



SITA

FLY SMARTER AND CLEANER IN A CARBON-CONSTRAINED WORLD

A guide for airlines to navigate the challenges and opportunities of decarbonization

Contents

Introduction	03
The challenges of emissions reduction in aviation	04
The threats to long-term business feasibility	12
The power of incremental transformation	17
Next steps	27

#1

Introduction

The aviation industry is facing growing pressure to reduce its carbon footprint and comply with ever-changing emissions regulations. But how can airlines achieve this while navigating the harsh realities of emission reduction strategies and without compromising their profitability? And what are the best practices and technologies that can help them in this journey?

This document aims to answer these questions and provide a comprehensive overview of the challenges and solutions for decarbonization in aviation. It covers topics such as fuel management, alternative fuels, carbon offsetting, operational optimization, and more. Whether you are an airline strategist, a pilot, or a compliance specialist, we hope what follows will provide valuable insights and guidance on how to make aviation more sustainable and resilient.



#2

The challenges of emissions reduction in aviation

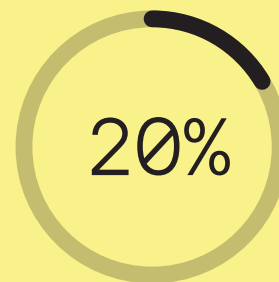
Climate change is a global challenge that affects everyone, including the aviation industry. We're already facing disruption of flight operations as a result of more frequent and intense thunderstorms and heat waves. It also contributes to food and water shortages and makes some areas of our planet less habitable. To address these changes, we must adapt our lifestyles and work practices. By reducing aviation's emissions, our industry can help mitigate the impacts of climate change and move towards a more sustainable future.

But achieving net zero in aviation, especially for airlines, is much more challenging than for other sectors, for three main reasons: (1) the high dependency on JET A-1 together with the current shortage and high cost of viable alternatives; (2) the long timelines and high investments required to implement new, low emission technologies; and (3) maximizing the potential of current flight operation technologies requires coordinated support from all stakeholders - airlines cannot do it alone.

Aviation currently accounts for approximately 3% of global carbon emissions. But if we stick with business as usual while other sectors, such as energy, succeed in reducing their emissions, our relative contribution could reach 20% by 2050¹, positioning us as one of the biggest polluters in the world. This could result in loss of public support and discourage government and private investment - so a failure to act now could ultimately lead to the decline of our industry.



ATI relative contribution towards global pollution could be as much as



by 2050

Today, the energy industry is ahead of aviation with its decarbonization progress. The power sector, which is responsible for about 25% of global emissions, is rapidly switching to renewable energy sources, such as solar and wind, to significantly lower its carbon footprint².



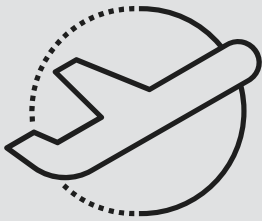
However, we cannot envisage a future without global connectivity, economic growth, and the joy that air travel brings. That is why, as an industry, we have a duty to become more sustainable so that generation after generation continues to experience the pleasures and benefits of flying.



Four pillars for Net Zero 2050

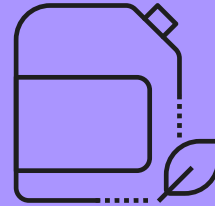
To support our transition to greener operations, the International Air Transport Association (IATA) has developed a strategy based on four pillars:

New aircraft technology



New aircraft technology: researching, designing, developing and deploying new, more efficient aircraft and engines.

Sustainable aviation fuel (SAF)



Sustainable aviation fuel (SAF): biofuels or synthetic fuels produced from renewable sources such as plant materials, waste products, or captured carbon.

Market-based measures (MBMs)




Market-based measures (MBMs): economic tools designed to encourage carbon reductions through financial incentives.

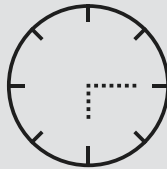
Operational efficiencies



Operational efficiencies: optimizing current flight operations and procedures.

Due to the vast scale of the challenge, each pillar is equally important and will play a role in driving down emissions. Yet, to get the right strategic balance for your airline, we need to understand some of the realities, challenges, and, most importantly, timelines linked to each one.

Pillar	Reality
<p data-bbox="119 616 462 649">New aircraft technology</p> 	<p data-bbox="584 616 1444 728">Developing electric and hydrogen-powered aircraft requires significant technological advancements, as do new aircraft designs and materials.</p> <p data-bbox="584 772 1412 884">New technologies must then undergo rigorous testing and certification processes to ensure safety, and their market acceptance can be uncertain.</p> <p data-bbox="584 929 1364 1008">Finally, the long fleet renewal cycles, often 20-30 years, significantly slow down the overall transition.</p>

Timelines	Airline challenges
<p data-bbox="119 1314 494 1348">Availability: 2040 onwards</p> 	<p data-bbox="584 1314 1460 1512">Newer aircraft models, such as the A350, emit 25% fewer CO2 emissions per seat³. However, with continuous growth, fossil fuel dependency, and operational inefficiencies, fleet renewal alone will never be enough even to keep emissions at the 2019 baseline level.</p> <p data-bbox="584 1556 1444 1713">Despite heavy and continuous upfront investments in fleet renewal, only radical solutions such as electric and hydrogen can offer airlines true zero-emission flights. However, these will not be available until at least 2040.</p>

Pillar

Reality

Sustainable Aviation Fuel (SAF)



Most available SAF is derived from non-fossil fuel sources such as used cooking oils and agricultural residues. These raw materials are often more expensive than the crude oil used for jet fuel. Also, production technologies such as hydroprocessing, are far more complex and expensive.

