

Singapore to host region's first advanced maritime energy test-bed facility by 2015



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SINGAPORE - Set up by the Nanyang Technological University (NTU) and the Singapore Maritime Institute (SMI), the facility within NTU will host research into greener ship and port technologies, including alternative fuels, emissions control and waste heat recovery. For instance, it will have a 1.5 megawatt diesel engine on site which can be modified to run on various fuels.

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Get the full story from [The Straits Times](#).

Here is the full statement from NTU:

NTU to set up South-east Asia's first Maritime Energy Test Bed

Singapore's Nanyang Technological University (NTU) is establishing an advanced maritime energy test facility -- the first in South-east Asia.

Named the Maritime Energy Test Bed, it will be open to scientists and engineers from both academia and industry to do research and development work in green ship and port technologies, which includes alternative fuels, fuel additives, engine emissions and control.

This was announced today at the SMI Forum by Mr Teo Siong Seng, Chairman of the Singapore Maritime Institute (SMI). The new facility is jointly funded by NTU and SMI and will be ready by 2015. SMI will contribute S\$4.7 million over the next 10 years, while NTU provides S\$3.4 million, with support from the industry.

"The establishment of the Maritime Energy Test Bed will help in the translation of innovative technologies from lab-scale to large-scale application where new technologies will be tested prior to sea trials. The METB is a significant component in demonstrating and raising Singapore's maritime R&D capabilities and expertise," Mr Teo said.

Jointly proposed by the Energy Research Institute at NTU (ERI@N) and Maritime Institute at NTU ([MI@NTU](#)), the new test bed will play a big part in keeping Singapore at the forefront of maritime research and development. The facility will be tapping a potential maritime market segment estimated to be worth billions of dollars world worldwide.

Professor Chan Siew Hwa, Co-Director of ERI@N, said the new facility, which is built according to International Maritime Organisation (IMO) requirements, will allow both industry and academia to test and assess all the crucial parameters needed for cutting-edge research and development.

"To develop new technologies for green ships and green ports, all aspects of energy usage have to be studied, from the type of fuel and its associated emissions issues, to the efficiency of engines and waste heat recovery systems," Prof Chan said.

"Energy studies and the development of future energy solutions are key pillars of sustainability research, which NTU has a strong expertise in. With this new facility, we can continue to keep Singapore at the forefront of maritime research and development, tackling future challenges at all levels."

Sustainability is one of NTU's key research strengths. Sustainability research is one of the university's Five Peaks of Excellence, areas of research focus which NTU wants to make a global mark in under the five-year 2015 strategic blueprint.

The other four Peaks include Future Healthcare, New Media, New Silk Road and Innovation Asia.

This new Maritime Energy Test Bed will have a 1.5 megawatt diesel engine which can be modified to run on different fuels, as well as advanced equipment for research in energy storage, noise pollution and waste heat recovery.

The maritime industry is a key component of Singapore's economy, with a contribution of about 7 per cent to the Gross Domestic Product annually. With 90 per cent of world trade using shipping as a means of transporting goods, authorities and industry alike are moving towards greener fuels and cleaner emissions, in a bid to curb harmful effects on the environment.

Mr Lam Yen Chin, Executive Director of [MI@NTU](#), said that maritime manpower training and development is also an important objective of the new facility as it will be also be a platform to train PhD students and engineers.

"With the creation of new knowledge and green technologies, as well as skilled manpower, Singapore will be able to attract more business to the whole maritime value chain, ranging from local suppliers to shipyards and ports," Mr Lam said.

"In addition to Singapore getting a share of the multi-billion dollar green shipping industry through R&D, this initiative will also help to promote Singapore's international standing when it comes to environmental sustainability in the maritime industry."

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