ACI EUROPE
AIRPORTS COUNCIL INTERNATIONAL

SUSTAINABILITY STRATEGY FOR AIRPORTS

SECOND EDITION – NOVEMBER 2020

COVER / PHOTOS
TOP ROW (left to right): Athens International Airport, Munich Airport.
BOTTOM ROW (left to right): Belfast City Airport, Dublin Airport.

This strategy was prepared with the support of Quantis and Dr. Panagiotis Karamanos
(Senior Advisor to *Airport Carbon Accreditation*).

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FOREWORD

by Olivier Jankovec, Director General of ACI EUROPE

When we launched the first edition of this Sustainability Strategy for Airports in June 2019, Europe's airports and aviation as a whole were enjoying record levels of activity and looking ahead at strong growth prospects for the future. While this trend was very beneficial from a socio-economic perspective, its environmental impacts, particularly on climate change, have led to doubts around aviation's societal acceptability and consequently its license not just to grow but also to operate. Against this background, one of the main challenges we sought to address with our Strategy was to help airports manage this growth in a manner that better balances the social, economic and environmental impacts of aviation.

Roughly one year later, the context our industry operates in has changed dramatically – as has the whole world. In just a couple of weeks following the breakout of the COVID-19 pandemic, demand for air transport had vanished and air connectivity collapsed. During the month of April 2020, when the pandemic reached its first peak in most of Europe, airports saw a 98.6% drop in passenger numbers, compared to the same period last year. The impact of COVID-19 on European airport traffic and revenues will be significant and long-lasting.

At the same time, aviation has been pivotal in addressing the pandemic, enabling the transfer of vital medical supplies and providing repatriation flights. Indeed, as critical infrastructure, airports worldwide have been at the forefront of this crisis response. They have been providing support to health workers and their communities by putting in place COVID-19 test centres on their sites, donating masks and ventilators to hospitals, and food to the most vulnerable populations left without employment.[1]

The aviation sector is now grappling with a protracted and uncertain recovery – with the prospect of diminished positive economic impacts and deteriorated social conditions for its workforce. Its impact on the environment – in particular climate change, has somehow been eclipsed by the pandemic and issues of health and safety. But there can be no doubt that climate change remains the primary challenge that needs to be fully addressed.

Furthermore, aviation is no longer unanimously perceived as a safe mode of transport; it has been one of the vectors in the spread of the disease and its evolution from a local epidemic to a global pandemic. Consequently, aviation now finds itself confronted with a renewed and urgent societal acceptability challenge. This requires the sector to step up its efforts in embracing sustainability in all of its three components, as part of the necessary evolution of its business and economic model in the post COVID-19 era. ACI EUROPE's determination to lead and support Europe's airports in this journey is stronger than ever – and this is precisely what led us to update our Sustainability Strategy for Airports.

1. For more examples, see ACI EUROPE WeAreAviation hub at: https://www.aci-europe.org/weareaviation

While this update does reflect the impact of COVID-19, much of its original content remains relevant. In fact, the current health crisis adds to the economic disruptions, rising inequality, depleted resources, changing consumer behaviour and new political dynamics that already put airport operators at the forefront of a new imperative in recent years: putting the social purpose of their business at the core of their strategies and thus embracing a new *Business-to-People* (B2P) paradigm.

Consequently, airports need to both maximise the added value they provide to society – and articulate such value through enhanced engagement and communication with their communities and other stakeholders.

This is all the more important as airports are non-movable facilities, embedded into their territories. They also represent a key interface between various aviation and non-aviation stakeholders - providing essential connectivity services to their local communities. This means that airports have significant potential in leading transformational change beyond their fences - with the ability to become a role model within and outside the aviation industry.

Ultimately, being a sustainable airport operator also means being resilient and contributing to more cohesive and resilient societies, making them better equipped to withstand major environmental, economic or social pressures in a fast changing world. This of course also implies preserving the foundations of a prosperous world for future generations.

As the trade body serving and leading European airports, ACI EUROPE has been at the forefront of sustainability developments. A case in point is *Airport Carbon Accreditation*, which was launched in 2009 as part of the European response to the climate change challenge, and which has now become the global standard for carbon management across the airport industry. By developing this Sustainability Strategy and now updating it to reflect the latest relevant global developments, ACI EUROPE is reaffirming its leadership role in this area.

Our objective is to continue advancing airport management based on a *Business-to-People* paradigm and future-proof the airport industry (and beyond that, aviation and air connectivity) through the provision of guidance enabling airport operators to embed sustainability at the core of their business strategy. In the context of the recovery from COVID-19, this means pursuing the principle of *Building Back Better*, making our industry more aware of the need to prevent future similar crises while also becoming more resilient to them.

In closing, I would like to thank Athens International Airport, Brussels Airport, Copenhagen Airport, Geneva Airport, Heathrow Airport, Hermes Airports, IGA (Istanbul Airport), Munich Airport, GESAC (Naples International Airport), Groupe ADP (Paris Airports) and Royal Schiphol Group for their invaluable support and continued, extensive contributions to the development of this second edition of the Strategy – in spite of the COVID-19 crisis.

1

PURPOSE OF THE DOCUMENT

Traditionally, airports' sustainability efforts have been focusing on minimising the environmental impacts of their operations. Of course, such perspective remains critical and requires continued efforts, given in particular the existential challenge of global warming. However, there is an increasing awareness that a sole focus on environmental impacts is not sufficient anymore and that the airport industry needs to address the three sustainability dimensions - environmental, social and economic - in a comprehensive manner.

Therefore, the ACI EUROPE Sustainability Strategy is built as an industry-wide framework and guidance, articulated around a shared vision of the sustainable airport of the future. This framework and guidance introduces a contemporary, balanced business approach that accounts for financial and non-financial impacts, suitably adapted to the priorities of our industry. As such, this strategy aims at providing a general direction and guidance to the sustainability efforts of European airport operators. It identifies recommended actions that can help airports become more sustainable and provides indicative metrics to help them measure their achievements and identify areas for further progress.

Given the breadth of the topic and the diversity of Europe's airports, the Sustainability Strategy does not provide an exhaustive nor prescriptive list of sustainability related activities and metrics that airports might wish to implement. For instance, while recognising that areas such as safety of operations and security are key components of airport sustainability, this strategy does not cover them, as they are highly regulated and addressed through existing international frameworks and standards. The strategy focuses on areas where ACI EUROPE sees significant potential for airports to be more ambitious and step up their efforts, in particular by implementing voluntary measures beyond regulatory requirements.

2

GLOBAL CONTEXT

Global sustainability standards

The common language for sustainability is defined in the 17 Sustainable Development Goals (SDGs) as adopted by the United Nations in 2015:

Along with the dissemination of the SDGs, governance has gained global acceptance as a major building block of sustainability. The adoption of materiality analysis for defining priorities, the use of strategy & reporting standards (such as the Global Reporting Initiative, GRI), the engagement of third-party assurance to add validity to disclosures and forward-looking planning for sustainability outcomes (in line with the six capitals of the International Integrated Reporting Council, IIRC[2]) are important components. Within this framework, airports generally relate their sustainability actions with the SDGs and the GRI *Sustainability Reporting Guidelines* and *Airport Operators Sector Supplement (AOSS)*.

SDG 13: Climate Action

Depending on their local specificities, airports are defining different priorities, however SDG 13 – Climate Action – is of undisputed importance worldwide. This is especially true since the adoption of the Paris Agreement (December 2015) which sets the objective of limiting global warming to 2° and ideally 1.5° C - to prevent catastrophic consequences for our planet and humankind. The urgency of responding to what is now being referred to as the climate emergency has been highlighted by the Special Report of the Intergovernmental Panel on Climate Change (IPCC), issued in October 2018. This report calls for "urgent & drastic action to limit global warming in line with the Paris Agreement", including "unprecedented & deep emissions reductions in all sectors" so that global emissions decline by -45% by 2030 and reach net zero by 2050. In line with these findings, in December 2019, the European Commission (EC) announced the objective for Europe to become the first climate neutral continent by 2050, supported by a disruptive, unprecedented new policy strategy, the European Green Deal. This ambition places a particular responsibility on aviation, whose emissions in Europe have increased by 10% between 2014 and 2017, and, based on pre COVID-19 projections, are expected to grow by further 21% by 2040.[3]

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2. The six capitals are: financial, infrastructural, intellectual, human, social and natural. For more information, refer to https://integratedreporting.org/wp-content/uploads/2013/03/IR-Background-Paper-Capitals.pdf
3. European Aviation Environmental Report 2019

SDG 3: Good health and well-being

With the climate emergency remaining the greatest challenge humanity faces, the world has been struck by another major crisis in 2020 – the COVID-19 pandemic. In addition to being an unparalleled health crisis, it has led to economic and social disruptions of unprecedented nature worldwide, with their full scale not yet being measurable.

This new situation establishes SDG 3 – Good health and well-being - as one of the top priorities to be addressed in any sustainability strategy. For airports, this means putting a strong focus on all measures for a safe and healthy passenger journey and airport experience, recognising a new passenger category – the health-concerned passenger. It is also about ensuring a healthy working environment for their staff and employees of third parties operating on their sites. Last but not least, it is about seeking ways to support public health and safety beyond the airport fence as well, for instance by continuing or expanding support to healthcare workers in the local communities.

Building Back Better: Towards a sustainable recovery from COVID-19

The COVID-19 crisis raises fundamental questions about our societies, economic and political systems, and also puts the discussion around airport sustainability into a new context. Many airports are struggling to survive the economic downturn and suffer from imploded resources, including for their sustainability work. This puts achievements of the last years and plans for the future at a big risk. Nevertheless, it is also clear that sustainability needs to remain on the top of airport's agendas, with the current crisis being an opportunity to critically reassess existing structures and practices and try to build the world – and the aviation sector – back better. A sustainable recovery is needed to safeguard the sector's viability and to increase the opportunities for raising much needed capital.

In fact, COVID-19 has shown how important early action is to address a looming crisis, and that delays do have a significant human and economic cost. The same is true for other crises the world faces, including climate change. Delaying or reducing the rate at which emission reductions are made today will require more significant cuts in emissions in the future, with higher costs, and will also lead to stronger impacts of the changing climate, disrupting aviation operations and infrastructure. There is also an increasing amount of evidence that climate change and loss in biodiversity are raising the likelihood of new diseases, including pandemics such as COVID-19.[4] Climate action and the protection of the planet's resources is thus a direct contribution to the prevention of future health crises, alongside all the associated disruptions for airports.

In 2018, aviation in Europe accounted for 25.9% of global passenger traffic. It directly and indirectly provided more than 13.5 million jobs and makes a 991+ billion euros contribution to the economy. Direct employment with airport operators and at airport facilities (e.g. retailers, ground handlers, etc.) was at around 1.7 million.[5] Restoring the European aviation sector in a sustainable manner is thus an irreplaceable ingredient for the overall economic and social recovery of the economy. In order to support this process, it is more important today than ever for airports to address the question of how to operate in a way that balances social, economic and environmental impacts. In the context of wide societal transformations and changing values, failing to provide the necessary answers would put at risk the restoration of public trust in air transport and ultimately the sector's recovery.

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4. https://www.weforum.org/agenda/2020/03/biodiversity-loss-is-hurting-our-ability-to-prepare-for-pandemics/
5. Air Transport Action Group, Aviation Benefits Beyond Borders, October 2020, https://aviationbenefits.org/media/167134/abbb20_europe.pdf

3

MAIN CHANGES COMPARED TO THE FIRST EDITION

This second edition of the ACI EUROPE Sustainability Strategy for Airports introduces the following main changes compared to the first version:

- Reflecting the COVID-19 crisis and the need for a sustainable recovery, the idea of a Balanced Business Model is put at the core of the Strategy. Instead of being part of the economic pillar, it becomes a stand-alone foundation, overarching the environmental, social and economic dimensions. This is expected to drive innovative decision-making that sees the current crisis as an opportunity to pay equal attention to these three sustainability components.

- Moreover, experience gained during the COVID-19 crisis and its implications are integrated into the individual sustainability pathways where relevant. The updates performed build on the work carried out in the framework of the ACI EUROPE OFF THE GROUND project.[6]

- This document also addresses findings of the pilot phase during which airports tested the use of the Strategy in detail. 3 airport groups and 12 individual airport operators were part of this exercise.

Similar changes have also been implemented in the Excel Self-Assessment Tool.

6. Publicly available OFF THE GROUND deliverables can be accessed on https://www.aci-europe.org/industry-topics/covid-19.html

4

THE SUSTAINABLE AIRPORT OF THE FUTURE – BUILT ON A BALANCED BUSINESS MODEL

A sustainability vision is essential as a basis for the formulation of a sustainability strategy. It outlines how a sustainable airport of the future could look. ACI EUROPE sees its vision of a sustainable airport reflected in the following statement:

> **Every airport builds local and global partnerships to accelerate the journey towards fair, prosperous and environmentally responsible societies.**

It is based on the following considerations:

"Every airport"

reflects ACI EUROPE's commitment to engage each and every member airport in working towards this vision

"builds local and global partnerships"

Refers to the airport's leadership role in building partnerships at the local level and being a key interface in the aviation business and the global connections it creates.

"to accelerate the journey"

Relates to the capacity of airports to mobilise and drive change for the better, by promoting sustainable connectivity, supporting education, fostering innovation, implementing new business models and diversifying services. Ultimately, this will also establish the airport as a role model in sustainability for other sectors.

"towards fair, prosperous and environmentally responsible societies"

Introduces three of the most important objectives and principles underlying the understanding of sustainability by the airport industry. More specifically:

➔ Contributing to Fair Societies

Being a sustainable airport means contributing to the universal principles of fair and caring societies. Consequently, the airport operator will strive to uphold the UN Guiding Principles on Business and Human Rights as part of its operations and exercise leverage to ensure adherence by business partners within its sphere of influence. It will actively fight against those who abuse of its services through human trafficking.

