

Final Report

Development of AEO Cooperation Scheme and Measurement of Economic Effects of AEO among APEC Economies

APEC Sub-Committee on Customs Procedures

October 2026



**Asia-Pacific
Economic Cooperation**



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Development of AEO Cooperation Scheme and Measurement of Economic Effects of AEO among APEC Economies

APEC Sub-Committee on Customs Procedures (SCCP)

October 2026

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Abbreviations

AEO: Authorized Economic Operator

AI: Artificial Intelligence

AML: Anti-Money Laundering

APEC: Asia-Pacific Economic Cooperation

ASEAN: Association of Southeast Asian Nations

CTPAT: Customs-Trade Partnership Against Terrorism (United States AEO program)

ERP: Enterprise Resource Planning

IT: Information Technology

KRW: Korean Won, the currency of Republic of Korea

MRA: Mutual Recognition Arrangement

SCCP: Sub-Committee on Customs Procedures (APEC Working Group)

MSME: Micro, Small and Medium-sized Enterprise

TFA: Trade Facilitation Agreement (WTO Agreement)

TRS: Time Release Study

USD: United States Dollar

VR: Virtual Reality

WCO: World Customs Organization

WTO: World Trade Organization

Executive Summary

This report presents the findings and policy recommendations of the Asia-Pacific Economic Cooperation (APEC) project on Authorized Economic Operator (AEO) programs, which aim to enhance trade facilitation, security, and resilience across the Asia-Pacific region.

Over the course of the study, comprehensive analysis was conducted on the status of AEO implementation among APEC economies, focusing on legal and institutional frameworks, validation processes, MSME (Micro, Small and Medium-sized Enterprise) participation, mutual recognition arrangements (MRAs), and the impact of AEO on supply chain efficiency. The report also incorporated performance assessments through a Time Release Study (TRS), which provided evidence of tangible benefits such as reduced clearance times and cost savings for certified operators, while also highlighting methodological and coverage limitations that warrant further improvement.

Key findings indicate that while AEO programs have expanded significantly across the region, challenges remain in harmonizing certification criteria, strengthening MRA implementation, and enabling inclusive participation, particularly for MSMEs that often lack the financial and technical resources to meet certification standards. Digitalization and interagency collaboration have emerged as critical enablers for future progress, in line with the World Customs Organization (WCO) SAFE Framework of Standards and the APEC digital agenda.

The report outlines forward-looking recommendations in five priority areas:

1. Advancing broader and interoperable MRAs supported by greater alignment of validation criteria and secure digital verification systems;
2. Enhancing support for MSMEs through simplified certification schemes, targeted financial and advisory assistance, and multi-faceted outreach strategies;
3. Strengthening performance measurement tools such as TRS by expanding coverage, harmonizing methodologies, and promoting multi-economy exercises;
4. Fostering digitalization and whole-of-government collaboration to maximize efficiency, reduce duplication, and improve supply chain transparency;
5. Institutionalizing follow-up initiatives including regional roadmaps, technical dialogues, and capacity-building programs to ensure sustainable development of AEO programs.

Collectively, these recommendations underscore the critical role of AEO programs as drivers of secure, efficient, and inclusive trade facilitation within the Asia-Pacific. Their sustained advancement directly contributes to the realization of the APEC Putrajaya Vision 2040, reinforcing freer trade, enhanced competitiveness, and shared prosperity.

Importantly, this report emphasizes the need for continuous follow-up projects under APEC to address identified gaps, promote data-driven evaluation, and strengthen regional cooperation. Such efforts will ensure that AEO programs evolve as future-ready instruments, enabling resilient and prosperous supply chains that support long-term economic growth in the region.

Chapter I. Introduction

1. Background and Rationale

International trade has evolved into a complex and interconnected system where efficiency, security, and predictability are essential to maintaining global supply chain stability. To address these needs, the WCO introduced the SAFE Framework of Standards to Secure and Facilitate Global Trade (SAFE Framework), which promotes the AEO program as a key instrument. Under this framework, Customs administrations certify compliant businesses as AEOs, granting them facilitation benefits in exchange for meeting stringent security and compliance standards.

Within the Asia-Pacific region, AEO programs have become an integral component of trade facilitation strategies. However, differences in certification criteria, validation processes, and post-certification management across economies have created challenges for harmonization. Mutual Recognition Arrangements, which allow one economy to recognize the AEO status granted by another, have been instrumental in promoting cross-border facilitation. Yet, the degree of implementation and the measurable impacts of these arrangements remain uneven.

Recognizing these challenges, the APEC Sub-Committee on Customs Procedures (SCCP) launched this project to strengthen the understanding and effectiveness of AEO programs and MRAs in the region. The project aligns with APEC's strategic priorities on supply chain connectivity and trade facilitation, while also supporting the implementation of the World Trade Organization (WTO) Trade Facilitation Agreement (TFA) Article 7.7, which calls for the adoption of AEO programs as a means to expedite the release of goods.

This project was designed to achieve three key objectives:

1. To develop a comprehensive AEO Dictionary that consolidates information on certification procedures, criteria, and benefits across APEC economies, enabling better comparison and identification of good practices.
2. To conduct a Time Release Study to assess the quantitative impacts of AEO programs and MRAs on clearance times and associated costs.
3. To organize a regional workshop to share findings, exchange experiences, and gather feedback from stakeholders on how to improve AEO performance measurement and cooperative action among member economies.

By integrating these components, the project not only provides evidence-based insights into the current state of AEO implementation but also offers policy-oriented recommendations to enhance the effectiveness and harmonization of AEO programs across the APEC region.

2. Alignment with APEC and WTO TFA Goals

The implementation of this project directly supports the broader trade facilitation objectives of both APEC and the WTO. Within APEC, the SCCP has long emphasized the need to enhance supply chain connectivity, reduce trade costs, and improve the predictability of cross-border movements. AEO programs, recognized under the WCO SAFE Framework, serve as a vital mechanism to achieve these objectives by fostering trusted partnerships between Customs administrations and the private sector.

The WTO TFA, which entered into force in 2017, explicitly highlights the importance of establishing and maintaining AEO programs in its Article 7.7. This provision encourages Members to develop systems that identify and provide benefits to compliant economic operators, while also promoting international cooperation through mutual recognition. The project contributes to the implementation of this article by not only assessing the effectiveness of AEO programs but also by identifying gaps that hinder the full realization of TFA objectives.

Furthermore, the project is aligned with APEC's 2025 vision of promoting seamless, resilient, and secure trade across the region. By consolidating data on AEO practices through the AEO Dictionary, measuring program impacts via the Time Release Study, and facilitating knowledge exchange during the regional workshop, this initiative reinforces APEC's efforts to harmonize and strengthen trade facilitation measures.

In particular, the outcomes of this project address several priority areas outlined in the SCCP work plan:

Enhancing supply chain security and efficiency through the widespread adoption and improvement of AEO programs;

Promoting mutual recognition to expand the benefits of AEO certification across borders;

Supporting MSMEs (Micro, Small and Medium-sized Enterprises) to participate in trusted trader programs;

Leveraging data and performance measurement to guide evidence-based policymaking.

By aligning with these international frameworks and priorities, the project ensures that its findings and recommendations will have practical relevance and contribute to the continuous advancement of trade facilitation across the APEC region.

3. Project Scope and Methodology

This project was implemented to provide a comprehensive assessment of AEO programs across APEC economies and to identify opportunities for enhancing their effectiveness. The scope of the project encompassed three interrelated components: the development of an AEO Dictionary, the conduct of a Time Release Study, and the organization of a regional workshop. Together, these elements formed an evidence-based approach to evaluate the current status of AEO programs, measure their impacts, and propose actionable recommendations.

Scope of the Project

The project covered:

- Comparative analysis of AEO programs across participating economies through the AEO Dictionary, focusing on certification procedures, compliance criteria, post-certification management, benefits, and MSME support.
- Quantitative assessment of AEO impacts through the TRS, measuring differences in clearance times and costs between AEO and non-AEO shipments, as well as the added value of MRAs.
- Knowledge sharing and stakeholder engagement through a regional workshop, which facilitated the exchange of experiences, validation of findings, and the collection of feedback for future improvements.

Methodology

To achieve these objectives, the project employed a mixed-method approach combining qualitative and quantitative techniques:

- Survey and Data Collection: Participating economies provided information via a standardized questionnaire, which formed the basis for the AEO Dictionary. Additional statistical data were collected from selected AEO and non-AEO companies for the TRS analysis.

- **Comparative and Statistical Analysis:** The survey data were consolidated and analyzed to identify commonalities, differences, and emerging trends. TRS data were examined to quantify the time and cost benefits associated with AEO programs and MRAs.
- **Stakeholder Consultation:** The regional workshop served as a platform to validate findings, share best practices, and gather recommendations from customs administrations, private sector representatives, and international organizations.

The integration of these methodologies ensured that the project findings were comprehensive, evidence-driven, and reflective of both policy and operational perspectives. By adopting this approach, the project delivers actionable insights that can guide future enhancements to AEO programs and their mutual recognition arrangements within the APEC region. While the methodology ensures comprehensive coverage, it should be noted that the availability and quality of data varied across economies, which may influence the comparability of findings.

Chapter II. AEO Program Overview Across APEC Economies: AEO Dictionary

1. Survey Methodology and Respondent Economies

Recognizing the need for a comprehensive overview of AEO practices in the APEC region, a structured survey was conducted with the participation of member economies. The information collected provides the foundation for the following comparative analysis, highlighting both commonalities and distinctive features in the design and operation of AEO programs.

Survey Methodology

The 2025 APEC AEO Dictionary survey, a structured questionnaire of 100 items covering eight domains: program overview, legal and regulatory framework, validation and application, eligibility criteria, incentives, post-certification management, MRAs, and performance indicators. The survey was distributed to all 21 APEC member economies, with follow-up consultations to ensure completeness and consistency. Responses were verified against official public sources (e.g. customs portals, WCO AEO Compendium) and compiled into comparative tables and narrative analysis.

Respondent Economies

Of the 21 APEC economies, 12 submitted complete and valid responses:

Australia; Indonesia; Japan; Republic of Korea; Malaysia; The Republic of the Philippines; The Russian Federation; Singapore; Chinese Taipei; Thailand; United States; Viet Nam.

Although not all APEC member economies participated, the sample includes both mature and emerging AEO systems, allowing for meaningful cross-economy comparisons in subsequent sections.

2. Key Comparative Findings from the AEO Dictionary

The AEO Dictionary illustrates both the areas of convergence and the diversity among APEC economies' AEO programs. While most economies align with the WCO SAFE Framework, they are at different stages of maturity, with notable contrasts in coverage, validation practices, and benefits.

2.1 Program Maturity

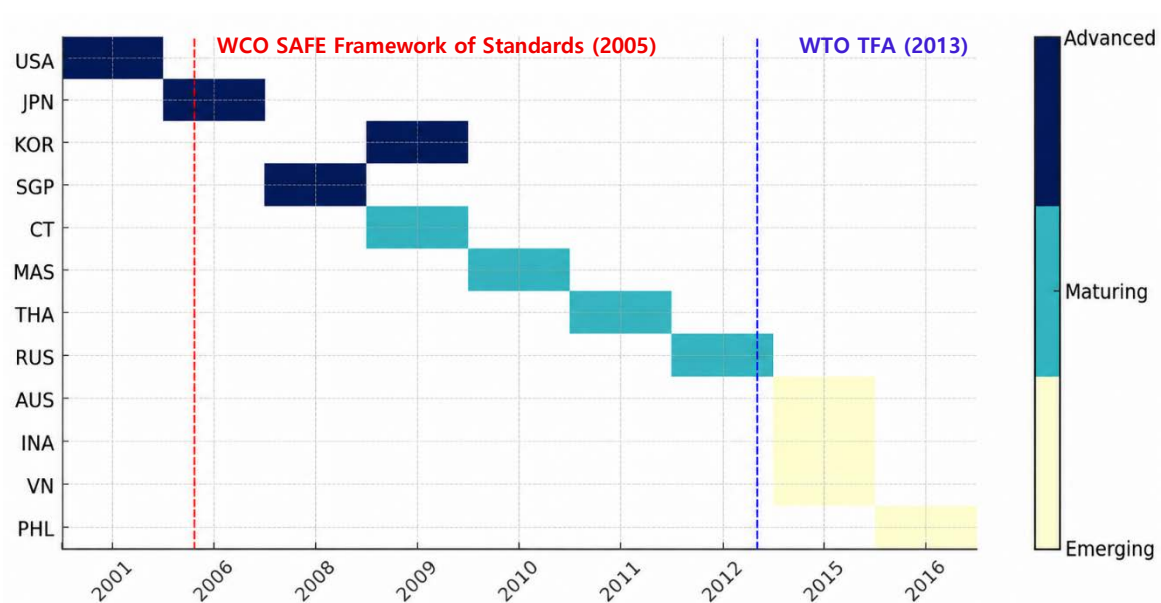
Across the APEC region, AEO program maturity levels differ significantly, reflecting each economy's policy priorities, institutional capacity, and length of implementation. A few economies, such as Japan (2006); Republic of Korea (2009); Singapore (2008); and United States (2001), have operated their programs for more than a decade. These economies demonstrate advanced maturity through highly institutionalized systems, comprehensive benefit packages, and multiple Mutual Recognition Arrangements that reinforce global trust in their operators. Their programs are often supported by continuous regulatory updates, dedicated IT systems, and specialized customs units managing validation and post-certification processes.

In contrast, emerging AEO programs - including those in Indonesia (2015); The Republic of the Philippines (2016); and Viet Nam (2015)- are still in a developmental stage. While they have established the core legal and procedural foundations, their programs often cover a narrower scope of operators, with limited incentive structures and fewer MRAs in place. These economies tend to focus first on exporters and importers before gradually expanding eligibility to other supply chain actors such as customs brokers, warehouse operators, or consolidators.

A middle group of economies, represented by Australia (2015); Malaysia (2010); The Russian Federation (2012); Chinese Taipei (2009)*; and Thailand (2011) show programs that are relatively consolidated yet still evolving. They provide a structured framework for certification and benefits but continue to refine their criteria and expand participation. Their trajectory suggests a clear commitment to aligning with WCO standards and deepening regional cooperation, even if full program maturity has not yet been reached.

*In Chinese Taipei, the AEO program was first introduced through guidelines enacted in 2009–2010, following the amendment of the Customs Act (Article 19) in 2010 which provided the legal foundation for its implementation.

<Table II-1. APEC AEO Program: Introduction Year & Current Maturity>



Taken together, these patterns underscore that AEO maturity in the APEC region is not uniform. Instead, it spans a spectrum from highly advanced models that serve as global benchmarks to nascent systems still building institutional credibility. This diversity provides both opportunities for mutual learning and challenges for harmonization, particularly in advancing MRAs and ensuring comparable recognition of operator standards across economies.

In addition, maturity levels directly shape the scope and depth of benefits available to operators, as well as the degree to which MSMEs and other supply chain actors can access the program. This suggests that closing maturity gaps is not only a matter of international credibility but also of ensuring equitable participation and competitiveness across the region.

2.2 Eligibility & Validation Criteria

Across AEO programs, eligibility requirements remain relatively consistent, focusing on applicants' compliance records, financial soundness, and operational stability. These serve as baseline conditions to ensure that only companies with credible histories and organizational capacities can pursue AEO status. While some variations exist - such as thresholds for compliance history or documentation requirements - the general approach is comparable across economies and does not present significant divergence.

By contrast, validation criteria display far greater diversity and reflect each economy’s regulatory priorities and level of program maturity. Traditionally, validation centered on physical security, customs compliance, and record-keeping practices. However, in recent years, a new set of emerging global concerns has been progressively incorporated. United States, for instance, has strengthened its CTPAT validation process by embedding forced labor prevention and human rights due diligence into supply chain checks. Similarly, Republic of Korea’s July 2024 AEO guideline revision also introduced enhanced requirements on IT security, data governance, digital system integrity, as well as new provisions on anti-money laundering and forced labor compliance, reflecting the increasing vulnerability of trade networks to both cyber risks and social responsibility challenges.

These shifts demonstrate a broader trend: while developing economies continue to emphasize traditional customs compliance and physical safeguards, advanced programs are evolving toward multidimensional validation that includes social responsibility, financial integrity (such as anti-money laundering checks), and cybersecurity. This widening gap underscores the importance of international cooperation and knowledge-sharing, as disparities in validation scope may complicate recognition agreements and mutual trust across regions.

<Table II-2. Comparison of Validation Criteria in AEO Program>

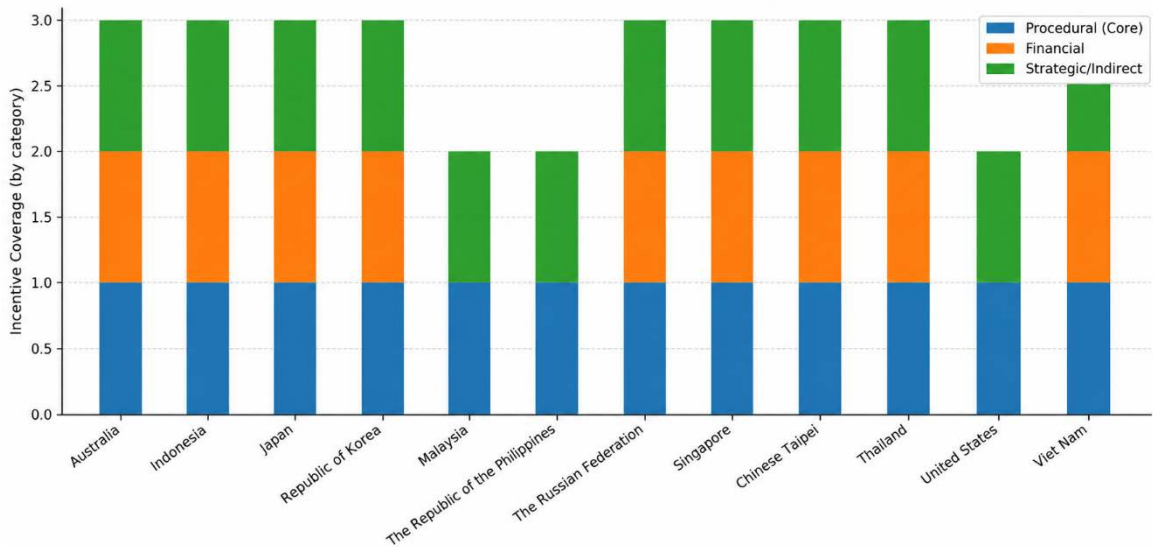
Category	Key Focus	Examples
Eligibility	Compliance record, Financial soundness, Operational stability	Baseline conditions across all economies
Validation (Traditional)	Physical security, Customs compliance, Record-keeping	Developing economies emphasize traditional safeguards
Validation (Advanced)	Cybersecurity, AML, Forced labor, Human rights, IT governance	Republic of Korea (2024 guideline revision), United States (CTPAT)

These developments suggest a growing divergence: while developing economies continue to emphasize traditional customs compliance and physical safeguards, advanced programs are broadening their focus toward multidimensional validation encompassing social responsibility, financial integrity (such as anti-money laundering checks), and cybersecurity. This divergence not only complicates efforts to negotiate MRAs but also highlights the urgency of regional platforms for sharing best practices, aligning standards, and mitigating the risk of regulatory fragmentation.

2.3 Incentives and Benefits: Uneven but Expanding

AEO programs across the globe offer a variety of incentives and benefits, but the scope and depth of these privileges remain uneven across economies. At the most basic level, nearly all programs guarantee simplified customs procedures, reduced inspections, and priority clearance - benefits that directly improve predictability and efficiency in cross-border trade. These “core incentives” are relatively uniform and form the foundation of the AEO value proposition.

<Table II-3. Coverage of AEO Incentive Types>



Beyond this baseline, however, the breadth of additional benefits varies widely depending on institutional capacity and the maturity of the program. In many developing economies, benefits remain primarily customs-related, such as fewer document requirements or expedited release. By contrast, advanced programs like those in Japan; Republic of Korea; and United States have expanded incentives into broader policy areas. These include

streamlined processes in tax administration, reductions in financial guarantees, trusted trader recognition by multiple government agencies, and reputational advantages acknowledged by private-sector partners and global supply chain networks.

The analysis of AEO-related incentives across APEC member economies further illustrates this divergence (see Annex 1, Table III-6). While procedural facilitation - particularly border clearance priority - is nearly universal, financial incentives such as deferred tax payments or exemptions from collateral are offered only in selected economies (e.g., Japan; Chinese Taipei; Viet Nam). Such measures can be particularly impactful for MSMEs by easing liquidity pressures, yet their availability remains uneven. Moreover, advanced programs distinguish themselves through indirect or strategic incentives: Australia integrates the APEC Business Travel Card and dedicated account managers; Republic of Korea provides subsidized training and consulting support; and Singapore offers crisis fast-tracking and benefits linked to air cargo security regimes. These incentives go beyond traditional customs facilitation, strengthening the overall value proposition for trusted operators.

An important development is the growing number of inter-agency and cross-border benefits. Republic of Korea, for example, extends AEO privileges to cover inspections by multiple border agencies, while the European Union leverages its Union-wide framework to harmonize benefits across member states. Moreover, the proliferation of Mutual Recognition Agreements has extended the scope of benefits internationally, allowing certified companies to enjoy faster clearance and reduced compliance burdens in partner economies. However, these MRA-based benefits are still concentrated among advanced economies, leaving many developing economies outside such reciprocal frameworks.

At the same time, new benefit areas are emerging, reflecting global shifts in trade and security priorities. Some programs have begun exploring preferential treatment in government procurement, financial services, and digital customs platforms. Others are experimenting with incentives tied to sustainability or supply chain resilience, linking AEO status with broader policy agendas. These innovations aim not only to reward trusted companies but also to incentivize broader participation, particularly among MSMEs that might otherwise perceive limited value in certification.

Overall, while the global trajectory points toward expansion and diversification of benefits, the asymmetry across regions remains a challenge. Companies operating in advanced

jurisdictions often access multi-dimensional incentives, while those in emerging economies receive mainly procedural relief. This imbalance reinforces the need for both international coordination and context-sensitive adjustments at the domestic level, ensuring that the AEO system delivers tangible value for a wider spectrum of stakeholders.

2.4 Post-Certification Management

After initial authorization, AEO companies are subject to post-certification management to ensure continuous compliance with customs and security standards. Economies apply various mechanisms such as periodic audits, follow-up reviews, and renewal procedures. The renewal cycle differs across economies, ranging from annual reviews to multi-year revalidations, as seen in economies such as Japan; Republic of Korea; and United States.

Post-certification management also includes provisions for suspension and revocation of AEO status. Most economies stipulate that status may be suspended or revoked in cases of serious customs violations, failure to uphold security requirements, or fraudulent practices. In some cases, such as Republic of Korea; and Singapore, temporary suspension is allowed, with a corrective action period before revocation.

AEO companies must also fulfill ongoing obligations, including maintaining updated records, notifying customs of organizational or operational changes, and continuously meeting security and compliance requirements. Increasingly, economies such as People's Republic of China; Republic of Korea; and United States are integrating additional elements into their monitoring, including IT system integrity, anti-money laundering measures, and compliance with forced labor prevention standards.

Recent developments show a clear trend toward more risk-based monitoring approaches. While some developing economies still rely on manual audit systems, advanced economies are moving toward digitalized monitoring tools, data analytics, and inter-agency information sharing. This evolution not only enhances efficiency but also helps ensure that compliance oversight remains proportionate to the level of risk. Looking ahead, greater exchange of practices and capacity building among APEC member economies could further strengthen post-certification management in a balanced manner.

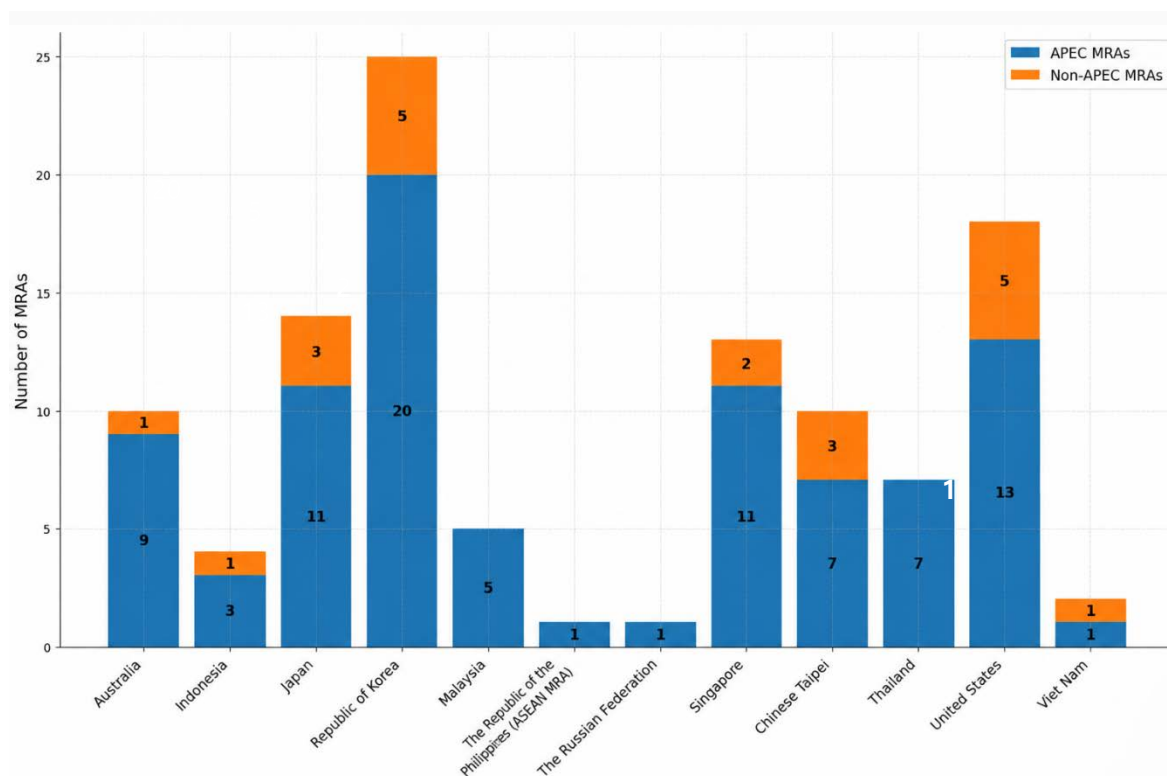
2.5 Mutual Recognition Arrangements

Mutual Recognition Arrangements remain a cornerstone of international cooperation within

APEC's AEO programs. They enable member economies to extend customs facilitation benefits to trusted traders recognized by partner administrations, thereby enhancing the global value of AEO certification.

The scope and maturity of MRA engagement vary significantly across member economies. Leading economies like Republic of Korea have established extensive bilateral networks, currently maintaining 25 active MRA partners, including major trading partners such as Australia; People's Republic of China; Japan; Singapore; United States; and the European Union. These broad partnerships reflect Republic of Korea's strategic approach to maximizing facilitation benefits across multiple trade lanes.

<Table II-4. APEC AEO MRAs by Economy: APEC vs non-APEC>



Other advanced economies such as Australia; Japan; Malaysia; Singapore; Thailand; and United States also operate multiple MRAs, demonstrating their commitment to expanding cross-border trade facilitation. For instance, Australia maintains MRAs with 10 partners including Canada; People's Republic of China; and Singapore, while Thailand has established MRAs with eight economies, including Hong Kong, China; Japan; and Republic of Korea.

Meanwhile, developing or recently established programs are in various stages of MRA implementation. Indonesia; and The Republic of the Philippines are actively pursuing bilateral MRAs while participating in regional pilots such as the Association of Southeast Asian Nations (ASEAN) AEO MRA initiative. Others remain in preparatory phases, reflecting differences in institutional capacity and readiness.

Operationalizing MRAs typically involves reciprocal reductions in inspections, expedited customs procedures, and mutual recognition of certification statuses to facilitate faster clearance and reduced compliance costs. Certain economies have adopted strategic roadmaps to streamline negotiation and implementation, utilizing gap analyses and action plans for alignment, which help mitigate procedural complexities.

Digitalization efforts are increasingly common, with economies such as Japan; and Republic of Korea investing in secure data-exchange platforms and electronic verification systems to support trust in joint recognition frameworks. This trend towards digital and information-sharing mechanisms aligns with the global shift to more sophisticated and risk-based post-certification management systems.

Although MRA networks are growing denser, challenges remain in harmonizing technical standards, aligning validation criteria, and enhancing IT interoperability among member economies. At the same time, differences in trade volume and administrative capability continue to result in uneven MRA coverage. Addressing these gaps through incremental alignment, knowledge-sharing, and targeted capacity-building could further strengthen the overall network.

In conclusion, MRAs constitute a vital mechanism for advancing AEO program efficacy by fostering cross-border cooperation and delivering practical facilitation benefits. Looking forward, strengthening and expanding these agreements - particularly through digital solutions and collaborative initiatives - will be critical to achieving the broader APEC vision of a secure and seamless trade environment.

2.6 MSME Participation Challenges

MSMEs are widely acknowledged as the backbone of trade in most APEC economies, yet their participation in AEO programs remains disproportionately low. This underrepresentation raises concerns not only about inclusiveness but also about the overall

effectiveness of AEO schemes, given MSMEs' critical role in supply chains.

Key constraints include the high administrative and financial burden of compliance, insufficient awareness of the tangible benefits of AEO status, and the lack of tailored guidance adapted to MSME capacities. These challenges are structural and recurrent across the region, underscoring that AEO participation is not merely a matter of policy availability but of accessibility in practice.

In response, some economies have piloted innovative mechanisms to reduce entry barriers. Comprehensive approaches - such as Republic of Korea's institutionalized MSME AEO Support Model - demonstrate that systematic consulting, financial incentives, and capacity-building initiatives can significantly increase MSME participation. Tiered models, as seen in India, or partnership-driven outreach, as in Hong Kong, China highlight alternative pathways. Nonetheless, such practices remain unevenly applied and often fragmented, with most economies adopting only partial measures.

This disparity suggests that while good practices exist, they have yet to be mainstreamed at the regional level. For AEO programs to fully realize their trade facilitation potential, broader dissemination and adaptation of MSME-focused practices will be beneficial. In particular, lowering compliance barriers while embedding targeted incentives and tailored guidance - supported by structured capacity-building programs - could help foster more balanced participation across business sizes. APEC's platform offers opportunities to share experiences, exchange tools, and promote voluntary alignment, thereby encouraging more inclusive program design without imposing a one-size-fits-all model.

3. Regional Patterns and Best Practices

3.1 Regional Patterns in AEO Program Implementation

APEC member economies' AEO programs demonstrate distinct regional characteristics influenced by varying levels of economic development, institutional capacity, and trade profiles.

- **Maturity Spectrum and Coverage:** Advanced economies such as Japan; Republic of Korea; and United States operate mature programs with multi-sector participation and extensive Mutual Recognition Arrangements. Their systems are characterized by institutionalized

whole-of-government coordination, advanced IT integration, and dense MRA networks. In contrast, emerging economies such as Indonesia; The Republic of the Philippines; and Viet Nam primarily focus on exporters and importers, with programs at earlier developmental stages. Middle-tier economies such as Malaysia; Chinese Taipei; and Thailand demonstrate progressive expansion with selective innovation, for example by gradually extending benefits beyond customs procedures or piloting digital solutions.

- **Validation and Compliance Approaches:** While traditional elements such as customs compliance and physical security remain foundational, developed economies have incorporated multidimensional validation elements including IT security, data governance, and corporate social responsibility. Developing economies are progressively adopting digital tools and risk-based monitoring to enhance oversight, often supported by technical assistance and pilot initiatives under regional cooperation platforms.
- **Distribution of Incentives and Benefits:** Core customs facilitation benefits such as simplified procedures, reduced inspections, and priority clearance are widely available. However, broader policy-linked incentives involving tax administration, financial services, and supply chain reputation are more prevalent in advanced economies. Enhanced inter-agency collaboration and digital integration further strengthen benefit delivery.
- **Challenges and Evolution of MRAs:** Advanced economies maintain extensive MRA networks that facilitate trusted trader recognition and trade facilitation across borders. Emerging economies face challenges related to trade volume disparities, institutional capacity, and technical harmonization, leading to uneven MRA coverage. Targeted capacity-building, incremental alignment, and sub-regional pilots (e.g. ASEAN AEO MRA) remain critical to narrowing these gaps.

3.2 Best Practices in the APEC Region

Prominent AEO programs in the region demonstrate effective practices that contribute to improved performance and inclusiveness:

- **Comprehensive MSME Support Models:** Republic of Korea's institutionalized MSME support model, which provides consulting, financial incentives, and capacity-building services, has enabled hundreds of MSMEs to obtain and maintain AEO certification annually. This approach demonstrates that systematic assistance can significantly increase

MSME participation.

- **Digitalization and Risk-Based Monitoring:** Economies such as Japan; and Republic of Korea have invested in secure data-exchange platforms and electronic verification systems, enabling efficient and proportionate post-certification oversight. These tools also strengthen trust in MRAs by supporting reliable information-sharing.
- **Multi-Agency Coordination and Expanded Incentives:** Cooperation across customs, tax, financial, and sustainability authorities enhances the breadth of benefits tied to AEO status, fostering alignment with broader policy goals such as supply chain resilience and green trade.
- **Strategic MRA Negotiation and Implementation:** Economies such as Australia; and Japan have employed gap analyses and coordinated action plans to streamline MRA processes and reinforce cross-border recognition.
- **APEC's Platform for Experience Sharing:** APEC serves as a critical forum for exchanging best practices, promoting voluntary standards alignment, and supporting flexible program design without enforcing uniformity, thereby respecting economies' diverse circumstances.

3.3 Moving Toward a More Inclusive and Integrated Regional AEO Framework

The diversity of AEO program maturity and design across the APEC region presents both challenges and opportunities. Strengthened international cooperation, supported by structured capacity-building and tailored incentives, is vital to bridging development gaps and broadening MSME access.

Building interoperable digital platforms for MRAs, piloting voluntary APEC-wide guidelines on multidimensional validation, and leveraging cross-economy capacity-building initiatives can accelerate alignment while maintaining flexibility. Continued emphasis on digital innovation, social responsibility, and risk-based approaches will enable AEO systems to evolve in line with global trade and security demands.

By leveraging shared knowledge and best practices, and by positioning APEC as a catalyst for regional capacity-building and technical interoperability, member economies can progressively realize a more inclusive, efficient, and secure trade facilitation environment - fulfilling the vision of seamless and trusted regional supply chains.

4. Common Gaps and Areas for Harmonization

Despite notable progress across APEC member economies in implementing AEO programs, the survey and comparative analysis reveal persistent gaps and challenges that constrain full regional coherence and system effectiveness.

4.1 Persistent Implementation Gaps

- **Varied Program Maturity and Scope:** There remain significant disparities in the operational maturity of AEO programs. While economies such as Japan; Republic of Korea; and United States, demonstrate advanced frameworks and comprehensive coverage across multiple operator types, several emerging economies only partially cover key participants, primarily exporters and importers, limiting overall network inclusivity.
- **Uneven Access for MSMEs:** Small and medium-sized enterprises face disproportionate challenges in participating in AEO programs due to administrative complexity, resource constraints, and limited awareness of benefits. Though some economies, such as Republic of Korea, have established structured MSME support mechanisms, such approaches are not uniformly applied.
- **Divergent Validation and Compliance Requirements:** Variations in validation criteria - particularly regarding multidimensional aspects such as cybersecurity, financial integrity, and sustainability - create difficulties in mutual recognition and raise questions about the equivalency of certification standards. Differences in risk management and monitoring systems further compound these challenges.
- **Fragmentation of Incentives and Benefits:** The distribution and scope of incentives vary widely, with some economies offering comprehensive, multi-agency benefits, while others remain confined to core customs facilitation measures. This heterogeneity can limit the attractiveness of certification and complicate harmonization efforts.

4.2 Technical and Procedural Challenges

- **Disparities in Legal and Regulatory Frameworks:** Differences in underlying legal authorities, regulatory instruments, and program governance structures impact consistency and complicate alignment. Some economies involve multiple agencies and private sector stakeholders, while others maintain centralized customs control, affecting procedural harmonization.

- **Validation Process Heterogeneity:** The structure of validation - including timelines, documentation, separate vs. consolidated validators, and recertification modalities - varies notably among economies, affecting transparency and predictability for applicants and partners.
- **Limited Mutual Recognition Coverage and Divergent MRA Approaches:** Although numerous MRAs exist, gaps in network connectivity remain. Variabilities in the depth of MRA agreements, coupled with technical incompatibilities and incomplete operational synchronization, reduce the potential for seamless cross-border facilitation.

4.3 Areas for Harmonization and Opportunities

- **Standardizing Core Validation Criteria:** Establishing minimum common standards - covering traditional customs compliance, supply chain security, and emerging domains such as cybersecurity and anti-money laundering - would enhance mutual confidence and facilitate MRA expansion.
- **Enhancing MSME Inclusion:** Promoting widespread adoption of MSME-friendly policies, such as simplified criteria, tailored support, and flexible procedures, should be a priority to improve participation equity.
- **Streamlining Validation and Monitoring Practices:** Sharing best practices for risk-based monitoring and introducing interoperable digital tools can improve efficiency and reduce duplication, while adjusting audit cycles and methods to regional risk profiles can optimize oversight.
- **Expanding and Harmonizing Incentive Frameworks:** Coordinated efforts to broaden incentives - including linkages to sustainable trade policies and non-customs facilitation benefits - would increase program appeal and foster policy consistency.
- **Strengthening MRA Networks through Technical Cooperation:** Emphasizing joint capacity-building, comprehensive gap analyses, and interoperable information systems will accelerate MRA harmonization and effectiveness.

4.4 Role of Regional Platforms

APEC's capacity to provide a neutral and inclusive platform for knowledge exchange, technical assistance, and voluntary alignment is critical to overcoming these gaps. Through

targeted workshops, policy dialogues, and pilot initiatives, member economies can collaboratively develop harmonized frameworks that recognize diverse contexts while advancing common objectives.

Chapter III. Economic Impacts of AEO & MRA: Time Release Study

1. Objectives and Methodology

The Time Release Study was conducted to quantitatively measure the effectiveness of AEO programs and Mutual Recognition Arrangements in reducing customs clearance time and related costs. Building on the WCO TRS framework, this study was customized to compare clearance performance between AEO-certified and non-AEO companies, as well as shipments covered under MRAs versus those that were not.

Objectives of the TRS

- To assess the impact of AEO certification on clearance time and trade costs;
- To evaluate the additional benefits gained through the implementation of MRAs;
- To provide empirical evidence that supports policy decisions on expanding and improving AEO programs across APEC economies.

Methodology

The TRS was implemented with the following approach:

- **Data Collection:** Data were gathered from 303 AEO-certified companies in Republic of Korea and compared against non-AEO companies. Additional information was obtained regarding MRA-partner economies, covering 22–23 trading partners.
- **Indicators:** The analysis focused on key performance indicators, including average release times, cost savings, and variations by industry.
- **Comparative Analysis:** Clearance performance was compared across three dimensions:
(1) AEO vs. non-AEO shipments; (2) MRA vs. non-MRA trade lanes; and (3) sector-specific differences.
- **Limitations:** While the TRS provided valuable insights, the findings were constrained by data availability, varying reporting standards, and differences in operational environments across economies.

2. Results: Impact of AEO Certification

The TRS results confirmed that AEO certification significantly improves customs clearance efficiency.

On average, AEO-certified shipments required 20.5 hours, compared to 32.7 hours for non-AEO shipments - a 37% reduction.

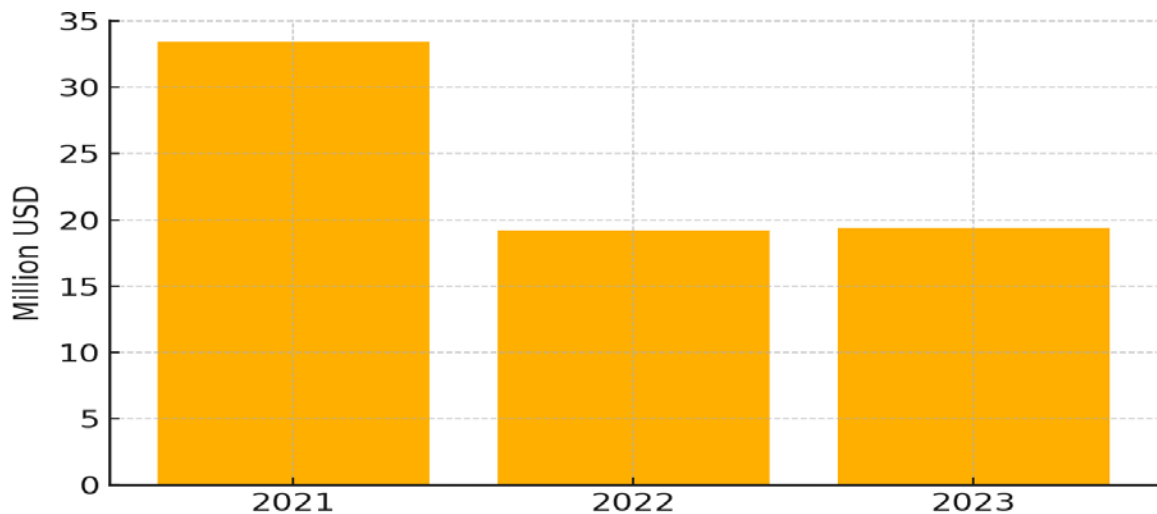
This efficiency gain translated into substantial domestic cost savings of USD 19.2 million in 2022 and USD 19.4 million in 2023.

<Table III-1. Annual Domestic Economic Benefits for AEO-Certified Companies (2021-2023)>

Category	2021(million USD)	2022(million USD)	2023(million USD)
Reduced inspection logistics cost	6.00	7.08	6.77
Electronic customs clearance	27.38	9.31	10.00
ERP-based customs declarations	-	2.85	2.62
Total Domestic Benefits	33.38	19.23	19.38

**Note: The sharp decrease in electronic clearance benefits from 2021 to 2022 reflects a revision in the calculation method - specifically, reduced assumed processing time (from 2 hours to 1.5 hours) and unit cost (from KRW 20,000/hour to the statutory minimum wage).*

<Figure III-1. Domestic Economic Benefits of AEO (2021–2023)>



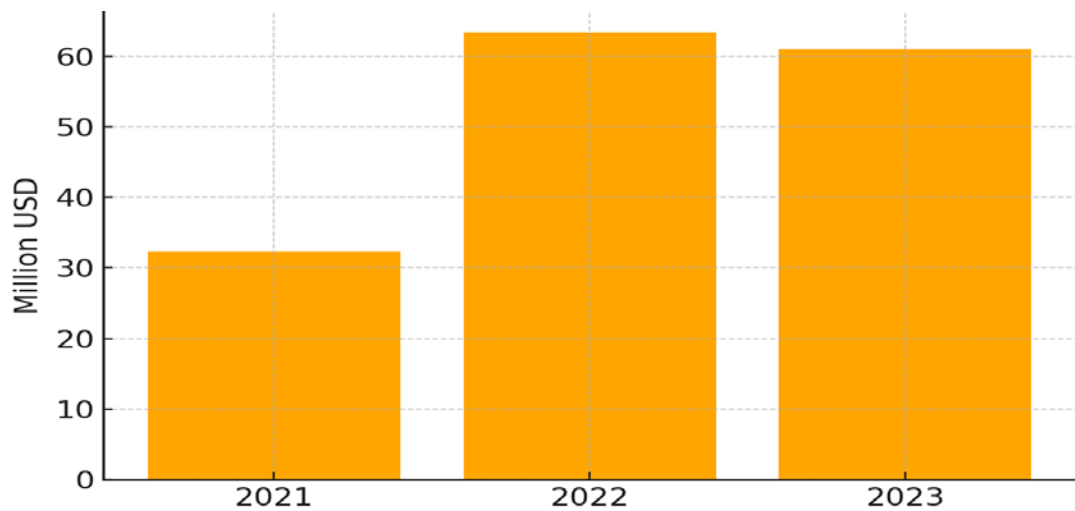
3. Results: Effectiveness of MRAs

Mutual Recognition Arrangements further enhanced the benefits of AEO certification. International cost savings from MRAs increased from USD 32.3 million in 2021 to USD 63.3 million in 2022 (+96%), and remained high at USD 61.0 million in 2023.

<Table III-2. Annual International Economic Benefits from MRAs (2021-2023)>

Category	2021(million USD)	2022(million USD)	2023(million USD)
Reduced inspection cost in MRA partner economies	32.3	63.3	61.0
Year-on-year change (%)	-	+96%	- 3 %

<Figure III-2. International Economic Benefits from MRAs (2021–2023)>



4. Industry-Level Insights

Industry-level analysis revealed that the impacts of AEO and MRAs are not uniform across sectors.

The findings demonstrate that time-sensitive industries benefit the most from the combined implementation of AEO programs and MRAs, as these frameworks significantly improve clearance efficiency and predictability.

- **Electronics Sector:**

The electronics industry experienced the largest clearance time reduction (40%), reflecting its reliance on fast and uninterrupted supply chains.

The adoption of MRAs further enhanced these gains, allowing seamless recognition of AEO status across borders and minimizing delays in international shipments.

- **Automotive Sector:**

Automotive manufacturers reported a 35% reduction in clearance time, which is critical for just-in-time production systems.

MRAs were particularly beneficial in this sector, as they mitigated risks of component shortages by ensuring expedited processing at partner customs administrations.

- **Chemicals Sector:**

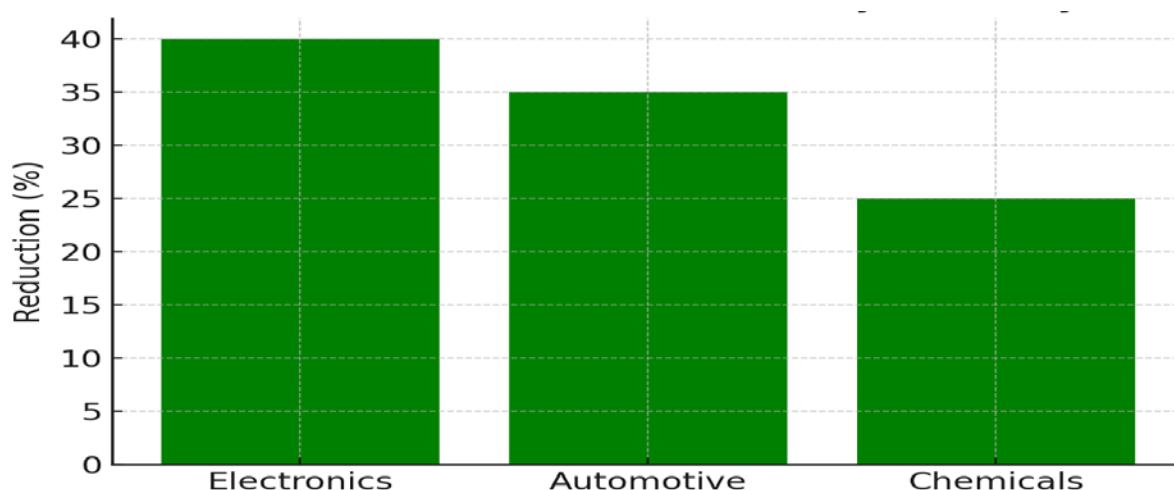
The chemical industry showed a 25% reduction in clearance time.

While the absolute time savings were smaller due to stringent safety inspections, the implementation of AEO programs combined with MRA recognition greatly improved the predictability and stability of customs procedures for high-risk goods.

<Table III-3. Clearance Time Reduction by Industry>

Industry	Clearance Time Reduction (%)
Electronics	40
Automotive	35
Chemicals	25

<Figure III-3. Clearance Time Reduction by Industry>



5. Summary of Findings and Limitations

Based on the results of the Time Release Study, several important findings have been identified, providing empirical evidence on the effectiveness of AEO programs and MRAs in facilitating trade.

Key Findings

- **Significant Performance Gains:** AEO certification led to substantial reductions in clearance time (up to 37%) and measurable cost savings, particularly in industries with high trade volumes and time-sensitive supply chains.
- **Enhanced Cross-Border Facilitation through MRAs:** Mutual Recognition Arrangements further amplified these benefits, resulting in nearly a twofold increase in international cost savings and improved predictability for cross-border shipments.
- **Contribution to Supply Chain Resilience:** Together, AEO and MRAs contributed to more efficient, secure, and resilient supply chains, supporting APEC's broader trade facilitation objectives.

Policy Implications

These findings highlight the strategic value of investing in AEO and MRA frameworks. Economies that strengthen these programs can expect tangible trade facilitation gains, improve private sector engagement, and enhance regional integration. Expanding MRAs

and aligning criteria across economies could further maximize these benefits.

Limitations

- The analysis was primarily based on data collected from Republic of Korea and selected partner economies, which may limit its generalizability to all APEC economies.
- Variations in data collection methods, sample sizes, and operational environments affected the comparability of results.
- Future TRS efforts should adopt harmonized data templates and encourage multi-economy participation to generate more comprehensive and regionally representative findings.

These limitations should be considered when interpreting the results and when designing future initiatives aimed at enhancing the effectiveness of AEO programs and MRAs across the APEC region.

Chapter IV. Capacity Building Across APEC Economies: APEC Workshop

1. Summary of APEC Workshop Outcomes

In February 2025, APEC hosted the Workshop on “AEO MRA Performance Measurement & Improvement of Cooperative Actions” in Gyeongju, Republic of Korea. The event was organized as part of the APEC project – Development of AEO Cooperation Scheme and Measurement of Economic Effects of AEO among APEC Economies, proposed by Republic of Korea and co-sponsored by Australia; Chile; and Peru.

The workshop was held alongside the APEC SCCP meeting and brought together Customs officials and AEO experts from 21 member economies. The program featured presentations, interactive discussions, and a Customs Technology Exhibition, enabling participants to share best practices, exchange experiences, and explore innovative solutions for enhancing AEO implementation and MRA cooperation.

Objectives of the Workshop

The workshop was designed to:

1. Conduct empirical analysis of AEO and MRA economic benefits using Time Release Study methodologies;
2. Consolidate information on AEO operational status across member economies;
3. Facilitate the transfer of advanced operational know-how, including strategies for hazardous goods management;
4. Lay the groundwork for strengthening MRAs to enhance cross-border trade facilitation and supply chain security.

Key Highlights

1. Knowledge Sharing: Participants discussed global trends in AEO programs, strategies for concluding MRAs, and the role of technology in trade facilitation.
2. Best Practices: Case studies from leading economies were presented, illustrating innovative approaches to risk management, MSME participation, and digital solutions.
3. Technology Exhibition: Korea Customs Service showcased cutting-edge customs technologies, which drew considerable interest for their potential to improve operational efficiency.

4. **Regional Cooperation:** The event emphasized the importance of cooperative action among APEC economies to align AEO standards and maximize the benefits of MRAs.

The workshop provided a valuable platform for participants to exchange insights, reinforce collaboration, and identify practical steps to advance AEO and MRA initiatives within the APEC region.

2. Key Themes and Presentations

The workshop program was structured into four thematic sessions on the first day, followed by a technology-focused exhibition and discussions on the second day. Each session provided unique perspectives on strengthening AEO programs, enhancing MRAs, and integrating innovative solutions.

Session 1. Global Trends of the AEO Program

This session set the stage by reviewing global developments and policy directions in AEO implementation.

- The Republic of Korea AEO Association presented an overview of the project, including research methodology and scheduled activities.
- A WCO TRS expert from People's Republic of China introduced advanced techniques for measuring the economic impact of AEO programs through TRS and shared results on AEO and MRA benefits.
- A WCO representative highlighted the latest revisions to the SAFE Framework of Standards, emphasizing cooperation with other government agencies and the inclusion of e-commerce in AEO scopes.
- The session concluded with an outline of the AEO Dictionary and ongoing research outcomes, followed by an interactive Q&A.

Session 2. AEO Program for Smart Customs

Discussions in this session focused on innovation and MSME inclusion in AEO programs.

- Hong Kong, China shared best practices for promoting and modernizing AEO operations.

- The Republic of Korea AEO Association presented efforts to expand AEO participation among MSMEs, showcasing public-private partnership models and targeted government support measures.

Session 3. Expansion of the AEO Program and Innovation in Customs Administration

This session explored strategies for broadening AEO benefits and leveraging innovation in customs operations.

- Korea Customs Service presented on the role of MRAs in mutual recognition of security systems and the facilitation of cross-border trade.
- Two groups of developing economies reported their experiences and innovations in AEO implementation, moderated by a WCO-accredited expert.
- The discussion emphasized aligning practices across economies and using technology to strengthen risk management and supply chain security.

Session 4. Enhancing Cooperation to Strengthen Supply Chain Connectivity

The final session of Day 1 focused on regional cooperation and private sector engagement.

- A WTO representative reported on the progress of TFA implementation, linking it to AEO program development.
- An AEO-certified company presented the tangible benefits of AEO and MRAs from a business perspective, emphasizing the value of predictable customs procedures.
- Singapore shared strategies for successful MRA negotiations and best practices to ensure consistent facilitation measures.

The day concluded with a wrap-up discussion and collection of participant feedback.

Session 5. Exhibition of Customs Technologies

The second day centered on technological innovation.

- Member economies showcased examples of customs technologies in short presentations.
- The Korea Customs Service demonstrated advanced tools, including an X-ray training program, AI-based passenger risk tracking, facial recognition for passenger verification, 3D radiation detection, and VR training systems.

- The exhibition highlighted how digitalization could enhance AEO validation and post-certification monitoring, attracting strong interest from participants.

The day ended with a group discussion where participants shared experiences and challenges in adopting innovative customs technologies.

3. Evaluation Results (Quantitative & Qualitative)

Following the workshop, participants completed an evaluation survey assessing the relevance, effectiveness, and organization of the event. The results combined quantitative ratings and qualitative comments, providing a comprehensive assessment of the workshop.

Quantitative Results

The evaluation applied two metrics:

- numerical scores on a five-point scale (1 = Excellent, 5 = Poor), and
- percentage-based satisfaction ratings for detailed agenda items.

(i) Numerical Scores

The workshop received excellent ratings, with all core evaluation items scoring close to 1.0, indicating a very high level of satisfaction.

Average scores ranged from 1.14 to 1.25, confirming that the event was highly relevant, well-organized, and provided valuable opportunities for knowledge exchange.

<Table IV-1. Workshop Evaluation Scores (Summary)>

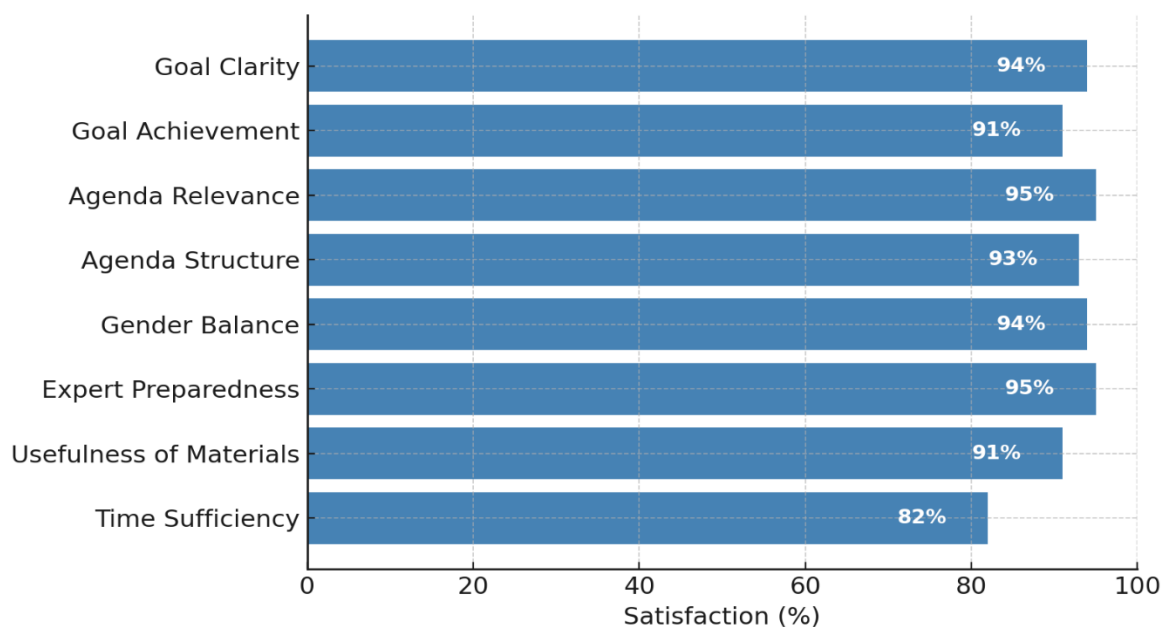
Evaluation Item	Average Score
Overall relevance to participants' work	1.14
Quality of presentations and discussions	1.25
Opportunities for knowledge exchange	1.22
Event Organization and Management	1.18
Overall satisfaction	1.15

(ii) Percentage-Based Ratings

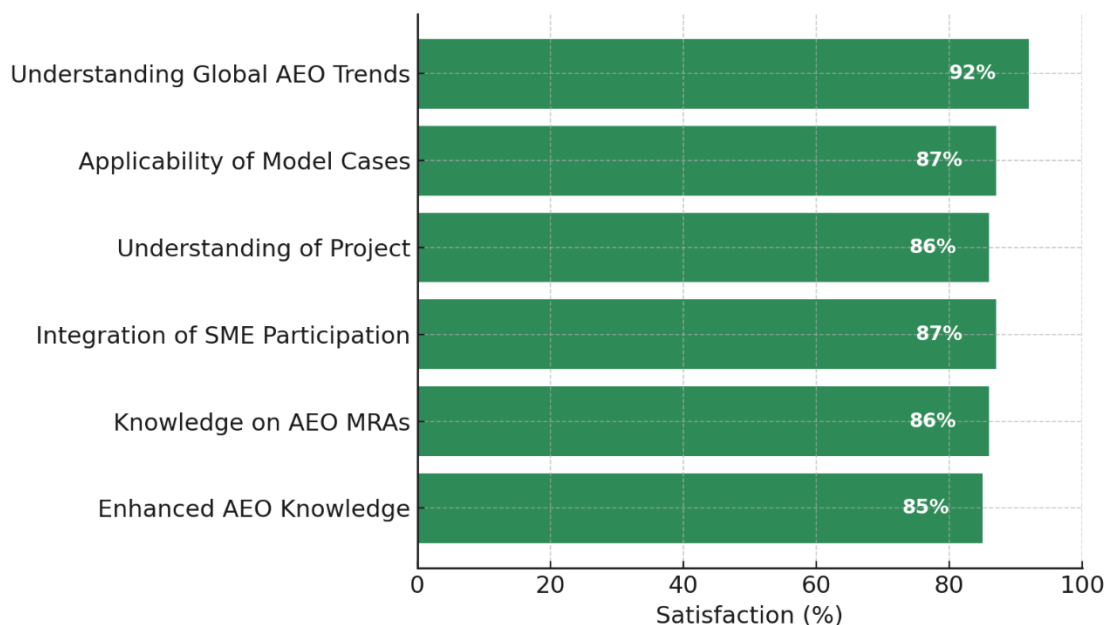
In addition to the numerical scores, participants also rated individual agenda items using percentage-based metrics.

