



AEO & MRA study for RTC, Dr. Juha Hintsa, Cross-border Research Association, 31.12.2013

Thailand Europe Cooperation TEC-II, PDSC

Implementation of international standards on Supply Chain Security leading to a secure Trade Environment and to increased Trade Facilitation (Activity Code : TRA 4)

AUTHORISED ECONOMIC OPERATOR & MUTUAL RECOGNITION AGREEMENT STUDY FOR THE ROYAL THAI CUSTOMS

31.12.2013



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Executive Summary

Mandate for this “Authorized Economic Operator, AEO – Mutual Recognition Agreements, MRA” -study comes from the Delegation of the European Union to Thailand, as part of Thailand-EU Cooperation Facility Phrase II (TEC-II), Policy Support Dialogue Component (PDSC) on “Implementation of international standards on Supply Chain Security leading to a secure Trade Environment and to increased Trade Facilitation” (Activity Code : TRA 4). This followed the request from the Royal Thai Customs, RTC asking for a technical assistance with two main objectives:

- Assisting Royal Thai Customs, RTC, to improve the popularity of the Thai AEO program among the economic operators.
- Guiding RTC in preparing for a future AEO MRA negotiations, primarily with the European Union / European Commission Directorate General of Customs and Taxation (EC DG TAXUD) by conducting gap analyses between the Thailand and the EU AEO scheme and recommending a roadmap for the future MRA.

The study report has the following structure: Chapter 1. Introduction; Chapter 2. Authorised Economic Operator (AEO) –programs; Chapter 3. Mutual Recognition Agreement / Arrangement (MRA) situation; Chapter 4. Suggestions to exploit additional supply chain security models and tools; and Chapter 5. Summary of key recommendations to RTC. The study outcomes are summarized below, with seven recommendations on the first question, and ten on the second one.

Question 1: How to make AEO more attractive for economic operators in Thailand?

1. Make the application process as smooth, low cost and fast for the economic operators as possible
2. Invest in systematic design, implementation and monitoring of AEO-benefits / incentives
3. Drive towards multi-agency co-operation “under the RTC AEO-umbrella”
4. Consider shifting towards system-based and audit-based principles and practices
5. Consider expanding to additional types of actors eligible for AEO-status
6. Continue and possibly expand in active interaction with Thai industries
7. Start driving towards several AEO MRAs with third countries and regions

Question 2. How to proactively prepare for future MRA negotiations, particularly with the EU?

1. Ensure clear high-level commitment to building a co-operative partnership
2. Demonstrate implementation of a Customs-to-Business programme along with the five main elements of the Customs-to-Customs pillar, as in WCO SAFE
3. Establish a framework for a legally binding MRA between RTC and EU.
4. Provide more detailed guidance on what would be recognised as appropriate security measures
5. Consider if the Thai AEO reference/identifier structure might be aligned with that of the EU (EORI)
6. Provide more details regarding revocation and suspensions
7. Make preparations to receive EU customs officials visiting Thailand, RTC and selected AEOs and applicants; and, make preparations for visiting EU
8. Prepare to provide full transparency on all AEO processes and procedures
9. Prepare for signing of an MRA.
10. Make provision of resource to maintain the representation of RTC within the Joint Customs Co-operation Committee (JCCC) and other communication channels with EU customs officials.



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Abbreviations:

AEO:	Authorised Economic Operator (in the EU and globally)
AEOC:	Authorised Economic Operator – Compliance (in the EU)
AEOS:	Authorised Economic Operator – Security (in the EU)
AEOF:	Authorised Economic Operator – Full (in the EU)
BASC:	Business Alliance for Secure Commerce (in Latin America)
CBP:	Customs and Border Protection (in the US)
CBRA:	Cross-border Research Association
CCIP:	Customs Code Implementation Provisions (in the EU)
CCTV:	Closed-circuit Television
CEN:	European Committee for Standardisation (in Europe)
CEN:	Customs Enforcement Network (at WCO)
CMAA:	Customs Mutual Assistance Agreement
COMPACT:	Compliance Partnership Customs and Trade (in the EU)
COSO:	The Committee of Sponsoring Organizations of the Treadway Commission
C-TPAT:	Customs-Trade Partnership Against Terrorism (in the US)
DG TAXUD:	Directorate-General for Taxation and Customs Union
EC:	European Commission
EMEA:	Europe, Middle-East, Africa
EOS:	Economic Operator System (in the EU)
EORI:	Economic Operators' Registration and Identification number (in the EU)
EP:	European Parliament
EU:	European Union
FP7:	Framework Program 7 (in the EU)
ICAO:	International Civil Aviation Organisation
ICC:	International Chamber of Commerce



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IMO:	International Maritime Organisation
IPR:	Intellectual Property Rights
IRU:	International Road Union
ISPS-code:	International Ship and Port facility Security –code (with IMO)
IT:	Information Technology
JCCC:	Joint Customs Cooperation Committee (e.g. EU-China)
KPI:	Key Performance Indicator
MIDS:	Manufacturer identification Numbers (in the US)
MRA:	Mutual Recognition Agreement, or, Mutual Recognition Arrangement
MS:	Member State (e.g. in the EU)
PSCG:	Private Sector Consultative Group (for the WCO)
RTC:	Royal Thai Customs (Thailand)
RTC:	Regional Training Centre (at WCO)
SAFE:	SAFE Framework of Standards to Secure and Facilitate Global Trade (at WCO)
SAFE:	Security and Accountability for Every Port (SAFE) Act of 2006 (in the US)
SAQ:	Self-assessment questionnaire
SME:	Small and medium sized enterprise
TAPA:	Transported Asset Protection Association
TIR:	Transports Internationaux Routiers (International Road Transport)
UCC:	Union Customs Code (in the EU)
UPU:	Universal Postal Union
WCO:	World Customs Organisation
WTO:	World Trade Organisation



1 Introduction

Study mandate and objectives

Mandate for this “Authorized Economic Operator, AEO – Mutual Recognition Agreements, MRA” -study comes from the Delegation of the European Union to Thailand, as part of the Thailand-EU Cooperation Facility Phase II (TEC-II), Policy Support Dialogue Component (PDSC) on “Implementation of international standards on Supply Chain Security leading to a secure Trade Environment and to increased Trade Facilitation” (Activity Code: TRA 4). This followed the request from the Royal Thai Customs, RTC, asking for a technical assistance, with following two main objectives:

1. Assisting Royal Thai Customs, RTC, to improve the popularity of the Thai AEO program among the economic operators; and
2. Guiding RTC in preparing for a future AEO MRA negotiations, primarily with the European Union / European Commission Directorate General of Customs and Taxation (EC DG TAXUD), by conducting gap analyses between the Thailand and the EU AEO scheme and recommending a roadmap for the future MRA.

The project started on 1.11.2012 and finished on 31.10.2013. The work has been carried out by Dr. Juha Hintsa¹, of Cross-border Research Association (CBRA), Lausanne, Switzerland. Several experts around the globe have provided important inputs and/or valuable reviews for the paper.²

Report structure

The study report has the following structure:

- Chapter 1. Introduction
- Chapter 2. Authorised Economic Operator (AEO) -programs
- Chapter 3. Mutual Recognition Agreement / Arrangement (MRA) situation
- Chapter 4. Suggestions to exploit additional supply chain security models and tools
- Chapter 5. Summary of key recommendations to RTC³

¹ Dr. Juha Hintsa, founder of Cross-border Research Association (CBRA, www.cross-border.org), holds a doctorate of management degree from the Business School of the University of Lausanne in Switzerland (HEC UNIL). He specializes in supply chain risk management, supply chain security, customs and border management as well as trade facilitation research. Dr. Hintsa has near 40 journal and conference publications and book contributions on these topics, and is a regular speaker and guest lecturer at related events worldwide. He is active in multiple European research and standardisation projects, including Framework Program 7 (FP7) and European Committee for Standardisation (CEN). Dr. Hintsa is also a member of Transported Asset Protection Association (TAPA EMEA) regulatory affairs working group; Partnership in Customs Academic Research and Development (PICARD) advisory group for the World Customs Organization (WCO); and editorial board member for the Journal of Transportation Security and the World Customs Journal.

² Please see acknowledgements at the end of this Chapter 1.

³ It goes without saying that this report can be read in different ways, depending on the reader’s interests and information needs. For example, if the reader is interested only on MRAs, then Chapters 3 and 5, and Annex 1 will do. If s/he has interest only in AEO itself, Chapter 2 and 5 and Annex 1 are important. Those readers, who want to think or

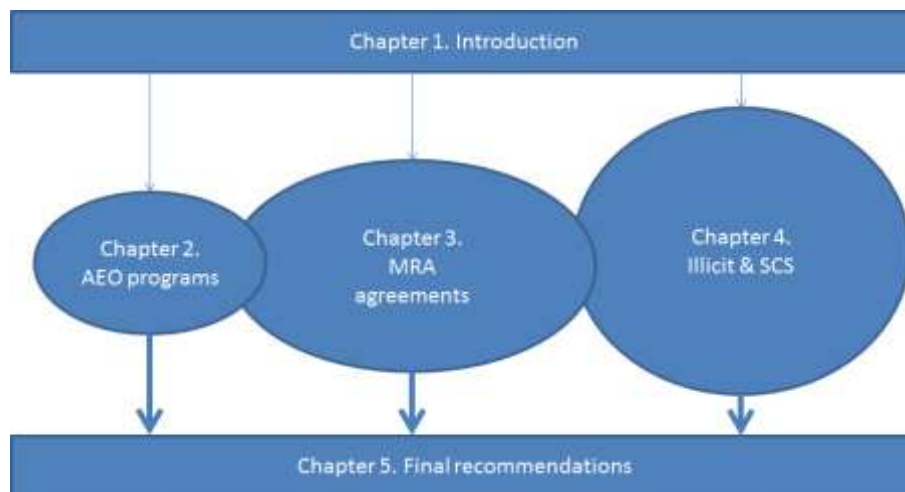


Figure 1: Report structure and flow

Main information sources for the report

Information sources used during the study include the following categories and examples:

- Governmental documentation, in particular with the World Customs Organization (WCO), European Commission Directorate-General for Taxation and Customs (DG TAXUD) and the Royal Thai Customs (RTC);
- Several articles in practitioner and academic journals;
- Conference presentations, in particular WCO 2012 AEO Conference in Korea; and
- Expert interviews in customs, supply chains, and academia; including written replies to emailed questions.

The single two most important information sources for the study - in particular for Chapters 2 and 3 - are the WCO SAFE Framework of Standards package and DG TAXUD AEO materials available on their websites; these are presented in two tables below. Table 1 below contains a brief description of all the 12 files included in the WCO SAFE package (version of July 2012), www.wcoomd.org

Table 1: List of files contained in WCO SAFE package (July 2012)

File	Title	Date	Pp.	Comments
AEO_Compndium_2012.en	Compendium of Authorized Economic Operator Programmes 2012 edition	2012	65	Basis for the global AEO - overview in RTC-project.
SAFE_Framework_2012_en	SAFE Framework of Standards to Secure and Facilitate Global Trade, June 2012.	June 2012	73	Medium relevance for the RTC-project
safe_package_II	Customs Guidelines on Integrated Supply Chain Management	June 2004	26	Low relevance for the RTC-project

learn more about the big picture of illicit activities, crime prevention and security management in global supply chains, Chapter 4 with all Annexes can be very relevant.



safe_package_III	AEO Implementation Guidance - How to develop an AEO programme	May 2010	29	Medium relevance for the RTC-project
safe_package_IX	Trade Recovery Guidelines	2010	7	Low relevance for the RTC-project
safe_package_V	Model AEO Appeal Procedures	2010	2	Medium relevance for the RTC-project
safe_package_VI	PSCG (Private Sector Consultative Group) on AEO benefits	April 2010	2	High file for the RTC-project.
safe_package_VII	Guidelines for the procurement and deployment of scanning/NII equipment	Dec. 2011	41	Not relevant for the RTC-project
safe_package_VIII	SAFE Data Element Maintenance Mechanism	2010	2	Medium relevance for the RTC-project
safe_package_X	The Authorized Economic Operator and the Small and Medium Enterprise - FAQ	May 2010	8	Medium relevance for the RTC-project
safe_package_XI	Guidelines for developing a mutual recognition arrangement/agreement	2011	43	Key file for the RTC-project.
safe_package_XII	AEO Template	na	24	Low relevance for the RTC-project

Table 2 below contains a brief description of 10 files analysed by the author, available on the DG TAXUD web-site. http://ec.europa.eu/taxation_customs/index_en.htm

Table 2: Files analysed sourced from DG TAXUD, European Commission

File	Title	Date	Pp.	Comments
aeo_compact_model_en	AUTHORISED ECONOMIC OPERATORS THE AEO COMPACT MODEL. WORKING DOCUMENT TAXUD/2006/1452	13.6.2006	16	Medium relevance for the RTC-project
aeo_contacts_for_traders_en	Where AEO related questions can be answered in the Member States Customs authorities	1.7.2012	4	Low relevance for the RTC-project
aeo_guidelines2012_en	AUTHORISED ECONOMIC OPERATORS GUIDELINES	17.4.2012	77	High relevance for the RTC-project
aeo_risks_threats_annex2	Threats, Risks and Possible solutions	na	18	High relevance for the RTC-project
aeo_self_assessment_en	Self assessment questionnaire – AEO guidelines	na	16	High relevance for the RTC-project
aeo_self_assessment_explanatory_en	Explanatory notes for AEO-Self Assessment Questionnaire	na	28	High relevance for the RTC-project
annex-3_aeo_security_declaration	Security Declaration for Authorised Economic Operators AEO (Annex 3)	na	1	Medium relevance for the RTC-project
ec-reg-1875-2006	COMMISSION REGULATION (EC) No 1875/2006 of 18 December 2006	18.12.2006	62	Medium relevance for the RTC-project
eu-reg-197-2010	COMMISSION REGULATION (EU) No 197/2010 of 9 March 2010	9.3.2012	2	Medium relevance for the RTC-project
ec-reg-1192-2008	COMMISSION REGULATION (EC) No 1192/2008 of 17 November 2008	17.11.2008	51	Medium relevance for the RTC-project



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Regarding Chapter 4 of this report, the main sources for the content include Cross-border Research Association (CBRA)⁴ publications as well as European Framework Program 7 (FP7) research and development projects (namely FP7-CWIT, CASSANDRA, SAFEPOST, FOCUS, LOGSEC and INTEGRITY).⁵

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- **Individual experts:** Mr. Juha Ahokas, Mr. Bryce Blegen, Mr. Mark FeDuke, Prof. Ari-Pekka Hameri, Mr. Dietmar Jost, Mr. Toni Männistö, Mr. Thorsten Neumann, Prof. Yao-hua Tan, Mr. Chris Thibadeau, and Dr. Luca Urciuoli
- **Editorial expert:** Special thanks to Dr. Andrew Traill, for the crucial assistance to make this report happen within the tight schedule.

⁴ Cross-border Research Association, CBRA, formally established in Lausanne, Switzerland in 2005, is an independent research entity focusing on advanced supply chain security, crime prevention, risk management, customs and other border agency as well as trade facilitation research within the context of global supply chains. The CBRA research team carries out survey and case study work, cost-benefit analysis, optimization and simulation, various forms of modeling and theory development and other research tasks within these core domains. CBRA is collaborating closely with University of Lausanne, and with a handful of other top Universities on a worldwide basis. CBRA works with both public sector and private sector actors, while carrying out this research, for the benefit of business and government practitioners, policy makers and academics alike. CBRA is also active in multiple European R&D FP7-projects, including CWIT, CASSANDRA and SAFEPOST, as well the lead developer for CEN Good SCS practice guidebook, and WCO Customs risk management studies.

⁵ Interested readers can find more information on the CBRA FP7 projects and academic and practitioner publications on Annexes 29 and 30 of this report.



2 Authorised Economic Operator (AEO) -programs

The purpose of Chapter 2 is to provide a broad overview on Authorised Economic Operator, AEO, programs, first in the European Union, followed by a global overview also with AEO benefit perspectives. Within EU section (Chapter 2.1), current AEO situation and historical background; application process; key elements of AEO requirements; some sector specific and SME-specific notes; role of pre-existing certifications; suspensions and revocations; some practical experiences with AEO processes; as well as an interview outcomes with EC DG TAXUD, are all explained. Within the global AEO situation and benefits section (Chapter 2.2), global AEO statistics and some country specific experiences are shared; a broad view on potential and expected AEO benefits is explained, highlighting the relevance of cost-benefit analysis; and opportunities for multi-agency collaboration are considered.

2.1 European Union Authorised Economic Operator (EU AEO) programme

2.1.1 Current situation

Acquiring the status of the EU Authorised Economic Operator (AEO) began on 1 January 2008 across the then 27 member states of the EU. Under the EU system, there are three categories of AEO certificates available:

- customs simplifications (AEOC)
- security and safety (AEOS)
- full (AEOF) [amalgamating AEOC and AEOS]

The AEO programme is open to those legal entities which have a business involved in the international supply chain and have proved themselves to be compliant and trustworthy, and where applicable, safe and secure. Legal entities include sole proprietors, partnerships, public limited companies, limited companies, and unlimited companies⁶.

By early September 2013 near 12,000 certificates (exact figure was 11,960) had been issued, of which 6,312 were for AEOF (Customs simplifications combined with Security and safety), 5,301 were AEOC (Customs simplifications) and 347 were AEOS (Security and safety only). The details for each member state (now standing at 28 in number) are given in the Table 3 below⁷:

⁶ Note: a VAT group registration does not constitute a legal entity under the rules of the AEO programme. Only those registered in the EU can apply to be an AEO in the EU unless they are an airline or shipping company authorised to use simplified transit procedures. A 'group' may apply for AEO status in any one of the EU member states only if all the legal entities within that group are based in that same member state.

⁷ Source: DG TAXUD, Authorised Economic Operators - Query Page. Accessed on 12 September 2013



Table 3: AEOs registered in the EU, September 2013

	AEOC	% of total	AEOS	% of total	AEOF	% of total
Austria	85	1.6	1	0.3	161	2.6
Belgium	22	0.4	1	0.3	259	4.1
Bulgaria	1	0.0	0	0.0	259	4.1
Croatia	0	0.0	0	0.0	0	0.0
Cyprus	2	0.0	0	0.0	11	0.2
Czech Republic	34	0.6	2	0.6	85	1.3
Denmark	1	0.0	1	0.3	74	1.2
Estonia	5	0.1	2	0.6	12	0.2
Finland	0	0.0	5	1.4	55	0.9
France	238	4.5	118	34.0	560	8.9
Germany	3206	60.5	36	10.4	2093	33.2
Greece	13	0.2	2	0.6	16	0.3
Hungary	158	3.0	15	4.3	108	1.7
Ireland	8	0.2	0	0.0	88	1.4
Italy	319	6.0	12	3.5	418	6.6
Latvia	1	0.0	1	0.3	15	0.2
Lithuania	4	0.1	1	0.3	16	0.3
Luxembourg	5	0.1	2	0.6	16	0.3
Malta	1	0.0	0	0.0	10	0.2
Netherlands	337	6.4	71	20.5	928	14.7
Poland	401	7.6	18	5.2	213	3.4
Portugal	63	1.2	6	1.7	18	0.3
Romania	4	0.1	3	0.9	39	0.6
Slovakia	21	0.4	3	0.9	26	0.4
Slovenia	27	0.5	7	2.0	48	0.8
Spain	166	3.1	25	7.2	336	5.3
Sweden	135	2.5	5	1.4	181	2.9
United Kingdom	44	0.8	10	2.9	267	4.2
		100.0		100.0		100.0
Total	5301		347		6312	
Total with security AEO accreditation			6659			

The number of authorisations varies markedly between the different member states, but it is evident that Germany has significantly more AEOs than others; followed by the Netherlands, France, Italy, Poland, Spain, Sweden and the UK.

Considering these “top 8 AEO countries” in the EU, it can be interesting to look at the numbers as “capita per AEO” (or, AEO per capita; but the former has “easier numbers to read”) – as presented in the Table 4 below.



Considering that the number of residents to some extent approximates the number of companies in a country, one can observe some major differences between these top 8 countries, the Netherlands being the “most active AEO country” with some 12600 residents per an AEO company; while the UK is an absolute follower with some 200.000 residents per an AEO company; the rest six countries falling between 15.000 and 89.000 residents per an AEO company.

Table 4: AEOs registered in top eight EU member states in relation to population

Country	Total AEOs	AEOC	AEOs	AEOF	Population	Capita per AEO
Germany	5335	3206	36	2093	80640000	15115
Netherlands	1336	337	71	928	16795000	12571
France	916	238	118	560	63820000	69672
Italy	749	319	12	418	59789000	79825
Poland	632	401	18	213	38548000	60994
Spain	527	166	25	336	46958000	89104
Sweden	321	135	5	181	9595000	29891
United Kingdom	321	44	10	267	64231000	200097

2.1.2 Historic and legal background

EU Customs legislation has a direct relationship with the establishment and regulation of AEOs and the programme. The centre-piece of the customs union *acquis* since 1993 has been the Community Customs Code (Council Regulation (EEC) No 2913/92 establishing the Community Customs Code and Common Customs Tariff (Council Regulation (EEC) No 2658/87 on the tariff and statistical nomenclature and on the Common Customs Tariff), and successive amendments.

Furthermore, a series of topical legal instruments including regulations on intellectual property rights (IPR) enforcement⁸, drug precursors⁹, cultural goods¹⁰, cash controls¹¹, market surveillance¹² or pieces of legislation aiming at protecting citizens and the environment (e.g. Council Regulation (EC) No 338/97 on the protection of species of wild fauna and flora by regulating trade therein) provide a substantial and directly applicable legal basis for enforcement of rules in those fields by customs in the EU.

⁸ Council Regulation (EC) No 1383/2003 concerning customs action against goods suspected of infringing certain intellectual property rights and the measures to be taken against goods found to have infringed such rights

⁹ <http://ec.europa.eu/enterprise/sectors/chemicals/documents/specific-chemicals/precursors/>

¹⁰ Council Regulation (EC) No 116/2009 on the export of cultural goods

¹¹ Regulation No 1889/2005 on controls of cash entering or leaving the Community

¹² Regulation (EC) No 765/2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93



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The Customs Code is put into effect through the Code's implementing provisions (Commission Regulation (EEC) No 2454/93). Implementing powers are conferred on the Commission which is assisted by a Customs Code Committee.

In 2008, a Commission Communication, '*Strategy for the Evolution of the Customs Union*¹³, established the strategic objectives of the customs union as 1) protecting the EU and 2) supporting EU competitiveness¹⁴.

The customs regulations cover and contain many international agreements and conventions, such as the (WCO) Revised Kyoto Convention, and yet despite EU customs law being common across 28 member states there remains a margin of national rules applicable. Indeed the national inputs and in particular the human and financial resources available to the different customs administrations vary significantly among Member States, as do elements of the IT infrastructure and applications.

Clearly the regulations needed further modernising. In 2005, following a 2003 Commission Communication¹⁵, and Decision 70/2008/EC of the European Parliament and of the Council of 15 January 2008 on a paperless environment for customs and trade¹⁶, the Commission proposed a legislative package to modernise EU customs, in particular through an extended use of electronic data-processing techniques. The package was adopted in 2008, launching the full modernisation of EU customs legislation and procedures.

In 2005 the safety and security amendment of the Community Customs Code (Regulation (EC) No 648/2005 of the European Parliament and of the Council of 13 April 2005 amending Council Regulation (EEC) No 2913/92 establishing the Community Customs Code) paved the way for the creation of AEO concept.

Virtually all national customs authorities now offer the possibility to submit the customs declarations electronically in the EU. Today, over 90% of all customs declarations in the EU are made electronically¹⁷. In 2012 there was a proposal for a regulation of the European Parliament and of the Council laying down the Union Customs Code (COM(2012)64 of 20.02.2012) and a revision of the decision regarding the paperless customs initiative.

Following the detection of explosives in air cargo originating in Yemen (2010) and the report of a High Level Working Group on strengthening air cargo security, the Commission examined ways to improve supply chain security and contribute to the development of international standards. A full assessment of the gaps and

¹³ COM(2008) 169 final

¹⁴ Communication From The Commission To The European Parliament, The Council And The European Economic And Social Committee on the State of the Customs Union; Brussels, 21.12.2012, COM(2012) 791 final

¹⁵ COM(2003)452 final of 24.07.2003

¹⁶ OJ L 23, 26.1.2008, p.21 (Regulation (EC-No 450/2008) of the European Parliament and of the Council laying down the Community Customs Code (Modernised Customs Code), OJ L 145, 4.6.2008, p.1

¹⁷ Mutual recognition of Authorised Economic Operators and security measures: Susanne Aigner, Acting Head of Unit Risk Management and Security, DG TAXUD; World Customs Journal, 2009, Volume 4, No 1



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needs in the area of risk management and supply chain security was presented in a *Communication of the Commission on Risk Management and Supply Chain Security*¹⁸.

Further action is being called for in the area of international agreements on mutual recognition as part of the aim to improve trade facilitation, supply chain security and Intellectual Property Rights (IPR) enforcement. There is a need to further address the issues of national differences in IT and treatment of traders, through closer co-operation and sharing of responsibilities.

A decision was made to modernise the Modernised Customs Code before it was ever implemented. This decision was made because: (i) there were several issues relating to the definition of new IT developments required among the member states, (ii) the need for alignment with the Lisbon Treaty relating to delegation of powers, and (iii) because there were certain elements that were no longer applicable. Consequently the proposal for a recast of the Modernised Customs Code (Regulation of the European Parliament and of the Council laying down the Union Customs Code (COM (2012) 64)) was adopted by the Commission on 20th February 2012. The European Parliament adopted the newly named Union Customs Code (UCC), which was adopted on 9th October 2013 as Regulation (EU) No 952/2013 of the European Parliament and of the Council.¹⁹

2.1.3 The Origins of the AEO Concept

According to experts familiar with the European policy developments in the field of cargo security since the 1990s²⁰, there is solid evidence to place the origins of the AEO programme with the so-called 'Known Shipper' or 'Known Consignor' concept developed in the UK in the post-Lockerbie-Pan Am Flight 103 disaster of December 1988. Air cargo regulations were developed whereby air freight had to be scanned or screened before loading onto an aircraft unless it had come from a shipper or freight forwarder/agent which had had its security procedures audited (according to standards and procedures set by the Transport Security division (TRANSEC) of the UK's Department for Transport) and could verify that no unauthorised access had occurred from the point the cargo was identified for export to its arrival at the airline handling facilities. In other words, the freight was 'known' and the shipper and/or agent was also 'known' and registered with the government security programme for air cargo in the UK.

In the immediate aftermath of the 9/11 2001 terrorist attacks in the US, the concept was mooted by industry and some EU member states as the preferred way forward for an EU-wide cargo security programme. The EU air cargo industry quickly adopted the concept, and variants were developed for application to shipping and port security (i.e. the International Ship and Port Facility Security (ISPS) Code). The common theme, however, was for economic operators to apply security to protect the freight from origin to destination or else face an increased probability of border delays while cargo inspections were undertaken. With such

¹⁸ COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL AND THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE on Customs Risk Management and Security of the Supply Chain. Brussels, 8.1.2013. COM(2012) 793 final

¹⁹ It entered into force on 30.10.2013 and repealed the Regulation (EC) No 450/2008 of the European Parliament and of the Council of 23 April 2008 laying down the Community Customs Code (Modernised Customs Code) (OJ L 145, 4.6.2008, p.1).

²⁰ Interview with Dr. Andrew Traill, October 2013.



delays in the supply chain often proving extremely expensive and damaging to the companies involved, so the option of becoming a known shipper or agent, and latterly an Authorised Economic Operator (AEO) became more interesting to many companies. Customs authorities and other agencies also saw the attraction of the concept: stopping and searching or scanning cargo is a time consuming and costly matter for them also, and with world trade growing rapidly, a more efficient and effective method of identifying high risk cargo was required. The AEO concept provided the basis of such an approach, allowing customs personnel to pay less attention to that freight which was more likely to have been protected through the implementation and application of security measures in the supply chain, and instead to focus more attention and resources to that freight whose origins and people handling the freight were less well known or in which the supply chain and the cargo might present a higher risk.

Today the AEO concept has further developed and is based on, and is compatible with, the World Customs Organisation's SAFE Framework of Standards to Secure and Facilitate Global Trade (WCO SAFE) which is being implemented by Customs authorities around the globe. The AEO concept is one of the main building blocks within the WCO SAFE to support secure trade. At its heart lay four core elements²¹ :

1. Harmonization of advance electronic cargo information;
2. Consistent risk management approach to address security threats;
3. Outbound inspection of high-risk containers and cargo on request of the Customs administration of the receiving nation, by the Customs administration of the sending nation; and
4. Definition of benefits that Customs will provide to businesses that meet minimal supply chain security standards and best practices.

These four core elements form the base for what are referred to as the two pillars of the SAFE Framework, namely the standards to guide national Customs administrations towards a harmonised approach based on (1) Customs-to-Customs cooperation and (2) Customs-to-Business partnership. In effect, "The pillars involve a set of standards that are consolidated to guarantee ease of understanding and rapid international implementation. Moreover, this instrument draws directly from existing WCO security and facilitation measures and programmes developed by Member administrations"²². It is not surprising, given the history of its involvement in cargo security, that the EU has been a major influence on the development of the SAFE Framework of Standards.

2.1.4 The Application Process

A legal entity established in the EU, whatever the size of its business, that is involved in activities covered by customs legislation and forms part of the international (trade to and from third countries, i.e. those outside of the EU) supply chain can apply for AEO status. This includes logistics operators, carriers, freight forwarders, customs agents, importers, exporters, manufacturers, port terminal operators and more.

²¹ SAFE: Framework of Standards to secure and facilitate global trade, 2012; p3., para.1.3.;World Customs Organisation

²² SAFE: Framework of Standards to secure and facilitate global trade, 2012; p3., para.1.4.;World Customs Organisation



Such legal entities must have an Economic Operator Registration and Identification Number (EORI) before completing the AEO application. The EORI is significant, therefore, in that without it you cannot import or export goods or be contracted to do this.

Any legal entity based in another Member State must apply in that country. Each legal entity must complete the application but need only supply one completed self-assessment questionnaire; the systems, records and methods of assurance must, however, all be similar. If the business is made up of a mix of operations, for example warehousing, manufacturing and distribution, it may be simpler to complete a separate questionnaire for each operation.

Groups with businesses in different Member States should submit applications to one Member State's customs authority unless their main accounts related to the customs arrangements, and part of the operations to be covered by the AEO status, are held in a different Member State.

Operators intending to apply must be:

- financially solvent (have the ability to pay their legal debts);
- compliant with customs requirements;
- able to demonstrate satisfactory management systems (managing commercial and transport records); and
- if applying for the security status, compliant in respect of security and safety requirements.

The EU AEO programme allows customs authorities to take account of existing regulatory and accreditation schemes where these schemes meet the requirements of the AEO questionnaire. However, these schemes may only be an indicator that the business may be compliant to that standard, and that standards do not necessarily cover the whole of the business operation applying for AEO. An example of this would be Regulated Agent status which only applies to goods being exported in the air environment and could apply to a very small portion of an applicant's business and premises. The AEO audit looks at the whole business (related to customs activities) and the whole of the premises.

The key stages in the process from application through to the authorisation or rejection of an application can be summarised as follows:

1. A thorough communication and consultation process is undertaken via the AEO Database;
2. A detailed security profile of the applicant is constructed;
3. Compliance/solvency requirements are checked;
4. A risk assessment is undertaken;
5. The applicant performs a security self-evaluation;
6. If there are security issues arising from the risk assessment, a dialogue over the self-evaluation is held, and appropriate courses of action are suggested to reduce, mitigate or remove the risks which represent a problem; and
7. If these actions are implemented and an audit satisfies the customs authority of compliance, the AEO status is granted.



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Monitoring of AEOs after authorisation is regularly undertaken in order to ensure the maintenance of the highest compliance level. The conditions for acceptance and rejection of the application, as well as suspension and revocation of the AEO certificate, are laid down in the legislation – and explained later in this sub-chapter.

2.1.5 Acceptance and limitations of AEO authorisation

The AEO customs simplification certificate (AEOC) will not be accepted under any Mutual Recognition Agreements (MRAs) and holders of this status will not receive the benefits of frontier facilitation (see Chapters 3 and 4 relating to the benefits of AEO and MRAs respectively).

Businesses holding the customs simplification AEO status, wishing to take advantage of any mutual recognition benefits, would have to reapply for the security and safety certificate (AEOS) as well. Some businesses may choose only to apply for the safety and security certificate. Once a business has attained AEO status in one Member State then that status is recognised across the whole EU.

If an AEOS or AEOF company contracts service providers within the international supply chain that are themselves not EU AEOs, then the risk profile of the business and the individual consignments moving across borders may increase. Business can, however, only be held responsible for their part of the supply chain and for the goods which are under their custody. Contractual arrangements with service providers should include arrangements for assuring they are aware of the security and safety requirements and that there is a management process in place for conducting checks on those arrangements.

2.1.6 The key elements of customs compliance and security requirements for AEOs

The EU followed the SAFE Framework guidance on security for AEOs since 2008. Guidelines²³ for industry and customs authorities were produced following the AEO Pilot in 2006. This was based on only limited practical experience. Following four years of monitoring the AEO programme throughout the EU, experience was collected and collated into new guidelines published in 2012²⁴.

Although explanatory in nature and not legally binding, the guidelines establish a common understanding for customs authorities and business (economic operators) of the measures to take in order for an applicant, the company and management he or she represents, any legal representative in customs matters, or the person responsible for customs and security, to meet the conditions of the EU's AEO status. The following provides a brief overview of the key elements contained in Part 2 of the Guidelines ('*AEO Criteria*') - for more details the Guidelines should be consulted directly.

Record of Compliance (applicable to AEOF/C)

²³ TAXUD/2006/1450

²⁴ Authorised Economic Operators: Guidelines; European Commission, DG TAXUD, Brussels, 17 April 2012: TAXUD/B2/047/2011-Rev.3



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A three year period without infringement of customs rules (in any member state) is suggested, unless it is considered by the customs authority concerned that the infringements are of negligible importance and do not constitute a reason to doubt the good faith of the applicant, company management, legal representatives and responsible persons concerned²⁵. Evidence should be available which shows clear instruction is given to any party working on behalf of the applicant, and that monitoring and checking for accuracy of declarations is taking place.

Satisfactory system of managing commercial and transport records (applicable to AEOF/C)

In order for customs to carry out appropriate controls, the applicant should show a system of record management in the company's commercial dealings and transport operations. This should include differentiation between Community and non-Community goods procedures, which should be documented, an audit trail identified, and IT systems protected against intrusion, manipulation and any other unauthorised access. It should also be possible to monitor any changes made to documentation. Customs should be able to have physical or electronic access to customs and transport records; this point also requires an effective archive to be established.

Systems should be in place that can detect illegal or irregular transactions. Procedures should be in place to deal with licenses and authorisations required in the conduct of the business activities.

Lastly, staff awareness of the need to inform customs of compliance difficulties and to establish appropriate lines of contact and communication with customs, should be taken care of.

Proven financial solvency (applicable to AEOF/C)

The applicant should have proven financial solvency for a period of three years. If in certain circumstances, for example the company has been in business less than three years, this criteria can be satisfied in other ways, from other credible sources of information, and the three year stipulation waived. There should not be any current insolvency proceedings taking place, nor any customs debt in relation to imports or exports over the past three years (unless extenuating circumstances and not malice are shown to be the reason). Sufficient financial resources should be available to the applicant to meet future debts, and they should not show any negative net assets (unless these can be covered).

Appropriate security and safety standards (applicable only to AEOS/F)

Compliance with Article 14k (1) of the CCIP is required, and a physical audit undertaken to prove compliance. It should be shown to which aspects of the business the AEOS/F applies and which it does not.

The security measures taken are considered on a case-by-case basis due the wide variance in environment, business characteristics and risks companies are exposed to. It is also important to note that shortcomings in security measures in one area of the business may be overcome by measures taken in another. The main aim

²⁵ Hereafter, reference to the applicant shall be taken to also include the company, management, persons legally representing or acting on behalf of the company, and persons responsible for customs and security matters, as it relates to the AEO application and compliance requirements



of an assessment of security and safety standards is to ensure "that there are appropriate control measures in place to reduce the level of risk to an acceptable level."²⁶

As in accordance with the SAFE Framework, the following aspects of security are covered:

- a) Building security;
- b) Appropriate access controls;
- c) Cargo security;
- d) Handling export/import licenses (as appropriate);
- e) Business partner security;
- f) Personnel security; and
- g) Security awareness programmes.

a) Building security

The aim is to prevent unauthorised access to goods, production assets, data and documents. Therefore the buildings need to be constructed of materials which resist unlawful entry and protect against intrusion. This includes perimeter fencing, grids, codes, external and internal windows, gates and fences. Rapid detection and reporting of any attempts of unauthorised access should also feature in the security measures taken. Building security is also intrinsically linked to access control measures.

b) Appropriate access controls

Again, this requirement is intended to see measures that prevent unauthorised access, essentially to the shipping areas, loading docks and cargo areas, by people and vehicles. Measures taken might include fences, gates and lighting, especially if perimeter walls are not considered to be providing sufficient protection for goods stored outside the main buildings. Incident response plans should also be in place if unauthorised access is detected.

c) Cargo security

The integrity of the cargo must be maintained with measures to prevent and detect unauthorised access, tampering, exchange or theft of goods. Appropriate seals and checking procedures, and the 7-point inspection of containers (as suggested by the SAFE Framework) could be used. Other measures for checking the goods (e.g. quantity, quality), packing, identity of handlers, freight forwarders and drivers should be implemented, along with procedures for registering and escorting unauthorised persons through the premises, and ensuring clear signage relating to restricted areas. Incident response plans should also be produced with clear lines of responsibility and roles of people identified. All measures should be documented and actions recorded.

d) Handling export/import licenses

If handling goods for import and export which require licenses (including restricted goods), there must be in place a means of separating them from other goods. Procedures should also be in place for ensuring compliance with the latest legislation, situation regarding embargoed and restricted goods and licensing requirements. Dual-use potential of the goods should also be identified.

²⁶Authorised Economic Operators: Guidelines; European Commission, DG TAXUD, Brussels, 17 April 2012: TAXUD/B2/047/2011-Rev.3, p35, para 2.4.



e) *Business partner security*

All economic operators in the international supply chain working between the exporter/manufacturer and the importer/buyer are considered business partners. This may also extend to those contracted for services such as cleaning, catering, software providers, security company personnel or short-term contractors, all of whom may have access to secure premises, cargo or control and security systems. Selecting these business partners should include an assessment of their awareness of and ability to meet and apply acceptable levels of security and safety standards, whether contractually or more informally agreed. This would be relevant to their role within the supply chain. Any shortcomings should be addressed either by the business partners or mitigated by additional measures of the AEO/applicant. Nevertheless, written contracts should include the security and safety requirements expected, and the business partner should provide an assessment and demonstration of how they will meet these requirements. The AEO/applicant should implement monitoring and review and update procedures and document it all; the AEO remains responsible for security and safety compliance.

f) *Personnel security*

The aim is to protect personnel and to prevent infiltration of unauthorised personnel that could present a security risk. Within the boundaries set by legislation (e.g. data protection, privacy and human rights), the AEO/applicant should implement measures for the security screening of prospective and periodic background checks of existing employees working in security sensitive positions: "actions should not go beyond what is necessary with regard to the purpose". Such measures will be verified by customs authorities.

