

# Independent Port Consultants

## SELECTED PROJECTS

### Projects undertaken by IPC and its members from 2011 onwards:

<b>Country</b>	<b>Project</b>	<b>Client</b>	<b>Project Description</b>
AFRICA	Oil Base Due Diligence	Confidential	Provided negotiations support, prepared layout drawings, cost estimates, construction programmes for options for new oil base in existing port.
ANGOLA	New Port at Dande	Confidential	Master planning and advising on traffic projections for a large new multi-purpose port with breakwater protection.
ANGOLA	Luanda Oil Service Centre expansion	Sonils / WSP	Preparation of tender documents and contract award discussions for new quay wall including special heavy lift provisions.
AUSTRALIA	Port of Gladstone LNG O & M	Gladstone LNG / HR Wallingford	Development of operations and maintenance plans for a marine offloading facility to support construction of an LNG plant on an island 3 miles offshore.
AUSTRALIA	Victoria Int'l Container Terminal, Melbourne	ICTSI / URS	Advised on planning and design proposals for VICT's winning concession bid for an innovative automated terminal at Webb Dock.
BALKANS	Intermodal Development Strategy	Wood plc, for World Bank	Analysis of intermodal rail and waterway prospects for six Western Balkans countries, including forecasts and development strategy.
BELGIUM	IT System Development	Port of Zeebrugge	Development of an IT system for freight and passenger arrangements for ferry terminal.
CAMEROON	Kribi Port - PPP Tender Process	International Container Terminal Operator	Advisory role in coordinating technical and financial bid preparation and tender submissions for new greenfield container and multi-purpose terminal concessions.
CAMEROON & IVORY COAST	Review of Towage Companies	RSA Insurance Co London	Safety, Risk and Environment Assessment. Reviewed operational risk mitigation procedures, identified weaknesses and reviewed with client and tug company management.
CANADA	Post-Incident Review of Ship Collision	Tanker Operator Toronto	Review of training and promotion assessment procedures for new ship masters. Bench marking of best practice and psychometric testing, and recommended improvements.
CHINA	Breakbulk Port Sector Review	Private Investor / GHK	Advised on marine access, facilities and future requirements at 10 major ports.
CHINA	Master Plan Review of Ports at Jieyang	Huilai County / ICF	Advised on master planning and costings for a cluster of major industrial ports under construction.
CONGO D.R.	New Terminal Development Due Diligence	International Container Terminal Operator	Advisory role in project technical and business case due diligence for a new container terminal concession.
CYPRUS	Cargo Handling and Delivery to End User - Limassol	UK Government / Ramboll	Reviewed port's berths and facilities, inland road traffic and congestion. Recommended cost-effective and environmentally-friendly methods of handling and delivery.
DOMINICAN REPUBLIC	Caucedo Container Port	Scotiabank / URS	Independent engineer during operation and expansion of a new green field port, including works and equipment

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			contracts; annual audits of operations, infrastructure and resources, and budgets.
EGYPT	Inland Port Development	Port of Alexandria / Rendel	Advised on the design, operating equipment, labour and staff requirements and transitional traffic arrangements for a new inland Customs clearance depot linking 6th October City and the Port of Alexandria.
EGYPT	Suez Canal Area Development	Suez Canal Authority / Dar al Handasah	Forecast container and main commodity throughput for major Egyptian ports to 2050. Assessed port and shipyard assets. Developed a port strategy and master planning for the 6 ports in the region: addressed all port components including institutional framework, pricing strategy and competitive analysis.
EGYPT	Ain Sokhna Port Expansion	Various	Three separate technical due diligence assignments for different clients over 15 years, including reviews of operations, capacity, major expansion plans, costings and pricing.
EQUATORIAL GUINEA & ANGOLA	FPSO Training Programme	International Oil Companies and Government Agencies	Provided a 3-day 24-module training course on the operational technical, commercial and risk issues of FPSO operations.
EUROPE	Cruise Development Study	Confidential	Feasibility study for new two-berth cruise terminal development in brownfield port location, amended marine berths and changed onshore uses including new double terminal, access and master plan changes.
FRANCE	Seine - North Europe Canal	Confidential	Technical due diligence for Lenders' Technical Advisor of ports and multi-modal facilities on a proposed new 106 km canal – part of the planned high capacity Seine-Scheldt waterway link.
FRANCE	Bulk Terminal, Fos-sur-Mer	Ramboll	Provided specialist advice to improve throughput in large coal and iron ore terminal.
GABON	Internal Auditor Training	GSEZ	Training of internal auditor team for Owendo terminal and logistics operations and corporate functions.
GABON	Owendo Port Due Diligence	AIIM / Drewry	Due diligence of terminal for prospective purchaser - review of traffic, landside trade routings and potential competitors.
GEORGIA	Free Zone Logistics	Jebel Ali Free Zone	High-level advice on maritime and overland freight logistics structures and logistics company service strategies associated with the evaluation of a new Free Zone proposed for Poti port in Georgia.
GEORGIA	New Port Evaluation	Private Investor / Ramboll	Economic and financial market viability assessment / forecast and technical components of a due diligence study of a proposed new multi-purpose port intended to handle bulks and other cargo.
GEORGIA	Anaklia Feasibility	Anaklia Free Zone / Moffatt & Nichol	Feasibility study development of the Anaklia Export Economic Zone, Anaklia Port and Freezone.
GHANA	Trade Facilitation Ports Project	World Bank	Port consultant for World Bank trade facilitation project, Tema port.
GHANA	Tema LNG	Gasfin	Owner's marine advisor. Design reviews, mooring and navigation studies, construction stage support for innovative new FSU/FRU terminal.
GHANA	Takoradi Port Concession	RHDHV	Advised on concessioning of operations for the new container terminal and oil jetty.

