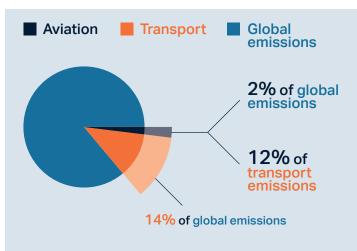


The Future of Aviation: **Achieving Zero-Carbon Flying**



Aviation Industry Roundtable | London, 19 February 2020 Hosted by HRH The Prince of Wales, in collaboration with the World Economic Forum, the Sustainable Markets Initiative held the first industry roundtable exploring solutions to decarbonize air travel.





Increase in emission levels from aviation

+214%

Global emissions from aviation have risen by 214% since 1990.

The industry volume has been growing much faster than technological developments can cut emissions.

1990 **Today**





long-haul

International flights account for 60-65% of emissions

% of total aviation fuel consumption Today



To reach the scale and capacity necessary to bring aviation to net-zero SAF = Sustainable Aviation Fuel

New technologies, policy incentives and financing mechanisms are key to accelerate the delivery of SAF.

Innovations and Disruptions

the business and investment communities.



Consumer demand and awareness



Demonstrated through the growing flight shaming movement, consumer demand is a driver for change which is reflected in the European Commission's focus on a "green deal" as well as the rise of ESG across



Sustainable flying will likely become more expensive. Who will bear the costs?

Voluntary / mandatory green purchase schemes and SAF offtake agreements

Technology

New technologies need to be developed and brought to market safely and quickly. With the introduction of computer-aided design and testing, as well as machine-learning systems, it should be possible for the industry to expedite this process.



















Innovation



Systems

1. Map and drive the innovations necessary for transformation

Accelerate technology development and feasible 5, 10 and 15 year plans for the rapid scale-up of SAFs. The Whittle Laboratory in Cambridge will work together with other members of the roundtable to explore methods of accelerating technology development, and the Clean Skies for Tomorrow Coalition will map and advance transition pathways for the public and private sectors required to ensure innovation over the next ten years.



Platforms

2. Design market- and policy-driven mechanisms to incentivise production of SAFs

Incentivize production and supply of sustainable aviation fuel through policy incentives and offtake commitments from airlines and large corporates, to accelerate investment in first-of-kind sustainable aviation fuel plants. Design a scalable platform for corporate buyers to purchase SAF and offtakes, enabling fuel suppliers to secure investment for new plants.



Platforms

3. Design a blueprint for financing the transition to net-zero

Work with the financial sector to design useful frameworks for measuring ambition and progress that will guide investment to support the industry's energy transition.



Policy

4. Fair and balanced sustainability solutions

Explore exemptions for airlines using sustainable aviation fuels, incentives to modernise airline fleets as well as mechanisms to reinvest tax proceeds into financing innovations for the energy transition.



Standards

5. Design mechanisms that enable transparency to consumers

Make greater use of data to inform consumers, provide accountability and form the basis for interim benchmarks and KPIs.

Call to Action



industry is facing its biggest challenge yet. balanced solutions that serve the global community in the best way possible while looking to the future

Here's the steps required to accelerate the urgent transition to sustainable aviation:



Mitigate risks around innovation and finance

Create a wave of awareness for corporates, consumers and policymakers





Certainty of demand for sustainable flying and long-term commitments to change are key to enabling the transition to a decarbonised aviation sector.

To affect this, technologists and industry leaders need to work with financiers from the outset, bridging the valley of death, thereby enabling new and innovative technologies to be proven, scaled and brought to market as quickly as possible.