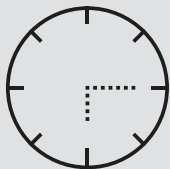
Scaling up SAF production will require high investment over decades to develop more cost-effective production methods. That's why authorities and regulatory bodies are trying to encourage production by introducing SAF mandates⁴, regulations that require a minimum percentage of SAF in a tank, such as ReFuelEU.

Finally, different countries have varying regulations and standards for the types of SAF they accept. For example, the UK Government confirmed a 2% sustainable aviation fuel requirement, commencing in 2025 (ESG Today)⁵.

Timelines

Airline challenges

Availability: 2040 onwards



For airlines, this will not only translate into a significant and unavoidable cost increase, as the price of SAF is expected to remain, on average, at least double that of JET A-1 until 2040⁶. It also creates yet another administration-heavy process to manage and correctly match SAF certificates to the authority that requires specific types of sustainable fuel to be used.

Pillar

Reality

Operational efficiencies



Airlines have invested in optimization since the early days of commercial aviation, achieving significant progress with fuel-saving initiatives and better flight planning.

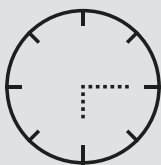
These efficiencies have been proven to save money while reducing emissions, allowing airlines to implement measures without significant investment⁸. However, these initiatives are often only designed to optimize one specific action with a single stakeholder in mind (e.g., a continuous descent approach that's optimal for the pilot).

Today, frequent and severe weather events, turbulence, and air traffic congestion threaten to cancel out these single-touchpoint efficiency measures.

Timelines


Airline challenges

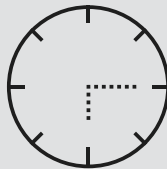
Availability: from now

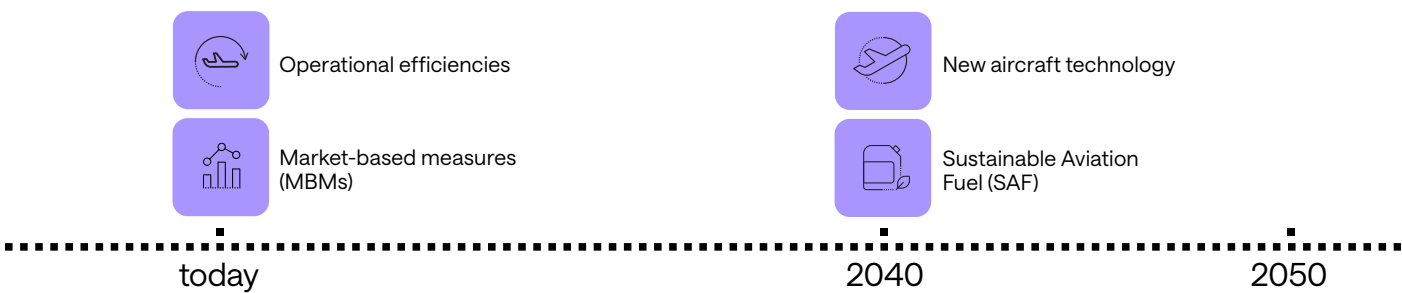


Even using operational efficiency technologies that are already available, airlines can make much greater gains. Add to these the growing potential of AI, and even bigger savings are within reach.

However, use of many fragmented systems, misalignment between air and ground and a lack of collaboration with Air Navigation Service providers make it extremely hard to realize the full potential of what is possible today.

Pillar	Reality
<p>Market-based measures (MBMs)</p> 	<p>MBMs are supposed to be temporary, easier-to-implement solutions that help reach emission targets without causing major disruption to existing operations.</p> <p>As such, a growing number of national and international authorities and regulatory bodies are setting up compulsory emission trading schemes. For example, EU ETS, China National ETS and CORSIA.</p>

Timelines	Airline challenges
<p>Availability: from now</p> 	<p>For international airlines, navigating and complying with different and inconsistent MBMs is a complex and resource-intensive process.</p> <p>Emission trading schemes often require airlines to purchase allowances or credits to offset their emissions. The prices of these credits are expected to rise, constantly increasing airlines' costs. For example, carbon offset prices could rise 3,000% by 2029 under tighter rules⁷.</p>



One thing that stands out across all four IATA pillars is that, undeniably, we've made progress – better aircraft technology, the very existence of sustainable aviation fuels, the opportunity to offset emissions with market-based measures, and countless implemented operational efficiency measures. Yet, for airlines, two big challenges still lie ahead. First, how to navigate and manage the costs of sustainable aviation fuel and market-based measures initiatives. Second, how to maximize efficiency despite increasingly severe weather and turbulence, and airspace inefficiencies, while maintaining long-term business feasibility.



#3

The threats to long-term business feasibility

One of the main challenges for airlines is how to deal with costs that are not easy to predict or plan for, specifically those arising from SAF mandates, MBM schemes and operational inefficiencies. These are the most dangerous costs of the transition to net zero, as they can affect airline profitability and competitiveness without giving much room to adapt.

For example, the sustainable fuel mandate for all flights departing the UK – with a rising percentage of SAF in the tank combined with the increasing price of carbon credits through CORSIA – will reshape and increase the cost structure of a flight (Figure 2.1).

Example of increasing fuel costs with SAF

Take a typical flight from London (LHR) to Dubai (DXB) on a B777 with 390 PAX. Today, 30% of total flight costs are Jet A-1 fuel, with 2% SAF and \$2 per carbon credit adding little to the cost. By 2030, with a 5% total inflation rate, 10% SAF in the tank, and \$30 per carbon credit to offset the remaining Jet A-1, the flight cost is estimated to increase by 10%.