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GHANA	Atuabo Free Port Due Diligence	Investors / Wood Mackenzie	Feasibility and due diligence study of planned O&G free port, with stakeholder interviews and bench marking against Nigeria and Equatorial Guinea.
GHANA	Bulk Cocoa Shipments	Belgian Ship Operator	Business development matching buyer and seller, bulk cocoa shipments Takoradi – Europe.
GLOBAL	Terminal Link Global Portfolio	China Merchants / GHK	Due diligence technical review for investor of capex and opex projections for 16 terminals across 4 continents.
GLOBAL	Key Bunkering Ports	Petromedia	Consultant analyst for the production of self-contained reports on bunker hub ports, including analysis of markets, prices, and quality of bunker products. The ports covered included Rotterdam, Antwerp, St. Petersburg, Marseille, Malta, Piraeus, Genoa, NY, LA/LB, San Francisco, Seattle, Vancouver, Cape Town, Richards Bay, Durban, Port Klang, Mumbai and Colombo.
GLOBAL	Manual	World Bank	Development of guidelines to assist WBG staff and policy makers to effectively measure and improve procedural efficiency of ports and logistics chains and border controls.
GLOBAL	CMA Terminals Global Portfolio	CMPort / Ernst & Young Transactions Ltd	Due diligence technical review for investor, including capacity and capex projections, for 14 container terminals.
HAITI	Port au Prince South Pier	Caribbean Port Services	Operational data analysis for a new bulk and general cargo terminal.
HONG KONG	Container Terminal 10 Study	Government / Scott Wilson	Planning and operations components of preliminary feasibility study for the port's largest terminal development.
HONG KONG	Port 2030 - Capacity Study	Government / Scott Wilson	Specialist advice on regional ports and capacity analysis of all Kwai Tsing container terminals.
INDIA	4 <sup>th</sup> Container Terminal at JNP	Private / Scott Wilson	Advice to support a concession bidder on planning and equipment for the port's 4th container terminal - the largest in India.
INDIA	5 <sup>th</sup> Container Terminal at JNP	Jawaharlal Nehru Port Trust	Development of fifth container terminal at Nhava Island, including container, oil <b>and</b> bulk cargo. Port traffic forecasts to 2035, based on extensive web research, detailed evaluation and review of competing ports, statistical modelling and interviews with stakeholders.
INDIA	Ennore Container Terminal	Ennore Port Ltd / Scott Wilson	Review for the port landlord of the concessionaire's detailed project report / proposals for a large new container terminal.
INDIA	Project Sagarmala	Min Shipping / IPA / AECOM	Reviewed techno-economic feasibility reports for 4 proposed new deep water industrial ports.
IRAQ	Port Development	NAWAH Inc, USA Basrah	Worked with US investors to identify and develop opportunities in Iraq ports to establish through-transport system to deliver oilfield cargoes via ports to end users.
IRAQ	Khor Az Zubair	Zubair Terminal	Traffic forecasting, overall planning and costing for a new 12m depth multi-purpose cargo terminal primarily serving the oil and gas industries.
IRELAND	Shannon LNG Marine	New Fortress Energy / Arup	Feasibility study update, prepared marine tender documents, cost estimates, programme, procurement support for new LNG jetty with permanent FSU and cooling water intake.

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IRELAND	Cork Bulk Handling	Pfizer	Assessment of fugitive dust from bulk handling operations.
ITALY	Voltri Terminal, Genoa	PSA International	Truck scheduling, gate automation and TOS integration design, and software and process design, for Italy's largest gateway terminal.
IVORY COAST	Inland port	Dar al Handasah	Throughput forecast for proposed new dry port.
IVORY COAST	Abidjan - New Container Terminal	International Container Terminal Operator	Advisory role in coordinating technical and financial bid preparation and tender submissions for a new container terminal concession, including assistance on initial market assessment and business case analysis.
JORDAN	MEDA MoS II - Port of Aqaba	EU/Jordanian Dept of Transport / Dar al Handasah	Provided technical focus in the fields of maritime transport, port operations and management, hinterland and logistic connections for Jordan, with specific focus on the port of Aqaba and curing container port bottlenecks.
KENYA	Mombasa 2 <sup>nd</sup> Container Terminal	International Container Terminal Operators	Independent advice by different IPC members to international operators bidding for the concession for the new 2nd container terminal.
KUWAIT	Port Development	Private Investor	Production of strategic development plans for the various ports of Kuwait. Development of Logistics Gateway and Transport Hub.
KUWAIT	Mubarak al Kabeer Port	PMDC	Part of proxy Terminal Operator team for large newbuild automated container terminal. Reviewed and refined specifications and designs for equipment, TOS/ECS systems and operating processes.
LATVIA	Baltic Coal Terminal, Ventspils	Investors / GHK	Traffic forecast scenarios for Russian coal transit exports and technical and cost inputs to market assessment and valuation of a fully enclosed terminal for loading coal received by rail.
LEBANON	Tripoli Port	Dar al Handasah	Reviewed traffic forecast and options for development of the port, with particular focus on potential for use of port as East Mediterranean container transshipment hub and for future Iraqi transit cargoes. Later update of forecast taking account of changed traffic patterns.
LEBANON	MEDA MoS II - Beirut Dry Port	EU / Lebanese Dept of Transport/ Dar al Handasah	Conducted the port planning aspects of a new dry port to relieve congestion at Beirut Port.
LIBERIA	Port Trade Facilitation Study	World Bank / IFC	Technical assistance project covering the free port of Monrovia. Overall scope of the work includes reviewing and analysing processes and operations in and around the port including customs and other regulatory agency processes.
MALAYSIA	Pengerang Deep Water Terminal	Dialog-Vopak / Scott Wilson	A green field port development located in Johor with 9 multi-berth jetties for vessels from 5,000 to 350,000 DWT. Marine operations appraisal including review of jetty layouts, optimising dredged depths with tidal windows, AtoN specs and overseeing vessel simulation modelling. Preliminary planning for two additional marine terminals for loading secondary products from a new refinery.
MALAYSIA	National Ports Strategy	World Bank / ICF	Input to Crafting a National Ports Strategy: review and analysis of infrastructure, operations, master plans, feasibility studies, investments, etc for container handling at seven Federal ports.

