



Annual Review 2024

Roadmap most sustainable airports

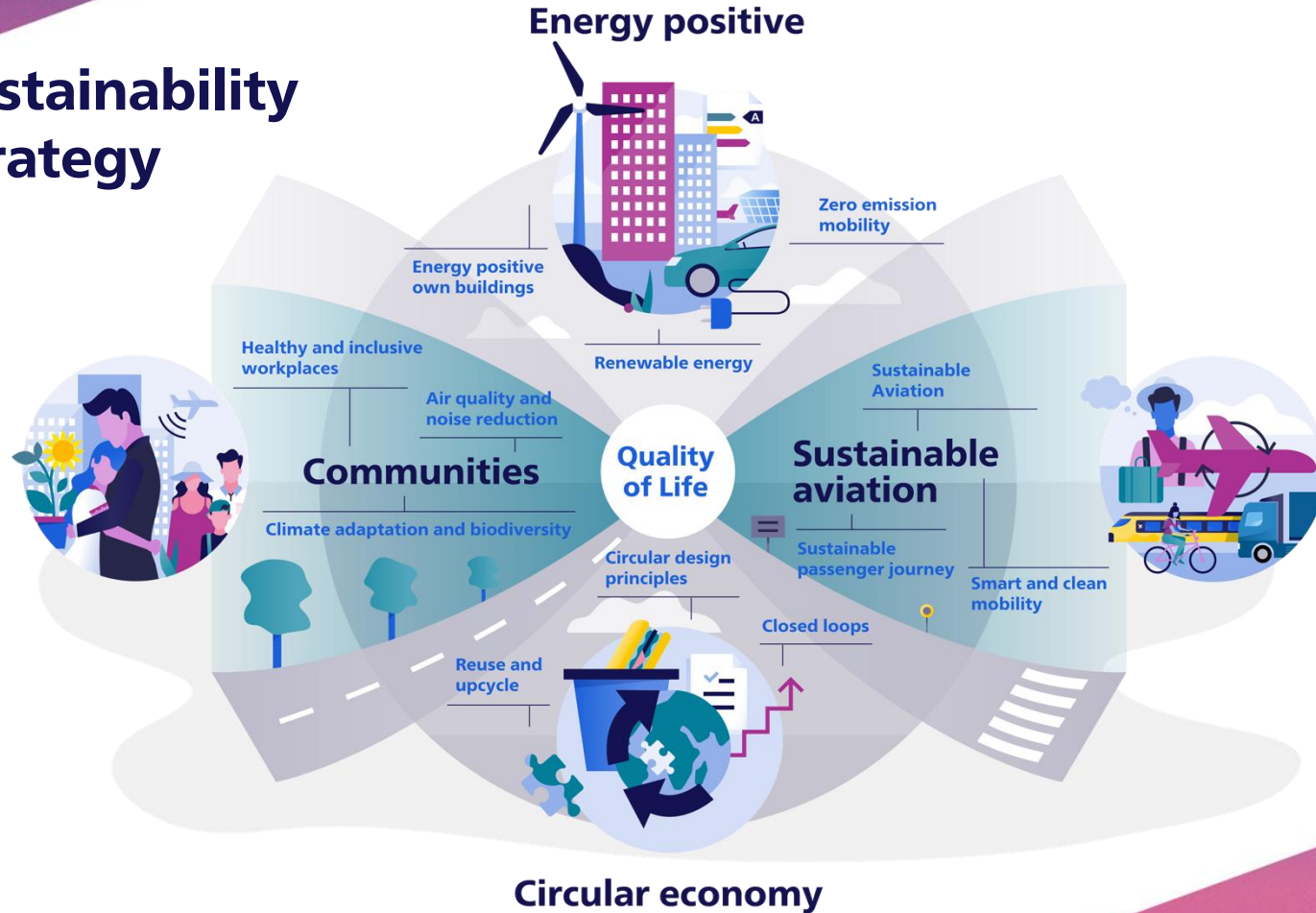
Review 2024



EindhovenAirport 



Sustainability Strategy



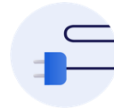


**Energy
positive**

Energy positive (1)



Zero emissions mobility



- The Iron Flow Battery has been tested on Schiphol Airport as part of the TULIPS project (AMS).
- A hydrogen Ground Power Unit (HGPU) has been tested on Schiphol as part of the TULIPS project (AMS).
- HVO100 became the standard fuel for airside ground operations (EIN).

- Application for 'Electrification Airside Schiphol Zero Emission' (EASZE) under the AFIF subsidy – a grant supporting the European infrastructure for alternative fuels – has been approved. The European Commission granted RSG a 20-million-euro subsidy via the CEF Transport Alternative Fuels Infrastructure Facility (RSG).

