

CREATING SUSTAINABLE VALUE FROM AVIATION ASSETS



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ABOUT US

Airports continue to form an essential part of our way of life, as well as being a central pillar to a nation's sustainable economic growth. Nevertheless the growth in demand for air travel should not come at any price and a balance must be achieved between the economic benefits, the cost of construction and the environmental effects of increased air travel. Understanding the strategic drivers for development and the operational requirements of any sized airport is crucial to assessing the asset and its ability to support future demand.

Creating sustainable value from aviation assets is driven by:

- A vision and plan for long-term sustainable growth
- Transaction solutions that maximise asset value and reduce risk of investment
- Achieving the best possible outcome through a commercial approach to capital delivery
- A sustainable asset management strategy that improves efficiency and protects asset value
- Quantifying the environmental impact
- Providing certainty in an uncertain market
- Getting the most from your aviation asset in a regulated environment.

EC Harris is a leading international built asset consultancy generating positive outcomes for our clients in addressing their business opportunities and challenges.

Active in a wide range of market sectors, including Aviation, we have advised many international clients on how to make the most from their investment and expenditure in creating, developing, operating, using and owning airports across the world.

Combining our experience, relationships and skills, we have the ability to deliver business solutions required by both publically and privately owned airports, its operators, acquirers and vendors when dealing with all forms of the aviation asset.



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ENABLING A VISION AND PLAN FOR LONG-TERM SUSTAINABLE GROWTH

Critically an airport master plan needs to encompass the long-term vision of an airport and accommodate traffic forecast growth, as well as enabling efficient operations that meet the expected passenger experience. This also needs to be balanced with the environmental effects of air travel whilst ensuring the airport provides financial viability as an asset in which our clients invest.

Fully aligning the master plan with the business plan and multiple stakeholder requirements is key to the successful development of an airport. However, we often find that too much focus is placed on design and the technical solution, resulting in a misalignment with the operation of the airport and the commercial revenues and income opportunities.

Maximising an airport portfolio also requires in-depth understanding of diversification into non-aeronautical income streams, including airport city developments and retail strategies, as well as the opportunities presented at multi-modal transportation hubs.

Our knowledge of all built asset classes including transport, hotels, commercial developments, retail, leisure and entertainment, means we are ideally placed to unlock hidden potential from the aviation estate and ensure maximum return on investment for our clients.

Our clients frequently ask us:

- How can I determine the optimal time to invest?
- Am I maximising the commercial revenues that are available?
- How can I improve safety, operational efficiency and reduce expenditure?
- How can I plan my asset so that it is flexible and meets stakeholders' needs?

With these in mind, we help airport owners, operators, governments and investors by matching the anticipated passenger demand with the developmental need of the airport, thus optimising capital, operational and revenue expenditure, as well as income streams. We assist our client Boards and senior management teams to create a vision and strategic master plan for long-term sustainable growth.



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TRANSACTION SOLUTIONS THAT MAXIMISE ASSET VALUE AND REDUCE RISK OF INVESTMENT

The buying and selling of airports represent both opportunity and risk to both parties undertaking the transaction. Optimising asset ownership requires a thorough and detailed understanding of the drivers and performance indicators of airport assets.

Utilising a combined technical and operational team, we support investors, developers, vendors and operators with airport privatisation and acquisition initiatives. This allows us to provide clients with the assurance and certainty throughout the tender preparation, bidding, negotiation, contract award and operation of the airport.

The price of an aviation asset undergoing either privatisation or private sale is often set by:

- The anticipated rate of growth that the airport is likely to receive in terms of airline and passenger demand
- The catchment area, demographics, transportation links and local economy
- The ability to grow and expand facilities to meet forecast growth
- The asset management and financial exit strategy to be employed by the purchaser over the period of tenure
- The ability to finance the ownership and asset management strategy
- The anticipated aeronautical and commercial revenue that can be generated based on the demand.

With our extensive knowledge of the aviation sector and a global managed community of experts we are able to offer conclusive master-planning, business case planning, traffic forecasting, facilities planning and technical and contractual risk management advice that provides an integrated approach to the complex nature of aviation transactions.



