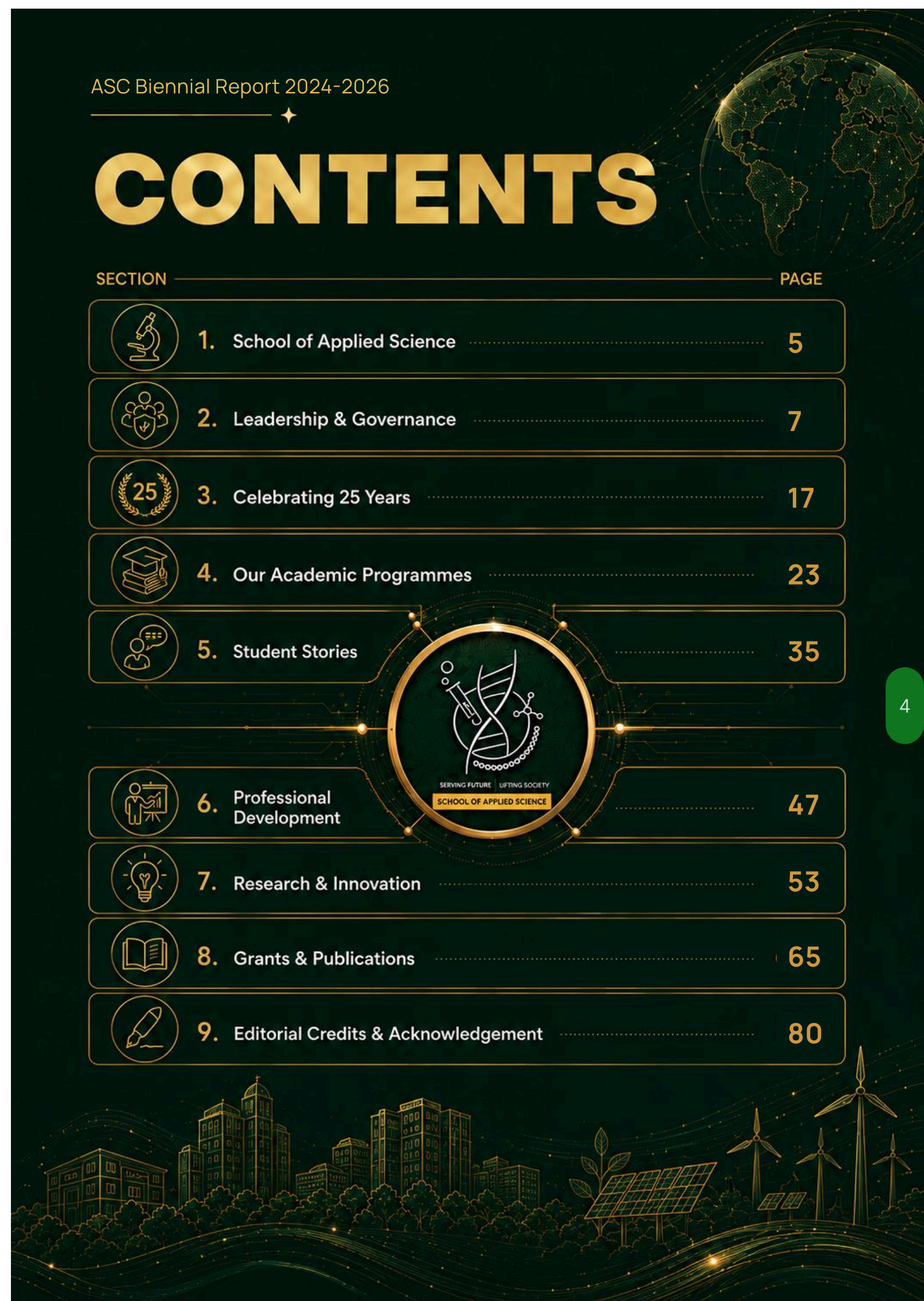