The airport operator will strive to enhance the quality of life and well-being of its surrounding communities, by ensuring that they benefit from a wide array of services as well as educational and employment opportunities. It will also aim at providing new types of value to local communities by contributing to social entrepreneurship. The burden arising from noise exposure of these communities will be reduced as much as possible and residents will contribute to the decision-making process to determine how to best achieve this, based on mutual trust and goodwill.

The airport operator will provide a safe, healthy, motivating, fulfilling and inclusive workplace that offers equal career development opportunities and appropriate compensation to all employees. The airport's workforce will reflect and promote the diversity of the communities it is embedded in.

All passengers and visitors of the airport will benefit from a safe, healthy, seamless and positive airport experience regardless of their physical and mental conditions. The airport operator will make use of new opportunities provided through digitalisation to enhance the quality of services at the airport.

➔ Contributing to Prosperous Societies

The airport will continue providing value-adding, diversified and essential connectivity services and thus enabling societies worldwide to reap the economic, social and cultural benefits of aviation.
The airport operator will encourage intermodal access to its facilities and strive at integrating the external costs of its activities as well as their non-financial value in its business and master planning. In particular, it will continue supporting the creation of jobs in its sphere of influence as well as implement, where relevant, appropriate re-skilling and upskilling of (potential) staff to ensure their continued employability in spite of developments such as automation or Artificial Intelligence.

The airport operator will exercise responsible procurement practices to promote corporate values of fairness, transparency and environmental responsibility across its supply chain. It will integrate local businesses as partners into its value creation, for instance by locally sourcing products and services.

The airport operator will work with the local hospitality sector to ensure its region is a sustainable destination for travellers. In particular, this implies promoting sustainable tourism products and services.

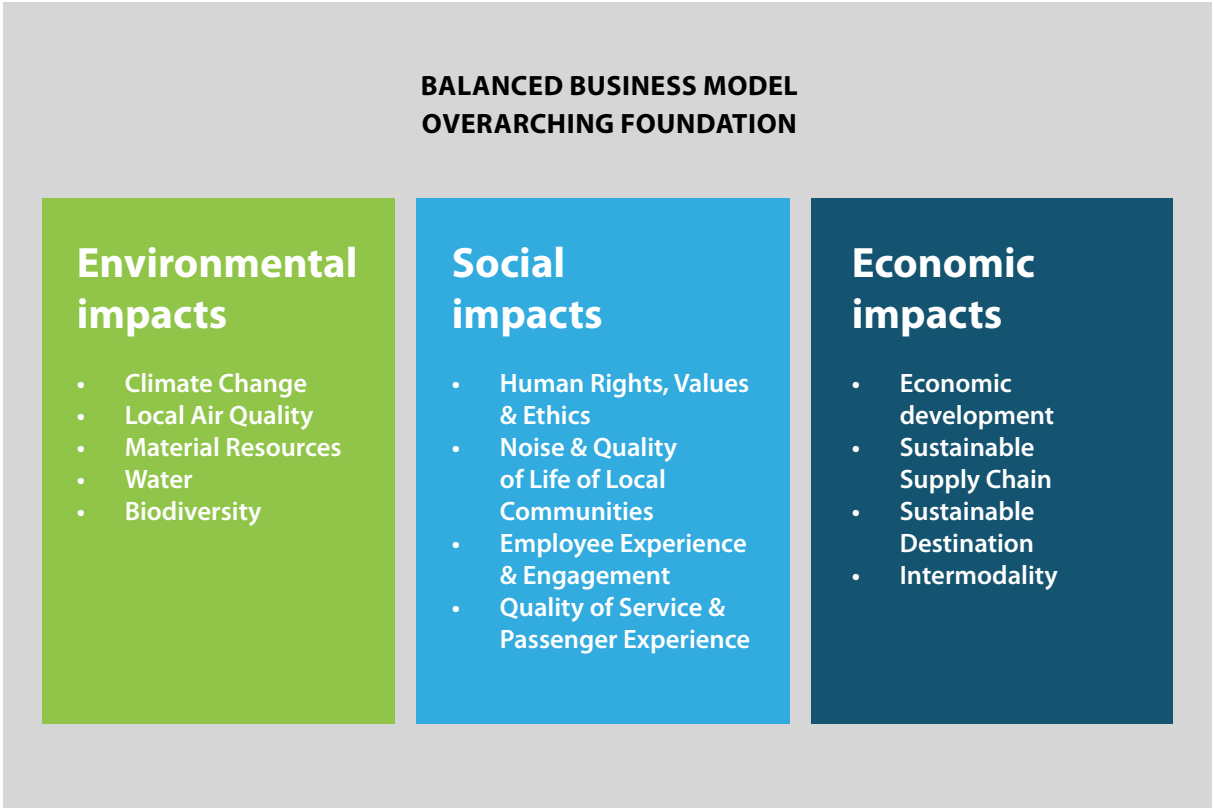
➔ Contributing to Environmentally Responsible Societies

The airport operator will respect the environment and preserve means of livelihood for present and future generations through thoughtful use of water and other natural resources, applying the principles of circular economy. By 2050 at the latest, airport operators will reach net zero carbon emissions for sources under their direct control. The airport will also cooperate with aircraft operators and other partners to support them in reducing and ultimately eliminating their climate impact. These initiatives will also contribute to improving local air quality.

The airport operator will protect biodiversity on its site, in the region and globally, including by fighting against wildlife trafficking. It will also adapt its infrastructure and operations to the changing climate, so they can continue providing their essential social and economic services in the long-term.

→ Overarching foundation: A Balanced Business Model

Based on this vision, the present strategy relies on an overarching "Balanced Business Model" foundation. The International Integrated Reporting Council (IIRC) defines an organisation's business model as *"its system of transforming inputs, through its business activities, into outputs and outcomes that aims to fulfil the organization's strategic purposes and create value over the short, medium and long term."*[7] In order to be purpose-oriented businesses, airports should strive to extend the way they approach value creation and establish a Balanced Business Model – i.e. aiming at an optimal balance between their economic, social and environmental impacts.[8] To achieve this goal, the internal and external costs of their activities as well as the social, economic and environmental value created need to be assessed and reflected in strategic decision-making, supported by a corresponding governance structure.[9]



7. International Integrated Reporting Council (IIRC), The <IR> Framework, page 26
8. For more information on the definition of a business model, see for instance Business Model Background Paper for Integrated Reporting: https://integratedreporting.org/wp-content/uploads/2013/03/Business_Model.pdf
9. Integrated Performance Management provides for a framework to support this process; it refers to organisational performance management which integrates environmental and social considerations in the development of a business strategy, supported by a set of KPIs. For more information, see for instance WBCSD, Accenture: Integrated Performance Management https://www.wbcsd.org/Projects/Education/Leadership-program/Resources/WBCSD-FLP-2014-Accenture-Integrated-Performance-Management

5

HOW TO USE THE ACI EUROPE SUSTAINABILITY STRATEGY?

The ACI EUROPE Sustainability Strategy is based on a review of existing airport sustainability strategies, sustainability frameworks, relevant technological, economic and political developments as well as societal expectations. However, each airport is unique and operates within a specific context.

As such, this strategy aims at providing a general direction & guidance to the sustainability efforts of European airports.[10] It does not define any mandatory actions nor establish reporting requirements. It is therefore important that as a first step to define its individual sustainability strategy, each airport performs a materiality assessment. A materiality assessment (or analysis) is based on:

- Reviewing the different areas of environmental, social and economic impact of a company;
- Identifying the most significant impacts based on their magnitude and the influence they have on decisions of key company stakeholders;
- Defining actions and allocating resources accordingly.

Airport operators are encouraged to refer to the 13 material issues presented in this strategy as a common baseline for identifying priorities and action planning. However, they should not limit their individual materiality analysis to these topics only and should assess whether additional aspects should be included depending on their local conditions and priorities, such as cultural heritage. In a similar manner, airports may decide to include safety of operations and security as part of their individual sustainability strategies. For more guidance on how to carry out a materiality assessment, airports should refer to GRI.[11]

In a similar manner, for an airport operator to implement the most relevant projects to increase the added value it provides to society, it is important to identify and assess their impacts on non-financial capital. Based on the *Natural Capital Protocol* and *Social and Human Capital Protocol*, related guidance is outlined in Annex 1.

In addition, as a pre-requisite to the implementation of any sustainability related work, sound governance is required. This relies on:

- Defining clear roles and responsibilities;
- Establishing processes for the collection of relevant, consistent and high-quality data and the associated external assurance;
- Putting in place regular, transparent and holistic reporting - in line with globally-acknowledged reporting standards, such as those provided by GRI.

Selected airport certifications, standards and guidance can help airports ensure legal compliance, obtain recognition and overall improve sustainability performance. They include, amongst others, ISO 9001 for quality management, ISO 14001 and EMAS on environmental issues, ISO 50001 on energy management, ISO 45001 on health and safety, ISO 41000 on facilities management, ISO 26000 on social responsibility, and ISO 20400 on sustainable procurement.

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10. As a general rule the Sustainability Strategy refers to individual airports. However, airports that belong to an airport group may rely on actions at the group level as long as these actions can be utilised to assess progress of the individual airport (e.g. formulation of policies/ plans at the group level that are also adopted by the individual airport, studies launched at the group level covering individual airports).
11. https://www.globalreporting.org/standards/media/1036/gri-101-foundation-2016.pdf

In this strategy, for the Balanced Business Model as well as each of the environmental, social and economic material issues, a sustainability pathway is proposed, structured around 4 steps: Launch, Development, Maturity and Leadership. They are defined as follows:

Launch

- The airport operator starts the analysis of its performance on a given topic. It usually means performing a first mapping and assessment of its activities and impacts in order to define a baseline.

Development

- The airport operator defines objectives to address its impacts, establishes a strategy and an action plan, including KPIs in order to track progress.
- The airport operator puts in place the governance required to implement the strategy.

Maturity

- The airport implements the strategy/action plan, tracks and reports on progress.
- This is also usually the stage at which airports extend their sustainability efforts to actions and collaborations outside their direct operational boundaries.

Leadership

- The airport operator demonstrates high performance in a specific area by reaching its objectives and industry-wide targets where applicable.
- The airport operator serves as a role model to its partners in- and outside the airport sector.

Some of the pathways are built around performance objectives. In alignment with the UN SDG framework, performance objectives refer to year 2015 as the baseline and 2030 as the target year, unless specified otherwise in this strategy or justified as more relevant by an airport in its specific local context. Indicative Key Performance Indicators (KPIs) relating to the implementation of processes and key baseline measurements will help airports assess their progress throughout the pathway.

In addition, this strategy identifies two transversal enablers, supporting airports' efforts towards enhanced sustainability. They are not associated with any of the 4 pathway steps and can be applied at any time during the airports' sustainability journey:

- **Innovation** - highlighting innovative approaches in the different sustainability areas. Depending on the societal, economic and political environment that an airport operates in, different technologies and processes can be considered as innovative. Therefore where relevant, this strategy outlines a non-exhaustive range of potential innovative solutions or processes that airports might wish to use in their sustainability work.

- **Partnerships** – highlighting opportunities for airports to build on their critical role as the operational interface between stakeholders and the resulting potential to influence the sustainability performance of those stakeholders.

  Establishing partnerships is particularly important to address environmental impacts at airports because of strong interdependencies between the activities of different stakeholders on the airport site. To support this process, EUROCONTROL's Collaborative Environmental Management (CEM) specifications provide a step-by-step and comprehensive guidance. ACI EUROPE has adopted CEM as a Recommended Practice and encourages airports to use it to support the implementation of partnerships as suggested for each environmental theme below.

Finally, where relevant, the association between the proposed sustainability pathways and metrics and the UN SDGs and/or GRI is highlighted in Annex 2 of this document. A non-exhaustive list of relevant reference material is presented in Annex 3.

In order to support airports in the use of this strategy, ACI EUROPE developed an Excel-based Self-Assessment Tool with the pathway steps and metrics presented in this document. The Tool allows for self-assessment of an airport's performance and helps identify areas for improvement taking into account the airport's individual materiality analysis. Relevant guidance is provided with the Tool. A dashboard provides the output of the evaluation in a user-friendly manner. The Tool is a dynamic instrument that will be further developed and refined in line with potential future changes in sustainability standards and the needs of airports. It is for internal use by airport operators only and is not related to any reporting mechanisms.

The structure of this strategy, based upon the overarching foundation of a Balanced Business Model, is summarised in the table below. The table also outlines how the different sustainability areas addressed relate to UN SDGs. SDG 17 is relevant for all areas and as such not specifically highlighted below. Only the major links to SDGs from an airport perspective are presented. SDGs not appearing in the table might nevertheless be relevant for some airports.

Balanced Business Model – Overarching Foundation

Impact	Material Issue	Link to SDGs	Pathways
Environmental	Climate Change	13 CLIMATE ACTION; 7 AFFORDABLE AND CLEAN ENERGY; 11 SUSTAINABLE CITIES AND COMMUNITIES	Launch → Development → Maturity → Leadership; KPIs
	Local Air Quality	3 GOOD HEALTH AND WELL-BEING; 11 SUSTAINABLE CITIES AND COMMUNITIES	
	Material Resources	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	
	Water	6 CLEAN WATER AND SANITATION	
	Biodiversity	14 LIFE BELOW WATER; 15 LIFE ON LAND	
Social	Human Rights, Values & Ethics	5 GENDER EQUALITY; 8 DECENT WORK AND ECONOMIC GROWTH	
	Noise & Quality of Life of Local Communities	3 GOOD HEALTH AND WELL-BEING; 11 SUSTAINABLE CITIES AND COMMUNITIES	
	Employee Experience & Engagement	8 DECENT WORK AND ECONOMIC GROWTH; 5 GENDER EQUALITY; 3 GOOD HEALTH AND WELL-BEING	
	Quality of Service & Passenger Experience	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 3 GOOD HEALTH AND WELL-BEING	
Economic	Economic Development	8 DECENT WORK AND ECONOMIC GROWTH; 4 QUALITY EDUCATION	Enablers: • Innovation • Partnerships
	Sustainable Supply Chain	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	
	Sustainable Destination	8 DECENT WORK AND ECONOMIC GROWTH; 11 SUSTAINABLE CITIES AND COMMUNITIES	
	Intermodality	8 DECENT WORK AND ECONOMIC GROWTH; 11 SUSTAINABLE CITIES AND COMMUNITIES	

6

SUSTAINABILITY PATHWAYS

6.1. Balanced Business Model

Airport operators will continue to serve their core function of providing aeronautical services – landing, parking, embarking and disembarking of passengers and freight, terminals, logistics centres and baggage halls, etc. In this area, airports can seek to minimise the environmental impact of their infrastructure and services and also apply a pricing strategy that encourages quieter and cleaner operation of aircraft, as outlined in the ACI EUROPE information paper on environmental modulation of airport charges.[12] Similarly, airports should strive to ensure that they are covering the full costs of providing aeronautical services through aeronautical charges. Ensuring this cost-revenue balance will be particularly important in the context of an evolving aviation market post-COVID-19 and is key to safeguard the capacity of airports to invest into sustainability.

