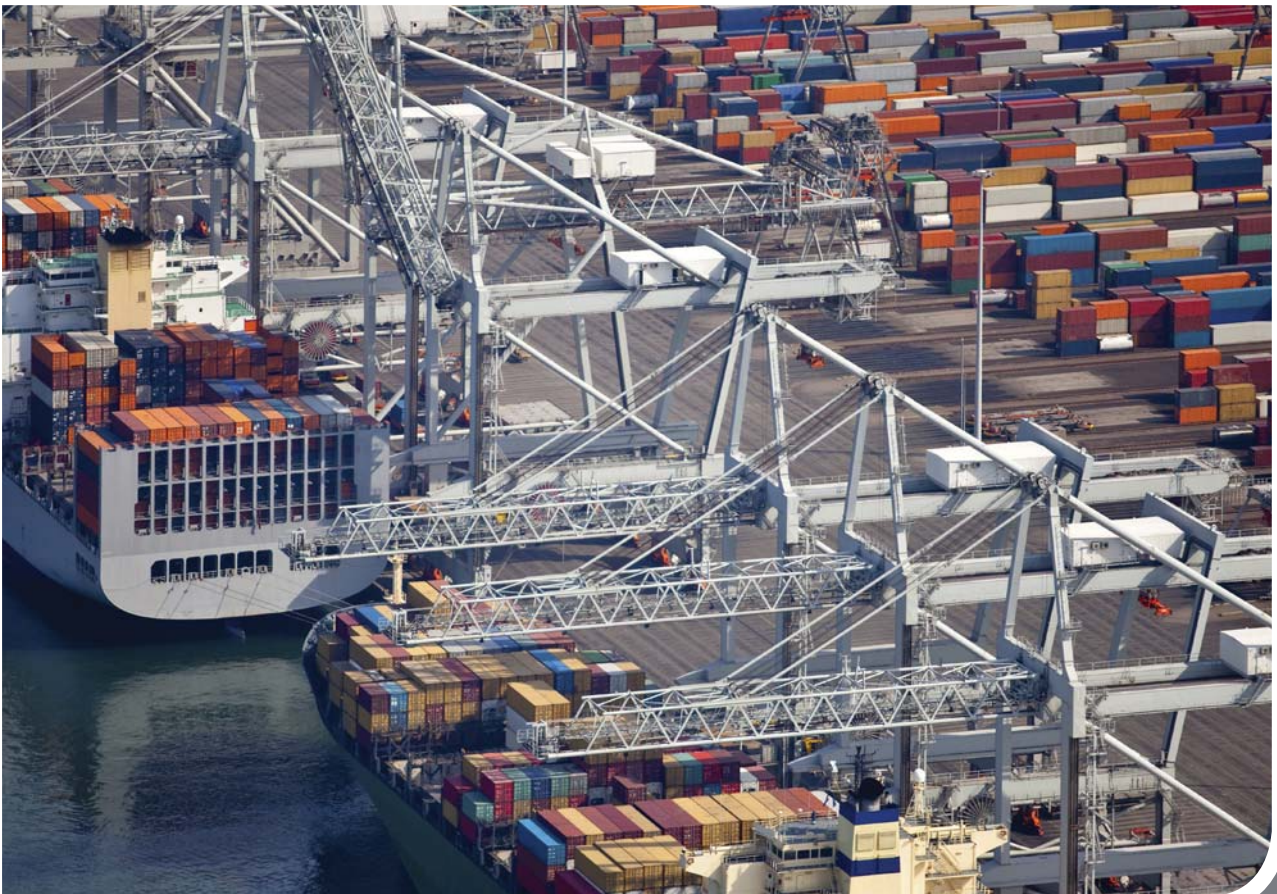




HR Wallingford
Working with water

Port and terminal planning

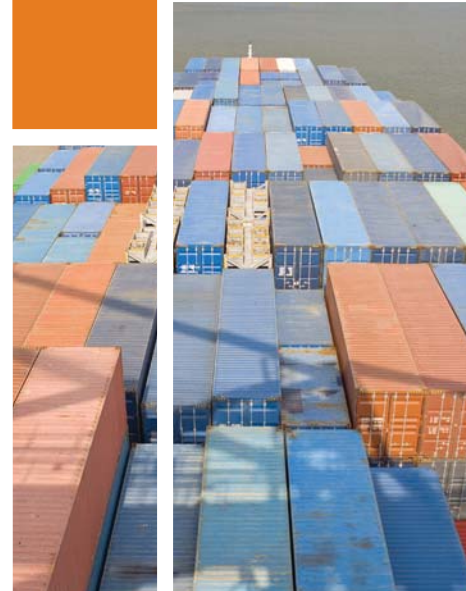
Integrating technology and shipping



Port and terminal planning

Port and terminal owners and operators are faced with many complex issues when deciding on the most appropriate type, location and capacity of facilities needed to meet future demands.

HR Wallingford has advised on major commercial port and container terminal investments worldwide. We have provided technical reviews, operational and capacity assessments and reviews of costs and implementation programmes. Our expertise allows us to respond to inevitable change and be proactive to advances in technology and vessel sizes in order to recommend appropriate development to achieve economies of scale and rapid cargo transfer.



