

# GERT KAMSTRUP

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## **SUMMARY:**

I have extensive consulting experience from working on UK and international aviation, rail, space and post-conflict assignments over the last 20 years. I have delivered and led projects in over 30 countries, covering strategy, business planning, operational analysis, financial modelling, economic cost-benefit analyses, buy and sell-side due diligence and other technical and financial advisory work. These experiences have been gained in Big 4 Corporate Finance and top-tier strategy consultancy firms. I live in London, flexible in terms of travel and I have dual Danish and British citizenship.

## **PROFESSIONAL EXPERIENCE:**

### **GTAS Consulting (2016 - ): Director (owner)**

- March 2017 - ongoing: Projects for several clients, covering airport due diligence, strategy and business planning engagements, transformation, privatisation, traffic forecasting, economic appraisals, bid preparation and independent review of cost estimates.
- July 2016 - February 2017: Supported a consultancy, Charlie Goldsmith Associates, in the international education development sector with business development, market entry, project delivery and staff training.

### **PwC (2012 - 16): Associate Director**

- Worked in Corporate Finance as part of a team recruited to develop the firm's global airport offering.
- Led assignments for public and private sector clients in aviation and rail sectors, and supported business and key client account development across these.
- Project managed high profile independent reviews, e.g. Manston Airport CPO and the UK's Airports Commission (all published)
- Developed and delivered business internationally, including Saudi Arabia (restructuring), Russia (review of high speed rail business case), Japan (airport transaction), Brazil (airport business case development), BVI (runway expansion), Jamaica (airport concession), South Africa (freight rail strategy and financial appraisal) and Ireland (bid work for an airport terminal concession).

### **Booz and Company (2008 - 2012): Senior Associate**

- Developed strong experiences in the financial and economic appraisal of infrastructure investments (airports, space and rail)
- Project managed due diligence and other project engagements across multiple industry sectors
- Led major policy studies (all published) for the European Commission on the financing and funding options for the SESAR (Air Traffic Management) Programme and the socio-economic benefits of the GMES (Copernicus) Space Programme.

### **Booz Allen Hamilton (2002 - 2008): Associate**

- Worked on a large number of rail assignments covering the UK and the rest of Europe, including leading several engagements covering rail passenger re-franchising transactions, freight studies, business planning, ERTMS business cases, operational studies, due diligence and investment appraisals.

### **Halcrow Consulting (1998 - 2002): Consultant**

- Worked mainly within the rail sector and developed considerable experience of financial modelling and business analysis from involvement in strategy development, business planning, franchise replacements, appraisal of capital expenditure programmes, market research and client-site secondment to Network Rail.

## **EDUCATION:**

- **1995 - 98: MSc Econ (Aarhus University, Denmark)**
- **1990 - 93: BSc Econ (Aarhus University, Denmark)**

## Rail Sector - Selected Experiences

- Led **review of the cost estimate for upgrading the Piccadilly Line**, with focus on providing an independent opinion on the approach taken in the development of cost estimates rolling stock, depots, enabling infrastructure works and signalling. The review also considers modelling approach and the application of risk and cost indexation.
- **Seconded for four months** to the UK's Department for Transport as part of an engagement on the HS2 programme. Led on commercial and financial advice in relation to stakeholder consultation and modelling of different property compensation measures, including introduction of a property bond that provides an entitlement for compensation. The final report was published.
- Supported on a **review of the feasibility study for the Russian high speed line** between Moscow - Kazan. Led on review of demand, revenue and cost projections, and the socio-economic cost benefit assessment.
- Led **review of programme budgets** prepared by the Danish rail operator for the procurement of 200+ train sets.
- Modelling support and review to PwC team working as **DfT's financial advisors** on the IEP rolling stock transaction.
- Led PwC **corporate finance** team advising DfT on the Northern, Great Western and c2c Direct Awards. Responsible for reviewing comparator models and bid models, co-ordinating model audits, providing support on DfT's bidder negotiations, and providing DfT teams with area for process improvements.
- Supported an **independent review led by Richard Brown** into the UK's rail franchising programme. Undertook analysis and modelling of industry financing and funding structures. The report was published.
- Supported a **review of the decision processes** relating to the proposed award of the West Coast Mainline franchise to First Group. This formed part of a litigation process. Responsible for reviewing financial models, internal documents and data, and documenting and reporting findings.
- **Seconded for nearly two years to the UK's National ERTMS Programme**, with responsibility for developing the ERTMS operating and capital cost model and the national business case.
- Responsible for a team that completed an **independent due diligence** of Infrabel's (the Belgian rail infrastructure manager) ERTMS implementation strategy.
- Provided support to **public and private sector clients on several UK franchises**, including South Eastern, Southern, West Coast, Cross Country, Thameslink, East Anglia, ScotRail, Northern, TPE. Key experiences cover the development of demand, revenue, operational, cost and financial models as part of due diligence and transaction processes.
- Led **signalling study** in Egypt, with key tasks involving baselining of existing signalling assets, writing a high level master plan, route upgrade prioritisation, development of overall signalling strategy, implementation planning for 10-year upgrade and renewal programme of signalling assets.
- Led **business case work on a signalling strategy project** for Banedanmark, the Danish rail infrastructure manager, with focus on assessing different renewal strategies, including complete renewal with ERTMS. Led on preparing the final report (published).
- Supported a Swedish rail operator's drive to **improving operational efficiency** and matching service provision to passenger demand.
- Responsible for modelling and analytical support on a **strategy project** aimed at restructuring the Malaysian Railway's debts.