Furthermore, it is important to recognise that airport's aeronautical infrastructure is built for the long-term. For example, a runway base may have a depreciation profile of 50+ years. Airports business plans and analysis for the aeronautical infrastructure should be updated to include long-term estimates of costs and changes to valuation, including those arising from societal as well as environmental trends, such as the changing climate or evolving demand patterns.

Airport operators also have a commercial interest to develop their non-aeronautical businesses, such as retail concessions, food & beverage concessions, mobility concessions and more. In these areas, the airport can seek to increase revenue from sustainability-related services, i.e. services that satisfy stakeholder needs and significantly improve social, environmental, and economic conditions. This can include, amongst others, retail offering organic/Fairtrade products, sports facilities, educational services or cultural events, potentially also attracting non-passenger visitors and thus gaining a competitive advantage.

When delivering aeronautical and non-aeronautical services, airports can explore new business models, e.g. those relying on shared resources between different stakeholders (e.g. equipment) or the "product-as-a-service" approach.[13]

Airport operators can also seek to extend the positive impacts of their activities beyond the airport fence, for instance, by exploring ways to support start-ups, thus fostering innovation, or cooperate with local suppliers and business partners, contributing to creating or securing jobs in the local community. The latter is particularly important in the context of the recovery from COVID-19.

The sustainability pathway focuses on launching a comprehensive assessment of the airport impacts on non-financial capital and identifying ways to optimise them. Ultimately, such an approach helps the airport integrate actions relating to the social and environmental pillars into the company overall business strategy and thus address them in a holistic and systematic manner rather than as an add-on to the regular business activity. It also recognises that there is an increasing expectation from investors for companies to adopt such an approach, with Green Financial instruments being designed for sustainable investments.

As in all sustainability pathways, the recommended actions are addressed to the airport operator. However, the impacts to be assessed and, where necessary, improved, also encompass activities of other airport-related entities, i.e. those who are part of the airport operator value chain. They include, amongst others, aircraft operators, retailers, ground handlers, maintenance services and caterers.

To define the exact boundary of the assessment, the IIRC suggests identifying *"risks, opportunities and outcomes that materially affect the organization's ability to create value".*[14] It is thus up to the airport

12. ACI EUROPE information paper on environmental modulation of airport charges, June 2020.
13. For more information, refer to the Material Resources sustainability pathway.
14. IIRC, The <IR> Framework, page 20.

operator to identify those stakeholders who are responsible for the most significant impacts and whom the airport operator can influence to a certain extent.

When it comes to the methodology for the assessment, while a precise valuation would ideally require attributing a monetary value to non-financial impacts, a more qualitative approach, assessing the relative scale of the impact (e.g. low, medium, high) can also be chosen. For more guidance, please refer to Annex I.

Recommended Actions		Indicative KPIs
Launch	• Commit to sustainability as business objective. • Map and assess the social, economic and environmental impacts of airport activities, covering positive impacts (value created) and negative impacts (external costs). (Refer to Annex 1 for more guidance). • Establish an appropriate governance structure to address sustainability, including crisis-response issues.	% of airport operator revenues generated from sustainability-related services[15] Estimation of non-financial impacts of airport operator's value chain Number of sustainability-related KPIs in the airport's performance management plan % of non-passenger visitors to the airport
Development	• Proceed with sustainability reporting in accordance to relevant guidelines (e.g. GRI). • Identify potential changes in the airport's business model to enhance value and reduce external costs. • Formulate Sustainability Strategy to implement the changes identified.	
Maturity	• Implement Sustainability Strategy. • Measure and assess outcomes and the associated impacts. • Identify potential additional, sustainability-related services. • Identify risks and opportunities for long-term infrastructure investments considering environmental and societal developments.	
Leadership	• Systematically integrate non-financial costs and value created (including projections for the future) in strategic decision-making and master planning. • Secure financing from Green Financial instruments. • Generate increasing revenue share from sustainability-related services.	

Enablers	Indicative Initiatives
Innovation	• Become an incubator for start-ups: provide start-ups with work space, development and access, while receiving a negotiable revenue share from the start-up's product. • Become laboratory/live testing environment for innovative ideas serving sustainability purposes, e.g. in the areas of new propulsion systems for aircraft, seamless door-to-door travel. • Explore possibilities for effective down- and up-scaling of operations to support most efficient resource use in crisis situations, and consequently enhanced resilience.
Partnerships	• Engage with local authorities, business and citizens representatives to ensure alignment between the airport business plan and the overall vision for its region's development. • Partner with universities/research organisations for activities related to innovation support. • Support further development of methodologies on valuation of non-financial capital.

15. Airport operators should first identify the sustainability related services they provide and then calculate the revenues from these services in comparison to the total airport operator revenues.

6.2. Environmental Impacts: Contributing to Environmentally Responsible Societies

The selection of the material issues considered under this pillar is based on the concept of Planetary Boundaries, which was developed in 2009 by a network of internationally recognised scientists led by the Stockholm Resilience Centre.[16]

This holistic approach aims to ensure a safe operating space for humanity to thrive by defining a science-based framework with quantitative thresholds. The assessment of these boundaries revealed that our current social system is not sustainable. The World Economic Forum (WEF), in its Top 10 Risks for the World, ranks three climate change related risks at the top. Three other risks in the Top 10 relate to ecosystems and water.[17]

This holistic concept of the Planetary Boundaries is also reflected in the European Green Deal. While reaching climate neutrality by 2050 is at its core, it also has a zero-pollution ambition, in particular related to water and air quality, and seeks to enhance circular economy principles and biodiversity protection. All these areas are covered by the environmental pillar of the present Strategy.

➔ Climate Change

Climate change is the biggest risk facing our world and the most recognized environmental issue, especially for the airport and broader aviation sector. Two approaches are required to respond to climate change:

- Mitigation: Reducing and ideally eliminating emissions of heat-trapping greenhouse gases in the atmosphere.
- Adaptation: Adapting to the climate change already occurring on our planet.

For each of these approaches, a separate pathway is proposed below.

Climate Change Mitigation

The sustainability pathway reflects a Resolution issued by ACI EUROPE on 26 June 2019 in response to the above mentioned IPCC Special Report and other developments, through which European airports:

- Call on the aviation industry, ICAO and governments to work towards net zero emissions aviation,
- Commit to reach net zero carbon emissions for operations under airport operators' direct control (Scope 1 and 2) by 2050,
- Call on governments to accelerate, where relevant, the transition towards a clean energy system as a key enabler for airports to reach net zero emissions.

It is also based on the best practices implemented through the *Airport Carbon Accreditation* programme. In November 2020, two new accreditation levels were introduced into the programme: level 4 "Transformation" and level 4+ "Transition". They require airports to establish absolute, long-term emissions reduction objectives and trajectories in line with the Paris Agreement.

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16. https://www.stockholmresilience.org/research/planetary-boundaries/planetary-boundaries/about-the-research/the-nine-planetary-boundaries.html
17. https://www.weforum.org/agenda/2019/01/these-are-the-biggest-risks-facing-our-world-in-2019

The innovation and partnership enablers focus on engagement with stakeholders to contribute to the decarbonisation of the aviation sector as a whole. This includes in particular initiatives related to Sustainable Aviation Fuels (SAF), the use of hydrogen and electrification of aircraft operations.

Recommended Actions		Indicative KPIs
Launch	• Measure Scope 1 and 2 emissions. • Formulate public high-level commitment to emissions reductions. • Achieve *Airport Carbon Accreditation* level 1.	Absolute CO_2 emissions (Scope 1, 2 and 3) CO_2 emissions (Scope 1, 2 and 3) per passenger or traffic unit Energy intensity of the airport operator (consumption per traffic unit or m^2) % of zero emissions energy in airport operator's consumption
Development	• Define carbon management plan. • Identify emissions reduction targets. • Demonstrate emissions reductions as a result of carbon management plan implementation. • Achieve *Airport Carbon Accreditation* level 2.	
Maturity	• Add Scope 3 emissions to your carbon footprint. • Involve third parties in carbon management efforts. • Set net zero carbon emissions target for Scope 1 and 2 emissions. • Achieve *Airport Carbon Accreditation* level 3 or 3+.	
Leadership	• Achieve > 80% of zero emissions energy in airport operator's consumption. • Implement initiatives to contribute to quantified emissions reductions from aircraft operations. • Achieve *Airport Carbon Accreditation* level 4 or 4+. • Reach net zero emissions for Scope 1 and 2.	

Enablers	Indicative Initiatives
Innovation	• Generate energy from renewable sources on-site (e.g. solar, wind, geothermal). • Design energy-positive buildings. • Explore use of excess green electricity for production of hydrogen/synthetic fuels. • Perform feasibility studies to identify implications of SAF provision, electrification of fleets and the use of hydrogen on airport infrastructure and services. • Anticipate potentially required adjustments in infrastructure and services to accommodate the above. • Explore availability of local feedstock for SAF production, when relevant. • Provide incentives for the use of SAF, hydrogen and electrification. • Determine the extended carbon footprint of the airport activity based on a Life Cycle Assessment (covering construction work, maintenance work, demolition, etc.) and define a strategy to reduce that footprint.
Partnerships	• Support other airports in defining and implementing their decarbonisation pathways. • Cooperate with industry partners – especially airlines, ANSPs, manufacturers and ground handlers, as well as governments, to identify pathways towards net zero emissions aviation. • Engage with governments to support clean energy transition. • Support research activities on radically new aircraft technologies, new types of jet fuel (e.g. synthetic fuels) and operational improvements. • Support research, demonstration and ultimately implementation in the area of carbon capture and storage.

Climate Change Adaptation

Airports are already impacted by extreme weather events, whose frequency is expected to increase in the coming years due to the changing climate. In addition, changes to average temperatures or sea level rise as well as changing wind patterns are likely to affect a growing number of airports in the future. Such impacts are not only detrimental to the airport and its passengers but have knock-on effects on local communities (e.g. flooding blocking the road transport network) and can harm the airport's role as key platform to support disaster relief.

The sustainability pathway therefore encourages airports to take action to adapt their infrastructure and operations to the changing climate, performing climate related risk assessment and risk mitigation, putting in place measures to ensure business continuity, especially in the case of a crisis situation, and ensuring mechanisms for a quick recovery after an extreme event. The innovation enabler suggests ways to implement adaptation measures with environmental co-benefits, while the partnership enabler stresses the importance of effective communication for crisis response.

Recommended Actions		Indicative KPIs
Launch	• Identify potential changes in the climate in the airport's location based on a comprehensive study, including the specific risks of climate change impacts on the airport infrastructure, operations, etc.	% of actions from climate adaptation plan implemented % change in climate-related risks levels for the airport
Development	• Identify relevant climate adaptation measures, with specific focus on airport master planning, business continuity during extreme weather events and emergency planning. • Establish a full (approved, funded and executable) climate adaptation plan.	
Maturity	• Implement climate adaptation plan. • Engage with third parties operating at the airport to enhance their climate resilience.	
Leadership	• Track the evolution of climate-related risk levels for the airport. • Share lessons learned with relevant stakeholders from local communities to support their climate resilience.	

Enablers	Indicative Initiatives
Innovation	• Explore synergies between adaptation and mitigation: consider mitigation when implementing adaptation measures (e.g. use the opportunity of designing more climate-resilient infrastructure to implement energy efficient design). • Consider implementation of green infrastructure (e.g. optimise use of green areas for storm-water retention).
Partnerships	• Establish effective communication channels with airport partners and local communities to ensure effective and rapid crisis response.

➔ Local Air Quality

Up to a third of Europeans living in cities are exposed to air pollutants levels exceeding EU air quality standards. Among the harmful pollutants, NOx, PM10 and PM2.5 are considered particularly relevant to air quality at and near airports, principally because amongst other sources, they are associated with airport-related activities.[18] Indeed, NOx and PM pollution arises from various airport and airline related sources - including road traffic, ground equipment, power generation on-site, emergency generators and aircraft. The European Green Deal states that *"air quality should be improved near airports by tackling the emissions of pollutants by aeroplanes and airport operations."* [19]

The sustainability pathway focuses on measuring the airports' contribution to the pollutant concentrations in their vicinity and designing mitigation actions accordingly. The innovation and partnership enablers encourage airports to extend the coverage of their local air quality management and outline possible actions to support emissions reductions by third parties. It must be noted that many decarbonisation measures also entail co-benefits in terms of reducing pollutant emissions, and vice versa.

Recommended Actions		Indicative KPIs
Launch	• Map emissions sources at the airport and in its vicinity. • Calculate the associated emissions. • Implement local air quality monitoring.	Main pollutant emissions (e.g. NOx, PM_{10}, $PM_{2.5}$) per passenger or traffic unit % of low emissions GSE and vehicles in full fleet at the airport Number of local air quality threshold exceedances (as per applicable regulation)
Development	• Perform dispersion modelling. • Assess contribution to local pollutant concentrations. • Set emissions reduction targets in airport's sphere of influence. • Define mitigation plan.	
Maturity	• Implement emissions reduction measures and track progress. • Provide Pre-Coniditoned Air (PCA) and/or electric charging infrastructure (FEGP) to aircraft. • Provide electric charging infrastructure to ground vehicles and/or GSE (for staff and/or passengers). • Publicly report on progress in a transparent manner.	
Leadership	• Reach emissions reduction targets. • Achieve zero emissions ground vehicle fleet operating at the airport and minimal emissions from other sources.	