In relation to the above, customs' verification will look to ensure that procedures are in place; roles and responsibilities are identified; previous relevant convictions of employees are identified to prevent inappropriate deployment within security sensitive roles; and background checks are conducted periodically. Security requirements relating to the use of temporary personnel and agency workers must also be in place, as appropriate to the security sensitivity of their roles. Contracts with employment agencies should detail the level of security checks they need to perform on those people they put forward to security sensitive positions, and the AEO/applicant must provide evidence of measures used to check.

Prior to background checks being made, it might be advisable to seek consent of the individual in advance, either informally (but recorded) or by stipulating a contractual obligation to provide consent. For high or critical security posts, it may be necessary to request police checks on both spent and unspent convictions, not appearing on any official blacklists. The appointed employees should also be given the opportunity to disclose any police cautions, bail, pending court proceedings and convictions, and any other activity that could present a security risk.

When personnel leave the employment of the AEO, there should be procedures in place to ensure all means of access and permissions are removed and documented.

g) *Security awareness programmes*



All staff (as appropriate) should actively participate in security awareness programmes. These programmes should educate and train staff, ensure they are able to recognise deviations from the security and safety policies deployed, and understand what actions should be taken by whom when security lapses arise or are suspected. The awareness programmes should also extend, where appropriate, to business partners in the international supply chain.

Educational materials, expert guidance and training relating to identification of suspect cargo should be in place before the economic operator applies for AEO certification. All methods and materials should be recorded and documented; and a service or person (internal or external) should be responsible for training. Training and refresher programmes should be implemented as often as required, e.g. to cover staff turn-over, even though no specific timeframe is specified within the conditions of AEO certification. However, all new personnel to the company or a particular position in relation to the international supply chain must be given the awareness training.

The AEO applicant submits the application along with a self-assessment questionnaire (SAQ) to the member state's customs authority. A completeness check is undertaken and preliminary checks performed. If any gaps or questions arise, the customs authority will speak directly to the applicant. If the customs authority is satisfied, the application moves forward to a further round of assessment and analysis. A risk assessment is performed²⁷ followed by an audit plan. This all takes place in collaboration with the applicant. An audit of the security measures is undertaken culminating in a final report with any recommendations for the applicant to make and demonstrate this has been done, before a final decision is made to grant or deny the award of the AEO status to the applicant.

The final report and audit documentation will include the following:

1. a clear overview of the economic operator (its business, its role in the supply chain, its business model, its customs related activities, etc.);
2. a clear description of all risk areas considered and checked and any follow-up actions suggested to the AEO applicant;
3. a clear report of any action or reaction the AEO applicant has undertaken or expressed to the auditors;
4. the clear recommendation about whether to grant the status or not, according to the result of auditing activities;
5. in case the AEO status is not granted, complete and detailed justifications why the status is not granted, including any information received from other member states, stating whether they have been obtained through the "information" and/or "consultation" procedure; and
6. an overview regarding the AEO risk profile and, where the AEO status is granted, any recommendations for monitoring and/or reassessment;²⁸

²⁷ This will normally follow the structure established in the AEO COMPACT Model to ensure comparability with other risk assessments and to harmonise the approach: Authorised Economic Operator, Compliance and Partnership Customs and Trade (TAXUD/2006/1452)

²⁸ A later section of this report contains an example of the application of the above process undertaken by the Dutch Customs administration.



Decisions by customs must be made within 120 days (but a further 60 days may be added if the customs authority is unable to meet the 120 day time frame, or the applicant requests an extension in order to carry out further adjustments to meet the requirements of certification). Decisions may be challenged if negative, and an opportunity given to provide supplementary evidence that may change the decision.

Information relating to a successful application (prior to issuing a certificate) is shared with all other customs authorities of the EU member states. This provides that they might respond with any further information they have which is relevant to the applicant in question. This happens through the EU Economic Operator System (EOS), which is monitored at least weekly by member states. Any response to a request for consultation between customs authorities must be made within 60 days. If information is received which affects the authorisation, then a reassessment of the application may be made.

Customs will provide a continuous monitoring of the AEO and any irregularities or changes to the risk profile will be followed up by a consultation with the AEO and a reassessment made if and as required. Each AEO/F will be visited by customs at least once every 3 years. Nevertheless, regular monitoring by the AEO is also required. Such monitoring must be well documented, including any reviews and actions taken. Any significant changes to the business and operations should also be recorded and the customs authority informed. Equally, any significant legislative change should be communicated to the AEO, particularly if this will require a reassessment to be carried out.

2.1.7 Crime prevention mechanisms – case CCTV

One practical security measure which is often referred to in AEO documentations is a closed-circuit television systems, CCTV. Box 1 below, based on Pawson and Tilley (1997), edited by PhD Candidate Juha Ahokas, aims to explain the mechanisms behind the role of CCTV in crime prevention. The point made is following: the actual effectiveness of security measures is dependent on the chain of reasoning and response of criminal actors. Thus, one should avoid a “simple check-list mentality”, i.e. “do you have CCTV – Yes = you are secure /No = you are not secure”, during AEO-proposal preparation and auditing stages. Instead, one should investigate how well the security measures, in this case CCTV, are implemented, in the broader context of crime prevention and security management – i.e. does the installed CCTV system really help to mitigate crime risks.

Box 1: Crime prevention mechanisms, case CCTV²⁹

Single security technologies such as closed-circuit television systems (CCTV) don't create physical barriers that stop potential perpetrators committing crimes. How effective they are as measures is dependent on the chain of reasoning and response of criminal actors. The following mechanisms can explain the role of CCTV systems in crime prevention:

- offenders are detected, arrested and punished, which reduces the number of potential offenders outside of prison;
- images can be regarded as evidence, thus potential offenders avoid the surveillance area;
- the place gets more professional attention and the presence of security staff increases which deters potential offenders;
- estimated time between detection and intervention is reduced which decreases the offender's time to commit the offence;

²⁹ Pawson, R., & Tilley, N. (1997). *Realistic evaluation*. London: Sage Publications.



- the place is perceived as more secure and safer which increases the amount of people in the area that consequently leads to easier/improved surveillance ;
- an operating CCTV system supports the impression that crime reduction efforts are taken seriously and perceived risk is factually decreased;
- CCTV system reminds people that they are vulnerable and it's worth remaining vigilant and taking precautionary actions; and
- the proportion of more vigilant people increases which reduces crime opportunities.

2.1.8 Comparison of security requirements between actor types

Table 5 below demonstrates that all the main actors in the supply chain have a responsibility to provide security in the same areas – with the exception of Customs agents in Cargo and Transport³⁰:

Table 5: Comparison of security requirements between actor types

	Control of business	Premises	Personnel	Trading partners	Cargo	Transport	IT and data	Business continuity	Import/export compliance
Manufacturer	✓	✓	✓	✓	✓	✓	✓	✓	✓
Exporter	✓	✓	✓	✓	✓	✓	✓	✓	✓
Freight Forwarder	✓	✓	✓	✓	✓	✓	✓	✓	✓
Warehouse Keeper/storage centre	✓	✓	✓	✓	✓	✓	✓	✓	✓
Customs agent	✓	✓	✓	✓	x	x	✓	✓	✓
Carrier	✓	✓	✓	✓	✓	✓	✓	✓	✓
Importer	✓	✓	✓	✓	✓	✓	✓	✓	✓

In explanation, they must all provide evidence that they have control of their business in terms of:

- a) providing a visible audit trail;
- b) having strategies and measures to identify and mitigate risks;
- c) having a system and procedures for ensuring compliance management with the rules of trade, cargo handling and transport;
- d) having delegated responsibility for security training and awareness; and
- e) having a system and procedures for monitoring, reviewing, reporting and acting upon security issues.

They must all ensure the security of their premises and cargo (except customs agents who do not come into contact with the freight) in accordance with the requirements for AEOs and of business partners who handle or transport the cargo of an AEO. Personnel must be carefully selected or recruited, not representing a security risk, and monitoring procedures put in place to ensure this remains so. Procedures should be in place to monitor, review and react to security issues of their trading partners, including contractual terms and conditions containing security Key Performance Indicators (KPIs) with their trading partners. Procedures and security measures must be in place if any of the supply chain actors receive the transport vehicles and their

³⁰ Note: the different actors identified are those listed in the AEO Guidelines, European Commission, DG TAXUD, 17 April 2012, pp14-16



drivers or crew, ensuring both the means of conveyance used and the cargo being carried on behalf of AEOs remains secure and protected from unauthorised access.

Everyone should be providing the appropriate data security and restricting access to the IT systems which can access or hold data that could expose a risk to the security of the supply chain, its actors and the cargo. Finally, all the actors in the supply chain should ensure they have a business continuity plan in the event of a security incident arising which temporarily stopped the international movement and trade of the AEO's cargo.

The AEO Guidelines³¹ more specifically suggest the following responsibilities for the supply chain actors:

Manufacturer: ensure a safe and secure manufacturing process and supply of its products, with the correct application of customs origin rules;

Exporter: ensure the correctness of the export (and summary) declaration and its timely lodgment (if appropriate), following customs rules, commercial policy measures and paying any export duties, and ensuring a secure and safe supply of the goods to the carrier or freight forwarder or customs agent;

Freight forwarder: ensure application of the rules on transport formalities, safe and secure transport of the goods (if relevant), and (where appropriate) rules on summary declarations;

Warehouse keepers and other storage facility operators: ensure goods in their control are not removed from customs supervision and comply with other customs warehousing or temporary storage procedures as appropriate, and protect against unauthorised access, substitution or tampering with the goods;

Customs agent: apply customs rules for placing goods under a customs procedure, applicable with their type of representation, and correctness of summary declarations (if they are indirect representatives) and their timely lodgment;

Carrier: ensure the safe and secure transport of goods in their custody, providing timely transport documentation as required by law, any legal formalities, summary declarations (as appropriate) and taking care to avoid unauthorised access to or tampering with the cargo and the means of conveyance;

Importer: correctly assigning goods to a customs-approved treatment before presentation to customs, with correct and timely summary/declaration (as appropriate), in accordance with customs rules and legal formalities, and ensuring the goods are received safely and securely to avoid unauthorised access and tampering with the goods.

A similar range of responsibilities also applies to other parties in the international supply chain, such as terminal operators, stevedores and cargo packers.

³¹ TAXUD/2006/1450



2.1.9 Risk factors specific per (logistics) operator type

The EU AEO Guidelines go further on identifying specific risk factors with three types of logistics carriers / operators, as listed in the Table 6 below. Thus, before granting AEO status to these types of operators, attention needs to be paid on how the operators are dealing with such risks³².

Table 6: Risk factors specific per logistics operator type

Type of operator	Specific risk factors
Express carriers	<ul style="list-style-type: none">- high volumes of transactions- high volumes of data held- wide range of business partners- high volumes of business
Postal operators ³³	<ul style="list-style-type: none">- high number of "small" shipments- unreliability of the statements made by the customers (mostly individuals)- delays in delivery caused by the carrier- high risk of "mishandled" (lost) shipments
Rail carriers	<ul style="list-style-type: none">- operate in a fragmented regulatory environment and operations may be regulated by several national authorities- some operating units are controlled by third parties- complicated organisational structure, lot of premises and wide range of operations- multitude of business partners- several persons might handle documents or control cargo units/wagons

Looking further on challenges and issues with postal supply chains, the Box 2 below summarizes an interview with Mr. Toni Männistö, a PhD candidate from the EPFL University, Lausanne, Switzerland.³⁴

Box 2: Interview with Mr. Toni Männistö on postal supply chain security

Mr. Männistö, how do you see the specific security risks in postal supply chains? "To start, I would like to emphasize that the postal supply chains differ significantly from other types supply chains, and this special character gives arise to a unique crime and risk management challenges. First, the postal service is a public service through which anybody can send virtually anything to any address on earth. Second, the postal traffic is huge – around 370 billion letters and parcels a year. And third, the postal service allows the senders to remain anonymous. Given these characteristics, it is not surprising that some people exploit the postal service to attack their enemies from distance. Frequent headlines on 'mail bombs' and 'white powder letters' indicate that terrorists and criminals occasionally exploit the post for their malicious purposes. The presence of mail bombs is particularly alarming in the airmail channel. The Yemen bomb plot in October 2010 raised concerns among aviation authorities and the air cargo industry. The Yemen events indicated that terrorists are capable of beating security controls and getting explosive devices onboard passenger planes. Although the foiled attacks occurred in the express courier channel, subsequent air cargo regulations affected also the postal operators. The airmail security remains a hot debate still three years after the events."

³² AEO Guidelines, European Commission, DG TAXUD, 17 April 2012

³³ Additional information on postal supply chain security can be found with: FP7-project SAFEPOST: "Reuse and Development of Security Knowledge Assets for International Postal Supply Chains". Grant agreement no: 285104. Date: 1.4.2012-31.3.2016 SAFEPOST URL: <http://www.safepostproject.eu/>

³⁴ The doctoral research of Mr. Männistö is concerned with crime and security risk management in the global supply with a focus on the postal supply chains.



Mr. Männistö continues: “The expanding e-commerce, apparently, drives also contraband traffic through the international postal network. Rogue online pharmacies, e-retailers, and auction sites trading counterfeit products, stolen goods, narcotics, and other more or less illegal goods online and ship the physical contraband to the buyers by the postal or express courier service. It should be noted, however, that trafficking in inherently illegal contraband such as narcotics and counterfeits is far more important issue than smuggling of highly taxed products in order to avoid taxes and duties. This is, in my opinion, because the customs and other border controls agencies typically raise only a fraction of the total taxes and duties from the postal traffic. And of course, theft is as important crime concern for the postal operators as ever. Each lost parcel and letter erodes the postal operators’ brand value and undermines their credibility in the eyes of the general public. Aside theft, terrorism, and trafficking; vandalism, post office robberies, and cyber-crime represent other important but perhaps less relevant crime and security risks for postal operators from supply chain security perspective.”

Mr. Männistö, based on your own doctoral research, how are postal operators tackling these issues today? “I think the question is more about how the postal operators and authorities currently tackle these crime and security risks. The postal operators are primarily concerned with mail theft and shipment of bombs and other articles that can cause instant harm to postal personnel and recipients. The customs interest in the postal traffic concerns mainly trafficking of drugs, counterfeits, fiscal contraband, and other goods that violate the national laws of trade and customs. Aviation security and safety authorities, of course, are concerned about that explosive or incendiary devices do not end up onboard hidden among airmail items. And the police are mostly interested in mail theft and presence of any illicit goods inside the postal items.”

“So what are these different actors doing to mitigate the crime and security risks?”, **Mr. Männistö asks himself.** “Well, customs administrations are controlling the postal traffic quite the same way than other cross-border freight traffic. In many countries, the customs carry out first risk analysis and then target those shipments that most likely violate the laws governing international trade and commerce. Customs officers use a variety of techniques to control these high risk postal shipments and consignments: sniffing dogs, X-ray imagining, hand search, and so forth. The aviation security and safety controllers employ largely the same techniques than customs but apply them systematically to each airmail parcel and large envelope. Anti-theft measures comprise mainly access control systems, cameras, alarms, and other measures designed to keep unauthorized people out the postal items. Tracking of postal items is perhaps the most effective, relatively recent aid in the combat against mail theft as they speed up tremendously investigations of recurrent mail theft incidents.”

Mr. Männistö, lastly, do you foresee in the future that postal operators could become AEO certified across the globe? “Absolutely. The postal operators are typically among the biggest importers and exporters in their home countries when considering the number of import and export declarations. Voluminous cross-border postal traffic implies that both the postal operators and their national customs could reap significant benefits from functional AEO programs. Even a slight acceleration of the cross-border mail flow or a small reduction in the cost of customs clearance would benefit millions of cross-border mail shipments every year, and thus bring tremendous overall benefits for the postal operators and the customs. Against this backdrop, I hope that the postal operators could become someday globally recognized AEO operators. However, the current situation is far from this ideal. Any moves towards the global AEO programs call for strong involvement of the Universal Postal Union (UPU), a UN agency coordinating postal policies worldwide”, **Mr. Männistö concludes.**

2.1.10 Notes specific to Small and medium size enterprises (SMEs)

Recognising the particular issues faced by SMEs in the implementation of security, the EU AEO programme provides a degree of flexibility so that measures taken are proportional to the risks and threats and the specific circumstances of the company. Below are a couple of examples highlighting how the practical security requirements may be relaxed for small and medium sized enterprises (SMEs), including customs brokers:

Building security: While checking this sub-criterion it is of great importance to take due account that each applicant has to ensure the security of its buildings and access control; however when assessing the way it is



achieved the specific characteristics of SMEs shall be taken into account. For example, a large manufacturer might have to have a perimeter wall/fence, security guards, and CCTV (closed circuit TV systems) cameras etc.; while for a customs agent operating from a single room in a building with locks on doors, windows and filing cabinets it might be sufficient to have a clear procedure for access control including responsibilities.

Appropriate access controls: Even if SMEs have to comply with the same requirements as a Large Scale Enterprise with regard to the internal control procedures for access, different solutions may be more appropriate to their circumstances. Examples are given to explain further: most of the time, small businesses and micro-enterprises do not have enough resources to dedicate employees to monitor the access control to the site. In this case, for example, (i) an enclosed fence equipped with an intercom should allow remote access control to the site; and (ii) an instruction recalling the obligation to maintain the shipping areas' doors locked closed, and that the doors must be equipped with a bell for the drivers who want to access the shipping area, should prevent unauthorised access to cargo areas.

Cargo security: For example: (i) closed doors/railings, propitiatory sign and instructions may be sufficient to restrict access to authorised personnel for restricted areas only³⁵; and (ii) to prevent unauthorised access in manufacturing areas, shipping areas, loading bays, cargo areas and offices, visitors could be escorted systematically in the premises and sign a register at the entrance.

Security awareness programs: These mechanisms for the education and training of personnel regarding security policies should be, of course, appropriate to the size of the enterprise³⁶. For example, for micro companies, oral training, written guidance and instruction, and a refresher course on the basic security and safety requirements of general security and safety procedures, or a simple note of awareness, initialed by the staff concerned, may be accepted by customs authorities.

Final notes on EU AEO and SMEs: Taking into consideration in particular the possible difficulty for SMEs in entering the certification process and in order to make the AEO status more available to SMEs, the necessary flexibility has been implemented in the AEO legislation to minimise costs and burdens. Even if the AEO criteria apply to all businesses regardless of their size, article 14a (2) of the CCIP lays down the legal obligation that "the customs authorities shall take due account of the specific characteristics of economic operators, in particular of small and medium-sized companies.

2.1.11 Recognition of existing governmental and commercial certifications

It has been a common request for a number of years by economic operators across the world to have pre-existing supply chain security and customs compliance linked certifications and authorizations taken into consideration during the AEO application processes – e.g. in terms of speedier processes with minimal verification requirements. The Box 3 below provides some details on both (i) Certificates/ authorisations

³⁵ These instructions may be incorporated into the general security and safety procedure referred in article 14k of the CCIP

³⁶ See Part 3, Section III, point 3.III.2. 'Small and medium sized-enterprises'



granted by customs and other governmental authorities, as well as (ii) Commercial standards and certifications.³⁷

Box 3: Lists of various certificates, authorisations and standards recognized as part of the EU AEO process

<u>Certificates/authorisations granted by customs and other governmental authorities</u>	<u>Commercial standards and certifications</u>
<ul style="list-style-type: none">- Existing customs authorisations- Certificates granted by aviation agencies or authorities- International Ship and Port Facility Security (ISPS) code- Eligibility of the European Central Bank Eurosystem credit assessment framework (ECAAF)- The Sarbanes-Oxley-Act (SOX)- AEO or similar programmes in third countries- Transports Internationaux Routiers (TIR)- Others: Verifiable compliance with security requirements and standards set by intergovernmental organisations, such as IMO, UNECE, OTIF, UPU and ICAO	<ul style="list-style-type: none">- Certificates according to ISO 27001- ISO 9001:2008 (if any combined with ISO 14001:2009)- ISO 28000: 2007- TAPA Certificates

Selecting the last one of the certificates listed in the box above, the author of this report conducted a brief interview (Box 4 below) with Mr. Thorsten Neumann, the Chairman of Transported Asset Protection Association in Europe-Middle East-Africa, TAPA EMEA. Mr. Neumann is also the director of global supply chain security at Nokia.

Box 4 Interview with Mr. Neumann, the Chairman of TAPA EMEA³⁸

Mr. Neumann, can you please explain briefly what is TAPA?

“Cargo crime is one of the biggest supply chain challenges for manufacturers of high value, high risk products and their logistics service providers globally. In the European Union alone, the cost to businesses is estimated at 8.2 billion a year and growing. The Transported Asset Protection Association (TAPA) creates industry accepted and best known standards, report on trends, and security requirements to mitigate the risk within an end to end supply chain solution.”

Mr. Neumann, why should, in your mind, customs authorities recognize TAPA as a solid reference for AEO certifications?

“TAPA is a global and industry wide accepted long term implemented standard. Furthermore TAPA is recognized as a benchmark to mitigate the risk within an end to end supply chain for the last 15 years. Since AEO has been established the TAPA organization has constantly adjusted TAPA standards to include major security aspects also covered within the AEO requirements to ensure compliance and mutual recognition. Finally, there is no need to reinvent the wheel when the industry already worked on it successfully for such a long time period.”

Finally, Mr. Neumann, can you please share some of your company experiences regarding TAPA and EU AEO?

“We do have a great experience with TAPA for the last 15 years with average loss reduction of more than 45% plus insurance premium reductions up to 19%. Furthermore, we have always implemented AEO and other regulatory programs like C-TPAT straight from day one and still cover this way within our long term strategy. Our TAPA involvement supported us here tremendously and made our life easy for the implementation.”

³⁷ AEO Guidelines, European Commission, DG TAXUD, 17 April 2012

³⁸ For interested readers, Annex 2 presents TAPA Membership statistics across Asia (by. Mr. Jason Teo).



One additional aspect the author of this report would like to raise, is about exploitation of existing technical norms and reports as part of AEO certification process. In areas such as physical security, access control, alarm systems, CCTV-systems, security service providers, security screening, and crime incident reporting, there is a good chance that national / regional / global standards exist already – leading to a question “why not to recognize these”? Box 5 below presents multiple examples from national and regional (CEN) standards and technical reports in Europe.

Box 5 Examples of European standards and technical reports matching typical AEO requirements³⁹

Physical security:

- EN 12209: Building hardware - Locks and latches - Mechanically operated locks, latches and locking plates - Requirements and test methods
- EN 1303: Building hardware - Cylinders for locks - Requirements and test methods
- EN 12320: Building hardware - Padlocks and padlock fittings - Requirements and test methods
- ENV 1627: Windows, doors, shutters - Burglar resistance - Requirements and classification
- ENV 1628: Windows, doors, shutters. Burglar resistance. Test method for the determination of resistance under static loading
- ENV 1629: Windows, doors, shutters. Burglar resistance. Test method for the determination of resistance under dynamic loading
- ENV 1630: Windows, doors, shutters. Burglar resistance. Test method for the determination of resistance to manual burglary attempts
- EN 356: Glass in building - Security glazing - Testing and classification of resistance against manual attack
- EN 1063: Glass in building - Security glazing - Testing and classification of resistance against bullet attack
- EN 1143-1 Secure storage units - Requirements, classification and methods of test for resistance to burglary - Part 1: Safes, strongroom doors and strongrooms
- BS 8220-3:2004 Guide for security of buildings against crime – part 3: Storage, industrial and distribution premises

Access control:

- EN 50133-1: Alarm systems. Access control systems for use in security applications. Part 1: System requirements
- EN 50133-7: Alarm systems. Access control systems for use in security applications. Part 7: Application guidelines

Alarm systems:

- EN 50131-1 Alarm systems. Intrusion and hold-up systems. Part 1: System requirements
- EN 50131-6:1998 Alarm systems. Intrusion systems. Power supplies
- CLC/TS 50131-7 Alarm systems. Intrusion systems. Part 7: Application guidelines

CCTV –systems:

- BS 7958:2005 Closed-circuit television (CCTV). Management and operation. Code of practice
- BS 8418:2003 Installation and remote monitoring of detector activated CCTV systems – Code of practice
- prEN 50132-1 Alarm systems - CCTV surveillance systems for use in security applications - Part 1: System requirements
- EN 50132-7 Alarm systems. CCTV surveillance systems for use in Security applications. Part 7: Application guidelines
- BS 8495:2007 Code of practice for digital CCTV recording systems for the purpose of image export to be used as evidence

Security service providers:

³⁹ This box has been produced by PhD candidate Juha Ahokas, and published before e.g. in Hintsa, J., Ahokas, J., Männistö, T. and Sahlstedt, J., 2010. CEN Supply Chain Security (SCS) Feasibility study. CEN/TC 379 Supply Chain Security, Final report, 15 January 2010.



- EN 15602 Security service providers. Terminology
- BS 7499: 2007 Static site guarding and mobile patrol service – Code of practice

Security screening:

- BS 7858:2006 Security screening of individuals employed in a security environment – Code of practice

Crime incident reporting:

- FprEN 16352 . 2012. Logistics. Specifications for reporting crime incidents

Good practice guidebooks in supply chain security:

- CEN/TR 16412:2012 - Supply chain security (SCS). Good practice guide for small and medium sized operators

2.1.12 Suspensions and revocations

The provisions for any suspension of the AEO status for a company are laid out in the Custom Code Implementing Provisions (CCIP), Article 14r. Suspension is ordered when an examination or assessment made during the monitoring of an AEO by customs reveals serious deficiencies that represent a risk and non-compliance with the requirements of AEOs. This only happens, however, after consultation with the AEO and 30 days have elapsed without any measures put in place to rectify the problem(s). The suspension is for an initial 30 day period and a possible further day extension; however, a suspension may have immediate effect if the customs authority considers the issue a serious enough threat to public health and safety, or the environment.

The AEO may also seek a suspension⁴⁰ if unable to meet any of the requirements of the AEO certification, citing the reasons and actions intended to resolve the situation in a given time-frame. A suspension does not have any bearing on the three year review requirement or on any decision to revoke the AEO status. A partial suspension of the AEO status is possible if the issue for suspension relates to the safety and security aspect for an AEOF; the company may be eligible in such circumstance to maintain an AEOC status.

Revocation of the certificate is covered by Article 14v of the CCIP. As in the case of suspension, this may also be requested by the AEO: under such circumstances, it would not affect a future application made by the same company. If, however, the revocation was decided upon by the customs authority, the company may not apply for AEO status for three years. AEOF certificate holders may again only have the security and safety aspect of their certification revoked if the failing is unrelated to customs simplified procedures, thereby maintaining an AEOC certification.

2.1.13 Experiences on the AEO program at the Dutch Customs administration⁴¹

As of October 2013, 1450 AEO applications have been submitted by companies in the Netherlands. Dutch Customs administration receives nowadays only about ten new applications per month, so the focus is mainly on the monitoring of the AEO's. Since AEO can be considered as a system based approach, Dutch Customs wants to rely on the systems of the AEO's. It appears to be quite a challenge for the AEO's to be able to show

⁴⁰ Article 14u of the CCIP

⁴¹ Source of information: Ms. J.(Jolande) Jonker-Conijn, National coordinator AEO, Customs Administration of The Netherlands, National Office, Rotterdam, the Netherlands.



AEO & MRA study for RTC, Dr. Juha Hintsa, Cross-border Research Association, 31.12.2013

that they actually are in control and to prove that their systems really work, matching all the requirements. This section of the report provides some information on the AEO programme in the Netherlands, focusing on the process after the submission of the AEO status.

Monitoring by customs in general

The purpose of monitoring by customs – or, supervision by customs - is to ensure that AEO certified companies meet the AEO conditions and criteria. Monitoring by the company is about internal control within the company and the monitoring activities that are in place continuously. The Committee of Sponsoring Organizations of the Treadway Commission (COSO) has defined internal control and monitoring. These definitions are very appropriate and useful in relation to AEO programmes.

Internal control is a process, affected by an entity's board of directors, management and other personnel, designed to provide "reasonable assurance" regarding the achievement of objectives in the following categories:

- Effectiveness and efficiency of operations;
- Reliability of (financial) reporting;
- Compliance with applicable laws and regulations; and
- Safeguarding of assets.

Monitoring AEO in general

Monitoring an AEO centres around the quality of the company's system's performance over time. Customs expect an AEO company to have:

- On-going monitoring activities or separate evaluations;
- Internal control deficiencies should be reported up in the hierarchy; and
- Corrective actions should be taken to ensure continuous improvement of the system.

Customs makes as much use of internal and external control measures as possible.

Monitoring AEO in the Netherlands is a 2-step-method: a desk-audit and an on-site audit.

Step 1. Desk-audit AEO

The first step is a desk-audit. The desk-audit is performed by customs officers (client managers) at the customs office. Activities that are part of the desk-audit include:

- Understanding the Business (including gathering recent information);
- Interpreting monitoring information from the company;
- Interpreting internal information by customs (such as declarations, physical inspections, documentary controls, audits and AEO self-assessment/AEO application); and
- Risk analysis and determination of the remaining risks.

The desk-audit leads to a conclusion whether to continue the AEO-status or to start an on-site audit.

Step 2. On-site audit AEO

An on-site audit is done by the Customs AEO auditors at the company's premises. This audit can be based on the risks that appeared as a result of a desk-audit, on a specific risk that needs to be investigated or the audit is planned based upon a cycle approach/ periodically.



In the on-site audit at first the monitoring process of the company is investigated. If this is of high quality, Customs relies upon this as much as possible. The audit approach is systems based. Testing activities could be interviews, procedural tests, relation checks/ audit procedures, substantive tests and on-site observations in order to confirm internal control measures and safety and security measures. During the on-site audit Customs passes a judgment on the internal control measures and safety and security measures: are they in place and are they adequate? If so, the AEO-status will be continued. Otherwise the outcomes must be discussed with the National Office before next steps are taken.

Lastly, the Figure 2 below illustrates the monitoring process of COSO in relation to customs supervision.

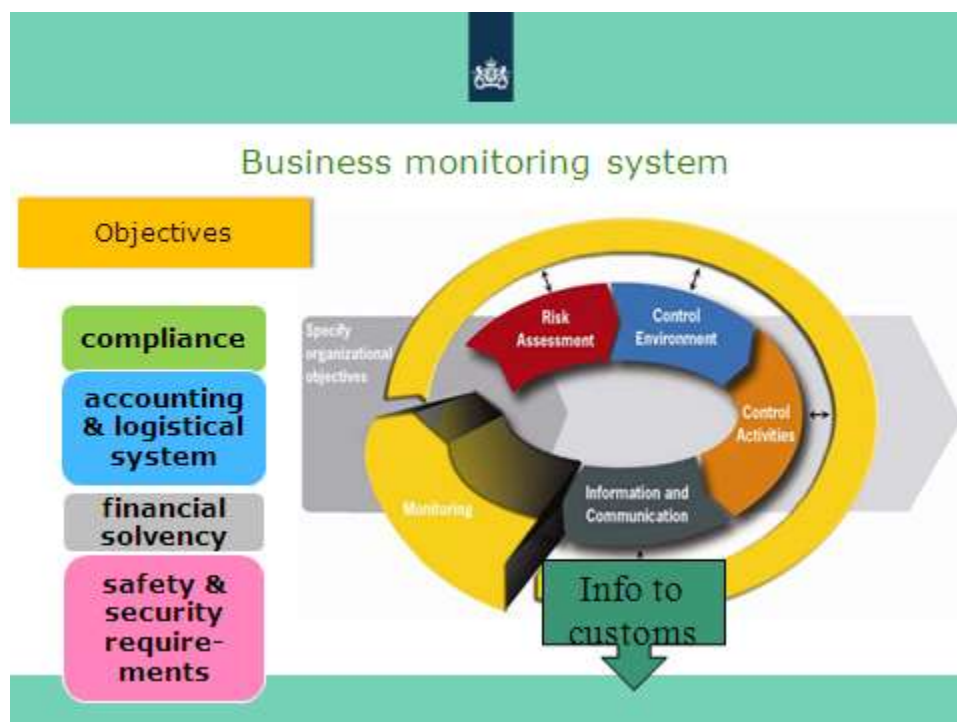


Figure 2: Monitoring process of COSO, applied in Dutch customs environment

2.1.14 Experiences on AEO application preparations by CBRA research team⁴²

During the years 2005-2008, Cross-border Research Association (CBRA) worked with two multinational companies, both headquartered in Europe, on preparations for AEO-certification – the majority of the work was finished even before the EU AEO-program was officially launched. In this sub-chapter a couple of interesting observations are shared, namely (i) which business functions and external actors were part of the AEO-preparation process; (ii) how well existing security related documentation supported the AEO-preparation process; and (iii) which were the top 5 and bottom 5 EU AEO requirements considering the types of security measures the case-companies already had in place. Both companies deal with consumer goods: Company A with perishable goods; Company B with durable goods.

⁴² Source: Hintsa J. 2008. CBRA unpublished Working paper Nr. 2008.



The Table 7 below indicates which business functions and external actors were part of the AEO-preparation process – this is a merged table between the two case companies.

Table 7: Case studies - preparation for AEO certification: business functions involved

Internal vs. external	Examples with the two CBRA case studies
Internal functions	<ul style="list-style-type: none"> • Security function • Environment, health, safety (EHS) and quality functions • Trade compliance management • Logistics department • Manufacturing function • Supplier management function • Human resources department • Information systems and data management function • Legal affairs • Corporate social responsibility unit
External actors	<ul style="list-style-type: none"> • Supply network • Freight forwarders • Transport carriers • Port and airport operators • Warehouse keepers • Customs brokers

Table 8 below indicates the sets of existing company policy, guideline and work instruction documents which were beneficial during the AEO-preparation process. One can observe that Case company A had a fewer number of more integrated security documents in place, probably due to the “higher risk product profile” than with Case company B, whose products are considered to be of “relatively low risk” in the context of illicit activities in global supply chains.

Table 8: Policy, guideline and instruction documents used by Case company A and B

Case company A : Policy, guideline, instruction document	Pp	Case company B : Policy, guideline, instruction document	Pp
		Security Commitment Service Provider	8
		Security Commitment Supplier	6
		Code of Conduct	4
Loss Prevention in Warehouse	62	Routine for Cargo Handling	4
Loss Prevention in Transportation	58	Security Rules and Tips Employees	15
Confronting contraband	17	Incident Report	2
Corporate Code of conduct	46	Specification for Construction of Warehouse	17
		Security regulations for external work	1
		Interview guideline	1
		Transit Contingency Plan	10
		Security Policy	1
		Duty of confidentiality	2



Interestingly, Company A covered immediately around 95% of EU AEO requirements, while Company B covered only 75% of EU AEO requirements – again based on desk-top review carried out by CBRA research team.

Lastly, the top 5 and bottom 5 of all EU AEO security requirements were identified, and presented in Table 9 below.

Table 9: Top and bottom 5 security requirements for Case companies A and B

Top 5 and Bottom 5	Case company A	Case company B
The top 5 EU AEO questions covered by the guidelines	<ol style="list-style-type: none"> 1. Security requirements imposed on others 2. Routines for checking incoming transport 3. Sealing of outgoing goods 4. Active means of transport 5. Routines for checking outgoing transport 	<ol style="list-style-type: none"> 1. External boundaries of premises 2. Routines for access or entry of vehicles, persons and goods 3. Standard operating procedures in case of intrusion 4. Uniform marking of goods 5. Routines for checking outgoing transport
The 5 least covered EU AEO questions	<ol style="list-style-type: none"> 1. Certification for safety and security purposes by others 2. Parking of private vehicles 3. Routines for verifying security measures imposed on others 4. Procedures for access to keys 5. Maintenance external boundaries and buildings 	<ol style="list-style-type: none"> 1. Routines for verifying security measures imposed by others 2. External control procedures 3. Additional safety and security measures for access to goods 4. Threat assessment by others 5. Security requirements imposed by others

These should be considered as indicative only, while the assessment was based on character calculation in the context of “how explicitly each EU AEO security requirement was already covered in pre-existing company guidelines”; still, they might provide some indications on where AEO-applicants need to focus their security measures before applying for AEO-status.

For interested readers, Annex 3 of this report contains more details on (pre)existing security measures of Case Company A versus EU AEO requirements (situation in 2008).

Finally, the author of this report had the privilege to interview Professor Ari-Pekka Hameri of HEC Business School, University of Lausanne in Switzerland, on AEO impacts in operational and supply chain efficiencies – the outcome of the interview is shared in the Box 6 below.

Box 6: Interview with Professor Hameri on AEOs impact on operational and supply chain efficiency

First question, “taking a more general view, how AEO implementation affects operational and supply chain performance for companies doing cross-border trade?” **Professor Hameri replies:** “Research in supply chain management shows that lead time and its variation affect supply chain performance negatively when inventory and service performance are considered. Overall reduction in lead times help also to tame the bullwhip effect, which is the dynamic amplification of demand information in multi-echelon supply chains. Although AEO concerns border crossings, its impact on reducing lead times and variation in the overall supply chain is evident. Companies with AEO accreditation should expect positive outcomes as uncertainty of unplanned supply chain delays is reduced and



therefore inventories and safety margins could be lowered. In all, this should lead to better customer service through improved and more predictable supply chain planning.”

Second question, “from the operations and supply chain performance point of view, will AEO have greater impact to certain industries than others and are there any geographical differences on its impact?” *“Case studies and surveys indicate that the impact of AEO on supply chain performance may be significantly greater in less developing countries. This means that in countries where there have been longer lead times and larger variation in handling cross-border routines AEO can bring drastic speed improvements to companies. I think these benefits are shared across all industries, naturally the value of goods and number of shipments play a role on the overall benefits a company may get from the AEO accreditation”, according to Professor Hameri.*

And last question, “at company and its operational level, how one should prepare for the AEO to get the most out of it?” **Professor Hameri explains that** *“companies that have been measuring their supply chain performance and planning operations at detailed level will have the best means to benefit from the AEO accreditation. It is natural extension towards efficient supply chain management and complements with most supply chain improvement projects that extends beyond company boundaries.”*

2.2 Global AEO situation and benefits to the industry

2.2.1 Global AEO situation

As of June 2012, the WCO reported⁴³ 24 operational AEO programmes, 8 AEO programmes that were to be launched, and 9 Customs Compliance programmes⁴⁴ (see Table 10 below).

