



# Annual Review 2020

Roadmap most sustainable airports



# Sustainability Strategy

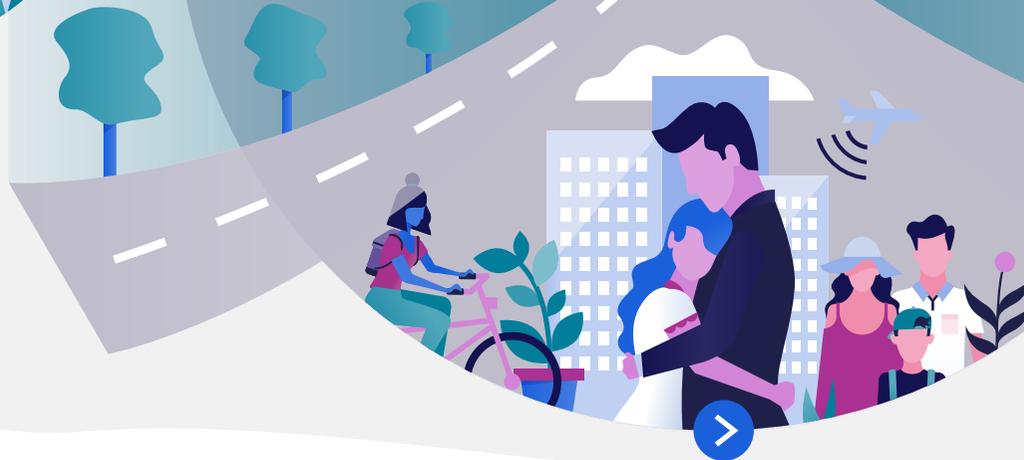
Sustainable aviation



Circular economy

Quality of Life

Energy positive



Communities

# Circular economy



# Circular economy (1)

Circular airports 2050

Zero-waste airports 2030



## Circular design principles



- Development of in-house training courses on circular economy and more specifically, on circular economy in projects (RSG)
- ARCAM, the Amsterdam centre for architecture, urban design and landscape architecture, has set up an exhibition on circularity that includes several Schiphol projects (AMS)

## Closed loops



- Cargo building 18 has been disassembled and will be reassembled at a location nearby the airport (AMS)
- Sound-absorbing panels from the temporary bus gates at Schiphol are being used in the reclaim hall in EIN (AMS, EIN)

# Circular economy (2)

Circular airports 2050

Zero-waste airports 2030



## Reuse and upcycle



- Due to the expansion of taxiway Quebec, some buildings around the Snipweg area had to be demolished. We saved many materials by applying urban mining principles. Some of the roofing was used for the road between the fire station and the platform at RTM (AMS, RTM)
- BAM constructed a road with recycled asphalt between Schiphol Centre and the Logistics Hub (AMS)
- The new Airport Operations Centre (APOC) has circular furniture and floor covering (AMS)
- The new main checkpoint, which consists of recycled steel and reused wood, is fully dismantlable and almost totally waste-free. (EIN)
- Study carried out on the material and natural resources that flow in and out the airport (EIN)
- The extension of the terminal has a wooden construction and a green roof (RTM)

# Energy positive



# Energy positive

Energy-positive airports 2050

Zero-emissions airports 2030

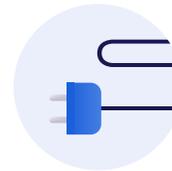


## Energy-positive buildings



- ISO 50001 certification awarded (RSG)
- The ATES at Terminal 3 and theBASE are now fully operational, resulting in a decrease of natural gas consumption (AMS)
- Building P1 has received the BREEAM Very Good certificate, theBASE D is certified as BREEAM Excellent (EIN, AMS)
- Energy efficient fire station and terminal opened (RTM)

## Zero-emissions mobility



- New policy on charging facilities at airside and charging facilities installed (AMS)
- 16 new electric buses operating at airside, resulting in a total of 53 electric buses. There are no fossil fuel-powered buses anymore (AMS)
- All buses at airside have been converted into electric buses (RTM)
- All lease cars for the management team have been or will be replaced by electric cars (EIN, LEY)

## Renewable energy



- Solar panels at parking garage P3 put into operation (AMS)
- Solar panels in the forecourt area put into operation (EIN)
- Agreement to install a solar field (14 MWp) next to the runway (RTM)

# Sustainable aviation

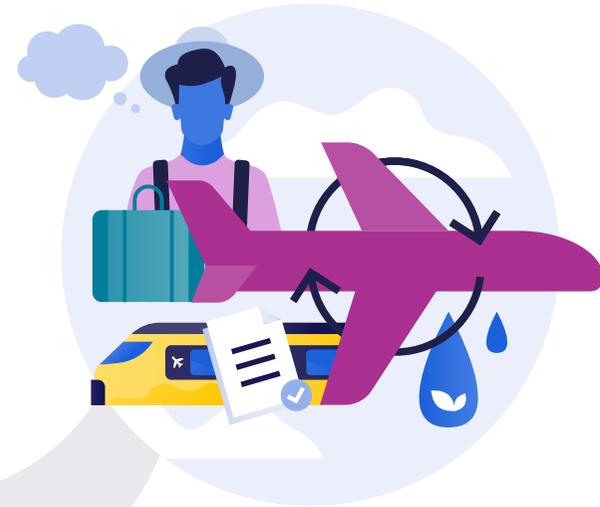


# Sustainable aviation (1)

Net-zero-carbon  
aviation sector  
2050



Reduction of  
CO<sub>2</sub> emissions to  
2005 levels  
2030



## Net-zero-carbon aviation sector



- Contributed to World Economic Forum Clean Skies for Tomorrow papers on SAF and SAF blending mandate (RSG)
- Contributed to the Dutch Agreement on Sustainable Aviation. The publication of the Aviation Policy Memorandum 2020-2050 made this commitment official (RSG)
- Pilot carried out with electric push back truck (EIN)

