



# SUSTAINABILITY REPORT 2016-2018

### **REPORTING SCOPE**

For the preparation of this report and its choice of indicators, Genève Aéroport relied on the guidelines of the Global Reporting Initiative (GRI G4, GRI 2016, and specific items about the aviation sector). GRI is the international reference standard with respect to sustainability communications by businesses.

This year, Genève Aéroport chose to show how its activities contribute to sustainable development using the framework and common language of the United Nation's Sustainable Development Goals (SDGs). The SDGs define worldwide priorities and aspirations with respect to prosperity, wellbeing, and the environmental conservation between now and 2030. The report's chapters are thus structured based on the 11 SDGs that are significant for Genève Aéroport.

### **REPORTING PERIOD**

The information provided in this report covers the 2016 to 2018 period. Highlighted figures relate to 2017, and the illustrated trends in the form of ascending arrows, descending arrows, and equal signs show the year on year evolution as compared with 2016. Economic, social, and environmental indicators for the years 2015-2017 are compiled in the annex to the report.

# SUSTAINABILITY REPORT 2016-2018

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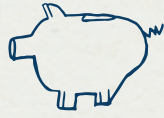
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## → KEY FIGURES



78,9  
MILLION  
IN PROFIT



125,2  
MILLION  
IN INVESTMENT



466,4  
MILLION  
IN TURNOVER



141  
DESTINATIONS



91  
PASSENGERS  
PER MOVEMENT



89'012  
TONNES  
OF CARGO



17,4  
MILLION  
PASSENGERS



77%  
PASSENGER  
LOAD



58  
AIRLINES



1'044  
EMPLOYEES



→ SUSTAINABLE DEVELOPMENT  
OUR COMMITMENTS AND  
PERFORMANCE AT A GLANCE

OFFERING USERS EFFICIENT  
AND SUSTAINABLE INFRASTRUCTURE  
AND SERVICES



12.6 KG  
CO<sub>2</sub> EQUIV.  
EMISSIONS PER  
PASSENGER



23.9%  
INCREASE IN ENERGY  
EFFICIENCY  
(SINCE 2006)



44.4%  
RECYCLING  
RATE

PRESERVING LOCAL SURROUNDINGS  
AND STRENGTHENING OUR TIES TO  
THE REGION



35.4 SQ.KM  
SURFACE AREA  
EXPOSED TO NOISE<sup>1</sup>



3'663  
HOUSES SOUNDPROOFED  
(SINCE 2004)



962'000.-  
SPONSORSHIP  
BUDGET<sup>2</sup>

BEING A RESPONSIBLE  
EMPLOYER AND CITIZEN



6.1%  
ABSENCE RATE  
(ACCIDENT OR  
SICKNESS)



28.3%  
OF WOMEN AS PART OF  
EMPLOYEES WITH LONG-TERM  
EMPLOYMENT AGREEMENTS



16  
PEOPLE HIRED UNDER  
THE 1+ POUR TOUS  
LABEL<sup>3</sup>

IMPLEMENTING RESPONSIBLE  
PROCUREMENT AND PARTNERSHIPS



124  
PEOPLE TRAINED  
IN PROCUREMENT



43%  
OF INVITATIONS TO TENDER  
INCLUDE SUSTAINABILITY  
REQUIREMENTS

<sup>1</sup>(Noise level higher than concentration thresholds)

<sup>2</sup>(Support to sports, cultural, social and environmental associations)

<sup>3</sup>(Long-term unemployed people, seniors, youth)

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## EDITORIALS

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# IN PRAISE OF SUSTAINABILITY



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The world of air travel is exhilarating – it inspires the pursuit of achievement, a thirst for speed, and an urge for escape. A business like ours is forced to manage these realities over the long term. If we favour short-term strategies, we run the risk of disorganization. If we fail to think about tomorrow, we court irresponsibility at the expense of quality. Together with sustained efforts to optimize the flow of passengers, baggage, and aircraft, we need to take a step back and reflect. Our infrastructure is rapidly evolving, adapting to the needs of our users and improving conviviality. To better serve its visitors, Genève Aéroport has devised a strategy that balances economic, environmental, and social considerations.

Doing so requires the capacity to take the long view. Fortunately, it is possible to combine energy with wisdom. Our agility is enhanced by our longstanding experience: as it nears its 100th anniversary, Genève Aéroport shows clear

maturity and has embarked on writing its new history. Our sustainability policy is gathering speed and will contribute to our future success. This new report illustrates our commitments. It highlights our desire to conduct business responsibly and to stay on top of the changes to come. Since governance requires foresight, we are equipping ourselves with the tools to anticipate changes. For example, sustainability requires crosscutting efforts. The Board of Directors, in agreement with senior management, has chosen this path. Because we are investing all of our business units in our sustainability objectives, the new governance has graduated from words to action.

Sustainability also encourages us to focus on transparency and diversity. We aim to infuse our management with an ethos inspired by these requirements and to share that ethos with all of our employees. The project that we have embarked upon to guide the company's values deserves to be noted. This project is enhancing the family spirit that guides us and forges our identity – a corporate culture that leans on the memory of our predecessors to prepare the future for our children. Sustainability actions that we are taking at all levels strengthen us. On the eve of discussions that are bound to be intense, they enable us to reinforce the ties that tie us to the city of Calvin.

The Sectoral Aviation Infrastructure Plan (SAIP) will finally guarantee us the ability to sign a new long-term lease with the federal and cantonal authorities, with our regulator serving as our landlord. Without a doubt, Genève Aéroport is making a winning bet: the one of sustainability.

**Corine Moinat**  
President of the Board  
of Directors



# CULTIVATING SUSTAINABLE DEVELOPMENT



©AurélienBergot

This third edition of the sustainability report puts forward our economic, social, and environmental commitments. The environment and sustainable development office works persistently every day to raise awareness among the platform's employees. Thanks to this sustained effort, the quality of which I wish to praise here, our company can be proud of presenting compelling results, recognized well beyond the airport's borders.

The "1+ pour tous" label and the federal government's recognition that our company serves as a model in the area of energy use are rewards that highlight our efforts. In line with 11 of the 17 UN Sustainable Development Goals, our airport has initiated multiple initiatives relating to matters such as preventing climate change, improving workplace health and wellbeing, and contributing to the region's economic development. This report provides the opportunity to list and measure the results of our actions. However, it is merely a snapshot of our determination. As demonstrated by our

in-depth work on our company's values, this willingness is becoming part of our culture.

To work at Genève Aéroport is to be filled with an acute awareness of one's responsibility and to work towards a balanced society. The citizen-employee of Genève Aéroport thus becomes a sustainability player: gender equality, ethical procurement, energy efficiency, and the reduction of our carbon footprint are realities that we live and share. Furthermore, waste management, the cleanliness of our facilities, and the conservation of natural resources are becoming more and more of a team effort. Genève Aéroport has understood this dynamic early on and continually aims to raise the awareness of the airport's employees and users towards this goal. With the Sectoral Aviation Infrastructure Plan (SAIP), which we expect the Federal Council to adopt this fall, we will continue to sow the sustainability seeds in all of our company's activities.

In cooperation with the Confederation and the Canton, Genève Aéroport intends to meet the challenge of containing its noise pollution, first by stabilising, and then by reducing it between now and 2030. This challenge requires collective ownership, which, in itself, is part of the sustainability culture. Each and every one of us – whatever our skills and job description – will contribute. The operations' department is already engaged and working creatively to notably prevent delays or encourage our partners to limit their environmental footprints. The airlines are playing the game and rising to this societal challenge. Progressive delivery of new-generation airplanes should be commended and supported. Our new company culture will facilitate this essential cooperation in a sustainable way.

**André Schneider**  
General Manager





## GOVERNANCE

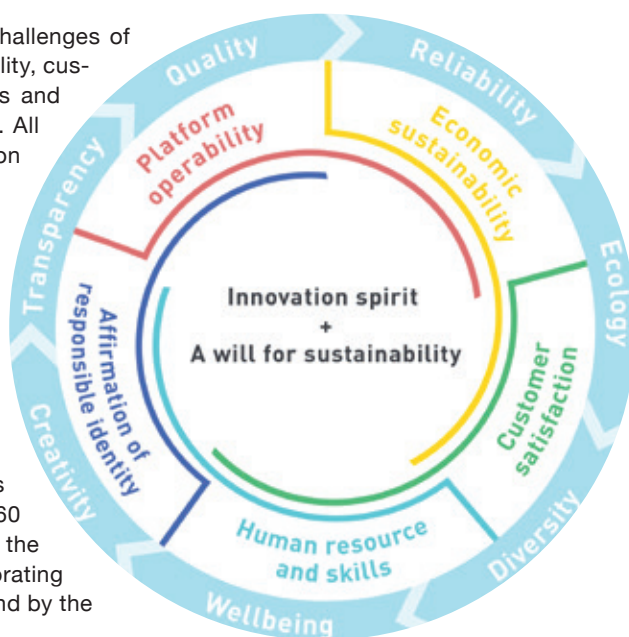


### STRATEGIC OBJECTIVES AND VALUES

In 2016, Genève Aéroport was reorganised to confront the challenges of the future. It defined five strategic objectives: platform operability, customer satisfaction, economic sustainability, human resources and skills management, and an affirmation of responsible identity. All five cornerstones were infused with two other goals: innovation spirit and a commitment to sustainability.

In 2017, to guide and manage the business more efficiently, Genève Aéroport created a new dashboard based on the five strategic objectives. The company's management bodies discuss the dashboard quarterly using predefined performance indicators and targets.

Along with its new strategic objectives, the company leans on eight new values: quality, reliability, ecology, diversity, well-being, creativity, proximity, and transparency. These values emerged from a collaborative effort involving close to 260 employees in May and June 2017. Over the course of 2018, the company's goal has been to bring these values to life, incorporating them into a series of initiatives and newly created events for and by the employees.



## CONSULTATION AT ALL LEVELS

Genève Aéroport is organized around two principal Divisions: Operations and Commercial & Development. These divisions are underpinned by six support units: the Departments of Human Resources, Finance, Technology, and Infrastructure, and the Offices of Communications and Environment & Sustainable Development.

A staff combining the functions of a General Secretariat, Legal Affairs, strategic planning, project coordination, procurement, quality control, risk management, and External Relations reports directly to the CEO. All of these entities work closely together to create solutions adapted to challenges faced by the airport.

The company also has numerous cross-departmental committees and working groups that provide day-to-day responses to upcoming issues. These committees and working groups are composed of representatives of the different divisions and may include airport's partners, depending on the topic. Working together guarantees that the airport functions well. It also makes it possible to integrate requirements relating to Genève Aéroport's social, economic, and environmental responsibilities. (diagram p. 9)

## ONGOING DIALOGUE WITH STAKEHOLDERS

Genève Aéroport maintains an ongoing dialogue with its employees, its principal partners, governmental authorities, and representatives of civil and economic society, through various commissions, workers' committees, working

groups, and information and discussion sessions. Studies and surveys are also conducted to measure the degree of satisfaction experienced by employees and air-port users.

All of these exchanges lead to a better understanding of expectations and concerns at Genève Aéroport. They promote the search for balanced solutions. For many years, the richness of the dialogue has rested on the diversity of players involved as well as on Genève Aéroport's numerous publications – including its annual report, social report, and sustainability report.

## SUSTAINABILITY AT STAKE

Significant aspects relating to the economic, environmental, and social impacts of the airport's activities were assessed and formalised in the 2014 sustainability report. They were consolidated and externally verified in 2016, taking into consideration factors specific to the aviation industry and in accordance with the Global Reporting Initiative\* reference points.

These subjects reflect the challenges that the airport operator and its partners encounter on a daily basis as they work to act consistently with sustainability imperatives. In 2018, Genève Aéroport undertook to link these issues to the United Nation's Sustainable Development Goals, as well as to formalise a sustainability strategy (see pages 10 and 11).

## GENÈVE AÉROPORT AND THE UNITED NATION'S SUSTAINABLE DEVELOPMENT GOALS

In 2015, UN member states adopted a set of 17 Sustainable Development

Goals (SDGs) defining worldwide priorities through 2030 in terms of prosperity, wellbeing, and environmental protection. The SDGs reflect stakeholder expectations and anticipate public policy on a regional, national, and international scale. They call for concrete, large-scale actions by governments, businesses, and civil society.

In June 2018, the Confederation published a report on Switzerland's implementation of the SDGs. Businesses were recognised as an essential driver of success. While the worldwide aviation industry is already playing a non negligible role in achieving the SDGs in connection with its daily operations, there are areas in which the industry could increase its contribution. An analysis recently conducted by ATAG showed that aviation plays a fairly significant role in supporting 15 of the 17 Sustainable Development Goals.

In 2018, a detailed analysis of the UN's Sustainable Development Goals and their targets was carried out with respect to the economic, environmental, and social impacts of Genève Aéroport's activities. It emerged from that analysis that Genève Aéroport contributes significantly to 11 of the 17 SDGs, including 29 of their specific targets.

In this report, Genève Aéroport describes its contribution to sustainable development in chapters specific to each of the identified SDGs, while highlighting the manner in which they relate to each other. Goal 17, "Partnerships for Sustainable Development" is discussed across all chapters of the report.

## PUBLIC CONSULTATION ON THE SAIP DOCUMENT

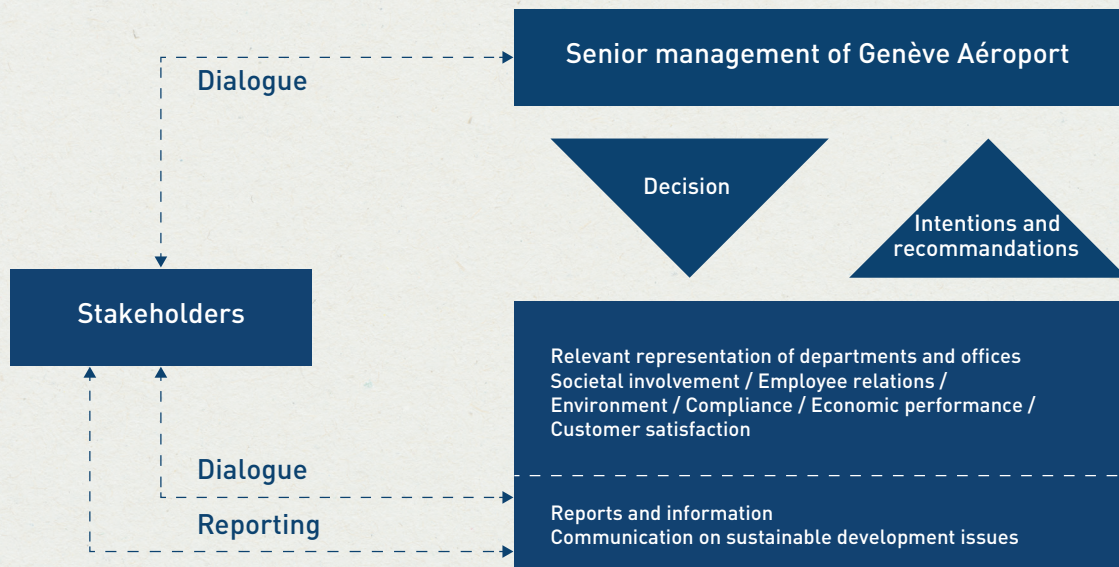
The framework terms for the development of air traffic in Geneva, which were the fruit of a collaboration between the Federal and Cantonal authorities, were published for public consultation from November 2017 to March 2018. The communes, the Swiss and French populations, businesses, associations, and political parties were asked to comment on ten themes formalized in a document called the "SAIP Document," which will be adopted by

the Federal Council and will define the framework terms for the airport's operations and development. Moreover, more than 30 information sessions were held at the airport for the elected officials of local municipalities. A total of 340 positions were taken, on issues relating to aircraft noise and the impact of air traffic on air quality as well as airport accessibility by public transportation. Through the SAIP Document, the Confederation will confirm a balanced solution responding to its aviation policy while taking into account the concerns of local communes and residents.

\*International reference standard for sustainability reporting



## → DIALOGUE AND CONSULTATION

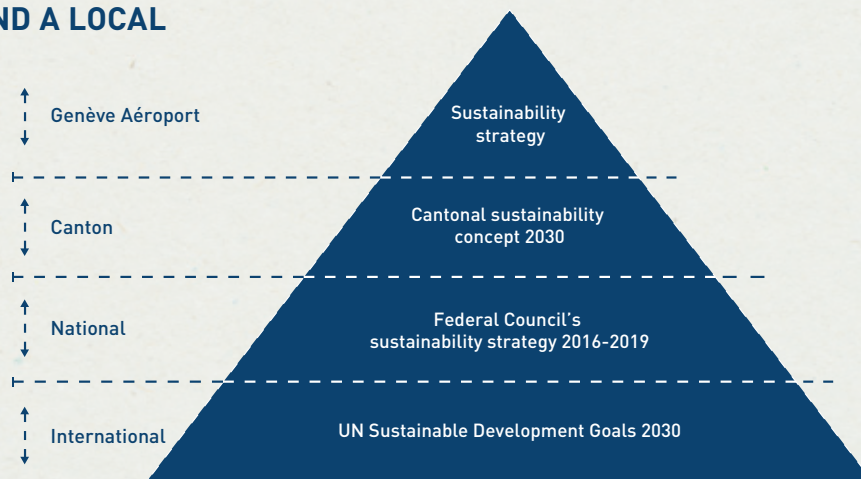


## → THE UN SUSTAINABLE DEVELOPMENT GOALS TO WHICH GENÈVE AÉROPORT CONTRIBUTES





## → SUSTAINABLE DEVELOPMENT: BOTH A GLOBAL AND A LOCAL COMMITMENT



### SUSTAINABILITY STRATEGY: THE COMMITMENTS OF A RESPONSIBLE COMPANY

In accordance with its strategic objectives, its values, and its determination to act sustainably, Genève Aéroport works to balance its economic, social, and environmental responsibilities in

all of its activities. In 2018, the airport formalised its sustainability ambitions in the form of four commitments to its stakeholders.

These commitments are aimed at reducing the negative effects and enhancing the positive effects of air-

port activities on humans and on the planet, as well as contributing to the region's economic prosperity. They define a framework for Genève Aéroport's sustainable development program and give it a tool for monitoring its performance and on-going improvement.

## → OUR SUSTAINABILITY COMMITMENTS

### OFFERING USERS EFFICIENT AND SUSTAINABLE INFRASTRUCTURE AND SERVICES

→ Offering infrastructure and services that are high-quality, reliable, innovative, accessible to all, safe, comfortable, cost-efficient, and tailored to user needs.

→ Promoting the sustainable use of natural resources and limiting emissions of pollutants and greenhouse gases over the entire life-cycle of our infrastructure and services in order to decouple passenger growth from environmental impact.

→ Raising passenger awareness of their socio-environmental impacts and of responsible behaviour.

### BEING A RESPONSIBLE EMPLOYER AND CITIZEN

→ Creating a high-quality working environment and fair, respectful, and stimulating working conditions, while ensuring the health, safety, and wellbeing of all employees.

→ Promoting professional inclusion and cultivating diversity in an inclusive working environment that promotes creativity and in which the contributions of each individual are recognised and valued.

→ Maintaining the employability of airport staff and promoting the development of their professional, behavioural, and sustainable development skills by implementing appropriate training and awareness programs.

### PRESERVING LOCAL SURROUNDINGS AND STRENGTHENING OUR TIES TO THE REGION

→ Limiting nuisances for local residents, in particular with respect to noise and air quality, and cultivating a relationship of trust based on transparency and a respectful and constructive dialogue.

→ Promoting local economic development and creating opportunities for our society by promoting local know-how, culture, and products.

→ Developing partnerships with society to contribute to solving socio-environmental challenges and pursue a policy of active sponsorship in the realms of sports, culture, tourism, and philanthropy.











### IMPLEMENTING RESPONSIBLE PROCUREMENT AND PARTNERSHIPS

→ Conducting business honestly with our partners, acting fairly, and preventing conflicts of interest and any risk of corruption.

→ Ensuring compliance with legal working conditions by our partners and promoting eco-friendly and ethical products and services.

→ Raising awareness of our partners' socio-environmental impacts and of sustainable practices, and mobilising them to achieve sustainability goals.



| SDG*  | PRIORITY TARGETS                   | MATERIALITY (RISKS, NEGATIVE IMPACTS, POSITIVE IMPACTS)           | GA'S SUSTAINABILITY STRATEGY  | PERFORMANCE INDICATORS (2017)   | GOALS                               |
|---|------------------------------------|---|---|---|-------------------------------------|
|    | 8.3 / 8.5 / 8.6 / 8.8 <sup>1</sup> | Value creation for the region<br><br>Continuing education         | Promoting local economic development<br><br>Maintaining staff employability                                     | CHF 736 million in economic value distributed<br><br>26% promotions and internal transfers                      | -                                   |
|    | 5.1 / 5.C                          | Fair and ethical employment practices                             | Ensuring fair and respectful working conditions   | 28.3% of employees are women<br><br>29% of employees at management level are women                              | -                                   |
|    | 3.4 / 3.5 / 3.9 <sup>1</sup>       | Workplace health, safety, and wellbeing<br><br>Operational safety | Ensuring employee health and wellbeing<br><br>Offering users safe infrastructure and services                   | 6.1% absence rate for Genève Aéroport employees<br><br>3.33 security reports for every 1,000 airplane movements | 6% (2018)<br><br>-                  |
|   | 11.2 / 11.3                        | Noise prevention<br><br>Airport accessibility                     | Limiting nuisances to local residents   | 35.4 km2 of area exposed to airplane noise<br><br>42% use of public transportation by passengers                | 30.4 km2 (2030)<br><br>45% (2020)   |
|  | 9.1 / 9.2 / 9.4                    | Customer satisfaction<br><br>Changes to infrastructure            | Offering users efficient and sustainable infrastructure and services  | Grade of 3.86/5 passenger satisfaction index<br><br>17 million CHF in expenses for the environment              | 4 (2018)<br><br>-                   |
|  | 13.3 / 13.B                        | Air quality and climate change                                    | Limiting emissions of pollutants and greenhouse gases by infrastructure and services                            | 12.6 kg equ. CO2 emitted by passengers, or 100kg of transported freight   | 12 kg equiv. CO <sub>2</sub> (2020) |
|  | 7.2 / 7.3                          | Energy efficiency   | Promoting the sustainable use of natural resources  | 23.9% improvement in energy efficiency since 2006<br><br>54% of total consumption from renewable energy         | 25% (2020)<br><br>56% (2020)        |
|  | 12.2 / 12.3 / 12.5 / 12.7 / 12.8   | Waste and natural resources<br><br>Performance économique         | Promoting the sustainable use of natural resources<br><br>Implementing responsible procurement and partnerships | 44.4% waste recycling rate<br><br>124 people trained in procurement (since 2015)                                | 50% (2020)<br><br>-                 |
|  | 6.3                                | Wastewater  | Limiting emissions of pollutants by infrastructure and services   | 96.4% of pollution load from de-icing products is treated   | 100% (2019)                         |
|  | 15.1, 15.3, 15.5, 15.7, 15.8       | Biodiversity  | Promoting the sustainable use of natural resources  | 26 protected floral species on airport property   | 26                                  |

<sup>1</sup>Targets discussed in a different chapter of this report

\*UN Sustainable Development Goals (SDGs)

## 8 DECENT WORK AND ECONOMIC GROWTH



Both Switzerland in general and the canton of Geneva in particular are quite prosperous. They enjoy a low unemployment rate and an economy that generates jobs and creates wellbeing for all. Geneva's airport contributes to the strength of the region's socio-economic fabric, offering a high-quality aviation network, supporting Switzerland's attractiveness for businesses and tourists, and creating jobs across the air transport value chain. Genève Aéroport is also a responsible employer: it guarantees fair working conditions and strives to promote occupational inclusion and to maintain the employability of its employees.