## Aviation Sector - Selected Experiences

- Led the development of a dynamic **five-year traffic forecasting model for the Air Navigation Service Provider (SANS)** in Saudi Arabia, including a comprehensive review of existing traffic data, significant data gathering, e.g. airline forward schedules, and the design and building of a forecasting model. Working model was handed over to client for future use.
- Supported **transformation and corporatisation programme for regional and domestic airports in Saudi Arabia**, including strategy development, benchmarking, organisational design, and financial modelling.
- **Developed airport terminal cost models** as part of daa International's bids to operate international airports in New York and Kuwait, taking into account relevant cost items and variability to passenger numbers.
- Led **due diligence and business planning**, including aero and non-aero revenue, cost, capital expenditure and regulatory modelling, on an engagement for the Canadian government, considering strategic privatisation options for the country's airports with particular focus on Toronto and Montreal.
- Led the **development of a financial model**, including revenue and cost analysis, for an executive airport in the UK. This formed part of a sell-side due diligence engagement and considered airport market competition, revenue enhancements, growth plans and valuation under different scenarios.
- Led a team supporting an **investor's bid side due diligence** for NMJA (Jamaica), including the development of a financial model, with analysis of short term route development, and revenue (aero and non-aero) and cost analysis and optimisation, working closely with daa International's team.
- Supported daa International's on a **successful bid to secure the O&M contract** for the new domestic terminal in Riyadh, including bid writing, transition planning, financial modelling (revenue and costs estimation), and support during contract negotiations.
- Supported a **large scale transformation and corporatisation programme for KKIA and the Air Navigation Service Provider in Saudi Arabia**, with direct responsibility for leading workstreams focused on corporate strategy, target operating model (holding company and airport business), business plan and the economic regulatory framework. Work also included development of five-year traffic and revenue forecasts.
- Supported the Government of the BVI with the **procurement of a build and operate concession for the island's main airport**, including the extension of the existing runway.
- Led **business plan and financial model preparation for an airport** in Eastern Europe, including Information Memorandum and sell-side presentations to buyers.
- Led a **feasibility study for a potential greenfield airport development** in Brazil, including market assessment, in-country interviews, preparation of an outline financial assessment and presentation to stakeholders.
- Supported the **due diligence of an US off-airport car parking business**, and led on market assessment, demand, revenue and cost modelling, site visits and co-ordination of inputs from technical advisors.
- Worked on several **transactions involving UK and international airport assets**, including Gatwick, Birmingham, Bristol and Copenhagen airports. Led workstreams covering traffic forecasting, aero and non-aero revenue and cost modelling, capital and infrastructure planning and benchmarking.
- Responsible for developing the strategic **financial modelling tool used for supporting a project developing a value enhancing strategy** for Aerodom's six airports in the Dominican Republic.

