

INFLUENCE OF AUTHORIZED ECONOMIC OPERATORS ON SUPPLY CHAIN SECURITY

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Abstract

Supply chain security and logistics management in private and public sectors is dependent on accurate, comprehensive data from trusted, compliant companies. Among all involved in supply chain and logistics Customs plays an important role in the fight against cross-border crime and terrorism. Customs expertise in controlling goods, backed up by the use of modern IT systems with e-Customs tools, and an efficient risk assessment and border control management, is vital to detect illegal goods such as drugs, explosive materials, nuclear and chemical weapons.

One of the most important components of European Union's Community Customs Code is status of Authorized Economic Operator (AEO). Its aim is to grant economic operators the status of a low-risk, more trusted actor under certain circumstances when it comes to actions with customs authorities within the EU. At the moment there are three types of AEO status that companies can be certified for.

Since Croatia joined EU in 2013, Customs has started to apply concept of Authorized Economic Operator system. This process and status is relatively new and there are not many companies that have started process of receiving status of AEO that will give those companies benefits in customs procedures in EU and whole world. Therefore this paper will give more information about AEO status and what Croatian companies need for getting this status and how it can benefit supply chain security.

Key words: supply chain, security, security standards, authorized economic operator, benefits for companies, AEO in Croatia

1. INTRODUCTION

Supply chain security has always been important issue for all included parties from sending, logistic and transport companies, customs authorities and finally to the receiving companies. Among them customs has a long tradition of controlling shipments. In the second part of 20th century, almost all goods have been inspected by customs authorities. Due to the significant increase of goods flow and globalization in trade customs can't control anymore all import. Customs role has changed and is now directed to use of modern methods of risk analyses and subsequent controls, thus reducing the cost of meeting compliance requirements for legitimate trade.

One of the main tasks of all included stakeholders in today's supply chain security is to identify risk in flow of goods. Therefore it is necessary to manage risks, to know risks they are facing and their possible impact on the targets. The purpose of risk management is to focus control activities on risks and not on randomly selected aspects or import declarations. Customs authorities therefore have to assess company's processes, procedures, administration etc. in order to check the management of supply chain and potential risks. It is necessary to assess the administrative organization of the company and its internal control system.

The main task of this paper is to identify how the certain agreements and standards can influence supply chain security in today's global trade, what are similarities and differences between standards and how the company can apply and become certified in accordance to one of those standards – authorized economic operator. Paper is divided in several parts. In first part of paper we will present authorized economic operator standard will together with it legal basis and we will compare it with other security standards. In the second part of paper we will research how to become authorized economic operator in Croatia – how to apply, what are the steps to receive the status. In the last part we will present benefits that company can have from having AEO certificate in global trade conditions.

2. SUPPLY CHAIN SECURITY STANDARDS IN THE WORLD

Today in the world there are many different standards that are used for transport and cargo security. Supply chain security became main issue especially after attack on the World Trade Center in New York. Terrorist attacks were not only reason so Closs & McGarrell (2004) stated three main factors for increased supply chain security. First is globalization of the world trade that depends and is mainly created from free flow of people, goods and information. Next is increased demand for efficient supply chain from business side. Finally the third is increased threat from different illegal and antagonistic threats. In the last several year it is seen that legal and regulatory environment has evolved and there is increased initiative for addressing need for increased security within supply chains in global trade. Today different intergovernmental and private organizations are the ones making and issuing these standards (Szelp, 2010).