### Links to the other Sustainable Development Goals



## PROMOTING REGIONAL SOCIO-ECONOMIC DEVELOPMENT

### ECONOMIC VALUE DISTRIBUTED

(expenses to suppliers and service providers, payroll costs, banking fees, public contributions, sponsorships)



2015

674  
MILLION



2016

782  
MILLION



2017

736  
MILLION

### NUMBER OF DIRECT, INDIRECT, AND INDUCED JOBS TIED TO AIRPORT ACTIVITIES

(INFRAS Studies, 2011 and 2018)



2008

28'400



2016

33'600

The Geneva region is a first-class economic, diplomatic, cultural, and tourism hub. Directly linked to more than 140 destinations and easily accessible by train or car, Geneva's airport holds a strategic position at the heart of the European continent. The quality of its air network contributes to the development of the region and the country. Airport activities generate numerous jobs and economic benefits. Each year, Genève Aéroport pays the government of Geneva half of its profits, in addition to pursuing a voluntary sponsorship policy through which it supports many cultural, athletic, charitable, and economic projects.

#### A QUALITY NETWORK SERVING THE REGION AND THE COUNTRY

Genève Aéroport's catchment area is home to more than 6 million inhabitants. In addition, 3,000 multinational corporations are present along the banks of Lake Geneva, and close to 350 global and non-governmental

organisations are based in Geneva. The airport's proximity and the quality of its aviation network are key to retaining these companies and organisations.

With respect to continental connectivity, Geneva ranks among the top 10% of European cities. Flying out of Geneva, it is currently possible to reach close to half of all European economic activity areas with a travel time of four hours or less.

Without Genève Aéroport, the percentage of activities reachable within four hours drops by at least 20%. Air links contribute 93% of this connectivity rate, of which 85% is attributable to the Geneva airport. Each year, more than 95% of the airport's passengers are departing from or arriving at their final destination. In other words, only 5% are in transit. Geneva is a destination in itself, not a transit hub.

Genève Aéroport's strategy is focused on the development of intercontinental routes providing better links between Geneva and the world's growth hubs. One example is the opening of the Beijing-Geneva route in 2012; another is the new route to Addis-Ababa established in 2018.

4'688   
OFFICIAL WELCOMES

4.1   
MILLION TOURISTS ARRIVED  
AT GENEVA'S AIRPORT

4.1   
MILLION BUSINESS TRAVELLERS  
ARRIVE TO OR DEPART FROM  
GENEVA



## SIGNIFICANT ECONOMIC IMPACTS

A 2017 study<sup>1</sup> estimated that the airport's direct economic impact in the Canton of Geneva totalled CHF 1.5 billion (3% of the Canton's added value) and that its indirect economic impacts totalled CHF 4.1 billion. Airport activities generated 33,600 jobs (an increase of 5,200 since 2008) of which 10,800 are at the airport site itself.

In 2016, 4.1 million tourists arrived at Geneva airport (45% of all tourists arriving in the canton). Close to half of all Swiss francs spent in the canton (CHF 716 million in 2016) are attributable to foreign visitors arriving through the airport, and 15% of income from foreign tourists spending the night in Swiss hotels are related to travellers arriving via the Geneva airport. Total income generated by foreign tourists arriving in Switzerland via Genève Aéroport are estimated at CHF 1.6 billion in 2016, of which CHF 860 million were spent outside of the canton of Geneva.

In 2017, freight activity grew strongly, with an 18.6% increase in tones of merchandise transported as compared with 2016. Close to 1,000 employees work in the freight terminal. It accounts for 12% on average of the airlines' revenues, and contributes to the sustainability of inter-continental flights from Geneva. It offers Swiss businesses high-quality services for transporting their merchandise and generates revenues for Genève Aéroport (CHF 3 million in 2016, or CHF 12 million including land-use taxes).

<sup>1</sup>INFRAS and BAK Economics Study

## 17 PARTNERSHIPS FOR THE GOALS



## SPONSORSHIP: OUR COMMITMENT TO THE REGION

Genève Aéroport's sponsorship policy was redefined in 2017 around three strategic areas: commercial sponsorship, local support, and philanthropy. Close to CHF 900,000 have been distributed to athletic, cultural, economic, social, and environmental associations and organisations, and a Philanthropic Fund has been created.

Two new partnerships were born in 2017: the "Geneva 20km by Geneva Airport," with close to 2,000 runners participating the first year, and the International Film Festival and Forum on Human Rights. For 16 years, this festival has offered films and debates at the heart of the international capital of human rights.

Through 50 annual partnerships, including iconic supports such as to the Lions de Genève basketball team and the Forum Meyrin theatre, Genève Aéroport wishes to reinforce its commitment to its own employees, local residents, and society at large.

See all of Genève Aéroport's commitments at [gva.ch/sponsoring](http://gva.ch/sponsoring).

4.1

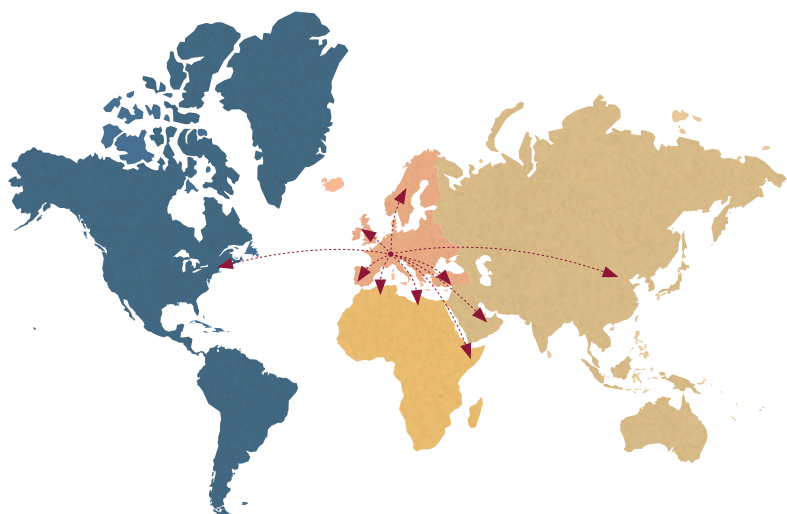
BILLION IN ADDED VALUE  
TO THE REGIONAL ECONOMY

1.6

BILLION GENERATED BY TOURISTS ENTERING  
SWITZERLAND THROUGH THE GENEVA AIRPORT

39

MILLION PAID TO THE GENEVA GOVERNMENT



### DESTINATIONS

EUROPE / 90.3%

MIDDLE EAST-ASIA / 5.1%

AMERICAS / 2.5%

AFRICA / 2.1%

## → IN FOCUS

### TEAM GENEVA: SUPPORTING GENEVA'S ATHLETES

The Canton of Geneva, Genève Aéroport, and the Hôpital de la Tour support Geneva's top athletes as they prepare for the Olympics and the Paralympics. Through the programme Team Genève, selected elite athletes in individual sports receive financial assistance, their visibility is increased, and their achievements are shared with the Geneva public. They are role models for the Canton's youth and their daily efforts are thus recognised by cantonal authorities. Interview with Jérôme Godeau, Head of the Team Geneva programme.



#### WHAT IS THE PHILOSOPHY BEHIND TEAM GENÈVE?

**Jérôme Godeau:** The programme was launched in 2012 to support the eight athletes selected for the Summer Olympic and Paralympic Games in London. It was a collaboration between the Canton of Geneva, the City of Geneva, and the Association of Geneva Municipalities. We wanted to help these athletes gain visibility and to make Geneva's residents aware that we had elite athletes in our canton. That first experience rapidly taught us that it was important to help the athletes early on, and not just during major sports events. We defined certain criteria in order to be fair in selecting athletes to support, and since January 1st of this year, the Canton of Geneva alone has been in charge of the programme.

#### WHAT ARE THOSE CRITERIA?

**Jérôme Godeau:** The first criterion is to represent Switzerland. The athletes do not necessarily have to be Swiss nationals – one example is the Eritrean athlete Tadesse Abraham, who finished seventh in the 2016 Olympic Marathon in Rio. He runs for Switzerland and lives in the canton. The second criterion is location. The athlete must either have been born in the Canton of Geneva, have lived there for at least three years, or have been a member of a Geneva club. Last is the performance criterion. Swiss Olympic distributes four types of cards to athletes, depending on their level: gold, silver, bronze, and elite. We support athletes holding one of the first three cards. Swiss Olympic publishes a list of these athletes in February of each year. This year, we are supporting 24 athletes competing in more than 15 different sports.

#### HOW DO YOU SUPPORT THE ATHLETES?

**Jérôme Godeau:** Each athlete receives CHF 8,000 per year. We also support them with publicity, as these athletes often receive little media coverage and are not well known. Genève Aéroport helps us a lot in this area. For example, they organised the welcome party for returning athletes following the Olympic Games in PyeongChang this year. Hôpital de la Tour has been offering medical support to the athletes since 2016. We seek to develop new communications events and to create opportunities for them to meet Geneva's citizens. For example, we have them deliver medals at the Escalade Race or do the kick-off at a Genève-Servette match.

#### THERE AREN'T ANY DISABLED ATHLETES THIS YEAR?

**Jérôme Godeau:** We supported two Paralympic athletes at the Rio games in 2016: Magali Comte in archery, and Celine van Till in equestrianism. We are considering how to integrate adaptive sports athletes more broadly, as they do not hold cards issued by Swiss Olympic, one of the selection criteria.

### TEAM GENÈVE SPONSORSHIP IN NUMBERS



24

ATHLETES SUPPORTED  
IN 2018



8'000

CHF PER ATHLETE



47

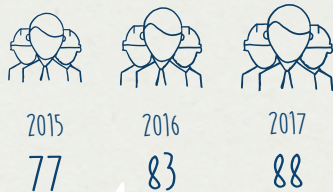
MEDALS WON BY TEAM  
GENÈVE ATHLETES IN 2018



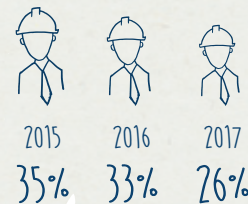


## PROMOTING OCCUPATIONAL INCLUSION AND MAINTAINING EMPLOYABILITY

NUMBER OF GENÈVE AÉROPORT HIRES WITH LONG-TERM EMPLOYMENT AGREEMENTS



PROMOTIONS AND INTERNAL TRANSFERS AS A PERCENTAGE OF TOTAL LONG-TERM HIRES



Genève Aéroport was named the third best employer in Romandy in a 2017 ranking of public and semi-public entities by *Bilan*. This rewards its HR policy of promoting employability, working towards equal pay, and preventing hiring discrimination. Recruitment initiatives and employee training contribute to Genève Aéroport's attractiveness as a responsible employer.

### ENGAGED EMPLOYEES

Since 2008, surveys on employee engagement have been conducted through an anonymous questionnaire sent to all Genève Aéroport employees by an independent body. More than 70% of employees responded to the most recent survey in the fall of 2017. The survey measured commitment to the airport's new goals, as well as the degree of awareness of working conditions and the advantages of working at Genève Aéroport. The engagement index of 7.1 reflects these very

encouraging results. The results were communicated to each department, and action plans were defined for the next two years, involving the staff.

### EVOLUTION IN THE WORKFORCE

The total number of employees with long-term employment agreements has been steadily growing for several years. Despite this regular growth, employee turnover remains low for a company of this size (6.7%), confirming Genève Aéroport's attractiveness as an employer.

Since 2012, Genève Aéroport has been designated a "1+ Pour Tous" (One + for all) employer. This label, valid for two years, recognises Geneva companies that hire applicants who have been unemployed for a long time or who have lost their unemployment benefits. The airport received renewed certification in 2015 and 2017. Genève Aéroport announces all job vacancies at the Cantonal Employment Office. In

2017, Genève Aéroport hired 17 people meeting the criteria for the label.

Genève Aéroport promotes diversity in its teams and does not engage in any form of hiring discrimination. Three employees older than 55 and 38 women were hired in 2017, and 5 jobs were set aside for apprentices working towards federal skills certification (*certificat fédéral de capacités*, or "CFC"), bringing the total to 8. Men and women are treated equally, in particular with respect to compensation.



\*Contrat durée indéterminée

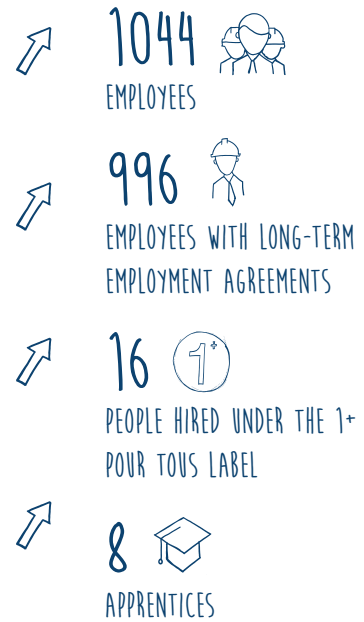


## A SERIES OF KEY EMPLOYABILITY MEASURES

Many positions require initial training at the time of hire to acquire the necessary skills to perform the job. Furthermore, numerous continuing education initiatives help develop the skills of tomorrow and encourage internal mobility (see p.19). A biennial interview enables employees to evaluate their own skills and identify skills they need to develop. It also provides an opportunity to discuss the employee's goals for growth, retraining, and continuing education.

Between 2015 and 2017, 25 employees were able to move on in this manner to a different position within Genève Aéroport (excluding promotions).

If internal promotions are added to these transfers, more than one quarter of 2017 hires to long-term positions was through internal hires. Where a health problem is the reason for an internal transfer, the close partnership developed with the Disability Insurance Office is of tremendous help. This is a continuing process, and many employees have benefited from it to date.



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# → IN FOCUS

## ENCOURAGING INTERNAL PROFESSIONAL RETRAINING

Whether by necessity or by choice, Genève Aéroport strongly supports professional retraining. The diversity of job descriptions, combined with the fact that many positions require mandatory initial training provided by the company, are two factors that make changing jobs possible. Many employees find that their career paths within the company are not only preserved but actually enriched, as illustrated by the experience of Antony L., an employee in the Security Department's Administration and Support Office.



Marchandekum

### WHAT PROMPTED YOU TO JOIN GENÈVE AÉROPORT?

**Antony L.:** Initially, I planned on a career with the Police. I joined Genève Aéroport in 2007 as a Travel Facilitation Agent during charter season. My employment agreement was then extended and I became a security agent. I was young, and I thought that a first experience in the security sector would be an asset when I later took the police force entrance examination.

### HOW DID IT GO WHEN YOU FIRST STARTED AT THE SECURITY DEPARTMENT?

**Antony L.:** First of all, I discovered the fascinating and dynamic world of the airport. And then I ended up facing a health problem that not only questioned my plan to join the police force, but also made it impossible for me to pursue a career in security. All of a sudden, I had to find a plan B, and I was able to do an observational internship in Runway Office. Thanks to the seamless partnership between Genève Aéroport's Human Resources Department and the Disability Insurance Office, I opted to take the heavy vehicle driving licence in order to become a runway agent. The perspective gained in learning a new profession cheered me greatly. However, my health problems returned, and I was no longer able to be a bus driver.

### HOW DID YOUR PROFESSIONAL RETRAINING COME ABOUT?

**Antony L.:** Through the support of the Disability Insurance Office, I began an 18-month business training course for high-school graduates while I was still under contract with Genève Aéroport. I was lucky to be able to do a seven-month internship in the Finance Department, working with each of the offices, which allowed me to work towards my diploma and pass it. When my benefits expired, my agreement was terminated. But I didn't lose hope – and only a few weeks later, a short-term position opened up in the Passes Office (*Service des Laissez-passer*), where I had worked during my internship. I got the job, due to my diploma, my excellent integration, and my flexibility. Sometime later came the icing on the cake – the position became a permanent one. I've now been at Genève Aéroport for 10 years, and I am continuing to build my career path day by day.

## EMPLOYEE MOVEMENTS IN NUMBERS



8  
INTERNAL  
PROMOTIONS



15  
INTERNAL  
TRANSFERS



6.7%  
TURNOVER  
RATE



## 5 GENDER EQUALITY



Gender equality in training and in the workplace, as well as the principle of equal pay, are codified in the Swiss Constitution. Yet women in Switzerland earn an average of 15% less than men. Genève Aéroport guarantees equal pay for its employees, requires it from its suppliers, and advocates for work-life balance through one of its core values : wellbeing.

### Links to other Sustainable Development Goals

8 DECENT WORK AND ECONOMIC GROWTH

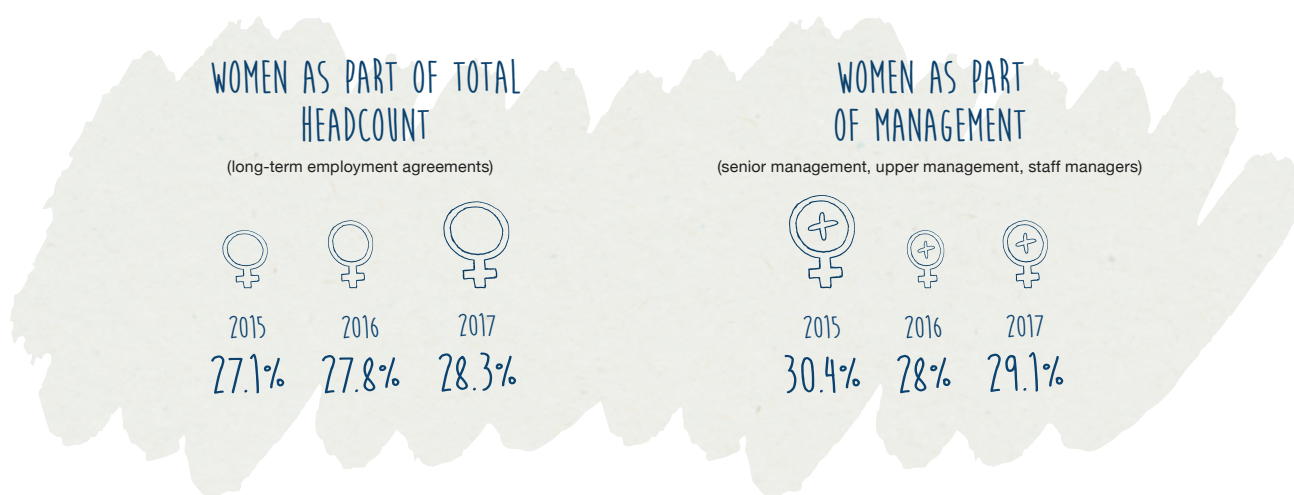


12 RESPONSIBLE CONSUMPTION AND PRODUCTION



GENÈVE  
AÉROPORT

## PROMOTING DIVERSE TEAMS AND ENCOURAGING WORK-LIFE BALANCE



Genève Aéroport has more than 200 different types of positions, a significant percentage of which are in technical and operational areas. While a large share of these positions are traditionally male – which is why men currently represent approximately 70% of total headcount – women are present at all hierarchical levels and in all of the company's departments. Genève Aéroport actively works towards balance and diversity in its teams, seeking not only gender balance but also a variety of career paths and skills.

While the ratio of women to men has remained relatively stable in recent years, Genève Aéroport's total headcount has kept growing, and the number of women hired has proportionately increased. Fifty-nine women have been hired with long-term employment agreements since 2014, bringing the number of women employees to 282. In 2017, senior management gained

one woman, bringing the number of women to two out of seven members. Current salary policy guarantees equal pay for equal work, to the extent that the employees' skills are also equal.

### PROTECTION OF MATERNAL RIGHTS AND WORK LIFE BALANCE

In line with the Friendly Work Space label awarded by Promotion Santé Suisse ("Promoting Swiss Health"), which Genève Aéroport received again in 2017, the company issued a directive last year on the protection of pregnant and breastfeeding women. In light of the significant number of positions that involve irregular working hours or other constraints, a job analysis by the Safety Office is immediately triggered when a woman announces her pregnancy. Where needed, this is followed by an interview with the workplace physician in charge of modifying the job description and proposing measures to ensure that the employee's work is compatible

with her health throughout that period.

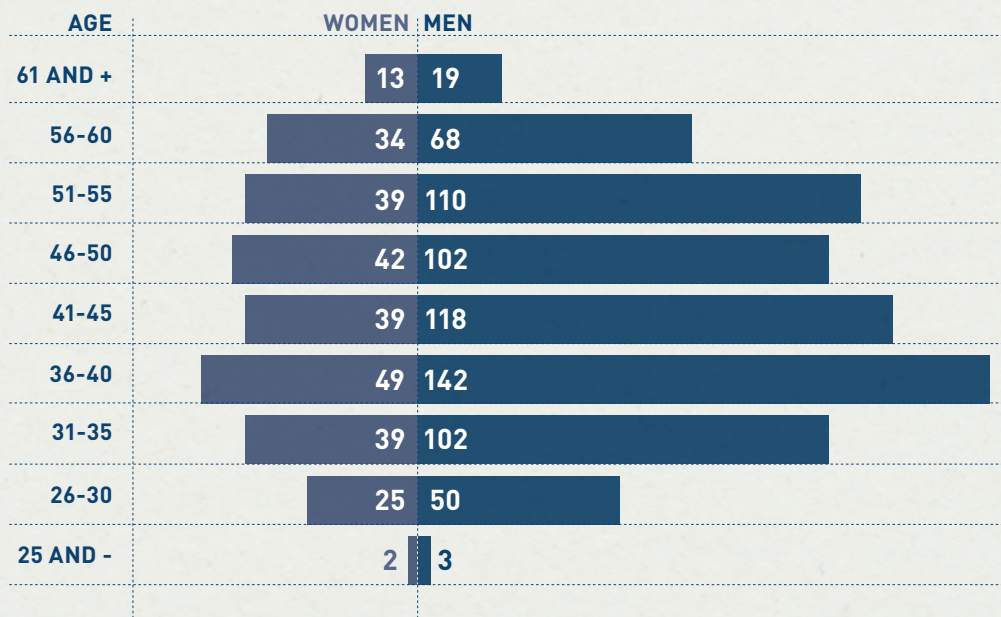
Women who wish to breastfeed upon their return from maternity leave have access to a breastfeeding room located on the Terminal 1 mezzanine. This space is designed and equipped for mothers and their babies. Time spent breastfeeding or expressing milk is considered working time, within the limits of allocated time.

Genève Aéroport also has a policy of encouraging part-time work – applicable to men and women equally – to the extent compatible with the proper functioning of the department. Women are the principal beneficiaries of this policy, representing 74% of part-time employees.

Paternity leave provides fathers with five days off, which can be combined, if desired, with an additional 10-day unpaid leave.



## → DISTRIBUTION MEN-WOMEN



Finally, in an effort to provide further work flexibility, Genève Aéroport decided in 2015 to allow employees to occasionally work from home. In 2017, 3,854 hours were worked from home, that is three times more than in 2015, which avoided close to 600 commutes.

### RESPECT FOR GENDER EQUALITY BY OUR SUPPLIERS

Genève Aéroport requires its contrac-

ting parties to respect the principle of equal treatment of men and women. All suppliers and their respective partners and subcontractors must formally commit to respect this principle. This condition promotes gender equality, helps prevent discrimination, and places all suppliers on an equal footing in this regard.

Genève Aéroport reserves the right to

audit its suppliers to verify the effective implementation of the principle of equality, in particular with regard to equal pay. In case of breach of applicable provisions, it may impose penalties under cantonal law, such as exclusion from an ongoing call for tenders, revocation of an awarded contract, an administrative fine, or even exclusion of a specific supplier from any call for tenders for a defined period.







## 3 GOOD HEALTH AND WELL-BEING



Employee health and operational safety are bedrocks of the airport platform's operations. Without effective infrastructure and healthy employees, we cannot offer passengers high-quality, reliable, and safe services. Genève Aéroport promotes a culture of safety and engages all of its partners in the process. The airport works to minimise noise pollution and impacts on local air quality for the region's residents (see p.31). The platform accommodates the Geneva University Hospitals helicopter and enables the International Committee of the Red Cross to send emergency supplies to conflict zones.

*Links to other Sustainable Development Goals*



## GUARANTEEING OPERATIONAL SAFETY



The Safety Office strives daily to improve operational safety. In December 2016, the airport infrastructure was certified compliant with the standards of the European Aviation Safety Agency (EASA). Any potential changes within the airport are subject to risk assessment to ensure compliance with applicable standards.

### OPERATIONAL SAFETY IS EVERYBODY'S BUSINESS

There have been no serious aircraft accidents for the past several years. This demonstrates the effectiveness of the on-going improvement process implemented by the Safety Office. All safety-related incidents occurring on the tarmac are reported through our reporting system, which also encourages submitting ideas for improvements. The system is accessible to all platform participants.

