

Sounding Board: Five Minutes With Sirius Aviation Founder And CEO Alexey Popov

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Sirius Aviation CEO Alexey Popov.

Credit: Sirius Aviation

There are people for whom aviation is a calling, and others who would argue it's in their blood: and then there's Alexey Popov. His father and brother are senior executives in what he refers to as "the family business"—FED, the Ukrainian aerospace components, systems and maintenance firm that can trace its history back almost 100 years—and, like them, he graduated from the National Aerospace University's Kharkiv Aviation Institute, alma mater to the lion's share of Ukraine's degree-educated aerospace engineers. As a pilot, Popov has flown single-handed across the Atlantic—a six-day jaunt that was effectively the ferry flight for a Cirrus SR22 G2 he bought in Portland in 2020. After nearly 20 years in various roles within FED, he established Sirius Aviation in 2021. The Swiss-based company, funded by FED, is developing a liquid-hydrogen-powered electric vertical-take-off-and-landing (eVTOL) business jet in collaboration with partners including German auto giant BMW's Designworks studio, Formula 1 team Sauber, and Leonardo Aerostructures.

Q: Why, with all your experience, did you feel that entering the eVTOL market was the right move?

A: Very simple. We always seek out opportunities, like any other growing company. We clearly understand we can do it. The only thing that we were lacking in terms of technologies was the fuel cell performance—all the other technologies we've just reshuffled. It has wings; it has a fuselage, but we distribute thrust from multiple spots. There was nothing new. But the propulsion system, we have designed it completely, and we hold the patent for that hydrogen-electric ducted fan propulsion system, registered in the United States last year. This is the only thing we will have to certify as a novel design, but it has to be done by someone sooner or later, right? The hydrogen engine: humanity needs it right now. So, to answer your question in a very brief way—we felt this passion; we felt that, yes, we can do it; and we are doing it.

Q: Your design, with 28 tilting ducted-fan engines mounted along the wings and canards, resembles the [Lilium Jet](#). Lilium is one of a handful of eVTOL developers who have pivoted to target the business-aviation market first. What advantages do you believe you have by deciding to focus on that segment from the outset?

A: Firstly, we don't want to compete in a red ocean. In the book *Blue Ocean Strategy*, Renee Mauborgne and W. Chan Kim explain that the red ocean is the overheated market, and the blue ocean is an empty market. You can create blue oceans or you can participate in red oceans. Maybe this is part of my character, but I've never wanted to be like others. It's not that I cannot compete with others—I can. But why? For what? If you can create your own market.

So, we're creating our own market—regional hydrogen flight, with sustainable technologies and zero carbon emissions. Lilium and eVTOLs—purely electric—those will be hopping plates. They will never fly more than one hour, because their batteries are discharged quickly. You consume 30% of the capacity of your battery to take off; then for Lilium, which is a bad thing, they will consume the same for landing vertically. So, you have 40% left,



but you have to supply power to all your computers, avionics, whatever, and the cooling system consumes a lot. So, that's more and more mass. [Other eVTOL OEMs] have already been banned—not too many people know; I know—from vertical take-off. They are not in this market anymore. They are conventional aircraft, with batteries. We will do the vertical take-off and landing since we have hydrogen. We have a lot of energy on board. We can consume, transform and receive energy for everything.

And why did we go to the business market? I like the business market! You have different people and different problems. But there is commercial logic to this. For the first couple of years, we will not be able to produce more than 100 aircraft, so you have to sell each seat with lower margin, right? We will sell them with the highest possible margin. It makes a lot of sense to blend cars and aircraft. I will try to blend them, and to eliminate people's perception between cars and aircraft. This will be a new, absolutely unseen product in the market. People will love it.

Q: What kind of timetable are you working toward?

A: We are not in a hurry at all. We're not in competition with anyone. Our main competition is our diligence. We have to be diligent in what we do and do it in the most accurate and the right way.

The war [in Ukraine] mixed things up a little bit. We had to move the manufacturing, establish new certification. But it's not a big deal. Right now, we're building a new factory in Turkey, in the free economic zone: the legislation is British, and there's a port, so it's nice. And in Slovakia—we have an absolutely brilliant relationship with the Slovak University of Technology, and we've established a huge base, bought lots of equipment.

Right now, we're having an external independent technical audit by Israel Aerospace Industries, just to check that we didn't miss anything. That will be finished in around two months, then we will immediately deliver drawings to manufacturing. After six, seven months of manufacturing, and six more for tests, I believe that at the end of Q2 next year, maybe Q3 we will take off. As soon as we take off, two years and it will be certified. So, we expect the end of 2027, but just in case, I'm saying to everyone that the first deliveries will be in 2028.

Q: The success of the concept will rely to a very great extent on sufficient and wide availability of green hydrogen. How will you support your customers in ensuring they have access to fuel?

A: A year ago, no one, not even myself, could answer this question in a precise way. For the last three years the hydrogen market simply didn't exist. Over those three years the technologies have been developed so high, and they're growing exponentially. And at Cop 28 in Dubai, humanity for the first time in history said 'Yes' to hydrogen. We were hesitating before, but today, yes. So, just imagine what will happen in the next few years.

Today, I can offer you several solutions. If we had an aircraft ready I could offer you a hydrogen generator, a liquidator to make it liquid, and they are transportable. That already exists on the market, you can just go and buy one. But imagine what will happen in the next three to five years. We'll have multiple solutions for everything. And some genius people—technologists, engineers—will invent something new.

Q: Do you intend to sell the aircraft to operators, or will you operate them yourself on behalf of end-user customers, as several other eVTOL startups are proposing?

A: My idea is to make this aircraft accessible, in terms of price, to as many people as possible. We have already partnered with [Swiss bank] UBS—throughout the life of the family business, we have been financed by UBS—with the yacht and private jet leasing department. We've created the idea that I don't even want to tell people the price, I want them to pay monthly. You choose your options, and maybe you pay 60K, 80K, or 100K—but this will be the maximum. So, there will be no price for the aircraft, probably. This accumulation of so many technologies is a priceless thing. It has to be so unique when you touch it, when you see it, when you smell it—and it has to have no price. That will be a breakthrough, from my perspective.

So, starting at 60K per month for five years, you get access to a lot of things. We will include 100% education for at least two people to go and be a pilot—already included in the price. There will be an option, if you don't want to do that, to have a pilot: you don't have to think about that, this is our problem. We will give you a 24-7 pilot service.

I want to grow a new generation of pilots, and I want to reach young people who have, more or less, just high net worth, not super-ultra-high net worth—those that have just a million in their pot. They will be able to buy my aircraft. UBS will finance it. I'm creating a package, together with UBS and BMW—and once we create this package, the aircraft has no price.

