

Flying Responsibly

Sustainable Travel as PaxEx Differentiator

Raymond Kollau | Sr Trend Analyst, TrendWatching | 6 June 2023



CRH 'Fuxing' Business Class



China's HSR accounts for 2/3 of the world's total HSR networks

China Railway expects to carry 2.69 bn passengers in 2023

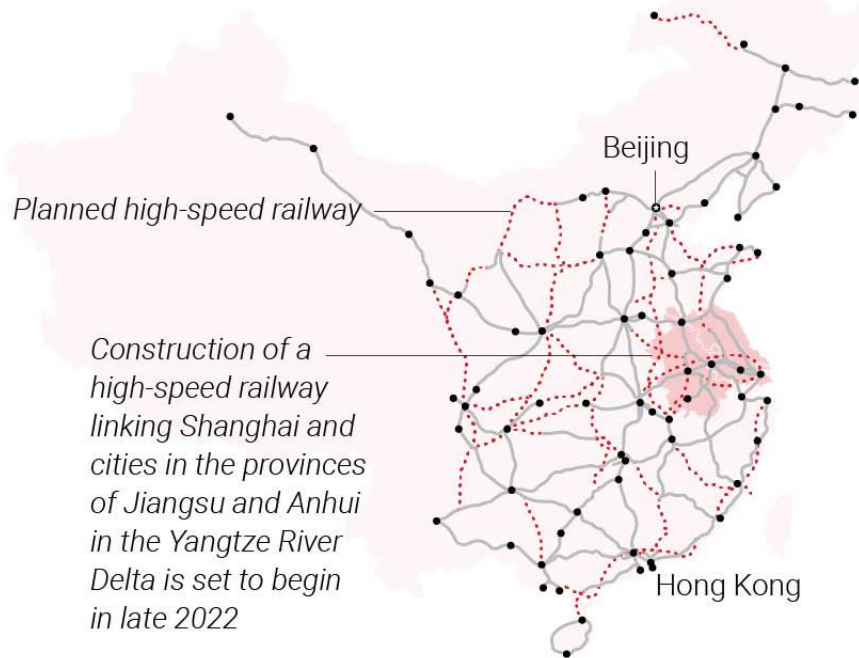
Beijing–Guangzhou: world's longest HSR line at 2,298 km

Beijing–Shanghai: 1,302 km in 4h 24 min (CRH Express: 2 stops, avg speed 291.9 km/h)

China's HSR network set to reach 70,000 km in 2035

By 2025 Length in operation **50,000km**

— Existing high-speed railway — New high-speed railway



Airline loyalty/differentiation

Passengers have become emotionally detached from airline brands; apathetic among a sea of choices.

Brand loyalty is fading, and the rapid expansion of alternative travel options poses a serious threat to business.

In this highly competitive landscape, how can we make passengers care about airline brands?



Age of the Customer

Today's consumers are connected, demanding and empowered by access to seemingly unlimited information and choice.

Companies that understand this reality — and which successfully design and execute seamless customer-centered experiences — will gain a significant competitive advantage.



END-TO-END CUSTOMER JOURNEY



TIME WELL-SPENT

SEIZE customers' attention, and make the experience as engaging, purposeful, rich and reflective of one's identity as possible.

COMFORT, CONTROL



TIME WELL-**SAVED**

SAVE customers' attention, and make the experience as seamless, invisible, automated and convenient as possible.

SYNCED SERVICES



GUIT-FREE CONSUMPTION

HELP customers avoid or reduce the impact of their consumption by incorporating sustainable practices into your products and services.

CARBON CONSCIOUSNESS



Green Fares: Travel more sustainably in Europe with SWISS

We make more sustainable flying even easier by offering the Green Fares directly in the booking-process for all SWISS flights in Europe on SWISS Economy and SWISS Business.

