



Asia-Pacific  
Economic Cooperation

# APEC Services Competitiveness Roadmap (ASCR) Final Review

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APEC Policy Support Unit

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## TABLE OF CONTENTS

|   |           |
|---|-----------|
| List of Appendix B sections   | iv        |
| List of Appendix C sections   | iv        |
| List of figures   | v         |
| List of tables  | vi        |
| <b>Executive summary</b> .....  | <b>7</b>  |
| <b>1. Introduction</b> .....  | <b>13</b> |
| 1.1 Services and the strategic role of APEC                                 | 13        |
| 1.2 The ASCR: Origins and objectives  | 13        |
| 1.3 ASCR Mid-Term Review and progress monitoring                            | 14        |
| 1.4 Final Review and looking ahead  | 14        |
| <b>2. Approach to assessing progress under the ASCR</b> .....               | <b>16</b> |
| 2.1 Status of inputs  | 16        |
| <b>3. Assessment of the ASCR</b> .....                                      | <b>19</b> |
| 3.1 Assessment of overarching targets                                       | 19        |
| 3.2 Assessment of APEC-wide and individual economy actions under the ASCR   | 30        |
| <b>4. Ways forward</b> .....  | <b>40</b> |
| 4.1 Taking stock of progress on the ASCR Mid-Term Review recommendations    | 40        |
| 4.2 Recommendations for the new services roadmap                            | 43        |
| <b>Bibliography</b> .....   | <b>46</b> |
| Appendix A. Detailed status of external baseline indicators .....           | 57        |
| Appendix B. Assessment of APEC-wide actions .....                           | 58        |
| Appendix C. Key initiatives in EAASR IAPs contributing to services .....    | 119       |
| Appendix D. 2025 Update to Monitoring Pandemic Recovery Under the ASCR..... | 165       |
| Appendix E. Findings from the ASCR Final Review Perception Survey.....      | 182       |

## LIST OF APPENDIX B SECTIONS

|  |     |
|--|-----|
| Appendix B1. APEC-wide action #1 .....   | 58  |
| Appendix B2. APEC-wide action #2 .....   | 61  |
| Appendix B3. APEC-wide action #3 .....   | 65  |
| Appendix B4. APEC-wide action #4 .....   | 66  |
| Appendix B5. APEC-wide action #5 .....   | 69  |
| Appendix B6. APEC-wide action #6 .....   | 71  |
| Appendix B7. APEC-wide action #7 .....   | 73  |
| Appendix B8. APEC-wide action #8 .....   | 77  |
| Appendix B9. APEC-wide action #9 .....   | 80  |
| Appendix B10. APEC-wide action #10 ..... | 83  |
| Appendix B11. APEC-wide action #11 ..... | 87  |
| Appendix B12. APEC-wide action #12 ..... | 92  |
| Appendix B13. APEC-wide action #13 ..... | 96  |
| Appendix B14. APEC-wide action #14 ..... | 99  |
| Appendix B15. APEC-wide action #15 ..... | 102 |
| Appendix B16. APEC-wide action #16 ..... | 106 |
| Appendix B17. APEC-wide action #17 ..... | 109 |
| Appendix B18. APEC-wide action #18 ..... | 113 |
| Appendix B19. APEC-wide action #19 ..... | 116 |

## LIST OF APPENDIX C SECTIONS

|                                      |     |
|--------------------------------------|-----|
| Appendix C1. Australia .....         | 119 |
| Appendix C2. Brunei Darussalam ..... | 122 |
| Appendix C3. Canada .....            | 126 |
| Appendix C4. Chile .....             | 129 |
| Appendix C5. China .....             | 131 |
| Appendix C6. Hong Kong, China .....  | 134 |
| Appendix C7. Indonesia .....         | 137 |
| Appendix C8. Japan .....             | 139 |
| Appendix C9. Korea .....             | 141 |
| Appendix C10. Malaysia .....         | 143 |
| Appendix C11. New Zealand .....      | 147 |
| Appendix C12. Papua New Guinea ..... | 148 |
| Appendix C13. Peru .....             | 149 |
| Appendix C14. The Philippines .....  | 150 |
| Appendix C15. Russia .....           | 153 |
| Appendix C16. Singapore .....        | 157 |
| Appendix C17. Chinese Taipei .....   | 160 |
| Appendix C18. Thailand .....         | 162 |

## LIST OF FIGURES

|   |     |
|---|-----|
| Figure 1. Services trade restrictiveness level measured by the APEC Index in 2016-2024 (score) .....  | 19  |
| Figure 2. Percentage change in the APEC Index score between 2016 and 2024, by sector .....  | 20  |
| Figure 3. Average digital STRI score in APEC in 2016–2024 .....   | 21  |
| Figure 4. Average APEC Index scores in 2024, by sub-sector .....  | 22  |
| Figure 5. Export of commercial services by APEC and the rest of the world in 2016–2024 (Billion USD) .....  | 26  |
| Figure 6. Share of world commercial services export in APEC and the rest of the world (percent) .....   | 27  |
| Figure 7. APEC trade in commercial services, by actual and target values (Billion USD) .....  | 28  |
| Figure 8. Annual growth rate of commercial services trade in APEC and the rest of the world (Percent) .....   | 29  |
| Figure 9. Services value-added as a percentage of GDP in 2016 and 2021, by economy .....  | 30  |
| Figure 10. Percentage share of respective population exporting directly at least 10 percent of sales .....  | 60  |
| Figure 11. Number of MRAs in APEC (as of April 2025), by profession .....   | 63  |
| Figure 12. Average APEC Index scores for selected professional services, by category .....  | 64  |
| Figure 13. Average APEC Index score for air transport in 2016–2024, by policy category .....  | 89  |
| Figure 14. Number of intra-APEC air services agreements, by economy and access date .....   | 89  |
| Figure 15. Average APEC Index score for maritime transport in 2016–2024, by policy category .....   | 90  |
| Figure 16. Average APEC Index score for rail freight transport in 2016–2024, by policy category .....   | 90  |
| Figure 17. Average APEC Index score for road freight transport in 2016–2024, by policy category .....   | 91  |
| Figure 18. Selected indicators to characterize APEC’s travel and tourism sector .....   | 95  |
| Figure 19. Share of renewable energy in 2016 and 2024, by APEC economy and category (percent) .....   | 104 |
| Figure 20. Energy intensity ratio, by APEC economy (percent) .....  | 104 |
| Figure 21. Average APEC Index scores for all sectors, by selected policy categories .....   | 107 |
| Figure 22. Number of intra-APEC trade agreements with investment chapters, by economy .....   | 108 |
| Figure 23. Estimated MSME share of total employment and economic contribution, by economy (percent) .....   | 109 |
| Figure 24. Percentage share of firms that have their own website, by economy and category (percent) .....   | 112 |
| Figure 25. Access to ICT infrastructure in APEC, by category .....  | 115 |
| Figure 26. APEC average for selected indicators in formal R&D .....   | 118 |
| Figure 27. Three-level category system for interpreting services trade recovery .....   | 166 |
| Figure 28. APEC annual trade in commercial services in 2016–2024 (trillion USD) .....   | 167 |
| Figure 29. APEC annual trade in travel services in 2016–2024 (trillion USD) .....   | 168 |
| Figure 30. APEC annual trade in transport services in 2016–2024 (trillion USD) .....  | 169 |
| Figure 31. APEC year-on-year trade in other business services in the first three quarters of 2015–2024 (trillion USD) .....   | 170 |
| Figure 32. Colour-coded system to interpret the status of regulatory environments .....   | 171 |
| Figure 33. Modes impacted by APEC measures affecting various sectors and services supplied through the movement of natural persons (percentage of total measures) ..... | 173 |
| Figure 34. Average APEC Index score in 2019–2024 .....  | 174 |
| Figure 35. Average digital STRI score in APEC vis-à-vis all 91 economies in 2019–2024 .....   | 175 |
| Figure 36. Respondent profile (percentage share to total) .....   | 183 |

## LIST OF TABLES

|   |     |
|---|-----|
| Table 1. Priority workstreams to support the ASCR .....   | 14  |
| Table 2. Summary status of external baseline indicators (as of 9 February 2025) .....   | 17  |
| Table 3. Contribution to the average APEC Index scores in 2024, by sub-sector and policy category .....   | 23  |
| Table 4. Key trade barriers in maritime transport in 2024, by policy category .....   | 24  |
| Table 5. Key trade barriers in construction in 2024, by policy category .....   | 25  |
| Table 6. Number of APEC economies implementing specific measures within the regulatory<br>transparency policy category in the 2024 APEC Index ..... | 68  |
| Table 7. Key trade barriers in logistics cargo-handling in 2024, by policy category .....   | 75  |
| Table 8. Key trade barriers in engineering in 2024, by policy category .....  | 76  |
| Table 9. Presence of online protection laws in APEC (as of 9 February 2025).....  | 81  |
| Table 10. Key trade barriers in commercial banking in 2024, by policy category .....  | 85  |
| Table 11. Key trade barriers in insurance in 2024, by policy category.....  | 86  |
| Table 12. Visa requirements for passport holders from APEC origin economies .....   | 93  |
| Table 13. Visa policies of APEC destination economies for passport holders of APEC origin<br>economies.....   | 94  |
| Table 14. Availability of selected indicators to support the ASCR (as of 16 February 2025).....   | 97  |
| Table 15. Prevalence of undernourishment in APEC economies (percent).....   | 101 |
| Table 16. Measures affecting trade in services, by WTO review period .....  | 172 |
| Table 17. Summary of sub-sectoral analysis related to transport (including logistics-related services)<br>covered by the APEC Index .....           | 178 |
| Table 18. Summary of sub-sectoral analysis related to other business services covered by the APEC<br>Index.....                                     | 180 |
| Table 19. Awareness of various APEC-wide actions by CTI.....  | 184 |
| Table 20. Awareness of various APEC-wide actions by GOS .....   | 184 |
| Table 21. Agreement with various statements, by APEC forum (ratings).....   | 186 |

## EXECUTIVE SUMMARY

### Overview

- Services are integral to modern economies, underpinning essentials like water, energy, healthcare, education, and global commerce. As economies become more interconnected and knowledge-driven, services have become a key driver of growth, productivity, and employment.
- To guide its work in this area, APEC Leaders endorsed the APEC Services Competitiveness Roadmap (ASCR) in 2016, outlining a vision to improve the services trade environment, enhance regional competitiveness, and promote high-quality growth by 2025 through three overarching targets.
- In 2021, the ASCR Mid-Term Review recognized progress while calling for more targeted reforms, especially after the pandemic exposed vulnerabilities in services markets and supply chains.
- With the ASCR nearing its 2025 target, APEC has undertaken a final review to assess progress on the roadmap's targets, evaluate implementation of APEC-wide and economy-level actions, and examine its broader contribution to regional goals.
- This final review takes a holistic approach by combining quantitative indicators with qualitative insights to assess ASCR implementation. It draws on four main sources: baseline indicators, a consolidated matrix of APEC-wide actions, EAASR Individual Action Plans, and a perception survey, supplemented by findings from the 2025 Update to Monitoring Pandemic Recovery under the ASCR.

### Assessment of overarching targets

- APEC has made only modest progress toward creating a more open and predictable services trade environment (**Overarching Target #1**). While some economies introduced reforms, others became more restrictive, leading to a fragmented landscape. Sector-specific trends reflect a similar divergence. Most notably, digital services have been facing rising barriers.
- Post-pandemic recovery has raised concerns, as most liberalization was tied to the rollback of crisis-era measures; few economies introduced durable structural reforms (beyond the rollback). Persistent barriers in several services sectors highlight the need for renewed, targeted reforms to strengthen cross-border services trade.
- APEC did not make progress on increasing its share of global services exports (**Overarching Target #2**), which fell from 38.4 percent in 2016 to 35.3 percent in 2024 as other regions grew faster. This downward trend underscores the need for more coordinated, ambitious efforts to boost services competitiveness.

- APEC’s performance on increasing services trade and value-added (**Overarching Target #3**) has been mixed. Although services trade rebounded post-COVID, its 5.6 percent compound annual growth rate fell short of the ASCR benchmark and the global average (excluding APEC), while the sector’s share of regional GDP declined slightly—highlighting the need for stronger policy momentum.

### **Assessment of APEC-wide and individual economy actions**

- Boosting services competitiveness in APEC requires a comprehensive approach, as outlined in the ASCR, which emphasizes enabling factors such as implementing good regulatory practices, undertaking structural reforms, supporting cross-border labour mobility, and aligning workforce skills with industry needs.
- Recognizing that enabling conditions require both domestic and regional efforts, the ASCR adopts a dual-track strategy: APEC-wide actions and individual economy reforms. Regional cooperation is advanced through 19 APEC-wide actions led by 15 fora, while individual efforts are reflected in services-related initiatives within EAASR IAPs.
- Progress in advancing APEC-wide actions
  - APEC has made steady progress in implementing APEC-wide actions, with updates reported for many initiatives and several key outputs achieved. Notable deliverables include the endorsement of the Non-Binding Principles on Services Domestic Regulation, the development of the APEC Index, and the establishment of new cooperation mechanisms in education and environment.
  - Cross-cutting and sector-specific actions can reinforce one another effectively. Structural reforms and good regulatory practices support sectoral advancements, while measures such as business travel facilitation help enable cross-border mobility, knowledge exchange, and foreign investment—further strengthening services development across the region.
  - The ASCR’s flexible framework has also allowed APEC to adapt to emerging priorities, incorporating themes such as artificial intelligence, services technical standards, and marine debris. This adaptability has enhanced the relevance of APEC’s work in a rapidly evolving regional context.
  - However, significant gaps remain. Liberalization has been modest and uneven, with some sectors becoming more restrictive over time. Participation in some key regional frameworks also remains limited, hindering broader integration.
  - Looking ahead, APEC should prioritize deepening reforms, increasing participation in regional initiatives, and improving measurement tools. Sustained political will, stronger cross-fora collaboration, and continued investment in capacity building will be essential to ensure services remain a key driver of growth in the region.



- Progress in advancing individual economy actions
  - The EAASR IAP final review template prompts economies to identify and explain how their key initiatives benefit the services sector. Of the 116 updates provided, 87 indicated such benefits. These initiatives span a range of themes, including facilitating business conduct, promoting competition, enhancing the digital ecosystem, developing human capital, fostering innovation, investing in infrastructure, expanding market access, and improving access to government services.
  - The inclusion of this question has encouraged economies to reflect more carefully on the services implications of their initiatives. However, some responses lack sufficient detail, while some did not address the question at all. While this marks a positive start, further efforts are needed—such as incorporating services-specific indicators, organizing more information-sharing sessions focused on services impacts, and conducting capacity-building activities to support the development of targeted initiatives.
  - Looking more broadly, the review of economy submissions – beyond just those related to services – revealed several general observations that offer useful learning points for economies as they design or refine key initiatives. These include the importance of establishing clear baselines, adapting to challenges, using evidence to inform adjustments, engaging stakeholders, adopting a holistic approach, developing clear implementation frameworks, and balancing diverse policy interests.

## **Taking stock of ASCR mid-term review recommendations**

- **Accelerate implementation of specific APEC-wide actions:** This recommendation has seen partial progress, with notable achievements including completed outputs for some APEC-wide actions, such as the adoption of non-binding principles for domestic regulation, and improved services data collection. Fora have also conducted various capacity-building activities to support implementation. However, progress remains uneven and modest overall, with limited updates on several actions.
- **Update set targets and outputs in each APEC-wide action and clearly associate activities with them:** This recommendation has seen some progress, with updates to targets, outputs, or activities reported for many APEC-wide actions between 2023 and 2025. However, implementation remains uneven, with many actions still lacking clearly defined or updated targets. Activities are not always explicitly linked to outcomes, making progress difficult to track, and while new initiatives on emerging issues show adaptability, they are not always formally incorporated into updated targets or outputs.
- **Respond to COVID-19 decisively and concretely:** Implementation of this recommendation was mixed. Initial momentum was driven by swift pandemic response measures and their subsequent removal, some of which were reflected as liberalizing changes in the APEC Index. APEC-wide actions and specific projects supported recovery

strategies and addressed challenges in areas such as education and tourism. However, by 2023–2024, reform momentum had slowed, with most progress limited to the rollback of temporary measures. This underlines a missed opportunity to leverage the crisis as a catalyst for deeper services sector reform and resilience building.

- **Leverage cross-fora collaboration and capture all relevant activities:** Progress has been made in promoting cross-fora collaboration, with joint activities such as Economic Committee-Group on Services (EC–GOS) symposia highlighting effective coordination on services and structural reform. However, gaps remain in systematically documenting relevant projects and their linkages, and some APEC-wide actions still operate in silos, limiting the potential to scale impact and share best practices across fora.
- **Ensure better synergy between ASCR and other APEC initiatives:** This recommendation has been partially achieved, with stronger coordination between the ASCR and EAASR, including the integration of services-related initiatives into EAASR Individual Action Plans. However, synergies remain limited. Alignment with other APEC strategies like APEC Internet and Digital Economy Roadmap (AIDER) and the APEC Connectivity Blueprint is not clearly documented, and more needs to be done to ensure systematic coordination. This will require better coordination among different agencies within governments, as the agencies in charge of each APEC initiative are not necessarily the same ones.
- **Enhance engagement with the private sector:** This recommendation has been moderately addressed, with private sector representatives participating in workshops, policy dialogues, and capacity-building activities across various APEC-wide actions. However, there is still room for more systematic and sustained engagement with the private sector. The alignment between policy initiatives and private sector needs may not always be clear or well-documented.
- **Continue to improve services data and statistics:** This recommendation has seen notable progress, particularly through the development of the APEC Index, which now enables comparative analysis of regulatory restrictiveness across 22 service sub-sectors in 18 economies. However, coverage gaps remain, as the Index does not include all APEC economies or capture the policy environment in emerging sectors like environmental services. Additionally, disaggregated and granular data on services remain limited across much of the region.
- **Undertake complementary, measurable, concrete activities:** This recommendation has been partially implemented, with a wide range of activities—such as workshops, dialogues, toolkits, and reports—contributing to capacity building and reform support across APEC economies. However, these efforts often lack clear performance indicators, and explicit links to the ASCR’s overarching targets. Limited follow-through and evaluation further hinder the ability to assess their effectiveness or long-term impact.

## Insights from perception survey

- The ASCR Final Review Perception Survey suggests the roadmap has been moderately successful in raising awareness of the role of services in regional growth and key enabling factors. Respondents also noted that it provided a useful rationale for forum activities and contributed to peer learning, improved domestic coordination, and stronger cross-fora collaboration.
- Despite positive perceptions, the survey revealed limitations, notably a low response rate (19 percent; 61 fully-completed responses out of a possible 315) that may reflect limited engagement with the ASCR. Respondents also called for better communication, broader stakeholder involvement, and closer alignment of the future roadmap with key APEC frameworks like the APEC Putrajaya Vision 2040 and the Aotearoa Plan of Action.

## Recommendations for the New Services Roadmap

- **Accelerate reforms in key services sectors, including setting clear and measurable targets at working level:** To strengthen regional competitiveness and reduce fragmentation, APEC should accelerate structural reforms in key services sectors, supported by enabling factors such as good regulatory practices and international regulatory cooperation. Reforms should be guided by clear, time-bound targets and concrete indicators to enable consistent monitoring.
- **Advance cooperation in new and emerging areas:** As the services landscape rapidly evolves, APEC must strengthen cooperation and collaboration in emerging areas such as the digital and green economies, where regulatory complexity and new service demands are growing.
- **Enhance services data and statistics, including expanding scope of the APEC Index:** Robust data is essential for effective services sector reform. The new roadmap should expand the APEC Index's coverage and promote the collection of disaggregated, longitudinal data to better assess reform impact, track progress, and guide future liberalization efforts.
- **Strengthen whole-of-government coordination and cross-fora collaboration:** A more coherent services policy agenda requires sustained whole-of-government approach and cross-fora collaboration. The next roadmap should institutionalize these linkages, promote joint planning, and establish mechanisms to track and report cooperation to maximize impact and avoid duplication.
- **Deepen engagement with the private sector and other stakeholders:** Advancing services competitiveness requires active and sustained engagement with the private sector and other key stakeholders. The next roadmap should institutionalize this engagement through structured platforms to ensure reforms are grounded in practical insights and address real-world challenges faced by service providers, workers, and consumers.

- **Embed services roadmap into broader APEC vision and cross-cutting priorities:** To enhance strategic relevance, the new services roadmap should align with APEC's broader priorities as outlined in the Putrajaya Vision 2040 and Aotearoa Plan of Action. Integrating inclusive growth and sustainability metrics into monitoring frameworks will ensure services-related reforms also advance broader development goals.
- **Ensure services roadmap remains responsive to evolving needs and challenges:** A key strength of the ASCR has been its flexibility to adapt to emerging priorities, a feature the future roadmap should preserve by embedding regular reviews, foresight processes, and stakeholder consultations. By remaining agile and proactive, APEC can ensure its services strategy stays relevant and forward-looking.

## 1. INTRODUCTION

### 1.1 SERVICES AND THE STRATEGIC ROLE OF APEC

Services are the lifeblood of modern economies, embedded in every facet of daily life. They ensure access to fundamental necessities—clean water, energy, food—as well as vital public goods such as healthcare and education. Services like telecommunications and logistics are the backbone of global commerce and economic resilience, their importance underscored during disruptions like the COVID-19 pandemic. As the global economy becomes increasingly interconnected and knowledge-based, the services sector has emerged as a principal engine of growth, productivity, and employment.

Within APEC, services represent a dominant share of economic activity, contributing more than half of gross domestic product (GDP) in most member economies and collectively accounting for close to two-thirds of the region's total output (StatsAPEC 2024). Employment trends mirror this significance: in 17 APEC economies, the services sector has consistently employed over half the workforce over the past decade.

In recognition of this growing importance, APEC has undertaken a wide array of initiatives to support the development and liberalization of services. These efforts range from commissioned research and policy guidelines to the delivery of workshops and other capacity-building activities. Initiatives such as the APEC Business Travel Card (ABTC) have become associated with APEC's success in facilitating cross-border services and professional mobility.

Progress notwithstanding, awareness of the critical role played by services in regional integration and economic transformation remains uneven. Enhanced coordination and information-sharing across APEC fora can help address this gap. Moreover, a more holistic view of services-related work can help to improve alignment of activities and resource use.

### 1.2 THE ASCR: ORIGINS AND OBJECTIVES

To provide strategic coherence to its work on services, APEC Leaders in 2015 endorsed the APEC Services Cooperation Framework, committing member economies to advance services as a pillar of sustainable and inclusive growth (APEC 2015). This mandate laid the groundwork for the APEC Services Competitiveness Roadmap (ASCR), which was endorsed in 2016 (APEC 2016). The ASCR set out an ambitious vision to improve the enabling environment for services trade and investment, enhance regional competitiveness, and promote high-quality growth by 2025.

It articulated three overarching targets:

1. Ensuring an open and predictable environment for access to services markets by progressively reducing restrictions to services trade and investment;
2. Increasing the share of services exports from APEC economies in the total world services exports so that it exceeds the current share in world services exports by 2025; and

3. Increasing trade in services in the APEC region so that by 2025, the compound average annual growth rate exceeds the historic average of 6.8 percent and the share of value-added of the services sector in the total GDP of the APEC region exceeds the global average level by 2025.

To achieve these objectives, the ASCR emphasizes the importance of enabling factors, including regulatory quality, human capital development, innovation and information and communications technology (ICT) capacity, robust financial systems, and physical and digital connectivity. It then outlines a dual-track implementation approach to develop and enhance these enabling sectors: encouraging unilateral reforms by individual economies and advancing collective action through 19 APEC-wide actions.

To sharpen focus and sustain momentum, APEC identified five priority areas following a 2019 policy paper titled “Addressing the Unfinished Business of the Bogor Goals: Final Push in Services” (APEC 2019). Champion economies were appointed to lead these areas, which have since been referred to as “GOS Core Issues” (Table 1).

**Table 1. GOS Core Issues**

| Priority area   | APEC-wide action | Champion economy                                       |
|---|------------------|--|
| Domestic regulations on services  | 4                | United States  |
| Developing an APEC index to measure the regulatory environment on services trade in APEC          | 13               | Korea (until 2021); Canada (until 2023); United States |
| Mutual recognition of qualification and licensing   | 2                | Australia  |
| Environmental services (also part of tasking by the APEC Committee on Trade and Investment (CTI)) | 6                | New Zealand  |
| Manufacturing-related services  | 7                | Malaysia   |

Source: Authors’ compilation based on GOS meeting agenda.

### 1.3 ASCR MID-TERM REVIEW AND PROGRESS MONITORING

In 2021, APEC Ministers endorsed the ASCR Mid-Term Review Summary Report (APEC, 2021), which was informed by analysis conducted by the APEC Policy Support Unit (PSU) and other inputs, such as a report by the APEC Business Advisory Council (ABAC) (ABAC 2021). The Summary Report highlighted substantial efforts made toward the ASCR’s goals while emphasizing the need for more targeted action to regain reform momentum, particularly in the wake of the pandemic that had exposed fragilities in services markets and supply chains.

Since then, APEC has actively pursued several recommendations outlined in the Summary Report and has hosted an annual ASCR Dialogue. Additionally, GOS has tasked the PSU with preparing an annual report to monitor recovery in the travel, transport (including logistics-related services), and other business services sectors. The first and second of these reports were released in 2023 and 2024 respectively (Wirjo and Calizo 2023; Wirjo, Calizo, and Simanjuntak 2024), while the third and final report is appended in this report (see Appendix D).

### 1.4 FINAL REVIEW AND LOOKING AHEAD

As the ASCR approaches its 2025 endpoint, APEC has undertaken a comprehensive final review, with support from the PSU. This review assesses the region’s progress toward the ASCR’s overarching targets and evaluates the implementation of APEC-wide and individual economy actions. The findings of the final review will help shape APEC’s future services

roadmap and contribute to the realization of the APEC Putrajaya Vision 2040, including through the implementation of the Aotearoa Plan of Action (APA).

## **2. APPROACH TO ASSESSING PROGRESS UNDER THE ASCR**

### **2.1 APPROACH AND DATA LIMITATIONS**

The final assessment of the ASCR draws on four principal sources of inputs: (1) the baseline indicators for the ASCR's overarching targets and APEC-wide actions (Pasadilla, Wirjo, and Gonzales 2017); (2) a consolidated matrix of APEC-wide actions; (3) individual economy submissions through the Enhanced APEC Agenda for Structural Reform (EAASR) Individual Action Plans (IAPs) (APEC Economic Committee 2023); and (4) a perception survey conducted among relevant APEC fora. This review is also enriched by insights from the 2025 Update to Monitoring Pandemic Recovery Under the ASCR, included in Appendix D.

To ensure a robust and comprehensive evaluation, the assessment combines both quantitative and qualitative analyses. However, a few key caveats should be kept in mind when interpreting the results and drawing conclusions.

First, the issue of causality is a critical consideration. Quantitative indicators, such as services trade growth, can be influenced by a multitude of external factors, not all of which are captured by the qualitative information provided by fora and actions (e.g., in the consolidated matrix of actions). Even when activities do impact an indicator, it may take time for these effects to be reflected in the data. Actions implemented by economies may also have been a consequence of a domestic strategy, and not specifically triggered because of the launch of the ASCR.

The analysis of these indicators typically offers a regional perspective, which may differ from the experiences of individual economies. For instance, there may be cases where APEC as a whole shows improvement in its aggregate score, while individual economies may experience declines in their scores. Such discrepancies will be highlighted where relevant. Additionally, it is important to note that changes in scores may not accurately represent APEC as a whole, as some indicators only include data from specific economies.

Lastly, while the indicators provide valuable snapshots of progress toward certain overarching targets and APEC-wide actions, they are not exhaustive and do not encompass all aspects of these targets and actions. For example, regarding services trade restrictions, although the APEC Index covers a substantial range of services sub-sectors, they do not include all of them. Nevertheless, the available data can still highlight areas for improvement that economies should consider. Therefore, it is crucial to complement these indicators with insights derived from the consolidated matrix of actions, IAPs, and the perception survey.

### **2.2 STATUS OF INPUTS**

#### **2.1.1 Baseline indicators for overarching targets and APEC-wide actions**

Following the endorsement of ASCR in 2016, a set of baseline indicators were identified in collaboration with accountable fora to effectively monitor and evaluate its implementation. These indicators were compiled in the ASCR Baseline Indicators Report, which was welcomed in 2017 (Pasadilla, Wirjo, and Gonzales 2017).

While the goal was to utilize the complete set of indicators for monitoring progress, data challenges such as update frequency, release delays, and discontinuation meant that not all



indicators were available for the ASCR Final Review Report. Table 2 provides a summary status of the baseline indicators (as of February 2025), while Appendix A provides the complete list of these indicators. Based on the colour classification (i.e., ■ green – complete data, ■ orange – incomplete/patchy data, and ■ red – no data/discontinued), progress for all APEC-wide actions with at least one external indicator can be monitored. For APEC-wide actions where progress is indicated solely through updates from fora or member economies, the relevant information is gathered via the perception survey questionnaire.

**Table 2. Summary status of external baseline indicators (as of February 2025)**

| Overarching Target # | Earliest       | Latest         | 2016-2020      | 2021-2024      |
|----------------------|----------------|----------------|----------------|----------------|
| 1                    | 2016           | 2024           | ■              |                |
| 2                    | 2016           | 2024           | ■              |                |
| 3                    | 2016           | 2024           | ■              | ■              |
| APEC-wide Action #   | Earliest       | Latest         | 2016-2020      | 2021-2024      |
| 1                    | 2016           | 2023           | ■              | ■              |
| 2                    | 2016           | 2024           | ■              |                |
| 3                    | Not applicable | Not applicable | Not applicable | Not applicable |
| 4                    | 2016           | 2024           | ■              |                |
| 5                    | 2016           | 2024           | ■              |                |
| 6                    | Not applicable | Not applicable | Not applicable | Not applicable |
| 7                    | 2016           | 2024           | ■              |                |
| 8                    | 2017           | 2023           | ■              |                |
| 9                    | 2021           | 2025           | *              | *              |
| 10                   | 2016           | 2024           | ■              |                |
| 11                   | 2016           | 2024           | ■              | ■              |
| 12                   | 2016           | 2024           | ■              | ■              |
| 13                   | 2017           | 2025           | *              | *              |
| 14                   | 2016           | 2021           | ■              |                |
| 15                   | 2016           | 2021           | ■              |                |
| 16                   | 2016           | 2024           | ■              | ■              |
| 17                   | 2016           | 2023           | ■              | ■              |
| 18                   | 2016           | 2023           | ■              | ■              |
| 19                   | 2016           | 2022           | ■              |                |

■ Green=Complete data; ■ Orange=Incomplete/patchy data; ■ Red=No data/discontinued

Note: Cells represent the status of each external indicator. \* - Indicator based on a snapshot in time.

Source: Authors' compilation.

When the ASCR and its implementation plan were endorsed, the APEC Index was designated as the primary tool for monitoring the implementation of several APEC-wide actions (APEC SMEWG 2017). However, at the time that the PSU was tasked with proposing baseline indicators in 2017, the APEC Index had not yet been developed. As an interim measure, the PSU recommended the use of the Services Trade Restrictiveness Index (STRI) developed by the Organisation for Economic Co-operation and Development (OECD) and the World Bank–World Trade Organization (WTO) Services Trade Restrictions Index. With the subsequent development of the APEC Index—now covering 18 economies and 22 sectors—the PSU has adopted it as the main instrument for assessing implementation progress under overarching target #1 and the relevant APEC-wide actions.

### 2.1.2 Consolidated matrix of actions related to the ASCR APEC-wide actions

To support implementation monitoring, GOS has continued to circulate a consolidated matrix of APEC-wide actions, capturing the efforts of responsible fora in advancing the ASCR's objectives. The matrix records activities (completed or ongoing) across a wide range of sectors

and policy areas. For this Final Review, the PSU focused primarily on the versions circulated between 2023 and 2025, while also drawing on supplementary sources, such as the ASCR Mid-Term Review Report, the APEC Project Database (PDB), and individual project reports. Detailed summaries of the 19 APEC-wide actions referenced in the ASCR implementation plan and subsequent documents are included in Appendix B.

### **2.1.3 Economies' EAASR IAPs**

Recognizing the importance of structural reform in enhancing services competitiveness, APEC's Structural Reform Ministers, as early as 2015, encouraged economies to identify and implement services-related reforms under the Renewed APEC Agenda for Structural Reform (RAASR). The current iteration, EAASR, continues this emphasis, explicitly inviting member economies to propose and report on services-relevant reforms. For this Final Review, the PSU conducted an analysis of EAASR IAPs and their updates to identify and elaborate on economy-level initiatives that support services liberalization, modernization, and integration. These initiatives are compiled in Appendix C.

### **2.1.4 ASCR perception survey**

To complement the quantitative data and activity tracking, the PSU also conducted a perception survey targeting the 15 APEC fora designated under the ASCR. The survey sought to assess how the roadmap has influenced member economies' understanding of the services sector, the perceived impact of their respective fora's initiatives, and where gaps or opportunities for improvement may lie. Feedback from this survey provides valuable insights into institutional awareness and the perceived effectiveness of ASCR-related activities. A summary of survey findings can be found in Appendix E.

### 3. ASSESSMENT OF THE ASCR

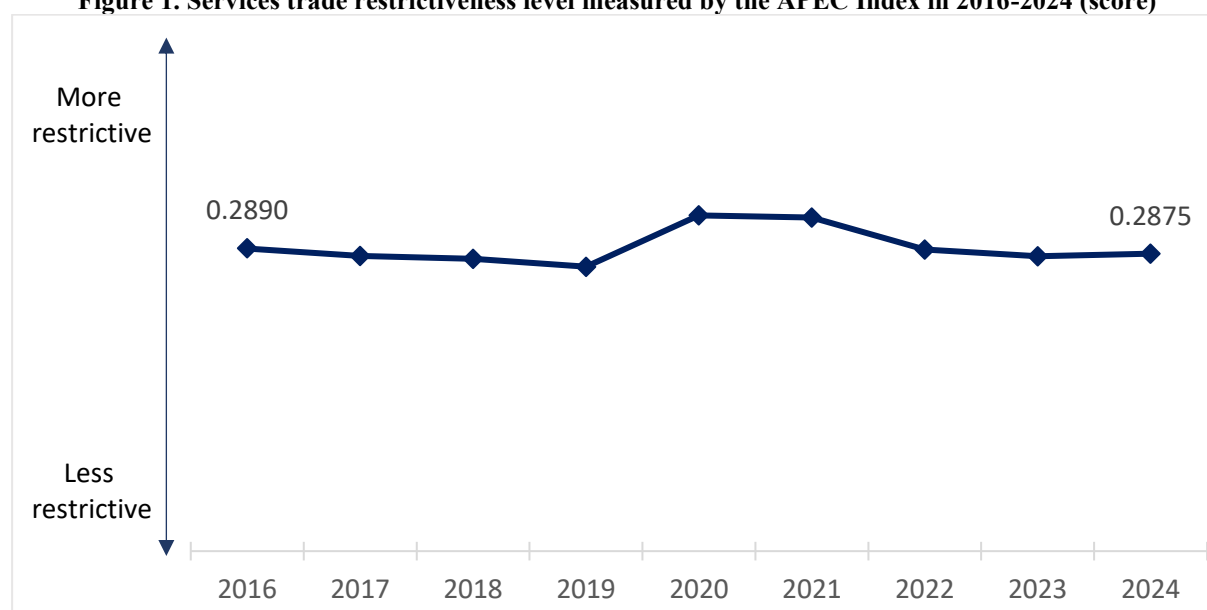
#### 3.1 ASSESSMENT OF OVERARCHING TARGETS

##### 3.1.1 Overarching target #1: Ensuring an open and predictable environment for access to services markets by progressively reducing restrictions to services trade and investment

###### *Limited progress in reducing services trade barriers at the APEC-wide level*

The APEC Index is a vital instrument for tracking policy developments that affect services trade across the region. The Index currently covers 22 services sub-sectors across 18 APEC economies, with each sub-sector assigned a score between 0 (least restrictive) and 1 (most restrictive), reflecting the relative openness of its regulatory environment. Between 2016 and 2024, the regional average declined only marginally—from 0.2890 to 0.2875—representing a reduction of just 0.53 percent (Figure 1). This minimal change underscores the limited progress in liberalizing services trade across APEC, suggesting that while some economies and sectors have undertaken reforms, efforts have yet to translate into significant region-wide momentum.

Figure 1. Services trade restrictiveness level measured by the APEC Index in 2016-2024 (score)



Note: Average across all sectors covered by the APEC Index. Sector-specific APEC Index scores may not be available for certain economies. This APEC aggregate does not include Brunei Darussalam; China; and Hong Kong, China due to data unavailability.

Source: APEC PSU calculations based on data from the APEC Index and OECD (accessed 28 February 2025).

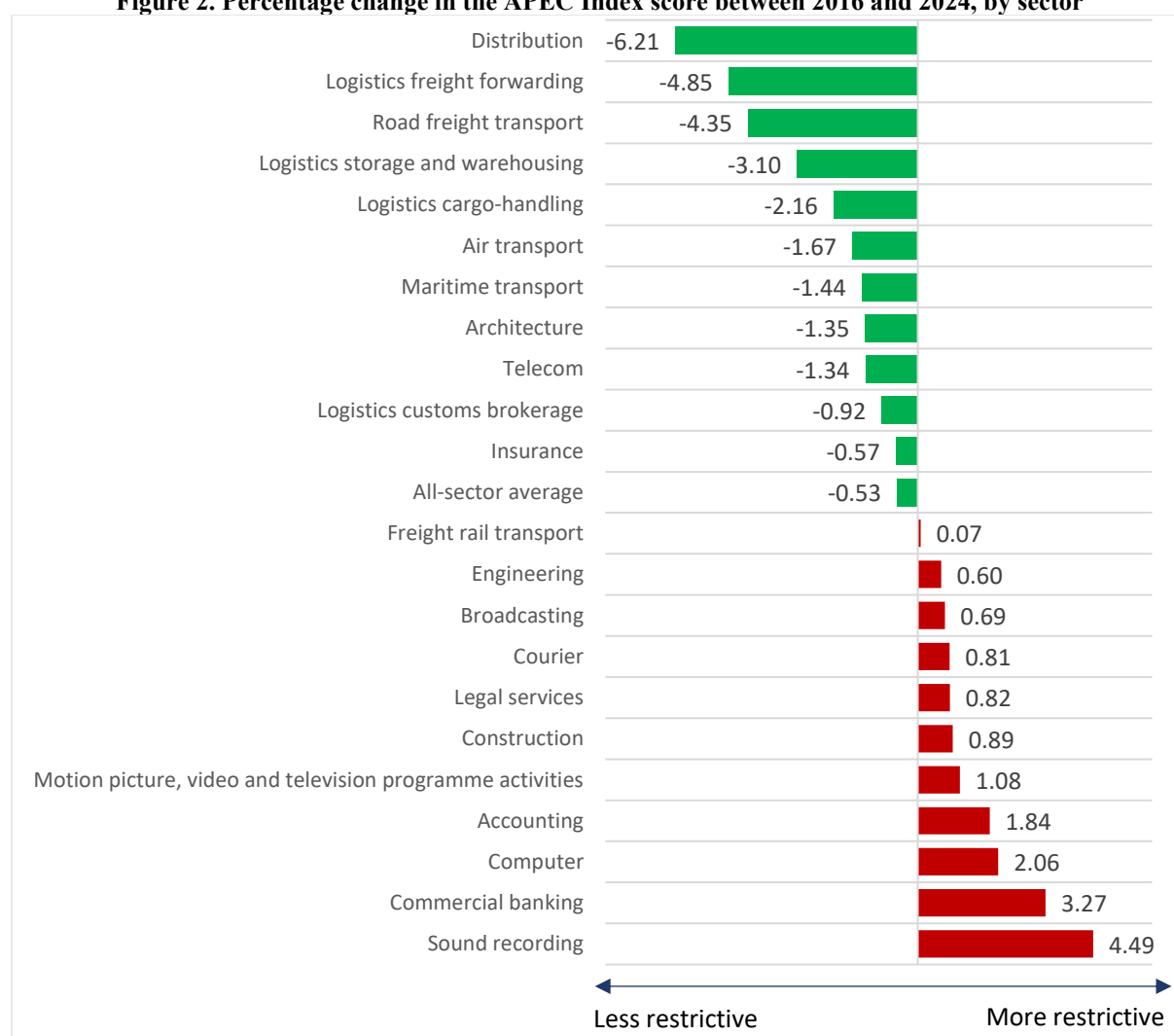
###### *Economy-level variation in reform efforts*

Despite the modest regional trend, some economies have demonstrated more significant progress in easing services trade barriers. Over the 2016–2024 period, 10 economies achieved reductions in their average restrictiveness scores. Among them, Indonesia; Thailand; and Australia emerged as the top-most active reformers. Indonesia recorded the sharpest decline, reducing its average Index score by 10.63 percent, followed closely by Thailand at 10.55 percent and Australia at 7.81 percent. In contrast, eight economies experienced rising restrictiveness, with increases ranging from 0.39 percent to as much as 21.40 percent, reflecting either regulatory tightening or a lack of liberalization over time.

### Mixed outcomes across services sectors

A closer look at sector-level performance reveals a similarly uneven landscape. Some sectors have seen tangible improvements in regulatory openness, while others have become more restrictive. The distribution sector posted the most notable liberalization, with its average restrictiveness score falling by 6.21 percent, down from 0.2411 in 2016 to 0.2261 in 2024 (Figure 2). Freight forwarding and road freight transport also saw moderate declines of 4.85 percent and 4.35 percent, respectively. However, this progress was offset by increasing restrictiveness in other sectors. For instance, the sound recording sector experienced a 4.49 percent increase in its restrictiveness score, while commercial banking rose by 3.27 percent and computer services by 2.06 percent. These changes suggest diverging policy trends across sectors, with some becoming more open while others face growing barriers.

**Figure 2. Percentage change in the APEC Index score between 2016 and 2024, by sector**



\*Motion picture, video and television programme activities

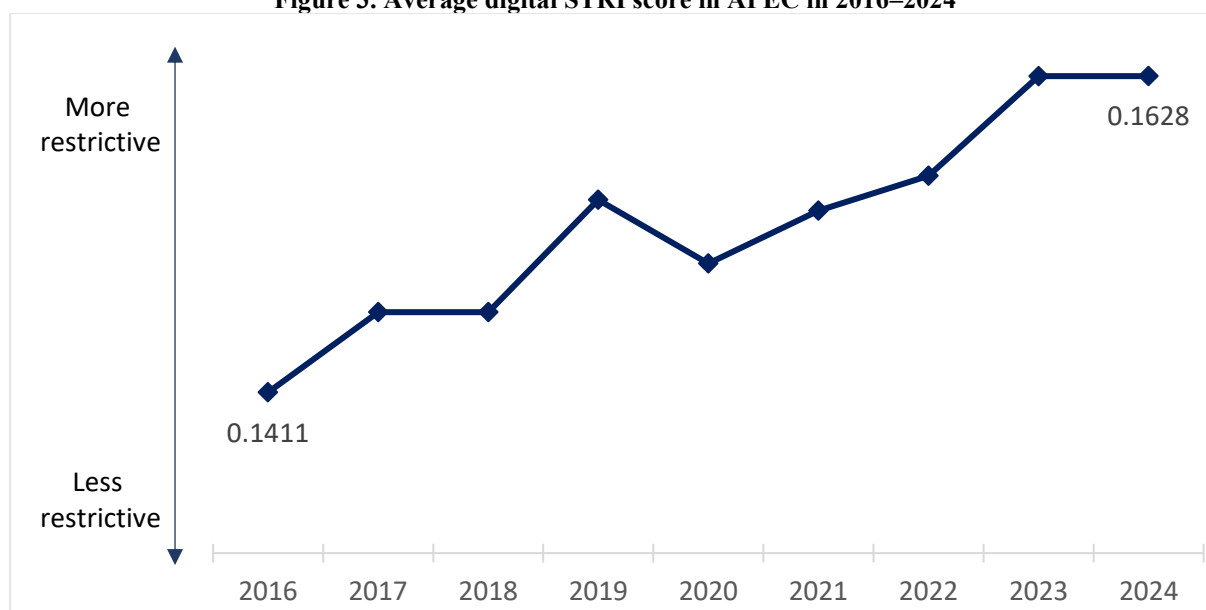
Note: Decreases in the APEC Index score were due to liberalizing policies, while increases were due to the introduction of more trade restrictive policies. Sector-specific APEC Index scores may not be available for certain economies. These APEC aggregates do not include Brunei Darussalam; China; and Hong Kong, China due to data unavailability.

Source: APEC PSU calculations based on data from the APEC Index and the OECD (accessed 28 February 2025).

### **Digital services facing growing barriers**

The OECD’s Digital STRI highlights challenges in the regulation of digitally-enabled services. While the COVID-19 pandemic accelerated the adoption and expansion of digital business models, corresponding reforms in digital trade regulation have not kept pace. Between 2016 and 2024, the average Digital STRI score across 18 APEC economies increased significantly from 0.1411 to 0.1628, thus indicating a more restrictive digital trade environment (Figure 3). Two main categories of policy barriers contributed to the overall score. The first relates to infrastructure and connectivity, including cross-border data flow restrictions and limits on communication services. The second comprises other regulatory obstacles, such as local presence requirements and performance mandates for cross-border service providers. These developments underscore the need for a more balanced regulatory approach that supports digital innovation while managing legitimate policy concerns.

**Figure 3. Average digital STRI score in APEC in 2016–2024**



Note: Scores are generally interpreted from 0 (open) to 1 (closed). This APEC aggregate does not include Hong Kong, China; Papua New Guinea; and Chinese Taipei due to data unavailability.

Source: APEC PSU calculations based on data from the OECD (accessed 27 March 2025).

### **Post-pandemic trends: Reversals more common than reforms**

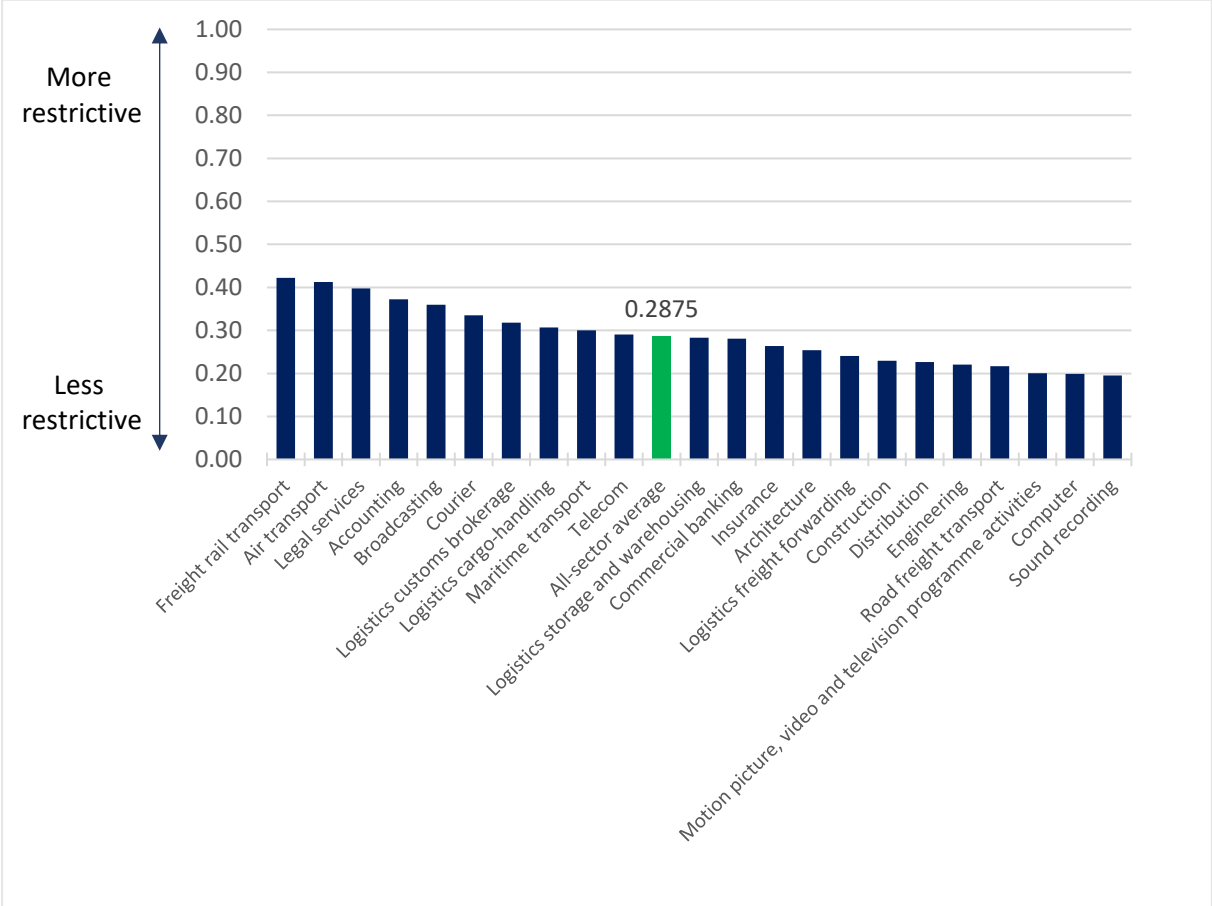
Further analysis from the latest APEC monitoring pandemic recovery report (see Appendix D) sheds light on how services trade policies have evolved in the aftermath of the pandemic. In both transport-related and other business services sectors, the momentum for trade liberalization appears to have slowed—or, in some cases, come to a halt. Initial gains observed between 2021 and 2022 were largely driven by the rollback of temporary COVID-19 restrictions. However, between 2022 and 2023, the pace of liberalization decelerated, with some sub-sectors showing no further reforms. By 2024, only one sub-sector recorded any liberalization measures, while the rest experienced either no progress or a re-tightening of restrictions.

This trend confirms a key finding from earlier pandemic recovery reports: the majority of liberalization observed in the post-pandemic era has been limited to the removal of COVID-19 measures. Beyond these rollbacks, few economies have introduced substantive new reforms to further open services markets, signalling a pause in structural liberalization efforts.

**Snapshot of the 2024 APEC Index**

A snapshot of the 2024 APEC Index illustrates ongoing disparities across sub-sectors and economies. The most restrictive sub-sectors in 2024 were rail freight transport, air transport, and legal services, each facing persistent and significant regulatory barriers (Figure 4). In contrast, sub-sectors such as sound recording, computer services, and motion pictures were among the least restrictive. However, substantial variation remains even within individual sectors. For example, the restrictiveness score for engineering services ranged widely from as low as 0.0450 in some economies to as high as 0.6434 in others. Telecommunication services also showed considerable divergence, with scores spanning from 0.1379 to 0.7110. These differences present valuable opportunities for experience-sharing and capacity-building among APEC members, especially in areas where best practices can support more open and predictable regulatory environments.

**Figure 4. Average APEC Index scores in 2024, by sub-sector**



Note: Sector-specific APEC Index scores may not be available for certain economies. These APEC aggregates do not include Brunei Darussalam; China; and Hong Kong, China due to data unavailability.  
 Source: APEC PSU compilation based on data from the APEC Index and the OECD.

The Index categorizes policy restrictions into five main areas: (1) restrictions on foreign entry; (2) restrictions to movement of people; (3) barriers to competition; (4) regulatory transparency; and (5) other discriminatory measures, such as the treatment of foreign suppliers regarding taxes and subsidies. Depending on the sub-sector, the dominant category of restrictions varies. As seen in Table 3, foreign entry restrictions emerged as the most significant contributor to restrictiveness in 21 of the 22 sub-sectors, accounting for between 35.96 to 79.51 percent of

total scores. The second-largest source of restrictiveness varied by sub-sector. For instance, restrictions to movement of people was the next most significant for computer services, road freight transport, and engineering. In courier, telecommunications, and air transport, competition barriers played a larger role, while in logistics customs brokerage and freight forwarding, regulatory transparency was the next leading concern.

**Table 3. Contribution to the average APEC Index scores in 2024, by sub-sector and policy category**

| Sub-sector                        | Share of category of restrictions on overall score |       |       |       |       |
|-----------------------------------|--|-------|-------|-------|-------|
|                                   | A  | B     | C     | D     | E     |
| Broadcasting                      | 79.51  | 4.32  | 5.52  | 4.50  | 6.16  |
| Motion pictures                   | 46.80  | 12.87 | 29.25 | 2.38  | 8.70  |
| Sound recording                   | 37.20  | 21.30 | 32.63 | 2.53  | 6.34  |
| Construction                      | 31.51  | 41.61 | 15.07 | 4.96  | 6.86  |
| Courier                           | 54.57  | 8.15  | 9.29  | 22.06 | 5.94  |
| Computer                          | 40.55  | 34.32 | 16.47 | 4.12  | 4.53  |
| Distribution                      | 56.29  | 13.07 | 9.56  | 14.48 | 6.60  |
| Commercial banking                | 64.58  | 10.23 | 6.55  | 15.31 | 3.34  |
| Insurance                         | 73.20  | 6.61  | 4.84  | 12.98 | 2.36  |
| Logistics cargo-handling          | 45.17  | 18.34 | 11.40 | 10.41 | 14.68 |
| Logistics customs brokerage       | 51.38  | 8.48  | 8.35  | 3.31  | 28.48 |
| Logistics freight forwarding      | 37.30  | 23.39 | 4.17  | 2.25  | 32.89 |
| Logistics storage and warehousing | 38.19  | 13.99 | 7.70  | 12.35 | 27.77 |
| Accounting                        | 47.55  | 31.80 | 10.11 | 2.29  | 8.26  |
| Architecture                      | 35.96  | 25.77 | 14.56 | 4.79  | 18.92 |
| Engineering                       | 41.34  | 38.33 | 9.59  | 3.58  | 7.16  |
| Legal services                    | 68.39  | 20.56 | 4.60  | 2.27  | 4.19  |
| Telecom                           | 43.01  | 7.39  | 9.00  | 38.93 | 1.67  |
| Air transport                     | 57.50  | 4.76  | 5.46  | 30.06 | 2.23  |
| Maritime transport                | 56.45  | 22.23 | 9.63  | 8.67  | 3.02  |
| Freight rail transport            | 52.62  | 11.75 | 5.70  | 25.58 | 4.34  |
| Road freight transport            | 43.11  | 16.55 | 14.65 | 11.60 | 14.09 |

A=Restrictions on foreign entry; B=Restrictions to movement of people; C=Other discriminatory measures; D=Barriers to competition; E=Regulatory transparency.

Note: Sector-specific APEC Index scores may not be available for certain economies. These APEC aggregates do not include Brunei Darussalam; China; and Hong Kong, China due to data unavailability.

Source: APEC PSU compilation based on data from the APEC Index and the OECD (accessed 28 February 2025).

A more detailed examination of sub-sector-specific restrictions is useful to reveal concrete areas where reforms could meaningfully improve the services trade environment in APEC. For example, in the maritime transport sub-sector, cabotage rights remain partially restricted for foreign-flagged ships in 12 economies (Table 4). Additionally, 11 economies apply screening mechanisms without explicitly excluding economic interests, while six do not recognize qualifications obtained abroad, and nine do not offer visa exemptions for crew members in transit.

In the construction sector, foreign ownership and access to land and real estate remain restricted in 13 economies (Table 5). Local presence is required for cross-border service supply in 10 economies. Furthermore, 13 economies do not have procurement regulations that explicitly prohibit discrimination against foreign suppliers, and 10 economies maintain policies that explicitly favour domestic suppliers in public procurement. Addressing these sub-sector-specific barriers—particularly those that are widespread—can serve as a practical starting point for APEC members seeking to create a more open, competitive, and integrated regional services market.

**Table 4. Selected key trade barriers in maritime transport in 2024, by policy category**

| Policy category               | Measure   | # of economies with this measure                     |
|-------------------------------|---|--|
| Restrictions on foreign entry | Foreign equity restrictions   | 3  |
|                               | There are limits to the proportion of shares that can be acquired by foreign investors    | 6  |
|                               | Screening exists without exclusion of economic interests                                  | 11   |
|                               | Restrictions to own and/or register vessels under national flags                          | 16   |
|                               | Foreign-flagged ships are partially excluded from cabotage                                | 12   |
|                               | Foreign-flagged ships are fully excluded from cabotage, without any exception             | 4  |
|                               | Cargo reservations or preferences   | 7  |
|                               | Bilateral/plurilateral cargo sharing agreements   | 8  |
|                               | Restrictions on the chartering of vessels   | 4  |
|                               | Statutory monopoly on port services   | 3  |
|                               | Restrictions to movement of people  | Lack of recognition for qualifications gained abroad |
| Other discriminatory measures | Foreign suppliers are treated less favorably regarding taxes and eligibility to subsidies | 6  |
|                               | Discriminatory port tariffs and other port-related fees                                   | 1  |
| Barriers to competition       | Obligation to use a local maritime port agent   | 4  |
|                               | Obligation to use local towage services   | 6  |
|                               | Shipping agreements are fully exempt from national competition laws                       | 3  |
|                               | Shipping agreements are partially exempt from national competition laws upon approval     | 6  |
|                               | Certain types of shipping agreements are partially exempt from national competition laws  | 3  |
|                               | National, state or provincial government control at least one major firm in the sector    | 8  |
|                               | Port concessions are granted with exclusive rights to operate the port infrastructure     | 6  |
|                               | Restrictions on bundling and/or tying of port related services                            | 3  |
| Regulatory transparency       | No obligation to inform applicants about the final decision                               | 3  |
|                               | Restrictions related to the duration and renewal of licenses                              | 5  |
|                               | No multiple entry visas for crew  | 4  |
|                               | No visa exemption for temporary entry/transit of crew                                     | 9  |
|                               | Limited duration of visa for crew   | 6  |

Note: These counts do not include Brunei Darussalam; China; Hong Kong, China; and Chinese Taipei due to data unavailability.

Source: APEC PSU compilations based on data from the APEC Index and the OECD (accessed 28 February 2025).