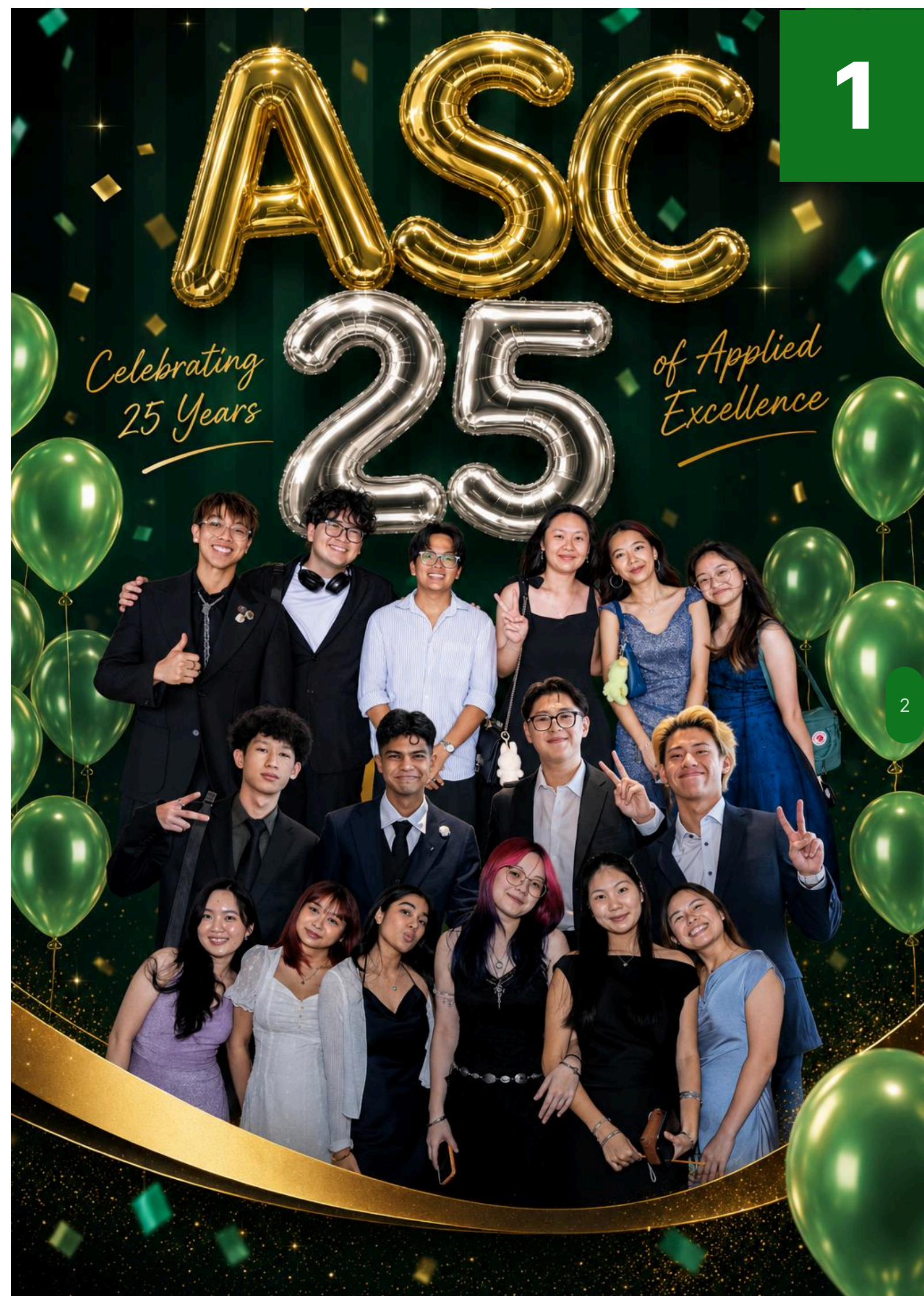




