#### **Sub-Committee on Standards and Conformance**

## Report for the

#### CTI ANNUAL REPORT TO MINISTERS

#### For AMM's information

- (a) Key outcomes and achievements in 2025
  - In 2025, the Sub-Committee on Standards and Conformance (SCSC) delivered impactful outcomes in alignment with the APEC theme "Building a Sustainable Tomorrow," through active engagement in policy dialogues and project-based cooperation. In response to growing demands for digital trust, sustainable practices, and inclusive growth, SCSC concentrated its work on four strategic priorities:
    - (1) AI standards and conformity assessment cooperation,
    - (2) Development of the next generation of standards and conformity experts,
    - (3) Digital transformation of standards and certification systems, and
    - (4) Standards collaboration for sustainable energy and related technologies.
  - At the SCSC 1/2025 in February 2025, policy discussions focused on cooperation in AI standards and the development of future experts in the field. The SCSC 2/2025 in August 2025 explored digital transformation and sustainable energy systems, fostering a shared understanding of future-oriented regulatory strategies. These discussions provided member economies with a platform to share domestic initiatives, identify opportunities for alignment, and deepen cross-border collaboration.
  - Throughout the year, the SCSC successfully implemented both APEC-funded and self-funded projects addressing a wide range of issues from emerging food safety concerns, food labeling, and health-related topics such as clinical markers for non-communicable diseases, and antiviral products, to standards in areas such as green material utilization, circular economy and sustainability, water quality, hydrogen and fuel cells, quantum technologies, and digital transformation. For example, the APEC AI Standards Conference, held as a pilot initiative, brought together experts from government, industry, and academia to examine AI standards, ISO/IEC 42001, interoperability, and digital certification models. The 18<sup>th</sup> Good Regulatory Practices (GRP) Conference advanced regulatory modernization by focusing on GRP in the context of emerging technologies. A full list of SCSC projects conducted in 2025 is provided in Annex A.
  - SCSC adopted its Terms of Reference (TOR), and TORs for its subsidiary bodies namely the Food Safety Cooperation Forum (FSCF), and the Regulatory Harmonization Steering Committee on Medical Products (RHSC) for 2026-2029, pending the endorsement by the Joint Regulatory Advisory Committee (JRAC) for its TOR.

# (b) Work undertaken by fora in pursuit of the <u>Putrajaya Vision 2040</u>, including through the Aotearoa Plan of Action (APA)

In alignment with the Putrajaya Vision 2040 and its implementation framework, the Aotearoa Plan of Action (APA), the SCSC actively contributed to the realization of APEC's goals under the three economic drivers: (1) Trade and Investment, (2) Innovation and Digitalisation, and (3) Strong, Balanced, Secure, Sustainable and Inclusive Growth.

#### I. Trade and Investment

To support the building of an open, dynamic, resilient, and peaceful Asia-Pacific community, the SCSC advanced a range of initiatives aimed at reducing technical barriers to trade and strengthening regulatory coherence. In addition to the workshop on technical barriers to trade, SCSC also organized the 18th Conference on Good Regulatory Practices (GRP18) which explored the use of modern regulatory tools, such as Regulatory Impact Analysis (RIA), stakeholder consultation, and performance-based approaches, to support evidence-based, outcome-focused policymaking.

The SCSC also continued its monitoring of alignment with international standards through the Voluntary Action Plan (VAP) and shared updates on WTO TBT/SPS Committees, further reinforcing transparency and trade predictability.

## II. Innovation and Digitalisation

To promote inclusive digital transformation and international cooperation on emerging technologies, the SCSC focused on advancing standards and conformity assessment frameworks for artificial intelligence (AI), digital certification, and machine-readable standards. Policy discussions during the 2<sup>nd</sup> SCSC Plenary Meeting focused on how standards can support a trusted digital economy, particularly in addressing crossborder compatibility and modernizing regulatory systems through digital tools. Workshops on digital standards and digital transformation in accreditation, along with the AI Standards Conference which provided a regional platform to explore the ISO/IEC 42001 standard, AI governance, and interoperability issues, are a few examples.