**Table 5. Selected key trade barriers in construction in 2024, by policy category**

| Policy category                    | Measure   | # of economies with this measure |
|------------------------------------|---|----------------------------------|
| Restrictions on foreign entry      | There are limits to the proportion of shares that can be acquired by foreign investors in publicly-controlled firms | 4                                |
|                                    | Screening explicitly considers economic interests   | 5                                |
|                                    | Screening exists without exclusion of economic interests  | 9                                |
|                                    | Acquisition and use of land and real estate by foreigners is restricted   | 13                               |
|                                    | Commercial presence is required in order to provide cross-border services   | 6                                |
|                                    | Local presence is required for cross-border supply  | 10                               |
|                                    | Discriminatory qualification requirements for building permits to undertake construction work                       | 1                                |
|                                    |   |                                  |
| Restrictions to movement of people | Nationality or citizenship required for construction engineers  | 1                                |
|                                    | Residency is required to practice   | 5                                |
|                                    | At least one engineer must be licensed for the issuance of construction permits                                     | 11                               |
|                                    | Foreign construction engineers are required to take a local examination   | 10                               |
| Other discriminatory measures      | Foreign suppliers are treated less favorably regarding taxes and eligibility to subsidies                           | 2                                |
|                                    | Public procurement: Explicit preferences for local suppliers  | 10                               |
|                                    | Public procurement: Procurement regulation does not explicitly prohibit discrimination of foreign suppliers         | 13                               |
|                                    | Public procurement: Contract award on the basis of non-objective/discriminatory criteria                            | 3                                |
|                                    | Public procurement: Discriminatory qualification processes and procedures   | 2                                |
|                                    | Access to the procurement market is conditional on reciprocity  | 4                                |
| Barriers to competition            | National, state or provincial government control at least one major firm in the sector                              | 7                                |
|                                    | Minimum capital requirements  | 6                                |
|                                    | Prices or fees are regulated  | 2                                |
|                                    | Other restrictions in barriers to competition   | 2                                |
| Regulatory transparency            | No maximum time set for the regulator for decision on applications  | 5                                |
|                                    | Restrictions related to the duration and renewal of licenses  | 4                                |

Note: These counts do not include Brunei Darussalam; China; Hong Kong, China; Papua New Guinea; and Chinese Taipei due to data unavailability.

Source: APEC PSU compilations based on data from the APEC Index and the OECD (accessed 28 February 2025).

### 3.1.2 Overarching target #2: Increasing the share of services exports from APEC economies in the total world services exports so that it exceeds the current share in world services exports by 2025

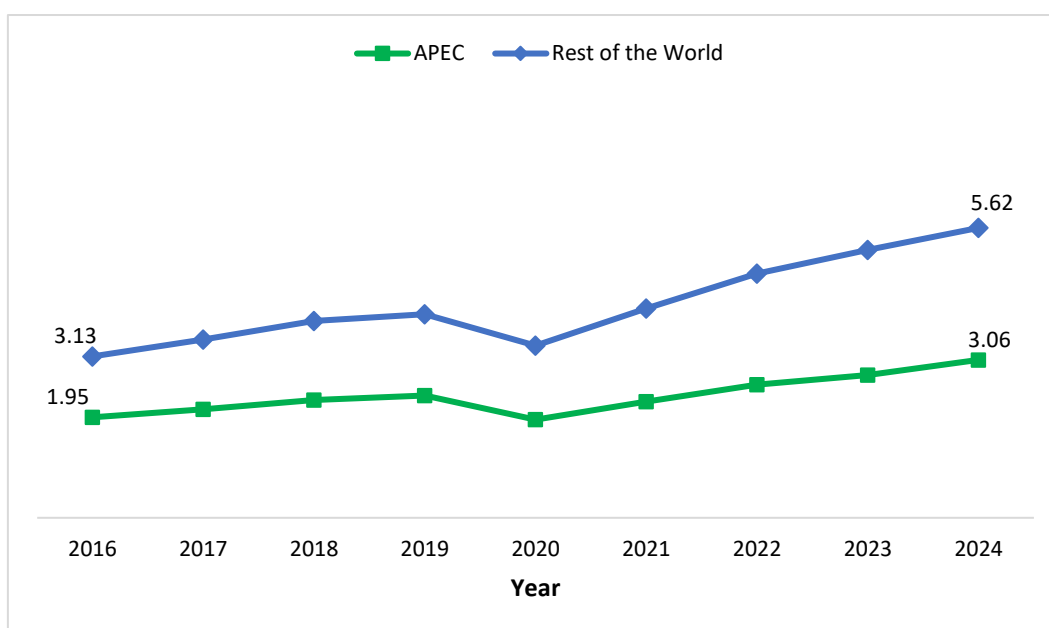
One of the key measures of services competitiveness is the share of the region or economy's services exports in global trade. A rising export share typically reflects a strong comparative advantage in services provision, underpinned by high levels of productivity, innovation, and efficiency. It also suggests that the region is successfully offering services that meet global demand in terms of quality, pricing, and reliability. In this context, increasing APEC's collective share of global services exports is a meaningful target as it captures both the region's capacity to compete in international markets and the effectiveness of its structural and policy reforms.

#### *Slower growth compared to the rest of the world*

According to WTO data, the value of commercial services exports from APEC economies rose from USD 1.95 trillion in 2016 to USD 3.06 trillion in 2024, marking a growth of 56.99 percent over the period (Figure 5).<sup>1</sup> The leading exporters within APEC in 2024 were the United States (USD 1.08 trillion); China (USD 444.38 billion); and Singapore (USD 395.34 billion)—a ranking that remains consistent with figures from 2019, the latest year used in the ASCR Mid-Term Review Report (Wirjo and Carranceja 2021).

However, the pace of growth in APEC's services exports has not kept up with the rest of the world. During the same period, the rest of the world expanded its commercial services exports by 79.59 percent—from USD 3.13 trillion in 2016 to USD 5.62 trillion in 2024. This faster growth outside the APEC region has resulted in a relative decline in APEC's share of global services exports.

Figure 5. Export of commercial services by APEC and the rest of the world in 2016–2024 (Trillion USD)



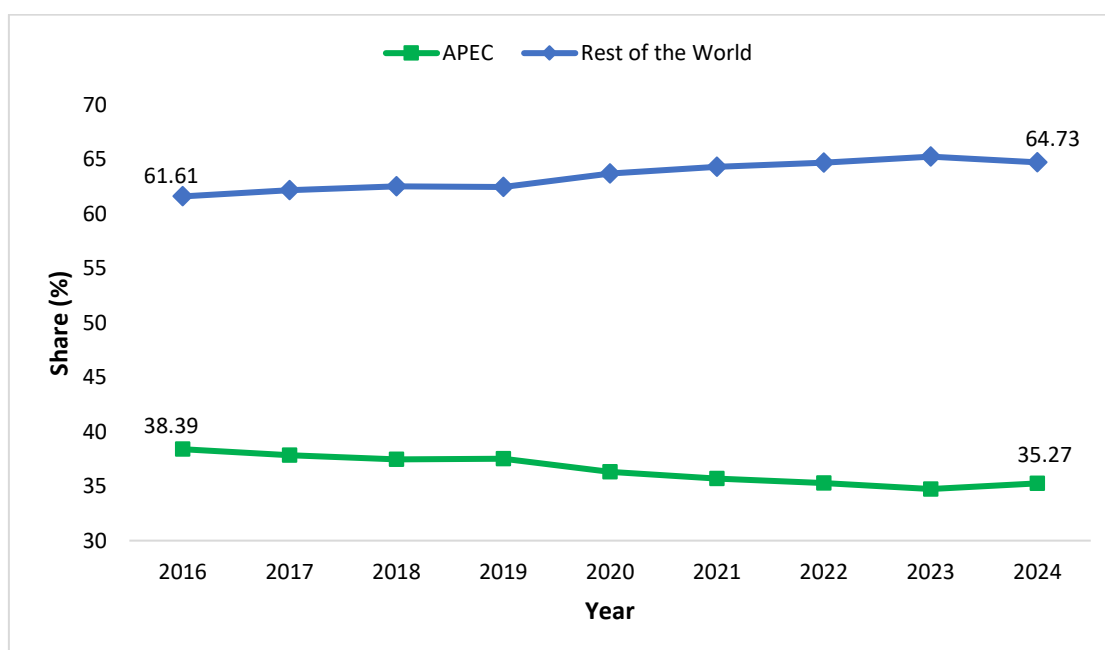
Source: APEC PSU calculations using data from the WTO (accessed 24 April 2025).

<sup>1</sup> Trade in commercial services—including both exports and imports—is measured entirely based on Balance of Payments (BOP) statistics, which capture only services trade through Modes 1 (cross-border supply), 2 (consumption abroad), and 4 (presence of natural persons) (WTO, n.d.).

### ***Declining global share despite absolute growth***

Despite annual increases in export value (except in 2020 due to pandemic-related disruptions), APEC's share of total world services exports has declined from 38.39 percent in 2016 to 35.27 percent in 2024 (Figure 6). Conversely, the rest of the world has increased its share from 61.61 percent to 64.73 percent over the same period. These trends highlight the need for APEC economies to accelerate efforts to boost their international competitiveness in services and to achieve this overarching target of increasing their collective share in global exports by 2025.

**Figure 6. Share of world commercial services export in APEC and the rest of the world (percent)**



Source: APEC PSU calculations using data from the WTO (accessed 24 April 2025).

### **3.1.3 Overarching target #3: Increasing trade in services in the APEC region so that by 2025, the compound average annual growth rate exceeds the historic average of 6.8 percent and the share of value-added of the services sector in the total GDP of the APEC region exceeds the global average level by 2025**

Trade in commercial services and the contribution of services to GDP can also be used to reflect the competitiveness and economic weight of the services sector across APEC economies. Trends in these indicators offer insights into how the region has performed over time, including during the disruptions caused by the COVID-19 pandemic.

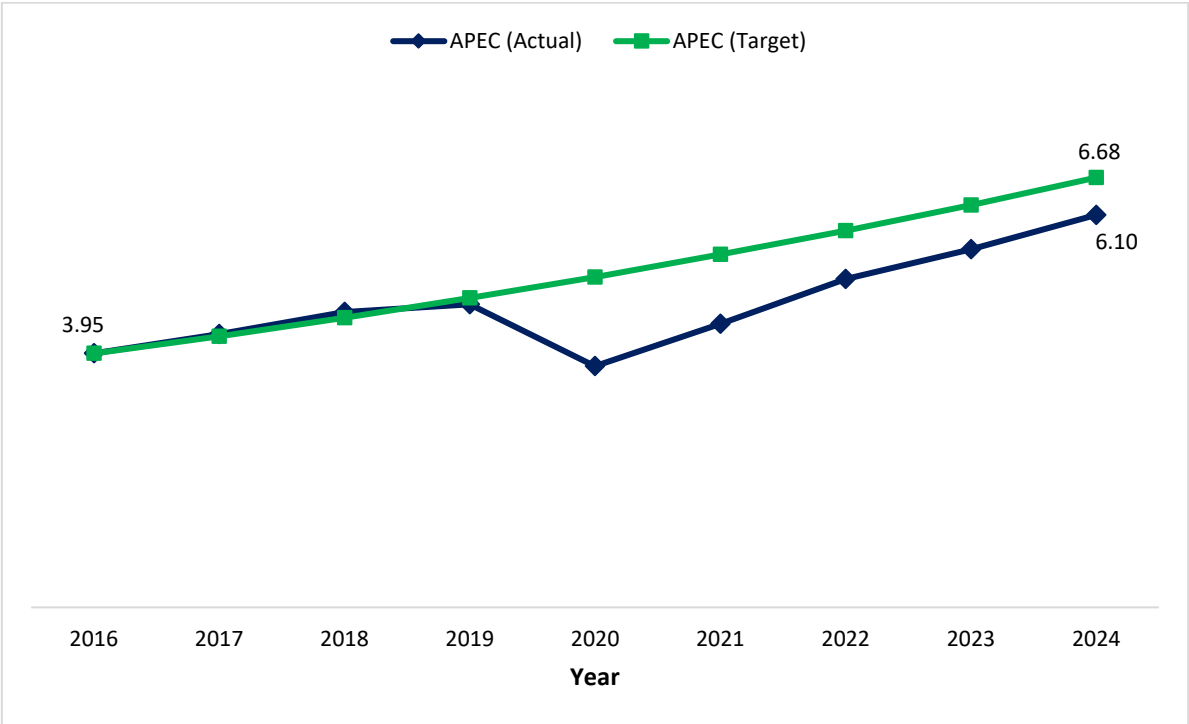
#### ***Trade in commercial services: Recovery signals potential, but pandemic held back progress***

According to data from the WTO, APEC's trade in commercial services rose steadily from USD 3.95 trillion in 2016 to USD 4.71 trillion in 2019 (Figure 7). However, the outbreak of the COVID-19 pandemic in 2020 triggered a sharp contraction in global trade, with APEC's services trade falling to USD 3.75 trillion as member economies implemented containment and mobility restrictions. Despite this setback, trade rebounded strongly in subsequent years, reaching USD 6.10 trillion by 2024.

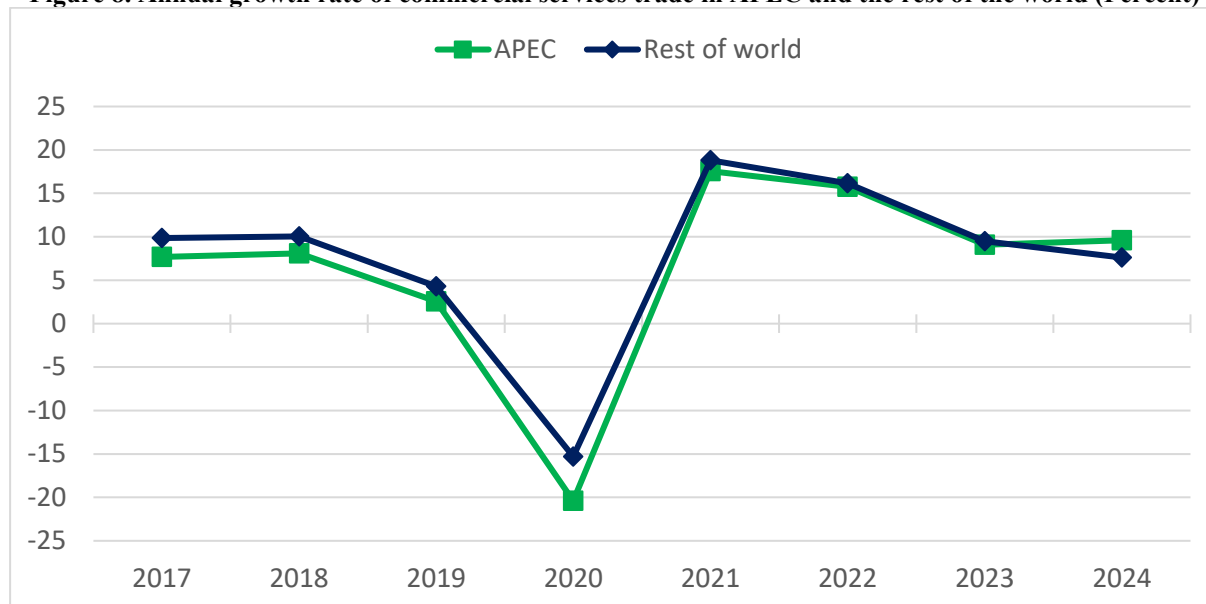
While this recovery is notable, it still falls short of the region’s long-term potential. In compound average annual growth rate (CAGR) terms, APEC’s commercial services trade grew by 5.59 percent between 2016 and 2024. This is below the historical average CAGR of 6.8 percent, which served as a benchmark when the ASCR was launched in 2016. Had the pandemic not occurred and assuming continued growth at the 6.8 percent rate, APEC’s trade in commercial services would have been expected to reach USD 6.68 trillion by 2024—approximately USD 580.34 billion higher than the actual figure.

An analysis of annual growth trends during this period shows a mixed picture. While growth dipped in 2019 and plummeted in 2020 due to the pandemic, APEC rebounded strongly in the years that followed (Figure 8). Services trade grew by an impressive 17.55 percent in 2021 and 15.74 percent in 2022, before moderating to 9.10 and 9.62 percent in 2023 and 2024, respectively. These figures suggest that, while the region remains on a recovery path, growth volatility and the pandemic’s lingering effects continue to weigh on its overall performance.

Figure 7. APEC trade in commercial services, by actual and target values (Trillion USD)



Source: APEC PSU calculations using data from the WTO (accessed 24 April 2025).

**Figure 8. Annual growth rate of commercial services trade in APEC and the rest of the world (Percent)**

Source: APEC PSU calculations using data from the WTO (accessed 24 April 2025).

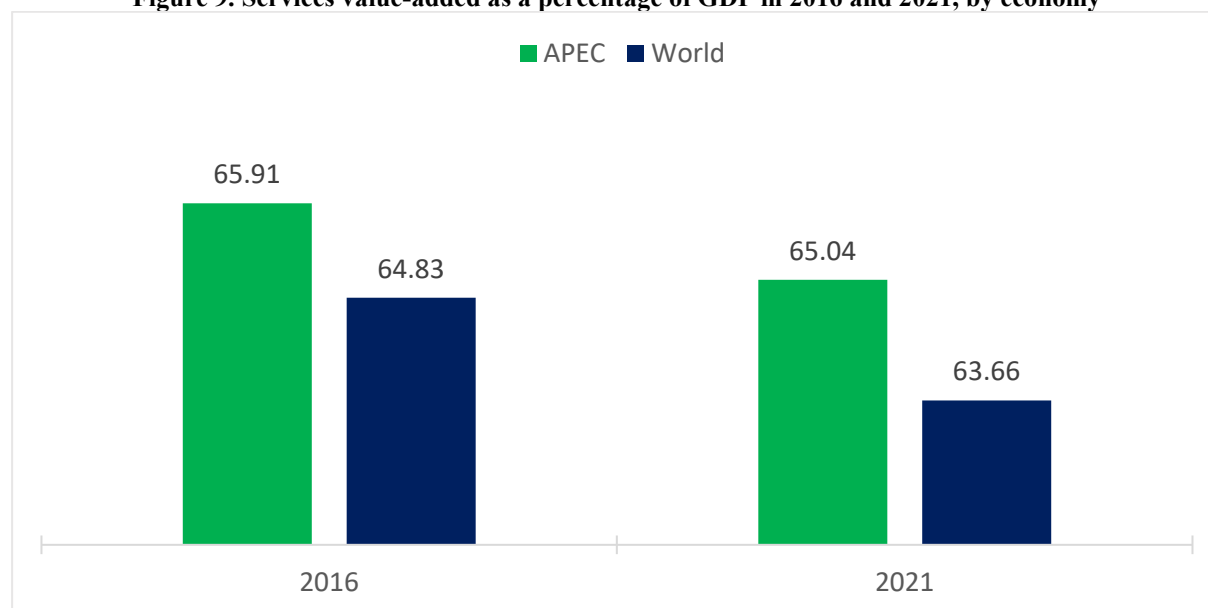
### ***Comparative performance: APEC vs. the rest of the world***

Comparing APEC's performance to that of the rest of the world provides further context. Between 2016 and 2024, the CAGR for global commercial services trade (excluding APEC) stood at 7.15 percent. This figure surpasses both APEC's 5.59 percent growth during the same period and the 6.8 percent benchmark set in the ASCR. Notably, the annual growth rates of the rest of the world have consistently outpaced those of APEC in nearly every year since 2017 (Figure 8). Even in 2020, the global decline in commercial services trade was less severe than in APEC: the rest of the world saw a contraction of 15.30 percent, compared to a 20.39 percent drop in APEC.

These trends suggest that while APEC remains a major player in global services trade, it has not kept pace with global growth rates in recent years. The region's relatively sharper decline during the pandemic and slower post-pandemic rebound compared to the rest of the world (with the exception of 2024) highlight areas where greater policy support or structural reforms may be needed to strengthen long-term services competitiveness.

### ***Services value-added in GDP: APEC maintains a lead but faces a downward drift***

Beyond trade, the share of services value-added in GDP is another critical indicator of the economic role services play within APEC economies. In 2021, APEC's average share stood at 65.04 percent, outperforming the global average of 63.66 percent (Figure 9). This reinforces the region's position as one where services play a central role in economic output and employment.

**Figure 9. Services value-added as a percentage of GDP in 2016 and 2021, by economy**

Note: For the 2021 APEC average, 2020 data was used for Canada.

Source: APEC PSU calculations using data from the World Bank and Chinese Taipei's Directorate General of Budget, Accounting and Statistics (DGBAS) (accessed 9 February 2025).

This trend was also observed in 2016, when APEC's services value-added share reached 65.91 percent, compared to 64.83 percent globally. However, despite continuing to outperform the global average, APEC's own share declined slightly between 2016 and 2021. The downward drift in the services share may reflect broader structural shifts, uneven recovery dynamics across sectors, or a slower transition toward high-value services in some economies.

Taken together, these findings suggest that while APEC remains a services-driven region, sustaining and enhancing competitiveness in services trade and production will require renewed momentum in reform, investment, and policy coordination—particularly in a post-pandemic world that increasingly depends on resilient, efficient, and digitally-enabled services sectors.

### **3.2 ASSESSMENT OF APEC-WIDE AND INDIVIDUAL ECONOMY ACTIONS UNDER THE ASCR**

Boosting services competitiveness in the APEC region requires a comprehensive and integrated approach. The ASCR outlines a wide range of enabling factors necessary to unlock the potential of services. These include implementing good regulatory practices (e.g., transparency, coordination in rulemaking, and public consultation), promoting fair competition, undertaking structural reforms, fostering digital and financial inclusion, supporting cross-border labour mobility, and aligning workforce skills development with industry needs.

Recognizing that these enabling conditions cannot be achieved through domestic efforts alone, the ASCR emphasizes a dual-track strategy: regional cooperation through APEC-wide actions and individual economy actions under structural reform agendas such as RAASR and its successor, EAASR. Regional cooperation has been operationalized through 19 APEC-wide actions, each led by one or more of 15 designated fora, while individual actions are encouraged through the inclusion of services-relevant initiatives in the EAASR IAPs. This section provides a consolidated overview of the progress made and identifies key areas for further attention.

More detailed descriptions of each APEC-wide action can be found in Appendix B, while Appendix C lists IAP initiatives identified by economies as benefiting the services sector.

### 3.2.1 Progress in advancing APEC-wide actions

For the purpose of this Final Review, the PSU primarily referred to the versions of the APEC-wide actions matrix updated annually between 2023 and 2025, supplemented by findings from the ASCR Mid-Term Review, the APEC PDB, and individual project reports. Analysis of these matrices revealed that updates on outputs, targets, and activities were provided for 13 out of 19 APEC-wide actions in the 2024 version, and for eight actions in the 2023 version. Updates were also provided for six actions in the 2025 version. Notably, one action—APEC-wide action #5 on structural reform in the services sector—had its title updated to reflect EAASR as the ongoing structural reform agenda in APEC, along with revised outputs and targets. Overall, several outputs or targets have been completed across various APEC-wide actions, including those on domestic regulation principles (**Action #4**), education cooperation (**Action #8**), and services data and statistics (**Action #13**).

In general, APEC fora and economies have carried out a wide array of activities to support implementation, including workshops, symposia, reports/policy briefs, and online tools. The matrix also captured new and emerging priorities that were not originally foreseen, such as services technical standards, marine debris-related services, and the growing relevance of artificial intelligence (AI). This reflects the flexibility of the ASCR framework, which provides strategic direction through overarching targets while remaining adaptable to the evolving priorities and interests of APEC members.

#### *Various APEC-wide actions can complement one another to bring the competitiveness of the services sector to greater heights*

The APEC-wide actions reflect a multi-dimensional, integrated effort to improve the competitiveness of services sectors across the region. These actions encompass both horizontal reforms—targeting regulatory quality, structural bottlenecks, and infrastructure—as well as vertical, sector-specific cooperation in areas such as finance, manufacturing, and agriculture/food security. Together, they form a cohesive framework that enables economies to build a modern, responsive, and inclusive services sector.

What is particularly noteworthy is the complementarity between cross-cutting and sector-specific actions, which, when implemented synergistically, have the potential to catalyse transformative outcomes for the services sector. For example, actions that promote good regulatory practices (**Action #4**), structural reforms (**Action #5**), and digital integration (**Actions #9 and #18**) create a foundation that directly supports sectoral efforts, such as enhancing the provision of financial services (**Action #10**), strengthening the transport sector (**Action #11**), improving the education sector (**Action #8**), promoting sustainable and inclusive tourism (**Action #12**) and enhancing food security through better service linkages (**Action #14**).

The facilitation of business travel (**Action #3**) also underpins sectoral development by easing cross-border movement of professionals (**Action #2**), enabling knowledge exchange, and supporting foreign investment. Likewise, initiatives such as the Manufacturing-Related Services Action Plan (MSAP) (**Action #7**) could benefit from broader regulatory transparency and competition-enhancing reforms. Moreover, mutual recognition efforts in education (**Action**

**#8)** and the development of interoperable data governance frameworks (**Action #9**) ensure that the services sector in the region is inclusive and future-ready.

Monitoring tools, such as the development of the APEC Index (**Action #13**), and various capacity-building activities are essential for guiding reforms. These tools provide a common evidence base for action, enabling economies to identify gaps, learn from peers, and prioritize reform in areas that have high potential for services growth.

Further, cross-fora collaboration—for instance, between the Economic Committee (EC) and GOS—has enabled broader alignment of policies. This alignment can be critical to creating enabling environments that foster innovation, enhance human capital development, and remove restrictions that inhibit regional services integration, just to name a few. A coherent and integrated approach to services policy implementation ensures that capacity-building, policy dialogue, and reform are mutually reinforcing across thematic and sectoral domains.

### ***Achievements to date resulting from the implementation of these APEC-wide actions***

Across the suite of APEC-wide actions, economies have made good progress, some of which are detailed below.

**Integration of services into global value chains (GVCs):** Efforts have been made to highlight the enabling role of services in GVCs (**Action #1**), with APEC promoting micro, small, and medium-sized enterprises (MSME) participation and inclusive growth through policy dialogues and capacity-building activities.

**Regulatory and structural reform:** The endorsement of the Non-Binding Principles for Domestic Regulation of the Services Sector (**Action #4**) has guided improvements in licensing procedures, and qualification recognition across APEC. Workshops and commissioned research have laid the groundwork for consistent adoption of these principles. A more recent strand of work has focused on technical standards—an underexplored area that holds immense potential to reduce market fragmentation and promote innovation.

Complementing these efforts, RAASR and EAASR (**Action #5**) has enabled economies to align domestic reform plans with regional services goals. For example, the GOS-EC Joint Dialogues in 2022 and 2023 emphasized competitiveness in digital services and AI-impacted sectors, reinforcing the critical need for structural reforms in regulation, governance, and market access.

**Support for innovation:** Activities under **Action #19** have supported entrepreneurship, digital transformation, and inclusive innovation. Specifically, they have promoted women's participation in science, technology, engineering, and mathematics (STEM), strengthened academia-industry linkages, and showcased emerging technologies with potential applications in services.

**Sectoral integration:** Under **Action #10**, the Asia Region Funds Passport (ARFP) has emerged as one mechanism to enhance regional financial integration, with five economies implementing the framework and the first fund registered in 2022. Similarly, under **Action #8**, initiatives on micro-credentials, digital education, and qualification frameworks have strengthened the portability of education outcomes and labour market alignment.



In the food system (**Action #14**), the Food Security Roadmap Towards 2030 and the Policy Partnership on Food Security (PPFS)-endorsed Principles for Achieving Food Security Through Sustainable Agri-food Systems have led to more regional cooperation. Multiple case studies, virtual toolkits, and projects focused on food loss and waste are equipping economies with actionable tools to integrate services into agricultural productivity and sustainability.

Efforts in environmental services (**Action #6**) have focused on improving regulatory clarity and coherence, with progress made through the Environmental Services Action Plan (ESAP) Mid-Term and Final Reviews. Environmental services are now better defined, with new tools such as the Reference List and the corresponding Model Schedule guiding liberalization and cooperation.

In tourism (**Action #12**), multiple projects have been rolled out to address issues from ecotourism and gastronomy to digital tools and resilience. MSMEs' role in sustainable tourism is also emphasized, with projects supporting their formalization, skill development, and environmental integration.

On the energy front (**Action #15**), efforts have been made to lower the carbon intensity of energy supply, boosting energy access, and promoting resilient grids—key enablers of uninterrupted digital and physical services delivery.

Under **Action #16**, APEC has explored the intersection of investment regimes and services competitiveness, identifying how next-generation trade and investment issues (NGETIs) affect commercial presence (Mode 3). These insights have informed workshops, investment policy reviews, and transparency-enhancing tools, such as the APEC Investment Commitment Handbook.

**Digital transformation and ICT expansion:** APEC's digital economy work has continued under **Actions #9 and #18**, with strong contributions to capacity building in 5G networks, smart cities, open data, and cybersecurity. The Cross-Border Privacy Rules (CBPR) and Privacy Recognition for Processors (PRP) have seen steady growth in firm-level certification. From 2016 to 2023, internet usage increased by over 22.24 percentage points, and mobile broadband subscriptions surged—marking tangible improvements in connectivity.

**Mobility and inclusion initiatives:** Mutual recognition arrangements under **Action #2** and the ABTC under **Action #3** have facilitated short-term business mobility, including of professionals in the region. The digital version of the ABTC, introduced in 2021, includes security features that enhance usability and integrity. Inclusion of women and MSMEs has also been actively promoted through **Action #17** and across various sectoral fora, supported by the La Serena Roadmap for Women and Inclusive Growth and targeted projects.

### ***Gaps and areas of improvement for the future APEC services agenda***

While the breadth of APEC-wide actions is commendable, implementation gaps remain that could undermine long-term progress, as summarized below.

**Fragmentation in sub-sectoral reform:** While distribution and freight forwarding services have seen liberalization, sub-sectors such as commercial banking, and computer services have become more restrictive. Sub-sectors such as maritime transport and rail freight, continue to face barriers like cabotage laws, visa limitations, and opaque licensing. In others such as legal

and construction, foreign ownership limits, local presence requirements, and discriminatory procurement practices persist.

**Digital trade hurdles:** Participation in privacy trust frameworks remains limited to a subset of economies and more can be done to facilitate cross-border digital services, such as greater harmonization/interoperability in AI, cybersecurity, and e-commerce rules.

**Post-pandemic reform fatigue:** The rollback of emergency restrictions post-COVID-19 created a brief liberalization window for monitored sectors, particularly transport (including logistics-related services) and other business services, but few economies translated this into additional reforms.

**Measurement challenges:** While the APEC Index provides essential benchmarking, it does not yet cover all APEC economies nor does it capture the policy environment in emerging services sub-sectors, such as environmental services and other business services beyond professional services. More broadly, there is a need for expanded metrics, longitudinal studies, and more granular data collection, such as on MSMEs and women. Without more granular, timely, and comparable data, it is difficult to assess policy impacts or design targeted interventions that ensure broader participation and equitable benefits.

## **Conclusion**

APEC has made steady progress in advancing the implementation of APEC-wide actions, with updates reported for many actions and several outputs or targets achieved. These include key deliverables, such as the endorsement of the Non-Binding Principles on Services Domestic Regulation and the development of the APEC Index. Other examples include the establishment of new cooperation mechanisms in education and the environment. Cross-cutting and sectoral actions have strong complementarity, as structural reforms and regulatory transparency underpin sector-specific improvements. The flexibility of the ASCR framework has allowed APEC to accommodate evolving themes such as AI, services technical standards, and marine debris, demonstrating its adaptability to changing regional priorities.

Nevertheless, several gaps remain that must be addressed to sustain reform momentum. Liberalization efforts have been modest and uneven across economies and sectors, with certain areas experiencing increased restrictiveness over time. Reforms aimed at facilitating trade in digital services also require further strengthening. In addition, participation in regional trust frameworks remain limited.

Looking ahead, APEC's future services agenda should focus on deepening reforms, expanding participation in regional initiatives, and improving measurement tools—particularly in underrepresented or fast-evolving services areas. Renewed political commitment, stronger cross-fora collaboration, and continued investment in capacity building will be critical to ensuring that services remain a driver of inclusive and sustainable growth in the region.

### **3.2.2 Progress in advancing individual economy actions<sup>2</sup>**

Recognizing the importance of the services sector, APEC Structural Reform Ministers, during their 2015 meeting, encouraged economies to implement unilateral reforms aimed at enhancing the services sector as part of their structural reform plans under RAASR. Meanwhile, EAASR

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<sup>2</sup> This sub-section draws on examples from the EAASR IAP submissions, which have been provided by 18 out of 21 APEC economies.

continues to explicitly encourage members to propose reform actions targeting the services sector.

During the EAASR Mid-Term Review, the analysis of the IAP Mid-Term Review template submissions revealed that some economies have included key initiatives in their IAPs that feature the services sector in their titles or descriptions. However, the majority of initiatives do not specifically highlight the services sector. This observation led to a recommendation in the EAASR Mid-Term Review Outcomes and Recommendations document, which was welcomed by Ministers. This recommendation encourages members to nominate reform actions in the services sector in their IAPs, to explicitly mention the services sector in their titles or descriptions, and to explain how their initiatives benefit the services sector.

Meanwhile, the IAP Final Review template includes a question asking economies to indicate whether a specific key initiative benefits the services sector and, if it does, to elaborate on how it does so. Out of the 116 key initiatives where updates were provided, 87 indicated that they benefit the services sector. The sub-sections below discuss the positive impact of these key initiatives on the services sector across several themes.

### ***Facilitating business conduct***

Many economies have implemented reforms to streamline business operations, which have also benefitted the services sector. Thailand's "Driving e-Services for Doing Business Easily" initiative stands out by enhancing regulations, lowering business costs, and fostering sector growth. Hong Kong, China's development of the Trade Single Window facilitates the trading community to lodge Business-to-Government trade documents for trade declaration and cargo clearance. Meanwhile, China's reforms have streamlined approval processes and reduced operational uncertainty in key cities such as Beijing, Shanghai, Chongqing, Hangzhou, Guangzhou, and Shenzhen.

Russia's "Transformation of the Business Climate (TDC)" mechanism, launched in 2019, has notably improved the regulatory environment, simplifying procedures such as justifying a zero percent value-added tax (VAT) rate for international transportation and freight forwarding services. In Indonesia, the introduction of risk-based business licensing through Law No. 11 of 2020 on Job Creation, along with the Online Single Submission Risk-Based Assessment system, has led to a significant increase in new business registrations. Malaysia's MyMudah initiative and the Bureaucratic Reform (Reformasi Kerenah Birokrasi – RKB) program have enhanced the efficiency of public service delivery, particularly in facilitating business operations.

Additionally, several economies are utilizing regulatory impact assessments (RIAs) to identify and eliminate burdensome regulations affecting businesses, including those in the services sector. Peru's reforms aim to improve regulatory quality across all sectors, thus benefiting the services sector as well. Similarly, Russia's development of RIA tools is designed to create favorable conditions for businesses, including MSMEs, which are often part of the services sector.

### ***Promoting competition***

The services sector must adapt to the evolving economic landscape. Therefore, initiatives that foster competition within this sector are essential. Recognizing the rise of fintech as a new

business model, Chile's Fintech and Open Banking Law seeks to enhance competition in financial services by allowing non-traditional entities to register and operate as financial service providers. Similarly, the National Effort for the Harmonization of Efficient Measures of Inter-Related Agencies (NEHEMIA) program in the Philippines has streamlined government processes in the telecommunications sector, resulting in a significant increase in approved telecommunications company permits.

In Malaysia, local sharing economy platforms are being accredited with international industry standards and certifications to enhance their operational efficiency and global competitiveness. Russia's National Competition Development Plan 2021–2025 aims to create favorable conditions for competition among economic entities. Meanwhile, New Zealand's Consumer Data Right promotes competition in the services sector by enabling greater access to data for trusted third parties. New Zealanders will have greater ownership of the data that businesses hold about them, and it will be easier to shop around for the best deals and compare providers. It also enables trusted parties to initiate payments on behalf of customers.

### ***Enhancing the digital ecosystem***

The increasing prevalence of digitally deliverable services (DDS) requires a robust digital ecosystem to ensure their accessibility and delivery. Australia's National Anti-Scam Centre and Digital ID initiative are key components of the government's broader strategy to build trust in the digital ecosystem, potentially boosting the demand for and provision of digital services. Similarly, the Philippines' National ID System supports the services sector by providing valid identification for all registrants and offering authentication services within the digital ecosystem. The same can be said of BruneiID, a flagship initiative driving Brunei Darussalam's digital transformation that could be used to access both public and private sector services.

Japan's comprehensive reforms to support the digital economy aims to also benefit the services sector, especially those focused on DDS. Indonesia's National Strategy for Digital Economy Development 2030 outlines a detailed agenda based on six strategic pillars: infrastructure; human resources; business climate and cybersecurity; research and innovation; funding and investment; and policies and regulations. Since its launch in February 2021, the Malaysia Digital Economy Blueprint (MDEB) has attracted substantial investments in areas critical to the digital economy, such as the expansion of 5G networks and increased data center capacity, all of which enhance the delivery and accessibility of DDS.

### ***Developing and leveraging human capital***

Developing and leveraging human capital is crucial for expanding the labour pool and enhancing productivity, which in turn benefits firms. Australia has introduced several initiatives, such as the Next Generation AI Program, AI Adopt Program, Industry Growth Program and the Data and Digital Government Strategy, to foster a technology-driven economy and workforce. Japan's ongoing implementation of a five-year policy package to invest in human capital, including reskilling workers in growth areas like digitalization, aims to expand the labour pool and boost productivity across various sectors, including services. In Papua New Guinea, the Higher and Technical Education Reform Act (HTERA) 2020 has driven key reforms in its higher education sector, ensuring that it better meets societal needs.

Hong Kong, China is nurturing fintech talent, including students and practitioners, through programs like the Industry Project Masters Network (IPMN) Scheme, Fintech Career

Accelerator Scheme (FCAS), and Enhanced Competency Framework (ECF) in Fintech, to meet the growing demand for skilled fintech professionals. Additionally, Hong Kong, China has special employment programmes to increase the employability of targeted groups, including ethnic minority jobseekers, thereby expanding the labour pool and benefiting various sectors. Brunei Darussalam has introduced or expanded several training programmes such as iSkills Programme and Dual TVET Program to better align workforce capabilities with evolving industry needs.

Canada's Early Learning and Child Care (ELCC) program supports increased workforce participation by mothers, enabling more individuals to contribute their expertise across various sectors. Singapore's Workplace Fairness Act, Tripartite Guidelines on Fair Employment Practices, and Tripartite Guidelines on Flexible Work Arrangements prevent workplace discrimination and empower women to achieve their full productive potential and participate in the workforce, benefiting multiple sectors. Korea's work-life balance action plan aims to create more equal employment opportunities for women and supports the work-life balance of working women.

### ***Fostering innovation***

Firms in the services sector can benefit from government support aimed at fostering innovation. Australia's Powering Australia initiative and other similar government programs are designed to promote the adoption of green technology and innovation across various industries, including services. The Philippines' Department of Trade and Industry (DTI) oversees all programs, including the industrial strategy, i<sup>3</sup>S, under the Tatak Pinoy (Proudly Filipino) Act, which aims to boost the productivity and competitiveness of Philippine industries on a global scale.

Chinese Taipei's Precision Health Initiative encourages the use of digital tools in the healthcare services sector to enhance disease prediction, prevention, diagnosis, and treatment. In Hong Kong, China, the promotion of legal technologies has increased awareness among legal professionals and encouraged greater adoption of these technologies within the legal services sub-sector.

Additionally, economies have key initiatives to support broader innovation. Singapore's Research, Innovation and Enterprise 2025 Plan aims to strengthen its position as a Global-Asia node for technology, innovation and enterprise while addressing domestic challenges and creating economic opportunities. New Zealand's reform of its research, science, and innovation system is designed to create a productive, efficient, and strategically aligned science sector that contributes to economic, social, and environmental well-being. China's 'Three-Year Action Plan for Scientific and Technological System Reform' aims, among other goals, to improve the management of research funding and streamline procedures for major projects.

### ***Investing in infrastructure***

Investing in infrastructure can greatly enhance the services sector. Australia's federal government commitment of AUD 125 billion to roads and railways through a 10-year infrastructure investment pipeline will improve access to and delivery of services. Canada's Connectivity Strategy, which aims to provide high-speed internet to all Canadians by 2030, will facilitate businesses in reaching their markets and enable consumers to access services more easily. Similarly, Malaysia's initiative to ensure equitable internet access will help bridge the digital divide, making various services more accessible to a broader population. China is

investing in forward-looking infrastructure such as 5G, with over 4.5 million 5G base stations deployed by the end of 2024.

### ***Expanding market access***

Supporting the expansion of existing agreements such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Regional Comprehensive Economic Partnership (RCEP) to include more economies would enhance market access for firms in the services sector. It also enables domestic firms to access more competitive services. Korea has arranged the largest-ever export financing of KRW 66 trillion to boost services exports. Moreover, an export voucher track specifically designed for tech services companies has been established to provide targeted assistance in expanding their global reach.

### ***Improving access to government services***

Economies have launched initiatives to improve access to government services, benefiting all sectors. Australia's Data and Digital Government Strategy aims to deliver simple, secure and connected public service delivery to individuals and businesses through advanced data and digital capabilities. Australia's Strategy commits to the safe and responsible adoption of emerging technologies, including AI. Thailand's Business Development Services (BDS) provide comprehensive consultations to address the diverse needs of MSMEs, covering areas such as productivity enhancement, tax and accounting, and market and loan services. Meanwhile, Chinese Taipei's "Join" platform facilitates the implementation of domestic services regulations by enhancing transparency and conducting public consultations on policies related to the services sector. Korea has formulated a comprehensive mechanism to help address welfare blind spots, including for people who can contribute positively to economic growth.

### ***Conclusion***

In response to a recommendation from the EAASR mid-term review, the IAP final review template included a question asking economies to indicate whether a specific key initiative benefits the services sector and to elaborate on how it does so. Of the 116 key initiatives with updates, 87 were identified as benefitting the services sector. These initiatives span a broad range of areas, including facilitating business conduct, promoting competition, enhancing the digital ecosystem, developing human capital, fostering innovation, investing in infrastructure, expanding market access, and improving access to government services.

The inclusion of this question has encouraged economies to consider more deliberately the impact of their initiatives on the services sector. This is reflected in the detailed responses submitted by some economies, as highlighted in the previous section. It may also suggest that ongoing collaboration between EC and GOS is beginning to yield results.

However, responses varied in depth—some offered limited elaborations, while others did not address the question at all. While awareness of the services dimension appears to be growing, further efforts are needed to deepen understanding and strengthen the alignment of structural reforms with services sector development. One approach is to deliberately include indicators specific to the services sector. For example, if the primary objective of a programme is to develop human capital in certain skillsets, a possible indicator could be the number of participants who completed the programme and subsequently worked in the services sector. If the objective of an initiative is to gather public feedback on policies, an indicator could be the

number of services-related policies that have incorporated this feedback. Economies could also consider organizing more information sharing sessions where these key initiatives are discussed from the perspective of the services sector. Finally, economies might consider capacity building activities focused on developing key initiatives that target the services sector.

More broadly, general findings from reviewing APEC economies' submissions—beyond just those related to services—revealed several general observations that offer useful learning points for economies as they design or refine key initiatives. These include the importance of identifying baselines or targets against which the latest data can be compared, staying adaptable to evolving challenges, using evidence to guide policy adjustments, engaging stakeholders actively, taking a holistic approach to reform, putting in place clear implementation frameworks, and carefully balancing diverse policy objectives.

## 4. WAYS FORWARD

### 4.1 TAKING STOCK OF PROGRESS ON THE ASCR MID-TERM REVIEW RECOMMENDATIONS

When the PSU supported GOS in conducting the ASCR Mid-Term Review, eight recommendations were put forward to guide the next phase of APEC's services agenda through 2025. With the ASCR concluding in 2025, it is timely to draw on the various input sources discussed earlier to assess progress in implementing these recommendations:

#### 4.1.1 Accelerate the implementation of specific APEC-wide actions

This recommendation has seen partial progress but also reveals several gaps that must be addressed to realize its full impact. Based on updates provided in the ASCR matrix of actions, several APEC-wide actions had completed outputs or targets. Notable achievements include the adoption of the Non-Binding Principles on Domestic Services Regulation (**Action #4**), progress on education cooperation (**Action #8**), and improved services data collection (**Action #13**). Fora have also undertaken numerous activities, such as workshops and policy dialogues, as well as produced different outputs, such as toolkits and reports to drive progress.

Despite these advancements, the implementation pace remains uneven and modest. Updates have not been provided (or to a lesser extent) for several APEC-wide actions, and the overall liberalization of services trade across the region as measured by the APEC Index has been limited. Digital services, in particular, have faced increasing regulatory barriers. Additionally, the uptake of APEC frameworks remains limited to a few economies.

#### 4.1.2 Update set targets and outputs in each APEC-wide action and clearly associate activities with them

This recommendation has seen some progress, though implementation remains uneven across APEC-wide actions. As noted earlier, updates to targets, outputs, and/or activities were provided for 13 out of 19 APEC-wide actions in the 2024 matrix of actions and for eight actions in the 2023 version. Notably, APEC-wide action #5 on structural reform underwent a title revision and introduced new targets and outputs, demonstrating how actions can evolve to remain relevant and responsive to emerging needs.

Despite these achievements, challenges persist. In the 2025 matrix of actions, only six actions were updated. Moreover, many actions still lack clearly defined or updated targets, making it difficult to systematically track progress and outcomes. Some activities reported by fora are also not explicitly linked to specific targets or outputs, creating ambiguity in assessing effectiveness. Additionally, while new activities on emerging issues (e.g., services technical standards, AI, marine debris-related services) indicate the ASCR's adaptability, they are not always formally incorporated into updated targets or outputs.

#### 4.1.3 Respond to COVID-19 decisively and concretely

This recommendation saw varying level of implementation across APEC economies, with some initial momentum that gradually waned over time as the pandemic ended. Achievements



include enacting measures to protect health and life during the COVID-19 pandemic, followed by the removal of measures as the pandemic was declared over. Specifically on the removal of the temporary COVID-19 measures, some of these liberalizing moves were captured in the APEC Index. Additionally, workshops and initiatives under various APEC-wide actions explored post-pandemic recovery strategies. Specific projects addressed pandemic-driven challenges in services sectors such as education and tourism.

However, gaps remain. By 2023 and 2024, the momentum partially driven by the removal of COVID-19 measures slowed significantly. The post-pandemic gains proved to be mostly a rollback of emergency measures put in place during the pandemic and few economies go beyond this. Furthermore, there is no strong evidence that the COVID-19 response was consistently mainstreamed across all APEC-wide actions or individual economy actions. This underlines a missed opportunity to leverage the crisis as a catalyst for deeper services sector reform and resilience-building.

#### **4.1.4 Leverage cross-fora collaboration and capture all relevant activities**

Progress continues to be made in implementing this recommendation, particularly in terms of joint activities. Several APEC-wide actions exemplify strong cross-fora collaboration, notably the joint EC–GOS symposia and dialogues that explore the intersection of services and structural reform.

Despite these advances, there remain gaps in fully capturing and systematically reporting cross-fora collaboration. While some activities are carried out jointly or could benefit from multi-fora inputs, the documentation of these projects and their linkages is often limited (e.g., Development of Non-Binding Guidelines on Logistics-related Services that Support the Movement of Essential Goods During a Public Health Emergency, GOS-PPWE project on “Enhancing Women’s Economic Empowerment in APEC Through Greater Participation in High-skill Digitized Service Sectors”). Additionally, some APEC-wide actions continue to operate in silos, which can hinder opportunities for scaling impact or sharing best practices across fora.

#### **4.1.5 Ensure better synergy between the ASCR and other APEC initiatives**

This recommendation has been partially achieved. Notable achievements include closer coordination between the ASCR and EAASR. The incorporation of services-related initiatives into the EAASR IAPs reflects efforts by economies to embed services priorities into their broader domestic reform programs.

However, gaps persist in fully operationalizing these synergies. In some cases, alignment between the ASCR and other APEC strategies, such as the AIDER and the APEC Connectivity Blueprint, has not been clearly documented. Moreover, certain services-related initiatives, particularly in emerging areas like the green transition or AI standards, may be pursued independently by different fora without clear linkage to the ASCR. While the ASCR is designed to be flexible and responsive to evolving priorities, greater efforts are needed to ensure systematic coordination across all related APEC initiatives.

#### **4.1.6 Enhance engagement with the private sector**

This recommendation has been addressed to a moderate extent, with several initiatives incorporating business and industry perspectives. Achievements include the involvement of private sector representatives in various workshops, dialogues, and capacity-building events organized under different APEC-wide actions. Notably, business stakeholders participated in different policy dialogues, such as those on services and structural reform, digital economy, and education and skills-related projects.

However, there is still room for more systematic and sustained engagement with the private sector. In many instances, private sector participation could be limited to event participation rather than as part of the planning, implementation, and follow-up processes. The alignment between policy initiatives and private sector needs may not always be clear or well-documented.

#### **4.1.7 Continue to improve services data and statistics**

This recommendation has seen notable progress. Several activities have been completed, including technical workshops and collaboration with international organizations such as the OECD. In particular, the APEC Index, developed in collaboration with the OECD, has provided a structured tool for monitoring regulatory restrictiveness across 22 services sub-sectors and 18 APEC economies. It has allowed for comparative analysis over time and across economies, helping to identify reform priorities and benchmark policy openness.

However, gaps persist. The APEC Index does not yet cover all economies and fully capture all relevant sub-sectors, particularly emerging areas such as environmental services. While efforts have been made to better capture services-related aspects, granular and disaggregated data remain scarce across many APEC economies.

#### **4.1.8 Undertake complementary, measurable, concrete activities**

This recommendation has been partially implemented. Achievements are reflected in the variety of concrete activities that have been undertaken across the APEC-wide actions, including workshops, conferences, policy dialogues, toolkits, online platforms, reports, and the development of guiding frameworks and principles. These outputs contribute to building capacity, sharing best practices, and supporting reforms across economies.

However, there are gaps in consistency, measurability, and follow-through efforts. While many activities have been conducted, they are not always explicitly tied to predefined outputs or tracked against clear performance indicators. Moreover, the connection between some activities and the ASCR's overarching targets, such as increasing services trade or reducing regulatory restrictiveness, could be indirect or unclear. Additionally, there is limited evaluation of the effectiveness or long-term impact of these activities, making it difficult to assess whether they have led to substantive policy change or services market improvements.

These assessments are largely consistent with findings from the ASCR Final Review Perception Survey (see Appendix E). On the one hand, the survey results suggest that respondents on average believe the ASCR has been somewhat successful in raising awareness about the role of services in regional growth. Respondents also noted that, on a scale of 1 (strongly disagree) to 4 (strongly agree), the ASCR has raised their awareness of the role played by enabling factors, such as supportive infrastructure, good regulatory practices, and relevant statistics and data in

driving services growth, with average scores ranging between 3.11 and 3.36. In turn, respondents acknowledged that the ASCR has provided a rationale for their forum to undertake activities that enhance these enabling sectors. Other benefits agreed to by respondents include: their fora/institution/agency benefiting from the peer-learning and capacity-building activities conducted under the ASCR, improved coordination between various institutions/agencies within their economy, and enhanced cross-fora collaboration between their forum and other APEC fora.

Yet, the relatively low response rate (61 fully-completed responses out of a possible 315)<sup>3</sup> could indicate limited interest among APEC members in the ASCR. Several respondents also identified areas for improvements, such as the need for improved and sustained communication of the ASCR to other APEC fora, noting that effective communication can raise sustained awareness of the ASCR, strengthen cross-fora collaboration, and prevent the duplication of efforts. It is also critical for APEC to continue engaging a broader range of stakeholders, including the private sector, to gather diverse perspectives and insights. Respondents further emphasized the importance of aligning the future services roadmap with the APEC Putrajaya Vision 2040, the APA, and other APEC initiatives, such as the APEC Connectivity Blueprint.

## **4.2 RECOMMENDATIONS FOR THE NEW SERVICES ROADMAP**

As APEC embarks on the next chapter of its efforts in enhancing services competitiveness in the region, economies could consider the following recommendations:

### **4.2.1 Accelerate reforms in key services sectors, including setting clear and measurable targets at the working level**

To enhance competitiveness and reduce fragmentation in the region's services landscape, APEC must accelerate structural reforms in key sectors, in particular those that continue to face persistent barriers. Targeted reforms in these sectors, such as easing foreign equity caps, improving licensing transparency, and streamlining qualification recognition, could have significant economy-wide and cross-border benefits. A critical enabler of these reforms is the continued strengthening of various enabling factors, including the adoption of good regulatory practices, deeper international regulatory cooperation and investment skills development. Equally important is the establishment of clear, measurable, and time-bound targets for reform that are directly linked to overarching objectives of the new services roadmap. These targets should endeavour to take into account the development level of economies and be reflected in updated APEC-wide actions (or any similar modalities under consideration by GOS) and tied to concrete indicators, allowing for more consistent monitoring and evaluation of progress. It is also essential that these reforms are reflected in economy-level initiatives to ensure alignment and effective implementation. Without such a framework, reform efforts risk being sporadic and insufficient to drive meaningful change.

### **4.2.2 Advance cooperation in new and emerging areas**

The services landscape is evolving rapidly, and APEC must stay ahead of emerging trends by fostering cooperation in new and future-facing sectors. The digital economy, for example, has seen rising regulatory complexity, as evidenced by increasing Digital STRI scores in the APEC region. At the same time, the transition to a green economy is creating new demand for

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<sup>3</sup> The figure of 315 is derived by multiplying 15 fora by 21 economies.

environmental services, climate-related insurance, and energy efficiency consulting—areas that are not yet systematically addressed in the ASCR. To remain relevant, the new services roadmap should incorporate flexible mechanisms that allow economies to collaborate on evolving issues, such as AI and green technology. This includes promoting interoperable regulatory approaches and the development of technical standards. Capacity building should be incorporated as well to help developing economies in enhancing their competitiveness.

#### **4.2.3 Enhance services data and statistics, including expanding the APEC Index’s scope**

Robust, comprehensive, and timely data is critical for informed policymaking and effective reform implementation in the services sector. While the APEC Index has become a valuable tool for benchmarking regulatory restrictiveness, it currently covers only 18 economies and does not fully capture fast-evolving or underrepresented sub-sectors such as environmental services and other business services beyond professional services. The new roadmap should prioritize efforts to expand the scope of the APEC Index to cover more member economies and include additional services sub-sectors that reflect modern trade patterns. Furthermore, APEC should encourage the collection and dissemination of disaggregated, longitudinal data, such as statistics on cross-border trade in services, digital services flows, and services-related employment. This will improve economies’ capacity to assess reform impact, monitor performance over time, and identify priority areas for further work.

#### **4.2.4 Strengthen whole-of-government coordination and cross-fora collaboration**

A more integrated and coherent approach to services policy will require continued whole-of-government approach and expanded collaboration across APEC fora. The joint efforts of GOS and EC, particularly through symposia and joint dialogues on structural reform and services, provide a successful model for future engagement. This kind of cross-fora collaboration has proven instrumental in aligning the ASCR with other APEC initiatives such as EAASR. The next roadmap should institutionalize these linkages, encourage joint work planning, and ensure that services-related activities across various APEC fora are mutually reinforcing. Mechanisms to systematically document, track, and report on cross-fora cooperation will be essential to avoid duplication and to amplify impact.

#### **4.2.5 Deepen engagement with the private sector and other stakeholders**

Meaningful progress in services competitiveness cannot be achieved without the active participation of the private sector and other key stakeholders. The next roadmap should embed stakeholder engagement more firmly into its processes by establishing structured platforms for continuous dialogue with businesses and other stakeholders. These stakeholders bring on-the-ground insights into the challenges of services delivery, investment barriers, workforce gaps, and regulatory bottlenecks. Their involvement will help ensure that reforms are not only technically sound but also responsive to the real-world needs of services providers, workers, and consumers across the APEC region.

#### **4.2.6 Align the new services roadmap with the broader APEC vision and relevant cross-cutting priorities**

To maximize its strategic relevance and policy coherence, the new services roadmap should be closely aligned with APEC’s broader vision and cross-cutting priorities, including inclusion, sustainability, and innovation, as reflected in the APEC Putrajaya Vision 2040 and the APA.

APEC should ensure that services-related initiatives contribute to these goals by integrating inclusive growth indicators and sustainability metrics into its monitoring frameworks. For example, reforms that support telemedicine, digital education, clean energy services, and women's entrepreneurship can serve dual purposes: advancing both services trade and broader development objectives. Such alignment will elevate the strategic profile of the new services agenda and reinforce its contribution to sustainable and equitable regional growth.

#### **4.2.7 Ensure that the new services roadmap will remain responsive to evolving needs and challenges**

A core strength of the ASCR is its flexibility to incorporate new issues and adjust to emerging priorities over time. The future roadmap should retain and build on this adaptability by embedding review mechanisms and foresight processes that allow for timely updates and course corrections. This includes establishing regular stocktakes, stakeholder consultations, and monitoring tools to capture shifting dynamics in global trade and technology, among others. The COVID-19 pandemic underscored the importance of agility in policy response. A roadmap that is truly responsive must also be proactive—capable of anticipating disruptions, harnessing innovation, and identifying new opportunities for cooperation. In doing so, APEC can ensure that its services strategy remains not only relevant but also forward-looking, thus equipping economies to navigate complexity and thrive in a fast-changing global environment.