20% Sustainable **80% Award Miles**

Economy Light	Our recommendation Economy Classic	Economy Green	Economy Flex
<ul style="list-style-type: none">1 carry-on bag up to 8kg/18lbsRebooking: 70 EUR plus possible fare differenceRefund not possible	<ul style="list-style-type: none">Seat reservation1 checked bag up to 23kg/50lbs1 carry-on bag up to 8kg/18lbsRebooking without fee (fare difference may apply)Refund not possible	<ul style="list-style-type: none">CO2 neutral by compensation and SAF, additional 20% status miles and 20% award milesSeat reservation1 checked bag up to 23kg/50lbs1 carry-on bag up to 8kg/18lbsRebooking without fee (fare difference may apply)Refund not possible	<ul style="list-style-type: none">Earlier flight on day of travel (where available)Priority Security Lane (where available)Priority boarding (where available)Seat reservation1 checked bag up to 23kg/50lbs1 carry-on bag up to 8kg/18lbsRebooking without fee (fare difference may apply)Refundable, except 70 EUR
1.090,00 DKK	1.278,00 DKK	1.543,00 DKK	1.543,00 DKK



Introducing Airbus ZEROe

Turboprop



<100
Passengers



1,000+nm
Range

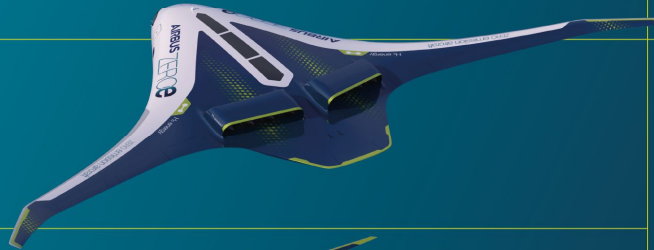


Hydrogen
Hybrid Turboprop
Engines (x 2)



Liquid Hydrogen
Storage & Distribution
System

Blended-Wing Body



<200
Passengers



2,000+nm
Range



Hydrogen
Hybrid Turbofan
Engines (x 2)



Liquid Hydrogen
Storage & Distribution
System

Turbofan



Innovations to make flying safer, cleaner, quieter

Safety and sustainability

- *Halon replacement test*
- *Low-profile anti-collision light*  Hanwha
- UAV inspections
- Electronics protection

Maintenance

- *Waste study*
- *Wireless tire pressure monitoring*
- Preconditioned air study

Design collaboration

- University of Washington next-generation flight control design

Cleaner skies

- *NOAA greenhouse gas measurements* 
- *Sustainable aviation fuel*

Operational efficiency

- *Efficient flying procedures*
- *Digital airline fleet tracker*
- Smart notifications to pilots
- Control panel features 



Reduces manufacturing waste, repurposes

Sustainable manufacturing
• *Recycled carbon fiber cabin sidewalls*

Goal: 2-3 dB reduction

Quieter for the community
• *Acoustic engine nacelle*

Minimize the "sneeze" factor

Confident travel
• Air curtains
• UV wand use

Flight test schedule: June 29 to Dec. 2 (dates subject to change)

Environmental sustainability project



Business travel is developing the SAF market



Corporate travel propels boom in sustainable aviation fuel

By **Jamie Freed** December 8, 2022  REUTERS*

SYDNEY, Dec 8 (Reuters) - A growing number of companies are making bulk purchases of sustainable aviation fuel (SAF) to reduce their carbon footprints, encouraging mass production of the cleaner energy that airlines need to meet their emissions targets.

Airlines, travel agents and fuel producers are now offering corporate customers the opportunity to buy SAF not linked to individual flights, as companies go beyond cheaper carbon offset options like planting trees to reduce the environmental burden of flying.

Participant Boston Consulting Group (BCG), which is also buying SAF through United Airlines ([UAL.O](#)) and fuel suppliers SkyNRG and Neste ([NESTE.HE](#)), said it was looking to help scale the SAF market to meet internal targets.

"Our largest source of emissions come from business travel, and there we have committed to cut our emissions intensity in half by 2025, compared to 2018," BCG Chief Sustainability Officer David Webb said.





Pick Flight



Choose compensation



Checkout

How fast do you want to offset your carbon emission?



Sustainable Aviation Fuel (i)

SAF (synthetic kerosene) reduces carbon emissions immediately (0 years).

5 years



Climate Project Portfolio (i)

compensate carbon emissions in the long run (10 years).

Your flight details

EUR

PAX

CO₂

1

FRA → MAD

127 kg

Total

127 kg

Do you have a code?

