



CURBING AIRPORTS' CARBON EMISSIONS
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# RE-THINKING THE AIR TRANSPORT ECOSYSTEM'S APPROACH TO CARBON EMISSIONS

To meet Paris Agreement targets and contain climate change effects, the air transport industry is re-thinking its ecosystem model and innovating to accelerate the fight against global warming.

Airports are at the heart of the aviation industry and can have a significant impact on the sector by acting on their Scope 3 emissions – those emissions that are not controlled by the airport itself, including aircraft movements and passenger and staff travel to and from the airport. To adopt a sustainable and realistic decarbonization approach, airports need to have accurate data on their direct and indirect emissions. But this isn't easy. To enable our portfolio assets to do this, Ardian has developed a

tool called **Ardian Air Carbon** helping airport teams estimate and project efficiently, and in real-time, their Scope 3 carbon emissions using highly granular operational data.

### SCOPE 3 EMISSIONS REPRESENT 96% OF AIRPORTS' CARBON FOOTPRINT



## ARDIAN AIR CARBON: A KEY DIFFERENTIATING TOOL

Ardian Air Carbon is an online platform developed by Ardian's Infrastructure team in collaboration with airports' management teams. It helps airports measure and reduce Scope 3 emissions and scale their carbon reduction plans.

Ardian's Infrastructure team believes data analytics will be a core differentiator for the successful infrastructure operators, and we have focused heavily on building industry-leading proprietary tools. This data driven approach at the core of Ardian Infrastructure's strategy is a key differentiator in the market.

Infrastructure assets produce huge amounts of data. The tools Ardian Infrastructure has developed to analyze and generate insights from this data – with Ardian Air Carbon as a prime example – match that of the world's most sophisticated industrial companies. But there's more to this than just broad

AIRPORTS ARE AT THE EPICENTER

data analysis. These tools are also critical to Ardian's plans to decarbonize its portfolio, and contribute fully to the netzero transition.

"Ardian Air Carbon is a pioneering tool that relies on real-time operational data coming directly from the airports and also enables forecasts for carbon trajectories."

### SKANDER KAMOUN

**MANUFACTURERS** 

Senior Data Scientist, Air Carbon Product Lead, Infrastructure, Ardian

OF AIR TRANSPORT COOPERATION
& DECARBONIZATION

AIR TRAFFIC
CONTROL

GROUND HANDLERS

AIRPORT

ENERGY PROVIDERS

AIRCRAFT

### A GRANULAR VIEW OF AIRPORTS' EMISSIONS

Effective data-driven carbon emissions estimations are therefore the foundation of our strategy to reach net-zero. Ardian Air Carbon is a cloud-based data analytics platform that helps airport managers measure and reduce their Scope 3 emissions. Scope 3 emissions typically account for 96% of airport-related greenhouse gas emissions.

### The platform has three main objectives:

- Ease the process of reaching ACA
   (Airport Carbon Accreditation) levels
   by transitionning from a «reporting»
   to a «monitoring» and automatic
   approach on carbon emissions.
- Take operational decisions based on data-driven insights and assess the impact of each one of these actions.
- **3.** Build long-term carbon trajectories which are coherent with today's situation and airport-defined targets.

# ARDIAN AIR CARBON IS AN ONLINE PLATFORM DEDICATED TO HELPING AIRPORTS MANAGING MORE EASILY THEIR SCOPE 3 CARBON EMISSIONS

FOLLOWING THE AIRPORT CARBON ACCREDITATION METHODOLOGY



### WHY YOU SHOULD JOIN ARDIAN AIR CARBON



### A DIFFERENTIATING TOOL

### 4 AIRPORTS ALREADY ONBOARDED IN ITALY



### Accurate

Ardian Air Carbon reflects the true operational conditions within the airport



### **Automatic**

Ardian Air Carbon allows to reduce manual and Excel work needed to obtain a reporting on airports' emissions



### Reliable

Ardian Air Carbon is aligned with the latest ACA guidance and latest research in the field



### Easy-to-deploy

The onboarding of Ardian Air Carbon on a new airport usually takes only a few days



#### Secure

The application benefits from the experience of Ardian in handling confidential and sensitive data



"The Ardian Air Carbon application allows us to efficiently calculate our emissions using real-time data from airport operations while remaining perfectly aligned with the Airport Carbon Accreditation footprint calculation criteria. The cooperation of the Ardian and SAGAT [Turin airport management company] teams has played a key role in refining and enhancing the tool."

ANDREA ANDORNO CEO, Turin Airport

### THE FIGHT FOR A NET-ZERO AVIATION

In November 2022, Ardian hosted its third annual conference on Augmented Infrastructure – its unique scoring model and method which guides its technological strategy for infrastructure assets.

This conference brought together a leading group of airports, airlines, industrial executives and entrepreneurs to discuss how airports can be the catalysts of the energy transition of the sector. As a long-term investor in infrastructure assets, it is crucial for us to stay ahead of the long-term trends and challenges facing infrastructure assets which are at the core of our economies. This conference highlighted different levers of decarbonization through discussion panels on data intelligence, sustainable fuels and airports as intermodal hubs and was introduced and hosted by Mathias Burghardt, Head of Infrastructure and Member of the Executive Committee, Ardian.



ACCESS
THE FULL

"We believe it is our responsibility as long-term investors and shareholders of airports to ensure their resilience and transition to drive the sustainable aviation of tomorrow."

#### MATHIAS BURGHARDT

Head of Infrastructure and Member of the Executive Committee, Ardian

"The use of data-driven collaborative decision-making tools, such as Ardian Air Carbon, have the ability to break existing silos between aviation stakeholders and to enable collective actions to reduce carbon emissions."

### PAULINE THOMSON

Director, Head of Digital Innovation, Infrastructure, Ardian





