

Demonstrating Compliance, how can standardized data and standardized analysis contribute to deliver compliance by companies?

Author: H.P. van Maenen
Student ID: 502982
Date: 2019-2020
Version: 3 September 2020

Master Program: Executive Master in Customs and Supply Chain Compliance
Faculty: Rotterdam School of Management (RSM)
University: Erasmus University Rotterdam (EUR)
Academic Supervisor: Dr. J. Hulstijn
Co-reader: Prof. Dr. Yao-Hua Tan
Company Supervisor: R.E. van 't Hof

Acknowledgements

In September 2017 I started a new journey and went to the Rotterdam Erasmus University and started with the “Executive Master Customs and Supply Chain Compliance”. The group consisted of 27 students from different professional backgrounds and from many different countries. The program consisted of several speakers who spoke about their specialty during the lectures, which resulted in a lot of new knowledge.

First of all, I have to thank my research supervisors, Dr. J. Hulstijn and Ph.D. Dr. Y.H. Tan. Without their help and dedicated commitment, this document would never have been produced in this form. Thank you very much for your support and understanding during the thesis period.

I would also like to thank my colleagues at Dutch Customs, Mr Richard van 't Hof and Mr Leo Alewijnse. Both gentlemen shared a lot of knowledge and supported me during the education, but especially in the thesis phase. Without their support and knowledge, I could never finish this thesis. A word of thanks to the group of Customs students who supported each other and shared knowledge and experience while writing the thesis.

Special thanks to my family, my wife Corine, son Jordy and daughter Noa. That I wanted to do another study also asked a lot of them. The past three years have been special and intensive in different ways; life is what happens while you make other plans. Without the support and trust of my family, I would never have been able to start, continue and certainly not complete this study.

It was a very special journey.
Thanks again to everyone.

Executive Summary

From a historical perspective, Customs is the supervisor of the international flow of goods. Due to the size - and growth - of that flow of goods, Customs supervision is shifting from “physical supervision of the goods and goods flows” to “supervision of the goods by means of supervision of the information about those goods and goods flows”. As a result, Customs increasingly depends on data about those goods and goods flows in the performance of its supervisory task. Most of the required data is submitted by companies by means of a declaration, but a not insignificant part of the data for Customs supervision comes from the companies' business administration. Because there are many forms of business administration and different software packages, obtaining that data from business systems is labour-intensive for all parties involved. There is no data standard from which the supervisory questions can be answered as standard. This standard does exist for the financial (SAF-T and ISO 21378: 2019) part of the business administration - initiated by annual auditors / accountants and Tax Authorities -, but not for Customs-specific data.

Customs would like to modernize its supervision on companies, where possible using data-driven supervision. A standard data collection, in which Customs relevant data is included, is a must for this. The ISO 21378:2019 is the most recent standard audit file, which has been internationally adopted. The structure of this audit file is such that specific data can be added by means of extensions. This is the reason that Dutch Customs has been involved in the development of the new standard from the start. Dutch Customs has made a proposal to the ISO to add a Customs extension which add Customs relevant data to the new standard. This means that ISO 21378: 2019 also offers great possibilities for Customs controls.

Customs has about 250 so-called Electronic Periodic Declaration (hereinafter EPD) companies who supply a standard data file every month, containing the stock movements of the goods in their administration. Customs carries out checks on this file to measure the quality of the customer's administration, the degree of compliance. An innovation in Customs supervision could be that customers measure their degree of compliance themselves. The new ISO 21378: 2019 with the Customs extension could be used for this. Companies could then perform the jointly developed analyses on this data. Companies would then no longer have to send large data files to Customs, but only the results of the analyses in the form of dashboards.

The goal of this project is to research whether the ISO 21378:2019 with the extension and related standard analyses is supported by both Customs and by companies to professionalize and innovate supervision (more effective by data driven supervision, more effective and efficient by demonstrating compliance, more efficient by reducing administrative burden).

This research is design-oriented (Hevner, 2014). The areas of knowledge covered by the research are standardization, data analysis, auditing and Customs supervision. Knowledge of this has been obtained through literature study, desk research, knowledge and experience of the author and through discussions and interviews with experts. Nevertheless, the covid-19 crisis caused scheduled interviews and data collection and analysis to proceed differently. By making use of video conference for the interviews and by using data that was available, the investigation could be completed.

The first conclusion of this study is that compliance by companies can be demonstrated by using a standard audit file and standard analyses. Second, the conclusion can be drawn that the standardized analyses can be carried out by companies themselves on the audit file. The interviews with experts from Customs, a company and a software supplier show that performing the standardized analyses on standard data has added value for all parties. These standard analyses on standard data specifically contribute to improved regulatory evidence and less administrative burden. This fits a data-driven regulatory supervision policy in which companies demonstrate compliance themselves. Regulators can assess compliance at a distance, provided that the data are reliable.

The limitation of the study is that it is aimed at companies that now have a EPD license. In addition, due to the corona crisis, only the training data of Customs was tested. The results of the test have been validated by means of interviews.

Initial discussions with software suppliers show that several companies are interested in the new audit file and standard analyses. For this it is important that software suppliers adjust their software packages so that the new audit file is supported. Dutch Customs has submitted a proposal for the Customs extension on the ISO 21378:2019 to the International Organization for Standardization. Several countries have now indicated that they wish to support the proposal. At the time of writing, it is not known whether the proposal from Dutch Customs will be followed up. Approval of the proposal will contribute to the interest of software suppliers and companies in adding the new standard to their software. In addition, its adoption by the business community will enable Customs to modernize their vision for the future of supervision.

Table of Contents

Acknowledgements	1
Executive Summary	2
Table of Contents	4
List of Tables, Figures and Dashboards	6
1. Introduction	7
2. Research problem	9
2.1 Introduction (as-is)	9
2.2 ISO standard	12
2.3 Research Objective	12
2.4 Motivation of research	13
2.5 Research Question	14
2.6 Research Approach	14
2.7 Research Design	16
2.8 Scope of Thesis	17
2.9 Conceptual model	18
2.10 Structure of Thesis	19
3. Review of Research Literature	20
3.1 Audit file	20
3.2 International standard	21
3.3 Compliance	23
Conclusion compliance:	25
3.4 Customs supervision (now and future)	25
3.5 Administrative burden.	27
3.6 Towards standard analyses	28
3.7 Summary	29
4. Artefact development	30
4.1 NTCA	30
4.1.1 Workflow model NTCA	31
4.1.2 The control activities	32
4.2 Complexity for Customs	34
4.3 Complexity for companies	35
4.4 Current supervision	36
4.5 Customs extension	38

4.6 Standard analyses.....	43
4.7 How can standard analysis be conceptualized?	46
Summary	46
Chapter 5. Validation	48
5.1 Testing.....	48
5.2 Validation.....	49
5.3 Conclusion technical validation.....	59
5.4 Empirical validation.....	60
Chapter 6. Conclusions, Contribution and Recommendations	64
6.1 Conclusion of the research and sub-research questions.....	64
6.2 Contribution for research	65
6.3 Contribution for practice.....	66
6.4 Possibilities for further research	66
Chapter 7. List of References	68
Chapter 8. Appendices.....	72
Interview Frans Vermeulen 25-3-2020	72
Interview Leo Alewijnse 25-3-2020	75
Interview Wim Visscher 31-3-2020.....	78
Interview Jan Akkermans 13-8-2020.....	81
Interview Marco Heijnen 18-8-2020	84

List of Tables, Figures and Dashboards

Tables:	Title	Page
Table 1	Table with interviewee	15
Table 2	Design-Science Research Guidelines	19
Table 3	SAF-T adoption	22
Table 4	Naming of the various modules and a brief explanation	38
Table 5	Brief explanation of various tables	41
Table 6	Difference between analysis and standard analysis	43
Table 7	Result of the analyses	60

Figures:	Title	Page
Figure 1	Example illustrating the relative complexity of an application interfaces for regulatory data, without standardization (top) and with standardization (bottom)	10
Figure 2	IS research framework	16
Figure 3	Conceptual model	18
Figure 4	Map ISO 21378:2019 adoption	23
Figure 5	Enforcement vision Dutch Customs	26
Figure 6	Example of compliance monitor	27
Figure 7	Workflow model NTCA	31
Figure 8	Determination of combination of audit tests	32
Figure 9	Structure under the UCC	34
Figure 10	Simplification of Customs supervision	37
Figure 11	Coherence of the ISO modules	38
Figure 12	The selection of tables of ISO 21378:2019 with the specific extension for Customs	41
Figure 13	Place of the artefact in software of a company	45
Figure 14	Script Closing stock	45

Dashboard:	Title	Page
Dashboard 1	Understanding the business	49
Dashboard 2	Goods value	50
Dashboard 3	Commodity code chapters	51
Dashboard 4	Turnover per customer	52
Dashboard 5	Closing stock	53
Dashboard 6	Opening stock - closing stock	54
Dashboard 7	Missing import declarations	55
Dashboard 8	Commodity code consistency February	57
Dashboard 9	Commodity code consistency March	57
Dashboard 10	Commodity code consistency February & March	57
Dashboard 11	Exchange rate	58
Dashboard 12	Non consistent exchange rate	58

1. Introduction

The Customs Administration of the Netherlands (Dutch Customs) is the enforcement agency that controls the EU's cross-border movement of goods. She performs enforcement tasks on behalf of the European Union (EU). Dutch Customs also takes care of the levying and collection of domestic excise duties and consumption taxes and enforcement in this area. She ensures that the movement of goods proceeds according to the rules and facilitates cross-border movement of goods.

To deal with the increasing trade volumes, increasing customs declarations, shifts in global logistics, doing more work whilst increasing the levels of security, etc. There is a need to change for Customs, to push boundaries (Mertens, Scherpenisse, & van der Steen, 2014; Customs Administration of the Netherlands, 2014), meaning; Dutch Customs has developed a pioneering stratified enforcement concept (Customs Administration of the Netherlands, 2017) that will be of benefit to both customs authorities and the trusted traders.

The objective of this vision “pushing boundaries” is: to achieve an optimum balance between customs control and trade facilitation (Customs Administration of the Netherlands, 2014. Pushing boundaries). Dutch Customs try to find the right balance between customs supervision and trade facilitation. Speed and predictability are essential in this respect. The aim is to implement robust controls, but with as little administrative hassle and regulatory pressure on business as possible, and with minimum costs and delays to the logistic flow. With a view to introducing further innovations to the supervision process, Dutch Customs has brought together the most important topics from the Pushing Boundaries vision to create an innovation agenda.

One of the areas involved is data driven supervision; changing from supervision on goods (transactions) to supervision on information about the goods (transactions). This not only applies to supervision in the logistical chain, but also concerns the post audits

To achieve this ambition data is required (ITAIDE¹, IST-027829). Retrieving and processing the data in the most efficient and effective way is an important issue, for all involved parties. Standardization of the data contributes to this issue. Customs has a lot of standardized data in their own systems, but there are gaps in the data chain (audit trail). These gaps can in principle be filled in, by using the data that companies have themselves (Hof, 2017: 65).

Unfortunately, there is no standard data model for retrieving and processing those data from business administration. Lack of such a standard currently makes this very

¹ Information Technology for Adoption and Intelligent Design for E-Government

time consuming for both Customs and companies. Also the analyses on company data are tailor-made and make the current way of analysing data for various regulatory supervisors inefficient.

The existing international data standards such as SAF-T (OECD, 2010a) and ISO 21378:2019 are mainly aimed at financial audits. This created an incentive for Customs to want to participate in an international standard development for Customs-related data. After all, a standard is only a standard if there is only one, it is accepted and used worldwide. With the publication of the ISO² Audit Data Collection Standard (ISO-21378) in 2019, the first step has been taken in the development of a global standard for audit data. However, this version is intended for data collection for financial audits. As such, it does not contain inventory and goods movement data critical for customs supervision. This means that Customs cannot organize risk-based post audits using the current data standards of the ISO or the OECD.