## Selected Project Experiences

*Selected experiences, covering aviation, rail, space and other assignments.*

### GTAS Consulting Assignments (2016 - )

- **Strategy and Operating Model (National Center for Privatization, Saudi Arabia)** – Engagement manager for Oliver Wyman on a strategy project for the National Center for Privatization in Saudi Arabia. Work involved a baseline review, including interviews with staff and external stakeholders, review of programme status, benchmarking and the design of a staff survey.
- **Traffic Forecasting Model for the Saudi Air Navigation Service Provider (SANS, Saudi Arabia)** - Led project delivery for PwC (UK and Middle East) on an engagement involving a comprehensive review of existing traffic data, significant additional data gathering, including airline forward schedules, and the design and building of a dynamic five-year traffic forecasting model. The work included handover and training of local staff in Jeddah.
- **Business Case for the National Search and Rescue Center (Abu Dhabi, UAE)** - Worked with Knowledge Group on a three month engagement in Abu Dhabi, leading the business case development, including financial and economic assessments, for a confidential engagement with the NSRC in Abu Dhabi.
- **Review of Piccadilly Line Cost Estimate (Transport for London, UK)** - Led an independent review of the capital expenditure estimate for the Piccadilly Line upgrade, covering rolling stock, depots, enabling infrastructure works and signalling. The review also included cost benchmarking against other TfL infrastructure upgrade programmes, including 4LM programme.
- **Bid Due Diligence (daa International, Ireland)** - Supported a PwC engagement which provided the client with key input into a concession bid for a passenger terminal in Kuwait, including the preparation of a 5-year terminal operating cost model.
- **Bid Due Diligence (daa International, Ireland)** - Supported an in-house team on a bid for a concession contract to operate an international airport terminal in New York, including review of contract terms, modelling of contract payments, and preparation of 15-year cash flow model for operating a 15 million passenger terminal.

- **Corporatisation of Regional Airports in Saudi Arabia (PwC UK / GACA, Saudi Arabia)** - Supported the transformation and corporatisation programme for regional and domestic airports in Saudi Arabia. Led on strategy development, including workshops, and financial modelling and assessment of working capital requirements.
- **Commercial Airport Due Diligence (Canadian Government, Canada)** - Led a PwC team undertaking an independent review of two large international airports, including market review, traffic modelling and development of financial model. Led preparation of capital investment plans and worked on modelling of single and dual till regulatory scenarios.

### PwC: 2012 - 2016

#### Selected Aviation Experiences (2012 - 2016)

- **Business Strategy, Capital Expenditure Review and Financial Modelling (Luton Airport, UK)** - Led a team undertaking an independent review of the airport's expansion strategy, including capital expenditure and funding plans.
- **Business Strategy for an Executive Aviation Airport (Private Client, UK)** - Led business planning and financial modelling workstreams as part of this world leading airport's strategy review. This involved interviews with management and detailed analysis of demand, revenue and cost data.
- **Norman Manley International Airport (Private Client, Jamaica)** - Led a team supporting an investor's due diligence of the airport, including consortium formation, bid management and co-ordination of inputs from advisors.
- **Economic Regulation for a Charging Scheme for Air Navigation Services (GACA, Saudi Arabia)** - Led an engagement writing a draft decree setting out the proposed economic regulation of air navigation services in Saudi Arabia, including several workshops and peer-review by NATS.
- **Transaction Advisory for an Airport Terminal O&M Contract (Dublin Airport Authority, Ireland)** - Supported Dublin Airport Authority (daa) on a successful bid to secure the O&M contract for the new domestic terminal in Riyadh, including bid writing, transition planning, financial modelling, including revenue and costs estimation, and support during contract negotiations.

- **Manston Airport Review (Department for Transport, UK)** - Led a review of Thanet District Council's decision not to take forward a compulsory purchase order of the Manston airport site with an indemnity partner. The review was high profile, ordered by the Secretary of State for Transport, and reported in the media.
- **Sell-side Commercial and Financial Transaction Advisory (Private Client, Eastern Europe)** – Project managed an engagement with a client in Eastern Europe on the sale of an airport, including preparation of information memorandum and marketing to potential bidders.
- **Sell-side Commercial and Financial Transaction Advisory (Private Client, Caribbean)** - Supported a government in the Caribbean with the procurement of a build and operate concession for the island's main airport, including the extension of the existing runway.
- **Corporatisation of KKIA (GACA, Saudi Arabia)** - Supported a large scale transformation and corporatisation programme, with direct responsibility for leading the project team working on the development of the corporate strategy, business plan and the economic regulatory framework.
- **Corporatisation of Air Navigation Services (GACA, Saudi Arabia)** - Supported a large scale transformation and corporatisation programme, with direct responsibility for leading the project team working on the review of the economic regulatory framework and the development of traffic forecasts.
- **Review of the Economic Impact of an Estuary Airport (Airports Commission, UK)** - Led a study that reviewed the economic impact of building a new airport in the Thames Estuary London. The report was published and reported in the media.
- **Commercial Strategy (NATS, UK)** - Responsible for commercial modelling work on a strategic assignment for NATS. The engagement included the ex-ante and ex-post financial assessment of increasing runway capacity at different airports in the UK and internationally.
- **Business Plan Review (Confidential Client, Eastern Europe)** - Led the review of the business plan and financial model for a mixed commercial and business airport in Eastern Europe.
- **New Airport Feasibility Study (Porte Alegre, Brazil)** - Led a feasibility study for a potential greenfield airport development in Brazil, including market assessment, in-country interviews,

preparation of an outline financial assessment and presentation to stakeholders.