- Contributed to pilot on eco-labelling of airline and aircraft performance, led by EASA (AMS)
- The extended Uniform platform has a smart water buffer and drainage system for excess rainwater (AMS)
- Proof of concept on sustainable taxiing successfully executed, together with sector partners (AMS)

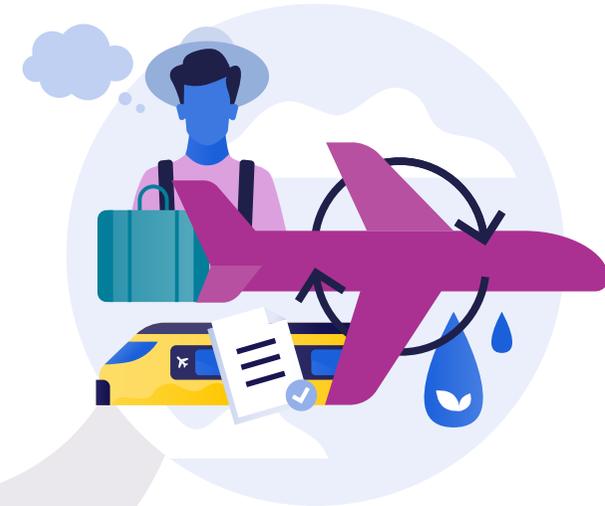
- Contributed to the ACI Europe sustainability strategy and new level for Airport Carbon Accreditation (RSG)
- First electric aircraft in the Netherlands is based at RTM. Research conducted into the impact of electric flight on airport infrastructure, including adjustments if scaled up (RTM)
- Zenid BV set up to accelerate research into e-fuels (RTM)

# Sustainable aviation (2)

Net-zero-carbon  
aviation sector  
2050



Reduction of  
CO<sub>2</sub> emissions to  
2005 levels  
2030



## Smart and clean mobility



- Research conducted into a zero emission zone at landside (AMS)
- Range of shared bicycles and cars expanded, including a bike sharing app and more bicycle parking at Schiphol Centre (AMS)
- Facilitation of shared electric scooters (EIN, RTM)

- Extra charging facilities installed at landside (EIN, RTM)
- Agreement with Fastned for fast charging facilities (LEY)
- Electric buses running to and from the airport since 2020 (LEY)

## Sustainable passenger journey



- Up To Do Good concept store opened (AMS)
- The interior of some piers have been upgraded with smart lighting and cooling, reused walls and chairs and green walls (AMS)
- Fair trade coffee available throughout the airport. HMS Host introduced Gosling coffee (AMS)

# Communities

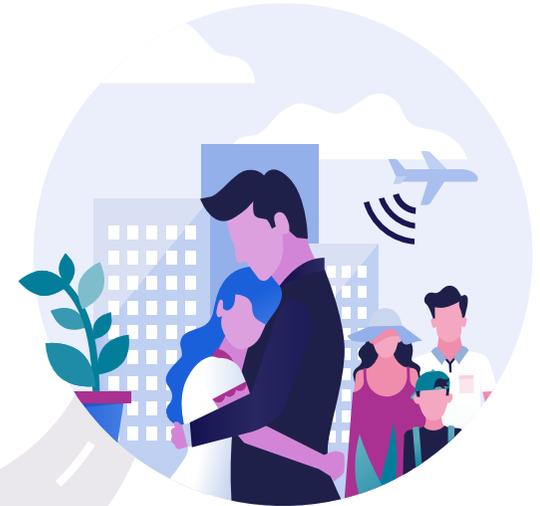


# Communities

Pleasant living and working environment around airports 2050



Improved balance between communities and airports 2030



## Air quality and noise reduction



- Noise nuisance reduction programme published and consultation process concluded (AMS)
- Action plan to reduce nitrogen emissions published (AMS)
- Collaboration with start-up Denoise (AMS)
- Noise nuisance programme launched (RTM)

## Direct community engagement



- Improved flight route forecast in neighbours app (EIN)
- Start of airport consultation Eindhoven, called LEO (EIN)
- Consultation started for the Airport Decree based on the mutual gains approach (RTM)
- XL Covid-19 testing and vaccination centre opened at the airport (RTM)

## Healthy and inclusive workplaces



- Aviation Community Schiphol (LCS) has shifted course due to the Covid-19 crisis. LCS guides people to jobs outside the aviation sector (AMS)
- Covid-19-proof internship concept developed and launched (AMS)
- Albeda College has opened a new building at the airport location (RTM)

# Embedding Sustainability



# Embedding sustainability



Most sustainable  
airports  
2050

- Tailor-made Most Sustainable Airports roadmap developed for EIN, RTM and LEY (RSG)
- Top Performance Indicator Sustainability 2020 score -17%, 137 Kton CO<sub>2</sub> (RSG)
- Quarterly report developed to monitor progress on actions roadmap (RSG)
- Successfully issued 2 green bonds and sustainability linked credit facility put in place (RSG)
- Internal and external communication on sustainability improved (RSG)
- Dashboard developed to monitor sustainability data (RSG)
- Improved insights into operational residual streams (AMS)
- External energy management system replaced by internal data monitoring application (AMS)

# 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 2021

# Abbreviations

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