18. SA-A4_UK-Aviation-and-Air-Quality_Report1.pdf
19. The European Green Deal, p. 11.

Enablers	Indicative Initiatives
Innovation	• Consider measures identified under the Climate Change Mitigation section. • Implement emissions-related modulation of airport charges to promote use of cleaner aircraft. • Extend the range of air pollutants monitored and mitigated. • Implement biomonitoring: use biological indicators, such as concentration of pollutants in plants, to assess air quality.
Partnerships	• Engage with ground handlers to promote use of low/zero emissions vehicles and other equipment. • Engage with airlines to limit use of Auxiliary Power Units (APUs) and introduce other restrictions on aircraft ground operations where relevant. • Cooperate with authorities and public transport companies to increase the offer of clean public transportation to the airport. • Cooperate with research community to work towards new technologies, minimising or eliminating air pollutant emissions.

➔ Material Resources

Limited material resources coupled with growing consumption patterns are a complex challenge, with both local and global implications. According to the European Commission, in Europe each person uses 16 tonnes of material per year, of which 6 tonnes are waste. The continuously growing demand for materials and energy as well as a growing world population surpasses the planet's capacity to provide these resources.

The EU is at the forefront of addressing this challenge, having launched in 2018 the Circular Economy Package including a number of initiatives on waste, plastics, strategies, and monitoring. In 2020, it was complemented by a new Circular Economy Action Plan as part of the European Green Deal, highlighting that circularity is a key enabler to reach climate neutrality.[20] Circular economy aims at retaining *"as much value as possible from resources, products, parts and materials to create a system that allows for long life, optimal reuse, refurbishment, remanufacturing and recycling."*[21]

Consequently, the sustainability pathway focuses on the assessment of waste streams, involvement of key stakeholders, strategy formulation, implementation of long-term measures and incorporation of circular economy principles in infrastructure projects and new business models, e.g. product-as-a-service. This implies dissociating the service provided by a product from the product ownership, whereby the customer (airport) only pays for the service (e.g., lighting) and not the product itself (e.g., light bulb).[22] Such an approach incentivises the owner to optimise the product lifetime and associated use of resources. When looking at refurbishing and/or developing their infrastructure, airports are also encouraged to consider how related projects can rely on fully recyclable or standardised components, which can be reused in other infrastructure at a later stage. The innovation and partnership enablers further explore opportunities related to innovative waste management solutions and circular economy.

20. https://ec.europa.eu/environment/circular-economy/pdf/new_circular_economy_action_plan.pdf
21. http://docs.wbcsd.org/2017/06/CEO_Guide_to_CE.pdf
22. Another example would be "cooling-as-a-service"; for more information, see https://www.caas-initiative.org/.

Recommended Actions		Indicative KPIs
Launch	• Establish waste management policy. • Categorise and quantify waste streams and identify relevant stakeholders.	Waste production per source/ type/passenger % of waste diverted from disposal (for re-use or recycling) % of total waste reduced (compared to three-year-rolling average) % reduction of food waste per passenger (compared to three-year-rolling average).
Development	• Develop a comprehensive waste management strategy in cooperation with the stakeholders to minimise waste generation, optimise waste treatment and consider waste recovery.	
Maturity	• Implement waste management strategy and strengthen partnerships. • Track progress of strategy implementation and partnership development. • Extend strategy to cover optimised use of material resources, in particular through circular economy principles.	
Leadership	• Ban single-use products within the airport perimeter. • Implement new business models to minimise resource use (e.g., shared resources, product as a service). • Undertake Life Cycle Assessment of key material and products used by the airport, including in buildings. • Incorporate circular economy principles in infrastructure projects.	

Enablers	Indicative Initiatives
Innovation	• Explore new product designs. • Improve supply chains (e.g., new technologies, resource recovery). • Consider the use of waste for energy generation (e.g. biomass). • Consider food waste composting to produce fertilisers for use by and beyond the airport. • Use waste disposal providers with shortest routes to and from the airport, as well as with the most efficient frequency and technology of disposal to reduce amount of journeys. • Explore synergies between digitalisation and circular economy, for instance by optimising the automatic scheduling of maintenance/repairs, maximising the lifetime of equipment.
Partnerships	• Cooperate with aircraft operators, handlers, and other airport partners to minimise waste generation and ensure proper waste management. • Engage local and national authorities to plan and implement waste management initiatives in line with airport requirements. • Collaborate with catering companies especially regarding food waste and packaging. • Liaise with organisations that might benefit from unused material resources (e.g., food waste recovering institutions, local charities for material reuse).

➔ Water

Water covers two aspects of relevance to airports:

- Quality and quantity of potable water used by employees and passengers
- Pollution levels of local water basins, which might be impacted by wastewater, in particular from de-icing operations.

The sustainability pathway focuses on water consumption reduction and water quality improvement, target setting, development of KPIs and guidance on the steps to reach a credible and robust water management strategy to ensure the long-term sustainability of water resources.

The innovation and partnership enablers focus on setting contextual water targets and developing cooperation with local communities, aircraft operators and other key stakeholders. Contextual water targets take into consideration the level of water that is available for airports to consume while enabling the entire ecosystem to have access to a fair share of water. The UN Global Compact CEO Water Mandate or the European Water Stewardship provide additional guidance.[23]

Recommended Actions		Indicative KPIs
Launch	• Establish water management policy. • Map types and quantities of water used as well as the impacts of airport operations on local water basins (e.g. due to de-icing). • Assess impacts and identify risks.	Water consumption by source and use Water consumption per passenger Total water discharge by quality % water recycled % water reused % total water consumption reduced (compared to three-year-rolling average)
Development	• Develop comprehensive water management plan to address risks, including improvement targets.	
Maturity	• Implement water management plan. • Track target achievement.	
Leadership	• Reach targets. • Engage with stakeholders to share best practices and collectively improve water management in the region.	

23. https://ews.info, https://ceowatermandate.org

Enablers	Indicative Initiatives

Innovation	• Set contextual water targets, enhancing the development of solutions while integrating the local context. Airports should consider two key dimensions:
	  • Water share (Assess the water amount airports can consume taking into consideration the needs of other stakeholders using the same watershed as well as the environment) and
	  • Watershed conditions (the capacity of the basin's renewable supply of water and ability to assimilate pollutants).

Partnerships	• Engage local authorities to increase awareness, understand challenges and plan management initiatives. • Collaborate with maintenance services to minimise water consumption and ensure proper/minimum use of chemical agents. • Cooperate with aircraft operators to minimise water consumption. • Liaise with research centres for water quality monitoring, modelling, assessments, and management initiatives.

➔ Biodiversity

Biodiversity is under serious threat as a result of human activities. Pollution, climate change, deforestation and habitat loss, over-exploitation and invasive species are some of the key risks. According to the United Nations Development Program, 13 million hectares of forests are lost every year, desertification affects almost 4 billion hectares, while around 7,000 species of animals and plants are illegally traded.

Biodiversity at the local level is affected by airports as they often occupy large open areas near natural ecosystems. Wildlife trafficking is also a relevant global topic as wildlife traffickers exploit the connectivity of the global aviation networks and airports as hubs to perform this illegal activity, causing serious environmental damage, adversely affecting communities that live from wildlife tourism, and causing similar effects to other international crimes, including promoting instability and financing organised crimes. This involves as well economic and reputational risks for airports.

Addressing these issues is all the more important as wildlife trafficking, along with other factors as land use changes and climate change, has been identified as a contributor to the development of zoonoses, i.e. diseases that spread from animals to humans.[24] Experts estimate that about 60% of human infections reported globally have an animal origin[25], and COVID-19 is one of them.[26] Wildlife trafficking moves species into new environments under circumvention of regulation and practices of legal trade.[27] Protecting biodiversity and fighting illegal wildlife trade can thus help preventing the emergence of new diseases and pandemics.

In order to reverse the negative trends and protect, restore, and promote sustainable ecosystems, airports should integrate biodiversity impact mitigation in their sustainability strategies. Protecting

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24. https://www.unenvironment.org/news-and-stories/story/six-nature-facts-related-coronaviruses; UNEP (2020) "Preventing the Next Pandemic- Zoonotic Diseases and How to Break the Chain of Transmission", C4ADS (2020) "Animal Smuggling in Air Transport and Preventing Zoonotic Spillover" (as part of the USAID Reducing Opportunities for Unlawful Transport of Endangered Species (ROUTES) Partnership).
25. Compare Woolhouse, M.E.J. and Gowtage-Sequeria, (2005) "Host range and merging and re-emerging pathagons."
26. https://www.who.int/news-room/fact-sheets/detail/zoonoses
27. See footnote 24, C4ADS, and UNODC: World Wildlife Crime Report 2020, p. 19.

biodiversity at or near airports can take many forms, including habitat management studies, establishment of nature conservation funds, reforestation or recording of species. In the context of infrastructure development projects, airports should compensate any biodiversity losses - for instance by restoring lost habitats in a different area, and ideally aim for a net gain in biodiversity.

The sustainability pathway focuses on the monitoring of biodiversity at and near the airport, implementation of protection measures, providing training and raising awareness of employees and passengers on wildlife trafficking as well as investing in biodiversity protection partnerships and initiatives. Additional information and guidance on these areas can be obtained from the Ecosystem Services Partnership (ESP), the Sub-Global Assessment (SGA) Network or the Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES) and the ACI World Tools on Combatting Illegal Wildlife Trade.[28]

Recommended Actions		Indicative KPIs
Launch	• Assess status of biodiversity at and near the airport. • Identify local partners and areas suitable to conduct biodiversity protection projects. • Raise awareness of airport employees on local biodiversity. • Assess status of combating wildlife trafficking at the airport (competent authorities, measures in place), understand how airports can support the fight against wildlife trafficking and identify a department that is responsible. • Raise awareness of airport employees on wildlife trafficking.	m^2 of restoration / biodiversity projects Biodiversity net gain in m^2 Amount of pesticides used % relevant airport staff trained in detecting wildlife trafficking % of key stakeholders reached through anti-wildlife trafficking campaigns (internal & external)
Development	• Implement biodiversity protection initiatives with relevant partners. • Control the invasion of non-native species at the airport location. • Deliver training and take actions to address wildlife trafficking in coordination with the competent authorities and other stakeholders (e.g. on procedures in case of potential detection of illegal wildlife trade, reporting mechanisms).	
Maturity	• Monitor status of biodiversity following implementation of protection measures. • Achieve biodiversity stabilisation (no net loss). • Raise awareness and educate passengers on wildlife trafficking and endangered species.	
Leadership	• Invest in biodiversity partnerships and initiatives further outside the airport's vicinity, focusing on highly sensitive areas and species habitats. • Achieve biodiversity net gain. • Become a pesticide and herbicide free airport. • Raise awareness and educate local communities and passengers on biodiversity at and around the airport.	

28. https://www.es-partnership.org/, http://www.ecosystemassessments.net/, https://www.ipbes.net, https://aci.aero/services/member-tools-to-combat-human-and-wildlife-trafficking/wildlife-trafficking/ (ACI Wildlife Trafficking Awareness Videos for airports, ACI case study on selected airports, Document on SDG-Support, coming soon: handbook and e-module; all developed under the USAID ROUTES Partnership). See also ROUTES Partnership publication "How airports can take action": https://routespartnership.org/industry-resources/guidance-documents/guidance-documents-1/airports_action_plan

Enablers	Indicative Initiatives
Innovation	• Adapt mowing management to minimise impacts on biodiversity. • Establish beehives, insect hotels, etc. • Implement non-lethal wildlife control techniques (e.g. establish remote, grassy meadow areas or ponds to attract birds and thus prevent collision with aircraft). • Contribute to rehabilitate/protect water streams around the airport.
Partnerships	• Engage local and national authorities to plan and implement biodiversity and wildlife protection initiatives. • Perform collaborative biodiversity monitoring sessions and share biodiversity data with biodiversity institutions and scientific organisations. • Cooperate with biodiversity institutions and experts on developing relevant studies and measures. • Liaise with conservation organisations and volunteers to implement the measures. • Sign United for Wildlife Buckingham Palace Declaration, committing to fight against illegal wildlife trafficking through enhanced sharing of relevant information within the transport sector and with national authorities. • Exchange with other stakeholders / agencies on considerations of zoonotic risks and incorporate these into policies and practices.

6.3. Social Impacts: Contributing to Fair Societies

To ensure fairness, the respect of human rights and basic ethical principles, values and standards is a key requirement for each company and as such the foundation of the proposed social sustainability pillar. The three other themes considered are articulated around the main airport stakeholders: local communities, employees and passengers/visitors to the airport.

➔ Human Rights, Values and Ethics

In 2011, the United Nations published the *Guiding Principles on Business and Human Rights*. Airport operators should apply these principles, according to which every company has to ensure prevention, due diligence and remediation of violations of human rights, including labour rights. Airport operators should also respect fundamental values and business ethics principles of integrity, trust and anti-corruption, for example by establishing a Code of Conduct. By doing so, and given their role, standing and visibility, airports have the opportunity to influence the ethical climate far beyond their operational boundaries, in particular in their region.

In the airport context, one specific form of human rights violation requires particular attention: human trafficking, which consists of recruiting, transporting, harbouring and/or exercising control, direction or influence over the movements of persons in order to exploit them. While the formal responsibility of fighting this crime lies with law enforcement, as airports are a point of transit for human traffickers, they can take relevant supportive actions, which are outlined in the ACI Handbook on combating human trafficking.[29]

29. https://store.aci.aero/product/combatting-human-trafficking-handbook-2019/

The sustainability pathway focuses on the implementation of internal policies and procedures, awareness-raising and education of the airport staff and where relevant, engagement with passengers and business partners. The innovation and partnership enablers emphasise technology use and cooperation between key stakeholders.