#### [Selected UK and International Rail Experiences \(2012 - 2016\)](#)

- **HS2 Property Bond (Department for Transport, UK)** - Four-month assignment as the in-house consultant for the UK's Department for Transport as part of an engagement on the UK's high speed train programme. The engagement involved commercial and financial advice, including stakeholder consultation and modelling of different property compensation measures, including the introduction of a property bond that provides an entitlement for compensation.
- **Review of the Moscow - Kazan High Speed Rail Feasibility Study (HSR 2, Russia)** - Supported on a review of the feasibility study for the Russian high speed line between Moscow - Kazan. Provided support and insight on the review of demand, revenue and cost projections and the socio-economic cost benefit assessment.
- **Study of Construction and Operating Models for High Speed 2 (HS2 Ltd., UK)** - Supported a strategic study looking at different construction and operating models that can be used for the delivery of the UK's proposed high speed line.
- **Model Audit for High Speed 2 (HS2 Ltd., UK)** - Supported the PwC team responsible for auditing all financial modelling tools used for developing the business case for the UK's high speed line.
- **DSB Budget Reviews (DSB, Denmark)** - Review of programme budgets developed by the Danish rail operator for the procurement of 200+ train sets.
- **Franchise Direct Awards for Essex Thameslink (c2c), Great Western and Northern (Department for Transport, UK)** - Led PwC teams advising DfT on the Northern, Great Western and c2c Direct Awards. Responsibility for reviewing comparator models and bid models, co-ordinating model audits, providing support on DfT's bidder negotiations, and providing DfT teams with area for process improvements.
- **Brown Review (Department for Transport, UK)** - Supported an independent review led by Richard Brown into the UK's rail franchising programme. Undertook analysis and modelling of industry financing and funding structures.
- **Review of West Coast Mainline Franchise Award (Department for Transport, UK)** -

Supported a review of the decision processes relating to the proposed award of the West Coast Mainline franchise to First Group. This formed part of a litigation process. Responsible for reviewing models and documenting findings.

## **Booz and Company + Booz Allen Hamilton (2002 - 2012)**

### Selected Aviation Experiences (2002 - 2012)

- **Airport Strategy and Commercial Advice (Department of Transport, Ireland)** - Supported a study team working for the Irish Minister of Transport on the potential options to separate and create commercial concessions for its airport assets in Shannon and Cork, taking them outside the control of the Dublin Airport Authority.
- **Infrastructure Fund - Transaction Advisory for the Purchase of an Aircraft Component Manufacturer (Private Client, UK)** - Supported a strategic and commercial due diligence of a company in the aircraft manufacturing sector. Key tasks involved data gathering, interviews, modelling and preparation of documentation for investment committee.
- **Development of an Investment Appraisal Model (BAA, Heathrow Airport)** - Developed an Excel based investment appraisal model for BAA. The model was developed to be used for all investment appraisals (1 - 50 years) across BAA airports. Key tasks were model scoping, development, training, documentation and handover to users.
- **Infrastructure Fund - Transaction Advisory for the Purchase of an Off-Airport Car Parking Business in the US (Private Client, US)** - Supported a strategic review and due diligence of an off-airport car parking business in the US, including market assessment, demand, revenue and cost modelling, site visits and co-ordination of inputs from technical advisors.
- **Study of Financing and Funding Mechanisms for the SESAR Programme for the European Commission (European Commission, Brussels)** - Responsible for a study team that supported the European Commission on the development of adequate and innovative funding mechanisms for the Single European Sky ATM Research (SESAR) Programme, including review of PPP projects, analysis of stakeholder (airlines, airports, military and air navigation service providers) business models and their self-financing capacity, comprehensive industry stakeholder consultation programme, review of private and public sector financing and funding instrument and design of innovative mechanism relevant for the SESAR programme. The study included nearly detailed 40 stakeholder interviews across Europe (airlines, airports, ANSPs, military, manufacturers, and financial institutions). The report was published by the European Commission.
- **Infrastructure Fund - Transaction Advisory for the Purchase of Gatwick Airport (Private Client, UK)** - Supported a private investor's confirmatory due diligence process for Gatwick Airport. Responsible for leading the review of operating expenditure and supported across all other workstreams (revenue, capital expenditure and regulation). Key tasks performed included review of data room documents, review of historic and projected cash flows and performance benchmarking.
- **Value Enhancing Strategy and Operational Review for an Airport Operator (Aerodom, Dominican Republic)** - Supported the development of a value enhancing strategy for Aerodom's six airports in the Dominican Republic. Responsible for interviewing airport staff, reviewing financial information and preparing a strategic financial modelling tool for each of the six airports. The tool was used to quantify cost and benefits of proposed options for improving profitability. The work also included the financial appraisal and ranking of a wide range of investment cases, incl. data gathering and appraisal of airline income and operating costs of operating routes to and from the Dominican Republic.
- **Due Diligence on Gatwick Airport Transaction (Private Client, UK)** - Supported a consortium of private investors bidding for Gatwick Airport, including review of historic financial data, regulatory environment and preparation of baseline operating expenditure projection.
- **Due Diligence on Bristol Airport Transaction (Private Client, UK)** - Supported a private investor's bid for Bristol Airport, with responsibility for coordinating day-to-day activities, including revenue and cost projections, capital expenditure planning and report preparation. Responsible for developing a dynamic financial valuation model which incorporated revenue, cost and capital expenditure cash flows.
- **Due Diligence Review of Birmingham and Copenhagen Airports (Private Client, UK)** - Supported a private investor's financial review of Birmingham and Copenhagen airports, with responsibility for coordinating day-to-day activities, including revenue and operating cost

