

MEDIA RELEASE

FOR IMMEDIATE RELEASE

NEW INITIATIVES LAUNCHED AT CATALYST 2026 TO DRIVE INNOVATION IN SINGAPORE'S ENVIRONMENTAL SERVICES INDUSTRY

17 June 2026 - Catalyst 2026, organised by Singapore's National Environment Agency (NEA), brought together about 300 industry leaders, global policymakers, technology innovators, and academics in the Environmental Services (ES) ecosystem. They exchanged ideas, explored cutting-edge technologies, and forged meaningful connections that accelerate the shift towards a greener, more resilient future.

2. Themed "Innovating Towards a Sustainable Future", Catalyst 2026 shaped discussions and partnerships that will influence the future of the ES industry¹. The event, which took place at Marina Bay Sands, leads up to CleanEnviro Summit Singapore (CESG) 2027, which will deepen international collaboration and industry engagement, and showcase notable innovations. As a global platform for environmental action, CESG goes beyond dialogue to drive impactful, real-world solutions that matter.

3. Senior Minister of State, Ministry of Sustainability and the Environment, Dr Janil Puthucheary, delivered the opening remarks at Catalyst 2026. SMS Janil outlined Singapore's vision for the future of the ES industry, including strengthening circularity, advancing Reduce and Reuse efforts, driving innovation in waste management, and building industry capabilities.

Key announcements

Launch of TREASURES, Singapore's first Research Centre for Residue and Toxic Industrial Waste Management

4. SMS Janil announced the launch of **Towards Resource Efficiency and Sustainability for Urban Environments (TREASURES)**, Singapore's first Research Centre for Residue and Toxic Industrial Waste Management, jointly established by NEA and Nanyang Technological University (NTU) Singapore, with participation from the National University of Singapore (NUS) and other institutes of higher learning. TREASURES will bring together researchers, industry, and government to recover value from complex waste streams and transform Semakau Landfill from a waste disposal site into a future resource recovery hub. TREASURES also launched its [inaugural grant call](#), open from today until 17 August 2026, 17:00 SGT, focusing on toxic industrial waste management and landfill transformation.

Review of Singapore's Zero Waste Masterplan 2030

5. In line with these priorities, SMS Janil provided an update on Singapore's Zero Waste Masterplan 2030, highlighting progress made since its launch in 2019, key gaps in recycling outcomes, and plans to refresh the Masterplan to further strengthen circularity and shift efforts upstream towards Reduce and Reuse.

¹ Refer to Annex A for the Catalyst 2026 event programme

Refreshed Environmental Services Industry Digital Plan (IDP)

6. SMS Janil also unveiled the refreshed Environmental Services Industry Digital Plan (ES IDP)², jointly developed by NEA and the Infocomm Media Development Authority (IMDA). The refreshed IDP moves away from segmenting solutions by stages of digital readiness, and is redesigned to organise solutions around business touchpoints, covering operations and scheduling, on-site service delivery, and corporate functions. This enables companies across the Cleaning, Waste Management, and Pest Management subsectors to quickly identify and adopt the right digital tools for their specific business challenges.

7. Beyond addressing current needs, the refreshed IDP also positions companies ahead of the technology curve by incorporating the next-wave of AI-enabled innovations such as Toilet Cleaning Robotics, which directly tackle manpower constraints and evolving industry demands. For example, RS Facilities Services has deployed Hivebotics' Toilet Cleaning Robot at Our Tampines Hub, reducing the reliance on manual cleaning for routine tasks and enabling its cleaners to focus on areas that require human intervention and quality assurance. The solution is expected to improve manpower productivity by 50 per cent and achieve consistent hygiene standards of more than 80 per cent across shifts.

Programme Highlights

8. As part of Catalyst 2026, a Partnership Agreement was also signed between Mr Ng Keng Wei, Group Director (Joint Operations and Technology Group) and Chief Artificial Intelligence Officer, NEA and Mr David Ruetz, Senior Vice President, Messe Berlin to announce the refreshed CESG, which will pave the way for deeper partnerships and new opportunities. This builds momentum towards CESG 2027, as the event for the first time will be organised in partnership with CMS Asia, a new Asia-Pacific B2B trade exhibition and industry platform organised by Messe Berlin Asia Pacific, covering environmental services and sustainability innovations, facility management, hygiene and pest management, and resource circularity solutions. Together, the two platforms will bring industry leaders, policymakers, and innovators to Singapore, creating new opportunities for knowledge exchange, business partnerships, and industry growth across Asia Pacific.