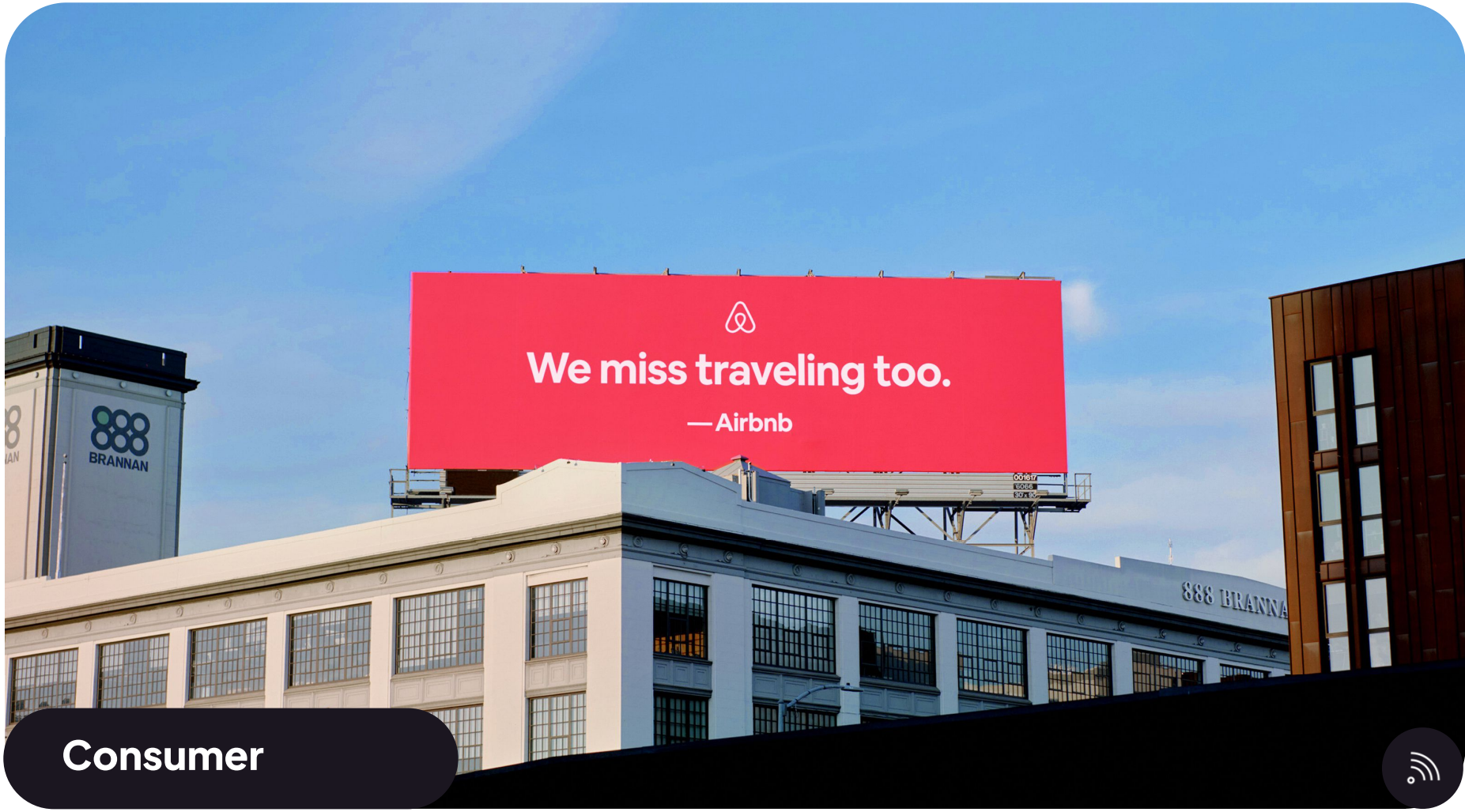
42.57 EUR

Continue with my account

Continue as guest



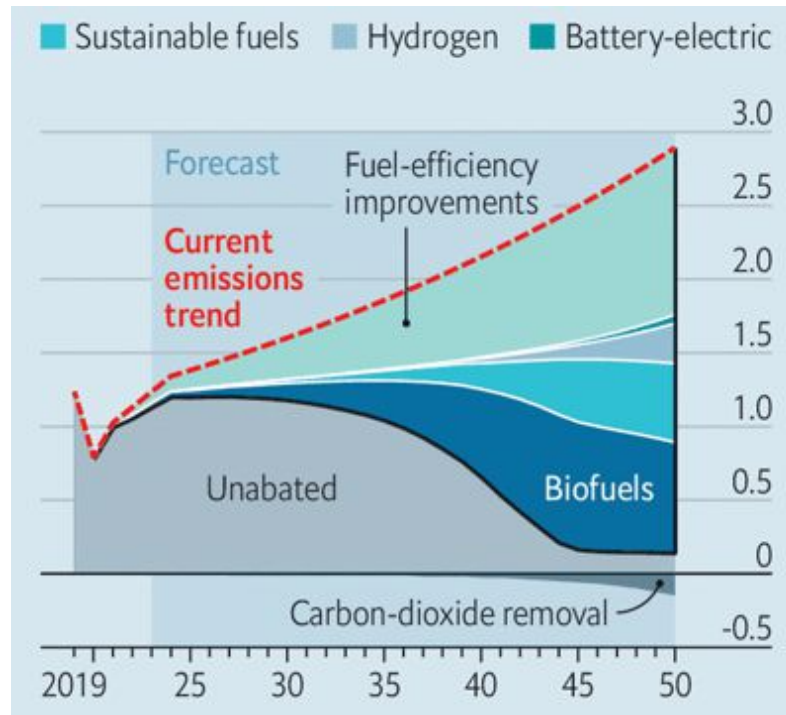




Consumer



Green Sky Thinking



source: The Economist 05.23



Green Sky Thinking

**Around 2.4% of global CO₂ emissions
come from aviation.**

**Together with other gases and the water
vapour trails produced by aircraft, the
industry is responsible for around 5% of
global warming.**



FLYGSKAM

THE FEELING OF SHAME FROM
FLYING IN AN
AIRPLANE, KNOWING
HOW MUCH
CARBON POLLUTION IT CAUSES

A young girl with braids, wearing a grey knit hat and a bright yellow raincoat, stands in a city square. She is holding a large white sign with black, hand-painted text. The background shows a cloudy sky and a large, historic building with arches. The ground is wet, suggesting it has recently rained.

