EBAA

European Business Aviation

Flying into the future

Business aviation for Europe

Contents

Welcome aboard

> Enabling economic growth, facilitating business opportunities, and securing employment across the European continent.

Chairman’s foreword.

The core idea behind the European Union is simple: by connecting European nations, we can create stronger ties among people with common values, histories, and identities. Business aviation embodies this spirit, emphasizing just how vital these connections are for the European Union’s prosperity and unity.

On a daily basis, Business aviation promotes economic growth. It opens doors to new business ventures and maintains employment throughout Europe. With our flexible and swift travel solutions, we play a pivotal role in promoting trade, investment spurring jobs and connecting local communities. Our services reach out to parts of Europe that many commercial airlines overlook, linking these areas with Europe’s bustling centres. This connectivity contributes to regional development, one of the key objectives of the EU.

As Chairman of the association representing European Business aviation, I’m deeply aware of my duty to ensure our sector remains strong in the face of Europe’s future challenges. One of the most pressing is climate change. All industries, including ours, must collaborate to address this issue. Fortunately, the Business aviation sector is well-equipped. Our history is marked by innovative steps that have significantly reduced our carbon footprint. Even now, we’re at the forefront of finding new, sustainable aviation solutions, aiming for a cleaner and greener European airspace.

However, it’s essential to view our industry’s innovations in a global context. There’s an ongoing global race across various sectors, especially in transportation, to develop technologies for a zero-emission future. With our unwavering commitment to innovation, European Business aviation is well-positioned to become a leader in sustainable aviation, ensuring we continue to grow and offer exciting job opportunities.

Our main objective is clear: to reach net-zero carbon emissions by 2050. We’re confident in our ability to pave the way for a more interconnected and prosperous Europe, one that honours its past while looking after its future.

This booklet is designed to shed light on Business aviation’s significant role in Europe. We aim to provide a comprehensive overview of the economic value Business aviation brings, as well as its contributions to European connectivity. You’ll find insights into how the industry boosts business productivity and offers unrivalled travel reach. We will also delve into our ongoing efforts toward innovation and sustainability, painting a picture of a promising, green aviation future.

Whether you’re just discovering the world of Business aviation or aiming to deepen your understanding, this booklet is a valuable guide. It underscores the essential role Business aviation plays in weaving Europe’s intricate economic and social fabric.

Juergen Wiese
EBAA Chairman

01

Business aviation at a glance

> There is a societal need for a fast, flexible, and efficient transport solution.

In flight

The emergence of Business aviation six decades ago was not the result of coincidence nor the desires of a privileged few.

From its very beginnings, this mode of transport has been a response to a growing need for fast, flexible and efficient transport.

Business aviation is a tailor-made response to very specific transport needs. These needs include flexibility, confidentiality, safety, time savings, work efficiency, multi-leg missions and medical flights. Business aviation is all about specific travel needs, and mitigating the associated risks.

The reasons for using Business aviation are precisely the same as those for using a taxi. Far from the image of 'luxury' transport, the specific needs are various and in the absence of any viable alternative, Business aviation is the only option available to its users.

Business aviation cannot be reduced to its users alone. It is first and foremost a vital tool for the global economy, but it is also a high-tech and innovative industry, employing hundreds of thousands of highly skilled professionals. Business aviation is an often undervalued, yet vital sector of the aviation industry, contributing significantly to regional connectivity, employment and economic prosperity.

9%

Of all European aviation traffic is represented by Business aviation.

1,500

European airports connected, of which 1,000 are connected by Business aviation operators only.

127

Flight minutes saved per flight with Business aviation.

70,000

Life saving, or medical flights per year.

Connectivity routes 2022.

Airlines

5,000

Routes served.

500

Airports served by airlines and Business aviation.