Dutch Customs has taken the first steps to initiate an extension of the ISO 21387:2019 standard with Customs data collection. The intention is that this customs-specific standard is based on the current version of ISO 21378:2019, but also that other supervisors (like NVWA³) can easily use the data in the extension, also known as piggybacking (Tan, Bjorn-Andersen et al, 2011). In addition, the customs standard also offers the opportunity to further innovate (customs) supervision. A first step is using standardized analyses on the standardized data.

Nowadays the analyses on data still have to be adapted to the data structure of the company, due to lack of data standardisation. However, if data from companies can be retrieved according to a standard, the possibility arises to develop standard analyses for that data. This raises the question of whether it is possible for companies to demonstrate compliance by using standard analyses on standardized data.

² International Organization for Standardization

³ “Nederlandse Voedsel- en WarenAutoriteit“, the Dutch Food and Consumer Product Safety Authority

2. Research problem

2.1 Introduction (as-is)

The research problem is sketched by means of a comparison between the current situation (as is), and a vision of an improved situation (to-be). As mentioned before, a major challenge within the current supervision (for customs specific: post-audits) is the retrieval of data from electronic information systems of companies. One of the major problems is the lack of standardization in semantics, format and structure of the data to be retrieved. This concerns, for example, the interpretation of codes, the meaning of a field name such as customs value, a comma or period as a decimal point or the number of characters after the decimal point. The main cause of this is still the communication between the data requesting party (supervisor) and data supplier (company) (Bharosa et al., 2015). As one example of a solution, focused solely on a type of data, is described in “Conceptual model customs transactions” (Hof, 2017), in which the type of customs transactions within a customs warehouse is standardized. Another problem is that the audit objective determines the data set to be requested. In short, the data requesting party always requests a different data set, making it (almost) impossible to standardize the data collection method (the query). As a result, the process of requesting and providing data is not efficient, but more importantly, it hinders further innovation in regulatory supervision.

More in detail, the current situation is that there is a lot of different accounting software being used for collecting and providing regulatory data and that it occurs in different versions. Think of SAP, Oracle, Navision, Exact, etc ., . Based on experience, knowledge and conversations with experienced auditors in the Netherlands, an estimate of 200 combinations of packages databases and versions is a cautious estimate. Inventory research conducted in China prior to the aforementioned development of ISO 21378:2019 already yielded 293 different combinations (Presentation Dr. Lv TianYang, Brief Introduction of Audit Data Collection-2016-2 v0.9.1, slide 6).

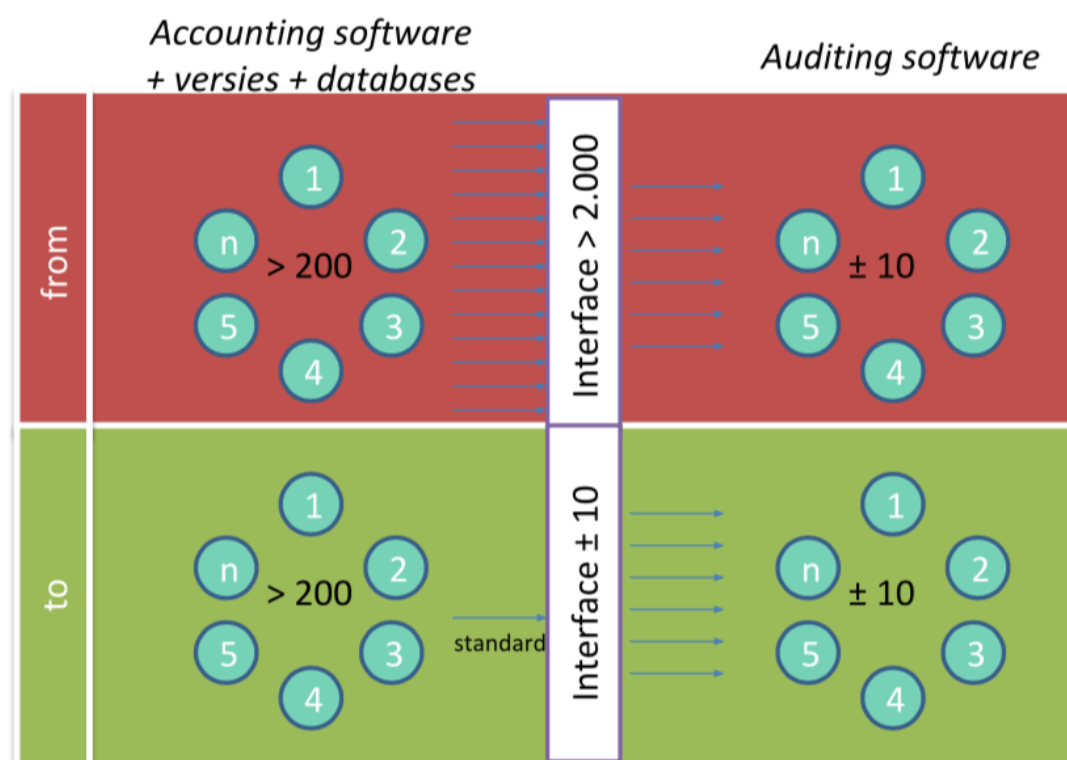


Figure 1
Example illustrating the relative complexity of an application interfaces for regulatory data, without standardization (top) and with standardization (bottom)

For each of those versions, the supervisor can build an interface to the auditing application to be able to read and analyse the received data. Since there are at least 10 auditing software packages (for example ACL, Excel, IDEA, etc), this means that there are more than 2000 interfaces. This in itself does not seem serious, but these must also be maintained. In addition, this calculation assumes that each query consists of the same data set. In reality this is not the case, because, as previously written, the requested data set depends on the audit objective. This will only increase the number of interfaces to be maintained.

The data producers (the companies and/or the software suppliers) also have several problems with the existing situation as described above. Internationally they have to meet different reporting standards (and versions), such as OECD's SAF-T⁴ and AICPA's ADS⁵. With the knowledge that countries have implemented SAF-T differently (such as Poland, Norway, etc.) and with a different scope, we can infer an even higher complexity.

⁴ Standard Audit File for Tax Purposes (Organisation for economic co-operation and development) (OECD)

⁵ Audit Data Standard from American Institute for Certified Public Accountants (AICPA)

The ISO 21378:2019 is a so called common data model, describing an intermediate layer between the accounting software (financial reporting) of the company and the auditing software of the supervisor. The standard is limited to the data required for a financial audit (think of the financial statements). That's why it doesn't contain customs specific data about inventory and goods movement (e.g. weight, package unit, customs status), which is crucial for customs supervision purposes. In the extension created by Dutch Customs those missing data are added. For this thesis, the starting point is the international standard ISO 21378:2019 and the extension specifically targeted for the customs domain.

The development of this common data model is interesting in several aspects. After all, lack of standardization (OECD, 2010a; OECD, 2010b) is not only a problem for data requestors such as Customs, or data suppliers (the companies), but also for software suppliers.

But they must also meet national reporting standards (such as XAF in the Netherlands). The maintenance of this large combination of standards poses many problems for software suppliers. For software suppliers, especially the big ones like SAP, Oracle and Microsoft, the issue was recently articulated by Carlos Saez, Senior Manager Product Strategy Oracle: *"it is getting crazy, any deviation from a standard lead to headaches and also, we speak in different dialects "and" still, we are all fighting the same battle "*. He says that the current set-up, with separate national and international standards, is impracticable and does not lead to the desired result. Therefore we have to work together (data suppliers, software suppliers and data customers) according to one single standard, a so-called common data model. This applies equally to large accounting firms and international companies, because both have to deal with the effects of different data standards.

In the interview with Mr. L. Alewijnse, regulatory data expert at Dutch customs, he indicated that the above problems also apply to so called duty management systems at companies. Those are systems that companies use to communicate with Customs and calculate import and export duties, based on the tariff code of the goods. In short, he asked himself why there is no international standard or at least a European-wide standard for collecting data about the flow of goods across borders. Certainly the latter would make it easier for many companies, since companies within the European Union all have to deal with the same Customs legislation.

So, there is a need for standardisation of semantics, format and structure of audit data not only for financial audits, but also for customs audits. That standard must contribute to showing compliance, internal controls and more effective and efficient supervision. In short, we need a common data model.

2.2 ISO standard

The development of the international standard ISO 21378:2019 opens opportunities to solve the current problems in post audits and provides possibilities for further development of supervision. From the point of view of Customs, the current ISO 21378:2019 has many data elements that are also important for customs purposes. For example, the details of purchase orders or sales invoices are not only important for checking the annual accounts, but are also important for Customs, such as for determining the customs value, which is needed to determine the duties due. However, the ISO 21378:2019 lacks specific customs data elements. For example, this includes the net weight, packing unit with numbers, customs status of the goods, the commodity goods code and the previously described typing of a customs transaction. Dutch Customs has drawn up a proof of concept with the aim of determining which customs data elements are needed, and whether these can be easily integrated into the ISO standard 21378:2019. It is written at the outset that retrieving data from companies' information systems is a major challenge within the current supervision (Klievink, et al., 2012). This will change with the ISO 21378:2019. The new challenge is to use the standardization effort in such a way that both companies and Customs will benefit. The ISO 21378:2019 should not be a goal, but a means to further develop Customs supervision.

This standard is a starting point for further innovation in supervision, by developing standard analyses and other areas as artificial intelligence.

This new international standard can be compared with existing audit files like the financial audit file (XAF⁶) for the Dutch Tax Authorities or the Electronic Periodic Declaration (EPD) for Dutch Customs, in use until 2021, or ADS (AICPA) or SAFT (OECD).

2.3 Research Objective

The goal of this research project is to evaluate the proposed ISO 21378:2019 with extension for Customs and with standard analysis methods, as an effective means for providing and collecting regulatory data, and whether the main stakeholders (customs, companies, software providers) support introduction of this standard, in order to professionalize and innovate supervision. For example, for customs whether it fits within their vision of supervision. For companies, whether these developments offer the opportunity to give substance to demonstrating compliance. A practical outcome of the research, would be a policy advice to Dutch customs, on whether or not to further develop or promote the extension for customs of ISO 21378:2019. So it is design science, and within that, evaluation of the effectiveness of an artefact, namely the standard ISO 21378+customs+standard analysis methods, and evaluation of feasibility, specifically, support among stakeholders.

⁶ XML Audit File by the Auditfileplatform

The research aims to provide insight into whether the development of a customs specific extension to the ISO 21378:2019 audit file contributes to more customs data driven supervision and improved possibilities for companies to demonstrate compliance, against limited administrative effort.

2.4 Motivation of research

The following paragraph provides further practical relevance; in fact, it explains the original 'trigger' for the research topic. In the Netherlands we currently have a simplified declaration procedure for customs warehouses, namely the Electronic Periodic Declaration (EPD, in Dutch; GPA). By means of the license, companies are given permission to supply information about placing and discharging this Customs procedure to Customs automatically. This is done by monthly delivery of a standard file, containing the stock movements and the additional declaration data. The EPD is voluntary, companies with a EPD license have applied for it themselves, because of benefits in business operations. The EPD is based on the Community Customs Code (hereinafter CCC) legislation of 1992 and will expire in 2021 because of the implementation of the Union Customs Code (hereinafter UCC) legislation. In the UCC legislation there is a new local clearance procedure, namely the Entry Into the Declarant's Records (hereinafter EIDR), as a result of which the associated audit file for the supplementary declarations will no longer be used. The expiry of the old legislation means that the administrative burden (Veiga, Janowski & Barbosa, 2016) will increase for the companies that currently use the EPD procedure (Customs Administration of the Netherlands, Report co-creation AGS 4, 2013). For Dutch Customs, the expected consequence is that supervision will become less efficient and effective for those companies (Hof, 2017: 41).

