



Economic benefits of MRAs for authorised economic operators

Part 1: Literature scan

NZIER report to New Zealand Customs Service

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Key points

Mutual recognition agreements for authorised economic operators (MRA-AEOs) have generic and specific benefits that arise from:

- the nature of an MRA as a type of regulatory co-operation
- its specific role in enhancing the benefits of AEO partnerships.

The role of AEOs commenced with strategies of the World Customs Organization (WCO) in the 1990s and developed in the context of its SAFE Framework in the aftermath of the terrorist attacks of 2001. The AEO is a kind of public-private partnership providing a string of relationships linking Customs authorities and supply market mechanisms. It is through these market mechanisms that a government can monitor and influence security regulations beyond its borders.

An MRA is a mutual agreement of two economies to trust each other's adherence to a quality standard for specific purposes. In the case of AEOs, the quality standard is customs compliance and the purposes are national security and trade facilitation.

The role of the MRA-AEO is to enable recognition of trusted AEO status of an enterprise in one nation by other nations and thereby enhance global supply chain security and trade facilitation.

Benefits of AEO partnerships

An AEO partnership is a relationship of trust between a Customs organisation and a trader of the same nation. Conceptually, it is set within the three pillars of the SAFE Framework. The three pillars are: (i) Customs to Customs co-operation; (ii) Customs to business collaboration; and (iii) Customs agency harmony with other government agencies. The primary outcomes sought by AEO certification are national security and trade facilitation, and these are the primary benefits achieved. In addition, other benefits for enterprises, Customs agencies and other government agencies flow from these primary benefits. These are concerned with quality improvements for firms, Customs agencies and the personnel within these.

Benefits of the MRA as an instrument of regulatory co-operation

MRA-AEOs are a particular form of a wider class of MRAs. MRAs, in turn, are part of a set of instruments for international regulatory co-operation. In general, regulatory differences across countries increase transaction costs of international trade. Regulatory co-operation, such as with MRAs between countries, reduces these costs.

Generic benefits

The generic benefits of MRAs are diverse. There are recognisable short-term and long-term benefits that accrue for employers, personnel, agencies and society. They include a decrease in compliance costs for firms, increased competition between firms, lower costs for consumers and greater variety in imports.

Generic MRA benefits increase with trade volume and trade activity. Hence, they are particularly beneficial when they are concerned with items of substantial trade and they involve global supply chains. All these generic benefits of MRAs make the MRA a

suitable regulatory instrument for regulatory co-operation involving trade and AEO partnerships.

An MRA is one instrument of regulatory co-operation that is particularly suited to enhancing the benefits of AEO partnerships:

- An MRA is concerned with mutual recognition of one of quality certification or standards, or more powerfully, as for AEOs, both of these.
- MRAs and AEOs have shared trade facilitation outcomes.
- The transaction costs of the MRA are low. This is because it is based on trust rather than harmonisation of bilateral standards.
- Many MRAs provide a catalytic mechanism because, when in place, they automatically create multiple trusted relationships between the enterprise and the Customs agency of the foreign MRA partners. This creates many partnerships of trust across the relevant global supply chain from one single AEO partnership. In this way, the MRAs multiply the value of trust for a single AEO partnership. In doing so, they multiply the value of AEO benefits in terms of national security, trade facilitation and quality improvement for firms and agencies.

Specifically, the resulting benefits include:

- acting as a catalyst for multiplying the value of trust
- reduced transit time for trade, since cargo is detained for less time during transit
- increased competitiveness in trade by providing access to diverse global supply chains not otherwise accessible
- one-step verification of status, meaning no duplication in verification processes along the supply chain
- pushing borders out, where Customs agencies effectively have influence in supply chains beyond their borders
- enabling use of new data technologies, such as blockchain, by assembling global networks with a large number of transactions that require efficient data storage and access
- human capital building by requiring enterprises and agencies to upskill their personnel to meet business standards
- opening the door to globalisation via global supply chains by providing quality assurance.

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1. Introduction

This literature scan outlines results from a review of selected global literature¹ on the origins of authorised economic operators (AEOs), their benefits and the enhanced benefits provided by mutual recognition agreements (MRAs) associated with them. It is a brief report that reveals recurring themes and insights.

New Zealand has six bilateral MRAs for AEOs (MRA-AEOs) to mutually recognise its own AEOs highlighting the potential economic benefits from New Zealand's MRA-AEOs.

New Zealand has an AEO programme for New Zealand exporters only – the Secure Export Scheme (SES). This programme means that six nations further recognise the SES firms as AEOs through MRAs signed with Australia, China, the United States, Japan, the Republic of Korea and Hong Kong.

This report is Part 1 of a two-part set. Part 2 reports the quantitative modelling of the trade facilitation benefits of MRA-AEOs for New Zealand.

In this report:

- section 2 describes the emergence of the role of AEOs and MRAs as defined in the WCO's SAFE Framework
- section 3 describes national security and trade facilitation as the primary benefits achieved by AEO partnerships – additional benefits are concerned with quality improvements for firms, Customs agencies and the personnel within these
- section 4 introduces MRAs as a form of regulatory co-operation and describes how they are suitable for regulatory co-operation involving AEOs
- section 5 discusses the specific benefits of MRA-AEOs
- section 6 provides reports of selected examples of MRA-AEOs
- section 7 provides a list of references
- Appendix A is a technical annex describing the scope of the literature search and how it was performed.

¹ Refer Appendix for selection method

2. AEO and MRA partnerships

2.1. Introduction

This section describes the emergence of the role of AEOs. This commenced with strategies of the World Customs Organization (WCO) in the 1990s and developed in the context of its SAFE Framework in the aftermath of the terrorist attacks of 2001. The SAFE Framework seeks to achieve: (i) co-operation of Customs agencies; ii) partnership of Customs and business to achieve supply chain security and trade facilitation; and (iii) harmonisation of technical standards. The role of the MRA is defined as enabling recognition of trusted AEO status by other nations to thereby enhance supply chain security and trade facilitation globally.

2.2. Revised Kyoto Convention

2.2.1. Trade facilitation in a WCO context

In the 1990s, the WCO recognised a growing demand for trade simplification without compromising growing responsibilities in terms of security, enforcement and revenue collection (Rosanelli 2016).

In 1999, a trade facilitation agreement of the WCO known as the Revised Kyoto Convention (RKC) advocated simplification, minimisation of control and efficiency from use of information technology. In particular it suggested (Rosanelli 2016):

- standardisation and simplification of the goods declaration and supporting documents
- maximum use of information technology
- minimum necessary Customs control to ensure compliance with regulations
- simplified procedures for authorised persons.

