

# New research uncovers the 'myths' behind technological solutions to aviation's climate change crisis

March 4 2016

---

A new study published in the journal *Transportation Research Part D* has explored the ways in which new technologies have been 'hyped' by the aviation industry and media as the key to sustainable air travel, perpetuating a culture of non-accountability for increased emissions and subsequent environmental damage.

Researchers from the University of Surrey, in collaboration with NHTV Breda, Netherlands and the University of Otago, New Zealand, explored how new technologies such as [alternative fuels](#), solar flight and a range of aircraft design options are presented by industry and media, alongside the subsequent level of success in practically applying these technologies. The researchers argue that discussion around these technologies creates 'myths' of zero-emission flight, shielding the aviation industry from closer scrutiny of its sustainability policies.

"Air travel has experienced substantial growth over the last 40 years. By 2050 energy use in aviation will have tripled, accounting for 19% of all transport energy use in 2050, compared to 11% in 2006," Dr Scott Cohen, of the University of Surrey explained.

"This is in sharp contrast to pledges by industry to reduce flight emissions through technology, aiming for 'zero emission flight' through overly hyped developments such as solar planes and hydrogen fuels."

"The way in which new technologies are presented constitutes a 'myth', a form of propaganda which denies the truth that progress in climate policy for aviation has stalled. The use of these technology myths by industry and government relieves anxiety that nothing is being done, by pointing to future 'miracle' solutions, which in reality are unfeasible."

The team analysed how new aviation technology such as solar flight has been presented by industry as key to sustainable flight. While presented as a possible solution to high-emission flight, the research explored how in fact solar flight is highly unfeasible, with the creators of the first solar plane to fly around the clock admitting that solar planes would "never replace fuel-powered commercial flights".

Paul Peeters, Associate Professor Sustainable Transport and Tourism, NHTV Breda: "We see a definite pattern when it comes to the hyping of these technologies. Take solar or electric flight. Through the media, the industry successfully presented these technologies as major breakthroughs that would have beneficial implications for future, zero-emission [flight](#). In reality this is rhetoric that takes headlines away from the fact that emissions policy is failing, and continually points to a 'better future' just around the corner."

"While these inventions are fascinating from a research perspective, they won't act as a panacea for the harmful, climate damaging emissions that the [aviation industry](#) is increasingly releasing into our atmosphere. Industry will always wish to present an optimistic view of their role in this issue, but our research has also shown that some politicians are complicit in propagating these myths and need to stop relying on rhetoric and start referring to facts."

**More information:** Paul Peeters et al. Are technology myths stalling aviation climate policy?, *Transportation Research Part D: Transport and Environment* (2016). [DOI: 10.1016/j.trd.2016.02.004](https://doi.org/10.1016/j.trd.2016.02.004)

Provided by University of Surrey

Citation: New research uncovers the 'myths' behind technological solutions to aviation's climate change crisis (2016, March 4) retrieved 13 March 2024 from

<https://phys.org/news/2016-03-uncovers-myths-technological-solutions-aviation.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.