



EDUCATION

1981 Masters City and Regional Planning (Transportation)
Distinguished Achievement, CMHC Scholarship, Harvard Kennedy School

1979 Bachelor of Architecture, University of Toronto

KEY SKILLS

Innovative transport strategy and planning, PPP major projects economics, operations management and forecasting analysis

EMPLOYMENT

2008-current Partner Director, First Class Partnerships Ltd, UK

1996-2008 Director, GB Railways plc, GB Railfreight, Hull Trains

1992-1996 Independent Consultant

1988-1992 Vice-President, Transport, Olympia & York Canary Wharf Developments Ltd, UK

1986-1988 Chief, Rapid Transit Planning, City and County of Honolulu, USA

1983-1986 Manager International Projects, Urban Transportation Development Corporation, Toronto

1981-1983 Design Coordinator, Skytrain Project, Vancouver

LANGUAGES

English with intermediate French and Mandarin, and basic German



MICHAEL SCHABAS has over 30 years experience in development and operation of rail passenger, freight and urban transport systems. He has a reputation for developing innovative but practical business strategies. He prepares traffic forecasts, business plans and feasibility studies as well as building core teams for complex projects. He brings a detailed understanding of project finance and Private-Public-Partnerships (PPP), concessions and franchises, transport economics, and the technical and political opportunities and constraints within which they must operate.

In 2014, Michael led an FCP team retained by the Ontario Ministry of Transportation to develop business plans for upgrading Toronto's 450km commuter rail system into Regional Express Rail with frequent electrified two-way all day services. He showed how the project could be implemented in 10 years, with most of the costs recovered from fares and operating savings. FCP also developed a conceptual plan for a high speed rail service between Toronto and London Ontario. The two projects, totalling about \$20bn, have now received government support and FCP is retained by Metrolinx, the Toronto regional transit authority, to support implementation of the RER project.

Michael continues to lead the technical and commercial team advising Eko Rail on new metro line development in Lagos, Nigeria under a 25 year PPP concession. He also has active projects in Germany, Canada, the USA and Britain.

He has advised VIA Rail Canada on strategies to develop High Speed Rail in the Toronto-Ottawa-Montréal corridor. This includes modelling of costs and benefits, and presenting the conclusions in a form that can be understood by non-expert policy makers. He has other active passenger rail projects underway or in operation in Germany, the USA and Britain.

During privatisation of British Rail, Michael founded GB Railways plc, which operated Anglia Railways, an award-winning intercity passenger operator. GB Railways launched GB Railfreight and backed the formation of Hull Trains, Britain's first "open access" train company. GB Railways raised more than £100m of private risk capital for rolling stock investment, and won numerous awards for passenger service excellence and innovation. He also led Great Southern Railways' acquisition of Australia's trans-continental passenger trains and created the business plan which brought it to profitability.

Earlier in his career he played leading roles in shaping Vancouver Skytrain, London's Docklands Light Railway (DLR) and Jubilee Line Extension, West Coast Main Line modernisation and Britain's first High Speed Railway (the Channel Tunnel Rail Link, now HS1).

He has published extensively on transit planning and finance. See www.schabas.net



EXPERIENCE

Toronto Regional Express Rail, 2014–current: Retained by the Ontario Ministry of Transportation and then Metrolinx, the Toronto regional transportation authority, leading an FCP team developing the full Business Case for the \$15 billion Regional Express Rail programme. Confirmed strong business case and now advising on procurement and delivery.

Ontario GO FAST Toronto - Kitchener - London High Speed Rail, 2014–current: Retained by the Ontario Ministry of Transportation to prepare a pre-feasibility study of a proposed 200km HSR line. Mr Schabas led the team that identified a viable scheme costing \$2.5bn, with a strong financial and economic business case. The project has now been backed by the Provincial Government and a full feasibility study is to follow.

Toronto “Big Move” Review 2013: Retained by Neptis, an independent foundation, to review the effectiveness of the \$36 billion program, and to identify possible improvements. Full report available at www.neptis.org. Subsequently retained by Metrolinx, the Toronto regional transportation authority, to develop the full Business Case leading to implementation of Regional Express Rail, as part of a larger FCP team.

Sydney Northwest Metro 2013: Retained by the Authority to review the proposed payment mechanism for this multi-billion dollar automated metro being developed under a PPP.