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## Appendix A. Detailed status of external baseline indicators

| Overarching Target # | Indicator  | Earliest     | Latest       | 2016-2020 | 2021-2024 |
|----------------------|--|--------------|--------------|-----------|-----------|
| 1                    | APEC Index   | 2016         | 2024         |           |           |
| 2                    | Exports of commercial services   | 2016         | 2024         |           |           |
| 3                    | Trade in commercial services   | 2016         | 2024         |           |           |
|                      | Services value-added   | 2016         | 2023         |           |           |
| APEC-wide Action #   | Indicator  | Earliest     | Latest       | 2016-2020 | 2021-2024 |
| 1                    | Percentage of SMEs in APEC economies that export directly or indirectly      | Discontinued | Discontinued |           |           |
|                      | Percentage of SMEs in APEC economies that export directly                    | 2016         | 2023         |           |           |
| 2                    | APEC Index   | 2016         | 2024         |           |           |
| 4                    | APEC Index   | 2016         | 2024         |           |           |
| 5                    | APEC Index   | 2016         | 2024         |           |           |
| 7                    | APEC Index   | 2016         | 2024         |           |           |
| 8                    | Inbound internationally mobile students, by economy of destination           | 2017         | 2023         |           |           |
| 9                    | Status of online protection laws in APEC                                     | 2021         | 2025         | *         | *         |
| 10                   | APEC Index   | 2016         | 2024         |           |           |
| 11                   | APEC Index   | 2016         | 2024         |           |           |
|                      | Air service agreements, by economy   | 2021         | 2025         | *         | *         |
| 12                   | International tourism arrivals to APEC                                       | 2016         | 2023         |           |           |
|                      | Number of APEC economies required to obtain visas, by destination and origin | 2018         | 2024         |           |           |
|                      | International tourism receipts   | 2016         | 2023         |           |           |
|                      | APEC travel and tourism direct contribution to GDP and to employment         | 2017         | 2022         |           |           |
| 13                   | Baseline measures/indicators for trade in services (availability of data)    | 2017         | 2025         | *         | *         |
| 14                   | Prevalence of undernourishment   | 2016         | 2021         |           |           |
| 15                   | APEC share of renewable energy   | 2016         | 2021         |           |           |
|                      | APEC energy intensity ratio  | 2016         | 2021         |           |           |
| 16                   | Ease of Doing Business Index   | Discontinued | Discontinued |           |           |
|                      | APEC Index   | 2016         | 2024         |           |           |
|                      | Intra-APEC RTAs/FTAs with an investment chapter                              | 2021         | 2025         | *         | *         |
|                      | Intra-APEC double taxation agreements  | 2021         | 2025         | *         | *         |
|                      | Intra-APEC bilateral investment treaties                                     | 2021         | 2025         | *         | *         |
| 17                   | Percentage of SMEs having their own website                                  | 2016         | 2023         |           |           |
|                      | Percentage of SMEs using e-mail to interact with clients/suppliers           | Discontinued | Discontinued |           |           |
|                      | Percentage of SMEs with a checking or savings account                        | Discontinued | Discontinued |           |           |
| 18                   | Percentage of individuals using the internet                                 | 2016         | 2023         |           |           |
|                      | Fixed broadband subscriptions per 100 inhabitants                            | 2016         | 2023         |           |           |
|                      | Active mobile broadband subscriptions per 100 inhabitants                    | 2016         | 2023         |           |           |
| 19                   | Gross R&D expenditure (% of GDP)   | 2016         | 2022         |           |           |
|                      | Percentage of women participation of R&D in STI fields                       | 2016         | 2022         |           |           |

■ Green=Complete data; ■ Orange=Incomplete/patchy data; ■ Red=No data/discontinued

Note: The earliest and latest years refer to the years that these indicators are collected as part of the ASCR process. Cells represent the status of each external indicator. \* - Indicator based on a snapshot in time.

Source: Authors' compilation (as of February 2025).

## Appendix B. Assessment of APEC-wide actions

### Appendix B1. APEC-wide action #1

Enhancing the critical role of trade in services in global value chains, including through increased participation of MSMEs and women, under the agreed Strategic Blueprint for Promoting Global Value Chains Development and Cooperation  
(Accountable for: Committee on Trade and Investment)

#### *The role of services in global value chains*

The fragmentation of production processes in the late 20th century—driven by advancements in logistics, improved trade facilitation, and cross-economy wage differentials—gave rise to global value chains (GVCs) (OECD 2020). Rather than concentrating production in a single location, firms began dispersing manufacturing and assembly across borders, leveraging each location’s comparative advantages such as access to skilled labour, raw materials, and infrastructure. While goods were at the heart of these chains, services played an essential, if initially underappreciated, role in enabling the smooth functioning of GVCs. Services such as design, research and development (R&D), marketing, transport, logistics, and courier operations became embedded in production processes, linking various stages of the value chain across geographies.<sup>4</sup> Even final assembly in some cases emerged as a standalone service, especially for factory-less producers (Miroudot 2019).

As GVCs deepened and diversified, new entry points were created, particularly for micro, small, and medium-sized enterprises (MSMEs). For example, automotive supply chains often included smaller firms in second- or third-tier supplier roles (OECD 2024). However, these opportunities did not automatically translate to inclusive growth. The ability of MSMEs to upgrade and capture greater value depends heavily on factors such as access to technology, innovation spillovers, and the domestic regulatory environment. The same applies to women’s participation in GVCs. While sex-disaggregated data on participation remains limited, studies have found entrenched inequalities, particularly in agricultural GVCs where men tend to dominate high-value export crops, while women are more involved in lower-value domestic production (Guarin et al. 2022). Unlocking the potential for inclusive growth requires targeted policies to support both MSMEs and women entrepreneurs in accessing and benefiting from GVC participation.

#### *APEC Strategic Blueprint for Promoting GVCs Development and Cooperation*

The foundational role of services in GVCs was more explicitly recognized in 2013 when the Organisation for Economic Co-operation and Development (OECD) and the World Trade Organization (WTO) released preliminary trade in value-added estimates, which revealed that services accounted for around one-third of the value-added in manufacturing exports in developed economies (OECD and WTO n.d.). These findings affirmed that liberalizing services sectors can yield greater trade and growth benefits than traditional tariff reductions (Shepherd 2018). In response, APEC Economic Leaders adopted the Strategic Blueprint for Promoting GVCs Development and Cooperation in 2014, which sought to strengthen services sectors that underpin GVCs (APEC 2014). To support this, the PSU conducted case studies in 2016, demonstrating that opening services markets—in sectors like telecommunications (Papua New

<sup>4</sup> Embodied services are distinct from embedded services, which refers to services that are not consumed along the production process. This includes, for example, post-sales services such as repair and installation.

Guinea), transport (Chile), and health services (Malaysia)—generated gains in gross domestic product (GDP), competitiveness, and cost savings for businesses (Berry 2016; Shepherd and Marel 2016; Thangavelu and Oum 2017).

Among the Blueprint's goals was to increase the participation of MSMEs and women in services-related GVCs. Initiatives such as the "SMEs' Integration into Global Value Chains in Services Industries" project offered policy guidance and facilitated sector-specific workshops across logistics, tourism, and software (APEC CTI Chair 2016; Pham 2018). These efforts emphasized the need for regulatory reform, improved border procedures, skills certification, and targeted support for women in sectors where they are relatively more represented, such as tourism. The launch of the APEC GVC Partnership Platform further strengthened knowledge-sharing and collaboration across member economies by collecting and disseminating good practices and policy tools (APEC CTI 2017).

### ***Blueprint 2.0 and enhanced focus on digital and inclusive trade***

In 2019, APEC members endorsed an updated framework—The APEC Strategic Blueprint for Promoting Global Value Chains 2020–2025 (Blueprint 2.0)—to reflect emerging trends such as digital transformation and the evolving role of services (APEC CTI 2019). The updated blueprint emphasized coherence across stakeholder efforts and prioritized digital economy integration (Workstream 2) and services trade liberalization (Workstream 4). Under these workstreams, Chile and Korea launched a project to help developing economies navigate the impacts of digital technologies on GVCs (APEC PDB 2020), while Chile also hosted a workshop on aligning trade and investment policies with the realities of modern production systems (Araneda 2019). One key outcome was the development of a checklist to guide the inclusion of GVC-friendly provisions in trade and investment frameworks.

Complementing these policy-level efforts, APEC also pursued trade facilitation through initiatives like the APEC Single Window Interoperability Action Plan and the Customs Strategic Framework on Building Connectivity (APEC CTI 2019). These aimed to streamline cross-border procedures, improve customs interoperability, and enhance trade security through smart border systems. In response to COVID-19 disruptions, Australia led a project on building resilient supply chains with a focus on supporting MSMEs (APEC PDB 2020). Recommendations included expanding MSME access to digital trade platforms, harmonizing Authorised Economic Operator (AEO) standards, and offering financial and technical support. Capacity-building efforts remained integral to GVC-related work, as exemplified by the 2022 APEC Workshop on Opportunities and Challenges for GVCs during COVID-19 and Post-Pandemic Economic Recovery. This event aimed to strengthen policymakers and businesses' understanding of evolving GVC dynamics, particularly in the face of global disruptions (Vu 2023).

### ***Monitoring progress and areas for improvement***

Despite such initiatives, data limitations continue to hinder a full understanding of MSME and women's participation in GVCs. A study by Urata and Baek (2020) found that among nearly 39,000 manufacturing firms, only 21 percent engaged in GVCs—with MSMEs significantly underrepresented at 14 percent compared to 41 percent among large firms.<sup>5</sup>

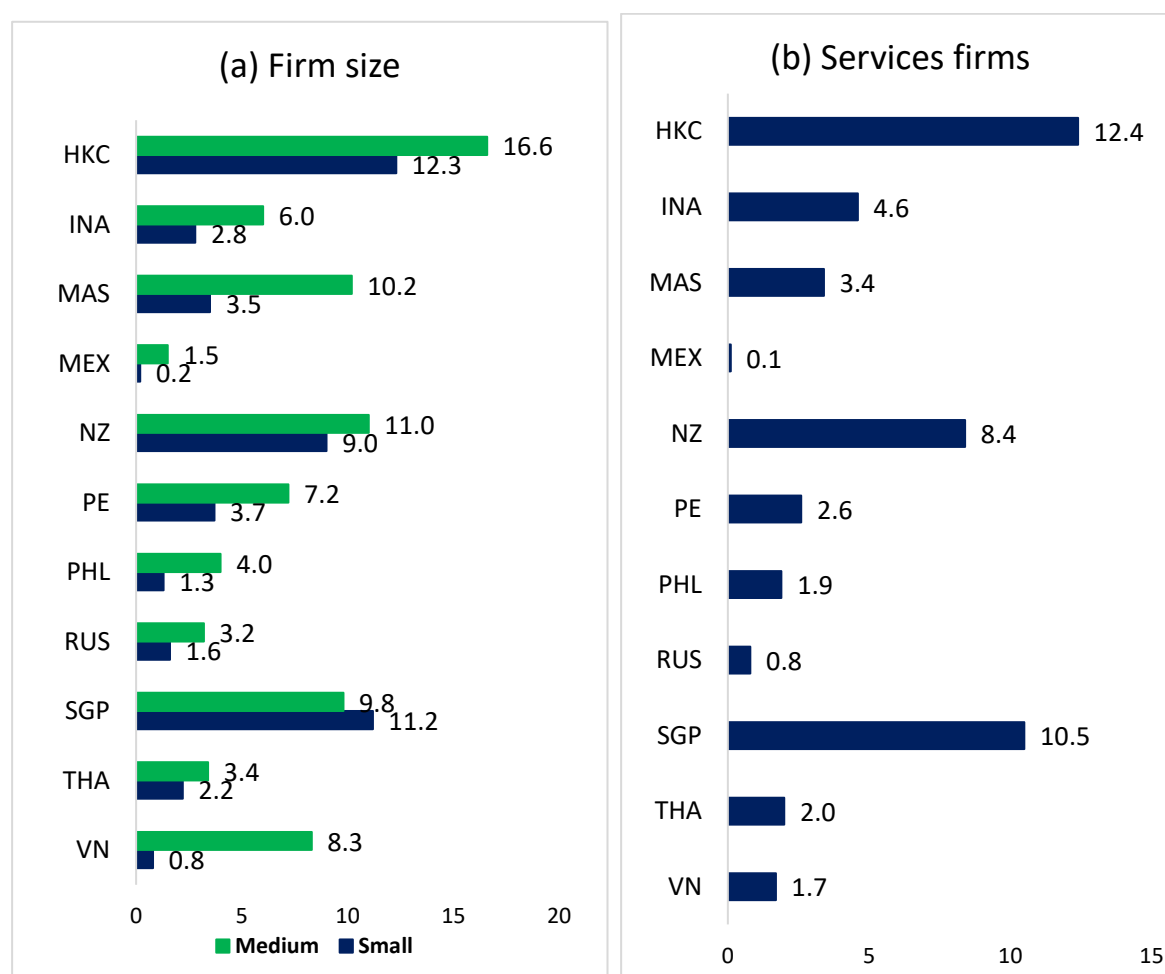
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<sup>5</sup> The study defined a GVC firm as those involved in both exports and imports. For clarity, MSMEs are defined in this analysis as firms with less than 100 employees.

In the APEC region, data from the World Bank Enterprise Survey—covering select economies—also indicate relatively low export participation among small and medium firms. The share of small firms that export at least 10 percent of their sales ranges from 0.2 percent to 12.3 percent, while medium-sized firms fall between 1.5 percent and 16.6 percent (Figure 10a). A sectoral breakdown shows that among services firms, the proportion of those exporting at least 10 percent of their output ranges from 0.1 percent to 12.4 percent (Figure 10b).

These figures not only highlight the limited engagement of smaller firms in international trade but also reflect the broader issue of insufficient and uneven data coverage across APEC economies. Strengthening data collection and analysis is essential to better inform inclusive and evidence-based policymaking aimed at expanding GVC participation.

**Figure 10. Percentage share of respective population exporting directly at least 10 percent of sales**



Note: Data for all economies are in 2023, except for Malaysia (2019); Russia (2019); and Thailand (2016). Data for Australia; Brunei Darussalam; Canada; Chile; China; Japan; Korea; Papua New Guinea; Chinese Taipei; and the United States are unavailable.

Source: APEC PSU calculations using data from the World Bank (accessed 9 February 2025).

## Appendix B2. APEC-wide action #2

Supporting cross-border mobility for professionals, building on initiatives such as the APEC Architects and Engineers Registers to facilitate mutual recognition arrangements (MRAs)  
(Accountable fora: Human Resources Development Working Group)

### *Facilitating physical mobility in services trade*

The provision of many services continues to rely heavily on the physical proximity between providers and consumers. This foundational aspect of services trade was recognized in the General Agreement on Trade in Services (GATS) signed in 1994, which identified four distinct modes of supply, namely: cross-border supply (mode 1); consumption abroad (mode 2); commercial presence (mode 3); and the temporary movement of natural persons (mode 4). Although digital transformation has enabled more services to be delivered digitally, physical interactions remain integral for many services, particularly in sectors where personal engagement is essential.

While each mode is conceptually distinct, these four modes are often interdependent in practice. For example, the establishment of commercial presence abroad (mode 3) frequently necessitates intra-corporate transfers (mode 4), and business travellers may simultaneously engage in tourism (mode 2). Empirical estimates by Shingal (2022) highlight these linkages: it suggests that a one-unit increase in regulatory barriers affecting mode 4 is associated with an average decline in services imports of 42 percent for mode 2 and 35 percent for mode 3. This underscores how mobility restrictions can ripple through the entire services ecosystem, deterring other services modes.

The relative importance of each mode varies significantly across sectors. Professional services generally rely more heavily on mode 4, where the physical movement of licensed professionals is essential.<sup>6</sup> This reliance highlights the critical importance of facilitating cross-border mobility through mechanisms such as Mutual Recognition Agreements (MRAs), which allow professional qualifications to be accepted across jurisdictions. MRAs can be bilateral, regional, or multilateral in scope and are a practical tool to reduce regulatory fragmentation, enhance mobility, and promote labour market efficiency.

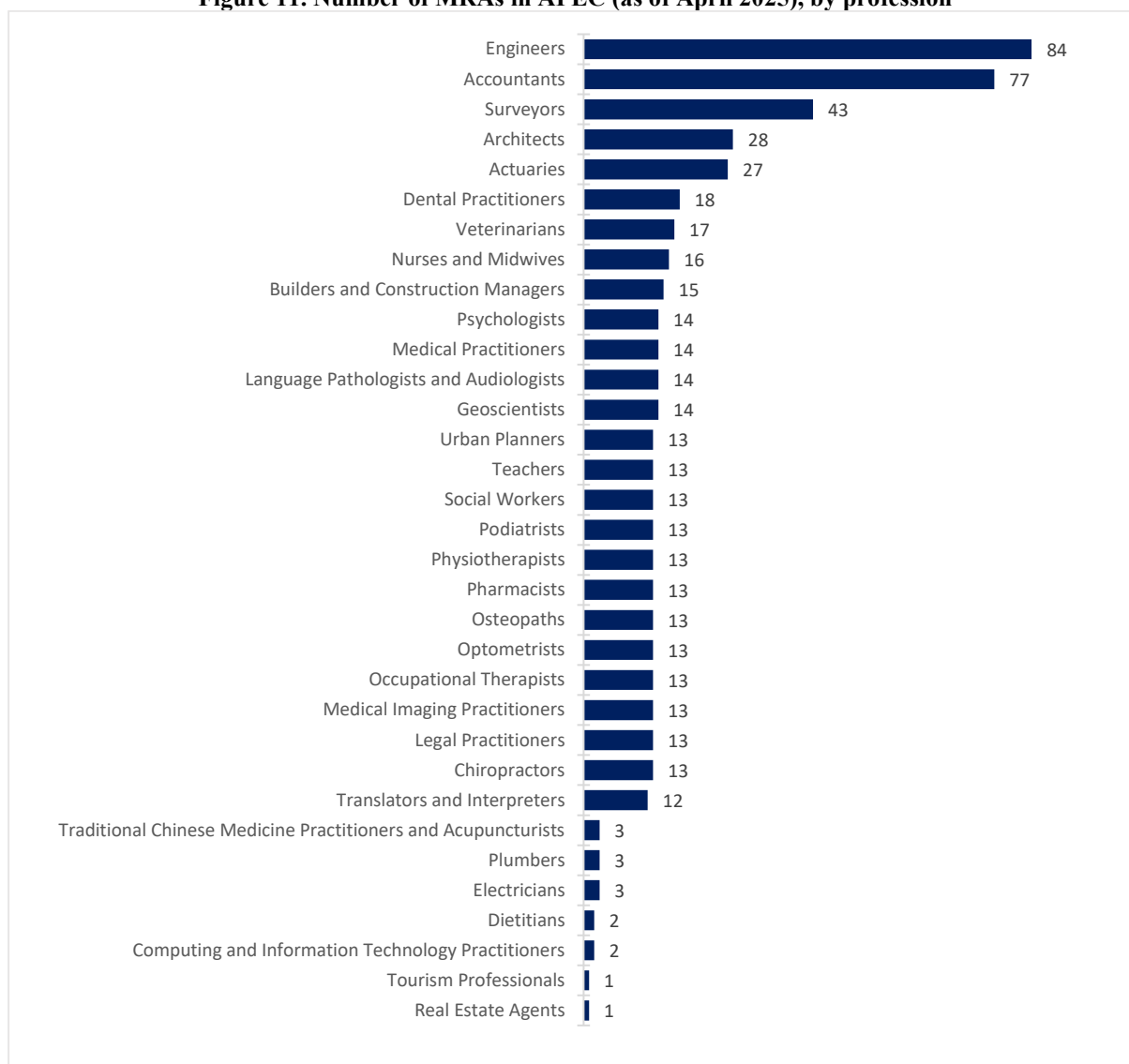
To strengthen the enabling environment for professional mobility, APEC has supported various foundational efforts, including the improvement of labour mobility data, digital credentialing, and sector-specific cooperation. Australia's project on sharing and reporting labour market information, conducted with the International Labour Organization (ILO), identified key gaps in data availability and comparability, laying the groundwork for more harmonized labour market information (Baruah 2019). Sector-focused initiatives also played a key role—such as Chinese Taipei's work to promote regional mobility for engineers (APEC PDB 2014) and the creation of the APEC Engineer Databank (IES, Singapore 2014), which has improved access to credential information and supported broader participation in MRA frameworks. Additionally, growing cross-border work in the digital economy has prompted new APEC initiatives—such as a study on social security protection (APEC PDB 2019)—to address regulatory and policy gaps affecting mobile professionals.

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<sup>6</sup> Notwithstanding, this remains dwarfed by the cross-border supply of services. The local supply of services by foreign affiliates (mode 3) has been excluded from this sector-specific structural analysis.

***Advancing mutual recognition***

APEC has actively supported the development and implementation of MRAs to enhance professional mobility. As of April 2025, the APEC Inventory of Mutual Recognition Agreements for Professional Qualifications and Licensure recorded 229 MRAs signed by member economies (Figure 11) (AASC n.d.), the majority of which have been concluded in the past decade (Ziguras and Barker 2024). Engineering and accounting are among the professions most frequently covered. To support knowledge sharing and capacity building, APEC launched the Digital Credential and Mutual Recognition of Professional Services online course (AASC n.d.), which introduces the purpose and use of MRAs, and highlights the value of digital credentialing in streamlining qualification recognition. The Community of Practice, established in 2022, provides a peer-learning forum for economies to discuss practical challenges and lessons learned in MRA implementation (AASC n.d.). Additional tools such as the MRA Toolkit (October 2023) offer user-friendly guidance for MRA practitioners, including strategies for leveraging digital platforms to enhance transparency and efficiency (Howorth 2023). The MRA Analysis Report (Ziguras and Barker 2024), published in February 2024, provides a comprehensive review of trends in MRA development, drawing on the experiences of professions such as engineering, architecture, nursing, and dentistry, and offering forward-looking recommendations for expanding mutual recognition efforts.

**Figure 11. Number of MRAs in APEC (as of April 2025), by profession**

Note: This inventory does not include intra-economy MRAs within federal systems and unilateral recognition of foreign qualifications by APEC economies where there is no international agreement in place. Some agreements are comprehensive, hence the individual sum of agreements by profession will exceed the total number of MRAs signed by APEC economies.

Source: APEC PSU compilation based on data from the APEC Inventory of Mutual Recognition Agreements for Professional Qualifications and Licensure (accessed 14 April 2025).

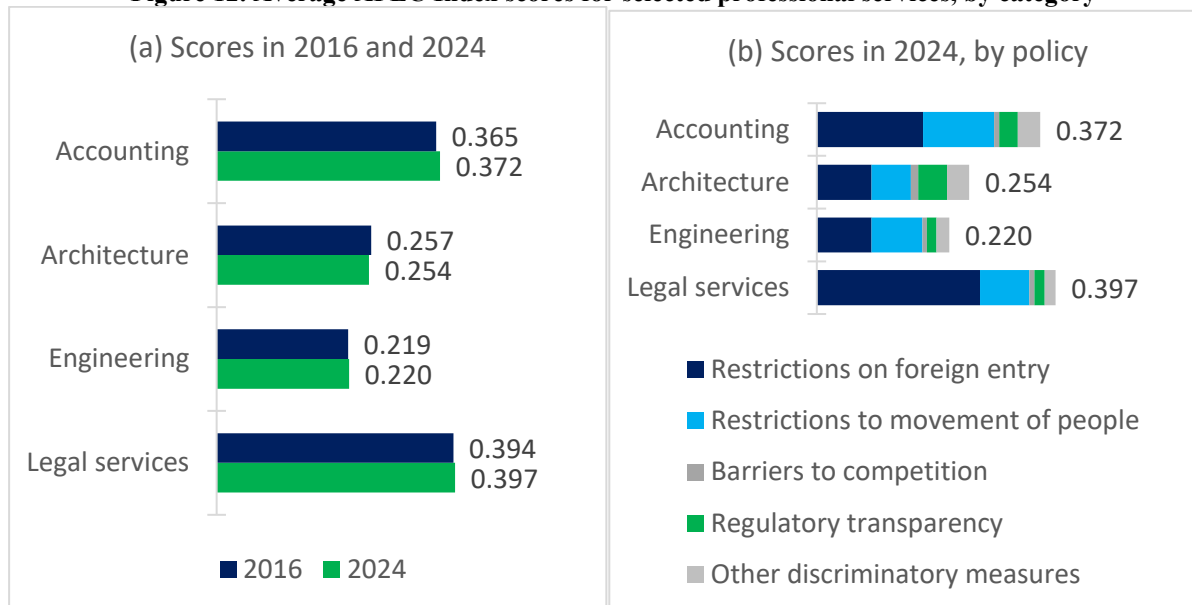
### ***Monitoring progress and areas for improvement***

Despite these efforts, progress in reducing regulatory barriers to professional mobility has been uneven. The APEC Index, which assesses the restrictiveness of regulations across four key professional services—accounting, architecture, engineering, and legal—shows mixed results. Between 2016 and 2024, only architecture recorded a modest improvement, with its restrictiveness score declining from 0.257 to 0.254 (Figure 12). In contrast, restrictiveness increased slightly in the other three sectors: accounting (from 0.365 to 0.372), legal services (from 0.394 to 0.398), and engineering (from 0.219 to 0.220). Moreover, there remains considerable variation among economies.

The most common barriers include restrictions on foreign entry—such as limits on the legal forms of foreign-owned firms, board nationality requirements, and local presence obligations—as well as limitations on the movement of people. These include labour market tests for foreign

professionals, absence of recognition processes for foreign qualifications, mandatory local licensing exams, and practice requirements in the economy. Addressing these constraints through targeted reforms and expanded mutual recognition will be key to deepening regional integration and unlocking the full potential of professional services trade in the APEC region.

**Figure 12. Average APEC Index scores for selected professional services, by category**



Note: Scores are interpreted as: 0 (most open) to 1 (most restrictive). Data for Brunei Darussalam; China; Hong Kong, China; Papua New Guinea; and Chinese Taipei are unavailable.

Source: APEC PSU calculations using data from the OECD (accessed 28 February 2025).



### **Appendix B3. APEC-wide action #3**

Enhancing flexibility for business visitors, building on initiatives such as the APEC Business Travel Card (ABTC)  
(Accountable fora: Business Mobility Group)

#### ***The importance of business travel***

Business travel plays a crucial role in driving economic activity and commercial success. In-person meetings help establish stronger relationships with clients, partners, and colleagues, thus fostering trust, collaboration, and long-term engagement. Moreover, attending industry events, such as conferences and trade shows, provides valuable opportunities for networking, knowledge exchange, and staying abreast of emerging market trends. Business travel also enables firms to explore new regions and identify potential opportunities for expansion and investment.

#### ***Facilitating business mobility through the ABTC***

Since its establishment in 1997, the APEC Business Travel Card (ABTC) has significantly enhanced short-term business mobility across the APEC region. The ABTC streamlines entry procedures by offering pre-clearance for business visits of up to 60 or 90 days and allows cardholders to fast-track immigration processing at participating airports (APEC 2023). Typically valid for up to five years, the ABTC serves as a practical tool for reducing travel-related administrative burdens.

Currently, 19 of the 21 APEC member economies are fully participating in the ABTC scheme. Canada and the United States remain transitional members. The key distinction between full and transitional participation lies in the pre-clearance arrangement: ABTC holders from fully participating economies are not required to apply separately for a visa or entry permit when traveling to another fully participating economy, provided pre-clearance has been granted.

To enhance security and efficiency, APEC introduced the virtual ABTC in March 2021. This digital version provides an alternative means for cardholders to present their credentials upon entry and exit at participating economies. The virtual ABTC incorporates modern security features such as secure sign-on, user authentication, and digital watermarks, offering economies greater assurance regarding the authenticity and integrity of the travel document.

In recognition of the need to improve ABTC utilization, the Business Mobility Group (BMG) organized a workshop in September 2021. The event provided a platform for sharing experiences and identifying common challenges faced by businesses and policymakers in the use and application of the ABTC (Muhammad 2022). Discussions also focused on creating a more enabling environment for business travel in the post-pandemic context, including the refinement of policy frameworks and the removal of administrative hurdles.

While no formal quantitative indicator has been established to track the implementation of this APEC-wide action, the number of ABTC cardholders could serve as a useful proxy for measuring progress and uptake across the region.

#### **Appendix B4. APEC-wide action #4**

Developing a set of good practice principles on domestic regulations in the services sector  
(Accountable fora: Committee on Trade and Investment,  
Economic Committee, and Group on Services)

##### ***The role of domestic regulations in services trade***

Effective domestic regulations are essential for ensuring a supportive environment for services trade. Clear and transparent regulatory frameworks provide businesses with certainty and predictability, which are crucial for operational planning and investment decisions. Regulations also help maintain service quality and protect consumers. When aligned with international standards, domestic regulations can reduce trade barriers, thus facilitating cross-border services transactions. Conversely, overly complex or burdensome regulations can hinder trade, diminish competitiveness, and limit economic growth (Barone and Cingano 2011, 931–957).

##### ***Promoting good regulatory practices in APEC***

APEC economies recognize the importance of designing domestic regulations that achieve policy objectives without imposing excessive administrative or procedural burdens. In 2018, APEC adopted the Non-Binding Principles for Domestic Regulation of the Services Sector to promote sound regulatory practices across member economies (APEC CTI 2018). These principles focus on the authorization process for service providers—specifically, the rules and procedures required to obtain permission to operate within a market.

These principles apply to measures related to licensing requirements and procedures, qualification requirements and procedures, and technical standards. For example, economies are encouraged to avoid requiring applicants to approach multiple authorities for a single authorization. Where feasible, they should also accept applications electronically and allow submission of authenticated document copies in accordance with domestic laws.

Since the adoption of the non-binding principles, APEC has undertaken several initiatives to support their implementation. Notably, the United States commissioned two key studies. The first examined APEC’s non-binding principles with a focus on transparency and predictability, identifying gaps between legal obligations and actual practices that contribute to regulatory uncertainty (APEC CTI and APEC GOS 2020). The second explored next-generation practices for services authorization, highlighting innovations such as the United States’ expansion of overseas professional accreditation and Chinese Taipei’s one-stop Commerce Industrial Services Portal (APEC CTI and APEC GOS 2021).

In parallel, APEC economies have hosted knowledge-sharing activities to strengthen capacity and promote alignment with the non-binding principles, including Korea’s workshop on improving application of the principles (Choi 2020) and Chinese Taipei’s survey on online shopping platform regulations (APEC PDB 2019). Additionally, New Zealand, through the EC, developed a practical APEC-OECD Resource on International Regulatory Cooperation, building on earlier APEC and OECD work (APEC n.d.).

In 2022, the project “Translating Services Domestic Regulation Initiatives into Practice” highlighted the common elements between APEC’s principles and the WTO’s Joint Statement Initiative (JSI) on Services Domestic Regulation (Sandoval, Sahai, and Katsumi 2023; Nathan

Associates 2023). The project illustrated how regulatory reform efforts in APEC economies often align with the goals of both frameworks. It also analysed implementation challenges and government actions in five economies—Chile; Malaysia; Papua New Guinea; Chinese Taipei; and Thailand—and provided targeted recommendations.

Building on this momentum, in 2023, GOS initiated work on an underexplored aspect of the APEC principles: technical standards in the services sector. The project “Services Domestic Regulation: Envisioning Next Generation Technical Standards Principles” explored the development and application of services-related standards, as well as industry perspectives on their utility (Nordås et al. 2024). Case studies on Building Information Modeling (BIM), sound recording, and artificial intelligence were used to examine the evolving role of standards in a dynamic global economy.

In 2024, a follow-up project titled “Services Domestic Regulation: Applying Effective Principles for Technical Standards Development” was launched. It examined how core principles for developing technical standards can be tailored to the diverse domestic contexts of APEC economies. The project also explored potential technical standards-related disciplines that could be incorporated into broader domestic regulation initiatives (APEC PDB 2024).

### ***Monitoring progress and areas for improvement***

APEC’s advancements in regulatory transparency can be tracked through the APEC Index, particularly the policy category on regulatory transparency, which reflects the extent to which good regulatory practices are implemented. Between 2016 and 2024, the regional average score for this category improved, with a decline in restrictiveness from 0.0297 to 0.0274. Albeit small, this progress reflects growing awareness among APEC economies on the importance of transparent, efficient regulation and their commitment to operationalizing these practices.

Notably, seven economies—Chile; Indonesia; Korea; Malaysia; New Zealand; Thailand; and Viet Nam—contributed to this positive trend, each achieving reductions in restrictiveness ranging from 0.32 percent to 38.28 percent over the eight-year period.

Despite these gains, challenges remain. A detailed review of regulatory transparency across sectors reveals that many economies still lack legal obligations to inform the public of new regulations within a reasonable period before they take effect (Table 6). For instance, in the logistics customs brokerage sector, 12 out of 17 economies do not have such legal requirements in place. Furthermore, public consultation processes remain insufficient in some cases. Four out of 17 economies do not provide adequate opportunities for public comment, including participation from foreign suppliers. These gaps suggest that further reforms are necessary to ensure that regulatory processes are not only transparent but also inclusive and responsive.

In addition, as of February 2025, five APEC economies have not yet joined the WTO JSI on Services Domestic Regulation, indicating room for broader engagement and alignment with international regulatory commitments. Last but not least, more work can be done in the area of services technical standards.

**Table 6. Number of APEC economies implementing specific measures within the regulatory transparency policy category in the 2024 APEC Index**

| Sub-sector                      | No. of economies with legal obligation to communicate regulations to the public within a reasonable time prior to entry into force | No. of economies with adequate public comment procedure open to interested persons, including foreign suppliers |
|---------------------------------|--|---|
| Broadcasting                    | 5 of 17  | 13 of 17  |
| Motion pictures                 | 4 of 16  | 13 of 16  |
| Sound recording                 | 5 of 16  | 13 of 16  |
| Construction                    | 5 of 16  | 13 of 16  |
| Courier services                | 5 of 16  | 13 of 16  |
| Computer services               | 5 of 18  | 14 of 18  |
| Distribution services           | 5 of 18  | 14 of 18  |
| Commercial banking              | 5 of 17  | 13 of 17  |
| Insurance                       | 5 of 17  | 13 of 17  |
| Logistics cargo-handling        | 5 of 17  | 13 of 17  |
| Logistics customs brokerage     | 5 of 17  | 13 of 17  |
| Logistics freight forwarding    | 5 of 17  | 13 of 17  |
| Logistics storage and warehouse | 5 of 18  | 14 of 18  |
| Accounting services             | 5 of 16  | 13 of 16  |
| Architecture services           | 5 of 16  | 13 of 16  |
| Engineering services            | 5 of 16  | 13 of 16  |
| Legal services                  | 5 of 16  | 13 of 16  |
| Telecommunication               | 5 of 17  | 14 of 17  |
| Air transport                   | 5 of 16  | 13 of 16  |
| Maritime transport              | 5 of 17  | 13 of 17  |
| Rail freight transport          | 5 of 15  | 12 of 15  |
| Road freight transport          | 5 of 16  | 13 of 16  |

Source: APEC PSU computations. Accessed 16 February 2025.

## **Appendix B5. APEC-wide action #5**

Implementation of the Enhanced APEC Agenda  
for Structural Reform with respect to the services sector  
(Accountable fora: Committee on Trade and Investment,  
Economic Committee, and Group on Services)

### ***The importance of structural reform in services***

Structural reforms are a fundamental tool for removing barriers that limit access to economic opportunities. In the services sector, such reforms are critical for enhancing competitiveness, improving regulatory environments, and enabling greater trade and investment flows. When APEC Structural Reform Ministers convened in 2015, they encouraged economies to pursue unilateral reforms to strengthen the services sector as part of RAASR. The current iteration, EAASR (APEC 2021), continues this mandate by explicitly inviting members to nominate reform actions that advance services sector performance. Further details on the services-related impact of these initiatives are provided in Section 3.2.2 and Appendix C.

Recognizing the synergy between services reform and structural reform, GOS and EC have worked collaboratively to promote alignment between their respective agendas. In August 2022, the two fora co-hosted the APEC EC–GOS Joint Symposium on Services and Structural Reform, which explored the evolving challenges posed by services innovation and regulatory complexity (APEC PDB 2022). The symposium concluded with proposed next steps to deepen this collaboration.

Building on this, a Joint Dialogue on Structural Reform and Services was convened in February 2023 to examine the linkages between structural reform and services competitiveness. The dialogue emphasized the importance of integrating these perspectives into the design and implementation of initiatives under EAASR (AASC 2023). Participants exchanged best practices and discussed competitiveness drivers, particularly in digital services, which are rapidly expanding across the region.

Further momentum was maintained through the ASCR Annual Dialogue in May 2023, where a dedicated session on services and structural reform addressed the application of good regulatory practices (AASC 2023). Discussions also focused on how EAASR IAPs could be used to track and report progress in liberalizing and facilitating services trade. The dialogue also put a particular spotlight on the telecommunications sector and the growing impact of artificial intelligence on services trade. Joint activities by GOS and EC have continued in 2024 and 2025, specifically in the form of Joint EC and GOS Dialogue on Services and Structural Reform (August 2024) and Joint EC and GOS Workshop on Digital Services and Structural Reform (March 2025).

Several analytical outputs have contributed to advancing this APEC-wide action. The policy brief “EAASR and ASCR: Services Competitiveness and Structural Reform” underscored the economic significance of the services sector and its role in responding to region-wide challenges (Drake-Brockman et al. 2022). The brief identified key impediments to services competitiveness and proposed options to sustain reform momentum. A complementary publication, “Drivers of Services Competitiveness and the Contribution of Structural Reform,” examined recent trends in services growth and trade, while identifying structural reform efforts

that have contributed to improved competitiveness. It also emphasized the role of regional cooperation in sustaining these gains (Drake-Brockman and Findlay 2024).

Separately, EC has progressed work on the APEC Collaborative Framework for Online Dispute Resolution (ODR) of Cross-Border B2B Disputes (APEC n.d.). This initiative aims to support micro, small, and medium-sized enterprises (MSMEs) by providing access to efficient and affordable ODR service providers (APEC n.d.). Numerous capacity-building activities have been held and reports published to encourage broader participation. For example, the Study on Economy Legal Frameworks for the Implementation of ODR under the APEC Collaborative Framework reviews the readiness of economies' legal frameworks to participate in the framework (Dennis 2024).

### ***Monitoring progress and areas for improvement***

The APEC Index serves as a useful tool for assessing progress under this APEC-wide action. Between 2016 and 2024, regional improvements in reducing services trade barriers have been limited. The average restrictiveness score across 22 service sub-sectors declined only marginally—from 0.2890 to 0.2875—reflecting a reduction of just 0.53 percent. While some economies achieved notable liberalization, others experienced rising restrictiveness, resulting in an uneven reform landscape. Sectoral performance mirrored this trend, with liberalization in areas such as distribution and freight transport offset by increased barriers in sectors like commercial banking, and computer services.

Policy developments following the COVID-19 pandemic further illustrate the slowdown in structural reform momentum. Analysis of the APEC Index undertaken to prepare for the Monitoring Pandemic Recovery Report, which focuses on the transport (including logistics-related services) and other business services, showed that while early liberalization gains between 2021 and 2022 were driven by the rollback of temporary pandemic measures, these reforms slowed and even stalled by 2023 and 2024. Most sub-sectors showed no additional progress, and some experienced a re-tightening of restrictions (Appendix D).

This stagnation points to a critical need for renewed structural reform efforts. To enhance the region's services competitiveness and achieve APEC's broader economic goals, economies must move beyond temporary measures and commit to deeper, more sustained liberalization and regulatory improvement across services sectors.

## **Appendix B6. APEC-wide action #6**

Supporting liberalization, facilitation and cooperation of environmental services, by implementing and building on the agreed Environmental Services Action Plan (ESAP) (Accountable fora: Committee on Trade and Investment and Group on Services)

### ***The role and value of environmental services***

Environmental services are vital to advancing sustainable development, protecting ecosystems, and addressing urgent global challenges such as climate change, pollution, and biodiversity loss. These services include a broad range of activities—from air and water quality management to waste treatment, environmental consulting, and site remediation—that help economies meet regulatory standards, reduce environmental harm, and promote long-term resilience. In economic terms, environmental services enable compliance with green regulations, stimulate innovation in clean technologies, and attract investment in low-carbon solutions. As economies transition toward greener and more sustainable growth models, the demand for high-quality environmental services is increasing steadily. Reducing trade barriers in this sector is not only key to improving access to essential environmental expertise and technologies but also to aligning regional efforts with global climate and sustainability goals.

Liberalizing trade in environmental services—such as by removing foreign ownership limits, simplifying licensing processes, and easing local presence requirements—can significantly improve the availability and affordability of environmental solutions across the region (Hu et al. 2020). This enables more competitive service providers to enter new markets and helps both public and private sectors adopt environmentally responsible practices. Facilitation measures, including clearer regulations, faster approval procedures, and greater transparency, are equally important. These improvements lower entry barriers, particularly for MSMEs, and help accelerate the deployment of services critical to climate mitigation and adaptation, especially in developing economies. Regional cooperation plays a complementary role by promoting regulatory coherence, shared standards, and mutual recognition of qualifications. Such collaboration strengthens environmental services value chains and enables more efficient knowledge transfer and technology diffusion across APEC economies.

### ***Sustainable development in APEC***

Sustainable development has long been a core theme within APEC's agenda. In 2009, for example, APEC Economic Leaders recognized the threat posed by anthropogenic climate change to economies, communities, and people's daily lives across the region (APEC 2009). This recognition has since been strengthened, most recently through the Bangkok Goals on Bio-Circular-Green (BCG) Economy (APEC 2022). Part of this declaration is an aspiration to progress sustainable and inclusive trade and investment through the facilitation of trade in environmental services, among many others.

APEC's history with supporting the liberalization, facilitation, and cooperation of environmental services dates back to the 2009 launch of the APEC Environmental Goods and Services (EGS) Work Programme, a key thrust of APEC's broader sustainable growth agenda (APEC 2009). While notable progress has been made in liberalizing environmental goods—such as its 2012 commitment to reduce tariffs on 54 green products (Kuriyama 2012; APEC CTI 2016), which has since catalysed significant trade—the pace of progress on environmental services has been comparatively slower. To address this gap, APEC adopted the Environmental

Services Action Plan (ESAP) in 2015. Surveys and studies conducted under ESAP revealed persistent constraints, including outdated classifications, multi-agency regulatory overlap, opaque approval processes, and restrictive investment policies (ITS Global and AASC 2016; IIEC and MP Ensystems Advisory 2017; Ramboll Environ Singapore 2017; Doshi 2017). The 2018 Mid-Term Review (APEC CTI 2018) and the 2020 Final Review (Washington CORE 2020) of ESAP highlighted the need to modernize definitions, map and assess regulatory barriers, improve licensing and approval systems, and build regulatory capacity—particularly in sectors such as renewable energy and pollution remediation. Notwithstanding, the Final Review of ESAP highlighted economies’ approaches to circumvent this hurdle. To overcome definitional and classification hurdles, for example, some economies adopted a “Core and Cluster” approach, which groups core environmental services with supporting services, and has proven effective in bilateral liberalization efforts.

Since 2020, APEC has continued to expand its environmental services agenda. New Zealand has taken a leading role in advancing this work, notably by organizing the APEC Workshop to Advance the APEC Environmental Services Agenda (APEC 2020). This event helped refresh member economies’ understanding of the environmental services landscape and identify new areas for cooperation. In 2021, Annex 2 of the APEC Ministerial Meeting introduced a Reference List of Environmental and Environmentally Related Services, providing a structured basis for trade discussions (APEC 2021). This was followed in 2022 by the Model Schedule for Environmental and Environmentally Related Services, a tool to guide trade negotiations and scheduling commitments (Epps 2022). In 2023, the Reference List underwent its first review, which resulted in the inclusion of two additional sectors (APEC 2023). A follow-up review is scheduled within two years to ensure the list remains relevant and responsive to emerging priorities.

In 2023, APEC also endorsed the Non-Binding Guidelines on Services that Support the Clean-up of Marine Debris, which aims to encourage the development and exchange of services that mitigate marine pollution (APEC 2023). Collectively, these efforts demonstrate APEC’s commitment to integrating environmental sustainability into its services trade agenda. They also reflect growing recognition that liberalizing and facilitating trade in environmental services is not only essential for improving environmental outcomes, but also for enabling inclusive, innovation-led growth across the region.



## **Appendix B7. APEC-wide action #7**

Progressive liberalization and facilitation of manufacturing-related services, by implementing and building upon the agreed Manufacturing-Related Services Action Plan (MSAP)  
(Accountable fora: Committee on Trade and Investment and Group on Services)

### ***The importance of services in manufacturing***

The competitiveness of the manufacturing sector increasingly depends on a wide range of services that support and enhance production processes. Collaborations with research and development (R&D) firms drive innovation, while digital services such as cloud computing and data analytics facilitate operational efficiency and enable smart manufacturing. Logistics providers and supply chain consultants optimize the movement of goods, and after-sales services enhance customer satisfaction and add value to products. These service linkages are not peripheral, but central to manufacturing competitiveness (Liu et al. 2019). In the APEC region, data from the OECD's Trade in Value Added (TiVA) database reveals that domestic services contributed between 27.3 and 28.0 percent of gross manufacturing exports between 2016 and 2020, while foreign services accounted for an additional 3.0 to 3.2 percent over the same period (OECD n.d.).

### ***Progress under the Manufacturing Related Services Action Plan (MSAP)***

Since the adoption of MSAP in 2015, APEC has made steady, though measured, progress in advancing this agenda. An interim review conducted in 2018 evaluated progress in six key policy areas—investment, labour, customs, standards, intellectual property, and the regulatory environment—and identified challenges including restrictive foreign direct investment (FDI) policies, inefficient customs and labour regulations, technology transfer mandates, and inconsistent standards (APEC CTI 2018). The 2020 Final Review expanded on these findings, incorporating insights from workshops and across member economies. It highlighted further impediments such as localization requirements and limits on cross-border data flows, all of which underscore the need for more targeted policy responses and strengthened regional cooperation (APEC CTI 2020).

Efforts to deepen understanding and build capacity around manufacturing-related services (MRS) continued in subsequent years. In 2021, a dedicated workshop titled “Manufacturing Related Services: Spearheading Economic Recovery Post-COVID-19” was convened to examine both the challenges and opportunities associated with MRS in the post-pandemic context. Discussions focused on issues such as local content restrictions and technology transfer, providing a platform for economies to share perspectives and practical experiences (APEC PDB 2021).

In 2023, APEC undertook the project “Manufacturing-Related Services: Definition, Contribution, Issues and Challenges” to promote a common understanding of what constitutes MRS and to explore the feasibility of collecting relevant data to measure its economic contribution (Muhammad and Jusoh 2024). This work serves as a foundational step for advancing MSAP’s objectives.

### ***Monitoring progress and areas for improvement***

The APEC Index remains a useful tool for monitoring the region's broader progress in liberalizing services, including those related to manufacturing. However, between 2016 and 2024, regional gains were limited. The average restrictiveness score across 22 services sub-sectors declined only slightly—by 0.53 percent—suggesting limited pace of liberalization. Some economies made notable reforms, but this progress was counterbalanced by increased restrictions in others. Sectorally, improvements in distribution, freight forwarding, and road freight transport were offset by rising barriers in sub-sectors such as commercial banking and computer services—indicative of uneven and fragmented reform efforts across the region.

A deeper examination of sub-sector-specific barriers is useful to reveal opportunities for meaningful reform that could directly benefit MRS. In the logistics cargo-handling sub-sector, for example, 10 economies maintain screening mechanisms without explicitly excluding economic interests (Table 7). Additionally, between 9 and 10 economies do not award service provision contracts through competitive bidding, depending on whether the services apply to air or maritime cargo handling. Visa requirements also remain a constraint; between 5 and 10 economies, depending on the type of crew—air, sea, or road—do not offer visa exemptions for temporary entry or transit.

In the engineering sub-sector, market access remains uneven. Five economies continue to require a commercial presence to deliver cross-border engineering services (Table 8). Nine economies mandate local examinations for foreign professionals, and an equal number lack a temporary licensing system. Furthermore, six economies do not impose a maximum timeframe for regulators to decide on licensing applications, contributing to regulatory uncertainty and administrative delays.

While APEC has made incremental progress in advancing the liberalization and facilitation of MRS under MSAP, the overall pace remains uneven. With the manufacturing sector increasingly reliant on a wide range of enabling services, addressing these regulatory bottlenecks is essential. Renewed efforts are needed to improve regulations, remove burdensome restrictions, and ensure that services can effectively support manufacturing competitiveness across the region.

**Table 7. Selected key trade barriers in logistics cargo-handling in 2024, by policy category**

| Policy category               | Measure  | # of economies with this measure   |
|-------------------------------|--|------------------------------------|
| Restrictions on foreign entry | Screening explicitly considers economic interests  | 6                                  |
|                               | Screening exists without exclusion of economic interests   | 10                                 |
|                               | Service provision is reserved for statutory monopoly or granted on an exclusive basis  | 1 (air, maritime, road); 2 (rail)  |
| Other discriminatory measures | Foreign suppliers are treated less favorably regarding taxes and eligibility to subsidies                                    | 3                                  |
|                               | National standards on transport packages deviate from international standards  | 2                                  |
| Barriers to competition       | Public-controlled firms are exempted from the application of the general competition law                                     | 1                                  |
|                               | Prices or fees are regulated   | 6                                  |
|                               | No separation of accounts is required  | 13 (air); 14 (maritime, rail);     |
|                               | No prohibition of cross-subsidization  | 17 (air); 16 (maritime); 14 (rail) |
|                               | Contracts for services provision are awarded through competitive bidding   | 10 (air) ; 9 (maritime)            |
|                               | Other restrictions in barriers to competition  | 1                                  |
| Regulatory transparency       | Limited duration of visa for crew  | 6 (air); 7 (maritime); 3 (land)    |
|                               | No visa exemption for temporary entry/transit of crew  | 5 (air); 9 (maritime); 10 (land)   |
|                               | No multiple entry visas for crew   | 3 (air); 5 (maritime); 7 (land)    |
|                               | No pre-arrival processing  | 1                                  |
|                               | De-minimis regime is in place  | 8                                  |
|                               | No obligation to inform applicants about the final decision  | 3                                  |
|                               | No maximum time set for the regulator for decisions on applications  | 8                                  |
|                               | Individual licensing/registration requirements are imposed on warehousing, freight forwarding and customs brokerage services | 13                                 |
|                               | Restrictions related to the duration and renewal of licenses   | 4                                  |

Source: APEC PSU compilations based on data from APEC Index and OECD (accessed 28 February 2025).

**Table 8. Selected key trade barriers in engineering in 2024, by policy category**

| Policy category                    | Measure   | # of economies with this measure |
|------------------------------------|---|----------------------------------|
| Restrictions on foreign entry      | Foreign equity restrictions   | 1                                |
|                                    | Other restrictions on legal form  | 2                                |
|                                    | Board of directors: majority must be licensed professionals                               | 4                                |
|                                    | Manager must be a licensed professional   | 6                                |
|                                    | Screening explicitly considers economic interests   | 5                                |
|                                    | Screening exists without exclusion of economic interests                                  | 11                               |
|                                    | Commercial presence is required in order to promote cross-border services                 | 5                                |
| Restrictions to movement of people | Nationality or citizenship required for license to practice                               | 1                                |
|                                    | Prior or permanent residency is required for license to practice                          | 2                                |
|                                    | Lack of recognition for qualifications gained abroad                                      | 1                                |
|                                    | Foreign professionals are required to take a local examination                            | 9                                |
|                                    | No temporary licensing system is in place   | 9                                |
| Other discriminatory measures      | Foreign suppliers are treated less favorably regarding taxes and eligibility to subsidies | 2                                |
| Barriers to competition            | Fee setting: recommended minimum and/or maximum fees                                      | 2                                |
|                                    | Fee setting: mandatory minimum and/or maximum fees  | 2                                |
| Regulatory transparency            | No obligation to inform applicants about the final decision                               | 1                                |
|                                    | No maximum time set for the regulator for decisions on applications                       | 6                                |
|                                    | Restrictions related to the duration and renewal of licenses                              | 3                                |

Source: APEC PSU compilations based on data from APEC Index and OECD (accessed 28 February 2025).

## **Appendix B8. APEC-wide action #8**

Supporting cooperation in the education sector, including promoting internship schemes, overseas student exchange programs, and collaborative policy studies, as well as, in accordance with domestic education systems, information sharing pertinent to economies' education standards, qualifications and credit systems and measures to explore mutual recognition (learning from measures such as the ASEAN Qualifications Reference Framework)  
(Accountable fora: Human Resources Development Working Group)

### ***Strengthening regional integration through education***

Cooperation in the education sector is a fundamental enabler of deeper regional integration within APEC. By facilitating student and staff mobility and promoting shared learning experiences, such collaboration fosters mutual understanding, strengthens social cohesion, and enhances the region's human capital base. Cross-border education initiatives, joint research, and policy dialogues allow member economies to tackle shared challenges—ranging from digital transformation and inclusion to access to quality education—more effectively (Huang 2014). Moreover, enhanced cooperation can pave the way for greater alignment of education standards and qualifications, enabling smoother mobility of students and skilled professionals throughout the region (Khalid et al. 2019).

### ***Advancing education cooperation in APEC***

APEC economies have taken active steps to implement this agenda through a wide range of initiatives. In January 2023, the workshop “Exploring Ways to Enhance the Cross-Border Development of Skilled Professionals Across the APEC Region” brought together representatives from education ministries, universities, and the private sector to share good practices and policy recommendations for improving skills development through education, training, and job creation (Nakamura and Aikawa 2024).

In May 2023, APEC endorsed the Human Resources Development Working Group (HRDWG) Detroit Non-Binding Principles and Recommendations for Equality and Inclusion in Education, Training, and Employment, which emphasized promoting inclusivity across all sectors of society (Zhao 2023). The same month, APEC education officials held a policy dialogue under the theme “Schools as Community Hubs”, highlighting the role of schools in addressing local challenges and improving student outcomes (Wallace and Neumann 2024). Also in May, a High-Level Policy Dialogue on Strengthening Education and Economic Opportunity for Persons with Disabilities emphasized the importance of involving persons with disabilities in shaping policies (Zhao 2023).

Between August and November 2023, APEC organized a series of workshops under the project “Addressing Skill Needs Through Online Micro-Credentials in Higher Education.” These sessions focused on designing short, targeted learning programs to help individuals upskill or reskill. The initiative culminated in a toolkit to support both educational institutions and policymakers in advancing the development and use of micro-credentials to address skills gaps (The Australian Department of Education 2024).

To showcase best practices on government-industry-academia collaboration in inclusive and innovative talent development in the region, a workshop titled “Best Practices for Inclusive

Innovation, Digital Sustainability and Cross-Regional Talent Development” was held in August 2024 (APEC HRDWG 2024). Similarly, the 12th APEC Conference on Cooperation in Higher Education in September 2023 provided a forum for discussing emerging trends in cross-border education and strategies to strengthen institutional linkages among APEC economies (APEC PDB 2023).

As digital tools become increasingly integral to the delivery of education, APEC has placed greater emphasis on understanding and sharing practices in digital learning. In January 2024, a workshop titled “Challenges, Opportunities and Trends of Digital Education in the Post-Pandemic Era” was held to enhance the capacity of educators, researchers, and policymakers in navigating the digital transition (Han and Wang 2024). In August 2024, another workshop titled “Sharing Experiences and Best Practices on How APEC Economies’ Qualifications Frameworks are Coping with the Disruptive Impact of Emerging AI Technologies” focused on adapting national qualification systems to promote lifelong learning and equal opportunities for women in AI-related fields (Migues and Desir 2024).

Efforts to support women’s inclusion in research also continue through the APEC–Australia Women in Research Fellowship, which offers career advancement opportunities to women researchers, particularly PhD candidates from developing APEC economies, in STEM fields (The Australian Department of Education n.d.). This initiative complements broader efforts to ensure that women are active participants in regional innovation and academic networks.

### ***Monitoring progress and areas for improvement***

Progress under this APEC-wide action can be partially measured through available indicators. According to UNESCO data, the number of students from APEC economies studying within the region increased by 9.2 percent—from approximately 2.62 million in 2017 to 2.86 million in 2022—reflecting a positive trend in intra-APEC student mobility. While complete data for 2023 is not yet available, the upward trajectory is indicative of a growing interest in cross-border education opportunities.

In addition to student mobility, the presence of mutual recognition agreements (MRAs) among APEC economies serves as another important metric of progress. MRAs facilitate the cross-border recognition of academic qualifications and professional credentials, making it easier for individuals to transition between education and employment systems across the region. As more economies adopt such agreements, the region will benefit from greater labour mobility and a more integrated education ecosystem. As noted in Appendix B2, the APEC Inventory of Mutual Recognition Agreements for Professional Qualifications and Licensure recorded 229 MRAs signed by member economies as of April 2025, with engineering and accounting among the most commonly covered professions.

The movement of educated workers within the region also provides insight into the effectiveness of mobility-enhancing initiatives. However, data on this front remain limited. Based on responses to the survey conducted as part of this review, only one economy reported collecting, to some extent, information on the number and profile of its nationals working in other APEC economies. This data gap highlights the need for more systematic monitoring of skilled labour mobility to better assess regional integration outcomes and inform future policy development.

To build on existing momentum, APEC should continue to foster stronger and more responsive education systems that are closely aligned with the region's evolving labour market needs. Enhanced collaboration among governments, industry, and academic institutions will be essential to ensure that learners are equipped with future-ready skills—particularly in emerging fields such as artificial intelligence, green technologies, and the digital economy. Simultaneously, greater support should be directed toward inclusive initiatives that empower groups with untapped economic potential, including women, persons with disabilities, and students from remote communities, to fully engage in cross-border education and skills development. Moreover, establishing robust mechanisms for monitoring progress will be vital for guiding policy development and ensuring that APEC's efforts remain impactful, equitable, and aligned with long-term regional goals.

## **Appendix B9. APEC-wide action #9**

Collaboration in responding to the rapid developments in internet-based technology to promote a regulatory approach that provides appropriate prudential oversight, legitimate consumer and security protections while enabling the flow of trade-related data in the context of an increasingly digitalized world  
(Accountable fora: Digital Economy Steering Group)

### ***Navigating opportunities and risks in the digital economy***

The rapid advancement of internet-based technologies has transformed the way businesses operate and consumers engage with markets across the APEC region. Automation and digital tools are streamlining operations, reducing the need for manual processes, and unlocking new efficiencies (Sheth 2021). Digital platforms also enable the development of innovative business models, expand access to global markets, and provide consumers with convenient services such as e-commerce, digital payments, and online platforms for communication and collaboration.

However, the digital economy also presents significant regulatory and policy challenges. Increased connectivity brings heightened risks related to cybersecurity, data breaches, and consumer vulnerability. The extensive collection and processing of personal data by digital platforms raise concerns about data privacy and protection. Compounding these issues is the challenge of regulatory frameworks struggling to keep pace with technological innovation (Verma 2024), leading to fragmented oversight and uneven enforcement across jurisdictions.