In recent years, the standard audit file SAF-T has been developed by the OECD (OECD, 2010a). The ISO has worked several years on developing the international standard ISO 21378: 2019 to collect data for financial reports. These standards are aimed at the financial part of a business administration and, unlike the audit files currently used for EPD, they do not contain any information about the movement of goods. The business community in the Netherlands has indicated in a study by Customs (Customs Administration of the Netherlands, Report co-creation AGS 4, 2013) that they need a standard audit file, that does contain customs data elements. A standard audit file could simplify the monitoring of goods movements and contribute to the modernization of customs supervision. To make this possible, you can check the standardized data sets (audit files) periodically, for example once a month. Also the method for doing such a check can be standardized as part of the standard audit file. In that case, both regulator (customs) and company will periodically receive a standard analysis, based on data collected through regular accounting software packages and provided in a standard representation format, with a standardized semantics and structure, according to a common data model. With

the outcomes of the standard analysis, something can be said about of the quality of the data (accuracy and completeness of the data in a data set). Deviations in the process or the administration can then in principle be quickly traced and corrected. The outcome of such an analysis on the standard audit file could then show, among other things, the level of compliance of a company. Participating companies can also perform these analyses on their own files, to test and improve compliance. The results of the compliance analyses are shared with Customs; any remaining irregularities must be mentioned in the report together with the corrective measures.

This thesis will contribute to the discussion and development of the most effective and efficient design of data-driven supervision. In addition, a contribution will be made to the possibilities of compliance measurement and the role of standardization of data and analyses within this.

2.5 Research Question

The goal of this project is to investigate whether the ISO 21378: 2019 with the customs extension and related standard analysis method is supported by both Customs and by companies to professionalize and innovate supervision (more effective by data driven supervision, more effective and efficient by demonstrating compliance, more efficient by reducing administrative burden).

This research question leads to the following sub-questions:

1. How can standard analysis be conceptualized?
2. What is the function of standard analysis?
3. How can standard analysis be implemented?
4. Based on the future vision formulated by Customs; on which elements of this vision do the standard analysis contribute?
5. Does standard analysis based on standardization of data offer the possibility to demonstrate Customs compliance to reduce administrative burden?
6. What are the standard analyses, based on the ISO 21378: 2019 and the customs extension to demonstrate Customs compliance?

2.6 Research Approach

First, desk research is used for the literature review phase and to establish a solid research framework. For this, books and documentary research from online and offline sources were sought. Secondary documents were also used because they were built on existing primary sources through the use of quotes, comments and further elaborations. To that end, various academic documents have been investigated and included as a reference in the dissertation such as papers and journal articles. The aim of this research approach was to collect in-depth information about the background of standardized data, standardization in audits and the relationship between standards and compliance.

Second, two types of (semi-structured) interviews were conducted. A series of interviews with experts from Customs about IT audit, compliance and the enforcement policy of Customs, which had the aim of obtaining information about the practical and legal aspects of demonstrating compliance based on standard analyses on a standard data set. A series of interviews with experts from the business community, focused on the expected results of the analyses carried out on the standardized data. These interviews had the aim of investigating whether the analyses did contribute to demonstrating compliance to Customs. In addition, the interviews are focused at discovering the practical (im) possibilities of these analyses. All interviewees were selected based on their relevance to the study. The table below provides an overview of the interviewee, their position and the purpose of the interview.

Name	Role	Company	Department	Interview purpose
Frans Vermeulen	Policy advisor supervision	Dutch Customs	Head office	Gain knowledge in Customs policy supervision
Leo Alewijnse	Auditor, data expert	Dutch Customs	Customs office Breda	Gain knowledge in EPD, EPD-file and auditing data
Wim Visscher	Policy advisor	Dutch Customs	Head office	Gain knowledge in Customs future supervision
Jan Akkermans	Representative ADS	Alliantie Douane Software		Opinion on standard data and analysis and (im) possibilities for software suppliers
Marco Heijnen	Head of MDM & Customs	Döhler Holland B.V.	Customs Europe	Opinion on standard data and analysis and (im) possibilities for business

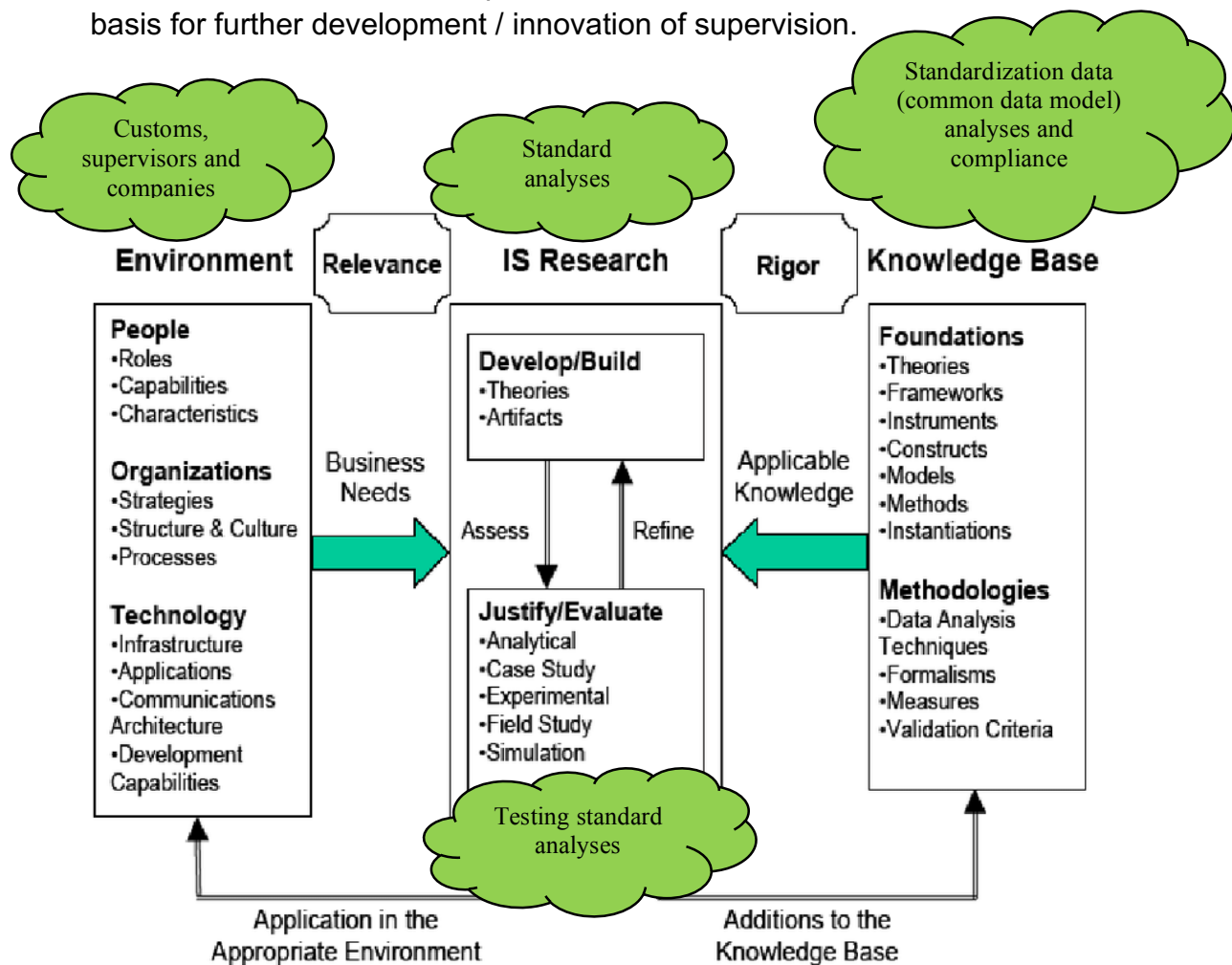
Table 1
Table with interviewee

Third, a data analysis experiment on the standardized data of a company was carried out by the author. The purpose of this was to investigate whether standardization of audit data including Customs data is feasible, and can contribute to the demonstration of compliance by performing standard analyses on that data.

2.7 Research Design

This research is described as a form of design science (Hevner et al 2004; Wieringa, 2014). Due to the combination of the chosen subject and the lack of literature in this area, the case and the subject of the study run side by side through the research. The subject is demonstrating compliance using standard analyses (artifact) on standardized data, looking at possible effectiveness and efficiency benefits for companies and Dutch Customs. The design of the artifact is based on insights from literature, policy documents (Customs "Vision on supervision"), existing projects (ISO 21378:2019 customs extension project of Customs), as well as empirical analysis within Dutch Customs and supplemented with knowledge of companies and software suppliers.

To make this analysis, I will use a qualitative research method, conduct interviews and conduct literature research to approach the subject from different angles. Due to the corona crisis the interviews have been held by skype. During the test on the standardized data, I will test whether the standard analyses on the standard data set can indeed demonstrate compliance and whether this forms a basis or can form a basis for further development / innovation of supervision.



(source: Hevner et al., 2004; 80. Figure 2)

Figure 2
IS research framework

In the above (figure 2) the middle column shows the artifacts that are being designed (common data model + standard analyses), and the theories on which they are based are shown on the right. The artifacts have been developed to meet practical needs, shown on the left side of the model. Both theories and artefacts are analysed by various forms of studies (analytical, case study, field study, simulation or experimental, studies). The research leads to improvements or additions to existing theory, shown as the arrow to the right labelled "Additions to the Knowledge Base". In this case, the theoretical contribution is expected to be knowledge about data driven supervision and compliance, knowledge about development and adoption of audit files. The design of an artifact can eventually lead to application in practice, shown as the arrow to the left labelled "Application in the Appropriate Environment". In this case, the practical contribution is expected to be standard analyses on standard data and the delivering of Customs compliance.

The validation of the standard analyses will be done by testing these on the standardized customs data of a company. The focus of the tests will be effectiveness and efficiency (f.i. more and earlier assurance about the correctness of the Customs declarations) and reduction of administrative burden. The standard analyses are built in such a way that they provide Customs with insight into the company's compliance. This test will be carried out by Customs and the results will be discussed with the company. We will evaluate the results and adjust the analyses where necessary. In this way we work together to form a vision on how standard data and analyses contribute to demonstrate compliance.

2.8 Scope of Thesis

In short, the scope of this thesis is the testing of standard analyses on a customs data set of a customs warehouse for a certain period. The chosen data standardization is recorded in the ISO 21378:2019, supplemented with a Customs extension. This extension is developed by Customs Netherlands and only requires data that is not already included in the ISO 21378:2019.

The standard analyses are developed with the companies as part of the proof of concept. And are tested on the data of these companies. During the tests, the results will be viewed and, where necessary, the analyses will be refined together with the companies.