PROFESSIONAL DEVELOPMENT



SPECIAL FEATURE

GOLD

1

NATIONAL HEALTH COMMISSION (NHC) & THE CENTRAL COMMITTEE OF THE COMMUNIST YOUTH LEAGUE OF CHINA (CYLC)'S 2ND NATIONAL HEALTH & WELLNESS INDUSTRY YOUTH INNOVATION COMPETITION

2

The 2nd China National Youth Innovation Competition is one of the most prestigious, wide-reaching, and influential innovation events in China's healthcare sector. This event is organised biennially by China's National Health Commission and the Central Committee of the CYLC. A total of **3,632** projects were submitted nationwide, with **only 6** projects in each track awarded **Gold**.

3

The groundbreaking collaboration under the tripartite research collaboration between ASC, Natura Biotechnologies Pte Ltd, and the Chongqing Academy of Chinese Materia Medica (CACMM) proudly presented their project: "**NV01—An Anti-Dengue Solution Derived from Millennia of Herbal Wisdom**" at the competition on 26 March 2026. Their visionary work triumphed over strong contenders and was honoured with the coveted **Gold Award**, marking a shining milestone in innovation and global recognition.

CENTRE FOR
Complementary Health
Products (C-CHP)

Health
Supplements

Functional
Foods

Traditional
Medicine

3,632
Projects
Submitted

Only 6
Projects in Each Track
Awarded Gold

A National Showcase
for Youth Innovation
in Health & Wellness

FACULTY & STAFF

PROFESSIONAL DEVELOPMENT & INDUSTRY ATTACHMENT

ASC staff includes lecturers, scientists, technologists, engineers, researchers, healthcare professionals, and specialists who provide guidance in both academic and professional development.

Bringing Global Workplace Learning Insights from Lausanne

From 28 April to 3 May 2024, NACE@TP organised an overseas experiential trip to **Lausanne, Switzerland**, with Dr Kalpana Bhaskaran, SME owner and other TP staff. The Nestlé Research Centre in Lausanne also invited Kalpana to share insights into **glycaemic index research**, which led to engagement with the Nestlé Youth Entrepreneurship programme.

Chemical Biology Award 2025

Dr Amaladoss Anburaj has officially been selected as the recipient of the **AGATHIYAR Chemical Biology Award** by the Society of Chemical and Synthetic Biology, India, for the year 2025. This prestigious award recognises his impactful work in diagnostics development and his dedication to teaching and mentoring in synthetic biology. The award will be formally presented at the Society's annual event.

Singapore Concrete Institute Young Innovators Awards 2025

Mr Kevin Lee has received the **Singapore Concrete Institute Young Innovators Awards 2025 (Gold Award)**. His research, "Innovative Design of Spalling-Resistant Ultra-High Performance Concrete Using Regional Waste-Derived Materials", demonstrates how materials such as recycled plastics can be engineered into functional components of ultra-high performance concrete.

Deepening Cardiac Diagnostics Through Staff Industry Attachment

Ms Louisa Chew completed her Industry Attachment at the **Heart Centre, Raffles Hospital**, from 9 to 20 March 2026, gaining authentic exposure to cardiac diagnostics and interventions. Through structured observation of cardiology medical technologists and cardiologists, she observed procedures including blood pressure measurement, echocardiography, treadmill stress echocardiography, electrocardiography, Holter monitoring, angioplasty and pacemaker implantation.

MEET SOME OF OUR STAFF LEADERS

BOARD & COMMITTEE MEMBERS

ASC staff members contribute beyond their school-based roles by taking on various appointments and responsibilities at institutional, sectoral, and external platforms.

STAFF NAME	BOARD / COMMITTEE / APPOINTMENT
Dr Amaladoss Anburaj	Committee Member (School Advisory), Jurong West Secondary School
Dr Goh Lay Beng	Committee Member, ESG SAC Council - Good Lab Practice
Dr Goh Lay Beng	Committee Member, Feed9B
Dr Goh Lay Beng	Member, National Synthetic Biology Taskforce - National Centre for Engineering Biology
Dr James Lim Yong Kian	Co-Founding Partner, APAC Society for Cellular Agriculture (Student Chapter)
Dr Kalpana Bhaskaran	Board Director, Alliance of Patients Organisation Singapore
Dr Kalpana Bhaskaran	Advisor, Diabetes Singapore
Dr Kalpana Bhaskaran	Committee Member (Executive), Asian Nutrition Society for Sports and Health
Dr Kalpana Bhaskaran	Expert Advisor, MOH/HPB on Sugar & Sodium guidelines/Nutrigrade Label
Dr Kalpana Bhaskaran	Expert Member (Academic), Society of Behavioural Health Singapore
Dr Lee Yun Hwa	Committee Member, Singapore Society for Biochemistry and Molecular Biology
Dr Loke Ju Wen Ian	Vice President, Association of Biomedical Laboratory Professionals (Singapore)
Dr Louis Ong	Committee Member, Sigma-Xi
Dr Louis Ong	Committee Member, TERMIS
Dr Low Ji Zhen	Committee Member (Standing), Singapore Veterinary Association
Dr Low Ji Zhen	Committee Member, AVS Veterinary Council Advisory Panel
Dr Maisha Foo	Committee Member (School Advisory), Bowen Secondary School
Dr Miao Huang	Committee Member, Food Standards Committee
Dr Rufaihah Abd Jalil	Committee Member (Advisory), Halal Research Institute, University Putra Malaysia