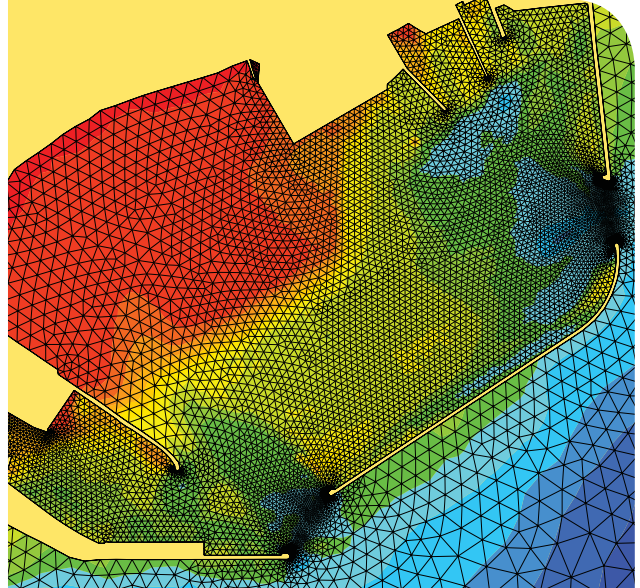
Sectors

- > Container terminals
- > General cargo
- > Solid bulk terminals
- > Oil and gas terminals
- > RO-RO ferry and passenger terminals
- > Naval and defence facilities
- > Fishing harbours, marinas and harbours
- > Navigation systems and nav aids
- > Waterside regeneration

Project planning and appraisals

- > Project definition and evaluation
- > Traffic reviews and capacity assessments
- > Condition surveys and evaluation of port operations
- > Technical and economic feasibility studies
- > Port and terminal master planning
- > Due Diligence
- > Review operational systems and logistics planning
- > Budget costing and implementation programmes





Technical and environmental studies

- > Define and manage ground and marine site investigations
- > Oceanographic and meteorological studies
- > Navigation and ship handling studies
- > Mooring and operability studies
- > Physical and numerical modelling
- > Environmental impact appraisals and studies
- > Advice on aids to navigation
- > Oil spill contingency planning
- > Marine risk analysis

Detailed design

- > Identify and evaluate design options
- > Civil and structural design of breakwaters, jetties, coastal protection and quay walls
- > Coastal and oceanographic engineering
- > Dredging and reclamation design
- > Specification and contract documentation

Project management

- > Cost estimates and financial planning
- > Value engineering
- > Construction methodology and logistics
- > Contract administration
- > Site inspection
- > Equipment commissioning
- > Operations and maintenance
- > Management and training
- > Risk management

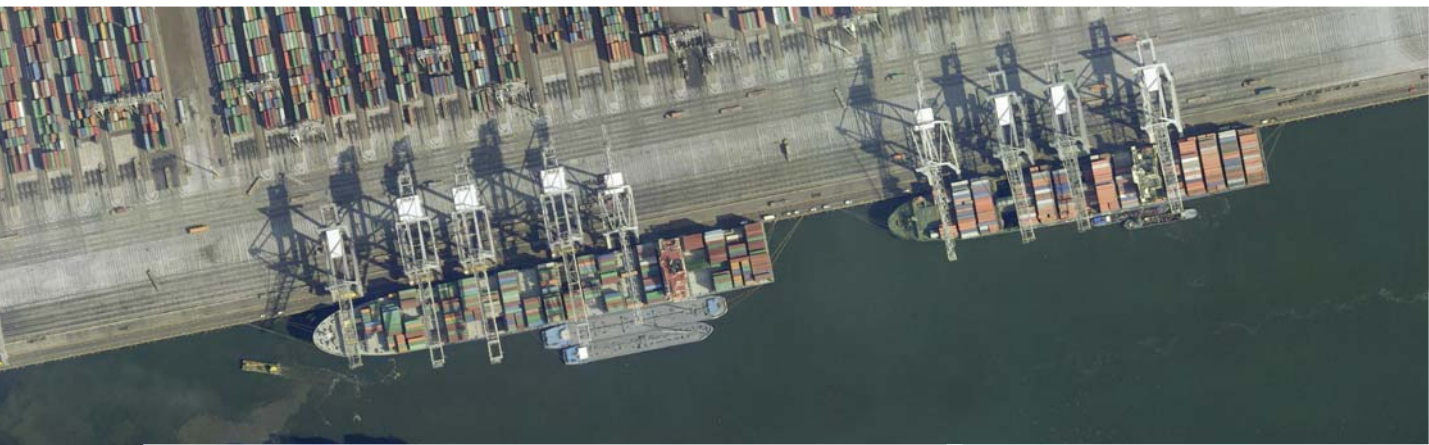


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HR Wallingford is an independent engineering and environmental hydraulics organisation. We deliver practical solutions to the complex water-related challenges faced by our international clients. A dynamic research programme underpins all that we do and keeps us at the leading edge. Our unique mix of know-how, assets and facilities includes state of the art physical modelling laboratories, a full range of numerical modelling tools and, above all, enthusiastic people with world-renowned skills and expertise.