2.2.2. WCO authorised persons

The RKC created a strategy for the future based on simplification, transparency, improved use of resources and a partnership with private sector enterprises. Partner enterprises are known as authorised persons. In an application of risk management, the WCO strategy requires Customs agencies to identify them as compliant operators and to facilitate trade for them, while focusing attention on other important areas of risk.

Agreed in June 1999, the RKC was the blueprint for modern and efficient Customs procedures. It came into force in 2006. It updated the 1974 International Convention on the Simplification and Harmonization of Customs Procedures (Kyoto Convention) and includes multiple recommendations along with technical standards for modernising Customs procedures.

2.2.3. National security role for Customs

From a Customs perspective, the terrorist attacks of September 2001 led to a sudden reversal of the momentum of the RKC aspirations for trade facilitation. Regulatory intervention in cross-border trade increased globally as supply chain security emerged as the new international imperative. Widdowson (2016) lists examples of the resulting regulatory interventions. They included the introduction of a broad range of national and international initiatives, led by the United States, designed to ensure the safety and security of global supply chains.

Rosanelli (2016) notes that, after the terrorist attacks, the role of Customs itself had witnessed a shift from border control towards guaranteeing safe trade while also preserving national security. This included enhanced responsibilities in the fight against terrorism, transnational crime, commercial fraud, counterfeiting and piracy.

2.2.4. Customs-business partnership built on trust

At the same time as increasing interventions, the international trading community worked closely with United States Customs and Border Protection (CBP) to introduce more facilitative arrangements for legitimate traders who could demonstrate a high level of security across their supply chains. A programme was introduced known as the Customs-Trade Partnership Against Terrorism (C-TPAT). The security standards are jointly achieved and maintained by CBP and industry in a partnership of trust. In return for their efforts, authorised traders are allowed streamlined clearance procedures, have greater certainty and achieve formal recognition of their trusted status.

2.3. SAFE Framework

In 2005, within the context of the RKC, the WCO adopted the SAFE Framework of Standards to Secure and Facilitate Global Trade (WCO SAFE). This document was the result of years of discussions within the WCO on the Customs blueprint for the future.

The SAFE Framework included guidelines for members to develop national arrangements that reflected the US C-TPAT initiative and, importantly, could be formally recognised by other member administrations.

Today, the SAFE Framework consists of three pillars for co-operation, partnership and harmonisation. The third pillar was added in 2015:

***The Customs-to-Customs pillar** emphasizes co-operation among customs administrations to increase security and facilitate trade. Customs agencies maximize use of automatic targeting tools and advance electronic information and should have interoperable and harmonized data models.*

***The Customs-to-Business pillar** emphasizes collaboration between businesses and Customs administrations to increase supply chain security and safety, with incentives for businesses to become AEOs. The pillar suggests creating a system for identifying private businesses with high security standards and having these businesses gain AEO status. Technical standards are included for*

implementing this partnership, including standards for authorization, communication, security, and technology.

The Customs-to-Other-Government and Inter-Government Agencies pillar emphasizes harmonizing security requirements of border agencies within an economy and internationally. The pillar suggests cooperation at the domestic level among different agencies, as well as working bilaterally and multilaterally among different governments to harmonize international requirements and also at the multinational level. The pillar provides a number of technical standards for cooperation at all three levels. (Asia-Pacific Economic Co-operation 2016, 2–3)

2.3.1. Authorised economic operator status

In 2007, a new revision of the SAFE Framework was issued, specifically with guidance on AEO status. The AEO concept originated from the authorised persons concept of the RKC. The important distinction, however, is that the authorised persons concept solely focuses on compliance with Customs laws, regulations or procedures, whereas AEOs focus on security standards.

As defined by the WCO (Noah 2019), “the Authorized Economic Operator (AEO) is a party involved in the international movement of goods in whatever function that has been approved by or on behalf of a national customs administration as complying with WCO or equivalent supply chain security standards”. Those standards relate to the following areas:

- Demonstrated compliance with Customs requirements.
- Satisfactory system for management of commercial records.
- Financial viability.
- Consultation, co-operation and communication.
- Education, training and awareness.
- Information exchange, access and confidentiality.
- Cargo security.
- Conveyance security.
- Premises security.
- Personnel security.
- Trading partner security.
- Crisis management and incident recovery.
- Measurement, analysis and improvement.

This concept allows all the parties in a supply chain to be vetted and approved by the import country’s Customs authority. It means all supply chain partners of exporters (carriers, forwarders or anyone touching their freight) are pre-screened to ensure a safe import, so items involved are deemed safe to enter into the country of import more quickly.

2.3.2. Mutual recognition agreements

As well as providing guidelines for AEO partnerships, the SAFE Framework also provides guidelines for mutual recognition of them by Customs agencies of different economies.

Customs agencies are encouraged to develop partnerships with business and between each other to secure and facilitate trade.

[The SAFE Framework] calls upon Customs administrations to work with each other to develop mechanisms for mutual recognition of AEO authorizations and validations, mutual recognition of Customs security control standards and control results and other mechanisms that may be needed to eliminate or reduce redundant or duplicative efforts.

Mutual Recognition is a broad concept embodied within the WCO SAFE Framework whereby an action or decision taken or an authorization that has been properly granted by one Customs administration, is recognized and accepted by another Customs administration. The document that formalizes this action or decision has generally been termed a “Mutual Recognition Arrangement/Agreement” (MRA).

The objective of Mutual Recognition of AEO is that one Customs administration recognizes the validation findings and AEO authorizations of the other Customs administration issued under the other programme and agrees to provide substantial, comparable and – where possible – reciprocal benefits/facilitation to the mutually recognized AEOs. This recognition is generally premised on the existence or creation of both relevant legislation and operational compatibility of both or more programmes.

Mutual recognition of AEO programmes may ultimately lead to the globalization of supply chain security and compliance standards and is therefore of great importance for those companies seeking true global supply chain security and compliance benefits. (World Customs Organization 2018, 148)

2.3.3. Comparison with WTO framework of trade facilitation

The World Trade Organization (WTO) has a Trade Facilitation Agreement (TFA), negotiations for which were concluded in December 2013.

In a similar way as the SAFE Framework, the TFA defines an authorised person as one who is compliant for the purposes of trade facilitation. This authorised person in the WTO context is called an authorised operator (AO). An AO is an entity complying with WTO members’ Customs laws, regulations or procedures.

However, the AOs as stipulated in the WTO TFA are different from the AEOs of the SAFE Framework. The focus in the AO scheme is on trade compliance. Supply chain

security may be one of the components. AEOs on the other hand must always, but not exclusively, comply with a range of security standards to ensure supply chain security.