2.9 Conceptual model

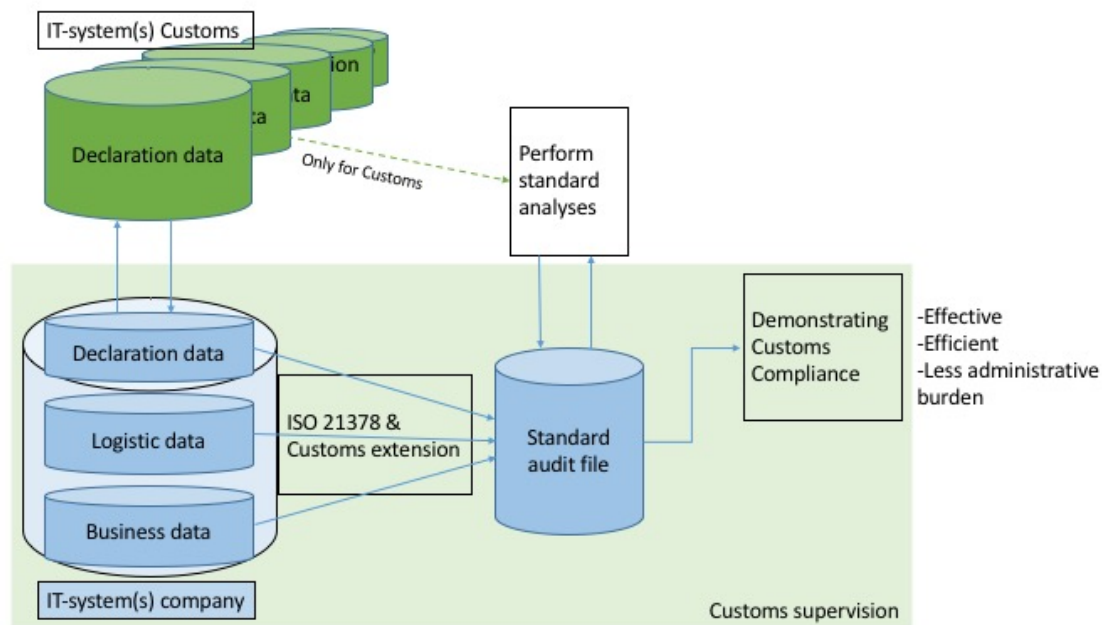


Figure 3
Conceptual model

In the model, an arrow moves from the declaration data of the company to the declaration data of Customs. This arrow represents the declaration of the goods to Customs. The arrow in the opposite direction indicates that a message returns from the declaration system of Customs to that of the company. The company has not all the data, such as declaration and logistical data, necessarily always in one IT system. Customs only has the declaration data as it has been submitted by the company by means of a declaration. For an audit of the (digital) administration of the company, Customs must therefore have data from the company's master data, represented by the arrows from the databases to the standard audit file. The rectangle in between shows that the data from the databases is converted to an audit file in the ISO 21378:2019 format. If the company's software creates a standard audit file, it is available separately from the master data and can that file be used for audits and internal checks. The company can then measure their own compliance by means of standard analyses, as agreed with Customs.

2.10 Structure of Thesis

Design Science Research guidelines (Hevner, et al. 2004)	Hevner's framework Information systems research (2004)	Chapters	Deliverables	Research question
Research Problem	Introduction	Chapter 1 Chapter 2	Thesis proposal Literature study Introduction Research problem	
Designs as a search process	Environment	Chapter 3	Literature study	Sub question 2 Sub question 3 Sub question 4
Design as an Artifact Research Rigor	Knowledge base; Foundation IS Research develop	Chapter 3 Chapter 4	Literature study Theory on standard audit file and analyses. Theory on Customs supervision and compliance.	Sub question 1 Sub question 3
Design Evaluation Research rigor relevance	Knowledge base; Methodologies IS research evaluation	Chapter 5	Testing standard analyses on standard data. Interviews with experts	Sub question 2 Sub question 3 Sub question 4 Sub question 5 Sub question 6
Research contributions	Application in the environment	Chapter 6	For practice and research	
Communication of research	Conclusion	Chapter 6	Conclusions and recommendations	Main question

Table 2
Structure of thesis

3. Review of Research Literature

An important change that has led to absolute innovation, was that of Henry Ford. He did not invent the car, but brought standardization and continuous improvement to processes (Adam, et al., 1999). To do this, he first broke the big picture into pieces and standardized one sub-process after another. Henry invented a standard process and repeated every step of it on a "conveyor belt". Only then did the incredible change become visible: you could produce mass goods easily, quickly and reasonably cheaply. We see a similar change happening in the data world of auditing that started in the nineties with the concept of continuous auditing (Vasarhelyi and Halper 1991; Alles et.al, 2002; Littlely, 2012; Chan et al, 2018). That concept has evolved with the possibilities that systems and software offered in the years. If we can separate all the data in a company administration into clear chunks (think big, start small), we can develop a common data standard for each fragment.

The core of this chapter is the application domain of standardized data from information systems (audit file) in relation to compliance. The concept of an audit file is discussed first, followed by a general description of some developments in the standardization of audit files. After that, this chapter provides a description of compliance in customs supervision related to standardized data and administrative burdens. Finally, it has been described what the added value of a standard analysis on a standard audit file can be. The (underlined) topics are discussed in the same order as they are mentioned in this paragraph. The structure has been chosen, from an audit file and its influence on the manner of supervision, to the innovation in supervision that standard analyses could bring.

The approach for this chapter consists of various conversations and interviews with experts from Customs. Furthermore, this chapter is based on experience and personal knowledge from projects and knowledge found in literature. The choice for this approach is that there is no literature on the relationship between standard analyses on standardized data and the demonstration of compliance. The author was also involved in a project where research was conducted into the standardization of an audit file (Douane Nederland, 2013; Douane Nederland, 2013b).

3.1 Audit file

There are various definitions of what is meant by an audit file. According to the Dutch Tax Administration⁷, the definition of an audit file is: "an open standard for storage and / or exchange of data from administrative systems". The OECD has an audit file defined as a standard file to give auditors easier access to data in an easily readable format (OECD, 2010a). In all cases it is a file that is not tied to one specific accounting program, with the aim of making data exchange between different standard packages as simple as possible. In a recent study Richard van 't Hof has

⁷ <https://odb.belastingdienst.nl>

defined an audit file as follows; “*Audit file is a concept of one or more computer files based on an open standard for storage and/or exchange of (transaction and master) data, which underlie the audit object, from administrative systems for the benefit of internal for businesses and external regulators*” (Hof, 2017(12)). Standardization of data and harmonization of data exchange contribute to more efficient and effective supervision (OECD, 2010b; Grainger, 2008; Bharosa et al., 2015). A standard audit file can also contribute to reducing the administrative burden on companies (OECD, 2013). After all, the data is accessible in a standardized data file, of which the auditor is familiar with the content of the various elements beforehand.

As a participating member in the development of the ISO 21378:2019, Dutch Customs sees the possibility for an extension to the recent standard for an audit file with Customs-related data. So the idea is to use the data that is already defined by the standard, but only add the data elements to the standard that are required for Customs supervision of a company. As Wim Visscher, expert on customs supervision at Dutch Customs, indicated during the interview; *the advantage for Customs will be that the supervision process can be modernized and that we have a successor to the current EPD*. He also mentioned that the level of compliance of a company is easier to determine using their own data. If all companies in a chain use the standard audit file, even more possibilities arise. Namely, it will then be possible to also investigate the compliance of the entire chain (Grensverlegend, 2019).

3.2 International standard

With the digitization of business administration, there was a need from the audit world for a data standard. In an international context, the Organisation for Economic Cooperation and Development (OECD) has laid the foundation for a first standard audit file, namely SAF-T for demonstrating TAX compliance (Auksztol, Chomuszko, 2020). The aim was to make it easier to collect data from the business administration in a readable template. This should make it easier for auditors to perform administrative checks more efficiently using standard software.

Member States are not obliged to implement SAF-T, in fact only 7 of all Member States have implemented it. In addition, SAF-T has a flexible structure, with which member states had freedom in the form of the standard audit file. This results in different versions in countries that do use it. First version (1.0) of SAF-T was published in May 2005, the second version is from April 2010.

Country	Name	Latest XML version	Date	Based on SAF-T version
Austria	SAF-T AT	1.01	January 31, 2009	SAF-T v1.0
Luxembourg	FAIA	2.01	March 13, 2013	SAF-T v2.0
France	FEC	?	January 1, 2014	N/A
Lithuania	SAF-T	1.00	July 1, 2015	SAF-T v1.0
Poland	JPk	2.3	July 1, 2016	SAF-T v2.0
Portugal	SAF-T (PT)	1.04_01	December 2, 2016	SAF-T v1.0
Norway	Norwegian SAF-T Financial	1.00	January 1, 2020	SAF-T v2.0

Table 3
SAF-T adoption

According to Mr Saez (meeting audit platform June 2017), “*there are multiple standards for the various countries that use SAF-T, so there is no uniformity*”. During consultations, for example, he indicates that deviations from the standard vary from few to many deviations and that use is voluntary in Austria and in other countries mandatory. The conclusion is that SAF-T is a non-committal standard that is only used by a few countries in different forms. This means that it is not a globally adopted standard and that it is in fact not a (good) standard.

SAF-T has not been implemented in the Netherlands, where the Tax and Customs Administration has opted for its own audit file. This is called XML Audit file Financial, which the Tax and Customs Administration has developed together with the SRA⁸ (professional body of accountants) and software suppliers.

The ISO 21378:2019 is the most recent development of an international data standard. About 14 countries (ISO/TC295 Audit data service) are directly involved, including China (the initiator), America, Japan, Russia, countries of the Nordic Smart Government (Sweden, Denmark, Finland) and the Netherlands. In addition, software companies such as SAP and Oracle, accountancy firms, universities and governments such as the Tax and Customs Administration are involved. There are also 21 countries involved in an observer role. At the end of 2014, China submitted a proposal for a new standard audit file to the ISO, and the first meeting took place a year later (at the end of 2015). The aim of the proposal for a new standard audit file was to make audits easier by solving the problem with the number of interpretations of the data. After 4 years of international work on the standard, the final version of the ISO 21378:2019 was presented in November 2019. According to the ISO, this version establishes common definitions of accounting data elements and provides the information needed to extract relevant audit data. It aims to bridge the understanding between auditors, auditors, software developers and IT professionals. In doing so, it will help create a mechanism for expressing the information, which is common to accounting, in a way that is independent of accounting and ERP systems. The ISO 21378:2019 standard serves as the basis for local data extraction efforts in the areas of general ledger, debtors, sales, creditors, purchase, inventory and

⁸ Samenwerkende Registeraccountants & Accountants-administratieconsulenten

tangible fixed assets. Major ERP suppliers are expected to implement this, if only to remain on the market in China. China will make the use of ISO 21378:2019 standard mandatory.

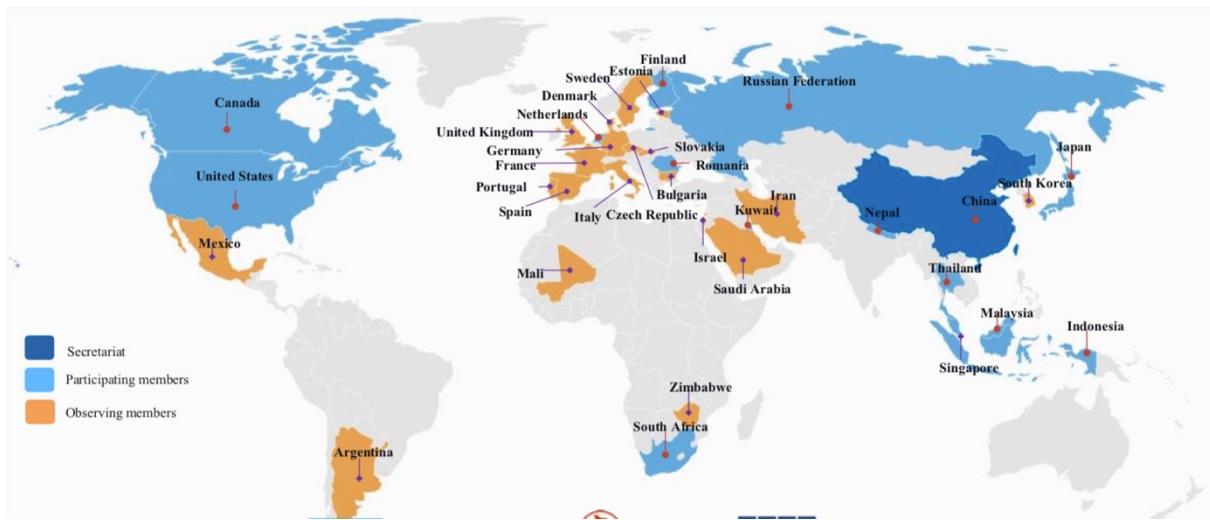


Figure 4
Map ISO 21378:2019 adoption

The purpose of the new standard audit file is in fact the same as the SAF-T audit file of the OECD; bringing a data standard to make auditing more efficient and effective for all parties involved. The difference with SAF-T however, is that the ISO standard has already been adopted by more countries and that large software suppliers of ERP systems embrace the standard. In particular, the adoption by the software suppliers increase the chance on success of this new standard a lot. China will most likely make the new standard mandatory, which means that the major software suppliers have to adjust their systems to remain a market player in China.

