



PEB Exchange, Programme on Educational Building 2005/07

The National Maritime  
College of Ireland

Eamonn Greville

<https://dx.doi.org/10.1787/563086243453>

# PROJECTS

## THE NATIONAL MARITIME COLLEGE OF IRELAND



8

The new National Maritime College of Ireland is regarded as the country's most exciting and innovative development in maritime training and education and is the first tertiary institution to be built and operated under the government's Public Private Partnership (PPP) model of procurement. The project is the outcome of a partnership between Cork Institute of Technology and the Irish Naval Service to deliver maritime training. Its building design reflects the studies' sea-related theme, and the facilities allow the National Maritime College to meet the latest education requirements in the field. The college, in Ringaskiddy, County Cork, accepted its first cohort of students on 11 October 2004.

The National Maritime College is being funded by the Irish government under the National Development Plan (2000-2006) and is the third education project of any level included in the government's PPP pilot programme.

The college was conceived to respond to changes in educational requirements. In 1995, the International Maritime Organisation revamped the Training and Certification on Seafarers Regulations. The regulations recognised the importance of technology, particularly in computer simulation, as an educational and assessment tool. This posed a dilemma for the Nautical Studies Department of Cork Institute of Technology (CIT) as well as the Irish Naval Service (INS) as both faced substantial

upgrading of training facilities in order to meet the new requirements. In 1999, the government established an Inter-Departmental Expert Working Group, which found that providing a single institution to meet the new training and education requirements of CIT and the INS was a viable proposition. The government agreed to this proposal and also to the recommendation that the college be developed under the Public Private Partnership model. The college provides a full range of training to meet the requirements of the Merchant Marine and of the Navy's non-military training, from basic seamanship to an honours degree in nautical science.

The project took three years to complete and has resulted in educational facilities that can also generate third party income. In August 2001, following a European Union-wide tender process, three consortia were short-listed to design, build, finance, operate and maintain the college. FocusEducation Ltd., a collaboration between Bovis Lend Lease and Halifax Bank of Scotland, were appointed preferred bidders. Financial close was reached in February 2003, and construction started the following month. The building was fully completed on 4 October 2004, with the first students arriving one week later. FocusEducation built, fitted out, and now maintains and operates the college. Outside the specified availability hours the facilities will be marketed to third parties by FocusEducation. Under the PPP agreement between the Department of Education and Science and FocusEducation, a percentage of these additional earnings will accrue to the state to be set against ongoing costs.

### The building and facilities

The college has a student capacity of 750 whole time equivalents and a staff allocation of 60 drawn from Cork Institute of Technology and the Navy. Its 19 classrooms each have a capacity of 20 to 50.

The building, which is 14 000 m<sup>2</sup> in area and cost EUR 52 million to build, is intended to be about the sea, the focus of the work carried out there. A dramatic, slicing, cedar clad wall celebrates the arrival and the very identity of the college. The entrance arrangement includes a linear walkway and boardwalk leading to a two-storey glazed entrance atrium. The water feature continues past the atrium into the more informal landscape to the rear, drawing the eye out to the sea. Organised in three articulated fingers of accommodation around the separate functions within the college, the complex stretches out towards the water, capturing dramatic views which are never far from the student experience of the curriculum.



The comprehensive simulation suite is the largest and most up-to-date in Europe. Two full mission bridge simulators, one with 360-degree visuals, the second with 270-degree visuals, replicate both naval and merchant ships. As part of the PPP contract, large areas of the coast and the major ports have been digitally mapped which will, for example, enable a student to simulate the navigation of a ship into Cork Harbour and berth the ship at the naval base. Three auxiliary bridge simulators and 12 other simulation suites, to be used for training, search and rescue co-ordination systems, vessel traffic systems, and fleet work, complement the bridge simulators. In addition to the navigation simulators, there is a full mission engine room simulator, damage control/cargo handling simulators and GMDSS (radio) simulators. A 20-metre pool was provided for training personnel in sea survival techniques, life raft drill and helicopter underwater escape training. The building also contains a gymnasium, a learning resource centre, fire training facilities, and indoor and outdoor sea rescue facilities.

The scheme developed emphasises passive means of controlling the internal environment where possible. Advanced thermal modelling was utilised to develop the building cross section to ensure adequate air flows through the teaching and administration blocks. The use of natural ventilation to control the environment is assisted by a thermally heavy structure with extensive exposed surfaces. This is an important factor not only in terms of reducing operating costs but also responding to environmental issues.

Some difficulties concerning safety regulations were encountered with the local fire authorities that resulted in adapting the natural ventilation strategy for the classroom block. Enclosed chimney stacks draw air across the corridors and up to the roof-mounted louver banks, but do not give spatially to the corridor spaces as the open wells, originally envisaged by the design team, would have done.



The overall site layout and landscaping is set out to reconcile the divergent geometries of the building, the circulation routes and the parking layout. At the front, one encounters the formal garden where the water feature and reed beds are introduced in a structured landscape.

Although the National Maritime College of Ireland has only been opened a short time it is already attracting attention from a number of its European partners. Significant interest is expected both from the maritime industry in using the college for training and for upgrading skills as well as from other organisations and groups wishing to take advantage of the state-of-the-art facilities. In addition, the project is recognised as an excellent example of the PPP form of procurement.

*Article by:*  
 Eamonn Greville, Dip Arch MRIAI  
 Senior Architect  
 Department of Education and Science  
 Dublin, Tullamore, County Offaly  
 Ireland  
 Fax: 00 353 506 22972  
 E-mail: eamonn-greville@education.gov.ie