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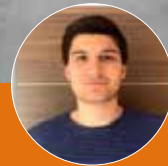
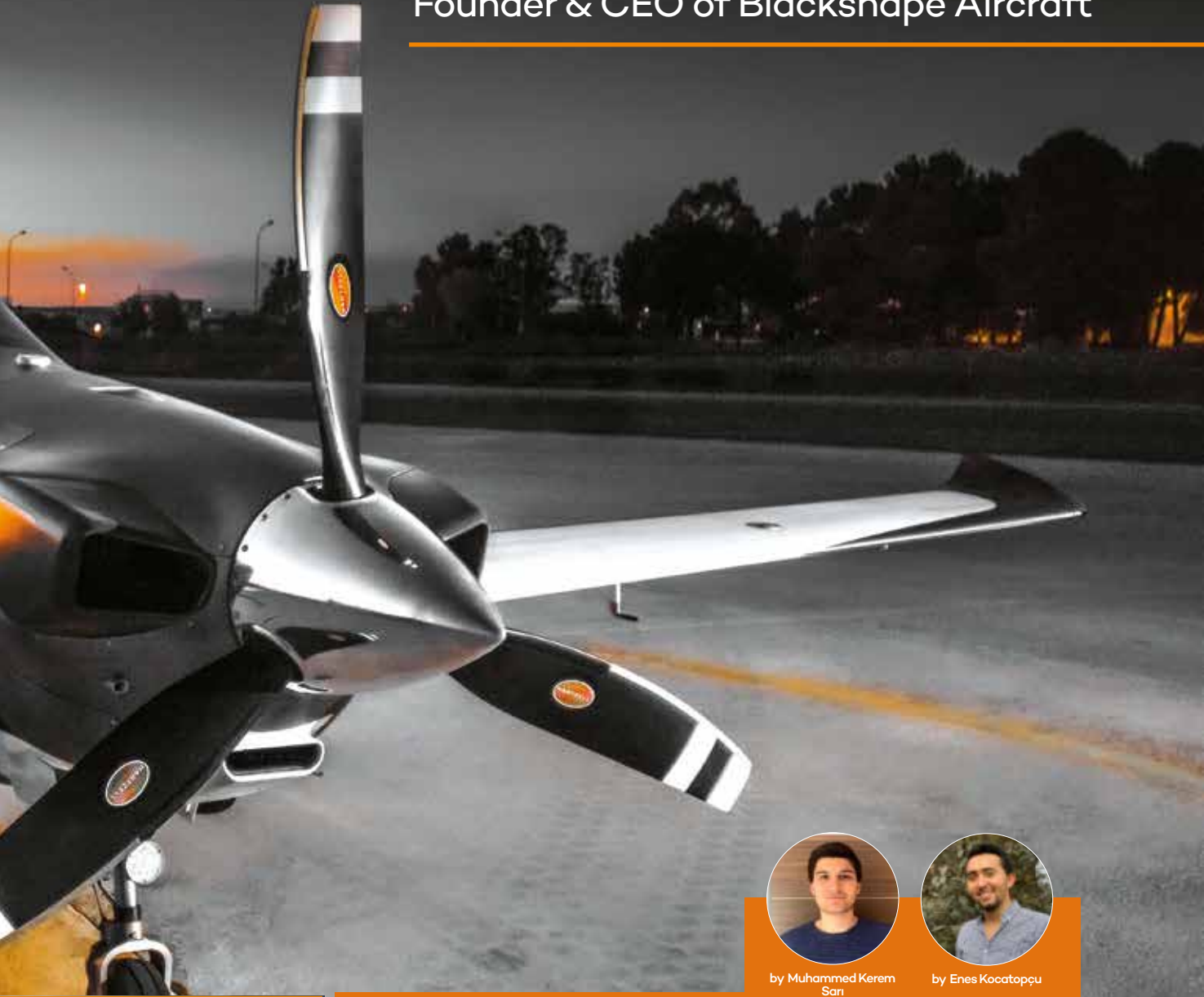
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Blackshape Aircraft 2020

with Luciano Belviso,
Founder & CEO of Blackshape Aircraft



by Muhammed Kerem
Sari



by Enes Kocatoğlu



As a task force of young aviators, BCI4@ Team by the motto of "...understanding the future of aviation with the facts and figures of today!" was founded as a part of the CAN'CA Intellectual Projects by Can Erel.

With its business and academic mentorships, BCI4@ Team conducts interviews called "Business Cockpit Interviews (BCI)" with decision-makers and/or senior executives in the international and domestic aviation industries and shares.

In this interview with Luciano Belviso, Founder & CEO of Blackshape Aircraft, we focused on

his aviation background, Blackshape Aircraft, and general aviation and training technologies in this company. We would like to thank Mr. Antonio Amendolagine, Marketing Manager of Blackshape Aircraft, and Ms. Ilaria Trapuzzano, Communication and Media Manager of Angel Company, for their contributions in forming the structure of our questions and of course Mr. Belviso for his time and the thoughts he shared. Also, we would like to thank our adviser M. Celalettin Değirmencioğlu for his full support in this interview process. Enjoy the interview!

