



## Getting real about climate change & aviation Economics & Policy for this decade

### Pre Conference Webinars

- 16 June 2021 9:00 to 11.00 CEST
- 16 September 2021 9.00 to 10.30 CEST

### Two-days virtual conference

- Day 1: 1 Dec 2021 9.00 to 16.00 CET
- Day 2: 2 Dec 2021 9 to 13.00 CET

What policy Instruments are available to governments and regulators and how might these be implemented during the current decade?

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What measures can we expect the aviation industry to take over the next ten years and who will pay?

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What are the real economic costs and benefits of policy alternatives?

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Can we envisage a realistic and impactful roadmap for mitigating the harmful bi-products of air transportation without destroying the industry?

Unique meeting place for industry stakeholders, researchers and government officials

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## **16 June 2021 Pre Conference Webinar 9:00 to 11.00 CEST** **Given what we know today what should Europe do tomorrow?**

### **Panel 1: What we know today**

Drawing on the latest scientific advancements in understanding aviation's total climate impacts, this session discusses the outlook to 2030 and the overall business case for mitigating these impacts. It sheds light on the main drivers of aviation climate impacts, and how best to mitigate them. It touches on adaptation costs and the little-known effects of climate change on operations (e.g. clear air turbulences, Jetstream changes, and unpredictable weather). The session will seek to identify key policy measures.

### **Panel 2: What should Europe be doing? Is the EU leading?**

This Panel starts with a quick review of the record to date of Market Based Measures (MBMs) - the ETS, ticket taxes and environmentally determined airport charges in reducing European aviation's climate footprint. Against the background of growing public pressure for action - flygskam or flight shaming it reviews what might be the best future approaches; including a stronger aviation ETS, the role of CORSIA in Europe; and stronger carbon pricing measures such as fuel taxation and taxes on carbon emission. It considers the role of command and control measures such as banning flights, mandatory modal shift, Sustainable Aviation Fuel (SAF)-mandates. These are discussed in the context of the EU's Green Deal, the Biden Administration's challenging new approach and the UK's position as COP26 host.

## **16 September 2021 9.00 to 10.30 CEST** **Decarbonising Air Transport: A session** **organised by the International Transport Forum** **at the OECD.**



This session will be organised and chaired by the International Transport Forum at the OECD (ITF). The ITF will invite key experts behind its recent report on decarbonising air transport, which provides an overview of technological, operational and policy measures that can accelerate the decarbonisation of aviation. The goal of the report is to support governments and aviation stakeholders looking to introduce aviation decarbonisation measures regionally, nationally and internationally. The discussion will focus on the possible paths to decarbonising the aviation sector, bearing in mind the costs or unintended consequences of different policy measures and potential barriers to their implementation. Speakers will be announced closer to the date.

# Two-days virtual conference

## Day 1: 1 Dec 2021 9.00 to 16.00 CET

**Where we got to;** Review of first two sessions;

**Keynote address** t.b.a.

### **Panel 4: Technological Options for Now and the Future**

Having established the nature and seriousness of the challenges facing aviation and climate change, Panel 4 turns to how new technologies can help to address them, both now and over the coming decade. An important technology will be SAFs, now being used in a limited way. How expensive will they be over the decade to produce and implement? Will aircraft design improvements make much of a contribution? Electric and hydrogen aircraft will not make any impact this decade – will they? The Panel also identifies and contrasts the operational measures which can be taken by aircraft and airport operators to lessen carbon emissions and in particular non CO2 impacts such as contrails and cruise NOx.

### **Panel 5: What should the regulators do?**

#### **Sub session A: Market Based Instruments**

Airlines will not reduce emissions and use the new technologies unless they are given an incentive to do so. The incentive could be a negative incentive (a tax) or a positive incentive (a subsidy to use SAFs). The ETS is the established framework in Europe. But is it working for aviation? What are the relative merits of ticket taxes, which are used in many countries, and fuel taxes, which are ubiquitous in the US but still absent in Europe. What are the upsides of taxes versus an ETS? And the downsides of taxes (jobs?). What about earmarking tax revenues for R&D? What's the best and most effective way to reduce emissions in the short and long run?