To support a balanced and forward-looking approach to digital transformation, APEC Leaders welcomed the APEC Internet and Digital Economy Roadmap (AIDER) in 2017. This roadmap provides strategic direction for economies as they navigate the complexities of the digital economy, aiming to promote inclusive, innovative, and sustainable growth while addressing critical risks. AIDER outlines eleven key focus areas, including fostering interoperability, developing integrated policy frameworks, and enabling the free and secure flow of information and data across borders—while respecting domestic laws and regulations.

The latest [DESG Report on the Implementation of AIDER \(2024\)](#) provides a comprehensive overview of APEC's progress. It consolidates information on completed and ongoing initiatives across all eleven focus areas and highlights where additional efforts are needed to close implementation gaps. The report affirms APEC's continued commitment to fostering a coherent and adaptable digital policy environment across the region.

### ***Enabling cross-border data flows***

To facilitate trusted and efficient cross-border data transfers, APEC established the Cross-Border Privacy Rules (CBPR) system—a voluntary, enforceable framework that certifies businesses for their adherence to APEC's data privacy principles (CBPR System n.d.). The CBPR system allows certified companies to move personal data seamlessly across participating economies, helping to build consumer trust and regulatory confidence in digital transactions. Supporting this framework is the Privacy Recognition for Processors (PRP) system, which enables data processors to demonstrate their ability to meet privacy obligations as determined by certified data controllers (IMDA Singapore 2024).



Participation in these systems serves as an indicator of progress under this APEC-wide action. As of 2025, nine economies—Australia; Canada; Japan; Korea; Mexico; the Philippines; Singapore; Chinese Taipei; and the United States—are participating in the CBPR system, with 82 firms certified. Meanwhile, the PRP system includes participation from Singapore and the United States, with 59 certified firms. Compared to the ASCR Mid-Term Review, while the number of participating economies remains unchanged, there has been a notable increase in firm-level certifications—up from 40 CBPR-certified firms and 23 PRP-certified firms in 2021—indicating growing business adoption of APEC-endorsed privacy frameworks.

### ***Monitoring legal readiness***

In addition, this APEC-wide action tracks the legal and regulatory landscape across member economies to assess preparedness and alignment with digital economy goals. According to data from UNCTAD and economy sources, all APEC economies have enacted laws related to electronic transactions and cybercrime, establishing foundational safeguards for digital activity (Table 9). Furthermore, 19 economies have adopted legislation governing consumer protection, and data protection and privacy—critical components for fostering a trusted and secure digital environment.

**Table 9. Presence of online protection laws in APEC (as of 9 February 2025)**

| Economy            | Cybercrime | Consumer protection | E-transaction | Data protection and privacy |
|--------------------|------------|---------------------|---------------|-----------------------------|
| Australia          | Yes        | Yes                 | Yes           | Yes                         |
| Brunei Darussalam  | Yes        | No                  | Yes           | No                          |
| Canada             | Yes        | Yes                 | Yes           | Yes                         |
| Chile              | Yes        | Yes                 | Yes           | Yes                         |
| China              | Yes        | Yes                 | Yes           | Yes                         |
| Hong Kong, China   | Yes        | Yes                 | Yes           | Yes                         |
| Indonesia          | Yes        | Yes                 | Yes           | Yes                         |
| Japan              | Yes        | Yes                 | Yes           | Yes                         |
| Republic of Korea  | Yes        | Yes                 | Yes           | Yes                         |
| Malaysia           | Yes        | Yes                 | Yes           | Yes                         |
| Mexico             | Yes        | Yes                 | Yes           | Yes                         |
| New Zealand        | Yes        | Yes                 | Yes           | Yes                         |
| Papua New Guinea   | Yes        | No                  | Yes           | No                          |
| Peru               | Yes        | Yes                 | Yes           | Yes                         |
| The Philippines    | Yes        | Yes                 | Yes           | Yes                         |
| Russian Federation | Yes        | Yes                 | Yes           | Yes                         |
| Singapore          | Yes        | Yes                 | Yes           | Yes                         |
| Chinese Taipei     | Yes        | Yes                 | Yes           | Yes                         |
| Thailand           | Yes        | Yes                 | Yes           | Yes                         |
| United States      | Yes        | Yes                 | Yes           | Yes                         |
| Viet Nam           | Yes        | Yes                 | Yes           | Yes                         |

Note: \*Although there is no standalone Hong Kong, China Law chapter on cybercrime or cybersecurity, there are a number of offences provided in various ordinances governing computer related crimes.

Source: APEC-PSU compilations based on UNCTAD and economy sources (accessed 9 February 2025).

As digitalization continues to reshape the global economy, APEC must maintain its commitment to coordinated regulatory approaches that balance innovation with protection. In As of February 2025, two APEC economies have yet to join the WTO JSI on E-commerce, underscoring the need to further strengthen alignment with international digital trade commitments. At the same time, the OECD Digital STRI shows that significant barriers remain, indicating the need for continued efforts to facilitate trade in digitally-enabled services across the region. Continued efforts to expand participation in privacy frameworks, and close

regulatory gaps across member economies will be essential. APEC's ability to foster interoperable and trusted digital environments will not only enhance regional economic integration but also position the region as a global leader in shaping the digital economy of the future.

## **Appendix B10. APEC-wide action #10**

Supporting certain cross-border provision of financial services subject to practical needs, domestic circumstances and regulations of each economy, including by engagement by interested economies in the building on the Asia Region Funds Passport initiative (Accountable fora: Finance Ministers Process and Group on Services)

### ***The role of financial services in economic growth***

Financial services are fundamental to the functioning of modern economies. Institutions such as investment banks and venture capital firms play a vital role in channelling capital from investors to businesses, empowering firms to acquire assets, innovate, and expand operations. In addition to mobilizing capital, the financial sector offers critical tools—such as insurance and risk management products—that enable businesses and individuals to mitigate uncertainty and make long-term investments with greater confidence (WTO n.d.).

Facilitating the cross-border provision of financial services enhances the capacity of the financial sector to support economic growth. By linking financial markets across borders, economies can access deeper pools of capital and a wider range of financial products. This broader access often results in more competitive terms and greater efficiency (Thomson 2025). Furthermore, cross-border financial services typically require stronger regulatory cooperation among economies, fostering greater transparency, consistency, and resilience in the financial system.

### ***Advancing integration through the Asia Region Funds Passport***

A key initiative advancing cross-border financial integration in APEC is the Asia Region Funds Passport (ARFP n.d.). Launched in February 2019, the ARFP provides a multilateral framework to facilitate the cross-border offering of managed funds across participating economies. By harmonizing regulations and streamlining market access, the ARFP supports the development of the regional funds management industry.

Currently, Australia; Japan; Korea; New Zealand; and Thailand have fully implemented the ARFP framework, allowing for the registration of local funds and the notification of foreign passport funds. In January 2022, New Zealand registered the first ARFP passport fund (Smartshares Limited), marking a major milestone in the initiative's operationalization. A Joint Committee composed of member economies meets twice a year to address implementation challenges and promote ongoing coordination. Based on the survey circulated as part of this review, there have been no transactions to date.

### ***Monitoring progress and areas for improvement***

Progress in liberalizing financial services can be partially tracked using the APEC Index, which evaluates the regulatory restrictiveness of services trade across various sectors. Two relevant sub-sectors—commercial banking and insurance—provide insights into the evolving policy landscape.

Between 2016 and 2024, the APEC-wide restrictiveness score for commercial banking increased from 0.2721 to 0.2810, reflecting a 3.27 percent rise in overall restrictiveness. However, this trend masks considerable variation across economies. While five economies

achieved reductions in regulatory restrictiveness (ranging from 1.35 percent to 13.09 percent), six others experienced significant increases (between 6.11 percent and 55.21 percent). The remaining six economies saw no change in their scores.

In contrast, the insurance sector saw a modest liberalization trend. The regional restrictiveness score declined slightly from 0.2654 in 2016 to 0.2639 in 2024—a 0.57 percent decrease. Similar to commercial banking, individual economy trends diverged: three economies reduced their restrictiveness scores by between 2.01 percent and 16.94 percent, while five economies increased restrictions, ranging from 0.42 percent to 16.59 percent. Seven economies reported no change.

A closer look at the regulatory environment highlights specific barriers that continue to constrain the cross-border provision of commercial banking and insurance services in the APEC region. In the case of commercial banking, many economies still require a commercial presence for conducting basic banking activities (Table 10). For instance, payment services require a local presence in 15 economies, and lending services in 14. Additionally, six economies impose restrictions on accepting deposits or extending loans, and five economies limit the ability of domestically licensed banks to lend to non-residents.

From a regulatory perspective, five economies do not grant full authority to their supervisory agencies to license institutions or enforce prudential standards, and in four economies, supervisors' decisions can be overruled by the government—undermining regulatory independence and predictability.

The insurance sector faces similar constraints. A commercial presence is often a prerequisite for offering cross-border insurance services—required by 14 economies for life insurance and 13 economies for non-life insurance (Table 11). Furthermore, in five economies, licensing requirements are more stringent for foreign insurers compared to domestic ones. Another major hurdle is the lack of mutual recognition of foreign qualifications for brokers and agents, which persists in 10 economies.

The progress and ongoing challenges identified above underscore the importance of continued policy reforms and regional collaboration. Broader efforts are needed to reduce regulatory fragmentation, promote mutual recognition, and expand market access in the financial services sector. Such efforts, tailored to each economy's practical needs and domestic context, will help unlock the full potential of cross-border financial services as a driver of inclusive and sustainable economic growth in the APEC region.

**Table 10. Selected key trade barriers in commercial banking in 2024, by policy category**

| Policy category               | Measure   | # of economies with this measure |
|-------------------------------|---|----------------------------------|
| Restrictions on foreign entry | Foreign equity restrictions   | 2                                |
|                               | There are limits to the proportion of shares that can be acquired by foreign investors in publicly-controlled firms | 7                                |
|                               | Managers must be resident   | 8                                |
|                               | Screening explicitly considers economic interests   | 6                                |
|                               | Screening exists without exclusion of economic interests  | 10                               |
|                               | Commercial presence is required: deposit-taking   | 17                               |
|                               | Commercial presence is required: payment services   | 15                               |
|                               | Commercial presence is required: lending  | 14                               |
|                               | Quotas or economic needs tests are applied in the allocation of licenses  | 6                                |
|                               | Criteria to obtain a license are more stringent for foreign companies   | 7                                |
|                               | Restrictions on the branch network  | 7                                |
|                               | Restrictions on internet banking  | 3                                |
| Other discriminatory measures | Restrictions on extending loans or taking deposits in foreign currency  | 6                                |
|                               | Restrictions on lending to non-residents for domestically licensed banks  | 5                                |
|                               | Restrictions on raising capital domestically for foreign banks  | 2                                |
|                               | Deviation from international standards: Risk weighting (BCBS)   | 3                                |
|                               | Deviation from international standards: Accounting rules (IFRS)   | 3                                |
| Barriers to competition       | National, state or provincial government control at least one major firm in the sector                              | 10                               |
|                               | Publicly-controlled firms are exempted from the application of the general competition law                          | 1                                |
|                               | Contractual interest rates on loans are regulated   | 11                               |
|                               | Default interest rates on loans are regulated   | 6                                |
|                               | Interest rates on deposits are regulated  | 3                                |
|                               | The supervisor has no full authority over licensing and the enforcement of prudential measures                      | 5                                |
|                               | The government can overrule the decisions of the supervisor   | 4                                |
| Regulatory transparency       | No obligation to inform applicants about the final decision   | 7                                |
|                               | No maximum time set for the regulator for decisions on applications   | 8                                |
|                               | Restrictions related to the duration and renewal of licenses  | 4                                |

Source: APEC PSU compilation based on data from the APEC Index and the OECD (accessed 28 February 2025).

**Table 11. Selected key trade barriers in insurance in 2024, by policy category**

| Policy category   | Measure   | # of economies with this measure          |
|---|---|---|
| Restrictions on foreign entry   | Foreign equity restrictions   | 3 (life); 3 (non-life); 3 (reinsurance)   |
|   | There are limits to the proportion of shares that can be acquired by foreign investors in publicly-controlled firms | 8 (life); 9 (non-life); 7 (reinsurance)   |
|   | Managers must be resident   | 7 (life); 8 (non-life); 7 (reinsurance)   |
|   | Screening explicitly considers economic interests   | 6   |
|   | Screening exists without exclusion of economic interests  | 11  |
|   | Commercial presence is required in order to provide cross-border services   | 14 (life); 13 (non-life); 6 (reinsurance) |
|   | Local availability test for cross-border trade (non-life)   | 8   |
|   | Some insurance activities are reserved for statutory monopolies   | 2   |
|   | Mutual insurance is prohibited  | 2 (life); 3 (non-life)                    |
|   | Quotas or economic needs tests are applied in the allocation of licenses  | 4 (life); 4 (non-life); 4 (reinsurance)   |
| Criteria to obtain a license are more stringent for foreign companies | 5 (life); 5 (non-life); 5 (reinsurance)   |   |
| Restrictions to movement of people                                    | Lack of recognition for qualifications gained abroad (broking and agency services)                                  | 10  |
| Other discriminatory measures   | Deviation from international standards: Accounting rules (IFRS)   | 3   |
|   | Discriminatory financial requirements on foreign reinsurance suppliers  | 2   |
| Barriers to competition   | National, state or provincial government control at least one major firm in the sector                              | 8 (life); 7 (non-life)                    |
|   | The government has discretionary control over funding of the supervisory agency                                     | 8   |
|   | Compulsory cessions to specified reinsurers   | 4 (life); 5 (non-life)                    |
|   | Limit on the share of risks that can be ceded to reinsurers   | 1 (life); 2 (non-life)                    |
|   | Restrictions on asset holdings  | 6 (life); 5 (non-life)                    |
|   | Premiums or fees are regulated  | 1 (life); 1 (non-life)                    |
|   | Approval by the regulatory authority required for new products or services all                                      | 8 (life); 9 (non-life)                    |
|   | The supervisor has full authority over licensing and the enforcement of prudential measures all                     | 11  |
| The government can overrule the decisions of the supervisor           | 7   |   |
| Regulatory transparency   | No obligation to inform applicants about the final decision   | 3   |
|   | No maximum time set for the regulator for decisions on applications   | 7   |
|   | Restrictions related to the duration and renewal of licenses  | 3   |

Source: APEC PSU compilation based on data from the APEC Index and the OECD (accessed 28 February 2025).

## **Appendix B11. APEC-wide action #11**

Supporting APEC's work on developing air, sea, and land transportation  
in line with the APEC Connectivity Blueprint 2015–2025  
(Accountable fora: Transportation Working Group)

### ***The role of transportation in regional economic integration***

Transportation is a foundational enabler of economic growth and regional economic integration, encompassing key sub-sectors such as air, maritime, rail, and road transport (Dowling 2014). Efficient and integrated transport networks reduce logistics costs, facilitate access to global markets, and enhance participation in GVCs. Recognizing its strategic importance, APEC has implemented various initiatives to strengthen the performance and policy environment of the transport sector across the region.

### ***The APEC Connectivity Blueprint and TPTWG contributions***

In 2014, APEC Leaders adopted the APEC Connectivity Blueprint 2015–2025 (APEC 2014), which set out their vision to deepen physical, institutional, and people-to-people connectivity. At the heart of this effort is the development of robust air, maritime, and land transport systems—critical not only for strengthening supply chain resilience and promoting tourism, but also for enabling the smooth and efficient movement of goods, services, and people across borders. As detailed in the ASCR Mid-Term Review Report, the Transportation Working Group (TPTWG) has supported this vision through several capacity-building projects focused on infrastructure financing, regulatory reform, and digital transformation.

The TPTWG implemented a project in 2015–2016 to strengthen public-private partnerships (PPPs) in transport infrastructure (APEC PDB 2015). The initiative helped economies improve their understanding of investor decision-making and equipped them with tools to develop bankable projects. The project produced a practical handbook on structuring PPP deals and outlined strategies for procurement and relationship management.

A workshop to improve the management of maritime dangerous goods and container transport was held in 2018, aiming to build regulatory capacity and facilitate cross-border knowledge-sharing (APEC PDB 2017). Complementing this, a study on Verified Gross Mass (VGM) practices was conducted to assess the implementation of updated Safety of Life at Sea (SOLAS) regulations and share best practices to enhance compliance and safety (APEC PDB 2018).

In light of rapid technological change, several APEC members launched projects to examine the intersection of transport and innovation. For example, Canada led a study on disruptive technologies reshaping the transport workforce, providing recommendations to help economies anticipate labour market shifts and harness new economic opportunities (WESTAC 2021). China explored the role of digital innovation in port operations, highlighting its potential to enhance supply chain efficiency and build institutional capacity across ports (STC-NESTRA 2022). Korea's Seafarers Excellence Network focused on improving seafarer employability, welfare, and career mobility in the digital age through a mix of online and offline training (APEC SEN 2022). The United States initiated work on app-based transport systems for smart city development, compiling strategies for integrating ride-sharing platforms into urban planning (U.S. Department of Transportation, United States 2020).

Recent TPTWG initiatives have further expanded APEC’s transport agenda to respond to post-pandemic realities and the sustainability imperative. A study examined the challenges and opportunities facing the maritime transport sub-sector during the COVID-19 pandemic, focusing on seafarer welfare, regulatory burdens, and technology adoption (Lagdami, Kazantsev, and Fakhry 2024). Another project explored international cooperation in autonomous navigation to promote safe, efficient, and sustainable maritime transport, culminating in joint recommendations and technical workshops (APEC PDB 2022).

Efforts to promote sustainable and safe mobility were also supported through a regional study on electromobility, summarizing successful policies and best practices from APEC economies (Guerra-Garcia, Ramos, and Calderon 2025). This was complemented by a project on the use of artificial intelligence and digital tools to reduce congestion at trade-critical locations such as ports, intermodal terminals, and borders (APEC PDB 2023).

The importance of behavioural change in reducing transport-related emissions was highlighted in a recent project titled “Connecting Traveler Choice with Climate Outcomes”, which surveyed 14 APEC economies on strategies to influence travel behaviour through infrastructure design, land use, and active transport planning (Sydoriak et al. 2024). In parallel, a forum was initiated to explore rural transport innovation and cross-sector resource integration, with a focus on accessibility and inclusivity in underserved areas (APEC PDB 2024).

In the maritime tourism sub-sector, the project “Building a Resilient and Sustainable Cruise Industry Post COVID-19” emphasized the importance of resilience planning and sustainability in light of the cruise industry’s rapid growth and vulnerability to shocks (Chen 2024). The project provided a framework for resilience attributes and recommendations to ensure long-term viability.

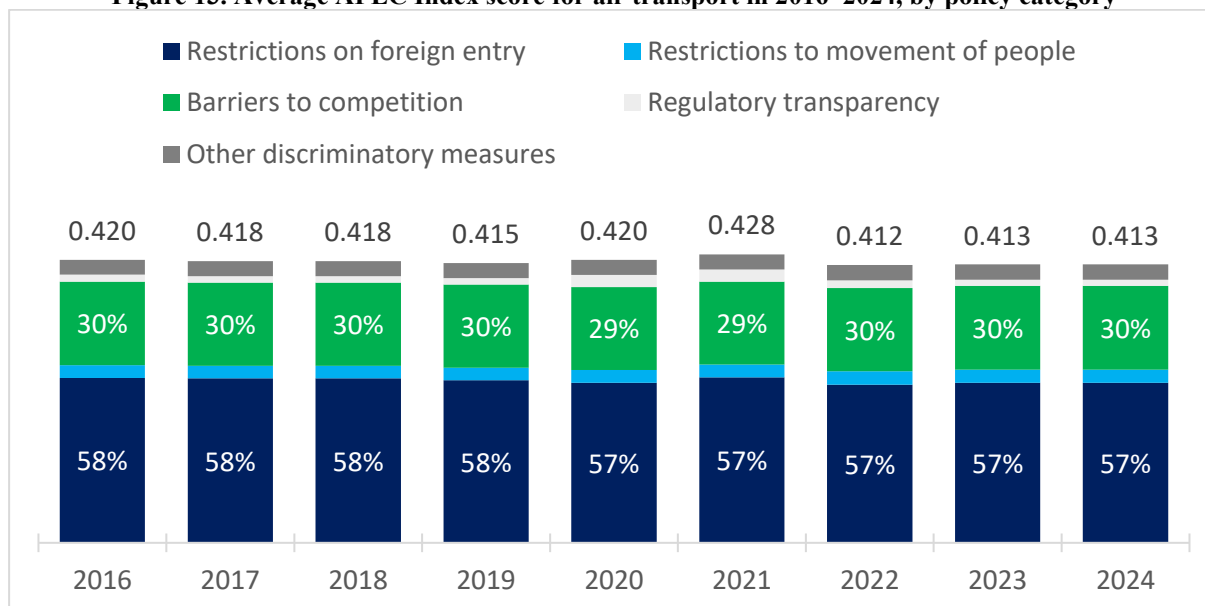
Finally, the “Exploring the New Age for Mobility Integration” project fostered dialogue on the future of Mobility as a Service (MaaS) across borders (Wang 2022). Through conferences in 2022 and 2024, APEC economies examined how integrated MaaS systems could improve cross-border connectivity, share best practices, and facilitate cooperation between public and private stakeholders in digital mobility solutions.

### ***Monitoring progress and areas for improvement***

The APEC Index has served as a useful tool for monitoring regulatory openness in the transport sector. The air transport sub-sector, while showing slight improvement—declining from a restrictiveness score of 0.420 in 2016 to 0.413 in 2024—remains one of the most regulated, significantly above the APEC-wide average of 0.284 (Figure 13). The majority of barriers stem from foreign entry restrictions (57 percent) and competition-related constraints (30 percent), which continue to limit regional air connectivity. Additional progress can be assessed through bilateral air services agreements. As of May 2025, the number of intra-APEC air services agreements ranged from 4 to 19 (Figure 14).

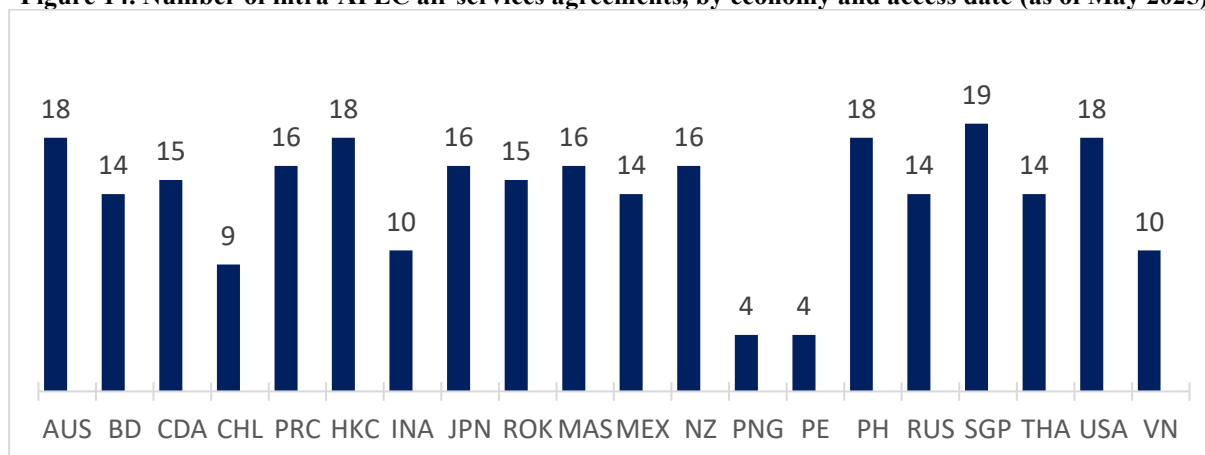


**Figure 13. Average APEC Index score for air transport in 2016–2024, by policy category**



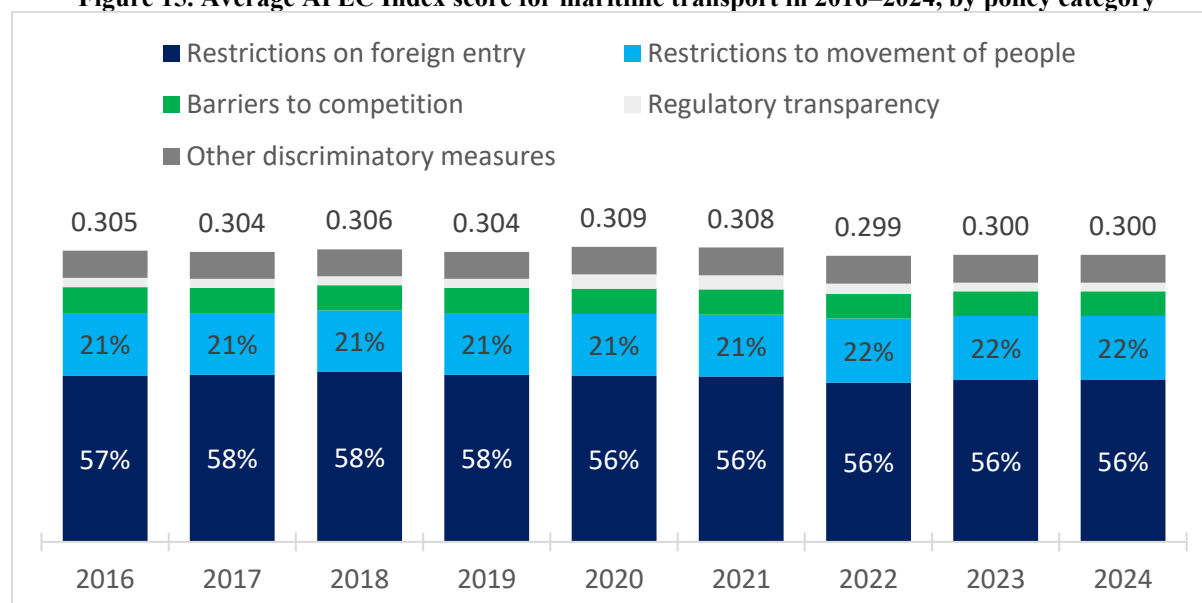
Note: For reference, the average all-sector APEC average score in 2024 was 0.284. Data labels show the total APEC Index score and the top 2 policy categories’ respective shares to total. The APEC aggregate does not include Brunei Darussalam; China; Hong Kong, China; Papua New Guinea; and Chinese Taipei as data is unavailable. Source: APEC PSU calculations using data from the OECD (accessed 28 February 2025).

**Figure 14. Number of intra-APEC air services agreements, by economy and access date (as of May 2025)**



Note: Data for Chinese Taipei is unavailable. Source: APEC PSU calculations using data from ICAO and economy updates.

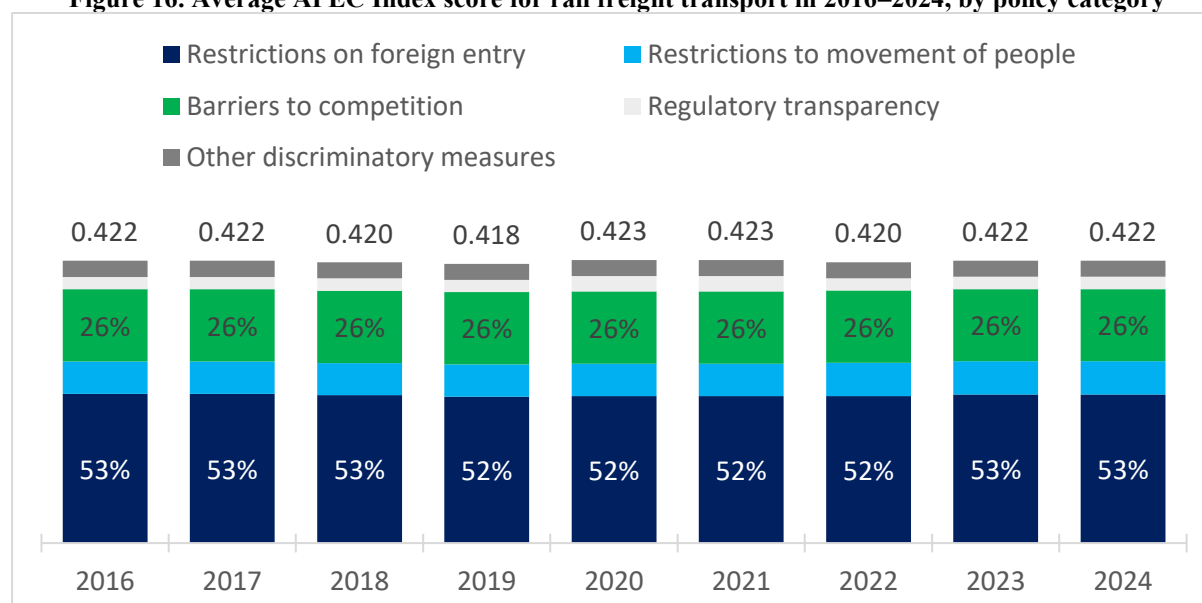
Maritime transport has seen a modest decline in restrictiveness, from 0.305 in 2016 to 0.300 in 2024, with foreign entry restrictions (56 percent) and constraints on movement of people (22 percent) remaining key areas of concern (Figure 15).

**Figure 15. Average APEC Index score for maritime transport in 2016–2024, by policy category**

Note: For reference, the average all-sector APEC average score in 2024 was 0.284. Data labels show the total APEC Index score and the top 2 policy categories' respective shares to total. The APEC aggregate does not include Brunei Darussalam; China; Hong Kong, China; and Chinese Taipei as data is unavailable.

Source: APEC PSU calculations using data from the OECD (accessed 28 February 2025).

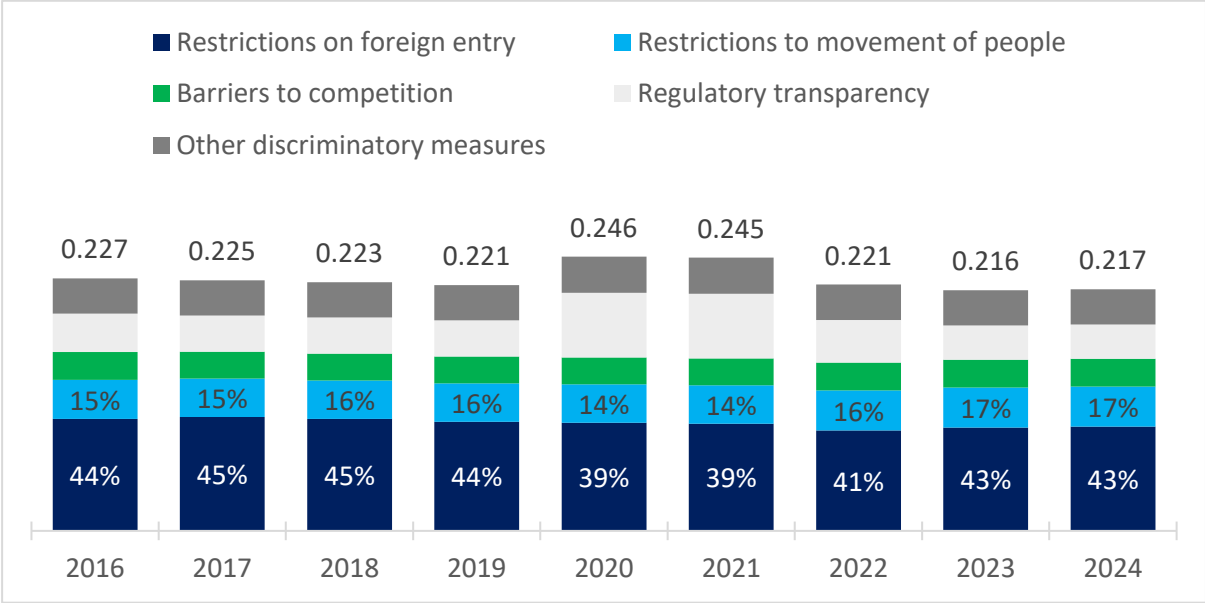
With regard to land transport, rail and road freight reveal contrasting trends. Rail freight remains one of the most closed sub-sectors, with a persistently high score of 0.422—driven largely by foreign entry barriers—and little improvement since 2016 (Figure 16). This highlights the need for targeted reforms, especially in economies with land borders that could benefit from more seamless cross-border rail connectivity. In contrast, road freight is more liberalized, with a 2024 score of 0.217 (down from 0.227 in 2016), falling below the APEC average (Figure 17).

**Figure 16. Average APEC Index score for rail freight transport in 2016–2024, by policy category**

Note: For reference, the average all-sector APEC average score in 2024 was 0.284. Data labels show the total APEC Index score and the top 2 policy categories' respective shares to total. The APEC aggregate does not include Brunei Darussalam; China; Hong Kong, China; Papua New Guinea; Singapore; and Chinese Taipei as data is unavailable.

Source: APEC PSU calculations using data from the OECD (accessed 28 February 2025).

**Figure 17. Average APEC Index score for road freight transport in 2016–2024, by policy category**



Note: For reference, the average all-sector APEC average score in 2024 was 0.284. Data labels show the total APEC Index score and the top 2 policy categories’ respective shares to total. The APEC aggregate does not include Brunei Darussalam; China; Hong Kong, China; Papua New Guinea; and Chinese Taipei as data is unavailable. Source: APEC PSU calculations using data from the OECD (accessed 28 February 2025).

Overall, these trends underscore the uneven pace of reform across transport sub-sectors. While notable progress has been made in maritime and road transport, high restrictiveness in air and rail sub-sectors continue to constrain regional integration. Continued efforts to liberalize transport services and align policies with evolving technologies will be essential to realizing the goals of the APEC Connectivity Blueprint.

## **Appendix B12. APEC-wide action #12**

Support APEC’s work on developing the travel and tourism sector for sustainable and inclusive growth, building on the work of the APEC Tourism Strategic Plan (Accountable fora: Tourism Working Group)

### ***The role of tourism in economic and social development***

The travel and tourism sector remains a cornerstone of economic development across APEC economies. It generates significant revenue through domestic and international spending, supports millions of jobs across various skill levels, and catalyzes investment in infrastructure such as transportation, accommodation, and cultural assets. For many smaller and developing economies, tourism could be a key export sector and a vital source of foreign exchange earnings. Beyond its economic contributions, tourism enhances cultural exchange, strengthens ties, and promotes regional integration. When guided by sustainable principles, it can also advance community empowerment, environmental protection, and inclusive development outcomes.

### ***Coordinated regional efforts under the APEC Tourism Strategic Plan***

In recognition of tourism’s strategic importance and vulnerability to external shocks, APEC economies have implemented a coordinated agenda under the Tourism Working Group (TWG). Efforts have been taken to develop a new APEC Tourism Strategic Plan, with consultations held throughout 2023 and 2024. This plan builds on the priorities of the 2020–2024 Strategic Plan—namely, digital transformation, human capital development, travel facilitation, and sustainable growth (APEC TWG Lead Shepherd 2024). APEC’s approach includes improving cross-border mobility, enhancing destination competitiveness, supporting tourism SMEs, and promoting innovation in tourism services.

Recent initiatives have reflected these priorities through a diverse portfolio of projects. One example is a project on enhancing rural economic growth through sustainable ecotourism, women’s empowerment, and technological readiness (APEC PDB 2024). By equipping women-led tourism SMEs with tools and training across selected economies, the project fosters sustainable practices and experiential marketing strategies that align with the Bangkok Goals and the La Serena Roadmap. Complementing this, another study developed key performance indicators (KPIs) for environmental, social, and governance (ESG) reporting among tourism enterprises to encourage sustainable investment and access to finance (APEC PDB 2024).

Tourism’s potential as a platform for cultural empowerment and inclusive growth was further emphasized through a project on Indigenous tourism (APEC PDB 2024). This initiative compiled a meta-analysis of existing partnerships, engaged the private sector, and developed a directory of Indigenous tourism collaborations to strengthen policy support and facilitate new linkages. In parallel, a regional diagnosis on gastronomy services explored how restaurant operations can adopt circular economy principles to minimize food waste and promote sustainability, especially in light of Peru’s 2024 APEC host year theme on resilient and sustainable development (APEC PDB 2024).

The sector’s environmental footprint has also been addressed through targeted actions. A workshop in Thailand focused on managing overtourism and promoting best practices in conservation, fragile, and protected areas (APEC PDB 2023). Other projects have sought to

identify strategies to reduce tourism-related carbon emissions while enhancing the protection of cultural and natural heritage sites (APEC PDB 2023). These efforts combine policy design, local engagement, and intercultural dialogue to strengthen resilience and sustainability across destinations.

Social inclusion and innovation have been integral to APEC’s tourism agenda. TWG has supported initiatives to promote gender equality, youth engagement, and the use of digital tools to support the formalization of tourism businesses. The APEC Gender and Development in Tourism initiative has mapped best practices for empowering women and youth in the industry, while a separate workshop facilitated knowledge-sharing on youth participation in sustainable tourism in rural areas (APEC PDB 2023).

Resilience has also emerged as a key focus in the aftermath of the COVID-19 pandemic. A communication toolkit on tourism crisis management was developed to help tourism authorities and businesses improve preparedness and response mechanisms (JTA 2023). Another project explored pathways to regenerative tourism by convening sustainability champions to propose new approaches for rebuilding stronger, more inclusive tourism ecosystems (APEC PDB 2021).

In parallel, APEC has advanced work on digital facilitation. A virtual workshop highlighted best practices in using digital tools to streamline tourist entry and exit, reducing wait times and enhancing the visitor experience (APEC PDB 2023). Complementing this, a 2023 study and workshop explored the role of e-formalization in helping tourism businesses transition into the formal economy. By identifying successful digital models and facilitating regional dialogue, the initiative contributes to more equitable and digitally connected tourism development (Equilibrium Business Development Consulting 2025).

### ***Monitoring progress and areas for improvement***

Travel facilitation is at the heart of tourism development, as the sector inherently depends on the physical movement of people. One key enabler of this mobility is air connectivity, which has improved significantly across the APEC region over the past decade (see Appendix B11). However, alongside connectivity, policy-related restrictions—particularly visa requirements—continue to influence travel decisions. Visa policies play a critical role in shaping tourist preferences, with more accessible regimes often serving as a key determinant of destination choice.

While visa requirements still vary widely across APEC economies, there have been notable efforts in adopting more traveler-friendly measures. These include e-visa platforms, pre-enrolment systems, and visa-on-arrival arrangements, all of which help reduce administrative burdens and enhance the ease of cross-border travel. Such measures have contributed to lowering entry barriers and promoting greater intra-APEC tourism flows (see Table 12 and Table 13).

**Table 12. Visa requirements for passport holders from APEC origin economies**

| Origin economy    | Number of APEC destination economies |                       |   |               |
|-------------------|--------------------------------------|-----------------------|---|---------------|
|                   | Visa-free                            | Visa on arrival/eVisa | Pre-enrolment /eTA/waiver registrations | Visa required |
| Australia         | 12                                   | 5                     | 2                                       | 1             |
| Brunei Darussalam | 13                                   | 1                     | 4                                       | 2             |
| Canada            | 13                                   | 3                     | 2                                       | 2             |
| Chile             | 12                                   | 3                     | 4                                       | 1             |
| China             | 5                                    | 6                     | 0                                       | 9             |

|                  |    |   |   |   |
|------------------|----|---|---|---|
| Hong Kong, China | 16 | 0 | 2 | 2 |
| Indonesia        | 9  | 4 | 1 | 6 |
| Japan            | 13 | 3 | 4 | 0 |
| Korea            | 14 | 2 | 4 | 0 |
| Malaysia         | 13 | 2 | 3 | 2 |
| Mexico           | 8  | 5 | 2 | 5 |
| New Zealand      | 14 | 3 | 2 | 1 |
| Papua New Guinea | 6  | 5 | 1 | 8 |
| Peru             | 9  | 5 | 1 | 5 |
| The Philippines  | 9  | 4 | 0 | 7 |
| Russia           | 8  | 4 | 2 | 6 |
| Singapore        | 14 | 2 | 4 | 0 |
| Chinese Taipei   | 12 | 5 | 2 | 1 |
| Thailand         | 13 | 2 | 1 | 4 |
| United States    | 13 | 3 | 2 | 2 |
| Viet Nam         | 7  | 5 | 1 | 7 |

Source: APEC Policy Support Unit (PSU) calculations using data from the Passport Index (accessed 24 June 2025) and economy sources.

**Table 13. Visa policies of APEC destination economies for passport holders of APEC origin economies**

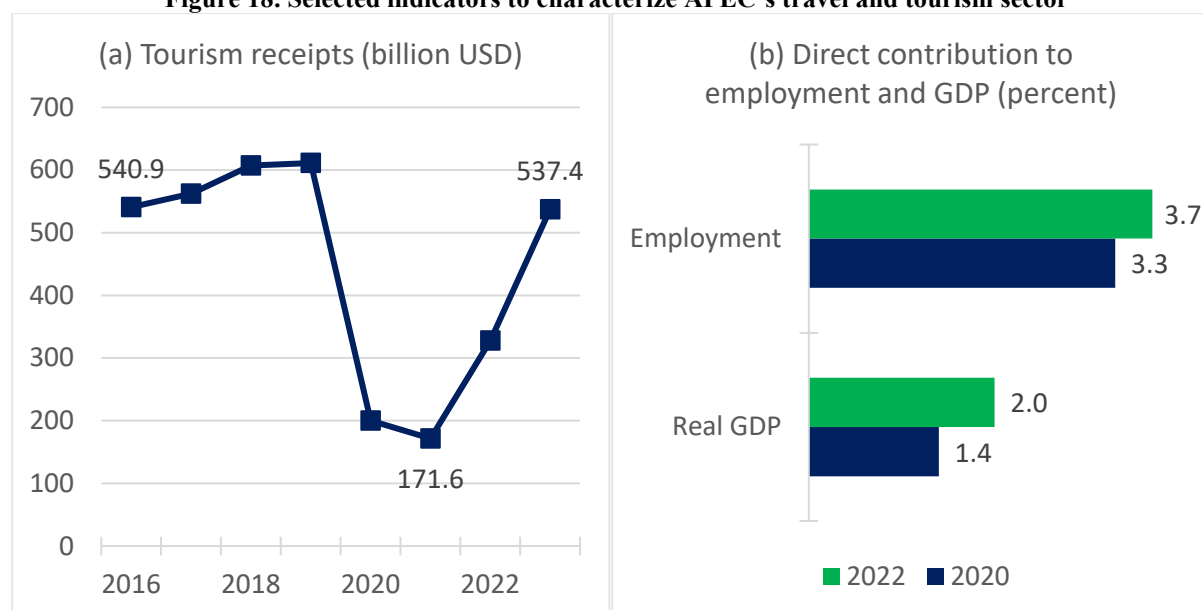
| Destination economy | Number of APEC origin economies |                       |   |               |
|---------------------|---------------------------------|-----------------------|---|---------------|
|                     | Visa-free                       | Visa on arrival/eVisa | Pre-enrolment /eTA/waiver registrations | Visa required |
| Australia           | 1                               | 10                    | 9                                       | 0             |
| Brunei Darussalam   | 15                              | 2                     | 0                                       | 3             |
| Canada              | 2                               | 0                     | 9                                       | 9             |
| Chile               | 15                              | 1                     | 0                                       | 4             |
| China               | 12                              | 0                     | 0                                       | 8             |
| Hong Kong, China    | 18                              | 0                     | 1                                       | 1             |
| Indonesia           | 7                               | 13                    | 0                                       | 0             |
| Japan               | 13                              | 2                     | 1                                       | 4             |
| Korea               | 9                               | 5                     | 6                                       | 0             |
| Malaysia            | 20                              | 0                     | 0                                       | 0             |
| Mexico              | 10                              | 0                     | 1                                       | 9             |
| New Zealand         | 2                               | 0                     | 10                                      | 8             |
| Papua New Guinea    | 1                               | 18                    | 0                                       | 1             |
| Peru                | 18                              | 0                     | 0                                       | 2             |
| The Philippines     | 18                              | 0                     | 0                                       | 2             |
| Russia              | 6                               | 10                    | 0                                       | 4             |
| Singapore           | 19                              | 1                     | 0                                       | 0             |
| Chinese Taipei      | 12                              | 1                     | 2                                       | 5             |
| Thailand            | 20                              | 0                     | 0                                       | 0             |
| United States       | 1                               | 0                     | 8                                       | 11            |
| Viet Nam            | 10                              | 9                     | 0                                       | 1             |

Source: APEC Policy Support Unit (PSU) calculations using data from the Passport Index (accessed 24 June 2025) and economy sources.

Tourism recovery in the post-pandemic period can be effectively monitored through key indicators such as international arrivals, tourism receipts, GDP contributions, and employment. The COVID-19 pandemic had a profound impact on the sector, with international tourist arrivals in APEC economies plummeting from 389.9 million in 2016 to 98 million in 2020 and further declining to 68.3 million in 2021, according to data from UN Tourism and various economy sources. While 2022 and 2023 saw a gradual rebound, most economies have yet to fully return to pre-pandemic levels.

Tourism receipts mirrored this trajectory. After falling from USD 540.9 billion in 2016 to USD 171.6 billion in 2021, receipts recovered to USD 537.4 billion in 2023 (Figure 18a), with the United States; Australia; Canada; Japan; and Mexico accounting for the highest shares. The sector's direct contribution to GDP also rebounded, increasing from USD 796 billion in 2020 to USD 1.2 trillion in 2022, equivalent to a rise from 1.4 percent to 2.0 percent of total GDP. Employment in the tourism sector similarly improved, growing from 48.2 million jobs in 2020 to 55 million in 2022, representing 3.7 percent of total employment—up from 3.3 percent two years prior (Figure 18b).

**Figure 18. Selected indicators to characterize APEC's travel and tourism sector**



Note: APEC aggregates are a sum of data available.

Source: APEC PSU calculations using data from UN Tourism, Chinese Taipei, and the World Travel & Tourism Council (accessed 11 February 2025).

### **Appendix B13. APEC-wide action #13**

Development of services data and statistics to measure and support implementation of the Roadmap and improve tracking of services trade and investment more broadly (Accountable fora: Committee on Trade and Investment and Group on Services)

#### ***The importance of data and statistics***

A robust statistical foundation is essential for the effective implementation and monitoring of the ASCR. Policymakers require access to clear and comprehensive data frameworks, supported by timely, reliable, and internationally comparable statistics, in order to make informed decisions and track progress. The well-known adage—“if you cannot measure it, you cannot improve it”—holds especially true in the context of services trade, where data gaps remain persistent across many APEC economies. Achieving meaningful improvements in services data requires capacity development within statistical agencies across economies. For indicators not yet collected, economies may need to strengthen their statistical agencies or collaborate with international institutions to begin systematic data gathering. For existing indicators, refinement of collection processes and efforts to align with international standards will improve data quality and comparability. Even where harmonization is not immediately feasible, enhancing transparency on methodology can help mitigate limitations and foster more consistent interpretation of data.

#### ***Promoting data awareness and strengthening capacity***

Effective monitoring and evaluation lie at the heart of every initiative, including the ASCR. Without the means to assess outcomes or identify gaps, it becomes difficult to determine whether intended objectives are being met. This begins with building a culture of data awareness among APEC member economies. A shared understanding of the ASCR’s objectives, measurable targets, and APEC-wide actions is a necessary first step. In 2017, the PSU developed a set of baseline indicators to track the Roadmap’s implementation (Pasadilla, Wirjo, and Gonzales 2017). However, the ASCR Mid-Term Review Report noted that these indicators may need to be refined or supplemented over time. Additionally, many economies still face institutional challenges, particularly in their statistical agencies, which limits their ability to regularly collect and disseminate detailed services-related data.

To address these gaps, APEC has supported a range of capacity-building initiatives over the past decade. These efforts aim to strengthen statistical literacy, improve data coverage, and foster the development of new and policy-relevant indicators. A prominent example is the APEC TiVA initiative, which was designed to shed light on the role of services within GVCs. Supported through a series of technical workshops, the TiVA program produced two key publications: one detailing the methodology for constructing the APEC TiVA database (APEC TiVA Core Technical Task Force and Lin Jones 2019), and another explaining core GVC-related concepts, TiVA analytical frameworks, and the application of TiVA indicators in trade and investment policy (APEC TiVA Core Technical Task Force and Lin Jones 2021). While not exclusively focused on services, the TiVA database has been instrumental in revealing the underlying contributions of services sectors to regional and global production networks.

Another significant milestone has been the development of the APEC Index—a services-specific policy tool inspired by the OECD’s Services Trade Restrictiveness Index (STRI) but adapted to reflect APEC specific elements. Originating from technical discussions and a series



of capacity-building workshops held between 2017 and 2019, the APEC Index was initially piloted in four economies: Chile, Peru, Chinese Taipei, and Viet Nam. As of 2025, the Index has expanded to cover 22 services sectors across 18 APEC economies. More recent initiatives have focused on the application of the Index, with workshops such as Expansion and Application of the APEC Index (APEC PDB 2022), Practical Application of the APEC Index in Research and Policy (APEC PDB 2023), and Use-Cases for the APEC Services Index (APEC PDB 2023) helping to deepen understanding of how regulatory environments impact services trade across the region.

In parallel, efforts have also been made to consolidate services-related regulatory information through digital platforms. One such initiative is the inclusion of services regulations in the APEC Trade Repository (APEC TR)—an online resource that currently houses members' trade and tariff data (APEC n.d.). Integrating services-related rules into this platform would significantly improve access to regulatory information for businesses, policymakers, and researchers alike. At the same time, APEC members have gradually expanded the range of services-related indicators they report. As shown in Table 14, the overall number of economies reporting data across most indicators has increased. However, progress has not been uniform. Notably, the number of economies submitting Foreign Affiliate Trade in Services (FATS) data to the WTO and investment-related statistics to the International Trade Centre (ITC) has declined, signalling the need for renewed attention to these areas.

**Table 14. Availability of selected indicators to support the ASCR (as of 16 February 2025)**

| #  | Source   | Indicator                                  | Number of economies with available data (as of year) |      |      |
|----|----------|--|--|------|------|
|    |          |  | 2016   | 2021 | 2025 |
| 1  | WTO      | Cross-border trade in services             | 20   | 20   | 21   |
| 2  | WTO      | Trade in services by sector                | 19   | 19   | 21   |
| 3  | WTO      | Foreign affiliate trade in services (FATS) | 7  | 11   | 8    |
| 3a | WTO      | Inward FATS                                | n/a  | n/a  | 8    |
| 3b | WTO      | Outward FATS                               | n/a  | n/a  | 4    |
| 4  | OECD/WTO | Balanced Trade in Services (BaTIS)         | 5  | 7    | 12   |
| 5  | OECD     | Trade in Value Added (TIVA)                | 19   | 20   | 20   |
| 5a | OECD     | Services trade in value-added              | 19   | 20   | 20   |
| 5b | OECD     | Share of services in manufacturing         | 19   | 20   | 20   |
| 6  | OECD     | APEC Index                                 | 11   | 16   | 18   |
| 7  | ITC      | Investment map                             | 17   | 17   | 12   |
| 7a | ITC      | Inward FDI in tertiary sector              | n/a  | n/a  | 12   |
| 7b | ITC      | Outward FDI in tertiary sector             | n/a  | n/a  | 6    |
| 7c | ITC      | Investment in services by sector           | 17   | 17   | 12   |
| 8  | WB       | Number of arrivals/departures              | 21   | 21   | 21   |
| 9  | UNWTO    | Intra-APEC arrivals/departures             | n/a  | 21   | 21   |
| 10 | WB/WTO   | Services Trade Restrictions Index          | 16   | 19   | 19   |

ITC—International Trade Centre; OECD—Organisation for Economic Co-operation and Development; UNWTO—UN Tourism; WB—World Bank; WTO—World Trade Organization

Source: APEC PSU compilation based on various sources, including the ASCR Baseline Indicators and the ASCR Mid-Term Review Reports (accessed 16 February 2025).

In summary, the continued development of high-quality, policy-relevant services data remains central to supporting the ASCR's implementation and broader efforts to enhance transparency and competitiveness in APEC's services sector. While progress has been made, further investment in institutional capacity, international coordination, and data innovation will be critical to ensuring that services trade and investment can be effectively measured and guided by evidence-based policymaking. This includes expanding the APEC index to cover all

economies and other services sector, such as environmental services and other business services beyond professional services.

## **Appendix B14. APEC-wide action #14**

Progressive facilitation of services to improve the regional food system to ensure access to safe, high quality food supplies across the Asia-Pacific  
(Accountable fora: Policy Partnership on Food Security)

### ***The crucial role of services in the food system***

The regional food system is a complex and interconnected network that spans the entire journey of food—from production to consumption. It includes all activities and infrastructure related to growing, harvesting, processing, packaging, distributing, consuming, and eventually disposing of food products. At each stage of this value chain, services play a critical role in improving efficiency, reducing waste, and supporting food security.

Transport services are essential for moving agricultural inputs to producers and ensuring that harvested and processed goods reach consumers in a timely manner, helping maintain freshness and reduce spoilage (Michel et al. 2024). Financial services, including credit and insurance, enable producers and agribusinesses to invest in technologies and safeguard against risks such as crop failure or price volatility. Digital services—particularly those involving information and communications technologies (ICT)—deliver valuable data on market conditions and weather patterns, aiding farmers in making more informed, data-driven decisions. Research and development (R&D) services further underpin agricultural innovation, leading to enhanced productivity, new processing techniques, and more sustainable practices throughout the food system (Gamage et al. 2024).

### ***Strategic frameworks and capacity building for services-driven food security***

Recognizing the fundamental role that services play in building a resilient and sustainable food system, the Policy Partnership on Food Security (PPFS) has led several strategic initiatives aimed at enhancing this nexus across the Asia-Pacific region.

In 2021, the PPFS and APEC Ministers responsible for food security launched the Food Security Roadmap Towards 2030 (APEC 2021). This strategic document outlines a vision for a food system that is open, transparent, equitable, sustainable, and productive. It identifies six priority action areas: digitalization and innovation, productivity, inclusivity, sustainability, public-private partnerships, and the achievement of SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals. Services are recognized as instrumental to delivering on the aspirations and activities set out in each of these areas.

In 2022, this vision was operationalized through the endorsement of the Implementation Plan of the Food Security Roadmap Towards 2030, developed in consultation with both public and private sector stakeholders (APEC 2022). The plan adopts a holistic, systems-based approach to regional food security, placing emphasis on service integration along agri-food value chains.

In 2023, PPFS further advanced regional alignment by endorsing the Principles for Achieving Food Security Through Sustainable Agri-food Systems in the APEC Region. These principles reflect a shared regional commitment to build resilient and inclusive agri-food systems, serving as a guide for policy development and cooperation among APEC economies (APEC 2023).

To complement these high-level policy frameworks, the PPFS has spearheaded numerous practical initiatives aimed at capacity building and knowledge exchange across APEC. In 2016, Korea organized the APEC Forum on Inclusive Food System and Food Security in the Asia-Pacific Region through Public-Private Partnership. The forum focused on improving coordination and identifying policy issues that affect the integration and efficiency of regional food systems. Between 2017 and 2019, Korea also led the Smart Agriculture Initiative for Sustainable Growth, a three-year program that facilitated the sharing of policy experiences and best practices in smart agriculture, with the goal of fostering innovation and sustainability in the sector.

Through the PPFS, New Zealand commissioned the PSU to produce a report titled “Insights on the Regulatory Environment within APEC Economies and Its Impact on Trade in Services in Food Value Chains” (Liu et al. 2019). The report highlighted the need for a whole-of-government approach to improving the regulatory landscape and emphasized that regulatory reform must be context-specific. Key recommendations included adopting international standards and best practices, improving infrastructure, and expanding the use of ICT and modern technologies to support food-related services and regulation.

Building on the findings of the report, New Zealand conducted case studies on the horticulture sector in Indonesia and Mexico to identify service-related barriers and explore opportunities for reform. In April 2021, the Services and the Food System Workshop was convened to enhance understanding of how services contribute to food production, processing, and distribution across the APEC region (Inkster 2021). A significant output of this initiative was a virtual toolkit—a curated set of resources designed to support economies in applying service-based solutions to food system challenges.

In June 2022, PPFS organized a webinar focused on digitalization and innovation, where participants shared successful approaches and technologies for enhancing food system performance (Kim 2022). Later that year, in December, a virtual seminar titled “E-commerce Opportunities for Indigenous and Ethnic Communities” explored how marginalized agribusinesses can leverage digital tools and platforms to expand their markets and increase economic participation (Iti and Wirepa 2022).

In January 2025, the release of a new report titled “Survey and Workshop on Preventing and Reducing Food Loss and Waste (FLW) to Achieve Sustainable Food Systems in APEC Economies” addressed one of the most pressing challenges in the region’s food system. The report identifies four key dimensions critical for effective FLW policy implementation: strategic planning, strong leadership and governance, comprehensive policy tools, and robust measurement frameworks (Méndez-Lazarte 2025).

### ***Monitoring progress and areas for improvement***

To assess the effectiveness of services in supporting food security goals, APEC has utilized the prevalence of undernourishment as an indirect indicator of progress. The Food and Agriculture Organization (FAO) noted that this measure closely aligns with the concept of food inadequacy and serves as a useful proxy for evaluating improvements in food access.

A comparison of undernourishment levels across APEC economies between the periods 2016–2018 and 2021–2023 reveals mixed outcomes (Table 15). Seven economies recorded a reduction in undernourishment, signalling improved food access and services effectiveness.

However, in four economies, undernourishment levels rose, suggesting that challenges remain and that further policy efforts are required to ensure equitable access to safe and nutritious food.