projections, capital expenditure planning. Responsible for developing the financial valuation models.

- **Due Diligence on Belfast Airport Transaction (Private Client, UK)** - Supported a private investor's bid for Belfast Airport, including revenue and cost model development and general due diligence support and analysis. Responsible for bringing together revenue and cost cash flows into a combined EBITDA airport valuation model.
- **Greenfield Airport Feasibility Study (Private Client, UAE)** - Responsible for developing a financial model for a private sector investor looking to build a new airport in the UAE. Coordinated inputs from demand and revenue workstream and developed a fully dynamic financial model used to appraise a range of scenarios, including impact of different financing options. Led all aspects of operating expenditure and supported in co-ordinating development of the capital expenditure programme.

#### Selected UK Rail Experiences (2002 - 2012)

- **HLOS (Department for Transport, UK)** - Responsible for overseeing the financial assessment of DfT's HLOS driven intervention on NXEA. Responsibilities have included scoping of DfT's comparator model, option evaluation, bid evaluation and presentation of financial results.
- **ERTMS (Strategic Rail Authority & Network Rail, UK)** - Seconded for nearly two years to the UK's National ERTMS Programme. Participated in the development of national ERTMS roll-out plans for train and track fitment and business case appraisal. Responsible for developing the ERTMS cost model and co-ordinating and validating data and assumptions with technical experts from the ERTMS team as well as Network Rail HQ. The cost model was based around whole life costing of conventional and ERTMS signalling equipment and ERTMS trainborne equipment for the next 60 years. It has also been used for considering financing options for procuring the infrastructure assets. The cost model included fitment dates for all trains and signalling assets in the UK. I was also acting as the Business Case manager and played a key role in developing the business case and communicating results within Network Rail, DfT and wider industry.
- **Thameslink Great Northern Refranchising (Private Client, UK)** - Responsible for overseeing financial modelling activities on a private sector client's bid for the combined Thameslink and Great Northern Franchise, including designing modelling architecture, data gathering, analysis of historic data, setting up the financial model and reviewing models prior to submission.
- **Southern Region Strategy (Strategic Rail Authority, UK)** - Provided business analysis support during the SRA's strategic planning for integrating Gatwick Express' operations into Southern, including high level operational assessment of train service requirements and modelling of changes in operating expenditure. Responsible for setting up a financial model to assess changes in subsidy requirement, the Government's net financial position and undertake a business valuation of Gatwick Express using a discounted cash flow analysis.
- **Project Galaxy (Department for Transport, UK)** - Responsible for high level financial analysis of an international rail operator's revenue and operating expenditure under various scenarios, including revenue and cost variability and the impact of changes in capacity.
- **Virgin West Coast and Cross Country Franchise Extension (Strategic Rail Authority, UK)** - Developed the public sector comparator models for the Virgin West Coast and Cross Country franchise extensions for 2004 to 2012, and played a key role in evaluating Virgin's bid submissions (line-by-line review of income and cost items and value for money assessment).
- **South Eastern Budget Review (Strategic Rail Authority, UK)** - Provided input into a due diligence of the South Eastern franchise's operating budget for 2004/05, including review of demand modelling assumptions, key expenditure items and benchmarking of key financial and performance indicators against similar UK train operating companies.
- **East London Line Business Planning (Transport for London, UK)** - Project managed a business planning project for the East London Line Extension, including development of fares assumptions, demand and revenue projections and bottom-up assessment of operating expenditure based on detailed operations analysis. Responsible for developing the financial model and assessing financial impacts, including changes in subsidy support for key stakeholders.
- **Thameslink Franchise Extension (Strategic Rail Authority, UK)** - Prepared the operating cost element of the comparator model, including model development and forecast. The work included analysis, appraisal and review of revenue and passenger demand and was

responsible for evaluating the incumbent's bid submission, including cost model review and preparation of inputs for the value for money assessment.