VR Finnish Railways 2013: Advising Finnish Railways on strategies for responding to proposals to franchise the Helsinki commuter rail services.

Transportation Research Board 2013: Advising the US government-sponsored organisation on new sources of revenue for transport investments.

Canary Wharf Group, 2012: Retained to develop proposals to extend Crossrail to serve Stansted Airport.

VIA Rail Canada 2012: Advised on technical and commercial strategies for improving passenger services in the Montréal – Ottawa – Toronto corridor, and structures for introducing private investment.

Nottingham Light Rail Transit, 2010: Advised shortlisted concession bidder.

European Rail Freight, 2010: Financial and operational due diligence for investment of €200m in a central European rail freight company by a multi-lateral lender.

US High Speed Rail, 2010: Advised US Japan High Speed Rail Corporation on development of a high-speed railway in Texas. Work included independent development and review of traffic, revenue and operating cost forecasts.

Calabar-Maiduguri Railway, 2010: Prepared a pre-feasibility study for a 1200km \$3bn mixed-traffic railway linking Calabar to northeastern Nigeria, for five state governments.

Rio Sao-Paulo High Speed Railway, 2009–2010: Assisted the World Bank in review of plans and PPP structure for a \$25bn high speed railway linking Rio and Sao-Paulo.

Tyne & Wear Metro Concession, 2009: Advised Metro Management in their bid to retain operational responsibility for the Metro system serving greater Newcastle.

Lagos Mass Transit Rail System, 2009–2014: Provided commercial and technical leadership to Eko Rail, awarded a 25-year concession to finance, equip and operate a new Metro system.

Hamburg-Köln Express, 2008–current: Founder investor of Germany’s first “open access” intercity rail operator. Services commenced July 2012. www.hkx.de



China Railways, 2009: Working with China Academy of Railway Sciences to study the potential of market-based pricing on China Railways, in a World Bank funded technical assistance project that included a comprehensive review of rail retailing in Europe.

China Urban Rail Finance, 2008: Advised the World Bank on alternative financing methods for new metro systems in China.

Copenhagen Commuter Rail, 2007: Negotiated a joint venture between FirstGroup Plc and Danish State Railways, which bid successfully for rail concessions serving the Copenhagen-Malmö (Oresund) route via Kastrup airport.

Rail4Chem, 2007: Led FirstGroup Plc team in a bid to acquire Rail4Chem, one of the largest independent rail freight companies in Europe.

MAV Cargo, 2007: Advised RDC/Macquarie bid to acquire the Hungarian state-owned rail freight company.

CTL Logistics, 2006: Advised Macquarie Bank and RDC consortium bidding for the largest private rail freight operator in Poland.

Commission for Integrated Transport, 2006: Completed a study for the UK Government transport think-tank on macroeconomic drivers of bus and rail costs.

FirstGroup Deutschland GmbH, 2005–2006: After a survey of opportunities in the German market, led negotiations and acquisition due-diligence for purchase of a municipal bus company in Speyer, Rheinland-Pfalz. Subsequently led a successful bid to operate tendered routes to Frankfurt Airport.

AS Ofofbanen, 2004 Led a group of investors who acquired an interest in an independent passenger and freight rail operator in Norway and Sweden.

Cargo Slovakia, 2004: Led FirstGroup Plc bid to acquire Slovakian state rail freight business. Although shortlisted, FirstGroup decided not to pursue the competition.

Transport for London, 2004: Advised on possible use of Oyster Smartcards as an electronic purse.

Edinburgh Airport Rail Link, 2004: Member of project Peer Review panel.

Vancouver Skytrain Richmond Airport Line, 2003–2004: “Red Team” member reviewing a bid for \$1bn PPP concession project.

Sage Realty, 2003–2006: Advised a major office developer in negotiations with the New York Metropolitan Transportation Authority to mitigate impacts of the Grand Central–East Side Access project.

Uzbekistan Railways, 2002: For the Asian Development Bank studied the potential for development of rail tourism on Uzbekistan Railways.

WestRail Freight, 2002: Responsible for revenue forecasting, track charging and economic regulation issues in a \$500m bid by a consortium including Babcock & Brown, Walter Construction and GB Railways to acquire the Western Australia Government railways.

SuperCrossrail 2001: Led a joint GB Railways / Transport for London team evaluating the potential to extend Crossrail to Stansted and other regional destinations.

Hull Trains, 1999–2008: Led development of Britain’s first open-access intercity train company. Hull now runs seven services daily between London and Hull, using 200km/h diesel multiple unit trains, without any Government support.

Sydney-Canberra High Speed Rail, 1999: Led GB Railway team bidding with Siemens, Bilfinger Berger, and Babcock & Brown, for a concession to develop this \$2 billion project.



Melbourne Australia Trains (Metro) and Trams (Light Rail) 1999: Technical lead for the GB Railways bid (with Siemens, Deutsche Bank, and Bilfinger Berger) for five rail concessions in Victoria, Australia. GB Railways was shortlisted for all five franchises, but lost to more optimistic competitors. In all cases the winning bids proved undeliverable and were renegotiated within 3 years.

GB Railfreight, 1999–2008: Founded Britain's third largest rail freight operator, now with 300 staff and 60 locomotives, serving a range of customers.

Malawi Railways, 1999: Led GB Railways bid to acquire the Malawi Railways system. GBR made the best bid but was unable to agree terms to close the transaction.

Zimbabwe Railways, 1999: Led GB Railways/Brown & Root bid to acquire the Zimbabwe Railways infrastructure. After shortlisting, the process was terminated as the local political situation deteriorated.

Edelaraudtee, 1998: Led initial due diligence for GB Railways acquisition of an interest in AS Edelaraudtee, a passenger and freight railway in Estonia and the first fully privatised railway in the former Soviet Union.

Transport Canada, 1998: Advised on options for restructuring, franchising or privatisation of VIA Rail.

Anglia Railways, 1997–2003: Developed key strategies which won the 7-year franchise to operate electric 160km/h InterCity trains and connecting local services in eastern England. Anglia was top rated by the UK Government, achieving 50% passenger and revenue growth over 7 years, and was twice named "Train Operator of the Year."

Great Southern Railway, 1997–1999: Strategic leadership to GB Railways consortium that acquired the Indian Pacific, Ghan and Overland long distance sleeper trains. By expanding and extending services, turned the loss-making state enterprise into a profitable business.

Queensland Rail, 1997: Advised on structuring public-private partnerships.

Bristol Light Rail Project, 1996: Review for Bristol City Council of light rail and funding.

Railtrack Plc, 1996: Study of depot options for South London.

British Telecom, 1996: Led a seminar on opportunities relating to rail privatisation.

Class 312 Train Rebuilding, 1996: Evaluated alternatives for rebuilding these trains with sliding doors and air conditioning.

GB Railways Group Plc, 1995–2003: Founder director, assembled a team floated the company on the London Stock Exchange (AIM). GB Railways operated railways in the UK, Australia and Estonia. It was acquired by FirstGroup Plc in 2003. GB Railways expanded services while reducing subsidy, and invested over £200m in new rolling stock, entirely financed with private capital.

London Airports Surface Access Study, 1995–1996: Lead member of a team which carried out a major study to improve road and rail access to London's airports for the UK Department of Transport.

Crossrail, 1994: Lead member of a team reviewing the project for the UK Department of Transport. The Select Committee cited the report as instrumental in their decision to reject the scheme.

West Coast Main Line Modernisation, 1994–1995: Founded WCML DevCo., a consortium including Jacobs, Babcock & Brown, Booz Allen and Brown & Root which carried out a major study to define the upgrading of the London-Glasgow main line.



AMEC Plc, 1994–1997: Retained by this major contractor to advise on bids for projects including DLR Lewisham Extension and Croydon Tramlink.

BAA Plc, 1992: Review of revenue forecasts for the Heathrow Express railway, including identification of opportunities for higher fares with yield management.

London Underground Ltd, 1992: Reviewed options for Morden Depot

Channel Tunnel Rail Link (now High Speed 1), 1991–1996: Retained by Newham Council and the London Docklands Development Corporation. Subsequently retained for four years as Special Adviser to Union Railways, a subsidiary of British Railways established to promote the £5 bn project. Conceived and developed the proposal to use the St Pancras as the London terminal, now built.

Docklands Light Railway, 1988–1997: As Vice President Transport for the Canary Wharf developers, led discussions to obtain value for their £67 million contribution to the Bank Extension. Persuaded the UK Government to transfer control of the railway from London Transport to the Docklands Development Corporation, and to install CBTC moving block signalling. Then led the formation of the Brown & Root/Booz Allen Joint Venture that won the £100m System Prime Contract, re-engineering the railway for higher capacity and reliability.

