



Q1 2022  
Shareholder Letter



June 6, 2022

## Dear Shareholders,

At Lilium, we're building radically better ways of moving. As a result, from the start we chose a disruptive approach: our innovative Lilium Jet – the first all-electric vertical take-off and landing jet – is designed to both decarbonize and revolutionize high-speed regional air mobility.

With focus and a pioneering spirit, we have in just seven years, grown from garage start-up to a publicly listed aerospace company with a world-class team, and an attractive, robust eVTOL jet design that we believe will be commercially competitive at launch in 2025 and over the long term.

Today, Lilium stands on the cusp of a new phase:

- The company's production aircraft has successfully conducted the Preliminary Design Review (PDR) – meaning we consider the design to be mature in terms of being able to deliver the target technical and commercial performance while meeting expected certification standards.
- The Lilium Jet program is now moving into the certification and industrialization phase in partnership with a set of Tier 1 aerospace technology suppliers and in close cooperation with the regulators.

## Klaus Roewe named CEO

Last week marked the beginning of this next chapter when we announced Klaus Roewe as our new CEO.

He is a CEO who will:

- Drive Lilium's transition from visionary start up to an electric aviation leader.
- Share the company's innovative spirit and commercial ambitions.
- Bring an outstanding track record in delivering results and executing aircraft programs.

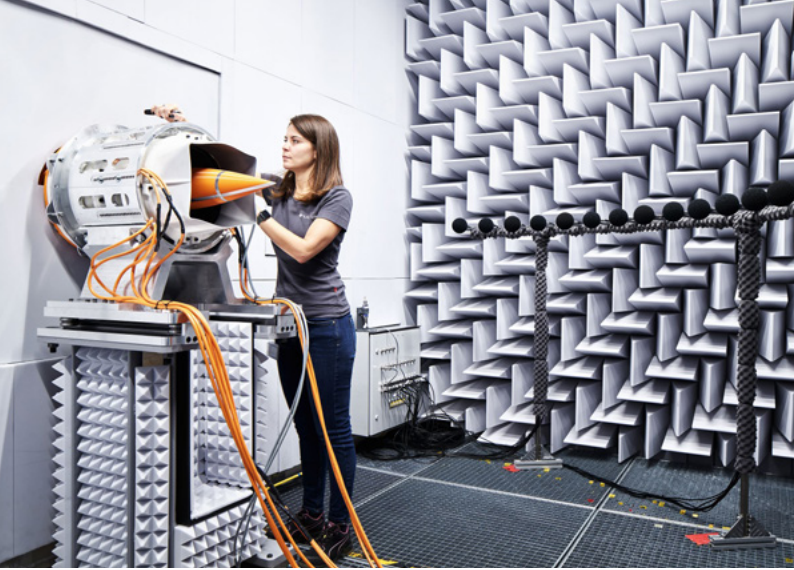


Starting August 1, 2022, Klaus will be joining Lilium, with his appointment to be confirmed at the AGM this fall. Daniel Wiegand, who co-founded the company, invented the Lilium Jet architecture and led us to this important juncture, will continue to lead the company's activities in innovation, new products and technologies, serving as Chief Engineer for Innovation & Future Programs and as a Board Director.

We're thrilled Klaus will be joining us given his breadth of aerospace experience. He's the right leader at the right time for Lilium with a proven track record and exceptional leadership qualities. Under his leadership the Airbus A320 family became one of the world's most successful large commercial aircraft program of all time in terms of volume and cash generation. Klaus currently leads the Airbus Services Business, giving him direct exposure to the worldwide customer fleet.

In addition to Klaus joining the team, this shareholder letter will also highlight other significant progress since our last quarterly update, including:

- **Honeywell/DENSO and Aernnova contracted** for e-motor and propulsion mounting system, respectively.
- **Initial production of high-performance cells** started with CUSTOMCELLS.
- **Certification progress:** aim to agree full Certification Program (FAA G-2 equivalent) in 2022 with EASA.
- Technology demonstrator aircraft **achieved main wing transition flight.**
- **Strong customer response on our decision to launch initially in the premium segment.**



## Financial Update

While the Lilium team makes progress along the technical, certification, manufacturing and commercial pathways, we continue to maintain and increase our tight budgetary control. The total cash spend of \$67 million in Q1 2022 was lower than the previous quarter (Q4 2021: \$73 million). Our liquidity as of March 31 stood at \$331 million.<sup>1</sup>