Table 10: List of AEO programmes globally

Country	Title	Type
Algeria	AEO	Import/export
Andorra	AEO	Import/export
Argentina	Customs System of Reliable Operators (SAOC)	Export
Canada	Partners in Protection (PIP) Customs Self-Assessment (CSA)	PIP - import/export CSA - import
China	Classified Management of Enterprises	Import/export
Colombia	AEO	Import/export
Costa Rica	Customs Facilitation Programme for Reliable Trade (PROFAC)	Export
Dominican Republic	AEO	Import/Export
EU (28)	AEO	Import/export
Guatemala	AEO	Import/export
Hong Kong - China	Hong Kong AEO Programme	Import/export

⁴³ Compendium of Authorized Economic Operator Programmes, 2012, World Customs Organization

⁴⁴ Customs compliance programme can generally be considered to focus on compliance with traditional areas of Customs requirements, such as the payment of Customs duties, and can also be considered as trade facilitation programmes based on the Revised Kyoto Convention’s authorized persons provisions.



Israel	AEO	Import/export
Japan	AEO	Import/export
Jordan	Golden List	Import/export
Kenya	AEO	Import/export
Korea	AEO	Import/export
Malaysia	AEO	Import/export
Mexico	New Programme of Certified Companies (NEEC)	Export
New Zealand	Secure Exports Scheme (SES)	Export
Norway	AEO	Import/export
Singapore	Secure Trade Partnership (STP)	Import/export
Switzerland	AEO	Import/export
USA	Customs-Trade Partnership against Terrorism (C-TPAT)	Import
Zambia	Customs Accredited Clients Programme (CACP)	Import

The following AEO Programmes (Table 11) are to be launched (as of June 2012):

Table 11: Pending AEO programmes globally

Country	Title	Type
Botswana	Trans Kalahari Accreditation Scheme	Import/export
Chile	AEO Pilot	Export
Former Yugoslav Republic of Macedonia	AEO	Import/export
Morocco	AEO	Import/export
Peru	Certified Customer User	Export
Tunisia	AEO	Import/export
Turkey	AEO	Import/export
Uganda	AEO	Import/export

Although officially launched in 2011, the AEO programme for Thailand was not included by the WCO in their compendium. Originally only for exporters, Royal Thai Customs, RTC, has widened the programme to cover also importers and customs agents in February 2013, replacing The "Gold Card Privilege scheme" (for exporters) as well as the "Licensed Customs Broker scheme" on 1st October 2013. (Customs Notification 40/2011, 13/2013, 14/2013). At the time of writing there were 46 importers and exporters and 28 customs brokers with the AEO status. A further 64 operators had successfully passed the initial desk-based criteria, pending inspection; some 100 other operators had submitted applications for AEO status prior to 1st October. The RTC expects approximately 350 companies to be certified as AEOs by 2014.

2.2.2 Some global AEO experiences



Countries around the world have somewhat differing approaches for setting up and running their AEO-programs, as already illustrated in the two tables above. Several programs are import and export, few only export, and just three only import. Another differing factor is the types of supply chain actors who are eligible for the program. Below there are two examples of these: First, Costa Rican example on a four-stage implementation of their AEO-program, starting with export sector; second transport sector with all main modalities; third import sector; and last other supply chain members (source indicated on right bottom corner of the Figure 3).

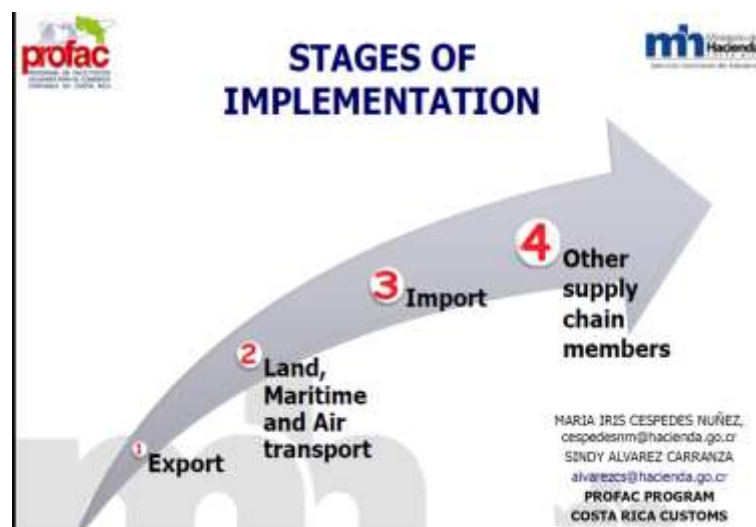


Figure 3: Stages of AEO implementation – case Costa Rica

Figure 4 below provides statistics from Korea, where by 31.3.2012, AEO certified companies were spread over seven categories, with one more category in application pipeline in place, and a ninth category with no actions yet. (source indicated in the top-right corner of the figure).



Current Status 1 (Number of AEOs)

Kang, Taell
Director of Clearance Planning Division
Korea Customs Service

As of 31 March, 2012

AEO Parties	Number of AEO	Number of Applicants	Total share in Trade Volume
Exporter	78	20	40%
Importer	80	24	20%
Customs broker	49	17	
Freight forwarders	60	21	
Warehouse	9	6	
Transporter	11	3	
Sea carrier	5	1	
Airlines	0	3	
Ground handler	0	0	
Total	292	95	

Figure 4: AEO statistics by actor-type in Korea

For interested readers, Annex 4 provides overview and statistics of US C-TPAT program in 2012.

2.2.3 Typical cost factors in supply chain security management

Box 7 below provides examples of typical cost factors in supply chain security management, in a bit broader context than AEO-programmes (only).

Box 7 Typical cost factors in security management (CBRA)⁴⁵

- Internal process cost (labor, IT, travel etc.) for overall security management
- Internal process cost for security operations (labor, IT, electricity etc.)
- Internal process cost (mainly cost of time out from normal work) for security training
- Internal process cost (mainly labor and IT) for all security purchase activities
- Security technology and other security product purchase costs (e.g. CCTV investment and depreciation costs)
- Occasional security service purchase cost (e.g. new personnel background checks and security training)

⁴⁵ Hintsa, J. 2013. CBRA unpublished Working Paper Nr.2013



- **Continuous security service cost (e.g. security guard services)**
- **Security certification costs (labor, certificate fees etc.)**
- **Direct security fees (e.g. airport and sea port fees)**
- **Higher cost of doing business due to security implications (e.g. not buying materials from lowest bidder, due to increased risk of crime)**

Annex 5 provides cost statistics based on Latin American experiences, with their “pre-AEO” supply chain security program called BASC.

2.2.4 Deciding if the benefits outweigh the costs

AEO programmes are not mandatory: companies make a choice whether to apply and comply with the requirements or not. This decision will likely be based on:

- factors relating to the costs associated;
- the perception of risk and threats to the business;
- the commercial pros and cons of joining; and
- the impact on the supply chain operations (e.g. logistics) of joining versus not joining the programme.

The supply chain is a major cost factor which can be the difference between profit and loss for a company, and many businesses compete on their supply chains. In order for international supply chains to run efficiently and effectively they require predictability (to plan supplies to meet demand, and provide the minimum level of reserve or buffer stock in their inventory system), flexibility (to cope with sudden changes in demand or supply, or unexpected barriers to the flow of goods and materials) and reliability. They also need to be trusted: crime against supply chains, as well as exploitation by criminals of the supply chain is a costly issue. Adding security systems and measures will inevitably help protect companies from losses of goods, assets and potentially customers who might otherwise choose to use a company that is less vulnerable to crime. However, assessing or quantifying the actual value of these benefits can be very difficult.

The somewhat low uptake of AEO certification in many countries may point to the fact that companies are either not realising the benefits they could gain through participation (perhaps because they are difficult to quantify), or after some consideration they are deciding that the benefits are insufficient. The uptake does, however, vary from one country to another: within the EU, for example, Germany has more than 60% (3,206) of AEOCs and 33% (2,093) of AEOFs - by far the largest proportion of AEOs across EU. It might arguably reflect the character of German business and society more readily willing to accept and abide by rules and regulation than is necessarily characteristic of other EU member states and their society. Some, however, have speculated⁴⁶ that the higher uptake of the AEO certification is because German companies have more readily

⁴⁶ *The AEO People: Slow uptake of AEO in the UK*: Linked In, July 30 2012: <http://www.linkedin.com/groups/AEO-People-4549579>



than others accepted the AEO as a badge of quality (rather like an ISO certification), that it delivers economic advantages, and it is becoming a necessity for companies wanting to trade globally. In order to understand why, then, this is not a universally held view; one must identify the suggested benefits of acquiring an AEO status and match that to the perceptions of reality within industry.

2.2.5 Benefits of AEO status according to the WCO SAFE

The WCO SAFE Framework suggests "Benefits should be meaningful, measurable and reportable". Therefore the benefits to industry such as reduction in crime incidences and commercial advantage would be rather difficult to include in the 'official' list of stated benefits. It offers instead an indicative list of benefits which customs authorities may use to help identify what benefits they are able and willing to provide:

A. Measures to expedite cargo release, reduce transit time and lower storage costs:

1. A reduced data set for cargo release;
2. Expedited processing and release of shipments;
3. Minimum number of cargo security inspections;
4. Priority use of Non-intrusive inspection techniques when examination is required;
5. Reduction of certain fees or charges for AEOs in good standing; and
6. Keeping Customs offices open on a continuous basis when a tangible need for such coverage has been specifically identified.

B. Providing access to information of value to AEO participants:

1. Names and contact information for other AEO participants, with the consent of those participants;
2. List of all countries adopting the SAFE Framework; and
3. List of recognized security standards and best practices.

C. Special measures relating to periods of trade disruption or elevated threat level:

1. Accord priority processing by Customs during period of elevated threat conditions;
2. Priority processing following an incident requiring the closing and re-opening of ports and/or borders; and
3. Priority in exporting to affected countries after an incident.

D. First consideration for participation in any new cargo processing programmes:

1. Account-based processing rather than transaction-by-transaction clearance of accounts;
2. Simplified post-entry or post-clearance programmes;
3. Eligibility for self-audit or reduced audit programmes;
4. Expedited processes to resolve post-entry or post-clearance inquiries;
5. Favourable mitigation relief from Customs assessments of liquidated damages or non-criminal administrative penalties, except for fraud;
6. Increased paperless processing of commercial shipments for both export and import;
7. Priority response to requests for rulings from national Customs authorities;
8. Eligibility for remote Customs clearance procedures;
9. Ability to file a corrective action or disclosure prior to the initiation of a Customs non-criminal administrative penalty procedure, except for fraud; and
10. No penalties or liquidated damages imposed for late payment of duties, with only interest accruing.



2.2.6 The stated benefits from AEO certification in the EU

The benefits awarded to AEOs in the EU are seemingly aligned with the SAFE Framework guidance and linked to reducing costs and unreliability in companies' supply chains, making trade simpler and easier for them without compromising security and safety and protecting customs revenue.

EU AEO direct benefits overview

The Figure 5 below visualizes six key EU AEO direct benefits in relation to the three AEO-types in the EU; this figure was presented by Spanish customs administration at WCO AEO Conference in Korea 2012.

BENEFITS	AEOC	AEOS	AEOF
Fewer physical and documental control	✓	✓	✓
Priority in controls	✓	✓	✓
Possibility to choose the place where the inspection is to be carried out	✓	✓	✓
Easier access to customs simplifications	✓		✓
Entry and Exit summary declarations with reduced data		✓	✓
Prior notification of physical control		✓	✓

Figure 5: Benefits of AEO according to Spanish customs

EU AEO direct benefits expanded list

Elaborating and expanding on the above listed direct benefits of the EU AEO programme, the full set of direct EU AEO benefits include the following⁴⁷:

- Reduced level of physical⁴⁸ and document-based⁴⁹ customs checks at borders (and under post clearance procedures) due to the lower risk rating and increased level of confidence customs authorities would have in their security, safety and other regulatory compliance (Article 14b (4) of the CCIP)

⁴⁷ Sourced (unless otherwise stated) from the European Commission, Directorate-General Taxation and Customs Union (DG TAXUD), Customs Policy, Risk Management, Security and specific controls, Brussels, 29 June 2007. TAXUD/2006/1450. Authorised Economic Operators: Guidelines, pp16-24

⁴⁸ For AEOS and AEOF only

⁴⁹ For AEOC and AEOF only



- The level of customs interventions will be proportionate to the risk scores that, in turn, are dependent on the specific circumstances of each case: for example, if an agent is a direct or indirect representative of an AEO or non-AEO company⁵⁰. In summary, it is likely that companies contracted by an AEO who do not hold an AEO certification (including equivalents in a country where a MRA exists with the EU) will have a higher risk rating and therefore a higher probability of customs intervention than a supply chain where all parties are authorised for either AEOS or AEOF status.
- Reduced data set for entry and exit summary declaration (as indicated in Table5 Annex30A of CCIP)
- Should a consignment belonging to an AEO require inspection:
 - it will be given priority over consignments from non-AEO traders (Article 14b (4), 2nd sub-paragraph of the CCIP)
 - prior notification of the examination will be provided for AEOSs and AEOFs (Article 14b (2) of the CCIP)
 - the trader may select the place where the control occurs to minimise disruption to the supply chain, but must still allow customs to perform the control and not jeopardise the result (Article 14b (4), 2nd sub-paragraph of the CCIP)
 - If such a place is required together with local clearance procedures, a separate application must be sought, but this will be easier for an AEOC/F than AEOS and non-AEOs
- Traders with AEOC or AEOF certification will have automatic access to various customs simplification procedures if requested (e.g. local clearance and simplified declarations, proof of community status/authorised consignor, transit simplifications) (Article 14b (1) of the CCIP)
- For businesses holding AEOS or AEOF status, they have the option of submitting a reduced data set for their entry or exit summary declarations. (Article 14b (3) of the CCIP)
 - Carriers, freight forwarders or customs agents (who also hold AEOS or AEOF) and are acting on behalf of a customer holding the AEOS or AEOF certification may also lodge entry or exit summary declarations with reduced data sets.
- AEOs will have a designated contact point within a customs administration
- Should a serious security incident occur resulting in a temporary halt to the import and export of goods, cargo belonging to traders with AEOS and AEOF certification will be among the first to be allowed to move once restrictions have been lifted (especially to and from countries with whom an MRA exists)
- Application for other certifications and authorisations (such as Regulated Agents, Known Consignors, Account Consignors under the Air cargo security regulations, and the Approved Economic Operator

⁵⁰ For further details see the European Commission, Directorate-General Taxation and Customs Union (DG TAXUD), Customs Policy, Risk Management, Security and specific controls, Brussels, 29 June 2007. TAXUD/ 2006/1450. Authorised Economic Operators: Guidelines, section 1.III.4. a)-c), pp18-20



scheme for the fishery products sector) will be easier, with the AEO requirements being taken into consideration

- Mutual Recognition Agreements with third countries will also recognise the AEO or AEOF status and offer the relevant benefits to those businesses at their frontier

Finally, the Box 8 below lists another four direct benefits for AEO companies in the EU in the future, linked to the work-in-progress Union Customs Code, UCC, to become active from May 2016 onwards.⁵¹⁵²

Box 8 EU AEO additional direct benefits with UCC (May 2016 onwards)⁵³

- **Temporary Storage** - AEOCs may move goods under 'temporary storage' rules across the EU
- **Guarantee waivers and reductions** – AEOCs will be able to gain a reduction on a full guarantee for 'established debts' (e.g. deferments); all businesses wishing to hold or apply for a customs special procedure (Inward Processing, Outward Processing, Customs Warehouse, etc.) will be required to have in place a guarantee. Holders of AEOC/F status will be entitled to a full waiver⁵⁴.
- **Single authorisations/centralised clearance** – enabling a company to lodge its customs business with one EU customs administration rather than all those member states through which it trades, will only be available to companies who hold an AEOC/F certificate⁵⁵⁵⁶.
- **Self-assessment and centralised clearance** – similarly all businesses wishing to use these simplifications will be required to either hold AEOC/F status.⁵⁷

Indirect benefits from the EU AEO status

Despite the doubts that exist among the management of many companies, it should be noted that indirect benefits, often unquantifiable, do exist to a greater or lesser degree. In the European Union, so called “indirect benefits” are suggested as follows⁵⁸:

- reduced theft and losses;
- fewer delayed shipments;
- improved planning;

⁵¹ Regulation (EU) 952/2013 of the European Parliament and the Council, 9 October 2013, laying down the Union Customs Code. Official Journal of the European Union, L269/1, 10.10.2013

⁵² It is anticipated that implementing procedures for the Union Customs Code will begin from 1st May 2016 with some measures being phased in up until 2020. Details are not yet known to the author

⁵³ Note: these potential future direct EU AEO benefits are not included in the EU – RTC -analysis sections of this report, as they are not in place yet.

⁵⁴ Note: Businesses meeting the AEOC criteria but not certified will also be entitled to the waiver

⁵⁵ Note: Businesses meeting the AEOC criteria but not certified will also be entitled to the waiver

⁵⁶ Note: this trade facilitation measure has yet to be finalised

⁵⁷ Note: Businesses meeting the AEOC criteria but not certified will also be entitled to the waiver

⁵⁸ DG TAXUD AEO guidelines, pp.16-20



- improved customer service;
- improved customer loyalty;
- improved inventory management
- improved employee commitment;
- reduced security and safety incidents;
- lower inspection costs of suppliers and increased co-operation;
- reduced crime and vandalism; and
- improved security and communication between supply chain partners.

Other benefits from authorisation under the EU AEO programme:

- Recognised as a secure and safe business partner;
- Improved relations with Customs; and
- Improved relations and acknowledgement by other government authorities.

These indirect benefits from implementing the security measures associated with acquiring an EU AEOs/F status should not be overlooked. Many would argue that it is merely implementing best practice to the management of a business and its supply chain: if one takes the appropriate measures, establishes the processes and puts the systems in place which protect the supply chain, employees, and the business from criminal exploitation, then it is a relatively small step forward to apply for an AEO status and reaping the direct benefits for AEOs. Additionally, such benefits may be extended overseas through Mutual Recognition Agreements, as examined in the following chapters of this report.

2.2.7 Thailand / RTC AEO programme benefits

The Thai AEO programme also reflects a number of the suggested benefits provided by the WCO SAFE Framework, the EU AEO programme and the Private Sector Consultative Group, PSCG, to the WCO.

- Reduced level of customs checks at borders due to the lower risk rating and increased level of confidence customs authorities would have in their security, safety and other regulatory compliance
- Should an AEO's consignment require inspection:
 - it will be given priority over consignments from non-AEO traders
 - the importer and exporter have the right to attend the inspection and seek in consultation with the customs authorities potential resolution of issues arising, but in the case of exports there is no requirement to "co-investigate with the competent official who is in charge of investigation and suppression unless there are reasonable doubts that it violates or fails to comply with the customs law or other relevant laws"⁵⁹

⁵⁹ Customs Notification No. 12/2556 (2013), 15.2



- when samples of imports are taken by the customs officials, the remaining consignment may proceed on its journey (there is an exemption in most cases from samples being taken from goods being exported by an AEO)
- Exemption from volume-based security deposits for bulk cargo electronically⁶⁰
- Exports to benefit from a fast track procedure for importing into third countries with whom an MRA exists
- A reduced duty and also import/export fee if customs declarations are made electronically⁶¹
- A guarantee waiver is given on transshipments and in-transit goods for AEOs. Furthermore, imported goods for re-export will qualify for a reduced duty rate
- In cases of claims of duty-drawback (exported goods comprising previously imported goods), the AEO may choose to submit the productions formulae to the Duty Drawback and Compensation Division, Tax Incentives Bureau (and will receive expedited review of the production formulae submitted), or to the Federation of Thai Industries or any other organisations provided by the Tax Incentives Bureau, or self-certify. Similar expedited reviews will also apply to cases of duty compensation claims made by AEOs.
- In the case of bonded warehousing operations of AEOs, they shall benefit from inventory calculations and reporting every other year and an expedited review of closing accounts; they may delay the accounting performance report and submit only the inventory report every six months if they use the e-Tax incentive; transferred entry declarations may be delayed if submitted electronically.
- Other similar trade facilitation benefits shall be given to AEOs using Free Zones.

2.2.8 AEO benefits as suggested by the Private Sector Consultative Group, PSCG⁶²

The Box 9 below summarises private sector expectations on AEO-related benefits towards customs administrations across the globe⁶³.

⁶⁰ Customs Notification No. 12/2556 (2013), 13.5: translation reads: "a bulk cargo is not necessary to deposit the security for quantity"

⁶¹ Customs Notification No. 12/2556 (2013), 15.1: translation reads "the import cargo in custody of the Customs Department that will be exported from other port where it is not the same port to import, it shall pay the duty for a sum of one-tenth of the whole amount but not exceeding 1000 baht, such pay does not include the import and export at the onshore customs house unless it can be examined, controlled and tracked the cargo by the e-customs provided by the Customs Department;"

⁶² Annex 6 provides a list of PSCG members companies and associations.

⁶³ Source: WCO SAFE package, file_vi)



Box 9: Expected benefits from AEO certification according to PSCG

<p>The Private Sector Consultative Group (PSCG) to WCO suggest that accredited AEOs could enjoy trade facilitation benefits listed below (<i>note: these do not establish a required set of benefits that all administrations must offer - they are an indicative list of example benefits that are subject to specific Customs consideration, offering and approval</i>):</p> <ul style="list-style-type: none"> - mutual recognition of AEO status by Customs administrations - expedited processing and release of shipments, supported by regular “time required for release” studies - financial guarantee waivers, reductions or rebates - notification of intention to release prior to goods’ arrival i.e. pre-clearance - pre-qualification for simplified procedures, including possibilities for a single-step process, or a two-step process for release/clearance purposes, according to the importer’s preference - establishment of economic operator based profiles, and audit-based controls, as opposed to transaction-based controls - priority of inspection and use of non-intrusive inspection equipment whenever physical examination is required - priority Customs’ processing during a period of elevated threat conditions priority treatment in post-incident resummptions and trade recovery programs - AEO status should be a significant factor in determining the administrative settlement of a Customs offence (consistent with Annex H, Chapter 1, Standard 23 and Standard 3.39 of the RKC) - self-assessment when Customs automated systems are not functioning 	<p>In addition, an option to provide a reduced standard data-set for security risk assessment purposes, as follows:</p> <ul style="list-style-type: none"> (i) transport document number (ii) conveyance reference number e.g. flight number, voyage number (iii) consignor name (iv) consignee name (v) carrier name (vi) notify party (vii) place of loading (viii) Customs office of exit (ix) first place of arrival (x) date and time of arrival at first place of arrival (xi) goods description or brief cargo description (xii) number of packages or number of pieces (xiii) total gross weight
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2.2.9 Experienced benefits with the US C-TPAT program (2007)

It is one thing to lay out (theoretical) lists of AEO related benefits versus actually observing, measuring and verifying them in practice. This and the following sub-chapter share some results from two survey studies conducted around 2006. The first study focused on the US C-TPAT program, as a cost/benefit survey. The summary of the benefit outcomes is listed in the Box 10 below⁶⁴.

Box 10: US C-TPAT survey of benefits (2007)

<ul style="list-style-type: none"> • Almost one-third (32.6%) of businesses said that the benefits outweighed the costs, while nearly one-quarter (24.2%) of businesses said that the C-TPAT benefits and the affiliated costs were about the same. • For all businesses, the major impacts of their C-TPAT participation have been in the field of workforce security, time to release cargo by CBP, time in CBP inspection lines, and predictability in moving goods.

⁶⁴ Diop A, Hartman D, & Rexrode D, 2007. Customs-trade partnership against terrorism: cost/benefit survey. Report prepared for U.S. Customs and Border Protection. University of Virginia.



- More than one third (35.4%) of Importers reported that their participation in C-TPAT has decreased their number of U.S. Customs and Border Protection (CBP) inspections. In a follow-up question, these importers indicated that their number of CBP inspections decreased by more than half (51.7%).
- Importers that have been C-TPAT certified for a period of more than 3 years were more likely to say that their number of inspections have decreased (42.8%) because of the C-TPAT participation than were those Importers which have been C-TPAT certified for a period of 2 to 3 years (33.8%) or less than 2 years (27.1%).
- Importers said that their participation in C-TPAT has increased their supply chain visibility and nearly one quarter (24.3%) indicated that their participation in C-TPAT has increased their ability to predict lead-time. Nearly 3 out of 10 Importers (28.9%) reported that their participation in C-TPAT has decreased the disruptions in their supply chain.
- Of highway carriers, 41.5% reported that their participation in C-TPAT has decreased their wait times at the borders, while 44.4% said their wait times at the borders have stayed the same.
- More than two-thirds (68.7%) of non-Importers said that their number of customers has stayed the same, while 17.0% have reported that their participation in C-TPAT has increased their number of customers. About the same proportion of non-Importers (17.4%) also indicated their participation in C-TPAT has increased their sales revenues.
- Overall, since becoming C-TPAT certified, non- Importers who reported an increase in customers have gained 35.2% new customers. Non- Importers who reported an increase in sales indicated that their company's sales have increased by 24.1%.

For interested readers, Annex 7 of this report provides a snapshot of a newer C-TPAT survey, undertaken in 2011, when an increasing amount of companies had already gained practical experiences on what it means to be a C-TPAT company.

2.2.10 Expected versus obtained benefits in Latin American BASC-program (2007)⁶⁵

CBRA research team conducted the first (as known to the author of this report) survey of a supply chain security program (with over 8 years of history) between 2005 and 2006, in Latin America with a program called Business Anti-Smuggling Coalition, BASC – later renamed Business Alliance for Secure Commerce. As part of the survey, BASC member companies were asked about expected versus obtained benefits since complying with BASC security standards. Figure 6 below presents the benefits as a percentage of companies that expected and obtained each of the benefits. One can observe that attainments were higher or very close to expectations for almost all the security direct benefits (except for reduction of insurance premiums), for some supply chain efficiency related benefits (such as the reduction of the supply chain vulnerability and the improvement of the supply chain performance) and, in particular, to improve company image and credibility, which was the most expected and the most attained (expected by 85% and obtained by 90% of the respondents). In contrast, it seems that benefits related with cost savings (direct and indirect), efficiency under high alert/post disaster conditions and facilitation of border-crossing operations

⁶⁵ Gutiérrez, X., Hintsa, J., Wieser, P. and Hameri, A.-P., 2007. Voluntary Supply Chain Security Program Impacts: an Empirical Study with BASC Member Companies. *World Customs Journal*, 1(2). pp.31-48.



(fast/stable/predictable border crossing process and better Customs regulations and process compliance) were on average less attained than expected⁶⁶.

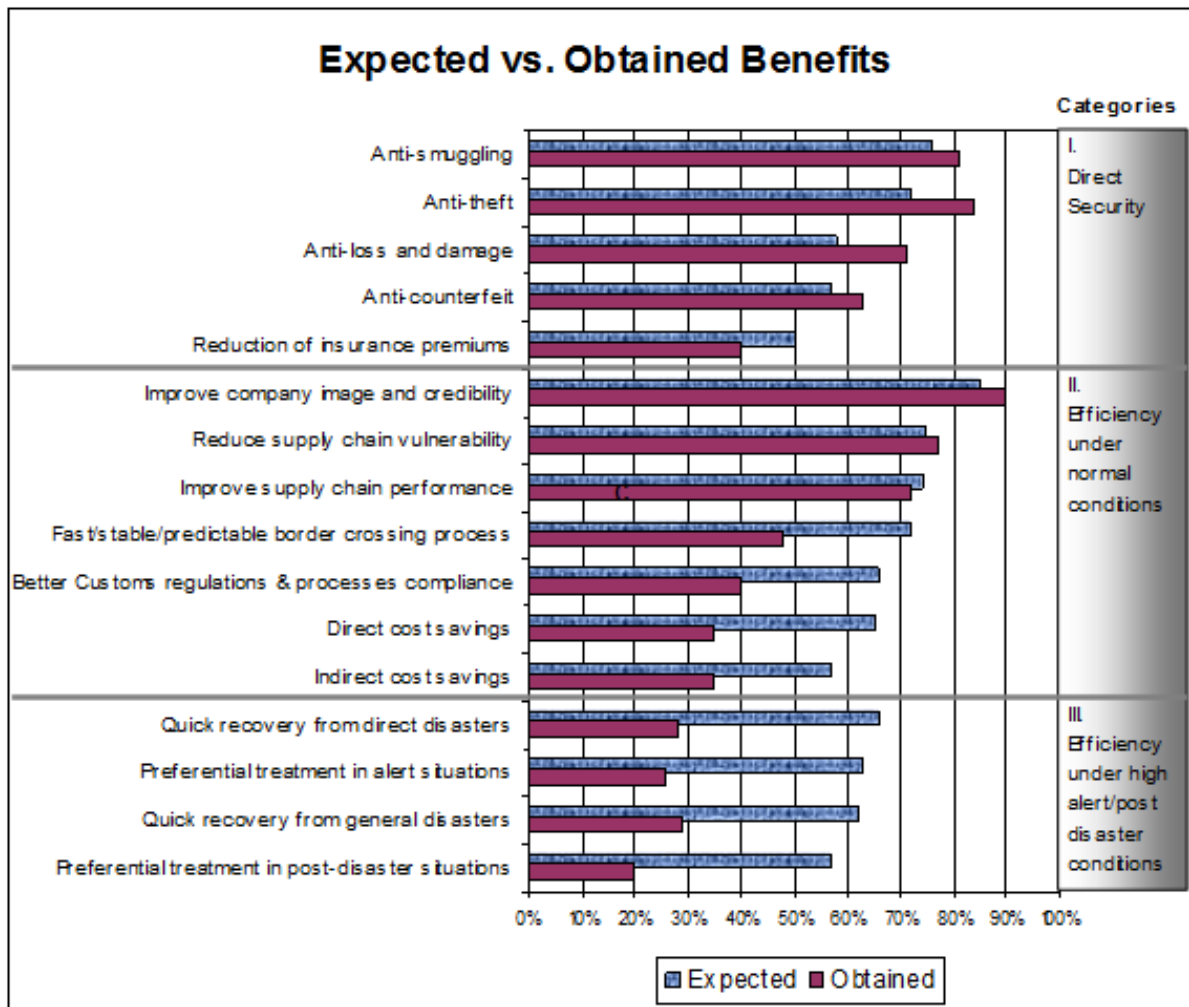


Figure 6: Expected versus obtained benefits from BASC survey (2007)

2.2.11 Benefit study with TAPA EMEA member companies (2013)⁶⁷

A survey study performed with Transported Asset Protection Association in Europe-Middle East-Africa, TAPA EMEA, members aimed to measure the security and supply chain performance impacts of EU AEO

⁶⁶ Dr. Ximena Gutierrez of Colombian origin, EPFL Switzerland doctoral graduate, played the lead role in this BASC study.

⁶⁷ Urciuoli, L. and Ekwall, D. (2013), The perceived impacts of AEO security certifications on supply chain efficiency a survey study using Structural Equation Modelling, accepted for publication in International Journal of Shipping and Transport Logistics.



certifications. In the survey, security capabilities were measured in terms of prevention capabilities and recovery capabilities after an incident, while supply chain performance was measured by the means of following six dimensions:

- Supply chain visibility,
- Competitive advantage,
- On-time deliveries,
- Transportation costs,
- Inventory costs, and
- Labour efficiency.

The Figure 7 below summarises the main outcomes of the study, illustration that AEO-S certificate supports threat reduction, threat recovery and labour efficiency more than AEO-C certificate; while all the other five aspects are supported more by AEO-C certificate than AEO-S.

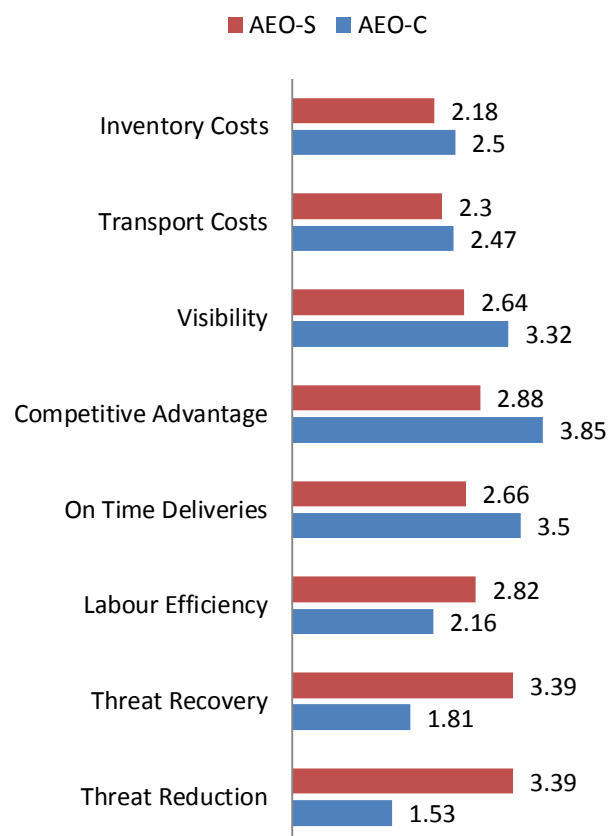


Figure 7: TAPA EMEA membership views on AEO-S and AEO-C benefits⁶⁸

⁶⁸ Urciuoli, L. and Ekwall, D. (2013), The perceived impacts of AEO security certifications on supply chain efficiency a survey study using Structural Equation Modelling, accepted for publication in International Journal of Shipping and Transport Logistics.



2.2.12 Weighing the pros and cons of joining the AEO programmes:

We have already identified many of the direct and indirect benefits of acquiring an AEO certification; taking the benefits that are possible to obtain and many that some people would expect to receive (though their hopes may fall short of expectations) a company needs to weigh up carefully the pros (benefits and incentives) and cons (costs and disadvantages) of seeking and maintaining AEO status.

It is argued that the avoidance of customs checks and inspections on consignments and associated border delays to the freight is a major incentive to join the AEO programmes. However, it is possible that certain security procedures introduced may have negated this benefit in whole or in part.

In the EU, for example, risk analysis now occurs on all goods moving into and out of the EU. In order not to delay consignments pending the results of the risk analysis, the safety and security risk assessment is carried out before the arrival/ departure of the goods in/from the EU. Therefore, since 1 July 2009, relevant security data has had in principle to be provided before the goods enter or leave the Community customs territory. The security data has to be sent electronically by economic operators, and have the possibility of exchanging this information with Member States administrations. With a far more rigorous risk-based approach to security, the proportion of cargo being delayed as a consequence of these requirements is, therefore, relatively small.

Arguably, for most reputable companies, the probability of having freight pulled over for customs checks has declined with the introduction of these measures. This might be seen as reducing one of the original benefits for becoming an AEO. Nevertheless, should an AEO's consignment require inspection, it will be given priority over consignments from non-AEO traders. For such comparatively rare occurrences it is understandable why many traders may believe this benefit is not sufficient by itself to warrant joining the AEO programme.

A degree of cynicism may therefore exist among the business community over the benefits of AEO status. It is clearly no small achievement putting together the security processes and procedures, and no small cost either. In 2005 a study (though not AEO- or "customs security"- specific study)⁶⁹, revealed the potential costs to EU-based companies of providing security in their businesses would range from 5,000 EUR for micro-sized companies to 300,000 EUR for large companies. Convincing senior management to invest in security compliance programmes, where the benefits are unclear, is likely to be a difficult proposition.

Some companies would definitely prefer to 'play safe' now than 'be sorry' later. Such companies place considerable importance on having a good reputation for regulatory compliance, high levels of security and supply chain reliability; it is in their commercial interests to have and maintain a good relationship with customs and other trade compliance authorities and agencies. Any damage to their reputation in this regard resulting in fines or increased cargo inspections could result in loss of customer and consumer confidence and significantly impact their often complex, finely tuned supply chains: the commercial impact of this could

⁶⁹ *Study on the impacts of possible European legislation to improve transport security: Final report: Impact Assessment; Report for European Commission DG TREN, Report no.:40008032-6-2 (public version), Rev 2: final, 26 October 2005; DNV Consulting*



prove to be disastrous. Therefore they are likely to join the AEO programmes and seek to be among the 'best in class'.

Many industry commentators would like to see this attitude recognised far more than it is currently. They would like to see such companies awarded automatic AEO status. The International Chamber of Commerce (ICC)⁷⁰ supports such a position. Because such companies have open and transparent commercial and compliance systems, they would readily volunteer for *"periodic examination of physical security by the competent governmental authority, or at the option and expense of the trader, private government certified security specialists auditing according to government approved protocol and privacy controls with accessible means for reconsideration of determinations."*

Similarly, a group of traders in the UK under the group name SAGE equally support such a view:

"We propose a simpler system built around genuine trust between border enforcement agencies and those traders who can prove that trust. This is a matter of corporate strategic importance; company boards need to understand and recognise the business advantages that flow from such proof of trust, and seek out the rewards and commercial advantage that trusted companies may realise in terms of facilitated trade, business efficiency and the bottom line."

The SAGE Group goes further by advocating far more self-governance of their compliance with security, safety and customs requirements:

"AEO makes a useful basic standard of trade compliance and control competence. However still higher levels of facilitation and benefit for approved traders – called 'Totally Trusted Traders' here – let them control themselves with little or no intervention from government authorities in their business or supply chains. They will be self-regulating, supported by third party inspection and validation. This also confers the ability to act as a virtual free trade zone, controlled by the trader's own inventory and customs management systems." [2011⁷¹]

2.2.13 AEO-status in the context of customs risk management⁷²

The World Customs Organization, WCO, has produced highly relevant guidelines on customs risk management, with both a publicly available version as well as a "customs only confidential" version. The Figure 8 below comes from the publicly available risk management guide, making the clear point that customs administrations across the globe should categorise companies, or, "customs clients", into low versus high risk companies – in order to be able to focus scarce customs control resources in the "high risk". In the figure below there are four categories within the "risk spectrum": people who want to comply (and normally

⁷⁰ Source: ICC position Paper on Trusted Trader Programmes including AEO, 2013. Prepared for the Customs & Trade Facilitation Commission for discussion (see Annex 7).

⁷¹ International Trade Facilitation Proposals – SAGE Vision Document 2011

⁷² WCO Risk Management Guide (2011)



succeed); people who try to comply, but don't always succeed; people who avoid complying; and people who deliberately do not comply (i.e. commit crimes on purpose).



Figure 8: Four client categories and risk levels (WCO 2011)

Now, the author of this report believes that AEO-programs and certifications provide a pragmatic tool for customs across the globe to better differentiate between the “good and the bad”.

When it comes to the state-of-play, and foreseen future trends in customs risk management, the author of this report interviewed Mr. Chris Thibedeau, a former customs officer from Canada, and current employee of GreenLine Systems company, which provides risk management solutions for governmental authorities across the globe. Full interview is available on Annex 8 of this report, while a shortened one is presented in the Box 11 below.

