Aviation Round Table Report on the Recovery of European Aviation

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Urgent call for action from the assembled European aviation sector

We, the European associations collectively representing the entire European aviation sector, including airlines, airports, air navigation service providers, aeronautical manufacturing, trade unions, non-governmental organisations for environmental and consumer action, service providers, ground-handling services, the duty free and travel retail sector, airport coordinators, general and business aviation, express carriers, travel agents, tour operators, travel distributors, and the entire tourism sector, have come together in the European Aviation Round Table because the gravity of the crisis threatening aviation in Europe calls for unprecedented action.

We are gathered today to launch our joint proposals for the recovery and relaunch of our sector towards and in a post-COVID-19 world. With this appeal, we call upon all policy makers in the EU and its Member States to take swift and decisive joint action to save our sector.

Recognising the vital socio-economic role played by aviation and tourism in Europe and around the world, allowing companies and nations to trade successfully, providing jobs and regional and global connectivity by fostering social contacts between people, societies and communities worldwide;

Recalling that the EU aviation sector supports almost 10 million jobs and €672 billion in European Union economic activity, including 4.2% of all EU jobs and 4.2% of the EU's GDP;

Stressing that aviation is a key economic sector which has been hit first and hit hardest by the COVID-19 crisis, which is having an unprecedented and devastating impact and which necessitates urgent action to stabilise the sector and put it back on a path towards a sustainable recovery and future, operationally, financially, socially and environmentally;

Recognising that the aviation sector cannot merely wait for a resumption of business as usual and that urgent action is required so that aviation can continue to be a primary enabler of our global economy in the future;

HEREBY call for a bold strategy for a sustainable recovery of European aviation and to this effect herewith present the main elements of our proposals:

To **restore the public's confidence** in air travel we need **first and foremost effective coordination of travel restrictions and requirements imposed by Member States**. Such measures should be based on a common set of criteria, data and guidelines provided by the European Centre for Disease Prevention and Control (ECDC) and the European Union Aviation Safety Agency (EASA).

We all declare our readiness to take all measures necessary to strengthen the confidence of the travelling public in aviation. This includes support for further improvements to the effective enforcement of passenger rights, as ensuring legal certainty in this area and in regard to travel restrictions is paramount to avoid confusion and passenger frustration. The European aviation sector also calls on the EU and Member States to prepare, implement and enforce simple and unambiguous rules in that field.

Pillar 1: European Aviation Relief Programme

The Aviation Round Table calls on the EU and its Member States to **put in place a targeted European Aviation Relief Programme covering the period until the recovery of air traffic, which is not expected before 2024 or 2025**. This programme should aim to stabilise the sector and help to prevent the huge loss of employment and connectivity that would result from a collapse of European aviation. The EU aviation sector stands ready, with the EU and Member States, to continue to take

action to mitigate the revenue gap of affected actors and allow for a fast and sustainable recovery path which will enable the sector to contribute to an economically viable and sustainable recovery.

Given the current uncertainty over when the recovery will come, **the Aviation Round Table welcomes the recent prolongation of the State Aid Temporary Framework until 30 June 2021 – but a prolongation until at least the end of 2021 is needed, taking into account the long-lasting impact of the pandemic on the sector and the need to preserve the Aviation Single Market**. The Aviation Round Table also calls for the introduction of specific support measures for the aviation sector beyond 2021.

In the interests of achieving a broad-based recovery and the level playing field vital to the European aviation market, Member States should ensure that any further **relief funding is provided on a fair and non-discriminatory basis** and available to all parts of the aviation sector with justified needs.

The EU Recovery and Resilience Facility may provide indispensable support for such Relief Programme. In the National Recovery and Resilience Plans, **Member States should reflect and recognise the strategic importance of aviation.**

The EU and Member States should continue to promote a competitive EU aviation industry globally, including through EU negotiated bilateral and multilateral aviation agreements where added value and economic benefits have been demonstrated for the EU aviation eco-system, as well as consumers, based on fair competition and high standards in areas such as safety, consumer protection, environment and social rights.

The present crisis risks eroding air connectivity, which is an economic and social lifeline for many communities. It should therefore become easier for Member States to create new **Public Service Obligations** (PSO), assisted by a targeted funding programme. Temporary emergency PSOs urgently need to be expanded to take into account the long recovery period.

The EIB Group's lending policies, the EU taxonomy for sustainable finance, EU and national programmes should all allow support for financing the transition to low-emission technologies across the entire aviation eco-system.

Pillar 2: EU Pact for Sustainable Aviation

The Round Table agreed that the long-term sustainability of the aviation sector requires a balance between the environmental, social and economic impacts of human activity and therefore we invite the EU and its Member States to join us in defining and agreeing, by the end of 2021, an EU Pact for Sustainable Aviation.

The European aviation sector believes that its recovery is fully compatible with, and should be accompanied by, broader efforts to reduce its environmental footprint, provided the right policies are in place. Therefore, **the European aviation sector is committed to continue its efforts to reduce its negative environmental impacts, both locally and globally. The latter implies in particular for all stakeholders and all policy-makers to work together to achieve net zero CO_2 emissions from all flights within and departing from the EU by 2050**. This means that by 2050, emissions from these flights should be reduced as much as possible, with any residual emissions being removed from the atmosphere through negative emissions, achieved through natural carbon sinks (e.g. forests) or dedicated technologies (carbon capture and storage). The European aviation sector invites European and national policy-makers to be strong partners in reaching these objectives, thus collectively contributing to the implementation of the European Green Deal.

The EU Pact for Sustainable Aviation should chart the path towards net-zero CO_2 emissions, while also achieving significant emission reductions by 2030, so as to strongly contribute to the EU Climate Action objectives. It should also consider the feasibility of making 2019 the peak year for CO_2 emissions from European aviation while enabling the sector to continue delivering its social and economic benefits. Many decarbonisation initiatives, such as those related to electrification, will also benefit local air quality.

Flowing from these and other environmental objectives, all parts of the aviation sector undertake to align their commitments accordingly. The Pact should specify the supporting policy framework and financial mechanisms needed at EU level to achieve these objectives. Amongst others, this should include the urgent need for a **comprehensive EU legislative framework to promote the uptake and deployment of Sustainable Aviation Fuels (SAFs), as a key opportunity to accelerate the decarbonisation of aviation.**

Technology and innovation will play a key role in improving the environmental performance of our sector post-COVID-19. The EU should therefore **establish a green incentive scheme for fleet renewal coupled with retirement and increase public co-funding rates for Civil Aviation Research & Innovation (Clean Aviation and SESAR) through EU recovery mechanisms.**

Recognition should also be given to the revision of the Single European Sky and the continuation of the EU Emissions Trading Scheme / CORSIA, which will also contribute towards cutting aviation emissions.

The pandemic has had a profound impact on workers in the aviation sector, and the design and implementation of the recovery strategy should take into account needs accordingly, fully reflected in **the social dimension of the EU Pact for Sustainable Aviation.**

Through the Pact, the EU, its Member States and the aviation stakeholders should ensure that social and employment rights enshrined in European and national legislation are applied effectively for all workers. Of particular importance will be **effective oversight and enforcement of the social acquis.** Equally, there is a need to combat any forms of social injustice or other abuses in the aviation sector.

With a view to attract and retain skilled workers and closing the gender gap in certain professions within the aviation sector, the industry should ensure **secure and fair working conditions** that also provide for adequate work-life balance.

To guarantee a socially sustainable industry there is a need to ensure that the bilateral and tripartite social dialogue structures are used effectively. The aviation sector commits to using these mechanisms to the fullest possible extent, not only during periods of crisis, as required by law, but also during 'normal' times.

In sum, the Pact should benefit the entire sector – passengers and workers - both from an environmental as well as a social perspective.

In addition to the significant challenges covered by the above two pillars, a number of other issues facing the sector should also be addressed to **strengthen the resilience of European aviation** beyond the crisis. Indeed, the sector, as well as the EU and Member States, should collaborate to improve the EU aviation system's resilience by tackling its inefficiencies, strengthening its governance and improving its flexibility as well as its overall international competitiveness.

Digitalisation is a prerequisite for the modernisation and decarbonisation of the EU aviation system and the sector will fully embrace it. The Single European Sky and its upcoming revision plays a crucial role in stimulating digital innovations. The EU should **prioritise funding for the full SESAR cycle** of the Single European Sky ATM Research (SESAR) programme (including research and innovation, industrialisation and deployment) in the EU Multiannual Financial Framework 2021-2027. The EU should **temporarily increase the ATM research partnership and SESAR deployment funding rates** to 100% for aviation stakeholders to ensure continuity for existing projects and adapt regulatory processes to accommodate disruptive technologies, namely new entrants including unmanned aircraft systems (UAS) and unmanned traffic management (UTM) operations.

We, the European associations representing the entire European aviation eco-system, call upon the EU and its Member States to provide the necessary support and regulatory frameworks to enable us to implement the proposed actions as detailed in the Report which we drafted jointly to this end and which we add to this Declaration.

Introduction

Aviation is suffering an existential crisis dwarfing any of the many external shocks it has experienced since 1945. The outbreak of COVID-19 hit aviation first, and hit it hardest, causing a near standstill of all air traffic since March. Even today, more than eight months into the crisis, there is no meaningful recovery in sight.

Because the present situation is so unprecedented, it has led to representatives of all parts of the wider aviation ecosystem in Europe coming together with a single voice to deliver their call for action to address the crisis and the recovery. Such a unified voice is the result of intense discussions among a wide range of stakeholders: not only airlines, airports, air navigation service providers, aeronautical manufacturing, trade unions, but also non-governmental organisations for environmental and consumer action, as well as service providers, ground-handling services, the duty free and travel retail sector, airport coordinators, general and business aviation, express carriers, travel agents, tour operators, travel distributors, and the entire tourism sector. Indeed, the urgency and gravity of the situation requires us to look ahead collectively and work out the necessary measures to ensure the future of European aviation.

The numbers are striking: European air traffic collapsed in April and May 2020, down by nearly 90% compared to the previous year. Even at the very peak of a brief and weak recovery over the summer, air traffic failed to reach half of its 2019 levels. According to the latest Eurocontrol forecasts extending to February 2021, the situation will deteriorate even further below today's flight movements, which are currently 59% down from 2019 levels (week 45 of 2020).[1] Load factors and passenger numbers are even worse, with 73% fewer passengers compared to last year in September and a clear downward trend since.[2] The situation is dramatic and equally concerns all parts of the aviation ecosystem. For example, this year's revenue loss of European airlines stands at nearly EUR 70 billion[3] and counting. Likewise, Europe's airports expected revenue loss for 2020 stands at EUR 30.9 billion compared to annual revenues of EUR 45 billion last year.[4] Many regional airports in Europe are at risk of bankruptcy in the coming months unless government or public support is provided. Load factors remain too low to sustain aviation commercially and combined with vanishing demand greatly endangers any realistic prospect for recovery.

As a consequence, the existence of the EU aviation sector as we know it, the connectivity it provides, the almost 10 million jobs supported by aviation, and the sector's contribution of more than EUR 670 billion to the EU economy are all at stake.[5]

Enabling the recovery of the European aviation sector will require substantial public support. It must be ensured that any public funds are used in a responsible, efficient and sustainable manner, so the sector can continue delivering social and economic benefits to European citizens, while reducing its negative environmental impacts. Such support will help aviation regain its financial viability, and thereby its ability to invest and to contribute to public revenue raising. If deemed appropriate, structural adjustments to revenue raising mechanisms for aviation should be considered to ensure the sector is making an appropriate contribution to public revenue raising. Such consideration should only occur once the sector has recovered from the crisis – otherwise the restoration of connectivity in Europe would be compromised, and the sector made even more dependent on public funds.

Beyond the immediate crisis, COVID-19 is also likely to affect demand for air transport and the structure of the aviation market in the longer term. Whilst the magnitude of the crisis' impacts remains uncertain, wherever possible, relevant projections should be used to define appropriate recovery policies.

That is why we came together to draw up this report on behalf of millions of Europeans whose livelihoods depend on the recovery of European aviation and the entire tourism ecosystem. The five chapters of the report focus on the priority areas where action is urgently needed:

- restoring **public confidence**,

- providing a path for an **environmentally and socially sustainable recovery**,

- embracing **technology and digitalisation**,

- preserving the **European internal market and its competitiveness**, and

- making European aviation **more resilient** to future shocks.

A4E, ACA, ACI-EUROPE, ARC, ASA, ASD, BEUC, CANSO, CPMR, EBAA, ECA, ECTAA, EEA, EFFAT, ERA, ETC, ETF, ETRC, EUACA, EU TRAVEL TECH, GAMA, INDUSTRIALL EUROPE, UNI EUROPA and T&E within their statutory mandate[6], collectively represent the whole European aviation ecosystem in all its different facets, urge European policymakers to implement its recommendations, and commit to support them strongly in this endeavour.

The EU single aviation market is one of the true success stories of European integration. While recognising the need to further improve our ecological footprint, aviation represents one of Europe's industrial strongholds, a driver of innovation and technological advancement with strong interdependencies with other economic sectors, such as travel and tourism. But most of all, it is a key actor allowing the European citizen to connect to the rest of Europe and the rest of the world.

Collectively we call on policymakers to provide the regulatory responses needed to weather this storm and together build a more sustainable European aviation sector as a driver of the European economy.

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[1] Eurocontrol, COVID-19 Impact on European Air Traffic, Comprehensive Assessment, 12 November 2020.
[2] ACI Europe, 27 October 2020; German airports report 88% fewer passengers for week 45, ADV press release,13 November 2020.
[3] IATA.
[4] ICAO.
[5] ATAG.
[6] Some of these associations do not take positions on certain aspects of this report, but support this Report within the limits of their mandate.

