

# Towards an international regime of supply chain security: an international relations perspective

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## Abstract

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This article considers the threats to security in international trade by considering possible scenarios. It discusses concepts for protecting container transit, and the implementation of national, regional and international security concepts as political and legal transfer (a ‘multi-level thematic’). Some of the challenges, obstacles and strategies for the implementation in public and private sector organisations of security concepts are addressed, and finally, the article provides a future perspective that is a shift from a national approach to mutual recognition and then, from mutual recognition to an international regime of supply chain security.

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## 1. Threats to security in international trade: possible scenarios

The attack on the New York World Trade Center on 11 September 2001 made the world aware of the potential dimensions of a terrorist attack in the most dramatic way possible. This event quickly led to considerably heightened risk awareness, which also extended to international trade: the fear grew among customs and trade experts that the terrorists could turn their attention to international container transit and ports. Scenarios emerged in which terrorists placed bombs and other material for attacks in containers at inadequately secured ports. Terrorists would operate from insecure ports, using container transit to carry out attacks throughout the world. Such scenarios envisaged a potential threat of yet unknown magnitude: the sum of all fears was that after an episode of container terrorism no country would be safe, and the subsequent panic would bring container transit to a standstill (at least temporarily) and have incalculable consequences not just for individual ports and countries but also for the global economy itself.<sup>1</sup>

Therefore, 9/11 gave rise to numerous national, regional and international initiatives to protect container transit and ports from the risk of terrorist exploitation.<sup>2</sup> Against this background, this article describes the different approaches adopted by container-transit and port security regimes (section 2) in order to explain their diverse consequences which go far beyond risk management (section 3). It then describes the the specific problems that the relevant authorities have experienced in their implementation (section 4). The author argues that the approaches adopted by the various initiatives to improve global container security and port security, form only one aspect. As will be shown, there are other far-reaching political, economic and social functions which have considerable consequences not only for the welfare effects of free global trade but also on economic integration as a whole (section 5).

## **2. Initiatives to protect container transit: the ‘Container Security Initiative’, ‘Authorised Economic Operators’ and the ‘SAFE Framework’ of the World Customs Organization**

In view of these threats, different initiatives were launched worldwide with the United States (US) administration under President George W Bush leading the way. The security programs were first initiated by the large western industrial states for their own national purposes. Due to the fact that world trade is largely dependent on maritime transportation, the initiatives predominantly aim to secure container transit and ports. This focus is understandable when one considers that each year 12 million containers are shipped to the United States of America (USA) alone.<sup>3</sup>

The US Container Security Initiative (CSI) was among the first initiative to be implemented. It provides for the identification of high-risk containers, a non-intrusive inspection (x-ray) of suspicious containers, as well as the introduction of so-called ‘smart containers’. These containers are characterised by special security devices attached to the container doors. Customs officers can check whether the container has been opened during transit and its load manipulated.<sup>4</sup> The CSI has been complemented by further initiatives. These include the Customs-Trade Partnership Against Terrorism (C-TPAT), which is based on cooperation between the private sector and the customs authorities; in addition, the Maritime Transportation Security Act (MTSA) provides for the identification of all ships before they enter the coastal waters of the USA.<sup>5</sup>

The US was soon followed by the European Union (EU) which introduced the concept of the Authorised Economic Operator (AEO). Here, the customs authorities identify particularly reliable private stakeholders and, once they have successfully completed an exhaustive application procedure (certification), grant them special trading privileges. These include operative advantages which are essentially preferential and expedited customs procedures (customs simplifications).<sup>6</sup>

Meantime, a number of other security initiatives have been introduced which supplement and overlap.<sup>7</sup> There are differences in their specific purpose, the instruments they use, as well as their means of implementation. Traditional controls all shared; the basic common characteristic was that controls on container transit took place once the container had entered the importing country. These points of control were located at state borders and were presumed sufficient to guarantee national security. By contrast, the new security initiatives shift border controls to the country sending the goods. For example, the US Customs and Border Protection describes the CSI as follows:

The Container Security Initiative is a revolutionary program to extend our zone of security by pre-screening containers posing a potential security risk before they leave foreign ports for US seaports. Our goal is to process 85 per cent of all containers headed for the United States through CSI ports by 2007.<sup>8</sup>