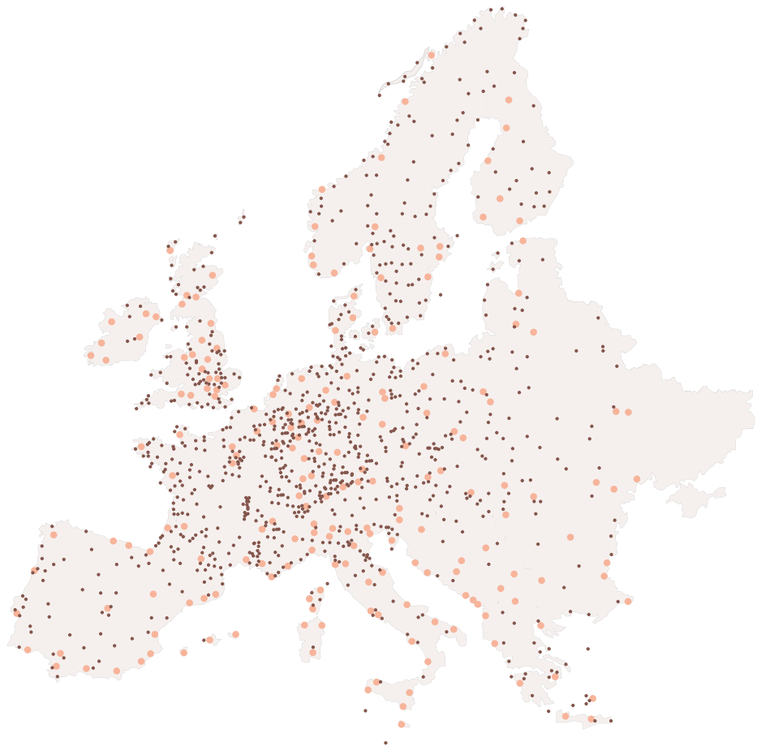
Business aviation

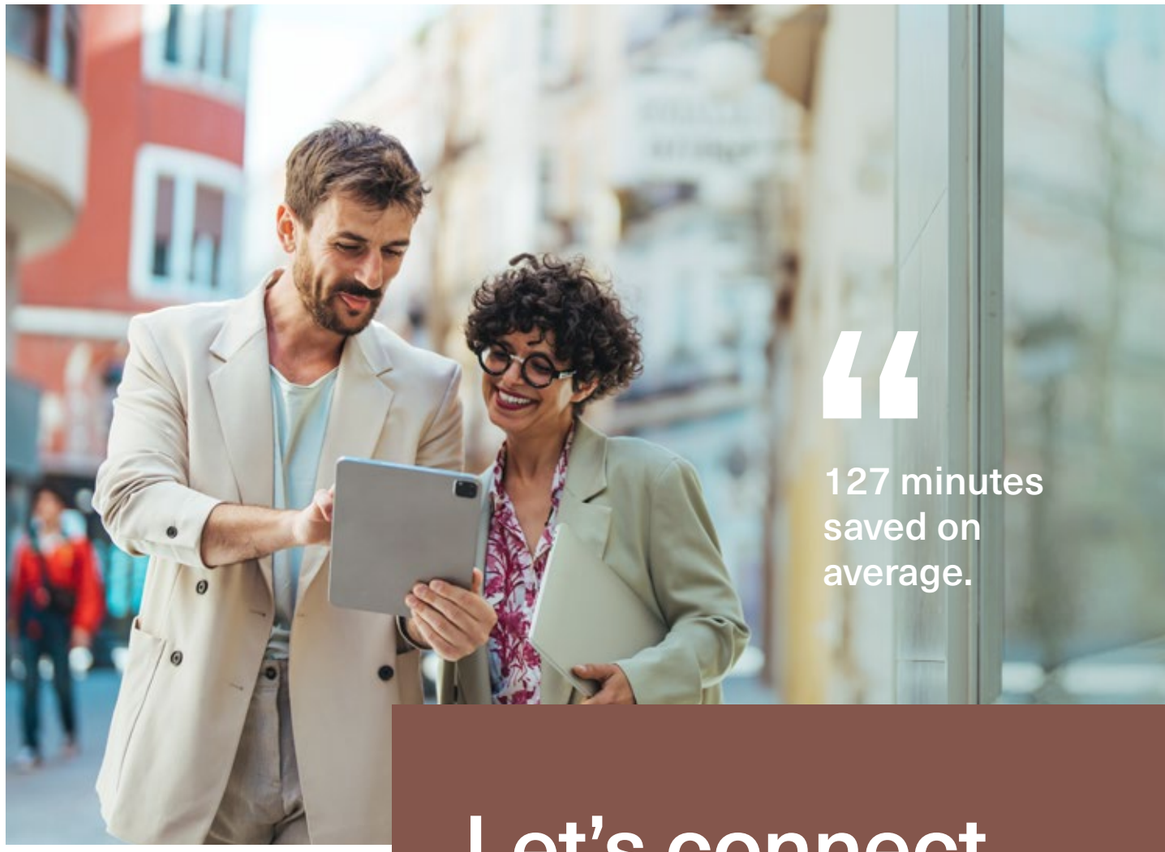
20,000

Routes served.

1,000

Extra airports served by Business aviation alone.





“

127 minutes saved on average.

Let’s connect

Connecting Europe all over.

Connectivity is the cornerstone of Business aviation. As per the data provided, Business aviation in Europe connects more than 80,000 unique airport pairs, a feat unattainable by commercial airlines due to their structural and economic constraints. Notably, Business aviation connects 1,500 European airports, of which 1,000 are exclusive to Business aviation operators. This capacity to reach a vast number of remote locations serves as a conduit for trade, tourism and regional development, ensuring that all regions, irrespective of their geographical constraints, are integrated into the European and global economies.

The effectiveness of Business aviation can be measured by the significant time savings it provides. For European businesses, Business aviation flights save an average of 127 minutes compared to the fastest commercial transportation alternative across all point-to-point flight routes in Europe. In today’s fast-paced business environment, this can translate into saved opportunities, enhanced productivity and a competitive edge.

Greater socio-economic value is realised through time savings facilitated by improved connectivity, especially when linking Eastern Europe with Western Europe. In fact, numerous Western European companies have manufacturing facilities situated in remote areas of Eastern Europe that are challenging to access. In this context, Business aviation plays a significant part in narrowing the East-West economic gap within the European economy by delivering efficient connectivity to and from Eastern Europe, helping to foster the EU’s cohesion policy.

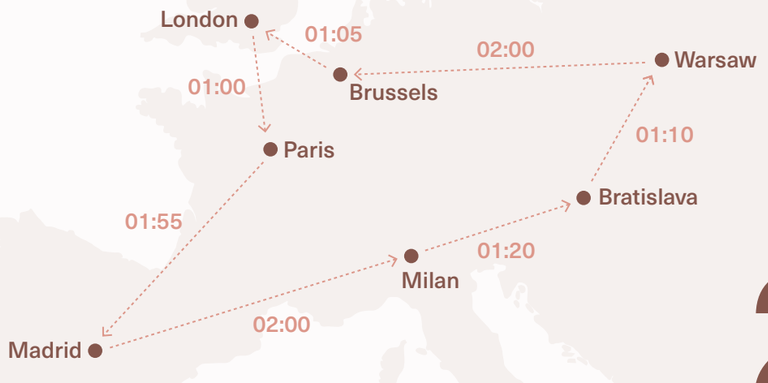
Contributions of Business aviation.

While this contribution may appear relatively modest when examined in isolation, its profound significance becomes evident when situated within the broader aviation industry. Not only does it directly bolster the European economy, but its secondary impact in supporting businesses effectively and efficiently also proves to be a catalyst for further economic growth and stability across the continent.

Aside from enhancing economic growth and regional connectivity, Business aviation also provides a significant societal benefit. Business aviation operators offer an invaluable service by supporting medical flights. Around 70,000 medical flights were registered in Europe in 2022, amounting to between 140 and 190 flights per day. These flights provide life-saving transport for patients, medical supplies, and emergency personnel, thereby contributing significantly to public health outcomes.