In 2050, with 70% SAF and the remaining Jet A-1 emissions offset at \$90 per carbon credit, total flight cost could be 26% greater than today. SAF is forecast to remain at least twice as expensive as Jet A-1 fuel for decades to come⁹, so you must factor this into any sustainability cost projections.

How regulations increase and re-shape cost structure
Evolution of a flight from LHR to DXB

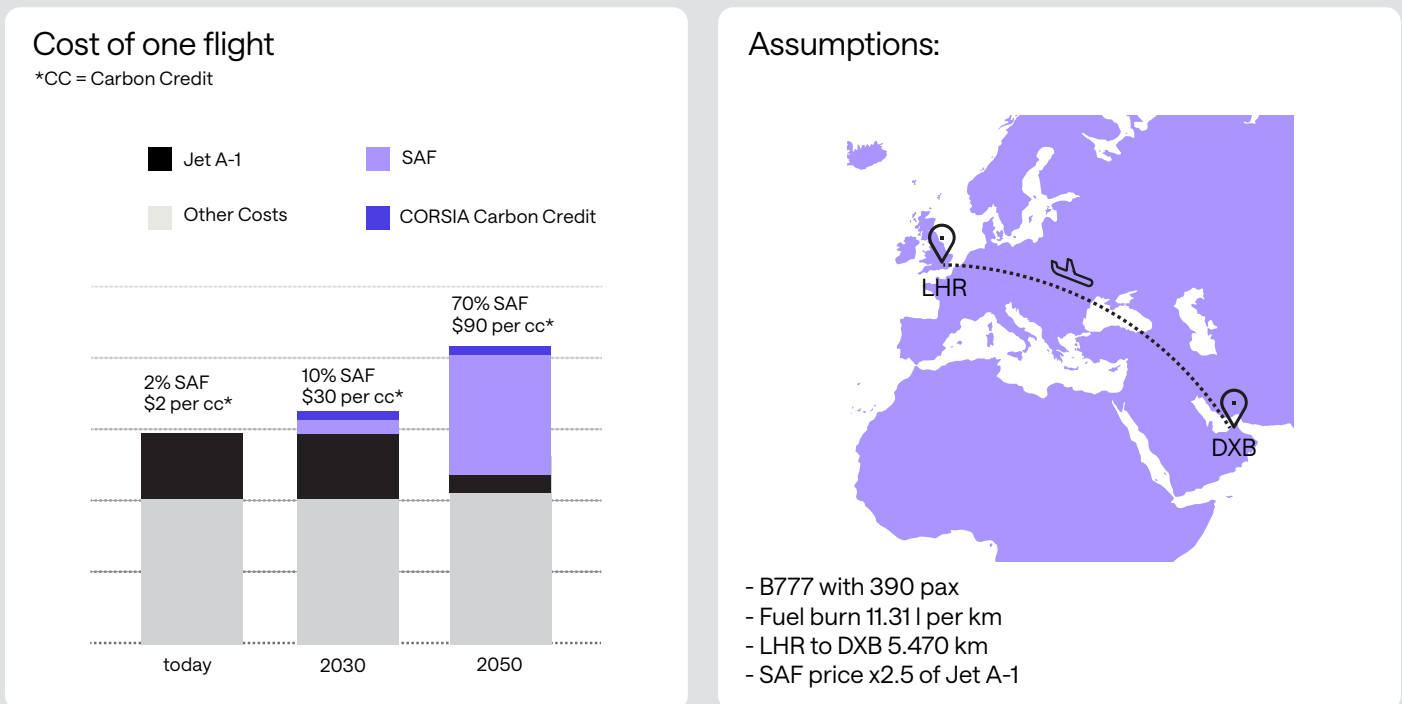


Figure 2.1

With the increasing costs of flights, we will have another tougher question to answer: are passengers ready and willing to contribute, or will we need to absorb the costs? (Figure 2.2)

Example of ticket cost changes to meet an SAF mandate and EU ETS

A passenger buying an economy ticket from Venice (VCE) to London (LHR) in 2024 pays around EUR 180. The ticket price includes some standard passenger and airport charges for agreed services, and other costs such as labor, air navigation service charges, and maintenance. With the remaining 30% of the costs covering fuel, your profit is 5%. The 2% SAF ReFuelEU starts in 2025, and together with EU ETS payments, the cost will increase.

Additional cost to add to ticket prices



Figure 2.2

Hard choices to make:

Cut profit margin from 5% to 2.49%, losing EUR 4.10 per ticket



Increase the ticket price to EUR 185.50 to cover the costs and retain the 5% profit margin



Ask the passenger to willingly contribute to SAF and Offset initiatives



Finally, flight operations inefficiencies threaten an airline's long-term viability by increasing fuel consumption and operational costs, causing delays, which erode profit margins. They also result in higher emissions, making regulatory and sustainability targets even more difficult to achieve (Figure 2.3).

Example of how flight operation inefficiencies increase costs and emissions.

For instance, on the particularly inefficient route from Dusseldorf (DUS) to Zurich (ZRH), flights experience an average excess fuel burn of over 20%. On this route, an efficient A320 flight typically consumes around 1,500 kg of fuel, but a 20% increase translates to an additional 300 kg of fuel burned. With the cost of JET A-1 fuel at \$0.81 per kg, this inefficiency results in an extra \$240 per flight, alongside 945 kg of additional CO₂ emissions.