Another difference is that the SAFE AEO programme is based on global standards for launching and maintaining the AEO status. By comparison, the WTO AO scheme is not standardised and can vary from one member to another.

AEOs must always comply with set standards for supply chain security as detailed in the SAFE Framework of Standards. The WTO TFA does not substitute for the SAFE Framework of the WCO. The TFA and SAFE Framework can be implemented together so that all parties enjoy the trade facilitation and security benefits.

2.3.4. AEO compendium

The WCO periodically updates a compendium of AEO programmes (World Customs Organization 2018) across many nations.

The AEO compendium provides insights into the types of supply chain security and Customs compliance programmes that are currently available and in development globally.

As of July 2018, the 2018 edition of the AEO compendium identifies:

- 77 operational AEO programmes and 17 non-operational and yet to be initiated
- 57 concluded MRAs and 35 MRAs that are being negotiated
- four plurilateral MRAs that are being negotiated
- 31 operational Customs compliance programmes and two Customs compliance programmes that are to be launched.

In addition, the compendium includes an overview of respective AEO programme accreditation procedures and benefits.

3. Benefits of AEO partnerships

3.1. Introduction

This section outlines the benefits of AEO partnerships. AEO partnerships are based in the three pillars of the SAFE Framework (see section 2.3). The primary outcomes sought by AEO certification are national security and trade facilitation, and these are the primary benefits achieved.

In addition, other benefits for enterprises, Customs agencies and other government agencies flow from these primary benefits. These other benefits are concerned with quality improvements for firms, Customs agencies and the personnel within these.

3.2. National security partnerships

AEO partnerships benefit national security by enabling Customs authorities to be assured of the security standards in global supply chains beyond their borders.

Over many years, international trade and transport networks and infrastructures have been identified as potential targets for international terrorism and cross-border crime. Customs authorities have always controlled international trade in terms of prohibitions and restrictions, hence the additional and growing burdens on Customs to manage new developments relating to security.

A key challenge for national security of nations lies in the risks present in global supply chains beyond their borders. A government is unable to legally enforce prohibitions and restrictions on firms outside its borders or easily place security personnel at their facilities. Only other firms of the supply chain could use their commercial clout to demand security compliance from their trading partners.

The C-TPAT partnership (section 2.2.4) and the many AEO partnerships globally between government and AEO enterprises provide a string of relationships linking operations of Customs authorities and market mechanisms of supply chains. It is through these market mechanisms that a government can monitor and influence security regulations beyond its borders. Voss and Williams (2013) describe these partnerships as forms of public-private partnerships (PPPs) with a hybrid (public and private) governance structure to achieve the right balance between control, security and trade facilitation.

The SAFE Framework of Standards for AEOs provides for supply chain security and also contains a number of important standards especially dedicated to trade facilitation.

AEO partnerships reduce transaction costs to governments by placing a greater burden on industry to enforce security implementation while also providing the governments with a degree of control over security implementation. Transaction costs are reduced for participating firms via reduced wait time and variability at border crossings (Furia et al. 2011).

3.3. Trade facilitation partnerships

AEO partnerships benefit trade facilitation for AEO enterprises by enhancing Customs processing efficiency for them.

Petersen and Treat (2008) observe that the RKC encouraged Customs authorities to advance beyond the role of gatekeeper to that of trade facilitator. Reforms enhancing Customs efficiency appear to play the second-biggest role (next to improving infrastructure) in boosting trade performance. Moïsé, Orliac and Minor (2011) find that trade facilitation measures that aim to streamline Customs procedures (single windows, pre-arrival processing, physical inspections, post-clearance audits, separation of release from clearance and authorised traders) have the potential to reduce trade costs by 5.4 percent. Felipe and Kumar (2010) show that an improvement in Customs efficiency in the importing country by 1 percent would improve trade flows by 1.04 percent.

According to Dennis and Shepherd (2011), reforms to improve Customs procedures have a positive effect on export diversification that is even greater than that of reforms to improve inland transport and ports.

Rosanelli (2016) observes that the benefits associated with the AEO status may also vary, but generally will include:

- fewer physical inspections
- fast-track Customs processing
- reduced data requirements (i.e. when filing periodic declarations for centralised clearance).

Japan Customs summarises the benefits of AEO partnerships for trade facilitation:

Authorized Importers

- *Pre-arrival lodgement of import declaration and pre-arrival import permission – early release of cargo*
- *Reduced number of elements for import declaration*
- *Reduced examination and inspection at the time of import*
- *Periodical lodgement of duty/tax payment declaration*

Authorized Exporters

- *Export procedures are completed while keeping the cargo in their own premises*
- *Reduced examination and inspection at the time of export*

Authorized Warehouse Operators

- *Establishment of a new Customs warehouse only by notification*
- *Free monthly fee. (Japan Customs 2013, 6)*

3.4. Quality improvements

3.4.1. AEO status as a signal of quality

AEO status provides benefits to AEO enterprises as a sign of quality showing eligibility to participate in secure global supply chains:

The way in which the commercial world is viewing the secure supply chain is also evolving. Those companies that have attained accreditation under AEO-type programs, including C-TPAT, are often reluctant to introduce new suppliers or service providers into their supply chain unless they have themselves obtained AEO status under their own national programs. The principal reason for this is their concern that introducing 'unknown entities' (from a regulatory perspective) into their supply chain may either jeopardise their AEO status, or impose additional costs in terms of the need to satisfy authorities that their third party operators meet the standards required under the particular scheme in which they have achieved accreditation. (Widdowson et al. 2014, 25)

Potentially, the AEO status could be effective beyond Customs agencies and accepted by other public agencies as a label of quality to satisfy requirements for other government programmes in which AEOs participate.

Rosanelli (2016) suggests, for example, that such a quality label would be valuable for AEO enterprises for export licensing because it could potentially provide:

- evidence of adherence to a robust internal compliance programme and a partnership with Customs authorities that should significantly reduce the risk profile of a company
- access to specific licence types
- simplified procedures for access to certain export licenses.

3.4.2. Technical upskilling

The AEO status provides benefits to personnel of AEO enterprises where they are required to be upskilled by the firm or by client co-ordinators of Customs agencies (Rosanelli 2016). For example, Singapore offers tailored services to companies to help them identify Customs simplifications that are better adapted to their operations and role in the supply chain.

3.4.3. Firm innovation

AEO status provides benefits to firms where they are required to ensure continuous improvement in business processes to maintain the capability to monitor, evaluate and strengthen their internal compliance policies and procedures. This includes appropriate training of personnel and internal audits. Such firm innovation motivated by the AEO partnership raises the quality and value of the firm's outputs to its clients.

