

## media release

### Resorts World Sentosa and National University of Singapore jointly set up Living Laboratory for biodiversity conservation and decarbonisation

- A 5-year partnership, the RWS-NUS Living Laboratory seeks to contribute towards the Singapore Green Plan 2030 and Sentosa Development Corporation's plans to transform the island into a carbon-neutral destination by 2030
- The Academic-Industry collaborative research and development aims to enhance marine biodiversity and create innovative sustainable tourism solutions for RWS and Singapore



*Resorts World Sentosa (RWS) CEO Mr Tan Hee Teck (left) and National University of Singapore (NUS) President Professor Tan Eng Chye (right) launched the RWS-NUS Living Laboratory today, in the presence of Mr Alvin Tan, Minister of State for Trade & Industry and Culture, Community, and Youth (centre).*

**Singapore, 5 January 2022** - Resorts World Sentosa (RWS) and National University of Singapore (NUS) launched a 5-year applied research partnership today at Equarius Hotel, in the presence of Mr Alvin Tan, Minister of State for Trade & Industry and Culture, Community, and Youth, to set up a collaborative **RWS-NUS Living Laboratory**. RWS has committed S\$10 million in funding to support the Living Laboratory and its research. This marks the single largest academic-industry partnership focused on biodiversity and energy conservation that will contribute directly to the tourism economy, environmental education and sustainability efforts in Singapore's ESG (Environmental, Social & Governance) development.

With the rise of sustainable tourism and a global focus on marine biodiversity, sustainability and climate change, the collaboration draws on the strengths and expertise of RWS as the leading leisure and tourism destination in Asia and host to the upcoming Singapore Oceanarium (SGO), and NUS as a leading academic and research institution with rich and interdisciplinary capabilities in areas such as marine science, conservation and sustainability.

The launch of the RWS-NUS Living Laboratory places RWS and NUS at the forefront to deliver on Singapore's goals of achieving long-term success in sustainable tourism. The collaboration further reaffirms RWS's holistic approach to destination building and marks another milestone in its continuous sustainability journey.

Sustainability has been embedded in the heart of RWS's business since the integrated resort was first built over 10 years ago. Examples of its stellar environmental stewardship include an award-winning District Cooling Plant (DCP), one of the largest solar panel installations in Singapore, a rainwater harvesting system, Green Mark Certified Gold Plus and Platinum buildings, three hectares of preserved forest, extensive green roofs and walls, as well as educational outreach. Testament to its robust efforts, RWS became the first destination in the world to achieve both the Global Sustainable Tourism Council (GSTC) Destination Criteria and GSTC Industry Criteria for Hotels in August 2021.

The RWS-NUS Living Laboratory will focus on two research areas: **1) Biodiversity Conservation and Education**, and **2) Decarbonisation and Nature-based Solutions**. The collaborative research and development on the critical issues of biodiversity and climate resilience strives to make impactful contributions towards the Singapore Green Plan 2030 and support Sentosa Development Corporation's plans to transform the island into a carbon-neutral destination by 2030.

Resorts World Sentosa CEO Mr Tan Hee Teck says, "The RWS-NUS Living Laboratory underscores our resolute commitment to make RWS a sustainable destination for Singaporeans and travellers. At the same time, the partnership will set the foundation for RWS to meet emerging trends where consumers are prioritising sustainability and unique engaging experiences when they travel. Nestled within the lush biodiversity surrounding of Sentosa, an elevated S.E.A. Aquarium, to be known as the Singapore Oceanarium with its immersive and multi-sensory story-telling of the evolution of the oceans' inhabitants, along with marine education, conservation and research, will further strengthen RWS' destination appeal. We look forward to working alongside NUS to expand research and develop innovative solutions that bring us closer to our sustainability goals and reinforces Singapore's position as a sustainable tourism destination."

Professor Tan Eng Chye, President of the National University of Singapore, says, "Sustainability is a key priority for NUS, both in our research and campus operations. We currently have more than 20 research centres across the campus working on integrative sustainability solutions, leveraging our deep capabilities in low-carbon energy, carbon dioxide conversion technologies, marine science research, climate modelling, artificial intelligence, and more. The RWS-NUS Living Laboratory brings together our complementary strengths and I am confident that we will co-create many innovative and transformative research outcomes that will enhance biodiversity conservation, environmental sustainability, and decarbonisation. This, in turn, strengthens Singapore's standing in eco-tourism."



More information about RWS-NUS Living Laboratory is available in [Annex A](#).

For information on RWS's Sustainability Initiatives and Accolades, please refer to [Annex B](#).

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### ABOUT RESORTS WORLD SENTOSA

Resorts World Sentosa (RWS), Asia's premium lifestyle destination resort, is located on Singapore's resort island of Sentosa. Spanning 49 hectares, RWS is home to world-class attractions including Universal Studios Singapore, S.E.A. Aquarium, Dolphin Island and Adventure Cove Waterpark. Complementing the adventure and adrenaline of its theme parks and attractions are six unique luxury hotels, the world-class Resorts World Convention Centre and a casino. RWS offers award-winning dining experiences and exciting cuisines from around the world across its many renowned celebrity chef restaurants, establishing itself as a key player in Singapore's vibrant and diverse dining scene and a leading gourmet destination in Asia for epicureans. The integrated resort also offers world-class entertainment, from original resident productions to concerts and public shows. RWS has been named "Best Integrated Resort" since 2011 for nine consecutive years at the TTG Travel Awards which recognises the best of Asia-Pacific's travel industry.