Recommended Actions		Indicative KPIs
Launch	• Define policy and processes in accordance with the UN Guiding Principles on Business and Human Rights as well as fundamental values and business ethics such as anti-corruption and conflict of interest, e.g. through a Code of Conduct. • Put in place a whistleblowing system.	% airport staff trained in internal policy and processes relating to business ethics and values % relevant airport staff trained in detecting human trafficking
Development	• Monitor adherence to internal policy and processes. • Where relevant, identify need for awareness raising/ training and/or improvement and undertake relevant training (e.g. anti-corruption training). • Map and assess human trafficking related risks (e.g. identify high-risk air routes, schedules, etc.).	
Maturity	• Implement changes to internal policy and processes where relevant. • Train staff and raise passenger awareness on prevention of human trafficking.	
Leadership	• Comply with internal policy and processes. • Promote adherence to human rights, values & business ethics principles amongst the airport's business partners.	

Enablers	Indicative Initiatives
Innovation	• Use technology means to engage internal / external stakeholders, increase awareness, and address compliance gaps. • Use airport terminal advertising facilities to promote anti-trafficking messages and create awareness for the public. • Use technology for recognizing indications of human trafficking (e.g. analysis of suspicious passenger flows).
Partnerships	• Engage with law-enforcement authorities, airport sub-contractors working in the terminal, airlines, NGOs and local communities.

➔ Noise and Quality of Life of Local Communities

Airports are deeply embedded in the region they are located in and as such have strong ties with the local communities in their vicinity. To be a responsible neighbour, airports should strive to minimize the negative impacts their operations might have on these communities, in particular noise, while also maximising the benefits they can bring to them by initiating dedicated social entrepreneurship projects, i.e. projects fostering the social and human capital of communities and consequently their quality of life,[30] without following strict financial performance criteria. Such projects can have a focus on education, employment, culture and identity, sports and health. This type of initiatives is particularly relevant in the context of the recovery from COVID-19, where they can support communities in addressing a major social and economic crisis. Creating opportunities for communities to contribute to related decision-making is particularly important.

To assess the value of associated projects, airports are encouraged to refer to Annex 1 of this document.

Quality of Life – Noise Management

Noise exposure around airports can have negative impacts on the health and well-being of residents. Noise impacts depend on the physical levels of noise produced but it is also increasingly recognised that non-acoustic factors play a role, especially with regards to annoyance. They cover, amongst others, subjective variables related to people's attitudes and perceptions. This means that changes in noise exposure do not automatically result in changes in noise impacts. While reducing noise levels remains a critical element of aircraft noise management, it needs to be accompanied by actions that directly address non-acoustic factors. To develop such actions, an enhanced understanding of the different aspects determining noise impacts needs to be developed.

The sustainability pathway is built on the idea that the degree to which aircraft noise is a material issue is airport-specific, consequently no one solution will be appropriate for all airports. ICAO has established a comprehensive approach to managing aircraft noise known as the Balanced Approach that requires the involvement of all stakeholders. At the core of the sustainability pathway, informing and engaging local communities on the issue of aircraft noise is critical to ensure their needs and preferences are taken into account.

The latter is of particular importance in the context of the recovery from COVID-19. During the months of extensive lockdowns and the almost complete stop of aircraft operations, many communities have experienced a living environment with significantly reduced noise exposure. Therefore, the restart and subsequent growth in the number of flights can lead to strong, negative community reaction. This is compounded by the fact that the current crisis is affecting people's quality of life across several dimensions (e.g. health, family, employment), leading to a particularly stressful situation, potentially enhancing the sensitivity to aircraft noise. Some residents find themselves exposed to aircraft noise for the first time, for instance due to remote working from home. Finding effective ways of engaging communities during the recovery is thus key to enable a smooth restart of operations and restore public confidence in the aviation sector.

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30. For more information on the definition of quality of Life and the associated indicators, please refer to the well-being framework defined by the Organisation for Economic Cooperation and Development (OECD): https://www.oecd.org/statistics/measuring-well-being-and-progress.htm

Recommended Actions		Indicative KPIs
Launch	• Implement noise monitoring. • Establish and assess noise footprint. • Define mechanism to receive and address noise complaints.	Number of people exposed to excessive noise levels as per relevant regulation % change in the number of people exposed % change in the number of people complaining about noise % ICAO Chapter 14 aircraft serving the airport Net change in the number of residents in the vicinity of the airport compared to previous year (encroachment).
Development	• Engage (in a structured way) with local communities on noise issues. • Set mitigation targets and identify the most relevant and effective mitigation options.	
Maturity	• Implement agreed mitigation measures and track progress. • Publicly report on progress in a transparent manner.	
Leadership	• Reach mitigation targets. • Identify best practices potentially applicable to other airports. • Cooperate with research community to enhance understanding of all factors influencing the perception of noise and its health impacts.	

Enablers	Indicative Initiatives
Innovation	• Implement noise-related modulation of airport charges to promote use of quieter aircraft. • Provide for noise respite (predictable relief from noise). • Diversify format and channels of communication on noise. • Explore new building design and landscaping for noise abatement. • Contribute to development and implementation of new operational measures.
Partnerships	• Engage aircraft operators and ANSPs in noise mitigation efforts. • Ensure regularity and transparency in engagement with local communities. • Allow for communities' contribution to decision-making on noise mitigation. • Engage with local authorities to avoid land use incompatible with airport operations.

Quality of Life – Community Engagement

Airports usually approach community engagement from a noise management perspective. Whilst this is an important factor to consider, a more proactive and comprehensive approach, addressing needs and aspirations of local communities independently from noise exposure, is proposed in a separate sustainability pathway. Engagement with stakeholders is key at all the stages of the pathway, to understand the societal challenges and needs that an airport could decide to focus on to increase value, but also to define a relevant action plan and assess the results.

The sustainability pathway focuses on identifying community needs, developing social entrepreneurship initiatives and revising or extending them based on their results.
Such initiatives will be particularly important to support the communities' recovery from COVID-19.
Many airports have already been very proactive during the peak of the pandemic, by offering medical equipment to hospitals, donating food to newly unemployed, funding medical research or providing online

educational services, just to name a few.[31] As the recovery is projected to be long and new waves of the pandemic cannot be excluded, such engagement will remain a critical component of airport sustainability. Furthermore, airports can also explore jointly with their business partners how the activity of the whole airport community can be preserved, thus safeguarding jobs and livelihoods. Offering personnel to support local initiatives, e.g. procurement of medical equipment, could help avoid redundancies during a period of reduced activity at the airport. Airport operators can also share their knowledge about crisis and risk management, especially with regard to containing the further transmission of COVID-19 through appropriate sanitary measures, with other companies and authorities in the region.

It must also be noted that COVID-19 has an impact on the modes of interaction with communities. In a context where face-to-face engagement is challenging, it will be increasingly important for airports to use digital participation tools for interactive communication with residents.

Recommended Actions		Indicative KPIs
Launch	• Engage local communities to collect aspirations and expectations on social areas in which airport could invest (including through sponsorship).	Number of local community beneficiaries from social entrepreneurship projects % of investment in local community projects on total turnover % of investment in local community projects on total sustainability investments Change in % of investment in local community projects (compared to previous year)
Development	• Define and deploy a social entrepreneurship project or set of projects. • Set up a mechanism to enable rapid support to communities in crisis situations.	
Maturity	• Measure and assess outcomes of the implemented project(s). • Communicate the results to local communities. • Jointly with community stakeholders, identify points for improvement.	
Leadership	• Revise and/or extend social entrepreneurship portfolio as per community needs. • Become a significant force for social progress and community cohesion.	

Enablers	Indicative Initiatives
Innovation	• Offer training and skills enhancement, apprenticeships, to local communities. • Use the airport space for community events and awareness raising on sustainability. • Establish a Fund to support community projects. • Offer personnel to support community crisis response (e.g. security personnel for hospitals, procurement personnel). • Support urban design offering green spaces and recreational areas. • Make use of modern participation tools like apps, dedicated websites and e-magazine/e-newsletter.
Partnerships	• Before launching a social entrepreneurship project, reach out to stakeholders to prevent overlaps and identify potential synergies. • Establish partnerships with local communities for renewable energy generation. • Invest in transport infrastructure development beyond the airport-city connection. • Share knowledge on crisis response.

31. For more details, see ACI EUROPE #WeAreAviation positivity hub.

➔ Employee Experience & Engagement

A Gallup Poll conducted between 2014 and 2016 across 150 countries and 1000 individuals per country revealed that the percentage of adults who work full time for an employer and are engaged at work (highly involved and enthusiastic about their work) was just 15%. This points to the need to proactively enhance employee well-being and satisfaction. In turn, it can lead among other benefits to talent attraction, higher service quality, operational excellence, higher retention levels, lower absenteeism, and greater productivity.

A case in point is diversity. For instance, while 41% of aviation's workforce in Europe are female, a much lower share of it is working in technical or senior management positions. Increasing gender equality in the industry is a matter of fairness but it is also essential to attract an increasing number of skilled professionals. Furthermore, a recent study by the International Labour Organisation (ILO) concludes that a gender-diverse workforce contributes to an average profit increase of 10% to 15%.[32] More generally, it is important to ensure that people with diverse backgrounds (e.g., cultural, socio-economic, age, health conditions) have equal employment and career development opportunities.

Furthermore, airport operators should provide a safe workplace and relevant training as well as adequate measures for improving health and safety, including aspects related to the quality of the workplace, such as indoor air quality and healthy food options. In the context of COVID-19, guaranteeing a healthy workplace is of particular importance, with physical distancing, enhanced cleaning and disinfection as well as provision of protective equipment to be ensured. This does involve awareness-raising and training of employees. Another aspect to consider is psychological support to staff. Furthermore, COVID-19 has put to the forefront the need for airport operators to provide an agile and flexible workplace that can accommodate remote working and internal mobility to enable the best use of available resources in crisis situations. Additional guidance is available in the ACI EUROPE OFF THE GROUND paper *Calling airport employees back to work*[33].

Another aspect to bear in mind is that young professionals are increasingly seeing societal purpose-orientation of companies as a key factor in their choice of employer. Putting sustainability at the core of an airport's business is thus becoming more and more important to attract and retain talent.

Retaining talent also means that airports should strive to minimise as much as possible lay-offs due to COVID-19, for instance through re-skilling or internal mobility that allows staff to be allocated to different tasks in a crisis situation. Such arrangements can help retain valuable expertise whose loss would ultimately compromise a sustainable recovery.

In the current context of crisis and uncertainty – but also beyond it, a critical enabler for the improvements presented above are strong leadership skills, including at top management level. Along the same lines, it is necessary to ensure labour representation and labour rights related grievance and remediation mechanisms in accordance to regulatory requirements. The sustainability pathway focuses on providing a motivating, fulfilling and inclusive workplace and converges with standard practices in most other industries, with objectives and KPIs mostly aligned with the Global Reporting Initiative, including measurements of the level of employee satisfaction and engagement. Many industries, including the airline industry, are using Net Promoter Score (NPS) *(Would you recommend the airport to a friend looking for a job?)*, as they find it correlated to other dimensions of employee satisfaction. The innovation and partnership enablers relate to cultural and managerial transformation programs and working with employee well-being specialists.

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32. ILO, The business case for change, https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_700953.pdf , page 15
33. https://www.aci-europe.org/component/attachments/attachments.html?id=1007

Recommended Actions		Indicative KPIs
Launch	• Carry out a survey to establish the baseline of employee satisfaction and engagement, covering e.g. the areas of health & safety, compensation, respect and recognition, commitment to company, opportunities for advancement, work-life balance. • Measure representation of people with diverse backgrounds at different levels of the organisation and assess results.	Satisfaction rate, e.g. Net Promoter Score ("Would you recommend the airport to a friend looking for a job?") Lost-time injury frequency rate (e.g., per 1,000,000 hours worked) Training hours per employee % of employees with diverse backgrounds[34] Employee turnover rate
Development	• Assess agility of the company to accommodate crisis situations. • Identify challenges for employee retention and recruitment. • Identify areas for improvement based on previous analysis and establish action plan accordingly.	
Maturity	• Implement action plan. • Track employee satisfaction and engagement overtime. • Implement re-skilling/up-skilling initiatives where necessary.	
Leadership	• Identify and maintain initiatives that have a quantified, positive impact on employee satisfaction and engagement. • Empower employees to provide input for the company's decisions on internal matters, e.g. through consultations.	

Enablers	Indicative Initiatives
Innovation	• Deploy cultural and managerial transformation programmes, including top-down but also employee-based and cross-functional process redesign, workshops, organisational reviews, etc. • Explore employee compensation schemes based on sustainability-related performance. • Offer child care facilities to airport employees. • Encourage physical activity of employees, e.g. by providing free sports facilities, reimbursing costs of external sports activities or encouraging active modes of access to the airport, e.g. cycling. • Enable agile decision-making and internal mobility of employees (so new tasks can be allocated to them) for enhanced responsiveness to crisis situations. • Accommodate a remote working environment, addressing aspects such as digitalisation, working hours, specific training, etc.
Partnerships	• Collaborate with employee well-being specialists, including occupational physicians and psychologists, to improve employee experience and develop specific initiatives. • Cooperate with management training agencies to ensure adoption of best practices in line with airport needs. • Liaise with technology providers to explore real-time employee satisfaction monitoring.

34. This covers several KPIs - per type of diverse background. This strategy recommends as a minimum the use of a gender-related KPI and encourages airports to define other categories depending on their local circumstances and regulation.

➔ Quality of Service & Passenger Experience

Passenger expectations are increasing as they wish to experience an as much as possible enjoyable and smooth trip. Understanding the needs of passengers and other visitors to the airport as well as providing high quality services, including for freight, is an important component of successful airport operations and management. A number of stakeholders, including passengers, regulators, and non-government organisations, monitor the service quality of airports and the relevant indicators through various initiatives. An example is the Airport Service Quality (ASQ) programme by ACI WORLD, which independently measures passenger satisfaction across a number of key performance indicators. More than 300 airports are part of ASQ, and as a result in 2018 more than half of the world's 8.3 billion travellers passed through an ASQ airport.