Box 11: Customs risk management interview with Mr. Thibedeau

Mr. Thibedeau of GreenLine Systems, how do you see the current global situation on Customs administrations implementing risk management methodologies and IT-systems? Mr. Thibedeau answers: “As our firm works for several global customs administrations by providing risk management solutions, we have some insight into this landscape. We have found there is a direct correlation between GDP and how a nation looks at risk. While these are general statements, I have recognized that higher tier GDP nations have more of a security focus and invest in IT systems to assess the risk associated with the movement of goods, people, and conveyances across sovereign borders. Lower tier GDP nations have almost a complete focus on the risk of ‘evaded revenue’ for goods crossing their borders and seek controls to try and recoup this lost revenue.....As a byproduct, many of the border controls are based on risk adverse practices (i.e. 100% physical inspection) vs. using the principles of risk management to focus resources appropriately. Only when a country accepts and endorses risk management as their principle for border management due they seek out solution like we offer to identify high risk commercial shipments and facilitate pre-approved and or low risk trade.”

Mr. Thibedeau, do you see more activities on company-level risk assessment, or on shipment-level risk assessment? “As a former practitioner (being an ex-customs officer) I have witnessed better results using shipment level risk assessment vs. company level risk assessment. Criminals will ‘tap’ legitimate companies to present shipments carrying smuggled goods as legitimate. I have seen instances of AEO certified companies being targeted by drug cartels to import narcotics into a country. Secondly, company level risk assessment does not provide ‘domain visibility or situational awareness’. The data associated with transactional targeting can provide customs with an



ability to virtualize their border and track the movement of goods as imports, in transit, or export movements. Cargo reports, bills of lading, importer declarations, container status messages, conveyance reports, importer security filings, and bayplans/stowplans are some examples of data that can be used to achieve better situational awareness... I have worked closely in both approaches. They offer value when they work together and complement each other by providing customs with an ability to measure 'trust and credibility' of any shipment crossing the border using a framework of 'transparency' (can I see it?), 'character' (how do I feel about it?), and logic (does it make sense?)..." Mr. Thibedeau explains.

Mr. Thibedeau, as the last question, what are the future trends in customs risk management, based on your views?

Mr. Thibedeau replies: "I believe many customs administrations will seek to operate more seamlessly with the supply chain by seeking and regulating data 'as is and where is'. While the WCO data model endorses the acquisition of cargo reports and importer declarations, additional 'situational awareness' is desired in order to virtualize the border for customs services using IT systems. Some customs administrations have already started regulating additional supply chain data including container status messages, importer security filings, bayplans, stowplans, conveyance reports, and automated information system (AIS) data, to augment current views of a customs operational picture with track and trace capabilities. Anomalous behavior can be quickly identified and dealt with according to the risk presented at any moment. While there are some systems in place to assist in the risk management for cargo and conveyances, I believe the next big movement will be towards passenger profiling systems or passenger targeting systems for people moving across borders on aircraft, cruise ships, and ferries. We're very close to our own solution here and hope to offer insight and solutions for our customs and border customers."

2.2.14 Opportunities for multi-agency recognition of AEO status⁷³

Security is not the only consideration at borders; and it is the controls on trade and traders by other agencies that can seriously compromise the benefits otherwise afforded to AEOs. The coordination of controls and trade facilitation measures is therefore recognised by traders and increasingly among customs administrations as being of high importance.

The EU has taken its first steps on multi-agency recognition, or, cross-recognition, of "trusted operator" statuses. In particular, DG MOVE and the civil aviation security authorities are collaborating with DG TAXUD and the AEO program, in order to streamline and coordinate the various stages of certification, auditing, monitoring, and so forth, with those companies who are already recognized by one authority.⁷⁴

Also in the United States, the Customs and Border Protection, CBP, is working actively with industries and with other governmental agencies – including food safety agency – to define means for cross-recognition of "trusted trader" statuses: Box 12 below presents the view of Mr. Mark FeDuke, a well-known food industry expert on this topic.

Box 12: Trusted trader interview with Mark FeDuke, VLM Foods

Mr. Mark FeDuke, of VLM Foods, Canada, shared some updates on 'coordinated AEO (or, C-TPAT) approaches in North America': "US Customs and Border Protection, CBP, established a working group looking at revamping the trusted trader model for the US. The working group consists of several multinational manufacturers, importers and logistics sector companies, as well as several federal U.S. government agencies in addition to CBP with food and consumer product safety oversight."

⁷³ Source: Mr. FeDuke, VLM Foods, Canada – email interview on 15.11.2012.

⁷⁴ See earlier section in report: phone interview with EC DG TAXUD.



Mr. FeDuke explained that “The concept basically sees C-TPAT and Importer Self-Assessment, ISA, being brought together along with product safety. As an importer if you can demonstrate that you have meaningful oversight to ensure that you have a secure supply chain, that you have product safety oversight and that you are performing product safety due diligence and that you have meaningful internal auditing controls for finance and trade compliance, you deserve to have a different relationship with regulators. In practical terms this means that you would qualify as a CBP trusted trader with a range of benefits: lower inspection rates; account based management by way of having a national account manager from CBP; accessing CBPs centers of expertise and excellence; removal from audit pools; potentially lower bond requirements and so forth. ”⁷⁵ The drawback, however, **according to Mr. FeDuke**, is that “CBP is well ahead of other government agencies. Having said this CBP is eager to move forward on this trusted trader model and make it so attractive that other agencies should ‘bolt on to’ the CBP program.”

Mr. FeDuke has also been very engaged with the US Food and Drugs Administration, FDA, “as the Americans move forward with their new food safety law - the U.S. Food Safety Modernization Act – which is heavily focused on new regulations for the import food sector including the FDA being mandated by law to create a trusted food importer program. The Voluntary Qualified Import Program which has yet to be published but would see importers with adequate supply chain oversight and food safety preventive controls to benefit from expedited clearance by FDA and decreased FDA inspections.”

“It is crucial for the industries that governmental agencies both in national and in international context co-operate in design, recognition and auditing of AEO-programs, including the US C-TPAT program, and many others across the globe”, **concludes Mr. FeDuke**.

The Colombian intra-agency partnership strategy is visualized in the Figure 9 below (source for further questions indicated on bottom-right corner of the diagram). Steps towards successful inter-agency collaboration include: Setting up a Technical Inter-agency Committee; Identifying benefits, resources, requirements and conditions for cooperation; Drafting a legal framework; and Running awareness campaigns.



Figure 9: Inter-agency partnership strategy, Colombia

⁷⁵ Further information on this can be found e.g. at: <http://www.drinkerbiddle.com/resources/publications/2013/FDA-and-CBP-to-Begin-New-Pilot-Programs-> , publication 21.8.2013



According to Polner (2011), beloved child may have many names, including: Coordinated Border Management (WCO); Integrated Border Management (European Union); Collaborative Border Management (World Bank); and Comprehensive Border Management (OSCE: Organisation for Security and Cooperation in Europe). *“While these terms have subtle differences in definition, the intent is largely the same: there is the need for border agencies to coordinate their actions in order to improve effectiveness and efficiency of border procedures”* (Polner 2011).⁷⁶

In the Box 13 below, Aniszewski (2009) lists typical governmental agencies with ‘vested interests in cross-border supply chains’.

Box 13: Governmental agencies with supply chain interests and duties (Aniszewski 2009)⁷⁷

Especially customs, police, immigration, veterinary and phytosanitary inspection services but also the following:

- **Agriculture**
- **Biosecurity**
- **Economy**
- **Energy**
- **Environment**
- **Finance/treasury**
- **Foreign affairs**
- **Health**
- **Interior**
- **Investment and infrastructure**
- **Justice**
- **Port authorities**
- **Statistics**
- **Transport**

Finally, for interested readers, Annex 9 provides further views on continuum of intra-governmental collaboration, with following five categories: “Coexistence – Communication – Cooperation – Coordination – Collaboration”.

⁷⁶ Polner, M., 2011. Coordinated border management: from theory to practice, World Customs Journal, Volume. 5 No.2.

⁷⁷ Aniszewski S. 2009. Coordinated Border Management – a Concept Paper. WCO Research Paper Nr.2.



2.2.15 Multi-agency AEO co-operation opportunities in Thailand

In the context of Thailand, the author of this report sees great potential in initiating intra-agency discussions and co-operation aiming to have RTC AEO recognized by one or more other agencies, was it civil aviation security, food safety – and/or any other of the around 36 Thai agencies, brought on the table some years ago as part of a National single window project ⁷⁸ (see Figure 10 below).

Customs department	National board of agricultural commodities and food standards	Port authority of Thailand	Board of investments	Department of land transport	Department provincial administration
Department of foreign trade	Department of agriculture	Thai chamber of commerce and Board of trade of Thailand	Defense industrial department	Department of national parks, wildlife and plant conservation	Department of internal trade
Department of industrial works	Department of energy business	Royal forest department	Industrial estate authority of Thailand	Department of medical sciences	Thai industrial standards institute
Excise department	Department of primary industries and mines	Office of the rubber replanting aid fund	Department of mineral fuels	Thailand transport portal	Department of mineral resources
Department of livestock development	Office of atoms for peace	Electrical and electronics institute	Department of fisheries	Marine department	National broadcasting and telecommunication commission
Food and drug administration	Department of civil aviation	Department of business development	Office of the cane and sugar board	Airport of Thailand	Fine arts department

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 Re-constructed from: UNECE Trade Facilitation Implementation Guide, Case stories. Interagency collaboration for single Window implementation: Thailand's experience. <http://tfig.unec.org/cases/Thailand.pdf> <Accessed 24.10.2013>

Figure 10: Framework for multi-agency collaboration for Thai Single Window implementation

⁷⁸ UNECE Trade Facilitation Implementation Guide, Case stories. Interagency collaboration for single window implementation: Thailand's experience. <http://tfig.unec.org/cases/Thailand.pdf> <Accessed 24.10.2013> (figure appearance modified by the author of this report)



2.2.16 The role of e-customs in trade facilitation

The Box 14 below summarises the main findings of a recent survey study on drivers and barriers affecting the usage of e-Customs, an important component of trade facilitation in global supply chains. The author of this report recommends that such research findings are taken into consideration when designing tangible benefits for businesses within the context of AEO programs.

Box 14: Survey study on drivers and barriers affecting the usage of e-Customs (2013)⁷⁹

Electronic information sharing, e-customs and automated risk management, have a core function to achieve the objective of facilitating trade. To support the adoption of such systems, diverse policies, recommendations and guidelines have been developed by global organizations. For instance, the UN/CEFACT Recommendation Number 33 recommends to governments and traders the establishment of a Single Window, in order 1) to facilitate payment of duties, taxes and other fees and 2) to facilitate the submission of trade-related information / documents at a single entry point. From a technical viewpoint, the development of e-customs platforms is at the forefront to enable smooth B2G (Business-to-Government) information sharing. Yet, researchers have noticed and raised a red flag on a “*missing link from innovation development to adoption*”, i.e. many customs administrations and supply chain companies are reluctant to use these systems.

A recent survey performed with 94 customs administrations unveils that in some countries with implementation of e-customs platforms, full adoption has not been achieved yet. While many factors providing benefits for implementing an e-customs platform sound appealing, e.g. higher safety and security, improved identification and selection of high risk shipments, higher data accuracy etc.; it has been shown that some hindrances may appear after implementation. These include the following:

- **Lack of trust of traders.** Traders are requested to share data with governments. However, they feel much uncertain about confidentiality issues. For how long will the data be stored? Which organizations will have access to it? Will permission be asked every time an organization will access the data? Until such uncertainties will be eliminated, there is likely to be much scepticism in using such IT systems.
- **Lack of globally accepted data standards.** Customs administrations and companies perceive that there are too many standards available, generating confusion about which of those should be followed; whether companies may re-use their existing IT systems; and so forth.
- **Lack of IT budgets.** It is well known that investment costs form a particular bottleneck for customs and business operating in developing countries and in general for small-medium enterprises anywhere in the world.

The authors conclude by recommending that future IT-platforms need to be able to fully ensure the privacy of the data exchanged between traders and customs administrations. In addition, re-engineering of business processes is a key issue. A clear understanding of trading and customs related processes may improve the development of more tailored solutions for which monetary benefits may be easier to prove. The same approach can also be beneficial for developers to gain a panoramic overview of all stakeholders involved and the required technical capabilities. This may support (i) the identification of cost-effective ICT technologies and solutions (e.g. re-usage of existing IT systems, piggy-backing etc.) and (ii) in conjunction with governments and trading companies, the development of a global unified data standard.

⁷⁹ Urciuoli, L., Hintsa, J., Ahokas, J. 2013. Drivers and barriers affecting usage of e-Customs — A global survey with customs administrations using multivariate analysis techniques, Government Information Quarterly, Available online 29 September 2013, ISSN 0740-624X, <http://dx.doi.org/10.1016/j.giq.2013.06.001>



2.2.17 Supply chain security in organisational management context

PhD candidate Juha Ahokas from Aalto University in Finland was interviewed on an important topic of supply chain security in organisational management context. The outcome of the interview is presented in the Box 15 below – and the author of this report recommends to consider the views of Mr. Ahokas when specifying AEO security requirements; during auditing; and while considering improvements to existing AEO programs.

Box 15: Supply chain security in organizational management context – interview with Mr. Ahokas

Mr. Ahokas, in your doctoral thesis project you have studied supply chain security (SCS) in organisational management context. What are your main findings so far? “On a theoretical level it is possible to find optimal level for security measures. However, implemented security measures are often far from optimal. This is due to several factors, including following five: (a) Industrial companies operate in a fast-moving environment thus their processes are permanently under change. Security managers must continuously bring security initiatives to the multi-voiced marketplace where other managers also compete on scarce budgets and resources; (b) Security measures require actions of people. Different motives and interests form often substantially security measures in organizations; (c) Security interventions consists typically of chain of activities such as presenting programs, implementing technology and practices, creating incentives, reporting results and maintaining different systems. Every activity can fail and failure influences other activities in unexpected ways; (d) Security interventions are modified in time due to demands of other managers to facilitate operations; (e) managers and employees learn to circumvent security measures in order to simplify their daily work. Consequently, there is inevitably a gap between expected level of security and actual level of security - based on my experience in more than 90% of cases.”

Mr. Ahokas, sometimes in SCS there is a tendency to overemphasize the role, or, the importance of technologies. What are your views on this? “Like I mentioned before, security technology is just one step in a chain of security measures. Only a complete chain of security measures can result in an appropriate security level. Think of a situation, where you have say five measures in a chain. The probability that each security measure is operable is say 90% and a probability it fails is 10%. Thus, the probability the full system operates is $0,9 \cdot 0,9 \cdot 0,9 \cdot 0,9 \cdot 0,9 = 59\%$. If one measure is dependent on human factors and a probability it works properly is 50% and a probability it fails is 50%, you hardly can talk about security anymore.”

And finally Mr. Ahokas, what kind of greetings would you like to send to those responsible for AEO program design and updates (i.e. governmental side), as well as to those responsible for implementing and complying with the requirements (i.e. business side)? “I think the following pertains both governmental and business side. If a company has implemented an AEO program, but the organization doesn't report any deviations, failed system parts or near-misses, the security system is not working. All stakeholders on business and on governmental side must work for a culture where security incidents are reported. How well a security program works is dependent on organizational factors such leadership, power, trust, organizational learning and collaboration methods in security operations. Safety managers have learnt these facts in 1990's and operational managers already in 1960's. I believe the time has come to learn the same facts in supply chain security operations.”

2.2.18 International Chamber of Commerce, ICC, on “diligent traders”⁸⁰

On 22 May, 2013, International Chamber of Commerce, ICC, published a collection of standards to help border authorities determine a standardized definition of a diligent trader. This might aid multi-agency collaboration in the control of trade and the facilitation measures they give to the 'diligent traders'.

⁸⁰ <http://www.iccwbo.org/News/Articles/2013/New-ICC-standards-help-define-trusted-traders/>



AEO & MRA study for RTC, Dr. Juha Hintsa, Cross-border Research Association, 31.12.2013

Interested readers can find the full press release on Annex 10 of this report, including web-links to the following two documents:

- ICC Guidelines for Cross-Border Traders in Goods; and
- ICC's Customs Guidelines.

In the context of AEO program design and implementation, it might be worthwhile to visit the press release and the two guidelines, the author of this report recommends.

2.3 Suggestions to improve the popularity of the Thai AEO programme

As the final sub-chapter of AEO-programmes in the EU and globally, suggestions to improve the popularity of the Thai AEO program among the economic operator are made by the author of the report, in the rough order of the report sections above, based on good practice –observations in EU and globally.⁸¹

1. The RTC AEO application process should be made as easy and smooth as possible; naturally without risking any aspects of integrity of the programme (see Chapter 2.1.4).
2. The key elements of customs compliance and security requirements for AEOs should be made very clear by RTC to economic operators in Thailand; possibly with detailed supporting documentation / AEO guidelines (see Chapter 2.1.6).
3. The underlying crime prevention mechanisms should be well understood by RTC experts, and considered during the application and audit processes (see Chapter 2.1.7).
4. RTC AEO programme should be expanded to cover multiple types of economic operators in the future, especially in the logistics sector (see Chapters 2.1.8 and 2.2.2).
5. Risk factors and possibly some of the security requirements should be considered per actor type by RTC in the future, in particular with the broad logistics sector (see Chapter 2.1.9).
6. Small and medium sized enterprises, SMEs, should be given special attention by RTC, in terms of “relaxed security requirements” (see Chapter 2.1.10).
7. Existing governmental and commercial certifications, authorisations and standards – such as aviation security certificates and TAPA certificate - should be recognized as inputs into RTC AEO auditing and approval process (see Chapter 2.1.11).

⁸¹ Note: a condensed and (slightly) re-organised version of these recommendations are presented in the last Chapter of this report.



8. System-based and audit-based principles should be highlighted by RTC in the future, (partially) replacing any transaction-based approaches (see Chapter 2.1.13).
9. Economic operators should be encouraged to demonstrate their security capabilities through existing policies, guideline, work instructions and so forth (see Chapter 2.1.14).
10. Benefits or incentives to of the RTC AEO programme towards economic operators should be as broad and tangible as possible (see Chapters 2.2.4 – 2.2.12).
11. Suggestions provided by international business associations, such as Private Sector Consultative Group (PSCG) to WCO and International Chamber of Commerce (ICC), should be taken into consideration by RTC, when designing future AEO requirements, benefits and so forth (see Chapters 2.2.8 and 2.2.18).
12. The AEO status of economic operators in Thailand should be explicitly recognized in Thai customs risk management processes (see Chapter 2.2.13).
13. RTC AEO status should be recognized by multiple governmental agencies in Thailand in the future, in order to avoid duplications in applications, audits, inspections and so forth (see Chapters 2.2.14 and 2.2.15).
14. The drivers and barriers impacting the adoptions of e-customs solutions and services should be considered in the detailed planning of RTC AEO –programme (see Chapter 2.2.16).
15. RTC should pay close attention to supply chain security in organizational management context, understanding clearly that “just having some technologies in place” is simply not enough (see Chapter 2.2.17).



3 Mutual Recognition Agreements / Arrangements (MRAs)

The purpose of Chapter 3 is first to provide an overview of the AEO MRA situation across the globe (Chapter 3.1), including: sharing some practical experiences from among those countries who have already completed such agreements; highlighting key challenges met during past negotiation processes; elaborating on the benefits to both businesses and customs administrations; as well as providing a couple of views on the future of AEOs and MRAs. Secondly, this Chapter provides a reasonably detailed suggested roadmap leading towards an AEO MRA between the EU and RTC (Chapter 3.2); naturally many of the findings and suggestions can be applied between other countries and regions of the world, too. The roadmap is built by starting with a generic guidance by WCO; followed by comparisons in five key areas between the EU and RTC AEO programs. This sub-chapter then elaborates on the process of joint validations between the two parties to an MRA as well as the establishment of a legal framework. Lastly the sub-chapter focuses on concluding the negotiations and on the signing of the MRA documents.

3.1 Mutual Recognition Agreement / Arrangement (MRA) situation

3.1.1 Global situation

The WCO SAFE Framework of Standards to Secure and Facilitate Global Trade provides a model for the development of security measures in logistics and supply chains in order to protect and facilitate global trade. Adopted by the WCO Council in 2005, the SAFE Framework was supplemented the following year by a chapter on the Authorised Economic Operator. Over 160 members of the WCO have signed 'Letters of Intent' to implement the SAFE Framework.

There are today many AEO programmes being established around the world, reputedly in alignment with the WCO SAFE Framework. This, in theory at least, has made it possible for Mutual Recognition Agreements, MRAs, to be established between different signatories to the WCO SAFE Framework, and many more are under development. According to the WCO⁸² as of June 2012, there were 19 AEO MRAs that had been concluded and 10 AEO MRA negotiations on-going. Those known to the author of this report at the time of writing this report suggests the number of completed MRAs had increased to 21 with the additions of and China and Singapore (with full implementation in March 2013) and China and Korea (September 2013). The latest global picture is given in the Table 12 below.

⁸² Compendium of Authorized Economic Operator Programmes, 2012, World Customs Organization



Table 12: AEO Mutual Recognition Agreements, MRAs, globally

	Andora	Canada	China	EU	India	Israel	Japan	Jordan	Korea	Malaysia	Norway	New Zealand	San Marino	Singapore	South Africa	Switzerland	USA
Andora	X																
Canada		X															
China			X						Incl. Hong Kong								
EU				X													
India					X												
Israel						X											
Japan							X										
Jordan								X									
Korea			Incl. Hong Kong						X								
Malaysia										X							
Norway											X						
New Zealand												X					
San Marino													X				
Singapore														X			
South Africa															X		
Switzerland																X	
USA																	X

	Signed MRAs and MoUs
	MRA negotiations underway/progressing



AEO & MRA study for RTC, Dr. Juha Hintsa, Cross-border Research Association, 31.12.2013

Some of the above signed MRAs include Memorandum of Understanding (MoU), signed by the parties to the agreement concerned but not legally binding, aimed at developing the mutual recognition of AEOs and providing benefits to them. Examples would include those between the US and New Zealand, Jordan and Japan. Other signed MRAs may also include those which are legally binding, such as those the EU has agreed with the US and Japan.

The core concept behind establishing an MRA is to treat another country's AEO partners as if they were your own. They are intended to eliminate or reduce duplication of validation and authorisation for AEOs, and an action or decision taken by one administration is recognised and accepted by another.

In order for a system of mutual recognition to work⁸³ it is essential that:

- The AEO programs are compatible and conform to the standards and principles set out in the SAFE Framework;
- There be an agreed set of common standards that include sufficiently robust “action” provisions for both Customs and AEOs;
- Standards are applied in a uniform manner so that one Customs administration may have confidence in the authorization of another;
- If the certification process is delegated to a designated authority by an authorising Customs administration, there shall be an agreed upon mechanism and standards for that authority; and
- Legislation to enable the implementation of a mutual recognition system is in place.

Still, there is flexibility provided for in the SAFE Framework to enable parties to an MRA to decide for themselves what is meant by mutual recognition and what benefits should accrue. Indeed, the programmes do not need to be exactly the same but should achieve the equivalent levels of security and customs controls. Nevertheless the approaches to establishing MRAs are consistent among those who have previously tried.

3.1.2 MRA processes, practical experiences

The Korean approach, for example, is described well in the following Figure 11⁸⁴:

⁸³ SAFE: Framework of Standards to secure and facilitate global trade, 2012; p33., para.7; World Customs Organisation

⁸⁴ Korea AEO MRA: A Structured Approach to Mutual Recognition for Authorized Economic Operator (AEO) Programmes; Kiok Hyung, Programme Advisor, KCS; WCO AEO Global Conference - Seoul, Korea, 17-19 April 2012

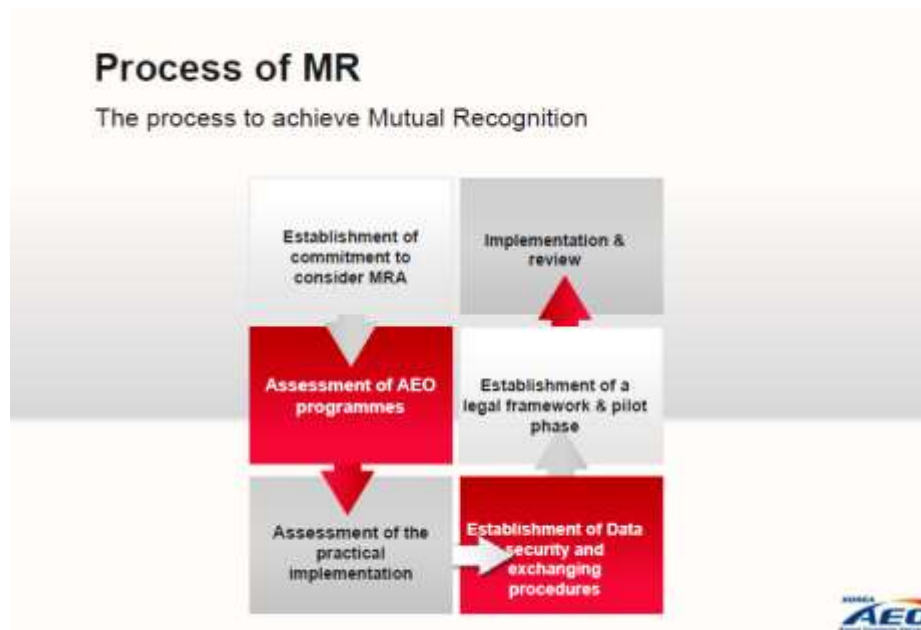


Figure 11: Process for developing an MRA with Korea

It clearly highlights the importance of ensuring there is firstly a commitment to establishing a MRA in the first instance. The assessment of the respective AEO programmes is, naturally, a key stage in the process, followed by an assessment of the practical implementation of a MRA. The security of data and data exchange is also a critical aspect of a MRA, as is the legal framework within which a MRA sits.

The approach to MRAs adopted by other states is very similar though not necessarily expressed in exactly the same way. For example, Singapore's customs divide the key phases for establishing an MRA as follows^{85,86}:

- 1st Phase: Comparison of AEO programmes in order to verify that their requirements are largely the same;
- 2nd Phase: Joint Validation where the customs administrations not only observe but also participate in their MR partner's security audits of companies seeking AEO certification;
- 3rd Phase: Concluding and Signing of MRA if both sides agree that the execution of each others' programmes is compatible; and
- 4th Phase: Operationalisation of the MRA.

The detail behind such approaches is demonstrated well by the EU (negotiating on behalf of 28 different member states). The following eight steps expand on the areas covered and introduce some additional considerations within a MRA discussion⁸⁷:

⁸⁵ *AEO, the way towards secure and competitive growth*: Joan Lua Leng Khim (Ms), Deputy Head, Schemes and Licensing Branch, Singapore Customs, WCO AEO Global Conference - Seoul, Korea, 17-19 April 2012

⁸⁶ Singapore Customs Media Release: Singapore Customs signs first Mutual Recognition Arrangements on supply chain security with Canadian and Korean customs authorities; 25 June 2010

⁸⁷ Theo Hesselink, WCO AEO Global Conference - Seoul, Korea, 17-19 April 2012



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STEP 1: Comparison of legislation, including conditions/criteria, authorisation process, audit, monitoring, revocation/suspension, benefits;

STEP 2: Identification of potential reciprocal benefits that can be given through mutual recognition (e.g. reduced risk score and thus lower control levels; priority treatment; reduced data requirements and similar). It is important to identify potential benefits already during the determination of equivalence to avoid bad surprises and steer already during the comparison exercise in the right direction;

STEP 3: Determination of equivalence of legislation and identification of potential divergences or gaps;

STEP 4: Assessment of how to address identified gaps/divergences in legislation (with the objective of alignment during the on- going process);

STEP 5: Comparison of implementation of legislation (all aspects mentioned under Step 1.) on the ground/in practice through visits of customs offices dealing with the AEO authorisation and audit as well as, where appropriate, of companies that are being authorised/audited. Companies will have to agree to foreign customs officials observing audits in their premises (voluntary participation). The foreign customs officials would always only be observers and would not assist in the audit itself but would observe how the other customs agency carries out the audit. This will eventually lead to an exchange of best practices and thus improve overall application of AEO;

STEP 6: Determination of equivalence of implementation of AEO (= equivalence of authorisation/audit/monitoring/suspensions/revocation and appealing processes as implemented) and identification of potential divergences and gaps;

STEP 7: Assessment of how to address identified divergences and gaps; also here, alignment should hopefully happen during the process unless there is a controversy of approach;

STEP 8: Identification of steps to take (which agreement to amend, by agreement or The Joint Customs Co-operation Committee (JCCC) Decision, legal requirements, data protection etc.). An important aspect is also identification of how to exchange names and ID-numbers of AEOs.

The US (C-TPAT) approach to negotiating MRAs⁸⁸ is comparable to that of the EU and others:

1. A side-by-side comparison of program security requirements: This is designed to determine if the programs align on basic principles. During this stage, the Customs and Border Protection (CBP) agency also requests other data from the foreign partnership program – such as eligibility requirements, statistics, number of personnel conducting the audits for the program, and any other data that may help C-TPAT understand the other program better in order to determine if the two programs are indeed compatible.

⁸⁸ C-TPAT, Mutual Recognition Arrangements, FAQs: CBP, May 2013

http://www.cbp.gov/linkhandler/cgov/trade/cargo_security/ctpat/ctpat_program_information/international_efforts/mutual_recog_faq.ctt/mutual_recog_faq.pdf



2. A pilot program of joint validation visits and meetings with officials from the Headquarters Customs Administration of the foreign partnership program: The joint validations are designed to determine if the programs align in basic practice. Prior to participating as an observer in joint validations, C-TPAT meets with its counterparts to learn how their AEO program was designed, is managed, and to assess the level of expertise of the supply chain security auditors conducting validations on behalf of the foreign partnership program. During this visit, the entire life cycle of an AEO-company – from submitting an application, to vetting, validation, monitoring, and possible suspension or removal from the program – is examined.
3. The signing of the MRA: The MRA is signed by the senior leaders of each Customs organization and recognizes the compatibility between C-TPAT and the foreign cargo security programs.
4. The development of Mutual Recognition operational procedures, primarily those associated with information sharing: CBP has developed and implemented an automated mechanism for the exchange of program data. Data flows from and to the foreign participating AEO MRA partner through official channels and in a secured manner. This is also referred to as the Implementation Phase.

It is interesting to note that the US CBP prefer to define MRAs not as Agreements but as Arrangements. This is because an “arrangement” legally (in the US) falls under the umbrella of existing Customs Mutual Assistance Agreements. Arrangements are non-binding documents which allow for flexibility; furthermore, they take less time to process and sign into action.

Close cooperation between customs administrations is of paramount importance. Despite the intent to follow the SAFE Framework, there first needs to be trust that those partners are in fact all working to the same or comparable rules and to an acceptable level of security. As the EU stepped approach (above) demonstrates, there needs to be assurance that each other’s’ audits, controls and authorisations are equivalent. An exchange of data between the parties to an MRA is essential in this regard, but an area in which many MRAs can stall.

Aside from the issues of data protection (which can be overcome by the AEOs themselves agreeing to have their data shared with the AEO authorities of an MRA country⁸⁹), there is the problem that different systems used by each party to a proposed MRA may not be able to communicate data between them.

This may be a consequence of several factors:

- incompatible file formats;
- use of different character sets that reflect particular language and type-characters;
- different (incompatible) ICT systems;
- limited time and resources available to resolve data exchange issues; and

⁸⁹ It is also imperative that the parties to an MRA can protect that data from unauthorised access or corruption



- differing degrees of implementation of AEO programmes and differences in data captured.

Within an MRA it is important to be able to identify 3rd country AEO companies within one's own systems: without this ability it becomes difficult to share with them the benefits afforded to AEOs. The different methods of identifying or referencing AEOs in different countries can make this very problematic, but not insurmountable.

Faced with this issue, the US proposed a compromise solution which necessitated the direct engagement and cooperation of the European AEOs themselves. The EU system of identifying economic operators is the EORI reference number. The US use a different reference system called the Manufacturer identification Numbers (MIDS). The US created an on-line portal for EU AEOs to register with using their EORI reference: they were then given a MIDS reference thereby ensuring they could be identified on the US system (see Annex 12 for more information on the EU EORI system).

The Figure 12 below provides a process map⁹⁰ that was followed between the US and the EU:

Process Overview

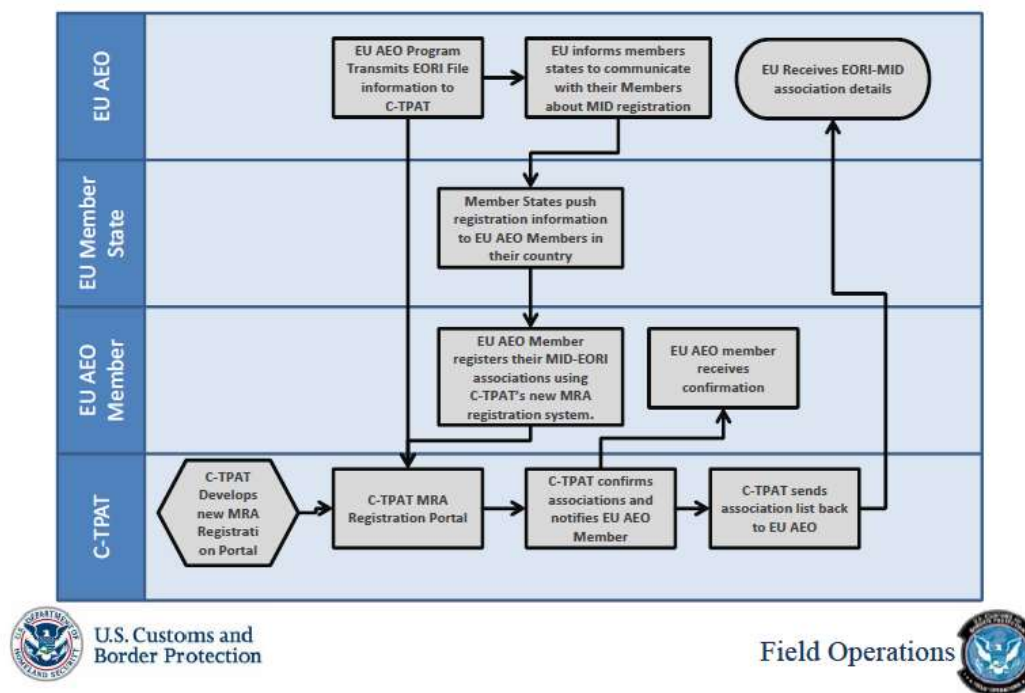


Figure 12: Process towards assigning a US MID registration identification with EU AEOs

The MRA signed between China and Singapore, and which became effective in March 2013, indicates also the importance of identifying corresponding AEOs to the Chinese and Singaporean customs authorities

⁹⁰ Mr. Shawn C. Beddows, Acting Director C-TPAT, Customs and Border Protection: WCO AEO Global Conference - Seoul, Korea, 17-19 April 2012



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respectively⁹¹. The Customs of the People's Republic of China now recognises STP-Plus⁹² companies accredited by Singapore Customs as Singapore's Authorized Economic Operators, and Singapore Customs will recognise enterprises of Class AA⁹³ accredited by the People's Republic of China as China's Authorized Economic Operators.

Singapore importers will input the "AEO code" in the TradeNet system for mutual recognition purposes and gain the benefits of corresponding clearance facilitations granted by Singapore Customs. The AEO code is comprised of "AEO", "CN" and the 10-digit Customs Registration Code. Goods directly exported to China from Singapore's STP-Plus companies would get the clearance facilitations granted by the Customs of the People's Republic of China. The Chinese importer trading with STP-Plus companies must fill the "AEO code" of the Singaporean exporters in the "remark column" in their import declarations for mutual recognition purposes and to gain the corresponding clearance facilitations granted by the Customs of the People's Republic of China. The format is as follows: "AEO (written in English half-width characters and capital letters)"+"<"+"SG"+"12-digit AEO code"+">". For instance, if the AEO code of one Singapore STP-Plus company comes AEOSG123456789012, then "AEO<SG123456789012>" shall be filled in the remark column.

Singapore Customs and the Guangzhou Customs District of China previously and successfully concluded a MRA pilot to test and fine-tune the procedures before full implementation began in March 2013. The MRA has consequently been expanded to cover all Customs Districts of China⁹⁴.

Whilst the above examples show a common approach (if not identical) the MRA being drawn up between the EU and China began somewhat differently. The European Union concluded an Agreement on Customs Cooperation and Mutual Administrative Assistance in Customs Matters with the People's Republic of China that entered into force on 1 April 2005. On 19 September 2006, a pilot project on the EC-China Smart and Secure Trade Lanes (SSTL) was started. This built on a similar exercise in the US (2002); the objective was to rapidly deploy a baseline infrastructure that provides real-time visibility, physical security through non-intrusive, automated inspection, and detection alerts, as well as a complete audit trail of a container's journey from origin to final destination. The SSTL project between China and Europe revealed the challenges of implementing appropriate technologies.⁹⁵

Both sides agreed to exchange experiences and to develop best practices. The project covered the testing of end-to-end supply chains from the point of packing containers, through the entire container journey, to the point of final destination.

The parties also agreed on and tested:

⁹¹ Announcement No. 13[2013] of the General Administration of Customs on the Full Implementation of the Mutual Recognition Arrangement on Authorized Economic Operators with Singapore Customs

⁹² Secure Trade Partnership of Singapore, has a been aligned with international standards for AEOs to create the STP-Plus certification and enable authorised companies to benefit from MRAs between third countries and Singapore

⁹³ Classified Management of Enterprises

⁹⁴ Website of Singapore Customs (SC): <http://www.customs.gov.sg/leftNav/trad/sup/Mutual+Recognition.htm>

⁹⁵ European FP7-project INTEGRITY: "Intermodal Global door-to-door container supply chain visibility". Grant agreement no: 218588. Date: 1.6.2008-30.10.2011, formed a parallel activity to SSTL, as a customs-business-academia partnership project , more information at: <http://www.integrity-supplychain.eu/> (see Annex 19)



- criteria for economic operators to be granted authorised economic operator (AEO) status;
- data requirements for pre-loading security clearance for "door to door" supply chains;
- the definition of minimum risk rule set and minimum control standards for customs clearance;
- IT and technical solutions that enhance security and control systems; and
- equivalent AEO legislation in order to prepare the ground for mutual AEO recognition between the EU and China.

In conclusion, it would appear the approaches are, to date, all very comparable, varying only in details such as the methodology and process for identifying AEOs of the respective countries of an MRA. A high level of detail is required in demonstrating the equivalence of respective AEO programmes and the benefits to be granted to AEO certified traders, as clearly suggested by the fact that most MRAs can take several years to conclude satisfactorily.

Lastly, Box 16 contains a summary of the typical MRA preparation and negotiation challenges, as observed by customs administrations across the globe⁹⁶.

Box 16: Summary of AEO MRA challenges (CBRA analysis)

- **No standardized approach**
- **Different benefits**
- **Limited time and resources**
- **Different focus (security vs. revenue collection)**
- **Different ways of accreditation of AEOs**
- **Different requirements for AEO data exchange**

3.1.3 MRA benefits to business

Within the SAFE Framework, an MRA should as a minimum provide⁹⁷:

- mutual recognition of AEO status;
- mutual recognition of digital certificates, allowing the economic operator to submit all electronic messages to those Customs administrations having agreed to recognize this certificate; and
- joint targeting and screening, the use of standardized sets of targeting criteria, and compatible communication and/or information exchange mechanisms.