One of the best known is World Customs Organization's (WCO) SAFE framework for supply chain security. Tweedle (2008, p.102) noted that main objective of SAFE is to "secure and facilitate global trade through the establishment of cooperative arrangements between Customs, trade and other government agencies in order to promote the seamless movement of goods through secure international trade supply chains." SAFE framework was built upon revised Kyoto Convention where the customs was encouraged to look beyond their traditional role of gatekeeper and to become trade facilitator (Widdowson, 2007). For SAFE framework Peterson and Treat (2008, p. 4) concluded that it *has two customs oriented supports: the customs-to-customs network and the customs-to-business partnership*. First network uses techniques for screening high risk cargo and second partnerships for setting procedures for certifying shippers. This two supports are helping business to realize primary concepts of framework: use of advance inbound and outbound cargo information; risk management; and installing new programs for commercial shippers (Boske, 2006). Peterson and Treat (2009) stated that many countries worldwide updated their cargo security programs. These programs among other include Transported Asset Protection Association (TAPA), Customs-Trade Partnership against Terrorism (C-TPAT) in USA and Authorised Economic Operator (AEO) regulation in European Union (Table 1).

Table 1 Main supply chain security programs worldwide

Program	Implementation year	Country of origin	Main objectives	Participants
Customs-Trade Partnership Against Terrorism (C-TPAT)	2002	USA	Security of cargo transported by land, air, and sea into the United States Supply chain security	Importers, manufacturers, transportation and logistics firms, customs brokers, warehouse and port terminal operators
WCO SAFE Framework	2005	Global	Customs/ trade facilitation Supply chain security	144 member countries as of February 2007
European Union's Authorized Economic Operator (AEO) program	2008	European Union	Customs/ trade facilitation Supply chain security	Importers, exporters, manufacturers, Customs brokers, Transportation firms of EU member-states
Frontline Program	1990	Australia	Cargo security, with a new focus on counterterrorism following 9/11	Shipping firms, Freight forwarders, airlines, customs brokers, warehousing firms, postal and port authorities
IMO International Ship and Port Facility (ISPS) Code	2004	Global	Maritime port security Cargo/supplychain security	National governments Maritime port Facility operators Shipping firms
U.S.-EU Mutual Assistance Agreement	2004	United States, European Union	Mutual recognition and Harmonization of customs procedures	Customs Administrations and port terminal operators in the USA and the EU

Source: adapted from Peterson, J. and Treat, A. (2009, p. 28-30)

Table 2 is showing different supply chain security protocols and programs that are currently operational worldwide. Most of them became operational after the terrorist attacks in USA. As previously stated different organizations and/or agencies have created and implemented different supply chain security standards, protocols and/or programs. Gutierrez & Hintsu (2006, p. 3) identified four main types of them: *a) customs compliance programs to which the security layer has been added; b) government origin, pure security programs; c) international organization origin, security standards programs; and d) private origin, pure security programs.*

Table 2 Identified types of voluntary supply chain security programs

Type of program	Examples	Main motivation and philosophy
Customs compliance programs to which the security layer has been added	PIP (Canada), StairSec (Sweden), ACP & Frontline* (Australia), AEO (EU)	Customs administration aiming to streamline Customs processes (e.g. accounting, payment and clearance) for compliant importers/exporters. Due to new security concerns these programs have added a security layer. This implies that importers/exporters eligible for border crossing facilitation benefits should not only be Customs compliant but also low risk.
Government origin, pure security programs	C-TPAT(USA), Secured Export Partnership (New Zealand)	Governments and border agencies motivated by recent terrorist attacks. Security measures aiming to transfer some of the customs control responsibilities to importers/exporters, in order improve the capacity to detect illegal activities. These programs have become prerequisites for participating in other Customs compliance programs.
International organization origin, security standards programs	WCO framework of standards, ISO (International organization for standardization)	International organizations aiming to establish supply chain security standards that can be generalized for the entire trading community.
Private origin, pure security programs	BASC (Latin America), TAPA (technology companies)	Private companies exposed to high risk of suffering from illegal activities in their cargo management operations. Security measures targeting the protection of cargo from being tampered or removed illegally.

Source: adapted from Gutierrez & Hintsu (2006, p. 3)

Previous table summarizes the main motivation and philosophy for different types and gives examples of the programs that belong to the different types of supply chain security programs. In the further part of paper we will examine one of the supply chain security programs - Authorized Economic Operator program that EU has started for their member countries.