**Table 15. Prevalence of undernourishment in APEC economies (percent)**

| Economy          | 2016-2018 | 2017-2019 | 2018-2020 | 2019-2021 | 2020-2022 | 2021-2023 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Australia        | <2.5      | <2.5      | <2.5      | <2.5      | <2.5      | <2.5      |
| Canada           | <2.5      | <2.5      | <2.5      | <2.5      | <2.5      | <2.5      |
| Chile            | 3.1       | 3.0       | 2.7       | <2.5      | <2.5      | <2.5      |
| China            | <2.5      | <2.5      | <2.5      | <2.5      | <2.5      | <2.5      |
| Hong Kong, China | <2.5      | <2.5      | <2.5      | <2.5      | <2.5      | <2.5      |
| Indonesia        | 6.0       | 5.9       | 6.2       | 6.3       | 6.8       | 7.2       |
| Japan            | 2.7       | 2.6       | 2.8       | 2.9       | 3.2       | 3.4       |
| Korea            | <2.5      | <2.5      | <2.5      | <2.5      | <2.5      | <2.5      |
| Malaysia         | 2.7       | <2.5      | <2.5      | <2.5      | <2.5      | <2.5      |
| Mexico           | 3.8       | 3.6       | 3.5       | 3.2       | 3.2       | 3.1       |
| New Zealand      | <2.5      | <2.5      | <2.5      | <2.5      | <2.5      | <2.5      |
| Papua New Guinea | 27.3      | 27.5      | 27.3      | 27.4      | 27.0      | 27.7      |
| Peru             | 6.6       | 6.2       | 6.5       | 6.7       | 7.1       | 7.0       |
| The Philippines  | 7.1       | 6.0       | 5.6       | 5.8       | 6.0       | 5.9       |
| Russia           | <2.5      | <2.5      | <2.5      | <2.5      | <2.5      | <2.5      |
| Chinese Taipei   | 4.2       | 4.0       | 3.9       | 3.8       | 3.8       | 3.7       |
| Thailand         | 7.3       | 7.0       | 6.4       | 6.1       | 5.8       | 5.6       |
| United States    | <2.5      | <2.5      | <2.5      | <2.5      | <2.5      | <2.5      |
| Viet Nam         | 7.0       | 6.6       | 6.0       | 5.5       | 5.2       | 5.2       |

Note: Data for Brunei Darussalam; and Singapore are unavailable.

Source: APEC PSU calculations using data from FAO (accessed 9 February 2025).

Services lie at the heart of a modern, resilient, and inclusive food system. Whether through digital innovation, financial inclusion, transport logistics, or agricultural research, the integration and enhancement of services can unlock transformative improvements across the entire food value chain. As APEC economies move forward in implementing the Food Security Roadmap Towards 2030, sustained investment in services—and stronger regional collaboration around them—will be essential to ensuring secure, high-quality food supplies for communities across the Asia-Pacific.

## **Appendix B15. APEC-wide action #15**

Strengthen domestic and regional energy security and lower the carbon intensity of energy supply and use across the region  
(Accountable fora: Energy Working Group)

### ***Energy as a foundation for the services sector***

Reliable access to energy is essential for the services sector, as virtually all aspects of its operations—from communications and digital infrastructure to transport, retail, finance, hospitality, and healthcare—depend on it. Consistent electricity supply is critical for powering key technologies such as data servers, networks, lighting, and climate control systems, enabling uninterrupted service delivery and operational efficiency. As digital transformation deepens, services such as cloud computing, online banking, telemedicine, and e-commerce increasingly rely on energy-intensive data centers and ICT infrastructure. Any disruption to energy supply can result in costly downtime, lost productivity, reputational damage, and financial losses.

The growing scale and complexity of the services sector, coupled with rising expectations for sustainability, underscore the need for clean, affordable, and dependable energy. Reducing dependence on carbon-intensive energy sources is essential—not only for tackling climate change but also for improving the sector’s resilience to price volatility and supply disruptions. Traditional fossil fuel-based systems remain significant contributors to greenhouse gas emissions and environmental degradation, while also being vulnerable to geopolitical and market uncertainties.

Transitioning to renewable energy sources such as solar, wind, hydro, and geothermal can enhance energy security, reduce emissions, and support long-term cost stability. For service-oriented businesses—particularly those operating in global value chains or catering to environmentally conscious consumers—adopting clean energy strengthens competitiveness and supports broader sustainability commitments. Clean energy is no longer just an environmental goal; it is an enabler of stable, efficient, and future-ready services across the region.

### **Energy-related initiatives in APEC**

APEC’s efforts to strengthen energy security and sustainability have evolved significantly over the past two decades. The Energy Working Group (EWG) has played a central role in driving forward commitments to double the share of renewables in the APEC energy mix by 2030 (from 2010 levels) and to reduce energy intensity by 45 percent from 2005 levels by 2035. These efforts have been supported by the establishment of a dedicated APEC sub-fund for energy efficiency and low-carbon measures, signaling a broader shift from traditional energy security concerns to low-carbon development.

EWG has actively supported regional efforts to strengthen energy security and reduce carbon intensity, recognizing that access to affordable, reliable, and sustainable energy is fundamental to economic growth and competitiveness, particularly for services sectors. Between 2014 and 2018, the EWG’s strategic plan focused on energy security, energy efficiency, clean energy development, and promoting prosperity through trade and investment (APEC EWG 2014). During this period, several capacity-building workshops and research publications were completed. These included work on climate resilience in the energy sector, energy efficiency

practices, solar emergency shelters, and renewable energy solutions for remote areas (Wirjo et al. 2021). One notable output, the 2018 report on “Filling the Gap to Double Renewable Energy,” identified key policy and infrastructure challenges hindering widespread renewable adoption in the region (ITRI 2018).

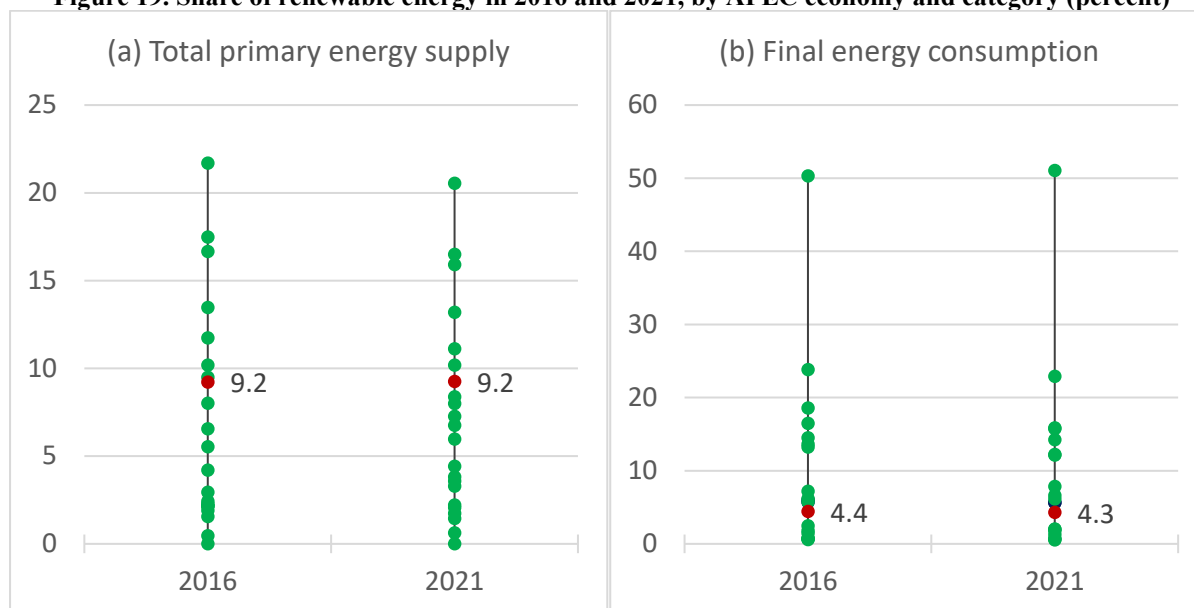
A subsequent 2019 APEC report on emerging energy security risks underscored the technical and economic challenges associated with scaling up renewable energy (APEREC and IEEJ 2019). These include operational issues posed by intermittent energy sources, potential impacts on the profitability of existing power plants, and difficulties in attracting long-term investment. The report highlighted the critical role of energy policy in building investor confidence and emphasized the need for a predictable policy environment that balances public expectations with financial realities.

From 2019 to 2023, EWG’s strategic objectives were expanded to include energy access and resilience alongside clean energy and efficiency (APEC EWG 2019). Efforts including workshops on electric grid resilience and integration of sustainable energy into transport networks have emphasized the potential of decentralized systems like microgrids, especially in island and disaster-prone regions. These projects could enhance energy reliability for critical services sectors. Meanwhile, EWG’s focus on green financing has encouraged the development of policies to support infrastructure investments in clean energy technologies.

### ***Monitoring progress and areas for improvement***

APEC’s progress in reducing the carbon intensity of energy production and consumption can be assessed through two key indicators: the share of renewable energy and the energy intensity ratio. According to the Asia Pacific Energy Research Centre (APEREC), the share of renewable energy in APEC’s total primary energy supply (TPES) remained flat at 9.2 percent between 2016 and 2021 (Figure 19a), showing only a modest increase from the 2010 baseline of 9.0 percent and far behind APEC’s goal of doubling the share of renewables by 2030. In fact, renewable energy’s share of final energy consumption declined slightly from 4.4 percent in 2016 to 4.3 percent in 2021 (Figure 19b). These trends highlight the persistent challenges in expanding the use of renewables, particularly in light of system integration difficulties, regulatory hurdles, and limited investment.

**Figure 19. Share of renewable energy in 2016 and 2021, by APEC economy and category (percent)**



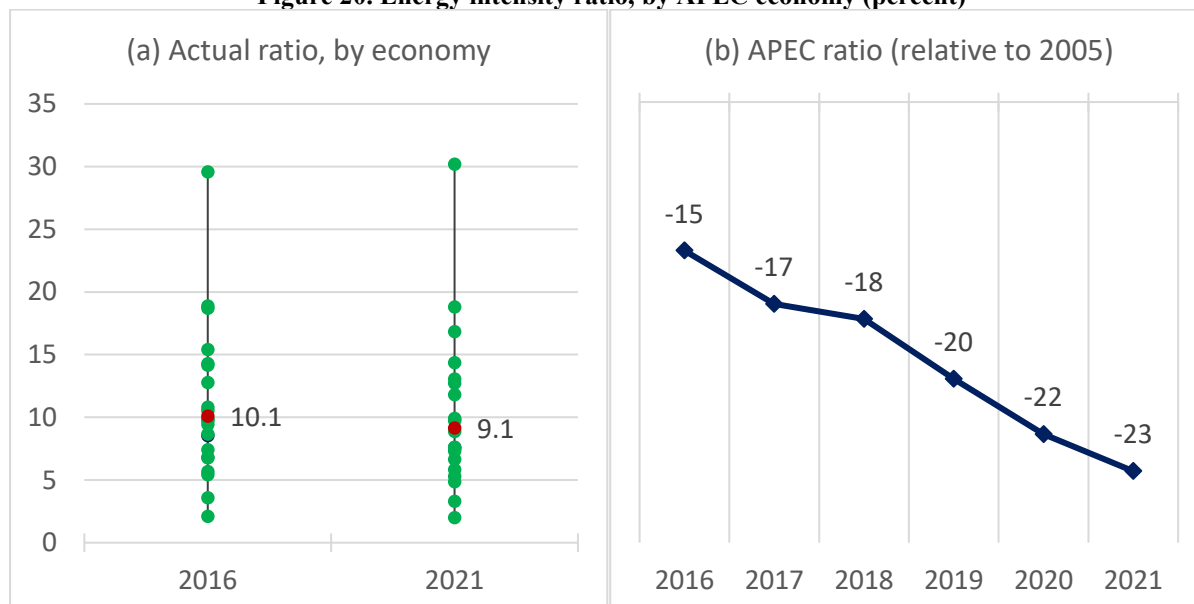
Red=APEC Average (with data label)

Note: Renewable energy sources include nuclear, hydro, geothermal, and solar energy, among others.

Source: APEC PSU calculations using data from the Asia-Pacific Energy Research Centre (accessed 10 February 2025).

Despite limited progress on renewable energy uptake, APEC has made more encouraging gains in improving energy efficiency. Between 2016 and 2021, the region’s energy intensity ratio—measuring energy consumed per unit of GDP—fell from 10.1 percent to 9.1 percent (Figure 20a). This decline indicates that APEC economies are managing to consume less energy to achieve the same unit of economic growth over time. As of 2021, APEC had already achieved a 23 percent reduction in energy intensity from 2005 levels, putting it on track to meet its 2035 target of a 45 percent reduction (Figure 20b).

**Figure 20. Energy intensity ratio, by APEC economy (percent)**



Red=APEC Average (with data label)

Note: Energy intensity ratio is defined as total final energy consumption relative to real GDP. The APEC aggregate is a weighted average based on real GDP (2015=100).

Source: APEC PSU calculations using data from the Asia-Pacific Energy Research Centre (accessed 10 February 2025).



These results underscore a mixed picture. While gains in energy efficiency are notable, the slow pace of renewable energy adoption remains a critical challenge. Strengthening policy coherence, improving investment environments, and addressing technical barriers will be essential for achieving a cleaner and more resilient energy future—one that can sustain the evolving needs of the services sector and support APEC’s broader sustainability objectives.

## Appendix B16. APEC-wide action #16

Examination of the impact of the Next Generation Trade and Investment Issues on mode 3 trade in services  
(Accountable fora: Investment Experts' Group)

### *Evolving investment needs in a changing global landscape*

In 2010, APEC Economic Leaders declared that APEC would make important and meaningful contributions as an incubator to the region's ambitious goal of a Free Trade Area of the Asia-Pacific (FTAAP). Part of this commitment is defining, shaping, and addressing the Next Generation Trade and Investment Issues (NGETIs), described as those that have been considered to be traditional trade issues but need to be addressed in new ways and those that either did not exist or were not considered trade issues in 1995 but now have a tangible impact on business operations across the region.

Since 2010, a total of five NGETIs have been endorsed, namely: (1) facilitating global supply chains; (2) enhancing small- and medium-sized enterprises (SMEs) participation in global production chains; (3) promoting effective, non-discriminatory, and market-driven innovation policy; (4) transparency in regional and free trade agreements (RTAs/FTAs); and (5) manufacturing-related services in supply chains/value chains. These cross-cutting issues have important implications for Mode 3 trade in services, particularly in how they shape conditions for commercial presence.

For example, global supply chains often involve multinational corporations (MNCs) establishing affiliates across different jurisdictions, which may require the intra-corporate transfer of professionals during initial operations. NGETIs related to supply chains and manufacturing-related services (NGETI #1 and #5) may encourage greater engagement with MNCs, while efforts to strengthen SME participation (NGETI #2) may motivate localization requirements that drive MNCs to partner with local suppliers. Innovation policies (NGETI #3) can prompt regulatory reviews to address market entry barriers such as minimum capital thresholds or limits on resource access. In parallel, transparency in RTAs and FTAs (NGETI #4) can enhance predictability and facilitate investment decisions by improving clarity around regulatory commitments.

In recent years, APEC economies have expanded their examination of NGETIs to include more inclusive and responsible investment practices. Papua New Guinea, for instance, organized a workshop in 2018 on sustainable investment policies, emphasizing the role of FDI in advancing inclusive growth, supporting MSMEs, and empowering women (APEC PDB 2018). Malaysia followed up with a Public-Private Dialogue on Inclusive and Responsible Business and Investment in 2020, highlighting the value of aligning corporate strategies with the UN Sustainable Development Goals (SDGs). These discussions reflect a broader shift in investor expectations—toward sustainability, social responsibility, and long-term development impact.

Despite these advances, disparities in how trade agreements treat Mode 3 remain (APEC CTI 2016). Some RTAs address investment in services under a dedicated chapter, while others include it within services provisions. This fragmentation creates uncertainty for investors and complicates compliance for firms operating across multiple markets. To improve transparency and consistency, Peru hosted a Capacity Building Workshop on Investor-State Dispute Settlement (ISDS), aimed at strengthening treaty drafting and providing clearer guidance on

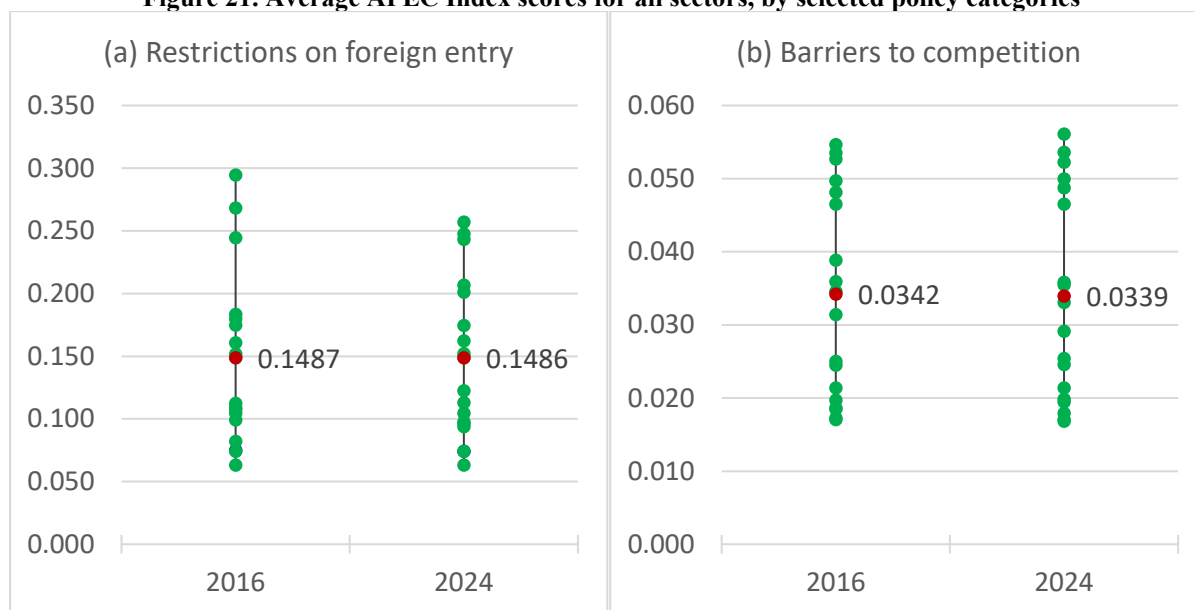
ISDS mechanisms (APEC PDB 2017). The Investment Experts' Group (IEG) also developed the APEC Investment Commitment Handbook, published in 2020, to consolidate investment obligations from various treaties and support economies in improving treaty transparency and consistency (Calamita 2020).

### ***Monitoring progress and areas for improvement***

The World Bank's Ease of Doing Business (EoDB) index previously served as a reference for assessing barriers to commercial presence but has been discontinued.

Another useful indicator is the APEC index, which identifies regulatory restrictiveness in services trade, including factors that could affect Mode 3. The latest data reveal minimal changes in two key policy areas—restrictions on foreign entry and barriers to competition—which together contribute significantly to overall restrictiveness. Between 2016 and 2024, the average contribution of restrictions on foreign entry declined marginally from 0.1487 to 0.1486, while the contribution of barriers to competition decreased slightly from 0.0342 to 0.0339 (Figure 21). Notwithstanding this stagnation, changes were observed at the level of individual economies.

**Figure 21. Average APEC Index scores for all sectors, by selected policy categories**

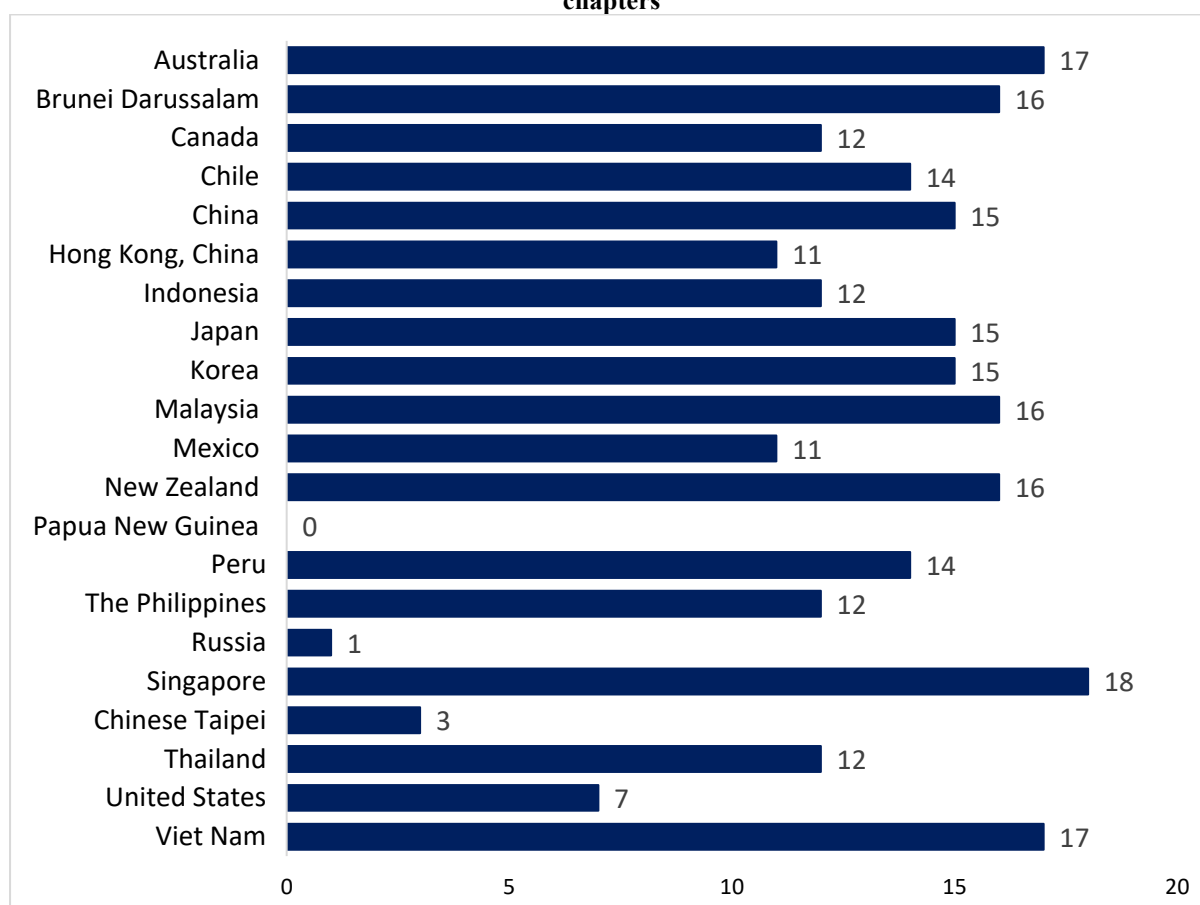


Red=APEC Average (with data label)

Note: Scores are interpreted as: 0 (most open) to 1 (most restrictive). APEC aggregates are a simple average of data available. Data for Brunei Darussalam; China; and Hong Kong, China are unavailable.

Source: APEC PSU calculations using data from the OECD (accessed 16 February 2025).

Regional trade agreements, free trade agreements, and bilateral investment treaties offer mechanisms to promote greater investment integration. These agreements typically include provisions on non-discrimination, sector coverage, investor treatment, performance requirements, and transparency. As such, one indicator for monitoring progress under this APEC-wide action is the number of intra-APEC trade agreements that include investment chapters. As of February 2025, Singapore leads in terms of intra-APEC partners covered (18), followed by Australia (17); Viet Nam (17); Brunei Darussalam (16); Malaysia (16); and New Zealand (16) (Figure 22).

**Figure 22. Number of intra-APEC partners with which economies have trade agreements with investment chapters**

Source: APEC PSU compilation from UNCTAD (accessed 9 February 2025) and economy sources.

Bilateral investment treaties (BITs) also reflect deepening investment ties within the region. Recent analysis shows that Hong Kong, China has the highest number of intra-APEC partners with which it has BITs in force (15). This is followed by China (14); and Viet Nam (10), and Indonesia; Malaysia; Singapore; and Thailand, each with nine.

APEC economies have also pursued double tax agreements (DTAs) to eliminate instances of double taxation on income and other taxes, further facilitating cross-border investment. Korea currently holds the highest number of intra-APEC partners with which it has DTAs and related private-sector arrangements (20), followed closely by Canada (19); Japan (19); Singapore (19); and New Zealand (18).

Enhancing transparency remains a critical enabler of a predictable investment environment. One concrete measure is the provision of investment-related laws and regulations through accessible, English-language government websites. Responses to the survey conducted for this review indicate that a number of APEC economies have already implemented this measure, contributing to improved information access and greater investor confidence.<sup>7</sup> In addition, APEC economies could consider expanding participation in global initiatives such as the WTO JSI on Investment Facilitation for Development, as three economies have yet to join.

<sup>7</sup> Examples are Australia (<https://foreigninvestment.gov.au/>); Hong Kong, China – 1) Invest Hong Kong (<https://www.investhk.gov.hk/en/setting-hong-kong/>); 2) Support and Consultation Centre for SMEs (SUCCESS) under the Trade and Industry Department ([https://www.success.tid.gov.hk/en\\_landing.html](https://www.success.tid.gov.hk/en_landing.html)); 3) GovHK (<https://www.gov.hk/en/business/>); and 4) Hong Kong e-Legislation (<https://www.elegislation.gov.hk/>); and Singapore (<https://sso.agc.gov.sg/>); and

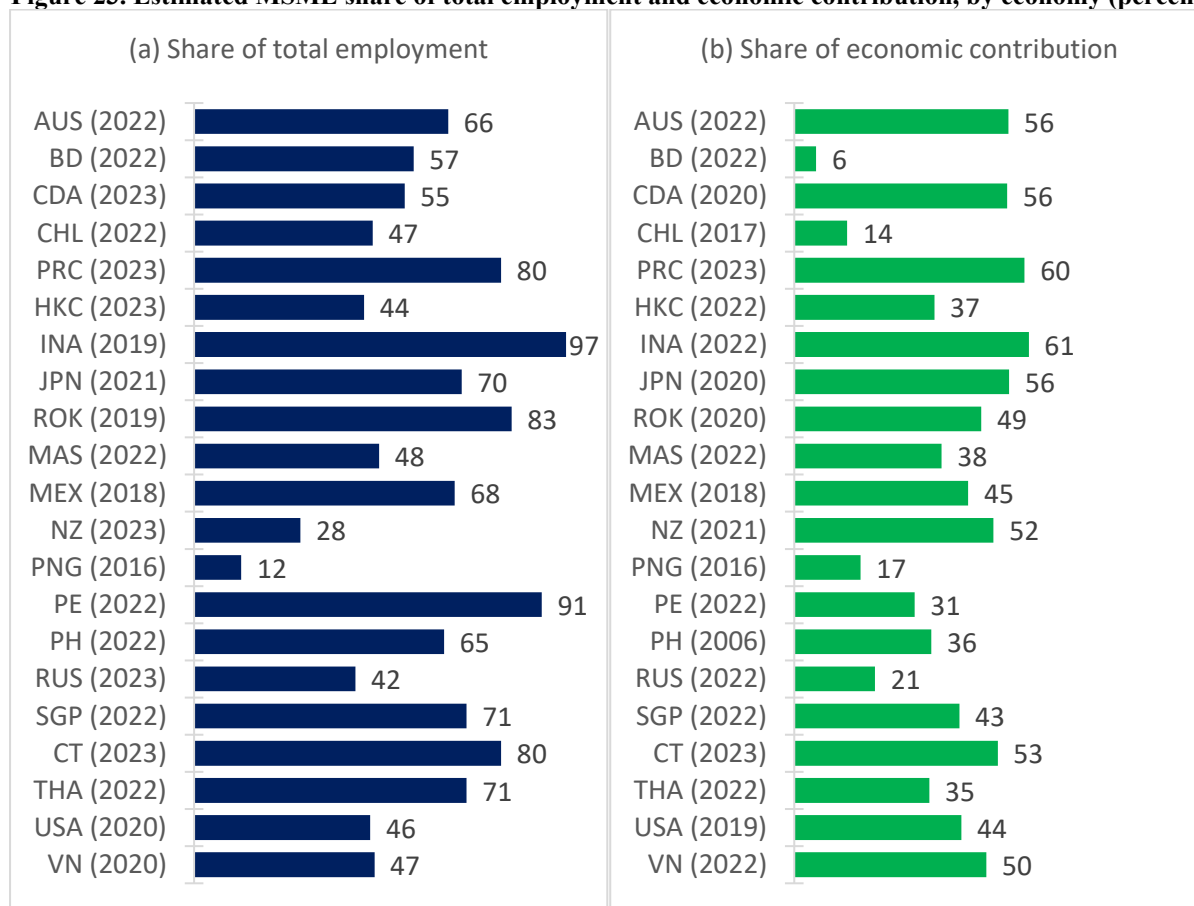
## Appendix B17. APEC-wide action #17

Supporting the development of innovative MSMEs and their participation in the Digital Economy under the SMEWG Strategic Action Plan  
(Accountable fora: Small and Medium Enterprises Working Group)

### *The importance of MSMEs in APEC*

Micro, small, and medium-sized enterprises (MSMEs) are the cornerstone of entrepreneurship and economic activity in the APEC region. According to San Andres et al. (2024), MSMEs comprise over 97 percent of all enterprises across 19 APEC member economies. Even in economies where the share is relatively lower, MSMEs still account for a significant portion of business activity. These enterprises play a vital role in employment generation and economic activity (Figure 23). Nevertheless, regional comparisons remain complicated by the lack of a standardized MSME definition across APEC, which presents ongoing challenges for data harmonization and policy benchmarking.

**Figure 23. Estimated MSME share of total employment and economic contribution, by economy (percent)**



Note: Latest year available for each economy. Economic contribution is based on either GDP or value-added.

Source: APEC PSU compilation based on San Andres et al. (2024).

APEC's focus on MSME development has deep institutional roots. The region's policy work began with the establishment of an ad hoc group in 1995, later formalized as the SME Working Group (SMEWG) in 2000. The SMEWG has since led numerous strategic efforts, including the SMEWG Strategic Action Plan 2017–2020, which emphasized innovation and integration into the digital economy (APEC SMEWG 2016). These efforts were reinforced by broader

APEC frameworks such as the 2015 Boracay Action Agenda (BAA) to Globalize MSMEs (APEC 2015) and the 2017 APEC Action Agenda on the Digital Economy (APEC 2018). Under the BAA, APEC economies implemented 143 projects valued at over USD 30 million—48 of which specifically focused on digital economy participation (Aquia et al. 2021). These included initiatives like a 2016 workshop that supported women-led MSMEs in exploring e-commerce adoption (APEC PDB 2016) and a 2018 platform for MSMEs to showcase their use of digital tools to enhance productivity and modernize operations (APEC PDB 2018).

### ***From e-commerce to comprehensive digital transformation***

As digital technologies evolved, so too did the scope of APEC's MSME agenda. Acknowledging that e-commerce is only one dimension of the broader digital landscape, the SMEWG expanded its strategic objectives under the 2021–2024 Action Plan (APEC SMEWG 2020). This framework introduced two additional priorities: fostering innovation—including through start-ups—and accelerating digital adoption among MSMEs. Both pillars remain central in the current SMEWG Strategic Action Plan 2025–2028 (APEC SMEWG n.d.), reflecting APEC's sustained commitment to supporting MSMEs as they navigate and harness the transformative potential of the digital economy. The expanded scope also recognizes that MSMEs must increasingly adopt emerging technologies such as AI, the Internet of Things (IoT), and digital platforms to remain competitive.

Since 2021, APEC has rolled out a wide range of projects that support MSMEs' digital transformation, resilience, and sustainable growth. These initiatives aim to help MSMEs recover from the pandemic, adapt to changing market conditions, and take advantage of digital and green opportunities. Projects such as Chinese Taipei's SMEs New Paradigm for Digital Resilience provided actionable guidance on how MSMEs can embrace digital platforms and optimize business operations (APEC PDB 2021). Gender equality has also remained high on the agenda, with many economies leading efforts to support women entrepreneurs in accessing e-commerce and overcoming barriers affecting women in the digital economy (Larios-Francia 2023; APEC PDB 2021; APEC PDB 2022). In parallel, projects such as China's Workshop on Digital Innovation for Green Development (APEC PDB 2021) promoted digital tools for sustainability and carbon reduction, helping MSMEs align with green supply chains.

Complementing these efforts are projects addressing financial inclusion, industrial upgrading, and worker well-being. Korea has led initiatives on workplace safety and regulatory reform (APEC PDB 2022), while Indonesia recently organized a dialogue on digital financial literacy to advance financial inclusion for MSMEs (APEC PDB 2024). Efforts to develop inclusive innovation ecosystems were supported through the APEC Cross-Domain Innovation Ecosystem projects by the Philippines and Chinese Taipei, promoting co-creation, experience-sharing, and digital platform engagement among SMEs, researchers, and policy stakeholders (APEC PDB 2021).

To enhance access to finance, Chile's project on Public Policy, Fintech and SMEs offered recommendations for integrating fintech into MSME development strategies (A2F Consulting 2022), while Malaysia's APEC Startup Funding Forum provided a venue for startup-investor engagement (APEC PDB 2019). Further, a study by Peru addressed the formalization of informal businesses, emphasizing the role of digital connectivity and regulatory frameworks in supporting MSME access to capital (Rubiños, Flores, and Heredia 2025).

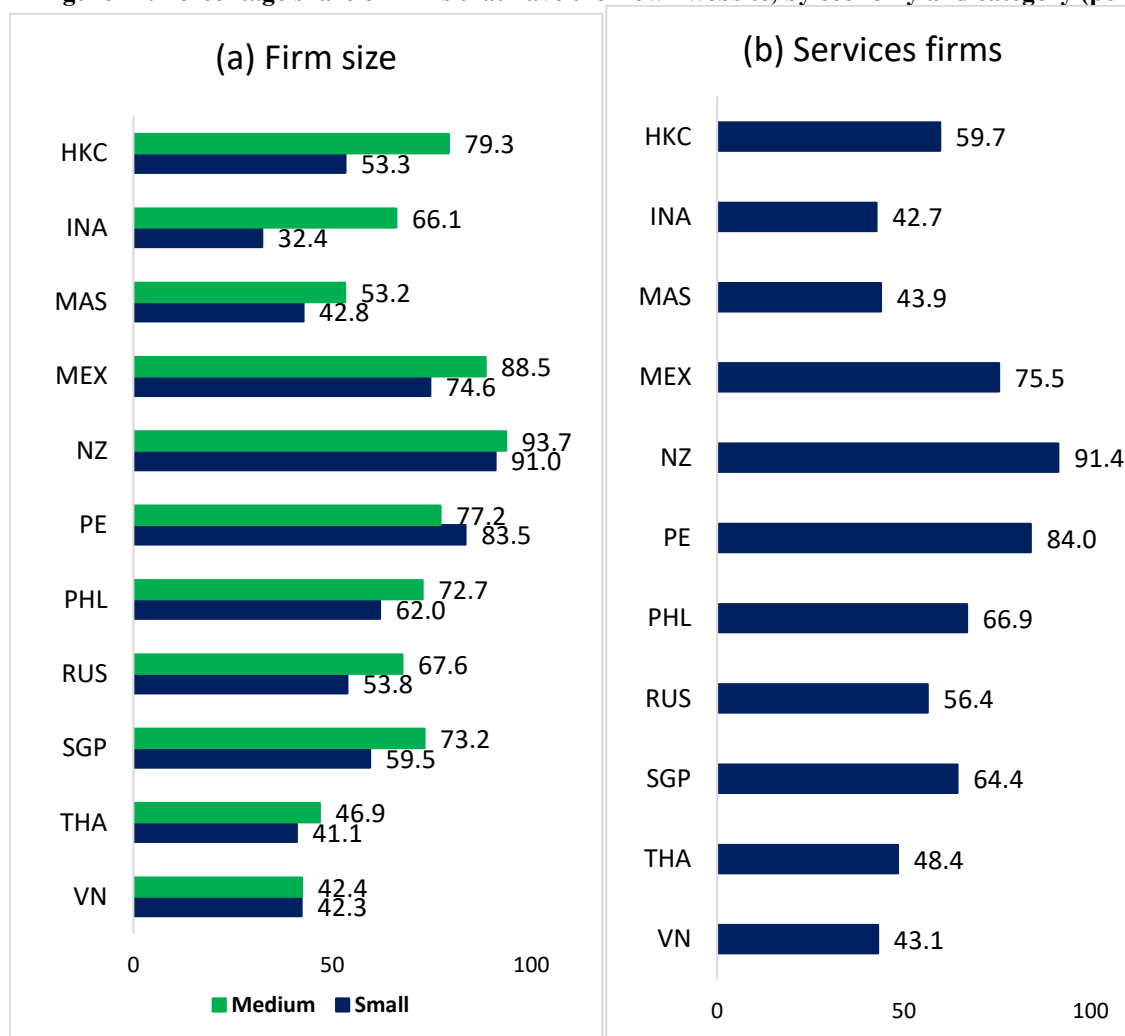
APEC has also supported innovative MSMEs through a range of projects aimed at encouraging sustainable business models and promoting inclusive growth. These include initiatives focused on building MSMEs' digital capacity, boosting e-commerce readiness, and facilitating green and inclusive business environments. Economies have hosted forums and conferences addressing ESG adoption, cybersecurity, digital innovation, and green transformation (APEC PDB 2021; APEC PDB 2021; Small and Medium Enterprise and Startup Administration, Chinese Taipei 2023).

Recent projects in 2023 and 2024—such as Korea's Forum on SME Digital Transformation (APEC PDB 2024), Viet Nam's Workshop on Enhancing SMEs' Participation in GVCs (Vu 2024), and China's Forum on Promoting Specialised and Innovative Development (APEC PDB 2022)—reflect APEC's continued commitment to building the digital capacity, resilience, and global competitiveness of MSMEs.

### ***Monitoring progress and areas for improvement***

Monitoring the digital readiness of MSMEs is essential to assessing the region's progress in fostering inclusive digital transformation. Data from the World Bank Enterprise Survey indicate that, in APEC economies with available data, between 32.4 and 91 percent of small firms, 42.4 and 93.7 percent of medium firms, and 42.7 to 91.4 percent of services firms report managing their own websites (Figure 24). While website ownership is not a direct indicator of e-commerce participation, it serves as a practical proxy for basic digital capability, reflecting both access to digital infrastructure and the necessary skills to maintain an online presence. Empirical research, including studies of MSMEs in the Philippines (Quimba and Calizo 2019) and Indonesia's food sector (Wijaya et al. 2025), shows that firms leveraging digital tools are significantly more likely to engage in e-commerce. Going forward, it may be useful for APEC to broaden its monitoring frameworks to include additional indicators that more comprehensively track MSME engagement in the digital economy.

**Figure 24. Percentage share of firms that have their own website, by economy and category (percent)**



Note: Data for all economies are in 2023, except for Malaysia (2019); Russia (2019); and Thailand (2016). Data for Australia; Brunei Darussalam; Canada; Chile; China; Japan; Korea; Papua New Guinea; Chinese Taipei; and the United States are unavailable.

Source: APEC PSU calculations using data from the World Bank (accessed 9 February 2025).



## **Appendix B18. APEC-wide action #18**

Enhancing ICT infrastructure and services to support economic growth  
(Accountable fora: Telecommunications and Information Working Group)

### ***ICT as a catalyst for economic transformation***

ICT has emerged as a powerful engine of global economic transformation. Across the Asia-Pacific, ICT has enabled businesses and governments to overcome geographic limitations, foster international trade, and facilitate real-time collaboration. Digital platforms have lowered entry barriers for startups and small enterprises by providing tools such as e-commerce marketplaces, digital payment systems, and cloud-based services (Eke and Bufumoh 2024). Meanwhile, technologies like big data analytics and AI are equipping decision-makers with real-time insights, allowing both the public and private sectors to optimize processes, improve service delivery, and enhance overall productivity (Pencheva, Esteve, and Mikhaylov 2018).

Despite the substantial benefits brought about by ICT, significant disparities in digital access remain a pressing issue in the APEC region. Even among those connected, many are not yet fully engaging with the digital economy. These gaps highlight the need to not only expand infrastructure but also promote broader digital inclusion and digital literacy. The work of the Telecommunications and Information Working Group (TELWG) is therefore critical in advancing ICT infrastructure and ensuring that digital services are accessible and inclusive across the region.

### ***Collaborative efforts to advance innovation and inclusion***

TELWG has served as a key platform for advancing ICT development through strategic collaboration and shared policy action. Guided by its strategic action plans for 2016–2020 and 2021–2025, TELWG has prioritized areas such as technological innovation, cybersecurity, regional economic integration, and the growth of the digital economy. It has facilitated numerous initiatives to strengthen capacity across member economies and promote best practices in emerging technologies.

Workshops and dialogues organized by TELWG have focused on cutting-edge developments including 5G network ecosystems, blockchain, smart sustainable cities, and IoT applications. The 2020 workshop hosted by Peru on AI brought together APEC economies to share insights on AI governance, policy frameworks, cybersecurity risks, and the potential of AI to support small and medium enterprises. Discussions also covered AI's infrastructure requirements and its intersections with 5G and IoT, contributing to a more coherent regional dialogue on digital readiness and technology deployment (Gutarra, Torre, and Denegri 2022).

TELWG has also promoted open data policies as a foundation for digital economy growth. A workshop led by Thailand examined open data readiness across APEC economies, addressing key principles such as accessibility, reusability, and timeliness. By convening policymakers and industry experts, the initiative helped define strategic approaches to leveraging open data for economic value creation and cross-border collaboration. These discussions complemented TELWG's broader commitment to enhancing data governance and supporting innovation ecosystems (APEC PDB 2020).

Expanding digital inclusion remains a core TELWG priority. Chinese Taipei's i-Tribe Free Outdoor Wi-Fi project exemplifies this focus, aiming to close the digital divide in indigenous communities through the installation of free Wi-Fi infrastructure and the promotion of digital literacy (APEC PDB 2021). The project also facilitated knowledge-sharing among APEC economies through online seminars, contributing to enhance digital access for underserved populations.

TELOWG has further explored ICT applications in critical infrastructure and services. The United States has an initiative aimed at examining the transition toward open telecommunications architecture and network virtualization, highlighting the potential of disaggregated network systems to reduce costs, enhance interoperability, and increase flexibility compared to proprietary models (Gillott and Vartabedian 2023).

TELOWG has also placed strong emphasis on cybersecurity and user protection. Malaysia's public Wi-Fi security experiments and workshops, as well as sessions on cyber incident management and telecommunications user rights, have contributed to a safer and more trusted digital environment (APEC TELWG 2016; APEC PDB 2017). In addition, APEC economies have worked to promote MRAs, facilitate cross-border ICT skills recognition, and encourage labour mobility in the ICT sector to meet growing industry demands (Wirjo et al. 2021).

### ***Monitoring progress and areas for improvement***

To assess the region's progress in strengthening ICT infrastructure and services, APEC tracks several key indicators, including internet penetration rates and broadband subscriptions. Data from the International Telecommunication Union (ITU) shows significant gains between 2016 and 2023 (Figure 25). Internet usage across APEC rose from 58.8 percent to 81.0 percent, reflecting growing digital connectivity.

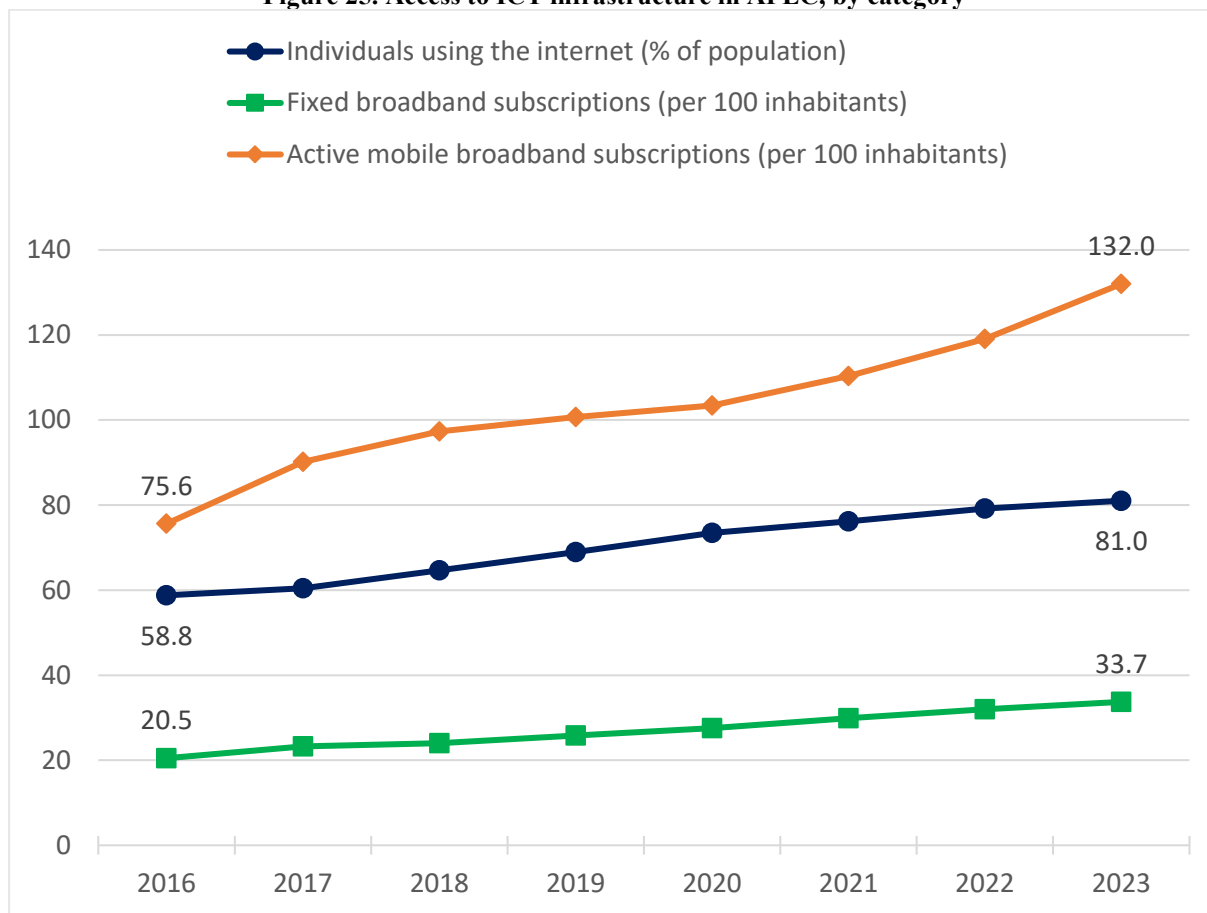
The uptake of broadband services has also improved. Fixed broadband subscriptions increased from 20.5 to 33.7 per 100 inhabitants, while active mobile broadband subscriptions surged from 75.6 to 132.0 per 100 inhabitants over the same period. However, despite this overall progress, considerable disparities remain among economies. Fixed broadband subscriptions per 100 inhabitants vary widely, ranging from as low as 0.2 to as high as 46.6. The range is even more pronounced in mobile broadband, with subscriptions per 100 inhabitants spanning from 11.0 to 245.7.<sup>8</sup>

While the region has made commendable strides in digital connectivity and infrastructure development, narrowing the digital divide remains a priority. Unequal access to high-speed internet, modern ICT tools, and digital services continues to limit participation in the digital economy for many populations. APEC's ongoing initiatives under TELWG underscore the importance of inclusive, collaborative approaches to expanding ICT infrastructure, fostering innovation, and ensuring that the benefits of digital transformation are shared across all economies and communities in the region.

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<sup>8</sup> Latest available year vary between economies.

**Figure 25. Access to ICT infrastructure in APEC, by category**



Source: APEC PSU calculations using data from ITU (accessed 9 February 2025).

## **Appendix B19. APEC-wide action #19**

Development of an enabling environment for innovation activities,  
including that of services to enhance their contribution to economic growth  
(Accountable fora: Policy Partnership on Science, Technology and Innovation)

Innovation is often narrowly perceived as the launch of groundbreaking products unveiled at major technology expos. However, its scope extends far beyond product development. Broadly, innovation can be classified into two categories: product innovation, which entails the creation of new or significantly enhanced goods or services, and process innovation, which involves adopting new technologies, tools, or practices to improve internal operations, service delivery, or customer engagement (Quimba and Calizo 2019). In the services sector, process innovations offer significant potential. For instance, creative industries are increasingly applying blockchain technologies—originally developed for financial applications—to timestamp artistic and literary works, streamline trademark registrations, and replace legacy documentation systems (Wirjo and Calizo 2024). Informal innovation also plays an important role among MSMEs. A small bed-and-breakfast owner, for example, might observe service enhancements while traveling abroad and adapt them locally. Such examples highlight how exposure to new ideas—via travel, networks, or technology—can catalyse innovation at all levels.

### ***Advancing Science, Technology and Innovation (STI)***

In APEC, the Policy Partnership on Science, Technology and Innovation (PPSTI) serves as the key forum for regional cooperation on STI. Guided by its Strategic Plan 2016–2025, PPSTI promotes innovation by supporting entrepreneurship, facilitating commercialization of technologies, and fostering public-private partnerships. Efforts under the entrepreneurship pillar include China's 2018 workshop on the cross-border mobility of entrepreneurial mentors (APEC PDB 2017) and Australia's GIST APEC Startup Training (APEC PDB 2018), which provided a platform for showcasing innovation and fostering networks, particularly for women in STEM. To support technology commercialization, APEC economies have organized thematic events—such the 2016 symposium on the Internet of Vehicles and the 2017 symposium on building resilient agro-food systems using climate data (APEC PDB 2017)—to demonstrate the real-world applicability of emerging technologies and encourage policy support for their adoption. Public-private partnerships have also been central to PPSTI's agenda, with dialogues held to explore ways to scale STI development through collaboration with industry (Didi Chuxing and APRU 2020). In 2020, PPSTI responded to the COVID-19 pandemic by organizing a virtual policy dialogue to identify STI-driven recovery strategies. This led to a joint statement reaffirming the importance of STI in supporting post-pandemic growth and emphasizing continued commitment to gender equality through the APEC Women in STEM Principles and Actions.

PPSTI's momentum has continued through a series of recent and forward-looking projects aimed at deepening STI collaboration, promoting inclusivity, and advancing sustainability. For instance, the “Women in STEM: Study and Exchange on Rewards, Incentives and Policies to Promote Innovation Development in the APEC Region” project addresses the enduring gap for women's participation in STEM fields. It provides a platform to share knowledge, best practices, and role models, focusing both on how policymakers can equip women with resources and how women can leverage these tools to drive innovation (APEC PDB 2023).

Another project, “Strengthen the Internationalization of S&T to Promote an Open Innovation Ecosystem in the Asia-Pacific Region,” explores mechanisms for fostering cross-border science and technology cooperation. Through case studies and the development of an evaluation system, this project emphasizes the importance of openness and connectivity in sustaining regional innovation (APEC PDB 2023).

Supporting MSMEs is an important theme, exemplified by the “APEC Public-Private Dialogue: Advancing MSMEs’ Digital Transformation for a Balanced, Sustainable and Inclusive Growth.” This dialogue aims to bring together policymakers, academia, and MSMEs to examine the role of digitalization and emerging technologies in accelerating growth—particularly for women-led businesses (APEC PDB 2024).

Leadership development in the digital age is also being addressed through the “Empowering APEC Economies: Digital Leadership Upskilling Program.” This initiative delivers immersive training on digital strategy, innovation, governance, and ethics, aiming to strengthen digital leadership capacity across member economies (APEC PDB 2023).

Enhancing policy frameworks for technology transfer is the focus of “Enhancing Technology and Innovation Management Practices in APEC Economies.” By conducting a comparative review across several economies, this project seeks to identify effective public policies and capacity-building programs to support academia-industry collaboration, culminating in a research report with actionable recommendations (APEC PDB 2024).

Aligned with APEC’s sustainability agenda, the project “Green Synergy Solutions to Net-Zero Emissions Based on Bioenergy Technologies” promotes innovation in bioenergy through biorefinery technologies and entrepreneurial business models.

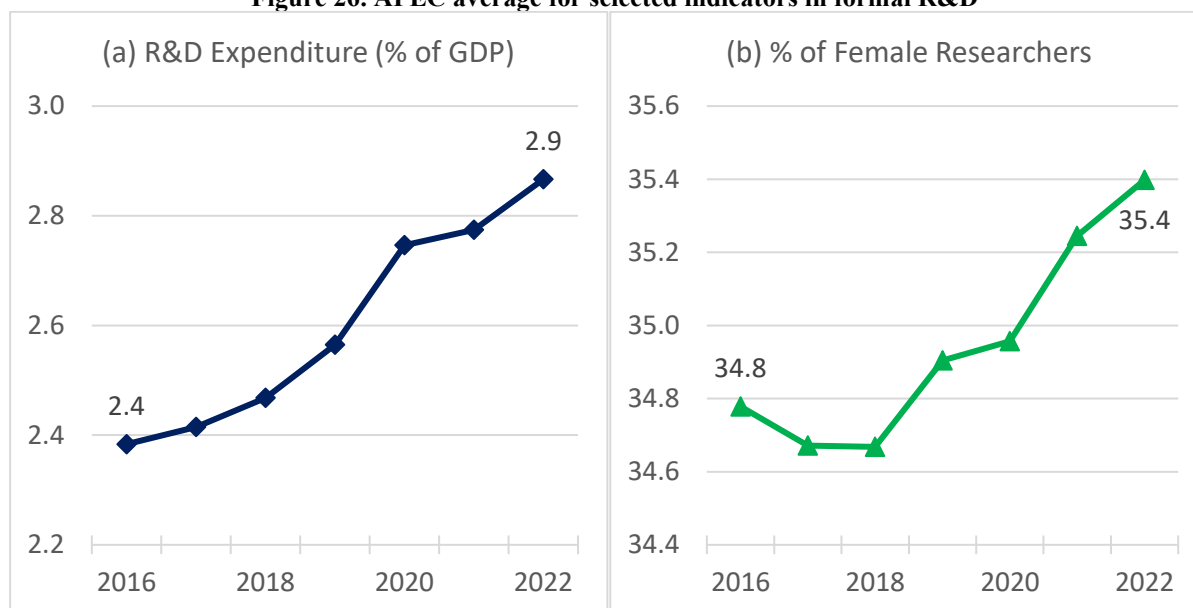
### ***Measuring progress and areas for improvement***

Despite these advances, there are still disparities in innovation capacity across the region. One indicator of progress in fostering an enabling innovation environment is R&D expenditure as a percentage of GDP, which increased from 2.4 percent in 2016 to 2.9 percent in 2022 (Figure 26a). However, this growth is uneven—86 percent of APEC’s total R&D spending in 2022 came from just three economies: China; Japan; and the United States.<sup>9</sup> Another key metric is women’s participation in STI-related R&D. Although the share of female researchers in APEC rose slightly from 34.8 percent in 2016 to 35.4 percent in 2022, this incremental gain underscores the need for stronger inclusion mechanisms (Figure 26b). Participation alone is not enough; it must be supported by environments that empower individuals and enterprises to innovate, scale ideas, and contribute meaningfully to APEC’s collective growth.

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<sup>9</sup> APEC PSU calculations using data from UNESCO, the OECD, StatsAPEC, and the World Bank (accessed 9 February 2025). Data for Brunei Darussalam; Papua New Guinea; and the Philippines is unavailable.

Figure 26. APEC average for selected indicators in formal R&amp;D



Note: APEC aggregates are a weighted average of real GDP or a simple average of available data on female researchers. R&D expenditure data for Brunei Darussalam; Papua New Guinea; and the Philippines is unavailable. Data on the share of female researchers is unavailable for Australia; Brunei Darussalam; Canada; China; Hong Kong, China; New Zealand; Papua New Guinea; the Philippines; and the United States.

Source: APEC PSU calculations using data from UNESCO, the OECD, StatsAPEC, Chinese Taipei Ministry of Science and Technology, and the World Bank (accessed 9 February 2025).

## Appendix C. Key initiatives in EAASR IAPs contributing to services<sup>10</sup>

### Appendix C1. Australia

#### *Data and Digital capability*

Australia is investing over AUD 2 billion in digital and information communication and technology (ICT) through its 2023-24 Budget. The National Anti-Scam Centre, launched in July 2023, has partnered with government, law enforcement and industry stakeholders to enhance consumer awareness and build robust anti-scam capabilities across the economy. Activities such as Scams Awareness Week and “Stop. Check. Protect” campaign are key components of this effort. Regarding its Data and Digital Government Strategy, notable achievements include the implementation of the Digital Experience Policy in January 2025, which introduces mandatory new standards for government websites and digital services. Additionally, the development of a Data Maturity Assessment Tool in 2024 measures data maturity across Australian Public Service agencies. The publication of a Framework for Governance of Indigenous Data in 2024 aims to improve the accessibility, relevance, interpretability and timeliness of government-held data for Aboriginal and Torres Strait Islander people.

The Digital ID Act 2024, now in effect, established an accreditation scheme for identity services providers and the legislated Australian Government Digital ID System (AGDIS). The Digital ID Program has implemented the legislation and is currently focused on promoting adoption by government and business. Australia has also continued to improve the Consumer Data Right (CDR) to enable more consumers to safely share their data. In March 2025, changes to the CDR rules make it simpler for consumers to consent to data sharing and support new use cases and narrow the scope of data required to be shared by banks, reducing industry costs and removing obligations on data of limited value. The Australian Government will expand the CDR to include non-bank lending products by mid-2026, promoting greater competition and innovation in the market. In its efforts to achieve 1.2 million technology-related jobs by 2030, Australia has launched several initiatives, including Next Generation AI Program, Emerging Technology Graduate Program, National Quantum Strategy, Digital and Tech Skills Compact, and Women in STEM Ambassador Program. As of May 2024, the government estimates that 980,506 people are employed in technology-related jobs, contributing 6.9 percent of total employment.

#### *Infrastructure Investment and Advocacy*

A key element of Australia’s fiscal strategy is investing in infrastructure to support economic growth and productivity. Through further project decisions and budget updates, Australia’s federal government is now investing AUD 125 billion in nationally significant roads and rail through its rolling 10-year infrastructure investment pipeline. The Department of Infrastructure, Transport, Regional Development, Communications, Sports and the Arts periodically reports to the government on the progress of these projects, which are at varying stages of development and delivery.

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<sup>10</sup> These updates were prepared based on economies’ IAP submissions, which have not been endorsed by the EC or GOS. They are provided for informational purposes only and do not guide the work of the EC or GOS.