9. Catalyst 2026 featured keynote speeches by global and regional leaders on sustainability, innovation and transformation, as well as a first-ever innovation showcase segment, where participants got a front-row seat to the cutting-edge solutions in sustainability, the circular economy, and environmental technology. The event also offered valuable opportunities for networking and cross-sector collaboration, strengthening partnerships that will drive future innovation and impact.

- End -

² Refer to Annex B for the refreshed ES IDP

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About the National Environment Agency

The National Environment Agency (NEA) is the leading public organisation responsible for ensuring a clean and sustainable environment for Singapore. Its key roles are to improve and sustain a clean environment, promote sustainability and resource efficiency, maintain high public health standards, provide timely and reliable meteorological information, and encourage a vibrant hawker culture. NEA works closely with its partners and the community to develop and spearhead environmental and public health initiatives and programmes. It is committed to motivating every individual to care for the environment as a way of life, in order to build a liveable and sustainable Singapore for present and future generations.

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About Catalyst 2026

Organised by Singapore's National Environment Agency, Catalyst 2026 serves as a strategic lead-up to CleanEnviro Summit Singapore (CESG) 2027. Themed "Innovating Towards a Sustainable Future", the event will take place at Marina Bay Sands on 17 June 2026. Catalyst 2026 brings together stakeholders to shape conversations, collaborations, and solutions that will drive the future of the environmental services industry.

CESG is a global platform for industry leaders, policymakers, technology innovators, and academics in the environmental services ecosystem to exchange ideas, explore cutting-edge technologies, and forge meaningful partnerships that can accelerate the shift towards a greener, more resilient future. For more information, visit:

<https://www.cleanenvirosummit.gov.sg/>

Catalyst 2026 Event Programme

Time	Segment	Key Element/s
0900 (15 min)	[Segment 1] Context Setting - <i>A Vision of Sustainable Future for the ES Industry</i>	Opening Remarks by Guest-of-Honour (GOH), SMS Janil Puthuchery to highlight the future consideration and the future thinking for Singapore.
0915 (15 min)		Keynote Presentation by Mr Naveen Balani, Executive Director, Green Software Foundation on Innovation, highlighting his domain expertise in applying digital technologies for innovative sustainable development solutions, offering insights to the audience on worldwide emerging trends in ES industry innovations and their path to market.
0930 (15 min)	[Segment 2] Making Connections - <i>Innovations Meet Opportunities</i>	Presentation by Mr Masood Mallick, Managing Director and Group Chief Executive Officer of Re Sustainability Limited, sharing insights on how cutting-edge technologies are revolutionising global operations and transforming industries.
0945 (60 min)		<p>Panel Discussion with Innovation Ecosystem Players to explore the future trajectory of the ES industry and uncover high-impact innovation opportunities in resource circularity, waste management, and cleaning services.</p> <ol style="list-style-type: none"> 1. [Moderator] Mr Daniel Kuek, Director of Urban Solutions & Sustainability Innovation & Enterprise Office (USS IEO) 2. Dr Adrian Ang, Director for Group Sustainability and New Business of Chye Thiam Maintenance (CTM) 3. Mr Dylan Ng, CEO and Co-Founder of Lionsbot International 4. Mr Melvyn Yeo, Managing Partner and Founder of TRIREC Fund Management 5. Ms Meridith Beaujean, Executive Director of Sustainability at Marina Bay Sands (MBS) 6. Ms Rotem Libby Blanc Inbar, Head of Climate Tech Competence Center Asia of Start2 Group

1045 (20 min)	Tea - Break	
1105 (45 min)	[Segment 3] Innovation Pitches - <i>Autonomous, Analytics, Artificial Intelligence, Advanced Biology</i>	<p>Innovation Showcase - Six carefully curated innovations offering attendees direct exposure to cutting-edge ES technologies</p> <ol style="list-style-type: none"> 1. Real-Time, At-Source Industrial Wastewater Monitoring: Autonomous Sensing & AI by Raghav Narayan, CEO of Aprisium Pte Ltd 2. Carbon Nanotubes for Battery Prototypes by Andrei Veksha, Co-Founder & Director of Nanomatics Pte Ltd 3. Beer Spent Barley to Tuna by Chua Jian Yong, Co-Founder / Lead Scientist of Mottainai Food Tech Pte Ltd 4. Enabling Hydrogen's Scale-Up: High-Efficiency Nanoporous Storage Systems by Jehan Kanga, CEO of Rux Energy 5. One Man Operation (OMO) Waste Collection Automation by Jakob Lambsdorff, CEO of Alba Singapore 6. Toilet Cleaning Robotics by Vincent Sim, Chief Sales Officer of Hivebotics
1150 (10 min)	[Segment 4] Launch of the Refreshed CESG	<p>Address by Dr Benjamin Koh, CEO, National Environment Agency / Deputy Secretary (Sustainability), Ministry of Sustainability and the Environment</p> <p>Signing Ceremony - Official Appointment of International Events Partner for CleanEnviro Summit Singapore</p>
1200 (90 min)	Networking Lunch	Environmental Services Industry Digital Plan (ES IDP) Tech Showcase by Infocomm Media Development Authority (IMDA)
1330 (60 min)	<p>"The Transformation Imperative: Fireside Chat on Workforce Readiness" by Workforce Singapore (WSG)</p> <p>The fireside chat is a strategic, executive-level conversation examining enterprise and workforce transformation as a critical leadership priority. The session will explore how forward-thinking leaders are ensuring workforce readiness evolves in lockstep with technology adoption, particularly as AI, automation, and operational innovations reshape all industries.</p>	