- **Gatwick Express (Strategic Rail Authority, UK)** - Responsible for developing the operating cost and financial models on a study of the Gatwick Express franchise.
- **Bedford Depot, Thameslink 2000 Project (Strategic Rail Authority, UK)** - Responsible for assessing whole life costs of the Thameslink fleet using Bedford depot for light maintenance instead of outsourcing. The analysis included understanding current costs and third party margin and future maintenance costs.
- **Southern Region Power Supply Upgrade (Strategic Rail Authority, UK)** - Responsible for analysing the impact on South Central's and Thameslink's operating expenditure as a result of implementing changes to timetable and rolling stock fleet.
- **ScotRail Franchise Replacement (Strategic Rail Authority & the Scottish Executive, UK)** - Responsible for developing the operating cost modelling aspects of the comparator model. Took part in analysing, appraising and reviewing revenue and passenger demand. Involved in designing templates for capturing key outputs from bidders' financial models, evaluating bids, preparing inputs for the value for money assessment and coordinating activities with the financial advisors.
- **West Midlands Capacity Study (Strategic Rail Authority, UK)** - Managed a strategic study analysing passenger loadings on routes into Birmingham. The analysis focused on matching demand (number of passengers on a train along the route) and capacity (derived from assumptions on train formations and seating capacity) on individual trains.
- **South Central Franchise Replacement (Strategic Rail Authority, UK)** - Assisted in the negotiations with the operator of the South Central Franchise. Undertook line by line cost reviews of the operator's proposed operating cost models and rolling stock replacement plans, including modelling the impact of delays to planned infrastructure investments required before the introduction of the new EMU fleet.
- **National Utilisation Strategic Study (Strategic Rail Authority, UK)** - Responsible for developing a strategic operating cost model used for the cost-benefit assessment of several scenarios involving radical changes to the existing timetable. The model was structured on a

bottom-up basis and incorporated key variable cost parameters. The assessment also involved a benchmarking of a number of train operating companies operating costs ratios in order to validate the bottom-up estimates as well as establish a range of likely values.

- **Investment Appraisal for the Rail Performance Fund (Strategic Rail Authority, UK)** - Responsible for undertaking financial and economic appraisals of a wide range of capital investment projects under the Strategic Rail Authority's Rail Performance Fund. Projects related to performance improvements arising from infrastructure enhancement, rolling stock modifications, implementation of new IT systems and relocation of control centres.
- **Northern Franchise Replacement (Strategic Rail Authority, UK)** - Responsible for undertaking revenue and fares analyses, including producing key performance indicators and comparing fares across services groups. Work also included the preparation of do-minimum forecasts for revenue and operating costs.
- **TransPennine Franchise Replacement (Strategic Rail Authority, UK)** - Responsible for preparing demand and cost projections for the comparator model, evaluating bidders' demand and cost projections, undertaking economic assessment of their investment plans, reviewing and comparing input assumptions and modelling methodologies.

#### [Selected International Rail Experiences \(2002 - 2012\)](#)

- **ERTMS Strategy Review (Infrabel, Belgium)** - Responsible for a team that completed a high level due diligence of Infrabel's (the Belgian rail infrastructure manager) ERTMS implementation strategy. Key tasks included document review, client interviews and preparation the final report.
- **Rail Sector Commercial Due Diligence Assignments (EBRD, Russia)** - Provided support on the development of integrated financial modelling tools for commercial due diligence assignments that included Russian (RZD) and Georgian Railways.
- **Whole-life Cost Model Review and ERTMS Business Planning (Network Rail, UK)** - Asked by Network Rail to act as an expert reviewer on a whole-life cost model. Also involved in Network Rail's update of the Business Plan for ERTMS roll-out in the UK, incl. updating implementation plan, costing modules for train and track

investments and preparing summary cost assessment of different implementation scenarios.