Australia remains committed to supporting quality infrastructure investment (QII) internationally, continuing its work with the G20 Infrastructure Working Group. Under Brazil's 2024 G20 Presidency, references to the QII indicators were included in key deliverables and economies were encouraged to nominate additional pilot studies. Australia continues to co-chair the G20 Infrastructure Working Group alongside Brazil and is collaborating with South Africa's G20 Presidency and other members through 2025 to prioritize: the development of a robust, accessible and investable pipeline towards attracting private sector participation; the exploration of blended finance de-risking measures to bolster sustainable infrastructure investment flows; and the development of a toolkit to help economies overcome significant barriers to advancing cross-border infrastructure projects.

### ***Workforce Australia***

Workforce Australia, launched in July 2022, aims to reduce long-term unemployment by providing employment services through a digital platform and investing in quality, tailored services for unemployed Australians.

In August 2022, the Australian Government established the House of Representatives Select Committee on Workforce Australia Employment Services to inquire into and report on matters related to Workforce Australia. The Select Committee released its final report in November 2023, making 75 recommendations. In response, the Government has committed to incremental reform of the employment services system in line with the vision and principles outlined in its White Paper on Jobs and Opportunities for a more dynamic and inclusive labour market.

Initial steps towards larger scale reform have been taken to strengthen the integrity of employment services through improved safeguards and a new complaints mechanism, and better recognise people's individual circumstances through more appropriate mutual obligation rules. This includes investment in the Digital Services Contact Centre to provide better support for people using Workforce Australia Online and in initiatives that create an evidence base to inform future reform, such as introducing a new paid employment pathways package to help people with barriers to work through tailored wage subsidies and paid employment placements with employers and social enterprises. These early reforms also build on the new voluntary Parent Pathways program, which commenced in November 2024, supporting parents to achieve their personal, study, and work goals.

### ***Clean Energy Innovation***

Australia has continued to advance its clean energy innovation initiatives. The 2023-24 Budget announced AUD 4.6 billion in climate spending, including allocations to the Household Energy Upgrades Fund and AUD 2 billion for Round 1 of Hydrogen Headstart. The 2024-25 Budget included the government's AUD 22.7 billion Future Made in Australia package and AUD 3.5 billion in energy bill relief. Additionally, the government has announced a AUD 1 billion Green Iron Investment Fund to support early mover green iron projects and a AUD 2 billion Green Aluminium Production Credit. Other initiatives include: the development of a Net Zero Plan, supported by six sectoral plans to help achieve Australia's Net Zero by 2050 target; implementation of reforms to the Safeguard Mechanism; release of the National Electric Vehicle Strategy; and establishment of the National Reconstruction Fund Corporation. Australia recognizes the importance of reviewing and evaluating its climate and energy policy settings. To this end, it has committed to reviewing the Safeguard mechanism policy settings in 2026-27 and the National Electricity Market wholesale market settings by an independent expert panel in 2025.



Furthermore, the Net Zero Transformation Stream of the National Interest Framework, announced in the 2024-25 Budget will be used to identify sectors assessed to have grounds for sustained comparative advantage in a net zero global economy.

## **Appendix C2. Brunei Darussalam**

### ***Implementation of Digital ID***

Under Brunei Darussalam's Vision 2035 and Digital Economy Masterplan 2025, the development of a digital identity ecosystem, spearheaded by BruneiID, is the flagship initiative driving the economy's digital transformation. BruneiID is a secure, government-issued digital identity that aims to provide passwordless Single Sign-On (SSO) access to online public services, with future integration planned for private sector platforms. Built with supports for verifiable credentials and blockchain-backed authentication, BruneiID aligns with international standards and emphasizes privacy-by-design principles. The system aims to commence public onboarding through a soft launch by 2025, allowing a limited number of online public services to utilize BruneiID as their login module. The full official launch is scheduled for early 2026, targeting broader adoption across the majority of online public services. While initial efforts focus on onboarding government platforms, future phases will extend coverage to the private sector and integrate common data to support electronic Know Your Customer (e-KYC) processes.

### ***National Information Hub (NIH)***

The National Information Hub (NIH) is a centralized platform that enhances data sharing across government agencies and between government agencies and external organisations through formal data-sharing agreements. Originally designed to provide updated reference data, the NIH has evolved into a dynamic system supporting data validation, verification, and auto-population—reducing manual entry and improving operational efficiency. Data integration has shifted from traditional database linkages to API-based connections, enabling near real-time access without the need for local data storage and facilitating collaboration beyond the government network. As of June 2025, the NIH supports data exchange from 11 provider agencies, serving 19 systems and enabling 28 successful system integrations.

### ***Personal Data Protection Order for Private Sector***

Enacted in January 2025, the Personal Data Protection Order (PDPO) governs the collection, use, and disclosure of personal data by private sector organizations, balancing business needs with individuals' rights to data protection. To support implementation, a one-year sunrise period has been introduced, during which subsidiary legislation, advisory guidelines, and guidance documents will be published. Capacity-building efforts include the Data Protection Officer (DPO) Competency Programme, through which 50 participants have completed Certified Industry Privacy Manager (CIPM) training, with continued demand for further training and awareness. At least five awareness sessions have been held, and the PDPO is expected to enhance Brunei's data governance framework, strengthen economic competitiveness, and support trusted cross-border data flows.

### ***Expand Competency Framework Development and Sectoral Manpower Planning to Address the Ever-Changing Economy and Manpower Needs***

Brunei is actively advancing its competency framework development and sectoral manpower planning to better align workforce capabilities with evolving industry needs. Through the Manpower Industry Steering Committee (MISC), competency standards have been developed for five key sectors: Energy, Construction, Hospitality and Tourism, Transportation and

Logistics, and ICT. Recently, nine competency standards have already been launched under the Hospitality and Tourism sector. To improve efficiency, the lengthy approval process—currently taking 9 to 12 months—has prompted a review of the MISC Governance Framework to streamline competency development and related financial procedures.

Complementing this, several training programmes have been introduced or expanded to build industry-ready talent. Among these are the ongoing iSkills Programme and the Dual TVET programme, alongside other programs under the Hospitality and Tourism, and ICT sectors, such as the TechInspire and TechXPLORE Digital Apprenticeships. While the iSkills Programme has trained nearly 300 participants across recent cohorts, employment outcomes remain mixed due to factors like declining enrolment and shifting career preferences. In response, efforts are underway to diversify placement opportunities and strengthen employer engagement through career events and initiatives, including the provision of Conditional Offer of Employment.

### ***Expanding Programmes and Initiatives in Building Resilient and Sustainable Human Capital with Industry-Ready Capabilities***

Brunei is expanding its programmes to build a resilient and industry-ready workforce through a range of training and upskilling initiatives aligned with market needs. Under the SkillsPlus programme, 119 courses are now offered across 13 industries, with recent additions in HSE, Energy, Transport & Logistics, and Construction. Meanwhile, SPIN in Accountancy has trained five cohorts since 2021, and the PJD programme has reached over 870 participants across eight cohorts, focusing on soft skills and personal development. Additional initiatives include the HSE Competency Apprenticeship Programme, supporting professional certification for roles in construction and energy, and the new Clinical Supervisory Programme for Allied Health Professionals. While SkillsPlus and SPIN have faced low uptake and lengthy approval processes, these are being addressed through ongoing reviews and increased outreach to raise public awareness and encourage enrolment.

Parallel efforts to expand JobCentre Brunei (JCB) have significantly improved access to employment services. Since launching its first satellite office in Belait in late 2022, JCB has extended its presence to other districts, introduced mobile outreach initiatives, and increased operations to six days a week to better align with private sector working hours. In 2023 alone, 71 outreach programmes were conducted, with 57 more delivered in 2024 to date. These efforts have helped reach underserved communities, including persons with disabilities and students, offering career guidance earlier in their job search journey. As demand shifts back toward in-person services, JCB's expanded footprint and sustained community engagement have strengthened its role as a one-stop centre for jobseekers and employers alike.

### ***Poverty Alleviation Initiatives by the Ministry of Culture, Youth and Sports and Strategic Partners: National Action Plan on Poverty Eradication***

Brunei's poverty alleviation efforts, led by the Ministry of Culture, Youth and Sports (MCYS) and its strategic partners, are guided by the National Action Plan on Poverty Eradication. A key initiative under this plan is the digitalisation of welfare services through the National Welfare System (SKN), established in 2020. The system streamlines welfare distribution, enhances data-driven policymaking, and includes programmes such as the Annual School Needs Assistance (BKPT). Despite the improvements, system efficiency declined in 2023 due to processing delays, prompting the need for better monitoring. Financial support is also provided through the Monthly Welfare Assistance (BKB), though a shift is underway to reduce reliance

on aid by encouraging able-bodied individuals to pursue skills training and employment pathways. In 2024, BKB expenditure totaled BND 4.76 million, and over 33,000 applications for assistance were received via SKN.

Empowerment initiatives play a critical role in moving beneficiaries toward self-reliance. Programmes delivered by the Department of Community Development and Youth Development Center focus on skills training, entrepreneurship, and job placement, while the One Village One Product (1K1P) initiative fosters community-based economic activities. In 2024, over 1,000 individuals secured employment under the National Employment Strategy, and participation in entrepreneurship and training programmes rose to 274. However, varying participation rates in recent years suggest a need to reassess programme design and outreach to ensure continued engagement.

### ***To Produce Value-driven, World-class Youth Who are Future-ready Agents of Change for Development, Rooted in Inclusivity***

Brunei's National Youth Policy and Strategy (NYPS) 2020–2035 aims to cultivate inclusive, future-ready youth as agents of national development. With a focus on collaboration, empowerment, education, and decent work, the NYPS has achieved significant progress, including a 94 percent implementation rate for its five-year action plan and engagement with over 4,000 youth across sectors. Youth participation continues to be strengthened through advisory bodies, policy dialogues, entrepreneurship ecosystems, and grant schemes. Notable outcomes include a steady rise in youth-led initiatives, volunteerism, and start-ups, supported by platforms like the Mengalinga App and strategic initiatives such as the Youth Empowerment Scheme (PERKASA). Despite strong momentum, challenges remain in aligning cross-sectoral policies, centralizing data, and enhancing impact monitoring mechanisms.

Complementing policy efforts, life skills and capacity-building programmes are being rolled out to prepare youth for current and future workforce demands. The Ministry of Culture, Youth and Sports (MCYS) has delivered entrepreneurship training, start-up support, and micro-grants, with over 12,500 youth participating in development projects in 2024 alone. Programmes like the Youth Development Centre's "Lights On" and Skills Development Programmes have helped young entrepreneurs and jobseekers gain critical skills and experience. Volunteerism is further promoted through national events and digital platforms, with over 9,000 volunteers and more than 250 events registered annually. Continued efforts are needed to strengthen outcome-based tracking and encourage greater engagement, especially among school-aged youth.

### ***Improving Market Access and Trade Liberalisation***

Brunei continues to strengthen its integration into regional and global trade frameworks through active engagement in key Free Trade Agreements (FTAs) aimed at improving market access and trade liberalization. The substantial conclusion of the ASEAN-China FTA upgrade in October 2024 underscores a shared commitment to deepening economic integration, enhancing supply chain resilience, and supporting MSMEs, digital trade, and sustainable development. The upgraded ASEAN-Australia-New Zealand FTA, signed in August 2023, introduces modernized provisions and new chapters to streamline trade, lower costs, and future-proof the agreement. Meanwhile, the Regional Comprehensive Economic Partnership (RCEP), which entered into force in 2022, is being supported through the operationalization of the RCEP Support Unit to facilitate implementation. Brunei is also actively participating in the ASEAN-

Canada FTA negotiations, launched under its ASEAN Chairmanship, with text-based discussions underway and a target for substantial conclusion by 2025.

## **Appendix C3. Canada**

### ***Renewed Venture Capital Catalyst Initiative***

Canada recognises that robust venture capital funding fosters inclusive growth and supports businesses in scaling up and investing in innovation. In 2021, Canada renewed its Venture Capital Catalyst Initiative (VCCI), making up to CAD 450 million available for venture capital funding. This includes CAD 350 million allocated to four funds-of-funds, CAD 50 million to six VC funds primarily investing in the life sciences sector, and CAD 50 million to ten VC funds focused on promoting access to capital for underserved groups, including women and racialized communities. All recipients under the renewed VCCI have been announced. The 2024 Fall Economic Statement proposed launching the fourth round of VCCI with CAD 1 billion in funding, aiming to leverage additional private sector capital.

### ***Making It Easier to Do Business in Canada***

Canada's competition promotion efforts focus on a whole-of-government approach that fosters collaboration across various sectors and levels of government. With additional funding, the Competition Bureau has strengthened enforcement of anti-competitive rules to curb practices such as drip pricing in online ticket sales, fixing wholesale bread prices, infrastructure bid rigging, and online scams. Additionally, reforms to the Competition Act in December 2023 and June 2024 have introduced more effective merger control, restructured the legal test and increased the maximum penalties for abuse of a dominant position, expanded private access to the Competition Tribunal, and enhanced the Bureau's information-gathering powers for market studies. Furthermore, submissions have been made to various sectors, including telecommunications, finance, and healthcare, to increase competition within these industries. Lastly, Canada continues to engage in various APEC initiatives, such as organizing the 2024 CPLG Plenary Dialogue on "Exploring the Links Between Gender and Competition" and chairing the 2024 review of the CPTPP Competition Chapter.

### ***Enhancing the Canada Small Business Financing Programme***

Canada successfully amended the Canada Small Business Financing Act and its regulations to introduce new eligible loan classes for intangible assets and start-up assets and expenses. Additionally, maximum loan amounts were increased, and borrower eligibility was expanded to include not-for-profit and charitable social enterprises. A new flexible financing line of credit product was also introduced. Collectively, these amendments better positioned the program to support modern businesses and contributed to helping small businesses recover after the pandemic. Reflecting the program's success in facilitating lending, annual financing increased by approximately CAD 540 million, from CAD 1.23 billion in 2021-2022 to CAD 1.77 billion in 2023-2024.

### ***Inclusive Support to Canada's Entrepreneurs***

Canada has introduced initiatives, such as the Small Business and Entrepreneurship Development Program (SBED), Futurpreneur, the Women Entrepreneurship Strategy (WES), and the Black Entrepreneurship Program (BEP), to ensure that all Canadian entrepreneurs have an equal chance to succeed and contribute to economic recovery and growth. Through these initiatives, Canada has provided over CAD 638 million to support equity-deserving entrepreneurs, benefiting over 337,600 individuals between 2018 and 2024. Support includes

improving access to financing and offering non-financial business services such as mentorship, financial planning, and training through ecosystem partners across the economy. To underscore its commitment to supporting all Canadian entrepreneurs in starting, maintaining, and growing their businesses, Canada has proposed an additional CAD 189 million over five years for the BEP. Moreover, Budget 2024 allocated CAD 60 million over five years to renew Futurpreneur.

### ***Canada's New Early Learning and Child Care Plan***

In Budget 2021, Canada announced transformative and historic investments of up to CAD 30 billion over five years to build a Canada-wide early learning and child care (ELCC) system in partnership with provincial, territorial, and Indigenous partners. In 2024, the Canada Early Learning and Child Care Act became law, enhancing accountability through new reporting requirements. It also established the National Advisory Council on ELCC to provide third-party expert advice to the government and serve as a forum to engage on issues facing the ELCC sector. Through bilateral agreements, provinces and territories committed to creating 250,000 new regulated ELCC spaces and reducing fees for regulated ELCC to an average of CAD 10-a-day by March 2026. As of February 2025, provinces and territories have announced the creation of over 150,000 new child care spaces. Eight provinces and territories are delivering regulated ELCC for an average of CAD 10-a-day or less, while all other provinces and territories have reduced fees by at least 50 percent. Across Canada, families of approximately 900,000 children are already benefiting from affordable, high-quality child care, with some families saving up to CAD16,200 per child per year.

Canada has made additional investments of over CAD 1.5 billion for initiatives to further support the implementation of the ELCC system. This includes the creation of a four-year ELCC Infrastructure Fund to increase inclusion in underserved communities, support for the ELCC workforce through Canada Student Loan Forgiveness for educators working in rural and remote communities, increased access to ELCC for Canadian Armed Forces families, and the creation of a loan program to support not-for-profit and public providers in accessing capital for expansion and renovation of centers.

### ***Valuing Canada's Workers***

Canada has introduced various measures to support workers. Enhancements to the Canada Workers Benefit (CWB), announced in Budget 2021 and representing an investment of CAD 8.9 billion over six years starting in 2021, have now been fully implemented. In the 2022 Fall Economic Statement, Canada also provided CAD 4 billion over six years (starting in 2022-23) to automatically issue advance payments of the CWB to people who qualified for the benefit in the previous year. This new measure replaced the previous application-based system, which had seen low take-up. Meanwhile, the federal minimum wage, which took effect in December 2021, has been raised on 1 April of each subsequent year to reflect increases in Canada's Consumer Price Index. It will be adjusted to CAD 17.75 in April 2025. To improve labour protections for gig workers in the federally regulated private sector, amendments to the Canada Labour Code were passed as part of the Budget Implementation Act, 2024, No. 1 (Bill C-69) to, among others, prohibit under any circumstances, the misclassification of employees as independent contractors.

### ***Investing in Skills and Training***

Canada has numerous initiatives aimed at enhancing skills and training for various segments of its society. The Sectoral Workforce Solutions Program (SWSP) is a contribution program that helps key sectors of the economy implement solutions to address their current and emerging workforce needs. In 2023-2024, SWSP projects supported training for a significant number of participants, engaging employers and stakeholders to develop and implement over 2,100 workforce solutions and tools, and supported training for over 89,000 participants.

The Apprenticeship Service helps small and medium-sized employers provide apprenticeship training opportunities in eligible Red Seal trades, predominantly found in construction and manufacturing. In 2023-2024, 6,906 employers received financial incentives for hiring first-year apprentices, with additional supports for hiring from equity-deserving groups such as women.

Meanwhile, the Youth Employment and Skills Strategy (YESS) is a horizontal initiative to support youth, particularly those facing barriers to employment, by providing employment supports, skills training, and work experience needed to successfully transition into the labour market. Over 105,000 youths have been served through YESS. Other initiatives benefiting various groups include the Skilled Trades Awareness and Readiness (STAR) program, the Women in the Skilled Trades Initiative, the Union Training and Innovation Program, and the Skills for Success (SFS) Program.

### ***Canada Digital Adoption Programme***

Canada launched the Canada Digital Adoption Program (CDAP) in March 2022 to address declining productivity rates and encourage the adoption of digital technologies among Canadian SMEs. In addition to helping SMEs remain competitive in a rapidly changing digital economy, the CDAP has provided training and work opportunities for young Canadians, leveraging their expertise in implementing digital solutions. As of 31 December 2024, CDAP has awarded over CAD 1.2 billion in funding to Canadian SMEs through grants, loans and wage subsidies. Collectively, the two streams of the program – Grow Your Business Online (GYBO) and Boost Your Business Technology (BYBT) – have awarded over 71,000 grants to SMEs, while the BDC (a key program delivery partner) has authorized over 13,000 loans.

### ***Accelerating Broadband for Everyone***

Canada's Connectivity Strategy commits to connecting all Canadians to high-speed internet by 2030. A key initiative to expand high-speed internet access to rural and remote communities is the CAD 3.225 billion Universal Broadband Fund (UBF). This is complemented by funding initiatives administered by the Canadian Radio-television and Telecommunications Commission (CRTC), as well as those managed by provinces and territories. Collectively, Canada has made approximately CAD 7.6 billion available for broadband since 2015. As of the end of 2023, 95.8 percent of Canadians had access to speeds of at least 50/10 Mbps. Canada projects that 98.8 percent of households will have access to 50/10 Mbps by 2026.



## **Appendix C4. Chile**

### ***Fintech and Open Banking Bill***

Chile published the Fintech and Open Banking Law in January 2023 to innovate financial regulation, recognize fintech as an emerging business model, and promote competition and inclusion through an open banking system. The implementation of the law has shown significant progress more than a year since its publication. A key milestone was the issuance of General Rule No. 502 (NCG 502) by the Financial Market Commission to establish the framework for the registration, authorization and obligations of financial services providers under the law. Coming into effect in February 2024, NCG502 introduces key regulatory requirements, including: registration of financial service providers (detailing the conditions for registration, applicable exemptions, and cancellation procedures); authorization to operate (specifying which providers must obtain prior approval); information obligations (requiring financial service providers to implement policies and procedures for transparency and disclosure); and corporate governance and risk management (establishing governance standards for boards of directors and internal controls such as cybersecurity measures). More than 320 firms have registered under the law, and over 150 of them have applied for authorization to operate. Progress notwithstanding, Chile acknowledges that the law may need to be continuously refined and adapted to the evolving needs of the industry. It will also need to balance consumer protection, financial stability, and industry growth.

### ***Taxonomy Roadmap for Chile***

Chile has made significant progress in developing its Taxonomy of Environmentally Sustainable Economic Activities (T-MAS), which was officially launched in January 2025. The objective of T-MAS is to establish a clear and standardized framework to identify environmentally sustainable economic activities, thereby providing guidance to both the public and private sectors to facilitate investment and mobilize financial resource toward sustainable projects. T-MAS is designed to be interoperable with 52 taxonomies currently in use worldwide, aligning with global standards while considering the unique economic and environmental context of Chile. Initially, T-MAS covers nine eligible economic sectors and addresses six environmental objectives. Updates are planned every five years to incorporate new environmental or social objectives, as well as additional economic sectors and activities, among others.

### ***Trade and Gender Chapters into Free Trade Agreements***

Chile is a pioneer in the incorporation of Gender and Trade Chapters in its trade agreements, including those already in force with Argentina; Brazil; Canada; Ecuador; and Uruguay. These chapters demonstrate Chile's commitment to enhancing the visibility and relevance of women's inclusion in international trade. The cooperation activities identified in these chapters include capacity building, financial inclusion, women's leadership, development of women's networks, promotion of female entrepreneurship and the importance of collecting gender-focused statistical data. A key challenge is ensuring that all these areas receive due attention. Work plans have been developed with Argentina; Brazil; Canada; and Ecuador, as well as in new treaties or updates with Paraguay and the European Union.

***Digitise your SME***

Digitise your SME is an initiative designed to support SMEs in Chile through their digital transformation process. As part of this initiative, the Digital Route program aims to help SMEs incorporate and utilize technology in business management through online courses. Available at [www.rutadigital.cl](http://www.rutadigital.cl), the courses cover a range of topics, including finance and information security, marketing, sales and inventory management, cybersecurity, and intelligent business practices. The program includes an initial diagnosis of the participant's knowledge and an assessment to evaluate learning outcomes at the end of the courses.

***Office of Productivity and National Entrepreneurship***

The Office of Productivity and National Entrepreneurship is a permanent institution dedicated to increasing productivity, encouraging competition, facilitating entrepreneurship, and overcoming various barriers. In January 2023, Chile presented its Productivity Agenda to address the economy's main productivity challenges. The agenda incorporated recommendations from the National Commission for Evaluation and Productivity and was developed in collaboration with business associations and the National Union of Workers. It includes over 40 measures aimed at improving the economy's productivity, such as streamlining certain legal and administrative procedures, creating a venture capital fund, and digitizing international trade processes.

## Appendix C5. China

### *Building a more competitive and inclusive digital economy*

China has made progress in advancing digitalization to drive economic growth and industrial transformation. Since 2023, policy support, structural reforms, and expansion of high-speed broadband and new mobile networks have driven development of AI, big data, and cloud computing applications. Industrial capacity has been enhanced by automation, fintech, and supply chain transparency, while urban clusters foster innovation through digital ecosystems. In 2024, core digital industries contributed around 10 percent of GDP. Additionally, more than 70 percent of manufacturing firms have undergone digital transformation to varying degree, while close to 30 percent of firms have integrated digital technologies comprehensively into their key business processes.

At the same time, China is promoting responsible digital innovation by aiming to establish ethical AI standards, improving digital skills, enhancing accessibility, and refining regulations to build a fair and inclusive digital economy. Over 60 percent of adults and minors now have basic digital proficiency, with a narrowing urban-rural digital divide. Internet usage exceeds 1.1 billion users as of December 2024, with China leading in online payments and retail. E-government platforms reach 926 million users (which made up 86.7 percent of internet users), and data centers are becoming more energy efficient.

China is investing in forward-looking infrastructure and has promoted new infrastructure development by strengthening its information, integration and innovation systems. By end-2024, over 340 industrial internet platforms connected more than 100 million devices, and over 13,000 “5G + Industrial Internet” projects spanned 41 sectors. With over 4.25 million 5G base stations deployed at end-2024, there were on average 30.2 5G base stations per 10,000 people. Strategic planning and focus on governance, security, and interoperability underpin these efforts. Plans include expanding the “East Data West Computing” initiative, boosting investment in semiconductors, AI and cloud computing, and promoting public-private partnerships.

China is also strengthening institutional frameworks for the digital economy through improved governance of data openness, property rights, and security. Key actions include the establishment of the National Data Bureau, rollout of public data platforms in over 60 percent of cities, and a comprehensive legal framework covering areas such as cybersecurity and AI, and aligning domestic policies on 5G, AI and cross-border data flows with global standards. Moreover, China has signed Memoranda of Understanding (MoUs) with 20 economies, launched global digital initiatives such as “Global Data Security Initiative” and “Digital Economy International Cooperation Initiative for the Belt and Road”, and formally applied to join Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and Digital Economy Partnership Agreement (DEPA).

Finally, China is integrating digital and green transformation by applying intelligent technologies to improve energy efficiency and drive sustainability. Supported by policy measures and the “Implementation Guide for Coordinated Digital and Green Transformation Development,” energy consumption per unit of GDP decreased by 26 percent and carbon emission intensity dropped by 35 percent in 2023, even as data center efficiency improved. Moving forward, China will standardize green indicators, expand energy-efficient

infrastructure, and deepen global cooperation in clean energy, sustainable digital finance, and green digital trade.

### ***Launching the Pilot Program on EoDB Innovation***

China is making progress in improving market access and the business environment by removing regional barriers, streamlining regulations, and promoting fair competition. Reforms have enhanced regulatory transparency, reduced operational uncertainty, and simplified approval processes, particularly in cities like Beijing, Shanghai, Chongqing, Hangzhou, Guangzhou and Shenzhen. Key initiatives also include economy-wide “zero investment” services for SMEs and expanded cross-provincial access to government services. According to a 2024 China Council for the Promotion of International Trade (CCPIT) report, business satisfaction score stood at 4.37 out of 5, with nearly 90 percent of enterprises expressing approval. Looking ahead, China aims to improve its market access framework, ease restrictions in key and emerging sectors, enhance digital infrastructure, and align domestic regulations with global standards to foster a more open, competitive, and innovation-driven economy.

At the same time, China is optimizing trade facilitation, strengthening property rights, and developing balanced regulatory approaches. In 2024, China introduced 16 customs facilitation measures, expanded free trade agreements, extended visa-free transit policies from the original 72 and 144 hours to 240 hours, and added 21 new ports for entry and exit of visa-free transit personnel. Moving forward, China will further simplify customs procedures, modernize logistics, improve digital trade facilitation, streamline investment approvals, and strengthen intellectual property rights protection.

### ***Promoting the market-based allocation of production factors***

China is advancing labor force reforms by deepening household registration reform, expanding access to public services, and promoting labor mobility and talent attraction. Key measures include linking services to place of residence, easing registration restrictions, and enhancing vocational certification systems. The introduction of “Five-Year Action Plan on People-centered New-type Urbanization” in 2024 further relaxed rules to support rural migrants’ integration into urban areas, with more than 2 million household registration migrations being processed and 1.34 million household registration certificates being issued. In 2023, there were 37,000 vocational skill level assessment institutions across the economy and 4.061 million individuals earned vocational qualifications or vocational skill level certificates at senior worker level and above.

In parallel, China is reforming its capital markets to enhance efficiency, inclusiveness, and global integration. Key actions include implementing a registration-based IPO system, deepening bond market development, and expanding inclusive finance to better support SMEs and vulnerable groups. As of end-2024, foreign-invested banks and insurance institutions held assets of RMB 4.05 trillion and RMB 2.93 trillion, respectively. China’s focus for the next five years will be on establishing an inclusive financial system, enhancing access to financial services, and supporting green and rural development.

China is also accelerating technological reform to drive innovation and commercialization. The “Three-Year Action Plan for Scientific and Technological System Reform” focuses on strengthening strategic capabilities, improving the management of research funding, and streamlining procedures for major projects. China has deepened the reform of ownership rights

to grant researchers and institutions more rights. At the same time, the construction of technology transfer and pilot bases is accelerating the conversion of scientific research into practical applications, supporting both emerging industries and the upgrading of traditional sectors. As of 2024, China held 4.76 million valid domestic invention patents and 1.98 million high-value invention patents, with R&D intensity reaching 2.68 percent and basic research funding increasing by 10.5 percent.

### ***Reaching peak carbon dioxide emissions by 2030***

China is accelerating its low-carbon transition by cutting coal dependency, expanding renewable energy infrastructure, improving energy efficiency, and promoting green development in high-emission sectors. Key actions include electrifying transport, enhancing carbon sinks, and advancing circular economy practices. Since 2023, coal consumption has decreased by 1.6 percentage points and installed renewable energy capacity exceeded 1.5 billion kilowatts. Energy intensity and industrial energy use per GDP have also declined. Meanwhile, non-fossil energy accounted for 19.7 percent of total energy consumption in 2024. Furthermore in 2025, the National Energy Administration issues the 2025 Energy Work Guidance which indicated that the share of non-fossil energy in China's power installed capacity would be increased to about 60 percent, while the proportion of non-fossil energy in the total energy consumption would be increased to about 20 percent.

China is also strengthening institutional and social support through green tech innovation, public engagement, and regional carbon peak plans. Progress includes the accelerated commercialization of green technologies in areas such as energy storage and industrial decarbonization, alongside the expansion of carbon capture and renewable energy projects. Public awareness is growing, with over 200 million people engaged in carbon footprint programs, public transport usage increasing by 30 percent, and 500 companies committing to carbon neutrality targets. Moreover, carbon intensity has declined by 3.5 percent, and 80 percent of provinces are now covered by regional peak plans. Looking ahead, China will further promote green innovation by increasing R&D funding for clean energy, scaling up Carbon Capture, Utilization, and Storage (CCUS) initiatives, and fostering industrial collaboration in renewable and hydrogen energy.

### ***Driving inclusive growth***

China is making progress in driving inclusive growth. Key measures include expanding job opportunities, enhancing social security systems, and promoting vocational training to boost workforce participation. Regional revitalization initiatives, along with tax and welfare reforms, have also contributed to narrowing income disparities and growing the middle-income population. In 2024, more than 85 percent of persons with disabilities had access to rehabilitation services, and 80 percent of major hospitals included geriatrics departments. Looking ahead, China will prioritize high-quality and full employment for key groups such as university graduates and migrant workers, deepen reforms in elderly care, grow the silver economy, and improve services and protections for persons with disabilities.

## **Appendix C6. Hong Kong, China**

### ***To promote the development and adoption of law technologies***

Hong Kong, China continues to promote the use of law technologies (LawTech), particularly in the fields of online dispute resolution (ODR) and legal cloud services. eBRAM International Online Dispute Resolution Centre Limited (eBRAM Centre) launched the Deal-Making Portal in December 2023 to provide MSMEs with a more convenient way to conduct cross-border business transactions and expand their services in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA) and overseas for professional services. As of May 2025, more than 400 firms from various sectors have joined the portal. Additionally, the eBRAM Centre launched the GBA Online Collaborative Platform in July 2024 to provide the general public with one-stop information on dispute resolution services in the GBA and enable major arbitration and mediation institutions to negotiate, cooperate in business, and promote dispute resolution in GBA.

To subsidize the local legal and dispute resolution profession's subscription to the Hong Kong Legal Cloud services for up to three years from March 2022 to February 2025, Hong Kong, China provided funding through the "Hong Kong Legal Cloud Fund." By February 2025, a total of 4,362 subscribers were subsidised for the services subscription. Furthermore, Hong Kong, China established the Consultation Group on LawTech Development in January 2025 to assist the government in formulating policies and measures on LawTech development.

### ***To drive the development of financial technology (fintech) through implementing the Fintech 2025 strategy***

Based on observations from the Tech Baseline Assessment completed in June 2022, the Hong Kong Monetary Authority has collaborated with other financial regulators to roll out a series of initiatives promoting developments in Wealthtech, Insurtech, Greentech, as well as the technology types of AI and Distributed Ledger Technology (DLT). In August 2024, it launched a new Generative AI (GenAI) Sandbox in partnership with Cyberport, aimed at enabling banks to pilot novel GenAI use cases within a risk-managed framework. The first cohort, announced in December 2024, includes 15 innovative GenAI use cases from 10 banks and 4 technology partners. Additionally, the Hong Kong Monetary Authority launched the Supervisory Incubator for DLT in January 2025 to help banks responsibly productionise their DLT-based banking products and services in a safe and prudent manner.

Hong Kong, China continues to undertake research projects to understand the benefits and applications of Central Bank Digital Currencies (CBDCs), that can potentially be used by individuals, corporates and financial institutions. For example, the multiple CBDC Bridge (mBridge) project has entered the Minimum Viable Product (MVP) stage, and the MVP platform will continue to be enhanced in various aspects. Participation from both the public and private sectors will also be further widened. Project Ensemble has also commenced to support the development of the tokenisation market in Hong Kong, China which aims to explore an innovative financial market infrastructure that will facilitate seamless interbank settlement of tokenised money through CBDC, develop a set of industry standards for interoperability, and explore tokenisation use cases with the industry. Regarding e-CNY, the Hong Kong Monetary Authority and the People's Bank of China have expanded the e-CNY pilot for cross-boundary payments since May 2024, allowing residents in Hong Kong, China to set up e-CNY wallets and top-up through the Faster Payment System (FPS).

As part of its efforts to create next-generation data infrastructure, the Hong Kong Monetary Authority launched a DLT-based credit data sharing platform, in November 2022, to implement Credit Data Smart, with a view to introducing more than one credit reference agency (CRA) in Hong Kong, China to enhance the service quality of consumer CRAs and reduce the operational risk of having only one commercially-run service provider in the market, particularly the risk of single point of failure. CRAs commenced the provision of consumer credit reference services under Credit Data Smart in April 2024, and the migration of consumer credit reference services to Credit Data Smart was also completed in November of the same year. This marked an important milestone in the reform of the consumer credit reference services market in Hong Kong, China.

Hong Kong, China continues its initiatives to nurture fintech talents through the Industry Project Masters Network (IPMN) Scheme, the Fintech Career Accelerator Scheme (FCAS), and the Enhanced Competency Framework (ECF) on Fintech. Around 1,300 young talents have benefited from FCAS since its launch in 2016. As of June 2025, more than 300 Master's degree students from six fintech postgraduate programmes and around 30 financial institutions had participated in the IPMN Scheme.

To enhance the Fintech Supervisory Sandbox (FSS), the Hong Kong Monetary Authority launched the FSS 3.0 and 3.1 Pilot to promote the commercialisation and wider adoption of fintech projects. Since the above funding schemes were launched, a total of 18 projects have been approved under FSS 3.0 and FSS 3.1 Pilot.

### ***To set up a fully-fledged Trade Single Window***

Hong Kong, China is implementing the Trade Single Window in three phases to provide a one-stop electronic platform for lodging Business-to-Government trade documents for trade declaration and cargo clearance. With Phases 1 and 2 fully implemented, covering a total of 42 types of trade documents, Hong Kong, China is currently developing the IT system for Phase 3, which is the final and most complex phase involving a large volume of documents submitted by a wide range of stakeholders. The target is to roll out the Phase 3 services by batches from 2026 onwards.

### ***To continue to launch special employment programmes for enhancing the employability of various targeted groups***

Hong Kong, China continues to launch special employment programmes to increase the employability of various targeted groups, with enhancements to promote greater participation. For example, the employment programme for young people has strengthened its collaboration with the Employees Retraining Board on pre-employment training since April 2023, aiming to enrich job skills and enhance employability. The age ceiling for joining the programme was raised from 24 to 29 in January 2025, allowing more young people to obtain employment support. According to the annual development survey of young people who enrolled in the special programme and completed the 12-month support services in the 2022/23 programme years, about 70 percent were employed at the time of the survey. The employment programmes for the elderly and middle-aged have also been enhanced by introducing the three-year Re-employment Allowance Pilot Scheme (REA Scheme) in July 2024 to encourage unemployed persons aged 40 or above to join the workforce. The response to the REA Scheme is very favourable. Up to April 2025, the REA Scheme has recorded over 40,000 participants and

18,000 placements. Surveys conducted up to December 2024 to evaluate the effectiveness of on-the-job training under the Employment Programme for the Elderly and Middle-aged showed that around 82 percent of participants had a retention period of four months or more, and 68 percent stayed in employment for six months or more.

To strengthen employment support for ethnic minority (EM) job seekers, the Racial Diversity Employment Programme (RDEP) was regularized in November 2023 after a three-year pilot phase. Enhancement measures include strengthening liaison with other government departments that provide outreach services to encourage EMs with employment needs to join RDEP and organizing vocational language workshops. The number of EM job seekers served under RDEP was 255 and 475 in 2023 and 2024, respectively, while the number of placements recorded was 129 and 138 in 2023 and 2024, respectively. According to the satisfaction surveys conducted up to December 2024, participants generally found the employment support services under RDEP useful and appreciated the case management services provided by the service providers.

### *To promote the smart use of energy in different sectors*

Hong Kong, China has been implementing the Climate Action Plan 2050 since its promulgation in 2021. These include: 1) leading the development of renewable energy projects at suitable locations and raising the requirements for applying renewable energy technologies in new government buildings, 2) reviewing and upgrading various standards such as the Building Energy Code and Energy Audit Code, with the latest edition published in November 2024, which uplifted energy efficiency standards by more than 20 percent compared to the 2015 edition, 3) announcing the Green Transformation Roadmap for Public Buses and Taxis in December 2024, and 4) expediting the development of the second waste-to-energy facility for treating municipal solid waste, with the open tendering exercise for its design, construction and operation contract initiated in December 2024. Hong Kong, China aims to reduce carbon emissions by 50 percent before 2035 compared to the 2005 level and achieve carbon neutrality before 2050. Its greenhouse gas emissions in 2023 amounted to 34.5 million tonnes of CO<sub>2</sub>-equivalent, a reduction of almost a quarter compared to the peak of about 45.6 million tonnes in 2014. Per capita emissions stood at 4.58 tonnes in 2023, a reduction of almost 30 percent compared to the emission peak in 2014.



## **Appendix C7. Indonesia**

### ***Creative Economy and Digital Economy Improvement***

The digital economy plays a critical role in achieving Indonesia's goal of reaching an annual growth rate of more than 6 percent. Its share of the GDP needs to increase from around 8 percent in 2024 to 11.1-13.4 percent by 2030 and 15.5-19.8 percent by 2045. To guide this transformation, Indonesia has published the National Strategy for Digital Economy Development 2030, which outlines a comprehensive agenda based on six strategic pillars: infrastructure, human resources, business climate and cybersecurity, research and innovation, funding and investment, and policies and regulations.

Recognizing the growing demand for data services, Indonesia is currently developing the National Data Centre in West Java, set to be operational by 2025. Additional data centres are planned for Batam, Balikpapan and Labuan Bajo. To improve digital literacy, Indonesia has developed the MSMEs Go Digital and Pre-Employment Card Programmes. In 2023, the number of MSMEs using digital technology increased to 22 million, up from 19.5 million in 2022. Meanwhile, the number of Pre-Employment Card participants rose to 1.4 million in 2024, higher than 1.2 million in 2023.

At the regional level, Indonesia is committed to digital economic integration through the adoption of the Digital Economy Framework Agreement (DEFA), with negotiations expected to be completed by 2025.

### ***MSMEs Development and Financial Inclusion***

Following the launch of the National Strategy for Financial Inclusion in 2020, Indonesia has taken additional steps to enhance MSMEs' access to financial services. Regulation No. POJK 3/2023 was enacted to institutionalize financial literacy and inclusion initiatives, providing a structured framework for financial institutions to engage with customers and communities. The Financial Services Authority (OJK) has collaborated with the National Financial Inclusion Council and financial institutions to implement various initiatives and programs, such as the National Smart Financial Movement, the Regional Financial Access Acceleration Team, Financial Inclusion Month, and Indonesian Saving Day. OJK monitors progress through an integrated information system that tracks financial institutions' compliance and program effectiveness. The financial literacy index increased from 38.03 percent in 2019 to 65.43 percent in 2024, while the financial inclusion index improved from 76.19 percent in 2019 to 88.7 percent in 2023.

### ***Bureaucratic and regulatory reform***

Indonesia continues to streamline bureaucratic processes and reform regulations to enhance the business environment. The introduction of risk-based business licensing through Law No. 11 of 2020 on Job Creation has categorized businesses into low, medium-low, medium-high, and high-risk levels. Along with the Online Single Submission Risk-Based Assessment system, this has led to a surge in new business registrations, from 7,851 in 2021 to 81,812 in 2024. The Job Creation Act has also simplified the patent and trademark registration process, making it more efficient and accessible.

### ***Green Growth and Green Economy***

Indonesia is committed to achieving net-zero emissions by 2060 or sooner, pledging significant reductions in greenhouse gas emissions. In Enhanced Nationally Determined Contribution (NDC) 2022, Indonesia committed to reducing emissions by 31.89 percent without international support or 43.20 percent with international support by 2030. To meet these targets, Indonesia has set ambitious goals in its Long-Term Development Plan 2025-2045, outlined in Law No. 59/2024, and further detailed in Presidential Regulation No. 12 Year 2025 for the Medium-Term Development Plan. The Indonesia Carbon Exchange was launched in September 2023, with international carbon trading enabled in January 2025. The Ministry of Industry has developed technical guidelines on Green Management and Practices, focusing on CO<sub>2</sub> emissions reduction, energy management systems, renewable energy, and waste-to-energy solutions. The Indonesia Financial Services Authority introduced the Indonesia Taxonomy for Sustainable Finance Version 1, which includes the main framework and technical screening criteria for the energy sector. This was followed by the launch of Version 2 on 11 February 2025, which expanded coverage to three additional NDC sectors: Construction and Real Estate, Transportation and Storage, and selected activities within the Agriculture, Forestry, and Other Land Use (AFOLU) sector—particularly forestry and palm oil plantations. As of April 2025, the Just Energy Transition Partnership (JETP) has approved funding of USD 1.056 billion in the form of debt and equity, approximately USD 190.2 million of approved grants and technical assistance for 43 programs and 11 grants/technical assistance programs are in the process for approval totalling USD 105.1 million. Indonesia reported that the share of renewable energy in the primary energy mix increased from 11.2 percent in 2020 to 14.6 percent in 2024, with a target of achieving a 23 percent renewable energy share by 2029. To realize the transformation of the renewable energy share, in National Electricity Supply Business Plan (RUPTL) 2025-2034, 76 percent of the additional generating capacity comes from renewable energy (42.1 GW) including nuclear energy (0.5 GW) and storage (10.3 GW).

## **Appendix C8. Japan**

### ***Concentrated Investment and Implementation of Digitalisation and Creating Its Environment***

Japan has continued to promote concentrated investment in digitalization and its implementation to prepare for the digital age. Established in 2021, the Digital Agency exemplifies Japan's recognition that digital, regulatory, and administrative reforms should be undertaken holistically. Japan has also formulated several documents to flesh out its plans. In addition to those indicated in the 2023 EAASR mid-term review report, recent documents include the Priority Policy Program for Realizing Digital Society for both 2023 and 2024. Japan reported that 5G platform deployment has reached 98.1 percent population coverage as of March 2024.

### ***Growth of the Green Sector and Creating Its Environment***

Japan recognizes that various measures are needed to achieve its net-zero greenhouse gas emissions target by 2050. These measures include promoting R&D and investment in green sectors, encouraging a shift to renewable energy and other decarbonized power sources, and transitioning to a circular economy. Following the approval of the "GX Promotion Strategy" by the Cabinet in July 2023, Japan is currently working to materialize its growth-oriented carbon pricing concept. Additionally, Japan revised its Plan for Global Warming Countermeasures in 2025. As of FY2023, Japan reported a 27.1 percent reduction in greenhouse gas emissions compared to FY2013 levels.

### ***Strengthening Investment in People***

Japan continues to implement a five-year policy package worth JPY1 trillion to invest in human capital, with the objective of reskilling workers in growth areas such as digitalization and promoting labour mobility. Japan also noted that it fully enforced the Revised Act on Childcare Leave/Caregiver Leave in FY2023 and further revised the act in FY2024. In FY2023, Japan reported that the employment rate of people aged 65 to 69 reached 52.0 percent, while the employment rate of women aged 25 to 44 reached 80.8 percent. Additionally, the percentage of women in director-equivalent positions in the private sector reached 13.2 percent, and the percentage of male employees taking childcare leave reached 30.1 percent in the same fiscal year.

### ***Strengthening Firm Growth and Creating its Environment***

Start-ups play a crucial role in driving innovation and addressing social issues such as climate change. To support the establishment and growth of these firms, Japan has introduced several measures, including: (1) Formulation of the 6<sup>th</sup> Science, Technology, and Innovation Basic Plan (2021); (2) Publication of the Action Program to Implement Corporate Governance Reforms (2024); (3) Formulation of the Start-up Development Five-year Plan (2022); (4) Revision of angel tax incentives (FY2023), open innovation tax incentives (FY2024), and R&D tax incentives (FY2023); and (5) Enhancement of the Key and Advanced Technology R&D through Cross Community Collaboration Program (2022).

***Strengthening and Expanding the Economic Partnerships, and Taking in Overseas Markets through Them***

Japan emphasized the importance of continuing efforts to expand a free and fair economic zone and to maintain and strengthen the rules-based multilateral trading system. With regards to the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), Japan led the coordination for negotiating the Protocol on Accession as Chair of the UK Accession Working Group, which entered into force in December 2024. In November 2024, Japan also decided to initiate Costa Rica's accession process into the CPTPP. Additionally, Japan highlighted the importance of ensuring the transparent implementation of the Regional Comprehensive Economic Partnership (RCEP) Agreement, which entered into force in 2022. Among the goals that Japan has set include increasing broadcasting contents sold outside Japan to five thousand items (by FY2025), and achieving 5 trillion yen of agricultural, forestry and fishery products and food exports (by FY2030).

## Appendix C9. Korea

### *Boosting competitiveness of service industries*

Korea is committed to strengthening its service industry infrastructure through substantial investments in research and development (R&D), standardization, and human capital development. The government has set an ambitious target of KRW 7 trillion in service-related R&D expenditure for the period 2021–2025, a significant increase from the KRW 4 trillion spent between 2016 and 2020. As of 2024, Korea’s cumulative R&D spending on services has reached KRW 6.7 trillion, demonstrating strong progress towards meeting its target. To enhance the effectiveness of R&D support, Korea has refined its “Service R&D Guidelines” by improving the checklist for tax support eligibility and restructuring support mechanisms. In an effort to boost services exports, Korea has arranged the largest-ever export financing package, amounting to KRW 66 trillion for the period 2025–2029. Additionally, an export voucher track specifically designed for tech services companies has been established to provide targeted assistance in expanding their global reach.

Korea is also prioritizing the development of key emerging services industries, such as healthcare, content, and logistics, positioning them as essential drivers of future economic growth. The government has laid a strong foundation for these industries by supporting the scale-up of high-potential services companies, particularly in ICT and content sectors. Moreover, Korea is actively advancing the data industry by promoting the My-data initiative, which involves establishing detailed standards in the medical and telecommunications fields. To support the growth of new industries, Korea is also developing conflict resolution systems aimed at addressing disputes arising from emerging industrial sectors. Reflecting the success of these initiatives, Korea’s services value-added as a percentage of GDP increased from 62.5 percent in 2021 to 63 percent in 2023. Furthermore, the number of new cumulative decent jobs in key services industries rose substantially from 446,000 in 2021 to 1,490,000 in 2024, surpassing the established targets.

To further promote the development of the services sector, a comprehensive bill titled the “Promotion of the Service Industry Development Basic Act” has been submitted to the National Assembly. Unlike previous proposals, this enhanced bill includes provisions for establishing and operating a mechanism to mediate social conflicts that may arise from the emergence of new industries. It also incorporates a flexible approach that permits the initial operation of new businesses where regulations are insufficient, with adjustments made as necessary to ensure balanced and effective regulation.

### *Supporting the work–life balance of working women*

Korea has introduced and implemented the 7th Basic Plan on Gender Equality in Employment and Work-Family Balance, aimed at enhancing gender equality in the workplace and supporting individuals in balancing their professional and family responsibilities. Key measures under this plan include: extending parental leave to a period of 1 year and 6 months; increasing the parental leave benefit amount to KRW 2.5 million; and extending spousal maternity leave and salary support to 20 days. In line with the “Act on Gender Equality in Employment and Support for Work-Family Balance,” Korea has broadened the applicability of the ‘right to request reduced working hours for family care’ to all workplaces since January 2022, ensuring wider access to flexible working arrangements for those with caregiving responsibilities.

Korea continues to enhance its support for job-seeking individuals through various targeted programs. Participation in the Saeil Center (Career Development Center for Women)'s group counseling program slightly decreased from 26,669 in 2021 to 26,583 in 2024. However, the Korea Polytechnics' training program for women returning to the workforce after career breaks has shown notable progress, with participation increasing from 1,322 in 2021 to 1,807 in 2024.

### ***Narrowing the gap between regular workers and non-regular workers***

Korea continues to implement comprehensive policy measures aimed at reducing disparities between regular and non-regular workers. As part of these efforts, Korea introduced the "Guideline on Prevention and Autonomous Improvement of Discrimination" in December 2023, providing employers with a framework to independently assess and improve their practices concerning potential discrimination against non-regular workers. To further strengthen protections for non-regular workers, Korea operated the "Anonymous Reporting Center for Discrimination Cases" in July 2024. This center is designed to empower non-regular workers who may hesitate to seek discrimination remedies due to fear of retaliation or unfavorable treatment.

In 2024, Korea actively provided consultation services to 353 workplaces aimed at identifying and rectifying unreasonable discriminatory practices against non-regular workers and enhancing their working conditions. Additionally, labour inspections were conducted at 200 workplaces within industries known to employ a high proportion of female and foreign non-regular workers, ensuring their rights and welfare are adequately protected. As part of broader efforts to enhance job security, Korea successfully transitioned 2,000 non-regular workers in the public sector to regular employment between 2023 and 2024.

### ***Strengthening the social safety net through outreach programmes for health and welfare***

Korea has been actively enhancing its welfare system to improve accessibility and awareness of available benefits. In 2021, the government introduced the "Guidance on Customized Benefits (Welfare Membership)" to effectively inform the public about eligible welfare benefits and encourage voluntary applications. Further improvements were implemented in 2022, allowing previously excluded individuals to register for welfare membership. In 2024, the system was further upgraded to enable beneficiaries to search for and add more welfare services, expanding their access to a broader range of support programs through the welfare membership platform.

To strengthen the delivery of health and welfare services at the regional level, Korea has established dedicated health and welfare teams within basic local governments. By the end of 2024, 3,461 out of 3,553 local government areas had successfully set up these specialized teams, significantly enhancing the administrative framework for welfare service delivery. The results of these initiatives are evident. The number of individuals receiving benefits through welfare membership and the "Search for Households in Crisis" program reached 7,028 in 2023 and 2,204 in 2024. Additionally, the number of welfare services accessible through the welfare membership system has grown from 71 in 2021 to 127 in 2024, reflecting ongoing efforts to broaden the scope of welfare support available to the public.

## **Appendix C10. Malaysia**

### ***Strengthening Service Delivery Mechanism***

Malaysia has launched Pangkalan Data Utama (PADU), a centralized socio-economic database designed to enhance service delivery by enabling real-time poverty tracking and data-driven policy-making. Initiated in January 2023, PADU serves as a national socio-economic data hub, integrating information from various sources such as eKasih, tax records, and health and education databases. To ensure efficient and coordinated social assistance and welfare programs, data-sharing agreements have been established across federal, state, and district-level social welfare agencies. This improved inter-agency coordination is expected to reduce redundancy in social assistance and welfare programs. As of March 31, 2024, PADU has successfully registered 11.55 million individuals aged 18 and above.

Malaysia has also introduced the Basic Minimum Living Expenditure (BMLE) Framework to tailor poverty solutions to the varying costs of living across different regions. By integrating BMLE into PADU, localized poverty thresholds can be used instead of a one-size-fits-all poverty line. Additionally, a regional cost-of-living index has been developed to guide federal and state-level aid allocation strategies, ensuring more targeted and equitable social assistance programs.

The People's Income Initiative (Inisiatif Pendapatan Rakyat – IPR) aims to empower individuals in the B40 income group through micro-financing and business coaching. Malaysia has expanded the IPR entrepreneurship programs to reach more B40 households and has implemented IPR-driven skill matching to help individuals secure jobs and sustainable incomes. By the end of 2024, a total of 3,628 participants had been approved for program implementation under the Agricultural Entrepreneur Initiative (IPR-INTAN) across more than 50 locations.

### ***Narrowing Household Income Inequality***

To tackle the rising cost of living and enhance purchasing power, the National Action Council on Cost of Living (NACCOL) has implemented real-time monitoring of essential goods prices. This ensures that policy interventions are both data-driven and effective. NACCOL has also bolstered price control mechanisms for essential goods by collaborating with retailers and suppliers to curb price manipulation and unjustified mark-ups. In March 2024, NACCOL approved the Department of Statistics Malaysia's proposal to develop a comprehensive Cost of Living Index. This index aims to provide detailed insights into living costs across 13 states, three federal territories, and 162 districts, considering factors such as Marginal Propensity to Consume and Purchasing Power Parity. Additionally, Malaysia is supporting M40 households through a mix of income tax reductions, affordable housing schemes, and improved access to lifelong learning and digital economy opportunities. These measures specifically aim to increase disposable income and create more income-generating opportunities for the M40 group.

To establish a more equitable and targeted social assistance framework, Malaysia is transitioning from the B40, M40, and T20 income categorization to a Non-Disposable Income (NDI) measurement. This new approach takes into account financial burdens such as debt obligations, household composition, and living costs. Malaysia is currently realigning social welfare programs using NDI classifications to provide targeted assistance to households facing

high living costs despite higher gross incomes. Furthermore, NDI methodology is being incorporated into tax relief policies to allow middle-income households with high dependents to access additional financial support.

### ***Ensuring Equitable Access to Internet***

Malaysia is rapidly advancing its digital infrastructure through the implementation of the National Digital Network Action Plan, known as JENDELA. Key initiatives include: (1) realigning policies at both federal and state levels to facilitate investment in cutting-edge digital infrastructure and ensure its optimal deployment; (2) introducing digital-by-default legislation to enable the provision of digital services, protect consumers, and foster innovation and competition; and (3) establishing innovative funding mechanisms through commercial banks and government agencies to stimulate further investment in digital infrastructure development. Currently, 96.92 percent of populated areas have 4G coverage, and 7.74 million premises are equipped with gigabit-speed connectivity.

### ***Expanding Digitalisation***

Malaysia acknowledges that expanding digitalization will significantly enhance socioeconomic development and ensure digital inclusion. To achieve this, Malaysia has implemented the e-Usahawan Komuniti and Siswa programs, which focus on fostering e-entrepreneurship within communities and among undergraduates. Additionally, new e-entrepreneur hubs have been established in institutes of higher learning, including those in Sabah and Sarawak.

Furthermore, Malaysia has rebranded the Pusat Ekonomi Digital Keluarga Malaysia (PEDi) as the National Information Dissemination Centre (NADI). NADI aims to emphasize income generation in rural areas by serving as a hub for community interaction, knowledge sharing, and collaboration on digital initiatives. In 2024, Malaysia achieved several milestones in expanding digitalization, including training over 66,000 individuals, facilitating the adoption of e-commerce by more than 43,000 businesses, and establishing 21 additional e-entrepreneur hubs.

### ***Reducing Regulatory Burdens and Barriers to Starting Businesses***

The Malaysia Mudah (MyMudah) initiative and the Bureaucratic Reform (Reformasi Kerenah Birokrasi – RKB) program are collaborative efforts aimed at enhancing the efficiency and effectiveness of Malaysia's public service delivery. MyMudah sets the overarching vision for a streamlined and efficient public service, while the RKB program provides the structured approach and tools necessary to realize this vision. At the National Public Service Reform Convention held in November 2024, the Chief Secretary to the Government announced a target of 500 projects to ensure comprehensive reform. To date, a total of 799 RKB projects have been registered, including 473 from federal government agencies and 326 from state governments. In 2024 alone, 200 projects were successfully implemented.

One notable success is the Reformation of the Construction Permit Process at Kulai Municipal Council, known as the Kulai Fast Lane (KFL). This initiative is a fast and efficient service delivery system designed to streamline the processing of physical development applications, including approvals for planning and building plans, Certificates of Completion and Compliance (CCC), and the issuance of operating licenses. KFL has achieved several



significant milestones, such as reducing industrial building construction time, increasing investment, creating jobs, and boosting revenue for the local authority.

### ***Providing an Enabling Environment for the Growth of Digital Economy***

Following the launch of the Malaysia Digital Economy Blueprint (MDEB) in February 2021, MyDigital Corporation was established to streamline, drive, and monitor the implementation of the initiatives outlined in the Blueprint. The MDEB has led to significant investments in digital infrastructure, the expansion of 5G networks, and increased data center capacity. It has also driven a substantial push towards integrating emerging technologies across both public and private sectors. In 2023, the digital economy contributed approximately 23.5 percent to Malaysia's GDP. Additionally, Malaysia continues to implement the National eCommerce Strategic Roadmap 2.0, which adopts a comprehensive, collaborative approach to enhance and accelerate the growth and innovation of the e-commerce ecosystem. In 2023, e-commerce contributed 13.6 percent to Malaysia's GDP.

### ***Expanding Digitalisation Initiatives in Public Service Delivery***

Malaysia remains dedicated to delivering the most efficient public services. As of August 2024, 87.57 percent of federal government services are now available online, surpassing the 2025 target of 80 percent. Additionally, key government applications such as MyGov Portal, MySejahtera, and MyHRMIS have been successfully integrated with Single Sign-On (SSO) and MyDigital ID, enhancing both accessibility and security. This integration process will be extended to more government systems in the future.