3. AUTHORIZED ECONOMIC OPERATOR (AEO)

The European Commission introduced the Authorized Economic Operator (AEO) status for two reasons. One was as response to the need for greater security throughout international supply chains and second was as an answer USA decision to introduction of Customs – Trade Partnership against Terrorism (C-TPAT). Every company that is transporting goods in and/or out of European Union (EU) and which in this process need to deal with Customs authorities can apply to become Authorized Economic Operator (AEO). If the company becomes recognized as AEO it means that it can demonstrate how reliable and secure customs related operations it has. Besides that it means that company will have easier access to simplified customs procedures (i.e. certified receiver, certified exporter, etc.).

Legal foundation and detailed provisions for starting of AEO certification in EU were brought in the amendment of Implementing Provisions of the Community Customs Code with Regulation 1875/2006. European Commission made these provisions based on pilot research that was conducted during 2006. Further European Commission Regulation No 1192/2008 aligned rules for granting both the AEO certificate for customs simplifications and the single authorization for simplified procedures (SASP). Being an AEO facilitates the process of achieving a single authorization for simplified procedures as the relevant criteria are deemed to be met. In 2010 European Commission brought Regulation No 197/2010 that has established new time limits for issuing the AEO certificate.

Based on European Customs code (Urcioli & Erkwall 2009; EU, 2013) AEO certificate can be granted to any economic operator that is meeting several criteria: record of compliance with customs requirements; satisfactory system of managing commercial and, where appropriate, transport records, which allows appropriate

customs controls; proven financial solvency and where appropriate, security and safety standards (Figure 1). Every company can based on the potential benefits and requirements decide which AEO certificate they would like to pursue.

Table 3 Requirements and benefits of AEO certifications

	Customs Compliance	Record keeping	Financial Solvency	Safety and security	Customs simplifications	Fewer inspections	Priority treatment	Choose place for control	Prior notification
AEOC	X	X	X		X	X	X	X	
AEOS				X		X	X	X	X
AEOF	X	X	X	X	X	X	X	X	X

Source: adapted from Urcioli & Ekwall (2009, p. 844)

There are three AEO certificate types currently being awarded (EU, 2013; CURH, 2013):

- AEO Customs (AEOC) – certificate holder is entitled to easier admittance to customs simplifications; fewer physical and document-based customs controls than other economic operators, with the exception of those controls related to security and safety measures; priority treatment if selected for control and possibility to request a specific place for such control. Holder of AEOC is not entitled to any of the AEO benefits related to security and safety of the international supply chain.
- AEO Security and safety (AEOS) – certificate holder is entitled to possibility of prior notification when selected for control; reduced data set for entry and exit summary declarations; fewer physical and document-based controls in respect of security and safety; priority treatment if selected for control and possibility to request a specific place for such control. The holder of an AEOS is recognized as an economic operator who has taken appropriate measures to secure his business and is thus a reliable actor in the international supply chain both from the perspective of the relevant government authorities and from the perspective of his business partners.
- AEO Customs Simplifications/Security and Safety (AEOF) – company is entitled to benefit from both simplifications provided for under the customs rules and from facilitations of customs controls relating to security and safety (a combination of 1 and 2).

Figure 1 End-to-end Supply chain



Source: author, 2014

Tweddle (2008) stated that the AEO is designed to increase the strength of the supply chain and border security by cooperation of the supply chain owners – exporters, importers, transporters, customs forwarders, warehouse operators and manufacturers (Figure 1). Every part of supply chain is has its own importance for the supply chain and its security.