SKOLSTREJK
FÖR
KLIMATET

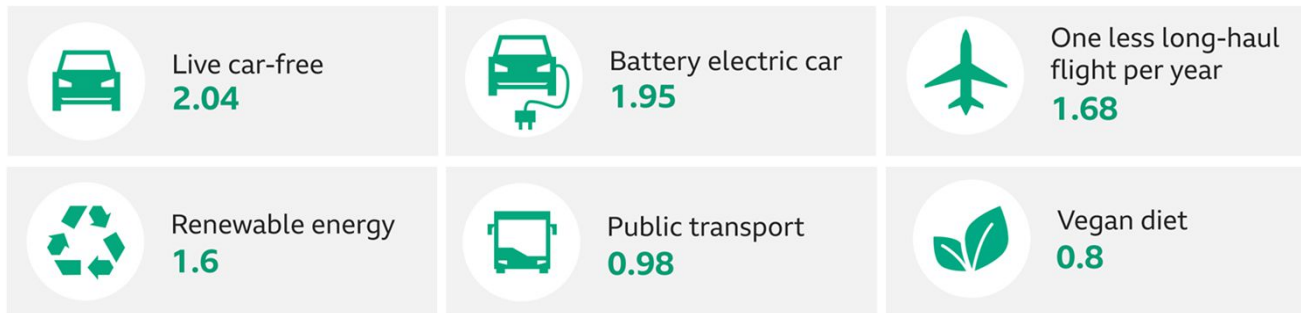
Citizen



An Inconvenient Truth

A return flight from London to Berlin emits around 0.6 tonnes of CO₂e per person – **3 times** the emissions saved from a year of recycling.

A return flight from LHR to SFO emits around 5.5 tonnes of CO₂e per person – more than **twice** the emissions produced by a family car in a year, and about half of the average carbon footprint of someone living in Britain.



An Inconvenient Truth

Just 3% of the global population take regular flights. In fact, if everyone in the world took just one long-haul flight per year, aircraft emissions would far exceed the US's entire CO2 emissions.