In pursuit of its goal to achieve 100 percent digital literacy among civil servants by 2025, Malaysia has launched a Digital Literacy Programme to assess and enhance digital readiness within the public sector. In 2024, the Public Service Department introduced a prerequisite digital literacy module for pre-service training by INTAN. Since then, 90.87 percent of civil servants have successfully completed and passed the Digital Literacy Programme.

### ***Boosting Productivity Growth - Skills Development to Boost Productivity***

To enhance productivity growth, Malaysia is accrediting local sharing economy platforms with international industry standards and certifications. By aligning with globally recognized benchmarks, including through international accreditation, Malaysia aims to bolster consumer protection, operational efficiency, and competitiveness in the global market. Between 2021 and 2024, a total of 66 platforms received accreditation.

### ***Regulatory Experimentation Programmes to Boost Malaysia's Competitiveness through Public-Private Sectors Collaborative Innovation***

Malaysia has issued a circular on Regulatory Experimentation to establish a systematic process for evaluating and enhancing regulations, policies, and non-legislative measures. The goal is to improve regulatory quality, foster innovation and productivity, and support bureaucratic reform by testing new approaches before full implementation. To support this initiative, MYR 25 million has been allocated to 500 projects in 2025. One successful project under this process is the limestone export licensing reform. During regulatory experimentation, the license validity was extended from 6 to 12 months. By allowing simultaneous applications at the States Land and Mines Offices (PTG) and the Department of Mineral and Geosciences (JMG), the

processing time was reduced from 60 to 21 days, cutting administrative burdens by 50 percent. This initiative boosted export planning, increasing limestone exports by MYR 6 billion annually. Consequently, the Ministry of Natural Resources and Environmental Sustainability permanently extended the license validity to 12 months.

### ***Provide Decent Work for Gig Workers***

A working committee comprising representatives from the Ministry of Human Resources and Malaysia's Social Protection Commission (SOSCO) has been established to draft legislation for gig workers. Between July 2024 and January 2025, the committee conducted several workshops and held 12 engagements with relevant stakeholders to prepare a comprehensive draft bill. The bill was tabled in Parliament for its first reading in March 2025 and is scheduled for its second reading in June 2025. To enhance the social security of gig workers, the draft bill includes a mandatory contribution requirement applicable to gig workers using platforms as intermediaries. SOSCO is currently collaborating with platform providers to integrate their systems for seamless contribution transactions. This integration will also assign responsibilities to platform providers to ensure that every gig worker under their platform contributes.

## **Appendix C11. New Zealand**

### ***Consumer Data Right***

In July 2021, New Zealand announced plans to establish a new legislative framework for consumer data rights. This framework mandates that designated data holders, such as banks and electricity retailers, securely share data with third parties (e.g., fintech companies) upon receiving consumer consent. In March 2025, the Customer and Product Data Act was passed. The Minister for Commerce and Consumer Affairs is actively working to designate the banking sector as the first to comply with this Act. Full implementation of the regulations is targeted for December 1, 2025.

### ***Reform of Research Science and Innovation (Future Pathways)***

Since the 2022 review, New Zealand's research, science, and innovation (RSI) system has undergone significant reforms. In March 2024, the Cabinet approved the terms of reference for the Science System Advisory Group (SSAG), tasked with advising and developing recommendations for changes within the RSI system.

Commissioned by the Ministry of Business, Innovation and Employment, the SSAG's first report provides a strategic analysis of New Zealand's current science, innovation, and technology landscape. It identifies key weaknesses and proposes a redesigned architecture to enhance productivity and address future challenges. The report emphasizes the need for a more efficient, effective, and strategically aligned science sector, focusing on promoting economic, social, and environmental well-being. It also sets the stage for future recommendations, which will be covered in the second report (e.g., on funding mechanisms).

In January 2025, New Zealand announced plans to reform the RSI system in response to the SSAG's first report. These plans include: (1) Establishing the Prime Minister's Science, Innovation, and Technology Advisory Council; (2) Creating three public research organizations focused on bioeconomy, earth sciences, and health and forensic science services by merging the current seven Crown Research Organizations; (3) Establishing a fourth public research organization dedicated to advanced technology; (4) Launching Invest New Zealand, a one-stop-shop for foreign direct investment; (5) Realigning the functions of Callaghan Innovation by disbanding it and redistributing its roles within the RSI system; and (6) Developing a national policy for managing intellectual property for research funded through government RSI investments.

The restructuring of the RSI system will commence in 2025, with legislation taking effect in 2026. New Zealand has noted that the SSAG's first report focuses on the system's architecture, with implementation progress to be measured in the second report.

## **Appendix C12. Papua New Guinea**

### ***Higher and Technical Education Reform Act 2020***

The Higher and Technical Education Reform Act (HTERA) 2020 has driven key reforms in Papua New Guinea's higher education sector, particularly through the establishment of Governing Councils with defined powers for colleges, enhancing governance and compliance with legislative requirements. In 2024, the Department of Higher Education, Research, Science and Technology (DHERST) launched a Governance Manual and a standardized organizational structure for all Higher Education Institutions (HEIs), aligning operations with both HTERA and the amended Higher Education (General Provisions) Act 2020. These efforts mark significant progress in strengthening institutional governance and responsiveness to societal needs. DHERST currently manages payroll for 1,443 employees, including positions at both the department and transferred state-owned colleges, while the proposed organizational structure has been submitted to the Department of Personnel Management following stakeholder consultations.

## **Appendix C13. Peru**

### ***Reforms to design quality regulations, decrease regulatory and cost burden for business in executive power entities***

As part of the mandatory implementation of the Ex-Ante Regulatory Impact Analysis (RIA) in 2024, entities of the executive branch identified 298 issues to be addressed in 27 early planning regulatory agendas. Of these, 186 were newly identified issues, while 112 were carried over from the previous year. To strengthen the capacities of various executive entities, 239 civil servants participated in workshops focused on regulatory improvement, which included identifying issues and exploring various solutions. Additionally, workshops on early planning regulatory agendas were held, attracting around 617 civil servants from different executive entities. Peru also actively hosted and participated in the APEC's 17th Conference on Good Regulatory Practices, with many Peruvian civil servants in attendance. In terms of technical assistance for the progressive implementation of RIA, 216 instances of support were provided in 2024. These included capacity building, guidance, answering queries and information dissemination, reaching a total of 1,468 civil servants. The implementation achieved full coverage (27/27 entities), and future plans include institutionalizing training and shifting to a biennial planning cycle starting in 2026.

## **Appendix C14. The Philippines**

### ***Inclusive Innovation Industrial Strategy (i3S)***

The i3S initiative supports the growth of various industries by building an innovation and entrepreneurship ecosystem, removing obstacles to investment, strengthening domestic supply chains, and deepening industry participation in global and regional value chains. The Department of Trade and Industry (DTI) has developed and implemented various programs under the i3S strategies, recently enhanced and relaunched as a Science, Technology, and Innovation-driven Industrialization Strategy.

The National Artificial Intelligence Strategy Roadmap (NAISR), launched in May 2021, aims to maximize the benefits of employing AI technologies. Relaunched in July 2024, NAISR2.0 integrates emerging AI technologies, including Generative AI, and emphasizes ethics, governance and workforce upskilling. A significant milestone is the establishment of the Center for AI Research (CAIR), whose mission include elevating the Philippines as a global leader in AI research and innovation, and fostering a synergistic environment between government, industry and academia.

Other i3S programmes that have been implemented include: (1) establishing Regional Inclusive Innovation Centres in ten regions to increase collaboration among innovation stakeholders, with another three regions in the latter stages of setting up their centres; (2) introducing the Enterprise Digital Upgrading initiative to accelerate the digital transformation of SMEs and industries through the use of global frameworks and tools; (3) developing ten Philippine Skills Frameworks (e.g., supply chain and logistics, software development and security) between 2021 and 2024 and rolling them out to various institutions for implementation; and (4) providing support to innovative start-ups under the DTI Startup Development Program. Depending on the objective of the programs (e.g., pitch preparation, access to wider markets), the number of start-ups assisted ranges between 2 to 72.

### ***Philippine Action Plan for Sustainable Consumption and Production***

The Philippine Action Plan for Sustainable Consumption and Production (PAP4SCP) offers a comprehensive blueprint for the cohesive implementation of sustainable consumption and production practices in the Philippines. This plan serves as a guiding framework for policy reforms and interventions across short, medium and long-term horizons.

A key component of the Action Plan is the Extended Producers Responsibility (EPR) Act, enacted in 2023. This Act establishes market-based mechanisms that create new pathways from the end to the start of the value chain through waste reduction, recovery, and recycling. The Department of Environment and Natural Resources (DENR) is actively implementing interventions to reduce plastic waste leakage through its EPR program. For instance, registered enterprises met the 20 percent plastic footprint reduction target for 2023 by purchasing plastic credits. Additionally, the DENR continued to assist obliged enterprises in developing their EPR programs, receiving nine new EPR program submissions in 2024, bringing the total number of firms with EPR programs to 947.

In terms of solid waste management, the DENR continues to provide technical assistance to local government units in developing and operationalizing their 10-year Solid Waste Management Plans (SWMPs). This effort has resulted in 87 percent of local government units

having approved 10-year SWMPs. Furthermore, 4,436 local government units were assisted in establishing and operationalizing Barangay Materials Recovery Facilities (MRFs) to divert recyclable and compostable materials from the environment. The DENR has also developed the online Self-Compliance Monitoring and Auditing Report (SCMAR) to streamline the reporting process and facilitate real-time monitoring of compliance with waste management regulations.

Other updates on the PAP4SCP include: (1) the enactment of the Philippine Ecosystem and Natural Capital Accounting System (PENCAS) Act, which mandates the use of environmental-economic accounting in policy and decision-making; and (2) the expansion of walkways and bike lanes under the Active Transportation Program of the Department of Transportation, achieving approximately 37 percent of the government's target of establishing 2,400 km of bike lanes by 2028.

### ***Implementation of the Philippine Identification System (PhilSys)***

The Philippine Identification System (PhilSys) Act, enacted in August 2018, aims to provide all citizens and residents with an economy-wide ID to facilitate better access public services. The Philippine Statistics Authority (PSA) has intensified efforts to expand registration services through various initiatives, including mobile registration services, collocating registration activities in government and private institutions, and enabling overseas registration in collaboration with Philippine Embassy and Migrant Workers Office. By the end of 2024, over 91.7 million Filipinos had been registered in the ID system, with more than 54.7 million ID cards delivered. In partnership with the Department of Information and Communications Technology (DICT), the PSA launched the Digital National ID, National eVerify, and National ID Check in June 2024. Additionally, the number of relying party systems from government, social protection, private and financial sectors integrated with the National ID System has increased, reaching a total of 92 as of December 2024.

### ***Institutionalisation of the Social Protection Floor***

The Social Protection Floor (SPF) is a set of basic social security guarantees designed for all Filipinos. Following the approval of the SPF recommendations by the Department of Economy, Planning, and Development (DEPDev) (previously National Economic and Development Authority (NEDA)) in April 2023, the SPF was incorporated as a key strategy in both the Labour and Employment Plan 2023-2028 and the Philippine Social Protection Plan 2023-2028. In April 2024, a workshop attended by various social protection implementing agencies was held to discuss and finalize targets and strategies for implementing the SPF. The implementation plan is scheduled to be presented to the relevant parties in 2025.

### ***NEHEMIA programme (measures for the telecommunications sector)***

The National Effort for the Harmonization of Efficient Measures of Inter-related Agencies (NEHEMIA) program aims to streamline government requirements and procedures in priority sectors. For the telecommunications sector, the program endeavours to simplify the construction and installation of telecommunication towers, software and wireless technologies, thereby facilitating the delivery of ICT services throughout the economy.

The Anti-Red Tape Authority has hired a consultant to develop a Business Process Management (BPM) Training Manual, providing a foundational understanding of BPM and basic process modelling. The Authority has also conducted checkpoint and engagement meetings with public

and private stakeholders to identify and resolve bottlenecks in the issuance of permits, licenses and authorizations related to powering telecommunications towers; mapping telecommunications towers in the economy; and supporting the enhancement of the telecommunications sector. Additionally, the Anti-Red Tape Authority reviewed the Joint Memorandum Circulars (JMCs) issued under the Bayanihan to Recover As One Act, particularly those related to the construction of shared passive telecommunications tower infrastructure. The objective is to identify challenges, refine processes and ensure full implementation of the guidelines to enhance telecommunications infrastructure development in the Philippines.

The Anti-Red Tape Authority then spearheaded the development of Executive Order 32 (EO32), also known as “Streamlining the Permitting Process for the Construction of Telecommunications and Internet Infrastructure,” which was issued and signed by the President in July 2023. This EO institutionalizes a set of streamlined guidelines for the issuance of permits, licenses and certificates for the construction, installation, repair, operation and maintenance of telecommunication and internet infrastructure. With the implementation of telco-related JMCs, EO32 and its implementing rules and regulations, the number of approved telco permits has increased.



## **Appendix C15. Russia**

### ***Development of regulatory impact assessment tools and reducing the administrative burden***

In 2022, the blocking role of the Regulatory Impact Assessment (RIA) was established, meaning that if there are unresolved disagreements regarding the RIA, then the submission of a draft regulation (act) to the relevant Government Subcommittee and its registration is prevented. As of September 1, 2023, revised rules for conducting RIA came into effect: (1) partial crediting of timelines for conducting RIA on regulations with high and medium impact levels was introduced. The discussion period for a draft act published as part of the disclosure procedure (15 calendar days, stipulated by the Resolution of the Government of the Russian Federation No. 851 of 25 August 2012) is taken into account for regulations with high and medium impact levels, allowing for a public discussion within the framework of the RIA in half the period (10 and 8 days, respectively); (2) reduction of the discussion period for regulations with low impact levels to 5 days; and (3) expansion of the list of exceptions from RIA. Additionally, new criteria for determining impact levels, based on the cost of compliance over six years, were introduced. Between 2020 and 2024, a total of 6,202 RIAs were conducted.

In 2020, a large-scale project, namely, the reform of the “regulatory guillotine,” was implemented, meaning the revision and repeal of regulations that negatively affect the overall business climate and regulatory environment. In total, more than 12,000 acts from the Russian and Soviet periods have been repealed, and 447 new regulatory legal acts have been adopted in their place.

Russia adopted Resolution No. 792 on June 12, 2024, which established a maximum deadline of September 1, 2025, for remaining acts to be included on the list. Before this deadline, relevant agencies are required to reissue the remaining acts or conduct an assessment of the mandatory requirements contained in those acts. Additionally, the “Guillotine 2.0” project was launched in 2024 to reduce mandatory requirements, timelines, and costs for implementing investment projects at various stages of their lifecycle, and to minimize interactions between project proponents and government officials. To date, five roadmaps have been approved.

In 2019, the Ministry of Economic Development launched the “Transformation of the Business Climate (TDC)” mechanism to remove regulatory restrictions on conducting business and eliminate excessive, outdated, and contradictory requirements in legislation. This mechanism has led to significant improvements in the regulatory environment. Examples include reducing the number of mandatory fields in electronic travel documents, introducing a single window for conducting urban planning and environmental expertise, and simplifying procedures for confirming the justification for applying a 0 percent VAT rate when providing international transportation and freight forwarding services. Over the past six years, 413 business initiatives have been collected, with 325 of them being implemented.

### ***National Competition Development Plan 2021–2025***

The National Competition Development Plan 2021–2025 is designed to foster a competitive economic environment. Russia utilized various indicators to track the plan’s implementation. By 2024, the workforce in small and medium-sized enterprises (SMEs), including individual entrepreneurs and the self-employed, had risen to 29.45 million, surpassing the target of 25 million. Work has been continued to ensure the interchangeability of drugs. By the end of 2024,

83.14 percent of drugs for which interchangeability had to be determined were recognized as such. The planned value of this indicator is 65 percent.

Additionally, in 2024, Russia identified state and municipal properties not utilized for governmental functions, aiming to integrate them into the market by December 31, 2025. Furthermore, an evaluation of industry strategic planning documents was conducted to assess the adequacy of measures for promoting competition. Based on this assessment, recommendations for enhancing these documents were submitted to the Government of the Russian Federation.

As a result of the plan implementation, main educational programs of basic general and secondary general education currently include topics devoted to state policy on the development of competition.

### ***National Project on MSMEs and Support for Individual Entrepreneurship 2019–2024***

The National Project on MSMEs and Support for Individual Entrepreneurship 2019–2024 aimed to provide comprehensive support for entrepreneurial activities, fostering a favorable business environment and assisting MSMEs in integrating into global value chains. The project was structured to address business needs and establish a robust ecosystem for business-to-government interaction. It offered essential support measures for entrepreneurship at all stages of business development, from ideation to export. Specifically, export support centers were established to help entrepreneurs promote their products abroad through both financial and non-financial services. Russia reported an 8.7 percent increase in the number of MSMEs, from approximately 6 million in 2019 to 6.5 million in 2024. Additionally, employment in MSMEs, including individual entrepreneurs, rose by 43 percent, from 21.9 million people in 2019 to 31.3 million in 2024.

Since 2025, Russia has been implementing a new national project titled “Efficient and Competitive Economy”, covering the period from 2025 to 2030. One of its key components is the federal project “Small and Medium-Sized Entrepreneurship and Support for Individual Entrepreneurial Initiative.” This federal project aims to preserve core support mechanisms for MSMEs while adjusting them to meet current economic challenges and strategic goals for sustainable growth. A primary target of these adjustments is to increase income per employee in the MSME sector at a rate of 1.2 times higher than GDP growth, reaching 128.1 percent by 2030. To achieve this target, the focus will be on promoting growth across the MSME sector, particularly in high-productivity industries such as manufacturing, tourism, IT and high-tech.

Efforts will be sustained to strengthen regional support infrastructure for SMEs. Specifically, plans include the creation and development of at least 100 industrial parks, technology parks, and business parks across various Russian regions.

### ***Low Emissions Development Strategy 2021-2050***

Russia’s national climate policy development gained momentum in early 2020s, when key laws and framework documents guiding climate action were created. In 2021, Russia enacted Federal Law No. 296-FZ to establish a comprehensive framework for climate regulation. This law mandates the reporting of emissions by companies with annual emissions exceeding 150,000 tons of CO<sub>2</sub>-equivalent in the period 2022–2023, with the threshold lowering to 50,000 tons starting 2024. Additionally, the law introduces a federal carbon offsetting system, detailing

legal procedures for the development, validation, verification, and registration of greenhouse gas reduction or removal projects, as well as the issuance of carbon units. As of June 2025, more than 68 projects have been registered in the domestic carbon registry, with the potential of issuance of over 91 million carbon units and more than 34 million carbon units already issued.

In 2022, Federal Law No. 34-FZ was adopted to pilot cap-and-trade schemes for limiting greenhouse gas emissions in federal subjects of the Russian Federation. The scheme is currently implemented on the territory of Sakhalin region. As a result of the pilot cap-and-trade implementation, the region is expected to achieve carbon neutrality by the end of 2025.

In 2021, Russia approved a federal taxonomy of criteria for sustainable projects, encompassing green development and project verification requirements. This taxonomy is divided into three sections: (1) green projects, listing initiatives recognized as green by global standards; (2) transition projects, that are not considered green in international practice, but have an explicitly positive effect on the environment and are in line with domestic development priorities; and (3) social projects, added in 2023. The criteria vary based on the project type.

Furthermore, Russia has developed a multi-level adaptation planning system to effectively address climate change. This system includes a regularly updated federal plan, sectoral plans targeting climate risks and adaptation needs in various economic sectors, and regional plans tailored to the unique circumstances of Russia's regions. Plans have been developed for sectors such as transport, fuel and energy, construction, agri-industrial complex, environmental management, healthcare, sanitary and epidemiological well-being, civil defence and emergencies, industries and foreign trade, as well as a standalone plan for the Arctic zone of Russia. Regional plans have been approved for 79 regions so far. In 2021, Russia also established a common set of methodological recommendations and indicators for climate change adaptation, which is being constantly updated and supplemented.

### ***National Program “Digital Economy” 2018-2024***

The National Program encompasses several federal projects aimed at advancing various aspects of digital transformation and economic development. The "Regulation of the Digital Environment" project focuses on creating a conducive regulatory framework for digital transformation. Over 50 regulatory acts have been adopted, including the establishment of experimental legal regimes and the introduction of a system for data depersonalization.

The "Information Security" project aims to enhance the protection of personal data and public information systems while developing robust information security standards. Key activities include the creation of an anti-fraud phishing site monitoring system, testing government information systems, and launching the "National Multiscanner" to detect malware.

The "Digital Technologies" project seeks to ensure Russia's technological independence, commercialize domestic research and development, accelerate technological advancement of Russian companies, and enhance the competitiveness of their products and solutions. More than 3,500 IT companies have received grants and other support, with approximately RUB 85 billion allocated in concessional loans for projects based on Russian IT solutions.

The "Information Infrastructure" project aims to provide internet access to socially important entities and remote areas, bridging the digital divide. Over 118,000 socially significant

facilities, including all Russian schools, now have internet access. The "Digital Public Administration" project is dedicated to transforming the public administration system to offer a new level of service provision. Two-thirds of public services (over 1,000) are now available in digital form.

The "Human Resources for the Digital Economy" project aims to enhance the education system to train qualified personnel for the digital economy, offering citizens new opportunities and motivation to acquire digital competencies. By the end of 2024, 500,000 students were enrolled in higher education IT programs funded by the federal budget, and 75,747 citizens had completed additional educational programs to gain new digital skills by the end of 2023.

Other notable federal projects include: (1) "AI Technologies": Creating conditions for enterprises and citizens to use products and services based primarily on Russian-made AI technologies to enhance efficiency; (2) "Providing Internet Access through Satellite Communications Development": Expanding communication services in remote areas of the Russian Far East and the Arctic Zone; and (3) "Human Resources for the IT Industry": Developing digital competencies in demand by the labour market and minimizing the gap between employer requirements and candidate skills in the IT field.

Since 2025, the new national project "Data Economy and Digital Transformation of the State" is being implemented as a continuation and expansion of the previous National Program "Digital Economy". It includes 9 federal projects and covers areas such as: (1) telecommunication and digital infrastructure; (2) digital public administration; (3) applied research and promising developments; (4) cybersecurity infrastructure; (5) domestic ICT solutions; (6) digital platforms development to address social needs; (7) human resources for digital transformation; (8) public statistics; and (9) artificial intelligence. By 2030, when the project will be completed, it is planned to significantly improve the availability of digital and telecommunication services and increase the digital maturity of the different sectors of the economy.

## Appendix C16. Singapore

### *Singapore Green Plan 2030*

Launched in 2021, the Singapore Green Plan 2030 is a comprehensive initiative aimed at promoting sustainable development across the entire economy. This plan sets ambitious, concrete targets over a decade, reinforcing ongoing efforts to meet the United Nations' 2030 Sustainable Development Agenda and Singapore's commitments under the Paris Agreement.

To transform Singapore into a City in Nature, the plan focuses on conserving and enhancing the island's natural capital through four key strategies: (1) Expanding the Nature Park Network; (2) Intensifying nature in gardens and parks; (3) Restoring nature into the urban landscape; and (4) Strengthening connectivity between green spaces. By 2025, Singapore has already met its 2021 target of developing 130 hectares of new parks by 2026, a year ahead of schedule. Additionally, the OneMillionTrees movement has seen the community plant over 760,000 trees since its inception in 2020.

The Singapore Sustainable Air Hub Blueprint outlines medium- and long-term goals and specific actions to decarbonize the aviation sector in collaboration with stakeholders. This includes: (1) Mandating the use of Sustainable Aviation Fuel (SAF) for flights departing Singapore from 2026; (2) Aiming for 1 percent SAF use from 2026, increasing to a 3-5 percent SAF blend by 2030; and (3) Reducing energy use and deploying renewables to cut domestic aviation emissions from airport operations by 20 percent from 2019 levels by 2030.

The Mandatory Energy Improvement (MEI) regime targets energy consumption reduction in existing energy-intensive buildings, while the Low-Carbon Energy Research (LCER) programme supports projects advancing low-carbon technologies for the power and industry sectors.

To advance the green economy, Singapore has undertaken several initiatives: (1) Introduced a new course in March 2024 to train Zero Waste Managers to champion 3R efforts (Reduce, Reuse, Recycle) in their organizations; (2) Enhanced the Resource Efficiency Grant for Emissions to support more industrial facilities and projects in improving energy efficiency and reducing emissions; (3) Extended the Enterprise Financing Scheme – Green until 31 March 2026, expanding it to support the adoption of green solutions and provide funding for businesses starting their sustainability reporting journey; (4) Developed training programmes in Carbon Management, Services, and Trading with institutes of higher learning; and (5) Introduced the Environmental Sustainability Business Collaboration Guidance Note.

To ensure a resilient future, Singapore has implemented the following actions: (1) Introduced a Food Safety and Security Bill in November 2024 to better protect consumers and safeguard food supply resilience; (2) Launched the Singapore Aquaculture Plan in November 2024 to uplift and transform the aquaculture industry to be more productive and sustainable; (3) Established the Coastal Protection and Flood Resilience Institute (CFI) Singapore in September 2023 to enhance engineering capabilities; and (4) Leveraged R&D initiatives such as the Cooling Singapore 2.0 project and the Climate Impact Science Research (CISR) Programme to deepen understanding of heat impacts and design effective cooling strategies.

Regarding sustainable living, Singapore has enhanced its Climate Friendly Households Programme to encourage all HDB households and residents in private properties to switch to

energy and water-efficient appliances. A study has commenced to explore expanding the Extended Producer Responsibility (EPR) approach to cover more types of packaging waste beyond beverage containers. Additionally, Singapore will soon launch a beverage container return scheme to facilitate the collection of high-quality recyclables that can be easily processed and recycled.

### ***Research, Innovation and Enterprise 2025 Plan***

Recognizing the critical role of research and development in maintaining its competitive edge as a knowledge-based, innovation-driven economy, Singapore has announced an additional SGD 3 billion boost to its Research, Innovation and Enterprise (RIE) 2025 Plan, raising the total commitment to SGD 28 billion. These additional funds will be directed towards research and investments in key areas such as advanced manufacturing, sustainability, the digital economy, and healthcare.

Over the years, sustained investments have enabled Singapore to build a robust ecosystem of R&D capabilities and talent. In 2024, three of its autonomous universities—NUS, NTU, and SUTD—were ranked among the top 10 in Asia for research output by QS. Additionally, Singapore General Hospital and the National University Health System were ranked 4th and 9th, respectively, in Brand Finance’s Most Reputable Academic Medical Centres (AMCs) Rankings 2024. Singapore has also achieved research excellence in fields such as membrane technologies for water, biotechnology, quantum technology, and advanced materials. Furthermore, it has fostered closer linkages between researchers and industry to ensure that scientific insights are translated into market-relevant solutions.

In 2022, Singapore’s Gross Expenditure on R&D (GERD) increased by 11.7 percent, reaching SGD 12,689.4 million, which is 1.8 percent of its GDP. The RIE investments also support entrepreneurship and incubation programmes, generating a steady pipeline of start-ups. The number of tech startups in Singapore’s ecosystem has grown from 3,600 in 2019 to over 4,500 today, supported by a vibrant network of more than 500 venture capitalists and over 220 venture builders and accelerators.

### ***Equal Opportunities in the Workplace as proposed by the White Paper on Singapore Women’s Development***

Formulated by the Tripartite Alliance for Fair and Progressive Employment Practices, the Tripartite Guidelines on Fair Employment Practices outline fair employment practices for employers to adopt. These guidelines not only aim to prevent workplace discrimination but also encourage employers to implement progressive HR practices that benefit both employers and employees. Initially launched in 2007, the guidelines were updated in 2023 to include a new section on Workplace Harmony.

In January 2025, Parliament passed the Workplace Fairness Act to enhance Singapore’s approach to promoting fair and harmonious workplaces. This Act complements the Guidelines by: (1) Strengthening protections for jobseekers and employees against discrimination while allowing employers the flexibility to meet genuine business needs; (2) Promoting better communication and amicable resolution of workplace issues by requiring firms to have grievance handling processes; and (3) Supporting the Ministry of Manpower’s education-first approach with calibrated enforcement measures to address egregiously unfair employment practices. The Act prohibits adverse employment decisions (e.g., hiring, appraisal, dismissal)

based on protected characteristics such as age, nationality, sex, marital status, race, religion, language, disability, and mental health conditions. Over the years, Singapore has observed a downward trend in the proportion of employees and job seekers facing discrimination.

The Tripartite Guidelines on Flexible Work Arrangement (FWA) Requests, effective from 1 December 2024, aim to help employers and employees navigate discussions about flexible work arrangements and reach mutually beneficial agreements. These guidelines guide employees in making responsible FWA requests and assist employers in properly assessing such requests. The guidelines have positively impacted open conversations between employers and employees, with 7 in 10 employees indicating they have access to the FWAs needed to manage their work and personal commitments.

## **Appendix C17. Chinese Taipei**

### ***Fostering green finance for sustainable development – Green Finance Action Plan 2.0***

The Financial Supervisory Commission (FSC) implemented the Green Finance Action Plan from 2017 to 2024 to encourage financial institutions to invest in and finance green energy projects, incorporate ESG factors into management, and integrate financial resources to assist enterprises with their net-zero transition. The FSC has refined and advanced the plan to further promote green finance and accelerate a net-zero transition while embracing the growing trend towards transition finance. In October 2024, the FSC introduced the Green and Transition Finance Action Plan, a comprehensive initiative designed to facilitate a net-zero transition through public-private partnerships. This initiative aims to channel private funds into sustainable infrastructure projects and the R&D of low-carbon technologies, raise sustainability awareness, and promote competency development among other goals.

Several activities have been undertaken as part of these plans. Regarding programs to encourage lending by domestic banks to enterprises in the green and renewable energy industries, as of the end of December 2024, the balance of loans by domestic banks to these industries was approximately USD 92 billion, significantly exceeding the 2024 target of USD 9.85 billion. In terms of developing the sustainable bonds market and sustainability-linked loans, by December 2024, there were 238 sustainable bonds totalling USD 20.69 billion, an increase of 53 sustainable bonds (worth approximately USD 4.53 billion) compared to the end of 2023. Additionally, in December 2024, the FSC released the second edition of the Sustainable Taxonomy and Recommended Elements for Corporate Transition Plans in partnership with several ministries. This initiative encourages corporations to disclose their transition plans and their ratio of eligibility and alignment with the taxonomy. Through the amendment of related regulations, listed companies have been required to prepare ESG reports in line with the recommendations of the Task Force on Climate-related Financial Disclosures and Sustainability Accounting Standards Board since 2023. As of the end of December 2024, 1,069 listed companies had submitted their 2023 sustainability reports, and all listed companies would be required to do so by 2025.

### ***Utilising digital technologies to facilitate inclusive health promotion – Precision Health Initiative***

The Precision Health Initiative (PHI) was formulated based on Chinese Taipei's strengths in ICT, its outstanding health insurance system, and high-quality healthcare. It encompasses more than just precision medicine, including risk assessment, prevention, and health promotion. Besides continuously promoting the "Act for the Development of Biotech and Pharmaceutical Industry," in June 2024, Chinese Taipei passed legislation related to regenerative medicine, including the "Regenerative Medicine Act" and the "Regenerative Medicinal Products Act." This legislation establishes a legal framework for medical technologies and pharmaceuticals, aiming to ensure the quality and safety of regenerative medicine and to protect patients' rights. The government has also actively promoted the Bio-ICT alliance between industry, academia, and medical institutions to leverage AI technology in developing products and services aimed at disease prediction and prevention, among other applications.

In the context of APEC, PHI has been introduced to fora such as the Investment Experts' Group (IEG) and the Health Working Group (HWG) to share Chinese Taipei's experience in promoting precision health and to exchange ideas about precision health industry development



and innovation. Moving forward, Chinese Taipei plans to continue enhancing its biomedical industry ecosystem, developing AI or data-driven health services and products, and advancing towards a vision of all-age health by 2030.

### ***Using Online Platform to Expedite the Consultation Process***

Chinese Taipei established “Join”, an online public consultation platform that provides people with an open, transparent, and trustworthy way to engage in discussions on public affairs and communicate with the government. As of December 2024, a total of 20,020 proposals have been submitted on the platform. Of these, 10,150 proposals advanced to the “Registration of Support” stage, and 346 proposals became cases requiring a response after receiving over 5,000 endorsements each. Out of these 346 cases, 172 were either fully or partially accepted by the relevant agencies, indicating an acceptance rate of about 49.7 percent. The satisfaction rate among Join users rose to 89.6 percent in 2024, an improvement from 88.4 percent in 2023. Despite the improved satisfaction rate, Chinese Taipei noted that some proposals involve multiple agencies with unclear responsibilities, leading to challenges in identifying the responsible and assisting authorities. Additionally, improving the acceptance rate of proposals by the relevant authorities remains a work in progress.

In 2022, the GOS invited Chinese Taipei to share how “Join” has served as a tool for implementing services domestic regulation disciplines in the economy, particularly in enhancing regulatory transparency and public consultation in the services sector. This highlights the role of cross-fora collaboration in ensuring greater synergy between various APEC initiatives, such as EAASR and ASCR.

## **Appendix C18. Thailand**

### ***Driving e-Services for Doing Business Easily***

The Office of the Public Sector Development Commission has been instrumental in helping government agencies transition from paper-based systems to fully digitalized public services. Digital transformation has been established as a key performance indicator for monitoring organizational performance. The Commission also provides guidance to government agencies in developing their e-Services, which includes digitizing and sharing data. The e-Services projects are primarily focused on two frameworks: (1) Process Re-engineering for e-Services: This aims to enhance public services to be fully digital, such as e-Forms, e-Payments, and e-Licenses; and (2) Developing 12 Key Agenda-Based Services: This aims to improve the quality of public service delivery and effectively meet citizens' needs, including services like Digital ID, Land and Building Tax Payment, Farmer Registration, and Complaint Centers. In 2024, a total of 2,620 e-Services were provided.

Thailand is advancing the National Digital Trade Platform (NDTP) to facilitate cross-border trade. A pilot project, which included the development of a pilot platform and a proof-of-concept, was successfully completed in 2022. The Office of the Public Sector Development Commission is currently conducting a feasibility study to further develop the NDTP through a public-private partnership (PPP) with the private sector, with the platform expected to become operational by 2026.

### ***Thailand Digital Economy and Society Development Plan or Digital Thailand Plan***

Thailand's Village Broadband Internet Project, known as Net Pracharat, aims to bridge the digital divide by extending the National Broadband Network to every village across the economy. This initiative is designed to empower local communities, particularly those in remote areas, by providing access to broadband and high-speed internet services comparable to those in urban centers.

To date, free public Wi-Fi hotspots with download/upload speeds of 300/100 Mbps have been installed in 24,654 villages within Zone C. Additionally, fiber optic cable networks have been established in 1,671 rural schools and hospitals economy-wide. As of December 2024, the project has reported approximately 13.4 million registered users, with an average of 200,000 new users registering each month.

### ***Facilitating the implementation of the Act on Criteria of Law-Making Process and Evaluation of Laws, B.E. 2562 (2019)***

The Act on Criteria of Law-Making Process and Evaluation of Laws, B.E. 2562 (2019), mandates that every government agency regularly evaluate the Acts of Parliament under its jurisdiction. For Acts enacted before January 1, 2020, a review must be completed by December 31, 2024. Acts enacted after January 1, 2020, must be reviewed within five years of their enforcement date. The Office of the Council of State oversees and assists all government agencies in this review process to ensure compliance with the timelines set by the 2019 Act. Additionally, in 2025, the Office of the Council of State will review the 2019 Act itself.

The 2019 Act also establishes a legislative framework for implementing better regulation principles. The Law Reform Commission, responsible for overseeing the Act's implementation,

is tasked with issuing guidelines, manuals, or recommendations to help government agencies comply with the law. These resources also aim to help the public better understand the objectives of the 2019 Act.

### ***Business development services to boost SME productivity***

Thailand's business development services offer comprehensive consultations to meet the diverse needs of SMEs, covering areas such as productivity improvement, tax and accounting, and market and loan services. As of January 2025, 245 service providers from both government and private sectors have registered. A total of 727 applications have been approved for incubation, encompassing services like productivity and business efficiency, business development and management, and quality and standards development.

Thailand has also introduced SME e-service platforms that provide a range of services and tools to support SMEs: (1) SME ONE ID: A unique code for each entrepreneur, connecting them to all growth opportunities; (2) SME CONNEXT: An application designed specifically for business professionals; (3) SME ONE Website: An information hub for entrepreneurs; (4) THAI SME-GP: A standard to help SMEs access government procurement; (5) SME Academy 365: An online learning platform offering essential courses for entrepreneurs; (6) Business Development Service (BDS) System: A project aimed at promoting entrepreneurship; (7) SME COACH: Providing access to online consultants and consulting services; and (8) Referral System: Facilitating access to government services. As of now, a total of 1,278,683 MSMEs have utilized these services and tools.

### ***The Improvement of Electronic Tax Filing and Payment (New e-Filing)***

In the fiscal year 2022, Thailand's Revenue Department enhanced the electronic tax filing system with two new functions: (1) Taxpayers filing tax returns online can now pay their taxes using digital tax compensation issued by the Customs Department, available daily from 6 am to 10 pm; and (2) Taxpayers can also file overdue tax returns online. These improvements simplify the tax payment process by allowing immediate calculation of fines, surcharges, or criminal penalties upon filing a tax return.

### ***The Study on Tax Incentives to Promote the Development of the Eastern Economic Corridor***

Thailand's Revenue Department has implemented several tax measures to foster the development of the Eastern Economic Corridor: (1) Tax Incentive for Investment in the Corridor: Employees of companies in target industries operating in Chachoengsao, Chonburi, and Rayong Provinces benefit from a reduced personal income tax rate of 17 percent (Royal Decree No. 641); (2) Tax Incentive for Automation Systems Investment: Companies can claim an additional deduction of 100 percent of expenses for investments in automatic machines and software linked to automation systems (Royal Decree No. 710); (3) Tax Incentive for Human Resource Development in Industry 4.0: Companies are allowed an additional deduction of 200 percent of expenses incurred from donating machines, parts, equipment, and computer software used in Industry 4.0 automatic systems; (4) Tax Incentive to Attract Highly Skilled Professionals: Employees holding the Long-term Resident visa for highly skilled professionals in target industries enjoy a reduced personal income tax rate of 17 percent (Royal Decree No. 743). Between 2019 and 2022, investments in automation systems have surged to THB 1,854 million, while wages paid to highly skilled personnel have increased to THB 943 million.

***Expanding MSMEs' trade and investment to an international level***

Thailand's Department of International Trade Promotion has implemented several initiatives to internationalize Thai creative MSMEs and entrepreneurs. These initiatives include: (1) Training and Capacity Building: Providing support through programs like the Thai Brand Incubation Programme to enhance the skills and capabilities of MSMEs and creative entrepreneurs; (2) Development of Local Innovative Products: Promoting innovation through the Thailand Innovation and Design Promotion Programme; (3) Market Introduction: Facilitating the entry of products into international markets via various marketing channels, including internationally recognized trade fairs, online platforms, and business matching activities. In 2023, the Department further enhanced the potential of MSMEs to integrate into global value chains, with a stronger focus on sustainability by promoting the Bio–Circular–Green (BCG) economy model. Between 2022 and 2024, these programs have benefited 1,939 MSMEs and creative entrepreneurs, generating over THB 491 million in sales from trade promotion activities.

***Developing community enterprise potential to enhance the Thai local economy in the post-COVID-19 era***

Thailand has identified key community enterprises for development in the post-COVID-19 era. For the product sector, the Integrated Agricultural Community Enterprise towards Innovative Processing in Phayao Province, Northern Thailand, was selected. For the service sector, the Ban Laem Homestay Mangrove Forest Conservational Community Enterprise in Nakhon Si Thammarat Province, Southern Thailand, was chosen. The selection process was based on six criteria: (1) Leadership and group development direction; (2) Management; (3) Production and service; (4) Marketing; (5) Competitiveness; and (6) Sustainability of the group. In May 2022, workshops and training courses were organized for these two community enterprises, covering topics such as product quality, packaging, branding, and accounting. Additionally, a seminar was held to share insights and discuss how to apply this model to other community enterprises. Videos, lessons learned, and policy recommendations were also distributed to various agencies in Thailand and shared via online channels.

## **Appendix D.**

### **2025 Update to Monitoring Pandemic Recovery Under the ASCR**

#### **D1. Introduction**

On 5 May 2023, more than three years after the initial outbreak, the World Health Organization (WHO) officially declared the end of the COVID-19 pandemic. While this was a positive milestone, the global economy—including the APEC region—continued to grapple with significant challenges that complicated recovery efforts. These included sluggish and uneven growth, persistently high inflation, economic uncertainty, widening inequality, and constrained fiscal capacity (Hernando and Kuriyama 2023). As of the first quarter of 2025, economic headwinds in the APEC region remain a concern, with growth slowing and fiscal pressures mounting. While near-term prospects appear stable, medium-term risks are becoming more pronounced due to ongoing trade restrictions, geopolitical tensions, and structural limitations (Hernando and Vasquez 2025).

Foreseeing these challenges, GOS and Senior Officials endorsed the Decision on Monitoring Pandemic Recovery Under the ASCR in August 2022. This initiative aimed to track and report annually on the recovery of key sectors—including travel, transport (particularly logistics-related services),<sup>11</sup> and other business services<sup>12</sup>—from 2023 to 2025.

With support from the PSU, the first pandemic recovery monitoring report was published in August 2023 (Wirjo and Calizo 2023), followed by the second report in August 2024 (Wirjo, Calizo, and Simanjuntak 2024). While these reports highlighted the rebound in APEC's commercial services trade, the second report raised concerns about regulatory environments remaining more restrictive than pre-pandemic levels.

Building on these efforts, this third and final monitoring report provides an updated assessment of services trade recovery and revisits barriers to trade within the APEC region. Given the report's emphasis on regional progress, supplementing its findings with economy-specific analyses would offer valuable insights into domestic contexts and nuances.

#### **D2. Developments in services trade recovery**

This section primarily relies on services trade data from the World Trade Organization (WTO) to provide a 2025 update on the progress of services trade recovery. The data follows the Balance of Payments framework, capturing a combination of WTO General Agreement on Trade in Services (GATS) modes: Mode 1 (cross-border trade), Mode 2 (consumption abroad), and Mode 4 (movement of natural persons).<sup>13</sup> However, Mode 3 (commercial presence) is not included in this dataset and is instead estimated using announced greenfield foreign direct investment (FDI) data from the UN Trade and Development (UNCTAD). It is important to note

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<sup>11</sup> The APEC definition of logistics-related services was endorsed by APEC Ministers Responsible for Trade in 2022. The services included, inter-alia: customs brokerage services; cargo handling; storage and warehousing; freight forwarding; courier services; distribution services; and air-, maritime-, rail-, and road transport services (see: <https://www.apec.org/meeting-papers/sectoral-ministerial-meetings/trade/apecministers-responsible-for-trade-statement-of-chair>).

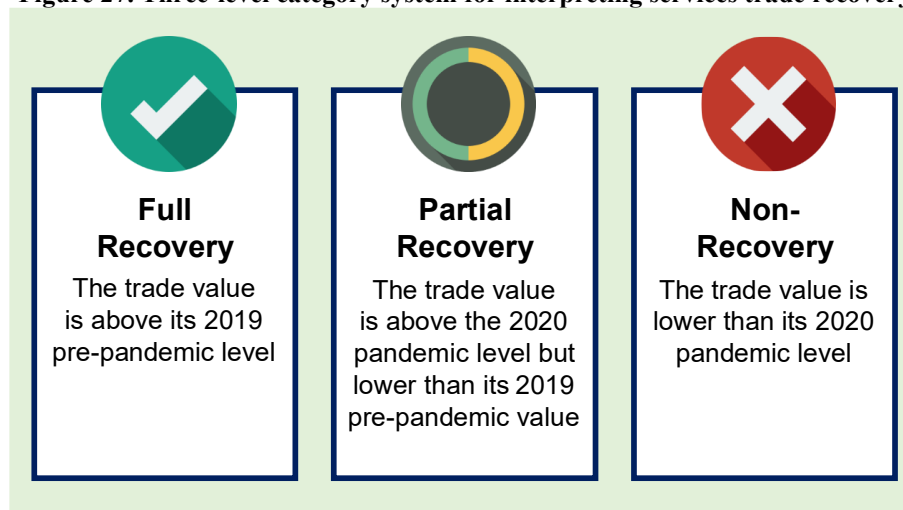
<sup>12</sup> The three sectors of travel, transport and other business services are based on the Extended Balance of Payments Services Classification 2010 (EBOPS 2010) classification, which provides a breakdown of the Balance of Payments Trade in Services item (debit and credit) as defined in the sixth edition of the Balance of Payments and International Investment Position Manual (BPM6), by types of services. For more details, see: <https://unstats.un.org/unsd/classifications/Family/Detail/101>.

<sup>13</sup> For more details, see: [https://www.wto.org/english/tratop\\_e/serv\\_e/gatsqa\\_e.htm](https://www.wto.org/english/tratop_e/serv_e/gatsqa_e.htm) and [https://stats.wto.org/assets/UserGuide/TechnicalNotes\\_en.pdf](https://stats.wto.org/assets/UserGuide/TechnicalNotes_en.pdf).

that APEC-specific data cannot be disaggregated by sector. Where relevant, additional indicators are incorporated to provide a more comprehensive sectoral analysis.

To ensure a clear and intuitive assessment of services trade recovery, this report—consistent with the second report—employs a three-tier classification system. This categorization is based on the latest trade values relative to both 2020 (pandemic year) and 2019 (pre-pandemic baseline), providing a structured framework for evaluating progress (Figure 27).

**Figure 27. Three-level category system for interpreting services trade recovery**



Source: Authors.

## D2.1 General

The second monitoring report on pandemic recovery highlighted that APEC's trade in commercial services had not only fully rebounded by 2022 but continued to strengthen in the following year. In 2023, APEC's commercial services trade reached USD 5.57 trillion—9.1 percent higher than in 2022 and 18.2 percent above pre-pandemic levels in 2019.<sup>14</sup> Additionally, the gap between actual and projected trade values (assuming no pandemic had occurred) narrowed significantly, from a peak shortfall of USD 1.25 trillion in 2020 to just USD 0.40 trillion by 2023.

As of April 2025, the latest data show continued progress in commercial services trade across the APEC region (Figure 28). In 2024, trade in commercial services reached USD 6.10 trillion—an increase of 9.6 percent compared to 2023. The gap between actual trade and projected values under a no-pandemic scenario has further narrowed to USD 0.22 trillion. However, the current trade level still falls short of the 2024 target of USD 6.68 trillion set under the ASCR implementation plan in 2016.<sup>15</sup>

Moreover, recovery remains uneven across individual economies. Comparing trade values in 2024 with that in 2020 showed that the extent of growth varies significantly, ranging from 9.6 percent to 146.5 percent. While 19 of these economies have fully recovered—exceeding their pre-pandemic 2019 levels—two have only achieved partial recovery, with trade values surpassing 2020 levels but still falling short of the 2019 pre-pandemic levels.

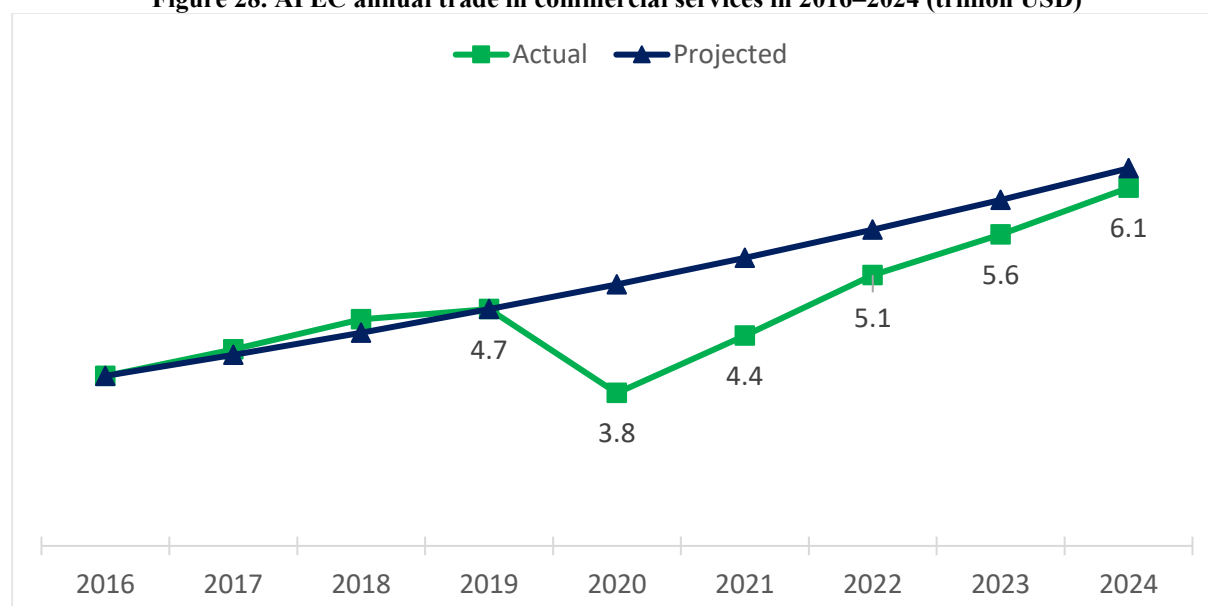
<sup>14</sup> Due to data updates, some figures may be different from those cited in the second monitoring pandemic report. For consistency and to avoid confusion, this report utilizes the updated data.

<sup>15</sup> This target value was calculated using the compound annual growth rate (CAGR) set in the ASCR implementation plan (i.e., 6.8 percent). For more details, see: [https://mddb.apec.org/Documents/2016/MM/AMM/16\\_amm\\_012.pdf](https://mddb.apec.org/Documents/2016/MM/AMM/16_amm_012.pdf).

On commercial presence, the second monitoring report on pandemic recovery highlighted that APEC has rebounded from the 33.59 percent decline in inward greenfield FDI experienced in 2020. By 2022, total announced greenfield FDI across all sectors—primary, manufacturing, and services—reached USD 489.20 billion, surpassing the pre-pandemic level of USD 395.52 billion in 2019. While sector-specific data for APEC are unavailable, global estimates indicate that the services sector has also recovered, with greenfield FDI rising from a low of USD 358.30 billion in 2020 to USD 715.46 billion in 2022.

The latest data confirm continued momentum in the APEC region. In 2023, APEC attracted USD 547.56 billion in greenfield FDI, marking an 11.9 percent increase over 2022. At the global level, the services sector recorded USD 703.19 billion in greenfield FDI in 2023—a slight decrease of 1.72 percent from the previous year, yet remaining well above 2019 and 2020 levels.

**Figure 28. APEC annual trade in commercial services in 2016–2024 (trillion USD)**



Note: Projected values calculated based on a CAGR (2016-2019) of 6.07 percent.

Source: APEC PSU calculations using data from the WTO (accessed 24 April 2025).

## D2.2 Travel<sup>16</sup>

The second monitoring report revealed that APEC trade in travel services reached USD 1.15 trillion in 2023. While this marks a substantial 62.1 percent increase from 2022, it remains below the pre-pandemic level of USD 1.29 trillion recorded in 2019 and falls short of the projected USD 1.48 trillion for 2023 had the pandemic not occurred. Nonetheless, this progress reflects a significant narrowing of the recovery gap, which shrank from USD 0.87 trillion in 2020 to USD 0.32 trillion in 2023.

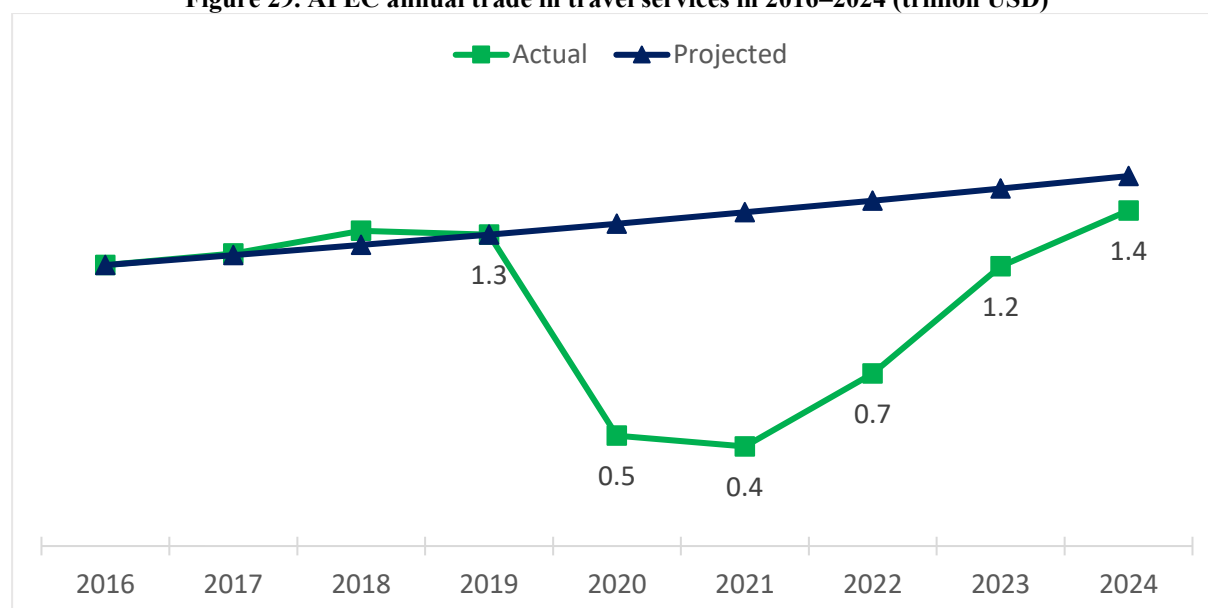
Recent data indicates that APEC trade in travel services has continued its upward trajectory. In 2024, the sector expanded further to USD 1.38 trillion, representing a 19.9 percent increase compared to 2023 (Figure 29). This milestone surpasses the 2019 level, signalling a full

<sup>16</sup> As explained in the previous monitoring pandemic recovery reports, the travel sector is different from other services sectors in the Extended Balance of Payments Services (EBOPS 2010) Classification since it is not a specific product. It is instead defined as goods and services acquired by non-residents during visits to an economy for personal use or to be given away. For more information, see page 51: [https://unstats.un.org/unsd/publication/seriesm/seriesm\\_86rev1e.pdf](https://unstats.un.org/unsd/publication/seriesm/seriesm_86rev1e.pdf).

recovery for the sector. However, trade remains below the estimated USD 1.53 trillion that would have been achieved in 2024 without the pandemic, leaving a residual gap of USD 0.14 trillion.

At the economy level, all APEC economies have recorded higher travel services trade values in 2024 compared to 2020, with growth ranging from 9.0 percent to an impressive 581.1 percent. Despite this progress, only 13 economies have fully surpassed their pre-pandemic 2019 levels, indicating that recovery remains uneven across the region.

**Figure 29. APEC annual trade in travel services in 2016–2024 (trillion USD)**



Note: Projected values calculated based on a CAGR (2016-2019) of 3.50 percent. This APEC aggregate does not include Viet Nam due to data unavailability in some years.

Source: APEC PSU calculations using data from the WTO (accessed 24 April 2025).

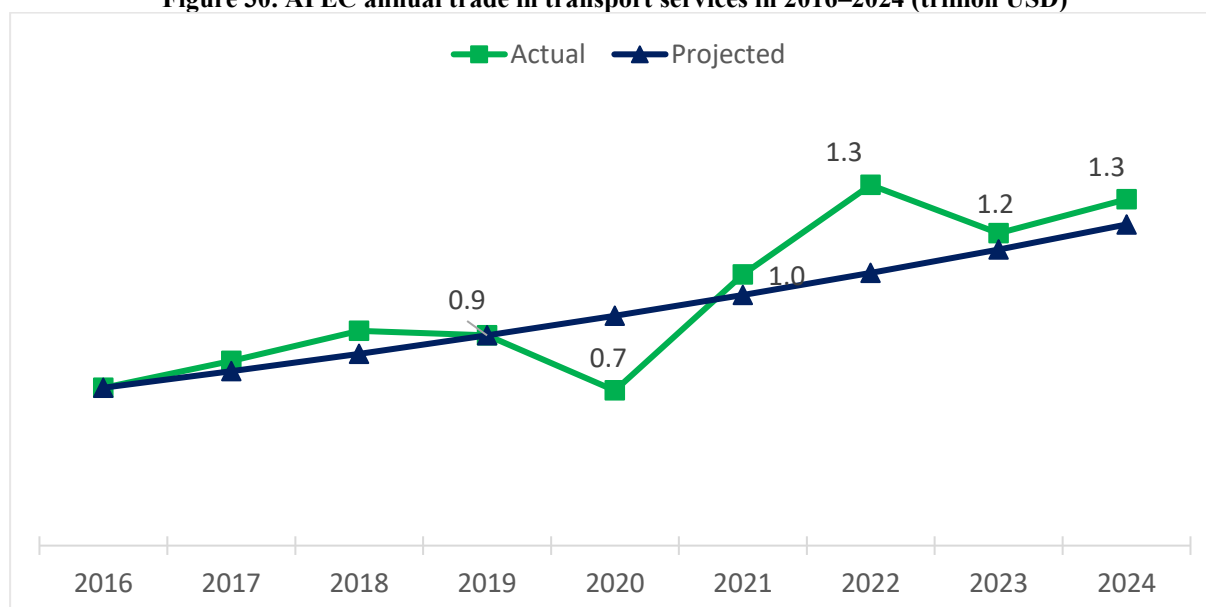
### D2.3. Transport (including logistics-related services)<sup>17</sup>

The second monitoring report on pandemic recovery highlighted that APEC trade in transport had already achieved full recovery by 2021. Following this milestone, the sector continued its upward trajectory, reaching USD 1.29 trillion in 2022. However, by 2023, its trade value moderated to USD 1.16 trillion, likely due to the stabilization of shipping rates. Despite this decline, the sector maintained its full recovery status, as the 2023 figure remained above pre-pandemic levels recorded in 2019.

