumer awareness of eVTOL mobility solutions.

This JWG builds on Vertical’s existing consortium partnership with Kakao Mobility, LG Uplus, GS E&C, and the continued engagement with Korea’s Ministry of Land, Infrastructure and Transport, for the K-UAM Grand Challenge (K-UAM GC).
We have extremely strong demand for the VX4 and have secured conditional pre-orders from some of the world’s leading airlines, aircraft leasing firms, helicopter operators, mobility platforms, tourism groups and business aviation companies. The global reach of our pre-order book demonstrates the market confidence in Vertical’s design and certification credibility.
As previously announced, to support our ongoing capital requirements, Vertical intends to raise additional capital during 2023. As ever, our capital spend remains controlled, with our funding requirements to be approximately £80 million for the 12 months beginning 1 August 2023. This reflects investments primarily in the development of our second full-scale prototype aircraft and costs supporting our thrustborne flight campaign. We expect during this timeframe we will deliver significant progress in our flight test programme, with both our full-scale prototypes.

As of June 30, 2023, we have cash and cash equivalents of £90m, which will be invested in the development of our design, test and certification activities, as well as in the people, systems and processes that support Vertical.

This focused spend means we are funded into the second half of 2024, allowing us to deliver against our flight test and certification goals, including building and bringing our second prototype VX4 online and conducting significant flight tests with both our full-scale aircraft.
Forward-Looking Statements

This letter contains forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 that relate to our current expectations and views of future events. We intend such forward-looking statements to be covered by the safe harbor provisions for forward-looking statements as contained in Section 27A of the Securities Act and Section 21E of the Exchange Act. Any express or implied statements contained in this press release that are not statements of historical fact may be deemed to be forward-looking statements, including, without limitation, statements regarding the design and manufacture of the VX4, our future results of operations and financial position, including with respect to the second half of 2023, our plans for capital expenditures, our business strategy and plans and objectives of management for future operations, anticipated management changes and related timing, certification and the commercialization of the VX4 and our ability to achieve regulatory certification of our aircraft product on any particular timeline or at all, expectations surrounding pre-orders and commitments, the features and capabilities of the VX4, expected financial performance and operational performance, liquidity, growth and profitability strategies, our ability and plans to raise additional capital to fund our operations and related timing, our plans to mitigate the risk that we are unable to continue as a going concern, as well as statements that include the words "expect," "intend," "plan," "believe," "project," "forecast," "estimate," "may," "should," "anticipate," "will," "aim," "potential," "continue," "are likely to" and similar statements of a future or forward-looking nature. Forward-looking statements are neither promises nor guarantees, but involve known and unknown risks and uncertainties that could cause actual results to differ materially from those projected, including, without limitation: our limited operating history without manufactured non-prototype aircraft or completed eVTOL aircraft customer order; our history of losses and the expectation to incur significant expenses and continuing losses for the foreseeable future; our potential inability to produce, certify or launch aircraft in the volumes or timelines projected; the potential inability to obtain the necessary certifications for production and operation within any projected timeline, or at all; any accidents or incidents involving eVTOL aircraft could harm our business; our dependence on partners and suppliers for the components in our aircraft and for operational needs; the potential that certain strategic partnerships may not materialize into long-term partnership arrangements; all of the pre-orders received are conditional and may be terminated at any time and any pre-delivery payments may be fully refundable upon certain specified dates; any circumstances; the inability for our aircraft to perform at the level we expect and may have potential defects; any potential failure to effectively manage our growth; our inability to recruit and retain senior management and other highly skilled personnel, our ability to raise additional funds when we need or want them, or at all, to fund our operations; our limited cash and cash equivalents and recurring losses from our operations raise significant doubt (or raise substantial doubt as contemplated by PCAOB standards) regarding our ability to continue as a going concern; we have previous identified material weaknesses in our internal controls over financial reporting which if we fail to properly remediate, could adversely affect our results of operations, investor confidence in us and the market price of our ordinary shares; as a foreign private issuer we follow certain home country corporate governance rules, are not subject to U.S. proxy rules and are subject to Exchange Act reporting obligations that, to some extent, are more lenient and less frequent than those of a U.S. domestic public company; and the other important factors discussed under the caption “Risk Factors” in our Annual Report on Form 20-F filed with the U.S. Securities and Exchange Commission (“SEC”) on March 22, 2023, as such factors may be updated from time to time in our other filings with the SEC. Any forward-looking statements contained in this press release speak only as of the date hereof and accordingly undue reliance should not be placed on such statements. We disclaim any obligation or undertaking to update or revise any forward-looking statements contained in this press release, whether as a result of new information, future events or otherwise, other than to the extent required by applicable law.