Maximizing operational efficiency by optimizing fuel burn and avoiding disruptions caused by hazardous weather is not a simple task. It requires seamless, smart coordination between pilots, dispatchers, and air traffic controllers at the forefront of daily flight operations. In such a volatile world, this coordination is essential to ensure airlines' long-term future.



Figure 2.3

Airlines are grappling with a dual challenge that complicates their efforts to achieve emission targets and threatens long-term business viability.

First, the high costs and complexities of SAF and the financial burden of complying with various emission trading schemes and regulations strain already tight profit margins, making it harder for airlines to invest in further sustainability initiatives.

Second, operational inefficiencies – such as fragmented systems, hazardous weather, and inadequate coordination among flight stakeholders – lead to increased fuel consumption and higher emissions, further undermining airlines' ability to meet their environmental goals.

Together, these challenges create a complex framework in which achieving emission targets becomes increasingly difficult, jeopardizing airlines' long-term business viability and competitiveness.

However, despite the complexity of these challenges, there is a path forward. It simply requires taking one step at a time.



#4

The power of incremental transformation

Incremental transformation refers to making small, continuous improvements that lead to significant long-term gains. For example, the British cycling team achieved remarkable success by focusing on tiny, incremental changes in every aspect of their training and equipment. These small adjustments, such as optimizing bike design and refining athlete recovery routines, collectively led to their dominance in global cycling competitions.

This principle isn't limited to competitive cycling; it can be applied to aviation, too. We can adopt this concept to address our two major challenges: (1) managing the high costs and complexities of SAF and MBM regulations, and (2) enhancing flight efficiency.



Incremental transformation to manage the high costs and complexities of SAF and MBM regulations

Step 1: Understanding regulations

The first step in tackling regulations is to understand what needs to be done. Currently, airline Compliance teams are manually sifting through extensive regulatory documents and attending numerous conferences to grasp the CORSIA and ReFuelEU requirements. The great news is that all this regulatory information already exists in a handy data source. If we overlay airline schedules on top of regulatory data then apply data visualization, we can save the Compliance team hours in understanding the legislation (Figure 4.1).

View of an airline's destinations and London Heathrow (LHR) SAF mandate overview

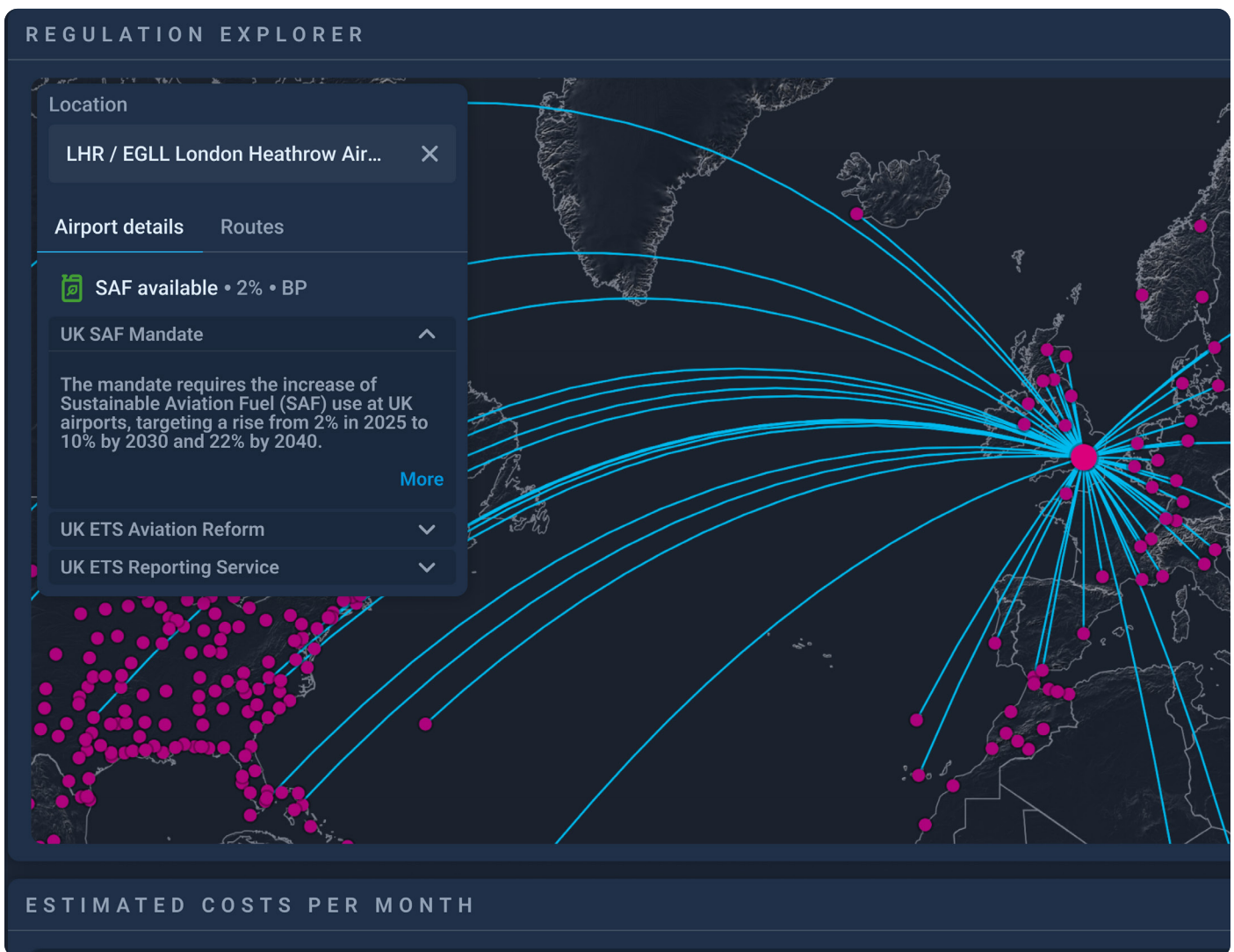


Figure 4.1

Step 2: Complying with regulations

Once we know and understand the regulations, the next step is to comply. There are three large obstacles to complying with emission trading schemes and SAF mandates: (1) collecting all required data, (2) filling in extensive reports, and (3) completing an audit.