BOARD & COMMITTEE MEMBERS — CONTINUED

STAFF NAME	BOARD / COMMITTEE / APPOINTMENT
Dr Rufaihah Abdul Jalil	Committee Member (Technical), Singapore Standardization Programme: Biotechnology & Laboratory Testing
Dr Sook Fun Wong	Director, American Concrete Institute - Singapore Chapter
Dr Sook Fun Wong	Board Member, International Congress on Polymers in Concrete
Dr Zhi Huang	Committee Member, 2025 IUVA Asian Pacific Regional Symposium
Mr Alden Toh	Committee Member, Singapore Veterinary Nurses and Technicians Chapter
Mr Alvin Poh	Board Member (Singapore Advisory), American Society for Clinical Pathology
Mr Gary Lim	President, Singapore Pastry Alliance
Mr Justin De Silva	Complaints Panel Member, Singapore Medical Council
Mr Justin De Silva	Council Member, Pharmaceutical Society of Singapore
Mr Justin De Silva	Advisor, Pharmacy Technician Community of Practice
Mr Ramesh Kumar	Board Director, *SCAPE SG (Ministry of Culture, Community & Youth)
Mr Ramesh Kumar	Advisor (v-Career), Workforce Singapore
Mr Ramesh Kumar	Mentor Partner, Heartland Innovation and Transformation Programme (HIT) - Enterprise Singapore
Mr Wong Weng Wai	Vice President, Singapore Institute of Food Science & Technology
Ms Johanna Tan	Committee Member, National Codex Committee
Ms Loh Win Nie	President, Singapore Nutrition and Dietetics Association
Ms Louisa Chew	Council Member, Singapore Association for Medical Laboratory Sciences
Ms Shahedah Md Ali	Committee Member, MOH Pharmacy Technicians Training Pathway Committee
Ms Wong Shaou Yi Ruth	Director, Women's Committee for Singapore Eng Teng Association

Correct as of April 2026. The list above provides a selective overview and is not intended to be exhaustive.



AIC

AQUACULTURE INNOVATION CENTRE

AIC strongly supports the aquaculture industry in its productivity needs and aquabusiness objectives through local consultations, extension services, technology licensing, applied research and technology development.

MICROBIAL PROTEIN FROM WASTEWATER

"The use of a cultivated protein in new to aquaculture production", say the scientists from the **Singapore Centre for Environmental Life Sciences Engineering (SCESE)** at **Nanyang Technological University (NTU)** and AIC's efforts in the study. Farmed aquaculture species rely heavily on feed made from wild-caught fish, known as fishmeal, which is unsustainable and contributes to overfishing. Single-cell protein, a sustainable alternative, can be cultivated from food-processing wastewater containing probiotic organisms with potential for healthy fish growth.

NATIONAL BROODSTOCK SUPPORT

AIC strengthened Singapore's aquaculture capability as Operating Partner with **Singapore Agro-Food Enterprises Federation (SAFEF)** and the **National Broodstock and Hatchery (Marine Tilapia) Enterprise Pte Ltd.** Through gap analysis, responsible care and husbandry guidance, quarantine, prophylactic treatment for incoming broodstock, AIC helps ensure pathogen-free broodstock before breeding. AIC and SAFEF have also co-organised production support training for coastal and land-based farms, deepening industry capability in fish and shrimp care, health and husbandry.

MUD CRAB TECHNOLOGY TRANSFER

AIC has been working with **AQUAST Pte Ltd** to support its transformation from wholesale seafood trading to sustainable mud crab farming in Brunei Darussalam. The company licenses TP's mud crab hatchery technology through AIC and will sign a land lease for about 7 hectares in the mangrove zone with the Bruneian authority later this year. By tapping into the natural ecosystem, the integrated mangrove mud crab farming model devising TP's applied aquaculture impact across the region.

CROPS

CENTRE FOR RESEARCH & OPPORTUNITIES IN PLANT SCIENCE

CROPS' mission is to accelerate the translation of plant science through partnerships with stakeholders in the Agrotech ecosystem and to support urban farming industries.

SUSTAINABLE AGRI-FOOD SOLUTIONS

CROPS showcased TP's agri-food expertise at **Agri-Food Tech Asia Expo** in 2024 and 2025. At the Sandbox sessions in 2024, Dr Kadam Patel shared sustainable urban agriculture solutions and key agri-tech pain points in Singapore. Dr Ganapathy Rajasegar highlighted seed priming, current practices and the need for better seeds amid unpredictable regional weather and abiotic stressors.

