

# HFw Aero

## Rebecca Quayle in conversation with... Marilyn Gan

Senior Vice President & Head of Asia Pacific - VMO Aircraft

## eVTOL Aircraft: The Future of Flight?

A new form of aviation has emerged as a rapidly developing new technology

## Sustainable aviation: How will CORSIA impact airlines from 2024?

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## Legal news round-up

Significant global developments

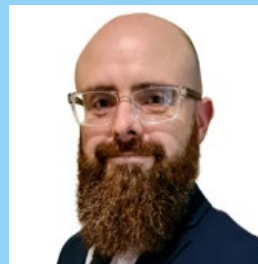


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Welcome to our latest edition of HFW Aero, our quarterly update of the legal, commercial and regulatory issues affecting the aviation industry.

In this edition, we feature VMO Aviation's Marilyn Gan as she looks back on her career and how her own experiences have shaped her work as a board member of ISTAT. Marilyn shares valuable advice for companies on how to create the best possible conditions for the success of women in their organisations.

We also look towards sustainable aviation and how CORSIA will impact airlines from 2024.

To round off we look at the developing area of aviation that has emerged as a rapidly developing new technology with the potential to provide a sustainable solution to the industry's needs – eVTOL!

Please do get in touch if you'd like to talk to us more about any of the topics or issues we have featured.

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# Legal news round-up

## Supreme Court of Brazil declares that moral damages not limited by aviation conventions

A common feature of civil law systems is the division of damages into material damages and so-called “moral damages”. Material damages are direct compensation for proven financial losses, whereas moral damages - which are usually awarded at the discretion of the judge - compensate for less tangible impacts of the injury, delay, loss or damage such as distress, anguish, frustration and inconvenience.

The Montreal Convention, which applies to claims for personal injury and damage to cargo and baggage during international air carriage, sets limits (denominated in “Special Drawing Rights” or SDRs) on the maximum damages recoverable by passengers. For baggage claims, this is approximately USD1,700 at current rates.

Brazil has always been a very fertile ground for aviation claims, particularly baggage claims, and the lower courts there frequently apply consumer law rather than international aviation conventions. This presents a constitutional issue, as the two systems come into conflict and airlines allege that Brazil is not complying with its duties in international law when its courts fail to apply the Conventions.

A case against Lufthansa, in which approximately USD2,300 were claimed as moral damages, has therefore been treated by the Brazilian Supreme Court (STF) as a test case in order to create clear legal precedent for future cases.

A declaration has been published by the President of the STF, in which it is stated categorically that the Warsaw and Montreal Conventions do not apply to claims for moral damages arising out of contracts for international carriage by air. The effect of this is that lower courts are now free to award such damages at their absolute discretion, without any regard to Convention limits. This will

inevitably increase airline and insurer exposure. Look out for our fuller briefing on this decision, to be published soon.

## New UK ruling on agent status in context of Montreal Convention

A Scottish appeal court has delivered a ruling which treats an airport sub-contractor as the agent of an airline. This gave an injured passenger the right to recover unlimited damages from the airline, instead of pursuing the sub-contractor separately.

*Mather v easyjet*<sup>1</sup>, handed down on 10 February 2023, was a claim brought by a paraplegic who suffered serious injuries when he fell from a wheelchair during disembarkation. The airline had a contract with Hamburg airport for the provision of assistance to Passengers of Reduced Mobility (PRMs). Hamburg airport sub-contracted this to another company, DRK. It was uncontroversial that the fall was caused by negligence on the part of the DRK employee pushing the wheelchair.

The airline accepted that it was liable to Mr Mather for 113,100 SDRs (approximately GBP146,000) but Mr Mather's claim was in excess of that amount. The airline argued that they were not liable for the remainder of the claim because they could rely on the defence in Article 21.2(b) of the Montreal Convention that the injury was caused solely by the act or omission of a third party. (Mr Mather did have a right of action against DRK directly, but this would have entailed non-convention proceedings in Germany.)