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MAURITANIA	Nouakchott Port TMS	Olam / RHDHV	Terminal Management System prepared for container and hydrocarbon terminal in fulfilment of lender requirements for the new port development.
MEDITERRANEAN	Container Port Benchmarking	Private Investor / GHK	Review of technical capability of terminal facilities and access at all Western Med container transshipment ports, and of a proposed new major port master plan.
MIDDLE EAST	Ports and Maritime Adviser	MEMAC Bahrain	Advising 8 Gulf countries on the provision of maritime emergency response and salvage cooperation units, including emergency towage and pollution response vessels and onshore response centres.
MOROCCO	Agadir North Terminal	International Container Terminal Operator	Advisory role in assessing the business case and bidding strategy in a potential PPP tender process. Project due diligence and negotiations with a potential local partner on behalf of the client.
MOZAMBIQUE	New Port Facilities	Confidential / WSP	Site selection and development of new logistics hub and port to serve regional trade and offshore oil / gas activities in the northern region.
MYANMAR	Container Terminal Yangon	TMT / Portia	TOS selection / tender process management. Feasibility study for improvements and expansion of existing container terminal and operational review of a new barge service.
NIGERIA	Lekki Freeport Container Terminal Due Diligence	Drewry Shipping Advisors	Due diligence and market study for new container terminal concession.
OMAN	Duqm Port	Rent A Port	Assistance in developing the initial business case for a green field port development on the Indian Ocean coast of Oman.
PERU	Pisco Port Technical Due Diligence	Paracas Port Terminal / Infrata	Reporting to the Lenders on a new concession for the design, financing, construction, operation and maintenance of an earthquake-damaged multi-purpose port.
PHILIPPINES	Hijo Port	Private Investor / Scott Wilson	Planning for the development of a large new marine terminal on Mindanao, including redevelopment of an existing port.
PHILIPPINES	Potential for Proposed New Port, Mindanao	Public Private Partnership Center / IMC Worldwide	Traffic forecasts to 2052 for proposed new San Ramon Newport, utilising econometric GDP and port traffic models applied to the current regional port of Zamboanga, together with web and stakeholder market research.
POLAND	Gdansk Due Diligence	Port of Gdansk / Moffatt & Nichol	Sell-side advisory due diligence.
PORTUGAL	Ports Technical Due Diligence	Yilport / Drewry	Reporting to the Lenders on eight cargo terminals (container, breakbulk, dry bulk) at four main ports.
PUERTO RICO	San Juan Cruise Terminals Due Diligence	Confidential	Technical due diligence for Lenders' Technical Advisor of proposals for rehabilitation of all existing terminals and development of proposed terminals, including marine access.
QATAR	Doha Port Passenger Facilities	Dar al Handasah	Provided advice on navigation and berthing of large passenger vessels for use as residential accommodation during World Cup 2020.
QATAR	Messaieed Port	HR Wallingford, Dar al Handasah /	Hazard identification advice, including workshops, on separate projects for berth extensions and channel improvements.

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		Beckett Rankine	
RED SEA	FSO Floating Oil Storage Risk Review	S-RM Global Risk	Technical risk review (explosion and pollution) of floating oil storage unit and projections of levels of deterioration.
RUSSIA	Far East Port Assets Review	Private Investor / Arup	Review of assets and capex history and projections for a large multi-purpose port.
SAUDI ARABIA	Container Terminal Master Plan	RSGT	Master plan for major expansion of existing terminal into brownfield area, assessing layout, capacity, quay and yard equipment requirements for phased redevelopment of the terminal.
SAUDI ARABIA	Dammam and Jubail Port Master Plans and Equipment	Saudi Ports Authority / Atkins	Advised on master planning, port operations and plant and equipment requirements for two existing major ports.
SAUDI ARABIA	Jubail Port Equipment Review	SABTANK / McLennan	Specialist input to improving the operations of a large bulk handling terminal and introducing applications of dust control systems.
SAUDI ARABIA	Jazan Port Planning and Design	Saudi Aramco / AECOM	Reviewed and advised on planning and designs for a large new port at Jazan Economic City.
SAUDI ARABIA	Container Terminal	Confidential	Technical and environmental due diligence.
SAUDI ARABIA	Ras Al-Khair Master Planning and Design	Royal Commission for Jubail and Yanbu / Atkins	Review of planning and design proposals and reports for long term development of a very large artificial industrial port and offshore cluster at Ras Al-Khair Industrial City.
SENEGAL	Dakar - Privatisation of Mole 2	Grimaldi Lines	Assistance in coordinating technical and financial bid dossier and tender submissions for an existing RoRo/multi-purpose terminal. Advisory role in Concession Agreement negotiations.
SENEGAL	Secondary Ports Assessment	BMT Transport	High level review of the overall viability of three secondary ports in Senegal, namely; St Louis, Ziguinchor and Kaolack.
SINGAPORE	Operational and Safety Review	Jurong Port	Carried out detailed cargo handling and operational safety survey for the port, with special emphasis on all types of steel cargoes, and made detailed recommendations for improvement of institutional and operational activities.
SINGAPORE	International Benchmarking	Maritime and Port Authority / ICF	Input to benchmarking process of container port competitiveness and recommendations for improvement on port engineering and planning.
SINGAPORE	Tuas Container Terminal	Maritime and Port Authority / Scott Wilson	Planning advice for a very large new development including future design vessel characteristics.
SINGAPORE	LNG Terminal, Jurong Island	Atkins	Various assignments advising on layouts, marine operations and navigation simulations at the first and second LNG berths.
SOUTH AFRICA	Coega Container Terminal Privatisation	International Container Terminal Operator	Advisory role in coordinating technical and financial bid preparation and tender submissions for an established container terminal concession, including assistance on initial market assessment, business case analysis and finding and negotiating a BEE partner.

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SOUTH AFRICA	Benchmarking	Transnet	Benchmarking study of global port, including stevedoring, marketing and stakeholder management strategies.
SOUTH AFRICA	Cruise market	Transnet	South African cruise market overview to support Transnet in developing a procurement strategy for the construction of a cruise liner terminal at Cape Town.
SPAIN	Gandia Reefer Terminal Due Diligence	Independent Port Capital Management, UK	Due diligence assessment of potential import and export traffic volumes at a conventional refrigerated fruit terminal, in particular against reefer container competition.
SPAIN	Cargo Handling Operations / Port Expansion	Gijon Port Authority / EC Harris	Specialist advice to assist the port authority in attracting investments in major deep water marine cargo terminals: market evaluation and technical assessment of a large existing dry bulk terminal in preparation for its privatisation; assessment of port strengths and weaknesses in liquid bulk transshipment market; review of dry and liquid bulk handling terminal infrastructure and operations.
SPAIN	Container Terminal	Confidential	Environmental due diligence assessment.
SRI LANKA	Hambantota Port	CMPort / Atkins	Provided specialist operational and management input for a master plan for the new port.
SRI LANKA	Colombo Port VGM Regulations	World Bank	Report on the implementation of the VGM regulations in the Port of Colombo.
TANZANIA	Operational & Environment Risk Review Dar es Salaam	IGI Reinsurance	Reviewed claims, carried out interviews with port executives, staff, and stakeholders; identified local risk and environmental exposure; ran risk workshops for management.
TANZANIA	Dar es Salaam Port Marine Services Review	Tanzania Ports Authority / WSP	Reviewed skills level and professional training of harbour master and pilot personnel, and submitted recommendations for craft and staff training.
TANZANIA	Tanga Port Study	Tanzania Ports Authority / URS	Planning specialist for feasibility study for the development of a new multi-purpose port at Mwambani Bay, and review of the existing port.
TOGO	Lome Gateway and Hinterland Trade Study	Togo Invest / Drewry Shipping Advisors	Reviewed port, terminal and free zone facilities. Identified competing hinterland trade corridors, and from local stakeholder interviews identified USPs and growth opportunities for client.
TURKEY	Ports Due Diligence	Confidential	Refinancing environmental DD assessment for two ports.
UKRAINE	Developing Port / City Interface in Odessa	World Bank / ITP	Technical assistance to improve city/port interaction by easing the negative effects of the port, such as noise, dust and other pollution and anti-social transport activities.
UAE – ABU DHABI	Strategic Review	Abu Dhabi Ports / PwC	Strategic review of all business lines (Ports, Marine Services, IT, Logistics) for Abu Dhabi Ports (short, medium and long term).
UAE - DUBAI	Jebel Ali Container Terminal Design	Dubai Port Authority / Rendel	Operational review of new container terminal layout, plant, equipment and operational areas.
UAE - RAS AL KHAIMAH	Operations and Equipment Review	Port of Mina Saqr / HR Wallingford	Assessed general port performance and introduced improvements in cargo handling operations with special emphasis on dry bulk handling operations. Carried out assessment of plant maintenance and efficiency and recommended improvements.