- General workshop items (e.g., goal clarity, agenda relevance, expert preparedness) recorded satisfaction levels above 90%, except for time sufficiency, which was rated at 82%.
- AEO-specific agenda items received ratings between 85% and 92%, confirming strong participant engagement with the thematic content.

<Figure IV-a. Evaluation of General Workshop Items>



<Figure IV-b. Evaluation of AEO-Specific Agenda Items>



Qualitative Feedback

Participants praised the workshop for its highly relevant sessions, valuable networking opportunities, and innovative technology exhibition.

Suggestions for future improvements included:

- offering more hands-on training and practical exercises
- addressing emerging topics such as cybersecurity and digital trade, and
- expanding private sector participation to enrich discussions.

4. Participant Feedback and Suggested Future Topics

The workshop received very positive feedback from participants, who emphasized the event's practical relevance and high-quality content. Many noted that the combination of presentations, interactive discussions, and the technology exhibition offered a comprehensive learning experience.

Participant Feedback

High quality and relevance: Participants appreciated the clarity of the agenda, the expertise of presenters, and the focus on practical applications of AEO and MRAs.

Valuable networking: The interactive format was praised for enabling direct exchanges between Customs administrations and the private sector, fostering stronger regional collaboration.

Innovation showcase: The Customs Technology Exhibition was highlighted as a unique component, sparking interest in digital tools for AEO management and risk assessment.

Areas for Improvement

While feedback was overwhelmingly positive, participants suggested several ways to further enhance future workshops:

Allow more time for in-depth discussions and Q&A sessions.

Include hands-on training and practical case studies to complement presentations.

Facilitate greater private sector involvement, particularly from MSMEs.

Strengthen follow-up mechanisms, such as sharing workshop materials and enabling continued knowledge exchange.

Suggested Future Topics

Participants recommended several areas for future capacity-building and policy discussion:

Cybersecurity and digital trade facilitation – addressing risks in increasingly digitalized customs environments.

Integration of emerging technologies – exploring AI, blockchain, and data analytics in customs and AEO operations.

Advanced MRA cooperation – developing best practices for aligning procedures and expanding recognition among APEC economies.

Performance measurement methodologies – refining tools like TRS to better quantify AEO/MRA benefits.

MSME engagement strategies – creating tailored frameworks to encourage broader participation in AEO programs.

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Chapter V. Policy Recommendations and Way Forward

1. Strengthening AEO-MRA Cooperation

Towards broader and interoperable recognition frameworks

Mutual Recognition Arrangements represent some of the most tangible benefits require cooperation derived from AEO programs, significantly reducing clearance times and enhancing predictability for certified operators. Although several bilateral MRAs have been established among economies, their current scope remains limited and implementation varies considerably across the region.

To close these gaps, member economies should actively pursue both bilateral and sub-regional MRAs as stepping stones toward broad regional recognition. Parallel investment in interoperable, secure digital systems for cross-border verification of AEO status will be essential to expedite operations and foster trust. Equally important is the progressive alignment of validation criteria across economies, since meaningful and sustainable MRA expansion depends on a sufficient degree of comparability in certification standards and risk management practices.

In recent years, regional and cross-regional AEO-MRA frameworks have emerged as a global trend, reflecting the growing need for wider interoperability and efficiency. APEC member economies are therefore encouraged to actively participate in and align with this movement, ensuring that the region keeps pace with international developments. A sustained commitment to expanding and institutionalizing MRAs will not only improve operational efficiencies but also serve as a catalyst for deeper economic integration consistent with the APEC Putrajaya Vision 2040.

2. Enhancing Support for MSMEs

Empowering smaller traders for inclusive participation in AEO programs

Micro, Small and Medium-sized Enterprises form the backbone of APEC economies but continue to face considerable barriers to participation in AEO programs, including resource limitations and low awareness of benefits. Existing program architectures tend to be better suited to larger enterprises.

To address this imbalance, it is imperative that member economies develop tiered certification schemes, simplify compliance requirements, and provide advisory and cost-sharing support targeted specifically toward MSMEs. Particular attention should be given to alleviating the substantial financial burden MSMEs face in establishing the necessary infrastructure to comply with AEO criteria. Developing targeted funding mechanisms, subsidies, or cost-sharing schemes will be crucial to lower the entry barrier. In parallel, flexible or phased certification standards, together with multi-faceted approaches such as tailored training and mentoring, should be explored to foster broader MSME participation. Enhancing outreach through showcasing successful MSME experiences will further encourage wider uptake.

Promoting MSME-inclusive policies in AEO programs not only strengthens program sustainability but also directly supports APEC's broader goals of inclusive growth and equitable access to global trade opportunities. Given that MSMEs represent the largest share of enterprises in most APEC economies, ensuring their meaningful participation in AEO program is not optional but indispensable for the success of regional trade facilitation.

3. Improving Performance Measurement Tools

Developing robust and harmonized evaluation mechanisms

The Time Release Study conducted in this project demonstrated that participation in AEO programs considerably reduces clearance times and related costs. Nevertheless, current studies have limitations due to restricted geographic and sectoral coverage, and inconsistencies in methodologies across economies.

Future efforts should focus on expanding TRS coverage, harmonizing data collection and analysis techniques, and implementing multi-economy exercises that can better capture the impact of MRAs on supply chains.

Robust, harmonized performance measurement frameworks will provide compelling evidence to promote confidence, sustain investments, and guide further enhancement of AEO programs across the region.

4. Fostering Digitalization and Interagency Collaboration

Harnessing technology and whole-of-government approaches for supply chain resilience

The future of AEO programs depends on the advancement of digital technologies and improved cooperation among border management agencies. While some economies have initiated digital platforms for application and monitoring, many remain reliant on fragmented or manual processes.

Member economies should therefore strive to develop secure, user-friendly digital platforms that streamline validation, monitoring, and mutual recognition of AEO status. Equally important is the extension of AEO benefits beyond customs to encompass quarantine, taxation, immigration, and other competent authorities. This “whole-of-government” approach is fully consistent with the WCO SAFE Framework of Standards, particularly its Pillar 3 on cooperation with other government agencies, which highlights the necessity of interagency collaboration.

Strengthened interagency coordination will yield multiple benefits: it reduces duplication of work, facilitates real-time information exchange, and ensures more efficient use of both human and financial resources. At the same time, integrating innovative technologies - such as blockchain-based certification and artificial intelligence-driven risk management - will enhance transparency, resilience, and trustworthiness within supply chains. These improvements align with APEC’s digital economy agenda and reinforce the capacity of AEO programs to adapt to rapidly evolving trade environments.

In this regard, future projects could also include the planning and organization of customs–agency cooperation workshops in member economies, as well as research on quantifying the economic impacts of streamlined administrative processes. Such initiatives would further strengthen interagency collaboration and provide tangible evidence of the value of AEO programs.

5. Follow-up Proposals and Capacity-Building Needs

Ensuring sustainability, inclusiveness, and future readiness of AEO initiatives

This project confirms that AEO programs and MRAs deliver significant economic and operational benefits, but these initiatives represent only the starting point of a sustained, long-term journey.

To maintain momentum, member economies and the APEC Secretariat should institutionalize regular workshops and technical dialogues, develop targeted assistance programs for developing economies, and design a comprehensive regional roadmap detailing MRA expansion and MSME-centered AEO practices. In addition, it will be important to keep track of global trends and guidance emerging from the WTO and WCO to ensure regional initiatives remain aligned with international best practices.

Equally important is the need for consensus building on emerging dimensions of AEO – including cybersecurity, sustainability, and labor standards – to ensure continued relevance and effectiveness. As AEO is a program that requires close public–private collaboration, member economies should also consider organizing workshops that invite participation across different AEO sectors and company sizes, creating a platform for broad stakeholder feedback and dialogue. Continuous capacity-building efforts and structured follow-ups will guarantee that AEO programs evolve as sustainable, inclusive, and future-ready trade facilitation mechanisms.

6. Conclusion

The recommendations outlined in this chapter affirm the critical role that AEO programs serve in advancing secure, efficient, and inclusive trade within the Asia-Pacific region. By prioritizing MRAs, increasing MSME engagement, perfecting performance measurement, embracing digital innovation, and fostering continuous collaboration, APEC member economies can significantly deepen regional economic integration.

Importantly, this project aligns with APEC’s strategic priorities on supply chain connectivity and trade facilitation, while also supporting the implementation of the WTO TFA Article 7.7, which calls for the adoption of AEO programs as a means to expedite the release of goods. In doing so, the sustained advancement of AEO programs strongly supports the

realization of the APEC Putrajaya Vision 2040, contributing directly to freer trade, enhanced competitiveness, and inclusive growth.

At the same time, the findings of this project demonstrate that while meaningful progress has been achieved, further efforts are needed to expand coverage, refine methodologies, and strengthen cooperation across economies. It is therefore both timely and necessary for APEC to consider follow-up projects that build on the momentum of this initiative - particularly in areas such as multi-economy TRS exercises, harmonization of validation criteria, MSME-targeted support mechanisms, and the institutionalization of regional dialogue on emerging challenges like digitalization and cybersecurity.

Through collective commitment, coordinated action, and continued investment in follow-up initiatives, AEO programs will remain vital enablers of resilient and prosperous supply chains that underpin the future economic success of the Asia-Pacific.

Appendix 1. AEO Dictionary

Contributors

The success of this report would not have been possible without the active engagement and expert input provided by the following officials and institutions. We sincerely acknowledge their valuable time and insights throughout the survey and analysis process.

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Abbreviations

ABF: Australian Border Force

AEO: Authorized Economic Operator

AM: Account Manager

AML: Anti-Money Laundering

AOCG: Assessment and Operations Coordinating Group

APEC: Asia-Pacific Economic Cooperation

ASEAN: Association of Southeast Asian Nations

ATT: Australian Trusted Trader

BOC: Bureau of Customs

CAO: Customs Administrative Order

CBP: Customs and Border Protection

CMO: Customs Memorandum Order

CMTA: Customs Modernization and Tariff Act

CPT: Customs-Port-Trade

CTB: Customs and Tariff Bureau
CTPAT: Customs-Trade Partnership Against Terrorism
DGCE: Directorate General of Customs and Excise
EAEU: Eurasian Economic Union
FDA: Food and Drug Administration
FCS: Federal Customs Service
GDVC: General Department of Viet Nam Customs
KAA: Korea AEO Association
KCS: Korea Customs Service
METI: Ministry of Economy, Trade and Industry
MHLW: Ministry of Health, Labor and Welfare
MRA: Mutual Recognition Agreement
NACCS: Nippon Automated Cargo and Port Consolidated System
OGAs: Other Government Agencies
PER: Product Evaluation Report
PTFC: Philippine Trade Facilitation Committee
RMCD: Royal Malaysian Customs Department
SCM: Supply Chain Management
SCSS: Supply Chain Security Specialists
SME: Small and Medium Sized Enterprise
STP: Secure Trade Partnership
TSA: Transportation Security Administration
UAE: United Arab Emirates
UFLPA: Uyghur Forced Labor Prevention Act
UNI-PASS: Unified Customs Information System
WCO: World Customs Organization

Note: This list is compiled in the context of the AEO Survey among APEC economies. Terms may have different meanings depending on context or local application. Abbreviations not listed here may be added upon future updates.

Foreword

The Authorized Economic Operator (AEO) program has become a cornerstone of modern customs procedures, enhancing both trade facilitation and supply chain security. In alignment with the World Customs Organization (WCO) SAFE Framework of Standards, economies across the Asia-Pacific region have developed and implemented unique AEO systems tailored to economy-specific priorities and operational contexts

Recognizing the growing need for cross-border cooperation and the rising importance of Mutual Recognition Agreements (MRAs), the APEC AEO Dictionary serves as a structured and accessible reference. It provides detailed insights into each member economy's AEO legal basis, validation procedures, SME support mechanisms, MRA strategies, and performance metrics.

This dictionary is based on the comprehensive 100 questions APEC AEO Survey conducted in 2025, aimed at documenting the current status of AEO systems. The information presented is derived directly from responses submitted by APEC customs administrations and relevant authorities.

This publication aims to contribute to:

- Promoting mutual understanding of AEO systems
- Facilitating future MRA negotiations
- Supporting policy harmonization and best practice sharing

We extend our sincere gratitude to all APEC member economies for their valuable contributions and commitment to this initiative.

Part I. Introduction

1. Objectives of the Project

The primary objective of the AEO Dictionary is to serve as a comprehensive reference tool that consolidates detailed information on AEO programs across APEC member economies. This initiative is designed to support customs administrations, policymakers, and trade stakeholders by enhancing transparency, mutual understanding, and cooperation in the implementation and development of AEO systems. Specifically, the AEO Dictionary aims to:

- Facilitate a clearer understanding of the diverse AEO practices, standards, and operational frameworks adopted across the APEC region.
- Support the harmonization of AEO programs to enhance their interoperability across member economies.
- Assist in identifying potential areas for AEO MRAs by highlighting shared elements and key differences among economy-level AEO criteria.
- Provide a platform for the exchange of best practices and innovations in AEO implementation and management.
- Serve as a practical resource for the negotiation and conclusion of both bilateral and multilateral AEO MRAs among APEC economies.
- Enable economies to benchmark their AEO systems, recognize areas for improvement, and address discrepancies that may hinder MRA development.
- Guide policymakers and customs officials in formulating strategies to expand their AEO MRA networks effectively.

Through the compilation, comparison, and analysis of AEO certification standards and procedures, this Dictionary ultimately seeks to accelerate the growth of mutual recognition within the APEC region and support the broader goals of trade facilitation and supply chain security.

2. Overview of the AEO Survey

To support the development of the AEO Dictionary, a structured and region-wide survey was conducted to collect detailed information on AEO programs across APEC member economies. This section outlines the scope of the survey, participating economies, timeline, and methodology used to ensure a comprehensive and reliable data set.

Number of Participating Economies

The AEO Survey was distributed to all 21 APEC member economies with the intention of gathering comparative insights into the implementation, structure, and performance of AEO systems.

A total of 12 economies submitted complete and valid responses:

- Australia
- Indonesia
- Japan
- Republic of Korea
- Malaysia
- The Republic of the Philippines
- The Russian Federation
- Singapore
- Chinese Taipei
- Thailand
- United States
- Viet Nam

Although not all APEC member economies responded, the economies that did participate represent a broad cross-section of the region - ranging from developed to developing economies, with varying levels of experience and maturity in AEO implementation. This diversity contributes significantly to the value of the comparative analysis presented in this

Dictionary.

Survey Period

The survey was officially conducted between 23 January and 5 May, 2025. During this period, member economies were invited to provide detailed answers to a comprehensive questionnaire. Regular follow-up communication and clarifications were made available throughout the survey period to assist respondents and to ensure data quality and completeness.

Survey Methodology

To ensure the AEO Dictionary reflects the most accurate and comprehensive overview of AEO programs across APEC member economies, a systematic and multi-step survey methodology was employed.

1. Survey Design

A detailed questionnaire comprising 100 questions was developed to capture the full spectrum of AEO-related elements. These questions covered eight major categories: program overview, legal and regulatory frameworks, validation and application procedures, eligibility criteria, benefits and incentives, post-certification management, MRAs, and performance indicators.

2. Data Collection

The finalized survey was distributed to all 21 APEC member economies through official channels. Economies were asked to submit their responses by a specified deadline, with encouragement to provide detailed and accurate information.

3. Follow-Up and Clarification

To ensure the completeness and quality of the data, follow-up communications were conducted with respondent economies as needed. Clarifications were requested where answers were unclear, incomplete, or ambiguous.

4. Data Verification

Responses were reviewed and, where applicable, cross-referenced with publicly available sources such as government customs portals, the WCO AEO Compendium, and international trade databases. This step enhanced both the reliability and

objectivity of the findings.

5. Compilation and Analysis

Data were organized into a structured format that aligned with the Dictionary's chapter layout. Quantitative responses were used for comparative tables and charts, while qualitative responses were synthesized to identify best practices and regional trends.

3. How to Use AEO Dictionary

This AEO Dictionary has been designed as a practical, comparative, and strategic reference tool for a wide range of users, including customs officials, policymakers, trade negotiators, researchers, and private-sector stakeholders.

Each economy profile is presented in a standardized format, enabling readers to easily locate and compare key information across economies. Chapters follow a consistent structure covering legal foundations, certification procedures, SME-specific support, benefits, MRAs, and performance metrics. This ensures both usability and coherence, regardless of the reader's background or purpose. Users may utilize this Dictionary in the following ways:

1. For Policymakers and Customs Authorities:

To benchmark economy-level AEO programs, to identify potential MRA partners, and to inform the development or refinement of domestic AEO strategies.

2. For Trade Negotiators and International Organizations:

To reference comparative information on certification standards and operational practices, facilitating dialogue and mutual recognition processes.

3. For Researchers and Academics:

To draw data and insights for empirical studies on AEO effectiveness, regional integration, and trade facilitation outcomes.

4. For AEO-Certified Companies and Industry Groups:

To better understand the AEO landscapes of other economies, especially when operating across borders or pursuing recognition in multiple jurisdictions.

The Dictionary also features a dedicated Comparative Analysis section (Part III), offering visualized data across economies, and an Annex with definitions, full survey content, and contributor information.

Whether for policy formulation, capacity building, or academic research, this Dictionary is intended to be a living resource that contributes to the continuous improvement and mutual alignment of AEO programs throughout the APEC region.

Part II. Economy Profiles

1. Australia

1) AEO Basic Information

Program Name	ATT (Australian Trusted Trader)
Implementing Authority	Australian Border Force (ABF)
Year Introduced	2015 (rule), operational since 2016
Types of AEOs	Importer, Exporter, Manufacturer, Freight Forwarder, Customs Broker, Licensed Premises
Number of MRA Partners	10
List of MRA Partners	Canada; People's Republic of China; Hong Kong, China; Japan; Republic of Korea; New Zealand; Singapore; Chinese Taipei; Thailand; and India

2) Overview of AEO Legal Framework

Australia's Trusted Trader (ATT) program is established under the Customs Act 1901 and relevant regulations, with the key operational framework initiated in 2015. The program is supported by internal procedural documents and is managed by the ABF.

3) Organizational Structure & Stakeholders

The ABF, under the Department of Home Affairs, is the sole authority responsible for implementing the ATT program. There is no third-party involvement in validation or certification. A dedicated ATT team oversees applications, validation, and post-certification processes.

4) Validation Process

The ATT validation process includes:

- Application via online portal
- Documentary review by ABF officers
- On-site validation and interviews with relevant personnel

- Risk and benefit assessment
- Endorsement and authorization

There is no fee for the application. The process is tailored to each applicant's risk and business model.

5) SME Support Measures

While Australia does not operate separate certification criteria for SMEs, the ABF offers:

- Tailored communication and guidance
- Flexible scheduling and extended time for submissions
- Case-by-case consideration of business capability and constraints

6) Post-Certification Management

Certified Trusted Traders are subject to ongoing monitoring through annual validations, ABF compliance checks, and updates to business profiles. There are formal processes for change notification and regular engagement between ABF and Trusted Traders.

7) AEO Benefits

The ATT program offers:

- Duty deferral
- Consolidated cargo clearance
- Mutual recognition benefits
- Streamlined reporting and priority processing
- Use of ATT logo and improved government-to-business engagement

8) AEO Mutual Recognition Agreements (MRA)

Australia has signed MRAs with 10 partner economies. MRA benefits are applied at the border based on reciprocal recognition, primarily via reduced inspections and priority processing. Negotiations follow a structured approach including operational alignment and system compatibility.

9) Inter-agency Collaboration

The ATT program is managed solely by ABF, but coordination occurs with other government agencies (OGAs) as needed. There is no formal joint validation, but efforts are

made to minimize duplication.

10) Promotion and Capacity Building

The ABF promotes the ATT program through official websites, industry briefings, stakeholder engagement sessions, and targeted campaigns. Training and support materials are made available, and business-to-government forums are conducted.

11) Performance and Future Outlook

As of the survey date, 880 entities are certified under the ATT program. The program continues to evolve, with expansions into areas such as e-commerce, supply chain resilience, and digital trade solutions.

2. Indonesia

1) AEO Basic Information

Program Name	AEO (Authorized Economic Operator)
Implementing Authority	Directorate General of Customs and Excise (DGCE), Ministry of Finance
Year Introduced	2009 (pilot), officially launched in 2013
Types of AEOs	Importer, Exporter, Customs Broker, Freight Forwarder, Warehouse Operator
Number of MRA Partners	3
List of MRA Partners	Hong Kong, China; Republic of Korea; United Arab Emirates

2) Overview of AEO Legal Framework

Indonesia's AEO program was first piloted in 2009 and officially launched in 2013. It is governed by the Director General of Customs and Excise Regulation Number PER-01/BC/2013 and subsequent amendments. The program aligns with the WCO SAFE Framework and is implemented by the Directorate General of Customs and Excise (DGCE).

3) Organizational Structure & Stakeholders

The DGCE under the Ministry of Finance is the sole authority managing the AEO program. There is no third-party involvement in validation or certification. Internal DGCE units handle assessment, approval, and monitoring activities.

4) Validation Process

The validation process includes:

- Application submission
- Preliminary assessment and eligibility screening
- On-site validation and interviews
- Final review and issuance of AEO certificate

Applicants are expected to meet multiple compliance and control requirements. The process is standardized and conducted at the economy level.

5) SME Support Measures

Indonesia does not currently operate a separate AEO certification framework for SMEs. While no SME-specific system currently exists, the DGCE has expressed interest in exploring inclusive measures in future program development.

6) Post-Certification Management

Certified AEO companies are subject to periodic review, risk-based reassessments, and annual reporting requirements. Companies are also expected to report any significant changes that may affect their AEO status.

7) AEO Benefits

The program offers:

- Reduced inspection and document checks
- Priority processing
- post-clearance audit advantages
- Facilitated dispute resolution and customs consultation
- Reputation as trusted traders

8) AEO Mutual Recognition Agreements (MRA)

Indonesia has concluded AEO Mutual Recognition Arrangements (MRAs) with three economies: Hong Kong, China; Republic of Korea; and United Arab Emirates. It has conducted gap analyses and is engaged in preparatory efforts for future MRA negotiations.

9) Inter-agency Collaboration

DGCE coordinates with other government agencies on a case-by-case basis. While there is no formal joint validation mechanism, inter-agency communication supports trade facilitation.

10) Promotion and Capacity Building

The AEO program is promoted through outreach activities, online platforms, and consultation sessions. DGCE also provides training workshops and guidance documents to increase awareness and participation.

11) Performance and Future Outlook

As of the survey date, Indonesia had 173 certified AEO companies. DGCE aims to broaden program coverage, integrate digital tools, and advance MRA negotiations with partner economies.

3. Japan

1) AEO Basic Information

Program Name	AEO (Authorized Economic Operator) Program
Implementing Authority	Customs and Tariff Bureau, Ministry of Finance
Year Introduced	2006 (based on legal amendment)
Types of AEOs	Exporter, Importer, Customs Broker, Warehouse Operator, Customs Brokers, Logistics Operators
Number of MRA Partners	14
List of MRA Partners	Australia; Canada; Hong Kong, China; Malaysia; New

	Zealand; Singapore; Chinese Taipei; Thailand; United States; European Union; India; and United Kingdom (Note) Mutual recognition with Chinese Taipei is based on a private-sector arrangement.
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2) Overview of AEO Legal Framework

Japan's AEO program is built upon a structured set of legal instruments:

- Customs Act (Amended in 2006 to include AEO-related provisions)
- Cabinet Order (Amended in 2006 to include AEO-related provisions)
- Ministerial Ordinance (Amended in 2007 to include AEO-related provisions)
- Order of Director General of the Customs and Tariff Bureau (CTB) (Amended in 2007 to include AEO-related provisions)

3) Organizational Structure & Stakeholders

CTB at the Ministry of Finance serves as the central authority. Nine Regional Customs offices implement AEO operations, with Tokyo Regional Customs hosting an AEO Center.

4) Validation Process

The validation process includes:

- Preliminary consultation (free)
- Documentary validation
- On-site validation

The person in charge is basically same for the full process.

5) SME Support Measures

Japan does not operate a dedicated SME-specific certification system. However, tailored guidance is available, and an SME compliance program template is published online.

6) Post-Certification Management

The program includes internal audits, post-audits by customs, designated contact persons, and rules for reporting changes.

7) AEO Benefits

The program offers simplified procedures, monthly tax payment, partial exemption from collateral, and enhanced reputation.

8) AEO Mutual Recognition Agreements (MRA)

Japan has signed 14 AEO-specific MRAs with partner economies. Although 41 CMAAs have been concluded, only a portion includes AEO provisions.

9) Inter-agency Collaboration

No duplication in inspections. Active collaboration with agencies such as Ministry of Economy, Trade and Industry (METI), Ministry of Health, Labour and Welfare (MHLW), etc.

10) Promotion and Capacity Building

Ongoing outreach via business forums, meetings, custom materials, and budgeted campaigns. SME and large business collaboration via the AEO Liaison Council.

11) Performance and Future Outlook

759 certified AEOs were registered as of February 2025. Brokers and exporters dominate. Program improvements are ongoing.

4. Malaysia

1) AEO Basic Information

Program Name	Authorized Economic Operator Scheme
Implementing Authority	Royal Malaysian Customs Department (RMCD)
Year Introduced	2010
Types of AEOs	Manufacturer, Importer, Exporter, Warehouse Operator,

	Logistic Service Provider
Number of MRA Partners	5
List of MRA Partners	Hong Kong, China; Japan; Republic of Korea; New Zealand; Singapore

2) Overview of AEO Legal Framework

Malaysia's AEO program, grounded in the Customs Act 1967 and the 2021 AEO Guideline, aligns with the WCO SAFE Framework to strengthen supply chain security and trade facilitation.

3) Organizational Structure & Stakeholders

The AEO Unit under RMCD is responsible for managing the program. There is no involvement of third-party validators. Internal divisions of RMCD manage application evaluation, site validation, and monitoring.

4) Validation Process

The validation process includes:

- Application submission through prescribed forms
- Preliminary review
- Document assessment and evaluation
- On-site validation
- Final decision by RMCD's AEO Committee

There is no fee for AEO application. A validation checklist is used to ensure consistency.

5) SME Support Measures

As of the survey date, Malaysia has not yet implemented a dedicated SME-specific certification framework under the AEO program. However, the Royal Malaysian Customs Department (RMCD) is currently exploring ways to expand the scope of the program to include SMEs in the future.

6) Post-Certification Management

Certified AEOs are subject to post-certification monitoring, including periodic reviews and

audits. AEO status may be suspended or revoked based on compliance performance. There is a formal process for appeal and reinstatement.

7) AEO Benefits

The program offers:

- Fewer physical and documentary checks
- Priority processing at customs checkpoints
- Deferred payment of duties and taxes
- Recognition as low-risk traders

8) AEO Mutual Recognition Agreements (MRA)

Malaysia has signed MRAs with five economies: Hong Kong, China; Japan; Republic of Korea; New Zealand; and Singapore. Benefits under these MRAs include reduced inspection and expedited processing at partner customs administrations.

9) Inter-agency Collaboration

RMCD coordinates with other government agencies through mechanisms such as the National AEO Committee. While there is no formal joint validation process in place, basic information sharing and cooperation occur to support AEO implementation and trade facilitation.

10) Promotion and Capacity Building

RMCD actively promotes the AEO program through seminars, outreach sessions, and industry dialogues. Training materials and guidance documents are also provided to potential applicants.

11) Performance and Future Outlook

As of the survey date, a total of 198 companies have been certified under Malaysia's AEO program. The RMCD plans to expand the program to cover more operator types and enhance digital integration.

5. The Republic of the Philippines

1) AEO Basic Information

Program Name	AEO (Authorized Economic Operator)
Implementing Authority	Bureau of Customs (BOC)
Year Introduced	2016 (legal basis), operational from 2017
Types of AEOs	Importer, Exporter (pilot); expansion planned to Customs Brokers, Freight Forwarders, and Customs Facility Warehouses
Number of MRA Partners	1 regional (ASEAN)
List of MRA Partners	ASEAN Member States (pilot); negotiations with Hong Kong, China; India; and Israel

2) Overview of AEO Legal Framework

The Philippine AEO Program is anchored in Sections 1227 (Treatment of AEOs) and 1228 (Trade Facilitation for AEO) of the Customs Modernization and Tariff Act (CMTA), enacted in 2016. Supporting regulations include Customs Administrative Order (CAO) No. 05-2017 and Customs Memorandum Orders (CMOs) No. 09-2020 and No. 26-2021. The program aligns with the WCO SAFE Framework of Standards.