On the other hand, if DRK was an “agent” of the airline for the purpose of the Convention, the airline would be liable for DRK's actions.

“Agent” is a term used in MC99, but it is not defined and the case law is finely-balanced. The Inner House reviewed all applicable international law, including numerous United States judgments, and concluded

that the agency relationship did exist. The judges also firmly rejected an argument that the EU PRM regulation<sup>2</sup> placed responsibility for assisting with disembarkation on the airport, not the airline, commenting “*It may be that easyJet thought, optimistically, that the Regulation removed or diminished their responsibilities for PRM passengers under the Montreal Convention. If they did, then they were in error.*”

This judgment should be borne in mind by airlines and insurers alike when assessing their liability exposure beyond direct contractual relationships.

## High Court sides with airline which refused to take delivery of aircraft

A recent judgment of the English High Court contains detailed analysis of the circumstances in which failure of a lessee to take delivery of an aircraft entitles the lessor to terminate the lease and claim indemnity for lost rent and expenses.<sup>3</sup>

Ryanair subsidiary Laudamotion entered into four leases of A320 aircraft from the Claimant lessors, with delivery scheduled for approximately one year later. In the interim, the Covid pandemic took hold, and Laudamotion notified the lessor that, for economic reasons, they no longer wished to take delivery as scheduled. Against a backdrop of commercial negotiations, the lessor insisted on tendering the first aircraft for delivery regardless, but Laudamotion rejected them. Ultimately, the Court found that Laudamotion's rejection was not wrongful because the lessors had failed to comply with a number of delivery conditions in the lease. It also looked at whether an insolvency Event of Default had occurred and concluded that it had not. The Claimants were not entitled to terminate the leases of any of the aircraft and so the claim for damages and the call on a guarantee given by Ryanair failed. The reasoning is very specific to the particular facts, but the

judgment shines a light on the potential pitfalls in relying on certain events of default and the need to ensure that delivery conditions are carefully-drafted and mutually understood. It is also of interest as a worked example of the importance of unambiguous communication between lessor and lessee in relation to the delivery process.

*1. Peregrine Aviation Bravo Limited and others v (1) Laudamotion GmbH (2) Ryanair Holdings plc [2023] EWHC 48 (Comm)*, 17 January 2023

## What does a reasonable passenger look like?

Mr Arthern's flight was on a winter morning. It was delayed because the aircraft had to be de-iced. After the seatbelt signs were switched off, he got up to use the toilet and slipped near the toilet door, injuring himself. His evidence was that he had slipped in a slushy substance, similar to wallpaper paste. It was, in fact, a mixture of water and de-icing fluid. The de-icing fluid had been tracked in by the passengers' shoes as they boarded the aircraft after crossing the apron at ground level.

Mr Althern's claim for damages was rejected by the County Court, so he appealed to the High Court. The issue was whether there had been an accident for the purpose of MC99 Article 17, applying the familiar test - was the tracking of de-icing fluid into the cabin part of the usual, normal and expected operation of the aircraft? This test must be applied from the perspective of the passenger, not the airline. Counsel for the airline put forward the proposition that “*the ordinary, reasonable passenger must be regarded as a person with experience of commercial air travel and with reasonable knowledge of established or common airline practice.*” and the judge agreed.

The airline gave evidence that it was not usual to mop the floor after boarding on a wet day, so liquid at the entrance was to be expected. There was some suggestion that plain water (which is not slippery like de-icing fluid) would evaporate fairly quickly but no evidence appears to have been put forward in relation to standard procedures for dealing with de-icing fluid underfoot.

The takeaway point here is the relatively sophisticated standard of knowledge expected of a “reasonable passenger”.