In the context of the COVID-19 pandemic, providing for a safe and healthy passenger journey has become more important than ever. The recently launched ACI Airport Health Accreditation helps airports demonstrate compliance with existing relevant requirements and guidelines, and communicate with passengers accordingly.

Airport operators should also consider new patterns in passenger behaviour that are likely to persist once the current pandemic comes to an end: the health-concerned passenger, whose willingness to fly and behaviour at the airport will significantly depend on the perception of health risks associated with air transport. As soon as possible again, airports are encouraged to carry out surveys to better identify and understand the various categories of passengers as behaviours, motivations, desires, and issues to address change. The conception, planning and delivery of services and of the whole airport experience has to be aligned with the needs and expectations of the health-concerned passenger. Extensive guidance on general approaches, processes and technologies is available in the ACI EUROPE *Guidelines for a Healthy Passenger Experience at Airports*.

The sustainability pathway focuses on service quality measurements that provide a standardized and detailed view of service areas needing improvement, as well as benchmarks for a comparison with peers. Airports are encouraged to pay attention to the three components of the passenger experience (Premises, Processes, People). They should consider measurement programmes that provide a breakdown based on the different touchpoints of the passenger journey (access, welcome, security check, shopping, restaurants, boarding, etc.), ensuring a high level of granularity. This will help identify specific areas of high performance or concern and invest in service quality improvement in a targeted manner. In addition, particular attention should be paid to offering a positive airport experience for persons with reduced mobility or disabilities.

The innovation and partnership enablers are related to digital solutions to enhance the passenger experience and cargo services as well as cooperation with key stakeholders to invest in service improvement. Of particular interest are services at the crossroads between service quality and environmental sustainability.

Recommended Actions		Indicative KPIs
Launch	• Measure baseline passenger experience (for instance by participating in the ASQ programme) and where relevant, quality of service provided for cargo operations.	Different levels of achievement in service quality measurement programme Improvement of service quality score with regards to investments made (3 years rolling average) Passenger accidents within the airport's control per 1,000,000 passengers
Development	• Manage quality of service performance through survey analysis, identification of trends and development of improvement actions.	
Maturity	• Carry out research to identify innovative ways to improve quality of service. • Improve quality of service through targeted investments and measures, without creating negative social or environmental impacts. • Establish capacity to rapidly respond to changing requirements in relation to health and safety.	
Leadership	• Achieve service excellence based on the adoption of best practices, demonstrated by high service quality scores. • Test and develop with business partners digital solutions which improve passenger experience and "seamless travel", as well as cargo services where relevant.	

Enablers	Indicative Initiatives

Innovation	• Test and develop with business partners digital solutions which improve passenger experience, contactless interactions and "seamless travel" including:
	  • Big data and real-time analytics
	  • Development of web applications
	  • Promotion of robotics and artificial intelligence
	  • Deployment of sensors and digital tags
	• Explore above opportunities for more efficient cargo operations.
	• Promote extensive use of biometrics.
	• Develop sharing apps to reduce food waste in cooperation with airport restaurants.
	• Raise awareness on sustainability through displays/announcements at the airport terminal.
	• Provide a platform through which passengers can offset emissions from their flights.

Partnerships	• Collaborate with aircraft operators, handlers, security providers, commercial establishments, food and beverage, IT and other business partners to analyse ASQ survey results and invest in targeted service improvements.

6.4. Economic Impacts: Contributing to Prosperous Societies

➔ Economic Development

Airports are engines of economic development for their regions and countries. According to a 2015 study by InterVISTAS, European airport contribute in total to the employment of 12.3 million people. These effects occur at four levels: direct, indirect, induced, and catalytic employment.[35] The connectivity provided by an airport, regularly measured and reported in the ACI EUROPE Airport Industry Connectivity Reports through the connectivity index, is an important enabler in this area. As a matter of fact, a 10% increase in air connectivity comes with a 0.5% increase in GDP per capita. This also highlights the crucial importance of restoring air connectivity in the wake of COVID-19, as it is critical to support the recovery of the whole economy.

The sustainability pathway focuses on the assessment of these impacts and the development of actions to enhance them, while pursuing a Balanced Business Model. The ACI EUROPE Economic Impact Calculator helps get a first estimate of these impacts for individual airports.[36] The innovation and partnership enablers focus on initiatives such as dedicated education, apprenticeships or recruitment programmes, as well as the use of local, regional and national services and products in their supply chain. To promote the latter, airports have the opportunity of fostering business for local suppliers through regular "Meet the buyers" events. Medium and small sized company often have difficulties to obtain attention from potential buyers to present their products and services. Airports are in a position of unlocking such potential, not only as large buyers themselves, but also as business hubs gathering many other potential customers.

COVID-19 has already led to significant lay-offs in many European airports and their partner companies. Apart from such extreme crisis situations, there are factors which in the longer term, can potentially have negative impacts on employment, such as operational cost pressures or digitalisation and automation which might make obsolete some of the existing airport related jobs. Airports are encouraged to take action to minimise those negative impacts and strive to maintain and where possible, increase, their positive employment footprint, with a focus on providing high-quality jobs. Business incubator programmes and employee reskilling initiatives related to new technologies, carried out in partnerships with relevant stakeholders, are some examples of the initiatives that airports can take.

Through their impacts on catalytic employment, airports can also contribute to compensating for negative impacts of digitalisation and automation in their national economies. By developing air connectivity, airports support enhanced activity in other sectors and consequently help create employment opportunities.

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35. For definitions, see Glossary.
36. The tool can be accessed on https://member.aci-europe.org/login.html.

Recommended Actions		Indicative KPIs
Launch	• Identify the scope of companies contributing to the airport's operations. • Assess the direct economic impact of the airport.	Direct, indirect , induced and catalytic economic impact (employment and GDP) % of airport staff from local communities % of apprentices/ trainees in airport staff % of local suppliers (in terms of value) % of regional suppliers (in terms of value) % of national suppliers (in terms of value) ACI EUROPE connectivity index
Development	• Estimate and assess the indirect, catalytic and induced economic impact of the airport. • Set targets regarding the economic impact of the airport, while considering social and environmental aspects.	
Maturity	• Track progress towards the economic impact targets of the airport. • Implement training, recruitment and internship/ apprenticeship programmes to attract relevant staff, with a special focus on local communities.	
Leadership	• Share lessons learned with airport partners to drive positive impact on their employment footprint. • Achieve targets regarding the economic impact of the airport.	

Enablers	Indicative Initiatives
Innovation	• Initiate dedicated employability programmes to support recruitment at the airport, e.g. training for local residents to facilitate potential recruitment by the airport, special projects to integrate socially vulnerable population. • Incubating/accelerating new entrepreneurship (including social entrepreneurship).
Partnerships	• Cooperate with local employment agencies to increase visibility of job opportunities at the airport. • Establish a central database for job vacancies on the airport site. • Engage with schools and universities to raise awareness of opportunities offered by airport related careers and the required skills. • Engage with vocational education and training centres on employability programmes. • Host networking events for business and obtain feedback from participants to assess the impacts. • Reach out to local businesses to identify potential for their integration in airport's supply chain.

➔ Sustainable Supply Chain

According to the United Nations Global Compact, a company's supply chain is directly related to a number of important issues, such as human rights, fair labour practices, and environmental progress. At the same time the practices and behaviours in the supply chain represent one of the most significant challenges for sustainable performance. For example, primary suppliers may employ a number of other sub-contractors. Airports indeed support jobs for suppliers and on-site subcontractors in numbers that in many cases far exceed their own staff. Consequently, the centre of gravity of social, human rights, environmental, and other risks very much leans towards the airport's supply chain rather than towards the airport's own corporate entity. Leveraging their influence as buyers of goods and services, airport operators can implement practices such as identifying suppliers meeting certain performance standards

and monitoring the share of expenditures meeting those standards. Some airports will for instance track the share of amounts spent with labelled suppliers or products.

The sustainability pathway starts with identifying the supply chain hotspots, i.e. the most material supplier categories depending on the share of spending they represent and the sustainability related risks. For the hotspots identified, data collection about supplier performance and tender assessments based on sustainability performance criteria/requirements are recommended. Engaging in a dialogue with most material sub-contractors and suppliers to identify the social and environmental risks they pose is a key enabler in this regard. Airport operators should also strive to broaden the scope of their engagement towards the extended supply chain, i.e. trying to influence the sustainability performance of sub-sub-contractors. The development of a Code of Conduct for suppliers as well as compliance assessment are also key components of the sustainability pathway.

Recommended Actions		Indicative KPIs
Launch	• Identify suppliers who represent a sizeable proportion of the total spend. • Assess the risks related to these suppliers based on sustainability impact areas and their compliance with performance standards.	Number of supplier audits / self-assessments to confirm compliance
Development	• Develop a Code of Conduct for suppliers and embed it in the tenders and contracts (e.g. on human rights, business ethics, environment). • Introduce key sustainability assessment criteria that establish real incentives to improve performance.	
Maturity	• Ensure that at least 15% of tender scoring are determined by sustainability criteria for a gradually increasing number of airport tenders. • Assess compliance of suppliers with Code of Conduct, through audits, self-assessment, and certifications.	
Leadership	• Provide evidence for performance improvement of subcontractors over time. • Provide evidence that the key sub-contractors' supply chain is in line with the airport's Code of Conduct.	

Enablers	Indicative Initiatives
Innovation	• Define ways to influence the sustainability performance of the extended supply chain, involving sub-sub-contractors. • Establish a Code of Conduct helpdesk to help potential suppliers understand airport requirements. • Promote sustainable procurement practices beyond the airport's supply chain, in accordance with national policies and priorities. • Launch a multi-stakeholder approach, involving suppliers and partner industries, in order to define a consolidated framework, including guidelines to target material issues, performance requirements to include in tenders, and data to collect from suppliers to demonstrate performance.
Partnerships	• Engage in a dialogue with most material sub-contractors and suppliers to identify the social and environmental risks they pose, and the reliable information they can provide to show progress. Airports can provide awareness sessions, set expectations, and make suggestions for improvements.

➔ Sustainable Destination

International tourists are set to increase from 25 million in 1950 to an expected 1.8 billion by 2030. In 2016 travel and tourism represented globally approximately 10% of total global Gross Domestic Product (GDP, including direct, indirect and induced impacts).[37] Overtourism refers to the impact of tourism on a destination, which negatively affects life quality of citizens and visitor experience.

A number of strategies are available to address the challenges of overtourism and promote sustainable tourism, including improved city infrastructure, involvement of the local communities, and time-based dispersal of visitors. Evidently, these strategies, as well as the quantitative and qualitative characteristics of tourism (e.g., growth, sustainable tourism) will affect airports. At the same time, airports can potentially play a role in raising passengers' awareness of sustainability issues and direct their tourism choices accordingly. According to the 2018 WTO report on Tourism and the SDG's, public policies require among others dialogue between the key stakeholders, promotion of the private sector, and better integration between the tourism and non-tourism sectors.

The sustainability pathway focuses on assessing the tourism status in the region and the role of the airport, developing initiatives to promote sustainable tourism, forming partnerships with key stakeholders, and achieving measurable outcomes. The partnership enablers are related to engaging in a dialogue with national/local government, other businesses, NGOs, etc. to formulate effective policies in this field.

Recommended Actions		Indicative KPIs
Launch	• Map the tourism conditions in the region and the role of the airport. • Assess the tourism conditions and formulate a vision for the destination in cooperation with relevant stakeholders.	Number of stakeholders involved in the action plan
Development	• Develop sustainable destination action plan. • Contribute to third party initiatives that promote sustainable tourism.	
Maturity	• Initiate or lead sustainable destination programmes.	
Leadership	• Assess the impact of airport initiatives and further improve airport engagement.	

37. https://sustainabletourism.net/

Enablers	Indicative Initiatives
Innovation	• Share airport's experience with sustainability-related services (see Balanced Business Model and Community Engagement) and provide training to tourism professionals to increase awareness of sustainability and encourage the development of related service offerings. • Promote sustainable tourism awareness for passengers, e.g. by distributing information on hotels and restaurants sourcing organic products. • Undertake qualitative studies for measuring the sustainability of tourism in the region.
Partnerships	• Engage in a dialogue with national and local governments to develop the necessary framework for sustainable tourism. • Build alliances with tourism stakeholders (municipalities, hotels, airlines), other relevant businesses and NGOs to promote sustainable tourism, including through marketing, infrastructure, and financing.

➔ Intermodality

Intermodality is an important component of a Balanced Business Model, as it can lead to economic, social and environmental improvements. While airports are key enablers of air connectivity, the latter also depends on other transport modes and the access they offer to the airport. Diversifying ways of accessing the airport can enlarge the catchment area of the airport, bringing social and economic benefits to new regions and communities, while also strengthening the business robustness of the airport operator.

From an environmental perspective, promoting and fostering the use of transport modes with a relatively low emissions footprint, such as rail, can help reduce the overall climate impact of air passenger journeys.

Intermodality is also an important component of a positive passenger experience and efficient processing of freight. To reap its benefits, integrated solutions, e.g. for ticketing, check-in or baggage handling, need to be further developed. It is also an element of a positive employee experience, whereby the ease of accessing the airport can have a significant impact on the health and well-being of staff.

The sustainability pathway starts with assessing the different modes of access to the airport and identifying options for improvement. The resulting intermodality strategy is expected to lead to demonstrable benefits for local communities. The enablers focus on research and deployment of innovative technologies.

Recommended Actions		Indicative KPIs
Launch	• Map the modes of surface access to the airport and the extent of their use by staff, passengers and other visitors. • Assess the possibilities to enhance airport intermodality through engagement with ground transport services providers.	% of passengers per transport mode over time % of staff per transport mode over time
Development	• Formulate an intermodality strategy, focusing on partnerships with ground transport services providers.	
Maturity	• Implement intermodality strategy, including partnerships to increase the number of users accessing the airport by using low emitting modes of transport. • Track user satisfaction and identify areas for improvement. • Offer staff incentives for the use of low emitting modes of transport.	
Leadership	• Provide evidence that an increasing number of users are accessing the airport through low emitting modes of transport. • Ensure > 60% of airport users access the airport by public transport. • Demonstrate that the airport's intermodality projects also improve the connectivity and quality of life in the surrounding communities.	