The Compliance team needs Flight Operations' support to pull the data together. As different schemes have different deadlines, the Flight Operations team is constantly under pressure to collect and validate the flight data, either manually or using different existing systems. Both options always result in a large volume of gaps in the data, prolonging the auditing process and wasting resources.

That's why we need to collect and integrate the flight data into one system that can identify the missing flight information (Figure 4.2). This will allow Flight Operations to easily fix the gaps and stay on top of every flight throughout the year. Having all the necessary and, most importantly, validated flight detail in one place will allow the Compliance team to generate accurate reports in one click. In turn, this high level of accuracy will set up a super-efficient auditing system, preventing all the back-and-forth between the auditor, Compliance, and Flight Operations.

With such a high degree of compliance automation and accuracy, you can finally stop playing the catch-up game and have the bandwidth to think strategically. This is where your Finance and Strategy team comes into the picture.

An airline's flight details with warning triggers for missing data

The screenshot shows a dashboard with tabs for OPERATIONS, Routes, and Flights. The 'Routes' tab is active. At the top, there are filters for 'From' and 'To' (both set to 'Enter'), a 'Show data for' dropdown set to '2023', and a 'More filters' button with '2' filters applied. A '+ Add flight(s)' button is in the top right. The main table lists flight routes with columns for From, To, Dist, Flights, Regulations, SAF, Tankering, Estimated, and Warnings. The first row (BCN / LEBL to MAD / LEMD) has a warning icon and '1' in the Warnings column. The second row (CDG / LFPG to CMN / GMMN) has a warning icon and '4.6%' in the Estimated column. The third row (CMN / GMMN to BER / EDDB) has 'No info' in the SAF column. The fourth row (LHR / EGLL to CMN / GMNN) has a warning icon and '9.7%' in the Estimated column.

From	To	Dist	Flights	Regulations	SAF	Tankering	Estimated	Warnings
BCN / LEBL SAF available	MAD / LEMD	261 NM	39	CORSIA EU ETS REFUEL EU	REQ: 2%	REQ: <10% EST: 9.8%	1	1
CDG / LFPG SAF available	CMN / GMMN	847 NM	39	CORSIA EU ETS REFUEL EU	REQ: 2%	REQ: <10% EST: 4.6%	-	-
CMN / GMMN No info	BER / EDDB	923 NM	39	CORSIA	REQ: N/a	REQ: N/a EST: 12.8%	-	-
LHR / EGLL SAF available	CMN / GMNN	980 NM	39	CORSIA UK ETS	REQ: 2%	REQ: <10% EST: 9.7%	-	-

Figure 4.2

Step 3: Optimizing costs of compliance

Emission trading schemes and SAF mandate costs are currently almost invisible. Although we know the price of one credit, the Finance and Strategy team is struggling to make any projections, let alone find optimization opportunities, for next year's budget, due to the high level of uncertainty:

Growth factor



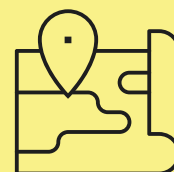
What is the growth factor for CORSIA? And what is the price of SAF?

Emission targets



To reach my emission targets while staying within budget, is it better to buy more credits or SAF?

Destinations



And what about the destinations I fly to and the fleet I use? Will the emissions and cost projections change if I use a different tail to fly to Europe?



These questions might feel like a dreadful spreadsheet exercise. But now that we understand the regulations and their requirements in the context of your destinations and fleet composition, the final step of getting compliance and its costs under control is to connect carbon credits, SAF and JET A-1 prices, together with penalty information. Getting this final piece of information, either encrypting it directly from your systems or trusted commodity forecast sources, combined with growth factor estimates, will finally make all costs visible (Figure 4.3).

Once we understand and can forecast these costs, we can explore different “what if” scenarios. For example, what if the carbon credit price doubles next year, you get 10 new A350-900s, or you decide to uplift SAF from all available destinations? This final incremental step will finally help de-risk the regulatory situation, giving you confidence and certainty in maintaining a profitable airline business.