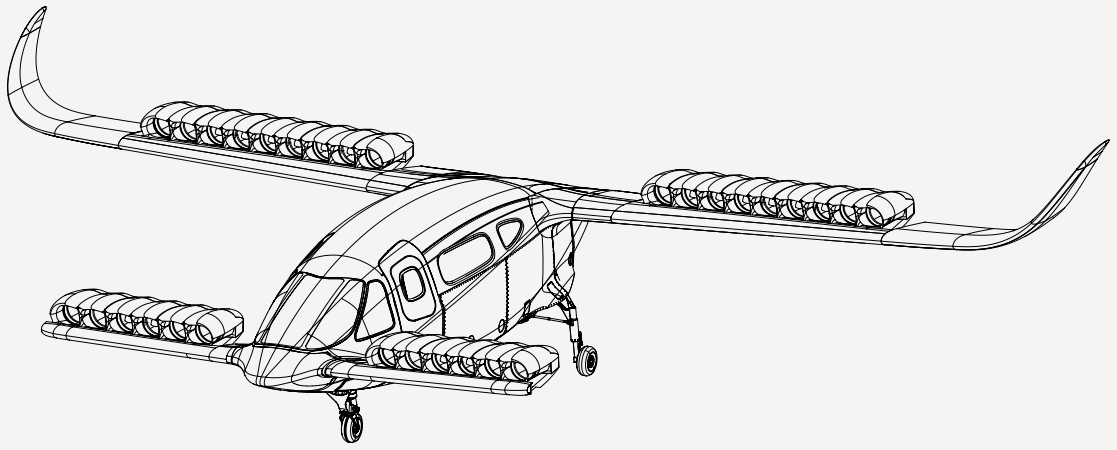
We're closely monitoring the effects of the conflict in Europe, COVID and general economic factors on our business and planning, but we expect the total cash spend in Q2 2022 to be broadly in line with the Q1 total cash spend. The planned advance of our development program through the detailed design and industrialization phase is expected to lead to increased spending and supplier contracting activity from the latter half of 2022, which we expect to result in a moderate rise in total cash spending in Q3 and Q4 2022 as planned. Having said that, we expect the full year total cash spend to be ~ \$265 million.<sup>2</sup>

In June this year, Lilium established an 'equity line of credit' (ELOC) facility with Tumim Stone Capital. This facility will enable Lilium to sell from time to time an aggregate amount of up to \$75 million in new Lilium Class A Ordinary shares to Tumim. The ELOC allows us to leverage the liquidity in our stock while giving us flexibility around issuance timing to minimize dilution.

<sup>1</sup> Consists of cash and cash equivalents and other financial assets

<sup>2</sup> At euro/dollar exchange rate of 1.05





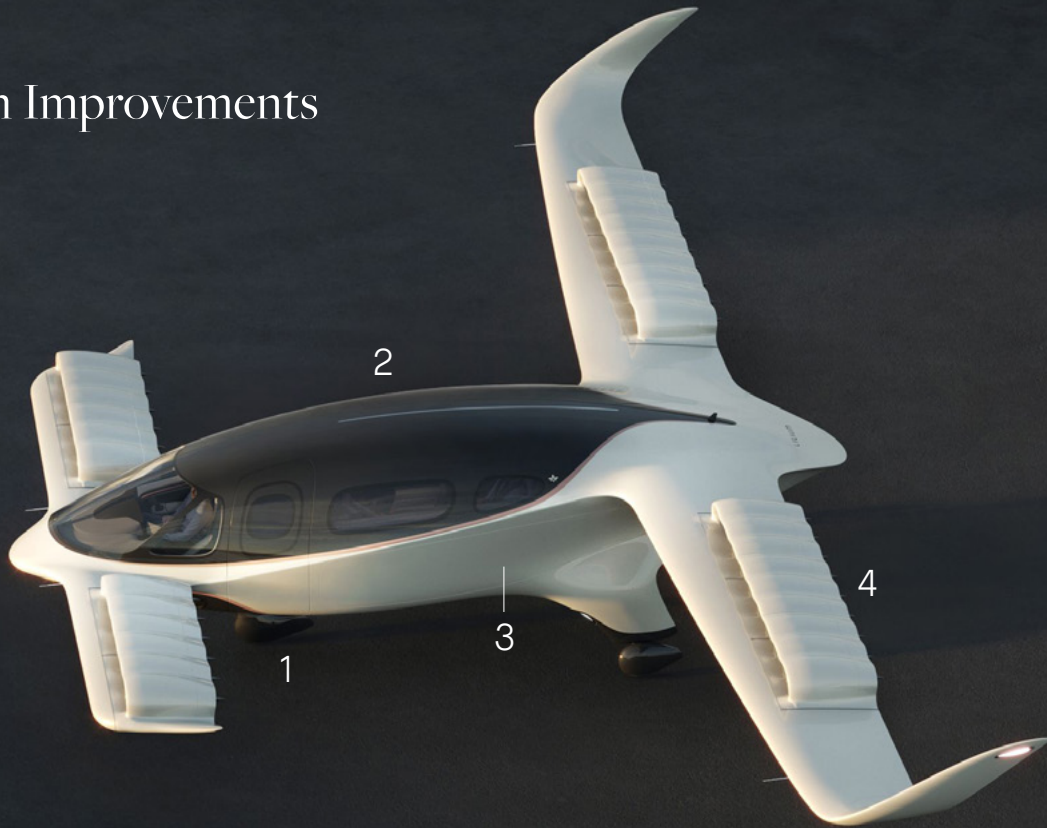
## Preliminary design finalized; Jet program now moves to industrialization

