# IT solutions could cut aviation carbon emissions significantly



A recent report by Amadeus and Accenture highlights the significant impact that selected IT solutions can have on reducing carbon emissions in the aviation sector. According to their findings, these solutions have the potential to cut CO2 emissions by up to 50,000 metric tons in 2023 alone. This research is particularly relevant given that the International Air Transport Association (IATA) has estimated that aviation contributes approximately 2-3% of the total global carbon emissions.

The report, titled *The Power of Digital: IT solutions and their role in aviation’s path to net zero*, examines how various IT solutions can assist airlines and airports in their efforts to decarbonise. It identifies a range of strategies for reducing the carbon footprint of the aviation industry, such as fleet renewal, the use of Sustainable Aviation Fuel (SAF), advancements in aircraft technology, and enhancements in operational efficiency.

The introduction of IT solutions can significantly accelerate airlines' and airports' progress towards achieving net zero emissions. Notably, these solutions can provide operational efficiencies that lower fuel consumption and associated costs. Tools such as data dashboards, forecasting models, and management systems assist organisations at all levels—from front-line staff to senior management—in making informed decisions that drive operational improvements and enhance profitability.

The report includes two case studies showcasing the effectiveness of specific Amadeus IT solutions. One of these is the Amadeus Airport Sequence Manager, which, if adopted across all suitable airports globally, could lead to an annual reduction of approximately 493,000 metric tons of CO2 emissions. The second case study focuses on Amadeus Altéa Departure Control – Flight Management, which has the potential to prevent 5.2 million metric tons of CO2 emissions per year if implemented by all applicable airlines worldwide.

The analysis conducted in the report suggests that the IT solutions explored in these case studies could collectively save the equivalent of 50,000 metric tons of CO2 emissions annually in 2023. When applying these findings on a global scale, the aviation sector could potentially achieve a reduction of approximately 5.7 million metric tons of CO2 emissions each year, representing around 0.6% of global aviation emissions or the equivalent of 10,000 flights between London Heathrow and John F. Kennedy International Airport.

Olivier Girault, head of solutions for the sustainability office of Amadeus, emphasised the importance of these IT solutions, stating, “While IT solutions alone cannot fully decarbonise aviation, they offer a near-term opportunity to improve operational efficiency and reduce carbon emissions. As the industry continues to evolve, Amadeus will support its customers in driving sustainable change through technology.”

Jesko Neuenburg, global aviation sustainability lead at Accenture, also underlined the significance of optimising airline operations through IT solutions, noting, “It was revealing to see that the solutions we reviewed – if deployed globally to all airlines and airports – could reduce as much CO2 emissions as all the SAF expected to be produced globally in 2024.”

The insights from this report indicate a promising path for the aviation industry as it grapples with its environmental responsibilities, highlighting the critical role that innovation and technology can play in achieving significant reductions in carbon emissions.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://amadeus.com/content/dam/amadeuswebevo/brand/amadeus/photos/sections/resources/research-reports/it-solutions-and-sustainability/the-power-of-digital-it-solutions-and-their-role-in-aviations-path-to-net-zero.pdf> - Corroborates the report by Amadeus and Accenture on the impact of IT solutions on reducing carbon emissions in aviation, including specific solutions like Amadeus Altéa Departure Control – Flight Management.
* <https://www.travelandtourworld.com/news/article/amadeus-and-accenture-highlight-potential-for-massive-co2-reduction-in-aviation-through-digital-innovations/> - Supports the findings on the potential of IT solutions to cut CO2 emissions by up to 50,000 metric tons in 2023 and the broader impact on global aviation emissions.
* <https://ourworldindata.org/global-aviation-emissions> - Provides context on the contribution of aviation to global CO2 emissions, which is estimated to be around 2-3% of total global carbon emissions.
* <https://www.iata.org/contentassets/713a82c7fbf84947ad536df18d08ed86/fact-sheet-climate-change.pdf> - Corroborates IATA's estimates and goals for reducing aviation's carbon footprint, including the target of 50% reduction in net CO2 emissions by 2050 relative to 2005 levels.
* <https://amadeus.com/content/dam/amadeuswebevo/brand/amadeus/photos/sections/resources/research-reports/it-solutions-and-sustainability/the-power-of-digital-it-solutions-and-their-role-in-aviations-path-to-net-zero.pdf> - Details the strategies for reducing carbon emissions, such as fleet renewal, the use of Sustainable Aviation Fuel (SAF), and enhancements in operational efficiency.
* <https://www.travelandtourworld.com/news/article/amadeus-and-accenture-highlight-potential-for-massive-co2-reduction-in-aviation-through-digital-innovations/> - Highlights the potential of IT solutions to accelerate progress towards net zero emissions and the specific case studies mentioned, such as the Amadeus Airport Sequence Manager.
* <https://amadeus.com/content/dam/amadeuswebevo/brand/amadeus/photos/sections/resources/research-reports/it-solutions-and-sustainability/the-power-of-digital-it-solutions-and-their-role-in-aviations-path-to-net-zero.pdf> - Explains how tools like data dashboards, forecasting models, and management systems contribute to operational efficiencies and lower fuel consumption.
* <https://www.travelandtourworld.com/news/article/amadeus-and-accenture-highlight-potential-for-massive-co2-reduction-in-aviation-through-digital-innovations/> - Quotes from Olivier Girault and Jesko Neuenburg on the importance and impact of IT solutions in reducing CO2 emissions in the aviation sector.
* <https://ourworldindata.org/global-aviation-emissions> - Provides historical context and trends in aviation emissions, including improvements in energy efficiency and the impact of increasing demand.
* <https://www.iata.org/contentassets/713a82c7fbf84947ad536df18d08ed86/fact-sheet-climate-change.pdf> - Details the fuel efficiency improvements and the economic incentives for airlines to reduce CO2 emissions, such as cost savings from reduced fuel consumption.