Recent data indicates a renewed expansion in APEC trade in transport. In 2024, trade rebounded to USD 1.25 trillion, marking an 8.1 percent increase from 2023 (Figure 30). However, recovery remains uneven across the region. Among APEC economies, trade growth since 2020 has varied significantly, ranging from 2.7 percent to 133.8 percent. Additionally, while most economies have surpassed pre-pandemic levels, one economy has yet to fully recover, with its 2024 trade value still falling short of 2019 benchmark.

<sup>17</sup> As defined in the previous monitoring pandemic recovery reports, transport services in EBOPS 2010 covers the process of carrying people and objects between locations and related supporting and auxiliary services. It encompasses different modes of transport such as air, sea (maritime), rail and road transport services, as well as other supporting and auxiliary services such as cargo handling, storage and warehousing, freight forwarding, and brokerage services. It also includes postal and courier services. However, it excludes distribution services as these are usually included in the value of trade in merchandise goods and hence are not separately identified in the balance of payments framework. For more information, see page 45: [https://unstats.un.org/unsd/publication/seriesm/seriesm\\_86rev1e.pdf](https://unstats.un.org/unsd/publication/seriesm/seriesm_86rev1e.pdf).



**Figure 30. APEC annual trade in transport services in 2016–2024 (trillion USD)**

Note: Projected values calculated based on a CAGR (2016–2019) of 6.15 percent. This APEC aggregate does not include Viet Nam due to data unavailability in some years.

Source: APEC PSU calculations using data from the WTO (accessed 24 April 2025).

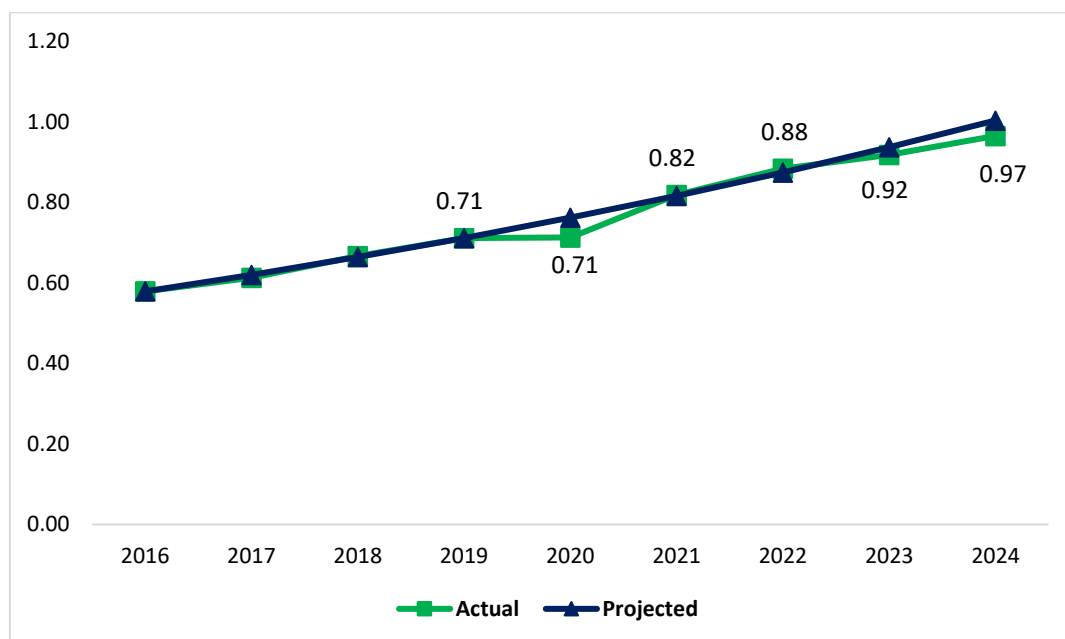
#### D2.4. Other business services<sup>18</sup>

Unlike many other services sub-sectors, APEC trade in other business services experienced only a slight decline during the pandemic and rebounded swiftly. By the first three quarters of 2021, trade had surged to USD 0.82 trillion—exceeding even the projected value had there been no pandemic. Growth continued in the following years, reaching USD 0.88 trillion in 2022 and USD 0.92 trillion in 2023, largely in line with forecasts. As noted in previous reports, this exceptional resilience was likely driven by the rapid expansion of digitally deliverable services, which thrived despite the restrictions on physical interactions during the pandemic.

The latest data indicates that APEC trade in other business services has continued its strong upward trajectory, reaching USD 0.97 trillion in the first three quarters of 2024—closely aligning with projections (Figure 31). While the sector has generally flourished across the region, one economy faced notable challenges, with its 2024 trade value falling below its 2020 level. For the remaining economies with available data, trade values in 2024 were higher than in 2020, with growth ranging from 1.7 percent to a high 73.7 percent.

<sup>18</sup> As mentioned in the previous pandemic recovery reports, other business services in EBOPS 2010 include components such as research and development services, professional and management consulting services, and technical, trade-related and other business services. To be exact, research and development services comprise of services related to basic research, applied research and experimental development of new products and processes and include activities in the physical sciences, social sciences and humanities, while professional and management consulting services comprise of legal, accounting, management accounting, and public relations services and advertising, market research and public opinion polling. Meanwhile, technical, trade-related and other business services comprise of components such as architectural, engineering, scientific and other technical services; waste treatment and de-pollution, agricultural and mining services; operating leasing services; trade-related services; and other business services, not identified elsewhere. For more details, see page 71: [https://unstats.un.org/unsd/publication/seriesm/seriesm\\_86rev1e.pdf](https://unstats.un.org/unsd/publication/seriesm/seriesm_86rev1e.pdf).

**Figure 31. APEC year-on-year trade in other business services in the first three quarters of 2016–2024 (trillion USD)**



Note: Projected values calculated based on a CAGR (3Q2016-3Q2019) of 7.12 percent. This APEC aggregate does not include Brunei Darussalam; Hong Kong, China; Papua New Guinea; and Viet Nam due to data unavailability in some years. Source: APEC PSU calculations using data from the WTO (accessed 26 March 2025).

### D3. Re-examining policy barriers to services trade

Government policies play a crucial role in shaping services trade. Building on insights from previous pandemic recovery reports, this section highlights key policy measures implemented by governments. It incorporates the latest updates from two key WTO compilations:

1. The WTO Secretariat's compilation on COVID-19 measures, which tracks policies affecting trade in services during the pandemic; and
2. The WTO Secretariat's compilation for the Trade Policy Review Body, an annual report detailing broader measures impacting services trade.

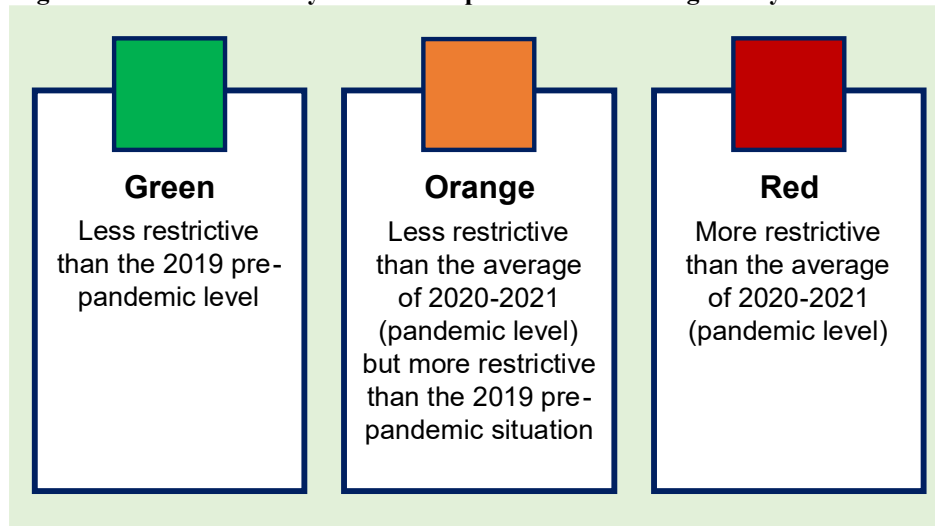
It is important to note that these WTO compilations do not categorize measures as either trade-facilitating or trade-restrictive. Moreover, tracking the status of specific policies—whether they remain in effect, have been revised, or have been withdrawn—can be challenging in subsequent review periods. The WTO Secretariat acknowledges that its data is not exhaustive and does not assess the collective impact of these measures on the overall restrictiveness of services trade.

To address these limitations, this section also incorporates insights from the APEC Index, which provides a standardized framework for evaluating changes in services trade restrictiveness over time at both the economy and regional levels. The index assigns a restrictiveness score ranging from 0 (completely open) to 1 (fully closed) for each sub-sector it covers, offering a quantifiable measure of policy restrictiveness.

Currently, the APEC Index encompasses 18 economies: Australia; Canada; Chile; Indonesia; Japan; Korea; Malaysia; Mexico; New Zealand; Papua New Guinea; Peru; the Philippines;

Russia; Singapore; Chinese Taipei; Thailand; the United States; and Viet Nam.<sup>19</sup> As in previous pandemic recovery reports, this analysis continues to use a color-coded system to illustrate how regulatory environments have evolved in comparison to both pre-pandemic and pandemic periods (Figure 32).

**Figure 32. Colour-coded system to interpret the status of regulatory environments**



Source: Authors.

### D3.1. General

#### *Analysis of the WTO Secretariat's compilation on COVID-19 measures*

This report references the most recent compilation, last updated on 15 November 2024. Compared to the version cited in the previous report, the total number of recorded measures remains unchanged. Across 15 APEC economies, 47 pandemic-related measures were introduced, representing nearly one-third of the 145 measures listed. Of these, 11 measures affected all or multiple sectors, including those related to temporary entry and stay of natural persons, and internet and other network-enabled services.<sup>20</sup> Many policies focused on investment and commercial presence (mode 3) and the movement of people (mode 4) as part of pandemic-related adjustments.

Notably, five of these 11 measures have since been withdrawn or terminated, a significant increase from the previous report, which recorded the removal of only one measure. These withdrawn measures include:

- Investment screening requirements;
- Extending temporary work visas for critical-sector employees until their safe return was feasible;
- Requiring foreign suppliers of intangible goods and services to register and pay the same value-added tax (VAT) as domestic providers;
- Subjecting foreign suppliers and platforms meeting significant economic presence criteria to income tax; and

<sup>19</sup> The APEC Index analyzed in this report was provided by the OECD in February 2025.

<sup>20</sup> Note that these measures are listed in 'measures affecting various sectors or through multiple modes of supply' in the WTO Secretariat's compilation for the Trade Policy Review Body. This is probably because with digitalization, measures affecting the internet and other network-enabled services could have implications beyond the sector itself.

- Introducing an e-visa system to streamline visa applications and eliminate the need for on-arrival visa processing.

The status of the remaining six measures remains unclear based on the available compilation. They may have been withdrawn or terminated but were not reflected in the latest update.<sup>21</sup> Alternatively, economies may have chosen to retain these policies beyond the pandemic, recognizing their continued benefits.

### *Analysis of the WTO Secretariat's compilation for the Trade Policy Review Body*

The second monitoring report examined measures introduced between mid-October 2022 and mid-October 2023, revealing that 17 APEC economies collectively implemented 36 measures, accounting for 29.3 percent of all policies recorded by the WTO (Table 16). In the latest review period (mid-October 2023 to mid-October 2024), 11 APEC economies introduced an additional 34 measures, representing approximately one-quarter of all new measures implemented globally. Of these, nearly 60 percent (20 measures) are categorized under 'measures affecting various sectors or through multiple modes of supply' and 'services supplied through the movement of natural persons'.

**Table 16. Measures affecting trade in services, by WTO review period**

| Review period                        | Number of total measures by APEC economies | Number of measures affecting various sectors and services supplied through the movement of natural persons by APEC economies |
|--------------------------------------|--|--|
| Mid-October 2019 to Mid-October 2020 | 62 out of 143 (43.4 percent)               | 28 out of 62 (45.2 percent)  |
| Mid-October 2020 to Mid-October 2021 | 84 out of 178 (47.2 percent)               | 42 out of 84 (50.0 percent)  |
| Mid-October 2021 to Mid-October 2022 | 48 out of 174 (27.6 percent)               | 22 out of 48 (45.8 percent)  |
| Mid-October 2022 to Mid-October 2023 | 36 out of 123 (29.3 percent)               | 20 out of 36 (55.6 percent)  |
| Mid-October 2023 to Mid-October 2024 | 34 out of 134 (25.4 percent)               | 20 out of 34 (58.8 percent)  |
| Total                                | 264 out of 752 (35.1 percent)              | 132 out of 264 (50.0 percent)  |

Source: APEC PSU compilation based on the WTO Secretariat's compilation for the Trade Policy Review Body.

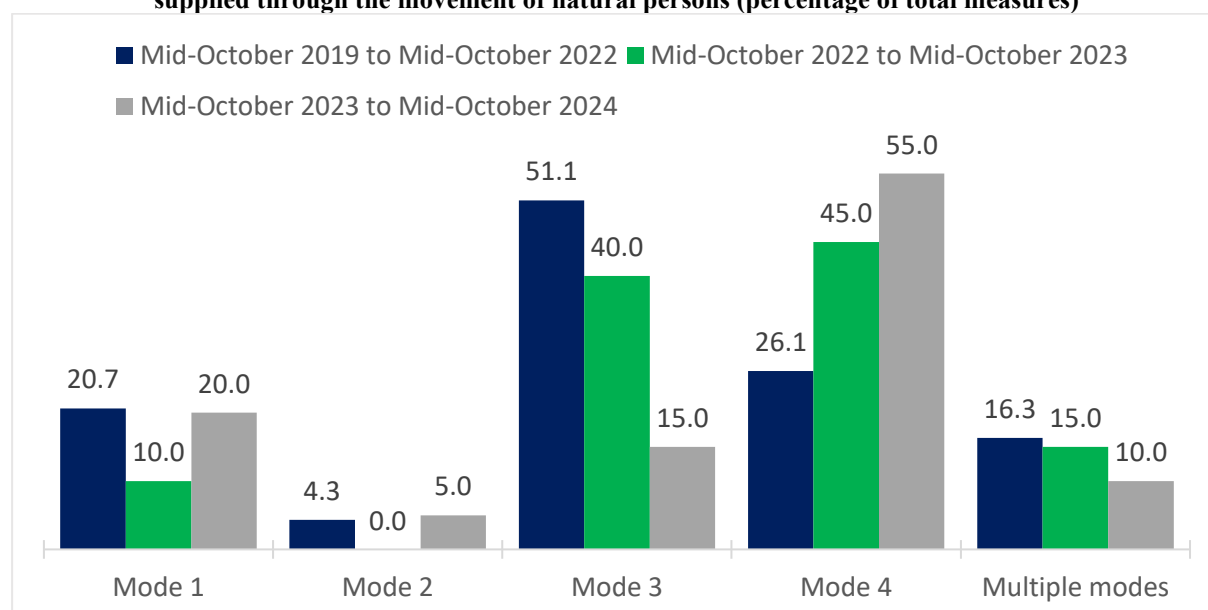
Compared to the four preceding periods, the latest measures predominantly affect mode 4 (movement of people), followed by mode 1 (cross-border supply) and mode 3 (commercial presence) (Figure 33). Several new measures have influenced the movement of service providers across borders, both positively and negatively.

- Facilitating mode 4: One economy has reduced job advertisement requirements for employers and eliminated the obligation to post vacancies on the government website, streamlining hiring processes for foreign workers. Another has launched a new employer-specific work permit to attract foreign professionals driving innovation in emerging technologies.
- Restrictive changes to mode 4: Some economies have tightened labour market policies, such as halting the processing of labour market impact assessments for low-wage

<sup>21</sup> The WTO noted that in accordance with their long-standing practice of verifying information and measures with members, the WTO Secretariat is seeking verification of the measures identified in the table. It also indicated that the compilation would be updated regularly and verification would be sought throughout this process. See [https://www.wto.org/english/tratop\\_e/covid19\\_e/trade\\_related\\_services\\_measure\\_e.htm](https://www.wto.org/english/tratop_e/covid19_e/trade_related_services_measure_e.htm)

workers in high-unemployment areas and shortening the maximum employment duration for low-wage stream workers from two years to one.

**Figure 33. Modes impacted by APEC measures affecting various sectors and services supplied through the movement of natural persons (percentage of total measures)**



Note: Sums do not add up to 100 percent as a single measure may affect more than one mode. Multiple modes refer to measures that affected more than one mode but did not indicate which modes specifically.

Source: APEC PSU calculations based on the WTO Secretariat's compilation for the Trade Policy Review Body.

Several policies have influenced FDI and business operations in APEC economies:

- Facilitating mode 3: One economy has raised FDI thresholds for review, reducing the number of foreign investments subject to regulatory scrutiny.
- Increasing regulatory oversight: The same economy has also strengthened its FDI screening process by introducing a pre-closing filing requirement for sectors deemed critical to national security and economic stability, while also increasing penalties for non-compliance.

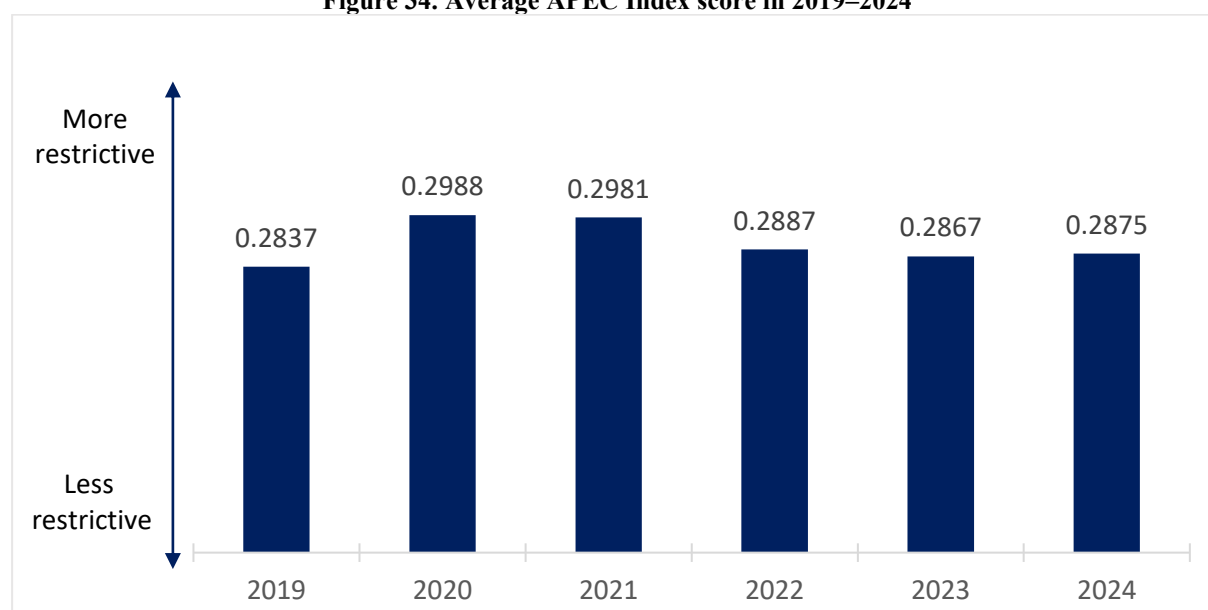
Many of the new policies affecting mode 1 are related to internet-based services, which often overlap with modes 3 and 4, depending on their scope:

- Regulating digital platforms: One economy has introduced a law requiring dominant digital platforms to compensate news publishers for making their content available through their services, impacting both mode 1 and mode 3.
- Strengthening data governance: Another economy has implemented provisions to regulate outbound data transfers for foreign-based companies, affecting multiple modes. Similarly, significant amendments to the Personal Data Protection Act (PDPA) in another jurisdiction have introduced substantial changes impacting multiple modes.

### ***Analysis of the APEC Index and the digital STRI***

Analysis of the APEC Index shows that since the more restrictive situation registered during the pandemic (i.e., 0.2988 and 0.2981 in 2020 and 2021, respectively), the average APEC Index score had improved to 0.2887 in 2022 and 0.2867 in 2023 (Figure 34). However, instead of continuing on this trajectory, the 2024 score increased slightly to 0.2875, signalling a marginal tightening of the policy environment. Across the years from 2022 to 2024, the level of restrictiveness remained above the 2019 pre-pandemic level. Based on the colour-coded classification in Figure 27, the 2024 APEC Index score remains in the orange category, unchanged from 2023, suggesting a persistent regulatory burden on services trade.

**Figure 34. Average APEC Index score in 2019–2024**



Note: Sector-specific APEC Index scores may not be available for certain economies. This APEC aggregate does not include Brunei Darussalam; China; and Hong Kong, China due to data unavailability.

Source: APEC PSU calculations based on data from the APEC Index and the OECD.

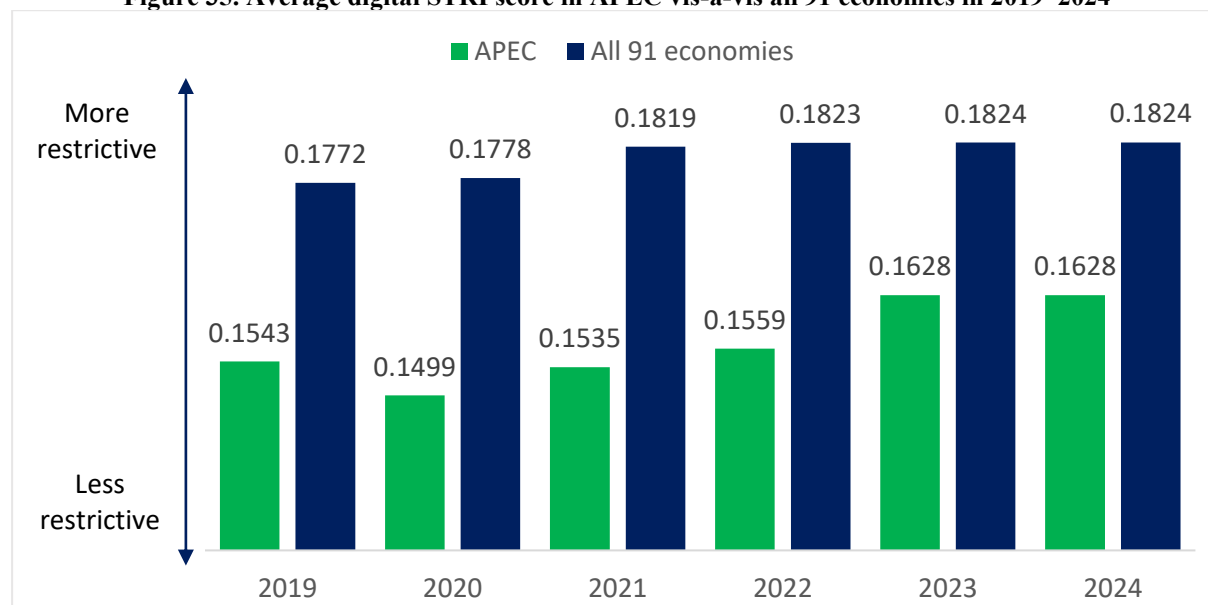
The OECD Digital STRI, which tracks and quantifies regulatory barriers affecting digitally enabled services, provides further insight into the evolving trade landscape. While the COVID-19 pandemic accelerated the expansion of digital services, sustained growth in this sector depends on a supportive regulatory framework.

Analysis of data from 18 APEC economies indicates that, after a brief improvement in 2020, the average Digital STRI score has gradually increased, reaching 0.1628 in 2024—the same level as in 2023 (Figure 35). This stagnation suggests that the regulatory environment for digital services trade remains restrictive, despite the growing significance of digitalization in global commerce.

Although APEC economies remain, on average, less restrictive than the global benchmark across 91 economies, the gap has been steadily narrowing over the years. Two primary policy areas contribute to restrictiveness, namely those categorised under ‘infrastructure and connectivity’ and ‘other barriers affecting trade in digitally enabled services’. Examples of the former include restrictions on cross-border data flows and restrictions on the use of communication services, while examples of the latter include commercial and/or local presence requirements to provide cross-border services and performance requirements affecting cross-border digital trade. As digital trade becomes increasingly central to global commerce, ensuring

a balanced regulatory framework that facilitates innovation while addressing legitimate policy concerns remains critical for APEC economies.

**Figure 35. Average digital STRI score in APEC vis-à-vis all 91 economies in 2019–2024**



Note: Scores are generally interpreted from 0 (open) to 1 (closed). This APEC aggregate does not include Hong Kong, China; Papua New Guinea; and Chinese Taipei due to data unavailability. Source: APEC PSU calculations based on data from the OECD

### D3.2. Travel

The second monitoring report on pandemic recovery noted that, as of early 2024, all border restrictions imposed during COVID-19 have been lifted. This policy shift has likely played a pivotal role in revitalizing travel services trade and narrowing the gap between actual and projected trade values, as discussed in the earlier section.

To sustain this recovery, it is crucial for economies to avoid reintroducing restrictive trade policies and instead focus on trade-facilitating measures that enhance the travel and tourism sectors. Empirical research conducted by the PSU has demonstrated that easing visa requirements and improving transportation connectivity have the most significant impact on increasing tourist inflows (San Andres et al. 2016).

While visa requirements serve essential functions—such as security screening, immigration control, and visitor data collection—they can also act as a deterrent for potential tourists. When faced with cumbersome visa application processes, travellers may opt for destinations with simpler or visa-free entry options. If eliminating visa requirements is not feasible, streamlining the application process—by reducing costs, shortening processing times, or offering electronic visa (e-visa) options—can boost tourism inflows without compromising regulatory objectives.

Seamless transportation connectivity is another critical factor in facilitating international travel. Strengthening passenger transport links can make destinations more accessible and attractive to tourists. For economies with shared land borders, well-developed road and rail networks can significantly increase cross-border tourist flows. For economies reliant on air travel, expanding direct flight options and liberalizing air service agreements—such as through Open Skies policies—can substantially enhance accessibility. Where direct flights are not feasible, efforts

to minimize layovers and reduce transit times can improve the overall travel experience and encourage more arrivals.

By prioritizing visa facilitation measures and enhanced connectivity, economies can accelerate tourism recovery, foster long-term sector resilience, and maximize the benefits of reopened borders.

### **D3.3. Transport (including logistics-related services)**

#### ***Analysis of the WTO Secretariat's compilation on COVID-19 measures and the compilation for the Trade Policy Review Body***

The latest update from the WTO Secretariat's compilation on COVID-19 measures, as of 15 November 2024, remains unchanged from the previous report. Specifically, four measures affect air transport services, two measures pertain to maritime transport services, and one measure impacts postal services.<sup>22</sup> As in the prior review, only one air transport-related measure has been officially terminated

The WTO Secretariat's compilation for the Trade Policy Review Body reports no transport-specific measures introduced during the latest review period (mid-October 2023 to mid-October 2024), aligning with the findings from the previous report (mid-October 2022 to mid-October 2023). However, it is essential to recognize that broader trade policy measures, even when not explicitly targeting transport and logistics, may still have indirect effects on these sectors. Policies impacting cross-border trade, supply chain regulations, or digital trade could influence transport and logistics operations, underscoring the need for continued monitoring and evaluation.

#### ***Analysis of the APEC Index***

As discussed in the previous section, the APEC Index provides a valuable perspective on trade restrictiveness trends within certain transport sub-sectors across the region. However, it is important to note that the Index does not cover all APEC economies or every transport sub-sector classified under EBOPS 2010.<sup>23</sup>

Based on the APEC Index color-coded classification (Table 17), nine sub-sectors have remained in the same category: six sub-sectors (air transport, maritime transport, road freight transport, logistics storage and warehouse, logistics freight forwarding, and distribution) are in the green category, two sub-sectors (rail freight transport and logistics customs brokerage) are in the orange category, and courier is in the red category.

This indicates that there have not been significant efforts by economies to bring down the level of restrictions in sub-sectors categorized as red and orange. In fact, the logistics cargo-handling sub-sector has regressed, shifting from the green to the orange category, signalling an increase in trade barriers.

<sup>22</sup> Examples of those affecting air transport services include giving flexibility in the delivery of classroom training and exempting flight crews from quarantine requirements, while examples of those affecting maritime transport services include banning crew exchanges for seafarers if they had travelled to several economies in the last 21 days prior to arrival in the economy putting in place the particular measure.

<sup>23</sup> As defined in the first pandemic recovery report, the APEC Index covers air transport (SC2), maritime transport (SC12), rail freight transport (SC3B2), road freight transport (SC3C2), postal and courier services (SC4), logistics cargo-handling (SC3G), logistics storage and warehouse (SC3G), logistics freight forwarding (SC3G), and logistics customs brokerage (SC3G). These are based on the concordance table linking the APEC Index sectors and the EBOPS 2010 classification. The APEC Index also covers distribution services (SJ34/SH1), which is included in the APEC definition of logistics-related services but is not under the transport category in EBOPS 2010.



Additionally, while five sub-sectors (road freight transport, logistics customs brokerage, logistics freight forwarding, logistics storage and warehousing, and distribution) have remained in their respective green or orange categories, their 2024 scores are higher than in 2023, indicating that trade restrictions have intensified. Moreover, the pace of trade liberalization has either slowed or entirely halted:

- Between 2021 and 2022, many sub-sectors benefited from trade liberalization measures, largely due to the rollback of COVID-19 restrictions;
- Between 2022 and 2023, the momentum of liberalization slowed for nine sub-sectors, while one sub-sector saw no new liberalization measures that would have impacted the score; and
- Between 2023 and 2024, only one sub-sector experienced some trade liberalization, while the remaining nine sub-sectors saw no further improvements impacting the score.

This trend reinforces the message from earlier reports: Most trade liberalization efforts post-pandemic have been limited to the reversal of COVID-19 restrictions. Beyond these rollbacks, economies have not actively introduced new measures to further liberalize trade in the transport (including logistics-related services) sub-sector.

Depending on the sub-sector, the top two categories of restrictions could be restrictions on foreign entry, restrictions to movement of people, barriers to competition, and/or regulatory transparency. For instance, the top two categories for logistics customs brokerage were restrictions on foreign entry (e.g., foreign equity restrictions, restrictive acquisition and use of land by foreigners, commercial presence required to provide cross-border services), and regulatory transparency (e.g., no legal obligation to communicate regulations to public within reasonable time prior to entry into force, duration of visa for crew).

In logistics cargo-handling, the key obstacles stem from restrictions on foreign entry (e.g., foreign equity restrictions, screening explicitly without exclusion of economic interests), and restrictions to movement of people (e.g., labour market tests or similar economic considerations for intra-corporate transferees and services suppliers, limitation on duration of stay). In air transport, rail freight transport, courier, and distribution, the primary constraints are restrictions on foreign entry and barriers to competition.

While some progress was made in reducing trade restrictions following the removal of COVID-19 measures, broader structural barriers remain unaddressed. Without proactive liberalization efforts, trade in transport services may face stagnation or increased regulatory burdens, which could hinder regional economic integration and competitiveness.

**Table 17. Summary of sub-sectoral analysis related to transport (including logistics-related services) covered by the APEC Index**

| Sub-sector                      | Category classification of the 2023 APEC Index score | Category classification of the 2024 APEC Index score | Status changes relative to the average APEC Index score in 2023 | Slower trade liberalization in 2023 relative to 2022 | Slower trade liberalization in 2024 relative to 2023 | Top two categories of restrictions in the 2024 APEC Index score |   |   |   |   |
|---------------------------------|--|--|---|--|--|---|---|---|---|---|
|                                 |  |  |   |  |  | A   | B | C | D | E |
| Air transport                   | ■ Green  | ■ Green  | No change   | Yes  | No liberalization                                    | 1   |   |   | 2 |   |
| Maritime transport              | ■ Green  | ■ Green  | No change   | Yes  | Yes  | 1   | 2 |   |   |   |
| Road freight transport          | ■ Green  | ■ Green  | No change   | Yes  | No liberalization                                    | 1   | 2 |   |   |   |
| Rail freight transport          | ■ Orange   | ■ Orange   | No change   | No liberalization                                    | No liberalization                                    | 1   |   |   | 2 |   |
| Courier                         | ■ Red  | ■ Red  | No change   | Yes  | No liberalization                                    | 1   |   |   | 2 |   |
| Logistics cargo-handling        | ■ Green  | ■ Orange   | More restrictive  | Yes  | No liberalization                                    | 1   | 2 |   |   |   |
| Logistics storage and warehouse | ■ Green  | ■ Green  | No change   | Yes  | No liberalization                                    | 1   |   |   |   | 2 |
| Logistics freight forwarding    | ■ Green  | ■ Green  | No change   | Yes  | No liberalization                                    | 1   |   |   |   | 2 |
| Logistics customs brokerage     | ■ Orange   | ■ Orange   | No change   | Yes  | No liberalization                                    | 1   |   |   |   | 2 |
| Distribution                    | ■ Green  | ■ Green  | No change   | Yes  | No liberalization                                    | 1   |   |   | 2 |   |

Note: (1) category classification of the 2023 or 2024 APEC Index score: ■ Green – the 2023 or 2024 APEC Index score is lower than the pre-pandemic 2019 score; ■ Orange – the 2023 or 2024 APEC Index score is lower than the average of the 2020 and the 2021 APEC Index scores but higher than the pre-pandemic 2019 score; and ■ Red – the 2023 or 2024 APEC Index score is higher than the average of the 2020 and the 2021 APEC Index scores; (2) Category of restrictions in 2024 APEC Index score: A – Restrictions on foreign entry; B – Restrictions to movement of people; C – Other discriminatory measures; D – Barriers to competition; E – Regulatory transparency. (3) No liberalization could mean no trade facilitating measures that lead to change in score.

Source: APEC PSU compilation based on data from the APEC Index and OECD.

### **D3.4. Other business services**

#### ***Analysis of the WTO Secretariat's compilation on COVID-19 measures and the compilation for the Trade Policy Review Body***

Like the previous report, the most recent compilation by the WTO Secretariat on COVID-19 measures did not identify any policies specifically targeting trade in other business services. However, a detailed review of measures included in the latest compilation for the Trade Policy Review Body, covering the period from mid-October 2023 to mid-October 2024, highlighted two relevant measures impacting other business services. The first measure aims to simplify overseas investment processes related to build-to-rent projects within the real estate services sector. The second measure imposes restrictions on advertising by prohibiting the placement of advertisements on platforms designated as foreign agents and banning the promotion of such platforms in domestic media.

#### ***Analysis of the APEC Index***

Similar to the analysis of transport services (including logistics-related services), the 2023 and 2024 APEC Index scores for other business services are classified into three categories: red, orange, and green.<sup>24</sup> As shown in Table 18, all four sub-sectors consistently fall within the orange category. This categorization indicates that while the 2023 and 2024 APEC Index scores are less restrictive than the average scores for 2020 and 2021, they remain more restrictive compared to the pre-pandemic 2019 scores.

Notably, a comparison between the 2023 and 2024 scores reveals an increase across all four sub-sectors, suggesting heightened restrictiveness in these areas. Furthermore, there is clear evidence that trade liberalization efforts have either slowed or completely stalled. Specifically:

- Trade liberalization measures between 2022 and 2023 were implemented at a slower pace compared to those observed between 2021 and 2022 across all four sub-sectors; and
- No additional liberalization measures were introduced between 2023 and 2024 that would have impacted the scores.

These findings reinforce the conclusion from earlier reports that the liberalization observed between 2022 and 2023 (and between 2021 and 2022) was largely driven by the rollback of temporary COVID-19 measures. Economies are generally refraining from introducing new trade liberalization measures beyond merely reversing pandemic-era restrictions.

The most significant restrictions affecting all four sub-sectors continue to be related to foreign entry and the movement of people. Examples of foreign entry restrictions include foreign equity restrictions and requirement for commercial presence to provide cross-border services, while examples of restrictions on the movement of people include labour market tests or similar economic considerations, nationality or citizenship required for license to practice, and limitation on duration of stay.

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<sup>24</sup> Under this category, the APEC Index covers only four sub-sectors, namely: legal services (SJ211), accounting services (SJ212), architectural services (SJ311), and engineering services (SJ312). These are based on the concordance table linking the APEC Index and the EBOPS 2010 classification. It should be acknowledged that a significant share of sub-sectors within this category would be challenging to monitor, particularly on the policy front.

**Table 18. Summary of sub-sectoral analysis related to other business services covered by the APEC Index**

| Sub-sector   | Category classification of the 2023 APEC Index score | Category classification of the 2024 APEC Index score | Status changes relative to the average APEC Index score in 2023 | Slower trade liberalization in 2023 relative to 2022 | Slower trade liberalization in 2024 relative to 2023 | Top two categories of restrictions in the 2024 APEC Index score |   |   |   |   |
|--------------|--|--|---|--|--|---|---|---|---|---|
|              |  |  |   |  |  | A   | B | C | D | E |
| Accounting   | ■ Orange   | ■ Orange   | No change   | Yes  | No liberalization                                    | 1   | 2 |   |   |   |
| Architecture | ■ Orange   | ■ Orange   | No change   | Yes  | No liberalization                                    | 1   | 2 |   |   |   |
| Engineering  | ■ Orange   | ■ Orange   | No change   | Yes  | No liberalization                                    | 1   | 2 |   |   |   |
| Legal        | ■ Orange   | ■ Orange   | No change   | Yes  | No liberalization                                    | 1   | 2 |   |   |   |

Note: (1) category classification of the 2023 or 2024 APEC Index score: ■ Green – the 2023 or 2024 APEC Index score is lower than the pre-pandemic 2019 score; ■ Orange – the 2023 or 2024 APEC Index score is lower than the average of the 2020 and the 2021 APEC Index scores but higher than the pre-pandemic 2019 score; and ■ Red – the 2023 or 2024 APEC Index score is higher than the average of the 2020 and the 2021 APEC Index scores; (2) Category of restrictions in 2024 APEC Index score: A – Restrictions on foreign entry; B – Restrictions to movement of people; C – Other discriminatory measures; D – Barriers to competition; E – Regulatory transparency. (3) No liberalization could mean no trade facilitating measures that lead to change in score.

Source: APEC PSU compilation based on data from the APEC Index and OECD.

## D4. Conclusion

This report highlights the continued positive trajectory of APEC's commercial services trade. In 2024, APEC's commercial services trade reached USD 6.10 trillion. The gap between actual trade and projected values under a no-pandemic scenario has further narrowed to USD 0.22 trillion. Similar trends are evident in other monitored sectors within this report. APEC trade in transport services, having fully recovered in 2021, grew to USD 1.25 trillion in 2024. Meanwhile, trade in other business services, which experienced only a slight decline during the pandemic followed by a swift recovery, has continued its robust upward momentum, reaching USD 0.97 trillion during the first three quarters of 2024. The travel services sector, which endured the most severe pandemic-related disruptions, has also fully rebounded. APEC trade in travel services reached USD 1.38 trillion in 2024, exceeding pre-pandemic levels recorded in 2019.

Despite this collective progress, the pace of recovery remains uneven across individual economies. It is crucial for APEC to ensure that no economy is left behind in this recovery process. The findings of this report underscore the significant influence of government policies on the pace and effectiveness of services trade recovery. Notably, APEC's regulatory environment for services trade has shown signs of slight tightening, following a period of considerable improvements from the highly restrictive conditions observed during the pandemic. Moreover, despite the accelerating importance of digitalization in global commerce, the regulatory framework for digital services trade remains more restrictive than in earlier years.

Given the critical role of policies, APEC must remain vigilant to avoid reversing the progress made and intensify efforts to address persistent trade barriers. Achieving this will require policymakers to adopt holistic approaches that effectively navigate and mitigate these restrictions.

The ASCR continues to provide a strategic framework for enhancing services trade within the region, promoting meaningful recovery from the pandemic. It outlines a broad spectrum of APEC-wide actions, both cross-cutting and sector-specific, to encourage economies to collaborate closely at the regional level. A defining feature of the ASCR is its emphasis on cross-fora collaboration. For example, under APEC-wide action #5, economies are encouraged to incorporate key initiatives under EAASR aimed at advancing the services sector.

As economies consider the development of the next services roadmap following the conclusion of the ASCR in 2025, it is essential to retain the core attributes that have contributed to the ASCR's success. These include maintaining the roadmap as a dynamic and adaptable framework responsive to evolving conditions, fostering platforms for experience-sharing and capacity-building, and promoting opportunities for cross-fora collaboration. Ensuring these elements remain integral to future roadmap will be vital for sustaining progress and enhancing APEC's overall services trade landscape.

## **Appendix E. Findings from the ASCR Final Review Perception Survey**

### **E1. Introduction and methodology**

While members have shared information on their fora's contributions to the ASCR APEC-wide actions through the ASCR matrix of actions, the PSU believes it would be beneficial to also gather feedback on members' perceptions of the ASCR and its implementation plan. Specifically, the PSU welcomed members' perceptions on how the ASCR has been able to enhance their understanding of the services sector, how their fora's activities can improve the competitiveness of the services sector in the APEC region, and where there may be scope for improvement.

The ASCR Final Review Perception Survey was conducted among all 15 accountable fora between January and April 2025. Potential respondents were invited to participate in the survey via emails sent by the fora program directors. This survey marks the first instance of a perception survey being conducted for the ASCR.

Respondents were given a structured questionnaire and requested to provide responses from the perspectives of their economies and fora. The survey was available both as an MS Word document and through a SurveyMonkey link. It was self-administered by the respondents; participation was voluntary.

The PSU stipulated that only one response per economy would be accepted per forum. In cases where multiple submissions were received from a single economy per forum, the PSU would contact the respondents to determine which submission should be included. If no reply was received, the PSU defaulted to using the most recent submission. Assuming that all 21 economies responded to the survey per forum, the maximum number of responses would be 315.

### **E2. Respondent profile**

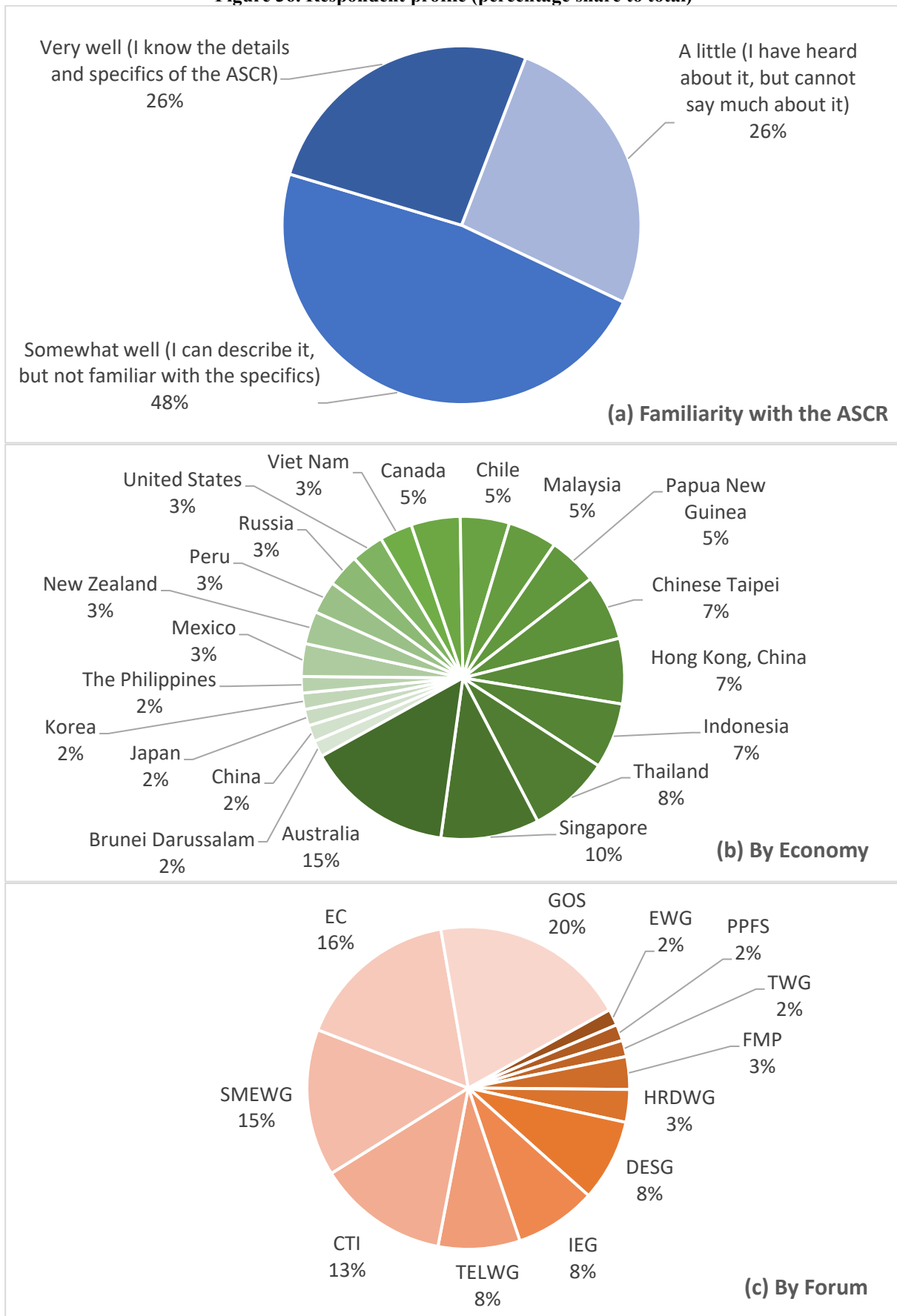
At the conclusion of the survey period, 61 fully-completed responses (out of a possible 315) were collected, resulting in a response rate of approximately 19 percent.<sup>25</sup> Close to half of the respondents indicated that they have a moderate understanding of the ASCR, meaning that they can describe it but are not familiar with the specifics (Figure 36a). About 26 percent of respondents reported having a thorough understanding of the ASCR, knowing its details and specifics, while the remaining 26 percent indicated only a minimal awareness, having heard of it but unable to elaborate (Figure 36a).

Analysing the responses by economy, Australia represented about 15 percent of the total number of respondents, with Singapore contributing about 10 percent (Figure 36b). Thailand; Indonesia; Hong Kong, China; Chinese Taipei; Papua New Guinea; Malaysia; Chile; and Canada together contributed an additional 48 percent. By forum, GOS, EC, SMEWG and CTI contributed close to two-thirds of the respondents (Figure 36c).

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<sup>25</sup> In addition, the PSU received interest from 19 potential respondents who were unable to proceed, as they indicated in the initial screening question that they had not heard of the ASCR.

**Figure 36. Respondent profile (percentage share to total)**



Source: APEC PSU calculations based on survey data

### E3. Awareness of APEC-wide actions

Respondents indicated a moderate awareness of the APEC-wide actions assigned to their forum. For most APEC-wide actions, the assignment is based on the ASCR Implementation Plan. In the case of CTI, on a scale of 1 (not aware) to 4 (very aware), respondents indicated that their level of awareness for actions assigned to their forum range from an average rating of 3.13 (for APEC-wide action #7) to 3.38 (both for APEC-wide actions #6 and #13) (Table 19). Additionally, CTI respondents reported awareness of actions assigned to CTI sub-fora (i.e., BMG, DESG, GOS and IEG), with ratings between 3.00 (for both APEC-wide actions #9 and #10) and 3.50 (for both APEC-wide actions #3 and #16).

**Table 19. Awareness of various APEC-wide actions by CTI**

| APEC-wide action                                | Ratings |
|---|---------|
| APEC-wide action #1 – assigned to CTI sub-fora  | 3.25    |
| APEC-wide action #2 – assigned to CTI sub-fora  | 3.25    |
| APEC-wide action #3 – assigned to CTI sub-fora  | 3.50    |
| APEC-wide action #4                             | 3.25    |
| APEC-wide action #5                             | 3.25    |
| APEC-wide action #6                             | 3.38    |
| APEC-wide action #7                             | 3.13    |
| APEC-wide action #9 – assigned to CTI sub-fora  | 3.00    |
| APEC-wide action #10 – assigned to CTI sub-fora | 3.00    |
| APEC-wide action #13                            | 3.38    |
| APEC-wide action #16 – assigned to CTI sub-fora | 3.50    |

Source: APEC PSU calculations based on survey data.

Similarly, GOS respondents expressed general awareness of the APEC-wide actions assigned to their forum. They are most aware of APEC-wide actions #4, giving it an average rating of 3.58. This is followed by APEC-wide actions #2, 6 and 13, each receiving an average rating of 3.50 (Table 20). However, they were least aware of APEC-wide action #10, which received an average rating of 2.58.

**Table 20. Awareness of various APEC-wide actions by GOS**

| APEC-wide action     | Ratings |
|----------------------|---------|
| APEC-wide action #2  | 3.50    |
| APEC-wide action #4  | 3.58    |
| APEC-wide action #5  | 3.42    |
| APEC-wide action #6  | 3.50    |
| APEC-wide action #7  | 3.33    |
| APEC-wide action #10 | 2.58    |
| APEC-wide action #13 | 3.50    |

Source: APEC PSU calculations based on survey data.

EC respondents indicated awareness of APEC-wide actions #4 and #5 assigned to their forum, with ratings of 3.30 and 3.50, respectively. In contrast, HRDWG respondents showed low awareness of APEC-wide actions #2 and #8, each rated at 2.00.

Several working groups—namely DESG, EWG, FMP, IEG, PPFS, SMEWG, TELWG, and TWG—were each assigned a specific APEC-wide action. Among them, DESG reported the highest awareness level, rating action #9 at 3.20. EWG, PPFS, TELWG and TWG each rated their respective actions (#15, #14, #18 and #12) at 3.00. IEG rated its awareness of action #16 at 2.80, followed by SMEWG's rating of 2.67 for action #17. FMP assigned the lowest score of 2.50 to action #10.



## E4. Role of the ASCR

Respondents generally agreed that the ASCR has played a significant role in raising awareness about the importance of services in regional growth, with an average score of 3.33 on a scale from 1 (strongly disagree) to 4 (strongly agree).

Additionally, respondents acknowledged that the ASCR has highlighted the importance of various enabling factors, such as supportive regulations, appropriate skills, advanced technology, good regulatory practices, international regulatory cooperation, robust infrastructure, and relevant statistics and data, in enhancing the role of services in regional growth. For example, respondents rated the statement "The ASCR has raised awareness of my institution/agency about international regulatory cooperation that helps services play a more prominent role in regional growth" with an average score of 3.36. Similarly, the statement "The ASCR has raised awareness of my institution/agency about appropriate skills that help services play a more prominent role in regional growth" received an average rating of 3.16.

Respondents also noted that the ASCR has provided a rationale for their forum to undertake activities that enhance these enabling factors, giving this statement an average rating of 3.34. Furthermore, respondents indicated that their institution/agency has benefited from the peer-learning and capacity-building activities conducted under the ASCR (3.41). The ASCR has also led to improved coordination between various institutions/agencies within their economy (3.17), as well as enhanced cross-fora collaboration between their forum and other APEC fora (3.23). Importantly, the ASCR has increased engagement between respondents' institutions/agencies/forums and the private sector (3.17).

Overall, respondents believe that the ASCR has been successful in boosting the competitiveness of the services sector in the APEC region (3.13). It has also contributed to creating a more open and predictable environment for services trade and investment in the region (3.24) and has facilitated the progressive reduction of restrictions on services trade and investment (3.02).

Disaggregating responses by forum revealed that exact ratings vary by fora. For instance, DESG, EC, EWG, HRDWG, SMEWG, TELWG respondents generally rated the statements lower compared to the average overall score, while CTI, FMP, GOS, IEG and TWG provided relatively higher ratings. As shown in Table 21, the top and bottom three ratings for the statements varied between fora.<sup>26</sup>

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<sup>26</sup> In the case of HRDWG, PPFS and TWG, the ratings are the same for all rated statements.

**Table 21. Agreement with various statements, by APEC forum (average ratings)**

| Statement   | CTI  | DESG | EC   | EWG  | FMP  | GOS  | HRDWG | IEG  | PPFS | SMEWG | TELWG | TWG  |
|---|------|------|------|------|------|------|-------|------|------|-------|-------|------|
| The ASCR has raised awareness of my institution/agency on the role that services play in the growth of the APEC region  | 3.50 | 3.20 | 3.13 | 3.00 | 3.50 | 3.58 | 3.00  | 3.50 | NA   | 3.20  | 2.75  | 4.00 |
| The ASCR has raised awareness of my institution/agency about appropriate skills that help services play a more prominent role in the growth of the region   | 3.25 | 3.00 | 3.22 | 3.00 | 3.50 | 3.25 | 3.00  | 3.25 | NA   | 3.14  | 2.50  | 4.00 |
| The ASCR has raised awareness of my institution/agency about supportive technology that help services play a more prominent role in the growth of the region  | 3.13 | 3.20 | 3.11 | 3.00 | 3.50 | 3.17 | 3.00  | 3.25 | NA   | 3.29  | 2.50  | 4.00 |
| The ASCR has raised awareness of my institution/agency about good regulatory practices that help services play a more prominent role in the growth of the region  | 3.38 | 3.20 | 3.11 | 3.00 | 3.50 | 3.33 | 3.00  | 3.75 | 3.00 | 3.29  | 2.50  | 4.00 |
| The ASCR has raised awareness of my institution/agency about international regulatory cooperation that help services play a more prominent role in the growth of the region   | 3.75 | 3.40 | 3.00 | 3.00 | 3.50 | 3.50 | 3.00  | 4.00 | 3.00 | 3.17  | 2.75  | 4.00 |
| The ASCR has raised awareness of my institution/agency about supportive infrastructure that help services play a more prominent role in the growth of the region  | 3.38 | 2.60 | 3.00 | 3.00 | 3.50 | 3.25 | 3.00  | 3.75 | NA   | 3.00  | 2.25  | 4.00 |
| The ASCR has raised awareness of my institution/agency about relevant statistics and data that help services play a more prominent role in the growth of the region   | 3.63 | 3.00 | 3.11 | 3.00 | 3.50 | 3.33 | 3.00  | 3.75 | NA   | 3.14  | 2.33  | 4.00 |
| Through the APEC-wide action assigned to our forum, the ASCR has provided a rationale for our forum to undertake activities that enhance these enabling factors (i.e., supportive regulations, appropriate skills, supportive technology, good regulatory practices, international regulatory cooperation, supportive infrastructure, relevant statistics and data) | 3.38 | 3.40 | 3.33 | 3.00 | 3.50 | 3.50 | 3.00  | 3.75 | NA   | 3.29  | 2.60  | 4.00 |
| My institution/agency has benefitted from the peer learning and capacity-building activities conducted under the ASCR   | 3.75 | 4.00 | 3.11 | 2.00 | 3.50 | 3.50 | 3.00  | 3.75 | 3.00 | 3.14  | 3.00  | 4.00 |
| The ASCR has led to improved coordination between various institutions/agencies within my economy   | 3.71 | 3.20 | 2.89 | 3.00 | 3.50 | 3.09 | 3.00  | 3.50 | 3.00 | 3.00  | 2.67  | 4.00 |
| The ASCR has led to improved cross-fora collaboration between my forum and other APEC fora  | 3.50 | 3.20 | 3.33 | 3.00 | 3.50 | 3.33 | 3.00  | 3.25 | 3.00 | 3.14  | 2.25  | 4.00 |
| The ASCR has led to enhanced engagement that my institution/agency and/or forum has with the private sector   | 3.25 | 3.00 | 3.11 | 3.00 | 3.50 | 3.42 | 3.00  | 3.50 | NA   | 2.83  | 2.33  | 4.00 |

|  |      |      |      |      |      |      |      |      |    |      |      |      |
|--|------|------|------|------|------|------|------|------|----|------|------|------|
| The ASCR has been successful in increasing the competitiveness of the services sector in the APEC region         | 3.38 | 3.00 | 2.89 | 3.00 | 3.50 | 3.17 | 3.00 | 3.40 | NA | 3.17 | 2.33 | 4.00 |
| The ASCR has led to a more open and predictable environment for services trade and investment in the APEC region | 3.75 | 3.40 | 3.00 | 3.00 | 3.50 | 3.27 | 3.00 | 3.40 | NA | 3.00 | 2.60 | 4.00 |
| The ASCR has led to progressive reduction in restrictions to services trade and investment in the APEC region    | 3.13 | 2.80 | 3.11 | 3.00 | 3.50 | 3.00 | 3.00 | 3.40 | NA | 2.86 | 2.00 | 4.00 |

Source: APEC PSU calculations based on survey data.

## **E5. Conclusion**

The survey results suggest that respondents believe that the ASCR has been somewhat successful in raising awareness about the role of services in regional growth. Zooming in on the enabling factors that the ASCR aims to enhance in order to increase services' contribution to the region's growth, results also indicate some success there. Respondents noted that they are aware of the role played by enabling factors such as supportive infrastructure, good regulatory practices, and relevant statistics and data in driving services growth, giving an average score ranging between 3.11 (in the case of supportive infrastructure) and 3.36 (in the case of international regulatory cooperation).

However, the relatively low response rate (61 fully-completed responses out of a possible 315) could indicate limited interest among APEC members in the ASCR. This is particularly evident in fora where members arguably may have less knowledge about how their work contributes to the services sector. No usable responses were received from BMG, PPSTI and TPTWG. In the case of several fora such as EWG, FMP, HRDWG, PPFS and TWG, the number of responses received were very low. Even among respondents, there is room for improvement in their awareness of some APEC-wide actions assigned to their forum.

Looking ahead, it is crucial for GOS, as the coordinating forum, to enhance engagement with relevant stakeholders, including other fora. Several respondents have suggested that communication of the ASCR to other APEC fora and external entities could be improved and sustained over time. Effective communication can raise sustained awareness of the ASCR, strengthen cross-fora collaboration, and prevent duplication of efforts. Additionally, APEC should continue to engage a broader range of stakeholders, such as the business community (including MSMEs), academia, labour groups, and civil society organisations, to gather diverse perspectives and insights.

Respondents also emphasized the importance of aligning the future services roadmap with the APEC Putrajaya Vision 2040, the Aotearoa Plan of Action, and other APEC initiatives like the APEC Connectivity Blueprint and APEC Investment Facilitation Action Plan. This alignment should include actions to address new and emerging services issues (e.g., digital trade, artificial intelligence, green economy, sustainable and inclusive growth), creating platforms for information sharing and regulatory cooperation, and providing capacity-building activities.

Moreover, respondents highlighted the need for a system of more frequent consultations with stakeholders, including feedback mechanisms, to ensure the roadmap remains responsive to the evolving needs and challenges of the services sector.