As an aside, we have previously reported on a concerning CJEU judgment (*JR v Austrian Airlines (C-589/20)*) which suggested that an accident that happened “*for no ascertainable reason*” nonetheless gave rise to liability on the part of the airline. It is of comfort to note that the judge in this case gave that decision very little weight, commenting “*I do not regard it as having high persuasive value because the reasoning is brief. The judgment does not demonstrate the same degree or quality of reasoning as (in particular) the domestic appellate courts in the cases that I have cited above.*”

1. [2023] CSIH 8, 2023 WL 01871689
2. Regulation (EC) 1107/2006
3. *Peregrine Aviation Bravo Limited and others v (1) Laudamotion GmbH (2) Ryanair Holdings plc [2023] EWHC 48 (Comm)*, 17 January 2023



# Rebecca Quayle in conversation with Marilyn Gan

## Senior Vice President & Head of Asia Pacific - VMO Aircraft Leasing

**You are responsible for defining and implementing VMO's revenue strategy and managing the company's presence in the Asia Pacific region. You are currently serving on the Board of the International Society of Transport Aircraft Trading (ISTAT). Having had a long career in the aviation industry and taken on a number of roles during that time, can you tell us a little bit about what roles you have had and with what organisations?**

I started my career as Legal Counsel with SALE (now BOC Aviation) some twenty years ago and during that time, women were a rare species in the industry. I was grateful for the opportunity to join such a niche industry back then and spent seven years honing my skills on all things aviation until I had my first child. I then moved on to aviation insurance brokerage with Marsh as I was looking for a more front facing role within the industry. After that, I was able to join DVB as Relationship Manager in 2005 and effectively stayed at DVB (in various roles and offices) until it was acquired by MUFG in 2019. In 2021, I was approached to join VMO, a new leasing company, to start their Singapore office and that's where I am currently.

**Is there a perception that you have to have a particular skill set, training or availability to make that transition from a legal role to a commercial role? If so, do you think any of those perceptions act as barriers to prevent certain groups of people from taking on those roles?**

There have been many lawyers and engineers who have transitioned successfully into a commercial role. I think a large part of it is opportunity and being in the right place at the right time. Obviously, you need to understand the product but beyond that, anyone going into a front facing role needs to enjoy being customer facing (be it airline, lessor or bank). Given the industry we're in, you need a big dose of confidence and self-belief. Women tend not to put their hand up unless they are 150% sure of themselves and need to be encouraged to step up and take hold of the opportunities as they arise, ready or not.

**When transitioning between roles, have you noticed a change in the make-up of your colleagues from a diversity standpoint?**

Leasing is an extremely male dominated industry and when I started out, I was, very often, the only female at

the negotiating table. Having said that, I have received nothing but absolute support from the moment I started and have had the benefit of fantastic mentors and allies along the way. Robert Martin and Phang Thim Fatt (from BOCA, spring to mind). When I moved to DVB, Bertrand Grabowski was a great guide and mentor. To be able to have that is crucial because these are the allies that will put your name forward for opportunities that come up. I am a great believer in mentoring the younger generation as they progress up the ladder and I think we as women leaders can do more to encourage this.

**What do you think the industry could be doing to encourage more diversity and inclusion, particularly at a senior level?**

The awareness of the benefits of diversity is indisputable. There are many studies that show the benefits of a diverse workforce to a company's balance sheet and profitability. The more diverse the workforce, the better the impact to the business. If we look at banking, the industry is 100% behind this initiative and there are numerous ESG and sustainability products that incorporate diversity metrics to clients. In fact, the most recent sustainability

“For me, a big part of addressing this is opportunity. We need to give women and minorities the opportunity to go for any job opening. It starts from ground zero – the candidate slate.”

linked loan for one of the airlines in the Middle East incorporated diversity metrics at the senior management level which, if achieved, would result in certain cost savings for the airline.

Certainly, more can be done in our industry towards gender diversity. Companies need to look at all the roadblocks to gender parity and develop specific programmes that address these roadblocks. We have come a long way during the last twenty years so I do see progress being made and each cohort will do better than before.

For me, a big part of addressing this is opportunity. We need to give women and minorities the opportunity to go for any job opening. It starts from ground zero – the candidate slate. We need to widen and expand the list of potential candidates from that point. The pool of candidates must be diverse, including and most importantly at the candidate/interview slate stage. Research has shown that the likelihood of hiring outcomes is dependent on the makeup of the candidate slate. The more diverse the candidate slate, the higher the likelihood that a diverse candidate will be hired. Knowing this, we need to create and maximize opportunities for a diverse slate and focus on that, rather than the outcome.