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ACHIEVING THE BEST POSSIBLE OUTCOME THROUGH A COMMERCIAL APPROACH TO CAPITAL DELIVERY

Delivering complex aviation assets, phasing of construction to match forecast demand and developing large infrastructures in an operational environment requires innovative approaches to delivery.

Our efficiency benchmarks, combined with our experience of delivering major projects and programmes internationally, provide the platform to optimise design, function and ultimately the value of the projects our clients undertake.

To enable this, we work with our clients to provide:

- A strategy that aligns business and operational needs supported by effective risk management
- Real time reporting and management information that separates Capex, Opex, Revex, contingencies and design scope
- An optimal plan for alternative funding sources
- Cost savings and efficiency in capital expenditure programmes
- An intelligent commercial strategy that optimises the use of procurement, tendering and contracting procedures to drive value from the supply chain.

We understand our clients' needs and balance these with competing priorities to achieve the best possible outcome by delivering a commercially driven solution.



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A SUSTAINABLE ASSET MANAGEMENT STRATEGY THAT IMPROVES EFFICIENCY AND PROTECTS ASSET VALUE

We have seen airport operations coming under extreme pressures to perform at higher levels of efficiency, whether this is maximising throughput or having the flexibility to operate under extreme conditions, such as big calendar events or severe weather conditions. This puts considerable strain on the asset and the way in which it is managed. Understanding the operation and how best to utilise the asset through innovations, contingency procedures and new technology enables cost savings and efficiencies to be realised.

In order to maximise these benefits, our approach is based upon:

- Aligning the asset management policy and strategy with business needs and objectives as well as the capital available
- Best value whole life maintenance and facilities management delivery that identifies replacement costs and prioritises Capex and Opex provision
- Quantifying the cost of delay with appropriate mitigation strategies
- Creating effective supply chains that drive maximum efficiency
- A corporate social responsibility and sustainability strategy that delivers bottom line value.

With a wealth of experience in operational readiness we ensure our clients achieve seamless testing and transfer of airport facilities into live operations. Our approach involves the holistic management of the process from planning, management, co-ordination and stakeholder alignment to trial operations, preparation of procedures, contingency plans and training support, all designed to ensure facilities open on time and within budget.



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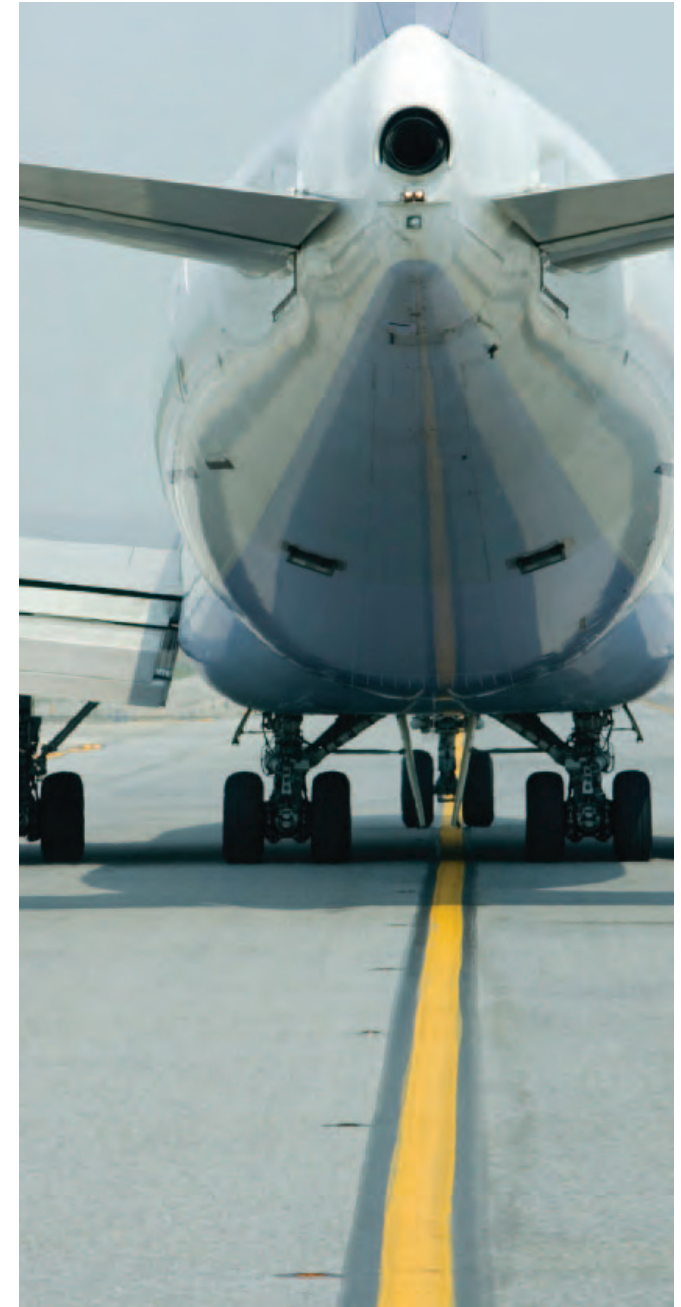
Across the globe we are all coming to terms with the issue of climate change and the role of carbon emissions as a cause. According to a report by the Intergovernmental Panel on Climate Change (2001), aviation contributes to 2% of the global manmade CO₂ emissions. It is estimated that airport activities account for up to 5% of total aviation emissions.

