Can Europe’s trains compete with low-cost airlines?

Despite huge investments and increasing competition, travelling by rail is still slower and more expensive than flying.

It was less than a week into the job running one of Europe's biggest airports that Ruud Sondag realised that inviting climate protesters to visit might have been a mistake.

“I saw a big advertisement in the paper from Extinction Rebellion and Greenpeace saying they were coming to visit the airport,” says Sondag, the chief executive of Amsterdam’s Schiphol at the time.
“We basically said: ‘Come on over. Don’t make a mess, but you’re welcome. Express your thoughts’,” Sondag recalls. “And that worked pretty well until the moment that they chained themselves to the private jets.

The disruption was part of long-running protests against the aviation industry and its impact on the environment. That pressure is moving into the political mainstream, with policymakers in Europe asking themselves whether airlines and airports should be forced to reduce flight numbers in order to slow emissions growth.

“It is a conversation that was absent from public debates and policymakers’ agendas until recently,” says Jo Dardenne, aviation director at Brussels-based environmental NGO Transport & Environment. “But the aviation industry has to face the fact that growth is contrary to their climate objectives.”

Last week Spain followed France in unveiling a limited ban on short-haul flights. The Netherlands, Denmark and France have pushed ahead with plans for higher taxes on flying, while the Dutch government previously tried to impose a hard cap to lower the number of flights at Schiphol.

Cost and duration of selected journeys in Europe by train and plane

<table>
<thead>
<tr>
<th>Flight time only</th>
<th>Train</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paris-Barcelona</td>
<td>€193.45</td>
</tr>
<tr>
<td>Madrid-Barcelona</td>
<td>€210.23</td>
</tr>
<tr>
<td>Amsterdam-Brussels</td>
<td>€204.64</td>
</tr>
<tr>
<td>Vienna-Budapest</td>
<td>€228.00</td>
</tr>
<tr>
<td>Amsterdam-Berlin</td>
<td>€282.00</td>
</tr>
<tr>
<td>London-Paris</td>
<td>€322.00</td>
</tr>
<tr>
<td>Paris-Geneva</td>
<td>€322.00</td>
</tr>
<tr>
<td>Rome-Milan</td>
<td>€322.00</td>
</tr>
<tr>
<td>Paris-Frankfurt</td>
<td>€322.00</td>
</tr>
</tbody>
</table>

Source: FT research • Cheapest one-way direct ticket available on March 5 for travel on April 5. Flights searched via Google Flights.

But policymakers also need to acknowledge the public popularity of cheap flying and confront the lack of viable alternatives. The European Court of Auditors, which assesses EU policy, said in a 2018 report that there was “no realistic long-term EU plan for high speed rail.”

In a later report it added that of €54bn required for eight cross-border transport “mega-projects”, the EU had only spent €3.4bn.
“The core network is unlikely to be operational by 2030,” it concluded, although efforts to improve the rollout have been made since then.

While aviation is a highly competitive marketplace with frequent price wars, rail remains dominated by state-run operators whose domestic priorities often trump efforts to improve international connectivity.

Yet in spite of the significant advantages flying has over rail, many aviation executives worry they will face growing regulatory scrutiny if they are not seen to be making progress on decarbonisation.

As one investor in airports acknowledges, “everyone does realise this industry is doomed unless there is a clear plan to achieve net zero.”

Around 750km north-west of Amsterdam, Ryanair’s Dublin-based chief executive is planning expansion rather than cutbacks.

In his 30 years in charge, helped by successive rounds of deregulation, Michael O’Leary has turned the group from a small carrier with a handful of planes into Europe’s biggest airline. It expects to fly up to 200mn passengers next financial year.

As staff in the operations room silently monitor screens showing the near 3,000 flights Ryanair flies on a typical winter’s day, O’Leary outlined how he aims to carry 300mn passengers within a decade.

“We see very strong growth,” he told visiting reporters. “I think the big challenges for us this year and next year are how many aircraft can we get . . . and can we train enough pilots and cabin crew.”

Aviation supports close to 5mn jobs in the EU and contributes €300bn, or 2.1 per cent, to European GDP, according to European Commission figures. But it is also responsible for around 4 per cent of EU carbon emissions. It is one of the fastest-growing sources of pollution and faces a huge technological challenge to decarbonise.
Can Europe’s trains compete with low-cost airlines?