Rosanelli makes the following observation of the need for the AEO to undergoing continuous evaluation and adaptation:

Importers, exporters, border-crossing carriers, rail, air and sea carriers, and Customs brokers are requested to estimate and prove their reliability and level of compliance with Customs and general risk-assessment requirements against a list of very detailed criteria set by a questionnaire that has been drafted to be adapted for all types of actors in the international supply chain and is not always easy to decrypt. Yet the standards set are not basic and in most cases require adaptation for companies to meet the requirements. Understanding the questionnaire, making sure internal formalized policies and procedures exist and are updated and auditable, providing evidence of their ability to keep records of compliance with Customs legislation and taxation rules, as well as the existence of appropriate security and safety measures, will require time and resources, including frequent exchanges with local Customs administrations and a consistent project management approach. (Rosanelli 2016, 130)

Hence, there is a substantial commitment to continuous improvement of an enterprise. This amounts to innovation of a kind sometimes referred to as “administrative innovation” (Melnyk, Ritchie and Calantone 2013).

Rosanelli recognises the important benefits to AEO enterprises that flow from the challenge to innovate:

This challenging process nevertheless presents important potential benefits. The process of preparation for AEO certification itself requires a mapping and in-depth scrutiny of the company operations and processes end-to-end. This should not be underestimated, as it provides an opportunity to identify strengths and weaknesses and adopt measures to increase its efficiency in terms of measurement, analysis, and continuous improvement. (Rosanelli 2016, 130)

Rosanelli goes further to say that potential benefits include improved efficiency, improved benchmarking, improved networking and improved understanding of the relevant global supply chain.

Because it is not limited to Customs-related processes, it also provides a unique opportunity to connect, involve and commit several divisions or departments within a company to identify potential gaps and improve overall efficiency.

It may also constitute an opportunity to benchmark and compare to other companies in the same domain or group, as well as to establish contacts and mutually beneficial working relationships with Customs administrations, better understanding Customs administrations’ expectations and fostering deeper knowledge of the specific roles, peculiarities and challenges of applicants involved in a specific segment of the international supply chain. (Rosanelli 2016, 130)

The benefits to firms from innovation are described by Voss and Williams (2013). They conclude from a survey of firms participating in the C-TPAT programme that a strategy to improve security via C-TPAT certification is associated with superior business performance. C-TPAT-certified firms significantly outperform their non-C-TPAT counterparts with regard to security performance, resilience and firm performance. To the extent that this comparative performance difference induces firms to gain or retain C-TPAT certification and security risk is reduced, society as a whole benefits from more secure commerce.

Melnyk et al. (2013) also find that, apart from the economic benefits, the AEO status is valued as part of a business ethos to achieve the same performance standard as competitors. In a survey of firms, one respondent regarded the status as an essential part of doing business:

It may not help but I am not going to be the first firm to have a security screw-up and not be C-TPAT certified, so I am going to do it irrespective of the costs; it is going to happen. (Melnyk et al. 2013, 298)

3.4.4. Public-private collaboration

Participating in AEO partnerships provides benefits to firms, Customs agencies and other government agencies by building their capabilities for collaboration, cross-sector leadership, relationship management and global vision. The latter is particularly important for effective collaboration in global supply chains and enhances the capacity of firms and agencies to diversify further globally.

In a study of PPPs involving cross-border logistics at the USA-Canada border, Davis and Friske (2013) found that the highest-performing PPPs were those concerned with broad regional issues for business rather than focused on the prosperity of one or two businesses in isolation. The authors concluded that, in these cases, the business partners must expand their views from a firm focus to a broader systems level.

The benefits of AEO partnerships for private sector and public sector agencies were identified by Davis and Friske as “collaborative capability” for private enterprises and “public interagency collaboration” for public sector agencies.

Davis and Friske defined collaborative capability as the set of competencies embodied in people and embedded in processes that support working together to achieve common aims. According to the authors, data analysis identified three key themes that describe the dimensions of private enterprise collaborative capability: leadership; relationship management; and global vision.

In their study, Davis and Friske also observed that PPPs require coherent interagency and intergovernmental working arrangements in the public sector. This public interagency co-operation amounts to government agencies within a country and across country borders working together to achieve common goals. These public sector collaborative arrangements complement the collaborative capability of private enterprises. Data analysis by the authors identified three key themes that describe the dimensions of public interagency co-operation: mission alignment; shared standards; and information integration.

3.5. Challenges facing SMEs becoming AEOs

It is sometimes said that AEO partnerships are only relevant for large multinational corporations concerned with complex global supply chains. However, Karlsson (2017) disputes this assertion. Indeed, he says that it is much easier for small and medium-sized enterprises (SMEs) to go through a validation than it is for an international company with their often-complicated structures and multicountry presence.

The WCO concurs:

There is also the issue of costs. Unquestionably the proportionate cost impact of security investments on SMEs is greater than on larger companies. However, this may be attenuated by the fact that some security measures can be less burdensome for SMEs than for larger companies. (World Customs Organization 2010, 5)

Karlsson identifies a number of challenges for SMEs that an AEO programme should take into account. These include the benefits, the resources required to apply and be validated and the potential to meet the AEO programme requirements:

SMEs are the basis for all trading nations and this is especially vital for emerging economies that sometimes rely on SMEs to a larger degree than more advanced economies.

Some countries are now developing interesting models where the existing AEO infrastructure is being applied and used to lower the initial investment cost for SMEs seeking to enter an AEO program. These types of initiatives are welcome and have the potential to revolutionise the entire compliance management concept. (Karlsson 2017, 30)

Asia-Pacific Economic Cooperation (APEC) reports that New Zealand's approach to challenges facing SMEs is instructive. It says that:

New Zealand Customs recognized that every business is unique and security arrangements for cargo are different for each. New Zealand takes an outcomes-based approach, asking exporters to demonstrate how they intend to comply with the minimum standards and working with them to achieve mutually acceptable criteria. (Asia-Pacific Economic Cooperation 2016, 30)

4. MRAs as a suitable form of regulatory co-operation for AEOs

4.1. Introduction

MRA-AEOs are a particular form of MRA. MRAs, in turn, are part of a wider set of instruments for regulatory co-operation.

In general, regulatory differences across countries increase transaction costs associated with trade. Regulatory co-operation between countries can reduce these costs.

This section describes MRAs in the wider context of regulatory co-operation. It highlights the way that an MRA is based on agreed outcomes for compliance with quality standards sought by parties to the agreement. MRAs can also be based on outcomes for standards themselves. When both outcomes are sought and agreed upon, the MRA is especially powerful. This is the case in respect of MRAs for AEOs. In this report, we focus on the relevance of MRAs for compliance with quality standards.

