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COMPLETING THE SINGLE MARKET FOR AVIATION Page 2



GOING FOR SUSTAINABLE FUELS Page 3



INTERVIEW WITH RICHARD FORSON, CEO, CARGOLUX Page 4



On 11 September, 21 aviation and workers associations, including A4E, signed a joint declaration committing to a set of actions to implement the Single European Sky (SES) in Europe

Having a vision is one thing. Knowing what needs to be done -- and then doing it, is another. The latter is often the hardest part, especially when it comes to reforming Europe's airspace.

On 12 September, the European Commission and the Finnish Presidency of the EU organised the "Digital European Sky" conference. Something unique happened at this conference: airlines, airports, air navigation service providers, suppliers and social partners handed over a joint ATM stakeholder declaration to the Presidency and the Commission.

This declaration represents the stakeholders' joint vision on a future EU airspace. What it doesn't specify, however, is how to actually get us there.

One year ago, A4E COOs came to Brussels following record delays. Together with other ATM stakeholders, the COOs signed A4E's Efficient Airspace Declaration, agreeing a joint approach and prioritising short-term actions. The SES declaration follows this course – but on a much higher level. Going forward, A4E member airlines expect the following concrete activities and commitments to now take place:

- A4E airlines will work with the European Commission and other ATM stakeholders to provide increased guidance and feedback on regulatory issues as well as operational and technical topics. Furthermore, we will continue to invest in new aircraft and new technologies to reduce aviation's environmental footprint.
- Fellow operational stakeholders will follow agreed plans to invest in new technology and human resources. This will ensure that the existing system can work efficiently, and that the future system is available in time. In addition, a commitment to embrace the chances presented by new technologies and humans working with it is paramount.

The joint ATM Stakeholder Declaration is proof that we as an industry want change for the benefit of our respective customers, and for the environment. We expect member states to support these efforts by:

- Harmonising operations across borders, in the air and on the ground by proactively working on known issues, i.e. fix the 10 'hot-spots' identified in the Airspace Architecture Study;
- Promoting best in class examples when it comes to air navigation services through smart targets;
- Increasing the availability of sustainable aviation fuels by funding research and enhancing production.

A4E airlines look forward to supporting the member states and the EU institutions to tackle these changes and establish a future-proof regulatory framework, once and for all.

A4E VIEWPOINT

Let's stop dreaming about efficient EU airspace – it could already exist.

In the (hopefully) not so distant future, thanks to a brand new infrastructure, airspace will be just as safe -- or even safer than it is today. Regulation will be simplified. Delays will be virtually non-existent. Aircraft will fly the most efficient trajectories, thereby reducing aviation's environmental footprint.

How? European airspace will operate in a system which is network-centric in terms of flight planning, but flight-centred in its daily operations. Technology and humans will work hand-in-hand to form an integrated air traffic management system resulting in minimum interventions, environmentally-efficient operations, no delays and an efficient provision of capacity in the air and on the ground.

The airspace itself will be considered a vital piece of European infrastructure. Its use will be non-discriminatory and will allow the sovereign needs of European member states to be met in a non-disruptive manner.

Operating in an open market, services will be unbundled and fully separated from the infrastructure. Providers will be free to offer their services (in communication, navigation, surveillance or managing the traffic) to various airspace users – regardless of the provider's physical location. Airlines, in turn, will be able to choose whichever provider best meets their business needs.

Today, this still seems like a dream – nevertheless the principles, plans and technology to make it a reality already exist. The time for excuses or procrastination is over. Political hurdles on a European and/or global level must be overcome.

ADDRESSING THE CYBERSECURITY THREAT: MAKING AVIATION FIT FOR THE 21ST CENTURY

October marks the *European month of Cybersecurity*. Cybersecurity is not a new topic in aviation, but recent increases in the number of hacks, data theft and phishing have brought the issue into the spotlight. Behind the scenes, A4E and its members are heavily involved in a variety of initiatives to create a cyber resilient aviation system in Europe.

The complexity of developing a cybersecure environment is not only technological, but also human and organisational. Indeed, all stakeholders must be part of the equation, including service providers and passengers.