Put simply, a Mutual Recognition Agreement should in principle deliver the same benefits for businesses in one country as are given to the businesses in another when trading between the two countries or regions party to the MRA. The reality is, however, more complicated.

⁹⁶ Hintsa J. CBRA unpublished Working Paper Nr. 2013 – analysis based on WCO Korea AEO 2012 conference presentations.

⁹⁷ SAFE: Framework of Standards to secure and facilitate global trade, 2012; p33-34., para.7; World Customs Organisation



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As we have seen in Chapter 2 referring to the benefits of AEO, it is not always quantifiable as to what precisely those benefits deliver, or indeed whether the benefits outweigh the costs of applying for and maintaining an AEO status. Therefore the benefits of MRAs may also appear theoretical to many observers, especially to businesses. Indeed, the survey of AEOs and non-AEOs presented by the delegates of Korea and China to the WCO SAFE Working Group (17 September 2013)⁹⁸ suggested that only 60 percent of AEOs asked believed they understood the concept of an MRA; 44 percent were only partially aware; and 36 percent of non-AEOs asked were not aware of the MRA concept. In the same study, it was found that expectations of faster clearance with an AEO Mutual Recognition Agreement (MRA) signatory country were higher than that which was perceived to be the reality: 43 percent could not explain the difference; 13 percent blamed the fact that their business partner was not an AEO; 13 percent said the clearance rates were already good; and 8 percent said the difference in clearance time after becoming an AEO was not significant.

In theory, AEOs of one party to an MRA will gain priority for their freight exports over others at the point of import. This is because their freight represents a lower security risk by virtue of the fact that AEOs or recognised equivalents have maintained the integrity of the freight through the supply chain. Such priority may manifest itself in the form of a fast track through customs border controls, with fewer inspections required. This is helpful for those businesses that recognise great value in a reliable supply chain, with shorter lead times - a value that arguably may well exceed the costs of compliance with AEO rules.

As indicated earlier in this report, however, it is important to note that the benefits of an MRA for an AEO will not extend to any right for the AEO branches in an MRA signatory country to be given automatic AEO certification; neither should an AEO assume that other border agencies will not intervene at the point of importation into the MRA signatory country (despite the best efforts of some to establish multi-agency collaboration and co-operation), or that an export declaration will necessarily be accepted as an import declaration. Much therefore depends on the particulars of an MRA.

The same can be said in other areas also. For example, there are some benefits given to AEOs which may relate to fiscal benefits (e.g. waivers on duty guarantees)⁹⁹. However, these benefits cannot always be transferred to businesses which are not established within the country or economic area in which such fiscal benefits are given.

Furthermore, some benefits may be given to AEOs in the form of customs simplifications (e.g. less information needed in the export/import declarations). This, however, will depend very much on the availability and transferability (sharing) of all relevant data to use in a risk assessment and on a reciprocal acceptance of a reduced data set by the other party to an MRA. Therefore the primary benefits given to industry relate more to the priority at the point of import/export given to AEO freight over non-AEO freight.

⁹⁸ Research survey on the perception of AEO and non AEOs with regard to the benefits granted, including those provided by MRA - Final Report (Draft): Korea AEO Association (KAA), Korea Customs & Trade Development Institute (KCTDI), KCingle-CUPIA, September 2013. Presented to the WCO SAFE Working Group, Brussels, 17th September 2013: MUTUAL RECOGNITION AGREEMENTS (MRAs) ON AUTHORIZED ECONOMIC OPERATORS (AEOs) : REPORT BY THE DELEGATES OF KOREA AND CHINA ON THE RESULTS OF THE STUDY ON THE ECONOMIC IMPACT OF MRAs ON AEOs.

⁹⁹ Note the benefits given to AEO importers and exporters in Thailand which relate to fiscal incentives and expedited handling of claims for duty drawback and compensation etc.)



The costs associated with becoming an AEO could be put forward as a reason why many companies do not apply for the status. The Transported Asset Protection Association (TAPA) suggested¹⁰⁰ that 80-90% of the security questionnaires issued out to AEO applicants under the different AEO programmes around the world are asking for the same information. Therefore it would be hugely advantageous for all countries concerned to enter into MRAs with each other and remove much of this duplication for those companies seeking to benefit from an AEO status in multiple countries, and help remove a significant cost barrier. Common standards among AEO programs will also aid companies operating internationally in conducting and documenting their security self-assessments.

There are commercial benefits, however, to MRAs for businesses. Since the MRA was established between the EU and USA, there has been anecdotal evidence¹⁰¹ that many more EU companies are being required to become AEOs in order to be considered for contracts with US companies that are C-TPAT certified. The US companies are seeking to benefit from the same benefits as EU AEOs, and to ensure that freight from Europe also benefits from the benefits given to C-TPAT companies.

3.1.4 MRA benefits to Customs

The benefits for the governmental parties to an MRA should not be overlooked either. Within a MRA there is a requirement for a greater degree of harmonisation in approach to security assessment, AEO authorisations and validations, data protection and management, and so forth. The more MRAs which are established, the more opportunity there is of standardisation which should make future MRAs easier to conclude, help in maintaining compliance and help to make the management of security risks more cost effective.

The CBP in the US suggests¹⁰² they benefit from MRA's through improved efficiency, not incurring the expense or strain on human resources of sending their own officers overseas to validate the premises of companies wishing to benefit from accreditation under the C-TPAT programme. Additionally there is a saving from revalidations of overseas companies, now conducted by the partner authority in the MRA. With more freight entering the country from AEOs within an MRA, representing a lower risk score, fewer inspections will be required by customs officers, thereby potentially freeing up resources to focus on higher risk freight or other activities.

Finally, closer collaboration among and between customs administrations and their AEOs should lead to more transparency in international commerce. Information exchanged between them should help to expedite and facilitate international trade, benefiting the economies of those countries concerned.

¹⁰⁰Standardised approach to AEO is important: Jason Teo, TAPA ASIA Chairman and Senior Director Business Continuity - Infineon Technologies Asia Pacific Pte Ltd, WCO Global AEO conference, 17-19 April 2012, South Korea

¹⁰¹ The AEO People: US-UK Mutual recognition Kicking-in?: Linked In, July 2013 <http://www.linkedin.com/groups/AEO-People-4549579>

¹⁰² C-TPAT, Mutual Recognition Arrangements, Frequently Asked Questions (FAQs): CBP, May 2013



3.1.5 Expectation Management of AEOs within MRAs

Some AEO applicants may have expectations of benefits arising from MRAs that are possibly misplaced or exaggerated. Some of these are identified below.

a) Automatic authorisation in third countries

There is sometimes the expectation by multi-national businesses that if a trusted trader has an AEO status in one country then that status is automatically transferred to other parts of the business in another country, where an MRA exists. The survey of AEOs by the KAA et al. (2013) revealed that many (84 percent) believe, for example, they should be exempt from audits by customs authorities of an MRA signatory country to determine whether they satisfy the business partner standards or not. The difficulty with this perception essentially rests with one of the initial requirements for gaining AEO status: being a distinct legal entity. Those companies with an AEO status in one country are invariably separate legal entities as defined by the rules of the countries concerned.

Additionally, the SAFE Framework to which the security and customs controls align, stipulate the need for customs checks to be made during the audit and authorisation process. This is going to be difficult for customs officials in one country to perform in another, while adding to the burdens on the AEO. Therefore the AEO status can only be given to a legal entity in the country of application and is non-transferable; however, some of the benefits can be transferred, depending on the MRA that exists between the countries concerned.

It should be made clear to businesses that a MRA is the recognition of another country's AEO programme and that it is equivalent to their own. It does not transfer the right to be automatically accepted as an AEO in another country that is party to the MRA.

b) Entity-based - multi-agency risk assessment

Aside from circumstances where there is specific intelligence to necessitate customs or other agencies intervening a consignment, AEO traders should be aware that some consignments may attract more scrutiny than others without clear reason.

Given that inspection and audit rates are increasingly governed by the compliance history and AEO status of the trading entity concerned, it is somewhat surprising that some border controls may still focus on the risk posed by each individual transaction. Additionally, customs maintain the right to check for compliance, which may mean conducting spot checks on cargo consignments imported or exported. Traders should expect that some consignments may still be stopped for inspection and some may attract more scrutiny than others from customs officials, even though they are from and/or to an AEO.

In addition, due to the multiplicity of agencies involved in the control of trade into and out of a country or region, there are situations where separate control procedures may take place by non-customs officials (e.g. the police, health and food standards agencies etc.). Whilst the aim within the SAFE Framework is to enable information on a trader and their consignments to be shared between different agencies as well as other customs administrations, including their risk profile, this is still seldom the reality. The SAFE Framework states



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that "Governments should develop cooperative arrangements and protocols among their agencies that are involved in international trade and security."¹⁰³ From a business perspective, the different approaches to border control and management should be bridged, and preferably one agency chosen to lead or coordinate this effort.

c) Export declarations used as import declarations

There is every chance that the export declaration may be used as the import declaration for AEO traders and their freight. This is dependent on their being mutual recognition of customs controls and their results. It should, however, be recognised that mutual recognition of controls is not easy to achieve. Therefore reciprocal benefits from an MRA may be limited to reduced levels of control and priority treatment of AEO freight on entry (import). This will undoubtedly be advantageous for the companies concerned who might generate more business as a result of their increased reliability as a consequence.

However, benefits such as simplified customs procedures can only be granted on a reciprocal basis if the same simplifications are provided for by both parties' customs regulations. For example, offering a reduced data set for exit and entry summary declarations offered to EU AEO traders under EU simplified procedures would not be available if not also provided for in the third country.

¹⁰³ SAFE: Framework of Standards to secure and facilitate global trade, 2012; p31., para.5.1.; World Customs Organisation



3.1.6 Interview with DG TAXUD on AEO MRAs

Last in this sub-chapter – but definitely not least – are the outcomes of a phone interview between the author of this report and the European Commission Directorate General of Customs and Taxation, DG TAXUD; and their AEO specialists (Table 13 below).¹⁰⁴

Table 13: Phone interview with DG TAXUD on AEO MRAs

Questions by Dr. Hintsa	Answers by DG TAXUD AEO specialists
Q1. Countries in the context of your administration and AEO MRA. Which countries has your administration signed an AEO MRA, and how long did the process take per country?	Japan, US, Norway, Switzerland, and Andorra. MRA process duration varies a lot, depending on the circumstances. Minimum duration has been 2 years. Process is much smoother when dealing with countries who have concluded at least one MRA.
Which countries are currently under negotiation?	China
Which countries are in the planning pipeline for the future?	Canada, New Zealand, Singapore, and Korea.
Q2. AEO MRA agreement documents Can you share any completed and/or draft AEO MRA documents?	Yes, US & Japan are “decisions”, available in Official Journal. EU-US: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:144:0044:0047:EN:PDF EU-Japan: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:279:0071:0073:EN:PDF Switzerland, Norway and Andorra are “agreements” (“common security space agreements”), also available in Official Journal.
Q3. What do you consider as the main steps for AEO MRA negotiation process? Which are the most important steps?	From EU perspective, the negotiation as such is institutionalized, i.e. specific procedures embedded in EU treaties have to be followed (the provisions that govern external trade policy; the Commission leads negotiations, based on a mandate and through regularly keeping Member States informed through the relevant Council working groups). It is a good idea to prepare a common Roadmap between the two parties in the beginning of the MRA initiative. First there needs to be a comparison of the legal provisions (desk top review) as we have to ensure that the two AEO programs are harmonized and compatible. Second, we need to study the practical implementation, requiring joint validation visits by both parties. Third comes the actual negotiation process.

¹⁰⁴ Phone interview between EC DG TAXUD – Ms. Suzanne Stauffer, Ms. Hajnalka Abraham and Mr Gaetano Sassone - and Dr. Juha Hintsa. Wednesday 16.1.2013 at 3.30pm to 4.40pm Thai time.



	<p>Afterwards one needs also to monitor how the agreement is being implemented by the other party (usually “living documents”).</p> <p>Data exchange and data protection are usually an issue, time consuming – thus one should start exploring and discussing data aspects as early as possible.</p> <p>In data exchange we try to gradually move from manual solutions to automation solutions, as much as possible.</p>
<p>Q4. What do you see as the top challenges / problems during the AEO MRA negotiation process? For the most relevant three challenges, can you also indicate what to do about them?</p>	<p>Biggest challenge is to have automated data exchange. A global trader identifier will be crucial to achieve this. We are analyzing and comparing legal background of partnership program. In one country could be only manufacturer, other whole supply chain. Then benefit differences can make it difficult.</p> <p>Future: Issues related to international standards. We hope that in the future there is success in global identification number. And we hope that programs are harmonized. We also hope that the MRA process will be standardized.</p>
<p>Q5. What explicit recommendations would you give to Customs administrations new to the AEO MRA process? In particular for them to achieve their targeted AEO MRAs with a minimum lead time</p>	<p>Gain first practical experience with your AEO-program.</p> <p>Learn actively from experiences by others.</p> <p>Study AEO guidelines and MRA guidelines by WCO.</p> <p>Study EU AEO guidelines, as they are based on multi-year practical experiences with 13.000 companies.</p> <p>Study AEO-program of the counterpart country.</p>
<p>Q6. What is the position of your administration when it comes to benefits provided to businesses importing and exporting within the AEO MRA context? Do you have any anecdotes, case studies or statistics to back up such views?</p>	<p>Direct benefits: Lowering risk scores is in the core of AEO MRA agreements/arrangements – would be impossible to consider a MRA without this. (but, lower risk score is not directly visible to operators)</p> <p>Indirect benefits: They relate to Economic operator known as a “secure partner”.</p> <p>Work-in-process: Looking at other policy areas including civil aviation, dual use and fishery, where similar concepts of “trusted traders” exist, with the intent avoid duplication of administrative efforts and to synchronize with AEO, to coordinate company audits, shipment inspections etc. (case: one operator was visited by various authorities 72 times during one year). WCO and ICAO also doing this – customs versus aviation – in an expert group.</p> <p>Option in the future: to rename “benefits” as “incentives”.</p>
<p>Q7. Are you familiar with the WCO guidelines on the AEO MRA process (as part of the SAFE package)?</p>	<p>We think that it is an important tool, it is to make everything easier. We were active in the process of producing the document. It is a living document and it will be revised based on experience.</p>
<p>Q8. ADDITIONAL QUESTIONS TO TAXUD ON 16.1.2013 Who signs AEO MRAs in EU?</p>	<p>Director General of EC DG TAXUD</p>
<p>Are TAXUD MRAs exclusive on AEO-Security and Safety (or is AEO-Customs simplifications also somehow included)?</p>	<p>Following are covered: AEOS (Security and Safety), and AEOF (Customs Simplifications and Security and Safety)</p>
<p>Does TAXUD differentiate on the details of security requirements per type of actor in the supply chain?</p>	<p>We don’t differentiate per actor (per se). But, there are some security criteria which do not apply to all actors. There is a table in the AEO Guidelines indicating these, per: manufacturer, exporter, freight forwarder,</p>



	warehouse keeper, customs agent, carrier, importer and others. In addition, for Small and Medium sized Enterprises (SMEs), the fulfillment criteria can be different.
What if a 3rd country has an “export only” or “import only” AEO program – does this influence (a priori) the MRA negotiation process?	No
Is TAXUD aware of any cases where a national AEO program (and operator status) would be somehow recognized by another government agency?	Yes (e.g. civil aviation in EU).
Has TAXUD done any analysis to the details of differences in security requirements of various AEO programs? Or, can you please provide pointers to any analysis you are aware of?	Legal desktop reviews have been done. These documents are confidential.
What kind of “check-lists” do AEO validators / inspectors / auditors use in EU Member States?	AEO Guidelines and Company self-assessment documents.
How many people work in AEO at DG TAXUD?	Five
What about EU wide?	Difficult to estimate, varies a lot per country (some Member States may have 5000 AEO companies, looked after by 100 AEO officers).



3.1.7 Some EU documentation on existing EU AEO MRAs

The following Table 14 provides hyper-links to nine documents relating to EU MRA's with Switzerland, Norway, Japan and the USA. These may be of use especially for new parties to MRA preparations and negotiations. The documents vary from press releases to actual decision and agreement documents.

Table 14: Samples of EU documentation on existing MRAs¹⁰⁵

Document description	Source URL
AGREEMENT between the European Community and the Swiss Confederation on the simplification of inspections and formalities in respect of the carriage of goods and on customs security measures	http://ec.europa.eu/world/agreements/prepareCreateTreatiesWorkspace/treatiesGeneralData.do?step=0&redirect=true&treatyId=7783
EU – Norway DECISION OF THE EEA JOINT COMMITTEE No 76/2009 of 30 June 2009 amending Protocol 10 on simplification of inspections and formalities in respect of carriage of goods and Protocol 37 containing the list provided for in Article 101	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:232:0040:0051:EN:PDF
DECISION No 1/2010 OF THE JOINT CUSTOMS COOPERATION COMMITTEE of 24 June 2010 pursuant to Article 21 of the Agreement between the European Community and the Government of Japan on Cooperation and Mutual Administrative Assistance in Customs Matters regarding mutual recognition of Authorised Economic Operators programmes in the European Union and in Japan	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:279:0071:0073:EN:PDF
Press release. Brussels, 16 May 2011 European Commission Taxation and Customs Union Mutual Recognition of Authorised Economic Operators between the EU and Japan	http://ec.europa.eu/taxation_customs/resources/documents/customs/policy_issues/customs_security/pr_eu_japan.pdf
Brussels, 19.2.2010 COM(2010)55 final 2010/0037 (NLE) Proposal for a COUNCIL DECISION on a Union position within the EU-Japan Joint Customs Cooperation Committee concerning the mutual recognition of Authorised Economic Operator programmes in the European Union and in Japan	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010PC0055R%2801%29:EN:NOT
ACTS ADOPTED BY BODIES CREATED BY INTERNATIONAL AGREEMENTS DECISION OF THE US-EU JOINT CUSTOMS COOPERATION COMMITTEE of 4 May 2012 regarding mutual recognition of the Customs-Trade Partnership Against Terrorism program in the United States and the Authorised Economic Operators programme of the European Union	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:144:0044:0047:EN:PDF
52011PC0937 /* COM/2011/0937 final - 2011/0463 (NLE) */ Proposal for a COUNCIL DECISION on a Union position within the EU-U.S. Joint Customs Cooperation Committee regarding mutual recognition of the Authorised Economic Operator Programme of the European Union and the Customs-Trade Partnership Against Terrorism Program of the United States	http://new.eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52011PC0937
Press release. Brussels, 27 March 2008 U.S. Customs and Border Protection and European Commission adopt the joint roadmap towards mutual recognition trade partnership programs	http://ec.europa.eu/taxation_customs/resources/documents/common/whats_new/ec-us_joint_roadmap_en.pdf
Abridged External Partner Version of the U.S.- EU Joint Customs Cooperation Committee Roadmap Towards Mutual Recognition of Trade Partnership Programs January 2009	http://ec.europa.eu/taxation_customs/resources/documents/customs/policy_issues/customs_security/roadmap_abridged_en.pdf

¹⁰⁵ Accessed on 30 October 2013.



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Lastly, the Table 15 below illustrates the core content in terms of document sections and articles of one AEO MRA document: “EU – Norway DECISION OF THE EEA JOINT COMMITTEE No 76/2009 of 30 June 2009 amending Protocol 10 on simplification of inspections and formalities in respect of carriage of goods and Protocol 37 containing the list provided for in Article 101.”¹⁰⁶

Table 15: Main sections and articles on EU – Norway AEO MRA documentation

Document section	Article
Definitions	Article 9a
General provisions on security	Article 9b
Pre-arrival and pre-departure declarations	Article 9c
Authorised economic operator	Article 9d
Security related customs controls and security risk management	Article 9e
Monitoring of the implementation of customs security measures	Article 9f
Protection of professional secrecy and of personal data	Article 9g
Evolution of legislation	Article 9h
Safeguard measures and suspension of the provisions of this Chapter	Article 9i
Prohibitions or restrictions on imports, exports or goods in transit	Article 9j
The competences of the EFTA Surveillance Authority	Article 9k

3.1.8 Quo Vadis, AEOs and MRAs?

Finally, it is apt to conclude this section of the report by asking a few questions concerning the future direction of AEOs and MRAs, and what the likely benefits will ultimately be. The author of this report had an opportunity to interview two well-known experts, Professor Yao-hua Tan of Delft Technical University in the Netherlands, and Mr. Bryce Blegen, an acknowledged international trade, customs compliance and supply chain security consultant in the US, seeking their opinions on these questions.

First, the interview with Professor Yao-hua Tan is presented in the Box 17 below, as a forward looking scenario reflecting the potential benefits for Thai food exporters into EU - after (i) EU-Thai MRA is in place, and after (ii) the Dutch Food inspection agency co-operates with Dutch customs “under a common AEO-umbrella” – and this is facilitated by innovative data pipeline concepts and implementations, such as were studied and proposed by the study FP-CASSANDRA¹⁰⁷.

Box 17: Interview with Professor Yao-hua Tan on future AEO and MRA benefits

Professor Yao-hua Tan from Delft Technical University shared some ideas on how Thai exporters could benefit from an AEO certification, combined with a Thai-EU Mutual Recognition Agreement (MRA): “Say that your company works in food export of for example rice or shrimps, by maritime modality. Exports enter European Union through the Port of Rotterdam in the Netherlands, after which they will be in free circulation for the whole Union area. Next

¹⁰⁶ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:232:0040:0051:EN:PDF> (accessed on 30.10.2013)

¹⁰⁷ Source: Prof. Yao-hua Tan, TU Delft, interview on 27.11.2012 ; Dr. Hintsa presented first time verbally at RTC AEO hearing event on 28 November 2012, as “combined AEO & MRA benefit”. More information on FP7-CASSANDRA, including a visualization of the data pipeline, can be found on Annex 19 of this report.



to the Dutch Customs administration, the Dutch Food Inspection agency is involved in the import process. In today's situation the two administrations are not fully coordinated, and thus it can take an extra 60-70 hours with food inspections after customs has cleared a shipment."

How could the situation look like in the future? **Professor Tan** explains that "If the Thai exporter is AEO and EU importer is AEO and transport operators and customs brokers are AEO – and, Thailand and EU have a MRA in place - then, Dutch authorities know in advance who is shipping; they can trust the operators; they can rely on the data quality; they know that shipment was secured during transport; and, very importantly, they can perform risk analysis well in advance. This means ultimately that Dutch Customs and Food Inspection agency can coordinate their interventions. Eventually, concrete benefits come to the integrated AEO-MRA supply chain, in terms of fast and predictable flow of goods (at the importing end). There is also a competitive advantage for the Thai exporter and Thai customs broker alike, which is good for their market reputation".

And finally, "for practical facilitation of such processes, European research and development project FP7-CASSANDRA – with an innovative data pipeline concept and pilot implementation – can play an important role in the future", according to **Professor Tan**.

For readers interested to know more about practical food import procedures into EU, please visit Annex 11 diagram on the regulatory complexities and challenges by Dr. Andrew Grainger.¹⁰⁸

The interview with Mr. Bryce Blegen on the future visions of AEOs and MRAs, is presented in the Box 18 below.

Box 18: Interview with Mr. Bryce Blegen on the future visions of AEOs and MRAs

Mr. Blegen, according to your experiences and views, where is the world of AEOs heading to? "The AEO concept has evolved from a program focused primarily on minimizing the risk of terrorist intervention in the international supply chain to one which has become both the key factor in border agencies' assessment of a much broader range of risks in the supply chain as well as what is increasingly a platform for close communication and collaboration between traders and government border authorities on issues from security to trade facilitation. Government agencies have found such programs to be an effective tool in fulfilling their mission of risk management, but the success of AEO programs over the long term will be dependent on ensuring that they remain relevant to the interests of the business community—they must provide continuing and real benefits to traders."

Mr. Blegen, what about the world of AEO-MRAs? "Mutual recognition started out relatively slowly, at least from a practical standpoint, because it required national border administrations to become familiar with, and to trust, the operations of their colleagues in MRA partner countries. Practical roadblocks related to IT systems and variations in national identification standards initially prevented any real benefits to traders. This situation is evolving rapidly, and the efforts of the EU, the US, Japan, and others to provide consignment-level differentiated risk treatment for shipments from AEOs could lead to substantially quicker clearances for consignments identified as traveling in an AEO-to-AEO MRA environment versus those which are not. This could be a real game-changer in terms of business benefits, and incentivize traders to join AEO programs which have MRA status with key trading partner countries."

Lastly, Mr. Blegen, what will really be different say five years from now, when it comes to cargo owners and logistics sector operating in global supply chains, under the 'AEO-MRA umbrella(s)' "Up to now, efforts to attract companies to volunteer for AEO programs have been focused primarily on large companies, often multinationals, with the internal resources to meet AEO application requirements and monitor continuing compliance with them. At the same time, the focus of many national programs, and of MRA discussions, has been exclusively on the consignor and the consignee, who receive the MRA benefits, and not on the large network of freight and border-related service providers which control the supply chain between origin and destination. This situation has largely

¹⁰⁸ Grainger, Andrew (2013) Trade and customs procedures: the compliance costs for UK meat imports: a case study. Technical Report. Nottingham University Business School, Nottingham. (Unpublished)



ignored, indeed shuts out, the small- and medium-sized enterprise, SME -- these are by and large known, trustworthy companies which may trade relatively infrequently but comprise, in the aggregate, a significant factor in international trade. As the efforts of the International Civil Aviation Organisation, ICAO, to secure the air cargo supply chain have shown, an integrated supply chain security concept which recognizes that while SMEs may not themselves be able to invest the resources to achieve and maintain an AEO certification, their service providers can, needs to develop and be sanctioned in MRAs. By taking advantage of a secure, service-provider based supply chain (certified under AEO), the SME consignments should also be entitled to low-risk status in an MRA environment. Over the next five years, it is likely that this concept will be implemented, with the result that AEO status becomes a competitive requirement for any trade- or freight-related service provider, and secure consignment status for known SMEs will become the norm. At the same time, it is to be hoped that AEO programs under the SAFE Framework, air cargo security programs under ICAO, and the trade-related security programs of food and phytosanitary agencies evolve to eliminate duplication and the associated burden on business, so that certification under one program can lead to credit under parallel programs of other government agencies.”

3.2 Preparing an AEO MRA Roadmap between EU and RTC

3.2.1 WCO generic guidance

The WCO provides guidance¹⁰⁹ for creating a MRA between two or more countries with AEO programmes in place:

1. The partners need to be committed to building a co-operative partnership.
2. Prospective partners are signatory to the SAFE Framework with intent to implement both pillars and have a Customs-to-Business programme along with the following elements of the Customs-to-Customs pillar :
 - a. A system of automated risk management.
 - b. Ability to receive advance electronic information on cargo for risk analysis screening purposes.
 - c. Ability to examine high risk cargo using modern technology before loading for export.
 - d. Willingness to agree to conduct pre-load examinations upon reasonable request from the other partner(s).
 - e. Legal ability, willingness and capacity to share information on risk.
3. The partners have an agreed set of common standards that include clear and objective “action” provisions for both Customs and AEOs.
4. AEO Programmes are transparent and well published.
5. Standards are applied in a uniform manner so that one Customs administration may have confidence in the authorization of another.
6. Understanding of a partner country's actual clearance procedures, cargo control environment, etc.
7. Legislation to enable mutual recognition is in place and published.
8. Data security and data protection provisions should be compatible.

¹⁰⁹ Guidelines for developing a mutual recognition arrangement/agreement, WCO, 2011



The Royal Thai Customs, RTC, appear already to demonstrate compliance with the first two bullet points (i.e. commitment to an MRA and following the 5 elements of the customs-to-customs pillar).

The remaining requirements (bullets 3 to 8) for establishing an MRA, according to the WCO guidelines, are best covered through the key steps in an MRA negotiation process. Chapter 3 of this report highlighted these key steps, but they can be aggregated into the following stages:

1. The comparisons between the AEO programmes (including visits to AEO authorisation offices and sample companies that are being or have been audited).
2. Joint validations (and understanding the gaps between the validation process and requirements, and seeking solutions to fill them).
3. The establishment of a legal framework for the MRA.
4. Concluding the MRA (negotiations) and signing.
5. Putting the MRA into practice (operational procedures, monitoring and reviews).

The remainder of this chapter deals with each of the above five elements of the roadmap towards an MRA between RTC and EU AEO programmes.

3.2.2 The comparisons between EU and Thai AEO programmes

This involves:

- a) Comparing the legislation,
- b) Comparing the conditions and requirements for authorisation,
- c) Comparing the authorisation process,
- d) Comparing the monitoring, revocation and suspension processes, and
- e) Comparing the benefits.

Dealing with each in turn, drawing on the analyses undertaken in previous chapters of this report, we identify areas that might require attention in order to ensure progress can be swiftly made towards establishing the legal framework for the MRA, concluding and signing it.¹¹⁰

a) Legislative comparisons

The WCO SAFE Framework was adopted by the European Council in 2005. The concept of AEO was introduced as one of the main elements of the security amendment of the Community Customs Code (CCC)¹¹¹. The

¹¹⁰ For readers interested in more detailed analysis, Annex 1 of this report contains a multi-page comparison table between EU AEO and RTC AEO, with following five columns: (i) Analysis section; (ii) EU; (iii) Thailand; (iv) Comments; and (v) Possible gaps.

¹¹¹ 648/2005 of the European Parliament and of the Council of 13 April 2005 amending Council Regulation (EEC) no 2913/92 establishing the Community Customs Code



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detailed provisions are laid down in the amendment of the Community Customs Code Implementing Provisions (CCIP)¹¹² (see Chapter 2 of this report for further details).

The Thai Government adopted the WCO SAFE Framework in 2006 and incorporated it into the Customs Strategic Plan. The first two AEOs were verified in 2010 following a pilot phase. The Customs Department prescribed the criteria and conditions for achieving an AEO status for exporters through Section 3 of the Customs Act B.E. 2469 (1926), as notified under Customs Notification No.40/2554, dated 31st May 2011. Importers and customs brokers were included in the AEO programme in February 2013 through Customs notifications 12/2556 and 13/2556 respectively, so helping to facilitate future MRAs with other countries. Customs Notification No.40 B.E.2554 (2011) was repealed by the Customs Notifications 12/2556 in February 2013, along with the 'Gold Card Privilege scheme' for exporters and the Licensed Customs Broker Scheme by 1st October 2013. The EU prefers to establish legally binding MRAs established with partner countries and the Joint Customs Co-operation Committee¹¹³, under Customs Co-operation Agreements¹¹⁴. The latter covers data protection agreements. The fact that EU security legislation is covered within the Customs Code and Implementing Provisions enables MRAs to contain legally binding reciprocal arrangements and mutual recognition of security standards, control results and AEO concepts. Nevertheless, political (including specific risks and threats) and economic considerations will influence the nature and scope of any such agreements.

Thus, it is recommended that RTC establishes a legal framework for a legally binding MRA with the EU¹¹⁵.

b) A Comparison of Security and Customs Requirements

It is important to have a well-established AEO programme before embarking on any MRA with a third country or group of countries: "Gradually Mutual recognition programmes are coming on stream but it should be recognized that a fully-fledged AEO programme, not a pilot, needs to be in place before Mutual Recognition can be considered"¹¹⁶

That being the case with both the EU and Thailand, a comparison between the EU AEO programme requirements and those of the Thai AEO programme nevertheless represents a challenge. One of the most striking differences is not so much in the differences in the respective programme requirements, but in the amount of supporting guidance: the EU AEO programme contains far more in this respect.

¹¹² Commission Regulation (EC) No 1875/2006 of 18 December 2006 amending Regulation (EEC) No 2454/93 laying down provisions for the implementation of Council Regulation (EEC) No 2913/92 establishing the Community Customs Code

¹¹³ Each MRA establishes a Joint Customs Co-operation Committee (JCCC) consisting of representatives of customs authorities of the Contracting Parties. The JCCC manages and oversees the MRA implementation and can make changes or new recommendations to strengthen the MRA

¹¹⁴ Mutual recognition of Authorised Economic Operators and security measures: Susanne Aigner, Acting Head of Unit Risk Management and Security, DG TAXUD; World Customs Journal, 2009, Volume 4, No 1

¹¹⁵ Such a legal basis for MRAs would be useful prior to conducting MRAs with other countries: at the time of writing the RTC was considering entering into MRA negotiations with Japan and South Korea.

¹¹⁶ AEO Implementation Guidance: How to develop an AEO Programme, May 2010, World Customs Organisation



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The translated attachment of the Customs Notification No. 12 /2556: *Security Measure for the Entrepreneur in Compliance with the Standard of Authorized Economic Operator: AEO* (on which much of the analysis has been based) is for guidance only and is clearly influenced by the guidelines provided by the WCO. Given that the WCO guidelines have been influenced by and follow much of that which has been developed under the EU AEO programme, it should be of little surprise to find the two programmes, Thai and EU, do not differ substantially. The EU AEO programme contains, however, significantly more guidance and suggested measures to secure the supply chain. This reflects the fact that EU customs authorities are catering for a very wide range of businesses, environments and circumstances in which companies find themselves, and the very broad and different levels of risks and threats which they consequently face. It is also reflective of the longer and wider experience of the EU in the development of its AEO programme since the events of 9/11 and having had four years to assess a fully-fledged AEO programme (since 2008) and make refinements to it. It has found that what fits for one company does not necessarily fit for another, and the provision of guidance is the best way to cover security and safety measures under as many different circumstances as possible.

The EU AEO programme is also divided into two parallel programmes: one for customs control purposes - protecting customs' revenue, while offering various customs facilitation and simplifications (AEOC); the other for security and safety - protecting the business and society from crime while offering trade facilitation benefits (AEOS). The AEO applicant can apply for both programmes combining them into a single customs and security AEO approval (AEOF). In the context of MRAs, only AEOS and AEOF apply.

The Thai AEO programme, on the other hand, does not offer separately a customs facilitation programme and a security programme, but combines them into a single AEO programme¹¹⁷.

A MRA negotiation between Thailand and the EU might run more smoothly and speedily if there are fewer gaps and grey areas, and clarity in the programmes being compared for compatibility. Therefore the primary suggestion made in this analysis for the Thai AEO programme is to develop further, more detailed guidance on what would be recognised as appropriate security measures to counter and combat different risks and threats.

Additionally, it would be useful to the MRA process to demonstrate clearly how customs declarations enable the capture and validation of AEOs used in the supply chain, and then give favourable treatment to them as defined in the AEO programme and MRA: this being an area which the WCO points to as being a potential bottleneck within MRA negotiations.

The specific gaps identified by the analysis undertaken for this report are few and seemingly minor, which either means the two programmes are very much aligned or the devil is in the detail (i.e. the gaps may only become clearer with more detail becoming known of the requirements - under the Thai AEO programme in particular). Nevertheless, of those gaps identified, the following might be given particular attention:

¹¹⁷ In theory, this could make comparison between programmes more difficult when it comes to negotiating an MRA and showing comparability of AEO programmes. However, the author of this report is of the opinion that this is not an important hurdle.



- Ensure AEOs recognise the importance of alerting the customs authority of Thailand to any issues of non-compliance with the requirements, or identification of new or enhanced risks and threats. Customs also could acknowledge that security compliance monitoring of AEOs should not be left solely to a once every three years review process. To this end, it is recommended to put in place, or make them clearer, processes and procedures for identifying and alerting customs officials to potential non-compliance with the programme requirements and for a clearer exposition of how RTC regularly monitor and review AEOs
- IT, data and document security procedures and measures should be given more attention, especially as this is a growing area of international concern in terms of security and the prevention of crime, and becoming a critical feature of the modus operandi for criminals successfully carrying out theft, fraud, trafficking, counterfeiting, or exploiting a supply chain for some other illicit gain or action (e.g. act of terrorism). This also applies to customs held data: systems and procedures should be identified that are in place and being regularly reviewed, that will give confidence to other customs administrations that any data they share under a MRA will be protected from unauthorised access¹¹⁸ (It would be good to provide more info on the EU's requirements for data protection/ operators' consent for exchanging data seems to be one of the main issues for the MRA process).
- The use of employment agencies and agency workers and sub-contractors represents a particular risk to any supply chain; therefore more guidance could be provided to AEOs in how to reduce the risks in such cases.

Other gaps are identified in the **Comparison of EU and Thai AEO Programmes** attached as Annex 1 to this report. The table focuses on key requirements of the respective programmes, provides some observations and suggested areas on which the RTC might wish to consider further as part of its roadmap towards a possible MRA with the EU.

Nevertheless, it is worth drawing out one further issue arising from this analysis which might positively influence the smooth negotiation of an EU-Thailand MRA: Every economic operator in or outside the EU which is involved in international trade to or from the EU, lodging customs declarations, Entry or Exit Summary Declarations, must have an Economic Operator Registration and Identification (EORI) number. This comprises a 2-digit country identifier (e.g. GB123456789000), a reference based on the company's existing VAT number (e.g. GB123456789000) and a 3-digit suffix (e.g. GB123456789000). The EU has been and remains a strong advocate of aligned references to economic operators worldwide in order that trade simplifications, facilitation and monitoring can become simpler and benefits of programmes such as those

¹¹⁸ Confidence in the security of data held by member states of the EU will also be required, but it should be noted that delivering such confidence could be more difficult, given that one is potentially dealing with 28 different customs administrations. Nevertheless, some confidence may be found in the fact that other countries, such as the USA, Japan, Switzerland, Norway and Andorra have already signed MRAs with the EU and must have confidence in the data protection issue in order to have satisfactorily concluded them. The fact also that the EU has uniform rules on such matters under the Community Customs Code (more recently recast under the Union Customs Code) and its Implementing Provisions will no doubt help in this regard. The AEO Network also provides access to AEO applications across the EU for all 28 member states' customs administrations, demonstrating the close uniformity and cooperation between them. The uniform implementation of the AEO requirements is monitored by the European Commission.



given to AEOs can be shared within MRAs. It is mandatory for any AEO and applicant to have an EORI. The EU argues that a global standard identifier would, for example, help identify those traders that were AEOs outside the EU to be more readily identified, more easily checked and verified, and more readily given appropriate benefits such as fast track importation procedures if an MRA existed between the EU and the AEO's country of authorisation. This author believes it could be worthwhile considering if the Thai AEO reference structure might (if not already) be aligned with that of the EORI and so help to remove one of the barriers to AEO benefits being readily offered to Thai AEO exporter companies trading with the EU.¹¹⁹

c) Comparing the Authorisation Processes

The initial risk assessment carried out on AEO applicants by the RTC should be clearly shown to be undertaken in a systematic way. This author recommends, if possible aligning the methodology with that of the EU's "AEO COMPACT MODEL FOR RISK ASSESSMENT"¹²⁰.