Generally, these agreements concern the quality of specific goods and services. However, MRAs can also apply to agreements that cover a comprehensive range as exemplified by the Trans-Tasman Mutual Recognition Arrangement (TTMRA).

The benefits of MRAs are diverse. There are recognisable short-term benefits (such as from reduced compliance costs). Some of these are not easily measurable. Long-term benefits (such as lower costs to consumers are believed to accrue over diverse employers, personnel, agencies and society).

In the context of international trade, MRA benefits are recognised as particularly beneficial when they are concerned with items of substantial trade (high volumes of traded goods multiply per-unit reduced costs by a large number) and they involve global supply chains (because MRAs connect local enterprise to global supply chains).

All these generic benefits of MRAs make the MRA a suitable regulatory instrument for regulatory co-operation involving trade and AEO partnerships.

In addition to the generic benefits, an MRA is one form of regulatory co-operation that is particularly suited to enhancing the benefits of AEO partnerships. Importantly, Customs compliance for AEOs can be considered another form of quality certification (Rosanelli 2016). Hence, MRAs are particularly suited for AEOs for this reason alone.

The transaction costs of the MRA are low because the MRA enables a certified AEO to be recognised without further certification by the Customs authorities of member nations. Hence, it substitutes a general assessment of the organisation for a series of assessments of each transaction. Therefore, the regulatory cooperation of an MRA is based on trust.

The hypothesised role of trust as a valuable economic asset in reducing transaction costs is outlined by Dyer and Chu (2006). They cite a number of authors to conclude

that trust in exchange relationships has been hypothesised to be a valuable economic asset because it is believed to:

- lower transaction costs and allow for greater flexibility to respond to changing market conditions
- lead to superior information sharing that improves co-ordination and joint efforts to minimise inefficiencies
- improve national economic efficiency when it concerns a high-trust institutional environment.

The benefits of each AEO partnership of trust are unique to each enterprise that receives the benefits from the domestic Customs agency with which it has a trust relationship. The MRA provides a catalytic mechanism, because when it is in place, it automatically creates a trusted relationship between the enterprise and the Customs agency of the foreign MRA partner. The creation of further trust relations ensues for each additional MRA in effect. This creates many partnerships of trust across the relevant global supply chain from each single AEO partnership. In this way, the MRAs multiply many times the value of trust for a single AEO partnership.

4.2. Regulatory co-operation

In the context of international trade, the primary objective of regulatory co-operation is to streamline compliance requirements at the production stage and at ports of trade (for example, certification, accreditation, testing and inspection) while maintaining appropriate protections for human, animal and environmental concerns. This co-operation facilitates increased flows of goods bilaterally, regionally and/or extra-regionally.

Gill (2018) concludes with lessons learned, from a series of New Zealand case studies, that the critical drivers that underpin international regulatory co-operation (IRC) are a mix of 'hard' and 'soft' factors:

Membership: Having the right countries and the right people in the room from those countries

Leadership is crucial, but the style of leadership was quite varied

Secretariat: A good secretariat provides vital glue and continuity as what happens 'after the IRC meeting is over is just as important as what happens at the meeting'

Relationships: 'It's a hearts and minds game, relationships underpin the network'.

Trust: 'It's critically important to choose partners where there is mutual confidence..., or at least good prospects for building it'.

Sustained commitment: IRC, like most things, takes time and sustained commitment. (Gill 2018, ii)

According to the Australian Productivity Commission (APC), minimising unnecessary differences in regulation between nations and supporting economic integration has wide-ranging benefits including:

- increasing economic activity by reducing the transaction costs involved in the movement of goods, labour, services and capital across borders
- transferring good regulatory practices across borders
- generating economies of scale in government activities that reduce the cost of the services they deliver
- better managing global public goods and risks.

The APC identifies how MRAs have low transaction costs because they are based on mutual confidence. Of 11 types of mechanisms it identifies for regulatory co-operation identified by the OECD, the APC observes:

Mutual recognition tends to be at the lower end of the spectrum in terms of its cost to negotiate, establish and maintain. This is because jurisdictions do not need to negotiate changes to their own regulations or standards. Rather, they can simply agree to mutually recognise compliance with each other's laws. For such an approach to be successful, each jurisdiction must have a high degree of confidence in the outcomes achieved under the laws of other jurisdictions. (Productivity Commission 2015, 43)

Other forms of regulatory co-operation can have significant transaction costs. Keatts, Boardman and Burrows (2017) describe the various kinds of regulatory co-operation. They observe that regulatory co-operation occurs through harmonisation, equivalence and mutual recognition of standards and/or conformity assessment procedures between trade partners.

In summary:

- **Standards** are guidelines and characteristics for products or processes that have been approved by a recognised body, are generally voluntary and reflect market demands and/or consumer preferences.
- **Conformity assessment procedures** (MBIE 2018) are processes that ensure a product satisfies the specifications laid out in the standard, including testing, inspection, certification and accreditation.
- **Harmonisation** results from the uniformity of rules across trade partners' regulatory systems.
- **Equivalence** is the capability of different standards and conformity assessment procedures to meet the same regulatory objectives including, for example, product quality, consumer health, animal welfare, worker safety and environmental sustainability.
- **Mutual recognition** involves an agreement or arrangement between countries to recognise the differences in the standards and/or conformity assessment procedures employed by a trade partner.

Mutual recognition is concerned with mutual confidence that specific desired objectives and outcomes will be achieved. It is a very specific kind of confidence in a well-defined domain. This is explored below.

4.3. Mutual recognition agreements

4.3.1. Recognition but not harmonisation of the technical regulations of the parties

In general, an MRA involves accepting that the different norms (technical regulations and standards) and testing procedures that apply in each country are simply different means of achieving the same regulatory objectives.

MRAs are established in bilateral agreements of parties to recognise each other's designated conformity assessment agents in conformity with the legislation of either party (Amurgo-Pacheco 2007).

This implies mutual recognition of each other's technical regulations, which has a relatively low transaction cost. However, MRAs do not require harmonisation of the technical regulations of its members. This study focuses on conformity with standards. The value of MRAs for recognising the standards themselves is less than for recognition of conformity with them. In the case of AEOs, recognition of both conformity and the standards themselves is relevant.

