



MDS Transmodal[™]

Local and Global Transport and Logistics Research

CAPABILITY STATEMENT

Rail

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CONTENTS

	Page
1. MDS TRANSMODAL COMPANY BACKGROUND.....	1
2. CONSULTANCY SERVICES – RAIL.....	2
3. RAIL FREIGHT RELATED PROJECT EXPERIENCE.....	4
4. KEY PERSONNEL	7

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I. MDS TRANSMODAL COMPANY BACKGROUND

MDS Transmodal was established in 1983 and has developed into a unique business, providing specialist consultancy and information services to the world's transport industry. Our main activities are concentrated in the freight transport market and cover ports, shipping, intermodal movements, road, rail and logistics. We also have expertise in inland waterway transport, airfreight and international passenger travel.

MDS Transmodal undertakes a wide range of consultancy projects in the UK and internationally. Projects range from trade and traffic forecasting at the national level and for specific routes, or commodities or projects, to feasibility studies for new facilities or shipping services, to planning and policy advice. We have been working with the UK Government on the design of transport planning frameworks; we assisted with the development of the freight grants system in the UK and provide advice to clients on their use and in preparing applications.

Our clients are drawn from the public and private sector and include property developers transport providers, transport organisations, local and regional authorities, central government, financial institutions, and other organisations with interests in transport-related issues.

MDS Transmodal has developed an unparalleled range of information services as the basis for specialised consultancy services, as well as a source of intelligence for commercial companies and public sector authorities. This allows us to complete expert and well-informed studies in the shortest possible time. Our data store includes a comprehensive time series of world foreign trade statistics, the *Containership Databank*, which is a recognised reference for the world container shipping industry - and a physical inventory of the entire port infrastructure of Great Britain. All of these can be interrogated at multiple levels of analysis according to clients' needs. Alongside the data we have developed an econometric trade forecasting system and a number of transport models, some bespoke to particular projects, while the *Great Britain Freight Model* has now been adopted as part of the UK National Transport Model.

For more information about our company please visit our website at www.mdst.co.uk.

2. CONSULTANCY SERVICES – RAIL

Achieving success in the rail industry requires a thorough understanding of the market. The services we provide range from providing advice to public sector bodies on the development of rail freight in a particular region, to assisting manufacturers with the creation of intermodal logistics terminals, to working with developers on the creation of road-to-rail terminals in the UK and Europe.

In particular, MDS Transmodal provide the following rail freight related consultancy services:

- The optimum locations for new rail freight terminals;
- The design and layout of new rail freight terminals, from initial site design to the production of engineering drawings;
- Analysis of trade flows and market opportunities;
- The production of rail freight demand forecasts;
- Traffic and Revenue Forecasts;
- Modelling the cost of rail freight services, and those of competing modes of transport – road and shipping;
- Investment appraisals of rail freight schemes;
- Examining the feasibility of new rail infrastructure – terminals and tracks;
- Examining the feasibility and potential for new rail freight services;
- The development of linkages with other modes of transport – road and shipping;
- Operational and infrastructure studies;
- Rail infrastructure capacity pathing analyses and loading gauge assessments;
- Developing 'needs' case for supporting planning applications.

Our rail freight cost model allows us to estimate total operating costs which can then be used to establish representative rates for services charged by the market. Numerous individual cost components combine to form total rail freight operating costs. The model is also flexible so that the individual cost components can be adjusted/varied, therefore allowing different operating scenarios to be tested and costed. Due to a recent commission for the Office of Rail Regulation (the UK

independent economic and safety regulator of rail services), five types of freight train are now costed by the model:

- Intermodal
- Bulk – Coal
- Bulk – Nuclear
- Bulk – Iron Ore
- Bulk – Other

The model outputs, for each train type, are:

- Traction – Total annual fixed cost and fixed cost per operating hour;
- Traction – running cost per km;
- Wagons - Total annual fixed cost, fixed cost per operating day and fixed cost per operating hour;
- Track infrastructure charges; and
- Terminal handling costs – Fixed cost per unit.

The model's outputs can then be combined to produce total train operating costs on an 'individual train and journey basis' or for a fleet of trains employed on dedicated operations. The model also allows per freight unit costs to be calculated. The load factors per train can also be altered in the model (the cost impact of running longer a fuller trains can therefore be examined). These outputs can be linked to other spreadsheet models, and used as inputs to other models.

MDS Transmodal also provides logistics consultancy services to the producers, suppliers, and transporters of cargo. Our services are used for the development of the transport 'needs' case for new facilities to aid planning applications, and range from analysing and modelling existing traffic flows through to designing and implementing new logistics supply chains including the development of sustainable transport using rail, coastal shipping and inland waterway vessels. We analyse current logistics flows, current costs, efficiency/productivity rates and inventory levels. We design and cost innovative logistics solutions covering all transport modes – road, rail, sea and air. We advise on optimum locations for distribution activity using in-house developed cost models, and our knowledge of infrastructure requirements for rail connected warehouse locations.