Business aviation serves a unique role within the European transportation ecosystem. It offers unparalleled connectivity, especially to remote and underserved regions, provides significant time efficiency for businesses, contributes substantially to the economy, and supports societal well-being through medical flights. Consequently, acknowledging and fostering the growth of the Business aviation sector is vital for the sustainable and inclusive growth of the European Union.

Business



20
Hours saved.

Flight case study

Leg	From	To	Meeting (local time)	Departure (local time)	Arrival (local time)	Flight Time	Pax
1	Brussels	London	19 Feb 08:05	19 Feb 08:15	19 Feb 08:20	01:05	9
2	London	Paris	19 Feb 12:05	19 Feb 12:15	19 Feb 14:15	01:00	9
3	Paris	Madrid	19 Feb 18:30	19 Feb 18:45	19 Feb 20:40	01:55	9
4	Madrid	Milan	20 Feb 11:50	20 Feb 12:00	20 Feb 14:00	02:00	9
5	Milan	Bratislava	20 Feb 17:50	20 Feb 18:00	20 Feb 19:20	01:20	9
6	Bratislava	Warsaw	21 Feb 16:35	21 Feb 16:45	21 Feb 17:55	01:10	9
7	Warsaw	Brussels	22 Feb 15:50	22 Feb 16:00	22 Feb 18:00	02:00	9

Business flight.

This client organises quarterly visits to the regional facilities to discuss results, targets and ongoing projects with regional management. They typically use a Cessna Citation XLS to transport 8-9 members of the management team. This type of aircraft offers the ideal solution for intra-European flights with a maximum of 9 passengers.

It should be emphasized that, in scenarios where this aircraft accommodates nine passengers, it functions primarily as an efficient business tool rather than a luxury offering. This configuration includes seating arrangements where two passengers are accommodated on a compact bench near the entrance, and one passenger is required to occupy a seat designed as part of the lavatory facilities.

Use of Business aviation has many advantages in this case:

A The management team is able to complete the tour in just 3-4 days. This would not be possible when using airline transportation due to time loss at the airport and imperfect flight schedules.

B This time gain allows for a better work-life balance and higher productivity of the management team.

C Passengers have full control over their schedules, allowing them to adjust departure times if meetings extend or conclude earlier than anticipated.

D Full discretion: during the flight, they can talk freely and prepare their meetings.

E If one takes into account the increased efficiency, savings on hotel accommodation and airline tickets, the benefits largely outweigh the costs.

Flight description for a business trip with Pilatus PC-12

A team of five professionals from a company undertakes a same-day round trip to fulfill business obligations. The itinerary includes attending meetings at two distinct locations: Besançon and La Roche-sur-Yon.

Departure
The flight departs from Besançon La Vèze.

Destination
The team heads to Dusseldorf.

Block Time
The estimated block time for the flight from Besançon La Vèze to Dusseldorf is approximately 1 hour and 5 minutes.

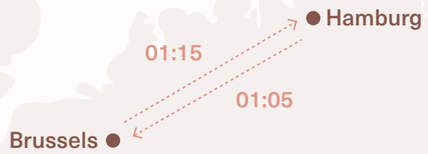
Return
After completing their business in Dusseldorf, the staff will return to Besançon La Vèze. The return block time is also estimated to be 1 hour and 5 minutes.

Aircraft
The chosen aircraft for this journey is the PC-12, known for its efficiency and comfort, making it an ideal choice for business travels.

The entire journey, comprising both the outbound and return flights, is planned to ensure the team spends minimal time traveling and maximum time attending to their professional commitments in Dusseldorf. The PC-12's reliability and performance ensure a smooth and timely journey for the team from the company based in Besançon.

5
Hours saved per trip.

Medical



6
Hours saved.

Flight case study

Leg	From	To	Meeting (local time)	Departure (local time)	Arrival (local time)	Flight Time	Pax
1	Brussels	Hamburg	05 Apr 07:05	05 Apr 08:00	05 Apr 09:10	01:15	4
2	Hamburg	Brussels	05 Apr 12:50	05 Apr 13:00	05 Apr 14:05	01:05	4

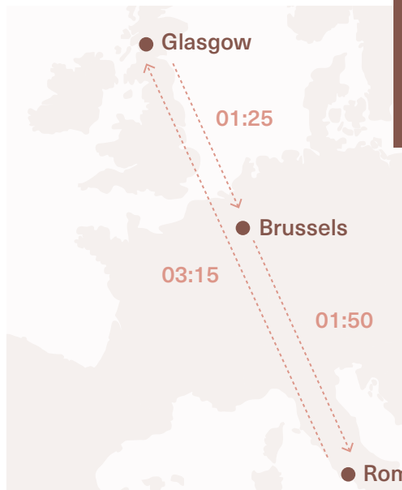
Organ transplant.

Business aviation is very active when it comes to medical transportation. As such, business jet operators often carry patients from remote locations to their home town or specialised centres that are best equipped to treat specific cases. Organ transplants thereby represent a significant portion of medical flights. Time is of the essence in such cases and light jets are efficient tools to transport an organ and medical staff from one point to another.

The above example shows an organ flight between Brussels and Hamburg. The jet, a Cessna Citation CJ4, leaves Brussels at 08h00 in the morning to pick up an organ in Hamburg. In order to ensure a controlled transfer of the organ, 4 medical doctors join the flight and pick up the organ at the hospital in Hamburg. After a ground time of approximately 4 hours, the plane takes off again to arrive in Brussels with the organ an hour later.

Due to the unpredictable nature of these missions, these flight requests always come in last minute and require immediate action. Generally, medical flight operators are able to dispatch an aircraft to any location within Europe in just 2 to 3 hours.