In 2017, platform users filed 701 reports through a dedicated web-based tool, an increase of approximately 13% from 2016. This shows user confidence in the

system and an ever-increasing determination to improve safety. In 2017, the Safety Office conducted several informational campaigns and presentations of the web-based tool for the platform's partners.

Incursions in protected runway areas are defined as incidents in which an aircraft, a vehicle, or a person is present on the runway without prior authorisation by air traffic control. Such events are serious threats to operational safety, creating a risk of collision with an aircraft on the runway, which may cause casualties.

Over the past several years, fortunately, runway incursions have not resulted in any accidents. A targeted safety committee including several partners works to ensure operational safety and compliance with applicable standards in that regard.



### TARMAC SAFETY CAMPAIGNS

We took actions to raise awareness in 2017, such as Stop FOD and the FOD Walk (see p.26), to inform people of the risks caused by foreign objects on the tarmac.

The same year, 59 people received eye examinations, conducted in partnership with Visilab. In 2018, the "Hands on the Wheel, Eyes on the Planes" campaign, in partnership with the Swiss Accident Prevention Bureau and the Swiss Touring Club, educated its 480 participants about the priority due to airplanes.



## → IN FOCUS

### THE FOD WALK !

Foreign object debris, or “FOD,” is a source of hazard for both airplanes and ground crews. Debris can be pulled into the reactors and may cause major damage to aircrafts or be projected at high speeds. Safety Manager Patricia Fellay and Safety Expert Aurélie Paquet tell us about the first FOD Walk.



#### WHAT IS FOD?

**Patricia Fellay:** FOD refers to the various types of debris from airport activities that can be found within the movement area. It includes worksite debris, airplane parts, airport machinery parts, pieces of pavement from deteriorating runways and tarmac, natural items, and personal and professional equipment. Specific rubbish bins are distributed around the tarmac in order to collect and analyse FODs. We have also instituted a procedure to enable employees who have lost personal or professional equipment to rapidly contact the airport authority to trigger a search of the runway.

#### WHAT IS THE IDEA BEHIND THE FOD WALK?

**Aurélie Paquet:** The idea is to raise awareness, in a playful way, of the operational dangers caused by FODs. We organised our first FOD Walk in September 2017. Some 40 participants equipped with earplugs, gloves, pliers, brushes, and rubbish bags set out to collect debris within a predefined zone.

#### WHAT WAS THE TOTAL COLLECTED AT THIS FIRST EVENT?

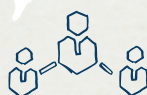
**Aurélie Paquet:** We collected 16 kg of debris in one afternoon, including bird remains. SR Technics company explained the possible consequences of FOD-ingestion by an airplane to the participants. A FOD truck with information panels was also present. Members of the Federal Civil Aviation Office also participated in this initiative.



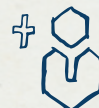
### 2017 FOD WALK IN NUMBERS



16  
KG OF FOD  
COLLECTED

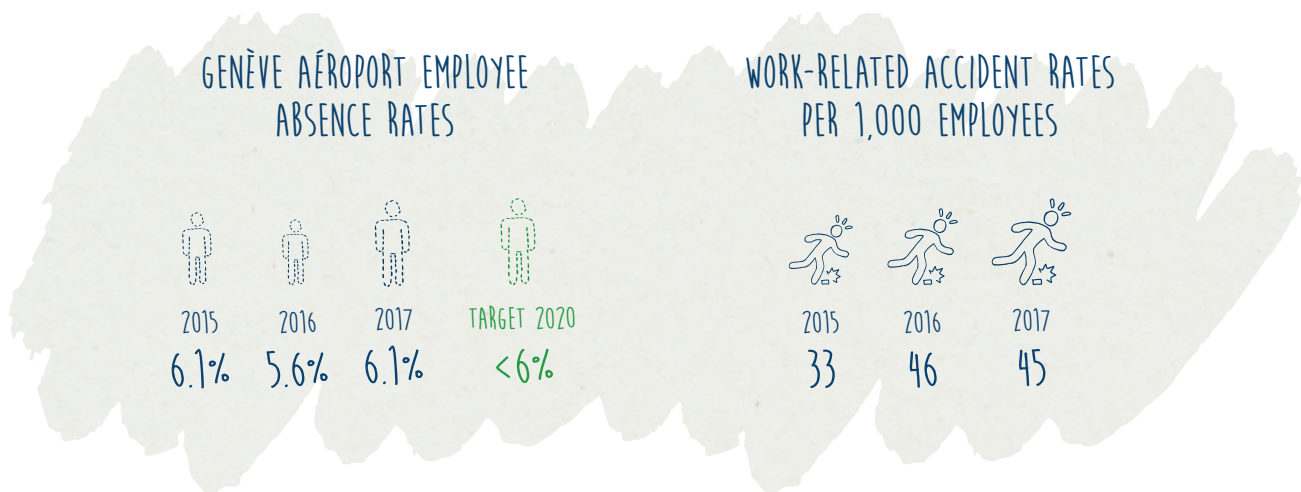


24  
BUSINESSES  
REPRESENTED



40  
PARTICIPANTS DURING  
THE AFTERNOON

## PROMOTING EMPLOYEE HEALTH AND WELLBEING



Genève Aéroport's proactive policy for the promotion of employee health, wellbeing, and safety has been rewarded since 2013 with the Friendly Work Space Label awarded by Promotion Santé Suisse. Numerous training sessions and awareness campaigns have been conducted to promote employee wellbeing, reduce the number of accidents, and lower absence rates.

### REDUCING ACCIDENT AND ABSENCE RATES

The absence rate is an indicator of employee health and wellbeing. Our objective is to maintain an annual rate below 6%. In 2017, there was a slight increase in this rate, to 6.1%. Illness accounts for 80% of total absences, due primarily to an increase in the number of chronic illnesses, with the rest due to accidents.

The total number of work-related and non-work-related accidents on the platform increased slightly (2%) from

### STRESS MANAGEMENT AND BURN-OUT PREVENTION

The third season of the "I Feel Good" prevention campaign, under the themes of wellbeing and relaxation, was successfully held in 2017 (see summary, p.29). 80% of employees at the management level received training on the subject of "Stress – No Stress" in 2017, and more than 89% of managers were trained to manage addictions and problematic substance use. Ninety per cent received training on burn-out between 2017 and 2018. From now through year-end, we will conduct a programme to raise awareness regarding the proper use of social networks and email, in which any employee may enroll.

2016 to 2017. The number of Genève Aéroport employees increased 4% over the same period: proportionately, therefore, there have been fewer accidents per capita. The rate of work-related accidents per full-time worker is lower than the industry average, but higher than the level of nonwork-related accidents.

Non work-related accidents are primarily related to sports activities and falls. Work-related accidents consist

essentially of collisions and slip-and-falls. The decrease in the number of workers' compensation days demonstrates a decrease in the seriousness of all types of accidents.



43  
WORK-RELATED ACCIDENTS



194  
NON WORK-RELATED ACCIDENTS



## X-RAY MACHINES THAT DO NOT HARM HUMAN HEALTH

Genève Aéroport operates more than 60 X-ray machines to examine both checked and carry-on baggage. These machines emit electromagnetic waves with short wavelengths. Their operation requires regular audits by the Safety Office and SUVA (the Swiss National Accident Insurance Fund) once every three years. The most recent machine measurements (2017) found that levels of exposure to ionising radiation are well below regulatory limits. One would have to work 3,333 hours per year 10 centimetres away from an X-ray machine to reach the limit for exposure to this type of radiation (20 mSv). This campaign served to raise awareness among employees who work with these machines.



17 PARTNERSHIPS  
FOR THE GOALS



## SUVA'S 100<sup>TH</sup> ANNIVERSARY

Suva has been a historic partner of Genève Aéroport. Preventing work-related accidents and ensuring employee safety are shared goals. On 17 April 2018, Suva chose to celebrate its 100th anniversary at the airport – a sign of our sustained collaboration.



# → IN FOCUS

## THE OUTCOME OF THE “I FEEL GOOD !” CAMPAIGN

The third season of the “I Feel Good” campaign took place in 2017, focusing on stress management and wellbeing in the workplace. With a satisfaction rate of over 75% and an achieved objective of more than 66% of employees reached, this season was a success. Feedback from Ellyn Reeve, Assistant to the Head of the Security Department and José Calvelo, safety engineer in charge of people and buildings.



### HOW WOULD YOU DESCRIBE THESE THREE YEARS OF THE “I FEEL GOOD” CAMPAIGN?

**Ellyn Reeve :** This is a fantastic initiative to help people take care of their health, both at work and in their daily lives! Many activities open to all employees have been offered over the last three years. Since 2015, for example, we offered baskets of locally grown fruits and vegetables, yoga classes, massage sessions, and advice from ergonomics experts to help people find the best positions to sit in at their workstations. We were even able to make suggestions through a dedicated email address, which made the experience participatory.

### WHAT STANDS OUT IN YOUR MIND?

**Ellyn Reeve :** We participated as a team in the Global Challenge organised by Virgin Pulse. This was a 100-day challenge in which teams of six to eight people competed to take the highest number of steps. We were provided with pedometers, and were able to measure our performance as a team and individually through a dedicated fun web interface. That motivated us, for example, to take the stairs rather than the lift, helping us stay in shape. Being able to compare ourselves with other teams internationally is very motivating!

### WHAT ARE THE RESULTS OF “I FEEL GOOD” AFTER THREE YEARS?

**José Calvelo :** The last campaign held since 2015 allowed us to usher into a company culture based on safety, health, and wellbeing in the workplace. There is true recognition from the institutions that helped us, such as SUVA, the BPA, and several large Romand businesses. We will shortly be launching Volume II of this program, while continuing the massage and yoga sessions, which were a big hit during the last season. Good physical and mental health make people feel better in their bodies, which contributes to overall wellbeing at work.



## THE 2017 “I FEEL GOOD !” CAMPAIGN IN NUMBERS



39  
SPECIFIC WORKSHOPS



78  
YOGA CLASSES



706  
PARTICIPATIONS  
IN ACTIVITIES



92'000  
CHF INVESTED



75%  
OF SATISFACTION



## 11 SUSTAINABLE CITIES AND COMMUNITIES

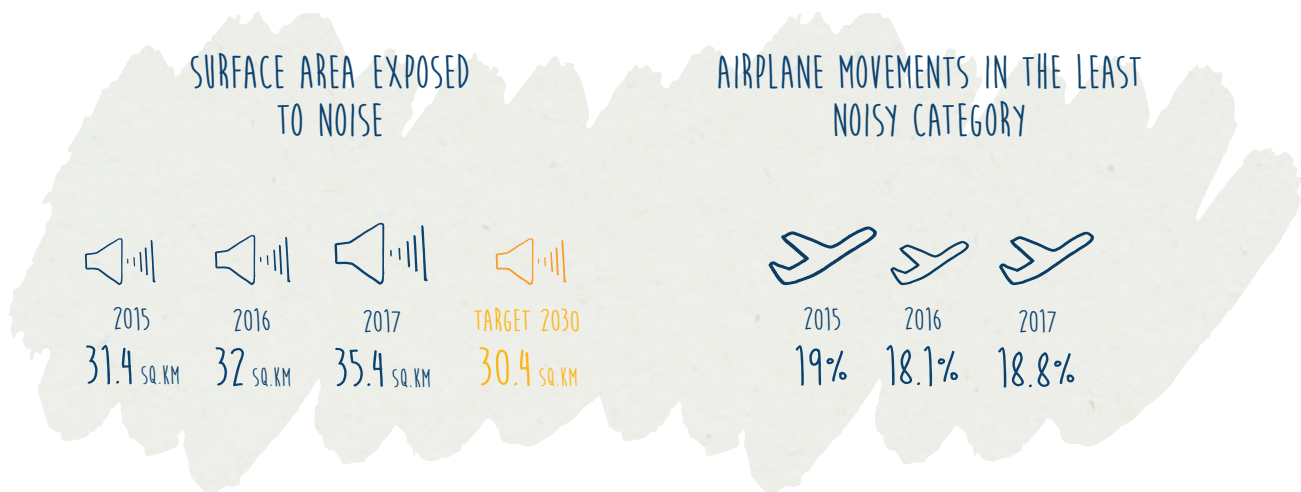


More than 80% of Switzerland's jobs and 84% of its economic wealth are now concentrated in its urban centres. Geneva's airport is a significant participant in creating the region's wealth (see p. 13). However, the airport's proximity to the city also represents a source of nuisances, including noise, air pollution, and traffic on the main roads. The platform's operations must consider not only the interests of users, but also those of local residents. For this reason, the Sectoral Aviation Infrastructure Plan (SAIP), soon to be finalised, will provide a framework for the development of air traffic in Geneva that strives to take the interests of all stakeholders into account.

### Links to the other Sustainable Development Goals



## LIMITING NOISE POLLUTION FOR LOCAL RESIDENTS



Together with the airlines and air navigation service providers, Genève Aéroport is implementing numerous measures to limit the impact of air traffic on local residents, especially noise pollution.

Genève Aéroport incentivises airlines flying into and out of Geneva to use the most modern and least noisy airplanes through landing charges, and a specific noise charge for take-offs after 22:00.

The amounts of the fees are related to the performance of the airplanes, which are divided into five noise categories. In 2017, 18.8% of airplanes were in the least noisy category. Moreover, the airport has made a strong commitment to limit noise in the coming years and, over time, to reduce the noise footprint from air traffic.

Genève Aéroport thus reconciles the Confederation's aviation policy goals



### MORE MODERN, QUIETER, AND CLEANER AIRPLANES

In 2017, Swiss International Airlines began to renew its fleet in Geneva, with Bombardier CS-300 aircrafts. By the end of 2018, its short-haul fleet will consist entirely of these airplanes, whose engines have been determined to be 50% quieter and 20% more fuel-efficient. The easyJet airline is also progressively replacing its Geneva fleet with Airbus 320neo aircrafts.

These engines reduce CO2 emissions by 15% as compared with the A320, and by 21% as compared with the A319. They are also 50% quieter than the A320. With respect to long-haul flights, Etihad Airways is now operating the Geneva-Abu Dhabi line with a Boeing Dreamliner B787, which is both more modern and quieter than the Airbus A330, and Qatar Airways is operating the route to Doha with a newest-generation Airbus A350. Since 2018, most passengers flying Ethiopian Airlines to Addis Ababa have boarded a Boeing Dreamliner B787.

and the constraints of environmental and land-use law. A balance has been found between the airport's develop-

ment and the canton's land-use planning.



## LIMITING NOISE

The noise footprint of air traffic is represented by noise contour maps showing noise exposure superimposed over a map of the affected area. Noise exposure contours are calculated in accordance with Swiss law and represent real air traffic over the previous year at different times of day.

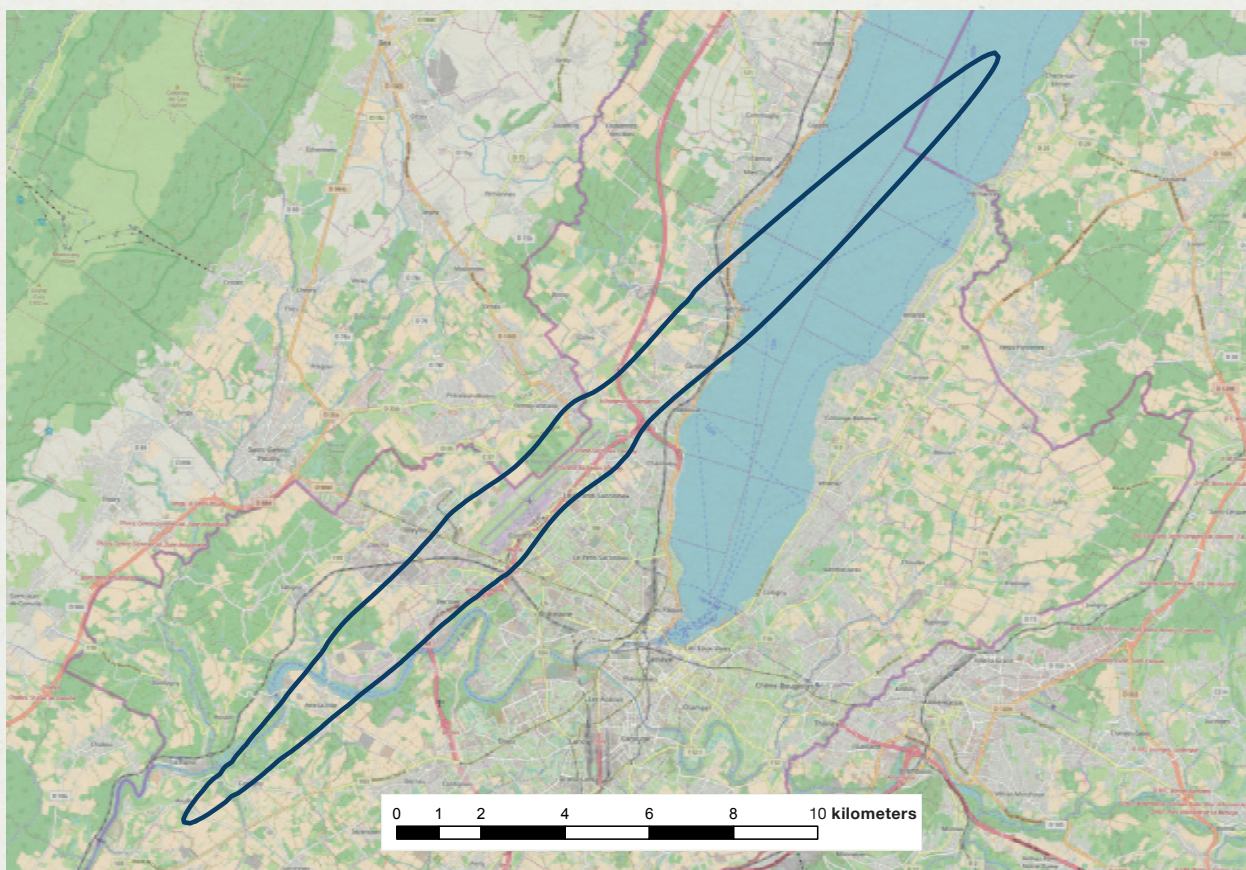
Night flights are weighted heavily in the calculations, to reflect the increased nuisance represented by airplane movements late in the evening.

The size of the noise contour has grown in recent years due to the increase in night movements. The airport's commitment under the SAIP to limiting noise beginning in 2019 represents a reversal of that trend. A first set of measures is being examined and their implementation is being planned. These measures include efficiently managing delays after 22:00, setting acoustical performance criteria for long-haul airplanes that operate after 22:00 and, more generally, incentivising the airlines to operate latest-generation airplanes.

The airlines, which are the most important players in the expected evolution, are fully involved and participating in the effort.

Genève Aéroport is working to raise operators' awareness about the airport's urban environment, including during discussions prior to opening a new route and in negotiations with airlines regarding their airport charges. The problem of noise pollution impact from air traffic on local residents is included in the discussions.

### → 2017 NOISE CONTOUR MAP



— Noise wrapping curve (VLI DSII)

## CONTROLLING NIGHT MOVEMENTS

For movements after 22:00, Genève Aéroport is working to find the best possible balance between the airlines' requirements and the legitimate concerns of local residents. The airlines are aware that they should carefully schedule their late-evening flights. Although flights may be legally scheduled up to midnight, airlines have been asked not to request any departures after 22:00, unless there is a compelling reason. This restriction was extended to general aviation in 2017. Specifically, there are no longer any departures scheduled after 22:00. Night movements are essentially landings (82%), and most of these (71%) occur before 23:00. They represent 5.6% of the total number of movements.

↑ 10'387   
NIGHT MOVEMENTS

↑ 5.6%   
OF TOTAL MOVEMENT

Despite these restrictions, the number of night movements has increased (10,387 movements in 2017), which increases the size of the contour map. For that reason, the airport is now

planning targeted actions to reduce the number of movements scheduled for earlier than 22:00 but delayed beyond that time. There are many causes of delay, which are attributable to several participants in the air transport chain. The measures to be implemented therefore involve a substantial coordination effort, which Genève Aéroport has undertaken with its partners.

## COMPLAINTS OF VARIOUS KINDS

Each year, Genève Aéroport receives requests and complaints relating to airplane movements and platform activities from residents who live near the airport or are bothered by airplanes flying overhead. Most questions concern the passage of airplanes as they take off or land at the Geneva airport, or are in transit over the canton from or towards another airport, such as the Annemasse airport in Haute-Savoie. The slight increase in the number of these complaints is in part due to comments and reactions triggered by the information process in which local residents participated as part of drafting the SAIP (see p.8).

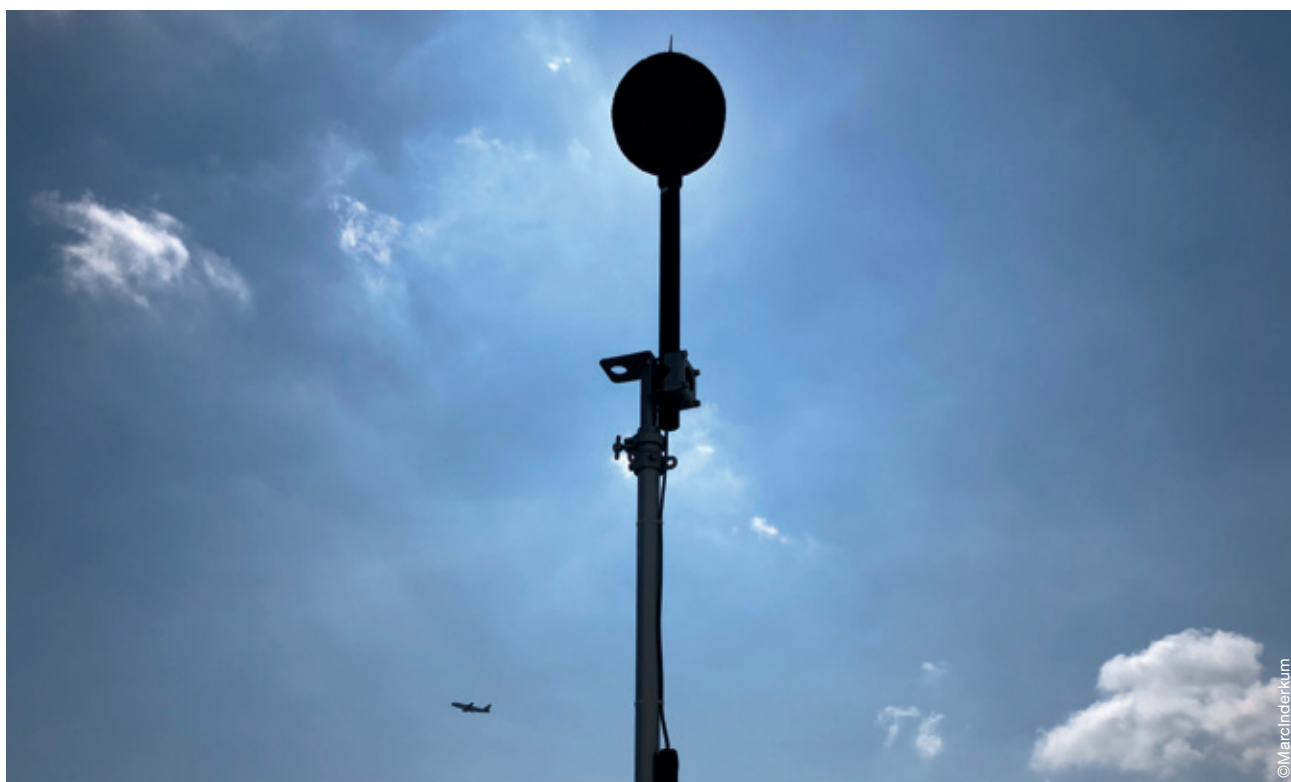
Requests and complaints may be divided into several categories. More than half of the requests relate to a specific movement that seems unusual to the observer, who complains or requests an explanation. About one-quarter of

complaints relate to flight paths: the complainant believes that the paths have changed, that the height of passage is different, or that more planes are following a given flight path. In less than 10% of cases, people complain about the noise caused by operations or work performed on the platform, especially at night. Other requests are more general in nature, relating to operational hours and rules, homes' sound proofing programmes, delays, or the impact of air traffic noise on land-use planning.