Projects concerning the development of new rail infrastructure or terminal facilities are often tackled on a co-operative basis with an engineering consultancy. Our contribution covers the relevant market aspects, from the types of cargo that could be attracted, to potential interest from rail freight operators or logistics companies. This type of approach means that we are often the first consultancy contacted by potential developers/investors since the results of the market study will not only define the nature of the facilities but also whether the project is financially attractive.

3. RAIL FREIGHT RELATED PROJECT EXPERIENCE

MDST experience: UK Rail

SUBJECT OF STUDY	DATES	CLIENT
MDS Transmodal is commissioned to assess the traffic potential and case for a major new rail linked distribution park east of Maidstone. The work involved includes rail terminal and network design, forecasting, load gauge and capacity appraisal.	Ongoing	DMI-Properties/AXA
Advising on the further development of the DIRFT and associated sites, taking into account design, demand and network capacity	2005 - continuing	Prologis/Severn Trent
Study of a new passenger station at Northampton	2007 - continuing	Peter Brett Associates
Study of a new passenger station in Milton Keynes	2004 - continuing	Consortium of private developers
MDS Transmodal was originally commissioned in 2002 to provide the commercial and planning case for the expansion of existing intermodal and rail linked distribution facilities at Ditton, near Widnes. The project included the preparation of evidence to support the council's position at the Halton UDP Planning Inquiry, which included demonstrating regional need and that the site met all the criteria as a suitable location for a rail linked logistics facilities. The Planning Inspector agreed with the case presented, and land has subsequently been re-designated to allow the current facilities to expand. MDS Transmodal has since been retained to assist with the implementation of the expanded terminals.	2002 – ongoing	Halton Borough Council
MDST was retained by the developer to prepare a rail strategy and to present its case at the Local Plan inquiry. The site offers around 100,000m ² of development and can be readily connected to the main Birmingham – North East railway line and directly to the A50 grade separated road.	2002 – ongoing	Landform Development Ltd
Study of new passenger station north of Wolverhampton	2002-2008	Taylor Wimpey
Rail infrastructure design	2007	Ineos Chlor
Development of Barking as a Channel Tunnel railhead and logistics park.	2007	DMI/AXA
Development of national rail freight forecasts.	2007	RFG/others
Development of a rail linked distribution park at Corby.	2007	Prologis
Case for a rail linked distribution park in Slough.	2007	Goodman
Case for a rail freight acquisition in Poland (with EC Harris).	2007	Macquarie
Case for Saudi Arabia rail landbridge.	2007	Saudi/French consortium
Case for 24/7 railway	2007	Freightliner and EWS
This study used the rail freight cost model and the GB Freight Model to assess the impact on rail freight volumes of an increase in track access charges (TAC). In particular, the study examined how possible variations to TAC will impact on the operating costs of the rail freight industry, hence the competitiveness of rail freight in relation to other modes of transport, principally road based transport. The study will inform the ORR's 2008 periodic review of Network Rail's access charges.	2006	Office of Rail Regulation (ORR)
Advising on the impact of Crossrail on the companies' respective businesses, and giving evidence to the House of commons Committee.	2006	Hutchison and Tarmac
A study of the East of England freight industry. The study included an	2005-2006	East of England

SUBJECT OF STUDY	DATES	CLIENT
analysis of freight flows (using the GB Freight Model) and key issues in the ports, road, rail and airfreight sectors. A key aim of the study was to assess infrastructure and land use requirements. The outputs from the study will inform the development of future regional spatial and transport strategy.		Development Agency
This study used the rail and road freight cost models together with the GB Freight Model to facilitate the freight industry to develop 'high level forecasts' for the DfT, replacing the role hitherto adopted by the SRA. Various assumptions were made with regards to the operating costs of the road and rail freight industries going forward, with consequent impacts on the future modal splits between road and rail. The exercise was supervised by the Freight Transport Association (FTA) and the Rail Freight Group (RFG), to ensure that the underlying assumptions (costs), various forecasts of volume AND mode choice produced enjoyed 'buy in' from industry;	2005-2008	Freight Transport Association (FTA)
Case for acquiring rail freight operator in the UK	2005	Shipping line
MDST was retained by the local authority to advise on the case for and design of a rail linked warehousing development at Corby. The developer subsequently took onboard the critique offered in terms of redesign to render the project acceptable.	2004-2005	Corby Borough Council
MDS Transmodal was commissioned to forecast future rail freight volumes and assess the impact that capacity shortfall might have.	2004	Maersk
MDS Transmodal led this study for the West Midlands planning bodies, the major output being a recommended freight strategy for the West Midlands region. The study has drawn heavily on use of the GB Freight Model to analyse current and forecast future freight flows in the region, in addition to a full analysis of the key issues, policy and trends which will influence freight movements in the region over the medium to long term.	2003-2004	West Midlands Local Authorities
MDS Transmodal was commissioned to provide the commercial case for the development of rail linked distribution facilities at Salford. Work undertaken by MDS Transmodal included the preparation of evidence to support the developer's planning application and evidence at the recent Salford UDP Planning Inquiry. This included demonstrating regional need and that the site met all the criteria as a suitable location for a rail freight terminal.	2003 ongoing	Peel Holdings
MDS Transmodal provided specialist freight inputs to this Multi Modal Study. MDS Transmodal provided data on current freight volumes by mode moving to, from and through the study area (using the GB Freight Model). Base line freight forecasts by mode were undertaken (using the GB Freight Model) and these were used to test a number of different freight strategies and solutions.	2002-2003	DfT/Go-East
Market research and further work on developing the commercial case for a rail freight terminal at Donington (Telford), including providing advice concerning available freight paths. Construction work commenced in July 2006.	2002 – 2008	Telford & Wrekin Council and MoD
MDS Transmodal assisted the SRA in designing a new operating subsidy scheme for rail freight traffic. This involved the development of the fundamental principles of the scheme and its detailed design, as well as the modelling of its potential impact using the GB Freight Model. The project required a full understanding of the operating costs of road and rail freight,	2001 - 2002	Strategic Rail Authority (SRA)