An airline’s 2025 compliance budget and cost breakdown by type and month

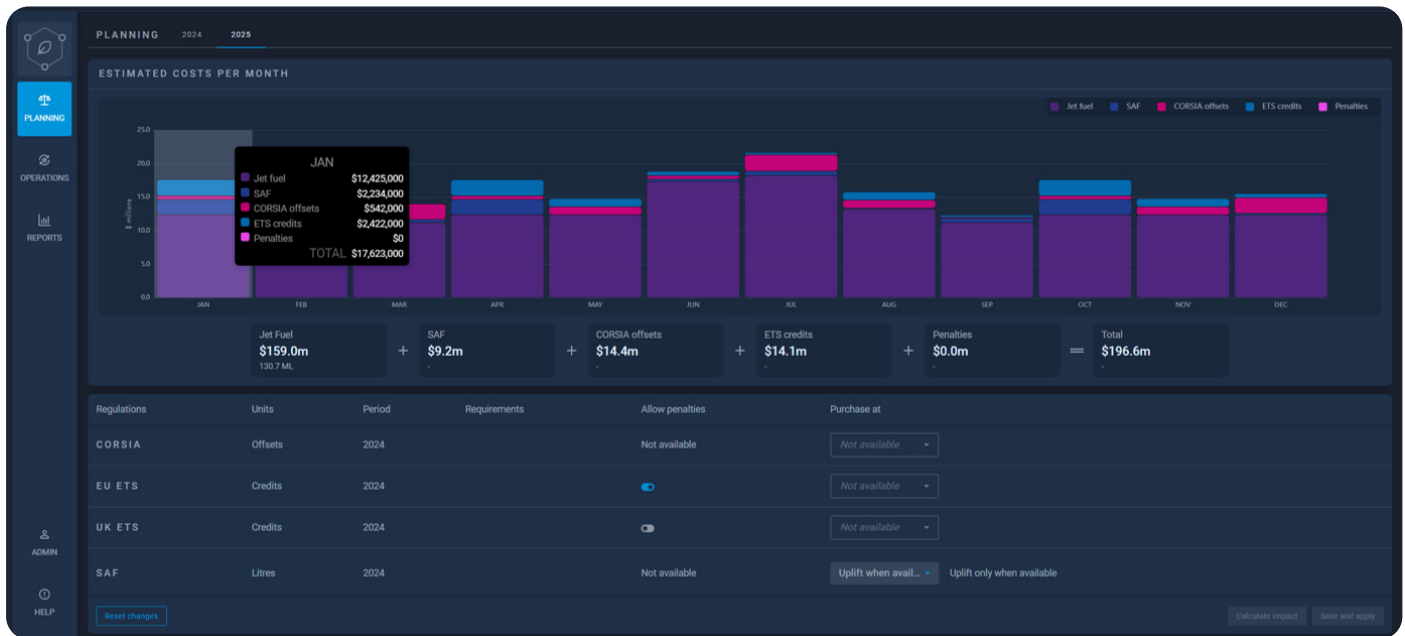


Figure 4.3

Now that we have Compliance, Flight Operations, and Strategy & Finance teams in the loop, giving them the insights and tools needed for carbon emission compliance and cost management, we have taken all the small steps needed to beat the regulatory catch-up game and finally take control of the SAF and MBM frameworks.

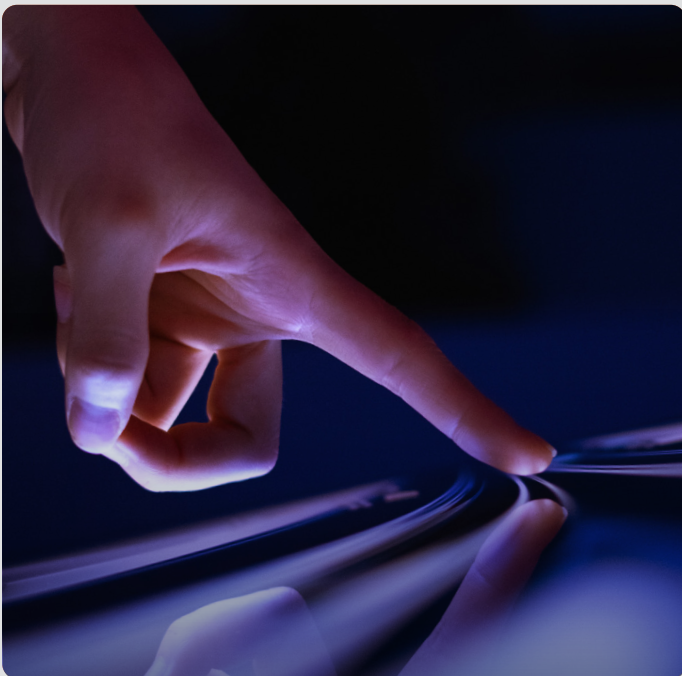
Incremental transformation to enhance operational efficiency.

Let's see how taking one step at a time can help us tackle flight inefficiencies, leading to emissions reductions and cost savings.

Before breaking down flight efficiency into manageable steps, we must recognize that the most significant gains today will come from optimizing each aircraft's individual flight trajectory with our current tools, rather than waiting for a complete overhaul of global operations. While the promise of Trajectory-Based Operations (TBO) is inspiring, we cannot afford to wait for its complex and lengthy implementation.

The Single European Sky ATM Research (SESAR) project¹¹ illustrates well how, despite substantial efforts and the industry's general support, achieving a fully integrated and efficient air traffic management system remains an overwhelming challenge. This is due to the need for technological upgrades, cross-border coordination, and alignment of diverse regulatory frameworks, resulting in slow and fragmented progress.

Once we focus on improving every single flight with today's tools, we can break down flight efficiency into smaller steps.



Step 1: Helping pilots and dispatchers to navigate hazardous weather.

The weather is becoming increasingly unpredictable. In 2023, in Europe alone, weather was identified for the first time as the primary cause of en-route Air Traffic Flow Management (ATFM) delays. In the summer of 2024, Europe faced even more severe weather conditions: in July, weather-related ATFM delays per flight were over 40% higher than in the same month the year before¹². As such, compared to 2023, 65% more flights deviated from their planned flight profiles, losing all planned fuel and emission optimization¹³.

Flight planning systems and processes were never designed to adapt dynamically to rapidly changing weather conditions. Onboard weather systems often cannot differentiate between various types of precipitation or precisely gauge a storm's intensity. This uncertainty leaves pilots and dispatchers unable to fly the most efficient routes.