Government



11
Hours saved.

Flight case study

Leg	From	To	Departure (local time)	Arrival (local time)	Flight Time	Pax
1	Brussels	Rome	28 Oct 18:30	28 Oct 20:20	01:50	6
2	Rome	Glasgow	31 Oct 18:45	31 Oct 21:00	03:15	9
1	Glasgow	Brussels	02 Nov 18:00	02 Nov 20:25	01:25	12

Governmental visit.

In this case, a public institution chartered a business jet with a capacity of 12 passengers (Embraer Legacy, Bombardier Challenger 850, or equivalent) to visit two major gatherings with a delegation.

The first flight was to Rome to visit the G20 Summit, which took place on the 30th and 31st of October 2021. At the end of the G20 Summit, the delegation flew directly to Glasgow to attend the COP26 on the 1st and 2nd of November. The plane then transported an even bigger delegation, comprised of multiple institutions who made arrangements to coordinate their travel requirements, back to Brussels.

The use of Business aviation for key personnel of Governmental Institutions often represents a viable business case as it offers a high level of security and flexibility. Agendas of such delegations tend to change constantly and the logistics required are often extremely complicated due to security risks as well as diplomatic aspects.

The carbon emissions for institutional flights are often reported and compensated for. In this particular case a 35% blend of Sustainable Aviation Fuel (SAF) was physically uploaded into the aircraft to operate the above-mentioned route.

02

Trailblazing innovation

Image provided courtesy of Bombardier Inc.

Image provided courtesy of Bombardier Inc.

The sky's the limit

The role of innovation in shaping the history of aviation comes as no surprise.

Since the Wright brothers successfully flew the first powered aircraft in 1903, the aviation industry has stood out as a forward-looking and daring sector, enabling humanity to explore uncharted territories, bridge distances, and drive the spread of globalisation. Within this remarkable journey, Business aviation emerged as a protagonist, playing a pivotal role in catalysing innovation across the entire aviation landscape. But how did this small segment of the industry manage to attain such prominence?

Unlike the commercial aviation sector, where a few global players competed with the backing of government, Business aviation tends to thrive in and highly fragmented market. From its inception, this sector has been characterised by intense rivalry among a wide array of small and medium-sized enterprises (SMEs) striving to gain a competitive edge through constant innovation and the introduction of high-tech products. For Business aviation companies, success, and often survival, has meant relentlessly pursuing innovation rather than engaging in a race to the bottom focused solely on cost-cutting.

Not only its unique market conditions but also the reduced size of its aircraft, which facilitated the testing and introduction of new technologies, has allowed Business aviation to become the test bed for many innovations within the field of aviation. This dynamic business environment has significantly contributed to shaping the pioneering spirit of the Business aviation sector, which has repeatedly introduced cutting-edge technologies that have propelled the entire aviation industry to new heights in terms of technological advancements, resulting in faster, more fuel-efficient and ultimately more sustainable aircraft.

Today, Business aviation remains at the forefront of innovation, leading by example in adopting sustainable aviation fuels (SAF) and developing more efficient engines while it shapes the net-zero future of aviation, with groundbreaking advancements in electric, hybrid, and hydrogen-powered aircraft. In this chapter, we will embark on a comprehensive exploration of the past, present, and future of innovation within the Business aviation industry.

65 years of leading edge innovation.

Time flies

Timeline for technology introduction in Business aviation.

1958

Gulfstream I, the business aircraft was among the first to introduce a turboprop engine, marking a step forward in efficiency compared to piston engines.

1963

Dassault Falcon 20, first business jet to adopt a turbofan engine, increasing efficiency markedly compared to the old turbojet engine.

1973

Dassault Falcon 50, first business aircraft capable of regular nonstop transatlantic flights under the public transport safety regulations of that era, due to its unique trijet configuration.

1981

Winglets first commercially adopted by Learjet 28. Winglets reduce drag and increase fuel efficiency by improving the aerodynamics of the wingtips.

1983

Citation III was among the first business jets to incorporate composite materials and light alloys, making it lighter and more fuel efficient.

1985

Gulfstream IV, introduced advanced avionics, including a glass cockpit with digital flight displays and a digital flight management system, improving pilot efficiency and safety.

1996

Cessna Citation X, first business jet to employ a high-bypass turbofan engine that increased fuel efficiency and noise reduction.

2005

Dassault Falcon 7x, first business jet to pioneer the use of fly-by-wire system. A digital flight control system that uses lightweight electrical wires to transmit the pilot's input, reducing the weight of the aircraft and, thus, fuel consumption.

2008

First flight of a business jet, Gulfstream G450, fuelled with a 50/50 SAF blend, contributing to environmental efficiency (SAF significantly reduces GHGs emitted during the lifecycle of the fuel compared to conventional jet fuel).

2016

General Electric Passport Engine introduced innovative features such as a one piece blisk fan and active clearance control with an exhaust system made from high tech ceramic matrix composites.