3) Organizational Structure & Stakeholders

The AEO Program is managed by the Interim AEO Office of the Bureau of Customs (BOC), created under Customs Special Order No. 41-2024. The office is headed by two Supervising Deputy Commissioners and a Chief, and consists of three units: Accreditation Unit, Post-Validation Unit, and Mutual Recognition, Statistical and Records Management Unit. It closely coordinates with frontline customs offices.

4) Validation Process

The accreditation process consists of:

Pre-Screening Consultation, Level 1 Accreditation (document review, risk assessment, on-site validation), and Level 2 Accreditation (revalidation six months after Level 1).

Applications are submitted via the AEO Portal or physically to the AOCG. The same officers conduct documentary and on-site inspections.

5) SME Support Measures

No separate SME certification criteria exist, but the program offers free consultations, flexible timelines, and tailored assistance. Interest is primarily from exporters.

6) Post-Certification Management

Accredited companies must establish an internal AEO Unit, submit annual 'No Material Change' statements, and undergo revalidation six months after Level 1 accreditation and every three years thereafter. Failure to report changes may result in suspension.

7) AEO Benefits

The program offers:

- Expedited release of shipments (Level 2 benefit)
- Lower inspection ratios, with non-intrusive checks unless risk information is present
- Reduced fines for clerical errors (under consideration)
- Enhanced cooperation with BOC and improved security reputation

8) AEO Mutual Recognition Agreements (MRA)

The Republic of the Philippines has concluded an ASEAN AEO MRA (pilot implementation) and is pursuing bilateral MRAs with Hong Kong, China; India; and Israel. MRA benefits include expedited shipment release and reciprocal recognition.

9) Inter-agency Collaboration

The BOC collaborates with other agencies through Memoranda of Agreement/Understanding and participation in the Philippine Trade Facilitation Committee (PTFC). Coordination with agencies such as the Department of Agriculture and Department of Trade and Industry aims to minimize duplication of inspections and enhance trade facilitation.

10) Promotion and Capacity Building

The Interim AEO Office promotes the program through consultations, cooperation with industry associations, brochures and FAQs on the BOC website, training for validators, and

campaigns via PTFC.

11) Performance and Future Outlook

As of early 2025, five companies are accredited:

- Level 1: Sony Philippines Inc., Brothers Industries Philippines Inc.
- Level 2: Toyota Motors Philippines Inc., Panasonic Manufacturing Philippines Corporation, Coca-Cola Euro Pacific Aboitiz Philippines

Future plans include expansion to additional operator types, transition of the Super Green Lane Facility into the AEO Program, enhanced validator training, and digital integration.

6. Republic of Korea

1) AEO Basic Information

Program Name	AEO (Authorized Economic Operator)
Implementing Authority	Korea Customs Service (KCS)
Year Introduced	2009
Types of AEOs	Exporter, Importer, Freight Forwarder, Customs Broker, Bonded Area Operator, Ground Handler, Sea Carrier, Air Carrier
Number of MRA Partners	25
List of MRA Partners	Australia; Canada; People's Republic of China; Hong Kong, China; Indonesia; Japan; Malaysia; Mexico; New Zealand; Peru; Singapore; Chinese Taipei; Thailand; United States; Viet Nam; Dominican Republic; India; Israel; Kazakhstan; Mongolia; Saudi Arabia; Türkiye; United Arab Emirates (UAE); United Kingdom; and Uruguay

2) Overview of AEO Legal Framework

Republic of Korea's AEO program is grounded in the following legal documents:

- Customs Act (2009)
- AEO Enforcement Rule (2009)
- AEO Guideline (2010)
- Ordinance on the Management of AEO Validation (2021)

The Customs Act serves as the highest legal basis, with the KCS overseeing enforcement. The Audit Department manages inter-agency coordination, and the Registration Division handles legal interpretation.

3) Organizational Structure & Stakeholders

The KCS is the lead agency, supported by the Korea AEO Association (KAA), a non-profit entity established in 2010. KAA provides training, preliminary audits, and support services. Local customs offices handle validation, certification, and monitoring.

4) Validation Process

The validation process includes:

- Preliminary consultation (optional, free)
- Document screening (60 days max)
- On-site validation
- Final deliberation by certification committee

KAA often assists in the preliminary stages. The process is standardized economy-wide.

5) SME Support Measures

Republic of Korea offers:

- Relaxed criteria for SMEs
- Government-subsidized training and consulting
- Fast-track consultation services
- Simplified procedures and guidance tailored for SMEs

Over 50% of certified AEOs in Republic of Korea are SMEs.

6) Post-Certification Management

Certified companies must submit annual self-assessment reports. KCS also conducts periodic comprehensive audits and oversees compliance through a designated AEO manager system. Failure to report significant changes may result in penalties.

7) AEO Benefits

The program offers:

- Reduced inspections and documentation
- Monthly tax payment
- Collateral exemption
- Priority clearance in emergencies
- Recognition in government scoring systems
- Enhanced corporate reputation

8) AEO Mutual Recognition Agreements (MRA)

Republic of Korea has signed MRAs with 25 partners. Benefits are applied through reduced inspections and expedited procedures. MRA negotiations follow a strategic roadmap, including gap analysis and action plans for implementation.

9) Inter-agency Collaboration

KCS collaborates with various ministries (e.g., Food and Drug Safety, Quarantine, Finance). The UNI-PASS system facilitates shared inspection data and prevents duplication of procedures.

10) Promotion and Capacity Building

KCS and KAA conduct regular promotional events, stakeholder meetings, and distribute multilingual materials. They offer sector-specific training and maintain communication channels with private stakeholders.

11) Performance and Future Outlook

As of survey date, 970 companies are certified, including 544 SMEs. Certification is most common among exporters and forwarders. Republic of Korea plans to expand AEO coverage to e-commerce and free zones, and continuously align with global standards.

7. The Russian Federation

1) AEO Basic Information

Program Name	AEO (Authorized Economic Operator)
Implementing Authority	Federal Customs Service of The Russian Federation
Year Introduced	2010 (legal provisions), operational implementation in 2012
Types of AEOs	Importer, Exporter, Customs Representative, Warehouse Operator
Number of MRA Partners	1
List of MRA Partners	People's Republic of China

2) Overview of AEO Legal Framework

The AEO program in The Russian Federation is established under the Customs Code of the Eurasian Economic Union and the Federal Law No. 289-FZ. Operational implementation began in 2012. The Federal Customs Service (FCS) is the competent authority responsible for implementation and oversight.

3) Organizational Structure & Stakeholders

The Federal Customs Service (FCS) manages the AEO program centrally. No third-party involvement exists in validation or monitoring. Validation and certification are carried out by designated units within the FCS, ensuring consistency and centralized oversight.

4) Validation Process

The validation process includes:

- Application submission
- Review of eligibility and compliance documents
- On-site validation
- Final decision by the customs authority

AEO status is granted based on adherence to legal, financial, and security standards.

5) SME Support Measures

The Russian Federation does not operate a separate AEO scheme for SMEs. However, simplified procedures and risk-based assessments may indirectly benefit smaller companies that meet the program criteria.

6) Post-Certification Management

Certified AEOs are subject to regular audits and continuous monitoring by FCS. Changes in corporate structure, compliance status, or contact information must be reported. AEO status can be suspended or revoked in cases of non-compliance.

7) AEO Benefits

The program offers:

- Reduced customs control and inspections
- Faster customs clearance
- Fewer document checks
- Deferred payments and guarantee waivers under certain conditions
- Recognition as a low-risk trader

8) AEO Mutual Recognition Agreements (MRA)

The Russian Federation has concluded an MRA with People's Republic of China. FCS continues to explore opportunities for MRA expansion, supported by gap analysis and intergovernmental discussions.

9) Inter-agency Collaboration

FCS coordinates with other agencies, particularly under the framework of the Eurasian Economic Union (EAEU). There is no joint validation mechanism, but mutual data access is enabled through digital systems.

10) Promotion and Capacity Building

The FCS raises awareness of the AEO program via official channels, events, and regularly updated guidance materials to encourage stakeholder participation.

11) Performance and Future Outlook

As of survey date, 170 companies are certified as AEOs in The Russian Federation. FCS aims to enhance the attractiveness of the program and expand international recognition through additional MRA efforts.

8. Singapore

1) AEO Basic Information

Program Name	Secure Trade Partnership (STP)
Implementing Authority	Singapore Customs
Year Introduced	2007
Types of AEOs	Importer, Exporter, Manufacturer, Freight Forwarder, Warehouse Operator, Others
Number of MRA Partners	14 (13 bilateral + 1 regional)
List of MRA Partners	Australia; Canada; People's Republic of China; Hong Kong, China; Japan; Republic of Korea; Malaysia; New Zealand; Chinese Taipei; Thailand; United States; India; United Kingdom; and ASEAN

2) Overview of AEO Legal Framework

Singapore's AEO program, known as the Secure Trade Partnership (STP), was introduced in 2007. It is administered by Singapore Customs and aligned with the WCO SAFE Framework. The program is voluntary and serves to strengthen supply chain security and trade facilitation.

3) Organizational Structure & Stakeholders

Singapore Customs is the sole authority responsible for operating and overseeing the STP program. There is no third-party involvement in the validation process. A designated unit manages application, validation, and post-certification activities.

4) Validation Process

The validation process includes:

- Application submission and document review
- Background and compliance checks
- On-site validation
- Risk assessment
- Approval and certification by Singapore Customs

Applicants undergo assessment of security measures under various security elements and trade compliance requirements in accordance with the WCO SAFE Framework of Standards.

The same officers typically handle the end-to-end process.

5) SME Support Measures

While there is no dedicated SME certification scheme, Singapore Customs provides:

- Consultation support during application
- Flexible assessment criteria
- Outreach and guidance to assist smaller businesses
- Self-help resources.

6) Post-Certification Management

Certified companies are subject to post-certification audits and regular reviews. They are required to notify all changes to the company's information; any significant changes to their security measures; any non-conformities by the company in relation to the STP guidelines and criteria, and may be subject to revocation in cases of non-compliance. In the event that there is a change to the UEN (Unique Entity Number) of the company, the company is required to apply for a new STP-Plus certification using the new UEN at the earliest possible date. The Company must inform Singapore Customs in writing within 3 working days of any criminal conviction in Singapore or foreign jurisdictions during the certification period.

7) AEO Benefits

The program offers:

- Recognition as a low-risk company domestically and by partner economies
- Reduced cargo inspections and faster clearance
- Priority treatment for cargo inspection
- Reduced Customs documentation checks

- Recognition as a Known Consignor under the Regulated Air Cargo Agent Regime (RCAR)
- Designated account manager for guidance and assistance

8) AEO Mutual Recognition Agreements (MRA)

Singapore has signed MRAs with 13 economies and 1 regional agreement (ASEAN). Partner economies include Australia; Canada; People's Republic of China; Hong Kong, China; Japan; Republic of Korea; Malaysia; New Zealand; Chinese Taipei; Thailand; United States; India; and United Kingdom. MRA implementation includes reciprocal benefits and status recognition.

9) Inter-agency Collaboration

Singapore Customs engages in coordinated border management with domestic agencies, primarily through inter-agency data sharing to support risk-based clearance processes.

10) Promotion and Capacity Building

Singapore Customs promotes the STP program through: publicity via social media, media release and circulars; stakeholder briefings; website updates; and consultation clinics. It also engages with industry associations and offers guidance materials to support program uptake.

11) Performance and Future Outlook

As of the survey date, 224 companies were STP-certified. Singapore aims to enhance program benefits, increase MRA engagements, and support digital trade facilitation.

9. Thailand

1) AEO Basic Information

Program Name	AEO (Authorized Economic Operator)
Implementing Authority	Thai Customs Department
Year Introduced	2011 (pilot), fully implemented in 2013
Types of AEOs	Importer, Exporter, Customs Broker

Number of MRA Partners	8(7 bilateral + 1 regional)
List of MRA Partners	Australia; People's Republic of China; Hong Kong, China; Japan; Republic of Korea; New Zealand; Singapore; and ASEAN

2) Overview of AEO Legal Framework

Thailand's AEO program was initiated as a pilot in 2011 and fully implemented in 2013. It is administered by the Thai Customs Department and based on the WCO SAFE Framework. Relevant legal provisions are included in domestic customs regulations.

3) Organizational Structure & Stakeholders

The AEO program is managed exclusively by the Thai Customs Department, which is the sole authority responsible for application processing, validation, and certification. No external bodies are involved in any stage of the process.

4) Validation Process

The validation process includes:

- Application submission and document screening
- On-site inspection and interview
- Compliance verification
- Final approval and issuance of certificate

The same officers typically manage the end-to-end process to ensure consistency.

5) SME Support Measures

While there is no specific SME track, Thai Customs provides support such as:

- Pre-application consultations
- Training sessions and information dissemination to SMEs.

6) Post-Certification Management

Certified AEO companies in Thailand are subject to continuous post-certification monitoring. This includes annual revalidation to ensure ongoing compliance, as well as risk-based audits conducted by the Thai Customs Department. Additionally, companies are required to report any changes to their compliance status or business structure in a timely manner.

7) AEO Benefits

The program offers:

- Expedited customs clearance
- Reduced physical inspections
- Simplified procedures and fewer documents required
- Enhanced credibility with foreign customs authorities

8) AEO Mutual Recognition Agreements (MRA)

Thailand has concluded MRAs with seven economies and one regional agreement: Australia; People's Republic of China; Hong Kong, China; Japan; Republic of Korea; New Zealand; Singapore; and ASEAN. These agreements allow reciprocal recognition of AEO status and provide customs facilitation benefits to certified companies.

9) Inter-agency Collaboration

While no formal joint validation mechanism is in place, the Thai Customs Department engages in active cooperation with domestic agencies through information sharing and coordinated inspections. These efforts aim to enhance trade facilitation and ensure alignment across regulatory authorities.

10) Promotion and Capacity Building

Thai Customs actively promotes the AEO program through industry consultations, publication of guidance materials, and targeted training activities in partnership with the private sector. Thai Customs also collaborates with trade associations to raise awareness among potential applicants.

11) Performance and Future Outlook

As of survey date, Thailand has certified 392 companies under the AEO program. Future plans include further expansion of eligible operator types, enhancement of digital validation processes, and deepening regional cooperation through ASEAN.

10. Chinese Taipei

1) AEO Basic Information

Program Name	AEO (Authorized Economic Operator)
Implementing Authority	Customs Administration, Ministry of Finance
Year Introduced	Customs Act Article 19 amended in 2010; Guidelines enacted in 2009–2010
Types of AEOs	Importer, Exporter, Manufacturer, Freight Forwarder, Customs Broker, Warehouse Operator, Carrier, Shipping Agency
Number of MRA Partners	10
List of MRA Partners	Australia; Canada; Japan; Republic of Korea; New Zealand; Singapore; United States; Guatemala; India; and Israel

2) Overview of AEO Legal Framework

Chinese Taipei's AEO program is based on Article 19 of the Customs Act, amended in 2010. Detailed operational guidelines were enacted between 2009 and 2010. The program is designed in accordance with the WCO SAFE Framework and administered by the Customs Administration, Ministry of Finance.

3) Organizational Structure & Stakeholders

The Customs Administration is solely responsible for the AEO program. There is no third-party involvement in validation. Within the Customs Administration, the Clearance Division oversees policy, while operational offices manage application, validation, and review.

4) Validation Process

The AEO validation process includes:

- Pre-application consultation (free and optional)
- Submission of application and documents
- On-site validation
- Approval by the Customs Administration

The same officer generally conducts both document and on-site validations. A validation checklist is used to ensure standardization.

5) SME Support Measures

Chinese Taipei provides:

- Simplified criteria for small and medium-sized enterprises (SMEs)
- Free consultation and workshops
- Flexible documentation and assistance with preparation
- Outreach to promote SME participation

6) Post-Certification Management

Certified AEOs are required to conduct internal self-assessments and report changes to customs. Customs may conduct post-certification audits. Companies must designate responsible officers to maintain AEO compliance.

7) AEO Benefits

The program offers:

- Fewer physical and document checks
- Deferred payment of duties and taxes
- Faster clearance
- Reduced collateral requirements
- Monthly duty payment
- Enhanced reputation and eligibility for government programs

8) AEO Mutual Recognition Agreements (MRA)

Chinese Taipei has signed MRAs with 10 partners: Australia; Canada; Japan; Republic of Korea; New Zealand; Singapore; United States; Guatemala; India; and Israel. MRA implementation includes sharing of AEO status, reciprocal benefits, and reduced inspections for certified operators.

9) Inter-agency Collaboration

The Customs Administration engages in inter-agency collaboration through the Customs-Port-Trade (CPT) Single Window System, which facilitates coordinated document handling

among customs, port, and trade-related agencies. This system allows data sharing and streamlines communication to improve clearance procedures.

10) Promotion and Capacity Building

The Customs Administration actively promotes the AEO program through a variety of measures, including:

- Allocation of dedicated budget for promotional activities
- Organization of regular meetings with industry associations
- Development of SME collaboration frameworks
- Dissemination of promotional videos and brochures
- Tailored content and multilingual support materials

These efforts aim to increase awareness and participation in the AEO program, especially among SMEs.

11) Performance and Future Outlook

As of the survey date, Chinese Taipei has certified a total of 941 AEO companies, comprising 424 Security and Safety AEOs and 519 General AEOs. Customs aims to enhance digital processes, increase international collaboration, and encourage more SMEs to join the program.

11. United States

1) AEO Basic Information

Program Name	CTPAT (Customs Trade Partnership Against Terrorism)
Implementing Authority	United States Customs and Border Protection (CBP)
Year Introduced	2001 (codified under the SAFE Port Act in 2006)
Types of AEOs	United States Importers, United States Exporters, United States/Canada and United States/Mexico Highway Carriers, Rail Carriers, Sea Carriers, Air Carriers, United States Customs Brokers, Marine Port Authorities and Terminal Operators,

	Foreign Manufacturers, Consolidators, Third Party Logistics Providers (3PLs)
Number of MRA Partners	18
List of MRA Partners	Canada; Japan; Republic of Korea; Mexico; New Zealand; Peru; Singapore; Chinese Taipei; Brazil; Colombia; Dominican Republic; European Union (EU); Guatemala; India; Israel; Jordan; United Kingdom; and Uruguay

2) Overview of AEO Legal Framework

United States established its AEO program, the Customs Trade Partnership Against Terrorism (CTPAT), in 2001. CTPAT was formally codified under the SAFE Port Act of 2006 and is administered by the U.S. Customs and Border Protection (CBP). The program aligns with the WCO SAFE Framework but places strong emphasis on anti-terrorism and supply chain security.

3) Organizational Structure & Stakeholders

CTPAT is managed by the Office of Field Operations within CBP. There is no third-party involvement in validation. All assessments are conducted by CBP's Supply Chain Security Specialists (SCSS) as part of an internal validation process.

4) Validation Process

The validation process includes:

- Online application and submission of security profile
- Risk-based review by CBP SCSS
- Site validation (virtual or in-person)
- Final determination and certification decision

Validation focuses on the entity's supply chain security practices, including personnel, facility, IT, and conveyance security.

5) SME Support Measures

CTPAT does not operate a separate program for SMEs. However, the program provides:

- Dedicated account management and guidance

- Templates and best practice guides
- Access to training resources and one-on-one consultations.

6) Post-Certification Management

CTPAT members must conduct annual self-assessments and maintain a documented security profile and submit annual security profile reviews as part of CTPAT's continuous monitoring requirements. CBP performs periodic revalidations, and members are required to notify CBP of any significant changes affecting their certification status.

7) AEO Benefits

The program offers:

- Reduced cargo examinations
- Front-of-line processing at ports of entry
- Access to FAST lanes on land borders
- Priority consideration in post-incident resumption
- Access to the CTPAT Trade Compliance component (formerly ISA program)

8) AEO Mutual Recognition Agreements (MRA)

As of 2025, United States has concluded MRAs with 18 economies: Canada; Japan; Republic of Korea; Mexico; New Zealand; Peru; Singapore; Chinese Taipei; Brazil; Colombia; Dominican Republic; European Union; Guatemala; India; Israel; Jordan; United Kingdom; and Uruguay. These MRAs enhance international supply chain security and enable mutual benefits for trusted traders.

9) Inter-agency Collaboration

CTPAT is supported through collaboration with agencies such as Transportation Security Administration (TSA), FDA (Food and Drug Administration), and the Department of Homeland Security. While no joint validation occurs, information sharing and policy coordination are actively maintained.

10) Promotion and Capacity Building

CBP promotes CTPAT through an official portal, annual conferences, training materials, and outreach to trade associations. Participants have access to guidance manuals, webinars, and

a partner portal for communication with CBP.

11) Performance and Future Outlook

As of survey date, over 11,400 entities are certified under CTPAT. The program continues to evolve through digital modernization, enhanced validation tools, and new MRAs aimed at strengthening global supply chain resilience.

12. Viet Nam

1) AEO Basic Information

Program Name	AEO (Authorized Economic Operator)
Implementing Authority	General Department of Viet Nam Customs (GDVC), Ministry of Finance
Year Introduced	2011
Types of AEOs	Exporter, Importer
Number of MRA Partners	2
List of MRA Partners	Republic of Korea; and ASEAN

2) Overview of AEO Legal Framework

Viet Nam's AEO program was officially launched in 2011. It is implemented under the authority of the Customs Law (2014) and supporting regulations, including Government Decree No. 08/2015/ND-CP and Circular No. 72/2015/TT-BTC. The program aligns with the WCO SAFE Framework of Standards and provides legal grounds for identifying, certifying, and managing AEOs.

3) Organizational Structure & Stakeholders

The GDVC is solely responsible for the implementation and management of the AEO program. Internal units within GDVC handle application processing, risk assessment, certification, and post-certification monitoring. No external entities are involved in the

validation process.

4) Validation Process

The validation process includes:

- Submission of application and required documents (following company self-assessment)
- Documentary validation (checking completeness and compliance; max. 5 working days)
- On-site validation at company premises (5 working days)

5) SME Support Measures

Viet Nam does not operate a dedicated SME-focused AEO program. There are no relaxed criteria, priority consultations, or specialized validation techniques for SMEs, and no dedicated support programs are currently available.

6) Post-Certification Management

Certified AEOs in Viet Nam are required to maintain ongoing compliance through internal self-assessment mechanisms and regular reporting. They must submit annual compliance reports to customs authorities and are obligated to promptly notify the GDVC of any significant changes in their business operations. In addition, customs may carry out post-certification audits to ensure that certified companies continue to meet the requirements of the AEO program.

7) AEO Benefits

The program offers:

- Priority customs clearance
- Fewer document and physical inspections
- Submission of application and required documents
- Simplified procedures
- Enhanced reputation with customs authorities
- Eligibility for participation in pilot programs for customs facilitation

8) AEO Mutual Recognition Agreements (MRA)

As of 2025, Viet Nam has concluded AEO MRAs with two partners: Republic of Korea; and ASEAN Member States under the ASEAN AEO MRA Pathfinder Initiative. These

agreements aim to enhance regional trade facilitation and strengthen supply chain security. They do so through information sharing, reciprocal benefits, and harmonization of validation procedures. It should be noted that the ASEAN MRA is currently in a pilot and phased implementation stage, rather than being fully in force. Viet Nam is also actively pursuing additional bilateral MRAs as part of its ongoing trade facilitation strategy.

9) Inter-agency Collaboration

Viet Nam Customs engages in inter-agency cooperation primarily through information sharing and coordinated clearance procedures. However, no formal joint validation mechanism or integrated inter-agency IT systems are currently in place.

10) Promotion and Capacity Building

GDVC promotes the AEO program through various initiatives, including capacity-building workshops and active participation in both domestic and international forums. Information about the program is disseminated via the customs website and media channels. In addition, GDVC conducts targeted outreach activities to engage potential AEO candidates.

11) Performance and Future Outlook

As of survey date, Viet Nam has certified 106 companies as AEOs. The program is expected to expand in scope, including broader eligibility criteria and increased digitalization of the certification and monitoring processes. GDVC also aims to enhance international cooperation and pursue MRA opportunities.

Part III. Comparative Analysis

1. Year of AEO Introduction

The implementation of AEO programs across APEC member economies has progressed over a span of two decades, largely reflecting global developments such as the introduction of the WCO SAFE Framework (2005) and the WTO Trade Facilitation Agreement (2013).

Among the 12 economies reviewed, the majority launched their AEO programs between 2006 and 2015, aligning with the global shift toward risk-based supply chain security.

Economies can be broadly grouped by the timing of AEO adoption:

<Table III-1a. Categorization by AEO Introduction Period>

Category	Economy	Notes
Early Adopters	Japan (2006); United States (2001)	United States introduced CTPAT before the WCO SAFE Framework; Japan followed early after SAFE.
Mid-stage Implementers	Republic of Korea (2009); Malaysia (2010); The Russian Federation (2012); Singapore (2008); Chinese Taipei (2009); Thailand (2011)	Adopted after SAFE and in preparation for WTO TFA.
Recent Implementers	Australia (2015); Indonesia (2015); The Republic of the Philippines (2016); Viet Nam (2015)	Implemented following the WTO TFA, with legal foundations under the Customs Modernization and Tariff Act (CMTA).

This classification provides insight into how early international frameworks such as the WCO SAFE Framework and WTO TFA influenced regional uptake.

Japan (2006); Republic of Korea (2009); Chinese Taipei (2009); Malaysia (2010); Australia (2015); and Indonesia (2015) all reflect this trend. Viet Nam also introduced its program in 2015 through a suite of domestic regulations. In contrast, The Republic of the Philippines launched its AEO program in 2016, grounded in the Customs Modernization and Tariff Act

(CMTA) and subsequent administrative orders, extending gradually to cover importers, exporters, customs brokers, and bonded operators. United States pioneered the model in 2001 through the Customs-Trade Partnership Against Terrorism (CTPAT) - a precursor to the SAFE Framework.

There are also differences in the legal foundations underpinning AEO programs. Some economies rely on comprehensive legislative frameworks - such as customs acts, cabinet orders, and ministerial ordinances - as seen in Japan; and Chinese Taipei. Others, including Malaysia; and Thailand, implement their programs primarily through customs guidelines and administrative notifications, allowing greater operational flexibility. A few economies, such as The Republic of the Philippines; and Viet Nam, use a hybrid approach combining domestic laws with ministerial circulars and implementing decrees.

The following table summarizes the year of introduction, legal basis, and implementing authority of AEO programs in each economy:

<Table III-1b. Year of AEO Program Introduction by Economy>

Economy	Year AEO Introduced	Legal Basis
Australia	2015	Customs (Australian Trusted Trader Programme) Rule 2015
Indonesia	2015	Primary Legislation (Law) Government Regulations (PP), Minister of Finance Regulations (PMK) Director General of Customs and Excise Regulations, International Standards and Mutual Recognition Agreements
Japan	2006	Customs Act, Cabinet Order, Ministerial Ordinance, Order of Director General of Customs and Tariff Bureau
Republic of Korea	2009	Customs Act, AEO Enforcement Rule, AEO Guideline

Malaysia	2010	Customs Act 1967, AEO Guideline 2021
The Republic of the Philippines	2016	Republic Act No.10863 (Customs Modernization and Tariff Act - CMTA); Customs Administrative Order No.05-2017; Customs Memorandum Orders No.09-2020 & No.26-2021
The Russian Federation	2012	EAEU Customs Code, 2017 Federal Law N.289-FZ, 2018
Singapore	2008	Applicable Act: Customs Act Under Section 143(1) (hb) of the Customs Act (Cap 70), the Minister may make regulations “to provide for matters relating to the World Customs Organization SAFE Framework of Standards to Facilitate and Secure Global Trade or any other similar framework by any international body”.
Chinese Taipei	2009	Customs Act, Regulations Governing the Certification and Management of the Authorized Economic Operators, Authorized Economic Operator (AEO) Security Vetting Items and Validation Criteria
Thailand	2011	Customs Act B.E. 2560 (2017) Customs Notification No.120/2561 Customs Notification No. 121/2561 Customs Notification No.131/2566 Customs Notification No. 132/2566 Customs Notification No. 165/2562 AEO Guideline
United States	2001	The SAFE Port Act
Viet Nam	2015	Customs Law (2014) Decree No. 08/2015/ND-CP (2015) Circular No. 72/2015/TT-BTC (2015) Circular No. 07/2019/ND-CP (2019)

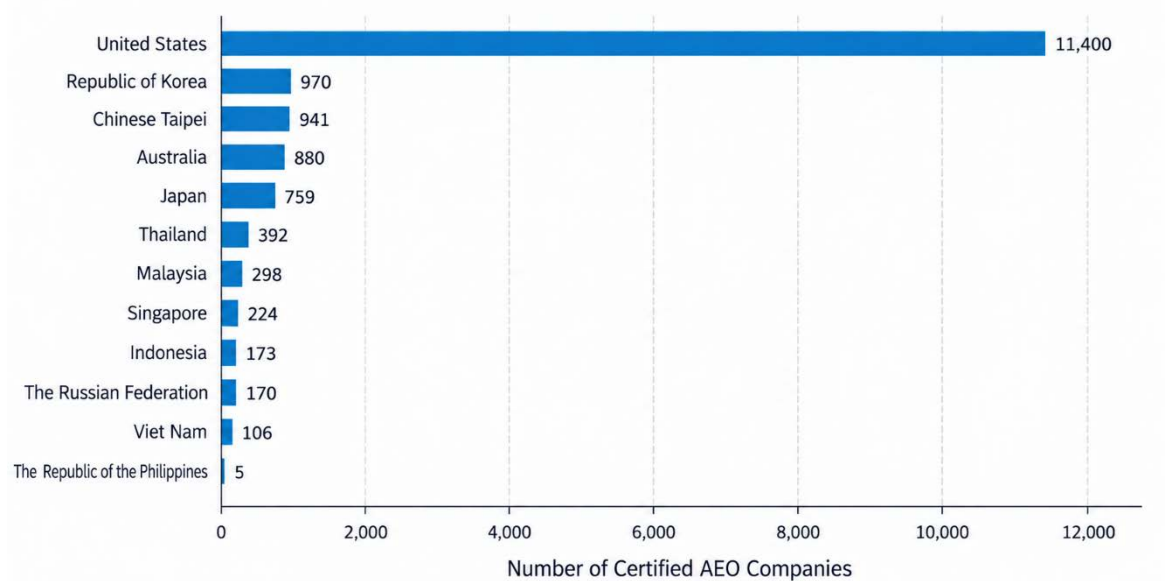
Note: Legal instruments vary in form across economies, including acts, regulations, ministerial decrees, and administrative guidelines.