Along with other aviation industry stakeholders, European airports are seeking to address the challenge of climate change and have developed a wide range of activities to reduce carbon emissions linked to airport operations. These emissions mainly stem from energy use in airport buildings and infrastructure, transport to and from airports, airside vehicles, aircraft ground movements and energy consumption and refrigerants.

More frequently we are being asked:

- How does the summer / winter flight schedule impact on my carbon foot print?
- What is the contribution of ground handlers or other stakeholders to the overall carbon footprint?
- Are there operational procedures or changes that can be made to improve efficiency and reduce emissions and CO₂?
- Which master plan options offer the lowest carbon contribution?

Our capacity and aircraft emissions tool provides an airport and airline with the ability to clearly quantify the environmental impact of the airport and the assessment of different development and operational options to achieve the best possible outcome.



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PROVIDING CERTAINTY IN AN UNCERTAIN MARKET

As one of the world's most dynamic industries, with a truly global perspective on its business development, there is a continual need to develop infrastructure to meet ever changing passenger and airline requirements.

But do you know:

- If you have the right evidence to support capacity and investment decisions?
- The trigger point for new infrastructure development?
- The impact of increased traffic levels on delays and service levels?

To help our clients answer these questions, we have developed a number of strategic aviation services that bring certainty in an uncertain market. Whether it's our airport capacity studies which integrate passenger forecasts, planning and Capex spend; or airside, airspace and passenger simulation which evaluates the benefits of infrastructure investment prior to implementation, we maximise our clients' efficiency agenda through predictability.



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GETTING THE MOST FROM YOUR AVIATION ASSET IN A REGULATED ENVIRONMENT

The continuous requirement to ensure a safe and efficient operation for airport operators, service providers and the general public requires clearly defined processes and procedures for the certification and on going regulation of airports. We can support clients in the preparation of the procedures and national certification processes. We can undertake ICAO risk assessments on behalf of operators, CNS ATM Service providers and other stakeholders to ensure that current developments do not compromise the operation.

Many airports are also subject to economic regulation. The application of different regulatory models such as price caps, RPI-X or rate of return regulation have a direct impact on the capital investment and the average yield per passenger to be charged to the airlines. Our financial model can assess these different regimes to determine the average yield per passenger based on the proposed investment.