1 Restoring public confidence

1. Introduction

A few relatively simple rules underpin the functioning of the aviation sector. Possibly the very first one is that if passengers feel unsafe or unsecure, they do not fly. This has been demonstrated many times in the past, where public concerns over aviation safety have been reflected in a reluctance to travel on a particular aircraft or with a particular airline. The COVID-19 crisis is no different and it is evident that a common global response following recognised international standards is key to managing the risk of transmission of the virus.

There is no 'silver bullet' to tackle the virus and its transmission. However, air travel remains one of the safest modes of transport with a very low risk of virus transmission onboard the aircraft and at airports.[7] Moreover, a better understanding of COVID-19 means that we can now identify how the risks can be mitigated. For this reason, a layered approach, science- and data-driven and founded upon a risk-based approach, as was created a long time ago for aviation safety and security, will provide the best way to guarantee the highest degree of health and safety for travellers, while avoiding unnecessary redundancies, ineffective remedies and incoherent measures.

Implementing standards prepared by the World Health Organization (WHO) or the European Centre for Disease Prevention and Control (ECDC) in air transport in a harmonised way across Europe is essential to ensuring trust in the measures and tackling the lack of confidence in the safety of air transport. Past experience also shows that this is also the only realistic way. The entire aviation sector, regulators in particular, must learn from the experience of actions taken at the start of the COVID-19 crisis: we must replace the current plethora of uncoordinated and conflicting national measures, which make it so difficult for passengers and airlines to follow different regulations in different countries and which are counterproductive to the objective of restoring confidence. Instead, coordination at EU level is essential.

As further clarity is achieved in terms of additional measures such as effective COVID-19 testing and immunity, new measures can be incorporated into the passenger process to further mitigate the risks and further build confidence in air travel.

Beyond the implementation and coordination of effective health-related measures in the EU, attention needs to be paid to other matters which also will have an impact on public confidence in air travel. We should avoid at all costs that the COVID-19 crisis somehow triggers a safety crisis, as this would undermine public confidence even further. It is therefore critically important to closely monitor and, if necessary, address any potential safety hazards induced by the changed circumstances in a post-COVID-19 operational environment.

Restoring the confidence of passengers also means providing them with clear information and legal certainty on rights deriving from their air transport contract and the legal framework as well as enforcing these rights effectively, as recalled in Commission Recommendation (EU) 2020/648. These measures, together with providing greater clarity on passenger travel restrictions, are also of paramount importance for avoiding confusion and passenger frustration.

In the same vein, the crisis has shown that passengers feel they may find themselves unprotected in case of insolvency of airlines. To this effect, the impact of airline insolvency protection could be further analysed. Lastly, building on a unified approach in Europe, the EU should look beyond its borders when tackling the negative consequences of the pandemic. It should use its full external aviation toolbox to enhance cooperation with third countries and safeguard the international competitiveness of the European aviation sector by promoting as far as possible European standards internationally based on a level playing field, to the benefit of European businesses and passengers.

2. Diagnosis and recommendations

Restoring public confidence will first and foremost require that we return quickly to a situation where practical changes in established procedures are implemented following the recommendations of public health authorities, to ensure passengers' maximum health safety. It is recognised that beyond the evolution of the pandemic, operational measures, the availability of a vaccine or of medication, and the profile of the economic recovery, the international coordination of travel-related measures will be essential to restore traveller confidence in air transport.

Individual, uncoordinated and diverging measures of Members States greatly undermine passenger confidence and seriously risk stifling the recovery. The Council recommendations as adopted by the Council on 13 October[8] fell short in preparing Europe for the second wave of COVID-19. Although common epistemological criteria were set and a European colour-coded map is updated weekly by the ECDC, a number of elements are missing:

- the recognition that testing can replace quarantine and could be more effective;

- the mutual recognition of testing results between Member States;

- the timely information of the industry and public about any new measure (ie. a 5-day notice period);

- the use of a single Passenger Locator Form in digital format.

Member States should not impose blanket country bans; testing capacities should be further developed, testing methodologies and results should be mutually recognised at departure and arrival and quarantine only used as a measure of very last resort.

Close collaboration and coordination at all levels is therefore vital:

- Among governments, to implement internationally consistent, mutually accepted measures that are essential to restoring air connectivity and passenger confidence in air travel;

- Between governments and industry, particularly to ensure the practicable development and implementation of operational measures;

- Between industry stakeholders to ensure an optimised use of available capacity which delivers reliable connectivity for passengers;

- Between aviation authorities and other authorities responsible for decision making in policy areas directly affecting travel, such as tourism, health and border/travel restrictions.

Key action 1.1

Measures to combat transmission of COVID-19 must be proportionate and effective throughout the passenger journey and in full alignment with the EASA/ECDC COVID-19 Aviation Health Safety Protocol, as well as industry best practices and recommendations. Measures must be risk-based, transparent, promptly available, easily understandable, harmonised and standardised across all Member States to ensure a seamless and consistent passenger experience.

The entire aviation sector is committed to ensuring clear, up-to-date and comprehensive communication of health and sanitary measures to passengers and staff. We will pay particular attention to our most vulnerable travellers, those with disabilities or reduced mobility. An important action here is publicising airlines' generalised use of HEPA filters and rapid cabin air renewal onboard aircraft.

To further reduce queues, bottlenecks, crowded areas and crossflows and ensure physical distancing to the extent possible we encourage greater use of touchless technology, biometrics and innovative solutions. For example, any device requiring physical touching could be upgraded with a virtual touchpad, providing hands-free interaction and limiting the risk of transmission. Biometric solutions reduce the need for physical interaction with staff and equipment and innovative solutions may support health-related measures; provide personalised information to the passenger; minimise disruptions; and support operations management in full compliance with EU data protection laws.

With a view to continual improvement, as improved risk mitigation methods become available, obsolete measures should be phased-out or replaced as

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[7] Harvard T.H. Chan School of Public Health (2020), Assessment of Risks of SARS-CoV-2 Transmission during Air Travel and Non-Pharmaceutical Interventions to Reduce Risk; US DoD (2020), TRANSCOM/AMC Commercial Aircraft Cabin Aerosol Dispersion Tests.

[8] Draft Council Recommendation on a coordinated approach to the restriction of free movement in response to the COVID-19 pandemic, 12 October 2020 https://www.consilium.europa.eu/en/press/press-releases/2020/10/13/covid-19-council-adopts-a-recommendation-to-coordinate-measures-affecting-free-movement/.

appropriate. European and national legislation should be adapted to remove remaining regulatory obstacles to personal data capture and electronic or home-printed boarding passes and bag-tags, while taking appropriate steps to ensure data security.

Key action 1.2

A European approach to travel-related measures should rely on the following:

- Information sharing, coordination and alignment between Member States about risk profiles (green/orange/red) based on ECDC data and a common set of criteria;

- Removal of travel bans and ensuring that changes to travel advisory is done with sufficient lead time;

- Development of testing capacities by the Member States, to support mutually-recognised fast testing to prevent passengers from being further deterred from travelling;

- Development of a common testing Protocol for travel to avoid quarantines, and a system for public funding of such testing programme.

The European Commission should set up a dedicated EU initiative for rebuilding passenger confidence in air travel as a safe way to travel during COVID-19. The initiative should share progressive and innovative actions taken by EASA, the Commission and the aviation sector.

An additional component of passenger confidence relates to consumer protection. Passengers and airlines need a simple and unambiguous text that covers their respective rights and obligations instead of the grey areas that currently exist. Meanwhile, proactive industry measures increasing passenger confidence and stimulating demand would be important for the recovery of air travel.

Key action 1.3

The European Commission and the EU co-legislators should improve the confidence of passengers in air transport by ensuring legal certainty in the area of consumer rights and prioritising the review of Regulation 261/2004 on Air Passenger Rights to make passenger rights clear and simple to implement and enforce.

3. Other proposed actions

Short term

1	The aviation sector should initiate and further promote proactive industry measures to increase confidence and stimulate sustainable recovery.
2	The ECDC and EASA should continue to adapt the Health Safety Protocol to changing circumstances and, in case of need, develop additional harmonisation documentation.
3	Contact tracing apps should be made interoperable to facilitate tracing throughout the EU.
4	The European Commission should develop a dedicated EU initiative/campaign to raise public awareness on the health safety of flying.
5	The EU should continue reaching out to third countries and international organisations to ensure mutual recognition of EASA/ECDC guidance material in all relevant areas.
6	The EU and industry should launch research projects bringing together the aviation & health communities, to increase our collective preparedness in case of future pandemic.

Longer term

7	The aviation sector should develop enhanced Safety Management tools for airlines to address the safety hazards created by the crisis, as well as oversight thereof by the authorities.
8	Public authorities and the aviation sector should launch research activities on measures to protect aircraft personnel and passengers from health risks (i.e. health detection systems in cabins, improved air treatment systems).
9	The EU and Member States should encourage the deployment and the public financing of touchless technology, biometrics as well as innovative solutions to reduce queues and bottlenecks while ensuring physical distancing.
10	The EU and Member States should adapt European and national legislation in order to remove regulatory obstacles to mobile or home printed boarding passes, electronic or home-printed bag-tags and personal data capture online.

2 Making aviation more sustainable – social and green aviation

1. Introduction

1.1 Scoping sustainability: environment | social | economics

The concept of sustainability refers to a balance between the environmental, social and economic impacts of human activity and is further defined in the 17 Sustainable Development Goals (SDGs) as adopted by the United Nations in 2015.

As highlighted by the International Civil Aviation Organization (ICAO), "the pillars of sustainable development are especially relevant to the aviation sector that, by offering a safe and efficient means of mass transportation, is universally recognized as an essential component of the global economy and universal social progress."[9]

1.2 Sustainability and aviation

With aviation's positive and far-reaching impacts on the economy and social progress being well documented[10] and widely accepted, the sector's sustainability efforts have been mostly focusing on minimising its environmental impact. However, aviation - along with other key sectors of the economy - today faces a renewed sustainability challenge.

The question of sustainability has gained considerable traction over the past years in all sectors, due to increasing concerns over the environmental and social impacts of our current economic development model. Decades of economic growth have taken a high toll on natural resources and the environment, with the exponential expansion of emerging markets and rebalancing of the World economy revealing the planet's own physiological limits. At the same time, the Global Financial Crisis has exposed and accelerated social inequality. This combination has led to changing societal values and new political priorities – especially in Europe.

The rise of sustainability in societal and political terms is especially relevant for aviation, as aviation both enables economic growth and globalisation, and also thrives on it. In many ways, aviation therefore finds itself at the core of today's sustainability debates. Its track record of almost uninterrupted growth is in the spotlight – with public and political attention shifting away from the positives of air connectivity to increasingly focus on its negative externalities.

All this means that aviation is facing a challenge of societal acceptability, even before the impact of COVID-19 is considered.

1.3 COVID-19 & renewed societal acceptability challenge

Aviation is among the sectors hardest hit by COVID-19 and is facing flight restrictions and a collapse in air connectivity. It is now grappling with a protracted and uncertain recovery – with the prospect of liquidity shortage and lost revenues, diminished positive economic impacts and deteriorated social conditions for its workforce.

However, the unprecedented crisis triggered by COVID-19 further questions our societies' focus on economic growth and globalization at the cost of environmental and social impacts – with aviation very much remaining in the spotlight on these issues.

As a result, the sector now finds itself confronted with a renewed and urgent societal acceptability challenge. This requires aviation to fully embrace 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.

Environmental, social and economic sustainability must thus become a business imperative for all actors of the air transport ecosystem – along with excellence in customer service, achieving lasting profitability and adequate returns for shareholders. This is about putting sustainability at the core of aviation.

A strengthened commitment to sustainability is a must for restoring public support for aviation as well as its long-term business viability and societal relevance. The sector's decreasing resources and its competitiveness challenge are major obstacles to achieving the required goals and above-mentioned business model evolution. This brings particularly acute risks as regards decarbonisation, as it could result in current carbon-intensive technologies and practices becoming locked-in.

2. Diagnosis

2.1. Environmental sustainability

■ Climate change:

Being an existential threat, climate change is the greatest long-term challenge faced by humankind. Despite significant efficiency gains brought about by technology and new operational processes, aviation's impact on climate change has kept growing over the past decades. This is largely due to the increase in demand for air transport, which reflects the value of air connectivity for citizens, businesses and communities across Europe.

In Europe, CO2 emissions from aviation increased by +10% between 2014 and 2017 alone and are expected to further grow by +21% by 2040.[11] Before the COVID-19 outbreak, ICAO forecast in 2019 that by 2040 the sector's global emissions could grow by a further 150%.[12] This trend must be halted, and the aviation sector is determined to use the COVID-19 crisis and its fallout as an opportunity to "build back better" by cutting carbon from flying. On this basis, decarbonisation stands at the very top of aviation's sustainability challenge.

■ Local impacts and quality of life:

Communities around airports are usually the most affected by the environmental impacts of aviation – be it because of aircraft noise or gaseous emissions affecting air quality. It is therefore essential that aviation strives to minimise these impacts to enhance the quality of life of residents and effectively contribute to fair and caring societies.