After a rigorous preliminary design review (“PDR”), led by proven, external aerospace experts with experience in delivering complex aircraft, we have converged on an optimal Lilium Jet design. This marks an important milestone in realizing our vision. We are now confident that the Lilium Jet design will deliver superior performance and customer benefits. Our rigorous design and engineering processes have also produced a truly disruptive aircraft platform that we expect will fulfill safety and certification requirements, provide the basis for a product family with a larger addressable market and better customer experience than more traditional designs, and which we believe can be profitably built at scale.



A more complete explanation of the aircraft can be found in this [VIDEO](#).

# Design Improvements



## 1 Landing Gear

A commercial aircraft must be able to perform against the real mission profiles encountered every day in real world operating conditions, where range reserves are required, and landings might be re-attempted. To this end, we've made the decision to add a traditional landing gear, giving pilots a backup option of a short running landing, alongside the standard vertical landing. At any point prior to starting the vertical landing sufficient energy reserves, consistent with anticipated aircraft operational regulations, remain for the aircraft to divert to an alternate landing site and perform a short running landing. The much lower power demand of this running landing allows more cell energy to be accessed than would otherwise be possible with the higher power vertical landing. Integrating forward landing capability therefore will give our customers additional reassurance of safety, flexibility and operating range.

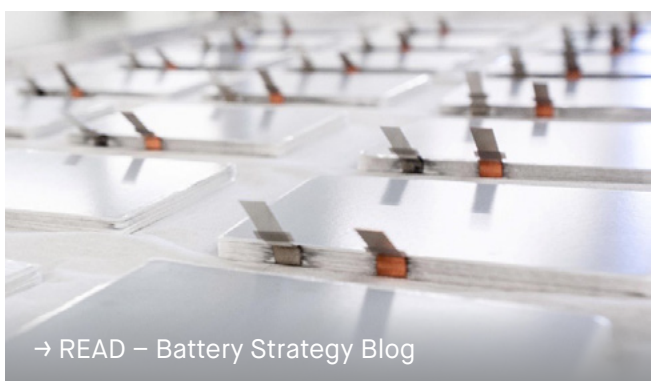
## 2 Fuselage Aerodynamics

To save on weight without compromising on cabin volume and passenger comfort, we have optimized the shape of the fuselage. By reducing redundant space, we will be able to decrease the overall fuselage length. This reduces material and weight, while still offering outstanding comfort in the premium 4-passenger 'club cabin' or 6-passenger shuttle configuration and allowing a future cargo variant.

### 3 Batteries

After evaluating dozens of candidate cells over several years, we have selected a cell technology from Zenlabs that provides optimal **power density (specific power)** as well as **energy density (specific energy)**. The cell delivers both the power density required for vertical take-off and landing and the energy density needed for the range of longer regional missions. Independent testing data by Energy Assurance, a leading accredited cell and battery testing lab in North America, on the cell's performance confirms this technology is capable of delivering the power and energy necessary for the Lilium Jet to achieve 250 km of physical range<sup>3</sup> and approximately ~175km of projected operating range at full payload (excluding reserves) and taking into consideration anticipated regulatory conditions. We believe this cell design is one of the highest performance cells for practical use in eVTOL aircraft in existence today – and it will be exclusive to Lilium for use in regional commercial eVTOL applications.