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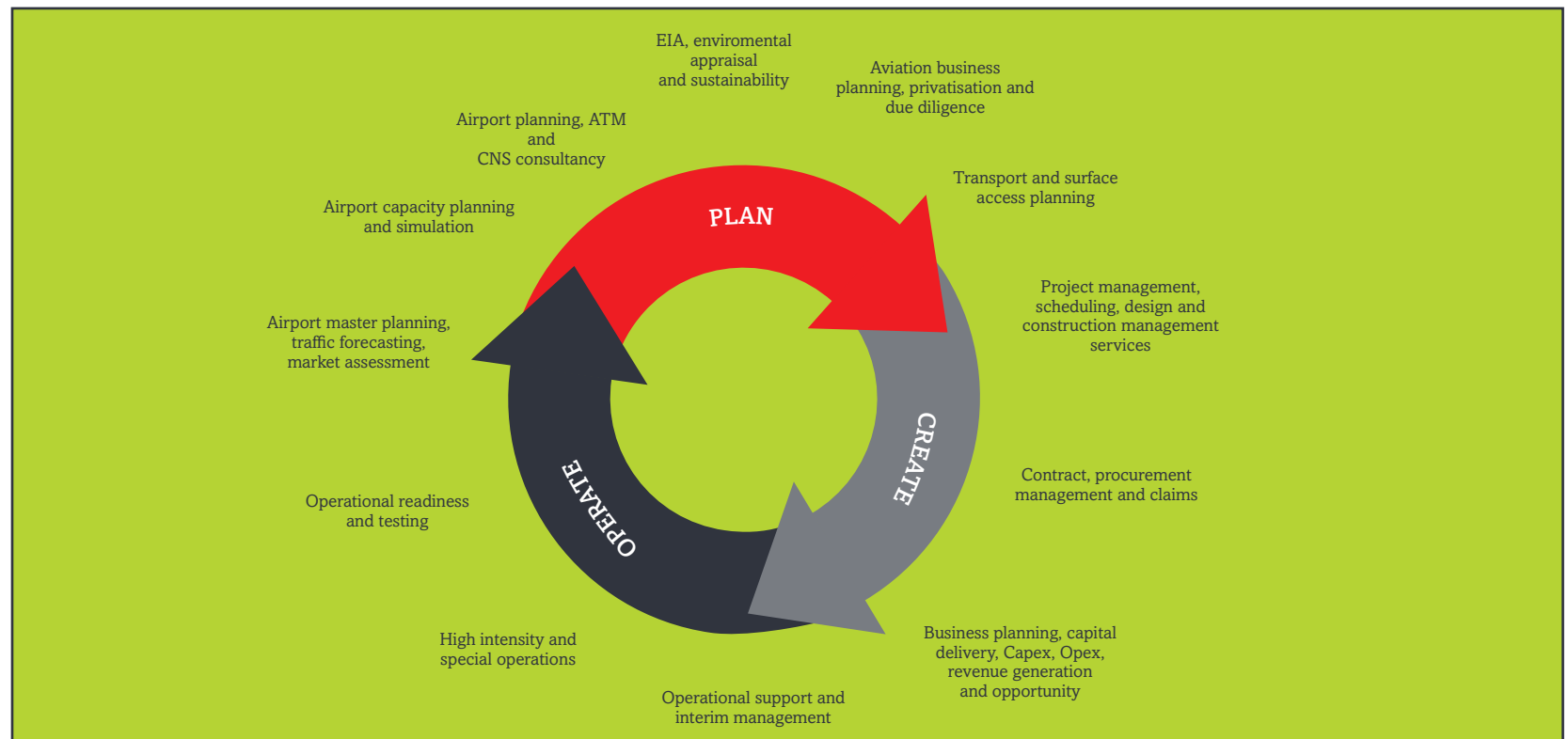
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HOW WE CAN HELP YOU

- An integrated strategic and commercial focus will maximise the return on investment (in sharp contrast to traditional engineering based solutions)
- End-to-end capability that fully encompasses planning, development and investment advice through to capital delivery, programme management and operations
- A bespoke aviation decision making tool kit providing key decision makers with accurate, transparent and detailed analysis to support critical business decisions
- The ability to secure the best financial outcome and deal in the sale of aviation assets
- Proven processes and track record for delivering time and cost certainty
- Delivering maximum value through our cross sector expertise in aviation, commercial, retail, residential, hotels, highways and rail
- Via a global reach spanning over 100 countries in the UK and Ireland, United States of America, Europe, Middle East and Asia
- We help clients to protect their interest, avoid disputes and maximise commercial outcomes.