An Inconvenient Truth

While improving fuel efficiency and other measures are gradually reducing the emissions per passenger, it is not keeping up with the rapid increase in total passenger numbers, which are projected to double in the next 20 years.

source: The Economist 05.23



Never waste a good crisis

Bloomberg

Climate Adaptation

Airline Bailouts Point to Greener Travel—and Higher Fares

By [Matthias Wabl](#) and [Christopher Jasper](#)

June 9, 2020, 2:40 PM GMT+2

Updated on June 9, 2020, 7:12 PM GMT+2

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- ▶ Governments take steps to cut back on short-haul flights
 - ▶ Low-cost carriers see green agenda distorting competition
-

France bans short-haul flights where trains are available

By [Saskya Vandoorne](#), CNN

Published 1:09 PM EDT, Tue May 23, 2023

Paris (CNN) — A ban on short domestic flights for journeys that can be completed in two-and-a-half hours by train was signed into law in France on Tuesday.

Only three routes have been discontinued: those linking Paris-Orly airport to the cities of Bordeaux, Nantes and Lyon. Connecting flights will be unaffected.

T&E estimates that the three routes affected by the ban represent only 0.3% of the emissions produced by flights taking off from mainland France, and 3% of the country's domestic flight emissions (counting only mainland domestic flights).



Post-Covid Intentions

“There are likely to be lasting impacts on demand for air travel.

As a result of (near) lockdowns across the planet, people are fast learning new ways to live their lives, both at work and at leisure”

REMOTE WORKING, VIDEO CONFERENCING, REDISCOVERY OF LOCAL TRAVEL



Microsoft Discourages Corporate Travel by Raising Own Carbon Fee 600 Percent

Matthew Parsons, Skift

March 14th, 2022 at 9:10 AM EDT

Hiking the internal penalty for business travel carbon emissions might be a huge deterrent to employees when thinking about their next trip, but it's more a wake-up call to airlines to go greener.

Overall, Microsoft wants to become a “carbon negative, water positive, zero waste company” by 2030. By collecting more money with this boosted carbon tax, it said it can also better support the purchase of sustainable aviation fuel.


Big business and their investors are looking at initiatives like this from Microsoft as an essential means to reduce their climate-related financial risks.



HSR as Feeder



 One ticket for your train and Lufthansa flight.

 Online check-in up to 15 minutes before departure.

 Seat in the Lufthansa section of the train.

 Bag drop and reclaim at the train station.

 Status customers have access to the DB Lounges.*

 Mileage credit for the train journey too.



HSR as Feeder

STAR ALLIANCE
INTERMODAL PARTNER



Fly by Rail

Struggling Austrian Airlines swaps planes for trains

Stephanie Halasz and Rob Picheta, CNN • Updated 6th July 2020

The company will no longer fly between capital city Vienna and Salzburg, operating a rail service instead.

As part of its recent €600 million (\$680m) government aid package, the airline is required to cut its domestic emissions by 50% by 2050 and to end flights where there is a direct train connection to the airport that takes "considerably less than three hours."



In diesem Wagenbereich.
In this section of the train.



The screenshot shows a Google Flights search for a round trip from Amsterdam to London, departing on Wednesday, 4 Nov and returning on Sunday, 8 Nov. The search is for 1 passenger in Economy class. The interface includes filters for Bags, Stops, Airlines, Price, Times, and Connecting airports. A 'Track prices' toggle is visible, along with options for Date grid, Price graph, and Nearby airports.

A warning message states: "Travel restricted. There's a government travel restriction related to coronavirus (COVID-19). [More details](#)".

The "Best departing flights" section is sorted by price. The first flight is a British Airways round trip on Wednesday, 4 Nov, priced at €89. It features a "Select flight" button and a list of amenities: "Below average legroom (74 cm)", "Wi-Fi", "In-seat USB outlet", and "Carbon emissions estimate: 65 kg".

The second flight is also a British Airways round trip, priced at €89, with a "Select flight" button and a list of amenities: "Average legroom (76 cm)", "In-seat USB outlet", and "Carbon emissions estimate: 71 kg".

Sustainability as PaxEx Differentiator

Google Flights now includes estimated CO2 emissions in flight search results and on booking pages.

In addition to sorting by price or duration, users can now sort by emission.

If trains are an option on their selected route, Google shows those as well.



