

LEE KUAN YEW
WATER PRIZE 2018



HONOURING THE BEST MINDS OF OUR GENERATION

THE GAME CHANGERS IN WATER SOLUTIONS

One of the key highlights of the Singapore International Water Week (SIWW), the Lee Kuan Yew Water Prize honours outstanding contributions by individuals or organisations towards solving the world's water challenges by developing or applying innovative technologies, policies or programmes which benefit humanity.

This prestigious international award is named after Singapore's first Prime Minister Lee Kuan Yew, whose foresight and leadership has enabled Singapore to attain a sustainable water supply.

Since its inception in 2008, the Lee Kuan Yew Water Prize has gained a standing in the global water arena as the premier Water Prize amongst its peers, by focusing on innovative water technologies, policies or programmes that have been game-changers in their real-world application. The honour roll for the Water Prize includes laureates with ground-breaking solutions in membrane technology, used water treatment, as well as holistic water policies and management that have benefitted the lives of millions. Their achievements represent the pinnacle in sustainable water solutions that have made a difference to cities and people around the world.

The Lee Kuan Yew Water Prize 2018 laureate will receive S\$300,000, a certificate, and a gold medallion at the award ceremony to be held during SIWW 2018.



Lee Kuan Yew Water Prize

THE PRIZE SPONSOR — SINGAPORE MILLENNIUM FOUNDATION

The Lee Kuan Yew Water Prize is sponsored by the Singapore Millennium Foundation (SMF). Established in 2001, SMF is a philanthropic body supported by Temasek Trust. With a primary aim to promote research and development of human capital, and enhance Singapore as a centre for research, SMF partners universities in Singapore as well as research institutes such as Temasek Life Sciences Laboratory, National Cancer Centre Singapore, National Neuroscience Institute, Institute of Mental Health, Singapore General Hospital, Lung Cancer Consortium and the Singapore Hospice Council. It has supported research into liver and lung cancer, Parkinson's disease, neuromuscular disease, mental health, biofuel, pedagogy and learning, special needs education, ageing and palliative care, and non-medical bioscience.



THE LEE KUAN YEW WATER PRIZE LAUREATES

The honour roll for the Lee Kuan Yew Water Prize commemorates seven laureates for their groundbreaking solutions in membrane technology, used water treatment and holistic water policies and management which have improved the lives of millions. Their achievements represent the pinnacle of sustainable water solutions, making a difference to people in cities around the world.

2016



PROFESSOR JOHN ANTHONY CHERRY

Professor John Anthony Cherry was awarded the 2016 Lee Kuan Yew Water Prize for his contributions to the advancement of groundwater science, policies, and technologies. A world-renowned hydrogeologist, his revolutionary research in collaboration with international partners has provided the global groundwater community with a better scientific framework to formulate policies and best practices. He has been a major influence in advancing global recognition of groundwater processes and the development of better field methods for monitoring groundwater contamination.

Beyond research and policy impacts, the scientific framework for monitoring technologies and clean-up efforts developed and recommended by Professor Cherry has been implemented in many areas with groundwater contamination around the world. With groundwater making up 95% of the planet's usable freshwater, and as a major water source for many countries and regions including the United States, Australia, Europe and China, Professor Cherry's advocacy for and contribution to the protection of the world's groundwater resources is truly remarkable and impactful.

2014



THE ORANGE COUNTY WATER DISTRICT

The Orange County Water District (OCWD) was awarded the 2014 Lee Kuan Yew Water Prize for innovative work in the management of groundwater, as well as for charting new heights in water reclamation, advanced water reuse technologies, and for solid achievements in public policy and community outreach. Every stage of the OCWD project has potentially vast benefits to its immediate community, and to its surrounding districts and the public at large. The effect of all this has also served to advance public acceptance and correct the public's often faulty notions with regard to the reuse of water.

2012



PROFESSOR MARK VAN LOOSDRECHT

Professor Mark van Loosdrecht was awarded the 2012 Lee Kuan Yew Water Prize for his breakthrough contributions in used water treatment and for his development of the completely autotrophic nitrogen removal process, Anammox. The Anammox process greatly reduces the overall energy consumption, chemical usage and carbon emissions of a conventional used water treatment plant. With this innovative sustainable way of removing pollutants in used water, Professor Mark van Loosdrecht has ushered in a paradigm shift in the understanding of the used water treatment process.

2011



DR JAMES BARNARD

Dr James Barnard was awarded the 2011 Lee Kuan Yew Water Prize for the invention of a biological method to treat used water, rendering it fit to be returned to lakes and rivers. His Biological Nutrient Removal (BNR) technology uses naturally occurring microorganisms to remove harmful nitrogen and phosphorus from used water to avoid hampering water quality. Less expensive and more environmentally-friendly than traditional chemical treatments, BNR protects and maintains the water quality of lakes and rivers and promotes water recycling. All BNR systems used worldwide today were developed from Dr Barnard's technology.