Cells utilizing this technology will be built in volume by our industrial partner CUSTOMCELLS. Having begun 18 months ago, the Lilium team continues to work hand in hand with CUSTOMCELLS and our other industrial partners, establishing and testing processes, aligning Quality Management Systems to aerospace standards, monitoring implementation of series-production equipment, and preparing the industrial ramp-up. Initial



production of our cells was started in February 2022. Batteries are at the core of our electric jet architecture – and as this and other technologies improve, we plan to upgrade the Lilium Jet's performance, offering significant range and capability upgrades to our customers over time in line with our vision to scale the aircraft and extend the product family. The Jet will keep getting better, with new batteries incorporated into the jet following rigorous industrialization and regulatory approvals.

### 4 Electric Jet Engines

With a 10% increase in engine diameter, we were able to reduce the number of engines from 36 to 30, with nine now on each of the main wings, six on each of the forward canard wings. As noted in our last shareholder letter, this modification will simplify the design and reduce weight and cost, while providing even greater flight stability. The modification also enables us to accommodate more acoustic damping in the jet ducts, to give our Jet a low noise signature.

These design changes have all been aligned to Type Certification requirements, target unit economics, and scale production plans. As a result, we are now moving confidently towards assembly of the first conforming aircraft (designed towards known certification rules and built according to Aerospace Quality Management System), due to start in 2023. As part of this step – and to prepare for series production – we hosted our first Supplier Day on March 31, 2022. 74 current and prospective suppliers came to our headquarters near Munich, Germany, for collaborative discussions and an update on the Lilium Jet development program.

<sup>3</sup> Projection based on current development status of aircraft



## Industrial Partnerships

### **Honeywell** | *DENSO*

Lilium recently announced a major collaboration agreement with **Honeywell**, our avionics partner and investor, together with automotive giant **DENSO**, for the co-development and scale manufacture of the proprietary, high-performance e-motor system that sits within the Lilium electric jet engine. This agreement leverages the two companies' respective aerospace expertise and automotive volume production competence. The innovative system, on which the companies have been working for nearly two years, is expected to bring exceptional performance and reliability with zero operating emissions. Its air-cooled design offers structural simplicity and ease of maintenance compared with traditional liquid-cooled systems, and therefore has the potential to significantly reduce aircraft operating costs. The e-motor has its rotor and stator in a centrifugal or 'radial' configuration. This lowers the component's weight, manufacturing costs and susceptibility to foreign object damage. It also boasts industry-leading power density, with the first prototype e-motors designed to extract over 100kW of power from a system weighing just over 4kg.

→ [READ – Full Press Release](#)

### **AER**nova

In addition, we have now entered into a long-term agreement with leading aerostructures supplier **Aernnova** to design, manufacture and provide support for the Lilium Jet's innovative propulsion mounting system, the streamlined flap structure that forms the aft section of the main wing and canard aerofoils. Built in lightweight materials such as carbon fiber reinforced composite materials, the system houses both the engine that powers the aircraft and the vectoring system that enables vertical and horizontal flight.

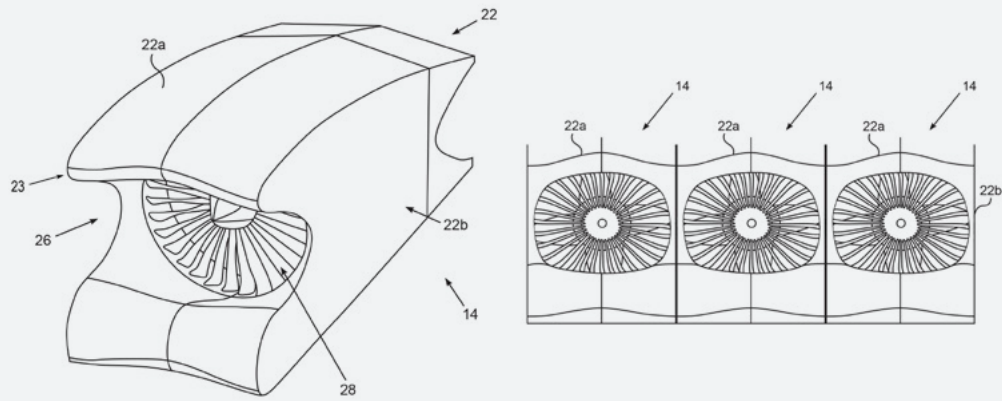
→ [READ – Full Press Release](#)

### **Livent**

Lilium has also recently signed a collaboration agreement with **Livent**, one of the largest producers of lithium products for the battery cell industry. Based on the agreement, Lilium and Livent will work together on innovative lithium applications for high-performance cells. The collaboration also reflects Lilium's strong positioning with one of the major suppliers of responsibly-sourced lithium.

→ [READ – Full Press Release](#)





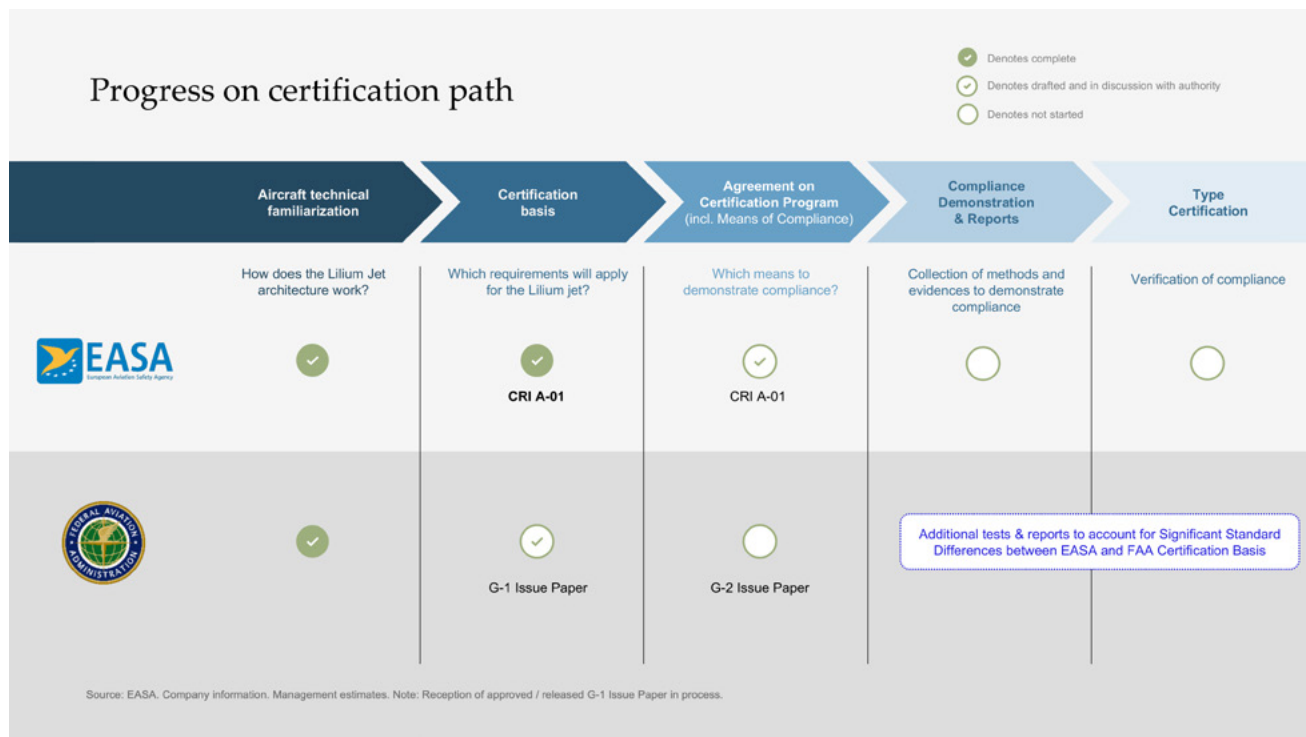
## Patent Protection

Our unique, innovative design is also reflected by our recent activities to protect our intellectual property. Under the leadership of Wulf Höflich, who joined Lilium last year as Head of Intellectual Property from Airbus, where he held a similar role, Lilium's engineering teams have accelerated the rate of patent applications. In recent weeks, the European Patent Office (EPO) published 37 of [Lilium's latest patent filings](#), covering the core technology around the Lilium Jet and spanning several domains: Energy, Propulsion, Structures & Interior, Avionics and Custom Electric. These applications serve as a testament to our engineers' ingenuity and reinforce Lilium's place at the forefront of eVTOL development. The filings also move us closer to commercialization of the Lilium Jet. These 37 patents are part of a batch of 50 patents Lilium filed throughout 2021. Lilium is also extending patents in the U.S. and China to ensure global protection of its intellectual property.

# Progress on Certification

Lilium is closely cooperating with its primary airworthiness authority, the European Union Aviation Safety Agency (EASA), to progress towards Type Certification. EASA’s approach is proving highly constructive. Lilium received its EASA certification basis (CRI A-01) for the Lilium Jet, an equivalent milestone to the FAA’s G-1 issue paper, in 2020. The EASA certification basis is especially designed for small eVTOL aircraft. The safety standards required by EASA for eVTOL aircraft are similar to those required for large commercial aircraft such as those produced by Boeing or Airbus, at a probability of at most one loss of aircraft per billion flight hours (or 10<sup>-9</sup> in industry parlance).

