

## JOINT MEDIA RELEASE

### **Singapore launches standard on sustainability excellence to strengthen business competitiveness**

*New standard equips SMEs with a framework to support their sustainability journey*

MR No.: 023/26

Singapore, Thursday, 21 May 2026

1. Enterprise Singapore (EnterpriseSG) through the Singapore Standards Council (SSC), in partnership with the A\*STAR Singapore Institute of Manufacturing Technology (A\*STAR SIMTech) and the Singapore Manufacturing Federation (SMF), have launched the **Technical Reference (TR) 149:2026 Specification for Organisations to Progress towards Environmental Sustainability Excellence**.
2. TR 149 provides a structured approach for businesses to assess their sustainability maturity level (Essential / Bronze / Silver / Gold) and to measure their progress over time. Companies that aspire to improve their maturity levels can use the TR 149 to identify areas for improvement across five dimensions – People Readiness, Structure, Operations, Supply Network, and Product Life Cycle. Under the Operations dimension, companies can improve the management of environmental impacts relating to greenhouse gas emissions, energy, water and material consumption.

#### **Navigating a Complex Sustainability Landscape**

3. The launch of TR 149 comes at a critical juncture, as businesses contend with shifting climate policies amid global economic and geopolitical volatility, while ensuring that their environmental investments deliver measurable business value. For many SMEs, navigating evolving sustainability expectations can be challenging due to limited resources, expertise, and fragmented requirements. TR 149 directly addresses this need by offering a structured reference point to cut through the complexity.

4. Built on A\*STAR SIMTech's Green Compass™ framework which supports companies' sustainability transformation efforts, TR 149 addresses this need by bringing together key sustainability considerations together into a single, coherent framework applicable across industries. The TR is designed to be accessible to companies of all sizes, with a practical, step-by-step approach that is especially useful for SMEs beginning their sustainability journey or looking to progressively build on existing efforts.
5. The TR provides a structured approach that enables businesses to translate their sustainability commitments into a tangible competitive edge – attracting investors, winning customers, and retaining talent. For SMEs, TR 149 is particularly relevant as global supply chain sustainability requirements tighten, offering a practical way them to demonstrate their environmental performance to larger partners and customers. Beyond individual businesses, wider adoption of TR 149 will steer Singapore's broader business ecosystem towards alignment with national environmental priorities and evolving global expectations. Refer to **Annex** for more details on TR 149.

#### **Industry Adoption and Partnership with TR 149**

6. The [Green 100](#) movement, launched by the Council for a Competitive Climate Transition (C3T), enables wider industry adoption of TR 149. Their digital platform for sustainability disclosures is anchored on the TR framework. Large enterprises ('Queen Bees') and their SME partners who onboard onto the platform will be introduced to the TR's "Essential" level requirements – an accessible entry point to help SMEs take that first step. The platform will be further enhanced to guide companies to progressively advance to higher TR levels. Insights gathered through the platform will feed back into the TR, helping to keep the framework current and responsive to industry needs.
7. Beyond individual companies, ecosystem players are also embedding TR 149 into their own programmes and tools to support broader adoption. For example, SMF, together with the Asia Pacific Green Alliance, is working to closely align its G.E.M. (Green Excellence for Manufacturing) and G.E.B. (Green Excellence for Business) certification programmes with TR 149 to better support manufacturers in demonstrating recognised sustainability performance to customers, financiers, and global supply chain partners. Meanwhile, A\*STAR SIMTech has updated their training for companies and consultants in alignment with TR 149; and OCBC Bank has developed a self-diagnostic assessment tool to assist companies in their sustainability performance and facilitate access to sustainable finance, referencing TR 149's requirements.