This pre-audit model can be summarised as follows:

- collating company information;
- collating the company compliance history;
- assessing the company accounting and logistical processes and procedures;
- assessing the financial solvency of the company; and
- assessing the safety and security requirements taken by the company.

A risk map should evolve which uses the information gathered, and is based on clear security and customs control objectives. The risks are identified using a simple matrix to show those areas of current status and practice that give rise to low, medium and high risk, and low, medium and high impact. Once the customs officials have undertaken this analysis, the applicant is then asked to comment and discuss the assessment in order to provide a cross check on the facts and issues used to make the assessment.

Thereafter, the model includes a final assessment to determine which risks are within acceptable boundaries, which require immediate attention by the applicant and which require a specialist third party to resolve (e.g. security guards), and which risks can and should be removed altogether with strict controls.

A decision then follows, depending on the outcome as to whether to accept or reject the application. If accepted, then an audit plan should be agreed with the applicant to validate the security measures described. [An example of such an approach was provided in Chapter 2 of this report, i.e. that followed by the Customs administration of The Netherlands].

d) Comparing the Monitoring, Revocation and Suspension Processes

The EU has a shared (secure) network whereby AEOs and their primary details and status are recorded and accessible to all EU member states. This places a strong requirement for updates and new applications to be

¹¹⁹ See Annex 12 for more information on the EU EORI number.

¹²⁰ See Annex 13 for a visual presentation of the EU risk assessment process.



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added or removed in timely fashion so that member states may carry out any necessary monitoring and reviews, and not be caught unaware about any changing or changed current status of an applicant or AEO.

Under a MRA regular updated information would be required to be shared between the EU and Thai customs authorities to ensure benefits only go to those that remain AEOs. This is an area which will require attention in the negotiation period, and in particular ensuring that the information exchanged remains secure and confidential only to the Thai and EU customs authorities and, unless concerning sensitive intelligence material, to the individual legal entities that the information pertains to.

The Thai system provides for review audits of AEOs every three years; the EU programme is less prescriptive about the frequency of reviews (given that there is no minimum period of validation for an AEO), suffice it to say that they should be undertaken regularly, and monitored continuously. The monitoring by the customs authority where the Permanent Business Establishment is situated (and the customs authority where other branches or customs activities may be undertaken) will look for any changes to the risk profiles of the AEO, any early warning signs arising from changes to the pattern or nature of the business, new security measures, new trading patterns etc. The AEO will be consulted if there is thought to be a need to reassess compliance with the AEO requirements. Care is also taken to ensure other governmental agencies are notified if the issues arising are thought likely to affect other compliance requirements beyond those of the AEO programme. This may be an area in which RTC might wish to examine their own processes for monitoring and reviewing AEOs, ahead of any MRA negotiations.

The fact that there are three EU AEO certifications (AEOC, AEOs and AEOF) potentially enables a suspension or revocation of the security certificates without affecting the AEOC certificate. Under the Thai system a failure to comply with a specific security requirement could remove the benefits from customs control simplifications and fast track decision-making with respect to customs procedures. It is not evident that this would represent an issue in an MRA negotiation, but differences of this kind could well be useful to consider in advance in order to avoid any potential bottlenecks in this area.

The comparison of revocation and suspension processes shows that the EU programme provides more details regarding such things as an appeals process and timeframes for the AEO to remedy any deficiencies which give rise to the need for a suspension of the status. Again it could be advisable to give further attention and detail on such matters ahead of a MRA negotiation in order to avoid any possibility of a barrier to negotiations. However, it is also a feature of MRAs that any signatory usually retains the right to suspend and revoke an AEO status and associated benefits from any company within their jurisdiction: but under a MRA the decision must be communicated in timely fashion to the other party (i.e. customs authority).

e) Comparing the Benefits

The Thai AEO programme appears to give most attention to benefits which simplify and reduce the costs of customs control procedures. Much print is given in the source documents¹²¹ to such benefits as those relating

¹²¹English translations of Customs Notification No.12 /2556, Re: Importer and Exporter in Compliance with the Standard of Authorized Economic Operator : AEO. and Customs Notification No.13 /2556, Re: Customs Broker in Compliance with the Standard of Authorized Economic Operator : AEO.



to clearance of goods in transit or transshipped cargo (e.g. not requiring a cash or security deposit), speeding up actions on duty compensation and duty drawback and reduced duty rates and permitting self-certification of production formulae. Whilst these and other such benefits as detailed in the Notice documents are welcomed by AEOs, it will be difficult to transfer these to EU AEOs: the most transferrable benefits will remain those of fast track importation (e.g. reduced intervention for screening and customs clearance).

It is clear from the previous analysis in this report that the 'fast track customs clearance' benefits to trade between the EU and Thai AEO programmes are comparable in many respects. Nevertheless there is a view that trade participating in AEO programmes around the world currently do not place as much value on some of these benefits as one might have expected. For example, fast track customs clearance is seemingly taken by many to be of a satisfactory speed for the majority of freight moving across borders (imports and exports) and therefore the 'fast track' for AEOs is often difficult to distinguish from the norm. Equally, given the propensity of many people to discount risk of delays following any possible or hypothetical security incidents in the future, the advantage of giving AEO freight priority clearance after such an event occurring is, in the experience of this author, usually given less value - until such an event actually transpires.

It is worthwhile, under the formulation of a MRA, for both sides to consider how best to measure the added speed of clearance under normal circumstances for AEOs compared with the rest, and to quantify the value for individual AEO applicants. It would also be valuable to explain how a coordinated approach to border controls and clearance among different government agencies is to be achieved, thereby reducing any duplicative procedures and requirements on the AEOs – as already indicated in Chapter 2 of this report - Opportunities for multi-agency recognition of AEO status.

It should also be explained clearly to AEO applicants that achieving the said status in Thailand will not result in automatic AEO status for company divisions, branches etc. in the EU. Under the rules of authorisation of AEOs, the status can only be given after an actual audit of a legal entity within the country of application.

3.2.3 Joint validations

Visits to Thailand by EU customs officials will be required, as will visits to the EU by the Thai Customs officials. Preparation for these visits is required and might include:

- Selecting the appropriate offices to visit and ensure the relevant personnel are available;
- Preparing for transparency of the processes and procedures (the application and authorisation processes and procedures, auditing, validation, monitoring and AEO status-refusal/removal processes and procedures, data requirements, storage, monitoring and data security, approval process for trade facilitation benefits and customs simplified procedures);
- Selecting sample companies to visit which are being audited (in order to show how an audit is carried out, in different conditions, for different types of business); and



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- Selecting companies to visit which are AEOs (in order to see what security measures they have in place and ensure they are being maintained, reviewed and improved as required; and to see the management structures, contingency plans etc.).

Visiting customs officials may wish to discuss issues with auditors and the customs personnel undertaking different activities; they may, for example, ask questions about any exemptions that are given and what the rules are that govern these.

The purpose of such visits is to build confidence that what is suggested on paper as being done (e.g. in communications, notices, guidance documents and by law) is actually being done. It will reveal possible differences between the Thai and EU AEO programmes, potential gaps that might stall the MRA, and enable face-to-face discussions to begin exploring suitable ways to reduce and remove those gaps. Such discussions may also reveal new best practices and provide a valuable learning opportunity for both the visiting and the host customs authorities.

3.2.4 The establishment of a legal framework for the MRA

As explained above, the EU prefers to establish legally binding MRAs. The WCO¹²² provides good guidance in relation to the elements that need to be included in order to ensure an effective legal framework exists in all the key areas:

- Provisions noting that the participants will accept the validation and approval status of their counterpart's AEO Programmes, while reserving the right to conduct risk assessment, up to and including targeted inspections, once the consignment is under their own control.
- An explicit reference to the fact that, because the programmes have been identified as compatible, companies within the counterpart's programme are to be considered as being of low risk.
- A reference to the agreed benefits that can be delivered to the AEOs covered by the MRA.
- A reference to the procedures to be followed if one MRA partner finds irregularities involving the AEOs of the other partner country's AEO Programme.
- An indication of the authority of one administration to unilaterally revoke and/or suspend the benefits of particular AEOs or all AEOs of the MRA partner pursuant to agreed procedures and with prompt communication to their counterpart.
- A reference to giving priority clearance to freight of an AEO within their counterpart's programme in the business/trade resumption following the disruption of trade flows.
- Text to show that relevant information will be shared with their counterpart on changes or evolution within their AEO Programme, or any significant related training activities.
- Text to detail how suspensions and revocations of AEOs by one partner administration performed in its own programme are communicated to the other partner to suspend the granting of mutual recognition benefits. This should be distinguished from unilateral suspensions.

¹²² Guidelines for developing a mutual recognition arrangement/agreement, WCO, 2011



- A reference to the exchange of supply chain security and risk management information, possibly utilising national targeting centres where applicable, or other relevant information and threat analysis bodies within the Customs organization.
- If there exists any previously signed and relevant information-sharing agreements, such as a Customs Mutual Assistance Agreement (CMAA), then a reference should be included noting the consistency of the MRA's information exchange functions with the agreement. If no such CMAA exists, specifically identify what types of Customs information should be shared and how it will be used in this section.
- Mention of any future endeavours and future benefits that, while not currently available, may be available in the future as the programmes and agreements evolve.
- Any future intention to modify the agreement to be made through mutual consent.
- Note of the legally binding status of the MRA and reference to the applicable laws concerned, but without limitation to cooperation and assistance related to other international provisions, agreements, treaties, and domestic law and practices.
- Date the MRA is to take effect.
- The process for suspension, discontinuation or termination of the MRA.

The MRA agreed between the EU and US provides a good sense of the way the EU establishes such MRAs within the EU legal framework¹²³.

3.2.5 Concluding and signing the MRA documents

It is unlikely that a MRA will be signed if issues surrounding the authorisation and validation processes have not been addressed and any gaps not filled. The same can be said of issues relating to data exchange and security procedures. Once all the above elements and steps towards the conclusion of negotiations have been covered, gaps identified and actions taken to mitigate or remove them to each party's satisfaction, then the parties to the MRA will sign the agreement and put in place the various provisions (e.g. any legislation - new or amended).

Signing will normally be done by the most senior officials of the respective customs administrations who have executive authority to do so.

Putting MRA into practice – operational procedures and reviews

The Joint Customs Co-operation Committee (JCCC)¹²⁴, consisting of representatives of customs authorities of the two contracting parties, manages and oversees the MRA implementation and can make changes or new

¹²³DECISION OF THE US-EU JOINT CUSTOMS COOPERATION COMMITTEE of 4 May 2012 regarding mutual recognition of the Customs-Trade Partnership Against Terrorism program in the United States and the Authorised Economic Operators programme of the European Union (2012/290/EU):

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:144:0044:0047:EN:PDF>

¹²⁴ The JCCC ensures that agreements are correctly applied and have examined all questions arising from their application, for example all issues relating to problems concerning the application of customs rules in trade (classification of goods, origin problems, etc.) or concerning future developments of customs legislation (computerisation; changes to the Customs Code). It serves also as a forum to discuss and prepare meetings relating to



recommendations to strengthen the MRA. Therefore, resource to maintain the representation of Thai customs within the JCCC should be considered.

One would anticipate a continuous exchange of information within the JCCC forums and/or via the established information channels with the objectives to avoid delays that may arise as a result of various policy developments or changes to the threat assessments of either party. Additionally it may be the case that occasional joint AEO audits might be conducted in order to ensure systems and processes remain valid over time, and to ensure the strengthening of trust and cooperation between the EU and Thai customs administrations.

3.3 Roadmap suggestions towards a RTC-EU AEO MRA

As the final sub-chapter of Mutual Recognition Agreements, MRAs, suggestions to RTC for preparing for AEO MRA negotiations, primarily with the European Union / European Commission Directorate General of Customs and Taxation (EC DG TAXUD), are made as following, by the author of this report:^{125 126}

1. Ensure clear high-level commitment to building a co-operative partnership.
2. Allocate early on adequate human and financial resources for all stages of the MRA negotiation process.
3. According to the SAFE Framework demonstrate implementation of a Customs-to-Business programme along with the following elements of the Customs-to-Customs pillar :
 - a. A system of automated risk management.
 - b. Ability to receive advance electronic information on cargo for risk analysis screening purposes.
 - c. Ability to examine high risk cargo using modern technology before loading for export.
 - d. Willingness to agree to conduct pre-load examinations upon reasonable request from the other partner(s).
 - e. Legal ability, willingness and capacity to share information on risk.
4. Establish the framework for a legally binding MRA.

international organisations like the WCO. The Joint Committee can adopt decisions and recommendations to strengthen co-operation or to strive for the solution of problems encountered in the application of customs rules. The formal Joint Customs Co-operation Committee meetings are mostly used to enshrine joint positions and to formally agree a common approach. In between the meetings, both sides co-operate closely through informal channels and also in the margins of the many international meetings (source: DG TAXUD website: http://ec.europa.eu/taxation_customs/customs/policy_issues/international_customs_agreements/index_en.htm)

¹²⁵ Note: a condensed version of these recommendations are presented in the last Chapter of this report.

¹²⁶ Unlike in previous Chapter 2 on AEOs in EU and globally, in Chapter 3 recommendations no references to sub-chapters are made.



5. Provide more detailed guidance on what would be recognised as appropriate security measures to counter and combat different risks and threats; in particular (but not exclusively):
 - a. Demonstrate clearly how customs declarations enable the capture and validation of AEOs used in the supply chain, and then give favourable treatment to them (as may be provided within the AEO programme and part of the MRA)
 - b. Ensure AEOs recognise the importance of alerting the customs authority of Thailand to any issues of non-compliance with the requirements, or identification of new or enhanced risks and threats.
 - c. Ensure security compliance monitoring of AEOs occurs on a more regular basis than once every three years
 - d. Put in place, or make clearer, processes and procedures for identifying and alerting customs officials to potential non-compliance with the programme requirements and for a clearer exposition of how Thai Customs regularly monitor and review AEOs
 - e. ICT, data and document security procedures and measures should be given more attention: show systems and procedures that are in place and being regularly reviewed, that will give confidence to other customs administrations that any data they share under an MRA will be protected from unauthorised access
 - f. Provide more guidance to AEOs in how to reduce the risks from the use of employment agencies and agency workers and sub-contractors.
6. Considering if the Thai AEO reference (identifier) structure might be aligned with that of the EU's EORI in order to aid the identification and sharing of benefits offered to Thai AEO exporter companies trading with the EU.
7. Examine the possible alignment of the methodology used for risk assessment of AEO applicants with that of the EU's AEO COMPACT MODEL FOR RISK ASSESSMENT.
8. Provide more details regarding revocation and suspensions: in particular, relating to an appeals process and timeframes for the AEO to remedy any deficiencies which give rise to the need for a suspension of the status, and the intended process of timely communication of revocations and suspensions to the MRA signatories.
9. Consider how best to measure the added speed of clearance under normal circumstances for AEOs compared with the non-AEO companies, and to quantify the value for individual AEO applicants.
10. Seek to explain how a coordinated approach to border controls and clearance among different government agencies is to be achieved, thereby reducing any duplicative procedures and requirements on the AEOs.
11. Explain clearly to AEOs and applicants that there can be no automatic AEO status granted for company divisions, branches etc. in the EU (and vice versa) under the rules of an AEO programme.



AEO & MRA study for RTC, Dr. Juha Hintsa, Cross-border Research Association, 31.12.2013

12. Make preparations to receive EU customs officials visiting Thailand, RTC and selected AEOs and applicants.
13. Make preparations for visiting EU customs authorities, and select AEOs and applicants in Thailand for EU customs officials to visit (in order to show how an audit is carried out, in different conditions, for different types of business; and to see what security measures AEOs have in place and ensure they are being maintained, reviewed and improved as required; and to see the management structures, contingency plans, etc.).
14. Prepare to provide full transparency on all processes and procedures (the application and authorisation processes and procedures, auditing, validation, monitoring and AEO status-refusal/removal processes and procedures, data requirements, storage, monitoring and data security, approval process for trade facilitation benefits and customs simplified procedures).
15. Prepare for signing of an MRA.
16. Make provision of resource to maintain the representation of RTC within the Joint Customs Co-operation Committee (JCCC) and other communication channels with EU customs officials.



4 Additional supply chain security models and tools by CBRA

In this chapter, several AEO, supply chain security and illicit activities in global supply chains related models, taxonomies, matrixes and tables developed by the author of this report and by Cross-border Research Association (CBRA), are briefly introduced, with the intention to have one or more of them taken into practical use by RTC experts in the future. Based on previous experiences by CBRA, there can be at least three types of situations where some of the content on this chapter may be of use and benefit for customs practitioners:

1. Discussions between customs and supply chain companies, in public-private partnership context; learning more effectively from each other; being able to discuss items in a structured manner, while placing more focus on common important details.
2. Discussions and negotiations between customs and other governmental agencies with a role in global supply chains; for example crime taxonomies and lists of crime types in a supply chain context can be useful tools during meetings.
3. Customs internal analytical and training activities, focusing on effective and efficient crime prevention in global supply chains.

4.1 CBRA suggestions for an AEO benefit model and supply chain actor taxonomy

As it has become clear in the previous chapters of this report, there is no shortage of listing various types of benefits – or, theoretical / expected benefits – in the literature, including policy papers, practitioner papers and academic papers. At the same time, following two challenges very much remain:

- How to formulate a structured approach to design, communicate and implement such a broad variety of potential benefits in an effective manner?
- How to monitor the implementation of the chosen benefits, and measure their (true) impacts in supply chains?

This sub-chapter focuses on answering the former question by proposing a new AEO benefit model, or, benefit taxonomy, for considerations with RTC experts as well as Thai industries. Monitoring and measuring of realized AEO benefits can be executed after the “AEO benefit delivery system” is in place – again, continuous monitoring should, the author of this report believes, take place in the context of the suggested AEO benefit model.

4.1.1 CBRA AEO benefit model for companies in supply chains

This CBRA AEO benefit model has been derived from seven relevant documents dealing with a variety of benefit lists, namely from European Commission DG TAXUD; Royal Thai Customs, RTC; WCO AEO Conference 2012 in Korea; World Customs Organization (WCO); Private Sector Consultative Group (PSCG) for WCO;



AEO & MRA study for RTC, Dr. Juha Hintsa, Cross-border Research Association, 31.12.2013

Korean research paper 2013; and Latin American research paper 2007. It contains the following two main categories (A and B), both with two sub-categories (A1-A2; B1-B2):

A. Customs / government agency/ies granted benefits

A1. Company-level: examples of benefits materialize (if materialize) normally on a "permanent basis" for a given company (unlike A2. Government agency granted shipment-level benefits); this A1 category of benefits can be relatively easy to verify, many of them in yes/no style

A2. Shipment-level: examples of benefits materialize (if materialize) on a shipment-to-shipment basis, i.e. the practical situation might differ a lot over a given time period, thus should be (re)measured periodically.

B. Benefits between and inside businesses (no direct gov.intervention)

B1. Company network benefits: examples are based simply on the observation that e.g. shippers might require AEO certifications from their logistics partners / suppliers in order to qualify them in the first place.

B2. Single company benefits: examples are in the interest of single (individual) companies (of course, business partners can benefit from these, too); to achieve these, naturally one does not need a formal AEO certificate, but the actual security measures and procedures in place will bring the same (positive) results; also, these benefits are often very difficult to measure, while many other factors in the business environment typically impact on these.

The CBRA AEO benefit model is visualized in the Figure 13 below.¹²⁷

¹²⁷ OFFICIAL REFERENCE: Hintsa J. (2013). Final report on AEO – MRA study for RTC. Thailand Europe Cooperation TEC-II, PDSC. Implementation of international standards on Supply Chain Security leading to a secure Trade Environment and to increased Trade Facilitation (Activity Code : TRA 4). Bangkok, Thailand, 31.12.2013.

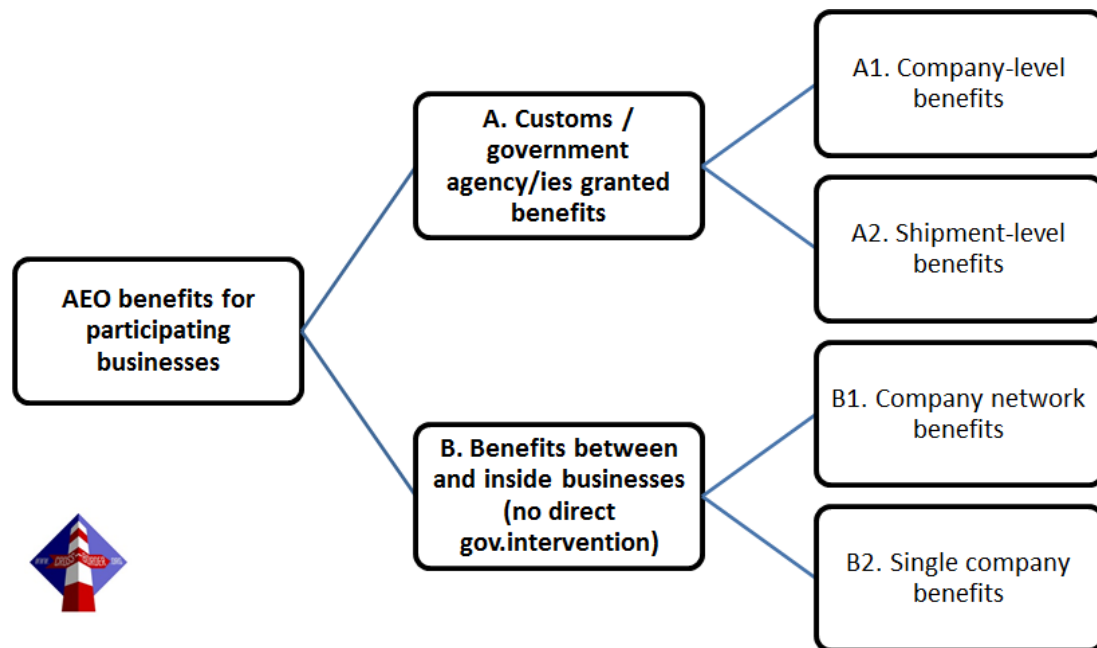


Figure 13: Diagrammatical overview of AEO benefit categories (CBRA)

The following four tables, Table 16 (A1), Table 17 (A2), Table 18 (B1) and Table 19 (B2), with (suggested) AEO benefits, have been produced from the essential literature. The content of these four tables can be used as “raw material” when considering and assessing future benefit schemes e.g. at RTC.

Table 16: A1. Customs / government agency/ies granted benefits – Company level benefits¹²⁸

Source	Examples of benefits for AEO certified companies
DG TAXUD ¹²⁹	<ul style="list-style-type: none"> • Access to various customs simplification procedures if requested • Reduced data set for entry and exit summary declarations • Designated contact point within a customs administration • Application for other certifications and authorisations (such as Regulated Agents, Known Consignors, Account Consignors under the Air cargo security regulations, and the Approved Economic Operator scheme for the fishery products sector) will be easier
Royal Thai Customs, RTC	<ul style="list-style-type: none"> • Privileges on customs procedures covering import, export and re-export; • Tax privileges to be granted on more speedy tax refund and compensation; • Privileges on using guarantee as standardized Authorized Economic Operator in lieu of placing a guarantee on transshipment and transit goods; • Privileges on legal cases under the conditions specified by the Customs Department; • <i>(Other qualified privileges will be announced by the Director-General of Customs).</i>
WCO Korea AEO 2012 by CBRA ¹³⁰	<ul style="list-style-type: none"> • Export procedures are completed while keeping the cargo in businesses’ own premises • Self management of bonded warehouses • Inspection and clearance formalities at the business site • Training to customs to business • Key-account customs officer • Reduced number of data elements for import declaration

¹²⁸ A1. Company-level: examples of benefits materialize (if materialize) normally on “permanent basis” for a given company (unlike A2. Government agency granted shipment-level benefits); this A1 category of benefits can be relatively easy to verify, many of them in yes/no style.

¹²⁹ DG TAXUD AEO guidelines, pp.16-20

¹³⁰ CBRA analysis of WCO Korea AEO 2012 event (for this RTC-AEO-MRA –study)



	<ul style="list-style-type: none"> • Periodical lodgment of duty/tax payment declaration • Acceptance of pre-arrival import declarations. • Simplified drawback claims based on self-accounting principles
WCO SAFE Framework of Standards¹³¹	<ul style="list-style-type: none"> • A reduced data set for cargo release (categorized under “measures to expedite cargo release, reduce transit time and lower storage costs “) • Reduction of certain fees or charges for AEOs in good standing (categorized under “measures to expedite cargo release, reduce transit time and lower storage costs “) • Names and contact information for other AEO participants, with the consent of those participants (categorized under “providing access to information of value to AEO participants “) • List of all countries adopting the SAFE Framework (categorized under “providing access to information of value to AEO participants “) • List of recognized security standards and best practices (categorized under “providing access to information of value to AEO participants “) • Account-based processing rather than transaction-by-transaction clearance of accounts (categorized under “first consideration for participation in any new cargo processing programmes”) • Simplified post-entry or post-clearance programmes (categorized under “first consideration for participation in any new cargo processing programmes”) • Eligibility for self-audit or reduced audit programmes (categorized under “first consideration for participation in any new cargo processing programmes”) • Expedited processes to resolve post-entry or post-clearance inquiries (categorized under “first consideration for participation in any new cargo processing programmes”) • Favourable mitigation relief from Customs assessments of liquidated damages or non-criminal administrative penalties, except for fraud (categorized under “first consideration for participation in any new cargo processing programmes”) • Increased paperless processing of commercial shipments for both export and import (categorized under “first consideration for participation in any new cargo processing programmes”) • Priority response to requests for rulings from national Customs authorities (categorized under “first consideration for participation in any new cargo processing programmes”) • Eligibility for remote Customs clearance procedures (categorized under “first consideration for participation in any new cargo processing programmes”) • Ability to file a corrective action or disclosure prior to the initiation of a Customs non-criminal administrative penalty procedure, except for fraud (categorized under “first consideration for participation in any new cargo processing programmes”) • No penalties or liquidated damages imposed for late payment of duties, with only interest accruing (categorized under “first consideration for participation in any new cargo processing programmes”)
PSCG to WCO¹³²	<ul style="list-style-type: none"> • mutual recognition of AEO status by Customs administrations • financial guarantee waivers, reductions or rebates • pre-qualification for simplified procedures, including possibilities for a single-step process, or a two-step process for release/clearance purposes, according to the importer’s preference • establishment of economic operator based profiles, and audit-based controls, as opposed to transaction-based controls • AEO status should be a significant factor in determining the administrative settlement of a Customs offence (consistent with Annex H, Chapter 1, Standard 23 and Standard 3.39 of the RKC) • self-assessment when Customs automated systems are not functioning • an option to provide a reduced standard data-set for security risk assessment purposes
Korea AEO & MRA benefit study 2013¹³³	<ul style="list-style-type: none"> • Reduced punishment by law and regulations (study categories under “fast customs clearance”) • Increased benefits other than from custom clearance (study categories under “fast customs clearance”) • To obtain assistance from customs AEO & security expert (study categories under “fast customs clearance”) • To maintain & improve business relations with the government (study categorizes under “engagement and compliance with customs”)

¹³¹ WCO SAFE Framework of Standards

¹³² Private Sector Consultative Group (PSCG) to WCO. 2012.

¹³³ Research survey on the perception of AEO and non AEOs with regard to the benefits granted, including those provided by MRA. Korea AEO Association (KAA), Korea Customs and Trade Development Institute(KCTDI), KCingle-CUPIA. September 2013



	<ul style="list-style-type: none"> Better understanding of customs requirements and regulations (study categorizes under “engagement and compliance with customs”) Increased satisfaction with Customs process and services (study categorizes under “engagement and compliance with customs”)
Gutierrez et al. BASC 2007 study¹³⁴	<ul style="list-style-type: none"> Better compliance with Customs regulations and processes (lower border handling fees, penalties etc.) (study categorizes under “benefits for the company's efficient functioning, under normal conditions”)

Table 17: A2. Customs / government agency/ies granted benefits – Shipment level benefits¹³⁵

Source	Examples of benefits for AEO certified companies
DG TAXUD	<ul style="list-style-type: none"> Reduced level of physical and document-based customs checks at borders and under post clearance procedures Prior notification of controls Choice of the place of controls Priority treatment of consignments if selected for control Should a serious security incident occur resulting in a temporary halt to the import and export of goods, AEO companies will be among the first to be allowed to move once restrictions have been lifted Recognition by countries with MRA in place
Royal Thai Customs, RTC	<ul style="list-style-type: none"> Fewer physical and document-based controls Priority treatment of consignments if selected for control Choice of the place of controls Exports will be recognized by foreign Customs Administrations having Mutual Recognition Agreement so-called "MRA".
WCO Korea AEO 2012 by CBRA	<ul style="list-style-type: none"> Fewer inspections Priority treatment of consignments if selected for control Expedited processing and release of shipments Site selection for the inspection of the goods Extended opening hours of the customs office Possibility of prior notification of planned controls
WCO SAFE Framework of Standards	<ul style="list-style-type: none"> Expedited processing and release of shipments (categorized under “measures to expedite cargo release, reduce transit time and lower storage costs “) Minimum number of cargo security inspections (categorized under “measures to expedite cargo release, reduce transit time and lower storage costs “) Priority use of Non-intrusive inspection techniques when examination is required (categorized under “measures to expedite cargo release, reduce transit time and lower storage costs “) Keeping Customs offices open on a continuous basis when a tangible need for such coverage has been specifically identified (categorized under “measures to expedite cargo release, reduce transit time and lower storage costs “) Accord priority processing by Customs during period of elevated threat conditions (categorized under “special measures relating to periods of trade disruption or elevated threat level”) Priority processing following an incident requiring the closing and re-opening of ports and/or borders (categorized under “special measures relating to periods of trade disruption or elevated threat level”) Priority in exporting to affected countries after an incident (categorized under “special measures relating to periods of trade disruption or elevated threat level”)
PSCG to WCO	<ul style="list-style-type: none"> Expedited processing and release of shipments, supported by regular “time required for release” studies Notification of intention to release prior to goods’ arrival i.e. pre-clearance Priority of inspection and use of non-intrusive inspection equipment whenever physical examination is required

¹³⁴ Gutiérrez, X., Hintsa, J., Wieser, P. and Hameri, A.-P., 2007. Voluntary Supply Chain Security Program Impacts: an Empirical Study with BASC Member Companies. World Customs Journal, 1(2). pp.31-48

¹³⁵ A2. Shipment-level: examples of benefits materialize (if materialize) on shipment-to-shipment basis, i.e. practical situation might differ a lot over a given time period, thus should be (re)measured periodically.



	<ul style="list-style-type: none"> Priority Customs' processing during a period of elevated threat conditions priority treatment in post-incident resumption and trade recovery programs
Korea AEO & MRA benefit study 2013	<ul style="list-style-type: none"> Reduced clearance time & cost at customs (study categorizes under "fast customs clearance")
Gutierrez et al. BASC 2007 study	<ul style="list-style-type: none"> Fast / stable / predictable Customs and other agency treatment at border crossings (low inspection rates; simplified processes; maximum facilitation etc.) (study categorizes under "benefits for the company's efficient functioning, under normal conditions") Preferential treatment at border crossing in high alert situations (when most border traffic becomes slowed down, or stopped) (study categorizes under "supply chain benefits, for high alert / post-disaster conditions") Preferential treatment at border crossing in post-disaster / post attack situations (where most goods flow gets completely stopped) (study categorizes under "supply chain benefits, for high alert / post-disaster conditions")

Table 18: B1. Benefits between and inside businesses - Company network benefits¹³⁶

Source	Examples of benefits for AEO certified companies
DG TAXUD	<ul style="list-style-type: none"> improved customer service improved customer loyalty lower inspection costs of suppliers and increased co-operation improved security and communication between supply chain partners
Royal Thai Customs, RTC	<ul style="list-style-type: none"> na
WCO Korea AEO 2012 by CBRA	<ul style="list-style-type: none"> Improved business partnerships
WCO SAFE Framework of Standards	<ul style="list-style-type: none"> na
PSCG to WCO	<ul style="list-style-type: none"> na
Korea AEO & MRA benefit study 2013	<ul style="list-style-type: none"> To protect & improve brand image (study categorizes under "competitiveness in trade") To maintain existing customers (study categorizes under "competitiveness in trade") To increase new customers (study categorizes under "competitiveness in trade") To enhance security of the supply chain (study categorizes under "supply chain management")
Gutierrez et al. BASC 2007 study	<ul style="list-style-type: none"> Company image and credibility improvement (better company's image in front of customers, suppliers and authorities, increased market reach etc.) (study categorizes under "benefits for the company's efficient functioning, under normal conditions") Reduce overall vulnerability of the supply chain: minimising risk of having supply, production, transportation or delivery failures, in normal conditions (study categorizes under "benefits for the company's efficient functioning, under normal conditions")

¹³⁶ B1. Company network benefits: examples are based simply on the observation that e.g. shippers might require AEO certifications from their logistics partners / suppliers in order to qualify them in the first place.



Table 19: B2. Benefits between and inside businesses – Single company benefits¹³⁷¹³⁸

Source	Examples of benefits for AEO certified companies
DG TAXUD	<ul style="list-style-type: none"> • reduced security and safety incidents • reduced theft and losses • reduced crime and vandalism • fewer delayed shipments • improved planning • improved inventory management • improved employee commitment
Royal Thai Customs, RTC	<ul style="list-style-type: none"> • na
WCO Korea AEO 2012 by CBRA	<ul style="list-style-type: none"> • Smaller insurance fees • Enhanced security
WCO SAFE Framework of Standards	<ul style="list-style-type: none"> • na
PSCG to WCO	<ul style="list-style-type: none"> • na
Korea AEO & MRA benefit study 2013	<ul style="list-style-type: none"> • To enhance security at work site and prevent theft of cargo (study categorizes under “supply chain management”) • To increase tangibility & stability of the supply chain (study categorizes under “supply chain management”) • To improve monitoring & traceability of orders (study categorizes under “supply chain management”) • To reduce lead time & increase predictability (study categorizes under “supply chain management”) • To increase effectiveness & efficiency of work processes (study categorizes under “supply chain management”) • To improve risk management system & processes (study categorizes under “supply chain management”)
Gutierrez et al. BASC 2007 study	<ul style="list-style-type: none"> • Anti-theft: preventing / reducing the amount / value of stolen goods (study categorizes under “direct security benefits”) • Anti-counterfeit: preventing / reducing the amount of illegal product copies etc. (study categorizes under “direct security benefits”) • Anti-loss and damage: reducing the amount of goods lost or damaged due to errors in the process, lack of control, human mistakes etc. (study categorizes under “direct security benefits”) • Reduction of insurance premiums to cover cargo or facilities risks (study categorizes under “direct security benefits”) • Direct cost savings (in direct logistics and international trade operations etc.) (study categorizes under “benefits for the company's efficient functioning, under normal conditions”) • Indirect cost savings (in support functions, human resources, overhead, management etc.) (study categorizes under “benefits for the company's efficient functioning, under normal conditions”)

¹³⁷ B2. Single company benefits: examples are in the interest of single (individual) companies (of course, business partners can benefit from these, too); to achieve these, naturally one does not need a formal AEO certificate, but the actual security measures and procedures in place will bring the same (positive) results; also, these benefits are often very difficult to measure, while many other factors in the business environment typically impacts on these.

¹³⁸ Curiosity note: anecdotal evidence exists that a trucking company having a Supply chain security certification has actually encouraged organized crime to exploit their trucks for illicit activities. A case which has been published a couple of years ago (exact reference missing) stated that a driver of a FAST-certified (US program) trucking company was actually forced by narcotics smugglers to carry marijuana across the border from Mexico to the US – the criminals' assumption being that the FAST-certified truck has less likelihood of being checked. This anecdote was linked to the Spanish expression of “plata o plomo” – you either carry the drugs (and get some money for that), or, you get a bullet through your body.



	<ul style="list-style-type: none">• Improved supply chain performance (better collaboration with other supply chain participants, visibility; more standard / harmonized processes; higher on-time delivery etc.) (study categorizes under “benefits for the company's efficient functioning, under normal conditions”)• Development of capacity/flexibility/resiliency to return quickly to normal functioning after a general disaster situation (study categorizes under “supply chain benefits, for high alert / post-disaster conditions”)• Development of capacity/flexibility/resiliency to return quickly to normal functioning after a disaster situation with direct impact to your organization (study categorizes under “supply chain benefits, for high alert / post-disaster conditions”)
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One should note that the CBRA AEO benefit model has just been introduced as part of this study, thus being open for any suggestions for improvements, updates and so forth¹³⁹. At the same time, the author believes that it can be used immediately in AEO benefit discussions e.g. between RTC and Thai industries¹⁴⁰.

When it comes to further design and implementation of particularly A. Customs / government agency/ies granted benefits – both A1. Company-level as well as A2. Shipment-level - the author of this report recommends exploiting the Trade Facilitation Implementation Guide, TFIG, by the United Nations Economic Commission for Europe, UNECE¹⁴¹. Please visit Annex 14 showing the TFIG visual overview on typical areas for improvement in what they call the “Cross-border management” domain.¹⁴²

4.1.2 CBRA supply chain security stakeholders in global supply chains

It goes without saying that different AEO benefits mean different things for various types of actors in the supply chain. For example for cargo owning companies, who typically make their profit margins on physical products and related price mark-ups, cargo theft can have a major negative impact in terms of re-manufacturing and expedition costs, as well as reputational issues, say when two containers of goods miss a planned delivery date, determined by a media marketing campaign, due to cargo theft. For the logistics sector, which typically make their profit margins through service fees, seizure of a big shipment of illicit narcotics, for example, hidden in an ocean carrier structure, can lead to severe penalties for the shipping line and/or captain, as well as the loss of previous customs simplifications.

When trying to assess which type of actors global supply chain systems contain, one commonly runs into a problem of long lists of even 30 or more actor types, with limited or no hierarchy in place. To overcome this issue, the author presents a simplified taxonomy to categorize the actors, the primary criteria being the company baseline “profit making logic”: profit from physical product price mark-ups versus profit from service fees; the former also known as cargo owners, and the latter as logistics sector. The Figure 14 below

¹³⁹ Please email any suggestions, critics etc. regarding the CBRA AEO benefit model to: sangeeta@cross-border.org

¹⁴⁰ Including Thai industry associations such as Federation of Thai Industry; Thai Chamber of Commerce; Thai National Shippers Council; and Thai Gold Card Importer & Exporter Association

¹⁴¹ UNECE Trade Facilitation Implementation Guide, <http://tfig.unece.org/> <Accessed 24.10.2013>

¹⁴² The author of this report had the pleasure to apply the UNECE TFIG into practice in a trade facilitation project in the Middle-East during years 2012-13 – and the experiences and the outcomes were very good.



visualizes this suggestion, while leaving it open for the readers to add additional actor examples; as well as additional hierarchy layers¹⁴³.