Since late 2016, a new information tool has been available on the Genève Aéroport website – a digital platform providing information about air traffic noise. This interactive platform allows the user to view and obtain quantitative information relating in particular to the noise caused by airplanes passing over the area.

↑ 142   
REQUESTS AND COMPLAINTS

↑ 79   
INDIVIDUALS FILING REQUESTS/  
COMPLAINTS



Airplane noise measuring system operated by Genève Aéroport



# → IN FOCUS

## VERY LATE MOVEMENTS: FEW EXCEPTIONS ARE GRANTED

Airline traffic is authorised until 23:59. Scheduled flights that have been delayed are authorised to operate until 00:29. Beyond that time, flights may be authorised under exceptional unforeseen circumstances. In 2017, two exceptions of this kind were granted. José-Daniel Rodríguez, from the Airport Operations Coordination Office, explains how such a decision is made.



### WHO MAKES THE DECISION TO GRANT OR DENY AUTHORISATION FOR AN AIRPLANE TO ENGAGE IN MOVEMENT OUTSIDE OF THE REGULATORY HOURS OF OPERATION?

**José-Daniel Rodríguez:** Legal authority lies with the Director of Operations, who delegates it to the Airport Duty Manager (ADM) in charge of overall airport operations during both standard and problematic circumstances. The ADM examines the operational advantages and disadvantages of agreeing or refusing on a case-by-case basis.

### IN WHAT SITUATIONS ARE MOVEMENTS AFTER 00:29 AUTHORISED?

**José-Daniel Rodríguez:** Very rarely. The goal is to find solutions earlier in order to prevent these situations from occur-

ring in the first place. Certain flights are very sensitive and are beyond local control. These include diplomatic and medical flights. For commercial flights, the ADM considers whether the circumstances are unusual enough to justify departing from the rule. The ADM has a wide range of discretion and includes local residents' requirements in the analysis.

### CAN YOU GIVE AN EXAMPLE?

**José-Daniel Rodríguez:** In October 2017, the tires of a small airplane burst upon landing. The runway was closed for the time necessary to handle the problem. Eleven flights were diverted to their alternate airport, six flights departing from Geneva were cancelled, and massive delays took place until the end of the evening. In addition to the delayed flights operating between 00:00 and 00:29, two exceptions were granted in the following half-hour. A final plane seeking to land after 1:00 a.m. was refused and diverted to the Lyon Saint-Exupéry airport. Exceptions are useful to avoid congestion in the main terminal, which could have otherwise created an unacceptable security situation.

### HOW DO YOU SEE THE ROLE OF THE ADM WITH RESPECT TO SUSTAINABLE DEVELOPMENT?

**José-Daniel Rodríguez:** If we want sustainable development to succeed at our company, we must take concrete action through our day-to-day decisions concerning the platform. The values stemming from it must also be passed on to our partners through the example we set. The ADM is bringing all his weight to bear to ensure that local residents will not hear any airplanes in the sky after 00:29. However, it is also important to acknowledge the irregularities that may have disturbed traffic during the day and to steer our platform in an on-going and sustainable way. Although these cases are increasingly rare due to proactive management and the collaborative approach between the entities within the Airport Operations Centre (APOC), it is our duty to grant exceptions to the rule as provided for by law. With perspicacity, transparency, and care.

## VERY LATE MOVEMENTS IN NUMBERS



2

EXCEPTIONS GRANTED  
BY GENÈVE AÉROPORT



57

AIRPLANE MOVEMENTS AFTER  
00:29 (EMERGENCY FLIGHTS,  
DIPLOMATIC FLIGHTS, ETC.)

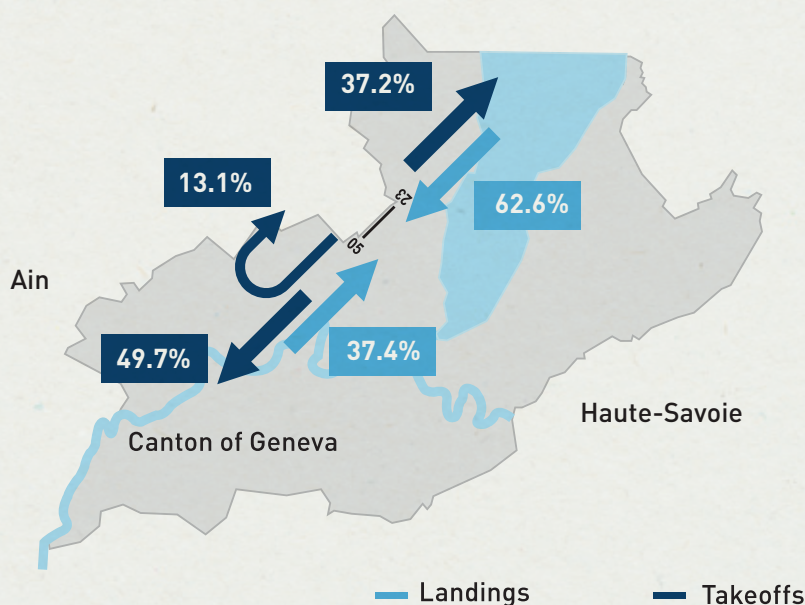


7

COMPANIES AND  
ENTITIES WORK AT  
THE APOC

## DIRECTION OF RUNWAY USAGE : THE RULES

At an airport with a single runway, the runway in use<sup>1</sup> is runway 23 (landings from the east, take-offs to the west), or runway 05 (landings from the west, take-offs to the east). The runway in use (23 or 5) is determined first based on the direction of winds on the ground. The basic rule is as follows: when the wind is calm (less than three knots) or from the southwest, runway 23 is used. When the wind is from the northwest, airplanes operate on runway 05. The direction and force of the wind at higher altitudes are also taken into consideration, as are specific meteorological situations. Skyguide decides in which direction the runway should be used, based on the information referred to above and in the interest of aircraft safety and traffic flow. Given the above-mentioned criteria, runway 23 is used slightly more often than runway 5, as an annual average (60/40%).



## LATE EVENING OPPOSITE DIRECTION LANDING RESTRICTION

When late evening traffic is light and wind conditions permit, it is common practice at all airports to grant permissions to pilots on a case-by-case basis to land opposite the usual runway direction.

This practice can shorten flight time without any negative impact on safety. Since 2016, the airport has been testing a measure to avoid permitting reverse-direction landings in the late evening (subject to exceptions) to prevent airplanes from flying over communes that are not on the landing path on the said evening.

The impact of this measure is currently being assessed. From the standpoint of operators, the length of the flight is increased, but implementing this new practice does not cause any technical or operational harm. A comprehensive review, in cooperation with local residents, will determine whether the measure should be made permanent.

## 17 PARTNERSHIPS FOR THE GOALS



## AIRPLANE APPROACH OVER THE LAKE

Arriving airplanes are aligned with their landing path well in advance (runway 23 or 05). It is the responsibility of the air traffic controllers to ensure that traffic moves smoothly, maintaining sufficient space between aircrafts as they approach on this path.

The controllers give instructions to pilots to join the runway path at several different points so that the planes approach in sequence. Various parameters are used in managing this process, including where the airplanes are coming from, the land configuration, the aircraft's performance, and current meteorological conditions. Considerations relating to the protection of local residents are also factored in. Near the runway, the margin for manoeuvre is limited. At higher altitudes, the configuration of flight paths also limits the possibilities. However, where possible in light of operational constraints, Genève Aéroport works with Skyguide to make improvements on a case-by-case basis.

For example, with respect to the approach of airplanes on runway 23, a procedure was very slightly modified to limit flights over a portion of land on the left bank of the lake by airplanes turning to approach the landing path from the south. Information that appears on the controllers' radar screens enables them to instruct pilots to turn their airplanes and align themselves with the approach off the coast of Excenevex rather than over land. This is a small adjustment made possible by the configuration of the site and traffic in this portion of the airspace, as well as cooperation between the Swiss and French authorities.

<sup>1</sup>Since 13 September 2018, the runway is called 04-22 as opposed to 05-23 previously



## OPERATION OF THE NEW NOISE ABATEMENT HANGAR

The new noise abatement hangar has been operating since 2016 and has proven its worth. Noise from engine testing has been lowered by more than 20 decibels, or close to 100 times, as compared with testing conducted outdoors. In 2017, 417 engine tests with power were conducted at the platform, including 316 in the new noise abatement hangar and 71 in the small abatement hangar on the northern area. Only 7% of engine tests with power (30 tests) were carried out outdoors, for technical or operational reasons (such as the size of the aircraft or the unavailability of the noise abatement facility). When the noise abatement hangar commenced operations, the airport coordinated closely with maintenance companies to ensure optimum use.

After the facility had been in use for about a year, a meeting was held at which users shared their experience, and instructions for its use were adjusted. Engine testing in the noise abatement hangar did not lead to any complaints from neighbours. All complaints have related to engine testing outside of the facility.



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## HOUSING SOUNDPROOFING PROGRAMME

Launched in 2003, the housing soundproofing programme in communities located close to the airport had reached more than 3,600 homes as of the end of 2017, for a total cost of CHF 55 million, including CHF 6.6 million allocated to the

3'663   
HOMES SOUNDPROOFED BETWEEN 2004 AND 2017

55   
MILLION ALLOCATED TO SOUNDPROOF HOMES

soundproofing programme in nearby French municipalities (769 homes soundproofed in the town of Ferney-Voltaire). In September 2017, the Federal Office of Civil Aviation approved a new soundproofing concept, under which the work accomplished thus far will be continued. A ten-year timetable was agreed upon for the soundproofing of more than 3,000 homes near the airport, representing an investment of several tens of

millions of Swiss francs. While the airport invests the necessary resources and means to oversee the work, the airlines bear the expense through airport charges that are specifically allocated to noise protection measures, which were recently increased as a result.

To ensure the programme's efficiency and quality, Genève Aéroport hired people internally to oversee the project. Four technicians with experience in building construction and management oversee the projects in their totality. They liaise with property owners and carry out technical studies and systematic asbes-

tos testing. They draft agreements with property owners, review the bids of service providers, verify the acoustic compliance of the work once complete, and give advice to property owners who sometimes lack construction experience.

For logistical reasons including the availability of contractors, work sites may not all be open at the same time. The order of priority is determined based on the noise exposure of the relevant areas, though it should be noted that those areas where the noise level is the highest have all already been soundproofed.



## PROMOTING SUSTAINABLE MOBILITY AND IMPROVING THE PLATFORM'S ACCESSIBILITY

### SUSTAINABLE MODAL SHARE EMPLOYEES

(Public transport, shuttles, trains, bicycles, walking, carpooling (50%))



2014

34%



2017

38%

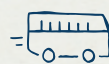


TARGET 2020

45%

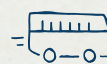
### SUSTAINABLE MODAL SHARE PASSENGERS

(Public transport, buses, shuttles, trains)



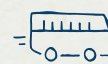
2015

46%



2016

47%



2017

42%



TARGET 2020

45%

The airport's accessibility is essential to its functioning, its attractiveness, and its development. The increasing number of passengers, the platform's property constraints, the urban development of the area, and the determination of Genève Aéroport to become increasingly environmentally friendly are all reasons for developing sustainable mobility and increasing the use of public transportation by passengers and employees. Genève Aéroport maintains an on-going dialogue with stakeholders, the canton, municipalities, and transportation service providers to improve service to the site (in terms of types of transportation, capacity, and infrastructure) by public transportation and soft mobility. It is developing plans to incentivise sustainable transportation use by passengers and staff.

### PROMOTING SUSTAINABLE MOBILITY

The measures that the airport has taken through the mobility plan – shutt-

les for airport staff working irregular hours (see interview), incentives for carpooling, and partial financing of public transportation season ticket costs – have led to an increase in the percentage of employees using sustainable modes of transportation.

Following several years of consistent increases in the share of passengers using public transportation, that share decreased in 2017, due in part to the increase in the number of travellers coming from areas with poor public transportation (especially in France).

In 2017, Genève Aéroport offered more than one million public transportation tickets to travellers landing in Geneva. This was more than a 10% increase as compared with 2015, for a total price of more than one million Swiss francs. Each day, nearly 2,800 tickets are dispensed by the ticket machine located in the baggage collection area.

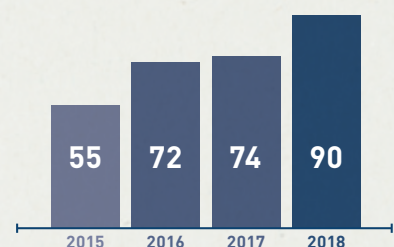


### PARTICIPATION IN BIKE TO WORK


Airport employee participation in the national bike-to-work campaign increases each year.

**2018, they rode 22,289 kilometres on bicycles.**

→ Number of Genève Aéroport's participants to bike to work





↑ 1'019'000  **TICKET**  
PUBLIC TRANSPORTATION TICKETS GIVEN  
TO ARRIVING PASSENGERS BY GENÈVE AÉROPORT

↑ 1'466   
EMPLOYEES RECEIVING FINANCIAL SUPPORT  
FROM GENÈVE AÉROPORT TO USE  
SUSTAINABLE MOBILITY

↑ 61'690   
USERS OF THE AIRPORT STAFF SHUTTLE SERVICE



©Thierry Parel/tpg

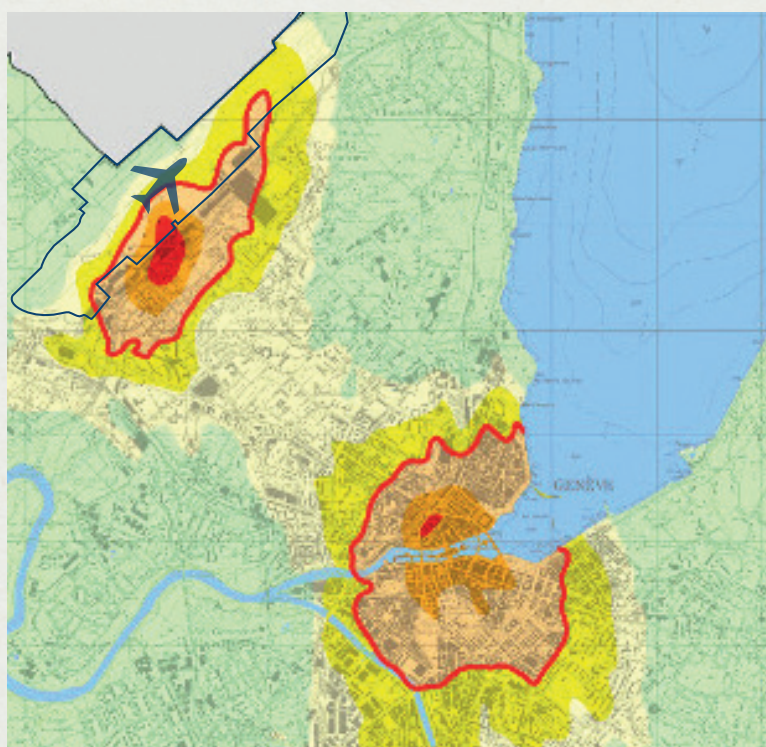
#### LOCAL AIR QUALITY

Nitrogen oxide (NO<sub>2</sub>) emissions by the airport increased by approximately 4% between 2016 and 2017. They have varying impact on the local municipalities of Grand-Saconnex, Vernier, and Ferney-Voltaire. These emissions should decrease over the next few

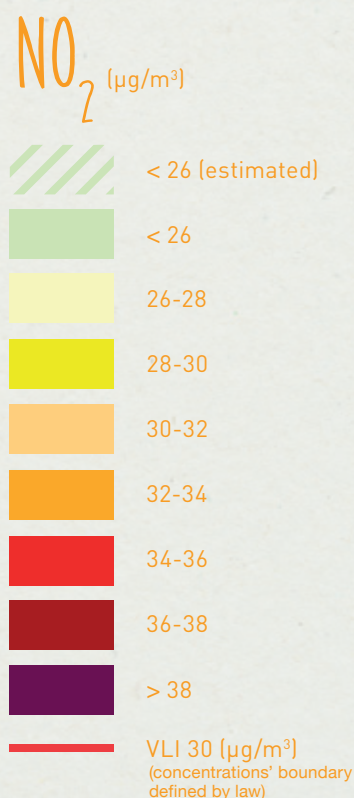
years with the renewal of the aircraft fleet, the increasing share of electrical vehicles on the tarmac (see p.49) and the planned shutdown of the airport's thermal power plant. With respect to fine particles, simulations show that the effect of the airport's emissions is essentially limited to its property bound-

daries. New equipment to measure very fine particulates (2.5 ppm) will be installed in late 2018 to survey emissions in the runway area. As with the current equipment, the data will be analysed by the cantonal authorities to ensure compliance with air quality regulation.

#### → MAP OF NO<sub>2</sub> EMISSIONS\*



\*Annual average 2017



<http://ge.ch/air/qualite-de-lair/cadastre-du-no2>



## DEVELOPING THE PLATFORM'S ACCESSIBILITY

Road access to the airport cannot be extended, and the parking lots are frequently full. This has an impact on traffic flow near the airport (15% to 18% of trips near the airport are related to it). The frequency of trains to the airport has not improved in several years, and the frequency of buses has steadily decreased since 2013.

The airport's goals for a modal shift are

ambitious and cannot be achieved without real improvement in the site's accessibility by public transportation, in particular by train. Challenges are significant, especially since Genève Aéroport is not in control of the development of mobility infrastructure, which is determined by the Swiss Federal and Cantonal authorities, as well as the French authorities.

Genève Aéroport is conducting discussions with stakeholders to respond to its

mobility challenges and is participating in various working groups involving local, private, public, and cross-border actors.

The Sectoral Aviation Infrastructure Plan, prepared in cooperation with the cantonal and federal authorities, grants Genève Aéroport the right to build a limited number of additional parking spaces between now and 2030, and provides for an ambitious action plan to improve the accessibility of the airport area by all modes of transportation.

8'700   
PARKING SPACES FOR CARS

880   
ROUND-TRIPS BY BUS EACH DAY

186   
TRAINS PER DAY

580   
BICYCLE PARKING SPACES



## 17 PARTNERSHIPS FOR THE GOALS



## DEVELOPING AIR-RAIL INTERMODALITY

In line with its accessibility strategy, Genève Aéroport aims to increase the share of passengers and workers using public transportation, especially the train. Currently, trains are the most used mode of transportation by passengers (25%), and this modal share is expected to increase in the future (with an objective of reaching 37% by 2030).

The Swiss Federal Railways (CFF) and the Geneva airport are vectors for Switzerland's economic and touristic development. For that reason, they wish to develop a partnership and a constructive dialogue, to step up their collaboration, and to optimise their synergies, in order to meet increasing mobility needs. They aim to improve the number of travel options, infrastructure, and customer welcome. To that end, the opening of the "Léman Express" in December 2019 will, with a transfer at Genève Cornavin,

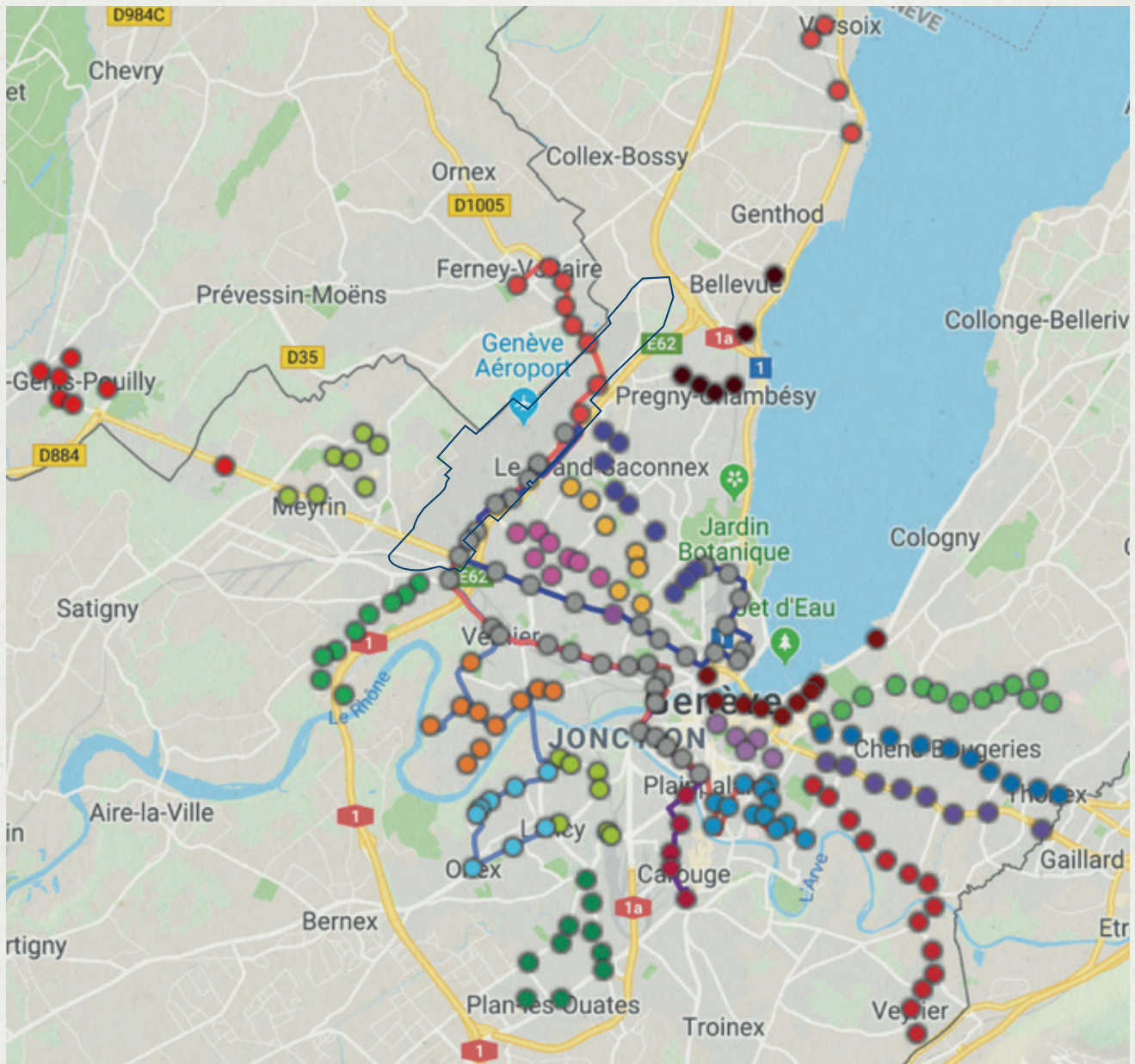
link Annemasse, the nearby French municipalities (Evian, St-Gervais, and Annecy) and Geneva's left bank to the airport. At a later stage, Bellegarde, Meyrin, and the industrial zone of Meyrin-Satigny will be added. The introduction of two-storey trains to Valais in 2019 will improve capacity and comfort and, in the medium term, the extension of certain trains coming from Chablais to the airport's train station will offer a direct link to the airport from the Lemanic Arc.

In the long term, the train stations of Genève Cornavin and Genève-Aéroport will increase their numbers of trains and direct links. Finally, the airport train station will be under construction in the coming years to improve its accessibility to persons with reduced mobility.

**Alain Barbey,**  
Regional Director (West), CFF



## → AIRPORT STAFF SHUTTLES NETWORK



## → IN FOCUS

### FREE SHUTTLES FOR AIRPORT STAFF

Since 2005, Genève Aéroport has made shuttles available to platform employees working early in the morning or late at night. Code name: NPA (Navettes Personnel Aéroport) (Airport Staff Shuttles). Philippe Quaglia, Project Manager for Office of the Environment and Sustainable Development, and Bernard Garcia, Manager of Ecow Mobility, explained the concept to us.



#### WHERE DID THE IDEA TO RUN FREE SHUTTLES COME FROM?

**Philippe Quaglia:** This shuttle system is part of the airport's mobility plan, which aims to improve air quality and promote sustainable modes of transportation. The shuttles are available to platform employees and complement the public transportation system outside its operational hours in the morning and the evening.