Amsterdam ↔ Frankfurt

Tue, Nov 3 | Sat, Nov 7

Stops Airlines Bags Price

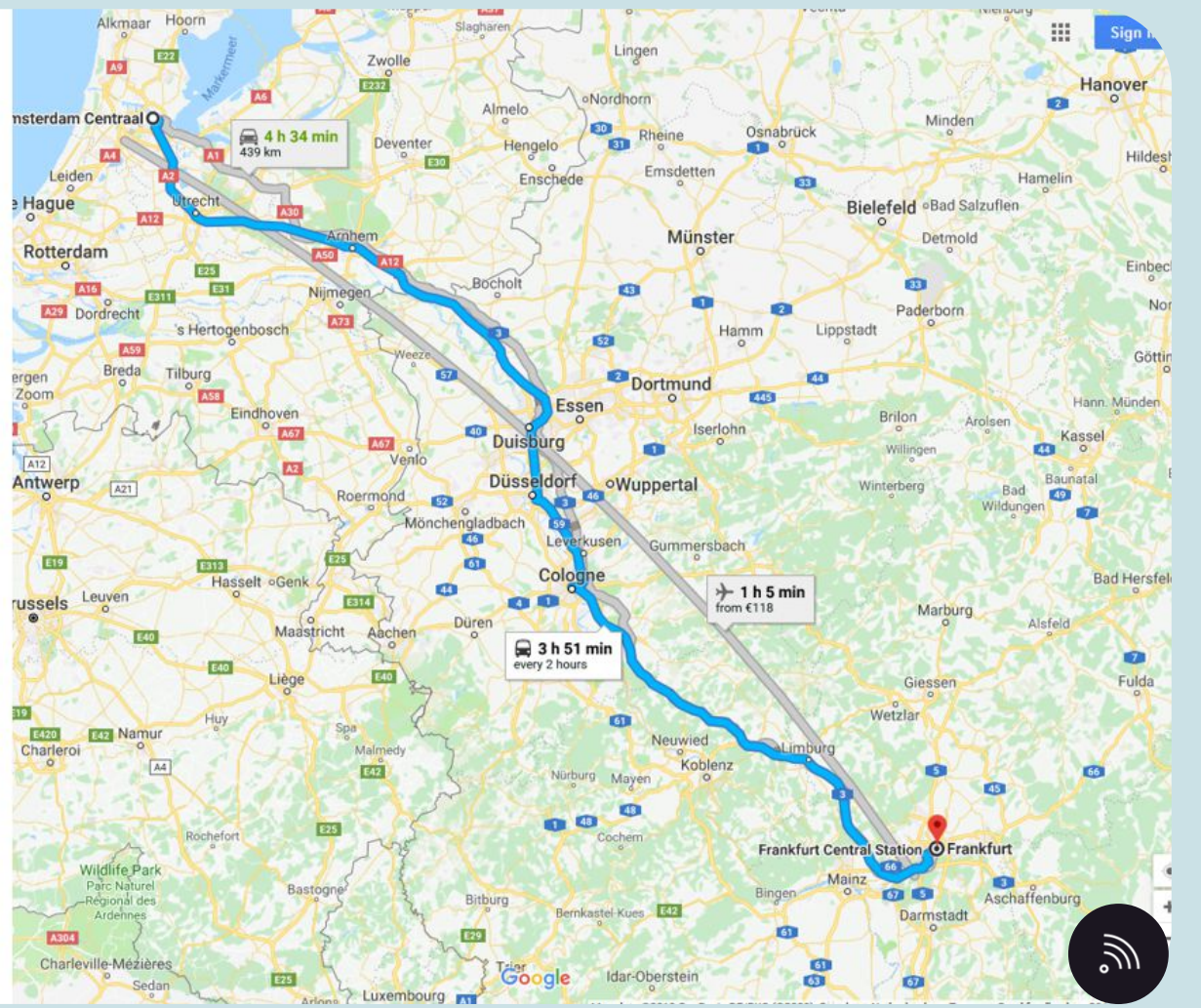
Active travel advisory related to coronavirus (COVID-19). [More details](#)

Best departing options

DB 4:38 PM → 8:30 PM €66
Amsterdam ... Frankfurt (M... round trip
Direct · 3 hr 52 min · Deutsche Bahn

KLM 9:20 PM → 10:25 PM €119
AMS FRA round trip
Nonstop · 1 hr 5 min · KLM · Operated by KLM Ci...

LH 4:55 PM → 6:00 PM €156
AMS FRA round trip
Nonstop · 1 hr 5 min · Lufthansa · Operated by L...