BUSINESS COCKPIT INTERVIEWS

BCI4@ Team: Can you share a bit about yourself and your career path Mr. Belviso?

Luciano Belviso: I've always been fascinated by technologies and by all mobility industry. I learned my degree in Aerospace Engineering from the Polytechnic University of Turin and I completed my university studies with a Master's in Mechanical Engineering from the Federal Polytechnic School of Lausanne, Switzerland, and a Master of Laws from the University of Paris XI in France. I believe my curiosity and the desire to grow professionally, encouraged me to travel the world and have my first working experiences in Europe, Russia, Canada, India and South America. For unknown reasons, I think everybody gets "old" when they turn 23, so at 25 I decided to return in Italy and reinvest what I learned in one of my projects, with the dream to create something unique and to become a Made in Italy excellence. Funny enough, when you get "old" at 23 you are not really old, and I'm thankful for all the opportunities this season of my life is offering.

BCI4@ Team: How do you evaluate the future of the ultralight and light aircraft market, especially in the next decade? Also, what is the importance of investing in this area?



Luciano Belviso,
CEO of Blackshape Aircraft

Luciano Belviso: With the new Basic Regulation, European countries have the possibility to increase the MTOW of ultralight to 600kg, like Germany did from 2018. This will certainly bring new life to the UL market. Concerning the light aircraft market, I believe the situation is different from country to country, depending on infrastructure and

taxation. However, most people probably didn't realize, but we all face a new era in aviation, due to the investment in technologies and their application to the aviation business.

For instance, VTOL or electric propulsion will likely have an outcome in the light aircraft market. Even though these

technologies are not mature yet, I believe in a short while the traditional feeling of the good and old times of the aviation community will leave the floor to the all-new excitement for what will come next.

A shift of the aviation culture is also likely to be soon, following what happened in the automotive industry. I refer – for instance – to shared mobility or to the experience market.

All these factors will probably contribute to a growth or – I would rather say – to a democratization of the aviation culture which will slowly enter everybody's life.

This will be a tremendous opportunity to expand the business to a much larger customer base, which – similarly to the automotive industry – will likely be polarized between those who choose an aircraft to travel from A to B and those who are focused on "how" that travel will be sharing our values in terms of performance, design, overall quality and emotions.

BCI4@ Team: How has COVID-19 affected the ultralight and light aircraft market?

Luciano Belviso: I believe COVID-19 is acting like an accelerator to bring processes to their outcome. Europe has



Blackshape Prime

different fragile markets that are suffering from this pandemic which will probably require attention by regulators, more infrastructure and more aviation culture. If COVID-19 made us aware of this, I think we should act soon. Blackshape has a presence on all continents, but our HQ is in Europe and we're committed to playing our role also to facilitate rulemaking processes.

BCI4@ Team: In which areas has Blackshape solutions made a difference in the period of COVID-19, a time when the search for private flights has increased?

Luciano Belviso: If we refer to the recreational market, our product has a high positioning, therefore our customers were only marginally affected by COVID-19 (logistics and test flights). We see very similar behavior with respect to other sectors (i.e. high-end sport cars) where some companies had record sales.

BCI4@ Team: Can you tell us about Prime and Gabriel? What are the differences between them? What are their superior characteristics compared to other aircraft?

Luciano Belviso: Blackshape Prime is a two-seater ultralight aircraft conceived for the recreational market.



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Production Team

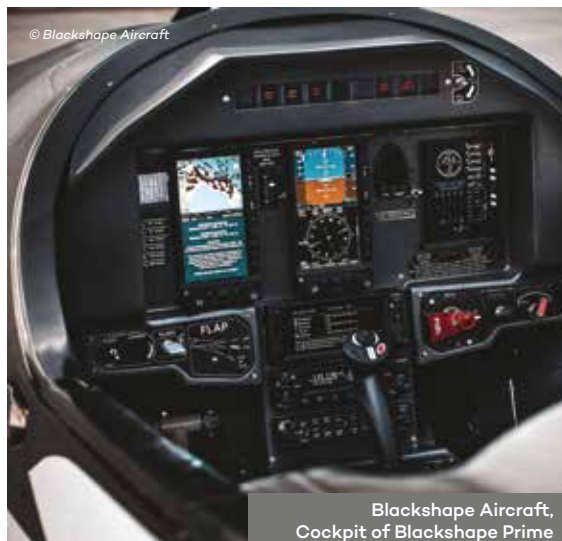
We've been working hard on its flight performance and details to offer an amazing flight experience and our design is made in Italy. The Prime is a "Supercraft", unique in its category and already in use in 18 countries worldwide. In Europe, it is possible to pilot it with an ultralight aircraft pilot license. The Prime is in use also in different training organizations outside Europe and this brought a

lot of experience with it for our future design. When we started to think about the Gabriel we already had the experience of our customers in mind and we wanted to make the perfect ab-initio trainer to suit modern training needs. Thus, the Gabriel is a general aviation aircraft conceived for the training of professional pilots, both civil and military. Thanks to its versatility, Gabriel can also be configured

as recreational, for the extreme performance lovers, who have a Private Pilot License (PPL). The aircraft has data-recording systems onboard that make it a sort of 'flying lab', with state-of-the-art equipment and avionics and with dual controls to carry out a detailed analysis of the cadet's skills. These features allow Gabriel to fill a gap in the aviation market and train the next generation of cadets.