## III. Strong, Balanced, Secure, Sustainable and Inclusive Growth

The SCSC contributed to APEC's sustainability agenda by focusing on sustainable energy transition, addressing environmental challenges through plastic recycling, standards of green materials, and advancing the circular economy. It also promotes inclusive growth by enhancing MSME participation in international standards development, and human resource development. For example, SCSC organized a workshop on higher education in standardization to build long-term expertise and encourage institutional support for standardization education.

In the area of energy transition, the outcome of SCSC workshop on hydrogen and fuel cell standardizations supported the Energy Working Group (EWG) in its implementation of the Policy Guidance on Clean and Low-Carbon Hydrogen (PGH).

Through these efforts, the SCSC effectively delivered on APA's Collective Actions, contributing to regulatory reform, digital innovation, sustainability, and inclusive growth.

# (c) Work Undertaken by the fora in response to Ministerial, SOM and CTI direction

- In response to Ministerial and SOM guidance emphasizing digital transformation, sustainable growth, and strengthening the quality and resilience of regulations, the SCSC has actively advanced policy dialogue and cooperation in 2025 through activities listed above.
- In line with the emphasis placed by Ministers on trustworthy digital ecosystems and responsible AI development (Paragraphs 5–6, 2024 AMM), the SCSC convened a policy discussion on AI standards and conformity at SCSC1, 2025 and successfully hosted the APEC AI Standards Conference in August this year. The conference facilitated information exchange on interoperability, conformity assessment frameworks, and cross-border alignment among government, industry, and academia.
- Further reflecting the CTI's direction on sustainable trade and innovation, the SCSC organized the 18th Conference on Good Regulatory Practices (GRP18), which focused on addressing regulatory challenges posed by emerging technologies. GRP18 underscored the use of tools such as regulatory impact analysis (RIA) and stakeholder consultation to support more resilient and adaptive regulatory environments.
- In line with Ministerial emphasis on clean energy transitions and the endorsement of the APEC Policy Guidance on Clean and Low-Carbon Hydrogen (PGH) (Paragraph 27, 2024 AMM), the SCSC contributed to the implementation of the PGH by sharing insights and recommendations from the "APEC Workshop on Hydrogen and Fuel Cell Standardization, Certification, Law, and System-building."

# (d) Key Issues Under Discussion by the Fora (if any)

- The issue of AI standardization and conformity assessment has gained significant attention across member economies. The discussions among SCSC members at the SCSC plenary meetings and the APEC AI Standards Conference highlighted the importance of cross-border interoperability, the role of ISO/IEC 42001, and the need for cooperation on AI-related conformity frameworks.
- The digital transformation of standardization and certification systems was another key focus. Discussions explored the role of digital technologies in improving efficiency, traceability, and accessibility of conformity assessment processes. Members also shared experiences regarding machine-readable standards, blockchain-based certification systems, and interoperability frameworks for cross-border digital trust.

- With growing interest in hydrogen, carbon neutrality, and circular economy, SCSC members examined the role of standardization in enabling trusted green innovation.
- (e) Private sector / Stakeholder engagement and cross-fora collaboration in 2025 (if any)
  - Throughout 2025, the SCSC actively engaged in cross-fora collaboration to address emerging challenges at the intersection of trade, technology, and sustainability. These efforts focused on strengthening complementarities between standardization and policy frameworks across APEC sub-fora, including the Energy Working Group (EWG), the Sub-Committee on Customs Procedures (SCCP), and the Group on Services (GOS).
  - In collaboration with the EWG, the SCSC supported the implementation of the APEC Policy Guidance on Clean and Low-Carbon Hydrogen (PGH) by providing input on the role of standards and conformity assessment in clean hydrogen deployment. This included sharing insights and outcomes from the APEC Workshop on Hydrogen and Fuel Cell Standardization, Certification, Law, and System-building held earlier in the year.
  - In collaboration with the SCCP, the SCSC shared its ongoing work on cooperation in artificial intelligence (AI) standards, including outcomes from the APEC AI Standards Conference. This collaboration underscored the role of the SCSC in supporting interoperability, reducing regulatory fragmentation, and facilitating the cross-border adoption of AI through standards and conformity assessment cooperation.
  - At the request of the GOS, the SCSC participated in a dedicated workshop to discuss international cooperation initiatives in the field of artificial intelligence (AI), the adoption and diffusion of AI across sectors, and related policy approaches.
  - In addition to inter-fora engagement, the SCSC also promoted stakeholder involvement by inviting regulators, industry representatives, academia, and SMEs to participate in its events. SCSC Meetings include representatives from standards organizations (ISO, IEC, ASTM), as well as the Specialist Regional Bodies (SRBs) groups of bodies involved in standards development and conformity assessment.