2. Number of Certified AEO Companies

The number of AEO-certified companies across APEC economies demonstrates significant variation, reflecting differences in program maturity, scope of eligible entities, and implementation strategies.

As shown in <Figure III-1>, United States overwhelmingly leads with approximately 11,400 certified companies - more than ten times the number of the next-highest economy. This is attributed to its early adoption of the CTPAT program in 2001 and its broad-based eligibility criteria covering diverse stakeholders across the supply chain. By contrast, The Republic of the Philippines (5 companies); The Russian Federation (170); and Viet Nam (106) have smaller certified populations, reflecting newer programs or narrower eligibility criteria.

<Figure III-1. Total Number of Certified AEO Companies by Economy>



A closer look at <Table III-2a> reveals stark contrasts in sectoral distribution among economies. For example, in Indonesia; and Viet Nam, AEO programs are predominantly exporter, importer-focused, with over 80% and 100% of certifications respectively attributed to exporters and importers. In The Republic of the Philippines, although the program is operationally open to over seven categories of supply chain operators, all currently certified companies fall under the importer and exporter categories, reflecting the early stage of implementation and focused uptake. Conversely, Australia; Japan; and Republic of Korea show more diversified participation across exporters, importers, and

customs brokers; and other logistics operators, such as freight forwarders and warehouse service providers. Notably, Republic of Korea reports a particularly high proportion of “Others” (40.2%), indicating an inclusive approach to certification beyond traditional traders.

<Table III-2a. AEO Sectoral Distribution (No. & %)>

Economy	Exporter	Importer	Customs Broker	Others
Australia	555 (63.1)	160 (18.2)	—	165 (18.8)
Indonesia	145 (83.8)		0 (0.0)	28 (16.2)
Japan	231 (30.4)	103 (13.6)	264 (34.8)	161 (21.2)
Republic of Korea	293 (30.2)	183 (18.9)	104 (10.7)	390 (40.2)
Malaysia	128 (30)	129 (30)	55 (13)	116 (27)
The Republic of the Philippines	5 (100.0)		—	—
Chinese Taipei	109 (11.6)		171 (18.2)	661 (70.2)
Thailand	199 (50.8)		193 (49.2)	—
Viet Nam	106 (100.0)		—	—

* Percentages are rounded to one decimal place.

** “Others” includes freight forwarders, warehouse operators, manufacturers, etc.

<Table III-2b> also indicates how some economies report their data differently. The Russian Federation, for instance, provides only a percentage breakdown - 70% manufacturing and 30% retail - without numerical details. Similarly, Singapore; and United States present only partial sectoral data or percentages, which limits direct comparison but still highlights the diversity of AEO integration across sectors. These discrepancies suggest the need for greater data harmonization in reporting AEO statistics to enhance comparability across the region.

<Table III-2b. AEO Sectoral Distribution (Narrative Summary)>

Economy	Sectoral Breakdown Summary
The Russian Federation	70% manufacturing, 30% retail (exact numbers not provided)
Singapore	224 AEOs; sectoral breakdown not disclosed

Economy	Sectoral Breakdown Summary
United States	31% importers, 6% customs brokers, 28% highway carriers, 17% foreign manufacturers, 11% other

* Percentages reflect the distribution as provided in the source documents; no total number was given for some categories (e.g., The Russian Federation; United States).

3. SME Support Mechanisms

Across APEC economies, support for SMEs within AEO programs varies significantly in terms of policy depth and implementation scope. As shown in <Table III-3>, about half of the economies surveyed have adopted relaxed criteria, educational outreach, or validation prioritization to encourage SME participation. However, only a limited number provide comprehensive support across all four categories. For instance, Australia; Republic of Korea; and Viet Nam offer a full suite of mechanisms to support SMEs throughout the AEO process, whereas other economies like The Russian Federation; Thailand; and United States provide more limited or fragmented assistance.

Among these, Republic of Korea offers a particularly comprehensive and institutionalized approach. Through the KAA, Korea Customs Service has developed a dedicated SME AEO Support Model to address structural challenges SMEs face. This model features pre-certification consulting, step-by-step guidance, and post-certification support including training, consulting, and government incentives. SMEs also benefit from financial subsidies to ease compliance costs and earn evaluation points in government assessments, which encourages broader participation. Thanks to this model, SMEs represent a significant share of Republic of Korea's AEO-certified companies.

Complementing Republic of Korea's example, Hong Kong, China works closely with business chambers and trade associations to deliver outreach and training aimed at SMEs. In addition, India has introduced a tiered AEO model, where AEO-T1 is tailored to small and micro enterprises, offering simplified documentation requirements and waiving on-site validation in many cases. These efforts reflect a broader movement toward mainstreaming SME access in trusted trader programs, particularly in economies where SMEs form the backbone of international trade activity.

<Table III-3. SME Support Mechanisms>

Economy	Relaxed Criteria	Promotion & Education	Priority Validation	Support Program
Australia	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Indonesia	✗ No	✗ No	✓ Yes	✗ No
Japan	✗ No	✓ Yes	✗ No	✓ Yes
Republic of Korea	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Malaysia	✗ No	✓ Yes	✗ No	✗ No
The Republic of the Philippines	✗ No	✓ Yes	✗ No	✗ No
The Russian Federation	✗ No	✓ Yes	✗ No	✗ No
Singapore	✓ Yes	✗ No	✗ No	✗ No
Chinese Taipei	✓ Yes	✓ Yes	✗ No	✓ Yes
Thailand	✗ No	✓ Yes	✗ No	✗ No
United States	✗ No	✓ Yes	✗ No	✗ No
Viet Nam	✓ Yes	✓ Yes	✓ Yes	✓ Yes

4. Mutual Recognition Agreements (MRAs): Status and Strategic

Alignment

Mutual Recognition Agreements serve as a cornerstone of international AEO cooperation, enabling participating economies to extend customs facilitation benefits to trusted traders recognized by partner administrations. Among the reviewed APEC economies, there is a clear progression toward greater MRA engagement, with most economies having formalized multiple MRAs - often prioritizing agreements with fellow APEC member economies.

Republic of Korea leads the group with 25 MRAs (including 20 with APEC partners), followed by United States (18); Japan (14); and Singapore (14). These advanced economies have strategically pursued MRA expansion in parallel with broader trade facilitation goals. Conversely, recent implementers such as Indonesia; and Viet Nam remain in the early stages of MRA development, with 2 and 3 MRAs respectively. The Republic of the Philippines, while also in the early stages, has participated in the ASEAN AEO MRA framework and is currently negotiating with India; Hong Kong, China; and Israel. The economy follows the WCO MRA Strategy Guide, indicating alignment with international standards despite its limited number of MRAs.

All economies except Indonesia have adopted strategic roadmaps guiding their MRA negotiations, indicating a region-wide recognition of MRAs as a long-term policy instrument. The Republic of the Philippines has designated a dedicated Mutual Recognition, Statistical and Records Management Unit to oversee its MRA-related functions, demonstrating institutional commitment to advancing mutual recognition. Moreover, gap analyses - which are essential for identifying operational, legal, and procedural disparities - have been conducted by nearly all economies, including new entrants like Viet Nam. This reflects strong alignment with WCO guidance on mutual recognition.

However, implementation challenges remain widespread, though their nature varies. Economies such as Australia; and Republic of Korea report difficulties in aligning operational procedures and conducting complex joint validations. The Russian Federation; and Viet Nam cite legal harmonization as a primary obstacle, while Malaysia faces challenges in internal legal vetting and regulatory revisions. Singapore; and United States, despite their advanced status, continue to encounter procedural synchronization issues with diverse partners. For The Republic of the Philippines, a major challenge lies in the

implementation stage, particularly in achieving systems recognition of partner AEO codes and ensuring frontline officers are familiar with MRA procedures.

In summary, while MRA development is robust across APEC economies, institutional capacity, legal frameworks, and procedural compatibility remain key differentiators in the pace and depth of implementation. Republic of Korea's large MRA portfolio and strategic alignment make it a potential model for economies such as Indonesia; The Republic of the Philippines; and Viet Nam, which are actively expanding their MRA footprint but still face structural and technical constraints. As The Republic of the Philippines continues to expand its AEO program to cover additional operator types, its institutional structure and adherence to WCO guidance could position it for more active MRA engagement in the near future.

<Table III-4. MRA Status Across Economies>

Economy	No. of MRAs Concluded	of which with APEC economies	Strategic Roadmap	Gap Analysis Conducted	Implementation Challenges
Australia	10	9	✓ Yes	✓ Yes	Gap analysis and operational alignment; legal/regulatory adjustments; complex joint validation
Indonesia	3	2	✗ No	✓ Yes	
Japan	14	11	✓ Yes	✓ Yes	Depends on case/situation
Republic of Korea	25	20	✓ Yes	✓ Yes	Operational procedure alignment
Malaysia	4	4	✓ Yes	✓ Yes	Legal vetting of MRA text by Legal Division
The Republic of the Philippines	1	1 (ASEAN, includes APEC economies)	✓ Yes	✓ Yes	systems recognition of partner AEO codes, officer training, expansion to additional

Economy	No. of MRAs Concluded	of which with APEC economies	Strategic Roadmap	Gap Analysis Conducted	Implementation Challenges
					operator types
The Russian Federation	1	1	✓ Yes	✓ Yes	Legal harmonization
Singapore	14	11	✓ Yes	✓ Yes	Expanding partnerships
Chinese Taipei	10	7	✓ Yes	✓ Yes	
Thailand	8	8 (ASEAN, includes APEC economies)	✓ Yes	✓ Yes	Legal framework revision
United States	18	13	✓ Yes	✓ Yes	Mutual procedural alignment
Viet Nam	2	1	✓ Yes	✓ Yes	Capacity gaps in joint validation, legal harmonization

5. Validation Procedures: Across Economies Comparison

The validation of AEO applicants remains a critical step in ensuring the credibility and trustworthiness of authorized operators, and APEC economies show both convergence and divergence in how this process is structured. Most economies follow a two-stage validation approach - documentary review followed by on-site validation - reflecting adherence to WCO SAFE guidelines. However, implementation varies in terms of formality, duration, institutional structure, and flexibility.

Several economies offer preliminary consultations to guide applicants in understanding requirements, with jurisdictions such as Australia; Republic of Korea; and Singapore institutionalizing this as part of the process. The Republic of the Philippines also provides a formal pre-screening consultation stage, free of charge, which is conducted either online or in person by the AEO Interim Office. By contrast, others like United States; and Viet Nam either do not mandate formal consultations or leave them to the applicant's discretion. Regarding documentary validation duration, some economies are highly time-bound - Viet Nam (5 working days), Republic of Korea (within 60 days) - whereas others such as Australia allow a much broader window (up to 18 months), reflecting differences in administrative capacity and applicant volumes.

The structure of who conducts the validation also varies. A few economies (e.g., Australia; Republic of Korea; and Singapore) maintain segregated validator teams for documents and site visits, enhancing objectivity and workload distribution. Others, including Japan; Chinese Taipei; and Thailand, use the same officers throughout, which may streamline communication but also risks concentration of oversight. The Republic of the Philippines follows the latter model, with the same team responsible for both documentary and on-site validation, which may support continuity but limits internal checks.

Flexibility mechanisms such as waiver provisions or simplified procedures for SMEs and low-risk entities are implemented unevenly. Economies like Republic of Korea; Singapore; Chinese Taipei; and Viet Nam explicitly allow for conditional waivers or adjusted criteria, while others like Malaysia; Thailand; and United States have no formal provisions in place. The Republic of the Philippines currently lacks formal waiver provisions or specific validation simplifications for SMEs, although some interest from SMEs - particularly exporters - has been observed.

Notably, Republic of Korea has an institutionalized partnership with the private sector through the KAA, which handles initial validation phases. This model could serve as a reference for regional practices. Similarly, Viet Nam's highly codified and deadline-bound process, including distinct teams for validation, reflects strong procedural clarity and responsiveness, especially for fast-growing exporters. In contrast, The Republic of the Philippines employs a structured three-stage validation process (pre-screening, Level 1, Level 2), and requires detailed validation plans and prior notifications for on-site validation, suggesting developing procedural structure, despite resource constraints.

<Table III-5. Validation Procedures Comparison>

Economy	Preliminary Consultation	Documentary Validation Period	On-site Validation Conducted	Separate Validators (Doc vs On-site)	Waiver Provisions
Australia	✓ Yes ¹	Up to 18 months	✓ Yes	✓ Yes ²	✓ Yes ³
Indonesia	✓ Yes	Not specified	✓ Yes	✗ No	Not specified
Japan	✓ Yes	Not specified	✓ Yes	✗ No ⁴	✓ Yes ⁵
Republic of Korea	✓ Yes ⁶	Max 60 days	✓ Yes	✓ Yes ⁷	✓ Yes ⁸
Malaysia	✓ Yes ⁹	Not specified	✓ Yes	✗ No ¹⁰	Not applicable
The Republic of the Philippines	✓ Yes ¹¹	Within 15 calendar days	✓ Yes	✗ No ¹²	✗ No ¹³
The Russian Federation	Not specified	Not specified	✓ Yes	✗ No	Not specified
Singapore	✓ Yes ¹⁴	Not specified	✓ Yes	✗ No ¹⁵	✓ Yes ¹⁶
Chinese Taipei	✓ Yes ¹⁷	3–6 months	✓ Yes	✗ No ¹⁸	✓ Yes ¹⁹
Thailand	✓ Yes	Not specified	✓ Yes	✗ No ²⁰	Not specified
United States	✗ No	Max 90 days	✓ Yes	✗ No ²¹	Not applicable
Viet Nam	✗ No	Max 5 working days	✓ Yes ²²	✓ Yes ²³	✓ Yes ²⁴

Note:

¹ *Australia (Australian Trusted Trader – ATT) – Preliminary Consultation: Under the ATT program, preliminary consultations are offered as part of the initial assessment process. These sessions help applicants understand the AEO criteria, clarify documentation requirements, and address common compliance gaps before formal submission.*

² *Australia (ATT) – Separate Validators: The ATT framework uses different customs officers for documentary and on-site validations. This separation strengthens impartiality and provides a cross-check mechanism between assessment stages.*

³ *Australia (ATT) – Waiver Provisions: Waivers or modified validation requirements can be granted on a case-by-case basis, particularly for low-risk operators, without compromising compliance assurance.*

⁴ *Japan (AEO) – Same Validators: In Japan, the same customs officer normally conducts both validation stages unless reassignment is deemed necessary. This can improve efficiency but may limit independence in the review process.*

⁵ *Japan (AEO) – Waiver Provisions: Japan accepts equivalent control systems from other recognized programs, allowing some applicants to bypass certain validation steps.*

⁶ *Republic of Korea (AEO) – Preliminary Consultation: Preliminary consultations are conducted through the Korea AEO Association (KAA) under a public-private partnership model, offering technical guidance before formal validation.*

⁷ *Republic of Korea (AEO) – Separate Validators: Documentary validation is handled by the KAA, while on-site validation is carried out by the KCS. This division ensures both impartiality and workload efficiency.*

⁸ *Republic of Korea (AEO) – Waiver Provisions: Republic of Korea offers conditional waivers or adjusted validation criteria for SMEs and low-risk companies based on prior compliance history and risk assessment.*

⁹ *Malaysia (RMCD AEO) – Preliminary Consultation: Consultations are available through regional offices of the Royal Malaysian Customs Department (RMCD). These sessions help clarify AEO requirements before formal application.*

¹⁰ *Malaysia (RMCD AEO) – Same Validators: The same customs auditor manages both documentary and on-site validations. This approach simplifies coordination but may reduce impartiality.*

¹¹ *The Republic of the Philippines (AEO) – Preliminary Consultation: In The Republic of the Philippines, the Bureau of Customs' AEO Interim Office offers free pre-screening consultations online or in person. This stage helps applicants understand requirements, identify compliance gaps, and prepare necessary documentation.*

¹² *The Republic of the Philippines (AEO) – Same Validators: The same validation team conducts both the documentary review and the on-site inspection, ensuring continuity but offering limited internal segregation of duties.*

¹³ *The Republic of the Philippines (AEO) – Waiver Provisions: No formal waiver system or SME-specific simplifications exist in The Republic of the Philippines AEO framework, though SMEs—particularly exporters—have shown interest in applying.*

¹⁴ *Singapore (Secure Trade Partnership – STP) – Preliminary Consultation: Conducted through an online application portal, allowing companies to access requirements, upload documents, and receive feedback before formal submission.*

¹⁵ *Singapore (STP) – Separate Validators: A multi-layered approval process is used, with different*

officers or units handling the document review and on-site validation phases.

¹⁶ *Singapore (STP) – Waiver Provisions: The program allows flexibility for SMEs and low-risk operators, adjusting validation scope and frequency while maintaining essential checks.*

¹⁷ *Chinese Taipei (AEO) – Preliminary Consultation: Applicants may request a free consultation under the Secure Customs Self-Assessment System (SCSS). This service offers tailored advice on meeting the AEO requirements and preparing documentation.*

¹⁸ *Chinese Taipei (AEO) – Same Validators: In Chinese Taipei's program, the same customs officer typically conducts both documentary and on-site validations. This promotes continuity and familiarity with the applicant's operations but reduces the level of independent oversight.*

¹⁹ *Chinese Taipei (AEO) – Waiver Provisions: Flexible validation criteria are available for SMEs, allowing for proportionate adjustments without lowering the overall compliance threshold.*

²⁰ *Thailand (AEO) – Same Validators: In Thailand, the same validation team is responsible for both documentary and on-site validations, providing consistency but reducing cross-verification.*

²¹ *United States (Customs Trade Partnership Against Terrorism – CTPAT) – Same Validators: In the CTPAT program, the same Supply Chain Security Specialist (SCSS) manages both the initial document review and the on-site validation, ensuring a single point of contact.*

²² *Viet Nam (AEO) – On-site Validation Deadline: On-site validation must be completed within five working days after the documentary review, ensuring prompt processing.*

²³ *Viet Nam (AEO) – Separate Validators: Different validation teams conduct documentary and on-site inspections, enhancing objectivity.*

²⁴ *Viet Nam (AEO) – Waiver Provisions: Waivers and simplified validation procedures are available for certain high-tech exporters, reducing administrative burdens for compliant companies.*

6. Incentives and Benefits

The analysis of AEO-related incentives across APEC member economies reveals a clear emphasis on procedural facilitation, with nearly all economies offering reduced inspections and simplified import procedures as core benefits. These serve as foundational elements of the AEO value proposition and reflect a common alignment with the objectives of the WCO SAFE Framework and WTO Trade Facilitation Agreement. In addition, monthly tax payment schemes and collateral exemptions are also offered by several economies, representing financial incentives that can be particularly impactful for SMEs.

One striking observation is the consistency of "Border Clearance Priority" benefits, which are provided by almost all economies - typically in the form of expedited processing, green channel access, or preferential treatment during disruptions. These benefits not only reduce time and uncertainty for AEO operators but also enhance supply chain predictability. The

Republic of the Philippines also provides expedited release of shipments for MRA-accredited AEO members and applies green selectivity targeting to reduce inspection frequency. Furthermore, the planned early issuance of Product Evaluation Reports (PER) is expected to add procedural efficiency.

The “Others” category provides further differentiation, showcasing how certain economies go beyond the standard framework. For instance, Republic of Korea offers an extensive package of indirect benefits such as subsidized training, consulting, bonus points in government evaluation systems, and reputational enhancement. Singapore similarly links AEO benefits to air cargo regimes and provides fast-tracking during crises. Chinese Taipei emphasizes operational benefits for bonded facilities and enhanced access to certificates, while Australia integrates broader business facilitation through the APEC Business Travel Card and dedicated account managers. In the case of The Republic of the Philippines, although financial incentives such as monthly tax payment and collateral exemption are not currently offered, AEO operators benefit from strengthened relationships with customs authorities and improved cargo security. Special recognition, such as certificate ceremonies and regular consultations, adds reputational value to accredited members.

On the other hand, a few economies such as Malaysia; and The Russian Federation provide a narrower range of financial incentives (e.g., no monthly tax payment or collateral waiver), which may limit the attractiveness of the AEO program, particularly for smaller operators.

Overall, while procedural benefits are widely harmonized, the scope and depth of financial and strategic incentives vary, reflecting each economy’s regulatory context, risk management philosophy, and customs–business engagement strategy.

<Table III-6. Incentives and Benefits>

Economy	Reduced Inspections	Deferred Tax Payment	Exemption from Collateral	Simplified Import Procedures	Border Clearance Priority	Others
Australia	✔ Yes	✔ Yes	✘ No	✔ Yes	✔ Yes ¹	ATT Account Manager, APEC Business Travel Card, expedited facilitation for bonded warehouses
Indonesia	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes ²	Streamlined processes, reduced clearance times, faster release
Japan	✔ Yes	✔ Yes	✔ Yes ³	✔ Yes	✔ Yes ⁴	Benefits for warehouse and logistics operators, improved cargo security
Republic of Korea	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes ⁵	Subsidized training, consulting, evaluation points in government systems, reputation benefits
Malaysia	✔ Yes	✔ Yes	✘ No	✔ Yes	✔ Yes ⁶	Extended storage (up to 36 months), 5-year license for agents, enhanced Customs trust
The Republic of the Philippines	✔ Yes	✘ No	✘ No	✔ Yes ⁷	✔ Yes	Indirect benefits: improved relationship with BOC, faster clearance

Economy	Reduced Inspections	Deferred Tax Payment	Exemption from Collateral	Simplified Import Procedures	Border Clearance Priority	Others
The Russian Federation	✓ Yes	✗ No	✓ Yes ⁸	✓ Yes	✓ Yes ⁹	Simplified declarations, access to e-system, streamlined documentation
Singapore	✓ Yes	✗ No	✗ No	✓ Yes	✓ Yes ¹⁰	Facilitated clearance in the event of trade disruptions, benefits for bonded operators, and indirect benefits like reduced cargo loss, cost savings due to better predictability of cargo movement.
Chinese Taipei	✓ Yes	✓ Yes	✓ Yes ¹¹	✓ Yes	✓ Yes ¹²	Enhanced cargo pickup access, expedited certificate issuance, bonded facility advantages
Thailand	✓ Yes	✗ No	✓ Yes	✓ Yes	✓ Yes	Simplified documentation, reduced clearance time
United States	✓ Yes	Not Specified	Not Specified	✓ Yes	✓ Yes ¹³	Indirect benefits (e.g., cargo loss reduction, improved client loyalty); Special treatment for bonded warehouse storage under forced labor review

Economy	Reduced Inspections	Deferred Tax Payment	Exemption from Collateral	Simplified Import Procedures	Border Clearance Priority	Others
Viet Nam	✔ Yes	✔ Yes	✔ Yes ¹⁴	✔ Yes	✔ Yes ¹⁵	Priority use of green channels, access to electronic declarations, reduced document requirements

Note:

¹ Australia (Australian Trusted Trader – ATT) – Border Clearance Priority: ATT members benefit from expedited border services under the ABF facilitation framework, including faster processing during peak periods and streamlined interactions with inspection agencies.

² Indonesia (AEO) – Border Clearance Priority: AEO operators receive expedited clearance through reduced inspection frequency and preferential channel assignment, significantly shortening release times.

³ Japan (AEO) – Exemption from Collateral: Some AEO procedures offer partial exemption from collateral requirements.

⁴ Japan (AEO) – Border Clearance Priority: The Nippon Automated Cargo and Port Consolidated System (NACCS) ensures simplified and prioritized cargo processing for AEO operators, enabling same-day or next-day clearance in many cases.

⁵ Republic of Korea (AEO) – Border Clearance Priority: In addition to general fast-track clearance, KCS offers emergency clearance support for disaster or supply-chain disruption scenarios, as well as reduced inspection delays.

⁶ Malaysia (RMCD AEO) – Border Clearance Priority: Recognized operators receive priority inspection scheduling and clearance relief measures, reducing hold times at ports and airports.

⁷ The Republic of the Philippines (AEO) – Simplified Import Procedures: For Level 2 AEO operators, the Bureau of Customs grants expedited release of shipments, simplified documentation requirements, and reduced cargo selectivity targeting under the green lane.

⁸ The Russian Federation (EAEU AEO) – Exemption from Collateral: Certain categories of operators, such as those with bonded warehouse status or specific import/export profiles, are eligible for collateral waivers under Eurasian Economic Union (EAEU) rules.

⁹ The Russian Federation (EAEU AEO) – Border Clearance Priority: AEO operators receive expedited customs control, streamlined declaration processes, and access to simplified documentation systems, reducing clearance bottlenecks.

¹⁰ Singapore (Secure Trade Partnership – STP) – Border Clearance Priority: STP operators benefit from expedited clearance, recognition as a Known Consignor under Singapore’s air cargo security regime, and priority treatment during trade disruptions.

¹¹ Chinese Taipei (AEO) – Exemption from Collateral: AEO operators using the self-affidavit consolidated duty payment system are exempted from providing financial collateral, reducing liquidity burdens.

¹² Chinese Taipei (AEO) – Border Clearance Priority: Accredited operators enjoy faster cargo release, reduced inspection rates, and prioritized processing for high-volume shipments.

¹³ United States (Customs Trade Partnership Against Terrorism – CTPAT) – Border Clearance Priority: CTPAT members receive “Front of the Line” processing during inspections, enabling faster release.

¹⁴ Viet Nam (AEO) – Exemption from Collateral: Accredited operators are exempt from deposit requirements for certain shipments, improving cash flow efficiency.

¹⁵ Viet Nam (AEO) – Border Clearance Priority: Operators have priority access to green channels, electronic declarations, and reduced documentary requirements, significantly reducing processing time.

7. AEO Authorization Criteria: Comparative Overview

7.1 Fundamental Criteria Alignment across Economies

All twelve APEC member economies reviewed in this study have established baseline AEO authorization criteria aligned with the WCO SAFE Framework. These criteria are commonly grouped into four fundamental areas: Legal Compliance, Financial Solvency, Internal Control, and Security Management.

As shown in Table III-7, all 12 economies under review have adopted these four criteria as mandatory requirements for AEO authorization. While the core pillars remain consistent across the region, the implementation details, evaluation mechanisms, and areas of emphasis vary, reflecting each economy's regulatory environment and institutional context.

For example, Australia; and Republic of Korea apply structured compliance history reviews and emphasize documented audit trails. Thailand; and Viet Nam focus on the absence of serious violations and require formal internal control programs. Japan; and United States integrate accountability through designated compliance personnel, while Malaysia; and Singapore place particular emphasis on internal audit systems and financial solvency verification.

Note: While other APEC economies operate AEO or equivalent schemes, this comparative study covers the twelve economies for which detailed and publicly available information was accessible at the time of research.

This comparative overview demonstrates a growing convergence among APEC economies toward risk-based, standardized AEO practices, while still allowing for flexibility based on economy-specific legal and institutional frameworks.