<p>1430 (10 min)</p>	<p>“Refreshed Environmental Services Industry Digital Plan: Overcome Business Challenges and Grow Through Digitalisation” by Infocomm Media Development Authority (IMDA)</p> <p>Struggling to find digital solutions that solve day to day challenges that you face? Join IMDA's session to find out more on how the refreshed Environmental Services Industry Digital Plan (ES IDP) can help. Developed jointly by IMDA and NEA, and in close consultation with industry stakeholders, we will share what's new and how challenges faced at key business touchpoints can be solved through digital. We also invite you to visit our breakout IDP Tech Showcase to interact directly with featured vendors.</p>
<p>1440 (20 min)</p>	<p>Tea - Break</p>
<p>1500 (95 min)</p>	<p>Featured Industry Sharing by EMAS, SPMA and WMRAS “Charging Forward: Uniting Industries for Sustainable Innovation”</p> <p>Hear from industry leaders and key stakeholders on the trends and developments shaping the future of the Environmental Services industry, with insights relevant to both service providers and service buyers alike.</p> <p>Presentation: Reduce your cost and carbon emissions - What? Why? How?</p> <p>Speaker: Mr Hu Ching, Head Net Zero Transition Programme Office, Singapore Business Federation</p> <p>Presentation: Digital Innovation in Pest Management: Enhancing Service Delivery and Transparency</p> <p>Speaker: Mr Charles Paumelle, Chief Product Officer & Founder, Microshare Inc.</p> <p>Presentation: A perspective on upcoming transformational changes in the waste management industry (Presented by: Zero Waste City)</p> <p>Speaker: Remi Cesaro, Founder & Executive Director, Zero Waste City</p> <p>Dialogue with Dr Janil Puthucheary, Advisor to EMAS, SPMA and WMRAS, and Senior Minister of State for Sustainability and the Environment</p> <p><i>-A Shared Agenda: Sustainability, Resilience and the Future of Environmental Services</i> Panel: Advisor SMS Janil, EMAS President, SPMA President, WMRAS Chairman Moderator: Singapore Business Federation</p>
<p>1635</p>	<p>End of Programme</p>

MEDIA FACTSHEET

DATE OF ISSUE: 17 JUNE 2026

REFRESHED INDUSTRY DIGITAL PLAN TO HELP ENVIRONMENTAL SERVICES COMPANIES LEVERAGE DIGITAL AND AI SOLUTIONS FOR INCREASED PRODUCTIVITY

