Decarbonization challenges of the Geneva airport and how technology can help to address them

Geneva, 1 November 2023
Key figures

- 46.3 million CHF in profit
- 60.4 million CHF in investments
- 146 destinations
- 971.8 Employees (FTE)
- 14,085,280 passengers
- 423.1 million CHF in turnover
- 70,566 tons of cargo
- 52 airlines
Geneva Airport is pursuing a sustainable development strategy to reduce its carbon footprint and to meet the expectations of the region and its communities.

- **2030**: Noise levels equivalent to the year 2000
- **2037**: Net Zero CO₂ at Genève Aéroport
- **2050**: Net Zero CO₂ for industry

What we do
Our environmental challenges

CO2 emission scope 1 and 2
- Building heating and cooling
- Decarbonizing the traffic on the apron

CO2 emissions scope 3
- Aviation
- Transportation to and from the airport

Noise
- Noise as impacted by type of plane
- Noise as impacted by hour of movement

Green energies
- Renewable electricity production
- Sustainable aviation fuel (bio and synthetic)
CO2 emissions scope 1 and 2
GeniLac

- Using cold water pumped from the bottom of the lake
- Cooling and heating are provided by thermal pumps and heat exchangers
Decarbonizing traffic on apron

- Actually, 30% of the vehicles on the apron are electric
- In 2030, we will reach 90% electric vehicles on the apron
CO2 emissions
scope 3
Aviation

- gradual replacement of fossil kerosene by biogenic and synthetic fuels (Sustainable Aviation Fuels SAF)
- promotion of more efficient aircraft
- organization of more fuel-efficient air traffic on the ground and in flight
- use of economic instruments (voluntary CO2 offsetting, participation in ETS and CORSIA as an interim solution, as well as carbon removal projects to reduce remaining emissions).
Transportation to and from the airport

• Extend the public transport offer

• Offer reduced fares for passengers
Territoire exposé au bruit (VP DS II)

- Courbe de bruit P85A à moyen terme (plafond)
- Courbe de bruit P85A à long terme “2030”
- Courbe de bruit 2019

Noise
Noise

- Noise as impacted by type of plane
- Noise as impacted by hour of movement
Green energies
Photovoltaics

- Currently 23’500 m²
  - With 6’700 m² on East Wing
- Objective 2030 55’000 m²
Sustainable aviation fuels

- Made from biological raw materials (typically waste)
- Power to liquid
- Solar to liquid
Thank you