Noise: in spite of significant reductions in the noise footprint of individual flights as a result of improvements in aircraft technology (aircraft types have become some 75 % less noisy over the last 30 years),[13] more efficient operational processes and other noise mitigation measures, the number of people exposed to noise has been growing around major European airports over the past 15 years.[14] This is the result of increasing demand for air transport reflected in more flights. Residential developments in noise-sensitive areas around airports have also contributed, leading to more being people exposed to noise even without changes in airport operations. All this entails risks for the well-being and health of people living in the vicinity of airports

Even if noise exposure around major European airports might stabilise by 2035, it must be noted that changes in noise levels do not necessarily translate into changes in noise impacts. For instance, only 30% of the factors contributing to annoyance, are related to noise levels. Non-acoustic factors must be thus also taken into consideration.

This means reducing noise levels around airports is not on its own a sufficient measure to reduce annoyance and improve the quality of life. There is currently a lack of scientific understanding of the effectiveness of noise mitigation interventions from an impact - and not just exposure - point of view. Further study is required to fully understand the effectiveness of mitigation measures such as sound insulation in terms of reducing the impact of noise. The same is true of strong community engagement, built on transparency and trust, which is paramount to successful approaches to noise mitigation.

Furthermore, trade-offs exist between noise and gaseous emissions reductions. For example, circumventing densely populated areas by flying longer routes reduces noise impact but increases fuel burn and associated emissions.

It is essential that the ICAO Balanced Approach to aircraft noise management is maintained, according to which the most appropriate noise mitigation measures are defined locally on an airport-by-airport basis. On the other hand, the weight of local factors and variables means that setting out quantified objectives for aviation noise mitigation at European level is not feasible.

Local Air Quality: the European Green Deal states that "air quality should be improved near airports by tackling the emissions of pollutants by aeroplanes and airport operations." This issue is important not only with regard to the quality of life of residents, but also as regards the health and safety of airside workers at airports. There is a need to promote further the electrification of airport infrastructure, equipment, aircraft ground movements and ultimately flight operations, recognising that there are co-benefits between decarbonisation and air quality improvements. However, local air quality is also a complex problem area where further research is required. For example, there are growing concerns as regards aviation's contribution to Ultra Fine Particles

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[9] ICAO, Global Aviation And Our Sustainable Future, https://www.icao.int/environmental-protection/Documents/RIO+20_booklet.pdf.
[10] For example: European Commission, An Aviation Strategy for Europe, COM(2015) 598 final, p. 18, or ATAG, Aviation Benefits Beyond Borders, p.53, https://aviationbenefits.org/media/166711/abbb18_full-report_web.pdf.

[11] European Aviation Environmental Report 2019, p. 15, https://ec.europa.eu/transport/sites/transport/files/2019-aviation-environmental-report.pdf.
[12] ICAO, 2019 : https://www.icao.int/environmental-protection/Pages/ClimateChange_Trends.aspx.
[13] European Commission, https://ec.europa.eu/transport/modes/air/environment/aircraft_noise_en.
[14] European Aviation Environmental Report 2019, +12% between 2005 and 2017.

(UFP), but scientific evidence over this matter and its impact on health is not yet well-established. Moreover, while aviation does impact local air quality around airports, other emissions sources (e.g. road traffic) and factors (e.g., meteorological conditions) do so as well.

An integrated approach is thus necessary to address local air quality and aviation's negative local impacts in general should be placed in the context of its positive contributions to local communities. After all, positive economic impacts such as job creation play an important role in improving quality of life.

Circular economy: Circular economy is another key element of the European Green Deal, and an enabler to the achievement of climate neutrality. The aviation sector and public authorities should further promote circular economy principles as regards infrastructure, aircraft manufacturing and decommissioning processes, waste management, single use plastics and synergies with Sustainable Aviation Fuels (SAF).

Biodiversity: In the context of biodiversity protection, aviation has a particular role to play, as commercial air transport is being used by criminal organisations for illegal wildlife trade. Addressing this issue is all the more important as wildlife trafficking has been identified as a contributor to the development of zoonoses, i.e. diseases that spread from animals to humans, with COVID-19 being one of them. In addition to being key to protect biodiversity, fighting illegal wildlife trade is thus pivotal to prevent the emergence of new diseases and pandemics.

2.2. Social sustainability

Social sustainability is not only one of the essential elements of the smart recovery, it is already among the founding premises of the European Union which must be considered when planning the recovery of aviation.

Aviation should perform in the international agreed social sustainability indicators: maintaining high levels of employment, respecting workers fundamental rights and enjoying good governance levels that ensure effective, accountable and inclusive institutions at all levels. A socially sustainable recovery must therefore help to manage and address the pandemic's negative impact on social risks, i.e. by alleviating harmful effects on the level of labour rights and decent work. Notably, the recovery should address the adverse consequences of the crisis on workers' health and safety, on labour rights and should help to ensure effective oversight and implementation of rules though appropriate procedures and structures. It must also support upskilling and reskilling initiatives with regard to green skills needed by the European workforce

to enable the future of our industry.

The mitigation of these social risks will contribute to a socially sustainable recovery of aviation within Europe. This will require the identification of strategic action at European level as a social pillar of the recovery of European aviation. Member States should incorporate commonly defined social objectives in their sustainable development strategies and the EU in turn should provide appropriate guidance in this respect to Member States.

Importantly, aviation recovery support should not lead to socially unsustainable practices. In this respect, it is necessary to ensure that social dialogue plays a key role at company, national and EU level during the crisis, in line with respective industrial relations practices and traditions in the EU Member States. Member States could even consider conditioning financial or regulatory support to the sector on the conclusions of agreements at the appropriate level, and respect of information and consultation obligations throughout this process.

2.3. Economic sustainability

Aviation, through the air connectivity it offers, remains a significant driver of economic integration, wealth creation and prosperity across Europe. It is a key enabler for the free movement of people, goods and services underpinning the Single Market as well as cohesion and inclusive growth. By connecting Europe to the rest of the world, aviation also supports tourism, export-focused or globally-producing and -sourcing industries as well as consumers and inward investment – which in turn create jobs and support livelihoods.

Based on the above, the economic recovery of Europe in the aftermath of the COVID-19 crisis is dependent on a restoration of air connectivity, which in turn requires a competitive and thriving European aviation sector in all its components and actors. In this regard, regional air connectivity is as important as intercontinental air connectivity.

In the longer-term, the aviation sector must be in a condition to keep delivering economic and social benefits to European societies – and its ability to do so must be secured along with a reduction of its environmental impacts. Aviation must be part of "the new growth strategy for Europe" as defined in the European Green Deal, where economic growth is decoupled from resource use.

For that to happen, the competitiveness of European aviation as addressed in Chapter 4 of the report must go in hand with the solutions outlined thereafter.

3. Recommendations

Of relevance to all topics covered in this section, EU and national policies need to be defined holistically, considering the three dimensions of sustainability. Clarity and stability of sustainability policy frameworks is essential for industry to develop its own measures.

Key action 2.1

Achieving sustainability in aviation calls for implementing an integrated decision-making and innovative approach encompassing environmental, social and economic sustainability dimensions. This is something that primarily rests with industry, but that needs to be guided and supported by policy makers and regulators. This means that the required business disruption must be facilitated and enabled by equally disruptive policies and regulations, led at EU level.

This approach entails increased cooperation and full alignment between the aviation sector and policy makers and regulators. To promote and secure this, the European aviation sector hereby proposes to the EU and its Member States an **EU Pact for Sustainable Aviation**.

This pact should:

- set agreed joint sustainability objectives for European aviation;

- define clear commitments from all actors of the air transport eco-system aligned with these objectives; and

- define the supporting EU policy framework and financial support mechanisms needed to achieve these objectives.

The EU Pact for Sustainable Aviation will contribute to the implementation of the European Green Deal. In this regard, all stakeholders in the aviation eco-system and all policy-makers will work together to reach the following climate objectives:

1. Significant CO2 emission reductions by 2030, to allow a strong contribution to the EU's own Climate Action objectives and the Paris Agreement.

2. Net zero CO2 emissions by 2050 from all flights within and departing from EU airports. This means that by 2050, emissions from these flights should

be reduced as much as possible, with any residual emissions being removed from the atmosphere through negative emissions, achieved through natural carbon sinks (e.g., forests) or dedicated technologies (carbon capture and storage[15]).

3. Considering the feasibility of making 2019 the peak year for CO2 emissions from European aviation.

As mentioned previously, social sustainability is an essential element of the EU Pact for Sustainable Aviation, which should therefore aim to:

1. guarantee, to each and every worker throughout Europe, social rights as defined in national and European legislation, with Member States and the EU exerting effective oversight to ensure consistent and effective application of the social acquis;

2. ensure that working conditions across the aviation sector are fair and ensure sufficient guaranties of security and work-life balance both to avoid social injustice and to close the gender gap in certain occupations in the sector; and

3. ensure that established and functional bilateral and tripartite social dialogue structures are used by all players both during periods of stability and during periods of crisis to ensure a sustainable industry.

The EU Pact for Sustainable Aviation should include objectives and actions to help ensure that the aviation sector can access public and private financing to enable the actions needed to enhance its sustainability. This is particularly important in the context of COVID-19 and the resulting resource shortages of all actors in the aviation eco-system. There is also an opportunity to make public support to airlines and other aviation actors to overcome the impact of the COVID-19 crisis conditional on meeting sustainability objectives.

In general, it is critical that sustainability-related investments in aviation are included in EU's taxonomy of sustainable activities and investments and in the European Commission's Strategy on Sustainable and Smart Mobility. In a similar vein, it is essential that such investments remain eligible for public funding, e.g. under the new EIB lending policy, in order to help aviation adapt and decarbonise. This is the wrong time to stop or scale back the support for the sector – aviation growth can be compatible with the 2050 Paris Agreement targets (European Commission, A Clean Planet for all analysis, p. 115[16]) and investment are needed in order for the sector to contribute to the EU's climate ambitions.

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[15] This ambition requires joint contribution and work from all actors of the eco-system including Member States (e.g. Single European Sky) and the inclusion of third country airlines to ensure a level playing field.

[16] European Commission, A Clean Planet for all. A European long-term strategic vision for a prosperous, modern, competitive and climate neutral economy, p.115, https://ec.europa.eu/clima/sites/clima/files/docs/pages/com_2018_733_analysis_in_support_en_0.pdf

3.1. Environmental sustainability

■ Climate change:

Recognising that there is no single solution to decarbonise aviation, the EU Pact for Sustainable Aviation should cover actions across several pillars, in particular Sustainable Aviation Fuels (SAF), technological innovation, operational improvements and market-based measures - in line with the ICAO Basket of Measures. More specifically, it should include the following aspects:

Key action 2.2

A Comprehensive EU framework to promote SAF is a key opportunity to accelerate decarbonisation of aviation in the next 10 – 15 years. SAF (advanced sustainable biofuels and synthetic fuels) play a critical role in contributing to the achievement of EU's climate goals for 2030. In addition, SAF will also help build an EU lead in a globally competitive technology with significant business and job creation opportunities. Boosting the production and uptake of SAF in Europe, through a dedicated and stable set of policy measures and public investment plans, should therefore be a priority. Particular attention should be given to the medium and long term potential for synthetic fuel production to be scaled up to meet the fuel demand of the sector. Such measures would notably be welcomed within the "ReFuel EU Aviation-Sustainable Aviation Fuels" initiative. They should include the below, but only when strict sustainability criteria are met:

■ Public investment (including possible ownership) in SAF production facilities enabling the necessary de-risking required to debt finance projects as well as the execution of off-take contracts with aircraft operators.

■ Support to private investment in SAF production (e.g. through grants and/or loan guarantees).

■ Support to R&D in new SAF feedstock and production pathways.

A progressive EU-wide SAF blending mandate, enabling the European aviation sector to gradually increase the use of SAF without compromising its competitiveness. Such a mandate should be defined based on strict sustainability criteria.

Key action 2.3

Fleet renewal: a positive impact on jobs, growth and CO2 emissions: The COVID-19 crisis will in many cases delay aircraft renewal due to cash preservation. Typically, 780 aircraft in European in-service fleets could be "early retired", and replaced by more modern and more efficient aircraft, which has the potential to save up to 50 million tons of CO_2 up until 2030. Fleet renewal coupled with retirement could be maintained through the implementation of a corresponding temporary and airline/aircraft operator non-market distorting cofinancing scheme - "a green stimulus for fleet renewal coupled with retirement" (EU Green Incentive Scheme). Adapting EU and national funding frameworks to allow the implementation of cofinancing measures and implementation of such a scheme will urgently need to be considered. Such a scheme could be a win-win for all stakeholders in the aviation ecosystem as it will help the aviation sector to recover from the Covid-19 crisis. Most importantly, it would have important environmental benefits in the short-term. Fleet renewal coupled with retirement could also further improve customers' experience and have a number of clear economic and societal co-benefits.

New aircraft models consume on average 20% to 25% less than previous generations and are today the biggest single measure to reduce emissions in the short-term to support the EU's climate ambition for 2030. Replacing a Single Aisle aircraft can save more than 4 500 tons of CO_2 per year, and a Long Range aircraft 27 700 tons of CO_2 per year; new generation aircraft also has a reduced noise footprint, when compared to older aircraft. Air quality around airports could also be further improved.

Key action 2.4

Increase the public co-funding rates for Civil Aviation Research & Innovation (Clean Aviation and SESAR): Use resources dedicated to the recovery to inject additional capital beyond the amount that will be provided through the MFF and Horizon Europe. European disruptive technologies and innovative fuels, including electrification and hydrogen, can generate deep and long-term emissions reductions towards the EU's climate neutrality in 2050.