Lilium is now working with EASA towards the next major milestone, agreement of the certification program, which includes Means of Compliance for demonstrating that our aircraft conforms with stated certification requirements. Lilium has already come another step closer to this milestone, which represents the equivalent of the FAA G-2 issue paper. Earlier this year, our teams submitted a full set of Means of Compliance proposals to EASA. Our next steps are to agree on the certification program with EASA, which we aim to complete by the end of 2022, on the way to our targeted Type Certification for the Lilium Jet in 2025.



Lilium is pursuing concurrent validation of the aircraft with the U.S. Federal Aviation Administration (FAA) under the provisions of the Bilateral Aviation Safety Agreement between the U.S. and EU. Lilium’s relationship with FAA is managed via EASA. Lilium is currently preparing an application for type-certificate validation with the National Civil Aviation Agency of Brazil (ANAC), which will also be submitted through EASA as soon as the end of Q2 2022.

In addition, Lilium successfully completed in April this year its second Design Organization Approval (DOA) audit with EASA, confirming that the company is following the rigorous design processes agreed with the regulator. Lilium is seeking to advance ahead of the previously targeted schedule. With the third DOA audit already planned for later this year, Lilium, in close alignment with EASA, is now aiming to complete the fourth and final DOA audit in 2023. The progress reflects Lilium's ongoing development as an aerospace company and serves to de-risk timelines towards type-certification of the Lilium Jet.

On May 25, 2022, Lilium hosted a high-level delegation from EASA, including Rachel Daeschler (Certification Director) and David Solar (Head of General Aviation & VTOL) at Lilium's facilities in southern Germany to see the progress Lilium is making with certification, organization, facilities for engineering, manufacturing and testing, and simulation.



Lilium hosted an EASA delegation on May 25, 2022, left to right: Bhavesh Mandalia, Lilium Head of Airworthiness; Volker Arnsmeier, EASA Section Manager – eVTOL & Light UAS; David Solar, EASA Head of Department – General Aviation & VTOL; Luigi Ricci Moretti, Lilium Chief Engineer; Alastair McIntosh, Lilium Chief Technology Officer; Rachel Daeschler, EASA Certification Director; Julian Hall, EASA Head of Department – Design Organisation & ETSO; William Hirst, Lilium Head of Test & Experimental



SEE FULL FLIGHT VIDEO



## Flight Testing

We are very pleased to announce that we achieved transition on the main wing. Transition represents the important, and technically challenging, phase between vertical lift and the highly efficient wing-borne lift. The successful performance of the main wing transition is a significant validation of our flight physics models and our overall technological approach. We believe this represents the first successful transition of a full-scale electric jet aircraft from hover to wing-borne flight – in history.

Our Phoenix2 demonstrator is successfully performing the predefined flight plan in Spain. Having completed the first phase in April 2022 with flights at up to 50 kts, the aircraft has increased speed to 70kts and doubled the number of flights per week.

As the demonstrator aircraft reaches higher speeds beyond transition, lift is generated exclusively by the wings. This is where the aircraft's optimized fixed-wing shape shows its full potential to achieve the range and speed requirements of the regional mission. The Phoenix2 demonstrator is currently flying almost every day, when not in maintenance.



The flight test campaign provides important real-world validation of the Lilium Jet design.

At a technical level, the results of the demonstrator flights confirm the accuracy of our computational fluid dynamics (CFD) predictions, and the data we have gained through our wind tunnel testing.

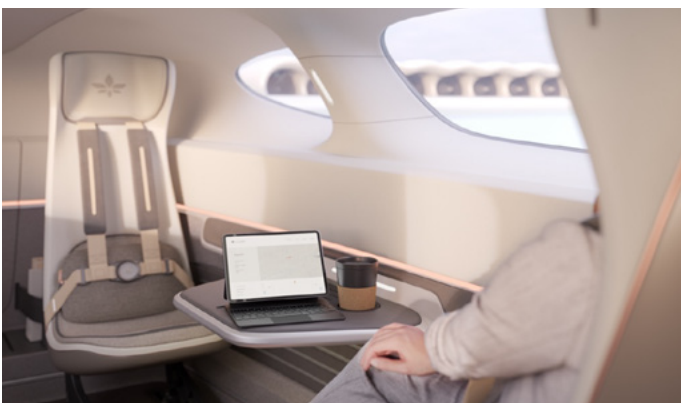




## Commercial Progress

The announcement of our premium four-passenger ‘club cabin’ configuration and our intention to serve the business jet and private aviation segment has generated strong interest from the industry and from private individuals. We believe that the jet-powered design including a spacious premium cabin makes the Lilium Jet uniquely situated to serve the premium segment.