## (f) Items to submit to Senior Officials or Ministers (if applicable)

• The Joint Regulatory Advisory Committee on Electrical and Electronic Equipment (JRAC), a subsidiary body under the SCSC, has not met quorum at its past two consecutive meetings. In accordance with its Terms of Reference, the matter will be referred to Senior Officials for a decision on whether the JRAC should continue to exist. The SCSC has advised the JRAC to prepare an information paper for SOM's consideration and has also submitted a document containing the SCSC's consolidated comments on the JRAC's future direction.

## Annex A: List of SCSC project events in 2025

- 1. APEC Workshop on Hydrogen and Fuel Cell Standardization, Certification, Law, and System-building
- 2. Policy Dialogue on Engaging Micro, Small and Medium Enterprises in International Standards Development
- 3. Capability Building on Measurement of Clinical Markers for Non-Communicable Diseases (NCDs) in APEC Region
- 4. Workshop on innovative approaches to respond to emerging issues for better food safety
- 5. Public-Private Dialogue (PPD) on Development of Strategies for harmonizing standards and conformity assessment on Electronic Household Appliances in The APEC region
- 6. Policies, standards, and best practices for recycling of plastic intended to contact with foods to reduce marine plastic waste among APEC economies
- 7. Strengthening standard knowledge on women culinary food safety and its food waste management in supporting the domestic tourism
- 8. Workshop on the Role of Standards in Reducing Food Loss and Waste and Promoting Sustainable Economic Growth
- 9. Strengthening Standards and Technical Regulations for Higher Water Quality
- 10. Digital Standards: Shaping the Future of Standardization
- 11. Technical Barriers to Trade: Recent Trends in Regional FTAs
- 12. Strengthening collaboration on standardisation for quantum technologies
- 13. APEC Workshop on higher education in standardization
- 14. APEC AI Standards Conference: "Building a Sustainable AI Ecosystem Tomorrow"
- 15. Study and workshop on the identification and analysis of public policies promoting quality infrastructure services for the implementation of Circular Economy in APEC economies
- 16. 18th Conference on Good Regulatory Practices (GRP 18)
- 17. Improving Small Scale Aquaculture Food Safety through the collection and use of data
- 18. Capacity Building on antiviral products and its evaluation test method ISO 21702 (first seminar)
- 19. Survey and Workshop on Market Compliance Mechanism for Self-Declaration of Standard Compliance on Textiles and Textile Product
- 20. Shaping Digital Transformation in Accreditation
- 21. Enhancing Quality Infrastructure to Improve Green Material utilization in The Building Structures
- 22. 2025 APEC Conference on the Analytical Techniques for Cosmetics
- 23. Study on the use of accredited testing laboratory services in biodegradability (tentatively scheduled in November 2025)
- 24. Research and Discussion of standards and Regulatory Frameworks of Pesticide Maximum Residue Levels (MRLs) in Food and Agricultural Products of APEC Member Economies (tentatively scheduled in November 2025)
- 25. Best Practices of Quality Infrastructure (QI) in APEC Economies (tentatively scheduled in November 2025)
- 26. Promoting Food Safety Through Enhancing Information Transparency Study on Prepackaged Food Labeling Laws, Regulations and Standards of APEC Member Economies (tentatively scheduled in December 2025)