- Rotterdam The Hague Airport takes the next steps in the electrification of its ground operations by expanding its fleet of electric ground equipment (RTM).
- Aviapartner has taken delivery of 3 new e-GPUs. The final order of units will be delivered in 2025, making sure all GPUs will be electric by the end of 2025. RTHA has ordered 3 new electric vehicles for its own operation and expanded its charging infrastructure on airside (RTM).

Energy positive (2)



Energy positive own buildings



- A central ATES (Aquifer Thermal Energy Storage) at Schiphol Central Business District was successfully delivered (AMS).
- The A-Pier will be finished in 2027 and will have a LEED Gold certification, making it the most sustainable pier at Schiphol Airport (AMS).
- The renovation of the E-Pier will result in a gas-free building (AMS).
- Start terminal expansion (EIN)

Renewable energy

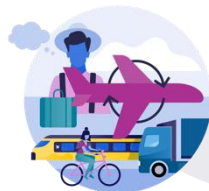


- The new car rental facility is equipped with solar panels (AMS).
- In collaboration with RHIA-partners, Project SEA has been completed providing insights into the future energy demand of buildings, GSE and electric aircraft and has proposed methods to transition towards a Smart Energy Airport. Next steps are further investigated in 2025. (RTM)

Sustainable aviation



Sustainable aviation (1)



Aviation CO₂
emissions reduced
to 2005 levels
2030

Sustainable aviation



- Before the summer holiday 2024 all wide body stands were equipped with PCAs, in the second half of the year additional narrow body PCAs were installed (AMS).
- APU acoustic sensing trial has started on Schiphol after successful trials in Eindhoven Airport (EIN, AMS).
- The Hydrogen Roadmap 1.0 has been developed towards implementation of hydrogen for ground equipment and aviation (RSG).
- Over 110,000 tonnes of SAF was delivered in 2024, making the airport one of the leading SAF hubs in the world (AMS).
- Between 2022 and 2024, RSG made 15 million euros available to incentivise the uptake of SAF by airlines at Schiphol. The SAF incentive will not be continued in 2025 because the ReFuelEU Directive will come into effect (RSG)
- Rotterdam The Hague Airport announces partnership with the Port of Rotterdam for the development of supply chains for more sustainable aviation fuels (SAF) and hydrogen (RTM).

Sustainable aviation (2)



Aviation CO₂
emissions reduced
to 2005 levels
2030

Sustainable aviation



- The GOLIAT project started on developing technologies for the safe and reliable use and refuelling of aircraft with liquid hydrogen at airports. RTHA is one of three airports, along with Stuttgart (Germany) and Lyon-Saint Exupéry (France), where pilot schemes will take place as part of this innovation project (RTM).
- TULIPS demo unattended charging with Pipistrel Velis Electro (WP2) was successfully completed (RTM)

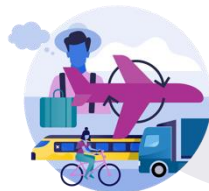
- RTHA was granted the environmental permit to build a liquid hydrogen storage and dispensing facility and has finalised a delivery contract to receive liquid hydrogen from Air Products (RTM).
- Exploitation minimalization de-icing finished (EIN)

Smart and Clean mobility



- The Airport Sprinter is introduced. This means passengers can travel between Schiphol Airport and Amsterdam eight times per hour (AMS).
- The busses going to P3 “Lang Parkeren” have been changed to electric busses (AMS).
- Sustainable P4 parking finished (EIN)

Sustainable aviation (3)



Aviation CO₂
emissions reduced
to 2005 levels
2030

Sustainable passenger journey



- Schiphol and its business partners sign an agreement to work towards a more sustainable food & beverage experience at the airport (AMS).
- Aviation challenge to test more sustainable ways of travelling and engaging passengers. Multiple initiatives taken by TUI, KLM Cityhopper and KLM (ie electric pushback truck, e-GPU and e-PCA, refillable water bottles) (AMS).
- Fuel station Charlie has opened with UL94 (Unleaded) gasoline as a more sustainable replacement for the 100LL (Low lead) fuel (LEY)
- Fuel station Charlie has been prepared and is ready for the implementation of UL100 (Fuel is awaiting certification) to completely replace 100LL (LEY)



Circular economy

Circular economy (1)



Zero-waste
2030

Circular design principles



- Grand Café “Het Paleis” and freight building 18 were dismantled and re-build elsewhere (AMS).
- Schiphol implemented several circular principles such as a demountable floors and ceilings in Lounge 1 and Terminal 2 (AMS).
- During the renovation of the bus station at Schiphol Plaza, the ceilings of the original bus shelters were reused in the new design. Several were also repurposed as shelters in the bicycle parking area (AMS).