#### HOW DO THE NPAS WORK?

**Philippe Quaglia:** The NPA network covers 25 zones, including 2 over the border in France, and transported more than 61,000 people last year. We have 5 regular minibus lines and 20 catchment areas operated by cars that can hold up to three passengers. These 20 areas are served only when requested, to prevent unnecessary trips.

#### DO YOU PLAN TO EXTEND THE NETWORK?

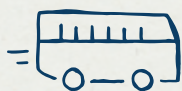
**Philippe Quaglia:** Absolutely. We are now transporting twice as many people as we did in 2008, and there was a 7% increase between 2016 and 2017. The network grows as a function of the locations where airport employees live. We are also looking at the possibility of opening the regular lines to passengers traveling early in the morning.

#### WHAT DOES ECOW MOBILITY DO?

**Bernard Garcia:** We have been partners in this project since 2015. We take reservations from the reservations desk at the end of the day for runs very early in the morning. Our drivers operate the runs and report any problems to the reservations desk, such as an absent or late employee, a breakdown, etc., to ensure the best possible service quality. We do our best to limit our environmental footprint to the extent possible – our vehicle fleet is one of the cleanest in the market – and to offer our drivers good working conditions.



## THE AIRPORT STAFF SHUTTLE SERVICE IN NUMBERS



61'690  
EMPLOYEES  
TRANSPORTED IN 2017



1.6  
MILLION SWISS FRANCS  
PAID BY GENÈVE  
AÉROPORT



-26  
TONNES OF  
CO<sub>2</sub> PER YEAR



25  
AREAS SERVED BY  
THE NPAS



## 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

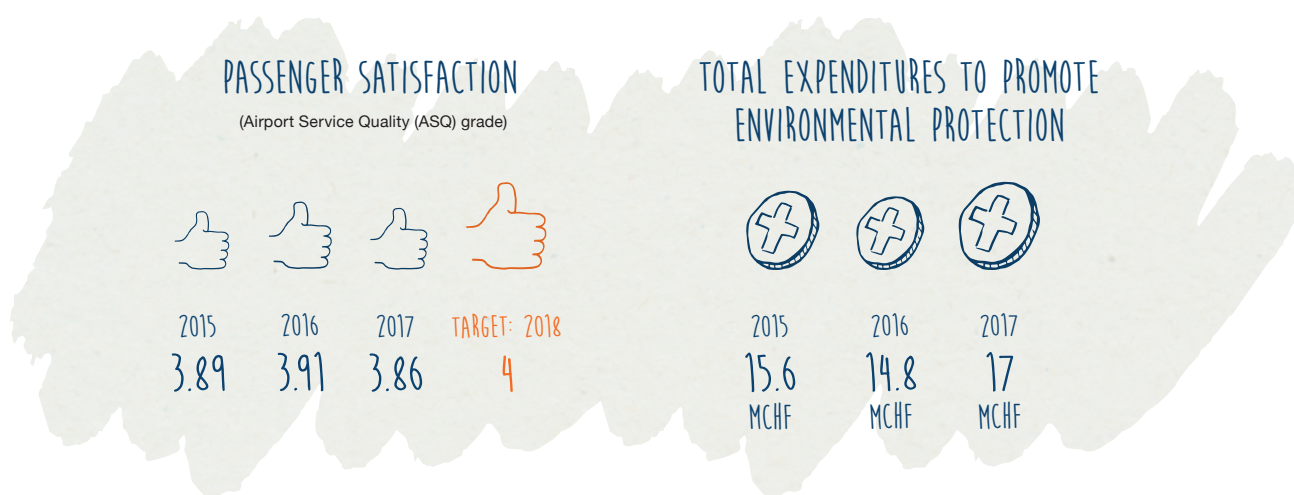


Switzerland enjoys high-quality infrastructure. However, it will need to be used more efficiently and, potentially, to grow, to meet the needs of economic and demographic growth. The airport is one link in the chain of national aviation infrastructure. Both the economy and the population benefit from the aviation network departing from and arriving to Geneva. The airport's development is closely linked to that of the region. That development should be as inclusive as possible and respectful of the environment and local residents, in particular through the use of innovative technologies.

### Links to the other Sustainable Development Goals



## OFFERING ALL USERS HIGH QUALITY, EFFICIENT, AND SUSTAINABLE INFRASTRUCTURE AND SERVICES



Passenger numbers have been growing for several years. In 2017, Genève Aéroport welcomed more than 17 million travellers. According to forecasts, the airport will transport 25 million passengers in 2030. Adapting its infrastructure is a priority to meet the needs of all users, ensure optimal service quality, as well as operational fluidity and safety. This modernisation must take place while respecting the environment and local residents. Genève Aéroport dedicates several million francs per year to these measures.

The passenger satisfaction index decreased slightly in 2017. This decrease is explained partly by periods marked by large numbers of passengers and long waiting times at security. On the positive side, we note high levels of satisfaction with ease of access and of navigation within the airport, cleanliness, and the courtesy and effectiveness of airport staff.

### MODERNISING THE AIRPORT'S INFRASTRUCTURE

The airport regularly operates at the limits of its capacity, with respect to both the use of infrastructure and processes. It must work within a perimeter that cannot be expanded. Optimising existing space is the only option at hand to meet user needs and offer high quality service.

The expansion of the check-in area, completed at the end of 2017, improves comfort and the flow of traffic within the terminal. On the tarmac, the new pavilion dedicated to welcoming VIPs was inaugurated in February 2018. This modern, highly energy-efficient building, made of wood and covered in solar panels, supports the development of international Geneva. The 5 new positions 50 completed in 2017 provide a place to park airplanes during the construction of the East Wing, with the aim to improve provisions for jumbo jets

by 2020. The new luggage-sorting centre is expected to be operational by 2022.

### ISO 55001 CERTIFICATION

Genève Aéroport has held certification for good management of its industrial assets since 2016. By taking this voluntary step, the airport guarantees good practices in terms of technical, administrative, and financial management of its infrastructure. The airport now makes decisions based on an evaluation over the entire life cycle of the equipment, from design to production and operation to dismantling. The risks inherent to projects are also taken into account in evaluations. These management actions are perfectly aligned with Genève Aéroport's environmental policy. In 2019, Genève Aéroport will again have to prove its ability to manage its industrial assets responsibly, when it is next audited; an audit that is ever more demanding.



# → SUSTAINABLE INFRASTRUCTURE

## 1 RECHARGING STATIONS FOR ELECTRIC VEHICLES (2017)

**QUALITY OF SERVICE:** 170 recharging spots distributed throughout the tarmac

**AIR:** contribution to decreasing impacts

## 2 INAD BUILDING (2017)

**QUALITY OF SERVICE:** improvement in welcome given to asylum seekers (see p. 47)

**ENERGY:** Minergie-P building, geothermal probes and 78 sq. m of solar panels

## 3 REPAIR OF SARACO ROOFING (2017)

**BIODIVERSITY:** 264 sq. m of green roofing

## 4 NOISE ABATEMENT HANGAR (2016)

**NOISE:** reduction in noise from engine testing (see p.36)

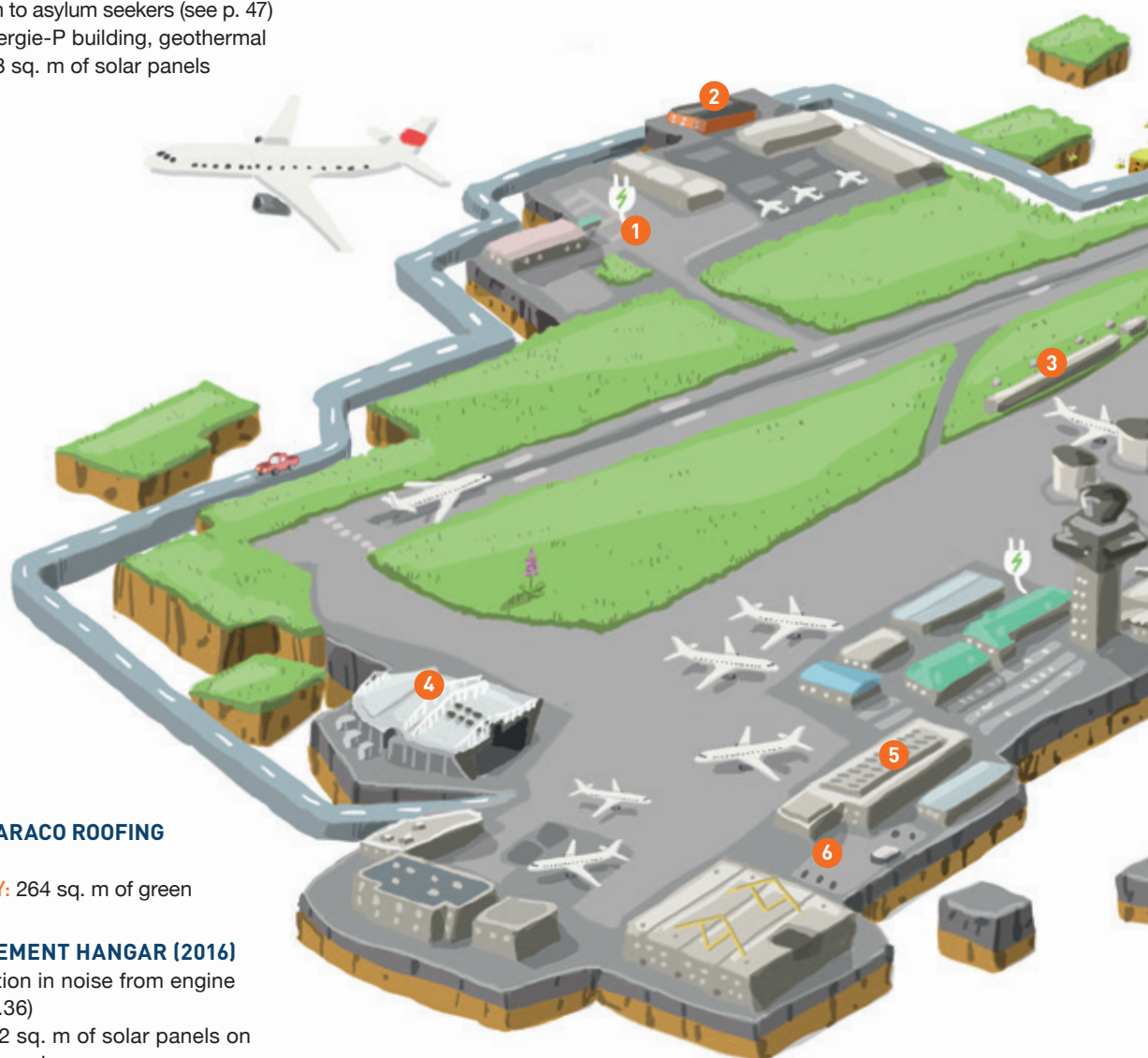
**ENERGY:** 1,462 sq. m of solar panels on the roof and facade

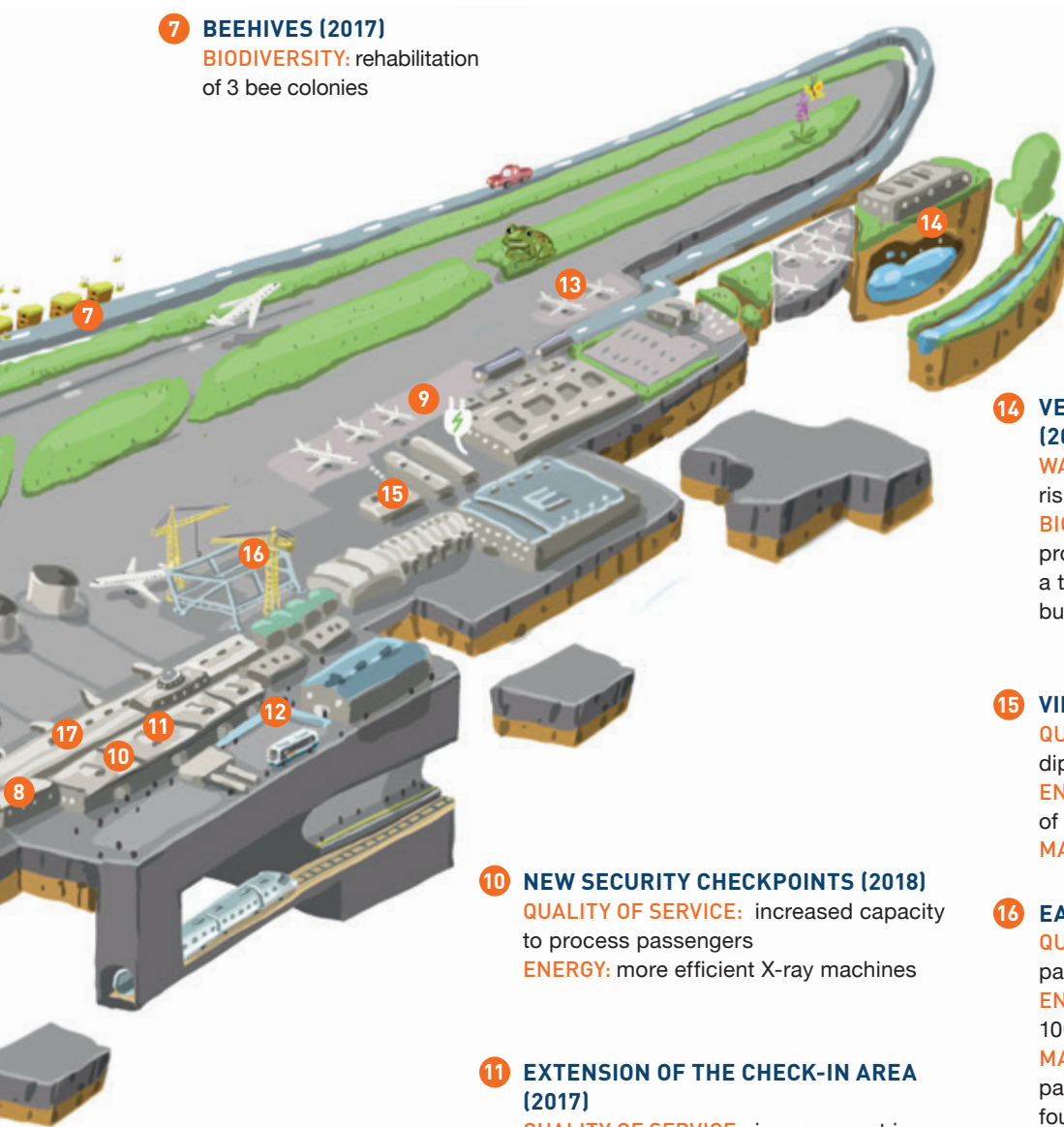
## 5 REPLACEMENT OF THE LARGE HANGAR'S DOORS

**ENERGY:** reduction in energy consumption (see p.57)

## 6 COVER FOR THE PRÉ-BOIS WASTE DISPOSAL AREA (2017)

**ENERGY:** 145 sq. m of solar panels





## 7 BEEHIVES (2017)

**BIODIVERSITY:** rehabilitation of 3 bee colonies

## 9 SUPPLY OF ENERGY TO AIRPLANES (2017)

**QUALITY OF SERVICE:** 6 new fixed systems for airlines

**AIR:** contribution to decreasing impacts

**NOISE:** contribution to decreasing impacts

## 13 POSITIONS 50 (2017)

**QUALITY OF SERVICE:** parking of airplanes during construction works on the East Wing

**BIODIVERSITY:** displacement of protected floral species and creation of a temporary habitat for a protected toad

## 14 VENGERON RETENTION BASIN (2018)

**WATER:** reduction in flood and pollution risks for the Vengeron stream

**BIODIVERSITY:** displacement of protected floral species and creation of a temporary habitat for a protected butterfly

## 15 VIP PAVILION (2018)

**QUALITY OF SERVICE:** improvement in diplomatic welcomes

**ENERGY:** Minergie-P building, 78 sq. m of solar panels

**MATERIALS:** use of wood

## 16 EAST WING (EN COURS)

**QUALITY OF SERVICE:** improvement in passenger comfort

**ENERGY:** 6,400 sq. m of solar panels, 100 geothermal probes

**MATERIALS:** recycling of tarmac pavement for use in the building's foundation

**WATER:** rainwater catchment for use in restrooms

## 17 AIRPORT'S OPERATIONS CENTRE (2017)

**QUALITY OF SERVICE:** maintaining high level of operational security and capacity and improvement of punctuality

**ENERGY:** pooling and rationalisation of information systems. Adaptation of cooling and heating systems.

**NOISE:** better management of night movements

## 8 SOLAR PANELS ON THE WEST FRONT PIER (2018)

**ENERGY:** 974 sq. m of solar panels

## 10 NEW SECURITY CHECKPOINTS (2018)

**QUALITY OF SERVICE:** increased capacity to process passengers

**ENERGY:** more efficient X-ray machines

## 11 EXTENSION OF THE CHECK-IN AREA (2017)

**QUALITY OF SERVICE:** improvement in passenger comfort; improvement in lounges and waiting areas for passengers with reduced mobility; two lifts adapted to the needs of the visually impaired, hearing impaired, and wheelchair users

**ENERGY:** 1,074 sq. m of solar panels installed on the eaves

## 12 TACTILE-VISUAL PATHWAY (2018)

**QUALITY OF SERVICE:** improvement in accessibility for passengers with reduced mobility





## DETECTING THREATS WHILE PREVENTING DISCRIMINATION

The security personnel must offer the best possible service and maintain a respectful attitude towards passengers, whatever their gender, origin, or religious beliefs, while aiming at the highest level of security. To that end, employees were trained on the conduct of users and internal personnel. One training module was to develop employees' ability to identify inappropriate conduct by airport users. The other was to equip them with the necessary tools to identify any behaviour that could lead to any form of radicalisation. Before 2020, all holders of airport badges will be required to complete an e-learning module on the subject.

## IMPROVING THE FLOW OF OPERATIONS AND REDUCING WAITING TIMES

The airport always seeks to devise ingenious solutions to respond to the platform's current needs and to make life easier for future travellers. One example is IODA, a software platform that gathers data from the site's various computing tools (waiting times, traffic forecasts, occupancy of parking lots, etc.) It enables the Airport Operations Centre, inaugurated in 2017, to maintain real-time oversight of operations on the city and the tarmac side, and to make optimal decisions in coordination with its partners while anticipating problematic situations. Ultimately, the goals are to ensure safety and optimise punctuality while at the same time limiting environmental impacts, through more fluid management of airplane movements and passenger flows.

With respect to security checks, the deployment of scanning "rugs" allowing passengers to avoid quasi-systematically taking their shoes off



has saved 13 hours' queuing per day. The creation of a temporary security check point in the easyJet check-in area in late 2017 and the addition of two extra security lines in the summer of 2018 have improved capacity for processing passengers. These new check points have two new 3D X-ray machines that are more energy-efficient and allow passengers to leave liquids and electronics in their baggage.



## 17 PARTNERSHIPS FOR THE GOALS



## OPEN INNOVATION AT THE SERVICE OF PASSENGERS

The spirit of innovation, like sustainable development, is one of the transversal principles common to all of the Geneva airport's activities. The "innovation cell" at Genève Aéroport is intended to improve operational efficiency and passenger services. It focuses on promoting technologies developed in Switzerland and supporting the

region's economic development. Since 2016, Genève Aéroport has committed itself to open innovation in cooperation with Geneva's schools, start-ups, the Office for the Promotion of Industry, and other airports. In 2017, Genève Aéroport co-organised the first aviation industry hackathon together with the airports of Amsterdam, Munich, Frankfurt, Sweden, and Copenhagen. Two concepts that emerged from it will be tested by the airport under real conditions with passengers. Finally, participation in a "digital day," in late 2017, gave Genève Aéroport an opportunity to present to the public at large some of its initiatives in this very active sector.

## → IN FOCUS

### GENÈVE AÉROPORT'S FIRST MINERGIE-P BUILDING

In 2017, a new building to temporarily house asylum seekers was opened. Located at the North end of the airport and having a maximum occupancy of 42, it replaces the old building that was demolished to make room for the future East Wing. The building meets the requirements for the Minergie-P label for buildings with very low energy consumption. Interview with Dino Gazzola, Head of Building Services in the Infrastructure Department.



©SimonVonGurten

#### WHAT IS THE INTENDED USE OF THIS BUILDING?

**Dino Gazzola:** The purpose of the building is to house asylum seekers while the Swiss authorities conduct the necessary administrative procedures. It comprises an administrative area, which also includes an infirmary and a chapel, and two areas that each hold dormitories, family bedrooms, a playroom for children, and a kitchen. In total, it contains approximately 830 sq. m, which enables us to house asylum seekers as well as passengers who are denied admission to the country. There are also 300 sq. m of outdoor space.

#### WHY DID YOU CHOOSE THE MINERGIE-P LABEL FOR THIS BUILDING?

**Dino Gazzola:** Genève Aéroport has ambitious goals in terms of energy efficiency and the use of renewable energy (see p.55). Since 2015, the Cantonal Energy Office requires new

freestanding public buildings to comply with high energy-efficiency standards. The Minergie-P label meets this requirement perfectly.

#### WHAT DID YOU NEED TO DO TO OBTAIN THE LABEL?

**Dino Gazzola:** The building's architectural concept is based on an energy component that aims to limit the need for heating in winter and air conditioning in summer. The facades were designed to make the building as energy efficient as possible, thanks to 30 cm of reinforced insulation and triple-paned windows. Strong protection from sun rays is provided in the summer by external Venetian blinds. Heating and cooling are provided by geothermal energy and heat pumps. Thermal solar captors are used to supply a portion of the hot water needed for rest rooms and photovoltaic panels produce a portion of the necessary power.



### THE INAD BUILDING IN NUMBERS



42  
BUILDING CAPACITY



78  
SQ. M OF SOLAR  
PANELS



2  
GEOTHERMAL  
PROBES



5.4  
MILLION CHF  
INVESTMENT



## 13 CLIMATE ACTION



Air transportation represents 2% of CO<sub>2</sub> emissions worldwide and 12% of the CO<sub>2</sub> emitted by all modes of transport. The aviation industry's goal is to reduce these emissions to 50% of 2005 levels by 2050, to achieve carbon-neutral growth by 2020, and to improve the energy efficiency of airplanes. Genève Aéroport is contributing to this vision by taking measures to reduce its carbon footprint as well as that of its partners, and now fully offsets CO<sub>2</sub> emissions under its responsibility.

### Links to other Sustainable Development Goals

7 AFFORDABLE AND CLEAN ENERGY



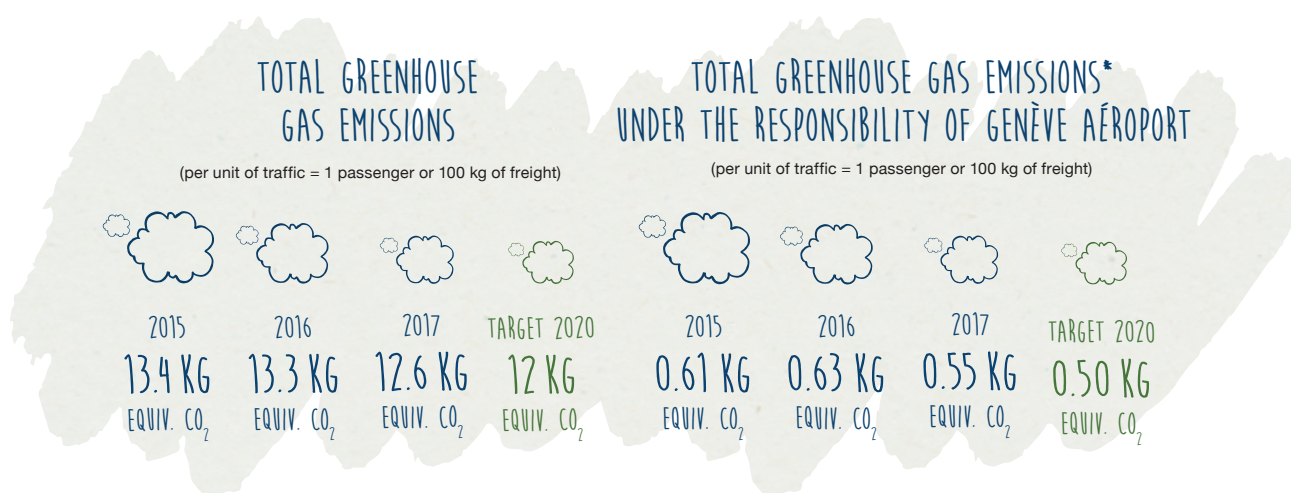
9 INDUSTRY INNOVATION AND INFRASTRUCTURE



11 SUSTAINABLE CITIES AND COMMUNITIES



## MINIMISING THE CARBON FOOTPRINT OF AIRPORT ACTIVITIES



Since 2011, Genève Aéroport has held Level 3 certification from Airport Carbon Accreditation for its management of CO<sub>2</sub> emissions. In January 2018, it obtained the highest certification level by offsetting its emissions (see p.50). At the airport site, the primary projects to decrease greenhouse gas emissions are the airport's energy policy (see p. 55), the installation of energy supply systems for parked airplanes (see insert, p.52), the modernisation of the airplane fleet, measures to promote the use of public transportation (see p.37), and the deployment of electric vehicles on the tarmac.

