

## Deutscher Luft- und Raumfahrtkongress 2020 (Online)

Auszug: [https://dlrk2020.dglr.de/vortragsprogramm/sitzungsuebersicht/vollstaendige\\_vortragsliste](https://dlrk2020.dglr.de/vortragsprogramm/sitzungsuebersicht/vollstaendige_vortragsliste)

Session: 6.E

Datum / Titel: Mi, 02.09.2020 – **Umwelt, Nachhaltigkeit und Ethik im Luftverkehr**

Raum: Focke

Fachbereich: L1

Zeit, Nr.: 16:50 – 17:15, 0316

**Titel: Conditions for Passenger Aircraft Minimum Fuel Consumption, Direct Operating Costs and Environmental Impact**

Vortragender: Brecht Caers, Hamburg University of Applied Sciences, DE

*Purpose – Find optimal flight and design parameters for three objectives: minimum fuel consumption, Direct Operating Costs (DOC), and environmental impact of a passenger jet aircraft. --- Approach – Combining multiple models (aerodynamics, SFC, DOC, CO2 mass) into one generic model. --- Findings – Waiting for new aircraft is not necessary. The environmental impact of a flight at 6500 m could be reduced by 70%. This would increase fuel consumption by 6%, which would increase the DOC by 0.6%.*

Zeit, Nr.: 17:15 – 17:40, 0304

**Titel: Review of CO2 Reduction Promises and Visions for 2020 in Aviation**

Vortragender: Dieter Scholz, Hamburg University of Applied Sciences, DE

*The year 2020 is pivotal when it comes to environmental goals: 1. ACARE: A Vision for 2020: "A 50% cut in fuel consumption in the new aircraft of 2020", 2. IATA & 3. ATAG: Carbon-neutral growth from 2020, 4. ICAO: CORSIA: "the basis for carbon neutral growth from 2020". The paper investigates, how well defined the statements are. Do they make sense in themselves and related to what we know about the physics of the atmosphere? To what extent are such promises or statements legally binding or at least morally binding?*

Zeit, Nr.: 17:40 – 18:05, 0305

**Titel: Aviation Ethics – Growth, Gain, Greed, and Guilt**

Vortragender: Dieter Scholz, Hamburg University of Applied Sciences, DE

*More than in the past, corporations put increased effort into defining their philosophical foundation (sustainability, decarbonization, environmental life cycle, responsible supply chain management). Contrary to this, it seems the principle of continuous growth to increase gain to satisfy shareholders expectations and greed can lead to an ever more ruthless industry behavior accumulating guilt in the end. Infamous examples: a) Airbus: €3.6 billion penalty for bribery, b) Boeing: 737 Max.*

Zeit: 18:05 – 18:30

Aktion: **Diskussion**



# Deutscher Luft- und Raumfahrtkongress 2020

1. – 3. September 2020 – Online

"Luft- und Raumfahrt – Verantwortung in allen Dimensionen"

## 6.E Umwelt, Nachhaltigkeit und Ethik im Luftverkehr

Leitung: N.N.

Raum:

Focke

- |       |       |      |  |
|-------|-------|------|--|
| 16:50 | 17:15 | 0316 | <b>Conditions for Passenger Aircraft Minimum Fuel Consumption, Direct Operating Costs and Environmental Impact</b><br>Brecht Caers, HAW Hamburg, Deutschland |
| 17:15 | 17:40 | 0304 | <b>Review of CO2 Reduction Promises and Visions for 2020 in Aviation</b><br>Dieter Scholz, Hamburg University of Applied Sciences, Deutschland               |
| 17:40 | 18:05 | 0305 | <b>Aviation Ethics – Growth, Gain, Greed, and Guilt</b><br>Dieter Scholz, Hamburg University of Applied Sciences, Deutschland                                |

Sitzung schließen