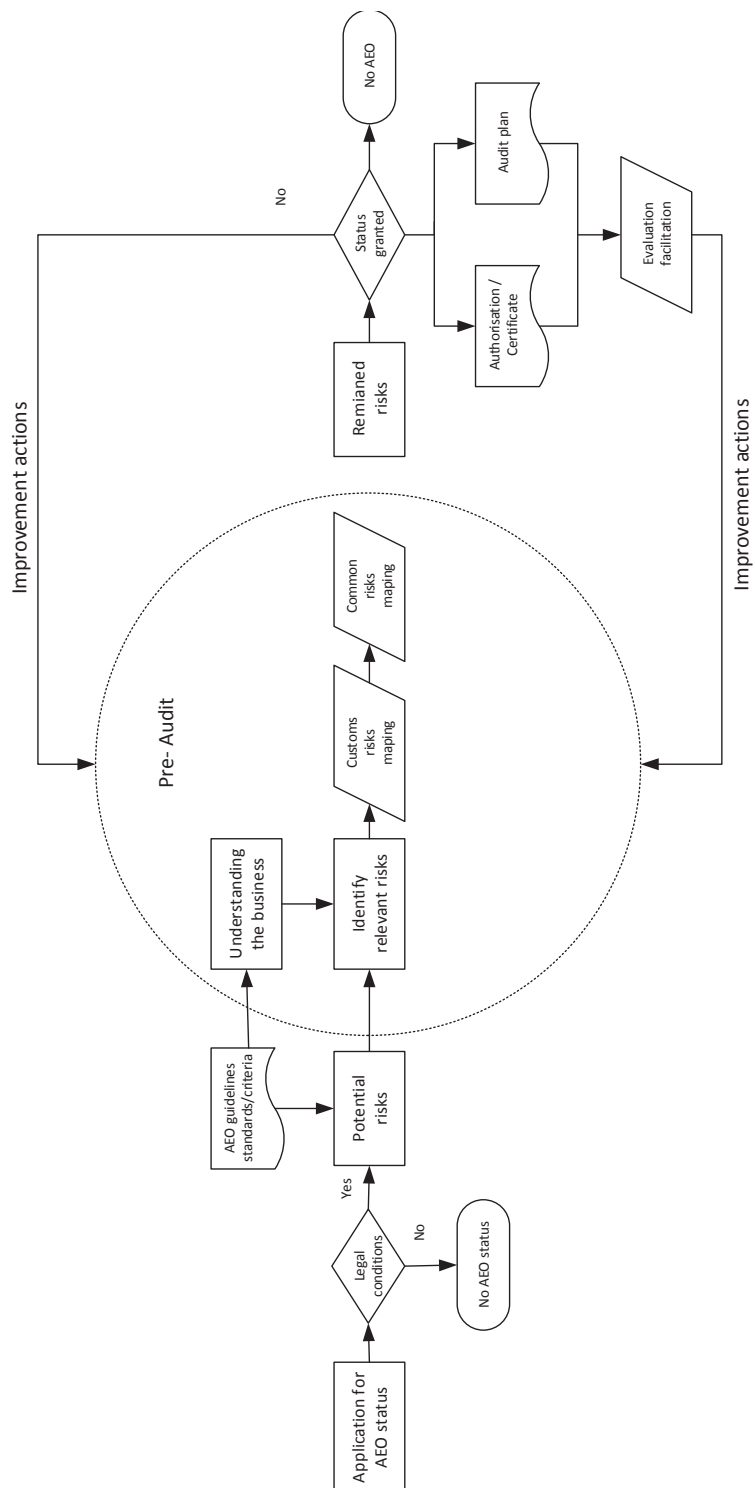
4. AUTHORIZED ECONOMIC OPERATOR IN CROATIA

Although after Croatia entered EU there has not been significantly visible changes there were some less visible but for companies and economy in total significant ones. One of those is start of applying system of AEO for which Customs authorities are in charge. The AEO certificate is not obligatory for any company but it can be useful since with it Customs authorities guarantee reliability of the company and this gives certain benefits to the company. First applications for becoming AEO in Croatia have started in autumn 2013. Based on Customs authorities (CURH, 2014) until May 2014 around 25 companies have applied for AEO certificate and until now no certificate has been approved yet. Process of approving AEO certificate lasts at least 6 months so it is expected that first AEO certificates in Croatia will be awarded in June or July 2014.