SINGAPORE-SHIZUOKA COLLABORATION

The Singapore-Shizuoka Agri-Food Forum, initiated by TP in 2020, held its sessions at Republic Polytechnic in November 2024 and December 2025, bringing together Institutes of Higher Learning (IHLs), **RP, TP, NP, ITE, and the Shizuoka Government** to advance urban agriculture research, support for agri-tech SMEs, staff exchanges, and student exchanges. The forum, themed "Climate-Smart Agriculture – Emerging Technologies for Sustainable Agriculture", was attended by the **Vice Governor of Shizuoka** and the **CEO of the Singapore Food Agency**. TP, RP, ITE and Shizuoka Prefecture also signed an MOU (w.e.f Apr 2025 – Mar 2030) to deepen R&D collaboration.

SEED INNOVATION HUB

Singapore's seed innovation capabilities will be strengthened through the Seed Innovation Hub, following National University of Singapore's (NUS)'s approved proposal under the Singapore Food Story R&D 2.0 Programme. With an approved \$522 million budget, including indirect costs, for the period from 1 October 2025 to 30 September 2030, the initiative signals a national push for seed security and future food resilience. As a consortium partner, CROPS contributed to the project's design and experimental work over the past two years and will continue to partner with NUS as the programme advances.

\$522M Seed Innovation Hub approved funding

2025-2030 Funding period (1 Oct 2025 to 30 Sep 2030)

SINGAPORE x SHIZUOKA Cross-border agri-food collaboration

CAVS

CENTRE FOR AQUACULTURE & VETERINARY SCIENCE

CAVS is a purpose-driven innovation and research centre to meet the needs of the aquaculture, pet, biomedical and veterinary industries.

AQUACULTURE BIOSECURITY

Securing MOE-TIE Funding for **Rapid Aquaculture Pathogen Detection** – The research proposal by Dr Amaladas Anburaj, Dr Syed Mustafa Syed Khader, Dr Yu Yi, TP School of Engineering, and Ms Yushu Zheng, has been awarded \$527,280 in funding for a two-year project. The project is titled "Development of a LAMP-CRISPR-Based eDNA Detection System for Rapid and On-Site Diagnosis, Surveillance and Biosecurity of Aquaculture Pathogens".

\$527,280 Research funding

2-year project

PARTNERSHIP WITH YANGZHOU UNIVERSITY

ASC hosted a delegation from **Yangzhou University**, led by Prof. Chang Guo Bin, Dean of the College of Animal Science & Technology. As part of the visit, a **Memorandum of Understanding (MOU)** was signed. The MOU marks the commencement of a strategic partnership to create new opportunities for overseas student exposure, staff exchange, research collaboration, and internships. The discussions were productive and both institutions shared commitment to innovation.

PURPLE PHOTOTROPHIC BACTERIA AS A FEED

ASC and **Nanyang Technological University** explored Purple Phototrophic Bacteria as a feed supplement for tilapia, linking aquaculture innovation with wastewater management. In an 8-week feeding trial comparing 0%, 1% and 5% PPB concentrations, 1% PPB improved growth rate and feed conversion ratio, while 5% PPB increased immune markers including IgM, TNF- α and IL-8 but reduced growth and feed efficiency. The consultancy project highlights PPB's potential as a functional aquaculture feed additive for fish growth and health.

AQUATIC HEALTH & BIOSECURITY Protecting fish & industry

APPLIED RESEARCH & INNOVATION Science-driven solutions

GLOBAL COLLABORATION Building partnerships

VETERINARY SCIENCE & ANIMAL HEALTH Improving lives, ensuring welfare

CANS

CENTRE FOR APPLIED NUTRITION SERVICES

CANS provides real-world opportunities and a gateway to the industry for students from the Diploma in Food, Nutrition & Culinary Science. CANS has been at the forefront of low Glycaemic Index (GI) food product development, as well as in vivo and in vitro GI testing for over two decades.

PERSONALISED NUTRITION FOR HEALTHY AGEING

150 participants

Food Manufacturing Centre of Innovation (FM COI) Day convened 150 participants on 11 September 2025 at TP, positioning personalised nutrition as a key frontier for healthy ageing and gut health. Supported by **Roquette Asia Pacific Pte Ltd**, the programme featured science-led presentations, a panel discussion, technical solution pitches, showcase booths and the hands-on "From Ideas to Shelf" Product Ideation Workshop. The event strengthened CANS' role in connecting consumer insight, nutrition science and industry collaboration.