< Table III-7. Comparative Overview of fundamental AEO Authorization Criteria by Economy>

Economy	Legal Compliance	Financial Solvency	Internal Control System	Security Management
Australia	Demonstrated history of regulatory compliance and good standing with Customs	Evaluation of solvency and financial viability	Documented procedures, internal audits, and traceability	Security standards covering premises, transport, and personnel
Indonesia	Compliance with customs and tax laws is essential	Financial records and tax compliance reviewed	Internal compliance programs required	Physical and operational security controls enforced
Japan	Proven law-abiding history with Customs over time	Financial health assessed based on recent years	Internal procedures and designated personnel assigned	Measures for premises, transportation, and personnel security
Republic of Korea	Customs compliance assessed over the past 8 quarters	Credit rating and solvency reviewed as part of risk profiling	Risk assessment, internal controls, and data archiving are required	Security criteria include business partners, conveyances, access controls, and personnel screening

Economy	Legal Compliance	Financial Solvency	Internal Control System	Security Management
Malaysia	No significant violations or offenses on record	Financial standing validated through documentation	Monitoring systems and designated AEO compliance officer	Access control, personnel screening, and cargo security protocols
The Republic of the Philippines	No significant customs/tax violations in past 3 years, good standing required	Evidence of financial continuity and solvency (e.g. bank cert, audited FS)	Documented internal controls: SOPs, records retention, responsibilities, audit trail	Physical security for premises, access controls, cargo integrity, personnel vetting
The Russian Federation	No administrative offenses related to customs regulations	Proof of financial stability required	SOPs and designation of a compliance manager mandatory	Security plans and risk mitigation measures required
Singapore	Customs and other relevant government authorities' compliance and good record of conduct are essential	Financial viability required; no record of bankruptcy	Internal audits and risk management systems evaluated	Requirements on security measures that address the 8 security elements: premises security and access controls; cargo security; personnel security; business partner security; conveyance security; information and

Economy	Legal Compliance	Financial Solvency	Internal Control System	Security Management
				Information technology (IT) security; incident management and investigations; and crisis management and incident recovery.
Chinese Taipei	No serious customs violations in the past two years	Sound financial standing required	Operational SOPs and risk management systems in place	Supply chain and cargo security measures required
Thailand	Clean customs record with no fraudulent activity	Financial viability required: showing profitability for the specified period.	Internal audit team	Cargo tracking and secure premises
United States	CTPAT compliance history	Validated during application	SCSS-aligned internal control	End-to-end supply chain security

Economy	Legal Compliance	Financial Solvency	Internal Control System	Security Management
Viet Nam	No serious violations in 2+ years	No bankruptcy or debt	Internal compliance system	Access control, staff screening, cargo security

7.2 Internal Control Requirements

All twelve economies examined require the establishment of internal control mechanisms as a fundamental component of their AEO authorization frameworks. However, when assessed based on explicit requirements found in each economy's official AEO regulations or guidelines, meaningful differences emerge in how these controls are formalized and enforced.

<Table III-8> illustrates that while some internal control elements are widely and explicitly adopted - such as risk assessment procedures, trade documentation management, and periodic internal reviews - others remain unevenly implemented across the region. For example, the designation of a compliance officer or internal control unit is explicitly required in all twelve economies, confirming its universal recognition as an essential institutional safeguard. However, only a few economies specify qualification standards for these roles. Republic of Korea; and United States clearly define required experience, credentials, or training, while other economies either offer general recommendations or omit such standards altogether. Indonesia; Thailand; and Viet Nam, for instance, encourage relevant expertise but do not mandate minimum years of experience or certifications.

A particularly notable divergence is seen in the requirement for a separate Code of Ethics. Only Republic of Korea; and United States explicitly mandate companies to establish formal ethical conduct policies or anti-corruption frameworks as part of their AEO internal control systems. The Republic of the Philippines, while not mandating a stand-alone ethics policy, partially addresses forced labor prohibition through adherence to domestic labor laws and relevant international conventions. However, the absence of an explicit, codified requirement within the AEO criteria places it closer to partial alignment, similar to Malaysia; and Singapore.

Furthermore, specific ethical risk areas such as forced labor prohibition and anti-money laundering (AML) safeguards are unevenly addressed across the region. United States is the only economy that explicitly requires AEO participants to eliminate forced labor from their supply chains, in accordance with broader legislative mandates such as the Uyghur Forced Labor Prevention Act (UFLPA).

In the case of Republic of Korea, while earlier AEO regulations did not directly address these

concerns, Republic of Korea's AEO guidelines were formally revised in July 2024 to incorporate ethical compliance provisions, including prohibition of forced labor and promotion of AML-related practices. As a result, AEO-certified companies in Republic of Korea are now required to reflect these standards in their internal governance frameworks, marking a significant step toward stronger alignment with international best practices.

Malaysia; and Singapore show partial alignment. Singapore's Secure Trade Partnership (STP) program, particularly in its STP-Plus tier, encourages responsible supply chain management and ethical governance but does not mandate specific language on forced labor or AML within its core AEO criteria. Similarly, Malaysia's framework emphasizes legal compliance and AML/CFT obligations under domestic law, yet lacks explicit requirements for ethics-oriented policies within the AEO program itself. In the case of The Republic of the Philippines, AML safeguards are not embedded in the AEO criteria itself, with compliance in this area generally governed by broader domestic legislation rather than program-specific mandates.

Conversely, economies such as Indonesia; Japan; Chinese Taipei; Thailand; and Viet Nam currently do not require AEO-certified companies to adopt stand-alone ethical policies addressing forced labor or AML. These omissions may pose challenges in promoting regional consistency and trust, particularly as supply chain due diligence and corporate accountability gain traction in international trade governance.

The Russian Federation's AEO framework is distinctive in its limited codification of internal control requirements. Its regulations focus predominantly on supply chain security, with general references to internal procedures and risk considerations. However, explicit mandates for components such as management policy objectives, detailed record-keeping standards, or formal audit cycles are lacking. Consequently, The Russian Federation appears partially aligned with international AEO norms, emphasizing structural security more than process transparency or compliance accountability.

In contrast, economies such as Australia; Japan; Malaysia; and Singapore provide more structured approaches, emphasizing document retention, procedural consistency, and digital audit capabilities. For example, Australia; and Malaysia explicitly mandate site inspection records and cargo handling procedures, while Singapore; and Chinese Taipei leverage customs

IT systems to enhance audit trail traceability. The Republic of the Philippines meets all of these core operational elements, including documented risk management procedures, trade documentation controls, and periodic internal control reviews, though without the same level of prescriptive detail found in some advanced programs.

Despite these variations, there is a clear regional convergence on core operational elements: all economies - except The Russian Federation in limited respects - explicitly require risk assessment mechanisms, internal procedure documentation, and periodic review of internal controls. These elements form the procedural backbone of AEO systems and serve as a foundation for risk-based oversight and continuous improvement.

In summary, while internal control structures are present in all economies, the degree of formalization, enforcement, and documentation varies considerably. These disparities reflect broader differences in regulatory maturity, digital infrastructure, and administrative priorities. As AEO mutual recognition agreements expand across the Asia-Pacific region, a stronger emphasis on standardized and enforceable internal control requirements - particularly around personnel qualifications, ethics policies, and specific safeguards against forced labor and money laundering - may be needed to ensure consistent compliance integrity and mutual trust.

<Table III-8. Detailed Comparison of Internal Control Elements in AEO Authorization Criteria by Economy>

Economy Criteria	Australia	Indonesia	Japan	Republic of Korea	Malaysia	The Republic of the Philippines	The Russian Federation	Singapore	Chinese Taipei	Thailand	United States	Viet Nam
Establishment of Management Policy and Detailed Objectives	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✗ No	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Designation of Compliance Personnel	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Explicit Personnel- Qualification Requirement (years of experience, certificates, etc.)	✗ No	Partial ¹	✗ No	✓ Yes	✗ No	✗ No	✗ No	✗ No	✗ No	Partial ²	✓ Yes	Partial ³

Economy Criteria	Australia	Indonesia	Japan	Republic of Korea	Malaysia	The Republic of the Philippines	The Russian Federation	Singapore	Chinese Taipei	Thailand	United States	Viet Nam
Code of Ethics / Ethical Management Policy (separate ethics policy required)	✗ No	✗ No	✗ No	✓ Yes	✗ No	✗ No	✗ No	✗ No	✗ No	✗ No	✓ Yes	✗ No
Forced Labor Prohibition (in code of Ethics / Ethical Management Policy)	✗ No	✗ No	✗ No	✓ Yes	✓ Yes	✗ No	✗ No	✗ No	✓ Yes	✗ No	✓ Yes	✗ No

Economy Criteria	Australia	Indonesia	Japan	Republic of Korea	Malaysia	The Republic of the Philippines	The Russian Federation	Singapore	Chinese Taipei	Thailand	United States	Viet Nam
Anti-Money Laundering (in code of Ethics / Ethical Management Policy)	✗ No	✗ No	✗ No	✓ Yes	✓ Yes	✗ No	✗ No	✗ No	✗ No	✗ No	✓ Yes	✗ No
Risk Identification, Assessment, and Management	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Partial ⁷	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Procedures for Managing Import and Export Goods	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Partial ⁸	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes

Economy Criteria	Australia	Indonesia	Japan	Republic of Korea	Malaysia	The Republic of the Philippines	The Russian Federation	Singapore	Chinese Taipei	Thailand	United States	Viet Nam
Record-Keeping Procedures for Trade and Transport Documentation	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	Partial ⁹	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes
Periodic Review and Maintenance of Internal Controls	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	Partial ¹⁰	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes

Note:

¹ *Indonesia (AEO) – Compliance Personnel Qualification: Indonesia’s AEO guidelines reference the need for designated compliance personnel and recommend relevant experience or training, but do not set strict, explicit requirements for years of experience or specific certifications. The qualification standard is interpreted flexibly and is not uniformly enforced in official documentation.*

² *Thailand (AEO) – Compliance Personnel Qualification: Thailand’s AEO program expects companies to assign responsible personnel for compliance and internal control, and encourages relevant experience or training. However, there are no explicit, mandatory requirements for minimum years of experience or formal certificates in the official AEO standards. The requirement is generally assessed on a case-by-case basis.*

³ *Viet Nam (AEO) – Compliance Personnel Qualification: Viet Nam’s AEO criteria mention the appointment of compliance officers and recommend that they possess knowledge and experience in customs or trade compliance. However, there are no clearly defined, mandatory standards for years of experience or specific professional certificates in the official guidelines. Practical application may vary by case.*

⁴ *The Republic of the Philippines (AEO) – Corporate Ethics / Forced Labor Prohibition: The program does not explicitly require a formal code of ethics that includes forced labor prohibition. However, applicants are expected to comply with relevant domestic labor laws and international conventions, including those addressing forced labor. While there is no stand-alone mandate for corporate ethical policies, overarching compliance requirements may partially reflect ethical obligations depending on company implementation.*

⁵ *Malaysia (RMCD AEO) – Corporate Ethics / Forced Labor Prohibition: The RMCD AEO program emphasizes regulatory compliance and supply chain security. While there is no explicit requirement to prohibit forced labor within the AEO application or validation process, companies are expected to comply with domestic laws including AML/CFT regulations. Ethical business practices are encouraged under the broader compliance culture, but forced labor prohibition is not a mandated element.*

⁶ *Singapore (Secure Trade Partnership – STP) – Corporate Ethics / Forced Labor Prohibition: The STP program requires companies to maintain a compliance framework covering trade laws and security practices. In the enhanced STP-Plus tier, companies are encouraged to adopt corporate governance policies and ethical standards. Although forced labor prohibition is not explicitly listed as a mandatory criterion, the program promotes responsible business conduct and supply chain due diligence, which may indirectly support such practices depending on company-specific implementation.*

⁷ *The Russian Federation (EAEU AEO) – Risk Management Requirement: The AEO program requires applicants to address risk management, but the official guidelines are general and focus mainly on supply chain security rather than comprehensive compliance risk. There is no explicit, detailed, and mandatory risk assessment methodology or requirement for ongoing review as found in international standards.*

⁸ *The Russian Federation (EAEU AEO) – Goods Management Internal Controls: The program requires companies to have procedures for managing import and export goods, but the requirements are general and not as explicit or detailed as international standards. There is no standardized, mandatory checklist or audit process for internal controls over goods management.*

⁹ *The Russian Federation (EAEU AEO) – Record-Keeping Standards: The program requires companies to maintain records for trade and transport documentation, but the requirements are broad and lack explicit, detailed standards for record-keeping systems, retention periods, or audit trails.*

¹⁰ *The Russian Federation (EAEU AEO) – Periodic Internal Control Review: Regulations mention the need for internal controls, but do not explicitly require companies to conduct regular, systematic reviews or updates of their internal control systems. The frequency, scope, and documentation of such reviews are not clearly defined or mandated in official guidelines.*

7.3 Security Management Measures: Comparative Overview

Security management remains a core pillar of AEO programs globally, encompassing physical, personnel, procedural, and IT safeguards. As shown in <Table III-9>, all twelve economies examined mandate comprehensive security measures to ensure the integrity of goods, conveyances, facilities, and information systems within international supply chains. However, when disaggregated by specific security components, notable differences emerge in how these measures are prescribed, implemented, and documented.

Most economies require the evaluation of both new and existing business partners, seal integrity protocols, restricted area control, conveyance inspections, and employee identification systems. These foundational elements are widely standardized, reflecting alignment with the WCO SAFE Framework of Standards.

Yet, more specialized criteria such as pest contamination control and cybersecurity requirements remain unevenly applied. Only a few economies - namely Republic of Korea; United States; and Viet Nam - explicitly mandate pest control measures to prevent cross-border biological threats. This is significant given the increasing global focus on invasive species and biosecurity in the context of climate change and agricultural sustainability. Republic of Korea revised its AEO guidelines in July 2024 to incorporate pest contamination management as an explicit compliance element for certified operators, reflecting its proactive stance on biosecurity risks.

Similarly, while all economies emphasize the importance of protecting information systems, the degree of formalization varies. Republic of Korea; and United States stand out for requiring detailed documentation of IT security policies and clear technical safeguards such as anti-malware systems and unauthorized access controls. Republic of Korea's 2024 guideline revision also introduced a differentiated approach for SMEs: while technical protection is mandatory, hardware-based solutions (e.g., firewalls) may be waived for smaller operators based on operational scale, thus balancing compliance expectations with feasibility. Other economies, including Malaysia; The Republic of the Philippines; Chinese Taipei; and Thailand promote cybersecurity through general expectations or flexible implementation, often without

requiring formal documentation of security procedures. In The Republic of the Philippines, companies must maintain IT safeguards consistent with WCO SAFE standards, but the documentation format and technical implementation - such as the use of hardware-based firewalls - remain flexible, with software solutions acceptable for SMEs.

Other economies, including Malaysia; Chinese Taipei; and Thailand, promote cybersecurity through general expectations or flexible implementation, often without requiring formal documentation of security procedures. These variations may pose obstacles to mutual recognition and trust, especially as cybersecurity threats escalate in frequency and complexity.

Personnel-related criteria also show divergence. While all economies enforce identity verification and access control, fewer require pre-employment screening or periodic employee reviews. Republic of Korea; and United States lead in formalizing these measures, while economies like Indonesia; and Japan rely on company discretion or risk-based self-assessment.

Mail and parcel screening presents another area of divergence. United States mandates such inspections explicitly. Republic of Korea also added this criterion in its 2024 guideline revision, requiring importers, exporters, customs brokers, and freight forwarders to screen inbound parcels before internal distribution. However, other business types may not face the same level of obligation, resulting in a partially applied standard. The Republic of the Philippines also applies this requirement partially: while general security procedures such as reporting suspicious items are mandated, formal screening protocols for mail and parcels are not explicitly included in the official AEO criteria.

In summary, although core security measures are broadly adopted, regional inconsistencies remain in implementing advanced and issue-specific safeguards. Emerging global priorities - such as biosecurity and cybersecurity - are shaping the next phase of AEO development. To promote mutual recognition and supply chain resilience, stronger convergence on specialized security standards may be needed, especially in areas tied to environmental threats and digital infrastructure.

< Table III-9. Detailed Comparison of Security Management Elements in AEO Authorization Criteria by Economies >

Economy Criteria	Australia	Indonesia	Japan	Republic of Korea	Malaysia	The Republic of the Philippines	The Russian Federation	Singapore	Chinese Taipei	Thailand	United States	Viet Nam
Business Partner Evaluation (Existing Partners)	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes
Business Partner Evaluation (New Partners)	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes
Compliance with Security Criteria by Business Partners	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes
Prevention of Unauthorized Access to Conveyances and Containers	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes
Seal Management	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes	✔ Yes

Economy Criteria	Australia	Indonesia	Japan	Republic of Korea	Malaysia	The Republic of the Philippines	The Russian Federation	Singapore	Chinese Taipei	Thailand	United States	Viet Nam
Conveyance Inspection and Management	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Pest Contamination Control	✗ No	✗ No	✗ No	✓ Yes	✗ No	✗ No	✗ No	✗ No	✗ No	✗ No	✓ Yes	✓ Yes
Cargo Staging Area Management	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Secure Storage of Conveyances	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Employee Identification System	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Restricted Area Management	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Visitor Control and Escort Procedures	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Mail and Parcel Screening	Partial ¹	✗ No	✗ No	Partial ²⁰	✗ No	Partial ¹⁷	✗ No	✗ No	✗ No	✗ No	✓ Yes	✗ No

Economy Criteria	Australia	Indonesia	Japan	Republic of Korea	Malaysia	The Republic of the Philippines	The Russian Federation	Singapore	Chinese Taipei	Thailand	United States	Viet Nam
Challenge and Response to Unauthorized/Unidentified Persons	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Pre-employment Verification	Partial ²	Partial ⁸	Partial ¹¹	✓ Yes	Partial ¹⁴	✓ Yes	Partial ²⁵	Partial ²²	Partial ⁵	Partial ²⁷	✓ Yes	✓ Yes
Periodic Review of Existing Employees	✗ No	✗ No	✗ No	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Partial ²³	✗ No	✓ Yes	✓ Yes	✓ Yes
Revocation of Access for Former Employees	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Control of Access by Unauthorized Persons and Items	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Accuracy Control of Customs Declaration Information	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes

Economy Criteria	Australia	Indonesia	Japan	Republic of Korea	Malaysia	The Republic of the Philippines	The Russian Federation	Singapore	Chinese Taipei	Thailand	United States	Viet Nam
Timeliness Control of Customs Declaration Information	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Accuracy Assurance from Business Partners	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Cargo Movement Traceability	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Perimeter Fencing Installation and Management	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Entry and Exit Point Control	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Facility Security Management	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Locking Device Installation and	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes

Economy Criteria	Australia	Indonesia	Japan	Republic of Korea	Malaysia	The Republic of the Philippines	The Russian Federation	Singapore	Chinese Taipei	Thailand	United States	Viet Nam
Control												
Lighting Management	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✗ No	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Surveillance of Cargo Handling and Storage Areas	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Documentation of IT Security Policies	Partial ³	Partial ⁹	Partial ¹²	✓ Yes	Partial ¹⁵	Partial ¹⁸	Partial ²⁶	Partial ²⁴	Partial ⁶	Partial ²⁸	✓ Yes	✓ Yes
Prevention of IT System Misuse	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Installation of Software/Hardware to Block Malware and Intrusions	✓ Yes	✓ Yes	✓ Yes	Partial ²¹	✓ Yes	Partial ¹⁹	✓ Yes	✗ No	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Security Threat and Risk Awareness Training	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes

Economy Criteria	Australia	Indonesia	Japan	Republic of Korea	Malaysia	The Republic of the Philippines	The Russian Federation	Singapore	Chinese Taipei	Thailand	United States	Viet Nam
Job-Specific Training (e.g., Customs Procedures, Export/Import)	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Security Management Training (Ethics, IT, etc.)	Partial ⁴	Partial ¹⁰	Partial ¹³	✓ Yes	Partial ¹⁶	✓ Yes	✓ Yes	✓ Yes	Partial ⁷	✓ Yes	✓ Yes	✓ Yes

Note:

¹ Australia (Australian Trusted Trader – ATT) – Mail and Parcel Screening: The ATT program does not explicitly require mail or parcel screening. Such measures are implicitly encouraged under broader site security protocols designed to prevent unauthorized access to goods or sensitive areas.

² Australia (ATT) – Pre-employment Verification: The ATT program does not explicitly require pre-employment background checks or verification of employment history. Workforce screening practices are left to the discretion of companies, supported by general security awareness and personnel identification controls.

³ Australia (ATT) – Documentation of IT Security Policies: The ATT program does not explicitly require companies to maintain formal, standalone IT security policy documents. While safeguards to ensure data integrity and prevent misuse are required, the format and level of documentation are not prescribed.

⁴ Australia (ATT) – Security Management Training: The ATT program mandates security awareness training but does not explicitly detail topics

such as business ethics or IT security. Companies are encouraged to tailor content to their operational risks.

⁵ *Indonesia (AEO) – Pre-employment Verification: No explicit requirement for background checks or applicant history verification. Considered best practice but not codified in AEO guidelines.*

⁶ *Indonesia (AEO) – Documentation of IT Security Policies: No explicit requirement to maintain formal, standalone IT security policy documents; requirements are left to company discretion.*

⁷ *Indonesia (AEO) – Security Management Training: General training on trade security and customs procedures is mandated, but there is no explicit requirement for ethics or cybersecurity content.*

⁸ *Japan (AEO) – Pre-employment Verification: Does not explicitly require background checks or verification of applicant history. Screenings are encouraged but not mandated.*

⁹ *Japan (AEO) – Documentation of IT Security Policies: No explicit requirement for standalone IT security policy documents; format and detail left to company discretion.*

¹⁰ *Japan (AEO) – Security Management Training: Training is mandatory, but there is no explicit requirement to cover ethics or IT security.*

¹¹ *Malaysia (RMCD AEO) – Pre-employment Verification: No explicit requirement for background checks or applicant history verification; encouraged but not mandated in RMCD guidelines.*

¹² *Malaysia (RMCD AEO) – Documentation of IT Security Policies: No explicit requirement for formal standalone IT security policies; IT system management required, but documentation format/detail left to company discretion.*

¹³ *Malaysia (RMCD AEO) – Security Management Training: Training and awareness programs are mandatory, but ethics or IT security modules are not explicitly required.*

¹⁴ *The Republic of the Philippines (AEO) – Mail and Parcel Screening: Not explicitly required. While general security procedures such as reporting suspicious items are mandated, formal mail/parcel screening measures are not in the official criteria.*

¹⁵ *The Republic of the Philippines (AEO) – Documentation of IT Security Policies: No explicit requirement for standalone IT security policy documents. Companies must maintain IT safeguards aligned with WCO SAFE standards, but format and extent are flexible.*

¹⁶ *The Republic of the Philippines (AEO) – Installation of Malware/Intrusion Controls: Technical measures are required to prevent malware and*

intrusions, but hardware-based systems (e.g., firewalls, IDS) are not mandated; software-based solutions are acceptable for SMEs.

¹⁷ Republic of Korea (AEO) – Mail and Parcel Screening: Explicitly required for certain business categories under Section 4.3.4.1 of the 2024 guidelines. Not applied uniformly across all AEO types; part of a targeted risk-based approach.

¹⁸ Republic of Korea (AEO) – Installation of Malware/Intrusion Controls: Technical measures required, but hardware-based protections may be waived for SMEs; recommendations given instead.

¹⁹ The Russian Federation (EAEU AEO) – Pre-employment Verification: No explicit requirement for standardized background checks. Screening procedures are applied based on company-specific risk assessments during validation.

²⁰ The Russian Federation (EAEU AEO) – Periodic Review of Existing Employees: No explicit requirement for periodic employee performance/security reviews. Internal audits focus on compliance, not individual assessments.

²¹ The Russian Federation (EAEU AEO) – Documentation of IT Security Policies: Requirements are broad; no explicit mandate for formal, standalone IT security policy documentation as in leading international programs.

²² Singapore (Secure Trade Partnership – STP) – Pre-employment Verification: Staff screening required but no mandate for formal background checks; pre-employment measures are defined by company policies.

²³ Singapore (STP) – Documentation of IT Security Policies: No explicit requirement for standalone IT security policy documents; companies may integrate IT controls into broader security documentation.

²⁴ Thailand (AEO) – Pre-employment Verification: Personnel vetting required, but no explicit requirement for formal background checks (e.g., criminal records).

²⁵ Thailand (AEO) – Documentation of IT Security Policies: No explicit requirement for standalone IT security policy documents; integration into broader manuals is acceptable.

²⁶ Chinese Taipei (AEO) – Pre-employment Verification: No explicit requirement for background checks or candidate verification; left to company discretion under general personnel management practices.

²⁷ Chinese Taipei (AEO) – Documentation of IT Security Policies: No explicit requirement for formal IT security policy documentation. While IT security measures are expected, the format and extent are not mandated.

²⁸ Chinese Taipei (AEO) – Security Management Training: Training for employees involved in customs-related operations is required, but there is no explicit requirement to cover business ethics or IT security.

7.4. Overall Observations on AEO Authorization Criteria

All twelve APEC member economies included in this study exhibit foundational alignment with the WCO SAFE Framework's four core pillars: Legal Compliance, Financial Solvency, Internal Control, and Security Management. These shared pillars provide a common structural basis for regional AEO programs, facilitating greater compatibility and trust in cross-border supply chain operations.

However, this convergence at the structural level masks significant variation in the depth, enforcement, and modernization of AEO implementation across the region. Economies such as Republic of Korea; Singapore; and United States apply highly formalized frameworks characterized by designated compliance officers, digital documentation, periodic internal audits, and codified IT security policies. In contrast, other programs rely more heavily on general guidelines, case-by-case assessments, or company-determined best practices, resulting in uneven operational maturity.

Three thematic areas illustrate these differences:

- **Ethical Governance and Social Compliance:**

United States stands alone in explicitly prohibiting forced labor within its AEO framework, aligning with broader legislative mandates such as the Uyghur Forced Labor Prevention Act (UFLPA). Republic of Korea followed suit in July 2024 by revising its AEO guidelines to include ethical compliance provisions, mandating companies to incorporate anti-forced labor and anti-money laundering (AML) measures into internal control systems. The Republic of the Philippines, while partially addressing forced labor prohibition through adherence to domestic labor laws and relevant international conventions, does not include explicit anti-forced labor or AML provisions within its AEO criteria. Most other economies either lack explicit ethical policy requirements or treat them as secondary compliance elements, potentially hindering regional alignment on integrity-based supply chain governance.

- **Cybersecurity and Digital Risk Management:**

While all economies acknowledge the importance of IT system protection, only a subset -

including Republic of Korea; Singapore; and United States - require formal documentation of IT security policies, and the installation of malware protection software or hardware. Republic of Korea's approach, updated in 2024, also introduces differentiated compliance expectations for SMEs, reflecting a pragmatic balance between security demands and operational feasibility. Other economies, such as Malaysia; The Republic of the Philippines; and Chinese Taipei, promote IT security through general requirements without mandating formal policy documentation or hardware-based controls, often allowing flexible implementation for SMEs.

- **Emerging Physical Security Measures:**

Security management measures such as seal integrity, restricted area access, and visitor control are widely standardized. However, newer areas like pest contamination control, essential for biosecurity and agricultural protection, are only explicitly required in Republic of Korea; United States; and Viet Nam. Republic of Korea's 2024 AEO guideline revision explicitly mandates pest management measures, indicating a broader shift toward integrating environmental risk into supply chain security protocols.

Additionally, institutionalization of compliance accountability has become a regional norm, with nearly all economies requiring the assignment of designated compliance personnel or account managers. However, qualification standards for these roles - such as prior experience or training - remain inconsistently applied.

In summary, while regional AEO programs demonstrate strong structural alignment with the WCO SAFE Framework, disparities remain in the formalization, depth, and specificity of operational requirements. As AEO systems continue to evolve, convergence around specialized and emerging standards - such as ethical governance, digital safeguards, and environmental security - will be essential to enhancing mutual recognition, risk-based facilitation, and global interoperability. Future efforts may also benefit from a tailored approach for SMEs, increased use of digital audit mechanisms, and regional capacity-building to bridge regulatory and institutional gaps.

Part IV. Key Findings and Way Forward

1. Summary of Key Findings

This study provides a comparative overview of AEO programs across twelve APEC economies, using both member submissions and verified public documentation. Although responses were received from only a subset of APEC member economies, the data revealed meaningful patterns in regulatory alignment, operational diversity, and areas for future convergence.

- **Widespread alignment with WCO SAFE Framework**

All surveyed economies have established AEO programs grounded in the core pillars of the WCO SAFE Framework - particularly Pillars I (Customs-to-Customs) and II (Customs-to-Business). Authorization criteria across economies consistently reflect the four foundational components: legal compliance, financial solvency, internal control, and security management.

- **Operational divergence despite structural convergence**

While foundational structures are broadly harmonized, significant differences persist in how AEO criteria are implemented. Economies vary in their formalization of internal audits, documentation standards, personnel qualification requirements, and use of digital tools. Some programs rely on general compliance expectations, whereas others enforce detailed operational controls and mandatory policy documentation.

- **Emerging attention to ethical governance and risk-based screening**

Economies such as Republic of Korea; and United States have begun integrating social compliance standards - such as forced labor prohibition and AML safeguards - into AEO frameworks. Republic of Korea's 2024 guideline revision explicitly mandates these ethical provisions. However, such requirements remain absent or only partially implemented in other economies, indicating the need for broader regional consensus.

- **Strengthening cybersecurity and IT controls**

While all economies recognize the importance of IT system security, the degree of formalization varies. Republic of Korea; and United States stand out for mandating

documentation of IT security policies and malware/intrusion protection. Republic of Korea also introduces a differentiated compliance model for SMEs, promoting scalability without compromising risk standards.

- **Selective progress on biosecurity (e.g., pest control)**

Despite rising global concern about invasive species and agricultural contamination, only Republic of Korea; United States; and Viet Nam explicitly require pest contamination controls within AEO security standards. This illustrates a gap in environmental risk integration across many AEO programs.

- **Meaningful but uneven Mutual Recognition Agreement (MRA) development**

Economies such as Japan; Republic of Korea; Singapore; and United States have actively pursued MRAs, especially with other APEC partners. However, regulatory misalignment, inconsistent terminology, and diverging audit standards continue to complicate operationalization of MRAs.