Electric propulsion for aircraft is now beginning to look feasible given the extraordinary progress envisaged in the high electrical power, high voltage and electricity storage technologies.[17] Indeed, EASA certified the world's first type certified all-electric in June 2020.[18] Investment in and incentives for the adoption of electric aircraft should be promoted at EU and national level to ensure that Europe continues to lead the world in the critical technologies of electric aviation. Fully electric propulsion returns the most benefit on global greenhouse gas reduction, but in the near-term, it will only be possible for aircraft with short range or flight duration with a relatively small impact on global mobility and emissions. It could thus perform an important role in urban and regional mobility and connectivity, whilst requiring much lower infrastructure investments than rail or road solutions. Larger aircraft or longer flights will probably require partial electrification through hybridisation, mixing electric engines and electric energy source with optimised turbo machines. The Clean Aviation Strategic Research and Innovation Agenda (SRIA) is currently planning the demonstration of such hybrid concepts on a regional size aircraft, with the aim of having a realistic solution, ready by middle of 2030s, able to have significant impact on mobility and global emissions.

Hydrogen holds great promise as a clean aviation fuel. It presents several key advantages for an aviation application in that it allows for the elimination of CO2 emissions in flight and along the entire aircraft life cycle if produced from renewable energy sources.[19] Hydrogen can also be used to make sustainable synthetic fuels, "e-fuels", which can be used directly in existing aircraft, such as "power-to-liquid" fuels. For other applications, several technological challenges need to be addressed before delivering its full potential and to be ready for integration in future aircraft. Like electric propulsion, hydrogen usage still requires a deep understanding of operational, maintenance, infrastructural and certification aspects specific for aviation, before they can become truly viable energy sources.

However, to date such potential breakthrough technologies have been unable to overcome substantial barriers to uptake such as cost and certification. In order to unlock these technologies, and ensure their deployment, the necessary regulatory framework must be developed.

Boost investment in the European Air Traffic Management system (ATM): There is a need to fully implement and enhance the benefits of SES and temporarily provide 100% public funding for the deployment of SESAR technologies with proven sustainability and environmental benefits. The current exceptional situation as a result of very low air traffic levels offers a window of opportunity to accelerate the digital transformation of the industry which has already been planned - or is currently planned in upcoming common projects and within the SESAR Airspace Architecture Study roadmap, noting that the latter is not being supported by all aviation stakeholders. Funds for the recovery should be used to ensure necessary projects can continue readying the industry for the traffic levels expected after the crisis - enhancing efficiency and reducing environmental impact. These funds should be used to increase the co-funding rates for SESAR deployment beyond the amount of money provided through the Connecting Europe Facility (CEF) or address short term liquidity issues. Such funds should benefit all stakeholders that will need to contribute to the deployment of new technologies - including airports, airspace users and air navigation service providers.

Invest in sustainable airport and heliport infrastructure and related services: Policymakers should ensure that projects related to energy efficiency, renewable energy

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[17] The key aspects to tackle are power size (up to many MW), the operating environment conditions (low operative air pressure and temperatures) and power and capacity density - weight and volume are both paramount factors in aviation.

[18] https://www.easa.europa.eu/newsroom-and-events/news/easa-certifies-electric-aircraft-first-type-certification-fully-electric.

[19] Hydrogen can be used in two different ways: in fuel cells allowing for zero-emission propulsion; and burnt in a turbine engine where very low particle emissions can be expected as well as reduced NOx emissions when the combustion system is optimised. The first option will contribute to full electrification and be combined eventually to electric propulsion or to new architectures for on-board systems; the second will dramatically change the operative framework and require huge infrastructure changes. It is also possible to combine these two possibilities to offer efficient hybrid-electric propulsion powered entirely by hydrogen.

and electrification of airport infrastructure and related services are eligible for relevant funding under Next Generation EU and the MFF. Such projects may be aimed at improving the energy efficiency of terminal buildings, renewable energy generation on-site, supply of electrical ground power to aircraft on stand, electrification of ground vehicle fleets, etc. This should also include research and innovation projects related to the infrastructure and handling logistics needed to support the deployment of SAF, hydrogen and electrified aircraft.

Ensure the continuation of aviation's inclusion into the EU ETS and its reform in a complementary way to CORSIA, while avoiding distortion of competition for European aviation. Revenues collected through the purchase of ETS allowances by aircraft operators should be ring-fenced and reinvested into aviation decarbonisation - for instance through R&D funding or financial incentives to the deployment of SAF.

Recognising that aviation is part of the overall European transport network that needs to comply with the objectives of the European Green Deal, industry and governments should work together to facilitate multimodal choices of passengers to support the most efficient journeys across an integrated transport system. This should include multimodal ticketing and distribution.

■ Local impacts & quality of life:

Noise:

1. Maintain and enforce the key principles of aircraft noise management, as per ICAO Balanced Approach (ICAO Doc 9829 AN/451) and EU Regulation 598/2014. These foresee a localised, airport-by-airport approach to identify the most suitable mitigation measures, taking into account preferences of local communities. In this context, possible

trade-offs with emissions impacts should also be considered (bearing in mind the environmental requirements of the EU's Performance Scheme for air navigation services). Community engagement needs to be at the core of this approach.

2. Promote the understanding of non-acoustic factors as one of the priorities of European R&D related to aircraft noise, recognising that these factors are a significant contributor to noise annoyance and thus also a key element to be addressed to reduce annoyance. This will help better assess the effectiveness of noise mitigation interventions and establish fruitful community engagement.

3. Require Member States and local authorities to improve land-use planning, for instance through zoning rules to avoid noise-sensitive development in high noise areas around airports. Best practices in this area should be identified and promoted.

Local Air Quality:

1. Step up ambition on aviation decarbonisation as per the actions outlined above – as these will in most cases have co-benefits in terms of reduced pollutant emissions. Considering the importance of air quality also for the health & safety of airside workers, measures relating to electrification of airport infrastructure and equipment are particularly important, as they reduce emissions on-site. Furthermore, the current approach to the development of new aircraft engines should be pursued, aiming at the optimization of all engine parameters, including CO_2, other pollutant emissions, fuel burn, noise, while also ensuring safety. Strengthen EU research on UFPs arising from aviation activities as well as the associated health impacts.

2. Promote best practices for integrated approaches to the management of local air quality around airports, taking into account pollutant emissions sources associated with aviation, but also those related to other activities, e.g. industry or other transport modes.

3.2. Social sustainability

a. Combating risks related to unemployment

The impact of the COVID-19 crisis on aviation started earlier and will last much longer than in any other sector. Without extended government support, tens of thousands of jobs will be lost. Temporary or permanent unemployment risks resulting in the loss of skills,

making the recovery even more challenging. During the crisis it is very challenging to plan for the adequate resources but when recovery comes, the industry will expect capacity to be available. Employees will require new skills and competences to work in post pandemic situations. However, having been out of business for several months, employers may not have the means available to organise training and recruit specialists to help employees deal with psychological issues. It will be crucial that funds and investment are available to ensure long-term EU competitiveness and that they are accompanied with the appropriate legislative and regulatory measures to support employment. Further public support will be needed if the recovery of the industry is slow or partial pending a better understanding of the likely restructuring of the industry.

Key action 2.5

The EU and Member States should lengthen the duration of, and broaden the scope of funds and investment for aviation in order to support employment and maintain skills, training and proficiency. Procedures for the allocation of funds should reflect these objectives.

To give an example of the challenges, the validity of pilots' licences requires regular training, proficiency checks and recent take-off and landing experience. If and when activity resumes at full speed, pilots will need support for retraining and license renewal, especially when unemployed, and must have access to re-training/ re-skilling. In general, funds available to support employment and maintain skills should be aimed at workers' needs and oriented towards retaining skilled staff. Employees should not have to bear training costs directly or indirectly.

Airports of all sizes are important to the local communities and employment, but they are particularly vulnerable to the impact of COVID-19. Transparent and widely available government financial support measures may be a critical tool to avoid the risk of insolvency. With a view to supporting regional airports in particular, consideration should be given to an enhanced Public Service Obligation provision in order to maintain flights and routes and ensure connectivity. Such PSO funding should be part of a wider framework of structured provision.

b. Mitigating effects on health and safety

COVID-19 is a sanitary crisis with a major impact on workers' and passengers' health. Aviation recovery is not conceivable if the health and safety of passengers and staff is not adequately protected. Health and safety comprises different areas. It is important to provide staff with sufficient sanitary equipment and to adapt infrastructure accordingly. Access to highly qualified psychology professionals will be beneficial to employees' well-being and will increase the quality. Of service available to passengers and businesses.

c. Alleviating negative effects on governance

The COVID-19 crisis has revealed the effects of precarious atypical employment in aviation workers. While employees of socially responsible employers are also affected by the crisis, they still enjoy a minimum social protection which is not available to workers in other situations.

This situation is compounded by complex social engineering where multiple jurisdictions are involved in the enforcement of labour standards, making social legislation difficult to monitor and enforce by the EU and Member States.

Social dialogue has a key role at company, national and EU level during the crisis, in line with the respective industrial relation practice and tradition – be it information and consultation obligations in case of European Works Councils, simple negotiations in the Anglo-Saxon system or a fully- fledged co-determination in Germany.

From a social perspective and as a matter of principle, rescue measures should be conditional on two prerequisites. The beneficiary of such measures should to the greatest extent economically possible pursue job retention and income protection measures. Shareholders should be prohibited from profiting directly from such support, for example by way of the pay-out of dividends or share buybacks.

4. Other proposed actions

Environmental sustainability

Short term

1	Prepare an industry-led roadmap elaborating on the environmental actions of the EU Pact for Sustainable Aviation and presenting the emissions reductions expected from improvements in technology, SAF, operations and market-based measures.
2	Industry should set out the aviation sector's requirements for the supporting EU policy framework to enable the industry to deliver on the emission reductions stemming from the commitments in the pact. As to date potential breakthrough technologies have been unable to overcome substantial barriers to uptake such as cost and certification, in order to unlock these technologies and ensure their deployment, the necessary regulatory framework must be developed.
3	The EU should include green investments linked to aviation in the EU taxonomy for sustainable finance.
4	The EIB Group's lending policies should allow financing transition to low-emission technologies (debt, equity and guarantees).
5	The EU and the Member States should make public support to airlines and other aviation actors conditional on meeting environmental objectives contributing to the European Green Deal goals (e.g. fleet renewal, SAFs).
6	The EU and Member States should invest in sustainable airport and heliport infrastructure and related services through EU recovery mechanisms.

Longer term

7	The EU should introduce a digital single sky as part of SES to ensure an efficient and integrated ATM system.
8	The EU, Member States and industry should actively support the setting of an ambitious ICAO long term aspirational goal for aviation.
9	Member States should boost investment in the European Air Traffic Management system.
10	The EU should ensure the continuation of aviation's inclusion in the EU ETS whilst fully implementing CORSIA.
11	The EU, Member States and industry should promote best practices for integrated approaches to the management of local air quality and noise around airports.

12	Member States should improve implementation of key principles of aircraft noise management as per ICAO Balanced Approach and Regulation 598/2014.
13	Member States and local and regional authorities should improve land-use planning around airports.
14	The EU, Member States and industry should promote and support research in non-acoustic factors and effectiveness of noise mitigation interventions to help to address noise annoyance.
15	The EU, Member States and industry should monitor the effects of enhanced decarbonisation efforts on local air quality and conduct further research into aviation's impact on local air quality and UFPs.
16	The EU and Member States should promote and support electrification of airport infrastructure and equipment to improve air quality.
17	Industry should facilitate customer multimodality choices, including through multimodal ticketing and distribution.
18	The EU, Member States and industry should enhance efforts and commitments to fighting illegal wildlife trade.
19	The EU, Member States and industry should promote circular economy principles as regards infrastructure, aircraft manufacturing and decommissioning processes and Sustainable Aviation Fuels (SAF).

Social Sustainability

Short term

1	The EU and Member States should put in place a targeted European Aviation Relief Programme (rescue plan) to support employment in aviation sector.
2	Member States should continue sectoral specific public support to all businesses for labour costs in the aviation ecosystem, as long as significant direct or indirect restrictions on travel are maintained to ensure continuation of services and to save jobs for workers in the aviation environment.
3	The EU should issue guidance to Member States on the socially sustainable use of funds and state aid, including conditions on the employment rescue measures.
4	In the light of the likely long duration of the recovery, Member States should extend temporary unemployment support and short time working measures for workers in the aviation sector.

5 The appropriate authorities should consider fast track procedures for personnel that have received security clearance beforehand and who have lost their position during the pandemic.

Skills

6 The EU should allow suspension of provisions of Directive 96/67/EC on ground handling to enable the business and operational continuity of aviation.

7 The EU and Member States should ensure that the aviation relief programme or alternative EU funds addresses the continuous employability of critical workers in aviation that are unable to work during crisis and recovery period. Funds should cover the cost related to maintaining professional skills and qualifications.

8 The EU should launch a Pact for Skills in Tourism (which includes aviation) and Aerospace & Defence. Such a scheme would, among others, provide financial support to upskill and reskill aviation workers with green and digital skills needed for the future of our industry.

Health and safety

9 Industry and Member States should provide sufficient personal protection equipment and develop procedures to aircrew and ground staff.

10 The EU and Member States should support e-learning platforms and webinars on personal well-being in all EU official languages.

Governance

11 Member States should implement the principle that temporary unemployment/short time working schemes are granted in order to save jobs and enforce this principle among companies receiving it. This should be a core principle of an Aviation Relief Programme.

Longer term

12 The Aviation recovery should not benefit socially unsustainable practices. Structural inequalities are exacerbated as the economic fallout of the crisis unfolds. The risks of social injustice and socially unsustainable practices might increase, and industry and Member States should make all efforts to prevent them.