Closed loops



- A “Zero-Waste Roadmap Material Flow Management” has been published (AMS).
- The “Operational Residual Stream Dashboard” has been taken into use (AMS).
- Pilot EME (marketplace) for reusing building materials has taken place (AMS).
- Waste audits to selected airlines to better understand the struggles relating circularity (AMS).
- Questionnaire to other airports to gain insights in their waste management, and specific on cabin and catering waste (RSG).
- Waste collection facility on airside has been optimized to help source separation, including 2 weighing waste balers for residuals and plastics (RTM).

Circular economy (2)



Zero-waste
2030

Reuse and upcycle



- Swissport and Oneworld alliance opened lounges at Schiphol airport in which they re-used furniture (AMS).
- Reusable coffee cups at the office (RSG).
- Ecosmart bins at several offices (AMS).
- Sustainability manual implemented including a sustainable criteria assessment for each process (EIN)
- New environmental area on airside finished. Main goal is to improve separation of residual flows (EIN)
- New waste separation bins in main office leading to a 30% better separation rate (EIN)

Communities



Communities (1)



Improved balance
between communities
and airports
2030

Air quality and noise reduction



- The new airport charges have been introduced. To address the pressing issue of noise disturbance, Schiphol Group is encouraging the use of quieter aircraft by offering reduced airport charges to airlines that operate these models.
- Schiphol begins testing an innovative installation for reducing ultrafine particles on the platform (AMS).
- The Dutch government announced a reduction in Schiphol's annual flight capacity to 478,000 flights starting in 2025, down from the current cap of 500,000, to cut noise pollution and reduce disturbance for nearby residents (AMS).
- Airport fees have been updated to stimulate the use of Chapter 14 aircraft and optimize pay load (RTM).
- New regional noise monitoring system implemented (EIN)
- The Regional Information Centre organized 16 guided tours or knowledge sessions at EA or on location for various groups (business networks, educational institutions, local residents) (EIN).
- Neighbour Day with over 1000 local residents (EIN)
- Impact Fund donated to thirteen supported organisations (EIN)

Communities (2)



Improved balance
between communities
and airports
2030

Healthy and inclusive workplaces



- Several initiatives on diversity and inclusion, including Neurodiversity, 50-up and Women on Air (AMS)
- RSG participated in the national climate week by organising a session on more sustainable food and beverage and a session in which our CEO and CEOs of the main contractors shared insights in how they include sustainability in their day-to-day work (RSG).

- Schiphol announces it will invest 6 billion euros in infrastructure, working conditions and services over the next few years (AMS).

Climate adaptation and biodiversity



- Metrics have been defined and reported on Biodiversity in the annual report (RSG).
- Climate adaptation scan including follow-up steps completed (EIN)
- Adaptations/measures water storage (EIN)



Embedding sustainability

Embedding sustainability (1)



- The Responsible Business Policy was published (RSG).
- The 2024 Annual Report aligns with the new CSRD regulation. The double materiality analysis has been completed, and policies, actions, metrics, and the non-financial reporting manual are in place. The current focus is on obtaining limited assurance from an external auditor and drafting the statements for the 2024 Annual Report (RSG).

- New rating for Schiphol in GSES – +6% increase in score for Schiphol overall. Currently, 28 suppliers use the tool (55% of our total spend) (AMS).
- Safety day to increase awareness including H₂ mini demos (RSG).
- The TPI sustainability was -65% (RSG).

- ESG ratings: MSCI, Sustainalytics and Moody's rating updated. Successful (vanilla) bond issue with strong sustainability component (vanilla) bond issue with strong sustainability component (RSG).
- Non-financial data: Sustainability data lake in development, 'Sphera' tooling approved to better steer on data (RSG).

Embedding sustainability (2)



- EU Green claim directive: New communication guidance published in line with 'EU Green Claim' directive. All external communication requires approval prior to publication (RSG).
- A TULIPS event was hosted in Turin to showcase the hydrogen demonstrations to all partners involved in the consortium and EU policy makers (RSG).

Colophon

For further details please visit the following websites:

- [Royal Schiphol Group](#)
- [Eindhoven Airport](#)
- [Rotterdam The Hague Airport](#)
- [Lelystad Airport](#)

If you have questions or feedback, please visit [schiphol.nl/nl/contact-schiphol](https://www.schiphol.nl/nl/contact-schiphol)

Royal Schiphol Group, April 2025

Abbreviations

- RSG:** Royal Schiphol Group
- AMS:** Amsterdam Airport Schiphol
- EIN:** Eindhoven Airport
- RTM:** Rotterdam The Hague Airport
- LEY:** Lelystad Airport