The new initiatives for the security of supply chains explode conventional wisdom: security can only be achieved if high-risk freight no longer reaches the territory of the destination state but is identified and inspected at the point of export (that is, the principle of ‘Pushing the borders outwards’).<sup>9</sup> From now on, security controls should take place as far away from the destination country as possible. In an ‘anarchic world’ without central global security structures, it is left to individual states to launch initiatives to tackle these issues. The fact that a state’s security measures must be effectively implemented outside its sovereign territory requires cooperation with its trading partners – mainly with those countries from which the freight in question is sent. Supply chain security regimes can therefore be understood as real controls at ‘virtual borders’, that is, borders, which for purposes of state surveillance, are projected from the state territory. In order to achieve the practical realisation of the initiatives it is thus especially important that interested countries cooperate with each other. For this reason, numerous agreements

have been concluded which provide for the mutual recognition and joint pursuit of national and regional security regimes (such as the EU's AEO concept).<sup>10</sup>

In order to implement increased protection of international supply chains, experience has shown that it is not enough for the authorities to identify the supply chain; rather, they must identify the individual link of the supply chain as well as the specific risk it is exposed to. In risk analysis, the 'visibility' of supply chains therefore plays an important role. To ascertain risks and tackle them effectively, governments and authorities need concrete information which enables them to identify the load at any point in the supply chain at any given time. They must therefore be able to retrieve this information in real time ('visibility on demand').<sup>11</sup>

The legal basis for this is provided by the European Customs Code (CC) and its Implementing Provisions (CCIP) with the AEO Guidelines governing procedural aspects.<sup>12</sup> AEO status is granted by Member States and recognised by their customs administrations; AEO status therefore applies throughout the territory of the union and within the jurisdiction of customs authorities. All persons who take part in the import and export of goods in the EU can obtain the status of an authorised economic operator. Among them are producers of goods, wholesalers, importers, exporters, ports, brokers and transportation companies.<sup>13</sup>

The AEO initiative is based on a system of incentives with two fundamental mechanisms: first, the grant of AEO status requires a comprehensive security check and certification by the state following a formal application. The central question in the validation procedure is whether the applicant can fulfil the requirements of the AEO system ('compliance'). The ability to electronically transmit the required data ahead of the container's arrival to the EU authorities is fundamental to this process because it enables risk analysis to be carried out in advance. Moreover, applicants must prove their reliability in tax and customs matters. This includes proof of financial solvency, regular compliance with customs regulations, a satisfactory system for the administration of the company and transportation documents which allow appropriate customs controls, as well as the possibility to prevent unauthorised access to the ship's space and loading zones.<sup>14</sup>

AEO status bestows considerable advantages on the holder: in particular, authorised economic operators enjoy fast and efficient customs clearance and are exempt from the obligation to provide surety. The specific trade-related benefits granted in return for implementing European security requirements mean that holders of AEO status clearly enjoy a clear competitive advantage over their non-AEO competitors. It is likely that many aspects of the AEO scheme will be refined as part of the European reform of customs legislation. For example, one proposal is to increase data by requiring the buyer and seller to submit an additional declaration and more detailed description of the goods (currently taken from the existing schedule code of the harmonised system).<sup>15</sup>

The SAFE Framework<sup>16</sup> of the World Customs Organization (WCO) adopts an overarching approach. This instrument was passed by the members of the WCO (representing 178 customs administrations) and provides global standards for supply chain security. In particular, it requires that the private sector and customs authorities cooperate closely with each other and is based on four core elements.<sup>17</sup>

*First*, it harmonizes the advance electronic cargo information requirements on inbound, outbound and transit shipments. *Second*, each country that joins the SAFE Framework commits to employing a consistent risk management approach to address security threats. *Third*, it requires that at the reasonable request of the receiving nation, based upon a comparable risk targeting methodology, the sending nation's Customs administration will perform an outbound inspection of high-risk containers and cargo, preferably using non-intrusive detection equipment such as large-scale X-ray machines and radiation detectors. *Fourth*, the SAFE Framework defines benefits that Customs will provide to businesses that meet minimal supply chain security standards and best practices.<sup>18</sup>