13 Member States should make financial or regulatory support to the sector dependent on the conclusion of social agreements at the appropriate level in line with national approaches. Information and consultation obligations must be respected throughout this process.

14 A common EU Aviation Relief Programme must have a number of guiding principles relating to social sustainability. Firstly, public support for the aviation sector must be allocated to companies actually needing it. Second, eligible businesses must have incurred or be expected to incur losses such that the continued operations of the business are jeopardised.

3 Speeding up digitalisation

1. Introduction

Aviation provides connectivity for people, goods and regions. The need to safeguard connectivity is the reason why we need a strong, modern and resilient ATM system. No successful modernisation is possible without a strong cooperation between all actors (ANSPs, airspace users, airport operators, the network manager, manufacturers and all those that contribute to operations).

Aviation has significant potential for further embracing digitalisation, and thereby contribute to a greener, safer, more efficient, more customer-friendly and more competitive European aviation sector.

Several important initiatives have therefore been put on track, including notably the European ATM Master Plan and Single European Sky ATM Research (SESAR).

At airports, passenger and freight flows can be accelerated and quality improved by digitalising processes and remodelling. This also applies, for example, to the systematic use of big data by all stakeholders including aircraft operating data, in conjunction with modern logistics strategies to optimise maintenance costs and times.

Due to the COVID-19 pandemic's heavy impact on the aviation sector, the resulting drastic reduction in air traffic has hindered the whole ecosystem notably in its capacity to continue to invest in its digitalisation. It is fundamental to ensure that the current crisis does not derail digitalisation but serves instead as an opportunity to modernise and further innovate. Turning more digital will make air transport safer, more efficient and accelerate solutions to cut development times and investment costs for all in the aviation system, including aeronautical manufacturing. At the same time, new digital operations and procedures contribute to environmental protection and climate change mitigation.

2. Diagnosis

a. The future door to door passenger journey

Digitalization, automation and artificial intelligence will dominate the new normal of the future air connectivity and passenger experience. The quality criteria for the new digital passenger journey will be assessed from door to door. The air passenger journey will need to be safe, efficient, affordable, environmentally friendly (fully sustainable and climate change resilient), minimising health risks and seamless across transport modes.

Technology, automation, digitalization and AI will all play a key role in the transformation towards a fully digital journey for passengers and goods. Transport to and from the airport, integrated tickets, parking, check-in, security, borders, boarding, luggage etc. will all be impacted. This transformation will not be possible without financial support for new technology programmes.

b. Manufacturing

The outbreak of COVID-19 has firmly regenerated discussions about the pace of technological change required in design, industrialisation, manufacturing, and product optimisation. Turning more digital will accelerate solutions cutting development times and investment costs in air transport. Investing in digital technologies for manufacturing, artificial intelligence and 5G connectivity will also enable a fast transition to technologies for greener products, while also reducing waste.

To this end, support for industry to step up investment in new digital technologies will be a prerequisite. A key priority area to work on is to quickly improve manufacturing and industrial processes with smart technologies (to enable seamless link from design to manufacturing, up to entry into service of the product and future services), for industry growth to reach pre-crisis levels so that they are more competitive vis-à-vis those of other regions. Digital technology uptake will be a key enabler for acceleration.

Adjusting new ways of working will be of paramount importance to preparing for this more digital future. Deployment of digital design and manufacturing technologies encompasses the need for our workforce to use simulation platforms customised to companies' needs. At the same time, reduction of production rates, health and safety rules and social distancing, will leave some workers with more space for training. This time could be used as an opportunity to prepare the future and upskill the workforce to cope with digitalisation.

c. Air Traffic Management (ATM) / Unmanned Aircraft System Traffic Management (UTM)

Digitalisation is fundamental to modernising current ATM activities and is key to creating the Digital European Sky, which is promoted by the entire European aviation sector. Over the last decade significant efforts have been invested in modernising the tools used by air navigation service providers (ANSPs), the Network Manager, airport operators and airspace users, under the steer of the second regulatory package of the Single European Sky (SES II) and coordinated by the SESAR Joint Undertaking and SESAR Deployment Manager.

Digitalisation is a cornerstone of the European ATM Master Plan, Airspace Architecture Study and Wise Persons Group recommendations. The future European Partnership for integrated air traffic management (for SESAR 3) is expected to contribute to the achievement of the digital European Sky Therefore, the Commission's High-Level Partnership Proposal builds on the vision for Europe's future ATM systems outlined in the European ATM Master Plan and promote digitalisation, increased automation and virtualisation. This will increase interoperability and flexibility among other things, thus providing flight efficiency gains, environmental benefits and cost reductions.

SES should be fully leveraging the latest technologies (SESAR and others) so that Europe's aviation infrastructure can handle operations in the air and on the ground in a more predictable way for passengers and is fully capable of handling future growth in traffic while minimising environmental and climate impact with optimised trajectories. This must be completed with engagement from all actors, including by incentivising early movers. Aviation partners need more flexibility in these difficult times and access to reinforced funding, including notably under SESAR 2020 and Connecting Europe Facility (CEF). To enable continuity for remaining projects, it is essential that the funding rate be temporarily increased to 100% for aviation stakeholders in the ongoing ATM research partnership and in SESAR deployment. If this is not the case, R&I as well as deployment will come to a standstill due to a lack of funding and resources. Full funding along with the current low traffic situation are a real opportunity to accelerate deployment of new technologies, thus the digitalisation of ATM. Further, financial support to ANSPs, airport operators & airspace users must be linked to the need to maintain CAPEX investments into future technology and infrastructure. This is essential

for ensuring that enough ATM capacity will be available when the civil aviation sector recovers. It is also important to stay focused on total ATM performance (cost, capacity, flight efficiency, green operations, cybersecurity and safety).

The impact of the COVID-19 crisis will be long-lasting for all air transport stakeholders and will be felt far beyond 2022. The integrity of SESAR, a strategic programme, is at risk and major knock-on effects are already unfolding, jeopardising R&I and SESAR in both its research and deployment functions. It may therefore be detrimental to the EU aviation sector in future years if no actions are taken now. ATM requires synchronised development across the whole ecosystem and the distress of many stakeholders caused by the COVID-19 pandemic is preventing ongoing and remaining projects from being realised. The current legal toolbox set up by the Commission (force majeure, pre-financing, postponement of some deliverables) has helped to secure some activities. However, these measures alone are not sufficient to secure R&D activities and critical investments in light of current circumstances. Therefore, without these measures, digitalisation is not ensured.

The overall vision in the ATM Master Plan remains valid, since the same degree of pressure on the ATM infrastructure to embrace a more digital future can be expected to continue, allowing for, inter alia, more resilience. However, forecasts did not anticipate this sudden decrease in demand and its potential effects in the long-term. Therefore, industry should prioritise R&D in the short-term on solutions critical to flight and environmental efficiency and on their deployment.

New types of air vehicle are seeking access to the airspace to provide new services and businesses to society. These include urban air mobility vehicles and small, unmanned delivery vehicles, along with their systems and infrastructure. The integration of these new air vehicles will place additional pressure on the existing aviation system and is one of the critical issues the aviation industry will face in the future. All stakeholders are committed to the development and deployment of solutions allowing the safe, fair and secure integration of all types of air vehicles into the airspace, based on the Digital European Sky framework. The development of the U-Space as Europe's Unmanned Aircraft System Traffic Management (UTM) and the digitalisation of Europe's airspace provides the opportunity to evolve traffic management in general. The U-Space concepts and services being developed today in the framework of SESAR and the European U-Space Demonstrator Network are establishing some of the key building blocks for the management of this airspace.

Most importantly, speeding up innovation will generate deep and long-term emissions reductions towards the EU's Climate Neutrality in 2050 through the Clean Aviation Partnership and Integrated Air Traffic Management Partnership. For this reason, the digitalisation of the European aerospace ecosystem can contribute to an effective environmental improvement of the sector.

d. Cargo

Due to the pandemic, air freight is more than ever at a crossroad and digitalisation is the centre piece of its modernisation. Digitalisation should be our collective priority, as the current crisis is driving a rethink of key processes.

The upcoming implementation of the Electronic Freight Transport Information (eFTI) Regulation marks the first step towards further digitalisation of reporting processes, to be accelerated in the Member States and via the Digital Transport and Logistics Forum (DTLF).

In this context, it will be necessary to allocate EU R&D funds to digitalisation and innovation projects pertaining to air cargo, such as electric ground operations, big data programmes for monitoring and reporting, etc. As air cargo is transported mostly on international routes, compatibility with international data standards is key.

3. Recommendations

It may be detrimental to the SES II deployment in future years if no actions are taken now. The EU should therefore:

Key action 3.1

Prioritise funding for the full SESAR cycle (including R&I, industrialisation and deployment) in the MFF 2021-2027 and CEF with a focus on 2021-2023 to ensure continuity of ATM digitalisation. Moreover, **continuity for existing SESAR projects should be ensured:** SESAR must be stable and not make sudden changes depending on what happens in the short term. However, at the same time it must provide enough flexibility to accommodate this exceptional situation. Priority should be given to measures that allow stakeholders to emerge from the crisis (e.g. targeting flight efficiency, rationalisation of infrastructure) and to remain focused on fundamentals (providing connectivity in a safe, secure, efficient and environmentally friendly way). Around half of the R&I budget should be devoted to large-scale and 'mature' demonstrations as a means of accelerating time to market because Very-Large Scale Demonstrations (VLDs) have shown a record of delivery in SESAR 2020, in some cases leading very quickly to operational deployment.

Key action 3.2

Temporarily increase ATM research partnership and SESAR deployment funding to 100% for aviation stakeholders / Incentivise early movers: Funding of 100% with respect to Digital Sky Demonstrators could incentivise early movers in the case where the demonstration is a pre-operational exercise. Incentives could include expansion of the existing SES mechanisms to incentivise deployment, including, among others measures: public funding via the relevant EU funding and European Investment Bank financial instruments. The strengthening of the resilience of the aviation sector can be achieved via virtualisation of ATC centres which require digitalisation while fully respecting the social rights of ATC employees and national social dialogue.

Support ANSPs to pursue an open architecture: The adoption of Standard Operating Architecture would defragment the overall ATM system. It is the framework required in order to be able to deploy the SESAR solutions, for example recognising the use of services rather than being purely asset-based.

Adapt regulatory processes to accommodate disruptive technologies / new entrants: Even if disruptive technologies are introduced to rapidly modernise ATM, it is not understood how this would change the current regulatory provisions for safety assessment of all the new concepts of use, risk assessment of all the changes, and feedback/monitoring of operations. The need to change the regulatory processes accordingly should be addressed, with the objective of introducing simple and performance-based rules that should be developed with full involvement of the key operational stakeholders (from manned and unmanned aviation). The regulations should maintain Europe's high level of safety in the passengers' interest. Increased R&D and deployment activities in the Digital Services area need to be well supported by the EU regulatory framework, allowing required agility and compatibility. Disruptive technologies / new entrants can include higher airspace and unmanned aircraft system (UAS) traffic management (UTM) operations, or remote ATS.

Create / update standards and regulations to allow for the application of AI technologies: AI and digitalization will deeply impact the competencies of aviation professionals. New concepts for certification, qualification and data sharing are needed. Creating the appropriate frameworks for data sharing, including interoperability rules, common quality indicators, conditions of data access and re-use, can be a key enabler of competitiveness.

4. Other proposed actions

Short term

1	Member States should condition public support to air navigation service providers (ANSPs) on investment in SESAR solutions.
2	The EU should ensure that EU R&D funds to digitalisation and innovation projects also pertain to air cargo.
3	The EU should ensure closer alignment between funds dedicated to SESAR R&I activities and those focusing on the industrialisation and deployment of SESAR deliverables (CEF) essential for the ATM modernisation, while also engaging and incentivising early movers.
4	The EU should support investment in digital technology for manufacturing, artificial intelligence and 5G connectivity for all actors in the aviation eco-system.
5	Industry should propose ambitious R&D projects on digitalisation and innovation, covering group operations, monitoring and reporting in the national recovery and resilience plans and the next MFF.

Longer term

6	The EU should continue investments and deployment of digital technologies and infrastructure towards digital Single European Sky and efficient ATM.
7	The new normal of future air transport connectivity will be digital. The required investments into the future digital journey need to be supported by the EU financial support programs, whose scope should be adapted to support the new normal in air transport connectivity.
8	Create a framework for efficient and cost-effective pooling and sharing of data in a secured environment.
9	Adjust to new ways of working and foster training and upskilling.

4 Preserving the integrity of the Internal Market and the international competitiveness of European Aviation

1. Introduction

Over the past 30 years, the internal market for aviation – commonly referred to as 'Single Aviation Market' - has been one of the most significant achievements of the European Union: successive regulatory packages have made it possible for any European airline to operate anywhere in Europe, allowing for the introduction of new competitors and innovative business models. As a result, connectivity levels increased dramatically and travelling by air became more affordable, safer and open to more people than ever before.

Preserving regional connectivity is an epic challenge as traffic at regional airports has virtually disappeared and there is a risk that airlines may be reluctant to restore it given the lack of demand and low margins on some routes. This includes commercial and business aviation and cargo.

Competitiveness is critically important as European aviation faces continuous challenges to adjust to deregulation, decarbonisation and to globalisation. European aviation has been particularly hit compared to other regions by the COVID-19 pandemic in terms of air traffic: since April 2020 this has fallen by over 80% overall and pre-crisis levels are not expected to be restored before 2025 - many companies in the aviation eco-system will struggle to survive through a longer crisis. Additionally, we have witnessed unilateral approaches implemented by certain Member States (quarantines, lack of harmonisation/mutual recognition intra EU).