Enablers	Indicative Initiatives
Innovation	• Promote new ways of airport access, e.g. through cycling-friendly arrangements. • Contribute to research on innovative transport solutions such as Hyperloop or integrated air mobility, building on Unmanned Aerial Vehicles (UAVs).
Partnerships	• Jointly with relevant stakeholders, explore all the enablers needed to support intermodality, e.g. integrated ticketing, check-in or baggage handling options. • Partner with universities/research organisations for activities related to intermodality.

7

NEXT STEPS

To further support its members, ACI EUROPE will pursue activities in four priority areas in the coming years:

1. Outreach and engagement with member airports regarding the implementation of the strategy, promoting the concept of a Balanced Business Model and the use of the 13 material issues identified as a common reference for airports' individual sustainability strategies and action plans.

2. Continued critical review and adjustments of the strategy and the associated Self-Assessment Tool, reflecting the latest developments in sustainability as well as feedback from airports and interested third parties.

3. Alignment of existing guidance material with the present strategy and provision of additional guidance material where needed.

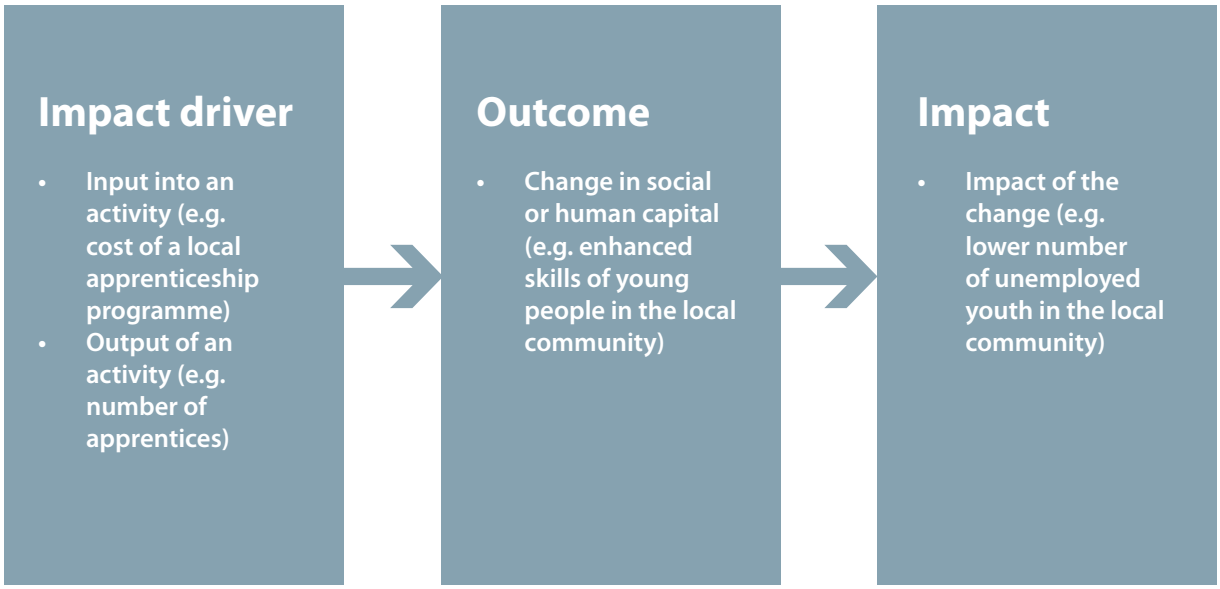
4. In alignment with the UN SDG 17 – *Strengthen the means of implementation and revitalize the global partnership for sustainable development,* engagement with industry partners and relevant institutional stakeholders, such as the World Economic Forum, the UN Global Compact or the Global Reporting Initiative to support progress in reaching new levels of sustainability in and beyond the airport sector.

ANNEX 1

Valuing Changes in Non-Financial Capital

The measurement and assessment of a company's impact on non-financial capital (e.g. social, human, intellectual and natural) is key to identify areas for improvement, define and implement actions to enhance the added value provided to society. Frameworks such as the Social Return on Investment (SROI) by Social Value International, the Social and Human Capital Protocol from the Social and Human Capital Coalition, the Natural Capital Protocol from the Natural Capital Coalition or the International Integrated Reporting Committee (IIRC) provide relevant guidance that airports might wish to follow.[38] In particular, they should take into account the following points for attention:

- It is important to **understand the full impact pathway**, i.e. which activity leads to a specific outcome, how it does so, and how this outcome impacts on social or human capital. Both positive and negative impacts should be considered. Such a pathway can be established both to understand past impacts and to forecast impacts of new activities.



38. See Annex 3 for detailed references.

- The **boundary of the assessment** needs to be defined, along multiple dimensions such as: organisational (e.g., at the corporate or project level), geographic (e.g. local, regional or global), temporal (time period) and value chain (activities under direct operational control by the company or upstream and/or downstream activities in the supply chain). This is important because depending on the boundary set, impacts might vary – e.g. a positive local impact might result from the displacement of a negative one to a different location, which would only be captured if a broader geographical boundary is set. Furthermore, some impacts only materialize over time. To define the relevant boundaries, airports should consider the intended use of the results, the needs and interests of their stakeholders, the likely effectiveness of addressing an issue, their ambition level as well as the availability of resources and data.

- When assessing the impact of a company's initiative, it is important to establish a **reference for the comparison**. It can be, for instance, the situation prior to the launch of an initiative or a counterfactual situation (analysing how an impact would have evolved if no action was taken). It is also necessary to carefully analyse whom an observed change can be attributed to, as it might coincide with but not necessarily result from a company's action. Furthermore, unintended effects should be taken into account, as well as possibly varying impacts on different stakeholder groups.

- There are several **methodologies** available in order to allocate a value to a social, human or natural capital impact. They can be grouped in three main categories: qualitative (describing a change and usually relying on perceptions, e.g. through case studies), quantitative (using numerical but non-monetary values, e.g. scores) and monetary (assigning a financial value to an impact). On the latter, the European Commission *Handbook on the external costs of transport* from 2019 presents relevant methodologies and results. Literature reviews, surveys, workshops and data analysis are usually key components of these approaches.

- It is recommended for airports to review and evaluate existing approaches as they are applicable to them, taking into account the type of impact analysed and the intended use of the assessment. For instance, monetary approaches allow for a direct comparison with financial information and are as such particularly relevant for business decision-making. However, social impact areas relating to health, culture or ethics can usually not be valued by a monetary approach in a comprehensive manner and furthermore, such an approach might be seen as morally questionable.

- A valuation of impacts can in general happen at different levels of granularity; depending on the intended use of the results, more or less precise assessments are warranted. When communicating about the results, airports are encouraged to be **transparent** about the methodology used as well as any associated assumptions, limitations in data availability, quality or consistency and the resulting **uncertainties**.

ANNEX 2

ACI EUROPE Sustainability Strategy for Airports, the UN SDGs and GRI

The table below presents an indicative mapping between the Balanced Business Model and the 13 material issues addressed by this strategy and the most relevant UN SDGs and GRI KPIs (as per GRI Standards (2016) & GRI AOSS (2014). It also provides an indicative scale of the impact (boundary) for each issue, which is required for reporting under GRI.

Impact	Material Issue	SDGs	GRI KPIs	Scale of Impact
Balanced Business Model		• 8.2: Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors • 17.16: enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilise and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals	201-1 Direct economic value generated and distributed 201-2 Financial implications and other risks and opportunities due to climate change	National

Impact	Material Issue	SDGs	GRI KPIs	Scale of Impact
Environmental	Climate Change	• 7.2: Increase substantially the share of renewable energy in the global energy mix • 11.B: Develop and implement a holistic disaster risk management plan at all levels. • 13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries. • 13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.	305-1 Direct (Scope 1) GHG emissions 305-2 Energy indirect (Scope 2) GHG emissions 305-3 Other indirect (Scope 3) GHG emissions 302-1 Energy consumption within the organization 302-2 Energy consumption outside of the organization (airport community) 302-3 Energy intensity 302-4 Reduction of energy consumption 302-5 Reductions in energy requirements of products and services 201-2 Financial implications and other risks and opportunities due to climate change	Global

Impact	Material Issue	SDGs	GRI KPIs	Scale of Impact
Environmental	Local Air Quality	• 3.9: Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination. • 11.6: Reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management	A05: Ambient air quality levels according to pollutant concentration sin micrograms per cubic meter ($\mu g/m^3$) or parts per million (ppm) by regulatory regime 305-7 Nitrogen oxides (NO_x), sulphur oxides (SO_x), and other significant air emissions	Local
	Material Resources	• 12.2: Achieve the sustainable management and efficient use of natural resources • 12.3: Halve per capita global food waste at retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses • 12.5: Substantially reduce waste generation through prevention, reduction, recycling and reuse	301-1 Materials used by weight or volume 301-2 Recycled input materials used 306-3 Waste generated 306-4 Waste diverted from disposal 306-5 Waste directed to disposal	Local

Impact	Material Issue	SDGs	GRI KPIs	Scale of Impact
Environmental	Water	• 6.3: Improve water quality by reducing pollution, eliminating dumping and minimising release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally. • 6.4: Substantially increase water-use efficiency across all sectors and reuse sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.	303-3 Water withdrawal 303-4 Water discharge 303-5 Water consumption	Local
	Biodiversity	• 15.5: Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species. • 15.7: Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products. • 15.C: Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities.	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas 304-2 Significant impacts of activities, products, and services on biodiversity 304-3 Habitats protected or restored	Local

Impact	Material Issue	SDGs	GRI KPIs	Scale of Impact
Social	**Human Rights, Values and Ethics**	• 8.7: Take immediate and effective measures to eradicated forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms. • 16.5 Substantially reduce corruption and bribery in all their forms. • 16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children.	102-16 Values, principles, standards, and norms of behaviour. 410-1 Security personnel trained in human rights policies or procedures. 412-1 Operations that have been subject to human rights reviews or impact assessments. 412-2 Employee training on human rights policies or procedures.	Airport
	Noise & Quality of Life of Local Communi-ties	• 3: Ensure healthy lives and promote well-being for all at all ages. • 11.2: Enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.	A07: Number and percentage change of people residing in areas affected by noise. 413-1 Operations with local community engagement, impact assessments, and development programs.	Local

Impact	Material Issue	SDGs	GRI KPIs	Scale of Impact
Social	**Employee Experience & Engage-ment**	• 5.5: Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life. • 8.5: Achieve full and productive employment and decent work for all women and men, including for young people and people with disabilities, and equal pay for work of equal value. • 8.8: Protect labour rights and promote safe and secure working environments for all workers.	405-1 Diversity of governance bodies and employees 405-2 Ratio of basic salary and remuneration of women to men 403-8 Workers covered by an occupational health and safety management system 403-9 Work-related injuries 403-10 Work-related ill health 407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Airport
	Quality of Service & Passenger Experience	• 9.1: Develop quality, reliable, sustainable and resilient infrastructure, infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.	GRI 103: Management Approach for Quality of Service 416-1 Assessment of the health and safety impacts of product and service categories 418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Airport

Impact	Material Issue	SDGs	GRI KPIs	Scale of Impact
Economic	**Economic Development**	• 4.4: Substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship. • 8.3. Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalisation and growth of micro-, small- and medium-sized enterprises.	201-1 Direct economic value generated and distributed 203-1 Infrastructure investments and services supported 203-2 Significant indirect economic impacts	National
	Sustainable Supply Chain	• 12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities • All SDGs as outlined above for Environmental Impacts, Human Rights, Values & Ethics and Employee Experience.	412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening 407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk 414-1 New suppliers that were screened using social criteria 414-2 Negative social impacts in the supply chain and actions taken	National/ Global

Impact	Material Issue	SDGs	GRI KPIs	Scale of Impact
Economic	Sustainable Destination	• 8.9: Devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products • 12.B: Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products	413-1 Operations with local community engagement, impact assessments, and development programs 413-2 Operations with significant actual and potential negative impacts on local communities	Local
	Intermo-dality	• 8.3. Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalisation and growth of micro-, small- and medium-sized enterprises. • 11.2: Provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons • 11.a: Support positive economic, social and environmental links between urban, per-urban and rural areas by strengthening national and regional development planning	G4-EN30: Significant environmental impacts of transporting products and other goods and materials for the organisation's operations, and transporting members of the workforce	Local

ANNEX 3

Reference Material

The list below outlines some of indicative key material that can help airports obtain additional guidance on the material issues covered by the present strategy. It is non-exhaustive and mainly covers documents directly referred to in the strategy as well as good practices identified in other industries.