**You have served as a board member of ISTAT since 2017 and in March will be taking over as vice president. During that time you have been active in promoting diversity and inclusion.**

As you know, ISTAT back in the day was a very US-centric, male dominated organisation. I was always under the impression that you needed to have a certain amount of grey hair before being appointed. Referring to my earlier point on having male allies, it was Steven Townend (CFO, BOCA)

and David Swan (COO, SMBCAC) who persuaded me to stand for election. That itself was daunting. Who would want to put themselves out there to campaign and potentially not be elected? Thankfully I made the cut! ISTAT has given me so much and so serving as Vice President is, for me, giving back to this organisation.

**How do you think ISTAT can best build on the diversity and inclusion work it has done to date and what will “making an impact” look like?**

Since my appointment (I was only one of two female board directors out of a board of 16), we now have more women serving and more directors from diverse backgrounds. The board has evolved over the years and is more representative of the industry. I would encourage more women to stand (we have elections imminently and the greatest number of female candidates running to date which is fantastic). We also have our first female ISTAT President taking over the helm come March which is testimony to the openness of our industry to evolve with the times.

At ISTAT, we have set up a standing diversity committee and are actively organising events and training across diversity and inclusion. At each of our major conferences, we aim to have a session on DEI with guest speakers invited who are experts in this field. We also hope to have more diverse representation up on stage at our conferences and this is something we are actively encouraging and monitoring on a going forward basis.

**Marilyn Gan is Senior Vice President & Head of Asia Pacific - VMO Aircraft Leasing.**

Marilyn is responsible for defining and implementing VMO's revenue strategy and managing the company's presence in the Asia Pacific region.



# Sustainable aviation: How will CORSIA impact airlines from 2024?



## CORSIA in a Nutshell

The Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) has been adopted as part of the broader package of measures to help the International Civil Aviation Organization (ICAO) achieve its long-term aspirational growth (LTAG) objective for international aviation of net zero carbon emissions by 2050. CORSIA's approach is based on comparing the total CO2 emissions of an airline operator in a year against a baseline level of CO2 emissions.

## Fluctuations in the CORSIA Baseline

In 2016, the CORSIA baseline was set at an average of 2019 and 2020 flying emissions. However, air traffic in 2020 was significantly impacted by COVID-19 - ICAO reported a total decline of 65.5% of passenger traffic in 2020. Adopting the average of 2019 and 2020 flying emissions would essentially present a lower baseline. This means that airlines would have to offset more emissions.

According to the International Air Transport Association (IATA). The increased CORSIA compliance costs would have risked the sustainable recovery of international aviation

following COVID-19.<sup>1</sup> On the other hand, setting the baseline with only reference to 2019 flying emissions has been criticised by environmental groups for delaying climate action and reducing overall mitigation achieved by CORSIA by about 25% to 75%. As such, in 2020, ICAO determined that the baseline would be calculated solely by reference to 2019 emissions during the pilot phase<sup>2</sup> from 2021 to 2023. ICAO considered that using 2020 emissions figures would cause an inappropriate economic burden on carriers and contravene the spirit of the CORSIA framework agreed in 2016 (as actual 2020 emissions were far lower than what had been expected when the pandemic occurred). The baseline to be applied to subsequent phases after 2023 was to be determined during the CORSIA periodic review in 2022.

## Impact on the aviation industry: what do airlines need to know?

The following key points are worth noting:

**1. HIGHER BASELINE TARGETS (BUT NOT AS HIGH AS IT COULD HAVE BEEN):** for the first and second CORSIA implementation phases, airlines will

have to offset international flight emissions in excess of 85% of their 2019 emissions level. This will lead to larger offset obligations than the requirements prior to the 41<sup>st</sup> Assembly, which only called for offset purchases once emissions reach the full 2019 output. The 85% threshold is, however, still below what the threshold would have been under CORSIA's original plan, which required carriers to offset any emissions above their average output for 2019 and 2020.