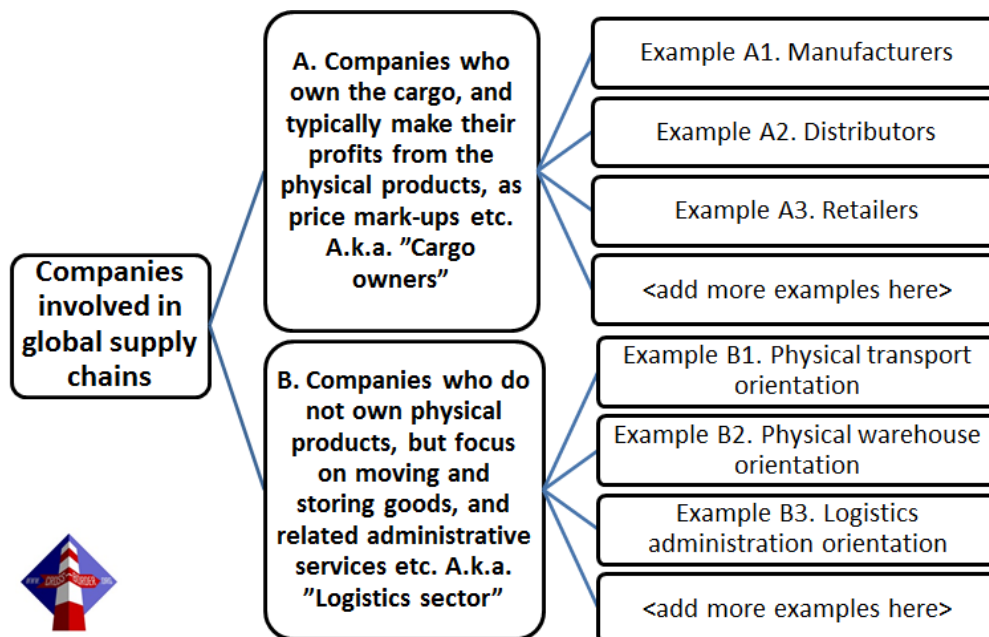


Figure 14: Simplified taxonomy of actor types in a supply chain (CBRA)¹⁴⁴

Of course, the author is well aware that many companies in the real world have overlapping roles, especially on the third level (A1-A3; B1-B3) of this diagram; but also on the second level (A; B) there are overlaps. Still, the author suggests to try this out as part of the AEO benefit planning process, especially when identifying the single benefit-level importance per actor type. For the interested readers, more information on various supply chain actors, logistics models and so forth can be found e.g. at FP7-CASSANDRA Compendium.¹⁴⁵

Lastly, from time-to-time it might be useful to consider all stakeholders in the broad context of supply chain security and illicit activities – to consider their different versus similar objectives and motivations: costs and benefits of security investments; damages related to “bad security”; business or policy interests to either downplay or exaggerate security threats and risks; and so forth¹⁴⁶.

¹⁴³ OFFICIAL REFERENCE: Hintsa J. (2013). Final report on AEO – MRA study for RTC. Thailand Europe Cooperation TEC-II, PDSC. Implementation of international standards on Supply Chain Security leading to a secure Trade Environment and to increased Trade Facilitation (Activity Code : TRA 4). Bangkok, Thailand, 31.12.2013.

¹⁴⁴ Editorial note: the codes A1, A2 ... B1, B2.. in the diagram are not linked to similar codes used in the previous sub/chapter, on the AEO benefit model.

¹⁴⁵ Editors Hintsa J., and Uronen K. (2012) CASSANDRA Compendium: http://www.cassandra-project.eu/userdata/file/Public%20deliverables/Cassandra%20D1.1%20-%20FINAL%20-%20Compendium-public_update%20July%202012.pdf [Accessed 25 November 2012] - FP7-project CASSANDRA: "Common assessment and analysis of risk in global supply chains ". Grant agreement no: 261795. Date: 1.6.2011-31.5.2014 CASSANDRA URL: <http://www.cassandra-project.eu/> More information on FP7-CASSANDRA can be found on Annex 19 of this report.

¹⁴⁶ Hintsa J., Männistö T., Urciuoli L. Supply chain security stakeholders. FP7-SAFEPOST Kick-off Meeting, Madrid, Spain, April 2012. FP7-project SAFEPOST: “Reuse and Development of Security Knowledge Assets for International

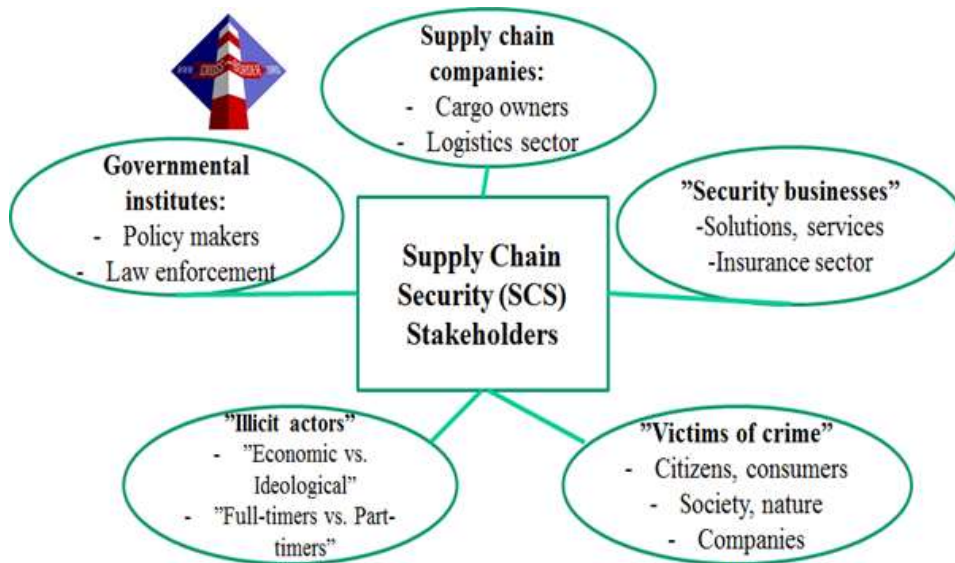


Figure 15: An expanded view of all supply chain security stakeholders (CBRA)

The Figure 15 above forms just another suggestion for RTC experts to consider exploiting from time-to-time as part of the overall AEO design, implementation and updating processes.

4.2 CBRA two models for supply chain security management

As we have seen in previous chapters, the security measure requirements of AEO programs are commonly expressed as lists e.g. in the WCO and DG TAXUD documentation; and there is certainly nothing wrong with that, as this type of “check-list approach” works quite well in communicating requirements from customs to business, carrying out self-assessments by business itself, and running customs audits at the AEO applicant companies. However, what is missing from this approach is a holistic view to all key elements and layers of supply chain security management, in a logically structured manner, enabling companies and customs to discuss and assess the full picture of security measures in place. Another aspect, which appears to be totally missing from the standard AEO-documentation, is a measurement system to assess the effectiveness, and “well-functioning” of single security measures, in a bottom-up style. To fill these two gaps, the CBRA research team has developed the following two models, presented in this sub-chapter: (i) the 8-layer supply chain security management model; and (ii) a security measure effectiveness assessment model. The author suggests RTC experts consider one or both of these models to be included in their portfolio of risk and security assessment tools, to be used in co-operation with AEO-applicant companies in the future.

4.2.1 CBRA 8-layer supply chain security management model

Postal Supply Chains”. Grant agreement no: 285104. Date: 1.4.2012-31.3.2016 SAFEPOST URL: <http://www.safepostproject.eu/> More information on FP7-SAFEPOST can be found on Annex 19 of this report.



The CBRA 8-layer supply chain security model¹⁴⁷ is first visualized in Figure 16 below, and then briefly explained under the diagram. In the case of Layer-4, 'Supply chain assets' layer, another set of explanations and examples follows towards the end of this section.

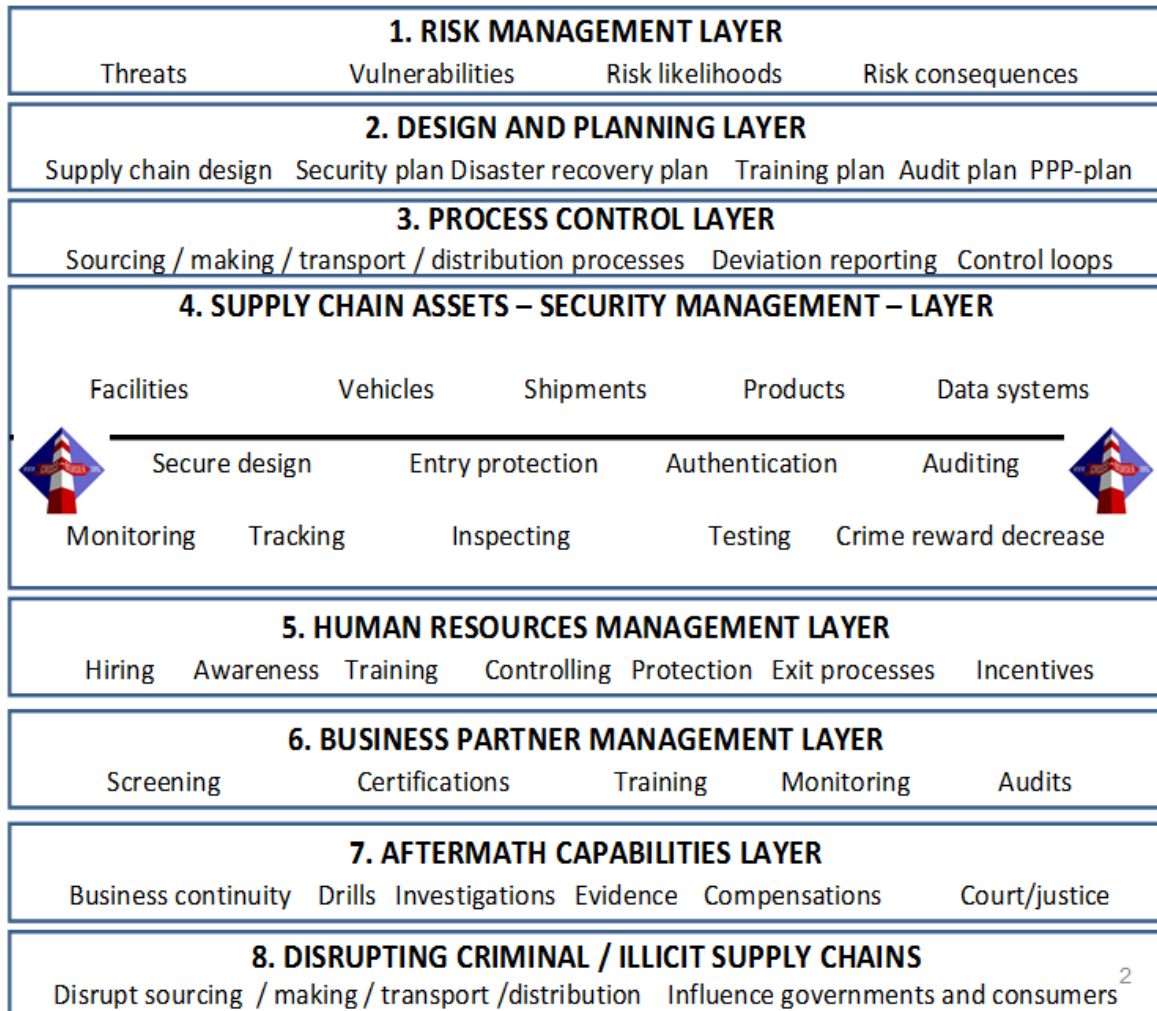


Figure 16: 8-layer supply chain security management model (CBRA)

The layers in the comprehensive 8-layer SCS management model are as follows:

1. **Risk management** layer: systematic assessment on threats and vulnerabilities in the supply chain; also quantifying risk likelihoods and consequences.
2. **Design and planning** layer: designing, sourcing (countries) and transport (routes) to minimize risks; creating and updating security, disaster recovery, training, and audit plans.

¹⁴⁷ Hintsa (2011) Post-2001 Supply Chain Security – Impacts on the Private Sector. Doctoral Thesis. HEC University of Lausanne. 28.1.2011. (afterwards this model has been exploited, tested and expanded in multiple research projects, including European Framework Program 7 (FP7) projects LOGSEC and CASSANDRA; More information on FP7-LOGSEC and FP7-CASSANDRA can be found on Annex 19 of this report).



3. **Process control** layer: managing key business processes, creating visibility into them, monitoring for deviations, providing stability, and minimizing variations (in time, quality, etc.)
4. **Supply chain assets** layer: securing facilities, vehicles, shipments, products, data systems, and data by exploiting a broad set of security procedures, technologies, and solutions.
5. **Human resources** layer: checking backgrounds, training, and motivating personnel; protecting them against blackmail, kidnapping, etc.; minimizing the risk of insider crime.
6. **Business partners** layer: selection process for business partners; requirements for SCS certifications; and monitoring and audit activities.
7. **Aftermath capabilities** layer: ensuring post-incident recovery with minimum supply chain disruptions; developing competences for investigations, evidence collection, and court procedures.
8. **Disrupting criminal activities** layer: causing problems in the illicit supply chains, by influencing supply (e.g. counterfeit factories), production, logistics operations, and distribution (e.g. awareness campaigns).

Expanding on layer-4 of the 8-layer SCS model

Technologies are crucial in the fight against crime and terrorism in supply chains. Well-designed and operated technology assist supply chain operators in the prevention and detection of security breaches and deal with the post-incident recovery phase. Thus, both supply chain security systems, both at the public and private sectors, rely heavily on technology. More importantly, as the Layer-4 (of the 8-layer supply chain security management model) suggests, supply chain security technologies can enable or strengthen one or more of the following security functionalities¹⁴⁸:

- **Secure product design**, e.g. anti-counterfeit or anti-theft functionalities are embedded into a consumer product already at the product design phase.
- **Entry protection**, e.g. access to facilities, cargo, vehicles and IT-systems are protected with a combination of anti-intrusion solutions, including CCTV- and alarm-systems, as well as passwords.
- **Authentication**, e.g. integrity of data, document and product is guaranteed by various techniques, including codes verifiable against databases; inks, nano-fractals and holograms etc.
- **Auditing**, e.g. facility, vehicle and data system audits are made more efficient and accurate with the help of IT-tools.
- **Monitoring**, e.g. global transportation networks for sea, air and land based cargo are constantly under surveillance, to detect any deviations from the standard procedures, routes and schedules.
- **Tracking**, e.g. cargo is tracked throughout the logistics chain as an anti-theft measure (e.g. for consumer electronics); or, products are tracked throughout their life-time as an anti-counterfeit measure (e.g. for pharmaceuticals)

¹⁴⁸ Final deliverable of an FP7 EU Security Project LOGSEC, "Development of a strategic roadmap towards a large scale demonstration project in European logistics and supply chain security" Project ID: 241676. pp.31-32. More information on FP7-LOGSEC can be found on Annex 19 of this report.



AEO & MRA study for RTC, Dr. Juha Hintsa, Cross-border Research Association, 31.12.2013

- **Inspection**, e.g. taking and assessing images from cargo-in-transit, including maritime and air containers, with x-ray, gamma-ray and other relevant [non-intrusive, where applicable] inspection technologies.
- **Testing**, e.g. products subject to counterfeit activities or to sabotage and terrorism are tested by applicable physical, chemical and other possible techniques.
- **Crime reward decrease activities**, e.g. a stolen consumer electronics product stops functioning after one hour/day/week, when it is no longer connected to the web-based service (password protected.)

Customs auditors could assess the performance of AEO applicants in each area against a prescribed set of criteria. This may help authorities to evaluate whether the applicants meet, for example, requirements for the EU AEO. Further information about security measures in various supply chain security initiatives can be found e.g. on the feasibility study undertaken for the European Standardisation Committee (CEN)¹⁴⁹, further guidance on Supply chain security good practices in a technical report also produced for CEN¹⁵⁰, as well as Supply chain security guidelines by the World Bank¹⁵¹.

When it comes to the broad understanding of “security options by governmental administrations”, Cross-border Research Association (CBRA), has produced a simplified list of seven main options (see Box 19 below).¹⁵²

Box 19: Typical security options for governmental administrations (CBRA)¹⁵³

1. **Transport mode & node specific regulations – including physical security for air, sea, rail and so forth**
2. **Intelligence from various national and international sources**
3. **Advance cargo information / data – for risk assessment purposes**
4. **Container / cargo / vehicle scanning – to “see through for bad things” (plus manual inspections)**
5. **Authorized economic operator programs – to “create trust”**
6. **Company audits – “trust but verify”**
7. **Disruption of illicit supply chains – through “demand – fulfillment – supply -networks”.**

¹⁴⁹ Hintsa, J., Ahokas, J., Männistö, T. and Sahlstedt, J., 2010. CEN Supply Chain Security (SCS) Feasibility study. CEN/TC 379 Supply Chain Security, Final report, 15 January 2010. Available at United Nations (UNECE) website:

http://www.unece.org/fileadmin/DAM/trans/events/docs/inlandsecurity_forum11_relatimgmaterial_01e.pdf

¹⁵⁰ CEN/TR 16412:2012 - Supply chain security (SCS). Good practice guide for small and medium sized operators. (CBRA team played a lead role in production of this Technical report; CEN Technical reports need to be purchased).

¹⁵¹ Donner, M., Kruk, C. (Hintsa as a technical contributor) (2009). Supply Chain Security Guide, World Bank. Available at World Bank website:

http://siteresources.worldbank.org/INTPRAL/Resources/SCS_Guide_Final.pdf [Accessed 9 December 2011]

¹⁵² Of course, this is a high-level presentation of governmental security options, likely to have shortcomings.

Suggestions to expand on this list can be emailed to: sangeeta@cross-border.org

¹⁵³ Source: Hintsa J. 2013. CBRA unpublished Working Paper Nr. 2013.



AEO & MRA study for RTC, Dr. Juha Hintsa, Cross-border Research Association, 31.12.2013

Note to interested readers: Annex 15 provides a summary of analysis carried out by CBRA research team on various “security phases”, as they are expressed in different security programs, regulations and standards¹⁵⁴. In particular, Annex 15 sheds some light on following three security phases or stages:

1. **Prevent:** Security measures and activities which have the primary goal of preventing crime incidents from happening.
2. **Detect / react:** Security measures and activities which have the primary goal of helping to identify, even in real time, or near real time, when crime incidents have taken place, in order to support solving the situation, as fast and at as low a cost as possible.
3. **Recover:** Security measures and activities which have the primary goal of helping businesses get back to normal operations.¹⁵⁵

And a final suggestion to really interested readers: please visit Annex 16 on Minimizing total cost of security management – it visualizes a (theoretical) optimization model produced by CBRA research team in the past, hopefully assisting governmental and business decision makers in defining an optimal balance between security prevention and recovery investments and all related costs (including the “damage costs”, or, the “cost of poor security”).

4.2.2 CBRA supply chain security management performance –model¹⁵⁶¹⁵⁷

Companies engage in supply chain security management mainly to mitigate crime and security risks, and to comply with security-centric laws and regulations, but in some cases also to increase operational performance. Benefits of supply chain security investments that go beyond the security risk mitigation and compliance are called collateral benefits. Examples of collateral benefits include lower inventory levels, better visibility over supply chains, or faster lead times. Altogether, effective supply chain management aims

¹⁵⁴ Hintsa, J., Ahokas, J., Männistö, T. and Sahlstedt, J., 2010. CEN Supply Chain Security (SCS) Feasibility study. CEN/TC 379 Supply Chain Security, Final report, 15 January 2010. Available at United Nations (UNECE) website:

http://www.unece.org/fileadmin/DAM/trans/events/docs/inlandsecurity_forum11_relatingmaterial_01e.pdf

¹⁵⁵ “Classical security management stages” in the literature include e.g. “4 D’s and 4 P’s”:

4 D’s = Detect-Deter-Defend-Defeat (see for example United States Coast Guard, <http://www.piersystem.com/go/doc/800/130209/> , retrieved on 15.9.2010)); and

4 P’s = Prevention-Pursuit-Protection-Preparation (see for example http://www.cmi.fi/images/stories/publications/reports/2006/ESSTR final_report.pdf , retrieved on 4.10.2010)

¹⁵⁶ Hintsa J., Männistö T., Lechat J-P., 2012. CBRA unpublished Working Paper Nr. 2012. Presented at FP7-SAFEPOST Kick-off Meeting, Madrid, Spain, April 2012. FP7-project SAFEPOST: “Reuse and Development of Security Knowledge Assets for International Postal Supply Chains”. Grant agreement no: 285104. Date: 1.4.2012-31.3.2016 SAFEPOST URL: <http://www.safepostproject.eu/> More information on FP7-SAFEPOST can be found on Annex 19 of this report.

¹⁵⁷ Original source for main content in Ethical and esthetical impacts, consequential costs, interdependencies and preconditions includes following four articles: Haelterman, H. (2013), Situational Crime Prevention and Supply Chain Security. Theory for Best Practice, CRISP Report, Alexandria VA: ASIS Foundation Research Council, 60.; Haelterman, H., Callens, M. and Vander Beken, T. (2012), 'Controlling Access to Pick-up and Delivery Vans: the Cost of Alternative Measures', in: European Journal on Criminal Policy and Research, 18(2), 163-182.; Haelterman, H. (2011), 'Re-thinking the Cost of Supply Chain Security', in: Crime, Law and Social Change, 56(4), 289-405.; Haelterman, H. (2009), 'Situational Crime Prevention and Supply Chain Security: an 'Ex Ante' Consideration of Preventive Measures', in: Journal of Applied Security Research, Routledge, Volume 4, Issue 4, 483-500.



to reduce crime and security risk, assure compliance with supply chain security regulations, and, aside the primary goals, to enhance operational performance through collateral benefits. The challenge in supply chain security management, however, is to attain the primary objectives while minimizing negative effects in other managerial areas. This thought forms the top building block (block 1) in the CBRA-developed “Security measure effectiveness assessment” model, visualized in Figure 17 below. The remaining six building blocks, numbered from 2 to 7, are explained briefly after the diagram.



Figure 17: Security measure effectiveness assessment model (CBRA)

- 2) Effective supply chain security systems build on consistently high-performing technologies. X-ray imaging systems should identify threat items with great accuracy, with minimum number of false positives and false negatives. Design of security systems should be robust enough to sustain harsh conditions (e.g., a security seal in a sea container) while being resistant enough to discourage unauthorized tampering and sabotage. **Hence, the goal here is to maximize the quality level (compared with the specifications) and the sustainability of any and all security measures.**
- 3) Security measures can have ethical and esthetical implications. For example, intense monitoring of personnel may reduce crime but increase tensions between workers and management. Background checks on job candidates may violate their privacy, at least to an extent. Moreover, targeted customs controls on items addressed to certain type of companies might put them into a competitive disadvantage vis-à-vis their low-risk competitors. Finally, some security measures, such as a high



concrete wall, make the environment less visually attractive and pleasant. So, **the goal here is to minimize the negative ethical and esthetical impacts of any and all security measures.**

- 4) Sometimes changes in security systems can backfire and change criminal behaviour from bad to worse. Criminals respond to incentives and adapt their behaviour dynamically in response to modified security systems. For example, criminals may change their target in response to intensified camera surveillance and guarding. Besides the displacement of their activities and changing the target, the criminals may change their method or timing. The change in method sometimes leads to increased violence. The criminals may, for example, break the cameras or assault the guards. Also, new security measures may have so-called enticement effects. The criminals, for example, may take new security systems as a challenge and put more effort into beating them. New security measures may also encourage crime if they hint of security vulnerabilities. So, **the goal here is to minimize the consequential costs of any and all security measures.**
- 5) Time is critical for effective supply chain security management. Effective security systems respond quickly to emerging security threats, and these quick responses delay criminal activities. For example, the sooner the security system detects and intercepts suspicious activities the better – early alarm and responsive intervention reduces potential losses. On the other hand, security aims to delay criminal activities: fences and locks delay burglars, PIN-code protection delays fencing of stolen cell phones, and money laundering regulations delay conversion of criminal proceedings into seemingly legitimate money. Thus, **the goal here is to minimize the time spans from the “good side perspective”, and to maximize the time spans from the “bad side perspective”¹⁵⁸.**
- 6) A security system comprises several interdependent security measures. For example, a surveillance camera system works best in conjunction with mobile guards who can intervene rapidly with detected criminal activities. In the absence of the complementary guard, the camera surveillance helps only to investigate security breaches. The key for effective security management is to identify and coordinate these interdependencies. **A deep understanding on the combined capabilities and effects of security measures forms the basis for effective security management, combined with low coordination costs.**
- 7) Finally, several context-specific pre-conditions affect the outcomes of security measures. First the obvious: a security measure should be feasible to implement in a certain setting. For example, camera systems do not work without electricity, or pre-hiring background checks cannot be done if the law does not allow. Besides, designers of security measures should assess that the users of the security measure (e.g. operators of an X-ray machine) believe in the effectiveness of the security and consider it as a practical way to conduct security checks. Aside from the users, effective implementation of a security measure requires buy-in from key stakeholders, in particular executive level managers. A lack of high-level commitment undermines the effectiveness of security systems. **Thus, user awareness,**

¹⁵⁸ Curiosity note: this approach correlates even in the example of prison sentences: in a good total security environment, “bad actors” receive long prison sentences (= “make them do time”).



belief and commitment, as well as practicability and availability of security procedures and solutions, should be ensured to the maximum level feasible.

Regarding the fifth component above, i.e. Time-based security management, the Box 20 below presents multiple examples on how the principle of “minimise times for good actors, and maximise time for bad actors” works in practice.

Box 20. Time based metrics in supply chain security (CBRA)¹⁵⁹

<u>Good guys perspective, "be quick", minimise the time required:</u>	<u>Bad guys perspective, "make it slow", maximise the time required:</u>
<ul style="list-style-type: none">• Quick risk management process to carry out• Quick security learning process• Quick installation / implementation/ configuration of technical devices• Quick verification of product originality (e.g. checking wine serial number by phone)• Quickly away from vulnerable or high risk areas (driving routes, non-safe parking)• Quick pre- alert on potential problems• Quick alert on intrusion (facility, vehicle, IT system etc.)• Quick intervention (guards, police, military ship...)• Quick "crime reward decrease" mechanism (stolen goods are destroyed, or stop working by means of remote control, web-connections)• Quick formal reporting (with police, customs...)• Quick recovery of supply chain (back to normal)• Quick judicial procedure, " get them quickly behind the bars" <p><i>(EXCEPTION: long time is good for: Technology life-time, time between maintenance, battery life time etc.)</i></p>	<ul style="list-style-type: none">• Slow learning process to circumvent security measures• Slow reverse engineering to produce counterfeit products• Slow observation of the crime opportunity (e.g. no company logo on trucks)• Slow committing of crime (e.g. anti-intrusion solution works well)• Slow catching of the escaping ship, by the pirates• Slow escape process, from the crime site• Slow time to make money by selling stolen or counterfeit goods• Hard legal punishments, " make them do a long time"

The author of this report makes a suggestion that RTC could apply the SCS management performance tool to assess security systems of the AEO applicants, and the applicants itself for self-assessment of their own security systems. This way one may avoid creating “paper-tigers”, which can sometimes happen if the approach to supply chain security design and security measure selection and optimization is too restricted or narrow. This CBRA model paves the way for an in-depth understanding as to whether the security measures in place, or planned investments, really mitigate the risk of illicit activities or not.

Closely related to the findings on this sub-chapter, Annex 17 expands on a detailed comparison between security and quality management, in a global supply chain context. The author of this report recommends browsing of Annex 17 to the interested readers. Annex 18 presents a traditional crime prevention methodology – or, process – called SARA, something that interested readers can take a look at.

¹⁵⁹ Source: Hintsa J. 2011. CBRA unpublished Working Paper Nr. 2011.



4.3 CBRA models and taxonomies on the illicit side

In this sub-chapter multiple propositions are made to exploit “illicit side” related models, taxonomies, matrixes and tables: as a means of problem identification and prioritization; as a communication tool between customs and businesses as well as customs and other governmental agencies; and as a learning tool for each party involved, while trying to get both top-down and bottom-up understanding of the complex universe of what really is “all illicit in global supply chains – what to tackle, why and how”¹⁶⁰.

4.3.1 CBRA supply chain crime taxonomy¹⁶¹¹⁶²

The CBRA supply chain crime taxonomy classifies supply chain crime and security risks into six non-overlapping classes by the type of criminal intervention. The taxonomy is crafted on the basis of the findings of qualitative interviews with eighteen senior level managers representing companies from a variety of industry sectors. The interviews elicited the managers’ perceptions on crime and security problems in their supply chains. The taxonomy captures the entire spectrum of supply chain crime and security risks, as understood by the three authors of the Männistö et al 2014 scientific paper. The taxonomy helps to identify stakeholders’ interests in different areas of supply chain security management. Thus, the taxonomy helps customs to identify, compare, and align its own supply chain security priorities with interests of the businesses and fellow government agencies (the police, health, agriculture, veterinary authorities etc.). The crime taxonomy is visualized in Figure 18 below, and explained right after.

¹⁶⁰ Note: one should be aware that “illicit side, or, the dark side, of global supply chains” is a very challenging research discipline, due to multiple reasons, including the following four: (1) Research data – input and output - sensitivities include: (1a) Data privacy (including nominal data) and other legal issues; (1b) Not to reveal supply chain vulnerability information to potential criminals; and (1c) Not to educate potential criminals in ways to avoid or go around security measures. (2) Difficult access to empirical data, including: (2a) Incidents and statistics; (2b) Before-and-after cases (nature of the beast in crime prevention and security research); and (2c) To go beyond check-list –attitudes. (3) Risk of research bias - you must know in advance the stakeholders and data sources; and their motivations, remembering that also the “bright side actor” incomes can depend 100% on the (fear of) illicit activities. (4) Risk of “researcher personal safety” - to avoid situations where e.g. “investigative journalists” might find themselves in danger. Source: Hintsa, J. Challenges with academic research in the broad context of illicit activities and supply chain security. Key witness speech at PICARD2012 Conference, Marrakech, Morocco, Sep.2012.

¹⁶¹ Männistö, T. Hintsa, J. and Urciuoli L. 2014. Shipper’s Perspectives on Supply Chain Crime – Taxonomy Development and Empirical Validation. Accepted for a special issue of International Journal of Shipping and Transport Logistics. <http://www.inderscience.com/info/ingeneral/forthcoming.php?jcode=ijstl>

¹⁶² FP7-project FOCUS: "Foresight Security Scenarios: Mapping Research to a Comprehensive Approach to Exogenous EU Roles". Grant agreement no: 261633. Date: 1.4.2011-31.3.2013 FOCUS URL: <http://www.focusproject.eu/> More information on FP7-FOCUS can be found on Annex 19 of this report.

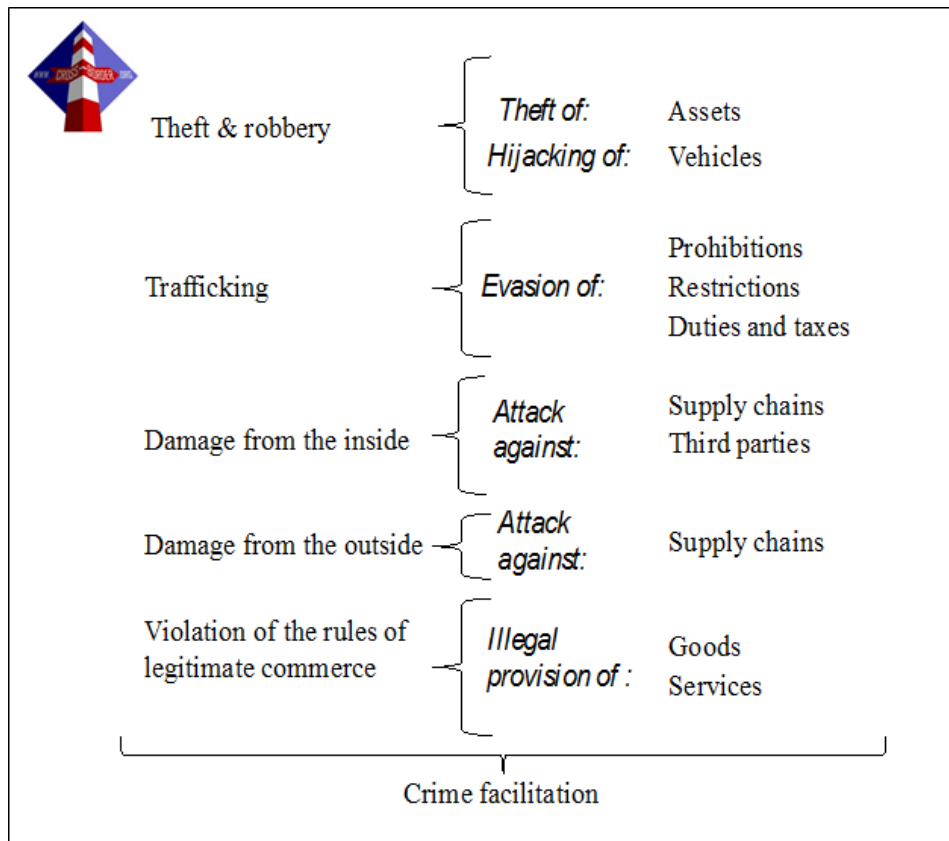


Figure 18: Supply chain crime taxonomy (CBRA)

The “**theft /robbery / hijacking**” class encompasses a multitude of offences where criminals take cargo, vehicles and other assets out of commercial supply chains. Specific crime types include robbery (taking by force or intimidation), hijacking (theft of vehicles), burglary (taking by intrusion) and pilferage (small scale opportunistic theft), professional cargo crime (organized activity of stealing large quantities of merchandise) and sea piracy (attacking, hijacking, robbing and capturing ships at sea).

Offences in the “**trafficking class**” exploit legitimate commercial supply chains for illicit trade. The defining criminal intervention is the introduction of absolute, relative or fiscal contraband into the supply chain. Contraband enters legitimate supply chains when traffickers tamper with shipments en route or ship their cargo like regular law-abiding clients of logistics service providers. Trafficking via legitimate supply chains commonly necessitates the use of fraudulent shipping documentation and/or application of appropriate concealment techniques.

The “**damage from the inside**” class comprises crimes where offenders introduce malicious contraband into supply chains in order to damage either a third party, typically a recipient of a shipment, or the supply chains themselves. The initial step in such crimes is to get dangerous goods, like explosives or contaminated consumer products, inside the supply chain. Subsequent damage, like an explosion in the former case, occurs later and originates from the inside of the supply chain.



The **“damage from the outside”** class covers acts that cause damage to assets, infrastructure and/or personnel involved with supply chains. In contrast to the “damage from the inside” offenses where criminals first infiltrate dangerous cargo into supply chains and subsequently trigger the attack, “damage from the outside” attacks strike immediately. Derailment and shooting down a cargo plane are examples of such exogenous and instant attacks.

The **“breaking the rules of legitimate commerce”** class involves activities where otherwise legitimate firms produce, distribute or sell products, or provide logistics services, by illicit means. The class includes a broad array of offences where individuals within a company violate the regulatory framework governing manufacturing, distribution and sales to advance corporate objectives. At the production stage, firms break the rules, for example, when they exploit illegal workforce, deviate from quality standards or exceed contract manufacturing quota and sell extra output via unauthorized sales channels. Examples of crimes at the distribution stage include unilateral and deceitful deviation from agreed transport conditions (e.g. replacing a freezer container with a regular one) and mishandling of hazardous goods to expedite a delivery.

The **“crime facilitation”** class entails secondary crimes that do not bring direct crime reward for criminals but provide means and methods to pursue rewarding crimes, like cargo theft and trafficking, subsequently. Seven general facilitating approaches include the use of bogus companies, corruption, cybercrime, data theft, document fraud, identity theft as well as the use of violence and intimidation. In trafficking, for instance, bogus companies are useful to mask illegal activities behind a seemingly legitimate front; corruption facilitates illegal merchandise passing through security controls; data theft facilitates planning optimal criminal modus operandi; fraudulent documents make contraband look legitimate in the eyes of law enforcers; and identity theft enables traffickers to take advantage of the good reputation of established traders, including those with a “trusted status” (e.g. Authorized Economic Operator, AEO, certificate).

For interested readers, Annex 19 has an easy-to-read table on more detailed crime types in the global supply chain context¹⁶³. Specifically to terrorist risk factors from shipping, the classic figure by OECD (2003) is shared in Annex 20.

When considering from economic crime perspective, including “crime-portfolio planning”, CBRA has produced a layman box on “illicit actor multi-objectives”, for illustrative purposes, presented below (Box 21).

Box 21: Illicit actor multi-objectives in crime-portfolio planning (CBRA)¹⁶⁴

- | |
|---|
| <ul style="list-style-type: none">- Maximize revenues;- Minimize costs;- Maximize profits;- Minimise risk of damages and losses- Minimize assets (or, capital tied);- Minimize risk of getting caught;- Minimize penalties, in case caught (and judged). |
|---|

¹⁶³ Hintsa, J., Männistö T., Urciuoli, L., Ahokas, J., 2012. Does better visibility help mitigate security risks in cross-border supply chains? - Case FP7-CASSANDRA. In: e-Freight Conference 2012, Delft, the Netherlands, May, 2012. More information on FP7-CASSANDRA can be found on Annex 19 of this report.

¹⁶⁴ Source: Hintsa J. 2013. CBRA unpublished Working Paper Nr. 2013.



Lastly, Annex 21 contains an illustrative, simplified economic model for illicit actors in supply chains, using narcotics smuggling and waste crime as examples of how to “make maximum illicit profits through high revenues and low costs, while minimizing the capital invested or tied”.

4.3.2 CBRA mapping example crime types to a generic supply chain model¹⁶⁵

Supply chains move materials, goods, and products from suppliers to final customers through a sequence of value-adding activities. The supply chains involve a wide range of activities: sourcing, manufacturing, transport, warehousing, exports / transit / imports, distribution, retail, and so forth. Each activity is exposed to a specific array of security and crime risks. For example, smuggling of fiscal, relative, and absolute contraband is associated with international supply chains where shipments go through customs control as part of import, transit and export procedures. The following describes an attempt by the author of this study to visualize how a set of crime types typically maps to a generic supply chain model. Explanation is given in three stages, by building up on a “generic supply chain model mapped with typical crime risks” diagram.

The first version of the diagram contains key stages in global supply chains, namely the following six (Figure 19):

- **Raw material sourcing**, “from earth, soil, rivers, lakes and seas”: minerals, metals, oil, gas, animals, plants, timber etc.
- **Manufacturing**: parts production, semi-finished goods, final assembly, process manufacturing etc. – with multiple manufacturing stages at different factories and geographical locations
- **Transport**: maritime, air, road, rail etc. – with multiple transport stages, in some cases across the globe, multi-modal, etc.
- **Export, transit and import** activities, typically with at least two stages.
- **Warehousing, distribution, wholesale and retail** – again with the potential of numerous parallel and sequential stages.
- **Reverse logistics**, for end-of-life products; for post due-date products; for a variety of waste products (regular, e-waste, hazardous waste etc.)