#### **Sub session B: Command & Control**

Rather than rely on the market, governments can legislate to compel industry to act. Several options are being tried and more suggested. One of these is mandating the use of SAFs, which has started in

Norway What are their pros and cons, and how do they compare to fuel taxes? The implementation of CORSIA has been stopped by the Covid-19 crisis, but what are the chances of it being an effective means of reducing emissions? What are the advantages and disadvantages of limits to airport development, and bans on short haul flights, as being implemented in France?

### **Panel 6: Policy Instruments: Industry**

Industry want to/already play a critical role in designing and implementing policies. However, will they act only if someone else pays? Are they realistic about the scale of the problem, or are they understating it? Does the Destination 2050 roadmap constitute a contribution or a dead end? Is industry's opposition to tax measures justified?

### **Panel 7: The Role of R and D Economics**

Many of the technologies which are expected to have a major role do not exist, or in their infancy. There will need sustained R&D to develop them. How far down can we expect to be in introducing new technologies by 2030? How large will industry-funded R&D be, and what are the incentives for industry to invest? What level of government funding will be needed? Who will provide the funds (tax revenues, government budgets), and do earmarked taxes on aviation to be spent on aviation R&D make sense? Will government rely on free riders (US relying on Europe, Europe relying on the US)?

Day 2: 2 Dec 2021 9 to 13.00 CET

**M Kunz lecture: tba.**

**Panel 8**

### **Aviation Non CO2 climate Impacts**

This session will briefly review the latest assessments of non CO2 impacts – at least double those of CO2 emitted daily - from European climate scientists, and then consider ways to mitigate contrail formation, cruise NOx, soot, including black carbon, as well as related air quality impacts including sulphur. Before a discussion of the most appropriate policy responses at EU level including those put forward in the 2020 EASA study.

**Panel 9:**

**Roadmap to decarbonizing air transport.**

This session will cover the available measures that can accelerate aviation's decarbonisation. More specifically, it will elaborate on their potential, implementation, plan and progress monitoring, as well as barriers to these measures. The session will focus on the full spectrum of aviation stakeholders and their actions, commitments and plans. What is ideal, but what is second best but achievable (ticket taxes which are ubiquitous to capture the recalcitrant for example?). It's easy to identify problems with existing policies, but can they be improved sufficiently? ETS - would abolition of free permits make a difference, or is a red herring? Can CORSIA be resurrected? Can ticket taxes be reformed so they are more effective? Will there be sufficient political will to resolve aviation's credibility crisis on climate change. What more can be done to encourage governments to act?

**Confirmed Speakers**

Dieter Helm, Oxford University, UK

Hendrik Hololei, Director-General for Mobility and Transport EU COM

Brian Pearce, International Air Transport Association Geneva, Switzerland

Marina Bylinsky ACI EUROPE, Brussels, Belgium

Pieter Cornelisse, KLM Amsterdam, The Netherlands

Arne Roth, Fraunhofer Institute for Interfacial Engineering and Biotechnology

Jasper Farber, CE Delft, Delft, The Netherlands

Aki Kachi, New Climate Institute, Berlin, Germany

Susanne Becken, Griffith\_University, Australia

Jagoda Egeland, ITF/OECD, France

Kurt van Dender, OECD, France

Janina Scheelhaase, German Aerospace Center Cologne, Germany

Marina Bylinsky, ACI EUROPE

Wolfgang Grimme, German Aerospace Center Cologne, Germany

Sven Maertens, German Aerospace Center Cologne, Germany

Dan Elliot, Frontier Economics, London

Florian Allrogen, MIT, Boston

Andreas Schäfer, University College London

Florian Guillermet SESAR Joint Undertaking, Brussels, Belgium

Stefan Goessling, Linnaeus University, Kalmar, Sweden

Bill Hemmings, Rosetta Advisory, formerly T&E, Brussels

Chris Lyle, Air Transport Economics, Canada

Geoffrey Lipman, SUNx Malta, Malta

Marina Kousoulidou, EU Commission, Brussels, Belgium

Marilyn Bustin, Eurocontrol Brussels, Belgium

Andrew Charlton, Aviation Advocacy, Nyon, Switzerland

Stef Prost, KU Leuven, Luven, Belgium

Peter Malanik, Austrian Aviation Association, Vienna, Austria

Volker Grewe, German Aerospace Center, Cologne, Germany

Mark Stettler, Imperial College London, UK

Martin Cames, Öko-Institut Berlin, Germany