

Airline Due Diligence for Investments in Unproven Technology

"The recent new wave in aviation technology and sustainable aviation presents a brave new world of exciting and transformational opportunities but is not without risk."

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Environmental, social and governance (ESG) initiatives have vastly affected recent commercial and investment activity, and aviation is no exception. In just the last year, we have seen unprecedented investment by major airlines and others in new sustainable aviation technology, including electric vertical take-off and landing aircraft (eVTOL), electric commercial aircraft, hydrogen propulsion engines, hybrid electric aircraft, new offerings of sustainable aviation fuel, and many others. Such investments—whether via purchase of equipment, debt or equity investments, or other commercial arrangements—present exciting and transformative opportunities for manufacturers, airlines and customers. But they also present unique, and in many cases, substantial risks for airlines. As such, conducting appropriate legal due diligence—and engaging an experienced legal team to do so—is critical.

Diligencing the Technology Itself

As in other contexts, lawyers are usually not charged with technical or commercial diligence of developmental technology. However, experienced lawyers can quarterback the significant coordination needed among several departments and subject matter experts within the airline, such as fleet, network planning, corporate/business development, procurement, regulatory, governmental relations, labor relations, antitrust, and marketing/investor relations.

Intellectual property (IP) is paramount in the diligence of developmental technology. Experienced IP lawyers with industry knowledge should carefully review applicable patents and licenses and any risk of infringement claims, and should remain coordinated with the corporate lawyers and deal leads to ensure that their findings match the client's commercial expectations.

Recent aviation investment in developmental technology portends an eventual transformation of the customer experience, but often where the technology may not come to market for several years. Thus the legal team needs to understand the client's expectations for integration so that it can structure the documentation to accomplish the client's long-term commercial vision—in this sense, due diligence of developmental technology is unique in that it can very much drive the negotiation of terms and conditions. An experienced legal team can accomplish this in part by having detailed discussions with the client on several key topics, such as the following.

- **Product specifications.** Fundamentally, there should be clear agreement on product specifications. This is of course the case with proven technology, but with developmental technology there is a heightened need to align expectations for products that cannot be seen or touched, and, in some cases, may be subject to significant change prior to delivery. Particularly in the case of aircraft powered by alternative fuel sources (such as batteries, hydrogen or sustainable aviation fuel), experienced lawyers can assist clients in considering whether and how to adjust customary approaches on setting specifications. Manufacturers will always be fine-tuning existing offerings and may even offer new products, so equipment purchasers should consider whether to capture product variants and, if so, at what price.
- **Pricing and quantity.** Lawyers should work to nail down any client expectations for price escalation, pre-delivery payments, "most favored nation" or "most favored customer" protection, and what mechanics should apply. As to the agreed-upon product quantity, there should be a clear breakdown between "firm" and "option" aircraft, and parties should be aligned on whether any terms and conditions should be tailored to one category or the other.
- **Timing, approvals and certification.** The legal team should be sure to understand the expected timelines not only for initial deliveries of finished product, but also for achieving key milestones for development and certification. Lawyers should also work with clients to consider any necessary interim steps to ensure that the technology achieves development milestones on the targeted timeline, what assistance the manufacturer may need along the way (perhaps even from the client itself), and how to

structure documentation to align the parties' incentives. Leveraging the appropriate regulatory experts is critical, since, in the case of aircraft, FAA or EASA certification will usually be required for the product to come to market.

- **Markets.** Lawyers should work with clients to understand the intended geographic and customer markets. In the case of foreign manufacturers, clients should engage appropriate legal experts to consider trade, export control and tax implications.
- **Operators.** Lawyers can help clients refine their commercial expectations by asking several key questions as to operatorship. Who will operate the technology? Will the airline operate it, or will other vendors or service providers be required? If vendors or service providers will operate the new technology, are the airline's existing relationships sufficient? Are the airline's plans for operatorship permitted by existing collective bargaining agreements?
- **Customers.** Airline investors will be particularly focused on how the new technology will affect their customers' overall experience and, by extension, the airline's brand value. For example, in the case of new aircraft to be operated by the airline or by a third-party operator under a codeshare or similar arrangement, an experienced aviation lawyer can assist in structuring terms and conditions—whether preliminary or definitive—as to loyalty/frequent flyer program, codeshare, interline, capacity purchase and other commercial arrangements. Clients will be best served by engaging a legal team that can anticipate the sticking points that may lie ahead in such arrangements, which are often complex and bespoke.
- **Logistics, infrastructure and maintenance.** Recent aviation innovation will certainly transform the customer experience, but will also transform—maybe even on an accelerated basis—the logistics and infrastructure landscapes for aviation. It is exciting to consider how much airport infrastructure and logistics might change in the case of widespread adoption of hydrogen fuel cells, battery technology, and/or vertiports in the case of “last mile” solutions afforded by eVTOLs, among others. To that end, lawyers should work closely with clients to understand how the technology will be manufactured, transported, stored, handled and maintained. The client should evaluate whether the manufacturer is in the best position to provide any of these services or whether to recruit third parties, and how to allocate costs in both cases. Airlines should also consider whether their existing facilities and logistics will be timely equipped for the new technology and, if not, whether to adjust certain terms and conditions accordingly in the equipment purchase documentation.