¹⁶⁵ OFFICIAL REFERENCE TO THE THREE DIAGRAMS AND RELATED TEXT: Hintsa J. (2013). Final report on AEO – MRA study for RTC. Thailand Europe Cooperation TEC-II, PDSC. Implementation of international standards on Supply Chain Security leading to a secure Trade Environment and to increased Trade Facilitation (Activity Code : TRA 4). Bangkok, Thailand, 31.12.2013.

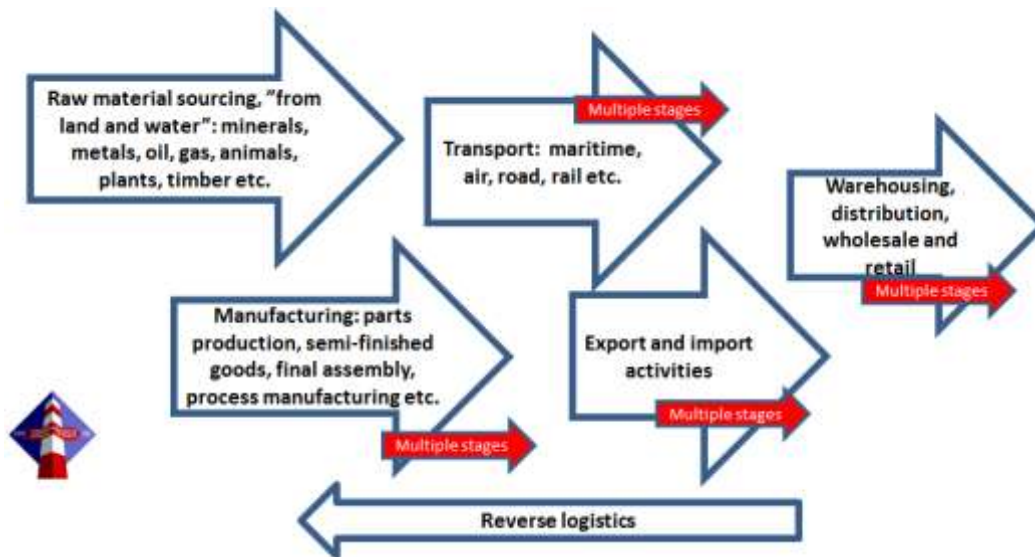


Figure 19: Generic supply chain model by CBRA

The second diagram below (Figure 20) builds on the first one by introducing six examples of customs related illicit acts in a global supply chain context. Picking one example, wildlife crime, links this crime type to at least three supply chain stages: Raw material sourcing; Export and import activities; and Warehousing, distribution, wholesale and retail. The other five example crime types are the following:

- Smuggling for fiscal fraud
- Smuggling by violating restrictions and prohibitions
- Violation of hazardous waste, e-waste¹⁶⁶ and other waste regulations
- Counterfeit manufacturing, transport, distribution and sales
- Exploiting supply chain systems to cause damage at target destinations; acts of terrorism¹⁶⁷

¹⁶⁶ Additional information available on e-waste illicit activities: FP7-project CWIT: "Countering WEEE illegal trade". Grant agreement no: 312605. Date: 1.9.2013-31.8.2015. More information on FP7-CWIT can be found on Annex 19 of this report.

¹⁶⁷ Note: The author leaves the observations on the links between these crime types and supply chain stages to be done directly on the diagram below.

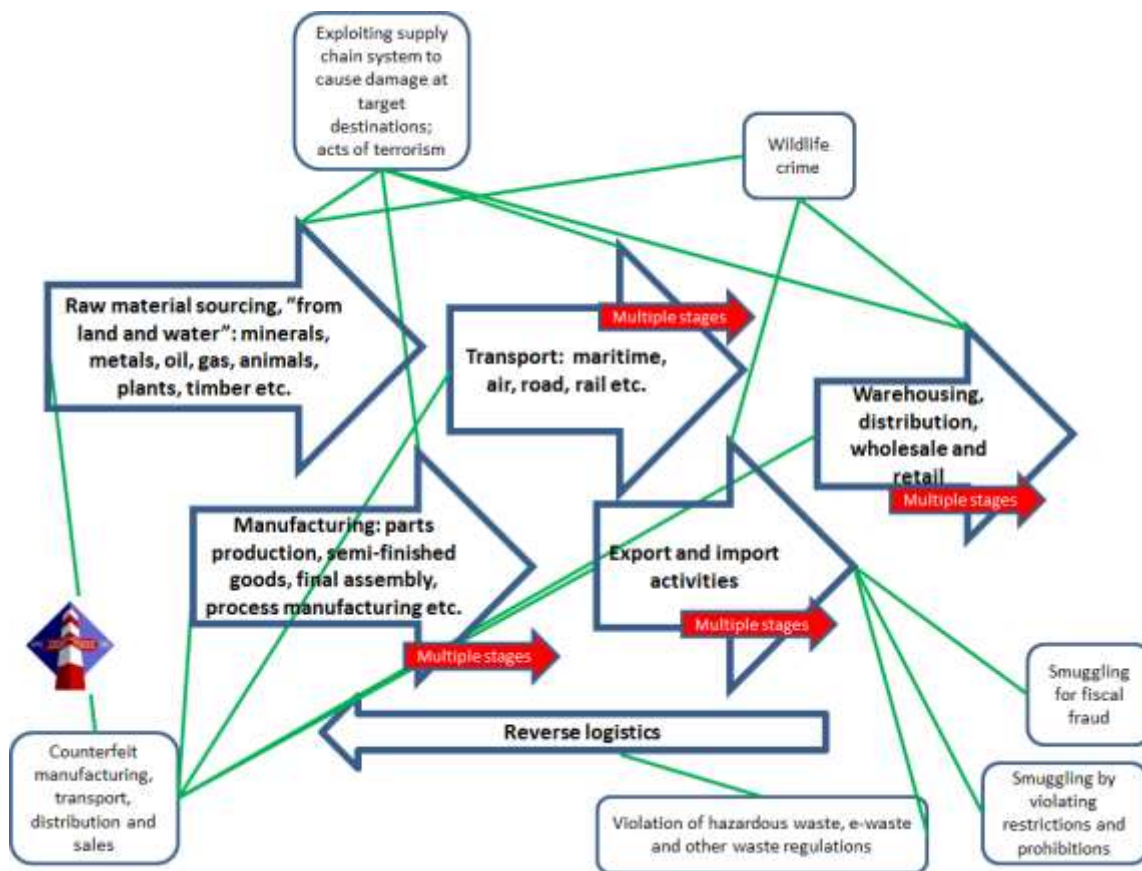


Figure 20: Examples of customs-related illicit acts mapped on the generic supply chain model (CBRA)

Finally, a total set of 13 – or even more, as some “crime boxes” combine several crime types – are mapped against the generic supply chain model (Figure 21); several of these crime types are (normally) out-of-scope for customs control. And to repeat on the objective of sharing these diagrams with RTC experts: these can act as structured communication tools between RTC and business and/or other government agencies when considering future AEO criteria/requirements, benefits, audits and so forth¹⁶⁸.

¹⁶⁸ OFFICIAL REFERENCE TO THE THREE DIAGRAMS AND RELATED TEXT: Hintsa J. (2013). Final report on AEO – MRA study for RTC. Thailand Europe Cooperation TEC-II, PDSC. Implementation of international standards on Supply Chain Security leading to a secure Trade Environment and to increased Trade Facilitation (Activity Code : TRA 4). Bangkok, Thailand, 31.12.2013.

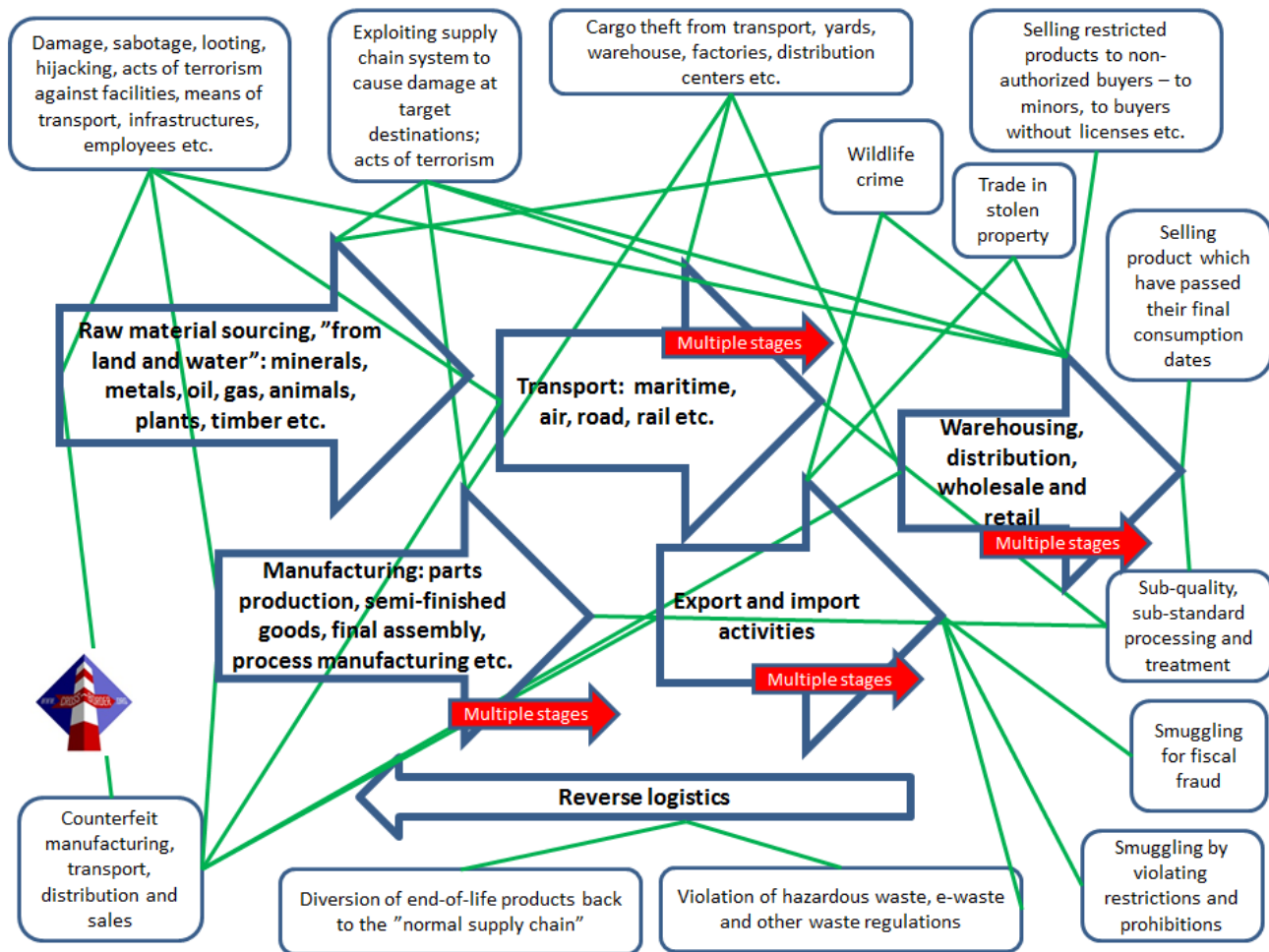


Figure 21: Examples of all types of illicit acts mapped on the generic supply chain model (CBRA)

The author of this report recommends following two annexes as further material for interested readers: Annex 22 by CBRA on "3 bads in global supply chains – bad actors + bad shipments and movements + bad consequences"; and Annex 23 with Mr. Alan Wright's interesting explanation and visualization of "illicit enterprises versus legitimate markets".

4.3.3 CBRA tables on trafficking prone commodities¹⁶⁹

The Table 20 below on smuggling-prone commodities gives an impression as to what kind of illicit goods move through commercial supply chains. The list is built mainly by collecting all commodities that appear in the WCO's press releases and web-site news from 2008 to 2012. Besides the WCO's archives, CBRA research team incorporated some data from Interpol's publicly available database, UNOCD report, and Europol's organized crime reports, as well as US Seaport 2000 and FIA 2001 reports.

¹⁶⁹ Hintsa, J., Männistö T., Urciuoli, L., Ahokas, J., 2012. Does better visibility help mitigate security risks in cross-border supply chains? - Case FP7-CASSANDRA. In: e-Freight Conference 2012, Delft, the Netherlands, May, 2012. More information on FP7-CASSANDRA can be found on Annex 18 of this report.



Table 20: Commodities prone to illicit trafficking (CBRA)

Trafficking in:	Examples of associated commodities	Supply chain crime type:
Counterfeits	Apparels, electronics, spare parts, pharmaceuticals	Counterfeiting
Highly taxed goods	Alcohol, cigarettes, petroleum products	Duty and excise fraud
Narcotics	Cocaine, heroin, cannabis, synthetic drugs	Smuggling of prohibited goods
Pharmaceuticals	Counterfeit medicines, pharmaceuticals imported without appropriate licenses, stolen pharmaceuticals	Smuggling of prohibited / restricted goods
Polluting substances	Halon chemicals, hazardous waste	Pollution crime
Quota-restricted commodities	Hand bags, apparels	Violation of trade quotas
Stolen goods	Cars, art, electronics	Cargo crime
Weapons	Rocket launchers, hand guns	Smuggling of prohibited / restricted goods
Wildlife	Elephant ivory, rhino horns, illegally logged timber	Wildlife crime

For interested readers, Annex 24 contains a detailed, item-level table on “Smuggling-prone commodities” in a global supply chain context.

4.3.4 CBRA customs violations and modus operandi in declaration fraud

Traffickers can use a variety of methods (modus operandi) to smuggle goods across borders. The Table 21 below lists the main methods the traffickers use to deceive within customs declarations.¹⁷⁰

Table 21: Modus operandi in customs declaration fraud (CBRA)

Modus operandi in customs declaration fraud	Explanation
Under-valuation (on value per unit)	This is for illicit avoidance of value-based duties and taxes.
Over-valuation (on value per unit)	For export: This is for fraudulent claiming of VAT refund, export subsidies or drawbacks. For import: This is for corporate tax fraud, also to avoid anti-dumping duties.
Under-quantity declaration	This is for illicit avoidance of quantity-based duties and taxes; also violation of import quotas.
Over-quantity declaration	This is for fraudulent claiming of VAT refund, export subsidies or drawbacks.
Misrepresentation of tariff code	Objective of misrepresentation of tariff code is to deceive customs officers to believe that the content of a shipment is something other than it really is. This method can be applied to avoid duties and taxes, circumvent quotas, evade licensing requirements, enable shipping to forbidden destination or collect unjustified export subsidies and drawbacks.

¹⁷⁰ Hintsa, J., Männistö, T., Urciuoli, L., and Ahokas, J., 2011. Customs Perspectives on Detection of Deliberate Regulatory Violations in Global Supply Chains - the Role of Information and Data in Risk Identification. OSCE-UNECE Round Table/UNECE Inland Transport Security Forum in Vienna, Austria on 12 – 13 December 2011. <http://www.osce.org/eea/99852?download=true> [Accessed 17 April 2013]



False declaration of country-of-origin	Making fraudulent statements about the origin of cargo enables criminal actors to evade licensing requirements, quotas, and anti-dumping policies that restrict exports from certain countries; Another desired outcome is for actors to benefit from favorable duty rates granted to preferred trading partners.
False declaration of country-of-destination	The modus operandi allows traffickers to evade country-specific embargoes and quota and licensing requirements.
False declaration of consignee	Criminally actors can trade with blacklisted parties and embargoed countries by misrepresenting the consignee of their shipments.
Misuse of authorizing documentation	Fraudulent use of authoritative documents help in evasion of basically all international trade-related rules.

Building on the table above, Annex 25 presents for interested readers a matrix where the nine illicit modus operandi in customs declaration fraud are mapped against four general categories of fraud. And finally, for interested readers, more information on Customs risks can be found e.g. at a CBRA survey study with 24 WCO member administrations¹⁷¹ - and Annex 26 of this report has an example graph from that report on risk priorities as ranked by these WCO members.

4.3.5 CBRA illustration on cybercrime and supply chain security

Last but not least, on an actual topic of “cybercrime meets supply chain security”, CBRA has developed an illustrative matrix explaining how certain cybercrime techniques may be used to commit certain (lucrative) supply chain crimes. Cybercrime techniques, such as phishing and hacking, enable criminals to obtain confidential information from closed databases. Transportation schedules and blueprints of security systems would enable the criminals, for example, to identify the most attractive targets, plan optimal modus operandi and solicit key employees. Terrorists and criminals could take control of computer systems in a Trojan horse attack and thereafter shut down security systems or disrupt critical logistics services, such as an air traffic control system. Criminals often exploit the internet as a channel to market illegal goods and services. E-mail and instant messengers help the criminals plan and coordinate their operations conveniently and stealthily. Some of these approaches are expressed in the Table 22 below^{172,173}, the suggestion to RTC experts being that cybercrime risks in the AEO-context should be taken seriously in the future, including thorough discussions and investigations with AEO-applicants – possibly using the matrix below to “stimulate discussions”.

¹⁷¹ Hintsa, J., Männistö, T., Hameri A.P., Thibedeau C., Sahlstedt, J., Tsikolenko, V., Finger M. and Granqvist M., 2011. Customs risk management (CRiM): A Survey of 24 WCO Member Administrations. Study for World Customs Organization (WCO). Lausanne, Switzerland on 28 February 2011. Available at WCO web-site: http://www.wcoomd.org/en/topics/enforcement-and-compliance/activities-and-programmes/ep_customs_intelligence.aspx [Accessed 3 December 2012]

¹⁷² Urciuoli, L., Männistö, T., Hintsa, J., Khan, T., 2013. Supply chain cyber security – potential future threats. Information & Security: An International Journal. Vol.29. <http://dx.doi.org/10.11610/isij.2904>

¹⁷³ FP7-project FOCUS: "Foresight Security Scenarios: Mapping Research to a Comprehensive Approach to Exogenous EU Roles". Grant agreement no: 261633. Date: 1.4.2011-31.3.2013 FOCUS URL: <http://www.focusproject.eu/> More information on FP7-FOCUS can be found on Annex 19 of this report.



Table 22: Cybercrime and its use in supply chain crime – illustrative examples (CBRA)

<i>Cybercrime objective</i>	<i>Access to confidential information</i>	<i>Control over computer systems</i>	<i>Communication</i>
Offline criminal activity			
Cargo crime	Logistics information: routing of shipments, content of shipments, scheduling etc. Vulnerability information: weak spots in security systems of terminals, ports and warehouses, etc.	Shut down or dislocation of surveillance cameras Manipulation of access control system	Coordination and planning within and between criminal groups Marketing transportation services via bogus websites set up for cargo crime purposes Web-sales and marketing of illegal goods
Smuggling	Vulnerability information: weak spots in anti-smuggling controls	Manipulation of shipment targeting results	Coordination and planning within and between criminal groups
Counterfeiting	Blueprints of genuine products Theft of serial numbers of products (spare parts, pharmaceuticals etc.)	-	-
Sabotage	Vulnerability information: weak spots in security systems of terminals, ports and warehouses etc.	Malicious tampering of supply chain related computer systems such as air traffic control, railway control system, ERP-systems of businesses	Intimidation and blackmailing via internet Coordination and planning within and between criminal groups

For interested readers, Annex 27 presents a pie-diagram on cyber-crime and other risk of illicit and priorities as perceived by supply chain companies across Europe (FP7-LOGSEC).

4.3.6 Interview with Dr. Naim on global illicit trade

Before moving to specific suggestions for RTC, the author of this report would like to share an interview he conducted in May 2010 with Dr. Naim, a well-known author in world politics as well as in illicit trade. Specifically, the interview was conducted in the context of his eye-opening book ‘Illicit: How smugglers, traffickers, and copycats are hijacking the global economy’ (2005). Annex 28 of this report contains a brief summary of the book itself; and the Box 22 below contains the interview outcomes between Dr. Naim and the author of this report.

Box 22: Interview Dr. Naim – Dr. Hintsa, May 2010

How did you come up with the idea for the book? Around 1995 I was walking downtown Milano, when I saw Prada handbags for sale on the street, just few blocks away from the official Prada store. The price was over 90% cheaper than in the shops, and it turned out quickly that the bags were counterfeited, of course. I managed to talk with the guy selling the bags, and soon it turned out he was as illegal (in Italy) as the bags he was selling. In addition, it became clear that he was forced to do this work, as the organization behind the whole counterfeit operation was threatening him and his family, back home in Africa. After bumping into similar story in New York few months later, I started to realize the broader aspects of global illicit trade, both on supply and on demand sides of the equation. That way when I started systematically to observe and analyze the multiple facets of illicit trade – and some 10 years later I came up with the book.

What you mean with the supply and demand aspects of illicit trade? These are markets, where the rules of supply and demand apply, just like taught in business schools. Investments, risks, supply chain operators, human resource



management, shipping, trading, inventory management – all these apply to match the supply of illicit products with the demand.

How has the landscape of crime, illicit trade and supply chain security changed since year 2001? On one hand, 9/11 made it more expensive to cross borders, as several countries started to fortify their borders and to make efforts to really understand who was crossing borders; the flow of goods, people and money. On the other hand, it is impossible to find one country who can demonstrate reduction in arms smuggling, counterfeit products, or money laundering – these are all growing, since 2001.

How do you see the impact of the on-going financial crisis (in 2010)? During the financial crisis times, in some countries people become more and more desperate to find income, pushing them to go abroad, in order to find any kind of jobs. But, for example Mexicans cannot find jobs at the moment in the US – this leaves them few options but to join drug cartels. There is also clear evidence that financial crisis has not lowered the overall activity of narcotics trafficking.

Looking to the future, what are your biggest concerns about illicit trade? The perception of illicit trade of all kinds is where the climate change was five years ago: people don't take it seriously enough. One reason may be that crime has existed as long as the human history, as old as the bible, or even older. But, today criminals are becoming part of the political systems – both "politisation of criminals" and "criminalisation of politics" are happening in many countries around the world. Total industries are being undermined by illicit trade, for example music, video and garment sectors. On the demand side, the rich countries such as the US, UK, Spain and France represent the biggest consumers of narcotics, fake Rolexes etc., as their governments allow such markets.

What should the public and private sectors do next about this worrying situation? Governments must simplify and internationalize their efforts, as no government acting alone can control illicit trade. Today they have too many objectives and obligations, thus they should define the top priorities and concentrate all their efforts there. For the supply chain operators, they should enhance security in the supply chains based on their self interests – instead of waiting for additional regulations and standards from the authorities. For all actors, referring (just) to the moral aspects of illicit trade doesn't solve the issue, but one must really understand the business models the criminal organizations are following, and use the best means available to minimize demand and supply and to disrupt the logistics and finance in between.

4.4 Security management and crime prevention tools - suggestions to RTC

The purpose of this sub-chapter is to provide tangible illustrations of applying the various CBRA developed models and tools – as presented in previous three sub-chapters - into practice.

4.4.1 EU AEO versus RTC AEO - suggested benefits



This first example exploits CBRA AEO benefit model, and maps the variety of benefits announced by both EU and RTC against the CBRA model (Table 23 below). This “mapping exercise” may be beneficial e.g. when considering future options for “benefit harmonization” between the two AEO programs.

Table 23: Comparing EU AEO benefits with RTC AEO benefits using the CBRA AEO benefit model

CBRA benefit category	EU AEO suggested benefits	RTC AEO suggested benefits
A1¹⁷⁴	<ul style="list-style-type: none"> • Access to various customs simplification procedures if requested • Reduced data set for entry and exit summary declarations • Designated contact point within a customs administration • Application for other certifications and authorisations (such as Regulated Agents, Known Consignors, Account Consignors under the Air cargo security regulations, and the Approved Economic Operator scheme for the fishery products sector) will be easier 	<ul style="list-style-type: none"> • Privileges on customs procedures covering import, export and re-export; • Tax privileges to be granted on more speedy tax refund and compensation; • Privileges on using guarantee as standardized Authorized Economic Operator in lieu of placing a guarantee on transshipment and transit goods; • Privileges on legal cases under the conditions specified by the Customs Department; • <i>(Other qualified privileges will be announced by the Director-General of Customs).</i>
A2¹⁷⁵	<ul style="list-style-type: none"> • Reduced level of physical and document-based customs checks at borders and under post clearance procedures • Prior notification of controls • Choice of the place of controls • Priority treatment of consignments if selected for control • Should a serious security incident occur resulting in a temporary halt to the import and export of goods, AEO companies will be among the first to be allowed to move once restrictions have been lifted • Recognition by countries with MRA in place 	<ul style="list-style-type: none"> • Fewer physical and document-based controls • Priority treatment of consignments if selected for control • Choice of the place of controls • Exports will be recognized by foreign Customs Administrations having Mutual Recognition Agreement so-called “MRA”.
B1¹⁷⁶	<ul style="list-style-type: none"> • Recognised as a secure and safe business partner • Improved relations with Customs • Improved relations and acknowledgement by other government authorities 	<ul style="list-style-type: none"> • not listed
B2¹⁷⁷	<ul style="list-style-type: none"> • reduced theft and losses; • fewer delayed shipments; • improved planning; • improved customer service; • improved customer loyalty; 	<ul style="list-style-type: none"> • not listed

¹⁷⁴ A1. Company-level AEO benefits: examples of benefits materialize (if materialize) normally on “permanent basis” for a given company (unlike A2. Government agency granted shipment-level benefits); this A1 category of benefits can be relatively easy to verify, many of them in yes/no style.

¹⁷⁵ A2. Shipment-level AEO benefits: examples of benefits materialize (if materialize) on shipment-to-shipment basis, i.e. practical situation might differ a lot over a given time period, thus should be (re)measured periodically.

¹⁷⁶ B1. Company network AEO benefits: example is based simply on the observation that e.g. shippers might require AEO certifications from their logistics partners / suppliers in order to qualify them in the first place.

¹⁷⁷ B2. Single company AEO benefits: examples are in the interest of single companies (of course, business partners can benefit from these, too); to achieve these, naturally one does not need a formal AEO certificate, but the actual security measures and procedures in place will bring the same (positive) results; also, these benefits are often very difficult to measure, while many other factors in the business environment typically impacts on these.



	<ul style="list-style-type: none"> • improved inventory management • improved employee commitment; • reduced security and safety incidents; • lower inspection costs of suppliers and increased co-operation; • reduced crime and vandalism; • improved security and communication between supply chain partners. 	
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4.4.2 EU AEO versus RTC AEO – security requirements

The second example exploits the CBRA 8-layer supply chain security management model as a reference when assessing which types of security measures are required by EU and RTC AEO-programs (Table 24 below). This “mapping exercise” may be beneficial e.g. when considering future options for “security measure harmonization” between the two AEO programs, or, when considering ways to improve one or both programs.

Table 24: Mapping the EU and RTC AEO security requirements on the CBRA 8-layer SCS model

Nr.	SCS layer name	Supply chain security (SCS) layer explanation	EU AEO	RTC AEO
I	Risk management	Assess vulnerabilities and threats in the supply chain. Estimate risk likelihoods and consequences, in order to set priorities for security investments and operational procedures.	<ul style="list-style-type: none"> • carry out risk assessments regularly, review, update and document these, identifying security and safety risks (% of probability or risk level: low/medium/high) and put in place preventative or mitigating measures • risk map • procedures for recording and investigating security incidents, including reviewing the risk and threat assessment and taking remedial action where appropriate 	<p>The AEO/applicant's risk assessment must provide:</p> <ul style="list-style-type: none"> • a flow chart of the risk assessment • identification of risks and security weaknesses • measures to address the risks and weaknesses • date of risk assessment and details of the responsible persons/department
II	Supply chain design and planning	Design supply chain structures, including points of sourcing, transport routes and warehouse locations, in order to minimize criminal risks. Prepare necessary plans, including security plan, disaster recovery plan, training plan, audit plan and public-private partnership plan.	<ul style="list-style-type: none"> • Not listed 	<ul style="list-style-type: none"> • Not listed
III	Process control and supply chain visibility	Manage and control key business processes in the supply chain, and establish visibility into them for continuous monitoring purposes. Report on deviations, and implement control loops for continuous improvement purposes.	<ul style="list-style-type: none"> • present evidence of control over the business with appropriate organisational strategy and measures to identify, avoid and mitigate risk • procedures for recording and investigating security incidents, including reviewing the risk and threat assessment and taking remedial action where appropriate • handling export/import licenses (as appropriate) 	<ul style="list-style-type: none"> • Have a control plan, management and risk assessment systems in accordance with security instructions • report processes for continuous systems performance monitoring, reviews and updates/enhancements



IV	Supply chain assets and data protection	Secure manufacturing and storage facilities, means of transport, containers, shipments, packages, products, data systems, and data itself. Implement secure design, access control, authentication, inspection, testing, crime reward decrease and other possible security management practices, as deemed necessary.	<ul style="list-style-type: none"> • Building security • Appropriate access controls • Cargo security • Data security and access restrictions 	<ul style="list-style-type: none"> • Premise Security and Access Control • Cargo Security • Conveyance Security • Information and IT Security
V	Human resource management	Focus on the problem of human resources as a weak link in supply chain security. Cover hiring and exit processes; awareness building and training; controlling and protection; as well as incentives for proper security performance.	<ul style="list-style-type: none"> • Personnel security • Security awareness programmes • Background checks on new and existing employees 	<ul style="list-style-type: none"> • Personnel Security • Background checks and monitoring of behaviour • Security awareness training
VI	Business partner management	Define selection process for business partners, and requirements for partner security certifications. Execute partner monitoring, training and audit activities, as deemed necessary.	<ul style="list-style-type: none"> • Business partner security • contractual terms and conditions for security 	<ul style="list-style-type: none"> • Trading Partner Security • contracted • Compliance manual on security requirements
VII	Aftermath capabilities	Ensure post-incident recovery with minimum supply chain disruptions through business continuity mechanisms. Carry out investigations and collect evidence, for supply chain internal purposes as well as for the judicial system.	<ul style="list-style-type: none"> • procedures for recording and investigating security incidents, and taking remedial action where appropriate • Develop contingency plan for loss of data including retrieval from off-site secure back-up files and systems 	<ul style="list-style-type: none"> • Incident Management and Investigation Security • Crisis management and Incident Recovery
VIII	Disrupting illicit activities	Take proactive measures to damage illicit supply chains, anything from supply, production, and logistics operations, to distribution, marketing and sales functions. Influence legislators and law enforcement agencies, and exploit public-private partnerships. Influence demand side.	<ul style="list-style-type: none"> • Not listed 	<ul style="list-style-type: none"> • Not listed

4.4.3 Assessing negative impacts of typically trafficked commodities

The last example of this sub-chapter focuses on assessment of the negative impacts of “trafficking prone commodities” to society - tax revenue loss, people safety risks, environmental damage etc. – as well as to companies in supply chains – fiscal and other penalties, financial losses, reputational damages etc. The author suggests that RTC experts consider using this Table 25, where two columns on the right have been added to document the observed or forecasted societal and supply chain problems, in both (i) customs internal risk management work; as well as when (ii) co-operating with businesses and/or other governmental agencies in determining the magnitude of these problems. The author of this report believes that such exercises can be useful e.g. for risk prioritization work as well as for communication towards political and business decisions makers.



Table 25: Commodities prone to trafficking and their impacts on society and supply chains (CBRA)

Trafficking in:	Examples of associated commodities	Supply chain crime type:	Societal negative impacts: tax revenue, people safety, environment etc.	Supply chain companies negative impacts: penalties, losses, reputation damage etc.
Counterfeits	Apparels, electronics, spare parts, pharmaceuticals	Counterfeiting	< fill in >	< fill in >
Highly taxed goods	Alcohol, cigarettes, petroleum products	Duty and excise fraud	< fill in >	< fill in >
Narcotics	Cocaine, heroin, cannabis, synthetic drugs	Smuggling of prohibited goods	< fill in >	< fill in >
Pharmaceuticals	Counterfeit medicines, pharmaceuticals imported without appropriate licenses, stolen pharmaceuticals	Smuggling of prohibited / restricted goods	< fill in >	< fill in >
Polluting substances	Halon chemicals, hazardous waste	Pollution crime	< fill in >	< fill in >
Quota-restricted commodities	Hand bags, apparels	Violation of trade quotas	< fill in >	< fill in >
Stolen goods	Cars, art, electronics	Cargo crime	< fill in >	< fill in >
Weapons	Rocket launchers, hand guns	Smuggling of prohibited / restricted goods	< fill in >	< fill in >
Wildlife	Elephant ivory, rhino horns, illegally logged timber	Wildlife crime	< fill in >	< fill in >



5 Summary of the key recommendations to RTC

The purpose of this last chapter is to summarise the key recommendations made by the author of this report to RTC, while keeping the two study objectives in mind:

1. Assist Royal Thai Customs, RTC, to improve the popularity of the Thai AEO program among the economic operators.
2. Assist RTC in preparing for AEO MRA negotiations, primarily with the European Union / European Commission Directorate General of Customs and Taxation (EC DG TAXUD).

The recommendations summarized below are based particularly on following sub-chapters of this report: Chapter 2.3 on AEO recommendations; Chapter 3.3 on MRA roadmap suggestions; and Chapter 4.4 Security management and crime prevention suggestions to RTC.

Study question 1: How to make AEO more attractive for economic operators in Thailand?

- 1. Make the application process as smooth, low cost and fast for the economic operators as possible:**
 - a. Expand on current RTC AEO-guidelines, with more detailed content on what is expected from the economic operators; examples on how to comply in a cost-efficient and security-efficient manner and so forth (*see full AEO guidelines by the EC DG TAXUD*)
 - b. Recognize existing governmental and business certifications, authorisations and standards as part of the AEO approval process; and encourage companies to exploit their existing security policies, guidelines and work instructions during the process (*see examples at EU, Chapter 2*)
 - c. Consider exemptions on AEO requirements for Small and medium sized enterprises, SMEs, due to the nature of their business and operations, which can differ significantly to those of large and especially multinational companies (*see examples at EU, Chapter 2*)
 - d. Ensure that “effective and efficient supply chain security measures” are encouraged and appreciated during the process; this might require some internal crime prevention and security management training, covering also organizational management aspects of supply chain security, with RTC AEO staff (*see examples by CBRA, Chapter 4*)
- 2. Invest in systematic design, implementation and monitoring of AEO-benefits / incentives:**
 - a. Consider a broad portfolio of benefits and incentives to AEO companies, in particular company-level benefits and shipment-level benefits granted directly by RTC. (*see examples summarized in CBRA AEO benefit model, Chapter 4*)



- b. In particular, analyse carefully AEO benefit suggestions by key internal organisations, including World Customs Organisation and International Chamber of Commerce, while considering their feasibility in Thai AEO context. *(see Chapter 2)*
- c. Ensure that AEO status of companies is explicitly recognized within RTC risk management, assessment and profiling procedures, especially within the risk management information systems and tools.
- d. Establish a system for continuous measurement and improvement of AEO benefit delivery towards the AEO companies in Thailand; this should be done in close co-operation with Thai industries, including key Thai industry associations.

3. Drive towards multi-agency co-operation “under the RTC AEO-umbrella”:

- a. First study current developments for example in the EU and in the US, particularly with aviation security and food inspection agencies *(see Chapter 2)*
- b. Get together one or more other Thai agencies - e.g. food safety and/or aviation security – and start exploring co-operation options and requirements, including legal frameworks required; and consider first steps in operationalization in terms of how to avoid duplications in company applications, audit visits, shipment inspections and so forth. *(see Chapter 2 on pool of Thai agencies)*
- c. Establish first pilot project with one select agency, and a handful of Thai companies; expand after that, based on lessons learned during the pilot, as well as based on a broader framework on “intra-agency collaboration, and how that can benefit economic operators in the future”.

4. Consider shifting towards system-based and audit-based principles and practices

- a. Aim to complement and/ or replace transaction-based approaches with systems-based and audit-based approaches in the future. *(see Chapter 2 on a Dutch case)*
- b. Aim to remove barriers, and aim to enforce drivers, when it comes to e-customs development and adoption among the Thai economic operators. *(see Chapter 2 on a related study)*

5. Consider expanding to additional types of actors eligible for AEO-status

- a. Start expansion towards the logistics sector, including freight forwarders, transport carriers and warehouse keepers *(see Chapter 2 with examples from the EU, Costa Rica and Korea)*
- b. While expanding especially to the logistics sector, consider the specific risk factors and their implications to security requirements per actor type, e.g. in postal logistics. *(see Chapter 2)*

6. Continue and possible expand in active interaction with Thai industries



- a. Discuss regularly on security requirements, if they make sense for the variety of economic operators; procedures throughout AEO lifecycle, if they could be further streamlined; AEO benefits, if they could be expanded and made more concrete; and so forth.
- b. Use models and tools from literature to facilitate discussions and opinion sharing, also to discuss on differing stakeholder interests. *(see Chapter 4 on CBRA models and tools, plus multiple annexes on this report)*

7. Start driving towards several AEO MRAs with third countries and regions

- a. The section below provides several suggestions on how to start doing that.

Study question 2: How to proactively prepare for future MRA negotiations, particularly with the EU?

1. Ensure clear high-level commitment to building a co-operative partnership, within RTC, as well as Thai government; this includes early on allocation of adequate human and financial resources for all stages of the MRA negotiation process.
2. According to the SAFE Framework demonstrate implementation of a Customs-to-Business programme along with the five main elements of the Customs-to-Customs pillar.
3. Establish a framework for a legally binding MRA between RTC and EU.
4. Provide more detailed guidance on what would be recognised as appropriate security measures to counter and combat different risks and threats; and examine the possible alignment of the methodology used for risk assessment of AEO applicants with that of the EU's AEO COMPACT MODEL FOR RISK ASSESSMENT.
5. Consider if the Thai AEO reference (identifier) structure might be aligned with that of the EU's EORI in order to aid the identification and sharing of benefits offered to Thai AEO exporter companies trading with the EU.
6. Provide more details regarding revocation and suspensions: in particular, relating to an appeals process and timeframes for the AEO to remedy any deficiencies which give rise to the need for a suspension of the status, and the intended process of timely communication of revocations and suspensions to the MRA signatories.
7. Make preparations to receive EU customs officials visiting Thailand, RTC and selected AEOs and applicants; and, make preparations for visiting EU customs authorities, and select AEOs and applicants in Thailand for EU customs officials to visit (in order to show how an audit is carried out, in different conditions, for different types of business; and to see what security measures AEOs have in place and ensure they are being maintained, reviewed and improved as required; and to see the management structures, contingency plans, etc.).



8. Prepare to provide full transparency on all processes and procedures (the application and authorisation processes and procedures, auditing, validation, monitoring and AEO status-refusal/removal processes and procedures, data requirements, storage, monitoring and data security, approval process for trade facilitation benefits and customs simplified procedures).
9. Prepare for signing of an MRA.
10. Make provision of resource to maintain the representation of RTC within the Joint Customs Co-operation Committee (JCCC) and other communication channels with EU customs officials.



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