Nixon and Yeabsley (2011) discuss the trade-offs between harmonisation and mutual recognition for New Zealand:

The trade-offs between harmonisation and mutual recognition should also be considered. To what degree should we adopt laws from other jurisdictions? Mutual recognition agreements are sometimes seen as useful because they remove the need to conform to two sets of rules. However, mutual recognition agreements are supported by consultation, referrals, and commitments to policy coordination all of which can reduce flexibility. Harmonisation can be used as a way of sharing the costs of standard-setting processes. (Nixon and Yeabsley 2011, 367)

4.3.2. MRAs are outcome focused

MRAs apply to specific desired objectives and outcomes sought by the parties. Hence, MRAs cover specific outcomes (such as a specified level of safety) for diverse sectors such as medical devices, pharmaceuticals, telecommunications equipment, toys, low-voltage electrical equipment, machinery and pressure equipment.

A typical text of an MRA contains sectoral annexes specifying the detailed list of products covered, an agenda for extending the coverage of the MRA to new sectors subject to some conditions and the list of designated conformity assessment agents (Amurgo-Pacheco 2007).

4.3.3. MRAs in a New Zealand context

The New Zealand Government and firms are parties to many MRAs, each of which is concerned with a specific outcome.

In a multilateral context, MBIE (2018) reports that APEC has established regional MRAs covering electrical and electronic equipment, telecommunications and food products. Each APEC member that participates in the MRA retains its own regulations but accepts assessments undertaken in the exporting economy.

New Zealand recognises specific certification in the context of an international committee. New Zealand is a signatory to the International Committee for Weights and Measures Mutual Recognition Arrangement for the international mutual recognition of calibration certificates issued by national metrology institutes (including the Measurement Standards Laboratory of New Zealand).

New Zealand also recognises certification in respect of certain products for certain markets. New Zealand unilaterally recognises overseas certification of some products from certain markets. For example, New Zealand unilaterally recognises certification of gas appliances issued by certain European, North American and Australian certification bodies.

In a bilateral context for products, New Zealand also has four bilateral MRAs covering certain products:

- European Union – electromagnetic compatibility, low-voltage equipment, machinery, medical devices, medicines pressure equipment and telecommunications terminal equipment.
- China – electrical and electronic equipment.
- Taiwan – electrical and electronic products.
- Singapore – electrical and electronic equipment.

New Zealand enterprises also recognise accreditation for private MRAs involving accreditation of private enterprises that are members of international bodies. MBIE (2018) reports that some members of regional and international accreditation bodies (such as International Laboratory Accreditation Cooperation (ILAC) and Asia-Pacific Laboratory Accreditation Cooperation) have developed private MRAs. Businesses can find these private MRAs effective, and in some cases, more trade occurs under private MRAs than under government-to-government MRAs.

4.3.4. The Trans-Tasman Mutual Recognition Arrangement (TTMRA)

The TTMRA is an arrangement between Australia and New Zealand that provides that, in general, goods that may be sold in one country may legally be sold in the other, regardless of differences in standards or other sale-related regulatory requirements. Additionally, registered professionals in one country can legally work in the other, regardless of differences in occupational regulatory requirements.

The TTMRA is an example that illustrates very clearly that the desire of an MRA to achieve specific outcomes could encompass a comprehensive array of products and occupations.

The underpinning economic value from this comprehensive agreement is due to the efficiency of different territories accepting similar regulations over such a comprehensive array. This acceptance is only possible because of confidence by participating governments that similar outcomes were sought:

The participating governments accepted that they sought similar outcomes from regulations on the sale of goods and the registration of occupations, and so mutually recognising compliance with each other's laws would not raise significant concerns. Moreover, adopting mutual recognition was seen to address regulatory differences much more promptly, and across a far wider range of goods and occupations, than could be expected from attempting to negotiate uniform laws. (Productivity Commission 2015, 3)

The TTMRA recognises the special relationship between New Zealand and Australia and provides for the most advanced level of integration between the two countries.

4.4. Benefits of MRAs

The benefits of MRAs are diverse. There are recognisable short-term benefits (see below). Some of these are not easily measurable. Long-term benefits (see below) are believed to accrue over diverse employers, personnel, agencies and society.

In the context of international trade, MRA benefits are recognised as particularly beneficial when they are concerned with items of substantial trade (as the reduced cost per unit volume of traded good is multiplied by a large volume traded) and they involve global supply chains (because MRAs connect localised enterprises to global supply chains).

All these generic benefits of MRAs make the MRA a suitable regulatory instrument for regulatory co-operation involving trade and AEO partnerships.

4.4.1. MRA short-term benefits

The APC cites research into the TTMRA based on evidence shortly after the MRA was established that:

...suggested that the main beneficiaries, at least in the early stages were expected to be small firms because they are most impacted by cross-border differences in regulations. On the other hand, less-efficient firms may experience falling sales and prices in the face of increased competition from other jurisdictions. This does not necessarily provide a case against mutual recognition, since the community as a whole would gain. (Productivity Commission 2015, 49)

Short-term benefits cited by the APC include falls in short-term compliance costs.

4.4.2. MRA long-term benefits

The APC also opines that, in the long term, many other benefits are likely to emerge. These can involve ongoing structural reform and so might deliver significant benefits in the longer term than do the initial impacts. In summary, they say these are:

- greater competition among firms that will motivate them to reduce costs and prices and improve quality

- increased sales volumes due to lower prices and the contraction of less-efficient competitors that may enable firms to capture further economies of scale, with some of the resulting reduction in per-unit costs potentially being passed on to consumers as more price reductions and to workers as wage increases
- more competition among workers that will provide added impetus for them to find ways to lift their productivity and improve the quality of services they provide
- lower barriers to cross-border movements of goods and labour that could enable consumers, workers and employers to enjoy greater choice and variety
- economies that are more flexible and resilient to adverse shocks.

The APC also says that mutual recognition can increase regulatory competition between governments by giving firms and workers greater discretion over which jurisdiction's regulatory regime they comply with. Over time, this can deliver benefits to the community by creating:

- increased pressure on governments to find ways to reduce the costs of regulation
- greater discipline on jurisdictions contemplating new regulations
- improved co-operation and dialogue between regulators across jurisdictions.

MRAs are particularly beneficial where there is substantial trade in the sector and when global value chains are important.

Keatts et al. (2017) observe that one of the clear lessons learned from the literature is that models for mutual recognition will be most successful between trade partners in sectors where trade is already substantial.

Additionally, these authors suggest that a country with substantial production in a particular sector but limited trade may be missing an opportunity that a mutual recognition model could help them to realise.

Correia de Brito, Kauffmann and Pelkmans (2016) observe that, when value chains in sectors matter to a country or its business, an MRA may matter for reason of seamlessness across borders and speed.

4.5. MRA is an effective instrument for AEOs

The MRA instrument is not selected for expedience. It is particularly appropriate for AEOs for reasons of the generic benefits described above, together with the following specific reasons.