This was reconfirmed during customer discussions at the recent European Business Aviation Convention & Exhibition (EBACE) 2022, held in Geneva. Lilium is already collaborating with two major business jet companies: NetJets, as announced in our last shareholder update, and LuxAviation, which plans to support Lilium in building out premium airline operations in Europe.



We foresee that this high-end market will remain an important business contributor, even as we scale up our sales in the higher volume regional market with the six-passenger shuttle configuration.

Both the premium four-passenger ‘club cabin’ configuration and the six-passenger shuttle configuration will share the same certification basis.

## Future Programs

Pioneering spirit, vision and entrepreneurial courage is embedded in Lilium's DNA. It is Lilium's ambition to continue to push boundaries in the years ahead with new programs and innovations aimed at revolutionizing electric air mobility with larger form factors, longer ranges as batteries continue to improve, and a continued focus on reducing the cost of the service for customers and passengers.

Lilium's long-term technological strategy will be spearheaded by our co-founder Daniel in his new role as Chief Engineer for Innovation & Future Programs. Daniel's passion and strength is aerospace engineering. His new role will allow him to focus on keeping Lilium on the cutting edge.

## Conclusion

In summary, all of these achievements combine to confirm that our chosen Lilium Jet design is capable of achieving the required mission profile and business plan, while meeting the certification standards.

We now enter a key phase in the company's development as we move to industrialization of the Lilium Jet and commercial launch with first customers. In the months ahead we will keep you posted on the next achievements as our organization gathers momentum, in particular:

- Onboarding of our new CEO Klaus Roewe
- High-speed test flight at 100kts and above
- Contracting further with Tier 1 aerospace suppliers
- Next certification milestones
- Commercial progress and updates from our Farnborough International Airshow exhibition



A handwritten signature in black ink that reads "D. Wiegand".

Daniel Wiegand  
Founder & CEO



A handwritten signature in black ink that reads "Geoff Richardson".

Geoff Richardson  
CFO



# Investor Events

- Liliium published its **2021 Annual Report** on Form 20-F (including the audited Consolidated Financial Statements) on March 30, 2022
- **Q2 Business Update**
- **Liliium's Capital Markets Day** will be held in Fall 2022
- **Annual General Meeting of Shareholders** to be held by end of October 2022<sup>4</sup>



## Contact

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[www.investors.lilium.com](http://www.investors.lilium.com)



<sup>4</sup> Pursuant to the Dutch temporary measures act COVID-19 and to ensure efficient use of company resources following COVID-19 related disruptions, Liliium has chosen to use the extended timeframe provided to defer publishing the Dutch 2021 Annual Report and calling the Company's AGM until up to the end of October 2022. Details will be provided in due course on the Investor Relations website.

## ABOUT LILIUM

Lilium (NASDAQ: LILM) is creating a sustainable and accessible mode of high-speed, regional transportation for people and goods. Using the Lilium Jet, an all-electric vertical take-off and landing jet, offering leading capacity, low noise and high performance with zero operating emissions, Lilium is accelerating the decarbonization of air travel. Working with aerospace, technology and infrastructure leaders, and with planned launch networks announced in Germany, the United States and Brazil, Lilium's 800+ strong team includes approximately 450 aerospace engineers and a leadership team responsible for delivering some of the most successful aircraft in aviation history. Founded in 2015, Lilium's headquarters and manufacturing facilities are in Munich, Germany, with teams based across Europe and the U.S. To learn more, visit [lilium.com](http://lilium.com).