Diligencing the Company

While established original equipment manufacturers (OEMs) have certainly played a role in recent sustainable aviation initiatives, much of the recent wave of new aviation technology has been propelled by “startup”-type companies. Given the enhanced potential for misaligned incentives in such contexts, and especially for equity investments, lawyers should leverage appropriate resources to conduct adequate company-level due diligence to identify risk, and to mitigate it wherever possible, before the airline client embarks on a long-term relationship.

Lawyers should always align with the client on the intended breadth and depth for the scope of legal due diligence, but the following topics are usually covered.

- **Corporate structure.** Lawyers should review the manufacturer's corporate structure to confirm that the appropriate entities are bound and, where applicable, deliver guarantees or other forms of credit support. Corporate and commercial lawyers should remain closely coordinated with their IP specialist counterparts to ensure that the manufacturer parties have and maintain adequate access to the relevant IP. Relatedly, clients should consider running litigation and lien searches in appropriate jurisdictions to confirm whether there are undisclosed issues.
- **Governance / internal controls.** Clients should work with their legal team to understand the counterparty's governance framework and to evaluate its functionality. Is there a board and does it regularly meet? Is there a good record of board minutes and does it evidence that the board is exerting appropriate oversight? Do key investors have board representation? Are there advisors or directors with relevant industry or regulatory experience who will prove helpful in achieving key development milestones? Are there policies and procedures in place that would normally be expected of a manufacturer? Are there any related party transactions that raise concerns or create misaligned incentives?

- **Capitalization / access to capital.** Even in transactions where the airline is not making an equity investment, lawyers will often conduct basic due diligence of the manufacturer's capital structure, as it is important to evaluate whether manufacturers will have the financial wherewithal to satisfy long-term obligations. Lawyers can help to review organizational documents, financial statements and equity/debt documents to understand the manufacturer's capital structure, including to determine the extent to which existing investors are committed to funding future development costs. This process can also be fruitful in performing confirmatory due diligence, as reviewing these documents (particularly any recent disclosure schedules) will assist in identifying known risks.
- **Data privacy / cybersecurity.** The recent frequency of high-profile data breaches has appropriately brought data privacy and cybersecurity into focus for legal due diligence generally, but the importance of IP and customer data protection in aviation escalate these areas to even higher priority for aviation investments. Experienced legal experts should be consulted when reviewing the manufacturer's controls and software capabilities for protecting sensitive and proprietary information, and, where applicable, any arrangements with vendors. Where a third-party score or report is available, data privacy and cybersecurity lawyers can review and contextualize the reported information so that clients can understand risks and evaluate plans for improvement.
- **Additional considerations for equity investments.** For transactions involving equity investments, clients usually employ a broader due diligence scope to supplement the above. This will often include, at minimum, a high-level review of (1) the manufacturer's regulatory framework and compliance, (2) material contracts, (3) litigation history, (4) employee/ employee benefits issues, (5) protections granted to equity holders, and (6) key terms of indebtedness. Lawyers should also carefully review organizational documents to confirm that the manufacturer conducts the equity issuance in compliance with appropriate terms and conditions (for example, preemptive rights, and rights of first offer or first refusal) and with the appropriate authorizations. These legal reviews will naturally inform the negotiation of representations and warranties delivered by the manufacturer, which would customarily be more extensive for an equity investment than for an equipment purchase. Further, experienced lawyers' observations as to how organizational documents compare to "market" can prove very useful in situations where manufacturers aspire to conduct future financings or to pursue an IPO or another change of control transaction.

Conclusion

The recent new wave in aviation technology and sustainable aviation presents a brave new world of exciting and transformational opportunities but is not without risk. As in other industries, lawyers play a critical role in identifying and evaluating such risks, and in working closely with clients to craft commercial solutions to mitigate them. However, as demonstrated above, aviation investments in developmental technology present legal issues that require support not only from commercial lawyers with broad-based aviation experience, but also from a team of experts that can advise on a variety of issues ranging from IP, to domestic and foreign regulatory compliance, to equity investment and corporate governance, to emerging company/venture capital, to data privacy and cybersecurity, to litigation, and beyond.

Engaging a legal team with relevant and multidisciplinary experience to conduct a tailored scope of due diligence, and to construct viable commercial documentation, will be vital for airlines and other investors seeking to play a meaningful role in the impending industry transformation.

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