It is easy to imagine that the multitude of regional and national initiatives for supply chain security will place a considerable burden on the stakeholders involved. In practice, international traders will be expected to fulfil the demands of several initiatives in order to obtain the corresponding privileges. As a consequence, considerable information and transaction costs arise. Therefore, as an international body, the WCO is attempting to ensure the mutual recognition of security concepts. To this end, the SAFE Framework provides a set of recommended standards to harmonise the different initiatives on supply chain security. Provided that a national security initiative meets these standards, it will be recognised by customs authorities throughout the world. In this way, the mutual recognition of security regimes could become a reality in the future:

The Resolution of the SAFE Framework of Standards that the WCO Council adopted in June 2005 calls upon customs administrations to work with each other to develop mechanisms for mutual recognition of AEO validation/authorisation and customs control results, in order to eliminate or reduce redundant and duplicated efforts. Mutual recognition is a concept whereby an action or a decision taken or an authorisation that has been properly granted by one customs administration is recognised and accepted by another customs administration. The standardised approach to AEO authorisation, as outlined in the AEO Guidelines, provides a solid platform for developing an international system of mutual recognition of AEO status at bilateral, sub-regional, regional, and in the future, global level.<sup>19</sup>

The aim of such recognition is that an economic operator who meets the requirements of one initiative does not have to prove that it meets the requirements of the other initiatives included in the agreement.

### **3. The implementation of national, regional and international security concepts as political and legal transfer: a ‘multi-level thematic’**

An important part of supply chain security initiatives is the fact that those initiatives incorporate a number of political and economic functions and therefore raise significant legal questions. These functions go much further than the original aim of improving risk management:

**Economy.** At the macro-economic level, the initiatives are capable of producing direct effects on improving security and on international trade as a whole. This affects both the state and private sector: experience shows that actors in individual countries are able to adapt themselves to the particular requirements and take advantage of them to very different extents. At the national level, customs authorities in the more developed countries are in a better position to adapt than those authorities in developing countries and less developed countries and can therefore provide the necessary legal framework. As far as the private sector is concerned, it means that global players with financial resources and advanced technical infrastructure will be in a better position to meet the requirements for preferential treatment than small companies which are primarily active on national markets and only occasionally pursue international business.

**Competition.** Against this background, the security initiatives tend to give an advantage to those institutions and companies that act more competently than others owing to their perceived efficiency. Accordingly, the initiatives present an additional hurdle to newcomers who are only just starting to set up their international business. When faced with a set of alternatives, stakeholders will prefer those ports and transporters which fulfil all the necessary requirements for obtaining specific benefits. For these reasons, the ability of public and private stakeholders to adapt to the various security systems appears to represent a new economic parameter. This ability of the different stakeholders leads to a competitive scenario at various levels: new competition is initiated between public institutions, as well as producers, traders, exporters, importers, and transport companies that participate in the initiatives and those that do

not yet do so. These different competitive conditions can affect industries, sectors as well as countries, and regions as a whole. As such, the initiatives are capable of producing a harmonising effect on those actors who are integrated and whose compliance guarantees the grant of benefits. On the other hand, those who do not fulfil the requirements run the risk of becoming marginalised. Consequently, trade flows tend to increase among the ‘integrated’. Simultaneously, however, there are growing incentives for those who do not yet participate in the systems to do so.

**Investments.** As far as opening up new markets abroad is concerned, investors wish to import goods into the country and export the goods produced or processed there as easily as possible. They will prefer those countries and regions which are well integrated into the international transport structures for supply chain security. The question of whether and how effectively the individual stakeholders have implemented the initiatives will thus play an increasingly important role in competition and investment.

**Development cooperation.** The danger of (further) marginalisation emerges, because experience shows that it is developing countries which lack the necessary capacity to implement security measures. Therefore, assistance in this area also forms part of development cooperation. Nevertheless, implementation in many developing countries is progressing slowly because it requires them to have modernised and globally interlinked customs systems in place. In many instances it has become clear that the authorities attach greater importance to modernisation than adaptation to global security systems. Customs modernisation is therefore a prerequisite for the implementation of supply chain security initiatives. On the other hand, many modernisation projects are only started because the implementation of security measures now forms part of development cooperation. It therefore appears that customs modernisation and the integration of a customs administration into global supply chain security initiatives are mutually conditional.

