

**FACT SHEET**

*Total: 4 pages including this page*

**Singapore, 5 October 2009**

**About Nanyang Environment & Water Research Institute (NEWRI)**

*Headed by: NTU Professor Ng Wun Jern, Executive Director*

NEWRI unifies NTU’s environment and water technologies (EWT) efforts in academia, research and applications. It also serves as the ‘entrance’ to NTU’s EWT capabilities and allows researchers to engage in leading research, bringing together groups across the university so as to leverage one another’s strengths.

With funding from National Research Foundation (NRF) and Environment & Water Industry Development Council (EWI), NEWRI’s ultimate goal is to translate cutting-edge EWT research and bring it to an industry eager to benefit society and lead in an expanding market.

Members of the NEWRI ecosystem are:

1. Advanced Environmental Biotechnology Group
2. Environmental Chemistry and Materials Group
3. iESE
4. Lien Institute for the Environment (LIFE)
5. NEWRI Environmental Master of Science (NEMS)
6. Singapore Membrane Technology Centre
7. DHI-NTU Water & Environment Research Centre & Education Hub
8. Residues & Resource Reclamation Centre



## **About Singapore Membrane Technology Centre (SMTC)**

*Headed by: NTU Professors Anthony Fane (Director) and Wang Rong (Deputy Director)*

The Singapore Membrane Technology Centre (SMTC) has a mission to be a world-class research Centre in membranes for the environment and water industry.

### **SMTC's objectives are:**

- Education & Training – supports education and training for post graduates and researchers in membranes;
- Research & Development – provides research with links to industry and international community;
- Industry & Application - acts as incubator for novel membrane technology in EWT

SMTC research has six programme themes, as follows:

- Water production – water treatment, desalination
- Water reclamation – pre-treatment and reverse osmosis
- Membrane Bioreactors – conventional and novel
- Energy issues – including Life Cycle Assessment (LCA)
- Special Needs – chronic and acute, decentralised
- Sensors and monitors

Since its launch last year, SMTC has received additional funding from industry partners such as Siemens, Trojan, PUB and Toray.

Some of SMTC's current projects include:

- Solar driven membrane distillation and bioreactor for water production supported by NRF Competitive Research Programme (CRP)
- Demonstration trials of Integrity Sensor for Membrane Plant under the Environment and Water Research Programme (EWRP)
- Demonstration of waste heat driven MD bioreactor for industrial wastewater, in partnership with Technochem Environmental Complex Pte Ltd (TEC)

## **About DHI-NTU Water & Environment Research Centre & Education Hub (DHI-NTU Centre)**

*Headed by:* NTU Professor Tan Soon Keat and Dr Ole Larsen of DHI (Singapore)

The DHI-NTU Centre was set up as part of the Environment and Water Research Programme (EWRP) with support from EWI. The Centre serves to build manpower capabilities on urban water management and water technology, and strengthen the water and environment industry via development of innovative solution and management technologies for water.

### ***DHI-NTU's objectives are:***

- Interdisciplinary research and training centre – trains professionals to generate new water knowledge via masters and PhD studies
- Sustainable environment – works towards the development of environmentally friendly solutions to support a sustainable ecology

The Centre focuses on five research areas:

- Industrial Water Management
- Urban Planning and Water Management
- Solid Waste Management,
- Environmental Impact Assessment, and
- Decisions Support System Tools and Technologies

The Education Hub provides specialist training and education for practicing engineers and scientists, as well as nurturing the next generation of water and environment professionals. This training aims to strengthen the man-power development of the water and environment industry.

## **About Residues and Resource Reclamation Centre (R3C)**

*Headed by:* NTU Professors Rainer Stegmann and Wang Jing Yuan

The Residues and Resource Reclamation Centre (R3C) provides a platform for wastes management research and development, especially for resource recovery and remediation. Its main aim is to support the Singapore industry in developing novel and appropriate technologies for the local and regional markets on urban waste management. The centre sets out to be a world-class resource recovery and remediation research centre and research hub for Asia. It will gather experts in R3 and related key disciplines from NTU as well as industrial and international research partners.

### ***Vision of R3C***

The pre-eminent and industry preferred centre of competence for use-inspired residues and resource reclamation research and translation in Singapore and the Asia and Pacific region.

### ***Missions of R3C***

- To be the focal point for R3 research and translation in the nation and region
- To be the R3 resource and technology transfer centre
- To educate and train R3 professionals

R3C will focus on three research themes: (1) waste to materials, (2) waste to energy, and (3) contaminated site remediation. In addition to performing cutting-edge research, the centre shall also work closely with government agencies and industry in the capacity of a think tank to identify future R3 research and development directions and to support Singapore's EWT companies to address local and regional waste management issues.

\*\*\* END \*\*\*