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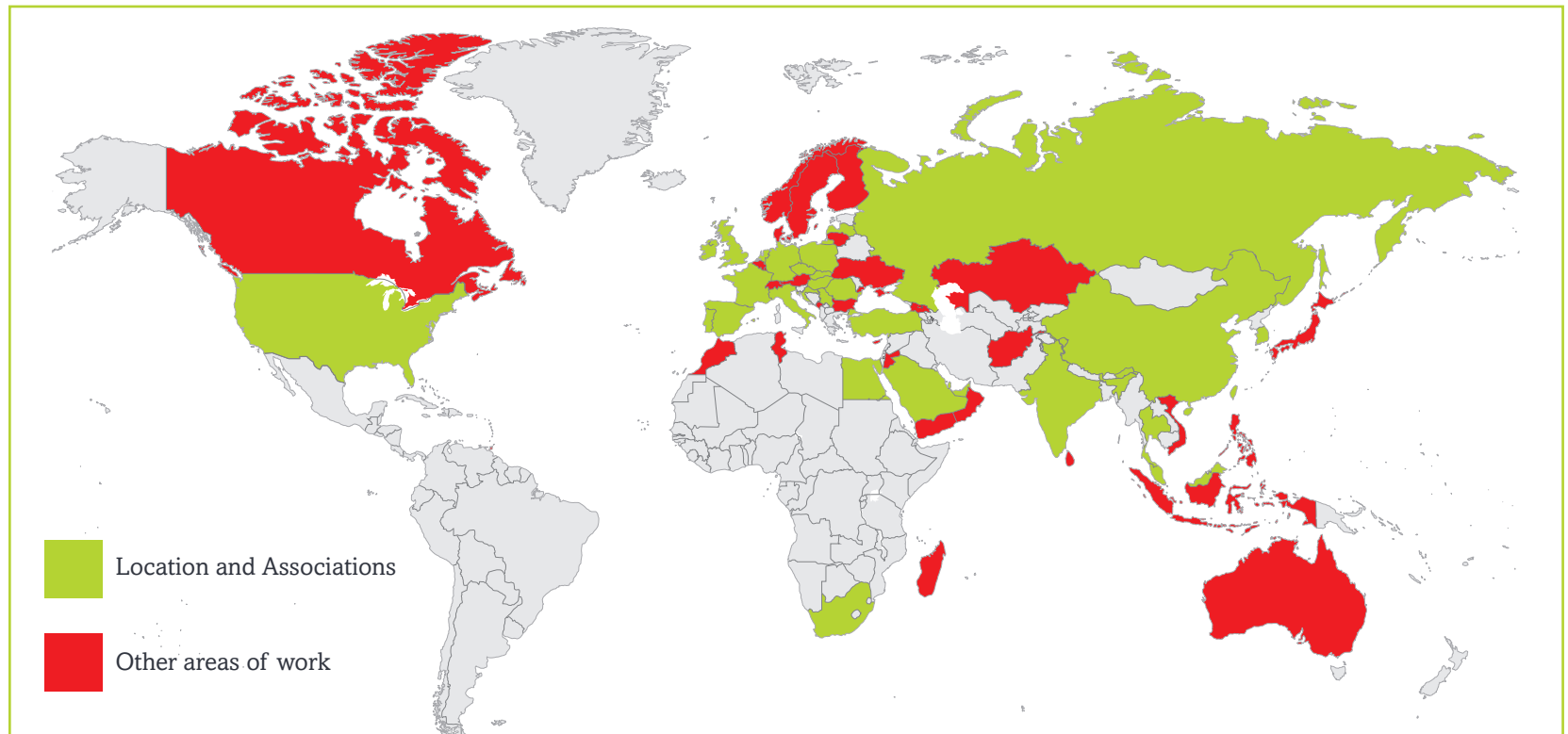
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- Dublin Airport
- Etihad Airways
- Frankfurt Airport
- Gatwick Airport
- Global Infrastructure Partners
- Heathrow Airport
- Hong Kong International Airport
- Johannesburg Airport
- Larnaka Airport
- Manchester Airport
- NAER, Portuguese Aviation Authority
- New Delhi International Airport
- Queen Alia International Airport, Jordan
- SEEB International Airport, Oman
- Stansted Airport
- US Airways.



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Paul Willis
Partner, Head of Aviation
e paul.willis@echarris.com



Michael Spencer
Partner, Contract Solutions
e michael.spencer@echarris.com



Tim Risbridger
Partner, Transportation Sector
Middle East
e tim.risbridger@echarris.com



Mark Prior
Partner, Head of Transportation
e mark.prior@echarris.com



Caspar Baum
Aviation Consultant, Asia
e caspar.baum@echarris.com