4.1. How to become AEO?

In order for company to receive AEO certificate in Croatia it is necessary to ensure appropriate records of compliance with customs requirements, as well as a satisfactory system of keeping business records and, if necessary, a record of the transports to allow appropriate customs controls. In addition it is necessary to have proof of financial ability, and if necessary, appropriate safety and security measures. Every company applying for AEO certificate needs to fill self-assessment questionnaire with basic questions about all AEO criteria. This questionnaire is first step for every company and this helps company to see if they could / should apply for AEO. Questionnaire has 5 sections and it covers all business aspects of company from its organization, relation to customs and security and safety. Besides this document company should provide additional documents which will be used by Customs authorities in evaluation of their AEO application.

Figure 2 Compact model for AEO in Croatia



Source: adapted from European Commission (2006, p. 4)

In order to evaluate company’s application for AEO Customs authorities are using Compact model framework (Figure 2). Compact model framework is a *flexible tool that can be used not just in the protection of the fiscal interests of a Member State or the Community, but also in the protection of the non-fiscal interests such as the protection of the external frontier of the Community (e.g. Supply Chain Security and Anti-Smuggling)* (EC, 2006, p. 2). Important part of Compact model is risk analyses and mapping method and guidelines on criteria for approving AEO certificate and standards. Company which want to become AEO should implement systems, procedures and requirements that are in accordance to EU Customs code and guidelines on criteria and

standards. While using Compact model and risk management Customs authorities assess measures that company has taken in order to prevent risks in their processes. Therefore customs has to assess business processes, organization, administration of the company that has applied to become AEO (Iordache, 2008). Risk mapping process consists from five steps (EC, 2006):

1. Need for understanding the business of company applicant,
2. Clarify the customs' objectives,
3. Identify risks (which risks might influence the customs' objectives),
4. Assess risks (which risks are the most significant),
5. Respond to risks; what to do about the (remaining) risks.

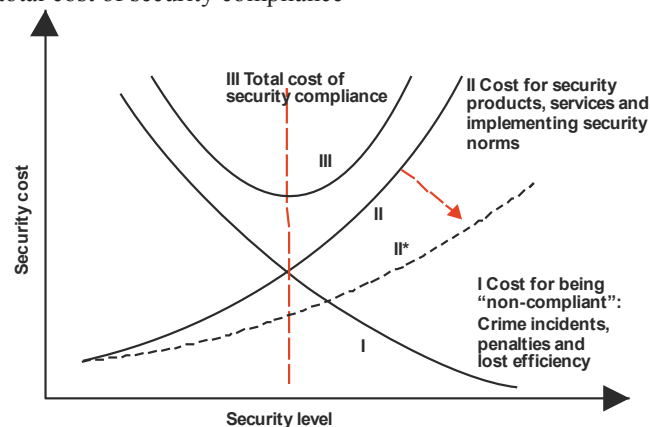
In the process of risk mapping customs authorities usually divide the process in two parts by performing mapping internally and then with potential AEO. In the second part customs has to make decision where the risks are and what is the response to them. Complete and structured documentation of assessment is necessary and especially the parts about assessed risks for later risk follow up (positive and negative). In validating risk process it is significantly important that all processes are described in writing and verified. This allows that financial aspects can be covered so they can be check by random sample. Security aspects also have to be check and verified in this process. Next phase is the common risk mapping which starts by presenting outcome of previous phase. Customs has to determine if their assessment corresponds with situation in the company. They have to determine if the company has taken measures to cover risks and how company is making priorities of risks they identified within the company.

