



# SSMC's Sustainability Highlights

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# SUSTAINABILITY

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# Walking the Talk Towards Sustainability



## Singapore World Water Day (SWWD)

On 9 March 2024, SSMC employees came together to celebrate the importance of water sustainability and conservation. The team was honoured to meet with Singapore President, Mr. Tharman Shanmugaratnam and Minister for Sustainability & Environment, Ms. Grace Foo who share the passion of spreading water conservation message, “Save water. Big ways, small ways, all OK!”



## Nurturing the Young in Wetland Learning Trail

SSMC hosted students from Mee Toh school on 22 March 2024 for a Lorong Halus Wetland educational learning trail, sharing the natural bioengineering ways of wastewater purification and spreading the important message of water conservation to students.

This community engagement initiative emphasises the importance of preserving water resources and fostering water sustainability awareness.



# SSMC Receives SINGAPORE WATERMARK AWARD 2024

On 26 March 2024, SSMC received the prestigious Singapore Watermark Award (SWMA) 2024, the highest accolade for their exemplary leadership and outstanding achievements in water sustainability presented by Public Utilities Board is a recognition of our strong commitment to water management & efficiency in our operations.



Presented by the Minister Grace Foo (Ministry of Sustainability and the Environment of Singapore) to SSMC's CEO, Soon Lim.



## Singapore Watermark Awards

recognise leading organisations in Singapore that exhibit a profound dedication to effective water management, ongoing efforts in water efficiency, innovative water conservation practices, and active community engagement to inspire action and garner support for the water cause.



## Employee & Community Engagement

SSMC's commitment to water sustainability is evident in their avid community engagement and water advocacy – from participating regularly in Singapore World Water Day, to organising educational tours and sharing sessions for students. They connect with schools by virtually sharing their Water Efficiency Management Journey and offering an educational tour of their facility. This aims to educate students about the process and importance of water recycling.

SSMC is also training staff volunteer docents for the Lorong Halus Wetlands Learning Trail, with plans to educate the community on the importance of keeping our catchment areas and waterways clean.

Over the years, more than 50% of employees participated in SSMC's improvement crowdsourcing platform. In 2023, SSMC invited employees to contribute water conservation ideas to promote engagement in water conversation efforts. More than 35 ideas had been gathered and piped for implementation.

[Read more](#) P.9-10 of PUB Publication



*To all the water champions out there, even the smallest actions make a difference, so stay encouraged and continue your efforts to protect our planet's most precious resource. Together, we can make a significant impact for a better tomorrow.*

**Mr Lim Soon**  
Systems on Silicon Manufacturing  
Company Pte. Ltd.  
CEO



## Innovation for Water Sustainability

Since 2015, SSMC has been recycling at an average level of 67% as compared to the industry average of 45%. We have achieved this through active water recycling strategies, such as using NEWater in 100% of their operation and innovating new wastewater treatment methodologies.





# PUB celebrates winners of three water efficiency awards

SWMA is Singapore's highest accolade that honours organisations that advance the water sustainability agenda (Image: PUB)

In March 2024, Singapore's National Water Agency PUB announced the three winners of Singapore Watermark Awards (SWMA). Amazon Web Services (AWS) Singapore, Mee Toh School and Systems on Silicon Manufacturing Company (SSMC) clinched the nation's highest accolade that honours organisations that advance the water sustainability agenda.

## AWS SINGAPORE

Positioned within the top 10% of performers in the data centre sector, AWS Singapore has implemented a water-efficient cooling tower design for their data centres to reduce water consumption. AWS data centres use on average less than 0.19L globally to cool 1kWh of IT load, compared to the industry average of 1.8L for the same load, according to Amazon Global water sustainability lead Will Hewes. "Today, all AWS data centres in Singapore are running on recycled NEWater water," he said. "AWS also piloted and deployed a water recycling system in Singapore which we codveloped with a local startup Hydroleap, and we plan to scale this across the Asia-Pacific region."

## MEE TOH SCHOOL

On Mee Toh School campus, sensors are installed at taps and water coolers to reduce water wastage. To ensure that underground water leakage does not go undetected, operations staff monitor water usage by checking water meters daily. Between 2019 and 2022, the school lowered their annual water consumption by 30%.

This co-ed primary school has hands-on water conservation initiatives such as its rainwater collection system, which harnesses rainwater for use in the cleaning of common spaces, watering of plants, and students' projects. "In Mee Toh, what is unique is that we incorporate this into our environmental education programme, so we structure the curriculum around water," principal Wang-Tan Sun said. "We hope our students will grow up as responsible eco-stewards that champion for environment and water sustainability."

From left: PUB chief executive Ong Tze-Chyi; Simon Tan, AWS director for data centre operations, Singapore and Indonesia; minister for sustainability and the environment and minister-in-charge of trade relations Grace Fu; Mee Toh School principal Wang-Tan Sun; SSMC CEO Lim Soon; and Chiang Chie Fuo, chairman, board of directors, PUB (Image: PUB)



## SSMC's Water Saving Efforts In the Press



## SSMC

This is the second Watermark Award for SSMC, which was recognised for being a water saver champion in the semiconductor industry back in 2013. SSMC has achieved the highest recycling rates since 2015, at an average of 67% as compared to the industry average of 45%. "In SSMC, every drop of water that we use here is recycled 2.8 times," said CEO Lim Soon. They have achieved this through active water recycling strategies, such as using NEWater in 100% of their operations and innovating new wastewater treatment methodologies.