- **Signalling Strategy (Egyptian Railways, Egypt)** - Supported a signalling study in Egypt, with key tasks involving baselining of existing signalling assets, writing a high level master plan, route upgrade prioritisation, development of overall signalling strategy, implementation planning for 10-year upgrade and renewal programme of signalling assets and development of a procurement strategy.
- **Due Diligence of Rail Container Operator (EBRD, Russia)** - Managed a financial and operational due diligence study for the EBRD with focus on reviewing the company's business plans and undertaking interviews with local management. Key tasks involved identifying potential areas of concern and assessing the company's future cash flows, including financial statement projections and valuation of the operator's market value.
- **Strategic Review for Freight Operator in Romania (Private Client, Romania)** - Undertook a strategic review for a Romanian freight operator, with responsibility for developing financial projections for the business, including forecast of revenue, expenditure and capital requirements, and interviews with management to improve understanding of strategic and operational issues.
- **Signalling Strategy (Banedanmark, Denmark)** - Led business case work on a signalling strategy project for Banedanmark, the Danish rail infrastructure manager, with focus on three core strategies; base case, accelerated renewals programme with conventional signalling assets and a complete renewals programme with new technology (ERTMS) which were assessed on the basis of whole life costs, risks and impact on performance / socio economic benefits. The work also involved looking at procurement and financing options, including PPP contracting. I was also the lead writer of the final report (written in Danish). The report was published.
- **Madina MonoRail (Private Client, Saudi Arabia)** – Supported the due diligence on a feasibility study of the Madina MonoRail and developed a high level financial model to undertake sensitivity analysis of revenue and cost estimates and financing options.
- **Operational Efficiency (Statens Jarnvagar, Sweden)** - Supported the rail operator's drive to improving operational efficiency and matching service provision to passenger demand. I was

responsible for developing operating cost models, supporting demand and revenue analysis, bringing together the overall financial analysis of several initiatives and updating the operator's five-year business plan.

#### Other Key Experiences (2002 - 2012)

- **GMES Cost Benefit Analysis (European Commission)** - Responsible for a team supporting the European Commission in carrying out a cost-benefit analysis of the GMES (Global Monitoring Environment and Security) programme for the period 2014-2030. The study provided the European Commission with a quantitative assessment of the programme's costs and benefits across a range of investment and service options, informing key strategic policy decisions. Led the team across all workstreams, including a large programme of stakeholder interviews. Undertook significant desk research and developed the cost benefit modelling tool. The study was published by the European Commission.
- **Business Case Development for Satellite based Air Navigation and Safety Communication System (NAVISAT, Egypt)** - Managed business case and commercial advice on an assignment looking at the feasibility for launching a satellite based air navigation and safety communications system serving Middle East and Africa. Key tasks included due diligence on an earlier study, including business case work, preparation and participation in an industry wide workshop in Cairo and strategic assessment of market opportunities.
- **Framework for Portfolio Analysis (European GNSS Authority, Brussels)** - Responsible for a team that developed an Excel based tool for managing a large portfolio of research projects funding under the European Commission's 7<sup>th</sup> Framework Programme.
- **Market Studies for Agriculture and Maritime Sectors for GSA (European GNSS Authority, Brussels)** - Responsible for two teams that undertook market studies for GNSS applications in the agriculture and maritime markets. Studies focused on market segmentation, market sizing, market share and the future market potential. Particular emphasis was placed on understanding the current and future role of EGNOS and Galileo programmes.
- **Due Diligence, Market Assessment, Value Proposition, Business Case Evaluation (Private Client, Middle East and Africa)** - Supported a client looking to start-up a new

business in the business intelligence sector covering the Middle East and Africa. Responsible for the developing a cash flow based business modelling tool, considering revenue opportunities, pricing benchmarks and cost projections.

- **Review of Financial and Physical Reporting Systems (Department for Transport, Ireland)** - Undertook a diagnostic of the financial and physical reporting systems put in place by the Irish Department for Transport for monitoring and reporting on the delivery of the Transport 21 Investment Programme. The work resulted in a set of recommendations for the department.
- **Implementation of Payroll System (Whole of Government, Government of Southern Sudan)** - Covered several project assignments in South Sudan between 2008 and 2012, including responsibility for the development and implementation of electronic payroll systems and capacity building in general. The overall programme involved the transfer of all public sector staff across the country (around 100,000 staff) to an Excel based payroll tool. I was responsible for developing and maintaining the tool. The tool was used to process monthly salaries for all staff. The tool was developed to be fully automated and operated using Visual Basic for Applications. Undertook training and monitoring of local staff operating the tool.
- **Electronic Financial Management System for the Government of Western Bahr el Ghazal State (Southern Sudan)** - Led a team that undertook a comprehensive assessment of IT infrastructure and staff capability across all local government spending agencies in Western Bahr el Ghazal, including civilian ministries and organised forces (police, prisons, fire brigade). The project baselined current capability and implemented a transformation programme covering physical infrastructure and staff capability building. I also developed an Excel based financial reporting tool (using Visual Basics for Applications) which will be used to record and monitor cash and bank book transactions within government and state ministries.
- **Implementation of Payroll System (Ministry of Health, Government of Sierra Leone)** - Responsible for setting up an Excel based payroll tool. The tool was fully automated and operated using Visual Basic for Applications. The tool was implemented and used to generate monthly payments to nearly 8,000 public sector health staff.