HEALTHIER EATING THAT IS CULTURALLY RELEVANT

50 healthy recipes

\$G60 celebration

On 21 September 2025, **NHG Health and Tanoto Foundation** launched "I Can't Believe It Tastes So Good", a cookbook featuring 50 healthy recipes inspired by Singapore's Chinese, Malay, Indian, Western and other cuisines in celebration of SG60. Graced by **Minister Ong Ye Koon**, the launch included an NHG Polycyclus cooking demonstration where residents and patients learnt healthier cooking tips from dietitians and patient advocates. Jointly funded under the NHG Health Diabetes Reversal Programme, the cookbook was curated by NHG Polycyclus clinicians and dietitians, in collaboration with CANS.

CANS AT THE SME CENTRE CONFERENCE 2025

The conference provided a valuable platform for CANS to showcase its solutions to **SMEs and industry leaders**, gain insights from talks and panel discussions on innovation, digitalisation and business growth, and engage with entrepreneurs and professionals within the SME ecosystem. The event also provided opportunities to exchange ideas and explore potential collaborations with industry stakeholders. CANS extends its appreciation to the organisers and participants who visited the booth, contributing to meaningful discussions and strengthening connections within the SME community.

GIRU

GLYCEMIC INDEX RESEARCH UNIT (GIRU)

The GIRU has trail-blazed into an area of assessing the quality of carbohydrates in local Asian diets and products. The first of its kind in Asia, the first and only facility accredited by Singapore Accreditation Council (SAC) to conduct GI testing and research using Singaporeans as human subjects to develop a local GI database.

33 COMPANIES (28 NEW)

60 NEW FOODS

LOW GI, SUGAR-FREE, PLANT-BASED CAKES & WHIPPED CREAM

In collaboration with **Delicias Desserts & Cakes**, **CANS & GIRU** has developed gluten-free, zero-sugar, zero-cholesterol, plant-based pound cakes and whipped-cream premixes. The product has been tested to be **Low in Glycemic Index** and also nutritionally wholesome. Drawing on the GIRU team's expertise in low-GI ingredients and the CANS team's expertise in product development, we successfully developed this innovative product, the first of its kind in Singapore.

SUPPORTING THE LAUNCH OF A SUCCESSFUL "STEADY ENERGY" RELEASE FOREMOST INNERGY DRINK

Working in close collaboration with Friesland Campina, the GIRU team provided support with the product concept and formulation and designed and conducted the in vivo study to validate the RTD yoghurt's slow, sustained energy release. The product was subsequently launched in all 7-Eleven outlets across Thailand. This successful partnership demonstrates GIRU's strong capabilities in supporting industry through scientific research, product innovation, and evidence-based validation.

GLYCEMIC INDEX RESEARCH TEAM

WORKED ON

- RESEARCH & TESTING
- PRODUCT DEVELOPMENT & INNOVATION
- SCIENTIFIC RESEARCH & INNOVATION
- INDUSTRY COLLABORATION
- TECHNOLOGY TRANSFER
- EDUCATION & OUTREACH
- REGULATORY COMPLIANCE
- MARKETING & COMMUNICATION
- QUALITY ASSURANCE
- STANDARDIZATION
- INNOVATION & RESEARCH
- TECHNOLOGY TRANSFER
- EDUCATION & OUTREACH
- REGULATORY COMPLIANCE
- MARKETING & COMMUNICATION
- QUALITY ASSURANCE
- STANDARDIZATION

FUTURE FOODS

FUTURE FOODS DOMAIN

FF domain provide innovative solutions to challenges in alternative proteins, food safety, and sustainability of food production. Our research areas include alternative proteins and synthetic biology.

SINGAPORE FOOD STORY (SFS) R&D PROGRAMME

The **Singapore Food Story (SFS) R&D Programme** aims to accelerate food innovation in urban agriculture, aquaculture, future foods and food safety. ASC, Queensland University of Technology, Asia-Pacific Society for Cellular Agriculture, Meatify Pte Ltd, Winovus Pte Ltd, and A*STAR successfully secured a \$5965,874 grant from the SFS R&D Programme. Led by Dr Louis Ong, the project will develop a modular liver-gut organ-on-chip (OOC) platform to assess food safety.

\$5965,874 SFS R&D Grant

AWARD-WINNING STUDENT RESEARCH

ASC students **Ms Ng Yi Xuan Chloe**, **Ms Rui Xuan Lucia** and **Mr Lee Jyn Xuan** were involved in a project titled "Development of Hybrid Plant-based Fishball with Cultivated Fish Cells for Flavour Enhancement", which explores the innovative fusion of plant-based meat with our local delight, fishball. The project was presented at the **Young Scientist Symposium (YSS)**, where the team was awarded the **Certificate of Merit**.