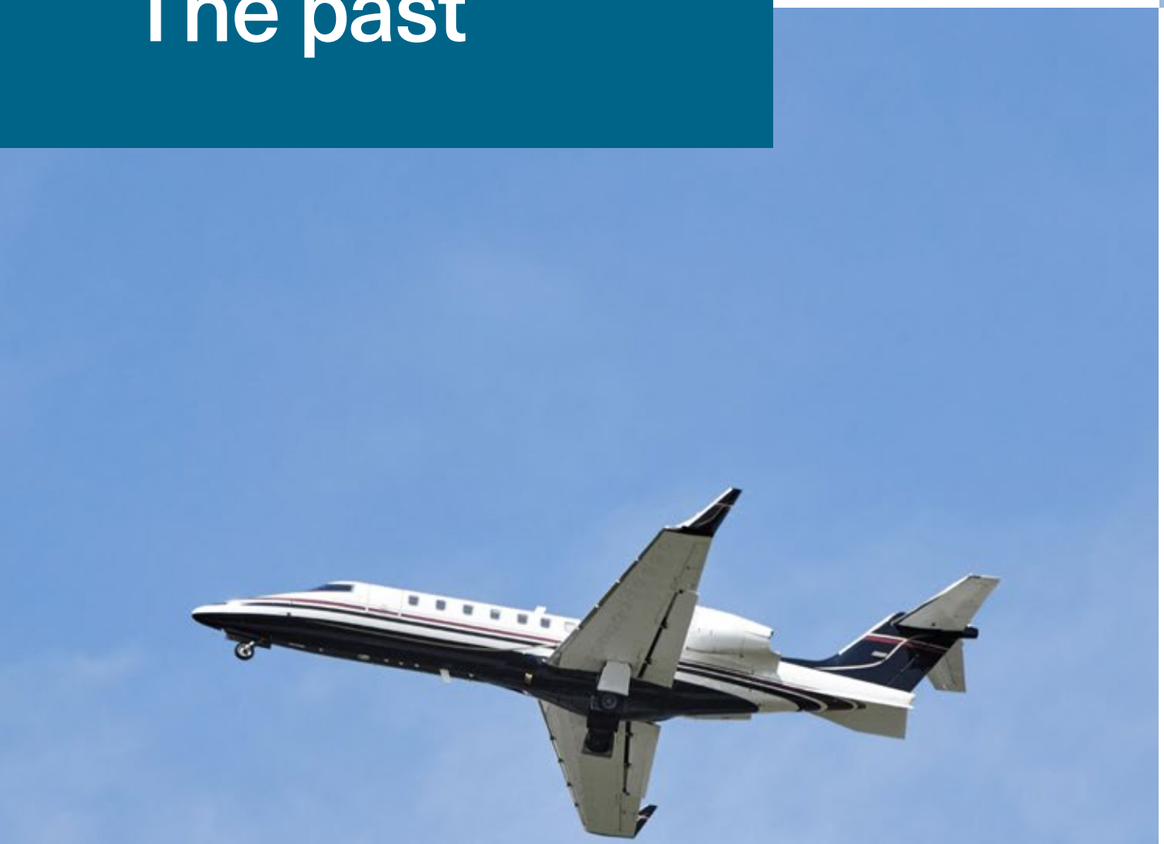
2020

Pipistrel Velis Electro, first EASA-type-certified electric airplane in the world.

2022

First business jet, Gulfstream G650, to fly fuelled with 100% SAF, further promoting environmental efficiency. Bombardier starts tests of a blended-wing body aircraft, a fixed-wing plane with no dividing line between the fuselage and the wing, which potentially reduces drag and uses the entire plane to help create lift, and therefore improves fuel efficiency.

The past



In 100 years of its history, Business aviation has made aviation increasingly faster, lighter, safer and more fuel efficient.

Touting efficiency, Business aviation has an impressive track record of sustainable technological advances.

In its nearly century-long history, the Business aviation sector has developed various advanced technologies that have allowed aircraft to become increasingly faster, lighter, safer and more fuel efficient. One of the technologies that left a significant mark in the history of aviation and saw Business aviation play its traditional pioneering role is the winglet.

Winglets are aerodynamic devices angled upwards that are installed at the tips of aircraft wings. The primary purpose of winglets is to reduce drag and increase fuel efficiency. By reducing the vortex formed at the wingtip, winglets minimise the amount of energy lost in the form of turbulence, resulting in reduced fuel consumption and increased range. Winglets were first used in a NASA experimental aircraft in 1977 but were later implemented on business jets in the early 1980s, with the Learjet 28 being the first high-speed business jet utilising winglets to be commercially produced. In the early 1990s, winglets started to be implemented on a larger scale by commercial aviation, becoming an aviation industry standard to increase efficiency and reducing emissions with every flight.

Aircraft propulsion is another area where the pursuit of cutting edge technology within Business aviation has led to several disrupting innovations coming to fruition.

The introduction of the turbofan engine in the early 1960s heralded a substantial advancement in terms of performance, fuel efficiency and noise reduction. The first business jet of this kind was the Dassault Falcon 20, which made its maiden flight in 1963.

A turbofan engine is characterised by the presence of a fan, which results in improved efficiency and fuel consumption compared to earlier turbojet engines. The improved fuel efficiency of turbofan engines allows for longer flights with greater payload capacity.

The Learjet 28 was the first business jet utilising fuel-efficient winglets to be commercially produced.

The present

With a combination of technological innovation and SAF adoption, Business aviation is striving to reduce its emissions today.

Even today, technological advancements continue to be the focal point of Business aviation's daily mission.

Undoubtedly, sustainability has been embraced by the entire industry as the primary goal of any forthcoming innovation. To achieve this, pushing on increased efficiency of combustion engines is still the key to unlocking further improvements in terms of decarbonisation, especially for long-range aircraft, while alternative propulsion options are being developed for short and medium-range flights.

Alongside continuous technological advancements, regulatory initiatives play a crucial role in complementing Business aviation's sustainability efforts. Implementing efficient Air Traffic Management (ATM), exemplified by the Single European Sky Initiative (SES), is key to reducing carbon emissions throughout the entire aviation sector. In fact, through the optimisation of flight paths and airspace management, a successful implementation of the SES would reduce up to 10% of intra-European carbon emissions.

SAF is one of the main pathways to decarbonise operations immediately.

Sustainable Aviation Fuel.

The work Business aviation is doing today to become more sustainable is not limited to the development of more efficient engines but extends to explore opportunities to employ alternative fuels that are not derived from fossil resources.