### DECOUPLING THE GROWTH IN PASSENGER NUMBERS FROM CO<sub>2</sub> EMISSIONS

Thanks to the measures implemented to limit CO<sub>2</sub> emissions and the growing number of passengers, emissions relative to the number of passengers and freight transported have

been consistently decreasing for several years.

Scope 1 emissions\* come primarily from the boiler. They are strongly tied to the severity of the winter, but also to energy efficiency improvements to our infrastructure. The replacement of our boiler by 2025 with renewable energy sources (geothermal energy, heat pumps) will considerably reduce these emissions. In 2017, emissions due to electricity consumption declined, thanks to an improvement in the quality of renewable energy provided by the SIG. Scope 3 emissions, which include those from airplanes (taxiing, take-off, and landing) and induced traffic (employee and passenger mobility) remained stable in 2017.

### TOWARDS GREATER ELECTRICAL MOBILITY ON THE TARMAC

In 2017, 26% of vehicles and equipment in circulation on the tarmac were electric or hybrid; the figure was close to 30% with respect to vehicles owned

by Genève Aéroport (+ 3 points). The target of 40% electric vehicles and equipment in 2020 requires effort from all airport partners. In order to best prepare for this massive electrification of the vehicle fleet, Genève Aéroport has installed approximately 170 charging stations on the tarmac in recent years, sufficient to meet user needs. By the end of 2018, 50 more charging stations will be added.

Genève Aéroport currently owns six electric buses to transport passengers (including two converted diesel buses) and plans in the future to acquire two additional electric buses per year. At Swissport, 50% of the equipment is electric (approximately 160 vehicles including cars, motorised ladders, baggage conveyors, lifting platforms, etc.) Testing of hybrid "pushbacks" (tractors for pushing back airplanes) is planned in 2019. The dnata company, through its "dnata4green" programme, recently acquired several electric lad-

\*Greenhouse gas emissions by source diagram p.51



ders and baggage conveyor belts. Beginning in 2019, the airport will reject requests for authorisation to circulate on the tarmac for vehicles and combustion engines for which an equivalent electric version exists. In the future, the acquisition of electric vehicles will become mandatory. The reduction in gas emissions also requires modernising the combustion vehicle fleet. In 2017, 51% of combustion vehicles and equipment circulating on the tarmac were less than six years old (emissions standards Euro 5 and 6, Com 3 - 4).

↗ 26 %  
VEHICLES ARE ELECTRIC,  
HYBRID, OR GAS



↗ 51 %  
OF VEHICLES MEET THE MOST RECENT ANTI-  
POLLUTION STANDARDS



## GENÈVE AÉROPORT BECOMES CARBON NEUTRAL

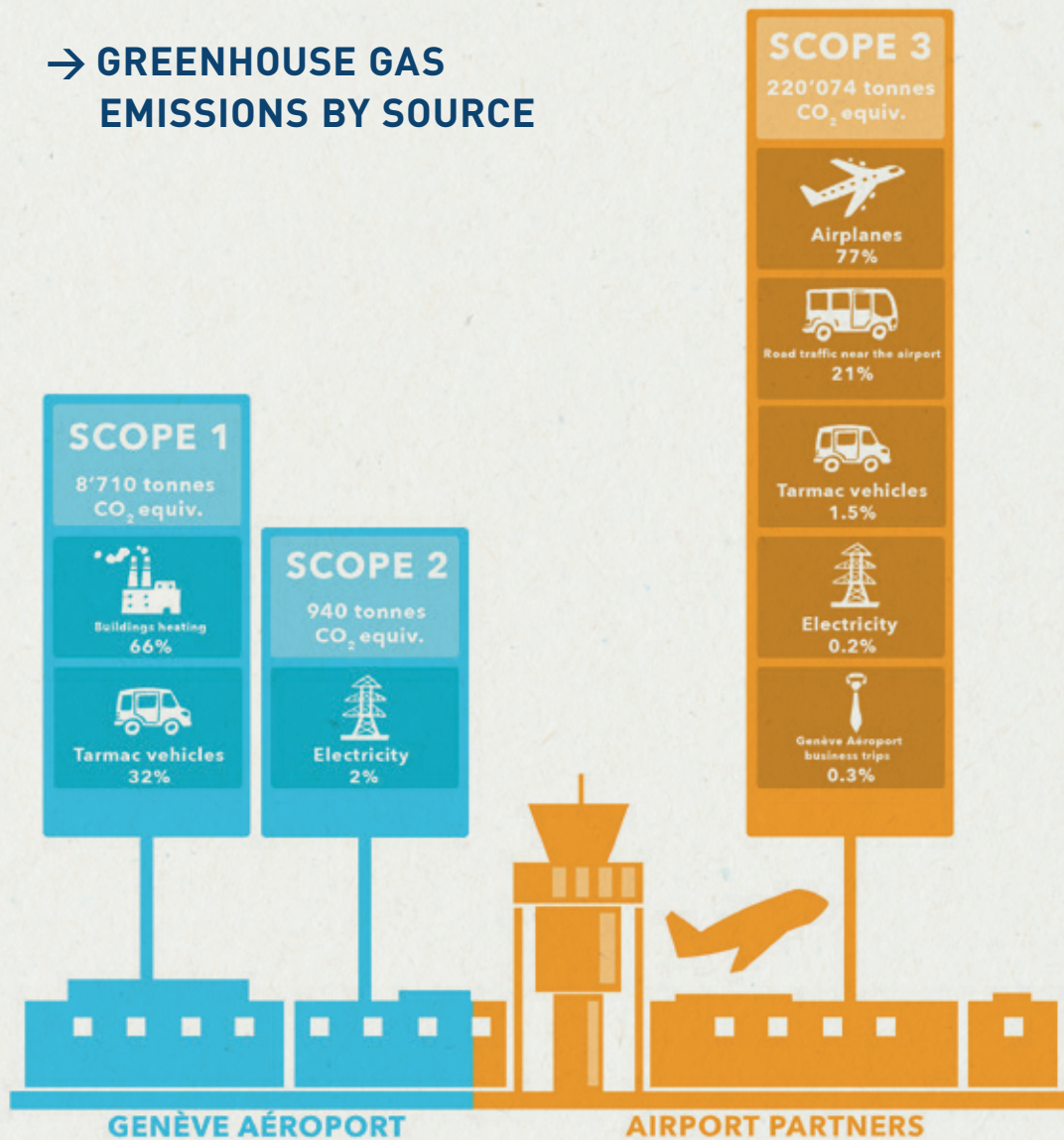
In January 2018, the Airport Council International (ACI) granted Genève Aéroport ACA 3+ certification for its exemplary management of greenhouse gas emissions.

The 10,000 tonnes of CO<sub>2</sub> emitted in 2016 were entirely offset by the acquisition of certificates. The certificates finance projects in Kenya and in Western China using the Gold Standard methodology, which ensures a positive impact on people and the environment.

Only 37 airports in the world currently hold this level of accreditation guaranteeing carbon neutrality.



## → GREENHOUSE GAS EMISSIONS BY SOURCE



## MONITORING EMISSIONS FROM AIR TRAFFIC

The Consultative Commission for Action to Control Air Traffic Disturbances (CCLNTA) has created a sub-commission dedicated to monitoring the airport's CO<sub>2</sub> emissions. Comprising representatives of the Canton and of environmental organisations, it oversees the pursuit of the objectives in the Cantonal Climate Plan. In fact, CO<sub>2</sub> emissions from air traffic must return to 2014 levels by 2030. According to calculations by the Federal Office of Civil Aviation based on all emissions from all flights departing from Geneva airport, these emissions total 1,279,200 tonnes of CO<sub>2</sub>.



## → IN FOCUS

### STAND-ALONE HEAT PUMPS FOR PARKED AIRPLANES

The supply of electricity and/or pre-conditioned air by fixed systems enables airplanes to avoid using their auxiliary power units while parked. The result is a decrease in kerosene consumption and a reduction in noise levels on the tarmac. In 2017, five new positions were equipped with an electrical energy supply system, which brings the number of available positions to 41. Fabio Bernardo and Adriana Minazzi, Project Managers in the Infrastructure Department, spoke to us about the future modernisation of the pre-conditioned air supply system.



#### WHY MODERNISE THE CURRENT SYSTEM?

**Fabio Bernardo:** The facilities are antiquated and the air that we inject into the aircraft no longer meets the desired quality. The tubes that we use are buried under the tarmac and become less airtight over the years. Infiltrations of water and de-icing products cause unpleasant smells in the aircraft,

which discourages the crews from using our facilities. Moreover, the two current facilities that produce negative cold (-16°C) are energy-intensive and must run continuously during the summer, even when no airplanes are connected.

#### HOW WILL THE NEW SYSTEM BE MORE EFFICIENT?

**Adriana Minazzi:** Stand-alone heat pumps will replace the cold production plants. They will be installed by each gangway and will generate either heat or cold, depending on the season. By the end of 2019, 16 additional positions will be equipped with the type of heat pump that was installed as a prototype in 2017. It will be easier for ground crews to manipulate the tubes of pre-conditioned air, since their deployment will be at chest height using a remote control, and no longer through a ground trap.

#### WHAT WILL BE THE ADVANTAGES?

**Fabio Bernardo:** There are advantages for passengers and for the ground crew as well as for Genève Aéroport and the airlines. The inside air will be of much better quality, operation will be easier, energy consumption lower, and the use of the airplanes' auxiliary power units should decrease even further. Dismantling the old system will also free up space underground to develop the Genilac network. This action is also part of Genève Aéroport's commitment to the Confederation to show exemplary energy efficiency.



## SUPPLY OF ENERGY TO AIRPLANES IN NUMBERS



-10'000  
TONNES OF KEROSENE  
PER YEAR



-30'000  
TONNES OF CO<sub>2</sub>  
PER YEAR



-62  
TONNES OF NO<sub>x</sub>  
PER YEAR



-6.5  
MILLION CHF IN KEROSENE  
COSTS FOR THE AIRLINES







## 7 AFFORDABLE AND CLEAN ENERGY



Energy is at the heart of the major challenges facing the world today. Optimising our consumption and promoting renewable energy enables us to save money while at the same time reducing our carbon footprint. Since 2016, Genève Aéroport's participation in the Confederation's Energy Excellence (*Exemplarité énergétique*) group has demonstrated its commitment at national level and the consistency of its actions with the Federal Council's energy strategy 2050.

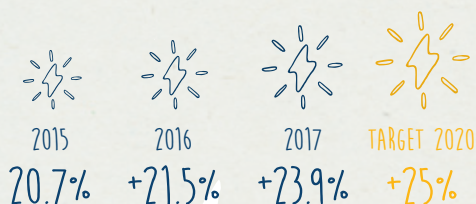
Links to other Sustainable Development Goals:



## IMPROVING ENERGY EFFICIENCY AND INCREASING THE SHARE OF RENEWABLE ENERGY

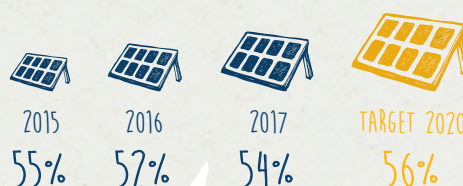
### ENERGY EFFICIENCY

(improvement since 2006)<sup>1</sup>



### SHARE OF RENEWABLE ENERGY

(as part of total energy consumption)<sup>1</sup>



Genève Aéroport seeks to ensure a secure and high-quality supply of energy to all actors on the platform. Raising awareness among users about the need to manage their energy use requires ongoing work, including the WATTelse programme, which supports airport partners towards energy transitions. Recent progress in energy efficiency and in the share of renewable energy both measures and reflects Genève Aéroport's investments in this area.

#### OPTIMISING ENERGY CONSUMPTION

In 2017, total energy<sup>2</sup> consumption totalled 108 GWh. The share of electric energy was the equivalent of the consumption of about 20,000 Genevan households over the course of a year. The actions implemented in recent years have enabled Genève Aéroport to decrease its total energy consumption despite an increase in both the number of passengers and the surface area in use, thus improving its energy efficiency (23.9% in 2017).

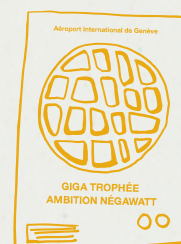
The projects contributing to this reduction include the replacement of the large hangar's doors (see insert p.57), the installation of smart lighting – measuring the presence of light and its brightness – in the hangar of Newrest Canonica, as well as the construction of a building meeting the standards for the Minergie-P Label (see p.47).

By 2020, Genève Aéroport wishes to achieve energy efficiency of 25% as compared with 2006, the reference year. Ambitious projects are underway, such as changing the lighting in the Freight Hall, while others are being studied, such as replacing the lighting in the check-in area. These projects should significantly decrease energy consumption (potential energy savings of 750,000 kWh/year).

#### REWARDS FOR OUR ENERGY POLICY

The energy saving measures implemented by Genève Aéroport between 2012 and 2017 have achieved savings of 1.4 Gwh. Due to this performance, the airport won a Giga Trophy, awarded through the SIG's eco21 programme. This is an acknowledgement of the effectiveness of our energy policy.

THE TROPHY WAS  
AWARDED TO GENÈVE  
AÉROPORT FOR SAVING  
MORE THAN ONE  
GIGAWATTHOUR!





## BANKING ON RENEWABLE ENERGY

Our objective is clear: to obtain 56% of our energy from renewable sources by 2020 and to stop using fossil fuels for our infrastructure by 2025. Our electricity has been produced 100% from renewable sources for many years; now the share of renewable energy in the production of heat must increase, as well as that of fuels.

To this end, Genève Aéroport plans to increase the use of geothermal energy and heat pumps using lake water. The construction of the East Wing provided the opportunity to bury 100 geo-thermal probes at a depth of 300 metres. Recently, the preparatory work for the new Baggage Logistics Centre (BLC) provided the occasion for installing still more probes.

The production of renewable electricity on the airport site is also targeted. Solar roof coverage increased by more than 2,800 sq. m between 2015 and March 2018, reaching a total surface area of 12,000 sq. m, thanks to the installation of photovoltaic panels on the noise abatement hangar and on the new eaves of the check-in hall. The partnership established with the SIG in late 2017 will enable us to increase the share of electricity that is produced on-site, by multiplying the total solar roof area by five (see side box).

## CERTIFIED ENERGY MANAGEMENT

Genève Aéroport obtained ISO 50001 certification in 2018, rewarding the implementation of an organisational process for improved energy management. Practically, a specific set of tools is used to monitor energy flows using an ISO-compliant methodology.



### 17 PARTNERSHIPS FOR THE GOALS



## OBJECTIVE: MULTIPLY SOLAR ROOF SURFACE AREA BY 5

The SIG are an important partner of Genève Aéroport in the development of solar solutions. In 2017, these two players announced the future installation of approximately 55,000 sq. m of photovoltaic panels on the airport's roofs, distributed over 10 locations.

With the benefit of the SIG's expertise, the airport plans to produce the equivalent of the annual consumption of 2,500 Genevan households, or 7.5 Gwh/year. The first installation of panels was just completed on the airport's West Pier.



Solar roof on Cargo security building

# → IN FOCUS

## REPLACEMENT OF THE LARGE HANGAR'S DOORS

This project, carried out in 2016, increased energy efficiency while at the same time improving user comfort. Interview with Laurent Droux, the Project Manager, and Frédéric Duvoisin, a user of the hangar for SR Technics Group.



### WHAT PROMPTED THIS PROJECT?

**Laurent Droux:** First of all, we wanted to modernise a facility that dated back to 1948. A review of the specifications made us aware of the significant energy, financial, and acoustic benefits that we would achieve. There is still potential for improvement with respect to the building's envelope and its lighting, which will be studied in the near future.

### WHAT ARE THE DIFFICULTIES THAT YOU HAVE ENCOUNTERED?

**Laurent Droux:** The doors had to be built by night in the Northern area, and then transported by night to the large hangar. Due to their large size and the impossibility of transporting them by road, they then had to be brought to the large hangar by crossing the runway. The timing was very tight, because we absolutely had to finish before the runway opened at 6:00. Coordination with the Security and Operations Departments was essential for completing this stage of the project.

### WHAT IMPACTS DID THE WORK HAVE ON USER ACTIVITY?

**Frédéric Duvoisin:** At SR Technics, we had one position unavailable during installation of the doors. However, good cooperation with the airport and advance planning of interventions enabled us to adapt easily.

### WHAT IMPROVEMENTS DID THESE TRANSFORMATIONS PROVIDE?

**Frédéric Duvoisin:** Thanks to the replacement of metal sheets with glass, we gained in natural light. Acoustics were also improved, but the most noticeable change was the heat. The last doors were installed in December, and we immediately felt the improvement. From a safety and functional standpoint, it is also a success.



## REPLACEMENT OF THE LARGE HANGAR'S DOORS IN NUMBERS



-41%  
IN CONSUMPTION OF  
NATURAL GAS



-455  
TONNES OF CO<sub>2</sub>  
PER YEAR



3.4  
MILLIONS CHF  
INVESTED



280'000  
CHF IN SAVINGS  
PER YEAR



100%  
SATISFIED  
USERS



## 6 CLEAN WATER AND SANITATION

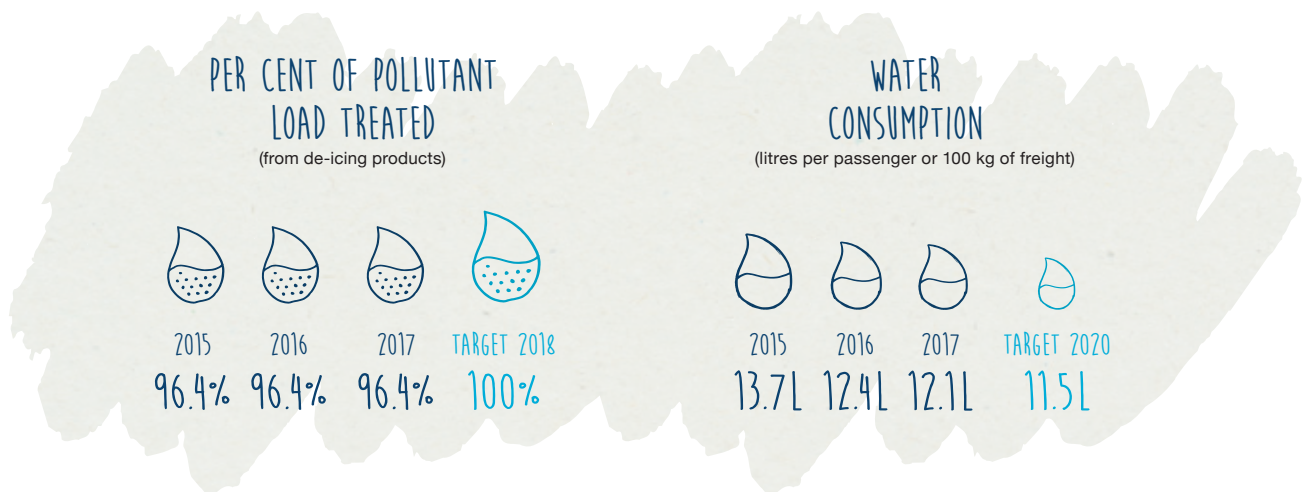


Switzerland supports increasingly rational water use, integrated water management that takes climate change into account, and the protection and restoration of aquatic ecosystems, together with the private sector. Along with Geneva's municipalities, Genève Aéroport follows a general water management plan. This plan provides a roadmap for planning and building the water drainage infrastructure necessary to prevent the discharge of pollutants into the natural environment (including in the event of an accident) as well as to reduce the risk of flooding. Inside its buildings, Genève Aéroport aims to manage water responsibly and works to facilitate access to drinking water points by its employees, partners, and passengers.

*Links to other Sustainable Development Goals*



## LIMITING THE IMPACT OF DE-ICING PRODUCTS AND MANAGING WATER CONSUMPTION



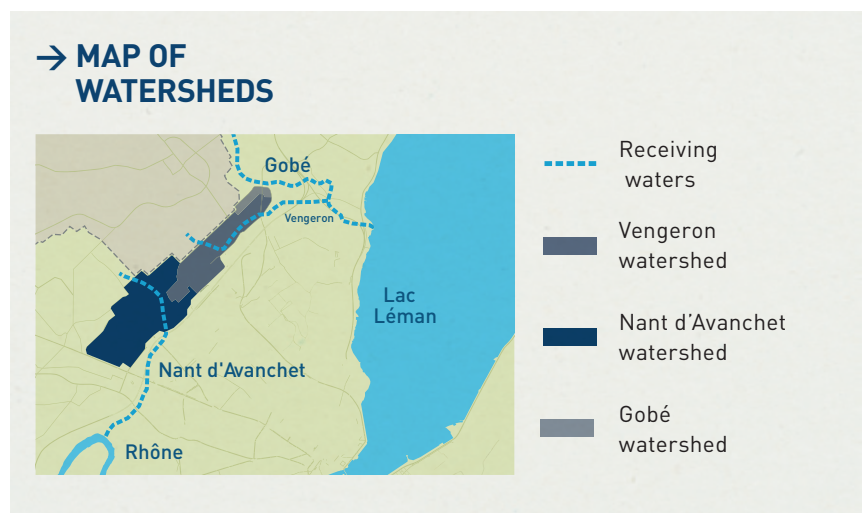
The airport's runoff water flows into two principal watercourses: the Vengeron and the Nant d'Avanchet. During the winter season, de-icing products used at the airport affect the Vengeron. In order to fix this problem, a retention basin will be used to intercept contaminated water from winter 2018-2019. At the same time, solutions have been implemented to reuse a portion of the de-icing product that Genève Aéroport recuperates on the tarmac, and measures are taken on an on going basis to manage water consumption.

### MANAGEMENT OF WATER THAT HAS BEEN CONTAMINATED BY DE-ICING PRODUCTS

For safety reasons, during the winter months, airplanes must be regularly de-iced before they can take off, by spraying a mix of water and glycol onto them. When airplanes taxi and take off, some of the de-icing product runs off onto the taxiway and the runway. These

products are discharged into the storm drains, and a portion has, until now, reached the Vengeron stream. From winter of 2018/2019, a new network of collectors and a 9,500 m<sup>3</sup> retention basin will prevent the discharge of pollutants into the Vengeron and limit the risk of stream overflow. Since January


2018, residual de-icing products swept up on the tarmac have been transported to the wastewater treatment plant to be transformed into biogas (see p.61).





## MANAGE CLEAN WATER CONSUMPTION

The airport site receives its drinking water from the Services Industriels de Genève network. The deployment of remote reading of water meters, which begun in 2017, provides more granular information about water used per hour. In 2017, more than 220,000 m<sup>3</sup> of water was consumed at the airport. Changes from year to year depend, in particular, on construction projects, air-conditioning needs in the summer, and the expansion of the airport's built surface area. With the construction of each new building, the possibilities for collecting rainwater are examined, and water savings mechanisms are installed in the restrooms. The East Wing's boarding areas (currently under construction) will be equipped with rainwater collection systems.