1. The refreshed Environmental Services Industry Digital Plan (ES IDP) is launched today by the National Environment Agency and the Infocomm Media Development Authority (IMDA) to support over 2,500 companies in their digital transformation efforts. Dr Janil Puthucheary, Senior Minister of State for Sustainability and the Environment, made the announcement during his opening speech at Catalyst 2026 organised by NEA and supported by IMDA and Workforce Singapore.
2. Adoption of sector specific solutions within the Environmental Services sector has grown significantly since the ES IDP was refreshed in 2021. In 2025, more than 9 in 10 companies have adopted at least one sector specific solution, up from more than 3 in 10 in 2021. Even as the sector digitalises, businesses continue to face challenges such as manpower constraints and cost pressures. With artificial intelligence (AI) becoming more accessible and prevalent, it presents new opportunities for companies to leverage on new digital solutions to address these challenges and improve operational efficiency.
3. In response to these developments, NEA and IMDA worked closely with industry stakeholders, including Environmental Management Association of Singapore (EMAS), Waste Management and Recycling Association of Singapore (WMRAS), and Singapore Pest Management Association (SPMA) to refresh the ES IDP. The refreshed IDP is redesigned as a problem-led digital guide that maps business areas and pain points directly to validated solutions, serving as a dynamic strategic guide that helps companies across the Cleaning, Waste Management, and Pest Management subsectors quickly identify and adopt the right digital tools for their specific business challenges.
4. The refreshed ES IDP makes adoption easier for companies by organising solutions around three key business touchpoints where specific operational challenges are matched to suitable solutions:
 - a. **“Operations and Scheduling”** - Includes solutions such as HR E-Scheduling to enable manpower to be allocated efficiently, and Field Service Management to enable workers to access work orders, update job status, and sync data digitally for field reports to be digitally documented
 - b. **“On-site Service Delivery”** - Includes sub-sector specific solutions such as Toilet Cleaning Robot for Cleaning, Waste Tonnage Monitoring for Waste Management, and Smart Traps for Pest Management
 - c. **“Corporate Functions”** - Includes solutions such as Accounting Management and Customer Relationship Management solutions to manage billing, customers, and contracts.
5. A key feature of the refreshed IDP is how it keeps ES companies ahead of the technology curve by incorporating next-wave innovations such as the Toilet Cleaning Robotics to address manpower constraints and evolving industry needs.
6. For example, RS Facilities Services (see [Annex C](#) for more information), a homegrown SME, has deployed Hivebotics' Toilet Cleaning Robot at Our Tampines Hub, reducing the reliance on manual cleaning for routine tasks and enabling its cleaners to focus on areas that require human intervention and quality assurance.

The solution is expected to improve manpower productivity by 50% and achieve consistent hygiene standards of more than 80% across shifts. It also makes the role less physically demanding, helping to attract and retain local talent. The company has also adopted a Field Service Management solution to digitalise its operations, providing real-time job tracking and reporting via mobile. This has reduced report compilation time from two days to 10 minutes per client monthly, while improving operational visibility across sites.

7. The refreshed ES IDP also highlights how ES companies can leverage **AI and Generative AI (GenAI)** to improve productivity, safety, and decision-making across their operations and corporate functions. Key AI-enabled solutions include:

- a. **Field Service Management** enables businesses to optimise scheduling, routing, and resource allocations using predictive analytics
- b. **GenAI Customer Engagement Chatbot** enables customer queries to be addressed using natural language on a 24/7 basis
- c. **AI Accounting Automation** uses AI to extract and match accounting entries, enabling data entry and reconciliation to be done automatically.

8. As ES companies operate across multiple worksites with increasingly connected systems, cyber risks are a growing concern. The updated ES IDP equips companies with a Cybersecurity and Data Protection Roadmap to strengthen cyber resilience at each stage of their digital journey. The Roadmap covers cyber hygiene measures against common attacks, cyber risk assessment, and Personal Data Protection Act-compliant data protection practices.

9. Businesses can visit the SMEs Go Digital platform at <https://smesgodigital.gov.sg/web/environmentalservicesindustrydigitalplan> for more information on the refreshed ES IDP.

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PROFILE OF RS FACILITIES SERVICES PTE LTD

Name	RS Facilities Services Pte Ltd
Details of Business	<p>RS Facilities Services Pte Ltd was founded in 2013 as a cleaning subcontractor. Over the past decade, it has grown into one of Singapore's leading environmental services companies, managing over 1,400 cleaners across more than 100 client sites, spanning residential, institutional, industrial, and healthcare settings.</p>
Write-up	<p><u>Field Service Management Solution</u></p> <p>As RS Facilities Services grew, its paper-based processes could not keep pace. Manual workflows created several key challenges, including lengthy report preparation, no real-time task visibility, and slow attendance and payroll reconciliation, requiring Operations Managers to travel to individual sites to collect paper timecards before payroll could be processed each month.</p> <p>To address these challenges, RS Facilities Services adopted a Field Management Solution, which provides real-time job status updates via mobile, allowing staff to receive assignments and upload photo evidence directly through the app, while giving management live updates across all sites. The solution also reduces report compilation time, from two days to 10 minutes per client monthly, with photo evidence uploaded on-site upon completion and reports generated instantly.</p> <p><u>Toilet Cleaning Robot</u></p> <p>RS Facilities Services also faced a common industry challenge on the high turnover in toilet cleaning roles, as manual toilet cleaning was physically demanding and hygiene-sensitive, making these positions especially difficult to fill and retain.</p> <p>To address these challenges, RS Facilities Services is deploying Toilet Cleaning Robots, which is expected to improve manpower productivity by 50% as the robot conducts physically demanding and hygiene-sensitive tasks, while staff focus on tasks such as restocking consumables. This will also lead to wider talent appeal, as removing the most physically demanding task from the role is expected to reduce candidate drop-off and ease recruitment, particularly among local workers.</p>