**Compatibility with the legal texts of the World Trade Organization (WTO).** The question as to whether and, if so, to what extent the individual initiatives constitute obstacles to international trade and, as such, conflict with WTO law has still not been decided by the dispute settlement committees of the WTO. Relevant legal criteria include the principle of most favoured nation (Article I:1 GATT), the prohibition of quantitative restrictions (Article XI GATT), the obligation to guarantee free transit (Article V GATT) and rules on fees and formalities connected with importation and exportation (Article VIII GATT). Moreover, the Agreement on Technical Barriers to Trade (TBT Agreement) as well as the Agreement on Pre-shipment Inspections (PSI Agreement) could be affected. However, a contravention against one or more of these provisions does not necessarily mean that the initiative in question also contravenes WTO law. Rather, the crucial question is whether the contravention is justified on the basis of an exception.<sup>20</sup> In this respect, the security exceptions of Article XXI GATT are particularly pertinent. Article XXI GATT has had little relevance in security practice to date. When interpreting this provision there is, therefore, very little decision-making practice to go on. If such a dispute did arise before the dispute settlement bodies, the WTO could use the opportunity to resolve important issues. The interpretation of Article XXI poses fundamental legal questions involving the relationship of free trade and state sovereignty. However, whether it is possible to interpret the relevant WTO rules in order to strike a balance between both interests also depends to a considerable extent on the current decision-making practice on parallel regulations (such as to Article XX GATT). One open question is whether it is possible to transfer the rules governing the general exception to the national security exception.<sup>21</sup>

**Data protection.** The initiatives for supply chain security require a high degree of data exchange. In cross-border transit, goods have to be electronically registered with the customs authorities in order to ensure the visibility of a load in the supply chain at any time. For example, the European AEO requires information not only about the goods traded but also about the producer, traders, transporters and other participants. Exactly what data should be communicated in person by the buyer and seller is currently being decided. A detailed description of the goods which exceeds the usual technical four-figure commodity code may also be introduced. In the opinion of experts, ‘parcels’ and ‘packages’ also represent a gap in security and so they may also be the subject of electronic registration in the future.<sup>22</sup>

Such measures will ensure that international trade in goods is transparent and economic relations for national institutions are understandable down to the last detail. All in all, security is about comprehensive data material of outstanding strategic value. Thus, the question arises whether and to what extent the disclosure and transmission of data comply with national laws on data protection.

Another question which has to be resolved is whether and, if so, to what extent corresponding national data protection regulations have to be adapted to the initiatives or whether the extent of data exchange is to be limited.

**Cooperation and networks.** The introduction and intensification of supply chain security initiatives requires new areas of cooperation and the formation of networks between:

- (a) public institutions (particularly the customs administrations of the participating countries), and
- (b) customs administrations and private actors (for example, port operators and transporters in the form of Public Private Partnerships).

The SAFE Framework of the WCO sees itself as the driving force behind this development and aims to intensify cooperation and build networks. In this sense, it requires:

... twin pillars of Customs-to-Customs network arrangements and Customs-to-Business partnerships. The two-pillar strategy has many advantages. 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.<sup>23</sup>

**Covering the costs.** Finally, the implementation of the initiatives for supply chain security raises the question of who is to bear the costs. The WCO or other organisations (such as the EU) do not provide any financial support to their member-states for implementation. As a consequence, the stakeholders (that is, port operators, transporters, exporters, importers, producers and traders) have to bear the costs incurred in implementing the initiatives. Relevant assistance can refer exclusively to knowledge-based support in adapting to security-related customs procedures. This underlines the fact that the implementation of corresponding initiatives is easier for well-equipped stakeholders to overcome. In this respect, the bleak outlook of financial assistance can represent an obstacle to implementation, and potentially increase the risk of marginalisation.

## 4. Challenges, obstacles and strategies for implementation in public institutions and the private sector

There are two fundamental questions concerning the realisation of initiatives for supply chain security:

- How successful are the individual actors in effectively meeting the necessary requirements?
- To what extent are the individual initiatives (even in the case of a hypothetical optimal realisation) in a position to achieve their aim?