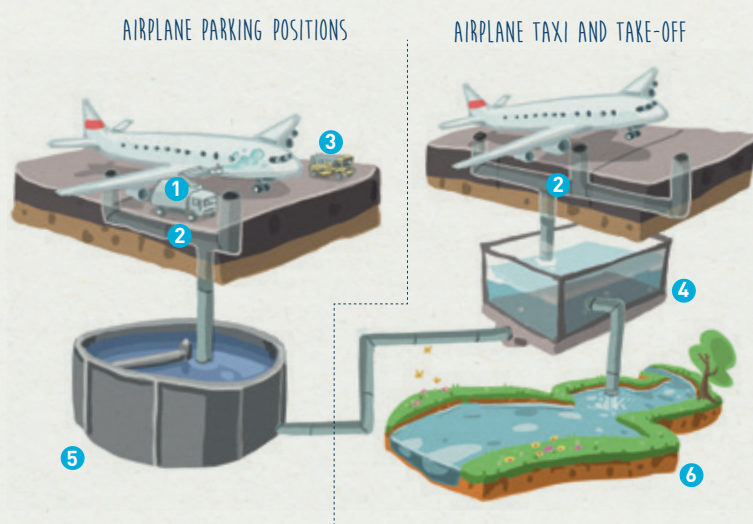
↑ 765   
OF DE-ICING PRODUCTS USED

↑ 839   
OF WATER USED FOR DE-ICING

↓ 35%   
OF RESIDUAL DE-ICING PRODUCTS SWEEPED UP



## → MANAGEMENT OF WATER CONTAMINATED WITH DE-ICING PRODUCTS



## → IN FOCUS

### THE TRANSFORMATION OF RESIDUAL DE-ICING PRODUCT INTO BIOGAS

Implemented in early 2018 through a collaboration with the Services Industriels de Genève (SIG), this project enables us to transform waste into a new energy resource, to improve overall water treatment outcomes at the Aire Wastewater Treatment Plant (WWTP), and to reduce Genève Aéroport's water treatment costs (a tax on the purification of water contaminated by de-icing products entered into force on January 1st 2018). Interview with Denis Teuscher, Head of Sustainability, and Francis Graber, Head of Maintenance and Winter Operations.



#### WHAT PROMPTED THIS PROJECT?

**Denis Teuscher:** When an airplane leaves its position after de-icing, a sweeper comes in to collect the residue. Until 2017, this residue was then discharged into the wastewater drainage network to be treated at the Aire WWTP. This procedure was damaging from an environmental standpoint, due to

the additional pollution upon entry into the biological treatment system of this WWTP, which was then saturated too quickly, impairing the overall water treatment performance. During discussions with the SIG several years ago, the possibility was raised of treating the de-icing residue swept up by our trucks in the WWTP's sludge digestion bioreactors. This alternative residue elimination process has the triple advantage of improving the quality of the purified water produced by the WWTP, producing biogas, and reducing Genève Aéroport's treatment costs.

#### HOW WAS THIS PROCESS PUT IN PLACE?

**Francis Graber:** In order to ensure the viability of the process, the SIG first conducted laboratory tests. In a second phase, 9,000 litres of de-icing residue were delivered to the Aire WWTP for testing under real conditions. All of these tests were conclusive and the plant's operations were not affected. We therefore coordinated with the SIG to put this process in place beginning in 2018. Dumpsters for the interim storage of residue were installed at the airport site so that the sweepers could deposit their content there. We then arranged for transportation by truck to the sludge digestion bioreactors at the Aire WWTP. Twenty transports were carried out between February and April of 2018.

#### WHAT COMES NEXT?

**Francis Graber:** First, our goal is to restart these transports for the 2018/2019 winter season. The de-icing residue storage facility at the airport site has been extended and improved to facilitate unloading by the sweepers and the loading of the transport trucks. In the future, Genève Aéroport may even directly manage the transports between the airport and the treatment station. Each winter, Genève Aéroport tries to collect the maximum possible amount of de-icing products. However, operational constraints and the absence of a dedicated area for de-icing airplanes remain limiting factors.

### THE TRANSFORMATION OF DE-ICING RESIDUE IN NUMBERS



168

M<sup>3</sup> OF DE-ICING PRODUCTS  
TRANSFORMED INTO BIOGAS



198'000

CHF IN SAVINGS FOR  
GENÈVE AÉROPORT



47'000

M<sup>3</sup> OF BIOGAS PRODUCED  
(METHANE)



## 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

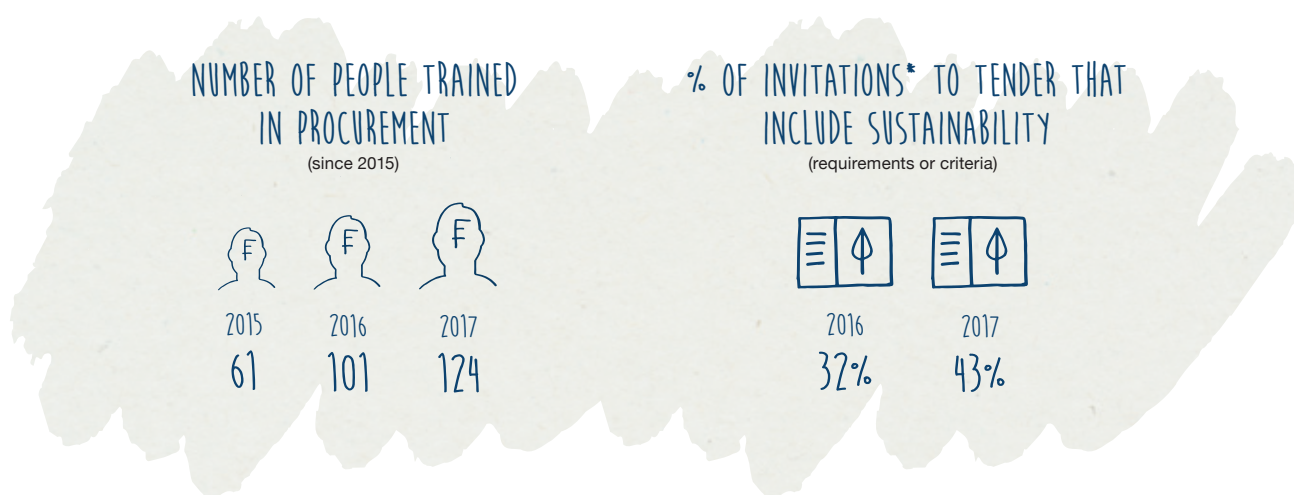


The consumption of natural resources in Switzerland, when extrapolated to the worldwide population, clearly exceeds the planet's ecological limits. Reducing the harmful effects of Swiss consumer behaviour on individuals and the environment requires responsible purchasing and optimal waste management. Genève Aéroport is implementing measures to optimise its use of natural resources and ensure that its suppliers comply with labour law, while at the same time contributing to the region's social and economic development.

*Links to other Sustainable Development Goals*



## PROMOTING RESPONSIBLE PROCUREMENT



Modernising the airport's infrastructure and ensuring the platform's operability require careful management of investments and operating expenses. In order to manage the evolution of suppliers, market fluctuations, and the local environment, the airport must harmonise its procurement process. To meet this challenge, we created a procurement Office at the end of 2017 and hired three purchasers. The role of the new office is to improve procurement practices, while complying with public procurement rules and sustainability principles.

Open invitations to tender that are either subject to international agreements or not are now steered by this office, in cooperation with legal affairs and the relevant Project Managers, who receive training aiming in particular to raise awareness about responsible procurement. In 2019, the objective is that all invitations to tender (whether for construction projects,

supplies, or provision of services) will pass through the Procurement Office.

### SYSTEMATICALLY INTEGRATING SUSTAINABILITY

Genève Aéroport's Procurement Office and its Environment and Sustainable Development Office work together to identify the impacts of each invitation to tender on sustainable development. The result is a set of requirements that are included in the terms of reference and/or in clearly specified evaluation criteria. Invitations to tender for construction projects include environmental and safety requirements. Purchases of supplies that consume energy, such as electronic equipment and vehicles, must satisfy strict energy efficiency requirements. In 2017, environmental and social requirements were introduced into invitations to tender concerning furniture, X-ray machines, and waste management services. In order to systematise and facilitate the inclusion of environmental and

social considerations in invitations to tender, model specifications (grouped by type of purchase) are being drafted, and all suppliers who contract with the airport will be required to sign a sustainable development charter.

### WORKER PROTECTION

Supplier compliance with labour laws is systematically verified during the evaluation of bids and in the course of contract performance. Genève Aéroport must obtain proof from all businesses with which it works (as well as from any subcontractors) that they comply with legal worker protections and with the regulations on working conditions in effect in the jurisdiction where the service is provided. The airport must also obtain proof of their social and fiscal probity. Genève Aéroport will not tolerate any violation of collective bargaining agreements or industry practices. For example, in 2017, a company's failure to comply with its collective bargaining agreement led Genève Aéroport to

\*Invitations to tender published on electronic platform for public procurement in Switzerland.





## RESPONSIBLE INVITATIONS TO TENDER FOR IT EQUIPMENT

For several years, Genève Aéroport has been a member of the Partnership for IT Procurement in French-speaking Switzerland (PAIR), which includes numerous public and semi-public institutions. The airport relies on the consortium's experience in sustainable development for help in drafting invitations to tender for IT products. In January 2018, PAIR affiliated with Electronics Watch, an independent supervisory body that assists municipalities with responsible IT purchasing and promotes workers' rights. Electronics Watch's representatives conduct on-site visits to factories to verify that working conditions and worker safety rules are complied with throughout the world. In this way, Genève Aéroport ensures that human rights are respected in its invitations to tender, in particular with respect to the conventions of the International Labour Organization (ILO).



**PAIR**

PARTENARIAT  
DES ACHATS  
INFORMATIQUES  
ROMANDS

prohibit it from working at the airport site and to exclude it from all invitations to tender for a period of two years. Following an audit in 2018, Genève Aéroport ordered a subcontractor to immediately cease work and leave the premises, in accordance with the Geneva Regulation on Public Procurement (*RMP, Règlement genevois sur la passation des marchés publics*). In addition, Genève Aéroport actively participates in sessions with the Consultative Commission formed by the RMP and its sub-committees, and maintains regular contact with the Cantonal Office of Work Inspections and Relations.



## BECOMING BETTER COMPANIES FOR GENEVA

The "Best for Geneva" programme is intended to improve the social and environmental impact of Geneva's businesses, by aiming to achieve the Sustainable Development Goals defined by the United Nations. It can be broken down into three stages: the evaluation of practices in the form of a questionnaire, the use of free resources to make improvements (workshops, brochures, help centres, etc.) and, finally, notifying their commitments to stakeholders. As a partner of this programme, Genève Aéroport contributes financial support and encourages its partners and suppliers to sign up for the programme in order to improve their practices and become better businesses for Geneva.

[www.bestforgeneva.ch](http://www.bestforgeneva.ch)



## → IN FOCUS

### THE LIFE CYCLE OF IT EQUIPMENT

In the IT field, technologies evolve very rapidly. Having quality equipment is essential for conducting daily operations on the airport platform. Interview with Marco Coelho, Head of Operational Support in the Technology Department, who explained how he manages the IT equipment stock.



#### WHAT CRITERIA ARE CONSIDERED IN PURCHASING IT EQUIPMENT?

**Marco Coelho:** Genève Aéroport is very sensitive to the issue of sustainability in its purchases of IT equipment. We have approximately 1,000 workstations equipped with computers and a hundred small printers on site, as well as more specialised equipment (such as programmable logic controllers, badge readers, video projection equipment, etc.). A few years ago, we joined PAIR, an organisation that centralises purchasing requests for IT equipment on behalf of its members to obtain favourable prices while including environmental and social criteria (see p.64).

#### HOW DO YOU MANAGE THE COSTS OF THE IT EQUIPMENT STOCK?

**Marco Coelho:** PAIR launches an invitation to tender every two years, which adds up to several million Swiss francs for all of its members. Our primary requirements are computers and small printers. Recently we have rationalised our IT equipment and have favoured professional multifunction printers which operational costs are significantly lower. Multifunction printers and equipment specific to our business are managed via specialised channels with negotiated contracts for each service provider, partly in order to handle maintenance of the equipment. We reduced our number of small printers from 200 to 100 in a few years. Overall, we have achieved savings in both energy and operating costs. All employees receive a monthly report detailing their consumption of paper on the multifunction printers. By raising employee awareness in this manner, we have stabilised the number of pages printed annually, despite the fact that the number of airport employees has increased.

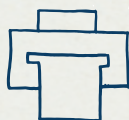
#### WHAT DO YOU DO WITH THE EQUIPMENT AT END OF LIFE?

**Marco Coelho:** We renew approximately 25% of our computers' stock each year. Life expectancy of this equipment is about 3 to 5 years, since user practices and applications require better performance. Depending on the equipment, several actions can be undertaken. We destroy obsolete equipment in our own waste centre, or we return the equipment to the seller for destruction. Everything that can be recycled was, until recently, given to a charitable organisation, and we are in the process of setting up an affiliation programme with an organisation with respect to mobile phones. In the future, we would like to do the same for computers, in order to give them a second life. The idea behind the affiliation is simple: we want to facilitate the end-of-life processing of equipment while guaranteeing that the data contained in it is irretrievably destroyed.

## IT EQUIPMENT IN NUMBERS



1000  
WORKSTATIONS EQUIPPED  
WITH COMPUTERS



135  
PRINTERS



2.7  
MILLION PRINTOUTS  
PER YEAR



3 À 5  
YEARS EQUIPMENT'S  
LIFE EXPECTANCY



## IMPROVING WASTE MANAGEMENT

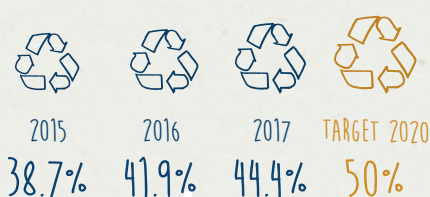
### QUANTITY OF WASTE\*

(per unit of traffic = 1 passenger or 100kg of freight)



### RECYCLING RATE FOR WASTE MANAGED BY GENÈVE AÉROPORT

(excluding construction site waste and special categories of waste)



In 2017, 5,280 tonnes of waste were produced on the airport site (2% less than in 2016), of which 3,906 tonnes were directly managed by Genève Aéroport, and the recycling rate climbed to 44.4%. The objectives are to raise this rate to 50% by 2020, to reduce the quantity of waste produced relative to the number of passengers and freight transported, and to control waste management costs.

To do this, for new projects Genève Aéroport works as far upstream as possible to include specifications regarding waste in its invitations to tender. Sorting infrastructure is continually improved, the awareness of good practices of businesses and partners present on site is being raised, and a tax is charged for incinerated waste to promote sorting.

#### LESS WASTE, MORE RECYCLING

The overall improvement in the recycling rate in recent years is due in particular to an improvement in the sorting of waste from airplanes (see p.68), the 2016 tax

#### 17 PARTNERSHIPS FOR THE GOALS



#### SOCIAL CHANNELS FOR RECYCLING WASTE

Genève Aéroport develops partnerships to find the best possible ways of recycling waste produced on site. Electronics waste and toner cartridges are collected by the *Établissements publics pour l'intégration* (Public organisation for social integration). Textiles are delivered to the Coordination des œuvres d'entraide genevoises (Caritas, Emmaüs, CSP, Genevan Red Cross and Terres des Hommes). Unfortunately, our partnership with the PARTAGE Foundation, which collected unsold food at various catering outlets in the airport to redistribute it to the Canton's social services was discontinued due to the strict rules governing these donations.

increase on unsorted waste charged to businesses on site, as well as the waste audits performed for the platform's businesses and the training dispensed to concession holders and lessees.

In the main terminal, the recycling rate increased from 49% to 53% between 2016 and 2017, in particular thanks to the

installation of new sorting centres in front of the new facade of the check-in hall and the implementation of a new process that enables passengers to keep their bottles by emptying them before passing through security.

In 2018, Genève Aéroport is reorganising

\* excluding construction site waste

## SUSTAINABILITY IS EVERYONE'S RESPONSIBILITY!

Building on this principle, Genève Aéroport organised many activities for passengers during the European Sustainable Development Week (30 May through 5 June 2017), and for employees (from 11 to 15 September of the same year). For passengers: promotion of local products, raising awareness about sorting waste, and encouragement to offset their flights' carbon emissions. The airport site's employees attended awareness workshops and lectures, met Genève Aéroport's energy, environment, and sustainable development teams, took online quizzes, and were given guided tours.



waste management by expanding the operating hours of its waste centres, optimising volumes of waste removed, and refining the characterisation of waste types (specific recycling of hard plastics and detailed analyses of unsorted waste to consider how to improve the sorting system).

### MORE SUSTAINABLE CONSTRUCTION SITES

There are a significant number of construction sites at the airport. Respect for the environment, worker health and safety, and the health and safety of future users are a priority.

Genève Aéroport requires its service providers to favour the use of sustainable construction materials in their work. For example, the new pavilion dedicated to welcoming VIPs was built mainly from wood. Usable materials from excavation at Genève Aéroport's construction sites are reused as much as possible.

When the tarmac was rebuilt to create parking positions for jumbo jets, the old pavement was crushed on site and the material was reused for foundations. In connection with the rebuilding of the P48 (airplane parking area), the

excavation material (gravel) will be reused at the same location, and the concrete used to coat underground pipes will be made with recycled granulates.





## → IN FOCUS

### SORTING WASTE ON BOARD AIRPLANES

Tested in late 2015 and approved in 2016, the on-board waste sorting service contributes to improving the platform's overall recycling rate. Each year, 1,700 tonnes of waste are produced inside airplanes landing at the airport, including 700 tonnes from the cabins. Interview with Louise Gilbert, Project Manager with Genève Aéroport's Environment and Sustainable Development Office, and Camille Staempfli, a Crew Performance Manager with easyJet.



#### HOW DID THIS PROJECT COME ABOUT?

**Louise Gilbert:** In 2015, the Cantonal Office of Consumption and Veterinary Affairs relaxed the rules for eliminating the airplane waste generated by cleaning the cabins. We immediately seized the opportunity to set up a specific sorting system on board the airplanes to separate waste to be incinerated from recyclable waste. We developed a flexible solution, limiting the categories of waste, to make sure the project would not entail extra costs for the airlines, and financing the purchase of the collection equipment, in particular the containers. Knowing that more than 30% of the

platform's waste comes from the airplanes, it is clearly in Genève Aéroport's interest to offer a sorting service to the airlines.

#### HOW WAS THE PROJECT DEPLOYED?

**Louise Gilbert:** EasyJet has been sorting its waste since 2009, starting by recycling paper, and then expanding its program to all recyclables. They immediately agreed to test our new sorting concept on board their airplanes. The test period extended over two months, November and December 2015. The results were extremely satisfactory. Currently, easyJet is the only airline that performs this type of sorting, but it represents more than 40% of the platform's traffic. The crews achieve excellent sorting quality, since 85% of the waste collected in this manner can be recycled - and certain months we even reach 88%! In total, 26 tonnes of waste were recycled in collaboration with easyJet in 2017.

#### PRACTICALLY, HOW IS SORTING DONE ON BOARD THE AIRPLANES?

**Camille Staempfli:** The cabin crew collects the waste in appropriate bags. An orange bag is used for waste to be incinerated, and a green bag is used for recyclables. We also make announcements in the airplanes to make passengers aware that their waste can be recycled, telling them where to dispose of it. Beginning this year, we decided to involve our passengers in our initiatives, offering an incentive reduction of 50 centimes on hot drinks served on board to passengers travelling with their own thermos mugs.

#### ARE OTHER PROJECTS UNDER WAY?

**Camille Staempfli:** Thanks to artificial intelligence, we are also able to more accurately predict the demand for food on our flights in order to have the right amounts of fresh products on board. In the future, we think we will be able to reduce food waste by at least 45%, or more than 800,000 fresh products per year. We also plan to use recyclable glasses and tableware in our airplanes by next year.

### SORTING WASTE ON BOARD AIRPLANES IN NUMBER



700

TONNES OF WASTE FROM  
AIRPLANE CABINS PER YEAR



26

TONNES OF WASTE RECYCLED IN  
COLLABORATION WITH EASYJET



85%

QUALITY ON AVERAGE FOR SORTING  
ON BOARD THE EASYJET AIRPLANES



 DÉCHETS RECYCLABLES MÉLANGÉS  
PROVENANT DES AVIONS 

|  |   |   |   |   |
|--|---|---|---|---|
|  PAPIER |  CARTONS |  PET |  alu |  PETITE |
|--|---|---|---|---|



easyJet





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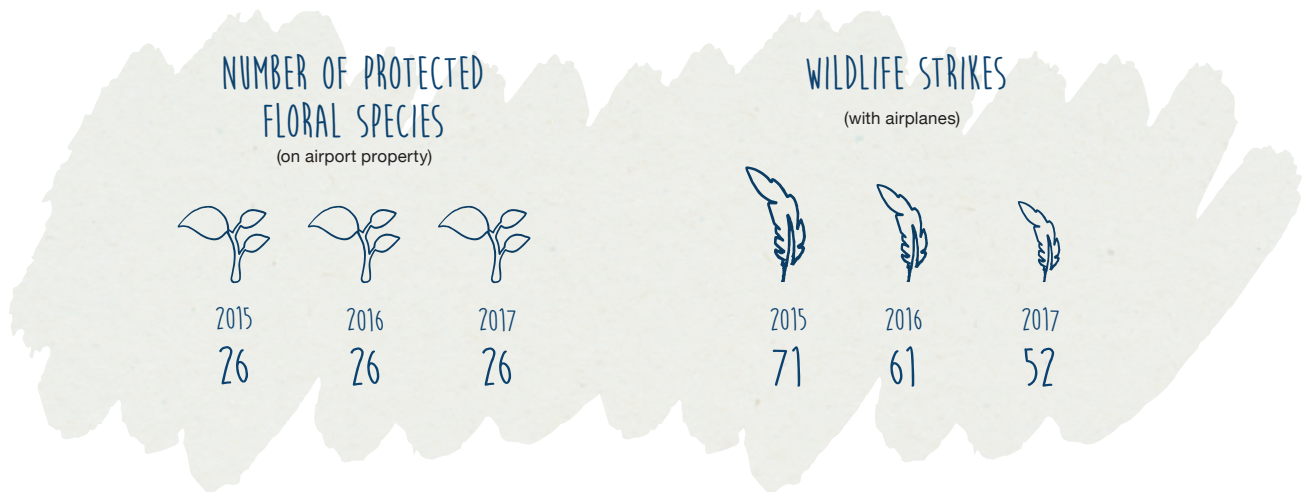
Biodiversity depletion is a worldwide problem. In Switzerland, a large number of species are threatened and numerous ecosystems have been disturbed. The soil, a non-renewable resource, is undergoing assaults of various types that threaten the preservation of its functions in the long term. The negative impacts on biodiversity and the soil are linked, in particular, to growing urbanisation. Genève Aéroport is implementing solutions that aim to reconcile the preservation of biodiversity with the sustainability of its operations.

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#### *Links to other Sustainable Development Goals*



## PRESERVING BIODIVERSITY AND ECOSYSTEMS



Genève Aéroport preserves biodiversity and ecosystems while at the same time ensuring operational safety. Certified by the Nature and Economy Foundation (*Nature & Economie*) since 2011, the airport is the largest “priority flora site” in the canton of Geneva, thanks to the numerous rare species that grow in its prairies. Invasive plants (neophytes) are systematically eradicated and infrastructure projects that impact the natural environment are subject to preventive conservation measures. The possibility of installing green roofs is examined with each new construction or renovation project. Six beehives are active in 2018, and 130 kg of honey has been harvested.

### OFFSETS AND THE PROTECTION OF SOIL AT CONSTRUCTION SITES

Several significant work sites are in operation, or have been completed, on the airport site (East Wing, aircraft parking positions (Positions 50), Vengeron retention basin, and Parking P48, see p.44). Each of these construction sites is subject to detailed environmental monitoring to guarantee protection of the soil, air, and water, while limiting noise and waste production.

Before these projects begin, conservation actions to protect rare plants are conducted: close to 250 protected plant species, including numerous orchids, were moved and replanted in prairie zones suited to their needs between 2015 and 2018. For other plants, seeds were taken for the Conservatory and Botanical Garden of the City of Geneva.

All of these projects total three hectares of surface that became impermeable. Despite this increase in built surfaces, 32% of the airport is composed of extensive prairies, or more than 2.5 times the minimum required surface area. Ceasing to use the grass runway will enable us to return the

### CERTIFIED MANAGEMENT OF NATURAL SPACES

Since 2011, Genève Aéroport has been one of about 450 sites certified for their natural qualities by Fondation Nature & Economie. These sites contribute to safeguarding biodiversity by the qualitative management of their facilities.