**2. GROWTH STILL POSSIBLE:** the new CORSIA baseline strikes a balance between ensuring that airlines are not overly burdened by CORSIA compliance costs on one hand, while ensuring that airlines are on track to achieve sustainable growth. The revisions in growth factors, with an increased focus on sectoral rather than individual growth of operators, suggest that operators that grow faster than other operators are less impacted in terms of the increase in offsetting requirements.<sup>3</sup> This should be encouraging to airlines that are focussed on post-COVID-19 recovery and avoids penalising faster-growing airlines.

**3. CRITICISM FROM SOME QUARTERS:** notwithstanding what should be considered a significant industry achievement, the new CORSIA baseline has nonetheless been criticised by certain quarters suggesting that it is not stringent enough to be compliant with a Paris Agreement warming trajectory.<sup>4</sup>

It has also been said that the new baseline may depress airlines' emissions unit demand by 30% compared to ICAO's original plan.<sup>5</sup> Ultimately, it is a delicate exercise by ICAO to juggle many competing considerations. What is clear is that the baseline should be consistently reviewed against the rate of recovery of airlines from the pandemic and correspondingly the emissions levels of airlines. If for instance emissions levels from international aviation return to pre-COVID-19 levels, the basis for the adjusted baseline would likely fall away. This then invites the question of whether the next scheduled review of the baseline, three years from now in 2025, is too distant.

**4. RISK OF DOUBLE COUNTING:** an airline operator under the jurisdiction of a CORSIA state party will have GHG emissions that arise from international aviation, but the EEU's that airline operators use will arise from GHG emission reductions or removals achieved at a domestic / national level. As such, there is a clear risk of double counting if the same emission reduction or removal is claimed by an airline operator seeking to fulfil its CORSIA obligations as well as the country hosting the offset project to achieve its nationally determined contributions (NDCs) under the Paris Agreement. For this reason, post-2027 vintage EEU's, which covers offsetting obligations under the first and second phases, will be subject to a corresponding adjustment. This is how double counting between the CORSIA framework and the Paris Agreement accounting framework is managed. Accordingly, EEU's of post-2027 vintages are expected to be priced higher. From this perspective, the new CORSIA baseline and consequentially the

lower quantity of EEU's which an airline needs to purchase may be a welcome development for the industry.

**5. EMISSION UNITS ARE HERE TO STAY - AT LEAST FOR NOW:** in terms of how CORSIA offsetting will occur, EEU's will continue to play a pivotal role in assisting airlines meet such requirements, at least in the near future. ICAO's LTAG report suggests that SAF has the greatest potential to reduce CO2 emissions from international aviation and in the achievement of the LTAG.<sup>6</sup> While operators can indeed reduce their CORSIA offsetting requirements by claiming emissions reductions from CORSIA Eligible Fuels, the role of EEU's in assisting airlines to offset emissions should not be undermined. A recent report has highlighted how the cost of reducing CO2 emissions using SAF is currently 50 to 700 times more than that of using emissions units.<sup>7</sup>

**6. SAF NEEDS TO BE SCALED... AND FAST:** although the pricing of EEU's could well increase as demand grows, and SAF costs may decrease as techniques develop and improve and state subsidy or speculative capital is provided, this takes time and the gap is unlikely to be fully closed in the immediate future. In order for the aviation industry to meet its sustainability goals, the widespread use of SAF will need to be commonplace with IATA estimating that perhaps 65% of the mitigation needed for net zero emissions in 2050 will come from SAF.<sup>8</sup> A report also shows that in order to achieve a commitment by airlines and corporate customers of an SAF volume of just 70% out of total jet fuel demand by 2030 (noting that a SAF volume of 73% to 75% of total jet fuel demand is needed to achieve credible 1.5°C targets). Over 300 SAF plants need to be built and SAF production needs to increase by 5 to 6 times from currently planned SAF projects.<sup>9</sup> An additional investment of between \$49 to \$97 billion would be required over the next three decades from fuel producers for SAF production plants to bring global aviation to net zero by 2050. Book and claim systems are likely to play an

important role in the growth of SAF usage and the development of this ecosystem. Other factors likely to be crucial in driving demand and supply of SAF include the role of industry stakeholders such as airlines, airports and fuel producers in sharing the risk of supplying new technologies to ramp up supply of SAF, as well as the role of governments in developing policies in parallel to ICAO's LTAG (such as implementing SAF usage targets and bridging the cost differential of SAF and fossil jet fuel).