This is why the first step toward flight optimization is to ensure pilots and dispatchers have real-time, dynamic, and high-resolution weather awareness in the air and on the ground. This can be accomplished using today's technologies by integrating multiple weather data sources, converting this information into actionable insights, and adding air-to-ground connectivity for real-time updates. This approach helps pilots and dispatchers work together more effectively, anticipating and avoiding hazardous weather events and turbulence. (Figure 4.4).

Real-time weather awareness in the cockpit and the Operations Control Centre (OCC)



Figure 4.4

Step 2: Finding real-time flight trajectory optimizations

Once pilots and dispatchers are aware of and prepared for the unfolding weather conditions, they can find real-time flight trajectory optimization opportunities. This will require two data components: (1) real-time air traffic and (2) the aircraft's unique performance.

Real-time air traffic data allows pilots and dispatchers to make informed decisions about the best possible flight paths, avoiding congested areas and efficiently navigating around dynamic weather patterns. This ensures optimal routing that minimizes delays and reduces fuel consumption. For instance, consider a scenario where an aircraft takes off into increasingly congested airspace. As air traffic builds up, further altitude restrictions are imposed to manage the congestion, affecting both the en-route and arrival phases and causing delays and inefficiencies in flight operations. Knowing this in advance will help pilots and dispatchers find an alternative, more efficient route.

With the aircraft's unique performance data, we can generate fuel-saving recommendations for each flight phase based on tail-specific models and operational history. Even within the same model, individual aircraft may vary in engine efficiency, weight, aerodynamics, and level of wear and tear, affecting fuel consumption. That's why by tailoring flight paths to each aircraft's specific capabilities and conditions, we can gain further efficiency, maximizing fuel savings and minimizing emissions (Figure 4.5).

Together, these components enable more precise and effective flight trajectory adjustments, leading to greater operational efficiency and environmental performance for every single flight.

Tail-specific fuel-saving recommendations



Figure 4.5

Step 3: Synchronizing with the Air Traffic Controller.

A component of flight trajectory optimization that sometimes gets overlooked is the view and support of air traffic controllers (ATC). Having the above information synchronized with ATC is a small step that leads to incredible transformation toward more efficient and sustainable trajectories for every flight.

Synchronizing weather views with ATC ensures that pilots, dispatchers, and air traffic controllers all work with the same information. For instance, if a pilot sees a developing storm on their radar but ATC is unaware, they might not approve a necessary course change. Having a shared weather picture, the dispatcher and the pilot can quickly plan an alternate route to avoid the storm, and ATC can clear the new route without any delays, ensuring a smoother and safer flight path for everyone.

Then, we also need to involve ATC in making flight-phase, tail-specific fuel-saving recommendations considering the real-time air traffic situation. By integrating these adjustments into ATC's workflow and automating their evaluation, airlines can consistently follow the most efficient paths, reducing emissions throughout all phases of the flight.

The best thing about this approach is that by simply sharing the same view with pilots and dispatchers, all three can work harmoniously to optimize and reduce emissions during every single flight, using real-time weather, air traffic flow, and tail-specific fuel-saving recommendations.

Pilot, dispatcher, and air traffic controller sharing the same weather view

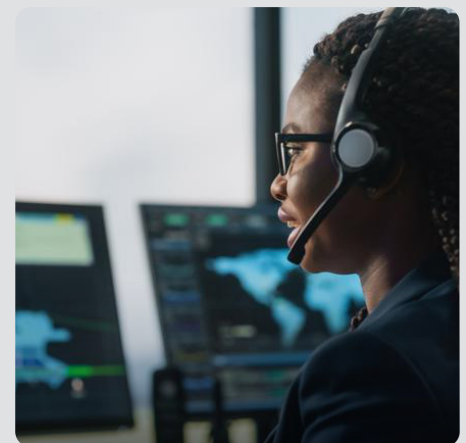
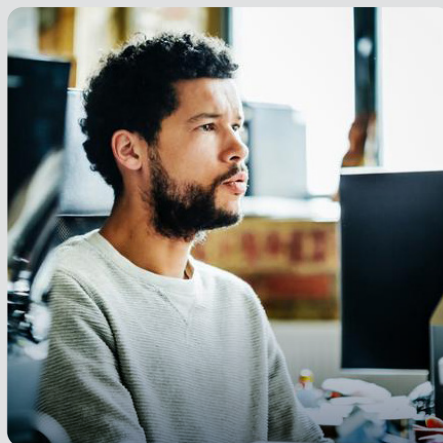
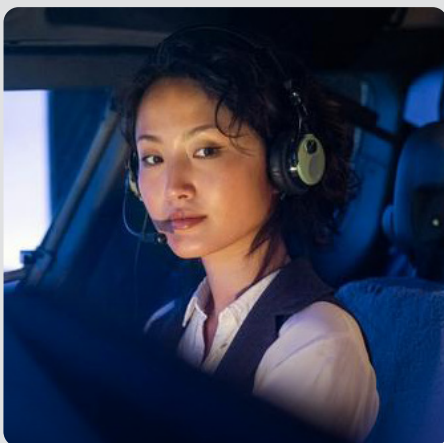
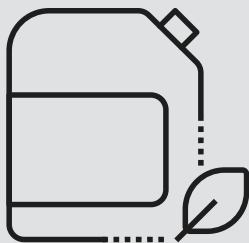


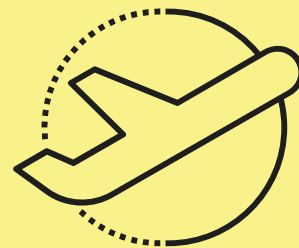
Figure 4.6

We have shown how incremental transformation focuses on making small, ongoing improvements that can lead to significant long-term gains. For airlines, this approach is key to tackling two big challenges: managing the high costs and complexities of sustainable aviation fuels (SAF) and market-based measures (MBMs) regulations and enhancing flight efficiency.