Sustainable Aviation Fuels (SAF) respond to this need. It is the main term used by the aviation industry to describe a non-conventional (non-fossil derived) aviation fuel. SAF can be blended with conventional jet fuel (currently up to 50%) and as such, it is a fully ready drop-in fuel. The use of SAF does not require any modifications in aircraft or engine fuel systems, distribution infrastructure or storage facilities, and Business aviation operators can reduce their emissions immediately, without any replacement or addition of new aircraft in their fleet. Business aviation manufacturers are currently working with the engine manufacturers to certify engines that can run on 100% SAF by 2030. Such a development would further enhance SAF's potential for reducing carbon emissions.

Feedstocks for SAF are varied; they currently include cooking oil, plant oils, solid municipal waste, wood waste, waste gases, sugars, purpose-grown biomass and agricultural residues, among others. SAF can reduce carbon emissions by up to 80% throughout the fuel's lifecycle. The first business jet flight using SAF occurred on the 14th of February 2008. The flight involved a Gulfstream G450 business jet using a 50% blend of SAF with conventional jet fuel for the flight, demonstrating the feasibility and viability of sustainable aviation fuels in Business aviation.

The Business aviation sector sees SAF as one of the main pathways to decarbonise its operations immediately, and it is indeed one of the four pillars of the Business Aviation Commitment on Climate Change (BACCC) to reach net-zero carbon emissions by 2050. The sector's adoption of SAF is also in line with EU regulations aimed at increasing SAF use in Europe. This includes initiatives such as ReFuelEU, for which the Business aviation sector advocates for the incorporation of a Book & Claim system to address SAF availability limitations at smaller airports.

The future

> The future of Business aviation promises to include zero emissions and seamless point-to-point connectivity.

Electric.

Electric propulsion has established itself for offering a promising alternative to traditional combustion engines, abating exhaust pipe emissions to zero. Electric engines, which power the aircraft's propellers or fans, considerably reduce noise pollution and emissions, while also presenting cost advantages for operators.

Between 2015 and 2020, the European Union Aviation Safety Agency (EASA) and the US Federal Aviation Administration started to approve the certification of electric airplanes, opening a new era of commercial viability for electric aviation. The Velis Electro of the Slovenian company Pipistrel was the first ever fully electric aircraft to receive this type of certificate by EASA in June 2020. According to the International Civil Aviation Organisation (ICAO) data, Business aviation companies worldwide are currently working on 12 full electric projects and 4 hybrid projects at various stages of the certification process. Current projections aim for the first commercially viable electric business jet to hit the market before 2030.

Electric aviation is well-suited for short-haul flights, but it faces technical constraints when applied to long-haul routes. These obstacles primarily stem from the current limitations in battery energy density, making electric engines inadequate for powering the heavier aircraft needed for longer journeys.

As battery technology advances and other propulsion systems, such as hydrogen, are developed, SAF will play a significant role in addressing the decarbonisation of long-haul flights in the near future.

Advanced Air Mobility.

Developments in electrical propulsion are not only poised to decarbonise the aviation sector but also to open a new futuristic chapter in the way people and goods will travel sustainably in the future. Business aviation is once again leveraging its pioneering spirit to develop hybrid, hydrogen-powered and electric vertical take-off and landing (eVTOL) aircraft that will start a new era of transport defined as Advanced Air Mobility (AAM) or Innovative Air Mobility (IAM).

AAM (Advanced Air Mobility) or IAM (Innovative Air Mobility) represents an emerging air transportation solution adding another layer to the urban commuter travel options, as well as solving the issue of reaching remote areas, emphasizing safety, security, and environmental sustainability. This innovative mode of transportation integrates cutting-edge technologies with multimodal systems to facilitate the movement of passengers, goods delivery, as well as emergency and medical flights.

Electric vertical take-off and landing (eVTOL) aircraft play a vital role in this vision, either operated remotely or with onboard pilots. Anticipated to commence operation in EU cities by approximately 2025, AAM envisions the delivery of goods via drones and piloted aircraft for passenger transport (aerotaxis).

EASA is in the process of creating standardised certification conditions for eVTOLs, paving the way for the emergence of an exciting new market.

> **Business aviation is working towards reducing emissions with electric and hydrogen-powered aircraft while also reimagining air mobility with eVTOLs.**

Hydrogen.

Hydrogen-powered aircraft represents one of the most ambitious technological advancements currently being pursued within the aviation industry. Hydrogen features several structural challenges that make it more difficult to be adopted on a commercial scale as it is a highly flammable and volatile gas. Nonetheless, several Business aviation companies are embarking on the ambitious journey to make hydrogen a reality.

Hydrogen allows two distinct propulsion methods: combustion and fuel cells. The former involves burning hydrogen instead of kerosene in a modified gas turbine; the latter involves producing electricity from hydrogen and oxygen inputs to power an electric motor that in turn drives a propeller or ducted fan.

Studies found that hydrogen – as a primary energy source for propulsion, either for fuel cells, direct burn in internal combustion engines or as a building block for synthetic liquid fuels – could feasibly power aircraft with entry into service by 2035 for short-range aircraft.

The implementation of disruptive innovation demands substantial investment in the research and development of aircraft, alongside the advancement of fuel cell technology and liquid hydrogen storage capacity. Additionally, the progress of a fleet of hydrogen-powered aircraft and a complementary infrastructure necessitates investments in hydrogen infrastructure, as well as regulations and certification standards to guarantee their secure, dependable and cost-effective operations in the aviation industry.

Several companies have announced plans to develop hydrogen-powered zero-emission engines, aiming to release them to the market by 2035.