We are team players

Because we are well aware that we cannot fight cybersecurity on our own, A4E participates in the work of the European Strategic Coordination Platform (ESCP) and welcomed the recent adoption of the *Strategy for Cybersecurity in Aviation*. In this important document, stemming from the collective work of aviation stakeholders, we outline two key features:

• a trustworthy and dependable environment, so that aviation stakeholders can rely on services and information provided by others for the accomplishment of their operational objectives;

• **a system-of-systems** capable to adapt and withstand new threats without significant disruptions.

FROM THE MD

The Single Market for Aviation is one of the major achievements of the EU. It has allowed airline competition to flourish, giving consumers access to more destinations and lower fares. Competition amongst airlines has brought European citizens closer together, materialising the cornerstones of European integration – the free movement of people and goods. More work still needs to be done, however, for consumers to fully reap these benefits. Monopoly providers must be efficiently regulated or new competition introduced. To further airlines' commitment to these efforts, A4E is asking the new EU leadership to focus on the following priorities:

Sustainability

We need effective measures to reduce carbon emissions. Rather than introducing aviation taxes, the EU must support the industry's efforts to move away from fossil fuels. Due to the specific challenges of commercial aviation, the following measures would realistically help lower emissions: (1) a more efficient ATM through the implementation of a Single European Sky (10% reduction in CO2 emissions); (2) investments in fuel efficiency through (hybrid) engine technologies and (3) better availability of sustainable alternative fuels (up to 80% reduction in CO2 emissions). Equally, we need the full implementation of CORSIA, the industry's global aviation emissions offsetting system, while avoiding regulatory overlaps with EU measures and a potential double burden for EU carriers.

Mobility in the air

It is hard to believe that in a world of connectivity, we still seem to have national borders in the European sky. We are counting on the Commission and the Parliament to re-start the process to update the SES2+ legislation as soon as possible and to make it future proof – e.g. enabling a digital, seamless airspace.

Consumers

With 700+ million passengers carried each year, A4E airlines bring people closer together and support local economies in a quick and efficient manner. While continuing to improve the unprecedented freedom of mobility, we never compromise on safety and strive to make air transport reliable and accessible to all. In case of disruptions, a high level of passenger care is important. We urge the Council to proceed swiftly with the revision of Regulation 261/2004 (air passenger rights) to establish a clear, proportionate and stable legal framework.

Airport charges

The new Commission must act on the overdue review of Directive 2009/12 on airport charges (ACD) to create a more robust regulatory framework. This means: (1) targeting economic regulation at airports with significant market power, (2) improving rules on consultation and transparency in the setting of charges, and (3) ensuring Member States have an independent and sufficiently resourced regulator.

A4E looks forward to working with the new Parliament and Commission as well as its stakeholders to make a real change in this new EU mandate.

"We are as strong as the weakest link", EUROCONTROL reminded us, hence the growing importance of collaboration, best practice sharing and dissemination of threats. The recent launch of the *European Centre for Cybersecurity in Aviation*, where some A4E members are active, is a great example of such cooperation.

We lead by exemple

Our members also have dedicated teams or ad-hoc working groups to tackle cybersecurity threats, often combining colleagues from their Security, Information Systems, Operations and Maintenance departments. For instance, **Air France** set up a "Cyber Committee" back in 2017 to cover both regulatory requirements but also ongoing initiatives on a six-month basis.

A4E welcomes the work of the Juncker Commission on Cybersecurity, with the adoption of the NIS Directive and the Cybersecurity Act in particular. We call on the new EU leadership to keep up the political momentum of this dossier. A4E airlines stand ready to continue to liaise with the EU authorities and work across sectors to make aviation and Europe cyber-resilient!

ENVIRONMENT

Alternative aviation fuels

Drive to develop alternative aviation fuels gains momentum

A4E is committed to reducing the aviation industry's carbon footprint. Unlike other transport sectors, aviation does not have readily available alternative energy sources at present. New technology and fuels hold the answer. But this will require the right policies to incentivise their development, and substantial investments to scale them up.

In recent years, significant technical progress has been made towards the commercialisation of alternatives to fossil fuel which European airlines have committed to move away from. An EU legislation that seeks to ramp up production capacity of sustainable aviation fuels (SAFs) would make a big difference in helping the industry to achieve its target of carbon neutral growth from 2020 and a 50% reduction on 2005 emissions levels by 2050. Simply put, the fuel used in aircraft tanks is one of the most important sources of emissions savings.



