



Annual Review 2021

Roadmap most sustainable airports



Sustainability Strategy

Sustainable aviation



Circular economy

Quality of Life

Energy positive



Communities

Circular economy



Circular economy

Circular airports 2050

Zero-waste airports 2030



Circular design principles



- Signatory of covenant to stimulate use of biobased materials in construction (RSG)
- Introduced Building Circular Index (BCI) to measure circular constructions (RSG)
- First sensor-based water bottle refill locations installed in terminal (AMS)

Closed loops



- Grass used to make construction materials, such as ceiling tiles and partition walls (AMS)

Reuse and upcycle



- Donation bins have been placed to collect PET bottles. Deposits are donated to charities (RSG)
- 60% of the original asphalt on the Polderbaan Runway, Parking area P3 (AMS) and Taxiway (RTM) was reused as they underwent maintenance
- New work wear introduced, manufactured as sustainably as possible and made from fabric developed using lyocell containing tree bark fibres and recycled polyester (AMS)

**Energy
positive**



Energy positive

Energy-positive airports 2050

Zero-emissions airports 2030



Energy-positive buildings

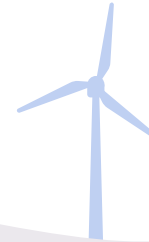


- ACI ACA level 4+ certification (RTM)
- All buildings received an energy label; 75% has label A+ or higher (A++++). A sustainable maintenance plan has been developed for the other buildings (RTM)
- All office buildings have energy label C or higher (EIN)
- Masterplan Electrification delivered (EIN)
- ISO50001 certification was reviewed and renewed (RSG)
- Installation of thermal-energy storage at WTC1 (AMS)
- BREEMAM recertification of all commercial buildings. Aviaport has received BREEMAM Excellent (AMS)
- Study conducted on how to phase out gas in commercial buildings (AMS)

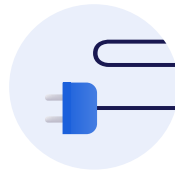
Energy positive (2)

Energy-positive airports 2050

Zero-emissions airports 2030



Zero-emissions mobility



- Introduction of new hybrid working policy (RSG)
- Operational pilot with electric mobile GPU carried out at airside (AMS)
- HVO 100 tested in own fleet (AMS, RTM)
- 3 out of 4 pushback trucks replaced by electric ones (EIN)
- Lease bicycles available for personnel (RTM, EIN)

Renewable energy



- Construction of new solar park alongside the airport runway. The park will generate 14 GWh of green energy each year (RTM)

Sustainable aviation



Sustainable aviation (1)

Net-zero-carbon
aviation sector
2050



Reduction of
CO₂ emissions to
2005 levels
2030



Net-zero-carbon aviation sector



- Destination 2050: European-wide industry roadmap towards net-zero-carbon aviation by 2050 developed and published (RSG)
- Financial support for R&D SynKero and Zenid (RSG)
- Fueling flight paper published to address the sustainability challenges of SAF (RSG)
- Uptake of SAF by airlines (AMS)
- New airport charges set, including SAF incentive for airlines (AMS)
- Roadmap to make sustainable taxiing standard procedure by 2030 published (AMS)
- Launch of Power UP, living lab for electric flight. Electric aircraft visited all Dutch airports (RSG)
- Collaboration with ZeroAvia: aiming for first zero-emission hydrogen flight London – Rotterdam in 2024 (RTM)
- Partner of Fly on SAF programme (RTM)
- Publication of regional vision on SAF (RTM)
- Climate adaptation: water management plan developed (AMS)

Sustainable aviation (2)

Net-zero-carbon
aviation sector
2050



Reduction of
CO₂ emissions to
2005 levels
2030



Smart and clean mobility



- Launch of GoingDutch to stimulate commuter traffic by bike (AMS)
- Construction of fast cycle lane started (AMS)
- Charging facilities installed (RTM)
- Roadmap surface access developed and specific measures taken, like the shared electric bikes (EIN)

Sustainable passenger journey



- Sustainability was at the heart of M-corridor renovation (AMS)
- Privium Airside Lounge has many sustainability features like a table from re-used plastics, and healthy, organic and freshly-prepared food and beverages (AMS)
- Policy on human and wildlife trafficking published (RSG)

- Contribution to ACI World handbook on wildlife trafficking (RSG)
- Subversion policy developed (AMS, EIN)

Communities



Communities (1)

Pleasant living and working environment around airports
2050



Improved balance between communities and airports
2030



Air quality and noise reduction



- DeNoise tests innovative window technology that 'filters' noise from outside in a home in Zwanenburg (AMS)
- Joint fact finding report successfully delivered in co-creation with stakeholders for the mutual gain approach for the new airport decree (RTM)
- New shared-use permit 2022 (the licensed noise contour has been reduced to 9.39 km² compared to 2021 by deducting the meteorological margin)
- On-site measurements of UFP concentrations (AMS)
- Schiphol and partners launch study into an innovative technique to reduce the amount of ultrafine particles around the runways (RSG)
- Ministry of LNV published draft nature permit for AMS. Applications submitted for nature permit by RTM, EIN and LEY

Communities (2)

Pleasant living and working environment around airports
2050



Improved balance between communities and airports
2030



Direct community engagement



- Notify app launched (AMS)
- Following the consultation on the 'minder hinder' programme, which received more than 1000 responses, 16 new measures were added to the noise-nuisance reduction programme (minderhinderschiphol.nl) of LVNL and AMS
- Collaboration with academics to get creative and new ideas, i.e., advice about the look and feel of a new meeting point or optimisation of our flow balancing process (AMS)
- Local carbon offsetting project supported (EIN)
- Consultations set up for COVM and OEA (Eindhoven Airport Consultation) + establishment of various workgroups (work being done to implement recommendations given by Pieter van Geel in response to the EIN Pilot Study) (EIN)

Communities (3)

Pleasant living and working environment around airports 2050



Improved balance between communities and airports 2030



Healthy and inclusive workplaces



- Acceptance of Diversity & Inclusion Board and the Governance Structure by LTSG and Supervisory Board. Acceptance of a plan of approach for the Bi-Cultural and Youth dimensions
- Diversity and inclusion day, and more attention for the topic on structural basis (AMS)
- 158 people with a distance to the labour market found a job via Aviation Community Schiphol (AMS)
- Sustainable employability policy paper (EIN)
- Learn & work information desk opened (in collaboration with Summa) (EIN)
- Launch of Impact Team (colleagues participating in social projects: Buddy trajectory, walking and playing games with seniors, help with collective health insurance) (EIN)

Embedding Sustainability



Embedding sustainability



Most sustainable
airports
2050

- TULIPS is a consortium of 29 parties lead by Royal Schiphol Airport and involves a 25 million euro subsidy from the European Commission. TULIPS accelerates the implementation of innovative and sustainable technologies to reduce emissions at airports (RSG)
- The Bright Sky partners successfully applied for a public grant (R&D mobility fund) which is aimed at accelerating autonomous airside and smart access innovations (AMS)
- As partner of the leading consortium, application submitted for 'Nationaal Groeifonds' (National Growth Fund) to fund promising research and innovations (RSG)
- Internal review on internal governance of sustainability in the organisation (RSG)
- Top Performance Indicator Sustainability 2021 score -15%, 133.5 kton CO₂ (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, February 2022

Abbreviations

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