03

Becoming a hero for net zero

Objectives

2050

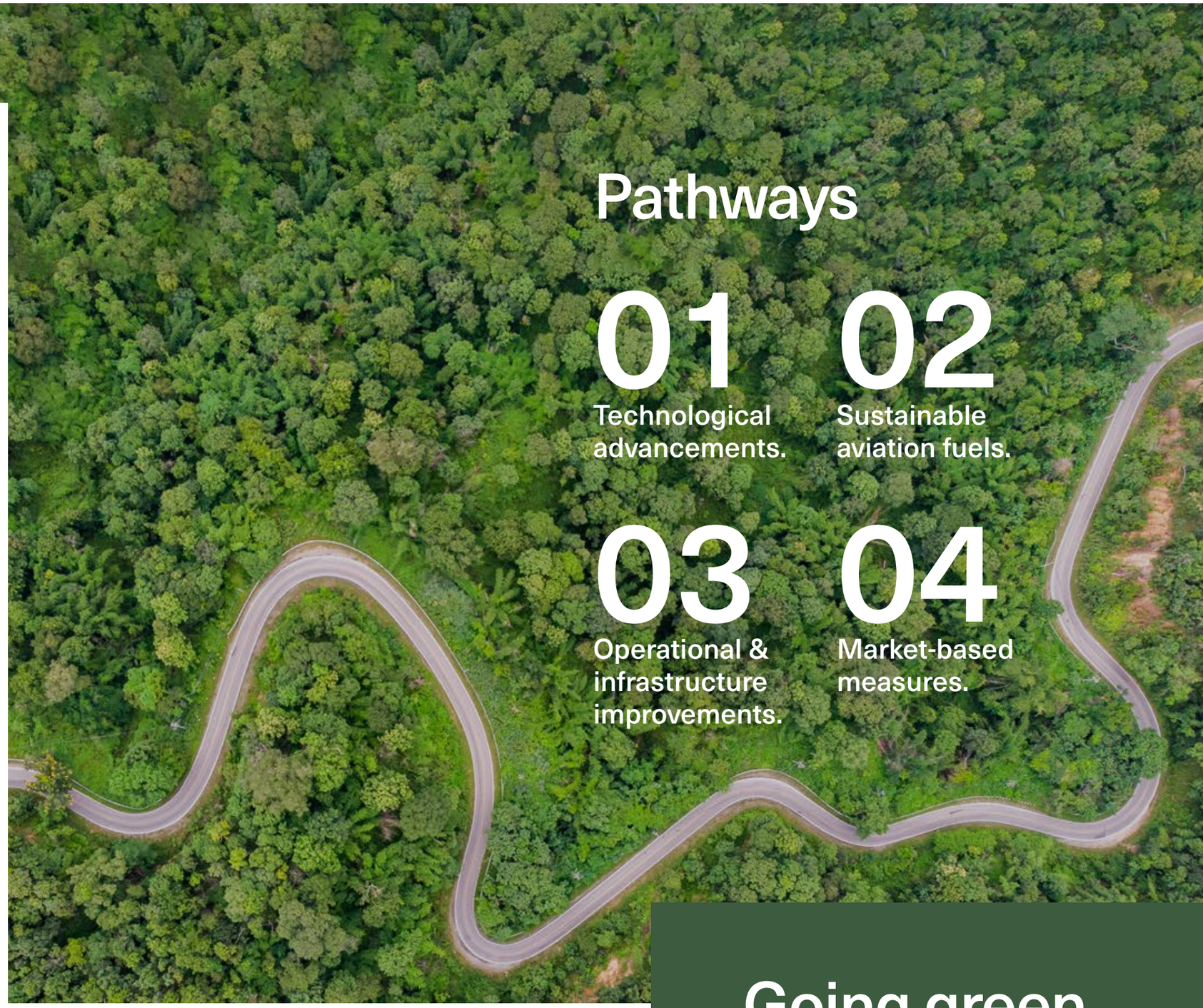
Achieve net-zero carbon emissions by 2050.

2%

Continue to improve fuel efficiency by an average of 2% per year from 2020 to 2030.

2020

Maintain carbon-neutral growth beyond 2020.



Pathways

01 Technological advancements.

02 Sustainable aviation fuels.

03 Operational & infrastructure improvements.

04 Market-based measures.

Going green

A clear action plan is the foundation of Business aviation's journey towards net-zero.

Our commitment

The Business Aviation Commitment on Climate Change (BACCC).

In 2009, the industry drew upon its established history of accomplishing sustainability and collectively announced the Business aviation Commitment on Climate Change (BACCC) setting ambitious targets for reducing carbon emissions and laying out pathways to achieve these goals.

The targets included a 2% annual increase in fuel efficiency from 2010 to 2020, achieving carbon-neutral growth from 2020, and a 50% reduction in carbon emissions by 2050 compared to 2005 levels.

In 2021, industry leaders renewed their commitment to protecting the environment by updating the BACCC with bold commitments to reduce carbon emissions through three even more ambitious objectives:

Achieve net-zero carbon emissions by 2050.

Continue to improve fuel efficiency by an average of 2% per year from 2020 to 2030.

Maintain carbon-neutral growth beyond 2020.

Business aviation industry partnerships with governments and regulators will be crucial to achieving these goals. The industry's commitment to addressing climate change is dependent on the support that can be provided from authorities to implement policies that accelerate the uptake, distribution, and use of SAF as well as investments in research, development, and deployment projects to advance technology and facilitate operational improvements. Additionally, it will take buy-in from all sectors of the industry, especially operators, which we have been able to secure, to follow through with our commitments.

Our objectives will be reached through 4 pathways:

01 Sustainable Aviation Fuels (SAF).

SAF is a critical key to unlock Business aviation's way to net-zero carbon emissions by 2050. It is a demonstrated technology in use today. The central challenges are scaling up its production and making it available at reasonable prices. In addition, a transparent and accountable Book & Claim system, recognized globally, would significantly help the industry encourage greater use and production.

02 Technological advancements.

Aircraft configuration, aerodynamics, systems, materials and engine technologies will have to be even more efficient. The industry is also furthering revolutionary propulsion systems, such as electric, hydrogen and hybrid, which will play an important role in the segment of Business aviation that uses smaller aircraft over shorter distances.