Customs has to assess all company's weaknesses and strengths, all their procedures and identified risks. After the assessment is finished, there could be some risks (not significant) that are not covered. These risks are so-called remained risks and they are part of doing business. Customs authorities need to understand the company's significant risks, set the boundaries for taking risks and how the company will respond to identified risks. In case all the risks are covered, Customs administration can grant AEO status. In other case it is necessary to make evaluation if the status should be rejected or processes adjusted and/or improved so company can cover the risks and/or lower them to the level it is acceptable.

5. BENEFITS OF AEO CERTIFICATE TO SUPPLY CHAIN SECURITY

Companies are investing in supply chain security from several reasons. Ahokas & Hintsa (2010) stated that benefits of supply chain security can be divided in three main groups: direct security benefits; benefits from being the member of supply chain security companies club and collateral benefits. In order to have benefits they noted that companies have to invest in security and that the main task is to balance costs of supply chain security and benefits it can bring. (Figure 3)

Figure 3 Minimizing the total cost of security compliance



Source: adopted from Ahokas, J. & Hintsa J., (2010,p. 12)

Management task in optimization is to lower as much as possible cost for supply chain security compliance which is the lowest point of curve III. Curve II is showing significance of the continuous search for better and more cost effective measures for improving supply chain security and lower cost of security compliance.

Supply chain security investments are important for companies and customs authorities. The AEO certificate is aimed to lower the business costs or even to eliminate them. Butter and van Scheltinga (2008) noted that AEO certificate benefits can be divided in two categories: direct benefits which are resulting from simplification of customs procedure and can bring saving in import and export procedures, and indirect benefits

which are resulting from conditions that are in connection with simplified customs procedures and different transactions which certificate can bring. According to the Gutiérrez et al. (2007) benefits of AEO certificate on companies supply chain security is reputation that AEO certificate brings to the company and potential lower insurance premiums due to the lower risks of theft, loss or some other unwanted situations. Other benefits include certainty about physical control, priority control if there is one, fewer physical controls of goods and documents, import and export documents are not re-examined, company knows where the cargo is and, has more precise information about the time the cargo arrives to the destination, etc. Further AEO certificate benefits will depend on increasing the number of companies that have certificate in EU – the more companies have the certificate the higher savings on transactions costs could be and increased supply chain security. Fletcher (2007, p. 64) stated probably the most significant benefit is that *AEO programs established under the SAFE Framework provide mutual recognition – where Customs in one country 'recognizes' and provides benefits based upon a company's AEO status in another country.*

On the other side, increase of supply chain security through AEO certificate benefits also the customs authorities. Direct benefits are seen in simplification of import and export documentation and decrease of number of company controls. This is also increasing efficiency of customs authorities. Indirect benefit is that AEO certificate gives companies additional incentives not to violate the law and that companies have incentives to monitor each other so customs authorities don't have to do that and with that they reinforce effect of certification.

6. CONCLUSION

In the recent time on the global market there is increased need to increase supply chain security. Global market is witnessing increased regulation and threats to security with rapid exchange of the information about transport of the goods. Therefore it is important to reinforce and increase existing supply chain security systems or establish new ones with help of effective risk and quality management procedures. Today we can find that different intergovernmental and private organizations are making and issuing these standards for supply chain security

Supply chain security certificates are important for companies because they can benefit from them. Benefits of the AEO certificate for companies include savings in import and export procedures, reputation that AEO certificate brings, potential lower insurance premiums, and mutual recognition where Customs in one country accepts certificate and provides benefits based upon a company's AEO status in another country. Further AEO certificate benefits will depend on increasing the number of companies that have certificate in EU.

After Croatia entered EU, companies got possibility to apply for AEO certificate. Although AEO certificate is not obligatory it is useful and Croatian companies can have benefits. First applications for AEO have started in autumn of 2013 and until today some 25 companies have applied for AEO certificate. Until now no certificate has been approved since the process of approving is lasting at least 6 months. In order to confirm benefits of AEO certificate for Croatian companies it is necessary to conduct further research in next few years.

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