European airlines and airports laid out a detailed plan in 2021 to reach net zero by 2050. Most of that will be achieved through a switch to so-called sustainable aviation fuels or SAFs, which are made from feedstocks other than fossil fuels and, from production to combustion, emit less carbon.

“[We can] decouple growth from carbon emissions,” says Laurent Donceel, deputy managing director at Airlines for Europe, the industry lobby group in Brussels. “We do not like interventionist policies because they won’t do anything for decarbonisation . . . and won’t find a long-term solution.”

Airlines in Europe say they are already subject to the toughest environmental rules in the world courtesy of a carbon tax imposed on intra-European flights and a requirement that 6 per cent of fuel on every flight is sustainable by 2030.

A report by consultancy Oxera, commissioned by the airline industry in 2022, found that a ban on flights up to 500km within the EU would only save between 1 and 2 per cent of overall EU aviation emissions, largely because it would exclude the longest and more polluting flights.

“Airlines are trying to push back against some of the measures to decarbonise [arguing] it’s anti-competitive,” says Andrew Lobbenberg, European transport analyst at Barclays.

“I have sympathy with that, intellectually. And yet, I also think it’s very dangerous to argue politically. So I think the airline industry is in a difficult position as to how to embrace [decarbonisation].”

The industry says the rising cost of the EU’s emissions regime will drive ticket prices higher and deter some people from flying. Pricing travellers out contributes around 15 per cent of the net carbon emissions reduction within the industry’s net zero road map.
But it is not enough for environmental groups, which want the clampdown on cheap flights to go much further. T&E has called for higher carbon prices, a tax on aviation fuel and for value added tax to be added on airline tickets. Currently, airlines pay no duty on their fuel while tickets are exempt from VAT and airports and aircraft makers often receive state subsidy, T&E says.

That gives flying a cost advantage; a Greenpeace study comparing ticket prices on more than 100 routes between major European cities last summer found that trains were on average twice as expensive as flights.

Paul Morozzo, a transport campaigner at Greenpeace, says flying “only looks like a bargain because airlines are not forced to pay for the devastating cost of their pollution”.

“The failure of governments to properly tax the aviation sector for the fuel it uses and the pollution it causes has created an uneven playing field.”

Cost is not the only issue preventing more rail travel. A much bigger problem is that the network simply does not provide the connectivity that travellers demand.

A Eurobarometer survey published in 2020 found that while the main obstacle to greener forms of travel was cost, 40 per cent of respondents also cited speed. Even allowing time for travelling to and passing through airports, flights are almost always quicker than trains at present.

“There’s about six routes across Europe where two-hour train journeys are competitive. Other than that, the rest of Europe is our oyster,” says O’Leary.
Brussels is hoping to change that. Part of its efforts are to put more concerted focus — and investment — into the so-called TEN-T network — a trans-European spider web of roads and rail lines intended to link the continent’s major hubs. It forms the backbone of the EU’s land transport policy.

The commission’s overarching but non-binding target is to double high speed rail traffic by 2030 and triple it by 2050, ensuring that passenger trains running on the TEN-T network travel at a minimum speed of 160km/h. The Green Deal climate law, which commits the bloc to reaching net zero emissions by 2050, stipulates that greenhouse gas emissions from transport must be cut by 90 per cent.

But compared to the vast expansion of airline routes in recent decades, land-based connections have been painfully slow to open up, despite Brussels’ efforts to stimulate growth.

The EU moved to boost cross-border rail services in 2016 with new rules to foster competition between private companies and state railways, leading some operators to move into new markets after the changes came into effect in 2019. Brussels also pushed to cut red tape for operators and make competitive tendering mandatory for public service contracts in a further bid to liberalise the industry.

Transport also consumes the biggest share of the EU’s €723bn Recovery and Resilience Facility, while rail accounts for the majority of projects within the €25.8bn provided for transport by the EU’s Connecting Europe Facility.

But new rail infrastructure is expensive, often subject to delays and takes a long time to pay back the capital absorbed in construction, making it less attractive to private finance and difficult for states to justify when public finances are stretched.

A year ago, the European Investment Bank provided loans and counter guarantees to back the modernisation of the line between...
Palermo and Catania in Sicily and hailed the agreement as an “operational first” that would unlock more financing from commercial banks. But the value of the package — €3.4bn for just 178km of a regional route — shows the challenges.