→ [www.natureeteconomie.ch](http://www.natureeteconomie.ch)

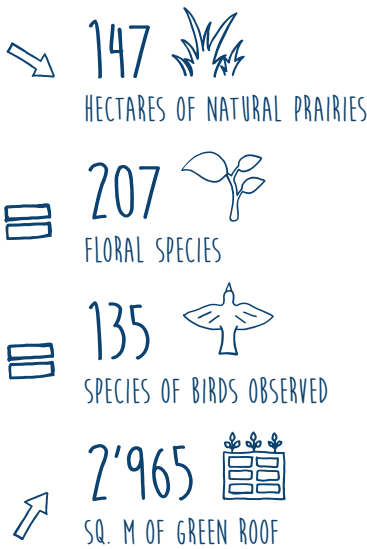
F O N D A T I O N  
**Nature & Economie**



freed-up prairie surface to natural management (2.5 hectares). The surface area of green roofing is expanding. Thanks to the Saraco roof equipment (see p.73), the site includes close to 3,000 sq. m of green roof.

**BALANCING SAFETY AND NATURAL AREAS**

The presence of animals on the airport site is constantly monitored by agents from the Wildlife Hazard Management Unit. These agents dissuade animals who come too close to the runway and settle birds in birdhouses in order to prevent danger to aircraft. In addition to the 233 birdhouses for swifts and swallows attached to the large hangar, 27 birdhouses were installed between 2016 and 2017 for other species, such as sparrows, red-tails, and wagtails. Birdhouses for bats should soon complete this facility. Young black swallows who fall from their nests are regularly brought to the Ornithologic Rehabilitation Centre of Genthod. In collaboration with Genève Aéroport, these small birds are integrated into adoptive families and distributed among the occupied birdhouses on the airport site. Such actions have been performed each year since 2015.



## → IN FOCUS

### THE GREENING OF THE SARACO SA ROOF

Carried out in 2017, this project increased green roof coverage at the airport site by 10%. Interview with Claude Jacquet, Head of HSSE (hygiene, health, safety, and environment) at Saraco SA, the Project Manager.



#### WHAT PROMPTED THIS PROJECT?

**Claude Jacquet:** Saraco manages the system of pipes under the tarmac that deliver kerosene to the airplanes. Our premises are located along the airplane taxiway and next to the airport's prairies. We needed to renovate our roof, and the idea of creating a green roof was a natural one: it was perfectly consistent with the surrounding prairie.

#### WHY DID YOU OPT FOR A GREEN ROOF?

**Claude Jacquet:** Since the roof is not accessible to the public, we opted for an extensive green roof offering excellent thermal and acoustic insulation. It also has a lower load per square meter than the variant that includes tiles. The roof is also very aesthetically pleasing, an additional advantage, since our roof is visible to passengers through their windows!

#### WHAT ARE THE DIFFICULTIES THAT YOU HAVE ENCOUNTERED?

**Claude Jacquet:** There were no difficulties during construction and installation. Maintenance is extremely limited. The main difficulty was how to finance the initial increased expense for the variant with more green surface area. We were able to obtain support from Genève Aéroport.



## THE GREENING OF THE SARACO SA ROOF IN NUMBERS



264  
M<sup>2</sup> OF GREEN  
SURFACE



130'000  
CHF INVESTED (TOTAL  
RENOVATION COST)



-2°  
IN THE SUMMER  
INSIDE THE BUILDING  
(EXPECTED)



## TABLE OF INDICATORS

| INDICATORS   | UNIT              | 2015               | 2016               | 2017               | NOTES  |
|--|-------------------|--------------------|--------------------|--------------------|--|
| ECONOMIC INDICATORS                                    |                   |                    |                    |                    |  |
| ECONOMIC PERFORMANCE                                   |                   |                    |                    |                    |  |
| Revenue  | [millions of CHF] | 423,7              | 445,3              | 466,6              |  |
| Net profit   | [millions of CHF] | 74,6               | 80,8               | 78,9               |  |
| Aviation income  | [%]               | 55                 | 56                 | 56                 |  |
| Non-aviation income                                    | [%]               | 45                 | 44                 | 44                 | Parking, commercial fees, other operating receipts               |
| Investment   | [millions of CHF] | 112                | 162                | 125                |  |
| <b>DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED</b> | <b>[CHF]</b>      | <b>674 200 000</b> | <b>781 700 000</b> | <b>735 696 000</b> |  |
| Public contribution (State of Geneva)                  | [CHF]             | 37 291 000         | 40 406 000         | 39 441 000         |  |
| Supplier and service provider expenses                 | [CHF]             | 241 268 000        | 293 833 000        | 268 059 000        |  |
| Operating expenses                                     | [CHF]             | 129 028 000        | 134 959 000        | 149 020 000        |  |
| Personnel costs  | [CHF]             | 144 973 000        | 144 502 000        | 144 079 000        |  |
| Sponsorships   | [CHF]             | 800 000            | 800 000            | 800 000            |  |
| Financial expenses                                     | [CHF]             | 8 600 000          | 8 326 000          | 15 258 000         |  |
| Cash flow from investment                              | [CHF]             | 112 240 000        | 158 874 000        | 119 039 000        |  |
| AIR TRAFFIC  |                   |                    |                    |                    |  |
| Number of movements (landings + take-offs)             | [no.]             | 188 829            | 189 840            | 190 778            |  |
| Number of passengers                                   | [mio]             | 15,771             | 16,452             | 17,352             |  |
| Number of passengers per movement                      | [no.]             | 84                 | 87                 | 91                 |  |
| Overall passenger satisfaction rate                    | [from 1 to 5]     | 3.89               | 3,91               | 3,86               | 1=poor; 5=excellent  |
| Freight transported                                    | [tonnes]          | 70 418             | 75 000             | 89 012             |  |
| SOCIAL INDICATORS*                                     |                   |                    |                    |                    |  |
| HUMAN RESOURCES  |                   |                    |                    |                    |  |
| EMPLOYEES  |                   |                    |                    |                    |  |
| Headcount  | [no.]             | 998                | 1022               | 1044               |  |
| Men  | [%]               | 69,2               | 70,5               | 70,3               |  |
| Women  | [%]               | 30,8               | 29,5               | 29,7               |  |
| Share of management positions held by women            | [%]               | 30,4               | 28                 | 29,1               | Senior management, upper management, supervisors, staff managers |
| Senior management headcount                            | [no.]             | 13                 | 12                 | 7                  |  |
| Men in senior management                               | [no.]             | 11                 | 11                 | 5                  |  |
| Women in senior management                             | [no.]             | 2                  | 1                  | 2                  |  |
| Headcount upper management                             | [no.]             | 4                  | 6                  | 13                 |  |
| Men upper management                                   | [no.]             | 3                  | 5                  | 12                 |  |
| Women upper management                                 | [no.]             | 1                  | 1                  | 1                  |  |
| Headcount managers                                     | [no.]             | 108                | 107                | 114                |  |
| Men managers   | [no.]             | 73                 | 74                 | 78                 |  |
| Women managers   | [no.]             | 35                 | 33                 | 36                 |  |

| INDICATEURS   | UNITÉ                                     | 2015    | 2016    | 2017    | REMARQUES  |
|---|---|---------|---------|---------|--|
|   |   |         |         |         |  |
| TERMS OF EMPLOYMENT   |   |         |         |         |  |
| Long-term employment agreement                              | [no.]                                     | 908     | 964     | 996     |  |
| Short-term employment agreement                             | [no.]                                     | 51      | 30      | 31      |  |
| Apprentices   | [no.]                                     | 7       | 7       | 8       |  |
| Auxiliaries   | [no.]                                     | 31      | 20      | 6       |  |
| Interns   | [no.]                                     | 1       | 1       | 3       |  |
| Full time   | [no.]                                     | 772     | 801     | 800     | Long-term, short-term, apprentices, auxiliaries, interns |
| Part time   | [no.]                                     | 226     | 221     | 244     | Long-term + short-term                                   |
| Occasional work from home                                   | [no. hours]                               | 1200    | 2708    | 3854    |  |
| Maternity leaves  | [no.]                                     | 10      | 7       | 8       |  |
| Paternity leaves  | [no.]                                     | 28      | 38      | 32      |  |
| PERSONNEL MOVEMENTS   |   |         |         |         |  |
| Turnover rate   | [%]                                       | 4,6     | 3,7     | 6,7     |  |
| Total absentee rate   | [%]                                       | 6,1     | 5,6     | 6,1     |  |
| Absence rate due to illness                                 | [%]                                       | 4,9     | 3,9     | 5,0     |  |
| Absence rate due to accidents                               | [%]                                       | 1,4     | 1,6     | 1,1     |  |
| Hires   | [no.]                                     | 83      | 69      | 100     |  |
| Hires - men   | [no.]                                     | 44      | 47      | 62      |  |
| Hires - women   | [no.]                                     | 39      | 22      | 38      |  |
| Total hires, long-term employment agreement                 | [no.]                                     | 77      | 83      | 88      |  |
| Hires, long-term employment agreement                       | [no.]                                     | 49      | 55      | 69      |  |
| Transfers from short-term to long-term employment agreement | [no.]                                     | 28      | 28      | 19      |  |
| Promotions  | [no.]                                     | 24      | 20      | 8       |  |
| Internal transfers  | [no.]                                     | 3       | 7       | 15      |  |
| Promotions + internal transfers                             | [% hires long-term employment agreements] | 35      | 33      | 26      |  |
| 1+ pour tous label  | [no.]                                     | 14      | 14      | 16      | Professional integration/reentry                         |
| Departures  | [no.]                                     | 26      | 27      | 55      | Employees with long-term agreements only                 |
| Resignations  | [no.]                                     | 5       | 9       | 18      |  |
| Dismissals  | [no.]                                     | 8       | 10      | 7       |  |
| Retirements   | [no.]                                     | 4       | 3       | 5       |  |
| Early retirements   | [no.]                                     | 6       | 3       | 23      |  |
| Deaths  | [no.]                                     | 1       | 1       | -       |  |
| Disability  | [no.]                                     | 2       | 1       | 2       |  |
| End of employment agreement                                 | [no.]                                     | -       | -       | -       |  |
| Total departures - men                                      | [no.]                                     | 17      | 14      | 38      |  |
| Total departures - women                                    | [no.]                                     | 9       | 13      | 17      |  |
| COMPENSATION  |   |         |         |         |  |
| Average salary  | CHF                                       | 105 415 | 106 237 | 107 195 |  |
| Median salary   | CHF                                       | 101 115 | 101 786 | 102 597 |  |
| WORKPLACE HEALTH AND SAFETY                                 |   |         |         |         |  |
| Work-related and non work-related accidents                 | [no.]                                     | 220     | 232     | 237     |  |
| Work-related accidents                                      | [no.]                                     | 30      | 43      | 43      |  |
|   |   |         |         |         |  |



| INDICATORS                 | UNIT  | 2015 | 2016 | 2017 | NOTES                         |
|----------------------------|-------|------|------|------|-------------------------------|
| Work-related accident rate | [no.] | 33   | 46   | 45   | per 1,000 full-time employees |
| Non work-related accidents | [no.] | 190  | 189  | 194  |                               |
| Work-related accident      | [no.] | 212  | 204  | 202  | per 1,000 full-time employees |

\*\* For information on additional categories, see the State of Geneva and its autonomous institutions Social Report (available at <http://ge.ch/etat-employeur/service-public/bilan-social>)

## ENVIRONMENTAL INDICATORS

|  |                              |               |               |               |  |
|--|------------------------------|---------------|---------------|---------------|--|
| <b>PREVENTION OF NOISE</b>                           |                              |               |               |               |  |
| <b>CALCULATED AIR TRAFFIC NOISE</b>                  |                              |               |               |               |  |
| Contour 6:00 - 22:00 VLI DSII (Lr > 60 dB)           | [km2]                        | 15,5          | 16,0          | 16,0          |  |
| Contour 22:00 - 23:00 VLI DSII (Lr > 55 dB)          | [km2]                        | 28,5          | 29,5          | 31,0          |  |
| Contour 23:00 - 24:00 VLI DSII (Lr > 50 dB)          | [km2]                        | 31,0          | 30,7          | 33,8          |  |
| Number of residents exposed to noise                 | [no.]                        | 22 500        | 23 787        | 28 082        |  |
| <b>Movements by noise class</b>                      |                              |               |               |               | 1=more noise; 5=less noise               |
| Noise Class I+II                                     | [%]                          | 3,0           | 3,4           | 3,1           |  |
| Noise Class III                                      | [%]                          | 8,6           | 9,3           | 8,5           |  |
| Noise Class IV                                       | [%]                          | 69,4          | 69,2          | 69,6          |  |
| Noise Class V  | [%]                          | 19,0          | 18,1          | 18,8          |  |
| <b>Night movements (22:00 - 5:59)</b>                | <b>[no.]</b>                 | <b>10 203</b> | <b>10 212</b> | <b>10 387</b> |  |
| Movements (22:00 - 22:59)                            | [no.]                        | 7 260         | 7 267         | 7 323         |  |
| Movements (23:00 - 23:59)                            | [no.]                        | 2 702         | 2 738         | 2 811         |  |
| Movements (0:00 - 0:29)                              | [no.]                        | 160           | 134           | 196           |  |
| Movements (0:30 - 5:59)                              | [no.]                        | 81            | 73            | 57            | medical flights, emergencies, exceptions |
| <b>SOUNDPROOFING PROGRAMME</b>                       |                              |               |               |               |  |
| Homes soundproofed annually in Switzerland + France  | [no.]                        | 3273          | 3642          | 3663          | Cumulative since 2003                    |
| Homes soundproofed annually in Switzerland           | [no.]                        | 49            | 9             | 19            |  |
| Homes soundproofed annually in France                | [no.]                        | 182           | 360           | 2             |  |
| Total amount spent since 2003 (CH + FR)              | [millions of CHF]            | 51,3          | 53,9          | 55,1          |  |
| <b>Complaints by residents (noise)</b>               | <b>[no. of complaints]</b>   | <b>88</b>     | <b>98</b>     | <b>142</b>    |  |
| <b>Complaints by residents (noise)</b>               | <b>[no. of complainants]</b> | <b>47</b>     | <b>57</b>     | <b>79</b>     |  |
| <b>ACCESSIBILITY</b>                                 |                              |               |               |               |  |
| Bus frequency  | [no./day]                    | 964           | 928           | 880           |  |
| Bus service capacity                                 | [seats/day]                  | 109 706       | 108 132       | 102 988       |  |
| <b>Sustainable modal share (passengers)</b>          | <b>[%]</b>                   | <b>46</b>     | <b>47</b>     | <b>42</b>     | <b>Public transportation</b>             |
| Passenger satisfaction with respect to accessibility | [%]                          | 80            | 80            | 80            |  |
| Public transportation tickets offered to passengers  | [no.]                        | 904 084       | 984 753       | 1 018 905     | Financed by Genève Aéroport              |

| INDICATORS  | UNIT                | 2015           | 2016           | 2017           | NOTES  |
|---|---------------------|----------------|----------------|----------------|--|
| <b>Sustainable modal share (employees)</b>                | <b>[%]</b>          | -              | -              | <b>38</b>      | <b>Public transportation and soft mobility</b>   |
| Airport staff subsidised by Genève Aéroport               | [no.]               | 1 421          | 1 424          | 1 466          | Public transportation and soft mobility          |
| Users of the Airport Staff Shuttle service                | [no.]               | 51 241         | 57 530         | 61 690         | Financed by Genève Aéroport                      |
| <b>AIR QUALITY, CLIMATE CHANGE, AND ENERGY EFFICIENCY</b> |                     |                |                |                |  |
| <b>EMISSIONS OF POLLUTANTS</b>                            |                     |                |                |                | <b>Genève Aéroport and partners</b>              |
| Nitrogen oxide (NOx)                                      | [t]                 | 791            | 835            | 871            |  |
| Carbon monoxide (CO)                                      | [t]                 | 617            | 633            | 600            |  |
| Volatile organic compounds (VOCs)                         | [t]                 | 271            | 284            | 238            |  |
| Fine particles (PM10)                                     | [t]                 | 30             | 30             | 28             |  |
| <b>TOTAL GREENHOUSE GAS EMISSIONS (GHG)</b>               |                     |                |                |                | <b>Certified by Airport Carbon Accreditation</b> |
| Total GGE   | [tonnes CO2 equiv.] | 220 560        | 228 918        | 229 724        | Corrected data/change in calculation method      |
| Intensity of GHG emissions                                | [kg CO2 equiv/UT]   | 13,4           | 13,3           | 12,6           | UT = 1 passenger or 100 kg of freight            |
| Direct emissions of GHG                                   | [tonnes CO2 equiv.] | 8 337          | 9 237          | 8 710          | GHG under the responsibility of Genève Aéroport  |
| Indirect emissions of GHG linked to energy                | [tonnes CO2 equiv.] | 1 314          | 1 202          | 940            |  |
| Other indirect emissions of GHG                           | [tonnes CO2 equiv.] | 211 178        | 218 479        | 220 074        |  |
| <b>CONCENTRATION MEASURED AT THE AIRPORT</b>              |                     |                |                |                | <b>Local air quality</b>                         |
| Nitrogen dioxide (NOx)                                    | [mg/m3]             | 27             | 28             | 29             |  |
| Ozone (O3)  | [nb]                | 5              | 6              | 6              | Number of times exceeding the legal limit        |
| Sulfur dioxide (SO2)                                      | [mg/m3]             | 3              | 3              | 3              |  |
| Fine particles (PM10)                                     | [mg/m3]             | 17             | 16             | 16             |  |
| <b>TOTAL ENERGY CONSUMPTION</b>                           | <b>[MWh]</b>        | <b>112 460</b> | <b>113 552</b> | <b>111 299</b> | <b>Electricity, heating, fuel</b>                |
| Energy intensity  | [kWh/UT]            | 6,8            | 6,6            | 6,1            | UT = 1 passenger or 100 kg of freight            |
| Renewable energy as a share of total energy consumption   | [%]                 | 55,0           | 52,0           | 54,0           |  |
| Energy efficiency   | [%]                 | 20,7           | 21,5           | 23,9           |  |
| <b>Electricity</b>  | <b>[MWh]</b>        | <b>58 152</b>  | <b>56 456</b>  | <b>56 703</b>  | <b>100% renewable</b>                            |
| <b>Combustion</b>   | <b>[MWh]</b>        | <b>33 088</b>  | <b>37 055</b>  | <b>33 899</b>  |  |
| Combustion (corrected degree days)                        | [MWh*deg d]         | 35 504         | 37 796         | 34 814         |  |
| Heating oil   | [MWh]               | 21 542         | 23 763         | 23 814         |  |
| Natural gas   | [MWh*deg d]         | 7 071          | 7 957          | 4 973          |  |
| District heating  | [MWh*deg d]         | 4 475          | 5 335          | 5 112          |  |
| <b>Energy savings</b>                                     | <b>[GWh/year]</b>   | <b>12,7</b>    | <b>13,0</b>    | <b>12,1</b>    | <b>Cumulative since 2001</b>                     |
| New energy savings measures                               | [MWh]               | 572            | 249            | 2488           | Thermal and electric                             |
| <b>Solar energy</b>                                       |                     |                |                |                |  |
| Total photovoltaic surface area                           | [m²]                | 8 164          | 9 792          | 9 850          |  |
| Annual photovoltaic solar production                      | [MWh]               | 990            | 1 050          | 1 175          |  |



| INDICATORS   | UNIT        | 2015         | 2016         | 2017         | NOTES   |
|--|-------------|--------------|--------------|--------------|---|
| <b>Total thermal surface area</b>                            | <b>[m²]</b> | <b>1 221</b> | <b>1 221</b> | <b>1 221</b> |   |
| Vehicle and machine fuels                                    | [MWh]       | 18 804       | 19 300       | 19 781       | Genève Aéroport and partners                    |
| Diesel fuel  | [m3]        | 1 437        | 1 496        | 1 531        |   |
| Unleaded fuel  | [m3]        | 304          | 287          | 297          |   |
| <b>Airport vehicles and machines</b>                         | <b>[nb]</b> | <b>1 113</b> | <b>1 120</b> | <b>1 189</b> | <b>Genève Aéroport and partners</b>             |
| Vehicles and machines less than 10 years old                 | [%]         | 58,8         | 60,5         | 65,4         | Euro4, Euro5, Euro6, Com3, Com4 Standards       |
| Diesel vehicles and machines with particule filters          | [%]         | 31,6         | 33,0         | 35,0         |   |
| Electric, hybrid, and natural gas vehicles and machines      | [%]         | 21,3         | 23,0         | 26,0         |   |
| <b>EFFLUENTS, WASTE, NATURAL RESOURCES, AND BIODIVERSITY</b> |             |              |              |              |   |
| <b>Aircraft de-icing</b>                                     | <b>[m3]</b> | <b>653</b>   | <b>508</b>   | <b>765</b>   | <b>Airport partners</b>                         |
| Type I   | [%]         | 54           | 41           | 60           |   |
| Type IV  | [%]         | 46           | 37           | 57           |   |
| Dilution water   | [m3]        | 733          | 508          | 839          |   |
| Collection of de-icing products + dilution water             | [%]         | 45           | 53           | 35           | Genève Aéroport                                 |
| Pollutant load treated                                       | [%]         | 96,4         | 96,4         | 96,4         | Relating to de-icing products                   |
| <b>De-icing of airport movement areas</b>                    |             |              |              |              | <b>Genève Aéroport</b>                          |
| Potassium formate  | [m3]        | 105          | 129          | 224          |   |
| Sodium formate   | [t]         | 5            | 14           | 23           |   |
| <b>Total waste</b>   | <b>[t]</b>  | <b>5 296</b> | <b>5 397</b> | <b>5 280</b> | <b>Genève Aéroport and partners</b>             |
|  | [kg/UT]     | 0,32         | 0,31         | 0,29         | UT = 1 passenger or 100 kg of freight           |
| Incinerated waste managed by GA                              | [tonnes]    | 2 130        | 2 073        | 1 930        |   |
| Recyclable waste managed by GA                               | [tonnes]    | 1 343        | 1 498        | 1 542        |   |
| Special waste managed by GA                                  | [tonnes]    | 321          | 312          | 434          | Requiring sufficient management to reduce risks |
| Percentage of material recycled                              | [%]         | 38,7%        | 41,9%        | 44,4%        | Managed by GA alone, excluding special waste    |
| <b>NATURAL RESOURCES</b>                                     |             |              |              |              |   |
| Total water consumption                                      | [m3]        | 226 356      | 213 406      | 220 687      | Genève Aéroport and partners                    |
|  | [l/UT]      | 13,7         | 12,4         | 11,7         | UT = 1 passenger or 100 kg of freight           |
| Green roof surface area                                      | [m2]        | 2 701        | 2 701        | 2 965        |   |
| Wildlife strikes   | [no.]       | 3,8          | 3,2          | 2,7          | By 10'000 airplane movements                    |
| Prairies close to natural state                              | [%]         | 84           | 84           | 84           | Certified by the Fondation Nature & Economie    |





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**Design :** Frédéric Rouget-Châtelain

**Illustrations :** ©LionelHotz

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**Translation :** Translex

**Printing :** 1'000 ex. French - 500 ex. English

Printed in Switzerland in Geneva at Atar Roto Presse SA, 2017.

**Paper :** Cocoon offset preprint, FSC 100% recycled

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## THANK YOU !

Thank you for your interest in our Sustainability Report. Your comments on its quality, completeness, and clarity are greatly appreciated and help us to improve.

Write to us at [rdd@gva.ch](mailto:rdd@gva.ch) or **Facebook @GeneveAeroport** and **Twitter @GeneveAeroport** with the hashtag **#GeneveAeroport**.

We also thank all of Genève Aéroport's employees, who, through their strong commitment, contribute to the good management of the airport and to the continual improvement in the airport's performance with respect to sustainable development.

Thank you to the more than 50 employees of the airport platform who specifically contributed to the content of this report.

This document is available in electronic form in French and English on the website of Genève Aéroport: [www.gva.ch/publications](http://www.gva.ch/publications).



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