Material Issue	Reference Material
Transversal	• Global Reporting Initiative https://www.globalreporting.org • International Integrated Reporting Council: Integrated Reporting Framework https://integratedreporting.org/resource/international-ir-framework/ • Human and Social Capital Coalition: Human and Social Capital Protocol (February 2019) https://docs.wbcsd.org/2017/form/scp-download.html • UN Global Compact: Guide to Corporate Sustainability (December 2014) https://www.unglobalcompact.org/library/1151 • UN Global Compact Guide to the SDGs (2017) https://www.unglobalcompact.org/library/4321 • GlobeScan-SustainAbility Survey 2019 - Evaluating Progress on the SDGs https://globescan.com/evaluating-progress-sdgs/ • EUROCONTROL Challenges of Growth (2018) https://www.eurocontrol.int/archive_download/all/node/8981

Material Issue	Reference Material
Balanced Business Model	• WBCSD Future Leaders Programme and Accenture: Integrated Performance Management. Better decisions today, better impact tomorrow (2014) https://www.wbcsd.org/contentwbc/download/2926/37488 • IIRC: Business Model Background Paper for Integrated Reporting (March 2013) https://integratedreporting.org/wp-content/uploads/2013/03/Business_Model.pdf • European Commission: Handbook on the external costs of transport (January 2019) https://op.europa.eu/en/publication-detail/-/publication/e021854b-a451-11e9-9d01-01aa75ed71a1

Impact	Material Issue	Reference Material
Environmental	Transversal	• European Commission: The European Green Deal (December 2019) https://ec.europa.eu/info/sites/info/files/european-green-deal-communication_en.pdf • Natural Capital Coalition: Natural Capital Protocol (May 2019) https://naturalcapitalcoalition.org/natural-capital-protocol/ • EASA, EEA, EUROCONTROL: European Aviation Environmental Report 2019 (January 2019) https://www.easa.europa.eu/eaer/ • International Civil Aviation Organization (ICAO): Environmental Report 2019 https://www.icao.int/environmental-protection/Documents/ICAO-ENV-Report2019-F1-WEB (1).pdf • EUROCONTROL: Specification for Collaborative Environmental Management (CEM) (August 2018) https://www.eurocontrol.int/publication/eurocontrol-specification-collaborative-environmental-management-cem
	Climate Change	• IPCC: Special Report on Global Warming 1.5°C. Summary for Policymakers (October 2018) https://www.ipcc.ch/sr15/chapter/summary-for-policy-makers/ • European Commission: Communication: A Clean Planet for all (November 2018) https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018DC0773 • ACI World: Guidance Manual: Greenhouse Gas Emissions Management (2018) https://store.aci.aero/product/guidance-manual-airport-greenhouse-gas-emissions-management/ • ACI World Airport Carbon and Emissions Reporting Tool (ACERT) https://aci.aero/about-aci/priorities/environment/acert/ • ACI World Aircraft Ground Energy System - Simulator (AGES-S): https://aci.aero/about-aci/priorities/environment/ages-s/ • World Business Council for Sustainable Development (WBCSD), World Resources Institute: Greenhouse Gas Protocol https://ghgprotocol.org/ • Energy Transitions Commission: Mission Possible. Reaching net-zero carbon emissions from harder-to-abate sectors by mid-century (November 2018) http://www.energy-transitions.org/mission-possible • ICAO Eco-Airport toolkit: A Focus on the production of renewable energy at the Airport site (2019) https://www.icao.int/environmental-protection/Documents/Energy%20at%20Airports.pdf • ACI World: ACI Policy Brief: Airports' resilience and adaptation to changing climate (October 2018) https://store.aci.aero/wp-content/uploads/2018/10/Policy_brief_airports_adaption_climate_change_V6_WEB.pdf • EUROCONTROL: Adapting aviation to a changing climate https://www.eurocontrol.int/update/adapting-aviation-changing-climate

Impact	Material Issue	Reference Material
Environmental	**Local Air Quality**	• ACI EUROPE: Ultrafine Particles at Airports (June 2018) https://www.aci-europe.org/component/attachments/attachments.html?id=322&task=download • ICAO Airport Air Quality Manual (Doc 9889) https://www.icao.int/environmental-protection/Documents/Doc%209889.SGAR.WG2.Initial%20Update.pdf
	Material Resources	• WBCSD: CEO Guide to the Circular Economy (2017) https://docs.wbcsd.org/2017/06/CEO_Guide_to_CE.pdf • Ellen MacArthur Foundation https://www.ellenmacarthurfoundation.org/publications • ICAO Eco-Airport toolkit: Waste Management at Airports (2019) https://www.icao.int/publications/Documents/9889_cons_en.pdf • Cooling as a Service initiative https://www.caas-initiative.org/
	Water	• European Water Stewardship https://ews.info/
	Biodiversity	• ACI World: Combating Illegal Wildlife Trade (March 2019) https://store.aci.aero/product/best-practice-case-studies-from-selected-airports-combating-illegal-wildlife-trade/ • Training and awareness resources on wildlife trafficking: ROUTES Partnership www.routespartnership.org • Ecosystem Services Partnership (ESP) https://www.es-partnership.org/ • Sub-Global Assessment (SGA) Network http://www.ecosystemassessments.net/ • Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES) https://www.ipbes.net/ • European Environment Agency (EEA): State of nature in the EU, EEA Report 10/2020 https://www.eea.europa.eu/publications/state-of-nature-in-the-eu-2020

Impact	Material Issue	Reference Material
Social	Human Rights, Values and Ethics	• UN Guiding Principles on Business and Human Rights (2011) https://www.ohchr.org/documents/publications/GuidingprinciplesBusinesshr_eN.pdf • ACI World: Handbook on Combatting Human Trafficking (2019) https://store.aci.aero/product/combatting-human-trafficking-handbook-2019/
	Noise & Quality of Life of Local Communities	• ACI EUROPE: Addressing the Future of Aviation Noise (October 2018) https://www.aci-europe.org/component/attachments/attachments.html?id=321&task=download • ACI World and CANSO: Managing the Impacts of Aircraft Noise (September 2015) https://www.aci-europe.org/component/attachments/attachments.html?id=354&task=download • ICAO: Community Engagement for Aviation Environmental Management (Circular 351) (2018) https://www.icao.int/environmental-protection/Pages/Community-engagement-for-aviation-environmental-management.aspx • ICAO: Guidance on the Balanced Approach to Aircraft Noise Management (Doc 9829) (2008)
	Employee Experience & Engagement	• International Labour Organisation (ILO): The business case for change https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_700953.pdf • ACI EUROPE OFF THE GROUND: *Calling airport employees back to work* https://www.aci-europe.org/component/attachments/attachments.html?id=1007
	Quality of Service & Passenger Experience	• ACI EUROPE : Guidelines for Passenger Services at European Airports - SECOND EDITION (June 2018) https://www.aci-europe.org/component/attachments/attachments.html?id=1201&task=download • ACI World: Airport Digital Transformation (2017) https://aci.aero/Media/aabcf490-613e-44ab-b98c-339377de0cd0/ki_0Cg/Publications/2017/Digital%20IT%20Transformation/Airport_Digital_Transformation.pdf • ACI EUROPE *Guidelines for a Healthy Passenger Experience at Airports* https://www.aci-europe.org/component/attachments/attachments.html?task=view&id=1092

Impact	Material Issue	Reference Material
Economic	Economic Development	• Oxford Economics https://www.oxfordeconomics.com/tourism/economic-impact • ACI EUROPE Economic Impact Calculator (for members) https://member.aci-europe.org/login.html • InterVISTAS: Study on the Economic Impact of European Airports (January 2015) https://www.aci-europe.org/component/attachments/attachments.html?id=452&task=download • ACI EUROPE: Airport Industry Connectivity Report 2018 https://www.aci-europe.org/component/attachments/attachments.html?id=856&task=download
	Sustainable Supply Chain	• International Federation of Accountants: Defining and Developing an Effective Code of Conduct for Organizations (May 2007) https://www.ifac.org/publications-resources/defining-and-developing-effective-code-conduct-organizations • United Nations: UN Supplier Code of Conduct (April 2018) https://www.un.org/Depts/ptd/about-us/un-supplier-code-conduct
	Sustainable Destination	• Global Sustainable Tourism Council https://www.gstcouncil.org/ • World Travel and Tourism Council (WTTC), McKinsey: Coping With Success – Managing Overcrowding in Tourism Destinations (2017) https://www.mckinsey.com/industries/travel-logistics-and-transport-infrastructure/our-insights/coping-with-success-managing-overcrowding-in-tourism-destinations • United Nations World Tourism Organization (UNWTO): Tourism and the Sustainable Development Goals – Journey to 2030 https://www.e-unwto.org/doi/pdf/10.18111/9789284419340

ANNEX 4

Glossary

For the purposes of the Sustainability Strategy, the following definitions are used:

Airport Carbon Accreditation **Level 1 "Mapping":** For accreditation at this level the following requirements should be met: a. Policy commitment to emissions reduction; b. Development of a carbon footprint for the airport's scope 1 and 2 emissions.

Airport Carbon Accreditation **Level 2 "Reduction":** For accreditation at this level the following requirements should be met: a. Fulfilment of all level 1 accreditation requirements; b. Formulation of a carbon emissions reduction target; c. Development of a Carbon Management Plan to achieve the target; d. Demonstration of scope 1 and 2 emissions reductions.

Airport Carbon Accreditation **Level 3 "Optimisation":** For accreditation at this level the following requirements should be met: a. Fulfilment of all level 2 accreditation requirements; b. Additional carbon footprint to include specific scope 3 emissions; c. Development of a Stakeholder Engagement Plan.

Airport Carbon Accreditation **Level 3+ "Neutrality":** For accreditation at this level the following requirements should be met: a. Fulfilment of all level 3 accreditation requirements; b. Offsetting of residual emissions under the airport's control.

Airport Carbon Accreditation **Level 4 "Transformation":** For accreditation at this level the following requirements should be met: a. Policy commitment to absolute emissions reduction; b. Development of an extended carbon footprint for the airport's scope 1, 2 and 3 emissions; c. Formulation of a long-term absolute reduction target in line with the IPCC 1.5°C or 2°C pathways; d. Development of an extended Carbon Management Plan; e. Development of a Stakeholder Partnership Plan.

Airport Carbon Accreditation **Level 4+ "Transition":** For accreditation at this level the following requirements should be met: a. Fulfilment of all level 4 accreditation requirements; b. Offsetting of residual emissions under the airport's control.

ACI EUROPE Connectivity Index: The airport connectivity index is calculated based on both direct and indirect weekly route frequencies, weighted by their quality. It is thus not simply an indicator of how many city pairs there are, or how many direct services there are at an airport. It is a composite measure of the number of destinations, the frequency of services and the quality of the connections (in the case of hubbing or indirect services).

Biodiversity "No Loss": The concept of "no loss" is based on the notion that to avoid a net loss of biodiversity and ecosystem services, damages resulting from human activities must be balanced by at least equivalent gains.

Biodiversity "Net Gain": Approach to development that leaves biodiversity in a better state than before the specific development.

Employment impacts: The economic impact of an airport is measured through the employment created at four levels

- Direct employment: associated with the operation and management of activities at the airports including companies on-site at the airport and airport-related businesses located elsewhere near the airport.

- Indirect employment: generated by industries that supply and support the activities at the airport, e.g. wholesalers, providing food for inflight catering, oil refining activities for jet fuel, companies providing accounting and legal services to airlines.

- Induced employment: generated by the employees of firms directly or indirectly connected to the airport spending their income in the national economy. For example, an airline employee might spend his/her income on groceries, restaurants, child care, dental services, home renovations and other items which, in turn, generate employment in a wide range of sectors of the general economy.

- Catalytic employment: captures the way in which the airport facilitates the business of other sectors of the economy (trade, tourism, investment…).

Engagement with Third Parties: The airport has an on-going dialogue, shares best practices, provides training, develops joint projects, or generally promotes cooperation with Third Parties. Indicative examples of engagement include awareness campaigns and training, interactive sessions (forums, workshops, committees), joint initiatives, use of minimum performance standards for buildings or vehicle fleets, introduction of incentives to encourage good practices, communication initiatives, etc.

Indicative KPIs: The KPIs indicatively presented in this Strategy largely depend on contextual factors and therefore cannot, on their own and without additional information, be linked to actual performance. For example, under climate change mitigation, an airport can record the percentage of zero emissions energy used. This indicator does not, on its own, indicate how well the airport performs, as additional information, e.g. the availability of green energy on the market, would be required to do so. This indicator can however be used by the airport to define improvement targets depending on its individual operating conditions. These quantitative KPIs are important to track over time, but they are not used in the scoring system of the Sustainability Strategy Self-Assessment Tool.

Low emissions GSE and vehicles: Any type of equipment/vehicles that is different from 100% fossil fuel based.

Material Issues: In line with the GRI approach these are issues that "reflect the organization's significant economic, environmental and social impacts; or substantively influence the assessments and decisions of stakeholders." [39]

39. GRI, "Defining What Matters; Do Companies and Investors Agree on what is Material?", 2016.

Net zero carbon emissions: Reduction of absolute carbon emissions to the furthest extent possible while removing any residual emissions through carbon capture and storage or natural carbon sinks.

Pathway: Four ascending performance steps (i.e., *launch, development, maturity, leadership*) with recommended actions and KPIs for each material issue.

Pillar: Key sustainability area, setting the framework of the Sustainability Strategy for Airports.

Scope 1 Emissions: Direct GHG emissions that occur from sources that are owned and/or controlled by the airport, for example, emissions from combustion in owned or controlled boilers, furnaces, vehicles, etc.

Scope 2 Emissions: Indirect GHG emissions from the generation of purchased electricity, steam, heat or cooling consumed by the airport. Scope 2 emissions physically occur at the facility where purchased electricity is generated.

Scope 3 Emissions: All other indirect emissions, which are a consequence of the activities of the airport, but occur from sources not owned and/or controlled by the company (e.g., aircraft movements, vehicles and equipment operated by third parties, off-site waste management, etc.).

Social Entrepreneurship Projects: Projects fostering the social and human capital of communities and consequently their quality of life, without following strict financial performance criteria.

Sustainability-related services: Services that satisfy stakeholder needs and significantly improve social, environmental, and economic conditions.

Traffic Unit (TU): One passenger movement or 100 kg cargo arriving or departing from the airport.

Zero emissions energy: Includes both self-consumption of renewable energy produced onsite and purchase of renewable energy from outside the airport boundary.

AIRPORTS COUNCIL INTERNATIONAL

ACI EUROPE is the European region of Airports Council International (ACI), the only worldwide professional association of airport operators.

ACI EUROPE represents **over 500 airports** in 46 European countries. Our members facilitate over 90% of commercial air traffic in Europe: **2.5 billion passengers**, **20.7 million tonnes of freight** and **25.7 million aircraft movements** in 2019. In response to the Climate Emergency, in June 2019 our members committed to achieve **Net Zero** carbon emissions for operations under their control **by 2050**, without offsetting.

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EVERY FLIGHT BEGINS AT THE AIRPORT.