Philippe Citroën, director-general of the Union des Industries Ferroviaires Européennes (Unife), a rail supply industry body, says smoothing out international rail connections is the only way for the industry to compete with aviation.

Unife estimates that spending €550bn on a “comprehensive” high speed rail network in Europe could add €750bn in economic value by 2070. But efforts to roll out a landmark new system that would standardise signalling across the EU, something Citroën describes as “absolutely essential” for cross-border services, has so far been patchily implemented and taken decades.

Whatever Brussels proposes in terms of international connections often butts up against national concerns, according to Bas Eickhout, a Dutch Green MEP.

“No matter what, all the national decisions always go to improving the domestic train system,” he says. “So if the Dutch need to decide: ‘am I going to improve Amsterdam-Berlin or Amsterdam-Utrecht?’ they [will] decide it’s going to be Amsterdam-Utrecht.”

Because such thinking is replicated across the EU, he adds, “of course we are having difficulties in having a credible alternative for short-haul flights.”

The Dutch transport ministry said that the Netherlands was “committed to further improve the train as an alternative to flying” and aimed to increase cross-border train travel with neighbouring countries by 2mn journeys per year from 2025.

But it added that the potential for substituting planes with trains was limited, noting that the Netherlands Institute for Transport Policy Analysis found last year that up to 10 per cent of flights from Schiphol could be replaced by trains by 2040.

In contrast to the sometimes-brutal competition in short-haul aviation, trains in Europe are mostly operated by state-owned companies with near monopolies in their national markets.

Nick Brooks, secretary-general of AllRail, a non-profit association for new entrants to Europe’s rail market, says these incumbents are using taxpayer subsidies “to campaign against liberalisation behind closed doors.”
In December 2021, Italy’s Trenitalia began selling tickets for a high-speed service linking Paris with Lyon — one of the most lucrative routes for France’s incumbent operator SNCF. Figures from the French infrastructure directorate show that since then, overall ticket sales on the route have increased by 58 per cent.

It is a similar story in Spain. According to SNCF, one of three companies that now operate services between Barcelona and Madrid, passenger numbers on Spain’s high-speed services grew 17 per cent between August 2019 and August 2021.

“Spain and Italy show that with fares having decreased and ridership having grown — similar to what happened in the EU aviation market opening 30 years ago — ‘renationalisation’ is not even on the agenda” says Brooks.

Unife’s Citroën says that “a lot of things can be done to increase the capacity of the rail sector, but we need to find money for these and we need to have the political will to continue to lower CO₂ emissions”.

That political will is being increasingly thrown into question amid a backlash against Brussels’ green agenda in many member states ahead of EU elections in June.

Politicians increasingly fear voters will punish those pushing for climate-related policies such phasing out gas boilers in favour of heat pumps or curtailing the use of combustion-engine cars.

Even efforts to complete existing legislation have slowed; a revision to the energy taxation directive that would have reduced exemptions for jet fuel has stalled, for instance, and will not be agreed before the end of the commission’s mandate.
transport commissioner Adina Vălean says she is “not of the opinion that we should tell people not to fly . . . We are not in the business of limiting connectivity.”

The Dutch government in November bowed to pressure from airlines, the EU and the US government — all of whom warned of a hit to competition — and paused plans to lower the number of flights at Schiphol. The future of the airport is now part of coalition negotiations following national elections.

For Ryanair’s O’Leary, such positions are a recognition of reality. “The EU would like to foster more European engagement and more free movement of goods and people across Europe — well, you can’t have that if you keep taxing the shit out of air travel,” he says. “Air travel is one of the areas where Europe is competitive.”

Eickhout, the Dutch MEP, says that as with other areas of the green transition, the EU risks falling behind if it does not start to invest now. “Look at the investment China is making, and in Japan with really fast trains,” he says.

“Europe should really invest, but also really get all those national governments together [and] force them to come with a European rail strategy because that’s not really what we have.”

While that takes shape, aviation’s expansion — and the environmental opposition to it — looks set to continue. Sondag, whose term as Schiphol’s interim chief executive ended last week, says the industry’s own growth plans contradict its commitment to net zero. “We need to do something,” he says. “And if that’s to stand still for the time being — OK, why is that such a big fuss?”