Regarding the first question, the results of a study by the WCO<sup>24</sup> show varying degrees of implementation. The study reports that:

Since 2001 there have been a number of initiatives taken by Member administrations to enhance the security and facilitation of the supply chain. These developments have received a common benchmarking instrument, developed by the WCO, i.e. the SAFE Framework of Standards. Out of 161 countries that are signatories to SAFE, thirteen AEO programmes have been established in 39 countries (due to the EU-27 uniform programme) and nine countries plan establishment in the nearest future (see Chapter 4 and Appendix 2). Thus, standing up AEOs and achieving mutual

recognition have become an important priority for many WCO Members. That is the reason why many administrations have started working on the legislative level or cooperating with other agencies in order to prepare the background for future AEO programmes.<sup>25</sup>

Another study into the state of AEO implementation carried out by the private sector shows that the number of certified participants is continually rising. In 2009, 16 per cent of those questioned were already certified, a further 17 per cent had submitted a corresponding application to the customs authorities or were in the process of doing so. Thirty-one per cent wanted to submit an application later, and 21 per cent had not yet decided whether they wished to apply for certification. On the other hand, 10 per cent stated that they did not intend to apply for certification at all. This figure of 10 per cent is, however, down on surveys from the year before. In the Customs study, economic operators were also asked about their motivation for gaining certification. The main reasons were better rating in terms of quality from the customers and the advertising potential attached to it.<sup>26</sup> Less weight was given though to cost savings, optimisation of the organisation and savings in personnel. This almost certainly has its cause in the fact that the realisation of the AEO program (particularly during the introductory phase) entails considerable costs, organisational effort and personnel. Looking to the future, the study concludes that the modernised European Customs Code and related implementing rules will strengthen willingness to participate in the program.<sup>27</sup> The biggest challenge is seen in the fact that international actors not only need to implement the requirements of the AEO but other initiatives as well (for example, US C-TPAT). Having to fulfil the requirements of various initiatives incurs significant transaction costs. In this respect, therefore, an international agreement on mutual recognition would bring considerable relief.

Mutual recognition currently represents an important topic of inter-institutional cooperation. The discussion surrounding mutual recognition is characterised, on the one hand, by national perceptions of security as an expression of national sovereignty, as well as the requirement for a simplification of customs procedures on the other.<sup>28</sup> For example, important differences between the European AEO initiative and the US C-TPAT exist in the fact that the EU (unlike the USA), controls not only imports but also exports.<sup>29</sup> So far, though, mutual recognition has come up against considerable political impediments. The requirements of individual security programs are an expression of the priorities of state security policy and are thus unavoidably connected to important questions of sovereignty.

However, the comprehensive question of how well the initiatives can achieve their stated objective (that is, the creation of greater global security) is to be seen differently: even after the introduction of numerous regimes which aim to secure international supply chains, container transit is far from being completely 'visible' and safe.<sup>30</sup> According to the Organisation for Economic Co-operation and Development (OECD), risk assessment is made fundamentally more difficult by the following factors:

- There is considerable doubt about whether the load actually declared has really gone into the container at the point of departure.<sup>31</sup>
- Even when the load in a container has been determined, there is still a risk that the freight will be substituted or manipulated during long supply chains (for example, over land).
- For data security reasons, it is very important to pass on the corresponding data.<sup>32</sup>
- The sensible use of the vast quantity of data not only requires collection but also systematisation and interpretation which can be a source of misunderstandings and thereby lead to mistakes in risk analysis.<sup>33</sup>
- If the numerous initiatives for supply chain security regard the concept of visibility on demand as offering the ideal solution, then the pre-condition for this is that all-encompassing logical systems are available to deliver all relevant data for the risk analysis in real time, all the time. These pieces of information are currently only partially (and thus insufficiently) available. Although large logistics and transport companies are generally able to request and make available the relevant data using pre-existing organisational structures, this is not true of small and medium-sized companies (SMEs) which are faced with difficulties in implementing security systems. They need to devote sizeable

financial resources to the establishment of appropriate information exchange systems.<sup>34</sup> The same goes for developing and (to a certain extent) emerging economies.