STUDENT LEADERSHIP IN FUTURE FOODS

Co-founded by **FF and APAC-SCA** in mid-2024, the Student Chapter is a "by students, for students" platform for youth engagement in cellular agriculture. Its activities include the inaugural symposium on 14 October 2024, an industry-level research poster showcase at SGInnovate on 23 January 2025, overseas learning journeys, and the Cellular Agriculture Talent Development Programme 2025, supported by Good Food Institute APAC and four cellular agri-tech professionals and leaders as mentors.

14 OCT 2024 Inaugural Symposium

23 JAN 2025 SGInnovate Research Showcase

Youth Leadership

CCHP

CENTRE FOR COMPLEMENTARY HEALTH PRODUCTS

Established in 2016 through a strategic partnership with Enterprise Singapore (ESG), CCHP has supported Singapore-based complementary health product enterprises in addressing evolving industry needs. Evolving industry needs. Evolving skyscrapers of ESG funding and support. CCHP transitioned in January 2026 to operate as a Centre for Excellence, sustained through its own funding and projects.

NATURAL ANTIOXIDANT TECHNOLOGY

CCHP's technology, "Forecasting Edible Oil Shelf Life using Properties of Natural Antioxidants (NATO)", was showcased at **Technovation 2024**, IPI's Asia technology-matching platform. Using a machine-learning-powered model, the technology predicts the peroxide value of peanut oil during storage. Project PI Dr Xuejia Xue and team member Ms Yuan Ting Chen showcased the work, following publication of the study outcomes in a peer-reviewed international journal in June 2024.

NATURAL ANTIOXIDANTS

MACHINE-LEARNING PREDICTION

TECHNOLOGICAL 2024

HEALTH SUPPLEMENT RESEARCH

The **Centre for Healthy Longevity, Yong Loo Lin School of Medicine, National University of Singapore (NUS)** engaged CCHP as a project Co-PI for a study on NMN health supplement products. The study found considerable disparities in the quality of geroprotective supplements, offering important insight into the health supplement landscape. The findings were accepted for publication in *Geroscience* as an original article in June 2024.

NMN

HEALTHY LONGEVITY

GEROSCIENCE

HSIAS WORKSHOP 2024

The Health Supplements Industry Association of Singapore organised the **HSIAS Workshop 2024** in May 2024, themed "ASEAN Health Supplement GMP Guidelines Workshop". The workshop addressed industry challenges in complying with ASEAN GMP requirements and developing test methods for active compounds in health supplements. Dr Edmund Tian was invited to speak on novel test methods for health supplement products, reinforcing CCHP's contribution to regulatory science and industry capability-building.

ASEAN GMP

REGULATORY SCIENCE

INDUSTRY CAPABILITY-BUILDING

CCHP

CHONGQING MUNICIPAL ACADEMY OF CHINESE MATERIA MEDICA

TRADITIONAL KNOWLEDGE x MODERN RESEARCH x TRANSNATIONAL INNOVATION

SINGAPORE **CHONGQING**

ASC marked the official signing of the **Tripartite Research Collaboration Agreement** between **TP, the Chongqing Municipal Academy of Chinese Materia Medica, and Natura Biotechnologies Pte Ltd**. The strategic partnership aims to co-develop an anti-dengue herbal formulation through in vitro and pre-clinical in vivo studies. The signing was accompanied by insightful exchanges and strong support from all parties, reflecting a shared commitment to advancing innovation in Traditional Chinese Medicine (TCM). In his opening remarks, **Mr Aw Tuen Kee** (Deputy Principal, TP) highlighted Chongqing's rich history and longstanding heritage in TCM, including its 2023-2027 strategic pillars, which offer areas for reflection, review and learning.

The Chongqing delegation was led by **Mr Zhao Yong** (Deputy Director of the Chongqing Municipal Health Commission and Director of the Chongqing Administration of Traditional Chinese Medicine), **Mr Sun Xi Yong** (Deputy Director of the Chongqing Municipal Commerce Commission and Deputy Director of the China-Singapore [Chongqing] Demonstration Initiative on Strategic Connectivity Administration Bureau), and **Mr Zhang Qi** (Deputy Director of the Traditional Chinese Medicine Development Division, Chongqing Municipal Health Commission). The delegation provided valuable insights into the development and opportunities within Chongqing's TCM sector.