8. For companies seeking to validate their sustainability efforts against the TR 149, they can approach certification bodies like SEC and TÜV SÜD for certification and verification services.
9. **Ms Choy Sauw Kook, Director-General (Quality & Excellence) at EnterpriseSG**, shared: “Sustainability has moved from aspiration to expectation – and the bar continues to rise. Helping businesses meet that challenge is at the core of what EnterpriseSG does, and TR 149 is a key part of that effort. SMEs in particular will find TR 149 useful in charting their sustainability journey, strengthening their appeal to investors, customers, and talent while building a stronger foundation for future growth.”
10. **Dr David Low, Executive Director of A\*STAR SIMTech**, said: “Many companies want to become more environmentally sustainable and may not know where to begin, what to prioritise, or how to scale their efforts. TR 149 helps address this by providing a structured way to assess sustainability maturity, identify practical areas for improvement, and take clearer steps towards stronger environmental performance. Drawing from A\*STAR SIMTech’s Green Compass™, an environmental sustainability assessment and strategic road mapping tool, the TR reflects our research and technical expertise in helping companies move from intent to action.”
11. **Mr Lennon Tan, President of the Singapore Manufacturing Federation**, said: “Through our involvement as the convenor in the working group that developed TR 149, SMF is pleased to help bring manufacturers’ perspectives into the Technical Reference. Building on this, we are aligning our G.E.M. and G.E.B. certification programmes to TR 149 to provide manufacturers and businesses with a practical way to demonstrate their efforts and progress in a manner that is meaningful to their customers and partners.”
12. TR 149 was developed with inputs from industry, academia, and government in the Working Group on Environmentally Sustainable Organisations, under the Environment and Resources Standards Committee, which sits under the SSC.
13. TR 149 can be purchased from the Singapore Standards e-shop at [www.singaporestandardseshop.sg](http://www.singaporestandardseshop.sg).

-End-

**For media enquiries, please contact:**

Karyn Tan  
Corporate Communications, Enterprise Singapore  
M: +65 8313 8428  
E: [karyn\\_tan@enterprisesg.gov.sg](mailto:karyn_tan@enterprisesg.gov.sg)

**About Enterprise Singapore**

Enterprise Singapore is the government agency championing enterprise development.

We partner committed companies to build capabilities, innovate and go global. We drive growth – empowering local businesses and shaping industries, anchoring Singapore as a trade and startup hub, and establishing trust in our products through quality and standards.

**We're here, for wherever you're growing.** Visit [www.enterprisesg.gov.sg](http://www.enterprisesg.gov.sg) for more information.

**About Singapore Standards Council**

The Singapore Standards Council (SSC) facilitates the development, promotion and review of Standards and Technical References in Singapore. This work is done through partnerships with the industry, academia and government organisations, under the national standardisation programme overseen by Enterprise Singapore.

Visit [www.enterprisesg.gov.sg/standards](http://www.enterprisesg.gov.sg/standards) for more information.

**About the Agency for Science, Technology and Research (A\*STAR)**

The Agency for Science, Technology and Research (A\*STAR) is Singapore's lead public sector R&D agency. Through open innovation, we collaborate with our partners in both the public and private sectors to benefit the economy and society. As a Science and Technology Organisation, A\*STAR bridges the gap between academia and industry. Our research creates economic growth and jobs for Singapore, and enhances lives by improving societal outcomes in healthcare, urban living, and sustainability. A\*STAR plays a key role in nurturing scientific talent and leaders for the wider research community and industry. A\*STAR's R&D activities span biomedical sciences to physical sciences and engineering, with research entities primarily located in Biopolis and Fusionopolis. For ongoing news, visit [www.a-star.edu.sg](http://www.a-star.edu.sg).

**Follow us on**

[Facebook](#) | [LinkedIn](#) | [Instagram](#) | [YouTube](#) | [TikTok](#)

**About Singapore Manufacturing Federation (SMF)**

Founded in 1932, the Singapore Manufacturing Federation (SMF) champions the nation's manufacturing sector by driving innovation and sustainable growth. Organized into 10 Industry Groups and supported by Associated Services, SMF addresses distinct industry needs. Focusing on sustainability, human capital, internationalization, and productivity, SMF enhances sector resilience. As a collaboration catalyst, it fosters strategic alliances and market expansion locally and globally. With above 5,000 diverse members, including SMEs, MNCs, and Affiliates, SMF shapes Singapore's manufacturing ecosystem and drives industry advancement. Visit [www.smfederation.org.sg](http://www.smfederation.org.sg) for more information.