Airline Industry Revisited

HSR liberalization in Spain



Iryo (Air Nostrum x Trenitalia)



Cache
4
Couch

acceso recomendado
recommended access

file
rows 1-9



KLM chief encourages passengers to take the train to cut emissions

Marjan Rintel says collaboration is needed as rail should not be seen as a competitor



Marjan Rintel: 'If you're serious on reaching your sustainability goals, the train is not a competitor. We need to work together'

Peggy Hollinger JANUARY 2 2023

Yet if legacy airlines such as KLM are clever about integrating rail into their offering, and if they can bring their expertise in ticketing, customer loyalty programmes, fare management and ancillary services to the rail sector, they may open up other opportunities.

“Airlines could get people to book rail tickets through them and perhaps take a commission. It could be a nice way to make a bit of money,” says Robert Thomson of Roland Berger. But it could also be a useful tool against low-cost competition on crucial feeder routes — assuming the airlines and rail operators can get the service right.





Fly Responsibly

Flying - after all these years the feeling is still magical. For many of us it changed our world forever.

When we started 100 years ago our major concern was your safety. Little did we know about the impact we would have on the environment. Today we know aviation comes with another big responsibility - to make sure our children have a planet to explore, as well.

For the past 14 years we have been at the top of the Dow Jones Sustainability Index. We have made serious progress in weight reductions, recycling, carbon offsetting, and we have invested in the first sustainable fuel plant in Europe. However, we still don't have all the answers.

Many other leading airlines have also made great strides. To truly create a sustainable future for aviation, we need to work together and do even more. All airlines, all stakeholders in the aviation industry. And yes, all air travellers, too.

That is why we kindly ask everyone to join forces.

We invite the aviation industry to join us in making the world aware of our shared responsibility. We value competition, but we must work together in sustainable aviation. That is why we commit to sharing what we have learned with you and open our best practices to you. Feel free to make use of our certified carbon offset programme. We also invite all corporations to join a corporate biofuel programme - ours or another. And, we invite all air travellers to make responsible decisions about flying.

Let's build a sustainable future together.

Find out more on [klm.com/flyresponsibly](https://www.klm.com/flyresponsibly)
On behalf of all our 33,000 employees.



Pieter Elbers
President & Chief Executive Officer KLM Royal Dutch Airlines

Royal Dutch Airlines



“We invite all air travellers to make responsible decisions about flying.”

- Do you always have to meet face to face?
- Could you take the train instead?
- Could you contribute by compensating your CO2 emissions or packing light?

“We all have to fly every now and again. But next time, think about flying responsibly.”



Talking Points

Sustainability is becoming the third PaxEx differentiator, besides the 'time well-spent' and 'time well-saved' PaxEx drivers.

CARBON CONSCIOUSNESS

The screenshot shows a flight search results interface. At the top right, there is a 'Sort by:' dropdown menu with an up/down arrow icon. The menu is open, showing options: 'Best Flights', 'Price', 'Departure time', 'Arrival time', 'Duration', and 'CO2 emissions' (which is selected with a blue checkmark). Below the menu, a list of flight results is visible. Each row shows the CO2 emissions and 'Avg emissions' with an information icon. The first row shows 134 kg CO2 with a green box indicating '-27% emissions'. The second row shows 183 kg CO2. The third row shows 183 kg CO2. The fourth row shows 186 kg CO2. The fifth row shows 186 kg CO2. At the bottom right, a price of '\$547' is displayed next to a Wi-Fi icon.

Sort by:	↑↓
Best Flights	
Price	
Departure time	
Arrival time	
Duration	
✓ CO2 emissions	

134 kg CO ₂	-27% emissions ⓘ
183 kg CO ₂	Avg emissions ⓘ
183 kg CO ₂	Avg emissions ⓘ
186 kg CO ₂	Avg emissions ⓘ
186 kg CO ₂	

\$547

Talking Points

The airline business model will evolve into a multi-modal travel platform and airlines will bring their expertise in ticketing, customer loyalty programs, fare management and ancillary services to the HSR sector.