This article was first published in October 2022. Please click [here](#) to view the original.

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## Footnotes:

1. Oka-Institute v., should CORSIA be changed due to the COVID-19 crisis
2. The Pilot Phase and the First Phase are voluntary (i.e. States rather than individual operators choose whether or not to participate). The Second Phase will mandatorily extend offsetting obligations of the Pilot Phase and the First Phase to all international flights between States, excluding flights to and from a State which satisfies certain requirements. For more information, see: HFW | Sustainable Aviation: How COVID-19 moved the CORSIA goalposts
3. ICAO, Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) - Assembly 41 Skytalks
4. Carbon pulse, ICAO to review CORSIA offsetting baseline in 2025, experts say current level not Paris-aligned
5. Carbon pulse, UPDATE - Aviation industry at risk of overlooking non-CO2 warming effects -analyst
6. ICAO, LTAG Report
7. Trove Research - Blog: Does EasyJet's Pivot Away from Carbon Credits Mean Airlines are Cooling on the Carbon Market?
8. IATA, Net Zero CO2 Emissions Goal Tops Achievements at 41<sup>st</sup> ICAO Assembly
9. Mission Possible Partnership, Making Net Zero Aviation Possible

# eVTOL Aircraft: The Future of Flight?

Following the aviation industry's pledge to achieve net-zero CO<sub>2</sub> emissions by 2050, a new form of aviation has emerged as a rapidly developing new technology with the potential to provide a sustainable solution to the industry's needs.

## Benefits of eVTOLs

Electric vertical take-off and landing aircraft ("eVTOL") are being dubbed "air taxis". Essentially larger versions of drones, it is envisioned that they will revolutionise the carriage of passengers and cargo in urban and regional areas, with potential scope for use in medical transport and infrastructure inspection.

Much like a helicopter, eVTOL aircraft take off, hover, and land vertically. However, thanks to significant advances in electric propulsion, eVTOLs would achieve lift using electric motors with propellers combined with onboard batteries. This eliminates the need for fossil fuels, which are currently used to power aircraft engines and which, in the process, emit climate damaging greenhouse gases. With current eVTOL designs featuring smaller propellers, eVTOLs are set to be considerably quieter than helicopters, which would add to their sustainability credentials, especially when considering their intended missions.

In addition to being a more sustainable mode of transportation, the use of eVTOLs as a transportation method in cities could help to alleviate ground congestion, in the process reducing travel time and improving regional connectivity and mobility.

## Entry into the Market

The benefits of introducing eVTOL aircraft as an alternative to conventional forms of travel are undeniable and it is anticipated that they could be commercialised as early as 2025. However, there are still a number of obstacles to be overcome before eVTOLs can be deployed commercially.

## Certification

Currently the biggest challenge facing eVTOL aircraft manufacturers is that of achieving certification, with the primary focus of all the regulators rightly being on safety. Many companies are currently in the rigorous design and testing phase. As the intention is that eVTOLs will be operating within dense urban areas and flying at relatively low altitudes, ensuring that the utmost safety standards are met is imperative. This is likely to be further complicated if manufacturers attempted to certify eVTOLs for autonomous flight, due to constraints in proving with certainty that the system operating the eVTOL is fail-safe. In this regard passenger appetite to fly in pilotless eVTOL is likely to be extremely low irrespective of their certification for this type of mission, so its implementation is likely to be delayed significantly.