The risk of bankruptcies within the aviation ecosystem remains very high throughout the coming months and possibly years, leading to lost connections, a reduction in consumer choice, no refunds for passengers and, eventually, to higher air ticket prices. Such bankruptcies would not only impact the business and operational continuity of the aviation sector, but will have direct and significant impact on the economic recovery of the European regions where their activities were located, because the sector provides vital connectivity in Europe and in its regions, promoting social

and territorial equality and cohesion as well as contributing to increased tourism, employment and investment.

The need to address these problems is also in line with the EU institutions' priorities. The European Council's strategic agenda for the EU for the current period (2019-2024), apart from calling for a climate-neutral, green, fair and social Europe, calls for developing a strong and vibrant economic base by focusing on strengthening cohesion in the EU and ensuring fair competition within the Union and on the global stage.

In addition, the current pandemic has exposed a lack of joined up thinking with respect to border controls and the health and welfare of European citizens. Whilst it is clearly understood that Member States reserve the right to implement measures as they see fit, imposing quarantine requirements and unilateral measures on passengers at short notice when alternative tools and processes could be adopted, is seriously detrimental to the overall economic recovery. We have witnessed that consumer confidence is eroded rapidly when quarantine measures are implemented, which should be used only as a last resort once scientifically-agreed thresholds have been met and other safeguards and mitigations are in place.

Additionally, it is vital for the overall economy and for every one of us that the economic supply chain continues throughout the crisis: cargo aircraft, ships and trucks must be able to operate, with special precautions to protect crews and the general public. Additionally, implementation of the European Commission's Air Cargo Guidelines, the EU Green Lanes Guidelines and the ICAO Public Health Corridor (PHC) concept for cargo pilots and support crew to keep global supply chains working during any crisis is essential. Air transport risks entering a downward spiral as uncoordinated travel measures force airlines to cancel flights or modify schedules, consumers lose trust in airlines and decide not to fly, which in turn causes airlines to modify further their route schedules and operational plans.

2. Diagnosis

a. Need for economic support coordinated at EU-level

The European recovery strategy for the aviation sector must aim at maintaining a competitive air travel market. It is also essential to keep a European focus in recovery policies and mechanisms to ensure, with industry and the Member States, that the plan generates the investments necessary to transform the industries and economies. The optimal response would be a European response: there should be a level playing field in the whole of Europe, not related to the fiscal capacity to help out in a particular Member State. In addition, the uneven spread of State Aid is not only geographical but also across the aviation ecosystem itself. The bulk of the support measures has been focused on certain carriers, and not to other airlines, providers of infrastructure (airports), essential services (ground handling) or any other part of the aviation ecosystem. Strong EU leadership is needed to ensure coordination of Member States' actions and levelling up of the playing field in the competition arena, and in ensuring that the principles of sustainability, non-discrimination and equal treatment are preserved.

Public funding alone will not be enough. The EU should create a framework for private investment, with clear guidance for investors on what is consistent with the EU's green, social and digital goals. The recovery plan should provide for regulatory and financial support during the years of recovery, which could last until 2025 according to the latest forecasts (IATA and ACI EUROPE).

b. Need for safeguards to preserve fair competition in the air transport sector and avoid market distortions created by State aid measures

Over the last years, even before the current crisis, there has been a trend towards consolidation. Estimates show that five air carriers account for more than 50% of the total European air traffic.[20] Growth in size, often through acquisition or absorption of assets of bankrupted air carriers, has allowed a few airline groups to become dominant in certain markets (as acknowledged recently by the European Commission when assessing state aid to a number of operators).

The coming months will tell whether a consolidation trend emerges due to lower demand, fewer companies, further mergers/acquisitions and bankruptcies. At

the same time, certain previously-agreed mergers/acquisitions may not be completed. Consolidation may bring benefits to the economy, through increased efficiencies or additional investment capacity, but it may also have a negative impact on competition and prices, usually by creating or strengthening a dominant player. This process should be adequately monitored by the European Commission and should not be distorted by government interventions in favour of national champions. With the COVID-19 pandemic and its ensuing economic crisis, the European aviation sector is subject to a tremendous shock with far-reaching consequences. Most airlines would not have been able to survive this crisis without public support and such support is fully justified and needed to protect employment. However, public money has been very unevenly distributed across companies and on a country by country basis in Europe. Carriers already dominant on their markets, originating from Member States with a greater economic ability to support their champions, have received massive support, while more fragile economies cannot afford to support their airlines.

With a risk of market distortion due to uneven distribution of state aid support, it is important that the recovery measures outlined in this report do not lead to social dumping practices or to an increase in precarious forms of employment. These measures should not in any case lead to worse labour and social standards in the aviation sector (i.e. abuse of self-employment, outsourcing to non-EU or non-locally declared agencies) which would result in distorting competition.

Furthermore, it is important always to maintain a correlation between such state aid, job protection and sustainable business models to avoid maintaining inefficient market conditions such as legacy national structures, market distortions through governments intervention, and renewed state interventionism following bailout packages. Governments will now have an interest in protecting the carriers in which they have invested, through potentially disproportionate intervention into the structure of the air transport eco-system.

Measures should be provided in the form of schemes that are open to all players in a particular Member State and be coupled to commitments regarding connectivity and sustainability.

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[20] Scope Ratings, European airlines. Europe's top five airlines carried more than half of Europe's passengers in 2018, 22 January 2019.

c. Need for targeted economic support to preserve and restore connectivity

With demand vanishing, air connectivity is at risk – with socio-economic ramifications for regions. Experience shows that rebuilding connectivity (both in terms of city pairs and frequencies) is a long and burdensome process. Consideration of different ways of encouraging connectivity needs to be given, i.e. the Cypriot Airline Incentive Scheme (SA.57691 approved on 1 July 2020) sets a precedent on how to provide direct financial support to guarantee a minimum level of revenues for airlines committing to operate routes. Any scheme would be by design non-discriminatory and would benefit all stakeholders in the system. Integral to this support scheme should be that airlines fully pay all supplier invoices that are due.

As per the proposal of the European Parliament, the next Multi-Annual Financial Framework (MFF) should include a separate budget line to support tourism – which could also cover air travel. Cohesion Policy and the European Structural and Investment Funds (ESIF) should be mobilised as a tool to support tourism at the regional level.

Public Service Obligations (PSO) routes can play a role in preserving and restoring connectivity, especially for routes that were commercially operated before the crisis. In some parts of Europe, aviation is often the only mode of transport for inhabitants of remote regions, islands or otherwise dispersed areas to mainland Europe. PSOs allow to maintain schedules for air services on routes which are crucial for the development and growth of the region they serve in the years to come – given the expected slow recovery of aviation.

d. EU standards vs other regions (consumer/sustainability)

The EU has higher consumer and sustainability standards than other regions globally, a situation which places additional cost pressure on European airlines. This in turn increases the financial pressure on otherwise competitive European carriers, especially regional ones.[21] Regulation 261 must be revised in order to achieve legal certainty for consumers and aviation stakeholders alike to reach the goal of strong consumer protection in a sustainable way and to ensure that divergences in rules and interpretations are addressed.

Further investments in communicating the industry's achievements to passengers and the general public are needed. Additionally, the EU should lead negotiations

with third countries concerning the opening of markets whilst promoting EU standards on a global scale.

On the sustainability front, the aviation sector is investing heavily in the most sustainable aircraft available, as well as improving its operations and infrastructure.

e. The role of SMEs in Europe and intra-European flights

SMEs, including in aviation, are the backbone of the European economy. SME strategy remains valid and has become even more urgent after the crisis. Intra-European operators face additional difficulties compared to airlines operating long haul routes, therefore connectivity within Europe is subject to heavier burdens. For example, EU261 incurs higher costs per km on short distances, including routes where there is no rail alternative, while EU-ETS proportionally favours the use of larger aircraft on longer routes. Smaller or regional airports find it very difficult to reach breakeven due to the lack of economies of scale and are unevenly impacted by the crisis. A large number of regional airports may be at risk of defaulting by the end of 2020 – with ramifications for regional airlines and economies.

3. Recommendations

I. Financial measures at EU level

When looking at the financial measures, it is important to explore both the short and long-term options. For the short term, it is important to provide the aviation ecosystem with the necessary funding to keep operating and restore air connectivity. Whereas, in the long term, there needs to be a focus on investments that will last for the future.

As has been acknowledged also by the Commission, transport is one of the hardest hit sectors in the current crisis, with many Member States having limited opportunities to grant financial aid to their economic players. In order to ensure that asymmetries are closed and economically viable companies could overcome serious solvency difficulties, the Commission is asked to put a special focus on the aviation sector by facilitating access to existing EU funds and banking instruments (like the temporary Solvency Support Instrument).

Next Generation EU should identify aviation as a sector of strategic relevance to the European economy, making funds available to all its players, hence levelling the playing field. As stakeholders are all operating in one single market, it is logical that they shall be entitled to financial support at EU level regardless of their size. Next Generation EU shall see a part of its funds allocated to the whole aviation sector as it plays a key role in developing local economies and ensuring cohesion of the regions. The objective would be twofold: first maintaining the viability of a truly European transport network and secondly, neutralising nationalistic approaches. In this regard, the European Commission has a key role to ensure that sufficient funds are allocated to the sector, by establishing technical mechanisms to allow the Member States to channel these funds within the same European approach.

Access to existing funds and banking instruments for all players, including SMEs, shall be facilitated. With severe problems on both supply and demand side, aeronautical companies face pressing liquidity shortages. Pressure is on the entire aviation ecosystem, and urgent support with dedicated guarantee schemes and liquidity is needed for all stakeholders.

The financial institutions are also crucial to providing liquidity to companies and the role of the European Investment Bank (EIB) should be enhanced. The European Central Bank (ECB) should be as inclusive as possible when devising its eligibility rules for Euro-Commercial Papers issued by non-financial companies. The EIB instruments should be widened to direct equity participation, if relevant, or zero percent loans and guarantees. The 50% of total

Capex limitation of loans by the EIB should be revised. In addition, it is necessary to remove the current requirement specific to airlines for loans to be intermediated by other financial institutions, allowing the EIB to lend directly to airlines as it does with other stakeholders in the aviation ecosystem. It should also revise its lending policy so as to fully exploit its existing possibilities to financially support dual-use (military-civil) technology and SMEs in their aeronautical and defence activities.

Both the European Union and Member States are important customers and supporters of the European aviation sector. As such, they can contribute to mitigating companies' current cash flow problems. Most important is therefore to maintain already planned and ongoing procurement and research projects within the aviation industry, such as SESAR, during the COVID-19 crisis through tax relief and incentives to investments. At the same time, management of these projects should take into account the difficulties that companies currently face. This implies flexibility in terms of funding rates, deliverables and timelines, as well as the full use of pre-financing mechanisms.

II. Financial measures at national level

> ### Key action 4.1
>
> Given the current uncertainty over when the recovery will come, the Aviation Round Table welcomes the recent prolongation of the State Aid Temporary Framework until 30 June 2021 – but a prolongation until at least the end of 2021 is needed, taking into account the long-lasting impact of the pandemic on the sector and the need to preserve the Aviation Single Market. The Aviation Round Table also calls for the introduction of specific support measures for the aviation sector beyond 2021 to bridge the period until the recovery of air traffic, which is not expected before 2024 or 2025.

The industry also calls on Member States to temporarily and in a non-distortive manner suspend tax payments and/or social security contributions.

In addition, industry appreciates the Temporary Framework for State aid measures to support the economy in the current COVID-19 outbreak. We welcome the flexibility that the Framework provides, and the fast clearance of state aid measures since then. The aviation sector is disproportionately hit and will need several years to recover.

Therefore, the State aid Temporary Framework should be prolonged until at least the end of 2021. The Aviation Round Table also calls for the introduction of specific support measures for the aviation sector beyond 2021 to bridge the period until the recovery of air traffic, which is not expected before 2024 or 2025, in a comprehensive European Aviation Relief Programme. These measures should take into account the specific nature of the sector. The limit of EUR 800,000 for direct grants, tax advantages and advance payments should be increased, and the risk period covered by public export credits should be extended for aviation manufacturers and suppliers.

Moreover, any financial or regulatory support measures will only become truly effective once the travel restrictions and quarantine measures are lifted and we can acknowledge the real demand levels, which are currently on hold due to these impediments to travel. Investments and costs related to public health measures should be borne by governments.

The Commission should follow through on the commitment in the COVID Recovery Programme that EU funding will seek to address the unequal distribution of State Aid granted. In particular, the European Commission should call on Member States to make State aid available to all parts of the aviation ecosystem on the same conditions. The European Commission should mitigate as much as possible the distortive effect of State aid by imposing additional conditions:

1. State aid should be available on a non-discriminatory basis.

2. Beneficiaries should not engage in aggressive commercial expansion financed by state aid or beneficiaries taking excessive risks.

3. Beneficiaries should not use State Aid to engage in discriminatory practices that would result in distortions of competition.

4. EU and national authorities should carefully examine the effect of the conditions attached to State aid with due regard for the social and environmental impact.

5. Beneficiaries should not push the cash crunch down the value chain by not fulfilling business-to-business refund obligations.

III. International competition

We expect the recovery of the European economy to be arduous and long. This is true in particular for our sector, which will face even more pressure from heavily subsidised competitors in other parts of the world. We therefore encourage the European Commission to continue exercising effective oversight of support measures taken in several third countries which grant their industries a strong economic support that could create distortions and competitiveness unbalances compared to the European industry.