However, this journey in water conservation has not always been smooth sailing, according to the CEO. The challenges were technical constraints, talent and the semiconductor business downcycles when the industry is on a cost-conservation mode. "Investing in water recycling technologies then becomes difficult because when it is competing with other priorities," he said. "But in this long-haul journey, we have a

clear vision on the importance of sustainability, both water as well as electricity. This clear vision has continuously kept us on this journey for the last more than 20 years." The CEO also credited collective support from its board of directors, shareholders and employees, which brought this long-term vision to life.


## PUB INITIATIVES TO MANAGE WATER DEMAND IN SINGAPORE

This year, there were 35 Water Efficiency Awards (WEA) winners from 12 sectors in Singapore and eight WEA (Projects) recipients. The biennial WEA recognises the top 10th percentile of water-efficient performers in different sectors; and the inaugural projects category under WEA — has been introduced to recognise water efficiency projects from non-domestic industrial water users.

A total of 46 winners, ranging from manufacturing plants and data centres to commercial buildings and schools, received these awards. Minister for sustainability and the environment and minister-in-charge

of trade relations Grace Fu and senior parliamentary secretary for sustainability and the environment and transport Baey Yam Keng presented the awards during a ceremony at Gardens by the Bay on 26 Mar 2024.

According to minister Fu, these awards are part of PUB efforts to water demand management. Another PUB initiative to support businesses to become water-efficient is the mandatory water recycling for water-intensive sectors like wafer fabrication, electronics, and biomedical industries — which collectively account for 17% of the current non-domestic water demand.

Furthermore, PUB has raised its Water Efficiency Fund (WEF) from \$51m to \$5m, to provide increased financial support to businesses in their water recycling journey. "To date, PUB has awarded close to 400 grants for water efficiency projects, which collectively save 70 million litres of water each day," she said. 

# SSMC hosts NTU students for a Day of Sustainability Learning



SSMC hosted a facilities tour for 26 Nanyang Technological University (NTU) students, partnering with Public Utilities Board (PUB) to provide hands-on learning about water treatment technologies, reverse osmosis, and sustainable practices. Students explored NEWater technology, advanced water reclamation processes, and SSMC's Eco-Garden, gaining practical insights into the importance of environmental conservation.





# CHAMPION INSPIRE INCLUSION, DE&I IN THE WORKPLACE

## SSMC International Women's Day & Semiconductor Women's Forum 2024

On 26 March, SSMC participated in 2024 Semiconductor Women's Forum organised by SSIA (Singapore Semiconductor Industry Association). This conference is a beacon of #InspireInclusion, delving into vital topics like women's empowerment and enablement. We are engaged in fostering an inclusive environment for women, striving to create a space where all women feel valued, empowered and heard.

In celebration of International Women's Day on 8 March, 2024, SSMC marked its commitment to diversity, equity and inclusion (DE&I) with a vibrant event themed "Inspire Inclusion." As a semiconductor industry leader, SSMC recognizes the invaluable contributions of its female workforce and is dedicated to fostering an environment where every employee feels respected, supported and valued.

DEI Spotlight

## WE VALUE PEOPLE! WE INSPIRE INCLUSION & EQUALITY FOR A BETTER FUTURE!



The third iteration of our companywide celebration saw employees coming together to honour the achievements of SSMC women. Engaging activities such as pledge writing, balloon sculpting and a captivating photo contest (where staff proudly posed with #InspireInclusion heart signs) underscored our collective commitment to embracing diversity and driving gender parity. Amidst the celebratory atmosphere, gratitude permeated the event as employees expressed appreciation for the unwavering support in advancing gender equality. We are proud to have a well-balanced gender diversity, with 41% of our employees being female. The solidarity and dedication to inclusivity exhibited by our workforce highlight the pivotal role each individual plays in forging gender equality.

Demonstrating leadership by example, Lim Soon, CEO, led the charge, striking the #InspireInclusion pose to symbolise our unwavering commitment to fostering an inclusive workplace culture. Across social media platforms, employees demonstrated the support for the #InspireInclusion movement through the hashtag #SSMCW2024, showcasing their creativity, enthusiasm and team spirit.

The commendable efforts of our HR team, management and department heads culminated in a captivating photo collage, serving as a visual testament to our collective solidarity and commitment to DE&I.

As we continue our diversity, equity and inclusion journey, SSMC remains steadfast in its collaboration with industry partners to create an inclusive environment that empowers every individual. Together, let us champion positive visibility and empowerment for women, and inspire DE&I in the workplace, as we work towards a brighter and more equitable future.