Sustainable aviation fuels are non-petroleum-based, drop-in aviation fuels which are generally produced from bio-based feedstocks including waste, residues and end-of-life products – as well as fossil waste. Significant interest exists also for non-bio based feedstocks, in particular the so-called drop-in Power-to-Liquid 'electrofuels'. Sustainably certified alternative aviation fuels have the power to deliver key emissions savings to the aviation industry whilst meeting stringent sustainability standards and avoiding direct and Indirect Land Use Change (ILUC).

According to the International Energy Agency (IEA), total global alternative aviation fuel output is expected to grow by an average of 2.7% per year. Yet, to fully exploit the potential of SAFs, bridge the price gap between SAFs and kerosene, and enable the European aviation industry to progressively reduce its dependency on fossil fuels, a step change in EU policies and investment frameworks is urgently needed.

The EU should capitalise on its leadership in global aerospace and aviation and seize the opportunities presented by the emerging sustainable fuel market to reduce emissions, create jobs and bolster investments in science and technology.

By contrast, it is not clear what new aviation taxes are supposed to achieve. They do not incentivise environmental efficiency nor reward sustainability. They divert funding away from the industry into general government budgets and do not help to reduce emissions. There is only one way to achieve effective long-term solutions – through investment.

IAG INVESTS \$70 MILLION TO BUILD EUROPE'S FIRST WASTE TO FUEL PLANT

British Airways has led efforts to develop a waste to fuels pathway since 2010, working closely with the UK government to include waste-based fuels in the country's Renewable Transport Fuels Obligation (RTFO) in 2018. This enabled it to progress with plans to construct SAF production facilities in the UK.

Its parent company, A4E member IAG, recently announced it will invest **G**70m in sustainable alternative fuel (SAF) development over the next 20 years.

BA is the first airline in Europe to invest in building a waste to fuel plant with renewable fuels company, Velocys and Shell. The Velocys technology will convert more than half a million metric tons of non-recyclable, "everyday" household and commercial waste per year into fuel that offers a 70% reduction in net greenhouse gas emissions over fossil fuels. This is the equivalent of taking up to 40,000 cars off the road each year.

Construction on the factory near Immingham, England is expected to begin in 2021, with the first fuel produced by 2024 -- taking hundreds of thousands of tonnes of waste and transforming it into clean-burning, sustainable fuels. The development is expected to bring hundreds of millions of pounds of investment as well as new jobs to the region.

For its 2019 centenary, BA challenged academics in aerospace, fuels and biotechnology to devise a method of operating a flight for five hours with zero CO2 emissions – becoming the first airline in its field to bring such a group together to help it answer a key question for the future of flight.



LUFTHANSA PILOTS SYNTHETIC FUEL USE AT HAMBURG AIRPORT

Sustainability has been a guiding principle at Lufthansa for many years. According to the A4E member, fleet renewal is one of the most important measures airlines can deploy, as today's aircraft emit up to one quarter less CO2 than their predecessors. In 2018, for example, the Lufthansa Group airlines only needed 3.65 liters of kerosene to fly a passenger 100 kilometers – compared to 1990, this is an improvement of around 41%. New aircraft will decrease CO2 emissions even more, by about 1.5 million metric tons per year.

The Lufthansa Group also supports the research and development of alternative fuels. Synthetic kerosene, for example, is a realistic option for carbon-neutral flying of the future. Recently Lufthansa announced a collaboration with Hamburg airport and the Heide refinery for the production and use of synthetic kerosene, which is almost zero-carbon. Since August, travellers can also offset their individual carbon footprint by investing in sustainable alternative fuel use through Lufthansa's new "Compensaid" sustainability platform.

KLM COMMITS TO DEVELOP AND PURCHASE 75,000 TONNES OF SUSTAINABLE AVIATION FUELS PERYEAR

A4E member KLM Royal Dutch Airlines, together with SkyNRG and SHV Energy, will develop Europe's first dedicated plant for the production of sustainable aviation fuels. The production facility will specialise in producing the fuels primarily using regional waste and residue streams as feedstock. The plant, which is scheduled to open in 2022, will be the first of its kind in the world. From 2022, it will produce 100,000 tonnes of sustainable aviation fuels per year, as well as 15,000 tonnes of bioLPG, as a by-product. It will mean a CO2 reduction of 270,000 tonnes a year for the aviation industry.