The Netherlands was one of the participating countries and during the development of the ISO 21378:2019, it proposed to include customs relevant data (about logistics and inventory) in the standard. The development of the ISO 21378:2019 was now too advanced to process the proposals made. For that reason, the Dutch Customs has continued with the proposals and, together with data specialists, has elaborated them into a Customs extension to the existing ISO 21378:2019. The current status, during this research, is that the Netherlands has submitted a proposal to the ISO for setting up a working group within the technical committee TC/295. The latter must be aimed at adding the required customs data as an extension to the current ISO 21378:2019. A few countries have already shown interest in the proposal of the Dutch Customs.

3.3 Compliance

Compliance is the term used to indicate that an organization (or a person) works in accordance with applicable laws and regulations (Loader, 2004). It is also used to indicate that the internal policy and procedures of a company are aimed at complying

with all agreements, trade agreement, industrial standards and privacy laws, such as ISO and GDPR. These expectations come from supervisors, shareholders, but certainly also from public opinion. Companies benefit from being demonstrably compliant, such as fewer physical checks in the logistics flow through customs (ITAIDE⁹, IST-027829).

But it takes more than following the rules to be a compliant company. There must be a corporate culture (Merchant, 1982) that supports and motivates employees to be able and willing to fulfil their work according to the rules and agreements (Romney & Steinbart, 2015). Increasingly, it is also a department or a person in the organization who fulfils the compliance function: assisting management to keep the organization in control to work in accordance with applicable laws and regulations and company policy (COSO, 2004). Procedures and instructions must be established within a company to comply with laws and regulations. These relate to the way of working and the recording thereof within systems.

Companies with management information systems use them to optimize operational aspects of issues such as quality, health, safety and the environment. Companies with management systems have the potential to voluntarily comply with legal requirements, so-called compliance management (Haas et al, 2011). To help companies set up their compliance management, the ISO has developed a guideline for compliance management (ISO 19600). This guideline provides an approach for implementing a compliance management system and provides “good practices” that apply to any type of organization (Bleker & Hortensius, 2014). A company's IT system must be designed in such a way that employees can and must work according to the formalities. By using the available data, the company can build in objective measuring points with which you can monitor the business processes for compliance (Özer, Eijken, 2014). In addition to the business processes, it is also possible to test whether law and regulations are continuously being complied with. (Hulstijn et al, 2011; Pligt-Benito, Hulstijn, 2017). An auditor verifies and report if the company operates in accordance with established procedures and instructions. The auditor uses the data from the system that is necessary to determine whether the work has been carried out in accordance with the formalities.

Integrating compliance and especially, regulatory supervision efforts by governments into business processes and IT, can create friction with the efficiency of a process (Eggert, 2014). At first glance, it can cost a company money to be compliant. However, compliance can make you a preferred supplier, such as in the current trend to produce as environmentally friendly as possible (Govindan et al, 2013). Public opinion and regulations demands environmentally friendly products and less waste, such as less plastic packaging material. For example, by July 2021 all EU member states must have introduced the new directive to reduce the 10 most found plastic

⁹ Information Technology for Adoption and Intelligent Design for E-Government

waste items on beaches¹⁰. There are manufacturers who don't want to wait for the new directive, but are already setting standards themselves to reduce the environmental impact. Companies such as Unilever¹¹ (target 2025) and P&G¹² (target 2030) already want to use less plastic packaging material and what they use in plastics must be recyclable and come from recycled material. Production costs may increase due to the use of less environmentally harmful materials. However, it gives a company added value on the market because customers are more likely to purchase less environmentally harmful products. So by being compliant with the wishes in the market and already wanting to comply with future legislation, you can also use your compliance in the marketing strategy of a company. A similar voluntary effect is expected for the data standards reported on in this paper

When it comes to compliance in this study, it is that part of compliance to legislation that can be demonstrated by data and (standard) analyses and that part that is customs-related. Companies could also use standard analysis to extract other compliance-related topics from their data and present them in a Dashboard-like manner.

Conclusion compliance:

Compliance is basically measure up to applicable laws and regulations. For companies, this involves much more than just Customs legislation and regulations. Companies also have to deal with other supervisors and possibly several countries with their laws and regulations. Within a company, it is important that compliance is propagated from the top management of a company and that one speaks to each other about deviations from it. Compliance is more of a social concept than just willing, knowing, wanting and being able to comply with laws and regulations. Often you can be compliant according to the letter of the legislation, but if you look at the intention of a law, the level of compliance will not be the same.

The e-commerce packages to the Netherlands are an example of non-compliance. In the Netherlands, a package to a private individual up to a value of 22 euros is exempt from import VAT. Packages outside the European Union are deliberately split to stay below the value of 22 euros. According to the letter of the law it was not forbidden, but as mentioned by Ayres and Braithwaite it was not compliant behaviour from a social point of view (Ayres, Braithwaite, 1992).

3.4 Customs supervision (now and future)

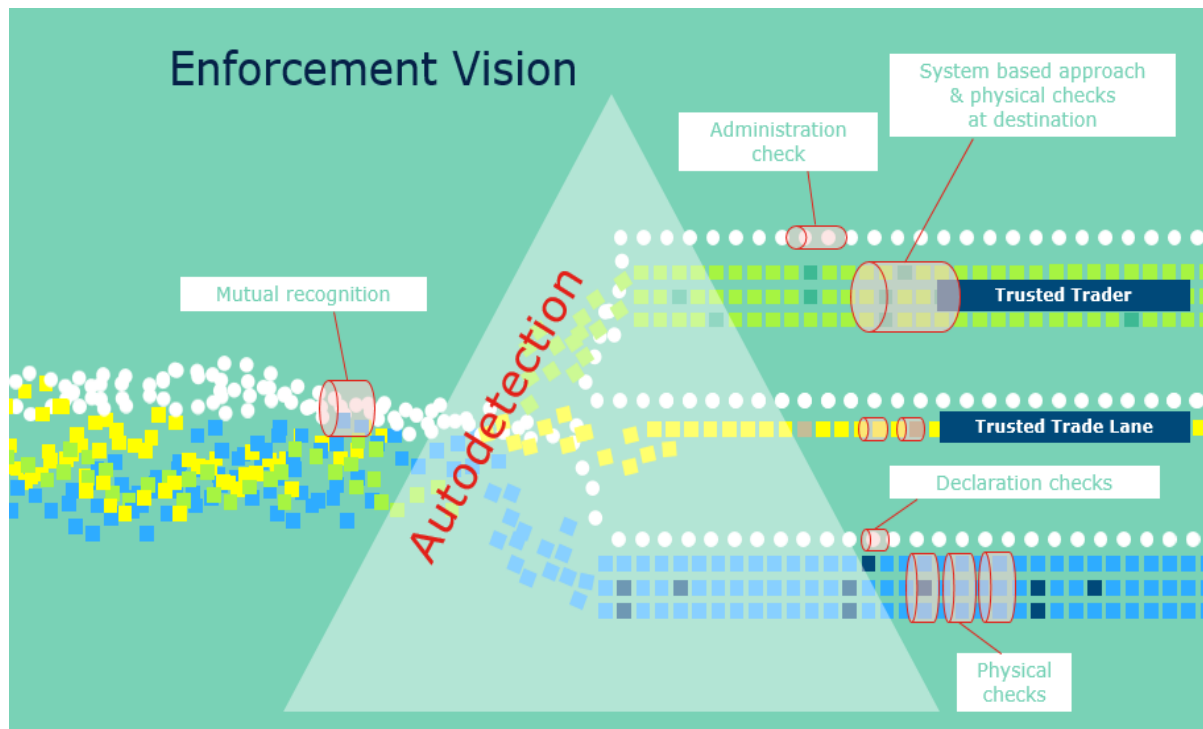
The current volumes in the goods flow mean that it is no longer possible for Customs to physically check all goods. In recent decades there has been a shift from a

¹⁰ Directive (EU) 2019/904 of the European Parliament and of the Council

¹¹ source; <https://www.unilever.nl/duurzaam-leven/>

¹² <https://nl-nl.pg.com/milieu-duurzaamheid/>

physical check to an automated check based on risks. This has been made possible by a shift from paper declaration to digital declaration. It is now Customs IT systems that, based on analyses, give a signal as to whether the shipment should qualify for a physical check. Due to the amount of available Customs data a shift can be seen within the Customs domain in the way in which companies look at compliance. In doing so, they would like to further modernize the supervision of, in particular, the “Green Lane” by using the data from those companies. The Green Goods Flow is for proven reliable market participants (trusted traders). This flow of goods (Hofman &



(Source: *Customs Administration of the Netherlands 2016b: 63*)
 Figure 5
 Enforcement Vision Dutch Customs

Bastiaansen, 2013) (the green lane) is for companies with an AEO status. During the application for the AEO certificate, the company must go through a procedure to demonstrate that their organization and administration meet the set requirements. Customs directs the supervision of those companies as far as possible outside of the logistics process, for minimal delays in the flow of goods. Supervision is focused on the correctness of the administration and the actions of these companies, preferably on compliance and monitoring of the processes. Supervision is more focused on a system-based approach (Haas, Meerman, Bree, 2011), whereby the operation of the control measures within the company (the system or process to the outcome) is examined. This audit of the system is based (system-based) on the data from the IT system of the company. The auditor asks the company for a data file containing the data relevant to his investigation. This data is then focused on the internal controls of the company and the check whether sufficient measures have been taken by the company.

The "Green lane" is exclusively for AEO certified companies, whereby the role and nature of supervision depends on the role and responsibility of the company in the logistics chain. The companies from whom the goods are not in the green lane, get more physical checks of the goods by Customs. In addition, there is also more intensive supervision of the administration of these companies. The companies do not have AEO status and are therefore under more intensive supervision. (interview Vermeulen, 2020)

The certified companies in the green lane are recognizable in the Customs systems at any time. The degree of compliance is checked on the basis of automated processing of the results of the cyclical supervision performed.

This process uses the data from internal information systems, with which the Customs employee gains insight into the degree of compliance of the customer, according to internal sources. The ambition for the future is a full compliance monitor as shown on the right based on a dashboard.

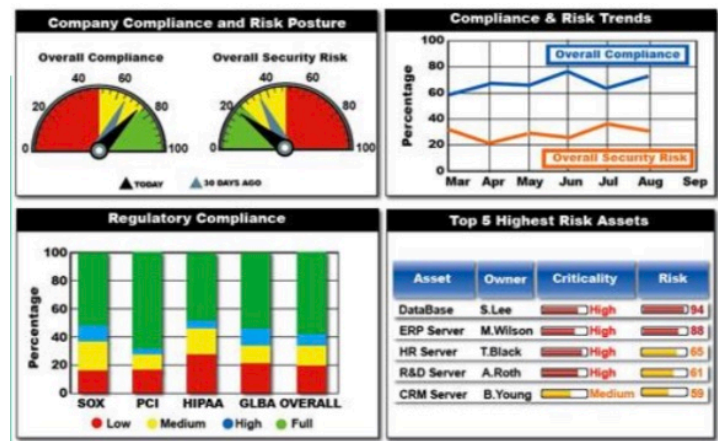


Figure 6
Example of compliance monitor

The point of departure for Customs is to carry out the required supervision at all times, with a minimal impact on the logistical flow of the AEO companies. The legally required profiles and a conformity profile (sample) must take place at all times, whereby the logistics of a company may be disrupted as little as possible.

3.5 Administrative burden.

According to (Veiga, Janowski,& Barbosa, 2016: 1) administrative burden represents: “the costs to business, citizens and the administration itself of complying with government regulations and procedures”. The government increasingly wants to keep the administrative burden of legislation and regulations as low as possible for businesses. In practice, this often means that forms of cooperation arise between supervisors and companies. The aim of this cooperation is then that the company itself organizes supervision, a form of self-regulation (Rees, 1988). For the companies, it often means that they have to invest to benefit, as in the case of Customs, fewer inspections (Hulstijn, Hofman, Zomer & Tan, 2016). The number of inspections by supervisors can be reduced by using the available data in the logistics process.