Furthermore, the regulators have so far struggled to create consistent certification standards for eVTOLs. The FAA is adapting existing aviation regulations for airplanes and helicopters, whereas EASA and the UK CAA have seemingly chosen not to categorise eVTOLs with existing forms of aircraft and is relying on a wholly new eVTOL certification framework. The different approaches being taken could potentially give rise to gaps and inconsistencies in their requirements, making it more arduous and costly for manufacturers (hence also to

customers and end users) to meet the different standards when seeking to validate their type certificate elsewhere.

## Infrastructure

In order to support eVTOL aircraft, vertiports will need to be built. Vertiports are the eVTOLs base where passengers board and disembark and freight is loaded and unloaded. The market for this is potentially vast and, as vertiports would ideally be based near existing transport hubs, are likely to be expensive to build. Whilst designs have been drawn up for this infrastructure, it is still only conceptual as no eVTOL aircraft have yet been certified to use them. They cannot, therefore, be built yet because, without the necessary approvals in place, there is still no certainty as to the specific requirements of the vertiports.

As the skies become increasingly congested, careful consideration will also need to be given as to how eVTOLs will be safely integrated into the current air traffic management systems. It is also unclear who will be responsible for designing, certifying, building and running vertiports; manufacturers seem to be and large shy away from this, so customers or local operators, who are likely to be best placed to develop, run and finance such infrastructure, might be expected to do that.

## Flight Operations

Thought will also need to be given to who will fly all these new aircraft. Whilst it's straightforward to find someone with a driving licence to drive a taxi, it is not so common to hold a pilot's licence, let alone one with commercial operation privileges. As a result, sourcing thousands of pilots to fly eVTOL aircraft may prove a challenge in itself. This problem might be alleviated to some extent by the development of remotely operated and autonomous eVTOL aircraft. However, as noted above, certification of autonomous eVTOL aircraft will be a complicated and protracted process and is expected to last way beyond the initial entry into services of these aircraft.

## Cost

There is a very pertinent question of cost. It has been estimated that the initial price to travel in an eVTOL aircraft will be more than double the cost of a taxi journey. To achieve this manufacturers will need to keep their cost of production and aircraft relatively low, and with current inflationary environment this might prove very challenging indeed.

Obviously costs issues would become clearer, and probably mitigated to some extent, as the technology matures in the future but this seems a long way away and could potentially affect efforts to enter these aircraft into market. For the foreseeable future, therefore, the introduction of eVTOLs may be limited to areas which suffer severe congestion and/or lack cost-competitive alternatives, which could pave the way to operations more broadly once the technology achieved maturity.

Aside from passenger concerns, as eVTOL would increase air traffic, it may also raise complaints regarding increased noise levels over cities, cluttering of the skies with aircraft and concerns about privacy, due to eVTOLs flying at low altitude over residential areas. These will be matters on which manufacturers and prospective operators will have to work with the general public to develop comfort with this new form of travel and demonstrate the considerable benefits eVTOLs could bring.

## The Future of Modern Transportation

Whilst there are still various hurdles that manufacturers, regulators and the industry as a whole are facing for eVTOL travel to become a reality, their introduction will inevitably be a transformative step in the evolution of modern transportation bringing us closer toward a more connected and sustainable world.

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# Sustainability Quarterly

**HFW's Sustainability Quarterly features the latest innovations, legal and regulatory updates, and sustainability-related news from across key global markets.**

In this edition's *Client Spotlight*, we hear from the Head of Sustainability at France-based Avril about the company's environmental transition and how important it is to engage employees across the business in the journey.

We take a closer look at the work of our global charity partner, The Air League. This organisation champions the young people shaping tomorrow's aviation industry and provides scholarships and support whilst promoting sustainable strategies.

With weather related incidents at an unprecedented high, liability and risk in the insurance sector is changing.

We have a write up of our recent webinar which examined the complexities of pricing, growing levels of litigation and how to accurately quantify climate change.

As always, we are very pleased to include the most recent legal and regulatory updates, sustainability news, and the latest in HFW's own ESG initiatives.

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