The feedstocks used for production will be waste and residue streams, such as used cooking oil, coming predominantly from regional industries. The facility will run on sustainable hydrogen, which is produced using water and wind energy. Thanks to these choices, this sustainable aviation fuel will deliver a CO2 reduction of at least 85% compared to fossil fuel.



INTERVIEW



QUESTIONS FOR RICHARD FORSON, PRESIDENT AND CEO / CARGOLUX

A4E Cargolux is Europe's biggest all-cargo airline. What challenges are you currently facing -- and how do they differ from the A4E passenger airlines?

RF While 2017 and 2018 were exceptional years for the airline, 2019 has been a completely different kettle of fish. International demand for air cargo services has declined, leading to excess capacity in the markets, which in turn drives our yields down. This demonstrates the volatility of the air cargo industry. Being an all-cargo carrier, we must ensure that we can weather these periods until the markets improve. Our colleagues in the passenger industry have been experiencing solid growth in their volumes, but I believe that their profits are also falling, putting them under the same pressure. Maintaining customer satisfaction is key, also in the air cargo industry, with a B2C-type experience taking hold in the B2B relationship. Consequently, we need to continuously focus on innovation and improving the customer experience in order to make interactions seamless and information readily available for our clients.

A4E How important is Europe in your business, and how can EU policymakers best support the air cargo industry going forward?

RF The major trade lanes in the world today are Asia/North America and Asia/Europe. So yes, Europe is an extremely important part of our business both from an export and import perspective. Based in Luxembourg, Cargolux has built up an extensive road feeder system allowing cargo to be brought to Luxembourg and distributed from Luxembourg to many other

European destinations. We also have direct flights to other cities in Europe. In this context, EU policymakers play a key role in developing a regulatory framework that centres on seamless and efficient EU trade with the rest of the world. Policy areas of particular interest include the implementation of new EU customs electronic systems and EU-level security initiatives. There should also be a structure of incentives. taxes and duties that reflects the EU's sustainability objectives without disadvantaging EU airlines with regard to competitors and other transport modes. Cargolux, along with other EU cargo airlines, is a driver and an enabler of the EU's high value-added export industry, and we should be supported in this role.

A4E How important is digitalisation in your future success?

RF We are in the midst of an intensive transformation program in which digitalisation plays an important part. The key issue with digitalisation is to determine exactly what we want to achieve at the end of the day and what value it will bring to the organisation. There is no doubt that there are huge benefits through digitalisation, but we must have the end goal and processes clearly defined at the beginning -- to ensure that the investment we make results in the expected benefits. Digitalisation will play an important role in the way we interact with our customers and other third-party service providers to the airline, e.g. operations, customs, airports and others. Digitalisation will also enhance our ability to analyse huge amounts of data more guickly and efficiently. With artificial intelligence and machine learning becoming more commonplace, such analyses will continuously improve our ability to interpret the data.

A4E How is Cargolux contributing to enhanced sustainability efforts throughout the industry?

RF We are mitigating our impact on the environment in a number of different ways, with a key focus on fuel efficiency, a reduction in CO2 emissions, waste reduction and ethical practices. As an example, between 2009 and 2018, Cargolux more than doubled its fleet size while reducing its overall CO2 footprint by close to 10%. We have also adopted IATA's short- and long-term goals to reduce CO2 emissions with the aim to eventually achieve carbon-neutral growth.

Corporate Social Responsibility is central to our philosophy. We strive to establish and maintain a social, environmental, and economically viable organization. As a signatory of the UN Global Compact, our airline is committed to upholding its 17 Sustainable Development Goals and weaving these initiatives into our daily activities.

A4E How will the international CORSIA agreement and new national environmental taxes on aviation affect your business?

RF Environmental protection is a key element of our corporate social responsibility program. CORSIA, or any similar agreement that is put into place will have a cost impact on the aviation industry. The question is: Are customers prepared to pay more for our services? Or is the expectation that the airlines absorb these additional costs? Until now the cost has always been on the airlines. In addition to this, airlines are also investing billions of dollars in the purchase of more environmentally-friendly aircraft on a continuous basis. Such investments will be jeopardised in the face of increasing taxes or fees on aviation.

A4E What is the one thing you are most proud of during your time as CEO?

RF I'm really proud to have launched the intensive transformation process currently underway within Cargolux, to prepare our airline for the future.

COMMENTS OR QUESTIONS?

We welcome your feedback! Email the editorial team at **contact@a4e.eu**

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