RWS is wholly owned by Genting Singapore, a company of the Genting Group. For more information, please visit [www.rwsentosa.com](http://www.rwsentosa.com).

 /ResortsWorldatSentosa   @rwsentosa

### ABOUT NATIONAL UNIVERSITY OF SINGAPORE (NUS)

The National University of Singapore (NUS) is Singapore's flagship university, which offers a global approach to education, research and entrepreneurship, with a focus on Asian perspectives and expertise. We have 17 faculties across three campuses in Singapore, with more than 40,000 students from 100 countries enriching our vibrant and diverse campus community. We have also established our NUS Overseas Colleges programme in more than 15 cities around the world.

Our multidisciplinary and real-world approach to education, research and entrepreneurship enables us to work closely with industry, governments and academia to address crucial and complex issues relevant to Asia and the world. Researchers in our faculties, 30 university-level research institutes, research centres of excellence and corporate labs focus on themes that include energy; environmental and urban sustainability; treatment and prevention of diseases; active ageing; advanced materials; risk management and resilience of financial systems; Asian studies; and Smart Nation capabilities such as artificial intelligence, data science, operations research and cybersecurity.

For more information on NUS, please visit [www.nus.edu.sg](http://www.nus.edu.sg).

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### EDITORS' NOTES

1. High resolution photographs and infographics can be downloaded [here](#).
2. All photographs and infographics are to be attributed to: *Resorts World Sentosa* (圣淘沙名胜世界).

## Annex A: RWS-NUS Living Laboratory projects

### Track 1: Biodiversity Conservation and Education project

The marine biodiversity conservation project will bring together NUS' deep research capabilities in marine science and the upcoming Singapore Oceanarium's (SGO) public education as well as outreach expertise to enhance biodiversity conservation in and around our Southern Islands. This Living Laboratory will be developed into a powerful knowledge platform for marine science outreach and education. It aims to position Singapore and SGO as a thriving hub for the conservation and restoration of vulnerable marine organisms and habitats. This project contributes to Singapore's commitment to Goal 14 of the Sustainable Development Goals – to conserve and sustainably use the oceans, seas, and marine resources for sustainable development.

The RWS-NUS Living Laboratory will focus on the following key initiatives:

- 1. Development of a holistic biodiversity programme for the Coral Triangle**  
As a close neighbour to the Coral Triangle - the richest centre of marine life with the highest coral diversity in the world – the Living Laboratory aims to play an active role in its conservation.
- 2. Implementation of rewilding programmes to restore marine biodiversity in Singapore**  
The Living Laboratory will identify key marine species under threat in and around Singapore, and implement programmes to restore the health of these populations in our waters.
- 3. Explore the role of Dolphin Island in supporting research and education**  
The programme will explore how the activities of Dolphin Island can support marine conservation research and education in Singapore.
- 4. Interdisciplinary research on the role of nature in health and wellness**  
The Living Laboratory aims to leverage on SGO to explore cutting-edge research into the potential benefits of nature experiences on human health and wellbeing, which may be beneficial to mental and physiological wellness.

These efforts will boost the quality of the experience and education that SGO can offer the world. Through the research programmes, RWS will contribute first-hand in the conservation of vulnerable native marine organisms and the restoration of critical habitats, enhance SGO's representations of Singapore's coastal ecosystems, and deliver unique and engaging exhibits, backed by rich marine science and environmental education. SGO also intends to engage the community at large, delivering seminars and workshops from its explorers in residence and visiting scientists, including exclusive events that will attract high-value visitors. These will create powerful branding for SGO and establish its position as a first-class centre for marine biodiversity education, conservation, and research. This will, in turn, strengthen the long-term competitiveness of SGO as a purpose-of-visit in Singapore.

## Track 2: Decarbonisation and Nature-based Solutions project

The Decarbonisation and Nature-based Solutions project will leverage NUS' rich engineering capabilities and RWS's expertise as the leading leisure and tourism destination in Asia, to develop integrated solutions to address environmental issues, climate change and complex urban challenges.

The Living Laboratory will develop critical decarbonisation and integrative nature-based solutions across multiple domains including energy, water and waste. These areas are of strategic relevance to RWS's business and are also important areas of research to position Singapore as a sustainable tourism destination.

### 1. **Decarbonisation**

The Living Laboratory will take a multi-disciplinary approach to augment and accelerate decarbonisation by harnessing next-generation technology that is designed and optimised for tropical, urban and Singapore settings which includes low energy systems and resource efficient solutions for rapid transition to low carbon economy.

### 2. **Integrative nature-based energy efficient solutions**

Research will be conducted to facilitate the understanding, design, and implementation of nature-based, energy efficient solutions for building and infrastructural projects. Internet of things (IOT)-based climatic sensors/devices, as well as data mining and systems modeling capabilities will also be incorporated to develop strategies to mitigate and adapt to potential urban heat risks, for example.

One potential project is to devise ways to cool urban spaces to fulfil a low carbon and healthy living environment. Innovations will be developed and test-bedded at RWS properties and adapted for scalability across a variety of environment and properties. It will serve as an exemplification of a sustainable living world with the latest decarbonisation and nature-based solutions and innovations.

## Annex B: Resorts World Sentosa's Sustainability Initiatives and Accolades



# HOLISTIC SUSTAINABILITY APPROACH



## SUSTAINABLE MANAGEMENT