Jubilee Line Extension, 1988–1992: As Vice President, Transport for the Canary Wharf developers, conceived and promoted the £3.5bn Jubilee Line Extension. Managed a team that prepared the initial Private Bill, worked with consultants appointed to complete the East London Rail Study, and developed the business case that persuaded Government to fund the scheme. Later advised the European Investment Bank on project funding.

Honolulu Rapid Transit, 1986–1988: As Chief of Rapid Transit Planning for the City & County of Honolulu, was responsible for planning of a 40km light rail rapid transit system. While a draft Environmental Statement was prepared, the project became mired in local politics. This was the second attempt to launch the project. After three further attempts, construction finally commenced in 2012.

Urban Transportation Development Corporation, 1983–1986: As Manager of Strategic Marketing, promoted UTDC's technology in Bangkok, Taipei, Alexandria, Athens and Ankara, identifying local partners and assessing the likelihood of the projects proceeding. UTDC was subsequently awarded contracts for metro systems in Bangkok and Ankara.

Vancouver Skytrain, 1981–1983: As Design Coordinator for the system turnkey contractor, was responsible for working with the client and other stakeholders to finalise the route and detailed design of five sections of a 22km \$1bn elevated automated light rapid transit system. Developed the innovative track layout at Stadium Station, which allowed higher capacity operation, and justified it using cost-benefit analysis. Also developed an alternative route through New Westminster, with reduced cost and visual impacts.

Toronto North-South Bicycle Lanes, 1976–1979 As a member and Chairman (1978) of the City Cycling Committee, led efforts to persuade City of Toronto Council to introduce the city's first exclusive bicycle lanes. Secured funding and also enabling legislation from the Provincial Government.

PAPERS AND PUBLICATIONS

- *Review of Metrolinx's The Big Move (Toronto Regional Public Transport Plan)*, Neptis Foundation, December 2013.
- *Market Pricing Is Essential*, Railway Gazette, September 2012.
- *Benchmarking For Dummies*, Modern Railways, May 2012.
- *Eko Rail Wins Lagos Blue Line Concession*, Metro Report International, March 2012.
- *Market Pricing – Special Report*, Passenger Transport, Issue 028, March 2012.



- *European Rail Retailing*, unpublished World Bank Working Paper, June 2010. Translated into Chinese 欧洲火车零售.
- *Crossrail Approaching The Starting Blocks*, Planning in London, Issue 64, March 2008.
- *To Fix Heathrow, Extend Crossrail to Stansted*, Planning in London, Issue 62, July 2007.
- *The Stansted Solution*, Opinion (Leader) in the Financial Times, 22 June 2007.
- *Paying for Crossrail*, Institute for Economic Affairs Journal, March 2005.
- *Break Up Railtrack*, Personal View (Leader) in the Financial Times, 22 June 2001. Also published as adapted articles in Modern Railways, April 2001 and in Rail Freight Group Newsletter, March 2001.
- *New Railways for London*, Planning in London, April 2001.
- *Competitive Behaviour in Britain's Privatised Rail Industry*, Privatisation and Deregulation of Transport, Oxford University Regulatory Policy Research Centre, Macmillan, 2000.
- *Banded Road Use Charging*, Centre for Policy Studies, London 1995. Abridged version published in Going Green, Environmental Transport Association.
- *Burnt Offering - Jubilee Line: The Inside Story*, New Civil Engineer, March 1994.
- *Automated Transit Systems*, The Urban Transport Industries Report 1993, editor Tony Ridley.
- *Kings Cross Project Review*, Review of BR's strategic assessment of options. Recommended a surface Channel Rail Link to a new terminal at St Pancras. Presented to the House of Lords Committee, July 1992.
- *Involving Property Developers*, Planning Passenger Railways, Transport Publishing, London 1991.
- *Light Rail Transit to Stimulate Development -The Developer's Perspective*, Light Transit Systems, Thomas Telford Books, Institution of Civil Engineers, London 1990.
- *High Speed Underground Links for London Docklands*, Electrifying Urban Public Transportation, Liverpool Polytechnic, 1989.
- *Quantitative Analysis of Rapid Transit Alignment Alternatives*, Transportation Quarterly, Eno Foundation, Westport USA, July 1988.
- *Smart Transit Systems: How the Software Changes the Hardware* paper presented at American Public Transit Association conference, June 1987.
- *Modern Transit for Modern Cities* presented at China Road Federation Conference, Taipei, Taiwan and Istanbul Technical University Symposium on new rail systems, 1985.
- *Vancouver Advanced LRT - Breakthrough in the Real Estate-Transit Connection*, Proceedings of the 1982 National Conference of the Canadian Institute of Planners, Ottawa 1982. Co-authored with Jean Porteus.
- *Creative Traffic Control*, City Magazine, Toronto, 1979.
- *Planning Suburbs for Public Transportation*, Masters Thesis, Kennedy School, Harvard University, 1981.