- It is often argued that the initiatives do not deal with the ‘potentially dangerous’ group of actors. It can be assumed that dangers to security do not stem from those actors who are well integrated into security systems. Due to the fact that there is no obligation to participate, it would be better to focus efforts on those actors who do not participate and therefore do not fulfil the prerequisites as a potential source of danger.<sup>35</sup>

## **5. From a national approach to mutual recognition – from mutual recognition to a global supply chain security regime: a future perspective**

The AEO program has initiated a political and legal transfer within the EU: the Member State’s customs authorities have to create the necessary conditions enabling the economic participants to participate in the system. Thereby, the AEO (just as the US initiatives, for example) offers generous incentives for the economic participants to integrate themselves into the system and thus receive sweeping operational advantages in international transit. In legal terms, the participation of the institutions of third party states and private actors in the initiatives is voluntary. However, one can argue that, in reality, voluntary participation is largely enforced participation, taking into account the strategy of implementation described.<sup>36</sup> The persuasive effect of incentives in increasing participation levers appears thoroughly intended. Grillot, Cruise and D’Erman put forward this argument:

In an anarchic world with no central authority, the United States has the ability to either physically force other countries into compliance with violence, or the country can seek co-operative partnerships to reach its goals – partnerships in which it can wield significant influence because it is a great power. The United States has chosen the latter.<sup>37</sup>

The role of the USA discussed here underlines the need for sovereign states to have a security policy in place. However, it also shows that a large (and potentially vulnerable) trading partner can only overcome anarchy among nations and achieve the desired degree of protection by cooperative measures. In that case, from the perspective of the policymakers, the success of supply chain security initiatives largely depends on sufficient numbers of states participating in the initiatives. A dilemma arises if, despite the incentives offered, too few stakeholders show interest in participating or cannot implement the concept.

This is where the SAFE Framework assumes special importance: adopting a globally comprehensive approach, it provides framework guidelines addressed to the customs authorities of Member States. Unlike national initiatives, however, it is based on recommendations rather than binding legal provisions. It can be seen as a framework that provides fundamental overarching structures for supply chain security. In this context, the SAFE Framework performs an additional function: because it has been accepted by the Members of the WCO, it also serves to legitimise national approaches to the extent that they accord with the Framework.

The preceding discussion has highlighted the fact that the initiatives for supply chain security consist of numerous steering functions which go well beyond the aim of securing international trade. The individual actors all have different reasons to participate. Against this background of asymmetrical interests, the main task of the international community arguably lies in formulating the different approaches in such a way that they can be seen more clearly as offering an opportunity for all participants. However, it will only be possible to improve integration into security concepts on a global basis by taking stock of and carefully analysing the numerous requirements as well as assessing the consequences on individual stakeholders. In this respect, the central questions are:

- What specific demands should the security concepts under discussion meet and what problems need to be solved?
- Do the initiatives reflect the actual demands of those participating and if so, to what extent?
- How can it be ensured that the interests of policymakers and participants are harmonised?
- Do concepts complement or compete with each other and how can coherence be achieved between different approaches?
- How effective are the security initiatives in relation to the addressees' sphere of activities?
- Are stakeholders capable of attaining their goals or solving the problems at hand?
- Finally, how can the conditions ensuring the successful transfer from policymaker to participant be defined?

These and other questions touch core elements of political and legal transfer. This makes it necessary to better recognise and further develop the steering instruments of international and European risk management. Supply chain security initiatives would then be conceived as a regime of international security governance. Thereby, they would cease to resemble an anarchic system, in which concepts are opposed to each other. By contrast, an internationally cooperative approach presents the opportunity to develop complementary concepts in a process which is legitimate for all participants and transparent in terms of decision making and voting arrangements. The security of supply chains should be understood as risk management in the sense that it does not focus exclusively on the demands of increased security but rather takes account of the additional functions described to a far greater extent than has been the case to date. Such an integrated approach would provide a means of harmonising the security policies of sovereign states and promote economic integration. As an international customs organisation, the WCO would be the appropriate organisation to take up this challenge.

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## Endnotes

- 1 For these scenarios, see Grillot, Cruise & D'Erman 2010, pp. 24-8. A current example is the case of explosives which were hidden in printers and the air freight of a transport plane from Yemen, see *Neue Zürcher Zeitung* 9 September 2010; Kühle 2008; as well as Heseler 2000, pp. 9-27.
- 2 Section 2 provides an overview of individual initiatives and their legal basis.
- 3 US Department of Transportation 2009, p. 1.
- 4 For the details, see, for example, CSI Fact Sheet 2005; Legal bases for the CSI are *The Homeland Security Act 2002*, *U.S. Patriot Act 2002*, *The Marine Transportation Security Act 2002*, *The Trade Act 2002*, *The Security and Accountability for Every Port Act 2006*, as well as the *Implementing Recommendations of the 9/11 Commission Act 2007*; and Widdowson 2007.
- 5 Further US initiatives are: The Secure Freight Initiative, The Megaport Initiative, Operation Safe Commerce, The Proliferation Security Initiative as well as The Smart Box Initiative; for additional information see: U.S. Customs and Border Protection (2007), and Supply Chain Best Practices Catalogue (2006); Laden (2007, pp. 75-80), and Irish (2009, pp. 80-4).
- 6 European Commission 2006a, 2006b, 2007; Wolfgang & Ovie 2008.
- 7 The following are particularly noteworthy at international level: Resolution of the United Nations No. 1373 from 28.9.2001 and those following, such as No. 1456 from 20.1.2003 and No. 1624 from 14.9.2005 as well as the initiatives of the World Shipping Council. In addition, the G8 has passed an initiative for the strengthening of security in the area of international mode of transport: The Cooperative G8 Action on Transport Security, 26 June 2002.