The EU and Member States should continue to promote a competitive EU aviation industry globally, including through EU negotiated bilateral and multilateral aviation agreements where an added value and economic benefits have been demonstrated for the EU aviation ecosystem, as well as consumers, based on fair competition and high standards in areas such as safety, consumer protection, environment and social rights. In addition, negotiations with third countries on abolishing undue border controls, quarantines and other hard restrictions are needed in order to promote EU standards on a global scale.

Furthermore, with stock market values low, and cash-flow problems ahead, European aeronautical companies may become easy targets for undesirable takeovers by third-country investors who pursue a strategic agenda. This is particularly important in strategic sectors like ours. We therefore fully support the recent guidance concerning enhanced scrutiny and vigilance toward foreign takeovers. We urge the Commission to accelerate the launch of the Cooperation Mechanism under the foreign direct investment (FDI) Regulation.

Practically all major airports in Asia, the Middle East, Australasia, Switzerland, Iceland and Norway, as well as Eastern Europe now have Duty Free on arrival. Changing legislation to allow for arrivals Duty Free shops at EU airports would bring the industry into line with global airport practice. This would allow passengers to buy Duty Free on arrival at an EU airport if travelling from a non-EU country. The allowances are not changed; the place of purchase simply shifts from the departure airport outside the EU, to the arrival airport in the EU; bringing the benefits of the economic activity to the EU and helping to increase the international competitiveness of EU airports.

By reducing the weight carried on the flight, Duty Free arrivals shops also contribute to environmental goals of reducing aviation emissions. Passengers are simply given the choice to buy on departure or on arrival.

The measure will also support employment at European airports. Creating new retail areas at EU airports may trigger investment for building works in the airport as infrastructure is adapted to take advantage of the new opportunity.

1. Typically, sales in arrivals duty free where they exist make up between 20% and 30% of total sales.

2. Given the existence of duty free and tax-free allowances, these additional sales at EU airports would primarily be diverted from origin airports outside the EU and would not merely replace sales elsewhere in Europe.

3. Broadly, arrivals shops could boost EU airport duty free sales by between EUR 2.2 billion and EUR 3.7 billion each year (at 2019 traffic levels). This would translate into additional annual concession fee income of potentially EUR 1 billion+ to EU airports.

4. This increase in revenue would benefit both major hubs and regional airports in all Member States

IV. Review criteria for assessing connectivity

Existing PSO obligations shall be carefully considered and Member States should be allowed to create new PSO routes more easily in the context of the crisis' legal framework. A certain limited number of routes are strategic for economic development but not necessarily profitable, hence at a risk to be abandoned as a result of the crisis. Therefore, a targeted route support or PSO funding programme should be developed addressing such routes that do not have a viable alternative by land. The possibility to provide temporary emergency PSO routes (for routes that were commercially viable before the crisis) need to be urgently prolonged beyond the current period which ends at 31 December 2020, again taking into account the long recovery period until 2024 or 2025. In addition, existing PSO obligations should be reviewed under the new circumstances (for instance, if requested by an airline, re-evaluation of existing PSO contracts by bidding authorities in light of new traffic level and rising costs).

V. Airport infrastructure

The extension of Slot rules exceptions concerns slots at congested airports and, particularly for regional airports, protecting links to hub airports. The reallocation of unused slots is encouraged to ensure that all stakeholders benefit in such circumstances. It is in everyone's interest that the allocation of slots is responsive to demand and the changing needs of the industry while air traffic recovers. As much advance notice as possible of changes to planned schedules should be provided to industry stakeholders. A timely return of slots to the pool is critical to this process.

Airport noise restrictions: night operation entitlements (e.g. quota points, night slots, night movements) which become unused as a result of reduced or non-operation by passenger airlines should not be held back (neither by passenger airlines nor by airports and/or authorities). They should be made available for cargo and integrator operations to allow an optimal use of airport capacity, within the limits of local noise regulation and as long as this does not negatively impact the noise footprint around the airport.

VI. Other measures

As the pandemic hit, all-cargo flights played a crucial role in ensuring that time-critical shipments, pieces

for urgent repairs or inputs into global supply chains or other high value goods and shipments, reach their destinations in a safe and timely fashion. However, these operations require specific air traffic rights – different from those for passenger operations.

To support efficient air cargo operations, all-cargo services should be facilitated by granting adequate traffic rights and sufficient flexibility with a view to enhancing efficiency and providing services more sustainably. The crisis has shown how essential it is to provide more flexible networks to unlock and provide sufficient capacity at all times. Especially during the recovery phase, increased flexibility will give express cargo carriers the potential to support the revival of economies.

The principles around which the airline distribution market has grown - level playing field, fair competition and transparency through price comparison - must be preserved. Any future revision post-COVID-19 of Regulation 80/2009, should contribute ensuring fair competition, transparency and consumer choice in the airline distribution marketplace, by allowing consumers to compare airlines' offers effectively. The regulatory framework needs to take into account new intermediaries and technological developments in the airline ticket distribution market.

In addition, the EU should:

- ■ Implement Air Cargo Guidelines and EU Green Lanes as long as necessary, together with the freedom of movement for transport personnel.

- ■ Provide for temporary and flexible derogations of the Ground Handling Directive to help ensure operational and business continuity and recovery.

- ■ Ensure that Member States refrain from revoking or suspending air carriers' licenses due to COVID-19-induced financial difficulties.

- ■ Establish mutual recognition of background checked staff to facilitate the transfer of staff between EU airport.

- ■ ·Introduce temporary relief from EASA regulatory deadlines and fees by introducing flexibility for those EASA certificate and approval holders facing a regulatory deadline which cannot be met due to the COVID-19 crisis, hindering close interactions between industry, civil aviation authorities and EASA, without compromising safety.

- ■ Ensuring continued flow of goods across borders and avoiding new barriers to trade is critical for the transport of goods (particularly by air) as it has significant impacts on supply chains particularly in times of crisis.

4. Other proposed actions

I - Financial measures at EU level

1　Next Generation EU should identify aviation as a sector of strategic relevance to the EU economy, making funds available to all its players, hence levelling the playing field. The European Commission has a key role to ensure that sufficient funds are allocated to the sector, by establishing technical mechanisms to allow the member states to channel these funds within the same European approach. Pressure is on the whole aviation ecosystem, but urgent support with dedicated guarantee schemes and liquidity is needed for all stakeholders, including SMEs.

2　The Commission should continue exercising an effective oversight on support measures taken in third countries which grant their industries a strong economic support that could create distortions and competitiveness unbalances compared to the European industry.

3　The EU and Member States should continue to promote a competitive EU aviation industry globally, including through EU negotiated bilateral and multilateral aviation agreements where an added value and economic benefits have been demonstrated for the EU aviation ecosystem, as well as consumers, based on fair competition and high standards in areas such as safety, consumer protection, environment and social rights.

4　Role of the EIB enhanced. The EIB instruments should be widened from only capital expenditure to direct equity participation, if relevant, or zero percent loans (beyond the current limit of 50% of Capex) and guarantees. For airlines the requirement for loans to be intermediated should be removed. It should also fully exploit its existing possibilities to financially support the recovery of the aviation sector.

5　The EU and Member States should maintain already planned and ongoing procurement and research projects during the COVID-19 crisis through tax relief and incentives to investments. At the same time, management of these projects should take into account the difficulties that companies currently face. This implies flexibility in terms of funding rates, deliverables and timelines, as well as the full use of pre-financing mechanisms, accelerate payments and advanced payments.

6　Fully support the recent Guidance concerning enhanced scrutiny and vigilance toward foreign takeovers. We urge the Commission to accelerate the launch of the Cooperation Mechanism under the foreign direct investment (FDI) Regulation.

II – Financial support at MS level

1　Member States should temporarily and in a non-distortive manner suspend tax payments and/or social security contributions.

2　The aviation sector is disproportionally hit and will need several years to recover. Therefore, the European Commission should prolong the Temporary State Aid Framework must beyond mid-2021 to at least the end of 2021 and be complemented with an European Aviation Relief Programme to provide specific rules for aviation, covering the period until the recovery of air traffic, which is not expected before 2024 or 2025. These rules should take into account the specific nature of the sector. The limit of EUR 800,000 for direct grants, tax advantages and advance payments should be increased, and the risk period covered by public export credits should be extended for aviation manufacturers and suppliers.

3　The possibility to grant compensation for damages should be extended in view of the ongoing travel restrictions by Members States. Investments and costs related to public health measures should be borne by governments.

4　The European Commission may follow-through on commitment in the COVID Recovery Programme that EU funding will seek to address unequal distribution of State Aid granted. In particular the European Commission should call on Member States to make State Aid available to all actors of the aviation ecosystem on same conditions.

5　The European Commission should mitigate as much as possible the distortive effect of state aid via additional conditions:

- State aid available on non-discriminatory basis

- Beneficiaries must not engage in aggressive commercial expansion financed by state aid

- Beneficiaries should not use state aid to engage in discriminatory practices that would result in distortions of competition.

- EU and national authorities should carefully examine the effect of the conditions attached to State aid so they do not benefit indirectly undertakings that are not socially or environmentally responsible.

III – Review criteria for assessing connectivity

1　The EU should review existing PSO obligations and Member States shall be allowed to create new PSO routes more easily - with help of an European Aviation Relief Programme during the crisis. A certain limited number of routes are strategic for economic development but not necessarily profitable, hence at a risk to be abandoned as a result of the crisis. Therefore, a targeted route support or PSO funding programme shall be developed addressing such routes that do not have a viable alternative by land. Further, the scope of PSO routes should also be broadened to allow many more intra-European cross border routes to be approved and redefined quickly. The development of PSOs on a European level should be encouraged.

2　The possibility to provide temporary emergency PSO routes (for routes that were commercially viable before the crisis) should be urgently prolonged by the European Commission beyond the current application ending 31 December 2020, in view of the long recovery period until at least 2024. In addition, existing PSO obligations shall be reviewed under the new circumstances (for instance, if requested by an airline, re-evaluation of existing PSO contracts by bidding authorities in light of new traffic level and rising costs). Cohesion Policy funding should be used for tourism support schemes to support cohesion.

3　Consumer rights: revising Regulation 261 to achieve legal certainty for consumers and aviation stakeholders alike to reach the goal of strong consumer protection in a sustainable way.

IV. Airport infrastructure

1 The extension of Slot rules exceptions concerns slots at congested airports and, particularly for regional airports, protecting links to hub airports. Any further EU slot relief should be based on facts following consultations with airports, airlines and coordinators and subject to appropriate conditions. The reallocation of unused slots is encouraged to ensure that all stakeholders benefit in such circumstances. It is in everyone's interest that the allocation of slots is responsive to demand and the changing needs of the industry while air traffic recovers. As much advance notice as possible of changes to planned schedules should be provided to industry stakeholders. A timely return of slots to the pool is critical to this process.

2 Airport noise restrictions: the relevant authorities should ensure that any unused night operation entitlements should be made available to cargo and integrator operations to allow an optimal use of airport capacity, within the limits of local noise regulation and as long as this does not negatively impact the noise footprint around the airport.

V – Other recommendations

1 The EU should allow Duty Free on arrival at EU airports in order to increase airports' international competitiveness.

2 Ensure that EU regulation in the airline distribution marketplace entails fair competition, transparency and consumer choice.

3 The continuity of ANSP services must be ensured by governments during the crisis and government funding is required so that staff can be retained to enable the recovery of air traffic, regardless of whether ANSPs are financed publicly or privately.

4 EU to negotiate with 3rd countries (US, China, India, Brazil...) on the abolishment of undue border controls, quarantines and other hard restrictions, promoting EU standards on a global scale.

5 Appropriate authorities to establish mutual recognition of background-checked staff to facilitate the transfer of staff between EU airports.

6 The relevant authorities should implement the EU's Air Cargo Guidelines and EU Green Lanes as long as necessary, together with the freedom of movement for transport personnel.

7 The EU should provide for temporary and flexible derogations of the Ground Handling Directive to help ensure operations and business continuity and recovery.

8 Member States should refrain from revoking or suspending air carriers' licenses due to COVID-19 induced financial difficulties.

9 The relevant authorities should avoid new barriers to trade as this is critical for the transport of goods (particularly by air) and has significant impact on supply chains particularly in times of crisis.