INTERNATIONAL COLLABORATION

TCM RESEARCH & INNOVATION

STRATEGIC PARTNERSHIP

TRIPARTITE RESEARCH COLLABORATION AGREEMENT SIGNING CEREMONY

CHONGQING MUNICIPAL ACADEMY OF CHINESE MATERIA MEDICA

NATURA BIOTECHNOLOGIES PTE LTD

TP

CUS

CENTRE FOR URBAN SUSTAINABILITY

CUS focuses on two R&D thrusts of Solid Waste Management and Recycling for Strategic Building Materials, and Food Waste Reduction and Recycling.

ANTI-SLIP INNOVATION

Dr Xu Wen received the **TP Safety & Security Award** in October 2025 for leading the study and implementation of an anti-slip solution on high-risk smooth surfaces at TP. Building on COI BE-AMs consultancy with B-Team Construction Supplies Pte Ltd, the team conducted a proof-of-concept at TP Plaza on 3 October 2024, supported by TP's Estates & Facility Management Department and independently assessed by Setco Services Pte Ltd using the Wet Pendulum Test (BS485:2022). The solution achieved a British Pendulum Number of 63 and P5 Classification.

TP Safety & Security Award 2025

BPV 63

P5 Classification

TP-LIFE LAB BIO-REFINERY PILOT FACILITY

TP deepened circular-economy innovation through its collaboration with **Life Lab Resources Pte Ltd** to launch the **TP-Life Lab Bio-refinery Pilot Facility** in April 2025. Focused on converting food waste into valuable products such as feed ingredients, the facility provides a practical platform for applied research, industry collaboration and sustainable resource recovery.

APRIL 2025

Food Waste → Valuable Resource

Applied Research

Industry Collaboration

LIVING LAB FOR SUSTAINABLE MATERIALS

COI BE-AM advanced sustainable building materials across TP through campus-based applications, including benches incorporating plastic waste and 3D-printed sculptures made with sustainable materials. These visible innovations show how applied research can move from the lab into everyday spaces, shaping greener and more sustainable built environments. In 2025, CUS successfully licensed its Intellectual Disclosure Form technology, led by PI Dr Wook Fun Wong, for application in eco-park benches.

3D

Waste-to-Material Innovation

Campus Living Lab

Technology Licensing 2025

WTech

WATER TECHNOLOGY DOMAIN

WTech focuses on innovative sustainable solutions for global water and wastewater challenges. Specialising in advanced treatment technologies, aquaculture systems, resource and environmental management.

ADVANCING GREEN ENERGY THROUGH WASTE

From February 2024 to February 2027, TP is collaborating with **Alpha Biofuel Pte Ltd** to convert waste cooking oil into biodiesel. Leveraging the Chemical Pilot Plant, the project advances sustainable energy production while providing authentic hands-on training for Chemical Engineering students. At the National Day Parade 2024, ASC's biodiesel powered the event generators, with facilitation by Alpha Biofuel. This meaningful application highlights the real-world relevance of ASC's sustainability efforts and its role in supporting lower-carbon solutions for major national events.

2024-2027

Waste Cooking Oil → Biodiesel

National Day Parade 2024

ADVANCING TP-RSN COLLABORATION

The Chongqing delegation was led by **Mr Zhao Yong** (Deputy Director of the Chongqing Municipal Health Commission and Director of the Chongqing Administration of Traditional Chinese Medicine), **Mr Sun Xi Yong** (Deputy Director of the Chongqing Municipal Commerce Commission and Deputy Director of the China-Singapore [Chongqing] Demonstration Initiative on Strategic Connectivity Administration Bureau), and **Mr Zhang Qi** (Deputy Director of the Traditional Chinese Medicine Development Division, Chongqing Municipal Health Commission). The delegation provided valuable insights into the development and opportunities within Chongqing's TCM sector.

\$1198,800 Total Project Budget

Food Waste → Water Technology

TP x RSN

SMART WATER MONITORING

From November 2024 to July 2025, TP collaborated with **Airwater Pte Ltd**, with support from a Mentorship Support Grant, to develop a cost-effective, real-time water-quality monitoring system for its Atmospheric Water Generators. Supporting sustainable drinking water under a Water-as-a-Service model, the system tracks pH, TDS, conductivity, turbidity, dissolved oxygen, total suspended solids, oxidation-reduction potential, and temperature, enabling automated quality control and remote mobile monitoring.

REAL-TIME MONITORING

Water-as-a-Service Model

Remote Mobile Monitoring