- 8 U.S. Customs and Border Protection 2006a, p. 2.
- 9 Grillot, Cruise & D'Erman 2010, p. 68. On the question of institutional and operational realisation see, for example, Grainger 2007, pp. 17-29.
- 10 For a deeper perspective on mutual recognition, see Aigner 2010, pp. 47-54.
- 11 Widdowson & Holloway 2009, pp. 26 ff.
- 12 European Union Regulation (EC) No. 648/2005 of the European Parliament and of the Council of April 2005; European Commission 2006a, TAXUD 1450.
- 13 From the industry's perspective, see Fletcher 2007, pp. 61-6.
- 14 For the details, see, for instance, European Commission 2005, as well as European Commission, Directorate-General for Internal Policies 2011, pp. 16-19.
- 15 For further details, see section 3 under 'data protection'.
- 16 World Customs Organization 2007, *WCO SAFE Framework of Standards to Secure and Facilitate Global Trade*, WCO, Brussels.
- 17 World Customs Organization 2007.
- 18 World Customs Organization 2007, p. 3.
- 19 Mikurya 2007, pp. 51, 57; as well as the more in-depth WCO Policy Commission 2006.
- 20 For a discussion of the fundamental systematisation with the example of environmental measures, see Altemöller 2000, pp. 213, 231 ff.
- 21 For an interpretation of Article XX GATT, see Altemöller 2000, pp. 213, 231 ff.; on the legality of the CSI according to the legal texts of the WTO, see Dallimore 2008.
- 22 For a thorough discussion of the data transmitted along with a critical analysis and recommendations for action, see Lux 2011a, 2011b.
- 23 World Customs Organization 2007, p. 3 as well as in more detail, Ireland 2009.
- 24 Polner 2010.
- 25 Polner 2010, p. 7; for details of realisation in the regions, see pp. 9-16.
- 26 Zollstudie 2009-2010, p. 47.
- 27 Zollstudie 2009-2010, p. 48.
- 28 Aigner 2010, pp. 47-54 as well as Scholl (Germany Trade and Investment) 2009.
- 29 The 'ISO-Standards' developed by the 'International Organisation for Standardization' should achieve a relief for the economic participants, see, for example, ISO 2007.
- 30 Widdowson & Holloway 2009, pp. 17, 26.
- 31 Organisation for Economic Co-operation and Development 2005, p. 29.
- 32 Dahlmann et al. 2005.
- 33 Organisation for Economic Co-operation and Development 2009.
- 34 See Dahmann et al. 2005; see also Wieland 2009, and the United States Government Accountability Office 2008.
- 35 See Bures (2011) for criticism on the European politics of combating terrorism.
- 36 A binding effect in the sense of 'soft steering' is only achieved via the SAFE Framework of the World Customs Organisation. The SAFE Framework is not a legally binding multilateral agreement because it is based on an agreement between the customs authorities of the WCO Member States. Grillot, Cruise & D'Erman explain it as follows: 'The lack of central authority is an anarchical system that requires states to provide for their own security and survival ... Though international organisations attempt to provide some order, they are only able to moderate the effects of anarchy. They do not have the force of law, or true enforcement capabilities (Keohane 1984). In the current international system the sovereignty of the individual state – in particular that of the most powerful states – always prevails (Reinicke 1997)' (Grillot, Cruise & D'Erman 2010, p. 66); fundamental: Keohane 1984, 2002.
- 37 Grillot, Cruise & D'Erman 2010, p. 68.

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