57 VOICE by SSIA May 2024



## Bracing towards Congruency for a Diverse Workforce

SSMC's Commitment to Continuous Growth, Empowerment & Community Engagement

At the SkillsFuture Festival 2023, Minister for Education, Mr. Chan Chun Sing outlined a vision for accelerating SkillsFuture strategies. He emphasized the importance of agility, industry and empowerment, setting the stage for companies like SSMC to continue taking bold steps, staying focused in engaging and developing our diverse workforce.

SSMC, with a global workforce representing over 15 nationalities, recognizes the pressing need for

Nurturing Brilliance in the Semiconductor Universe

SUPPORTING CONTINUOUS DEVELOPMENT & GROWTH

Being a joint venture company, SSMC workforce benefits from the "best of both worlds" from both NXP and TSMC, our shareholders, providing a benchmark learning experience in the technical learnings and knowledge-sharing. The company regularly reviews its Competency Development Framework, ensuring it encompasses foundational skills and adapts to the meet the shifting demands of latest technological advances, such as automation, industry 4.0 and digital transformation.

EMPOWERING & BUILDING A FUTURE READY WORKFORCE

To address the challenges employees face in upgrading themselves, SSMC runs an annual Life-Long-Learning Education Assistance Program (LEAP), sponsoring cohorts for further education. Leadership, managerial, and technical competencies are continually invested in to keep the workforce agile and prepared for current challenges and the future.

As the company forges ahead, SSMC remains dedicated to creating a high-



upskilling and reskilling in a competitive talent landscape. As the workforce dynamics evolve—with younger talents seeking rapid growth, mid-careerists contemplating career shifts and experienced employees extending their careers—SSMC is committed to fostering an environment of continuous learning and development to broaden the reach, to stay agile, empowering to all to excel and grow.

ENGAGING WITH OUR PARTNERS & COMMUNITY

SSMC's engagement with the community extends to partnership with educational institutions, trade associations. We partner with IHLs (Institute of Higher Learnings) through the SgIS Scholarship program. SSMC also provides opportunities of internships and devotes to re-skill mid-careerists through the Career Conversion Program in partnership with SSIA.



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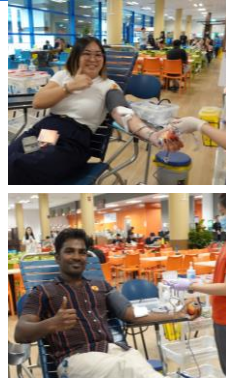


[A Joint Venture of NXP & TSMC]

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[Read more here](#)

# Making an impact: Community Outreach



## Blood Donation drive

On 16 August 2024, many of our employees stepped forward to participate in a Red Cross blood drive, collectively providing a lifeline to 249 individuals. Each donation serves as a beacon of hope for patients battling serious health conditions, contributing to make a meaningful impact in our communities.



## Project Refresh

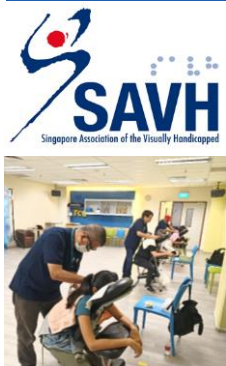
On 6 April 2024, SSMC volunteers partnered with North-East Community Development Council for Project Refresh to transform underprivileged homes through cleaning, painting and decluttering. Their efforts exemplify compassion and community spirit, making a meaningful difference in the lives of those in need.







# Making an impact: Community Outreach



## SAVH Initiative

On 5-6 August, SSMC invited visually impaired masseurs from Singapore Association Of The Visually Handicapped (SAVH) to provide therapeutic massages, supporting employee well-being while fostering inclusivity and social responsibility.



## SHRI Fill a bag, Fill a tummy

On 23 October 2024, HR participated in the 'Hearts & Hands' community service event, partnering with FoodBank Singapore, Red Cross Singapore, Pertapis and Sunlove to pack 3,622 charity food bags for families.



## Wellness on Wheels

On 16 November, SSMC volunteers participated in the Wellness on Wheels initiative, assisting low-income seniors with mobility challenges by packing and delivering essential health supplies and nutritious groceries in collaboration with North-East Community Development Council.





# Developing & Empowering Our People

SSMC continues to invest and empower our people. From the leader to engineer and operator, everyone in the organization was given the opportunity to excel. By enhancing our staff's skills and competencies, we create greater value for our shareholders and customers.



## SSIA – Leader Accelerators

SSMC department heads were groomed in the Singapore Semiconductor Industry Association (SSIA) and the Singapore Semiconductor Leadership Accelerator (SSLA) program to accelerate professional growth, create team synergy, enhance people performance, and promote innovation.



## TSMC Newcomer Training Centre

SSMC engineers had the opportunity to attend functional skills, knowledge training at the TSMC NTC. The hands-on training combined both theory & practical application was well received, providing participants with valuable skills and experience.



## NXP Technical knowledge sharing

SSMC hosted a technical knowledge sharing session by the technical expert from NXP Process Development, who shared on CMOS14 Logic, C14 Power/C14PT and ABCD9 Technology.



## Overseas Tool Training at Vendor sites

Our engineers received specialized training from the tool vendor, enhancing their mastery of key skills. Not only did they gain cutting-edge knowledge, but they also advanced their hands-on expertise, ensuring they stay at the forefront of industry developments.