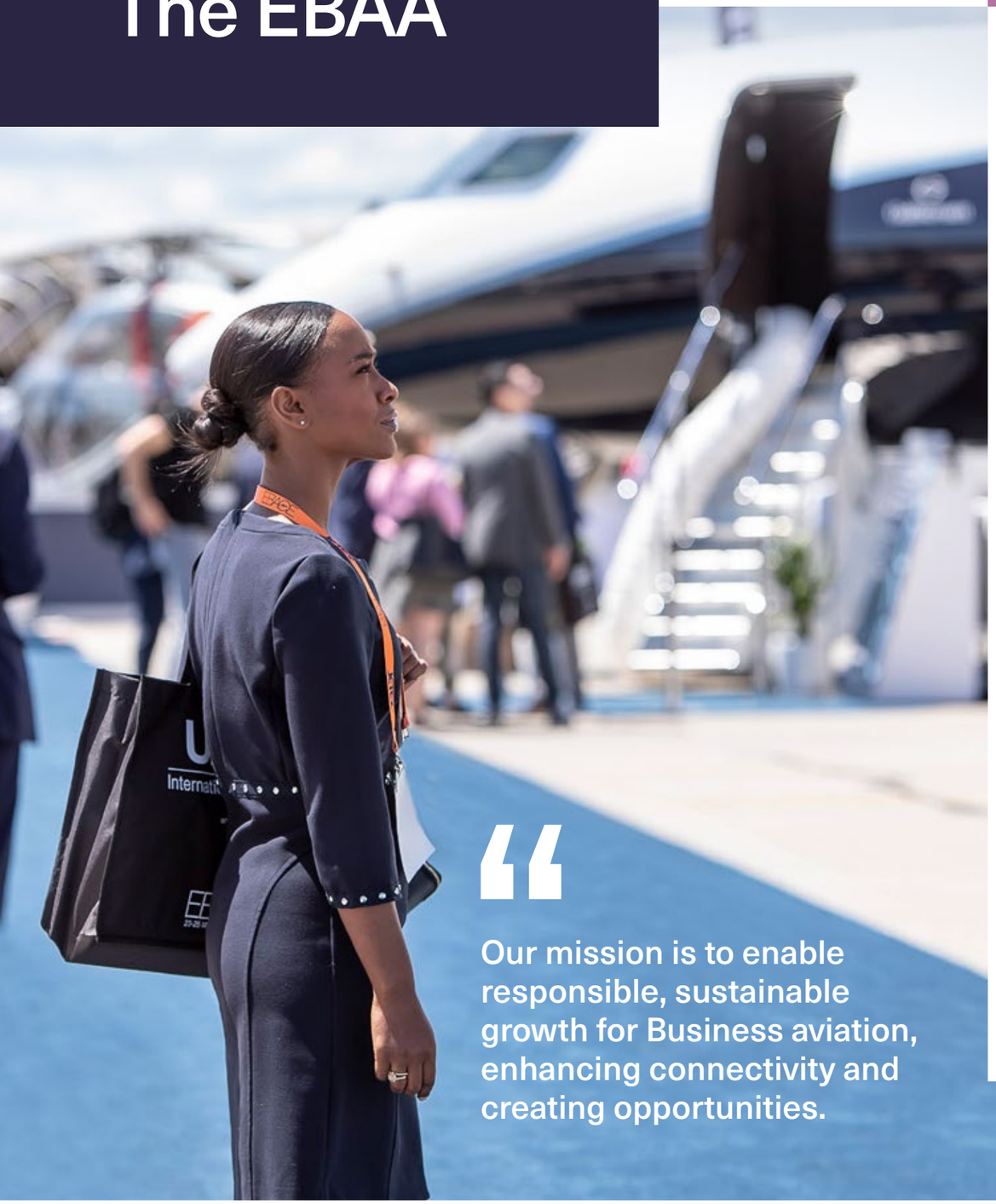
03 Operational Improvements & Modernized Infrastructure.

More efficient operations – stemming from continued progress on air traffic management, along with measures including reduced weight, streamlined flight planning, and single-engine taxiing – can play a significant role in reducing CO_2 emissions. Improving and enhancing airport infrastructure can have multiple benefits for decarbonising the Business aviation industry, including system-wide efficiencies that reduce CO_2 emissions.

04 Market-based Measures (MBMs).

As Business aviation continues to improve technologies, advance the production and uptake of SAF, and push for operational efficiencies, it will also utilise market-based measures to offset carbon emissions to fulfill its commitments. Being a hard-to-abate industry, the entire aviation needs such out-of-sector measures to address the emissions that cannot be avoided. Carbon offsetting consists of reducing or removing carbon from the atmosphere.

The EBAA



> Our mission is to enable responsible, sustainable growth for Business aviation, enhancing connectivity and creating opportunities.

1977
The EBAA was founded.

700+
Members represented.

1,000+
Fleet of aircraft.

EBAA works to improve safety standards and share knowledge, to further positive regulation, and to ease all aspects of carefully tailored, flexible, point to point air transportation for individuals, governments, businesses and local communities in the most time-efficient way possible.

Founded in 1977 and based in Brussels (Belgium), EBAA represents more than 700 companies, corporate operators, commercial operators, manufacturers, airports, fixed-base operators, and more, with a total fleet of more than 1,000 aircraft.

The association provides more than 50 products and services to the Business aviation community, including the European Business Aviation Convention & Exhibition (EBACE), Europe's largest Business Aviation trade show. EBAA advocates for policies that better the European Business aviation sector: Access to airports, Access to airspace, Brexit, Safety, Sustainability and Taxes.

The European Business Aviation Association (EBAA) is the leading organisation for operators of business aircraft in Europe. Our mission is to enable responsible, sustainable growth for Business aviation, enhance connectivity and create opportunities.

Editor
Róman Kok, Senior Manager,
Communications, EBAA
communications@ebaa.org

Square de Meeûs, 37
1000 Brussels, Belgium
(+32) 2 318 28 00
ebaa.org

Printed on recycled paper