## FORWARD-LOOKING STATEMENTS

This communication contains certain forward-looking statements within the meaning of the federal securities laws, including, but not limited to, statements regarding Lilium N.V.'s proposed business and business model, the markets and industry in which Lilium N.V. and its subsidiaries (collectively, the "Lilium Group") operate or intend to operate, the anticipated timing of the commercialization and launch of the Lilium Group's business in phases, our ability to successfully patent our intellectual property and the future performance of our innovations and the expected results of the Lilium Group's business and business model, including when launched in phases. These forward-looking statements generally are identified by the words "believe," "project," "expect," "anticipate," "estimate," "intend," "strategy," "future," "opportunity," "plan," "may," "should," "will," "would," "will be," "will continue," "will likely result," and similar expressions. Such statements are based on management's belief or interpretation of information currently available. Forward-looking statements are predictions, projections and other statements about future events that are based on management's current expectations with respect to future events and are based on assumptions and subject to significant risk and uncertainties and subject to change at any time. The Lilium Group operates and will continue to operate in a rapidly changing emerging industry. New risks emerge every day. Given these risks and uncertainties, you should not rely on or place undue reliance on these forward-looking statements, including any statements regarding the timing or prospective outcome of Lilium's flight-testing campaigns and the timing of launch or manner in which any proposed eVTOL network or anticipated commercial activities will operate. Actual events or results may differ materially from those contained in the projections or forward-looking statements. Many factors could cause actual future events to differ materially from the forward-looking statements in this communication, including, but not limited to, the following risks: (i) the impact of COVID-19 on the Lilium Group's business; (ii) the Lilium Group's ability to realize the anticipated benefits of its recent business combination with Qell Acquisition Corp.; (iii) the Lilium Group's ability to maintain the listing of its securities on the Nasdaq; (iv) the market price of Lilium's securities may be volatile due to a variety of factors, such as changes in the competitive environment in which the Lilium Group will operate, the regulatory framework of the industry in which the Lilium Group will operate, developments in the Lilium Group's business and operations, and any future changes in its capital structure; (v) the Lilium Group's ability to implement its business plans, operating models, forecasts and other expectations and identify and realize additional business opportunities; (vi) the Lilium Group's and its partners' inability to achieve anticipated specifications for the Lilium jet and any related infrastructure; (vii) general economic downturns or general systematic changes to the industry in which the Lilium Group will operate, including a negative safety incident involving Lilium or one of the Lilium Group's competitors that results in decreased demand for the Lilium Group's jets or services; (viii) the failure of the Lilium Group and its current and future business partners to successfully develop and commercialize the Lilium Group's business or significant delays in its ability to do so; (ix) the Lilium Group may never achieve or sustain profitability; (x) the Lilium Group will need to raise additional capital to execute its business plan, which may not be available on acceptable terms or at all; (xi) the Lilium Group may experience difficulties in managing its growth, moving between development phases or expanding its operations; (xii) third-party suppliers, component manufacturers or service provider partners are not able to fully and timely meet their obligations or deliver the high-level customer service that the Lilium Group's customers will expect, and impacts from disruptions in the Lilium Group's supply chains due to the COVID-19 pandemic, inflationary pressures or otherwise; (xiii) the Lilium Group's jets not performing as expected, delays in producing the Lilium Group's lineup of jets or delays in seeking full certification of all aspects of the Lilium Group's lineup of jets, causing overall delays in the anticipated time frame for the Lilium Group's commercialization and launch of any or all of the anticipated Lilium jet models; (xiv) the technology necessary to successfully operate the Lilium Group's jets and business operations is delayed, unavailable, not available at commercially anticipated prices, not sufficiently tested, not certified for passenger use or otherwise unavailable to the Lilium Group based on its current expectations and anticipated needs; (xv) any identified material weaknesses in the Lilium Group's internal control over financial reporting that, if not corrected, could adversely affect the reliability of the Lilium Group's financial reporting; (xvi) product liability lawsuits, civil or damages claims or regulatory proceedings relating to the Lilium Group's jets, technology, intellectual property or services; (xvii) the Lilium Group's inability to secure or protect its intellectual property; (xviii) that the final terms of any commercial transaction or strategic alliance with Lilium's prospective partners and suppliers may differ, including materially, from the terms currently anticipated; (xix) negative publicity about the Lilium Group, its employees, directors, management, shareholders, affiliated parties or Lilium's founders; and (xx) currency fluctuation risk related to changes in foreign currency exchange rates from time to time. The foregoing list of factors is not exhaustive. Forward-looking statements speak only as of the date they are made. You are cautioned not to put undue reliance on forward-looking statements, and the Lilium Group assumes no obligation to, and does not intend to, update or revise these forward-looking statements, whether as a result of new information, future events or otherwise. The Lilium Group is not giving you any assurance that it will achieve its expectations. A further list and description of risks, uncertainties and other matters can be found in the section titled "Risk Factors" in our Annual Report on Form 20-F for the year ended December 31, 2021 (the "2021 Form 20-F") and our other filings with the U.S. Securities and Exchange Commission ("SEC"), all of which are available at [www.sec.gov](http://www.sec.gov). These forward-looking should be evaluated together with additional information about the Lilium Group's business, markets, conditions and other uncertainties addressed in the 2021 Form 20-F and our other filings with the SEC. All forward-looking statements attributable to the Lilium Group or any person acting on its behalf are expressly qualified in their entirety by this cautionary statement.