## Halcrow Consulting (1998 - 2002)

### Selected Experiences (1998 - 2002)

- **Thames Trains Franchise Extension (Thames Trains, UK)** - Responsible for financial modelling of the train operating company's bid for a two-year franchise extension. Tasks performed included developing a financial model, gathering data from within the train operating company and from other consultants.
- **SERAS: South East and East of England Regional Air Service Study (Department for Transport, UK)** - Responsible for developing a financial assessment of various investment packages for airport runway expansion in the South East (covering all London airports) using a 60-year discounted cash flow model. This included significant data gathering and benchmarking of revenue and costs.
- **Business Valuation of an European Petrochemical Plant (Private Client, Holland)** - Strategic assessment involving financial valuation of the plant and preferred divestment strategy.
- **Valuation of a UK Property Company (Private Client, UK)** - Due diligence activity for a client interested in acquiring a property business. Undertook high level market research and developed a simple business valuation model to determine the value of the business.
- **Accounts Strengthening and Business Planning for Azerbaijan State Railways (EBRD, Azerbaijan)** - Responsible for modelling and analytical support on an EBRD sponsored project to improve accounting procedures and update the railway's five-year (rolling) business plan, including validating current business plan, demand assessment and modelling of the financial effect of proposed changes.
- **Corridors II and IX: 4<sup>th</sup> International Seminar in Chisenu (European Commission, Moldova)** - Involved in presenting and discussing key projects for the two corridors linking Belarus, Russia, Ukraine and Moldova. The seminar was sponsored by the European Commission (TACIS Programme).
- **Commercialisation and Restructuring Workshop in Kiev (European Commission, Ukraine)** - Commercialisation and restructuring workshop sponsored by the European Commission (TACIS Programme) for railway and government staff from Belarus, Moldova, Russia and Ukraine.

- **Rail Corridor II PPP Scheme (European Commission, Poland)** - Project manager on a study commissioned by the European Commission reviewing key aspects of the feasibility of creating a Public Private Partnership (PPP) initiative on the railway corridor between Berlin and Moscow. The study covered both freight and passenger transport.
- **Chiltern and South Central Franchise Replacement Bid (GoVia Group, UK)** - Responsible for financial modelling on the Go-Ahead Group's bids to operate the South Central (Southern) rail franchise and the Chiltern rail franchise.
- **MTL Franchise Extension (MTL, UK)** - Supported a team of consultants with data modelling and financial analysis, including development of a financial model used to assess the existing business and the financial effects of investment proposals for a franchise extension.
- **Restructuring of Malaysian Railways, Malaysia (Malaysian Government, Malaysia)** - Responsible for modelling and analytical support on a strategy project aimed at restructuring the Malaysian Railway's debts. Work included defining industry restructuring options and assessing financial effects of restructuring options and other efficiency improvement initiatives.
- **Strategy Development (Railtrack Scotland, UK)** - Secondment with Railtrack and supported in the production of eight route strategies covering all of the railway in Scotland. Responsible for financial evaluation and assessment of the viability of investment options over a 10-year planning horizon, with particular focus on performance, maintenance, renewal and capacity.
- **Network Study (Strategic Rail Authority, UK)** - Conducted an analysis of the Central Trains network. Responsible for providing economic and technical support to a team developing a demand forecasting model.
- **Thameslink 2000 (GoVia Group, UK)** - Provided modelling and analytical support to a team of consultants developing a financial forecasting model for the GoVia Group.
- **Customer Satisfaction Surveys (Thameslink Rail Franchise, UK)** - Commissioned by Thameslink to measure customer satisfaction on their trains. Surveys were undertaken four times during a two-year period and involved distributing 4,000 questionnaires on board trains and at stations. Responsible for questionnaire design, data analysis using SPSS statistical tool, report preparation and client briefings.
- **Network Study (Private Client, UK)** - Provided data collection and analytical support to a team developing a demand forecasting model for the Chiltern rail franchise. The aim of the study was to investigate the feasibility of expanding the current service patterns.
- **Edinburgh Rapid Transit (Private Client, UK)** - Provided modelling and analytical support as part of team providing advice to a Consortium bidding for this concession. Responsible for building a financial model to assess the feasibility of the scheme over the life of the concession.
- **MAV Passenger Railway Study (EBRD, Hungary)** - Restructuring study for the Hungarian railways sponsored by the EBRD. Responsible for modelling support to a team of consultants developing a financial forecasting model.