Managing the high costs and complexities of sustainable aviation fuels (SAF)



Market-based measures (MBMs) regulations and enhancing flight efficiency.



To handle SAF and MBM costs, airlines can streamline compliance by integrating regulatory data with flight schedules and using visualization tools to simplify the process. Centralizing and validating flight data can further ease reporting and auditing, cutting down on wasted resources. By linking compliance costs to real-time data on carbon credits, SAF, and fuel prices, airlines can better predict expenses and find cost-saving opportunities.

To enhance flight efficiency, airlines can focus on optimizing each flight's trajectory with current tools. Instead of waiting for large-scale solutions like Trajectory-Based Operations (TBO), they can make immediate gains by giving pilots and dispatchers real-time weather and air traffic data, enabling more accurate adjustments. Aligning this information with air traffic controllers ensures smoother, more efficient flights.

By taking these practical, incremental steps, airlines can boost efficiency, cut emissions, and control costs, securing their long-term business feasibility in a rapidly evolving industry.

#5

Next steps

You can make significant progress toward your decarbonization goals by leveraging data, technology, and collaboration, all of which are readily available today. While we all wait for commercial hydrogen aircraft designs and SAF to become available, you can make real quantifiable progress with the power of incremental transformation.

You can cut your airline's carbon emissions while remaining profitable and competitive.

Let's demonstrate to the world our commitment to taking all necessary steps to ensure a more sustainable future for aviation.



THING BIG. START SMALL.

References

¹IEMA. "Aviation may account for 20% of global emissions by 2050 without action." 23 September 2021, www.iema.net/articles/aviation-may-account-for-20-of-global-emissions-by-2050-without-action. Accessed 04 August 2024.

²IEA. "Net Zero by 2050. A Roadmap for the Global Energy Sector." Report, May 2021, www.iea.org/reports/net-zero-by-2050. Accessed 04 August 2024.

³Airbus. "A350. Less Weight. Less Fuel. More Sustainable." aircraft.airbus.com/en/aircraft/a350-clean-sheet-clean-start/a350-less-weight-less-fuel-more-sustainable. Accessed 09 September 2024.

⁴EASA. "SAF policy actions." www.easa.europa.eu/eco/eaer/topics/sustainable-aviation-fuels/saf-policy-actions. Accessed 04 August 2024

⁵ESGtoday. "UK government confirms 2% sustainable aviation fuel requirement beginning 2025." www.esgtoday.com/uk-government-confirms-2-sustainable-aviation-fuel-requirement-beginning-2025. Accessed 09 September 2024.

⁶KPMG. "Sustainable aviation fuel." kpmg.com/uk/en/home/insights/2022/11/sustainable-aviation-fuel.html. Accessed 04 August 2024.

⁷Bloomberg. "Carbon offsets price may rise 3,000% by 2029 under tighter rules." Functions for the Market, 02 March 2022, www.bloomberg.com/professional/insights/commodities/carbon-offsets-price-may-rise-3000-by-2029-under-tighter-rules/

⁸Esqué, A. et al. "Decarbonizing aviation: Executing on net-zero goals." McKinsey & Company, 16 June 2023, www.mckinsey.com/industries/aerospace-and-defense/our-insights/decarbonizing-aviation-executing-on-net-zero-goals. Accessed 09 September 2024.

⁹Danicourt, J. et al. "A Realistic Path to Net-Zero Emissions for Commercial Aviation". Bain & Company, 05 June 2023, www.bain.com/insights/a-realistic-path-to-net-zero-emissions-for-commercial-aviation/. Accessed 09 September 2024.

¹⁰FightMediocrity. "What happens if you get 1% better every day? - James Clear", YouTube, 21 September 2021, www.youtube.com/watch?v=GeFjP5sMXr0. Accessed 09 September 2024.

¹¹European Commission. "The SESAR Project", transport.ec.europa.eu/transport-modes/air/single-european-sky/sesar-project_en. Accessed 09 September 2024.

¹²CANSO. "The weather impact on global Air Traffic Management operations and how to solve it." 06 August 2024, canso.org/the-weather-impact-on-global-air-traffic-management-operations-and-how-to-solve-it/. Accessed 09 September 2024.

¹³EUROCONTROL. "July 2024 – Overview of Network Performance", Press release, 02 August 2024, www.eurocontrol.int/press-release/july-2024-overview-network-performance. Accessed 09 September 2024.



Contact

To find out how you can take your decarbonization strategy to the next level, get in touch

Geographic Offices

Americas

3100 Cumberland Boulevard
Atlanta, GA 30339
United States of America
Tel: +1 770 850 4500

Asia Pacific

11 Loyang Way
Singapore 508723
Republic of Singapore
Tel: +65 6545 3711

Europe

26 Chemin de Joinville
B.P. 31, 1216 Cointrin
Geneva
Switzerland
Tel: +41 22 747 6111

Middle East & Africa

Holcom Building
Cornich Al Nahr
Beirut - Lebanon
+961 (1) 637 300

Registered Office

SITA SC

2 Avenue des Olympiades
B-1140 Brussels
Belgium
Tel: +32 (0) 2 745 0517