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UK	Hinkley Point Nuclear Power Station	Various	Marine advisor at several stages of the project development including developing a new jetty and support to Hinkley Point C Harbour Authority.
UK	Management Consultancy	Duchy of Cornwall	Study of the future for Plymouth port and the River Tamar, and the implications for the Duchy of Cornwall as the principal fundus and foreshore owner.
UK	Strategic Plan Advice	Portland Harbour Authority	Appraisal of commercial and economic strategy to 2030; including berth and terminal area assessment and Traffic Impact Assessment, as contribution to Harbour Revision Order application. Advice and assistance in relation to refurbishment, expansion and replacement of port infrastructure.
UK	Training Courses for Harbour Masters National Oceanography Centre Southampton	UK Port Authorities	IPC's affiliated company IDG Maritime Ltd runs a series of training courses for harbour masters and other operational harbour officers, which concentrate on the UK Port Marine Safety Code and National Occupational Standards for Harbour Masters. Some 360 personnel from well over 100 UK ports, facilities and government services and agencies have attended 37 such courses since 2008.
UK	Cruise Improvement Study	Portsmouth International Port / AECOM	Market and feasibility study for improved cruise facilities comprising recommended options for terminal building extension, berth changes.
UK	Cargo Handling Portsmouth	Portsmouth City Council	Cargo handling equipment review.
UK	Port Market Study	Folkestone Harbour Company	Assessment of the port's future economic viability requiring analysis of the cross-channel ferry market, and all other possibilities.
UK	Port Market Study	Port of Ramsgate	Identification of possible new port business developments in a wide-ranging demand assessment.
UK	Business Systems Review	Associated British Ports	Requirements review and solution analysis for new TOS option at 21 ports for general cargo and bulk operations and processes.
UK	Lectures on African Trade and Transport	John Moores University Liverpool, London Metropolitan University	Researching and delivering trade, transport and supply chain issues in developing world regions for UK and international mature students.
UK	Port Market Study	Private European Investor	Identified potential small terminal and logistics businesses where investment might add value.
UK	Cargo and Vessel Traffic Forecast	Port of London Authority	Port of London throughput and vessel call forecasts to 2035 for containers, ro-ro and all major commodities, distinguishing Greater London Authority traffic, and including current wharf capacity estimates.
UK	Greenwich Cruise Terminal Risk Assessment	Beckett Rankine	A navigational risk assessment for a proposed new terminal on the River Thames, including extensive consultation with PLA and other stakeholders.
UK	Thames Tideway Barging Study	Transport for London / Pell Frischmann	Provision of marine / logistics expertise to ensure that contractors for a major sewage tunnel (Thames Tideway Project) maximise the carriage of material and equipment by river transport.



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UK	Boston Flood Barrier Navigation & Risk Review	Environment Agency	Boston Flood Barrier Public Enquiry - Inland Locks & Sluices. Review of overarching legal framework, and identification of legal and operational risks, stakeholder engagement and provision of legal disclaimers for operators.
UK	Scotwind / Round Four Offshore Wind Leasing	Confidential	Retained by a major offshore renewable developer to support their application to the Crown Estate for the latest round of offshore renewable energy leasing across the UK in Scotland, England and Wales.
UK	Offshore Renewable Energy Environmental Support	Various	Currently retained by three offshore engineering and environmental specialist consultants to provide specialist support for both ScotWind and Round 4 leasing for offshore renewable development.
UK & IRELAND	Aids to Navigation Review	UK & Irish Depts for Transport / Atkins	Led the technical stream undertaking a review of the provision and funding of Aids to Navigation (AtoN) in UK and Irish waters by the three General Lighthouse Authorities (GLAs); assessing how the GLAs define AtoN needs in accordance with IMO/IALA standards, and optimising their buoy tender vessels.
UK - SCOTLAND	Kincardine Floating Offshore Wind Farm	Kincardine Offshore Wind Ltd (KOWL)	A 50MW demonstrator site showcasing the latest technology for renewable energy utilising cutting edge design for floating infrastructure. Inputs have included: writing the planning consent and undertaking the fisheries response within the Environmental Statement; during the construction phase, writing the Environmental Management Plan and developing the environmental auditing protocols; following approval, acting as independent Environmental Clerk of Works for the project.
UK - SCOTLAND	West Coast of Scotland Port Operations	Scottish Government / CalMac Ferries	Reviewed port operations at 50 ports and produced plan to modernise, improve and streamline management of ferry and general operations at all ports.
USA	East & West Coast Container Terminals	Ports America / Drewry	Technical assessment of a portfolio of terminals.
URUGUAY	Montevideo LNG	Gas Sayago / Beckett Rankine	Supported the promoters of a new offshore Floating Storage and Regasification Unit (FSRU) and jetty, including: developing a model of port regulations and passage planning; developing a commercial strategy for acquiring tug services; advising on upgrading the local ship manoeuvring simulation facility; studying local port services, towage & firefighting, emergency response plans, pilotage and tug training, local hydrography and meteorology; advising on insurance and ship charter matters.
URUGUAY	Container Terminal Due Diligence	Confidential	Technical due diligence including detailed capacity and capex review, expansion plan and investor interviews.
WEST AFRICA	Hinterland Trade Corridor Study	Drewry Shipping Advisors	Carried out desk-based review of trade corridors and the providers of supply chain logistics in West, Southern and East Africa, with visits to Nigeria and Angola.