FLY BY RAIL


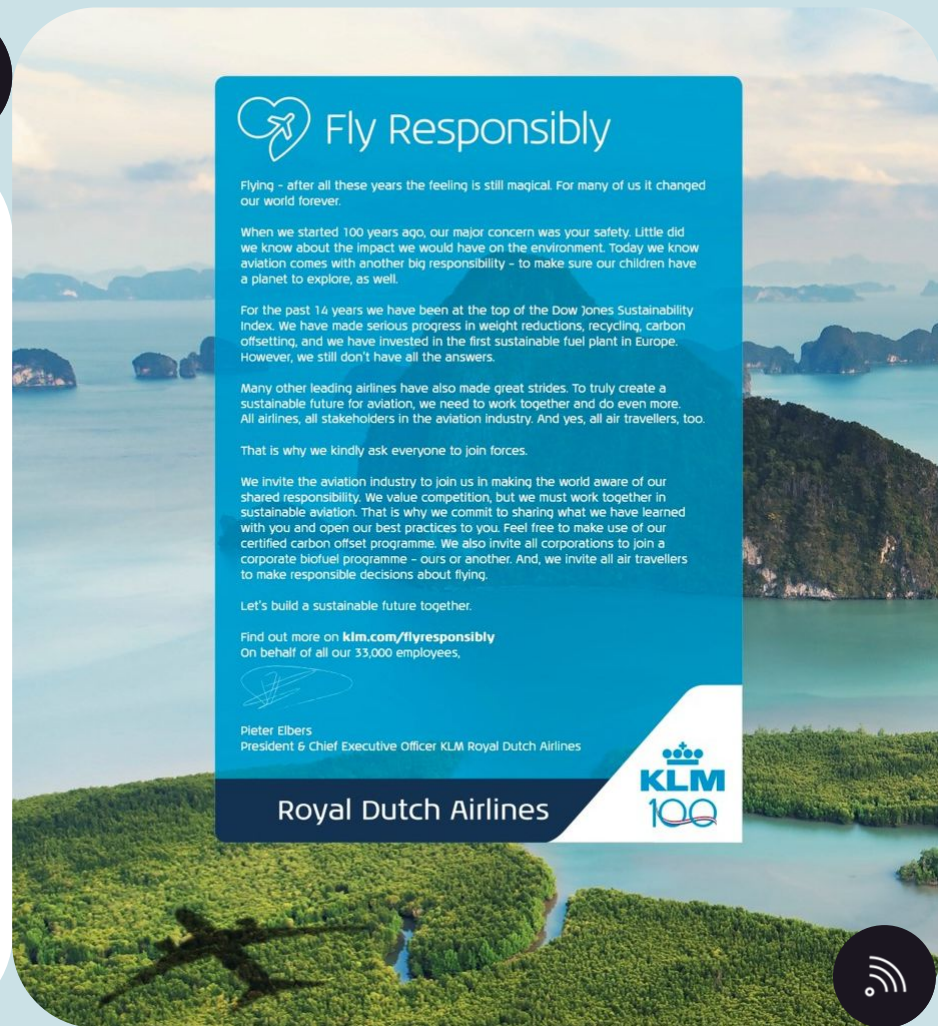


Talking Points

Airlines should reconsider their social responsibility and educate consumers and businesses to fly more responsibly.

(Think utility companies encouraging clients to reduce energy consumption)

FLY RESPONSIBLY



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Find out more on klm.com/flyresponsibly
On behalf of all our 33,000 employees.



Pieter Elbers
President & Chief Executive Officer KLM Royal Dutch Airlines



Royal Dutch Airlines





Thank you!

Raymond Kollau | Sr Trend Analyst



About Raymond Kollau



Raymond is a Sr Trend Analyst at TrendWatching and has 20 years of experience researching and analyzing consumer and industry trends. Before rejoining TrendWatching, Raymond was the founder of industry research firm, Airline Trends, where he worked with the likes of Air France–KLM, Schiphol Airport, Airbus, Safran and LSG Group.

Raymond has always been interested in pinpointing the dynamics behind societal and economic change and what this means for businesses. At TrendWatching, Raymond is combining his expertise in the travel & transport industries with a broader (purposed) consumer trends point of view.

raymond@trendwatching.com



About TrendWatching



As one of the world's leading consumer trend firms since 2002, TrendWatching is purpose-built to guide, inspire and empower business professionals – whether they're marketers, creatives, strategists, entrepreneurs or innovators – to bring to market more sustainable and impactful innovations that benefit all, not the few.

To achieve this, we deliver Free Trend Updates to over 100,000 trend-driven professionals worldwide and offer a number of dedicated trend services.

Our teams in Amsterdam, Berlin, Singapore, London, Rio de Janeiro, Barcelona and New York relentlessly scan the globe to spotlight countless meaningful trends and innovations – supported by a network of 900+ spotters in over 90 countries.

www.trendwatching.com