A standard audit file, such as ISO 21378:2019, will give the opportunity to reduce the administrative burden for business. Although this will initially cost the company

money to implement this. In addition, standardization of data will further contribute to lowering a company's IT costs. Adjustments to the software to provide audit files no longer need to be made specifically for a company, but must comply with the standard. Another by catch is the possible reduction of the costs of internal audits. Companies also use their own data and self-built queries for this, but with a standard audit file they can standardize those controls. It will also be possible to share standard analyses, which will also contribute to reducing the administrative burden.

3.6 Towards standard analyses

To be able to perform analyses on business data, it must be known how the data fields are configured. Only if you know what data and in which format is present will it be possible to audit it (Hof, 2017: 41). Typically, an auditor must examine a customer's data during the investigating at the customer. In general, is not upfront known how the data structure of the customer's database is. So an IT expert is required to explain where in which data items, in which format the relevant evidence from the customer's database can be found. When software developers switch to the use of a standard audit file, it is upfront known which data can be found in which format in which field.

Auditors use algorithms on combinations of data items for analysis, for example in ACL). Typically, they use different analyses for different data sets. But now data standards also make it possible to standardize these analytic algorithms, so that outcomes will be comparable. The standard analysis as mentioned in this study uses an algorithm. This then concerns an algorithm per analysis that checks the predefined fields in the standard audit file for the value(s) found. In addition, the algorithm performs calculations to measure these values against the norms of Customs. The result of the standard analysis is in all cases a dashboard as shown in chapter 5.

The implementation of the XAF audit file in Dutch accounting and reporting packages is an example of this (Bottemanne, 2013). The standardization of the audit file allows the auditor to prepare the analyses to be performed at the office. In principle will this shorten the auditor's time with the client for the investigation and reduce the client's time required to participate in the oversight. As R. van 't Hof claims, standardization of an audit file makes it possible to use standard data analyses on that data. (Hof, 2017: 65). After all, if you know what you specifically want to know about, you can find out in advance where in the data it can be found and in which form in the audit file. The big advantage of this is that previously made analyses for an audit can be reused at another similar company. After all, when using the standard audit file, you can reuse the previously used analyses in a subsequent investigation. By conducting the standard analyses as a company, you could improve the quality of your business operations with the results. You also have the option to continuously test your compliance, which can contribute to better recording. Compliance monitoring also

contributes to data quality for information exchange and audit purposes (Wang Y., Hulstijn, J., & Tan, Y-H. 2018).

Companies themselves can also develop standard analyses on the standardized audit file themselves for their own internal control. They can use the results of the analysis to improve their internal process. Those standardized controls can then be used by other companies for their standard internal controls, which have already proven their effectiveness elsewhere. This standardization gives companies the opportunity to optimize their internal control process. In addition, this optimization will lead to better control of the processes and the degree of internal control will improve.

3.7 Summary

According to (Flood & Carson, 1993) complexity can be put in a formula: diversity x dependency. So if, the diversity decreases, complexity is less, so the process of standardization is a reaction is to reduce complexity. In the next chapter, more attention is given to complexity, specifically diversity, in relation to the recent situation of customs supervision.

Standardization in audit files and analysis is the core of this research.

Standardization of communication between systems (applications) of different stakeholders (companies and customs), is more specific for this research. It helps increase manageability and ensure extensibility without increasing complexity and provides interoperability. That standardization of communication between companies and government often comes in the form of messaging (out of scope) and / or audit files. These audit files are based on national or international standards, mandatory or voluntary. So, there are several standards with the same goal, and that is precisely what a standard must prevent.

An important part of standardization of data is not really the audit file itself, the product of the standard. The important part of standardization of data is the opportunities this provides, the innovation of regulatory supervision. In this chapter demonstrating compliance, development of (shared) standard analysis and cyclical supervision are mentioned as possibilities to use standardization of data. In the next chapters, this will be elaborated more in depth.

4. Artefact development

In this chapter the development of the artifact and the technical details are discussed. The starting point for the development of the artifact was the audit approach used by Customs. In addition, this chapter looks at the current form of supervision and the possibilities offered by innovation in data standardization. The Customs (Tax and Customs Administration) audit method is specifically discussed, which is also used in the test in Chapter 5. The practical side of innovation and complexity for Customs and the business community are also discussed.

The success of an innovation depends mainly on the approval and acceptance of the change. Therefore, the innovation must provide benefits for all parties involved. In a standard audit file, this has an effect on the way in which Customs can exercise supervision, but also on the companies that are under that supervision.

4.1 NTCA

In the Netherlands the Tax and Customs Administration use different instruments for the supervision of citizens and businesses, one of which is post audits. When carrying out those audits, they work in accordance with the Audit Approach Netherlands Tax and Customs Administration¹³ (hereinafter NTCA). The NTCA describes the way in which the supervisors of the Tax and Customs Administration, conduct post (administrative) audits.

The audit approach is obligatory for auditors of Customs and they must therefore understand and use the basic principles of the NTCA. The depth of the latter depends on the position of an employee in the supervision process. For post audits, the NTCA refers to the various models of the NTCA. The supervision of Customs is aimed at physical checks, administrative checks and preliminary consultations.

In the context of efficiency and effectiveness, Customs makes choices when deploying its available supervisory capacity. Selection of companies to be audited is done using an integrated risk assessment and with the knowledge that companies with certain authorisation(s) at least once every three years. The risk assessment takes place with attention to the nature and size of the company, the package of goods, place in the logistics chain, internal business operations of the company, Customs authorisations and recent control results. The NTCA supports Customs in the efficient realization of supervision of companies. It describes that audit evidence must be appropriate, meaning sufficient quantitative and qualitative audit evidence must be obtained. They can use information / evidence by others such as financial

¹³ In Dutch this is called the Controle Aanpak Belastingdienst (CAB)

auditors. The NTCA provides further insight and a standard in how much work has been carried out for an audit. For example, a reduction of audit activities is possible when the internal controls in design, existence and operation are adequate.

4.1.1 Workflow model NTCA

The audit activities are arranged through the workflow model in an order that should lead to the most efficient and effective execution of the audit. Information required for the audit objectives does not only have to emerge from information available from Customs data. The risk analysis carried out in advance determines the expected scope of the audit work. The start of the audit is understanding the business and performing conditional tests. In this step an assessment is made of whether the internal controls are sufficient and an assessment is made of a possible reduction in the scope of the substantive testing. After this, the activities for completeness tests are performed in order. Where possible, audit work by others will be used, which will reduce the administrative burden (Hanskamp-Sebregts, 2018). With all previously collected information, the correctness tests are carried out in order. As a last step, a total evaluation is carried out, the audit is closed and a final report is drawn up.

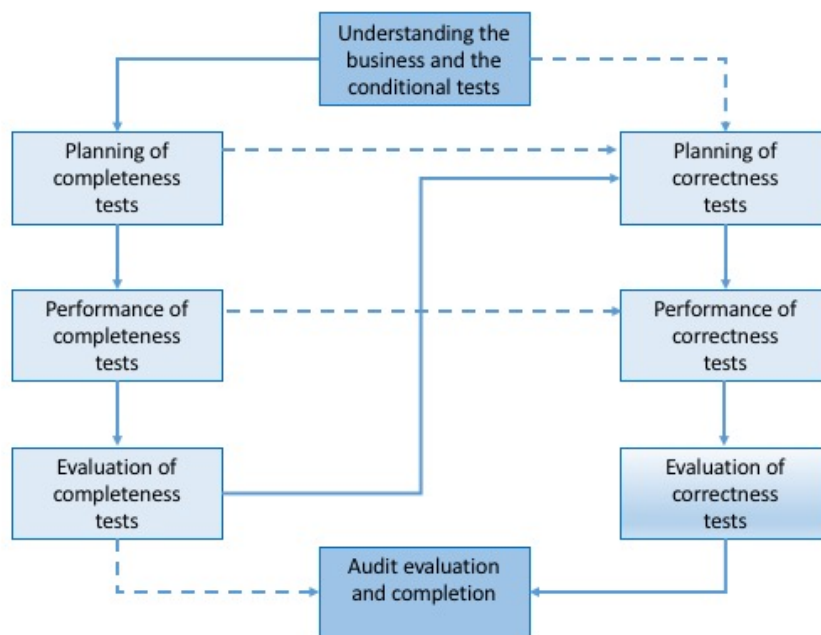


Figure 7
Workflow model NTCA

Meaning;

Rectangles different types of audit activities

Continuous arrows sequence of decisions

Dotted arrows display the "normal" order over time

The dotted arrows indicate that the activities overlap in practice and are sometimes carried out simultaneously. However, there is an interdependence between the

activities and the completion of the audit (Audit evaluation). During understanding the business and the conditional checks (pre-planning phase) is shown whether high-quality data can be used. At the end of that phase, a decision is made whether the measures of irreplaceable internal control are sufficient. If so, an assessment can be made at the planning stage to determine whether this is sufficient to justify a reduction in substantive testing.

4.1.2 The control activities

Step 1. Understanding the business

This step mainly consists of the following activities:

1. exploration of the organization and identify the (business / industry) specific risks;
2. establishing relevant connections between critical business processes;
3. to form a picture (Soll position internal controls) of the minimum records and controls that should be present for this company. (in accordance with art 1-2 ADW and art 38-39 UCC);
4. determining the "Ist position" of the internal controls;
5. compare the information found in steps 3 and 4 and determine whether this meets the image of what should be present at a minimum.

Step 2. Conditional tests

Conditional tests are performed to determine whether a company meets the basic conditions of auditability. The purpose of this step in the process is to have prior insight into whether the audit to be carried out involves limitations and, if so, which ones. The conditional tests consist of the following activities:

6. Assess whether the records are kept and available (retention obligation);
7. Assess whether the audit trail is available as described;
8. Assess whether the records can be checked within a reasonable period of time;
9. Determine the material reliability of the administration.

In the first eight activities, the formal assessment of the administration mainly takes place, so the actual check whether what should be present can actually be found. The actual reliability of the administration is determined in activity 9.

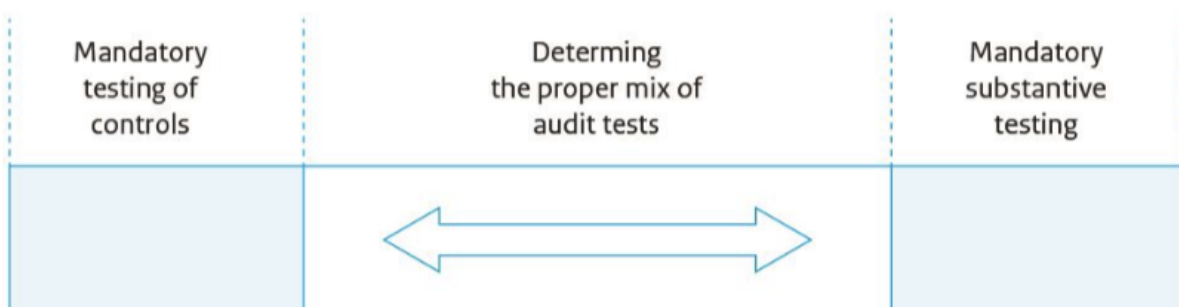


Figure 8
Determination of combination of audit tests.

In order to perform the audit as effectively and efficiently as possible, a combination of system-based and substantive tests (the audit mix) is sought during the planning of the tests. A systemic test is performed to obtain information about the design and effectiveness of the internal controls and the operation of the internal controls for the relevant audit period. In substantive testing, the purpose is to discover inaccuracies and potential deficiencies that are important in the company's accountability.

