

Highway to Better Health



Better health outcomes for individuals and communities are the end goals of a major collaboration to establish Australia's Population Health Research Network.

Consisting of nodes distributed throughout Australia, the Population Health Research Network (PHRN) will provide Australian health researchers with high-tech health data linkage facilities and services.

But why is it important to efficiently link health data?

"Because all too often health policy is formed on an ad hoc basis to meet deadlines, without high-quality data to support the policy or expenditure," said Curtin's Professor of Health Services Research, James Semmens.

"Health researchers know that collated health data has been under-utilised. This affects health policy, the provision of health services and individual health outcomes."

The Commonwealth Government has responded to the need and is providing \$20 million for the PHRN, supplemented by a further \$31.7 million from state governments and academic institutions, via the National Collaborative Research Infrastructure Strategy program. Curtin has been provided

Floating Ideas

Eminent naval architect and ship designer Dr Nigel Gee foresees an urgent need for engineers and naval architects able to address emerging demands in a new era of innovation for marine technology.

Dr Nigel Gee arrived from the UK in late 2008 to visit Curtin as the inaugural recipient of the Innovator-in-Residence fellowship, with predictions of a new era in marine innovation, propelled, in part, by "policies that respond to climate change driving greener solutions for marine vessels – lower-power ship designs, lower emissions, bigger ships".

He is known for his groundbreaking pentamaran ship design, and for the design of the world's fastest, large naval vessel for the US Navy (the X-craft) and the fastest passenger-only catamaran in the world. His four-month visit to Curtin was an initiative by the Director of the Centre for Marine Science and Technology (CMST), Dr Kim Klaka.

"Nigel is an internationally renowned designer and engineer, with considerable experience in research and development programs," Klaka said. "We knew his expertise would be valuable in anticipating the needs and expectations for marine technology research.

"Australia has a reputation for marine technology innovation. However, we're anticipating a severe skills shortage in engineers and naval architects that will adversely affect our local marine industries."

The CMST was founded in 1985 as a marine technology research and development facility to advance technical ocean-related skills in Australia. The centre's expertise falls under three broad areas of marine acoustics, hydrodynamics and underwater visualisation technology.

Gee was able to take a six-month break from his consultancy work in the UK and offer CMST researchers and research students a leading naval architect's perspective on how best to advance technological innovation – and promote collaboration – with industry.

He anticipates that population growth, climate change and diminishing reserves of fossil fuels may soon launch a new era of innovation in marine technology. After a comprehensive program of visits to local and interstate marine industries, he provided insights on the long-term research and training needs of both the international and the local marine transport industry that will meet, and go beyond, industry expectations.

Said Klaka: "One of Nigel's key points was that there needs to be a greater synergy between industry and academia so that university-industry collaboration will develop ideas within a rigorous scientific framework able to validate those ideas."

"And, departing from the strictly science perspective, he also noted that the use of industrial designers is a recognition by industry that aesthetics, ergonomics and user-friendliness are aspects of innovative products that are as important as pure functionality."

As a result of Gee's insights, the CMST will begin focusing research on a number of new areas in applied research to ensure Australia's ships are both economically and environmentally sustainable.

cmst.curtin.edu.au