An MRA is concerned with mutual recognition of quality conformance with standards and the standards themselves. Importantly, Customs compliance for AEOs can be considered another form of quality certification (Rosanelli 2016). Hence, MRAs are particularly suited for AEOs.

The outcomes relevant to Customs agencies when establishing an MRA for AEOs are those of supply chain security and trade facilitation. These are inherent outcomes of

the AEO partnership. Each member nation has confidence that the quality of Customs compliance under the AEO partnerships is fit for purpose.

5. Benefits of MRAs for AEOs

This section outlines the benefits of MRAs for AEOs that are unique to AEO partnerships. They illustrate how MRAs act as catalysts to multiply the value of the trust relationship of one AEO partnership to many such partnerships across global value chains. In doing so, they multiply the value of AEO benefits of national security, trade facilitation and quality improvement for firms and agencies.

Specifically, in this section, we conclude that these benefits include:

- acting as a catalyst for multiplying the value of trust
- reduced transit time for trade
- increased competitiveness in trade
- one-step verification of status
- pushing borders out
- enabling new data technologies
- human capital building
- accessing the benefits of globalisation.

There are a few quantitative reviews of the benefits of MRAs and AEOs. One such example is the report of the panel of Hintsä, Urciuoli and Tan (2016).

5.1.1. MRAs as a catalyst for multiplying the value of trust

The SAFE Framework and the AEO partnerships built on trust provide an opportunity for security risk reduction and trade facilitation. Widdowson (2016) reports that it is a commonly held view among many commentators that the principle of mutual recognition is fundamental to the effective operation of the AEO programme.

This is so because MRAs have an important power in their catalytic capacity to transform the benefit from each AEO partnership to create much greater benefits. From each individual AEO partnership of trust, an MRA for AEOs creates many partnerships of trust in the relevant global supply chain. These partnerships are between AEOs and administrations as well as between AEOs.

5.1.2. Reduce transit time for trade

The multiplication by MRAs to create new partnerships has a tangible value for traders in reduced transit time that is clearly measurable. Widdowson (2016) observes that a number of MRAs have already been negotiated, and the benefits of such arrangements are now being realised. He cites the example of New Zealand's Secure Export Scheme:

For example, under the agreement between New Zealand and the US that provides for mutual recognition of New Zealand's Secure Export Scheme and the US C-TPAT program, goods exported to the US by traders who are members of Secure Export Scheme are 3.5

times less likely to be held up for examination upon arrival at a US port. (Widdowson 2016, 11)

5.1.3. Competitiveness in trade

In general, an MRA confers a special competitive advantage on an AEO because it provides access to diverse global supply chains not accessible otherwise.

This is especially so for AEOs in developing economies. Widdowson (2016) cites the United Nations Conference on Trade and Development (UNCTAD, 2008), which highlights the importance of achieving mutual recognition from the perspective of developing economies:

In the longer term, mutual recognition of AEO status will be critical to ensure that operators who comply with the criteria set out in the SAFE Framework and have obtained AEO status in their own country are in fact able to enjoy the benefits outlined in the SAFE Framework and may participate in international trade on equal terms. In the absence of a system for global mutual recognition of AEO status, traders from some countries, particularly developing economies, may find themselves at a serious competitive disadvantage. (Widdowson 2016, 12)

5.1.4. One-step verification of status

Widdowson cites the International Chamber of Commerce (ICC 2009), which recognises that MRAs eliminate the need for multiple verification of status. This is an important benefit of trade that is only brought about by the power of MRAs in creating new trust partnerships across global supply chains:

ICC has maintained that achievement of a mutual recognition process for companies implementing the Framework procedures is a top priority. Mutual recognition is necessary to capture the trade benefit of a world standard for security and trade facilitation, i.e., that:

- *A supply chain partner accepted as an AEO by a customs administration that participates in the Framework will not be subject to multiple verifications of its status by participating Administrations or other AEOs, i.e., that an AEO would not be subject to multiple inspections or verification by each AEO with which it does business;*
- *Supply chain partners will be able to apply for AEO status in their own participating countries; and*
- *A supply chain partner accepted as an AEO by a customs administration that participates in the Framework will be afforded program benefits by all participating administrations, including those that are phasing in implementation. (ICC 2009, 2)*

5.1.5. Pushing borders out

The MRA effectively allows Customs agencies to achieve risk reduction in diverse locations and supply chains beyond its borders. This is an important benefit for Customs agencies.

The vital aspect of this is that the national Customs agencies take a detailed interest in the entire end-to-end international supply chain and all of the players in it. In addition, through the SAFE Framework, they seek to make recommendations for improvement and define best practices.

The MRA provides the mechanism for this wider concern beyond borders. The MRA enables cargo to be checked to the SAFE Framework standard of security before the cargo even reaches the territory of the country.

Altemöller (2016) describes this as the principle of “pushing borders out”. He notes that risks in global supply chains can only be addressed if they are visible. Such visibility is provided by data about the location of cargo at any time in the supply chain. Altemöller describes the checking of data on risk as checking at the “virtual border”. This checking of data of enterprises in foreign territories that are not themselves partnered with a Customs authority is beyond the capability of any one agency or enterprise. However, it is made possible with MRAs for AEOs because foreign AEOs will be trusted to provide such checking.

Hu, Tan and Heijmann (2016) describe the data challenges, including fragmentation of supply chain information, inaccuracy of information, lack of expertise about Customs regulations and procedures. At the very least, one nation seeking this visibility of data of another nation would raise issues of sovereignty under international law. The MRA is vital because it enables this checking at the virtual border to be done by a trusted partner even before the cargo has entered the country of destination. In doing so, the MRA pushes borders out without compromising the sovereignty of partner nations.

5.1.6. Enabling new data technologies

MRAs provide the opportunities to create a secure end-to-end supply chain if all requisite data could be checked. Bowering (2016) describes the potential for blockchain technologies to facilitate the sharing of logistics data between supply chain parties while maintaining the security and integrity of that data. Blockchain technologies enable data records to be created at every point in the supply chain. They enable sharing of this data across a number of parties such as AEOs and Customs administrations. The data is immutable to manipulation and corruption. MRAs provide the opportunity for partners in different locations and in different countries to establish blockchains and to record and access data securely.

Bowering concludes that a secure end-to-end supply chain achieved in this way could potentially remove the need for an import declaration. Bowering concludes that the blockchain technology could only be deployed with the trust established through an AEO programme and an MRA relationship between trading partners.