SUBJECT OF STUDY	DATES	CLIENT
and the road and rail cost models were employed to compare the relative competitive positions under different operating scenarios. The new grant scheme was implemented in 2004 (recently replaced by REPS).		
Alconbury is a project to develop a 700,000m ² distribution park, with 90% of buildings rail linked and with intermodal facilities. MDS Transmodal undertook a major market analysis study examining the case for the development, and gave evidence on the need at the subsequent public inquiry. Now consent has been gained, MDS Transmodal has been employed to help implement the project, including examining capacity and pathing issues on the rail network connection to the site.	2001 - 2008	Alconbury Developments
A major market analysis study examining the case for the development of rail linked distribution facilities at Castle Donington (adjacent to East Midlands Airport). The project also included the preparation of evidence to support the developer's case at the subsequent Public Inquiry, which included demonstrating regional need and that the site met all the criteria as a suitable location for rail linked logistics facilities. The project gained consent in 2002 and advice is ongoing.	1999 - 2007	Wilson Bowden

4. KEY PERSONNEL

Mike Garratt

Director (Managing)

Mike Garratt has a first degree in economics and a masters degree in Transport Design. He worked initially as a local government transport planner, and subsequently as a researcher and then lecturer at the Universities of Leicester and Liverpool. He then founded the transport consultancy MDS Transmodal, which has now been trading since 1983. He specialises in shortsea shipping, ports and railfreight. Mike has conducted numerous studies for government, local authorities and the private sector. In the UK, he is a board member of both the Rail Freight Group and the water freight industry forum Sea & Water. Mike has been and continues to be involved with freight forecasting for amongst others the Department for Transport. Mike Garratt is regarded as one of the most informed observers of the rail, shipping and ports industries in the UK and is regularly called upon to speak at conferences and private seminars.

Mike's private clients range across shipping lines, major ports, rail operators, property developers and financial institutions and he has been involved in many 'high-profile' studies including for the Department for Transport (National Port Traffic Forecasts; Economic impact of transshipment). Mike is also heavily involved in helping the rail freight industry to produce forecasts to inform government.

Michael Hatfield

Senior Consultant

Michael Hatfield is one of the Senior Consultants at MDS Transmodal. Michael has a geography degree from the University of Durham and also has a Masters in International Transport. Michael has worked on a large number of projects both in the public and private sectors. His strengths are in road transport policy and operation, the rail freight industry, data analysis, modal economics and market analysis in a variety of sectors. He is also experienced in undertaking interview/consultation programmes for projects. Before joining MDS Transmodal, Michael had an industrial background in the third party logistics and road transport industry, where he managed a number of operations. He is therefore able to provide a valuable insight into the distribution industry.

Chris Wright

Programmer and Computer Modelling

Chris Wright has a 2.1 Master of Physics degree from Oxford University and a Transport Planning MSc from ITS, Leeds University. Chris has been working for MDS Transmodal for over 6 years and has been involved in writing modelling software and data analysis. He has worked on jobs for the SRA, RSPB, Highways Agency, and several ports. He has contributed to the ongoing development of the GB Freight Model (GBFM). He has also written a rail assignment program to display freight train movements on the rail network. Combined with GBFM, these have been the basis for rail freight forecasts for the rail industry in conjunction with the Rail Freight Group and the Freight Transport Association. He has produced a program to estimate future port capacity shortfalls and what would be required to accommodate forecast growth.

Simon Marzetti

Data Analysis/Modelling and Railway Engineer

Simon Marzetti has a Bachelor's degree in Civil Engineering from Southampton University and a Master's degree in Transport Planning from ITS, Leeds University. He is an Associate Member of the Institution of Civil Engineers. After ten years as a civil engineer employed by British Rail, Simon spent several years working in Mozambique, initially in the road sector, then as a data analyst. A period of postgraduate research into the air industry combined with maritime experience gained since joining MDS Transmodal in 1999 has given Simon experience of all sectors of the transport sector. He now concentrates on the operation and cost modelling aspects of consultancy projects and on railway terminal layout and design. He is also responsible for the interpretation and application of the International Passenger Statistics database held by MDS Transmodal for consultancy work.