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## Projects undertaken by IPC and its members from 2001 to 2010

<i>Country</i>	<i>Project</i>	<i>Client</i>	<i>Project Description</i>
ALBANIA	Vlore Port Feasibility Study	Confidential	Identification and quantification of potential market for new port development, including competition analysis and viability assessment.
ANGOLA	Amboim New Port Due Diligence	Angolan Investors / Moffat & Nicholl	Review of congestion issues at Luanda and other Angolan ports and consideration of opportunities for a new green field port.
ANTIGUA	Port Development	Private investor	Investigation into the redevelopment of a small private port facility to introduce container and other cargo handling opportunities.
ASCENSION ISLAND	Options Study & Port Equipment Review	UK Dept for International Development	Options study for Improvement to cruise passenger landing facilities and equipment review for cargo handling from anchorage port.
BAHAMAS	Nassau Cruise Liner Port Study	Government of Bahamas / WSP	Study of Prince George wharf and passenger piers with recommendations for remedial and upgrading measures, institutional restructuring and maintenance programme.
BANGLADESH	Port Operations	High Point Rendel	Engaged by UK consulting engineers to provide specialist operational and management input for a major ports review and master plan for the ports of Chittagong and Mongla.
BELIZE	Inland Transit & Export Studies	Cisco Construction Ltd	Studied movement of raw sugar and molasses from inland mills and methods of loading to export ships offshore. Advised on planning and construction of bulk terminal to load barges and coasters.
CANADA	Due Diligence	Fraser River Port Authority	Due diligence advice for an international finance house on the potential investment in the purchase of a container, general and dry bulk cargo terminal. Carried out examination of operational plant and equipment.
CHANNEL IS - JERSEY	St Helier Port	Jersey Harbours	Consultant for master planning and operational studies and several engineering projects in the harbour.
CONGO	Pointe-Noire Port Due Diligence	International Developer	Assessment of port for future privatisation and redevelopment.
CONGO D.R.	River Transport and Port Operations Feasibility Study	Lonrho plc Kinshasa	Investigated river transport systems, ports and shipyards on Congo River as opportunities for investment. Studied infrastructure, operations, management, ownership and equipment of the ports and transport operators, and navigational aspects of the rivers.
COSTA RICA	Rail vs Canal Evaluation	Private Developer / Scott Wilson	Economic and commercial evaluation of potential for trans-isthmus railway in Costa Rica to compete with the Panama Canal for container traffic.
CROATIA	Technical Advice	Port of Rijeka / Nippon Koei	Technical advice on the operational and management restructuring of the port, including labour relations and equipment procurement.
CROATIA	Dubrovnik Passenger Port Expansion	EBRD	Investigation resulted in recommendations on how to increase cruise and tourist visits and consequent income, and improve costs and efficiencies.
CUBA	Development of Mariel Deep Water port and FTZ	UK Investors	Preliminary studies to assess project's overall viability, followed by project development and management, selection of operational partners and marketing to prospective users.
CUBA	Rationalisation of Cuba's Sugar Export Ports	Cia Azucarera Internacional SA Havana	Reviewed ports and land transport and recommended two principal ports for sugar exports. Advised on work required to enable them to compete with other regional ports economically.
CYPRUS	Larnaca Port Privatisation and Cruise Liner Study	Government of Cyprus	Port specialist for study, project planning and preparing concession documentation for the privatisation of the port for conversion to a major Eastern Mediterranean hub cruise liner hub as well as a commercial port.

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CYPRUS	Research and Information Study	EU / Cyprus Ports Authority	EU-funded study into the feasibility of establishing an East Mediterranean Port Institute for Applied Research, Training and Information in Cyprus. Working with regional ports and institutes to set up the basis on which the institute could function successfully.
EU	Commodity Logistics Research	ED & F Man (Sugar) Ltd	Studied the movement of soft commodities in the EU from ocean shipping to port selection, unitised and bulk cargo handling and storage, bulk terminal requirements and review of road / rail links to processing plants.
GERMANY	Due Diligence Rostock	Jacobs	Assessment of fertiliser and grain cargo handling operations and plant requirements.
GERMANY	Due Diligence Hamburg	Hochtief	Due diligence study of potential purchase of HHLA, Hamburg's dominant stevedore, requiring evaluation of, and throughput forecasts for, all HHLA activities.
GLOBAL	Remuneration Packages - Research	APM Terminals	Carried out global research, with 100 interviews across 30 countries, looking at remuneration and incentivisation packages for senior executives of container terminals around the world.
INDIA	Vision 2020	Indian Ports Authority	Future development plan for Indian Government sponsored "Vision 2020" for all major Indian ports.
INDIA	Bulk Terminal, Dahej	Terminal Owner	Technical assessment for a major private company of the potential for doubling capacity of a new bulk handling facility in Gujarat.
INDIA	Technical Assistance	EU-India Maritime Project	Scenarios for traffic development at major Indian ports and traffic forecasts for all cargoes, and marketing strategy. Advised on operational improvements to container handling and staff and labour training in developing JNPT container terminal. Detailed Project Report on the future utilisation and possible conversion of JNPT Bulk Terminal.
IRAQ	Ports & Maritime Adviser	UK Crown Agents	Advising Coalition Provisional Authority to restore port and maritime affairs to international standards. Operating with port managers, pilots, customs and port police, and with others to develop integrated transport networks, and with overseas port and terminal operators to introduce an effective port management and investment scenario.
IRAQ	Port Security and Operations	Hart GMSSCO Ltd Abu Floos	Working with a UK security company on projects to provide security and operational management of the smaller river ports in Iraq, and to provide overall security in the two principal Iraqi ports.
IRAQ	Port Management and Operations	Nippon Koei Co Ltd	Capacity building, evaluating, reviewing and evaluating management and operation in Iraq ports, including cargo handling, equipment, maintenance, management of heavy road traffic and access to highways in port vicinity, training. Proposing and implementing a programme of improvements.
IRELAND	Port Demand Forecast	Dublin Port Corporation	Review of the future requirements of bulk, semi-bulk, and ro-ro / lo-lo services in the port.
IRELAND	New Ro-Ro Terminal, Arklow	Private Developer / Arup	Assessed potential for a new ro-ro port, competing for Irish Sea ferry traffic, by analysing traffic volumes and interviewing shipping lines and logistics companies, and recommended development strategy.
JORDAN	Aqaba Port Pricing Strategy	Aqaba Development Corporation	Recommended port pricing strategy for Aqaba port, based on demand elasticities derived from analysis of shippers' through costs on available pathways, and benchmarking Aqaba against competitor ports.
JORDAN	Aqaba Port	Pell Frischmann	Advised on container/ro-ro terminal and siting and construction of proposed new bulk sugar discharging facility. Reviewed plant and equipment. Advised on privatisation of Port Marine Services and passenger ferry berthing procedures and equipment.