## **Fact Sheet on TR 149:2026**

### **Specification for organisations to progress towards environmentally sustainable excellence**

#### **Scope of TR 149**

TR 149:2026 is a Technical Reference (TR) that outlines requirements and guidance to help organisations improve environmental performance and progress towards sustainability excellence in their business operations. It covers the management of environmental impacts, including greenhouse gas emissions, energy, water and material (consumption), across an organisation's governance, operations, supply network and product life cycle.

#### Maturity Level Framework

The TR 149 enables organisations to progress systematically towards sustainability excellence via a maturity model comprising four levels – Essential, Bronze, Silver and Gold, encompassing five key dimensions:

- People readiness management (leadership commitment and workforce development)
- Structure and management (strategy, policies and stakeholder engagement)
- Operations management (greenhouse gas emissions, energy, water, and material)
- Supply network management
- Product life cycle management

This maturity level framework aims to help organisations track and measure progress, communicate their sustainability journey to stakeholders, and build capabilities in a structured and incremental manner. Each maturity level represents a defined stage of development. To attain a given level, organisations are required to fulfil all criteria across the applicable domains and subdomains within a defined continuous twelve-month period.

Organisations should aspire to achieve higher levels of maturity over time. To use the TR, organisations could first use it to determine their present state by assessing their current environmental sustainability maturity level across relevant dimensions and domains, to thereafter identify gaps and plan improvements towards the next maturity level.

#### **Who would use TR 149?**

TR 149 is intended for organisations of all sizes and sectors, at any stage of their sustainability journey, from beginners to advanced practitioners. These could include SMEs seeking practical and achievable starting points for sustainability or MNCs looking to advance into more complex areas such as supply chain and product life cycle sustainability. It is particularly useful for organisations aiming to adopt a structured and systematic approach to environmental management.

## What are the benefits of adopting TR 149?

Adopting TR 149 helps organisations align sustainability goals, strategies, and policies while gaining a clear understanding of their environmental performance. It enables systematic and progressive improvements, strengthens governance, and enhances efficiency in resource use such as energy, water, and materials. It also supports better supply chain and product life cycle management, fosters continuous improvement regardless of starting point, and promotes a more unified approach to environmental stewardship. Overall, it enables organisations to move from fragmented efforts to a coherent, structured sustainability strategy.

## Who developed TR 149?

The Working Group (WG) on Environmentally Sustainable Organisations consists of expert members from industry, government agencies, academia, certification bodies, and trade associations. Participating organisations include:

- **Industry:** ALBA W&H Smart City Pte Ltd, Containers Printers Pte Ltd, Green Global Connect Pte Ltd, Greenprint Technologies Pte Ltd, JLL Consultants Pte Ltd, Paia Consulting Pte Ltd, PCS Pte Ltd, Plaspulp Union Pte Ltd, Schneider Electric Singapore Pte Ltd, Shell Singapore Pte Ltd, Unravel Carbon (Holdings) Pte Ltd
- **Government Agencies:** A\*STAR Singapore Institute of Manufacturing Technology, Building and Construction Authority, Ministry of Sustainability and the Environment, National Climate Change Secretariat, National Environment Agency
- **Academia:** Singapore Management University, Singapore Polytechnic
- **Certification Bodies:** SGS Singapore, Singapore Environment Council, TÜV SÜD PSB Ptd Ltd
- **Trade Associations:** Singapore Manufacturing Federation, Singapore Shipping Association

The WG is appointed by the Technical Committee for Environment Management and Sustainable Finance under the Singapore Standardisation Programme administered by Enterprise Singapore and is supported by the Standards Development Organisation at Singapore Chemical Industry Council (SDO@SCIC).

## Purchase of TR 149

The standard is available for purchase from the Singapore Standards e-Shop at [www.singaporestandardseshop.sg](http://www.singaporestandardseshop.sg).