5.1.7. Human capital building

When MRAs are established, personnel of enterprises and Customs administrations will need to upskill. This will produce benefits for them because it will raise their skill levels. We can understand the kinds of benefits that can accrue to personnel by considering what desirable skills would be. Wei (2016) describes these desirable skills. These represent the benefits that accrue to personnel of enterprises and of Customs administrations from their professional development to act as partners in MRAs:

- *Mutual development of vocational training standards: establish standards based on the WCO PICARD Professional Standards and the People Development Diagnostic Tool*
- *Mutual development of qualification criteria for Customs Clearing Agents serving under AO programs: validate qualifications of customs clearing agents of AO companies jointly by BRICS customs authorities under an agreement framework*
- *Mutual support in capacity building of infrastructure so as to optimise information exchange facilities: maintain AO profile and business data traced and monitored effectively.* (Wei 2016, 126)

5.1.8. Accessing the benefits of globalisation

An MRA enables an AEO of one country to access global supply chains more effectively than it would without an MRA (Wei 2016). This is especially important for enterprises in the context of globalisation of production. Wei observes that a fundamental objective in becoming an AEO is to effectively access global supply chains, in part by reducing the risk profile of the enterprise.

Indeed, mutual recognition of AO or AEO-type programs is being increasingly acknowledged by the world trade community as one of the fundamental objectives to participate in such programs. Dr Kunio Mikuriya, Secretary General of the WCO stressed that 'mutual recognition is an essential element for consideration in developing a national AEO program. It is expected that bilateral, subregional and regional initiatives under development will gradually pave the way for a global system of mutual recognition of AEO status, although it will require some time to accomplish along with the phased approach of implementing the WCO Framework of Standards'. Consequently, implementation of AO programs and differentiated risk targeting between consignments of AOs and non-AOs have become necessary for customs administrations in managing global supply chains. (Wei 2016, 116–117)

6. Selected examples of MRA-AEOs

This section provides reports about signed MRA-AEOs, with indications of expected benefits from them.

6.1. Example 1: Australia-NZ MRA

Reported by Customs Brokers and Forwarders Council of Australia (2016).

The Australia-New Zealand MRA will ensure that members of the Australian Trusted Trader (ATT) programme and the NZCS Secure Exports Scheme receive preferential border treatment and trade facilitation benefits when conducting trans-Tasman trade.

The MRA will deliver a mutually beneficial outcome that increases both nations' contributions to international supply chain security and trade facilitation. It is anticipated that the MRA will allow up to 13 per cent of New Zealand import volume to Australia – totalling [AUD]3 billion – to be facilitated, along with [AUD]7.5 billion of Australian exports by 2020...

This combined [AUD]10.5 billion of trans-Tasman trade facilitated and secured through the MRA demonstrates a significant return on investment that will increase the international competitiveness of industries in both countries.

6.2. Example 2: China-Australia MRA

Reported by General Administration of Customs of the People's Republic of China (2017).

On March 7, in Australia, the GACC delegation signed the Action Plan of Authorized Economic Operator (AEO) Mutual Recognition with Australian Government Department of Immigration and Border Protection.

The Action Plan sets out the steps and timetable for AEO mutual recognition between China Customs and Australian Customs, marking the formal start of the mutual recognition to enhance China-Australia trade facilitation and co-operation. According to statistics, during 2016, there were 69,671 Chinese firms trading with Australia, with import-export value totaling USD103.298 billion. Among them, the 1,708 Chinese AEOs had trade value around USD35.634 billion, accounting for 34.5 percent of the total value.

The AEO system is now an international customs practice. In recent years, China Customs has been vigorously promoting AEO mutual

recognition with foreign Customs. At present, the mutual recognition has been achieved with 32 countries/regions including 28 EU member states, Singapore, South Korea, Hong Kong SAR, and Switzerland. In 2016, China's exports to the 32 countries/regions accounted for about 45% of its gross export.

With the mutual recognition, Chinese AEO enterprises can get customs convenience in the above countries/regions, effectively reducing trade costs like port handling, insurance and logistic fees. For example, in the EU territory, the goods from 3,000 Chinese AEOs can be cleared as conveniently as the goods of EU AEOs; by statistics, the Customs inspection rate has come down by 50% and clearance efficiency has got up by 30% and more.

Now, China Customs is managing to achieve AEO mutual recognition with the USA, Australia, New Zealand, Japan, Russia and other trading partners as well as with the countries like Israel and Malaysia along the Belt and Road in order to increase customs conveniences for Chinese AEOs at home and abroad, reducing their clearance cost and boosting their international competitiveness.

6.3. Example 3: Korea-China MRA

Reported by Japan International Freight Forwarders Association (2010).

The Korea Customs Service (KCS) announced on June 3 that the efficiency of exports to and imports from China improved notably during the first quarter (January–March) of this year. More specifically, the mutual recognition agreement (MRA) on authorized economic operators (AEOs) that it had reached with China reduced the average amount of time consumed in customs clearance services and drove down the percentage of which AEO shipments are inspected.

...

In the first quarter, the average amount of time spent at customs houses in China for inspecting AEO products from South Korea was just 13 hours, a slightly over one-third of the duration of time used for general cargo, which was an average of 38 hours. Meanwhile, only 1.97% of the AEO cargo from South Korea was checked in China, less than half the percentage of which general shipments were checked, which was 4.19%. It was learned the AEO agreement had contributed remarkably to shrinking logistics costs for South Korea and enhancing its export competitiveness.

6.4. Example 4: Hong Kong – New Zealand MRA

Reported by The Government of the Hong Kong Special Administrative Region (2018).

Under the MRA, the Hong Kong Authorized Economic Operator (HKAEO) Programme and the New Zealand Secure Exports Scheme are mutually recognised, by which Authorized Economic Operators (AEOs) of both economies enjoy mutual customs clearance benefits, including reduced examination and prioritised clearance.

...

Apart from demonstrating the two Customs administrations' efforts in strengthening international cargo security, the signing of the MRA with New Zealand also enables accredited Hong Kong traders to better explore the market there by leveraging their edge of certified status under the Belt and Road Initiative.

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Appendix A Technical annex

In this literature scan, the main search terms were:

- Customs MRAs
- free trade agreements
- mutual recognition agreements
- mutual recognition arrangements
- mutual recognition models
- mutual recognition schemes
- New Zealand MRAs
- non-tariff barriers
- trade agreements
- trade barriers
- trade costs
- trade facilitation
- Secure Export Scheme.

The main databases searched were Econlit, REPEC and SSRN. We also searched with Google Scholar and Google.

New Zealand Customs Service kindly provided a selection of journal articles that reported partnership attributes of authorised economic operator relationships.

In addition, a focused search was made for ‘authorized economic operator’ from the following from 2013:

- World Customs Journal
- International Network of Customs Universities
- Global Trade and Customs Journal.