2010



YELLOW RIVER CONSERVANCY COMMISSION

The Yellow River Conservancy Commission (YRCC) was awarded the 2010 Lee Kuan Yew Water Prize for outstanding accomplishments in integrated river basin management that are unrivalled in scale. YRCC's innovative policies and solutions have brought about the widespread, sustainable social, economic and environmental benefits. The YRCC transformed China's second longest river in just 10 years, securing the water supply for over one hundred million people, restoring extensive wetlands for increased biodiversity and protecting approximately 90 million people who live in flood-prone areas of the river.

2009



PROFESSOR GATZE LETTINGA

Professor Gatze Lettinga was awarded the 2009 Lee Kuan Yew Water Prize for his environmentally sustainable breakthrough solution to water treatment using anaerobic technology. His revolutionary concept enables used industrial water to be purified in a cost-effective manner while producing renewable energy, fertilisers and soil conditioners. By choosing not to patent his invention, Professor Gatze Lettinga made his technology universally available. As a result, his technology has been adopted widely, and is used both at the industrial and municipal levels, as more sectors have increased concerns about energy efficiency.

2008



DR ANDREW BENEDEK

Dr Andrew Benedek was awarded the 2008 Lee Kuan Yew Water Prize for his pioneering achievement: the development and use of low-pressure membranes in water treatment. Through dedicated research, Dr Benedek has redefined the way water can be treated, and his findings have demonstrated how drinking water can be produced from different water sources. More importantly, his work shows that even water from highly polluted sources can be treated in such a way as to yield potable water. The implications of Dr Benedek's work are highly relevant, representing a huge benefit for mankind, both in developed and developing countries.

LEE KUAN YEW WATER PRIZE 2018

NOMINATION GUIDELINES AND EVALUATION PROCESS

(A) NOMINATION GUIDELINES

1. The Lee Kuan Yew Water Prize honours outstanding contributions by individuals or organisations towards solving the world's water problems by developing or applying innovative technologies, policies or programmes which benefit humanity.

NOMINATION PROCESS

2. A valid nominee for the Lee Kuan Yew Water Prize should have made outstanding achievements in any water-related field. The work should have demonstrated the innovativeness of technologies, policies or programmes. The work should have proven impact or demonstrated great potential to be a game-changer in the future.
3. The submission of nominations for Lee Kuan Yew Water Prize 2018 follows a rigorous two-stage process. The first stage is for the nominator to submit a citation of the nominee. Self-nominations and nominations by family members of nominees will not be accepted. Self-nomination includes nomination made by an individual from the same organisation as the nominee. In the second stage, nominators of shortlisted nominees will be informed to submit a full nomination, including a detailed write-up of the cited technological innovation and/or the implemented water policy and programme, recommendation letters and additional supporting documents.

Stage	Nomination Process	Closing Date & Time
A	Submission of nominations and citations by nominators	30 Jun 2017, Friday, 6pm (+8 GMT)
B	Submission of full nomination, including supporting documents by nominators of shortlisted nominees	2 Oct 2017, Monday, 6pm (+8 GMT)

(B) SELECTION PROCESS

4. All nominations will be examined by the Lee Kuan Yew Water Prize Nominating Committee. The Committee will make its recommendation to the Lee Kuan Yew Water Prize Council, which will make the final selection of the Lee Kuan Yew Water Prize Laureate. Both panels consist of prominent thought leaders, distinguished academics and water experts from the public and private sectors.

All received nominations will be evaluated on the following criteria:

a. **Role of Nominee**

The nominator should describe the role of the nominee in the development and implementation of the specific technologies, policies or programmes that underpin the nomination. In particular, the leadership of the nominee as well as the nominee's instrumental contributions should be highlighted.

b. **Innovativeness and merits of the technologies, policies or programmes**

The innovativeness and benefits of the referenced technologies, policies and programmes should be described in detail. Nominators are encouraged to include comparisons with the state-of-the-art technologies or existing policies and programmes, and depict how the nominee's work has been proven to be a game changer or show great potential to do so.

c. **Impacts on humanity**

The current level of readiness and scale of implementation of the referenced technologies, policies and programmes should be described. Nominators should quantify the impact of nominee's work in benefitting humanity, or project any long-term benefits in cases where the level of readiness and scale of the implementation is currently low.

(C) CALL FOR NOMINATIONS

5. The first stage of nomination is open on 22 Mar 2017. Submission should be completed by 30 Jun 2017, Friday, 6pm (+8 GMT) through the online portal: www.siww.com.sg/lkywp/nomination

CONTACT INFORMATION

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Lee Kuan Yew Water Prize sponsor:

