

# Beyond policy and process

Professor Kevin Cullinane and Gordon Wilmsmeier, from the Transport Research Institute, call for improved international partnerships in maritime education...

Europe has traditionally been the fulcrum of the world's maritime activity. In recent years, however, the maritime industry has experienced significant structural change, brought about by operational and technological developments that have led to a much wider geographical dispersion of maritime activity. Such developments include *inter alia*: the emergence of container shipping as the dominant market sector; the increasing standardisation of basic ship designs; the increasing specialisation of sophisticated ship designs serving niche maritime markets; increasing industrial concentration in container shipping and container handling sectors; and the continuous diversification of both these sectors into other parts of the supply chain. The net result has been that the traditional European domination of the industry has been challenged and usurped, largely by the Asian tigers of Hong Kong, Singapore, Japan, Korea and, most recently, China. These countries have fostered and developed the required specialised knowledge, especially in liner shipping operation, cargo handling and in shipbuilding and equipment production, which has traditionally been the preserve of the European maritime industry. All this implies that a rethinking of educational approaches for the maritime industry has been required for some considerable time, especially given the apparent incongruity of traditional educational provision for the sector being largely nationally based, while the sector itself is both inherently and increasingly globalised.

## EU policy, processes and strategies

The need for excellence in research and education is recognised in a number of key EU policies, processes and strategies. The Lisbon/Gothenburg Strategy has the following aim: 'The EU should become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion.'

The EU has articulated 'the particular need for an all-embracing maritime policy aimed at developing a thriving maritime economy, in an environmentally sustainable manner'. In addition, it asserts that: 'Such a policy should be supported by excellence in marine scientific research, technology and innovation.' However, excellence can only be achieved if the underlying educational system and framework facilitates it. These articulated policy goals have been relatively recently

promulgated and seem to represent a logical progression from the ongoing processes (Lisbon, Gothenburg, Barcelona, and Bologna) underpinning Europe's general educational policy and programmes.

The relationship between the maritime industry and the education sector it draws upon is multilayered and rather complex, with the latter serving diverse educational and research needs at a variety of levels. At this particular point in time, the ambitious goals espoused above are not explicitly reflected in the provision of maritime education. Although advanced technical and commercial knowledge are important assets in the maritime sector, there is also a fundamental need for workers with relatively basic, but precisely defined, skill sets. Investment in people and the division of labour remain relevant issues for the maritime industry. In a knowledge-based economy, higher education, in particular, plays a crucial role in reshaping and restructuring the social, economic and political institutions of a country, but cannot replace the value of practical knowledge. At the same time, rapid changes in the economic, social and environmental arenas demand quick and informed action on behalf of strategic decision-makers in industry and also the policy sector.

The need for change in maritime education is reinforced by reflecting upon and evaluating the outcomes of the Bologna Process and Lisbon/Gothenburg Strategy, the most salient of which include:

- The development of information and communication technologies providing new opportunities and possibilities of educational collaboration and co-operation at international level;
- The emergence of corporate educational provision through higher education institutions;
- The development of borderless higher education.

The pivotal question is how can the diverse dynamic but somewhat ill-defined educational requirements of the maritime industry be identified and acted upon by the educational sector in a co-ordinated and timely fashion, and in a form that meets the EU objectives for both education and maritime policy.

## A new approach

The search for a response inevitably rests on three main pillars: quality, internationality and accessibility. The maritime industry has a constant demand for highly

qualified personnel. It is probably the most global of all industries in terms of sourcing capital, human resources, services and cargoes. As a consequence of the industry's inherently international characteristics, maritime education must endeavour to maximise accessibility, either by educating, training and spreading knowledge wherever learners are located or by disseminating it in the most ubiquitous form. This poses some fundamental challenges for a maritime education sector that can generally be described as rather traditionalist, nationally-oriented and exhibiting a dearth of multidisciplinary in its offerings. The most significant of these challenges are: to develop a service product portfolio that responds to the described complexity; and to design a platform that allows for continued, effective, flexible and accessible multidirectional collaboration for prospective participants from industry, education and the policy sector.

Against this background, multidisciplinary qualification offerings will benefit greatly from exploiting the diversity, complementarities and synergy that exist between maritime expertise and the content of academic programmes across Europe. Indeed, scientific integration is an important element within the EU's Maritime and Marine Research Strategy (2008) and European research networks are essential to its achievement. Expertise in specific aspects of the maritime sector already exists, and needs to be harnessed, connected and gathered within a common and lasting network of universities.

One of the fundamental questions is not if a research network can be developed, but rather how existing fragmented networks can be organised into a flexible, proactive, multidisciplinary knowledge cluster. While management literature acknowledges that small entities tend to be more flexible and innovative, a question remains over how the knowledge generated can be disseminated to a wider audience. What needs to be designed is some form of gateway to provide access to the many and varied research centres and an improved accessibility to funding opportunities for research. One way forward is the formation of strategic partnerships among Europe's best business, research and higher education actors to promote and co-ordinate innovation, research and higher education at the highest levels. At the same time, however, maritime research and education should resist a tendency towards institutionalisation, which in the long term will undermine innovation and its proactive character.

Maritime research and education needs to become an integral element of the European Higher Education Area, providing knowledge, education and training with a global outreach that is achieved within the context of the OECD/UNESCO Guidelines for Quality Provision in Cross-border Higher Education and which encompasses lifelong learning and certification, collective learning and multidisciplinary. European policies and strategies that are pursued post-Lisbon/Gothenburg must encourage effective co-operation within maritime education, built on common interests and the input of all participants. A prerequisite, therefore, is the voluntary nature of the co-

operation. While the goals are clear, how to attain these goals must be left flexible. Transnational co-operation cannot be artificially induced, but must evolve organically and in a manner that cannot necessarily be standardised.

The raising of standards in maritime education and training is essential. In line with the outcomes from the Bologna Process, the emergent common modular framework for programmes of study will facilitate the forging of greater links and partnerships across Europe, not only between education institutions but also between education and industry. The development of a series of integrated modular programmes within Europe would be in line with the Bologna Process and allow for the transfer of students and lecturers to create a new European standard for maritime education and training. This does not imply that national standards should be swept aside, but rather that they are exceeded within this new framework. This would obviously require the support of national transport departments to approve pathways and agree on a complete set of revalidation and transfer routes within the maritime sectors. While the transfer routes are obviously essential to retaining skills within maritime clusters, this would also assist with initial recruitment by helping to build a positive image of a career in the maritime sector.

Maritime education is about being competitive at a global scale and within a global environment. Education for a globalised industry should not have borders, either national or European. Research and education partnerships should be based on excellence with EU policy and strategy supporting the establishment of strong networks and relationships and the building of long-term sustainable capabilities. Steps towards excellence in research and education can only be realised if we free our minds of preconceptions and borders: physical, national and intellectual. Research and educational development should be centred on knowledge-based, networking clusters in which the mobilisation and facilitation of knowledge is a key element.



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