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<i>Country</i>	<i>Project</i>	<i>Client</i>	<i>Project Description</i>
KUWAIT	Container Operations	Rendel	Advised on the construction and layout for a small in-house dedicated container handling operation for a major oil and chemical distribution organisation.
KUWAIT	Marina Design	Ministry of Defence / Dar al Handasah	Reviewed contractor's assumptions and made recommendations on construction of two military marina facilities.
LATVIA	Riga Port Krievu Sala Development Feasibility Study	JASPERS (Joint Assistance to Support Projects in European Regions) managed by the EIB	Extensive review of local consultants' Feasibility Study for Riga Port's Krievu Sala development to meet EU cost-benefit analysis best practice. Carried out traffic forecasts and assessed associated risks, to demonstrate Riga Port's competitive advantages.
LIBERIA	Port Operations Feasibility Study	Nectar Group, UK	Advised prospective investors. Study of the feasibility of undertaking port operations in Monrovia, Buchanan, Greenville and Harper. Carried out detailed reviews of ports' infrastructures, operational and financial management, cargo throughput and potential, and the present and future political situation in Liberia.
LIBERIA	Port Reconstruction and Investment Work	Zumax SA Switzerland	Led UK team to study the feasibility of investing in the reconstruction of Monrovia, Buchanan, Greenville and Harper ports, including major infrastructure and equipment investment, overhauling management, staff training, reviewing the operation and staffing of the National Ports Authority.
LIBYA	Port Development Strategy	Jebel Ali Free Zone / AECOM	Assessed the performance of the Libyan port of Misrata as it affects free zone development, and the effectiveness of current logistics services to serve existing and future trade. Advised on a marketing/promotion strategy to attract FDI.
LITHUANIA	Klaipeda Port Development Programme	EBRD	Technical review of port development plans on behalf of prospective financier; mission also included market due diligence, assessment of financial and economic viability and an EIA.
MALTA	Cirkewwa Ferry Terminal	MMA / WSPimc	Design review for major breakwater at Cirkewwa Ferry Terminal and advice on the design of wave walls.
MEDITERRANEAN	MEDA Port Projects	EU / Dar al Handasah	Assessed operations and performance in the ports of 11 MEDA countries and identified potential projects for EU funding, with particular attention to Free Trade Zone opportunities.
MONTSERRAT	Port Rehabilitation	Government of Montserrat	Provided technical assessment and design advice under contract to the UK Government for new port facilities following the volcanic eruption on the island of Montserrat.
MOZAMBIQUE	New Bulk Terminal, Ponta Dabela	Private	Initial study report for the development of major port and industrial project at a green field site.
NIGERIA	Apapa Container Terminal, Lagos	APM Terminals / Scott Wilson	Engineering advice, including review of existing infrastructure and preparation of phased development plan and cost estimates.
OMAN	National High Level Ports Review	Ministry of National Economy / Arup	Development of institutional strategy for Omani ports, requiring analysis of port functions and identification of key objectives in the context of shipping patterns, forecast volumes, and port competition.
PAKISTAN	Port Qasim Master Plan	Port Qasim Authority / Mouchel	Technical input to a strategic port master plan.
PAKISTAN	Aids to Navigation, Keamari Harbour	Karachi Port Trust / Royal Haskoning	Assessment of existing Aids to Navigation (AtoN), discussion of local requirements and maintenance regime for AtoN, and development of a specification for procurement of a suite of fixed and floating AtoN for the new outer harbour.
PHILIPPINES	Manila South Harbour	PPA / ATI	Assessment of existing facilities and preparation of a master plan to include container traffic.

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QATAR	Doha Port Development	Confidential	Planning the expansion of an existing container terminal to accommodate growth during the period of construction of new container port. This also included the development of a new dry bulk handling facility: assessed equipment requirements and potential handling rates.
ROMANIA	Constanta Port	EU / Atkins	Reviewed current container handling operations and assessed impact of new terminal.
ROMANIA	Sectoral Operational Programme: Transport (SOPT)	Ministry of Transport, Constructions and Tourism / Scott Wilson	Technical assistance to the Ministry for managing Structural Instruments: Carried out comparative strategic evaluation and ranking of Romanian port, waterway, and intermodal infrastructure development projects for the Government's submission for EU funding on the country's accession to the EU.
RUSSIA	Due Diligence for Reconstruction of Kochetov Lock, River Don	EBRD / Scott Wilson	In Market Demand/Review: reviewed and updated traffic analysis and provided a view on the financial viability of the Project. In Regulatory Advice, prepared a brief review of relevant commercial practices for traffic using the Volga Don Canal.
RUSSIA	New Port Development Primorsk	Confidential	Advising Russian commercial clients on the development of a deep water Baltic port from green-field status. Marketing the project to financial institutions and container and cargo terminal operators. Handling operational, technical, legal and financial aspects, and maintaining close contact with Russian counterparts.
RUSSIA	Review of Baltic Car Ports	Wallenius Wilhelmsen Logistics Sweden	Investigated port locations on the Russian Baltic for the establishment of a car terminal facility. Also examined road and rail links for vehicle distribution into Russia and the opportunity to form joint ventures with Russian companies.
ST HELENA	Equipment Review	UK Dept. for International Development	Review of all cargo handling operations and recommended provision of replacement equipment
ST HELENA	Equipment and Service Review	UK Dept. for International Development	Provided St Helena Government with a review of future marine transport requirements for both St Helena and Ascension Island following proposals for the construction of a new civil airport on St Helena.
SAUDI ARABIA	Dammam	International Bank / Jacobs	Due diligence assessment on the potential for containerisation and transportation for new production plant with output of 1.2 Mt/yr bulk product. Developed both inland terminal and onward delivery plans to handle product in either bulk or containers.
SENEGAL	Dakar - Privatisation of Container Terminal	DP World	Advisory role in post tender award transition, assisting client in negotiations with local partners, concession operating company start-up and recruitment, and handover to permanent management and operations team.
SIERRA LEONE	Due Diligence Study of Passenger Transport Links: Lungi Airport - Freetown	Investment Climate Facility for Africa / WSP	Due diligence study all companies involved in the airport transfer. The study covered the operations themselves, conditions faced by travellers at Lungi Airport, and the risks related to involvement in the provision of facilities and/or services related to the project.
SIERRA LEONE & LIBERIA	Commodity Export Review	West Africa Investment Holdings, USA	Advice on the transport and contractual and physical implications of the export of coffee, cocoa and commodities. Arranging shipment, insurance and warehousing in Europe. Negotiating sale and delivery of commodities to European buyers.
SIERRA LEONE & LIBERIA	Equipment Supply, Freetown / Monrovia	West Africa Investment Holdings, USA	Provision of new and used machinery, vehicles and equipment in the UK and Europe on behalf of overseas clients, contracting shipment and delivering CIF to clients in Sierra Leone and Liberia.