Photo: Leo Hillier
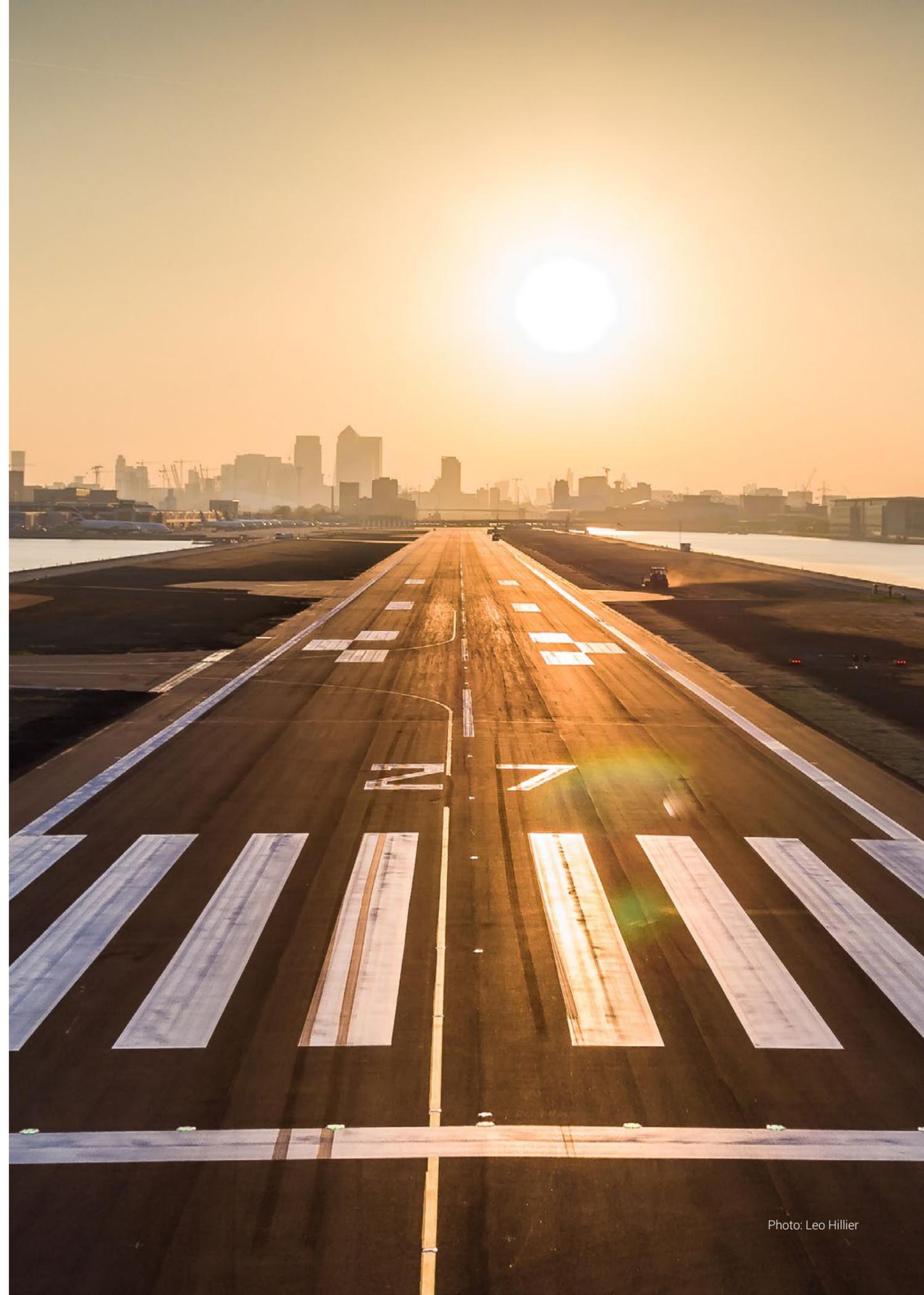
5 Strengthening the resilience of the sector against new shocks

1. Introduction

The collapse of passenger and cargo traffic since March 2020 has deprived the European aviation sector of its liquidity, affecting all actors of the ecosystem. It has highlighted the fact that the whole aviation sector is reliant on one provider for its liquidity – airspace users transporting passengers and cargo.

High unavoidable costs related to fixed assets such as maintenance and the retention of qualified staff need to be covered. Other costs, such as expensive insurance premiums have increased during the crisis. Certain activities linked to public health requirements require sufficient funding whilst at the same time, the sector needs to prepare for the reopening of routes and the much-needed return of passengers.

While deferrals of payments have been agreed upon, in particular for ATC charges, the shifting of such payments has not addressed the industry's underlying liquidity challenge or the slower-than-predicted recovery of demand and traffic.

A strengthening of the sector's financial standing today will ensure its long-term resilience tomorrow. It is a precondition for the success of the industry's digital transformation and sustainable transition. Decisions and actions should be taken now to strengthen the sector for the years to come, making it more crisis-proof.

During past crises, be they terrorist attacks, pandemic or natural disasters, the industry has shown its capacity to draw lessons and rebuild a safer and more efficient air transport system.

Today's crisis is, however, of an unprecedented scale and different in nature in that it also put the sector's essential financing to test. Industry and policymakers need to ensure that the financing of the sector does not come to a halt, which would be detrimental to guaranteeing the sector's capacity to invest in its digital transformation and green transition. Only mitigation of the revenue gap of affected actors and a fast and sustainable recovery path will allow the aviation system and airlines to contribute to the best of their abilities to the European and global recovery.

Throughout the crisis, the European aviation ecosystem has shown its critical nature. Air transport was critical in the provision of essential services as was the case in the numerous repatriations of stranded nationals or in the cargo shipping of medical equipment, protective equipment and medicines.

2. Diagnosis and recommendations

Key action 5.1

The EU should put in place a targeted European Aviation Relief Programme to ensure balanced and non-discriminatory supporting measures for all affected stakeholders of the aviation ecosystem. In addition to extending emergency support into the recovery phase, this programme should also:

1. Provide state support for ATM in crisis situations to ensure the continuity of services.

2. Propose measures to ensure business continuity in case of bankruptcies.

3. With respect to reference period 3 under the SES/RP3, include all necessary actions to establish legal certainty and therefore (budgetary) planning security by:

   a. Updating and amending regulations (SES2+, RP3 or other related regulations) to support the recovery of the actual crisis and ensure preparedness for future crisis.

   b. Re-assessing all possible financing alternatives capable of supporting the recovery and protecting mandatory investments of the aviation industry in support of the "Green Deal" and network performance in general and identifying the most effective use of available (recovery) funds to address the liquidity shortage in the aviation sector (e.g. ANSP revenue gap). As a way forward, the existing suggestions and examples of states could be used to publish a guideline on how to address the liquidity crisis of the aviation ecosystem.

Looking further ahead, whilst the risk of new waves of COVID-19 is acknowledged, judging from the impact of the crisis so far, several conclusions can already be drawn. It is recommended that national and European policymakers as well as all affected operators take steps to future-proof the EU aviation system by addressing five challenges that will ensure its future resilience: flexibility, financial robustness, governance, inefficiencies and a lack of preparedness.

Future actions from policy makers and stakeholders include the following:

1. The European Commission should analyse and map the impacts of COVID-19 on competition, consumer choice and European connectivity. The aim of the study is to reflect the damages of the crisis on these essential European values and determine if any additional actions or support measures to the aviation eco-system need to be taken at EU level to ensure the protection of European citizens. The study should consider not only quantitative factors (job losses in the industry, fleet reduction, connectivity reduction, number of companies in business, etc.) but also qualitative aspects of the crisis that are likely to impact the future of air transport.

2. Consider flexibility where it is needed and possible from a regulatory point of view, striking the right balance with need for predictability and confidence. The crisis has indeed shown that aviation suffers from a financial single point of failure. This stresses the importance to better adapt a number of elements, namely:

   ■ traffic fluctuation and its impact on slots, ATM;

   ■ operational restrictions (traffic rights, curfews, etc.);

   ■ derogation to ground handling Directive to allow business continuity;

   ■ management of staff (employment mechanisms, training, licences);

   ■ fiscal burdens e.g. how to enable swift decisions on derogations or deferrals;

   ■ a last resort complementary funding of necessary operations of air traffic; replacing lost liquidity without adding future burdens on airspace users.

3. Improve the financial robustness of the network and its actors. With the reduction of traffic, the source of financing for the aviation system as a whole – ticket sales – has dried up while the cost of providing certain services such as airport or air navigation services have not been reduced by the same level because of the cost structure of such infrastructure. To ensure a fast and sustained recovery of the aviation sector, all possible financing alternatives including the effective use of available recovery funds to address revenue gaps should be considered. This involves:

■ Airlines airports, ground handlers, etc financing and linked insolvency risks;

■ Shortage of liquidity in the ATM system and lack of appropriate financing mechanisms. Beyond airlines and ANSPs, the wider impact of reduced fees funded by volume of flying operation for ATM (e.g. on NCAs or METs services) remains to be fully assessed. Policymakers should notably re-assess all possible financing alternatives including recovery funds to address the ANSP revenue gap;

■ State support in line with policy goals;

■ The extension of emergency support into recovery phase.

4. Strengthen the system's own governance.

■ Reinforce the EU role on Schengen and border policies in order to limit the uncoordinated proliferation of border restrictions;

■ Improve the information sharing across the EU (e.g. Restrictions to the free movement of people and operational restrictions);

■ Enhance communication and sharing of real-time operational information with airlines,

ANSPs, all ground operators and authorities (databases and automated processes);

■ Similarly, a strengthened and broader mandate for the EU Aviation Crisis Coordination Cell (EACCC) should be considered to improve its efficiency and representativity.

5. Tackling the system's inefficiencies. The crisis, acting as a stress test, notably pointed at areas of the system where improvements would be desirable. This is notably the case for:

■ Processes e.g. baggage allocation practices (also linked to training);

■ Slot allocation system (e.g. in case of airlines bankruptcies);

■ Analysis of COVID-19 on airports capacity (with the contribution of slot coordinators, schedule facilitators and stakeholders).

6. Identify remedies to the sector's unpreparedness, through:

■ The development of a Crisis Action Plan, defining roles and responsibilities, establishing communication channels and clear coordination mechanisms (re: EU Aviation CCC);

■ The definition of clear criteria and parameters for epidemiological situation and quarantine requirements;

■ The building of scenarios for future crises and possible standardised solutions as was done in the aftermath of the SARS outbreak or the Icelandic ash cloud crisis;

■ The installation of so-called "check points of the future" (biosafety and touchless).

7. Airport capacity: At airports, consider the use of local rules to be implemented in accordance with normal procedures, such as approved by the coordination committees. Local rules would provide clarity and help manage temporary reductions of airport capacity by introducing temporary coordination parameters. When feasible, coordinators should implement existing industry recommended practices on this matter to ensure harmonisation.

3. Other proposed actions

Governance and crisis management

1	Improve coordination between European aviation and related actors in times of crisis through: a. The launch of a better European aviation crisis management system; b. The development of a European Aviation Crisis Action Plan for better coordination and information sharing including the building of scenarios for future crises; c. The undertaking of resilience scenario planning at EASA and coordinated NCA level (pandemic, global economic downturn/disruption, international armed conflict, geological events, and climatic and weather volatility); d. The building of scenarios in preparation for possible future waves of contamination and similar crises; e. The monitoring of the impact of measures and their adjustment as the situation requires.
2	Enhance communication and sharing of real-time information with airlines, ANSPs, all ground operators and authorities (databases and automated processes).
3	Consider flexibility where it is needed and possible from a regulatory point of view, striking the right balance with the need for predictability and confidence.
4	Launch research activities on measures to protect aircraft and passengers from health risks (i.e. health detection systems in cabins, improved air treatment systems).
5	Ensure compensation by MS for aviation health measures above and beyond the EASA safety protocol mandated directly or indirectly by MS.
6	Analyse and map the impact of COVID-19 on competition, connectivity, consumer choice and on airports capacity (with the contribution of slot coordinators, schedule facilitators and stakeholders).
7	Consider using temporary local rules at airports when capacity is reduced temporarily.

Conclusion

This document is the result of intense work by the Aviation Round Table, bringing together representatives of stakeholders from across the aviation ecosystem. It is an unprecedented joint call for a bold strategy to navigate this crisis and offers a blueprint for the sustainable recovery of European aviation.

The COVID-19 crisis is an existential threat to nearly every company and every part of the aviation ecosystem. Aviation has been affected quickly and profoundly and if there is a recovery to come, it will likely take longer than in other sectors. Stability might not arrive until 2025.

The impact of the crisis on the European economy as a whole will be deep and damaging. Aviation not only supports the business of travel but is an essential element of the European trade and tourism industry, supporting cross-border business in nearly all service and manufacturing sectors.

Aviation also makes a profound contribution to European society and cultural life and so leaving the aviation industry to founder is not an option. It needs to continue serving the public interest in ways that reinforce the benefits to society that it provides, and the industry together with the EU and Member States should rebuild European aviation to the benefit of all, enabling the wider recovery.

The strategy needed to navigate this crisis and allow for a sustainable recovery identifies joint actions in four domains:

1. Restoring the public's confidence in air travel is an absolute priority and an urgent prerequisite for the start of the recovery;

2. A comprehensive Aviation Relief Programme is needed at European level to rebuild the sector and to preserve the Aviation Single Market;

3. An EU Pact for Sustainable Aviation is required, setting out the steps necessary to guarantee a cleaner and quieter aviation system that puts the interests of the people and the aviation workers first;

4. A set of accompanying measures necessary to ensure a resilient sector capable of withstanding future crises.

As of today, passenger traffic has collapsed to a small fraction of its previous volume. Uncoordinated government travel restrictions and the lack of passenger confidence in air travel have exacerbated the heavy toll levied on the sector by the COVID-19 crisis. The signatories of this call for action therefore urge national governments and the EU to act swiftly and in concert, through the adoption and implementation of clear, safe, predictable and coordinated travel requirements and testing procedures. These should always be based on common criteria and international recommendations such as those of the ECDC, in order to provide a harmonised level of safety.

For its part the aviation sector commits to implement measures to strengthen the travelling public's confidence in aviation.

The Aviation Round Table calls on the EU, the Member States and the stakeholders of the EU aviation ecosystem to implement the actions detailed in this report. Athletes say: "you never lose, you only learn". The crisis will undoubtedly have an impact on business and society. The stakeholders of the aviation ecosystem have the ambition of looking forward, learning from the crisis and using a very difficult situation to design the viable, green and socially sustainable aviation of tomorrow. A sector that can and must continue to fulfil its public interest role for the benefit of European citizens.