- **Expanded emphasis on SME inclusion and flexibility**

Several economies - most notably Republic of Korea; and Viet Nam - are extending AEO participation to SMEs through tailored guidelines and simplified validation processes. Republic of Korea's updated framework introduces SME-specific thresholds and exemptions, including flexibility in hardware requirements for cybersecurity.

- **Gradual development of inter-agency cooperation (SAFE Pillar III)**

While Customs-to-Business cooperation is well established across all programs, a shift toward Customs-to-Other-Government-Agency collaboration is emerging. This trend reflects growing recognition of whole-of-government approaches to supply chain risk, enforcement, and trade facilitation.

2. Recommendations and Future Directions

In light of the findings above, the following recommendations are proposed to guide the continued evolution and regional convergence of AEO programs within the APEC region:

1. Strengthen Inter-Agency Cooperation and Operationalize SAFE Framework Pillar III

As AEO programs mature, Customs-to-Other Government Agency (OGA) collaboration is becoming a strategic imperative. Economies are encouraged to move beyond ad-hoc coordination and embed structured inter-agency protocols into their AEO frameworks, in line with SAFE Pillar III. This includes the integration of joint risk profiling, shared inspection platforms, and cross-agency data exchange to enhance coordinated border management and regulatory efficiency.

2. Promote Inclusive Program Design through SME-Differentiated Approaches

Wider SME participation requires the adoption of differentiated authorization models that reflect operational realities. Successful practices include flexible security requirements for small-scale operators (e.g., waivers for hardware-based cybersecurity), simplified audit expectations, and modular AEO tiers. Economies such as Republic of Korea; and Viet Nam demonstrate promising models where SME inclusion is facilitated without compromising program integrity.

3. Deepen the Technical Alignment of Mutual Recognition Arrangements

While MRAs are expanding in number, their practical utility depends on technical interoperability and legal consistency. Economies should prioritize alignment in audit documentation, validation language, and post-certification monitoring practices. APEC may also explore regional or multilateral MRAs to reduce administrative complexity and foster wider network effects across supply chains.

4. Leverage Digital Tools for Risk-Based Oversight and Compliance Management

Advanced IT systems enable more dynamic, scalable AEO oversight. Economies are encouraged to invest in platforms that support automated self-assessments, real-time risk scoring, digital audit trails, and integrated performance dashboards. Republic of Korea; and

United States, for instance, offer models of embedded digital compliance that could be adapted for regional implementation.

5. Establish Transparent Benchmarking Mechanisms to Facilitate Regional Learning

A lack of publicly accessible data limits the potential for cross-economy learning and peer benchmarking. APEC may consider developing a standardized regional dashboard or observatory to track AEO program implementation, policy updates, and performance metrics. Such a platform could promote transparency, drive continuous improvement, and encourage mutual learning among member economies.

Despite the limited response rate, this research reveals clear signals of both convergence and diversification in AEO implementation across the region. Notably, emerging themes - such as ethical governance, SME customization, cybersecurity, and environmental safeguards - are reshaping AEO program expectations beyond traditional customs compliance. By embracing the full spectrum of the WCO SAFE Framework, including proactive application of Pillar III and digital transformation, APEC economies can position their AEO systems for greater resilience, interoperability, and strategic relevance in the evolving global trade landscape

Survey Questionnaire

Survey Questionnaire of AEO Status among APEC members

SURVEY GUIDELINE INSTRUCTIONS

1. This survey aimed at assessing the current status of Authorized Economic Operator (AEO) programs across APEC member economies.
2. The primary objective of this survey is to gather detailed information that will contribute to the creation of an AEO DICTIONARY. This valuable resource will ultimately serve as a tool to facilitate Mutual Recognition Agreement (MRA) negotiations among APEC members.
3. This survey consists of 100 questions covering various aspects of AEO programs, including legislation, validation procedures, benefits, and international cooperation. Due to the depth and breadth of information requested, including several open-ended questions, the time required to complete this survey may vary.
4. We estimate it could take approximately 60-90 minutes, but please feel free to take the time you need to provide thorough and accurate responses.
5. For each question, please mark (O) in the appropriate column (O, X, N/A, Under Development) to indicate the current status.
6. For questions requiring additional explanation or those that are inherently descriptive, please provide your response in the "Comments" section.
7. We sincerely appreciate your time and effort in completing this survey. Your input is invaluable to the success of this initiative.

Please make sure the Survey is delivered to us no later than **May 5th, 2025**, at 24.00 hours Korea Standard Time (KST).

GENERAL INFORMATION

- | | | |
|-----------------|-----------|-----------------|
| 1. Name | 2. Title | 3. Position |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| 4. Organization | 5. E-mail | 6. Home economy |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Category	Check-list	Status				Comments
		O	X	NA	Under development	
Legislation	1. Please briefly describe the composition of AEO legislation.					
	2. What is the superior law (mother law) of AEO legislation? When was each legislation drafted and initiated?					
	3. What is the purpose of the legislation and who may apply for it (government departments, private sector)?					
	4. Is there any program/regulation similar to the AEO Program? If so, please describe its characteristics.					
	5. How is the current organizational structure of the government composed, especially related to AEO?					
	6. What is the collaborative relationship like with front-line customs offices?					
	7. Please describe the main contents of each AEO legislation.					
	8. Where is the AEO-related information documented, and is it published externally?					

Category	Check-list	Status				Comments
		O	X	NA	Under development	
Validation	9. Is there an AEO guideline? Does it have legal effect, and does it consider guidelines from major economies?					
	10. Is there any alleviated guideline for SMEs?					
	11. Is there any guideline that covers post-management of AEO companies?					
	12. What documentation does the validation process rely on?					
	13. Please describe each validation stage (preliminary consultation, certification application, documentary validation, on-site validation, etc.).					
	14. Were there any difficulties encountered during the validation procedure?					
	15. How to apply for preliminary consultation? What is its scope, cost, and who is in charge?					
	16. Is there any specialized treatment for SMEs to give priority of consultation?					

Category	Check-list	Status				Comments
		O	X	NA	Under development	
	17. How does a company apply for AEO certificate? What should applicants be aware of?					
	18. How does your authority conduct Documentary Validation? What is the validation period?					
	19. How does your authority conduct onsite validation? What is the method and period?					
	20. Are documentary validator and onsite validator the same? If not, how is balance maintained?					
	21. Are there any stipulated provisions for waiving validation for certain criteria?					
	22. How are AEO applications from SMEs handled differently?					
	23. How is the AEO Committee structured? What are its key decisions?					
	24. How is the AEO Certificate delivered to companies? Are special events held?					

Category	Check-list	Status				Comments
		O	X	NA	Under development	
	25. What is the procedure for revalidation of a deferred enterprise?					
	26. What are the reasons for rejection of authorization? How is it notified?					
	27. Is there a classification mechanism for authorization criteria? How does the scoring differ?					
	28. What is the procedure for obtaining authorization in various types of operators?					
SMEs Support	29. Are there relaxed AEO authorization criteria specifically designed for SMEs?					
	30. What do you think are important considerations for AEO authorization criteria for SMEs?					
	31. Are there many SMEs showing interest in obtaining AEO authorization? From which sectors?					
	32. Does your organization have relaxed validation techniques for SMEs seeking AEO authorization?					

Category	Check-list	Status				Comments
		O	X	NA	Under development	
	33. Do you feel there is a need for programs to enhance AEO capacity building of validation for SMEs?					
	34. What do you think is the biggest challenge SMEs face during the AEO authorization process?					
	35. Are there support programs available for SMEs to obtain AEO authorization?					
	36. What should be the primary focus of education to enhance AEO capabilities for SMEs?					
	37. How do you think costs should be managed when providing education to enhance AEO capabilities for SMEs?					
	38. Are there benefits granted specifically to SMEs when obtaining AEO criteria?					
	39. Have you conducted surveys to understand the demands and preferences of SMEs regarding AEO benefits?					
	40. Do you have any special tools (manuals, systems, etc.) for SMEs to obtain AEO authorization?					

Category	Check-list	Status				Comments
		O	X	NA	Under development	
Post Management	41. Have you established legal regulations for post-management of AEO?					
	42. Do you conduct periodic AEO Assessment for AEO companies?					
	43. How are the results of the AEO Assessment reported and recorded?					
	44. Have you established a system for Comprehensive audits after obtaining AEO authorization?					
	45. Do AEO companies designate AEO managers? What are the designation criteria?					
	46. Have you established regulations for handling changes in AEO companies?					
	47. Are there any penalties for not reporting changes in a timely manner?					
Benefits	48. Are AEO companies excluded from customs investigations such as focused audit or post-clearance audit?					

Category	Check-list	Status				Comments
		O	X	NA	Under development	
	49. Is there a reduction in fines for AEO companies violating customs law?					
	50. Is there priority given to AEO companies when new policies come into force?					
	51. Do you provide AEO-relevant information (potential risks, new regulations, etc.) to AEO companies?					
	52. What are the AEO MRA benefits (reduced inspection rates, simplified document verification, etc.)?					
	53. Is there a reduced rate of document submission required when AEO companies report exports?					
	54. Is there a lower inspection ratio for AEO companies when reporting exports?					
	55. Is there an automatic issuance of certificates of origin for AEO export companies?					
	56. Are there simplified customs procedures for AEO import companies?					

Category	Check-list	Status				Comments
		O	X	NA	Under development	
	57. Can AEO companies pay taxes once a month?					
	58. Are AEO companies exempted from the obligation of providing collateral?					
	59. Are there benefits for AEO companies' bonded factories (storage expansion, raw material taxation, etc.)?					
	60. Is there preferential immigration screening for representatives of AEO companies?					
	61. Are there additional points given to AEO companies in government evaluations?					
	62. Are there benefits for AEO freight forwarders (omission of business inspection, etc.)?					
	63. Are there benefits for AEO bonded area operators (extension of patent period, easing of punishment, etc.)?					
	64. Are there indirect benefits for AEO companies (reduced cargo loss, improved client loyalty, etc.)?					

Category	Check-list	Status				Comments
		O	X	NA	Under development	
MRA	65. Have you designated MRA negotiators strategically?					
	66. How many economies have your economy concluded Customs Mutual Assistance Agreements with? Do these include AEO MRA?					
	67. Have you established a roadmap or strategy for successful conclusion of AEO MRA with other economies?					
	68. Do you conduct trade statistics analysis and gap analysis of AEO Authorization criteria with MRA preferred economies?					
	69. What are the main benefits of MRA (reduced inspection rates, prioritized clearance, etc.)?					
	70. Which stage of the WCO's MRA procedures do you find most difficult?					
	71. How do you implement MRA benefits for exports and imports?					
Cooperation with OGAs	72. Do government agencies including Customs follow Global Standards or Guidelines?					

Category	Check-list	Status				Comments
		O	X	NA	Under development	
	73. Is your customs department aware of new global concepts like "Expanding AEO to E-commerce" and "Expanding AEO to Free Zones"?					
	74. List major agencies that conduct customs-related activities along with the customs department.					
	75. Are there activities conducted by more than two government agencies during the export/import process?					
	76. How do relevant government agencies reduce duplicated inspections/quarantines/patents?					
	77. Is there regular communication among government agencies?					
Promotion	78. Do you have policies for enhanced periodic promotion and educational activities for AEO?					
	79. Is there a private-sector forum for sharing AEO-related information?					
	80. Is there an annual budget allocation for AEO promotion within Customs?					

Category	Check-list	Status				Comments
		O	X	NA	Under development	
	81. Is there a cooperation framework between large corporations and SMEs for AEO-related mutual benefit?					
	82. Do you hold regular meetings with AEO holders and potential AEO companies?					
	83. Are there communication channels with industry associations (SME associations, Chamber of Commerce, etc.)?					
	84. Do you have promotional materials such as videos, brochures, etc., for AEO?					
	85. Do you provide customized content for different needs (AEO preparation guidance, benefits overview, etc.)?					
	86. Do you organize best practice contests for AEO?					
	87. Do you collaborate with other government agencies for AEO promotion?					
Performance & Future Plans	88. What is the current number of AEO certified companies and the year-on-year growth trend?					

Category	Check-list	Status				Comments
		O	X	NA	Under development	
	89. What is the distribution of AEO certified companies by industry and size?					
	90. Have you analyzed the impact of AEO certification on companies' import/export performance?					
	91. Do you conduct satisfaction surveys among AEO certified companies? What is the main feedback?					
	92. Have you measured the economic effects of the AEO program (cost savings, reduced clearance times, etc.)?					
	93. Have you assessed the impact of the AEO program on national competitiveness?					
	94. Are AEO certification standards being internationally standardized?					
	95. How do you handle AEO certification for multinational corporations?					
	96. Are there plans to expand the AEO program to new sectors or types of operators?					

Category	Check-list	Status				Comments
		O	X	NA	Under development	
	97. How do you ensure the security and confidentiality of information shared by AEO companies?					
	98. Are there mechanisms for AEO companies to provide feedback or suggestions for program improvement?					
	99. How do you handle AEO certification for companies in special economic zones or free trade zones?					
	100. Are there any ongoing or planned reforms to your AEO program?					

Appendix 2. Time Release Study Report

Abbreviations

AEO : Authorized Economic Operator

MRA : Mutual Recognition Arrangement

TRS : Time Release Study

WCO : World Customs Organization

WTO TFA : World Trade Organization Trade Facilitation Agreement

APEC : Asia-Pacific Economic Cooperation

PPP : Purchasing Power Parity

ERP : Enterprise Resource Planning

KCS : Korea Customs Service

USD : United States Dollar

KRW : Korean Won

Executive Summary

This report presents the results of a Time Release Study (TRS) conducted by the Korea AEO Association, with the cooperation of the Korea Customs Service (KCS), to evaluate the economic impact of the Authorized Economic Operator (AEO) program in Republic of Korea from 2021 to 2023. As part of an APEC-funded initiative, the study aimed to assess the quantitative benefits of AEO certification, particularly in terms of customs clearance efficiency and cost savings, both domestically and through Mutual Recognition Arrangements (MRAs).

The study adopted standardized TRS methodology, following the WCO Time Release Study (TRS) Guidelines, combining survey data from over 300 AEO-certified companies, customs clearance records, and economic modeling. Key performance indicators included reduction in inspection rates, time savings through electronic and ERP-based customs procedures, and international cost savings enabled by MRAs.

Key findings include:

- AEO-certified companies experienced measurable reductions in customs clearance times and costs compared to non-AEO companies.
- Domestic cost savings reached approximately USD 19.2 million per year in both 2022 and 2023, based on average annual exchange rates.
- Overseas cost savings from MRAs nearly doubled in 2022 (+96%) and remained high in 2023 (KRW 79.3 billion, 58.2 million USD).
- Benefits were most pronounced in high-volume trade sectors, notably semiconductors, petrochemicals, and electronics.

The study concludes that AEO programs, particularly when reinforced through MRAs, contribute significantly to trade facilitation by enhancing predictability, reducing costs, and promoting supply chain efficiency. The report also identifies challenges related to data access, inter-agency coordination, and methodological limitations.

To support broader APEC adoption and standardization, the report recommends harmonizing MRA implementation, leveraging TRS frameworks to showcase the benefits of the AEO

program and MRAs, strengthening public–private data collaboration, and enhancing inter-agency integration.

Chapter I. Introduction

1. Background and Rationale

In recent years, the Authorized Economic Operator program has gained prominence as a key instrument for promoting efficient and secure global trade. By certifying trusted traders who demonstrate compliance with Customs requirements, AEO programs offer tangible benefits such as expedited clearance, reduced inspections, and enhanced predictability in supply chains. These programs are increasingly seen not only as compliance tools but also as drivers of economic competitiveness.

To maximize these benefits across economies, Mutual Recognition Arrangements (MRAs) have emerged as vital mechanisms that allow AEO-certified companies to receive comparable benefits in partner economies. MRAs are intended to build mutual trust between Customs administrations and to ensure that the facilitation measures granted to trusted traders are upheld internationally.

Despite the theoretical advantages, there has been limited empirical analysis that quantifies the real-world impact of AEO programs and MRAs - especially in the Asia-Pacific region. This study responds to that gap by using the Time Release Study framework to measure clearance time reductions and cost savings attributable to AEO participation, with a focus on Republic of Korea and selected MRA-implementing partner economies. The rationale behind this effort is to generate robust, evidence-based insights that support further expansion of AEO programs and deeper MRA cooperation among APEC member economies

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2. Relevance to WTO TFA and APEC Objectives

The relevance of this study is firmly rooted in the implementation of the World Trade Organization's Trade Facilitation Agreement (WTO TFA), particularly Article 7.7, which calls for the establishment of authorized operator programs and encourages mutual recognition of such schemes (WTO TFA, Art. 7.7). By assessing how AEO programs and MRAs contribute to reducing release times and enhancing predictability, this study directly aligns with the TFA's goals of simplifying and expediting the movement, release, and clearance of goods.

Moreover, the study supports broader APEC objectives related to regional economic integration, trade facilitation, and supply chain connectivity. APEC economies, recognizing the strategic importance of trusted trader programs, have increasingly prioritized capacity building, institutional cooperation, and the promotion of harmonized AEO practices. By providing concrete evidence on the performance and impact of AEO-related measures, the findings of this study are expected to inform future policy decisions and foster greater collaboration within the APEC region.

Chapter II. Study Objectives and Scope

1. Purpose of the Time Release Study

The primary objective of this Time Release Study was to empirically assess the economic effects of AEO certification, with a focus on quantifying measurable benefits for certified companies in both domestic and international trade environments. While the theoretical advantages of AEO and MRAs are widely acknowledged, this study aimed to move beyond qualitative assessments and provide concrete, data-based findings.

Specifically, the study measured the direct, quantitative benefits associated with expedited clearance, simplified customs procedures, and preferential treatment under AEO and MRA frameworks. By applying the WCO Time Release Study methodology and integrating localized data, the study sought to:

- Evaluate the extent of time and cost savings achieved by AEO-certified companies.
- Analyze the role of MRAs in enhancing cross-border clearance efficiency.
- Identify the relative impacts of various AEO benefits, such as reduced inspection rates, electronic customs clearance, ERP declarations, and tax payment facilitation.
- Present year-by-year findings, disaggregated by year (2022 and 2023), benefit type, and business sector.
- Support evidence-based policymaking and promote the continued expansion of the AEO program and MRAs across the APEC region.

2. Scope of Economies and Sectors Analyzed

The study covered 303 AEO-certified import/export companies in Republic of Korea for both 2022 and 2023. This sample encompassed approximately 66% of all certified operators in the import/export sector for each year - specifically, out of 283 exporters and 171 importers in 2022, and 281 exporters and 176 importers in 2023, based on official AEO registration

records. These companies accounted for over 70–80% of the economy's total import and export volume, providing a strong basis for industry-wide analysis. The analysis included companies from various sectors such as electronics, chemicals, automotive, logistics, and manufacturing, allowing for meaningful comparisons across industries.

While 22 MRA partner economies were in force as of end-2022 and 23 in 2023, the actual cost savings estimates were calculated based on a consistent set of 19 economies with validated implementation data for both years. Therefore, year-on-year comparisons reflect changes in utilization and benefit realization, not merely the increase in MRA partners. These 19 economies include Australia; Canada; People's Republic of China; Hong Kong, China; Indonesia; Japan; Malaysia; Mexico; New Zealand; Peru; Singapore; Chinese Taipei; Thailand; United States; Dominican Republic; India; Israel; Türkiye; and United Arab Emirates. These were selected based on verified bilateral MRA implementation data available for both 2022 and 2023. In particular, data for Indonesia in 2022 were extracted only for the period following its MRA entry into force on 30 June 2022, to ensure consistency with actual operational implementation.

Key components of the analysis included:

- Domestic effects: Measurable benefits from reduced inspection rates, electronic customs clearance, ERP-based declaration cost savings, and deferred tax payment advantages.
- International effects: Reduced import inspection rates in MRA partner economies, and additional operational benefits for exporters.

This wide coverage enabled the study to generate statistically meaningful conclusions regarding the cost-effectiveness of AEO certification and the added value of MRAs, both from the perspectives of Customs administrations and private sector stakeholders.

Chapter III. Methodology

1. Data Collection and Sampling

The Time Release Study was conducted using empirical data collected from AEO-certified import and export companies in Republic of Korea for the years 2022 and 2023. The sample consisted of 303 companies each year - approximately 50–51% of all certified AEO operators as of December - selected via stratified sampling across exporters, importers, company size, and sector to ensure representativeness.

Data were retrieved quarterly from customs clearance systems, with rigorous data-quality procedures including de-duplication, correction of outliers, and cross-validation with domestic trade statistics. All company identifiers were anonymized in accordance with Korean Customs confidentiality guidelines and OECD privacy standards.

The analysis included the following categories of AEO-certified entities:

- Exporters
- Importers

For the international dimension, the analysis applied the same fixed group of 19 validated MRA partner economies described in Chapter 2. This ensured consistency and comparability across both years.

Data were sourced from:

- Customs clearance records
- MRA implementation statistics exchanged between partner Customs administrations
- WCO and Korean Customs guidance on TRS methodology

2. Measurement Indicators and Calculation Models

The following indicators were used to measure the direct economic benefits of AEO certification in both domestic and international contexts.

(1) Domestic Benefits for Importers

- Reduced inspections:

$(\text{Average general inspection rate} \times \text{total declarations} - \text{actual inspections}) \times \text{cost per inspection (KRW 267,000 per case)}$

- Electronic customs clearance:

$\text{Electronic clearances} \times \text{time saved (1.5 hours)} \times \text{hourly minimum wage}$
(KRW 9,160 in 2022, KRW 9,620 in 2023)

- ERP-based import declarations:

$\text{ERP declaration count} \times \text{standard customs broker fee}$
(KRW 30,000 per import declaration / KRW 15,000 per export declaration, excluding VAT)

(2) International Benefits for Exporters (MRA-based)

- International cost savings were estimated using a per-container model, reflecting the additional logistics costs incurred due to clearance delays caused by import inspections in MRA partner economies:

$\text{Export volume} \times \text{reduction rate} \times \text{inspection-related logistics cost per container (USD 1,500)} \times \text{PPP index} \times \text{exchange rate}.$

This model does not reflect general shipping costs but rather estimates the cost savings from avoiding inspection-related delays, including demurrage, storage, and handling costs, based on AEO exporter feedback and bilateral implementation statistics.

■ Components of the MRA-Based International Cost Savings Estimation

- Reduction rate
 - Based on AEO MRA implementation statistics exchanged bilaterally between Korea Customs and its MRA partners.
- Per-container logistics cost
 - Standardized at USD 1,500, representing the estimated cost burden from inspection-related clearance delays, including demurrage, storage, and handling. This figure does not reflect average freight charges but approximates the additional logistics cost avoided through preferential AEO treatment in MRA partner economies.
- Purchasing Power Parity (PPP) index
 - Derived from The Economist's Big Mac Index, adjusted relative to United States baseline to reflect relative price levels.
- Average exchange rate
 - Annual averages published by the Bank of Korea Economic Statistics System.

3. Analytical Tools and Approaches

The study employed both descriptive and comparative analysis methods to evaluate the impact of AEO programs:

- Time-series analysis:
Comparison of benefit values across 2021, 2022, and 2023 to detect trends and shifts in AEO impact.
- Cost-benefit quantification:
Conversion of operational improvements into monetary terms using unit costs and wage benchmarks.
- Industry-specific comparisons:
Ranking of companies by total AEO-related benefits, enabling identification of sectors (e.g., semiconductors, electronics, chemicals) that derived the greatest economic value.
- Partner-economy benchmarking:

Use of MRA implementation data to compare how benefits materialized differently across jurisdictions.

All findings were compiled in alignment with the WCO TRS standards to ensure methodological consistency and policy relevance.

Chapter IV. Key Findings

1. Domestic Clearance Efficiency & Cost Savings for AEO-Certified Companies

The Time Release Study confirmed a consistently positive impact of AEO certification on customs clearance efficiency in Republic of Korea from 2021 to 2023, underscoring the program's strategic value in domestic trade facilitation. AEO-certified companies benefited from a combination of simplified procedures, reduced inspections, and digitalized customs processes, which collectively resulted in measurable time and cost savings.

Key findings include:

- **Reduction in import inspections** led to substantial time savings. Avoided inspections were calculated based on the gap between general inspection rates and actual inspection rates applied to AEO-certified shipments.
- **Electronic customs clearance**, a key component of the AEO framework, enabled faster processing. Each electronically reviewed declaration was estimated to save 1.5 hours - an assumption revised from 2 hours in 2021 to reflect updated operational data.
- **ERP-based customs declarations**, increasingly adopted since 2022, further streamlined clearance processes. Expanded usage was particularly evident among large importers in the electronics and petrochemical sectors.

The operational gains outlined above were accompanied by tangible cost savings for AEO-certified companies, as summarized in Table IV-1 below.

<Table IV-1. Annual Domestic Economic Benefits for AEO-Certified Companies (2021-2023)>

Category	2021(million USD)	2022(million USD)	2023(million USD)
Reduced inspection logistics cost	6.00	7.08	6.77
Electronic customs clearance	27.38	9.31	10.00
ERP-based customs declarations	-	2.85	2.62
Total Domestic Benefits	33.38	19.23	19.38

Note: The sharp decrease in electronic clearance benefits from 2021 to 2022 reflects a revision in the calculation method - specifically, reduced assumed processing time (from 2 hours to 1.5 hours) and unit cost (from KRW 20,000/hour to the statutory minimum wage).

Despite the methodological adjustment in 2022, the overall benefit level remained stable year-over-year, indicating the structural robustness of AEO-driven facilitation. Sector-specific trends were also notable: electronics and automotive manufacturers saw greater gains from streamlined inspection and clearance, while ERP-based declarations were especially utilized by petrochemical firms and large importers of intermediate goods.

These results reaffirm that AEO certification delivers quantifiable benefits not only through risk-based inspection reduction but also by promoting adoption of efficient, technology-driven customs processes.

2. International Impact of Mutual Recognition Arrangements

Between 2021 and 2023, Republic of Korea's Mutual Recognition Arrangement (MRA) network expanded from 22 to 23 operational agreements, reinforcing the external reach and credibility of its AEO program in international trade. This expansion reflects Republic of Korea's commitment to bilateral and regional trade facilitation and has yielded measurable benefits for certified exporters.

AEO-certified companies engaged in trade with MRA partner economies benefited from

preferential treatment - most notably, reduced inspection rates and expedited customs clearance. These benefits translated into significant cost savings, particularly in ocean freight logistics, where clearance delays can result in demurrage, inventory disruptions, and increased handling costs.

The cost savings were estimated using a standardized per-container model, which assumes average logistics savings of USD 1,500 per container, adjusted using purchasing power parity (PPP) indices to reflect local price levels in partner economies.

The summary of benefits is presented in the table below:

<Table IV-2. Annual International Economic Benefits from MRAs (2021-2023)>

Category	2021(million USD)	2022(million USD)	2023(million USD)
Reduced inspection cost in MRA partner economies	32.3	63.3	61.0
Year-on-year change (%)	-	+ 96%	- 3 %

Compared to 2021, international MRA-related cost savings nearly doubled in 2022, followed by a slight 3% decrease in 2023. Despite this modest decline, the 2023 value remained substantially higher than the 2021 baseline, suggesting a sustained and maturing impact of MRA implementation. While the number of operational MRAs increased during this period, all international benefit estimates in this study were derived from a fixed group of 19 economies with validated implementation data for both 2022 and 2023. Indonesia's 2022 data were included only from July onward, in line with its MRA activation on 30 June 2022.

These trends reflect consistent MRA implementation across the 19 economies used for comparative analysis.

Several factors appear to have contributed to this trend:

- Increased operational utilization of MRAs by exporters, particularly in sectors with large-volume, recurring trade patterns (e.g., semiconductors, petrochemicals, and heavy industry).

- Improved awareness and application of AEO status by consignors and customs brokers in partner economies, leading to more consistent use of expedited clearance channels.
- Expansion of Republic of Korea legal entities and logistics bases abroad, particularly in MRA partner economies, including those involved in inward and outward processing operations, which are well-positioned to leverage MRA benefits in practice.

Notably, the increase in benefits reflects improved operational utilization rather than a broader MRA coverage, as the analysis was conducted using the same set of 19 validated partners.

These findings reaffirm the strategic importance of MRAs in expanding the reach of AEO benefits beyond domestic borders. In addition to delivering tangible cost savings, MRAs enhance the predictability, transparency, and trust in bilateral trade flows, contributing to supply chain reliability and regional economic integration.

As more APEC economies implement and deepen their MRA engagements, Republic of Korea's experience underscores the value of institutional coordination, private sector awareness, and operational readiness to realize the full potential of cross-border AEO cooperation.