# Independent Port Consultants

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SIERRA LEONE & LIBERIA	Fishery Protection	West African Investors, Offshore	Scheme to bring fishery and environmental surveillance and protection to the coasts of Sierra Leone and Liberia and, uniquely, to allow cross-border surveillance and pursuit.
SINGAPORE	Master Plan	Jurong Town Council / BMT	Management and preparation of a master plan for Jurong Port, focused on establishing a new container terminal.
SOMALILAND	Berbera Corridor Integrated Transport Study	EU / Louis Berger	Port planning study and preparation of proposals for the refurbishment and development of the port to meet the needs of the landlocked hinterland of the region.
SRI LANKA	Colombo Hub Port Development	Min Ports & Aviation / ADB / Scott Wilson	Development of marketing strategy as a world transshipment hub, including assessment of future line scheduling and the utilisation of larger vessels.
TURKEY	Filyos Industrial Port	Private	Preparation of initial project for development of a new port to handle bulk imports including 5 Mt/yr thermal coal for steelworks, and promotion of scheme to interested participants.
TURKEY	Yumurtalik Industrial Port	Seapac	Advised on the planning and development of a major coal handling terminal as part of a 1,600 MW power station and multi-purpose port complex. Future development including the management and operational structure was a major factor.
TURKEY	Belde Port Due Diligence	Degere Group / High-Point Rendel	Due diligence evaluation of the Business Plan.
UKRAINE	Odessa, Yuzhny and Illichivsk Ports	EC Tacis / Corporate Solutions / BMT	Review of development programmes for the country's top three ports; preparation of feasibility studies and preliminary designs for a new container terminal and channel upgrades for cape size bulk carriers; model tender documents for terminal concessions; workshops on port studies and PPP procurement. Advice on marine operations and channel and turning basin proposals.
UKRAINE	Developing Port / City Interface in Odessa	World Bank / ITP	Technical assistance to improve city/port interaction by easing the negative effects of the port, such as noise, dust and other pollution and anti-social transport activities.
UAE – ABU DHABI	Mussafah Channel VTS Strategy	AECOM / HR Wallingford	Development of strategies for Vessel Traffic Control for new navigation channel.
UAE - DUBAI	Marine Feasibility Study	Roads and Transport Authority / WSP	Economic impact analysis relating to development of water transport alternatives to road transport in Dubai and contributing to passenger transport forecasts.
UAE - RAS AL KHAIMAH	Operations and Equipment Review	Port of Mina Saqr / HR Wallingford	Assessed general port performance and introduced improvements in cargo handling operations with special emphasis on dry bulk handling operations. Carried out assessment of plant maintenance and efficiency and recommended improvements.
UK	Overhaul of UK Port Activities for Bulk Cargo Importer, Holyhead	UK PLC	Bulk minerals handling, assessment and recommendations, berth management, selection of ships' agents, revision of port charging structure and review of inland delivery, development of a revenue enhancement strategy, and the appraisal of clients' obligations under the terms of new EU bulk carrier regulations.
UK	Feasibility Study	SEEDA / Port of Shoreham / Mott MacDonald	Study with respect to the potential for granting private sector concession to develop economic activity in the port.
UK (PLUS FRANCE, BELGIUM)	Evaluation of New Cross-Channel Shipping Options	SEEDA: FINESSE EU INTERREG	Examination of the potential for developing rail/sea trade between the UK and the European mainland on behalf of a group of British, French, and Belgian regional government and port authorities, requiring in-depth analysis of trade flows and modal choice on possible pathways, and the development of a commercially viable niche alternative to the Channel Tunnel based on economic and financial analysis and a wide ranging programme of market research amongst market players.

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UK	Economic and Financial Forecast and Strategic Advice	Dover Harbour Board	Economic and financial forecasting for 20-year master plan, including the choice of strategic direction.
UK	Rail Freight Potential at Dover Port	Dover Harbour Board	Assessment of the viability of a rail freight terminal at Dover, mainly aimed at converting accompanied trailer traffic to pallet-wide containers and rail.
UK	Port Privatisation Course	Scott Wilson	Researched and delivered a 1-week course on Port Privatisation, for 12 Chairmen / Vice Chairmen from Indian Ports, with a combination of classroom and field study modules.
UK	Great Yarmouth Port	GYPA	Engineering consultant for several engineering projects on the River Yare quays and the harbour entrance.
UK	Due Diligence Great Yarmouth	ICTSI	Due diligence evaluation of potential ICTSI container stevedoring involvement in planned new East Port container terminal.
UK	King Lynn Grain Terminal	Kings Lynn Borough Council	Investigations into the elimination of emissions from a grain handling terminal, including advice on suitable dust control equipment.
UK	Teesport: Competition with Southern Ports	Nikko Bank	Wide-ranging evaluation of new markets and business options within short and deep-sea container and short-sea trailer markets for Teesport, focusing on through-transport competition in northern UK.
UK - N IRELAND	Pre-feasibility Study	N Ireland SIB / Port of Belfast	Study of the potential for granting private sector concession to develop economic activity in the port.
USA	Port and Terminal Review	Port of New York & New Jersey	Provision of technical and operational management expertise for the Comprehensive Port Improvement Plan for the Ports of New York and New Jersey, and including an expansion review of the private container terminals within the Port.
USA	Atlantic & Gulf Coast Container Ports	US Army Corps of Eng's / Maritime Strategies Int'l	Review of existing terminal facilities and access at 12 main container ports, and analysis of current and future capacities.
WEST AFRICA	Training African Ports Staff	Antrak Group West Africa	Developed Cargo Care and Claims Conference for African port managers and with 6 UK managers delivering a 1-week course for 12 African countries in Accra, Ghana.
YEMEN	Gulf of Aden & Red Sea Coasts Fisheries Project	World Bank	Project Preparation and Project Appraisal missions; engineering planning for fishery infrastructure development; proposals to mitigate harbour erosion and siltation problems; preliminary specification of infrastructure and equipment needs at 23 sites; preparation of implementation programme.

## Projects undertaken by IPC and its members up to 2000

<i>Country</i>	<i>Project</i>	<i>Client</i>	<i>Project Description</i>
ARGENTINA & URUGUAY	Port Privatisations, Paraná River	Katoen Natie NV Amsterdam	Preparation of bids projecting 30 year traffic forecasts and plans for investment in port infrastructure, equipment and distribution. Analysis of container and commodity markets and inland distribution and storage.
BAHRAIN	Urea Marine Terminal	Gulf Petrochemical Industries (GPIC)	Due diligence during design and construction stages.
BELIZE	Inland Transit & Export Studies	Belize Sugar Industries Ltd Belize City	Studied movement of raw sugar and molasses from inland mills to stowed on board export ships at anchorage. Recommended numerous changes to improve efficiency and reduce expenditure.
DJIBOUTI	Container Terminal Study	Port Autonome Internationale Djibouti / UK FCO	Preparation of a study for a new container terminal.