EXPERT TESTIMONY

- Expert witness, Crossrail Business Case Review, House of Commons Committee on the Crossrail Bill, London, 2006.
- Transport & Works Enquiry on the East London Line Extension, London, 1996.
- The House of Lords Committee on the Kings Cross Bill Report, London, 1992.
- House of Commons Select Committee on Light Rail Transport, London, 1990.

PUBLIC SPEAKING

- 20 Years of Rail Franchising, Railway Study Association, London June 2015



- Axis Conference, Tripoli, Libya, Jan 2013.
- UK AirRail: Connectivity for Growth, London, Nov 2012.
- Nigeria Development and Finance Forum, London, May 2012.
- Transit Leadership Summit, Rockefeller Brothers' Fund/Volvo Research Foundation/Regional Planning Association, New York, April 2012.
- China Academy of Railway Sciences, Beijing, 2011.
- RailWorld Summit, "Without Market Pricing, Half The Benefits of HSR Are Wasted" Beijing, Sept 2011.
- China High Speed Rail Conference, "Market Pricing for Profitability," Beijing, 2009.
- 4th Annual China Railway Summit, "European Rail Retailing," Beijing, 2009.
- Eurorail, "The Role of Private Operators Developing High-Speed Services," Berlin, 2009.
- Die Grunen/Green Party Conference, "Deutschland im Takt?" Bundestag, Berlin, 2009.
- China Urban Rail, "Public Private Partnerships," World Bank Symposium, Beijing, 2008.
- Forum 1520, "Human Resources in the New Railway Industry," Sochi, Russia 2008.
- BAG-SPNV Annual Conference, "Rail Ticketing in the UK," Berlin, 2008.
- Inspire East: Planning Sustainable Suburbs, Cambridge University, 2008.
- Central and European Rail Freight, Budapest, 2006.
- Crossrail Challenge and Opportunity, London, 2005.
- Stagecoach Integrated Transport Conference, Winchester, 2005.
- Delivering Essential Transport in Growth Areas, London, 2005.
- "Investing in Railways - Buyer's Perspectives." World Bank, Washington DC, 2005.
- Competition and Open Access, Regulation Conference, London, 2002.
- European Transport Conference, "Bidding for Railways on Four Continents," Cambridge, 2001.
- TransAfrica Investment Forum, London, 2001.
- "New Railways for London", London 2001.
- World Bank Railway Roundtable, Vienna, 1999.
- Member, Technology Foresight Panel, Cabinet Office (UK), London, 1995-1998.
- Africa Rail '98, Johannesburg, 1998.
- London's Transport Future, Waterfront Conferences, London, 1998.
- AUSRail '97, Melbourne, 1997.
- "London's Transport Infrastructure," AIC Conference, London, 1996.
- Waterfront/IT Conference "The National Transport Debate", London, 1995.
- Royal Institute of Chartered Surveyors London Chapter, London, 1995.
- Cities '94 Conference on Urban Regeneration, London, 1994.
- Bow Group Conference, "Burnt Offering: The Jubilee Line Extension," London, 1994.
- British Council of Offices Annual Conference, London, 1993.
- Juror, London Docklands "Decade of Achievement" Awards, London, 1991.

Guest Lecturer: OMEGA Centre London 2013, Transport Economists Group, London 2002; West Midlands CIT Conference, 1990; University of Hawaii, Department of Urban Studies, USA 1988; York University, Faculty of Business Administration, Canada, 1986; and University of Waterloo, School of Architecture, Canada, 1985.