3. Sector-Specific Insights and Trends

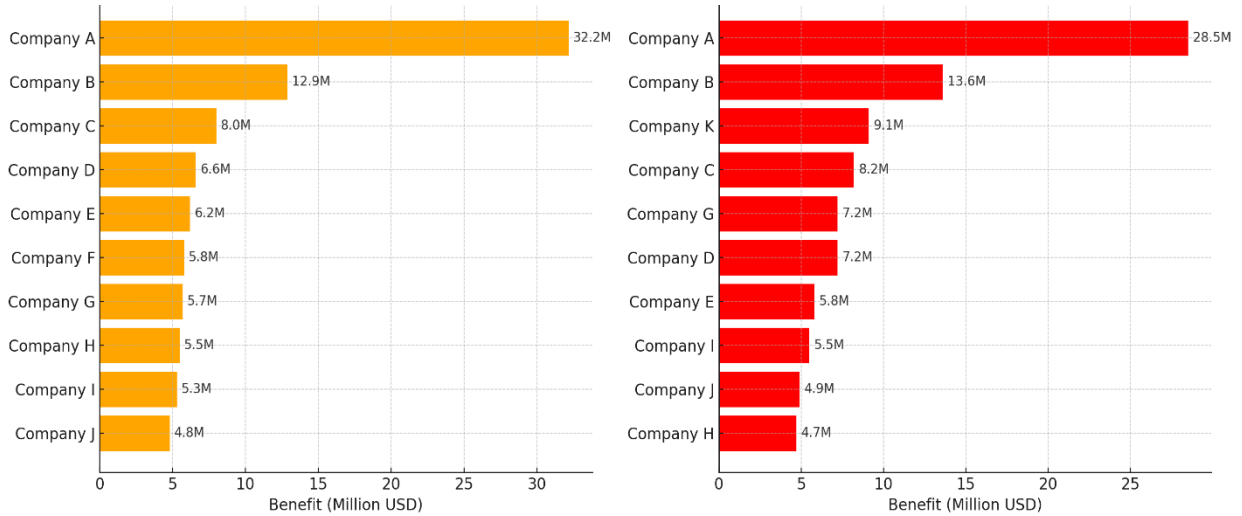
Note: For confidentiality, all company names have been anonymized (e.g., Company A, B, C) throughout this section and the corresponding figures.

3.1 Overall Top Beneficiaries by Total AEO Benefits

Across both 2022 and 2023, the companies receiving the highest overall AEO-related benefits were concentrated in the semiconductor, electronics, and chemical industries. These companies had substantial trade volumes and leveraged digital customs integration, and active participation in MRA-based trade.

The graph below presents the top 10 beneficiaries in 2022 and 2023:

< Figure IV-1. Top 10 Companies by Total AEO Benefits (2022-2023)>



While the rankings varied slightly between the two years, a consistent set of companies maintained top positions, indicating a stable group of major beneficiaries. Company A (electronics) led both years, although its total benefit decreased slightly in 2023. Other recurring high-performing firms included Company B (electronics), Company C (chemicals), and Company E (semiconductors), reflecting the strong export orientation and customs compliance capacity of Republic of Korea’s leading manufacturing sectors.

Notably, companies in the semiconductor and electronics industries benefited from high trade volumes combined with the operational efficiency of ERP-based customs declarations and reduced inspection rates under MRAs. Firms in the chemical and automotive sectors also consistently appeared among the top 10, indicating the AEO program’s relevance across different high-volume export sectors.

The slight shifts in ranking from 2022 to 2023 also suggest increased competitiveness and growing awareness of AEO-related advantages among other firms. These trends highlight the continued importance of facilitating MRA utilization and digital customs integration to maximize the program’s impact.

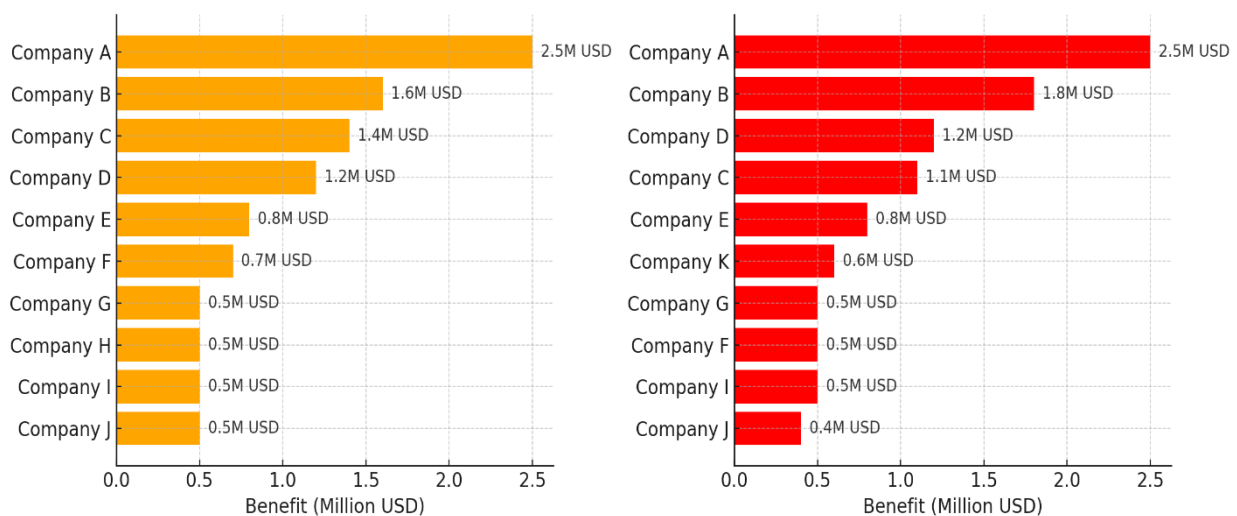
3.2 Top Beneficiaries of Domestic Expedited Clearance Benefits

This category identifies companies that gained the most from domestic expedited clearance measures - such as reduced import inspections, electronic customs clearance, and ERP-based processing. Notably, these companies were exporters that also function as importers, often bringing in intermediate goods or machinery for further processing or re-export.

The dominant sectors in this category include automotive components, electronics manufacturing, and air cargo logistics.

The graph below presents the top 10 beneficiaries in 2022 and 2023:

< Figure IV-2. Top 10 Domestic Expedited Clearance Benefits (2022-2023)>



While Company A (electronics) consistently topped the rankings across both years, it is noteworthy that several logistics-intensive firms-such as Company B (air cargo logistics) and Company D (automotive components) - secured high benefit positions. This reflects the operational advantages AEO provides to companies engaged in frequent import activities, especially in the automotive and cargo sectors.

The appearance of Company C (electronics), Company E (semiconductors), and Company G (electronics) further confirms the importance of digital readiness and customs integration in

maximizing the value of expedited clearance. These firms routinely import production inputs such as semiconductors, displays, and electronic components, and therefore benefit greatly from reduced inspection rates and streamlined entry procedures.

The modest fluctuations between 2022 and 2023 - such as Company H (automotive) replacing Company J (electronics) in the top 10 - suggest a broader diffusion of AEO benefits among new players. This points to increasing awareness and adoption of AEO tools among Republic of Korea-based importers, particularly those involved in global manufacturing supply chains.

Overall, the data affirm that domestic expedited clearance measures offer tangible, recurring benefits to companies with high-volume, time-sensitive import flows - especially when these are backed by digital systems and operational readiness.

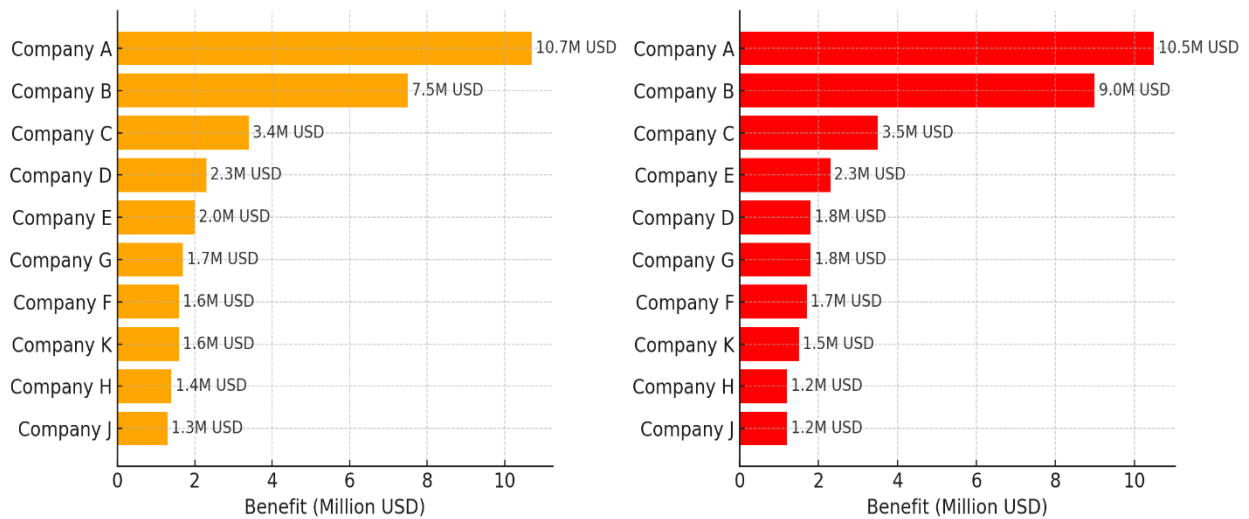
3.3 Top Beneficiaries of International Expedited Clearance Benefits

This section highlights companies that benefitted most from overseas expedited clearance due to Republic of Korea's MRAs. These are typically domestic exporters whose goods received preferential treatment in partner economies, leading to reduced inspection rates and faster border clearance.

Major beneficiaries include companies in the semiconductor, petrochemical, and heavy industry sectors, which frequently ship large volumes to MRA partner economies.

The graph below presents the top 10 beneficiaries in 2022 and 2023:

< Figure IV-3. Top 10 International Expedited Clearance Benefits (2022-2023)>



While Company A (electronics) maintained the top position across both years, it is notable that Company B (electronics) and Company C (chemicals) also ranked consistently high. These companies export large volumes of intermediate and finished goods - particularly semiconductors, electronics, and chemicals - to MRA partner economies included in the TRS analysis, where preferential treatment under validated MRA implementation enabled them to realize significant clearance cost savings.

A closer look at the rankings reveals the recurring presence of globally integrated manufacturers such as Company G (electronics), Company F (trading and resource development), and Company D (automotive components), all of which gained from reduced inspection costs and faster clearance at foreign customs. The emergence of Company E (Chemicals) and the sustained presence of Company J (semiconductor services) indicate that firms beyond flagship conglomerates are increasingly leveraging MRA-based advantages.

In addition, the growing presence of Republic of Korea-registered entities in MRA partner economies has contributed to increased international benefit realization. Many of these entities engage in inward and outward processing operations, allowing them to qualify for preferential treatment under MRAs as recognized AEO consignors. This structure extends the reach of AEO benefits beyond traditional exporters to include companies embedded in cross-border production and processing networks.

Although the overall benefit amounts remained relatively stable from 2022 to 2023, this trend

reflects more active and consistent operational use of MRAs among the 19 partner economies included in the analysis, rather than expansion of MRA coverage. This trend demonstrates that AEO recognition abroad is not limited to Republic of Korea's largest exporters, but is expanding in scope and depth across the broader trade ecosystem.

These findings underline the importance of continuing to promote MRA utilization abroad - through targeted outreach, customs-broker education, and government-to-government alignment - so that exporters of all sizes, including those operating under overseas Republic of Korea entities, can fully capture the time and cost benefits associated with AEO recognition in partner economies.

Chapter V. Limitations and Constraints

1. Data and Scope Limitations

The findings of this study are subject to several limitations related to data availability and the scope of analysis.

First, the scope of the Time Release Study was limited to Republic of Korea's AEO-certified companies and did not include comparative data from non-AEO companies. Additionally, despite Republic of Korea's efforts to obtain detailed clearance data from MRA partner economies, access was constrained by legal and administrative barriers. In particular, economy-specific inspection data from partner customs authorities were not fully shared, preventing a more granular analysis of pre- and post-MRA impacts.

Moreover, Republic of Korea's customs clearance system already maintains a high level of efficiency, potentially limiting the observable differences between AEO and non-AEO procedures. This structural advantage may have limited the measured impact of AEO certification, particularly in terms of time reduction. Furthermore, inspections carried out by other government agencies - such as quarantine, food safety, and standards authorities - were excluded from the study, thus narrowing the scope of the clearance time evaluation.

Data collection was also constrained by the response rate and data quality among selected companies. Although efforts were made to standardize formats and clarify survey items, variations in internal data management systems across companies led to inconsistencies and, in some cases, incomplete submissions.

Although Republic of Korea had 22 to 23 MRAs in force during the study period, only 19 partner economies provided consistent operational data usable for cost-benefit analysis. This limitation affects the interpretation of growth trends, which may not directly reflect the numeric increase in MRA partners. As a result, benefit estimates for 2022 and 2023 were derived from this fixed group of 19 economies, ensuring valid year-on-year comparisons.

2. External Factors and Contextual Challenges

In addition to data-specific limitations, external and contextual factors posed challenges to the interpretation of results. Global logistics conditions fluctuated significantly during the study period due to post-pandemic recovery, disruptions in international shipping, and broader economic volatility. These macro-level factors could have independently influenced clearance times and logistics costs, irrespective of AEO participation.

Furthermore, the level of MRA implementation varied widely among partner economies. While some partners applied expedited clearance for AEO-certified exporters consistently, others showed delays or partial implementation due to differences in institutional readiness or legislative processes. These inconsistencies affect the comparability of international benefits across different MRA relationships.

Lastly, the calculation of overseas cost savings relied on estimated inspection cost reductions based on proxy indicators - such as a standardized logistics cost of USD 1,500 per container and purchasing power parity (PPP) adjustments - rather than actual transaction-level data. While methodologically sound and based on prior studies, this approach involves certain assumptions that may not capture real-world variability in logistics charges or clearance practices.

In addition, anecdotal feedback from AEO-certified companies suggests that some consignors and customs brokers in MRA partner economies may lack awareness of the AEO status of Republic of Korea exporters or may be unfamiliar with the procedures required to invoke MRA benefits. In such cases, preferential treatment may not be applied at the destination customs, resulting in missed opportunities for expedited clearance. These gaps highlight the importance of targeted outreach, training, and communication among supply chain stakeholders in partner economies to ensure that the full value of MRA frameworks is realized in practice.

Chapter VI. Conclusion and Policy Recommendations

1. Summary of Results

This study evaluated the quantifiable economic impacts of Republic of Korea's AEO program and MRAs between 2021 and 2023 using Time Release Study methodology. The following key results were identified:

- **Reduction in Clearance Time:**
AEO-certified companies consistently experienced shorter customs clearance times compared to non-AEO companies. This was largely attributed to reduced inspection rates, faster electronic screening, and automated ERP-based declarations. While Republic of Korea's overall clearance system is already highly efficient, AEO participation still produced incremental time savings, reinforcing its operational value.
- **Cost Savings for AEO-Certified Companies:**
Domestic cost savings - resulting from reduced inspections, simplified electronic clearance, and ERP-based filings - amounted to over approximately USD 19.2 million (KRW 25 billion) annually in 2022 and 2023. Although the total benefit decreased compared to 2021 due to changes in the calculation methodology, the results remain significant. These savings were most concentrated in high-volume sectors such as semiconductors, chemicals, and electronics.
- **Impact of MRAs on International Trade Facilitation:**
The number of operational Mutual Recognition Arrangements (MRAs) increased from 22 in 2022 to 23 in 2023, all international benefit estimates in this study were based on a fixed group of 19 economies with validated implementation data for both years. Compared to 2021, cost savings resulting from reduced inspections in these MRA partner economies increased significantly in 2022 – by approximately 96% – and remained stable in 2023, totaling an estimated USD 61 million (KRW 79.3 billion, 58.2 million USD). These findings underscore the critical role of MRAs in extending AEO benefits across borders, improving the efficiency of international supply chains, and enhancing the predictability of cross-border clearance procedures.

- **Sector-Specific Trends:**

Benefit concentration was observed in specific industries and companies. For example, in both 2022 and 2023, the electronics, petrochemical, and automotive sectors consistently ranked among the top beneficiaries. Separate analysis of domestic vs. overseas benefits revealed that outbound exporters gained significantly from expedited foreign clearance, while large importers enjoyed domestic facilitation advantages.

Collectively, the evidence validates the strategic function of AEO programs and MRAs in enhancing both operational efficiency and cost-effectiveness in cross-border trade. While the number of MRAs in force increased during the study period, the international benefits reported in this study were derived from a fixed group of 19 partner economies with validated implementation data. In particular, several selected companies were found to have expanded their corporate presence in MRA partner economies - often operating through overseas subsidiaries engaged in inward and outward processing activities. This operational structure enabled them to benefit more consistently from MRA-based expedited clearance.

2. Recommendations for APEC Economies

Based on the results of this study and the context of ongoing APEC initiatives, the following policy recommendations are proposed to support more effective implementation and expansion of AEO programs across the region:

- **Harmonize and operationalize MRAs:** APEC economies should prioritize the full implementation of signed MRAs, ensuring that mutual benefits are actively delivered through aligned operational procedures, risk management systems, and performance monitoring. Economies with MRAs in place should commit to regular bilateral data exchanges to assess actual benefit utilization.
- **Expand TRS methodologies to measure AEO effectiveness:** Member economies are encouraged to integrate AEO-specific indicators into their economy-level TRS frameworks, including time and cost differentials for certified vs. non-certified traders. A standardized regional TRS template would support cross-border comparison and

policy alignment. In addition, sharing practical methodologies for measuring and applying MRA-related benefits within TRS frameworks is essential to improving mutual understanding and maximizing program effectiveness.

- Enhance public–private engagement in data and feedback: As demonstrated in the Republic of Korea case, AEO program evaluation requires close collaboration with the private sector. APEC member economies should strengthen feedback loops through structured surveys, advisory committees, and industry workshops.
- Include other border agencies in AEO implementation: To maximize the impact of AEO programs, coordinated border management should be promoted. This includes extending trusted trader benefits to cover inspections by quarantine, food safety, or other relevant agencies. This approach is strongly encouraged under Pillar 3 (Customs-to-Other Government Agencies Cooperation) of the WCO SAFE Framework of Standards, which promotes whole-of-government collaboration for secure and efficient trade.
- Facilitate capacity building and peer learning: Sharing experiences across APEC economies on AEO validation, benefit design, and TRS methodologies can reduce disparities in implementation levels. Joint pilot projects or case-based trainings can foster regional alignment and build mutual trust.

These recommendations aim to enhance the utility, credibility, and harmonization of AEO programs across APEC, strengthening their role as a key trade facilitation tool aligned with the WTO TFA and supporting the broader APEC Putrajaya Vision 2040, which aspires to create an open, dynamic, resilient, and peaceful Asia-Pacific community by 2040 through trade and economic integration.

3. Areas for Future Research and TRS Enhancement

To further strengthen the evidence base and policy effectiveness of AEO programs across the APEC region, the following areas are proposed for future research and methodological refinement:

- Incorporate comparative analysis with non-AEO companies: Future studies should include a control group of non-certified companies to isolate the attributable effects of AEO participation on time and cost efficiency. This would enhance the rigor and policy relevance of TRS findings.
- Integrate high-resolution logistics and clearance data: Member economies are encouraged to move toward continuous or periodic TRS data extraction, as already practiced by Australia; and New Zealand. Both administrations automate the capture of transaction-level timestamps (declaration filing, inspection start/finish, cargo release) via their Single Window and Integrated Cargo Systems, demonstrating the feasibility of real-time performance dashboards without additional trader burden. Replicating this model would enable more precise AEO impact estimates and reduce reliance on proxy assumptions.
- Establish standardized TRS frameworks across economies: Developing a harmonized set of TRS indicators for AEO benefit assessment would facilitate cross-economy benchmarking, promote mutual understanding, and support collective capacity building in the region.
- Expand TRS coverage beyond customs to include other border agencies: As AEO programs increasingly promote coordinated border management, future TRS exercises should include time and cost contributions from agencies such as quarantine, health, and food safety authorities.
- Examine long-term and indirect impacts of AEO programs: Beyond short-term clearance benefits, future evaluations should track broader outcomes - such as supply-chain resilience, trade predictability, compliance behavior, and public-private trust - drawing on the longitudinal indicator sets already reported by Australia; and New Zealand. Incorporating metrics like shipment delay frequency, voluntary disclosure rates, and industry satisfaction surveys will provide a clearer picture of how AEO participation supports sustainable, resilient trade over time.

By addressing these areas, future research can not only improve the quality and credibility of TRS-based assessments but also support smarter, evidence-driven policymaking across the APEC region.

Republic of Korea's AEO Mutual Recognition Arrangement (MRA) Partner Economies

No.	Partner Economy	Year of MRA Signing with Republic of Korea	Included in 2022–2023 TRS Analysis
1	United States	2010	Yes
2	Singapore	2010	Yes
3	Canada	2010	Yes
4	Japan	2011	Yes
5	New Zealand	2011	Yes
6	People's Republic of China	2013	Yes
7	Türkiye	2014	Yes
8	Hong Kong, China	2014	Yes
9	Mexico	2014	Yes
10	Israel	2015	Yes
11	India	2015	Yes
12	Chinese Taipei	2015	Yes
13	Dominican Republic	2015	Yes
14	Thailand	2016	Yes
15	Australia	2017	Yes
16	Uruguay	2017	No
17	Malaysia	2017	Yes
18	Peru	2017	Yes
19	United Arab Emirates	2017	Yes
20	Kazakhstan	2019	No
21	Mongolia	2019	No
22	Indonesia	2020	Yes (from July 2022)
23	Saudi Arabia	2023	No

Note: Only the 19 economies with validated bilateral implementation data for both 2022 and 2023 were included in the TRS-based international cost-benefit analysis.

Appendix 3. Workshop Evaluation Report

WORKSHOP ON AEO MRA PERFORMANCE MEASUREMENT & IMPROVEMENT OF COOPERATIVE ACTION 2025 EVALUATION

Background

In February 2025, APEC hosted a Workshop on "AEO MRA Performance Measurement & Improvement of Cooperative Actions" in Gyeongju, Republic of Korea. The workshop was held alongside the APEC Sub-Committee on Customs Procedures (SCCP) meeting.

This workshop was part of the APEC project "Development of AEO Cooperation Scheme and Measurement of Economic Effects of AEO among APEC economies" (SCCP_203_2024A), proposed by Republic of Korea and co-sponsored by Australia; Chile; and Peru.

The key objectives of the workshop were to:

1. Conduct an empirical analysis of the economic benefits of AEO and AEO MRA using Time Release Study (TRS) models developed by the World Customs Organization (WCO).
2. Consolidate AEO information from member economies by conducting surveys on AEO operational status.
3. Facilitate the transfer of advanced AEO operational know-how to support the successful adoption of AEO and implement proactive strategies for hazardous goods management in developing economies.
4. Lay the groundwork for Mutual Recognition Arrangements (MRA) to facilitate smooth export-import environments for intra-regional businesses and enhance supply chain security management.

The workshop was attended by Customs officials and AEO experts from 21 APEC economies, with one expert from each travel-eligible economy funded by APEC. The event featured presentations and discussions on global AEO trends, trade facilitation, strategies for successfully concluding AEO MRAs, and best practices.

Following the workshop, an Exhibition of Customs Technologies was held, showcasing innovative technologies adopted by the Korea Customs Service and allowing member economies to share their experiences and best practices in utilizing customs technologies to facilitate trade.

The workshop and exhibition received positive feedback from participants, highlighting the importance of AEO programs and technological advancements in customs procedures for enhancing trade facilitation and supply chain security across the APEC region.

Workshop evaluation

At the end of the workshop, attendees were requested to provide feedback on both general aspects of the workshop and its content. A total of 36 attendees completed the evaluation form included at the end of this document), and the results are as follows:

All questions asked attendees to rate various aspects of the workshop on a scale of "Strongly Agree," "Agree," "Disagree," and "Strongly Disagree." For analysis purposes, these responses were assigned numerical values: Strongly Agree = 1, Agree = 2, Disagree = 3, and Strongly Disagree = 4. Consequently, an average score closer to 1.0 indicates a highly positive evaluation.

1. General Workshop Evaluation

Table 1 presents the results for the main attributes of the general workshop evaluation:

<Table 1. General Workshop Evaluation >

	Attribute	Score	Percentage
1	Clarity of workshop objectives	1.19	93.67
2	Achievement of objectives	1.28	90.67
3	Relevance of topics	1.14	95.33
4	Organization of content	1.22	92.67
5	Gender balance	1.19	93.67
6	Expert preparedness	1.14	95.33
7	Usefulness of materials	1.28	90.67
8	Sufficiency of time	1.53	82.33

2. AEO Workshop Content Evaluation

Table 2 presents the results for the main attributes of the AEO workshop content evaluation:

<Table 2. AEO Workshop Content Evaluation >

	Attribute	Score	Percentage
1	Understanding of global AEO trends	1.25	91.67
2	Applicability of best practices	1.39	87.00
3	Comprehension of AEO projects	1.42	86.00

4	Insight on SME participation in AEO	1.39	87.00
5	Knowledge of AEO MRAs	1.42	86.00
6	Enhancement of AEO framework knowledge	1.44	85.33

The results from both evaluations are highly encouraging, demonstrating a strong positive response to the workshop. In the general evaluation, participants particularly appreciated the relevance of topics and the preparedness of experts, both scoring an impressive 1.14. The clarity of workshop objectives also received high marks with a score of 1.19.

In terms of content, attendees found the workshop especially valuable in enhancing their understanding of global AEO trends, with this attribute scoring 1.25. The applicability of best practices and insights on SME participation in AEO programs were also well-received, both scoring 1.39.

While all scores are notably positive, the attribute with the most room for improvement is the sufficiency of time allotted for the workshop, scoring 1.53 in the general evaluation. This suggests that participants might have appreciated more time for discussions or to delve deeper into certain topics.

To complement the quantitative data, attendees were also asked to provide qualitative feedback through open-ended questions. The survey included questions about the most valuable insights gained from the workshop, suggestions for future workshop topics, and recommendations for further steps to address AEO implementation challenges faced by member economies. Participants offered valuable insights in response to these questions:

1. Key Insights

Participants highlighted several key insights gained from the workshop, including:

- Implementation strategies, particularly from the WTO approach
- SME participation and benefits in AEO programs
- Time Release Study (TRS) plans
- The current state of AEO programs across APEC member economies
- Benefits and challenges of AEO Mutual Recognition Agreements (MRAs)
- Technological solutions for AEO assessment and applications

2. Future Topics

For future workshops, participants expressed interest in exploring additional topics such as:

- E-commerce integration with AEO programs
- Quantified benefits of MRAs
- MRA negotiations and implementation processes
- Challenges in AEO MRA implementation
- Electronic exchange of MRA participant company information

3. Recommended Further Steps

Participants also provided valuable suggestions for addressing member economy concerns regarding AEO implementation, including:

- Developing strategies and sharing best practices for AEO MRA implementation
- Proposing methods to measure AEO program outcomes
- Increasing awareness of AEO program benefits among trade regulatory government agencies
- Conducting periodic workshops to monitor progress
- Exploring strategies for expanding AEO certification to e-commerce enterprises

In conclusion, the evaluation results demonstrate that the workshop on AEO MRA Performance Measurement & Improvement of Cooperative Actions was highly successful and well-received by participants. The quantitative data shows consistently positive scores across all attributes, with particularly strong results in topic relevance, expert preparedness, and understanding of global AEO trends. The qualitative feedback reinforces these positive outcomes, highlighting the workshop's effectiveness in providing valuable insights on implementation strategies, SME participation, and technological solutions for AEO programs.

Participants' suggestions for future topics and recommended further steps indicate a strong interest in deepening knowledge and improving AEO implementation across APEC economies. The focus on practical aspects such as e-commerce integration, quantified MRA benefits, and strategies for expanding AEO certification reflects the evolving nature of international trade and the need for continued collaboration and learning in this field. Moving forward, addressing these areas of interest and allocating more time for in-depth discussions could further enhance the value of such workshops for APEC member economies.

Evaluation Form

APEC Project Evaluation Survey

APEC Project : Workshop on AEO MRA Performance Measurement & Improvement of Cooperative Actions



Date: _____

Participant information :

Organisation/Economy: _____

Name: _____

Email: _____

Gender: M / F

Instructions: Please indicate your level of agreement with the statements listed in the table below.

For statements marked (*), please check the level and provide your comments as they are required.

[General Workshop Evaluation]

	Strongly Agree	Agree		Disagree	Strongly Disagree	COMMENTS (Continue on back if necessary)
The objectives of the workshop were clearly defined						
The project achieved its intended objectives						
The agenda items and topics covered were relevant						
The content was well organized and easy to follow						
The gender balance among workshop experts and participants was appropriate.						

The experts or facilitators were well prepared and knowledgeable about the topic						
The materials distributed were useful						
The time allotted for the workshop was sufficient.						

[AEO Workshop Content Evaluation]

	Strongly Agree	Agree	Disagree	Strongly Disagree	COMMENTS (Continue on back if necessary)
The workshop helped me better understand the global trends in Authorized Economic Operator (AEO) programs.					
The best practices and recommendations discussed during the workshop could be effective for improving AEO programs in my economy.					
The presentations helped me understand the overall projects, including the analysis of AEO effects through TRS and AEO Dictionary.					

The presentations helped me understand the importance of SME participation in AEO certification, the challenges they face, and various ways to enhance their involvement.					
The presentations provided valuable insights on how AEO Mutual Recognition Agreements (MRAs) can be developed and implemented.					
The workshop increased my knowledge of the AEO framework, including risk management and security criteria.					
What were the most useful insights that you learned about AEO programs from today's workshop? *					
Are there any additional topics related to AEO that were not covered in this workshop that you would like to see addressed in future workshops? *					
What further steps should be taken to address member economy concerns regarding AEO implementation? *					

Thank you. Your evaluation is important in helping us assess this project, improve project quality and plan next steps.