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EAST ASIA	Maritime Transport and Tourism Development Strategy	ADB / GHK	Developed a maritime transport and tourism development strategy for Brunei / Indonesia / Malaysia / Philippines growth triangle after original submission rejected.
EUROPE – FAR EAST / CENTRAL ASIA	Economic and Market Evaluation of Alternative Trade Transport Modes	EU DG VII	Comparative economic and market evaluation of all sea, rail, and road alternatives for trade between Europe and the Far East/Central Asia, requiring detailed analysis and evaluation of trans-Siberian railway, TRACECA, and other pathways between Asia and EU countries.
GERMANY	Evaluation of Major New Port to Handle Mega Container Ships	Hamburg/Bremen/ Lower Saxony / PLANCO Consulting GmbH	Assessment of requirement for new port at Wilhelmshaven or Cuxhaven to handle future mega containerships. Responsible for market studies amongst container shipping lines and for forecasting the supply/demand balance for German container traffic.
GUYANA	Sugar Export Efficiency Projects	Guyana Sugar Corporation Georgetown	Studied movement of sugar from production to arrival in export markets, comparing it with regional exporters. Recommended improved handling and shipping procedures and changes to port operations. Evaluated and recommended methods of carrying sugar and molasses from new mill to export port.
HONG KONG	River Trade Terminal	HSBC	Due diligence study of proposed River Trade Terminal, intended to consolidate barged containers on shipping to Kwai Chung terminals. Assessment of competitiveness of proposed terminals against other locations and against the direct shipping alternative.
HONG KONG	Port Cargo Forecasts	Government of Hong Kong	Forecast of Hong Kong container traffic for 1996-2016. Designed forecasting model to separately forecast principal throughput components, and carried out market research to assign values to the determining variables.
HONG KONG	Pearl River Delta Traffic	Government of Hong Kong	Forecasts of Pearl River Delta container feeder traffic, based on market study of leading terminal operators, shippers, forwarders and deep sea container lines.
HUNGARY	Restructuring of Shipping Line	Government of Hungary	Carried out a business restructuring of Hungarian shipping line MAHART for its State owner. Was responsible for evaluation of river cargo, river passenger, tourism, port, deep-sea, ship repair, and forwarding businesses, with recommendations for privatisation of business sectors.
MALAWI	Freight and Passenger Movement Study	Ministry of Transport / EU / Sage Engineering Chipoka	Study of the movement of freight between Malawi and East & South African ports, and internal freight distribution and passenger traffic, to substantiate EU investment in port facilities on Lake Malawi. Economic and financial analysis of the movement of trade. Comparison of road, rail, water and multi-modal transport systems. 25 year forecasts of traffic movements; assessment of the economic and social benefits accruing from the investment.
MALAYSIA - BORNEO	Cargo Operations	PT Indurenco International	Advised on the location and operation of a new up-river forest products terminal near Bintulu, recommended methods of transportation by river and open sea between the two points
MEXICO	Operational & Economic Study of Sugar Exports	ED&F Man (Sugar) Ltd Veracruz	Study of the movement of bagged and bulk sugar from inland mills via export port to stowed on board ships. Worked with clients to obtain long-term concessions for sugar export operations.
PANAMA	Canal Traffic Forecasts to Identify Need for New Locks	ACP (Panama Canal Authority) / Richardson Lawrie	Fifty year forecast scenarios for development of containership transits with and without enlargement of the Canal and building third set of locks to take up to 12,000 TEU vessels, focusing on competitive strength of the US intermodal land bridge.
RUSSIA	Russian Inland Waterway System	EU TACIS / Scott Wilson	Major TACIS funded Internal Russian Waterways and River-Sea Transport Project involving major ports on the River Volga and the Caspian Sea. (i) Economic and trade forecasts and business strategy for the development and modernisation of the key river ports, covering also prospects for river-sea



# Independent Port Consultants

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			vessels in EU-Russia trade. (ii) Specialist port operational / management and engineering advisors.
RUSSIA	Azov & Taganrog Ports	EU TACIS / Scott Wilson	Reviewed port operations and structures, prepared reports on needs to match traffic, trained port personnel.
RUSSIA	NOSTRAC	High Point Rendel	Development of transport corridor linking Europe and Asia via existing and new rail infrastructure and ferries at strategic locations in the Caspian and southern Gulf areas. Responsible for identifying issues in ports & shipping sector, including feasibility & implementation of ferry complexes, bridges and moorings, ferry boats, and multi-modal shipping structures.
SIERRA LEONE	Port Operations Feasibility Study Freetown	Sierra Leone Ports Authority	Preparation of proposals for the management of the SLPA. Study of the existing port operations, equipment and manning arrangements. Commercial review of shipping lines calling at Freetown, cargo handling capabilities and throughput. Management proposals for the replacement of cargo equipment and ancillary machinery.
SOUTH AMERICA	Paraná River Transport Feasibility Study	Investment Group, Amsterdam	Studied inland cargo and handling in Argentina, Bolivia, Brazil, Paraguay and Uruguay. Investigated movement of cargoes from field to riverside terminals, and via barge and transshipment to export ports. Compared existing port sites for bulk storage and export operations, selecting ships, tugs and barges suitable for river operations.
SPAIN	Barcelona Port Authority	Project Director and Team Leader	Market and economic study forecasting Barcelona container trade to 2011 to inform assessment of planned investment in southward port extension - Spain's largest infrastructure investment project in 2000. Study required assessment of port hinterland in Catalonia and developing road and intermodal links with France and Madrid.
UK	Channel Tunnel Impact on Container Lines	Railfreight Distribution	Channel Tunnel impact on deep sea container lines' operational strategies, focusing on potential for substituting Tunnel transit for water transshipment or a direct call either in the UK or North Continent.
UK	Thames Estuary Deep Water Port Selection	UK-based Bulk Ship Owners	Studied deep-water port facilities in SE England for ships with drafts over 12m. Reviewed ports' operational and environmental suitability and road and rail links to major industrial centres. Advised on the ports' feasibility for the siting and construction of a major bulk cargo terminal in the area.
UK	Fastship	Rolls Royce	Due diligence study of FastShip's commercial prospects on the Philadelphia-Cherbourg route.
UK	Teesport Business Strategy	Powell Duffryn	Assessment of viability of unutilised investment in light of market developments, including the impact of Eurotunnel's Shuttle service, on North Sea and Channel freight - review of earlier study.