BCI4@ Team: What type of innovations have come to the market as a result of Blackshape's approach to design and production processes, training, and flight activities?

Luciano Belviso: We use concurrent design from the very beginning, and we involve our customers at a very early stage of the development. We manufacture all our



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Blackshape Aircraft,
Cockpit of Blackshape Prime

BUSINESS COCKPIT INTERVIEWS

aircraft in CFRP with autoclave moulding – same process of the Boeing 787 – which makes the airframe last for its entire life without need of intermediate actions.

But apart from design and manufacturing, we are always driven to deep dive into specific market needs (training, ISR, etc.) and approach them in a holistic way to build our “innovation”. That’s the most attractive part of our work.

BCI4@ Team: You have accomplished to participate in the largest EU funded defense research project for maritime surveillance. What do you think about its significance for your company?

Luciano Belviso: ISR (Intelligence Surveillance and Reconnaissance) and autonomous flight constitute a pillar in our developments and strategy. We live in a geopolitical climate that requires, for needs ranging from the fight against smuggling to piracy, a series of strategic and tactical surveillance actions. We



created an aerial platform capable of intercepting and recognizing threats, generating an alarm to favour an intervention that contrasts the threat itself. Among the technologies used, there is also remote piloting.

BCI4@ Team: How are Blackshape's aircraft used for beginner flight training of amateur aviators? Does Blackshape Aircraft have educational solutions for this?

Luciano Belviso: We normally take care of our customers from all points of view. We offer tailored solutions based on every

specific need, and we have many customers who learned how to fly directly in our aircraft. Some of them decided to learn how to fly because of our aircraft as they wouldn't have been attracted to start their license on another kind of airplane.

BCI4@ Team: What are your thoughts on the importance of civil pilot training programs in this and future era?

Luciano Belviso: We started to be active in the field of pilot training but, unlike most solutions offered, we specialized on the skills to be delivered to pilots. In other words, we create

tools to train captains, not simply pilots. Until autonomous commercial flights will be possible (we don't have the enablers today) this sector will need captains accountable and responsible to keep air transportation the safest way to move people. As suppliers of integrated systems that allow the selection and training of pilots, this is our mission and our commitment.

BCI4@ Team: How would you evaluate the future of autonomous piloting? What is Blackshape's position in this industry? Are there any new projects on this subject?



Luciano Belviso: Autonomous flight has great potential and like all technologies with a possible disrupting impact need to be considered very carefully. We already flew remotely our ISR platform and for some markets this technology already has the right level of maturity. We're investing in this sector and we do have new projects in our pipeline.

BCI4@ Team: Do you think use of VTOL aircraft will expand in the future? What action can Blackshape take in the VTOL-aircraft market? What aspects will set it apart from its competitors in this market?

Luciano Belviso: The VTOL market is very attractive, and it was anticipated to expand the customer base and enable other forms of mobility (i.e. urban areas, goods delivery, etc.). However, the technology to enable such a revolution needs uncompromised attention to go through its growth and become ready for certification. I believe there's a huge difference between demonstrating that vertical flight is possible (of course, it is) and making it a realistic solution, certified and available to customers.

We've always been interested in the aviation business itself; we unveiled our last aircraft (the *Gabriel*) only after its certification, so what I can say – for now – is that we're considering very seriously all perspectives that technology offers.

BCI4@ Team: What does Blackshape and Angel have in mind for the Turkey market in terms of products? What do you think about the future market in Turkey?

Luciano Belviso: The Turkey market is surely interesting to us, and we are confident the next years will unlock important opportunities in the aerospace and aviation sectors. Moreover, we have an historical proficient relationship with Turkey within Angel Group: MERMEC, global leader in Railway Diagnostics and its sister company, provides Diagnostics Solutions helping to monitor the health status of the entire Turkish Railway.

BCI4@ Team: What would you recommend to young people aiming for a career in the ultralight and light aircraft industry?

Luciano Belviso: Be passionate. Every sector with the right passion is good, but if your taste brings you to aerospace, you're lucky. We face very interesting times rich with opportunities and those who have the passion to go through difficulties will be happy to be in the domain which will potentially re-shape our world 🌍



Luciano Belviso, Founder & CEO of Blackshape Aircraft

Luciano Belviso holds a Bachelors in Aerospace Engineering from the Politecnico di Torino, Italy, as well as a Master of Science in Mechanical Engineering from the Ecole Polytechnique Fédérale de Lausanne, Switzerland, and a Master of Laws from the Université Paris XI, France. He is a member of the Space Generation Advisory Council in support of the United Nations Space Program, member of the International Institute of Space Law. His academic and professional experience includes Europe, Russia, Canada, India and South America.



Blackshape Aircraft Hangar