Step 3. Completeness tests

With the results of the company survey and the conditional tests, such as the internal controls, the next step can be started, namely planning, executing and evaluating the results of the completeness tests. The result indicates the certainty about the completeness of the administration or registration of the activities of the company. Also, the audit techniques used (NTCA 2014, page 20) in the completeness tests depend on the extent to which the auditor can rely on the internal controls of the company.

Step 4. Correctness test

The correctness tests can be scheduled, with the audit information obtained from the previous steps. Customs auditors are trained to apply the knowledge and techniques from the field of Statistical Audit in order to organize correctness tests correctly and to carry them out efficiently. The risk analysis can be made usable and transparent by means of Statistical Audit. After that the correctness tests have been carried out, the evaluation of the results in the activity before the completion of the study will take place.

Step 5. Completion of the investigation

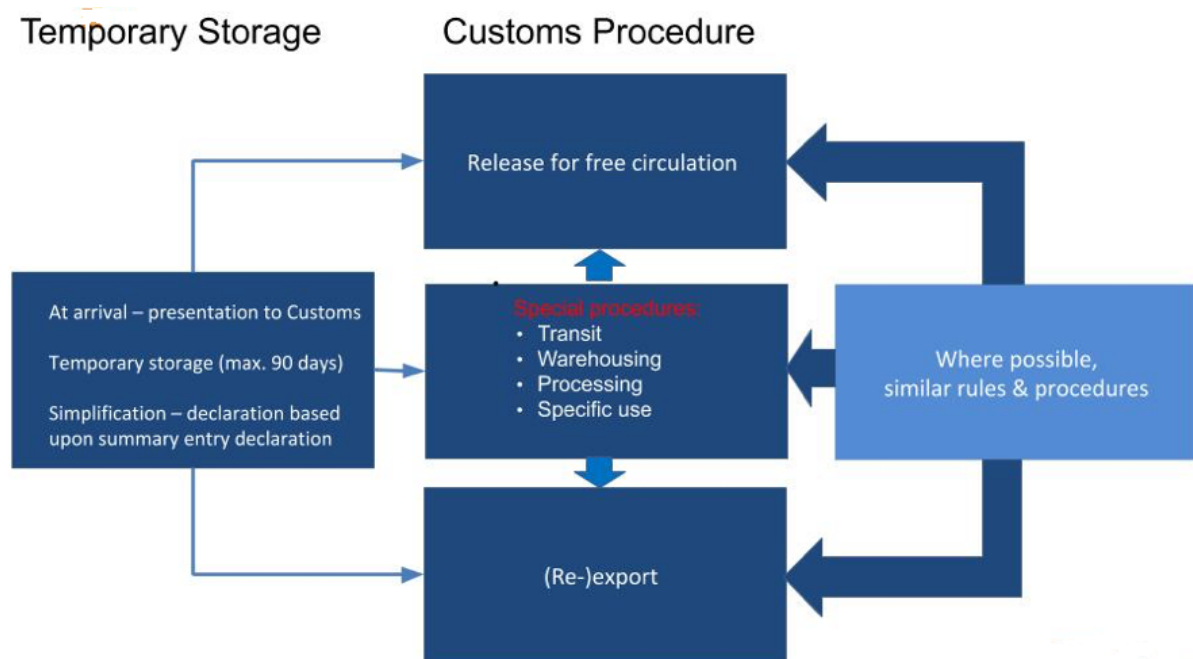
In the final step of the audit, the auditor evaluates all audit evidence collected from the previous steps. The auditor will conclude the investigation with a report containing his findings.

In short, the NTCA, which is publicly available, workflow model provides companies and the internal audit department with insight into the different phases of the audit process in their mutual relationship, namely:

- the company exploration, with which we gain insight into the business;
- the conditional tests, for assessing whether checks can be made and, if possible, how the audit can then be carried out;
- completeness tests of the administration;
- correctness tests of the administration;
- evaluation and completion of the audit.

4.2 Complexity for Customs

Customs supervision starts when goods are placed under a customs procedure (Article 5, paragraph 16, UCC). Complexity here is the amount of regulations, the amount of goods entering the country and the amount of locations where the goods can be located upon entry into the Netherlands. In supervising the flow of goods, Customs is highly dependent on declarations and company data about the goods. To place goods under a customs procedure, a customs declaration must be submitted to Customs. This is a prescribed act and form (article 5 paragraph 12 UCC) by which a person expresses the intention to place goods under a certain customs procedure. After acceptance of that declaration by Customs, the goods are placed under the declared customs procedure. Customs supervision starts with the information from the declaration, which means that this information forms the core of customs supervision. The supervision ends as soon as the goods are placed under a certain Customs procedure (Article 5, paragraph 16, UCC), such as release for free circulation, special arrangements or exports.



Source: Tusveld, 2018
Figure 9
Structure under the UCC

Within the UCC, customs supervision (Article 5 paragraph 27 UCC) is based on the information from the declarations. Goods subject to customs supervision must be covered by an accepted declaration, such as the placing of goods under the customs procedure 'customs warehousing'. Customs also makes use of the accepted declaration when monitoring the destination of goods. In addition to the use of the information from the declaration for supervision, it is also used for calculating import

or export duties and assessment of possible VGEM¹⁴ measures. Failure to comply with the obligations of a customs procedure and withdrawing goods from customs supervision will result in a customs debt. The customs duties and levies due must then be paid, as well as possible additional fine as a result of failure to (correctly) fulfil an obligation.

Every member state within the EU is free to fill in supervision of companies (Visscher interview). In addition to supervising the goods in the declaration flow, Dutch Customs also uses the business administration of companies for supervision. Although Customs has the declaration data of companies, it makes extensive use of the data from the companies' systems for its supervision to fill in the blank spots. This can be done, for example, during a post (administrative) audit, in the context of cyclical supervision, or when applying for an authorisation. The complexity of the checks on the companies' data is that there are many different software packages. Each package has its own database structure, where field names and lengths differ (so called syntax). These differences mean that the data structure must first be understood and only then can the data be extracted from the system. After this, the supervisor can set up his analyses on the specific data and test their functioning. This method makes supervision time-consuming for both parties and therefore also expensive. In addition, supervision cannot be modernized in this way. After all, different analyses will have to be written and maintained for each database structure.

The current used simplification (EPD) method comes from 1992, when the possibility arose in the Community Customs Code (hereinafter CCC) to simplify the normal declaration procedure. One of the simplifications was to make a customs declaration by making a statement in its own administration and to do this before the goods were presented to Customs. After a predetermined period (a calendar month in NL), the trader submits an (additional) supplementary electronic declaration, which contains the registered statements (declarations) over which the trader pays the customs duties owed. For the EPD, Dutch Customs has described specific standards for data exchange (the supplementary declaration) with which the transactions must comply. This is necessary in order to be able to check the completeness and accuracy of the supplementary declaration.

4.3 Complexity for companies

For companies, the complexity in customs supervision is that Customs cannot translate simple and general data requirements for an audit file into requirements that the standard audit file of companies should meet. So, companies can then only demonstrate their compliance during an inspection of the data during the (post) audit by Customs. Errors in the system or procedure of companies can only become (too)

¹⁴ VGEM is abbreviation for Veiligheid, Gezondheid, Economie en Milieu meaning Safety, Health, Economy and Environment

late visible to both parties. For the company, this can lead to fines and additional claims. The lack of information about the degree of compliance therefore entails the risk of extra costs for companies.

Dutch Customs organized a co-creation project in 2013 in connection with the impending change in customs legislation from CCC to UCC. The aim was to specifically investigate the innovation in legislation regarding the Local Clearance Procedure (LCP) (Douane Nederland, 2013, Douane Nederland, 2013b). All holders of an LCP authorization (also known as EPD-clients) are requested to participate. Customs organized several roadshows, where the companies concerned could get information about the impending change and about the co-creation. In addition, Customs had made a website. On that website, customs asked questions and made statements, which companies could respond to (anonymously for participants other than customs). The main goals of the co-creation were: informing the companies that could be affected by the change in legislation, discovering together which changes in the process are needed and investigating the required functionality of the new AGS declaration system. The project is also very interested in how the companies contemplate to a standard audit file with additional data from the business administrative system, when looking at the new process.

This study aims to show that companies have a positive view of a standard audit file, because it helps to reduce administrative burdens, accelerates the certainty about the supplementary declaration and creates new possibilities for internal controls and supervision. For example, supervision can be improved by sharing (standard) data analysis or as a step towards further supervision cooperation.

4.4 Current supervision

In the Netherlands (EU) the Customs supervision is based on the suspension system, so payment has to be done when the goods are released for free circulation. In the meantime, the goods are under customs supervision, for example, customs warehouses. Certain customs procedures can be completely controlled by customs, both the in- and the outbound are recorded in a customs system (ie debit and credit).

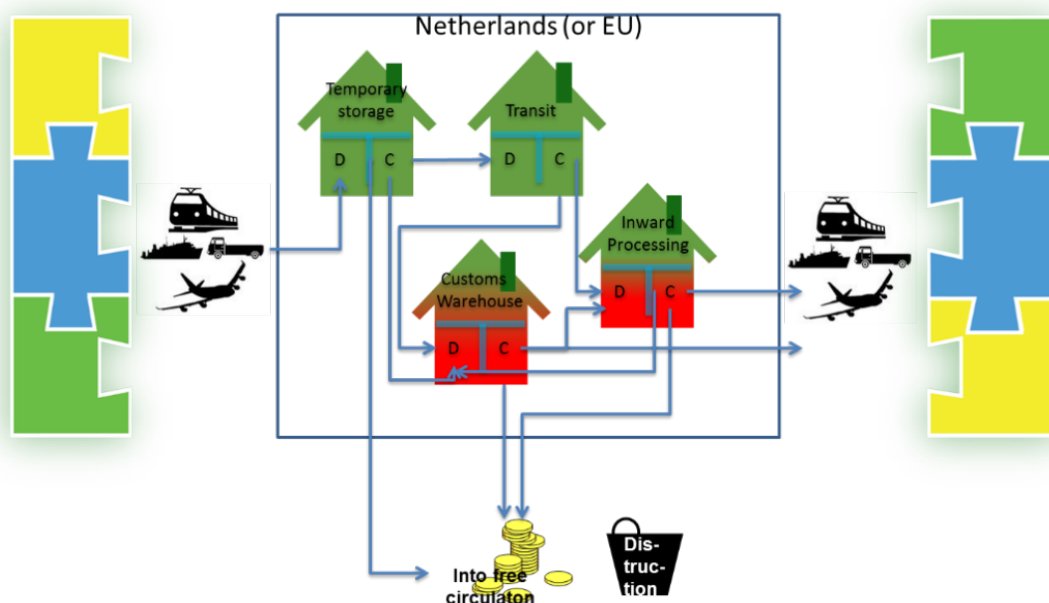


Figure 10
Simplification of customs supervision (based on cottage model Leo Alewijnse)

The explanation of Figure 9 is as follows:

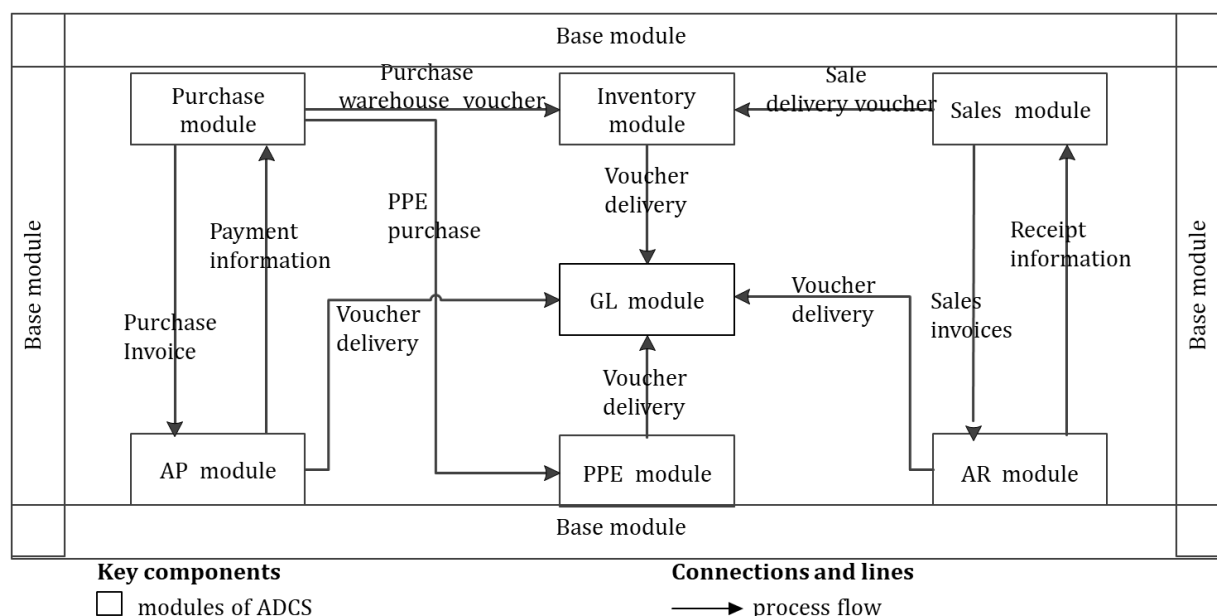
- In this figure, the goods are brought in (or leave) the Netherlands (or EU) (the large rectangle). In accordance with Customs legislation, all goods must be under customs supervision.
- The cottages represent customs procedures, such as temporary Storage (or Custom warehouse or other). In the cottages, the objective of customs is to supervise the goods under the relevant customs procedure.
- The arrows in the figure show the transition between customs procedures. The transition to another customs procedure takes place by lodging customs declarations. Customs ensures that the outgoing with the incoming goods movement is balanced.
- The coins are a reference to the levying of customs duties. The business objective of customs concerns the correctness and completeness of the declaration and thus the correct levying of customs duties.
- The green color in the cottage is where Customs themselves perform the reconciliation checks / comparisons between debit and credit in their systems, which makes it a conclusive system, based on official customs data, so green.
- The situation is different for the customs warehouse procedure. The administration from the holder of the authorization prevails in the Netherlands. In this case, customs depend on the administration of third parties (i.e. companies themselves), which is why the cottages are partly colored red.
- The purpose of the new customs extension for the audit file, is to reduce the red coloured data deficiencies.

There are also schemes where this is not always the case, for example the bonded warehouses scheme. In that case, supervision is now largely based on an audit file,

better known in the Netherlands as the EPD (the green part in the cottage). That is the current situation. This situation lapses, the EPD goes out, as discussed in chapter 2.4. This means that there will be a gap in supervision, specifically for custom warehouses where the customs do not record the debit and credit themselves (the cottage will be red). This is represented in this figure by the cottages which are partly coloured red.

4.5 Customs extension

The new Audit data standard (ISO 21378:2019) provides auditors with a specification to obtain accounting data. This is including the specification of the content and format requirements of the data elements and exchange formats. It also covers eight major business modules of Accounting and ERP systems. The coherence of the modules is shown in figure 11. Table 4 shows the naming, abbreviations and a brief explanation of the various modules mentioned in figure 11.



Based on Source ISO 21378:2019

Figure 11

Coherence of the ISO modules

Business module	Explanation
Base module	The Base (BAS) module contains basic information that is used across multiple modules. Its content includes data related to business units, payment terms, projects, bank accounts, currency, etc. Other modules (e.g. GL, AR, SAL, AP) should be used in conjunction with this module.
General Ledger module	The General Ledger (GL) module is used to record the financial impacts of business processes. In most ERP

	systems and accounting packages, the GL is the module where transactional-level data are accumulated, summarized, stored and staged for reporting. Additionally, the closing entries for both periods and year-end are contained within these tables.
Accounts Receivable module	The Accounts Receivable (AR) module is intended to accommodate data collection and basic analysis of the AR phrase following SAL, where the objective is to correctly receive, record and track bank payments from customers, as well as reflect adjustments made against invoices. This document aims to facilitate analysis performed as part of an audit, as well as analysis that could be performed for both internal and external purposes.
Sales module	Sales (SAL) are the primary driver of all business activities. The SAL module of the ISO 21378:2019 is intended to encompass data collection and basic analysis of the sales process. Sales also represent the most intensive customer contact point. The SAL module contains four types of business data: sales contract, sales order, invoice and shipment.
Accounts Payable	Accounts Payable (AP) is money owed by a business to its suppliers shown as a liability on a company's balance sheet. An AP transaction is recorded in the AP subledger at the time the debt is recognized. Common examples of Expense Payables are advertising, travel, entertainment, office supplies and utilities. AP is a form of credit that suppliers offer to their customers by allowing them to pay for a product or service after it has already been received. Suppliers offer various payment terms for an invoice. Payment terms may include the offer of a cash discount for paying an invoice within a defined number of days.
Purchase module	Purchase (PUR) is the formal process of buying goods and services. The purchasing process may vary from one organization to another, but there are some common key elements.
Inventory module	Inventory (INV) is one of several business processes related to the supply chain. The INV module of the ISO 21378:2019 is intended to encompass data collection and basic analysis of the inventory process (i.e. raw and auxiliary materials, work in progress and finished goods).

Property, Plant and Equipment module	The Property, Plant and Equipment (PPE) module is intended to accommodate basic analysis of the PPE process. The module is defined with eight tables containing the related information (e.g. the PPE type file, master file, addition file, removal file, change file, depreciation file).
--------------------------------------	---

Table 4
Naming of the various modules and a brief explanation

These modules relate to major business processes including the areas of purchase, sales, inventory, fixed assets and financial reporting with the aim to identify and to specify data elements and file formats needed for auditing.

Dutch Customs believes that the new standard lacks detailed, characteristic information about goods and products at product/batch level and is missing on a specific date or during a specific period. This information is necessary for auditing goods movements, including import and export movements. In addition, the reference to source documents (customs declarations) is missing. Product properties and reference information can easily be added to the Inventory module without changing the existing tables in this module.

It is not the intention of Customs to receive the entire audit file and the Customs extension from a company. Customs prefers to receive that part of the audit data that is focused on the audit work of Customs (interview Leo Alewijnse). In general, Customs should be able to request or receive sub-sets of the total Audit file (including extension) dependent on the purpose for which the audit data is used.

The proposal of Dutch Customs is to make an extension that includes references to source documents. The purpose is to match transactional information out of the ERP system with data from the systems of auditing organisations, for instance Governmental, Food regulators, Quality Surveyors, etc. Not only auditors working for regulators, but also auditors of the company itself (conformation of compliance, check on completeness of dealing with liabilities) have to be able to check the regulatory requirements of any kind. The most far-reaching regulation of the US Securities and Exchange Commission (SEC) is the Dodd Frank act (issued the rule that requires companies to report publicly on their due diligence and to have their reports independently audited). Multiple documents can be associated with one transaction. Therefore, there should be the possibility for references to more than one document.

The purpose of the Audit file subset for Customs is to assess the quality of the administration of goods movements and to check the connection to the administration of the Customs Authority. A Customs subset has been specified for that purpose. In figure 12 the subset (modules and tables) of the ISO 21378:2019

and the specific extension for Customs is shown. The specific extension for Customs is shown as orange rectangles. In table 5 the various tables are briefly explained.

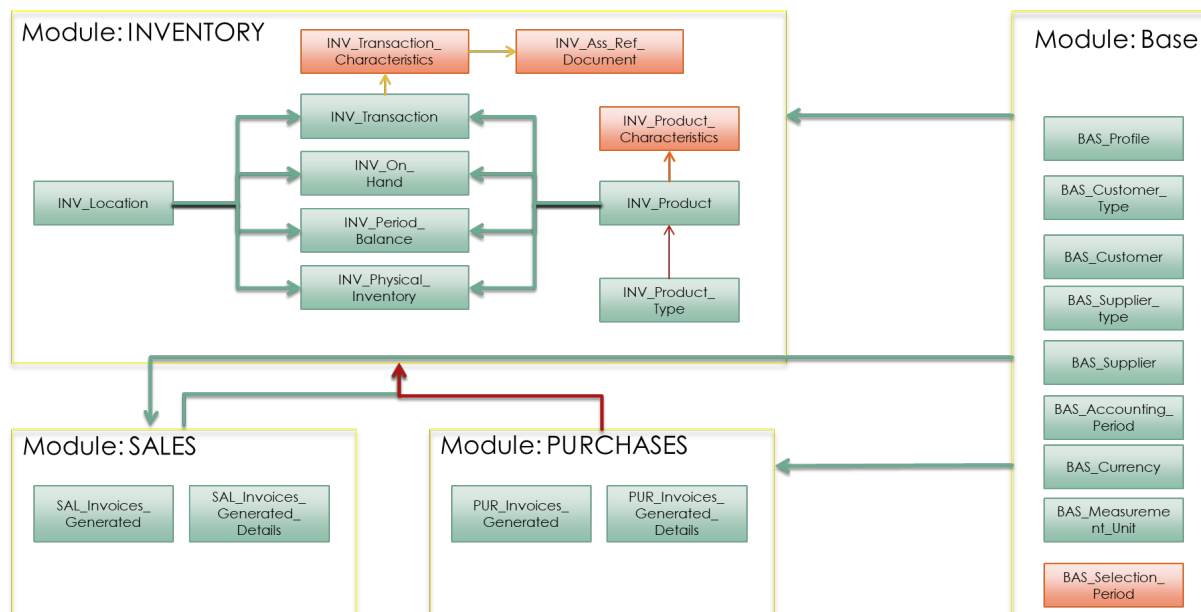


Figure 12

The selection of tables of ISO 21378:2019 with the specific extension for Customs

Module	Table	Explanation
BASE	BAS_Profile	The industry and software version information systems.
	BAS_Customer_Type	Detailed descriptions of the customer type.
	BAS_Customer	The essential and generic information of the customers
	BAS_Supplier_Type	Detailed descriptions of the supplier type.
	BAS_Supplier	The essential and generic information of the suppliers
	BAS_Accounting_Period	The information related to the accounting period, including corresponding fiscal year, beginning date and ending date. The table captures the time range within a specific reporting period and year, in which business transactions and entries are accumulated into financial statements and other reports.
	BAS_Currency	The information of the currency.
	BAS_Measurement_Unit	The information of the measurement unit (UOM) used in the modules of GL, SAL, PUR, INV and PPE
	BAS_Selection_Period*	Extension table that describes the idea of using standard queries and how the tables

		are linked to each other for the provision of the data to Customs.
SALES	SAL_Invoices_Generated	The summary information for the invoices generated during the period under review.
	SAL_Invoices_Generated_Details	Line item details for invoices. Each line includes invoice line information on specific products, measurement unit, price per unit, invoice amount, currency type, tax type code and tax amount.
PURCHASES	PUR_Invoices_Generated	Summary information for the invoices received during the period under review.
	PUR_Invoices_Generated_Details	Line item details for invoices. Each line includes invoice line information on specific materials, measurement unit, price per unit, invoice amount, currency type, tax type code and tax amount.
INVENTORY	INV_Location	Information of inventory locations where inventory may be tracked.
	INV_Product_Type	Inventory product type information and the tree structure information of inventory product type.
	INV_Product	Basic attributes of inventory items and other tracked items through purchase, use and sales.
	INV_Product_Characteristics	Extension on INV_PRODUCT for specific attributes for Customs
	INV_On_Hand	The information of inventory on hand (e.g. suppliers, quantities of items by location, amounts as of the specified date)
	INV_Transaction	The transaction history impacting the inventory accounts during the specified time period
	INV_Transaction_Characteristics	Extension on INV_Transaction for specific attributes for Customs
	INV_Transaction_Ass_Ref_Document	Extension on INV_Transaction to establish a relationship with customs declaration systems .
	INV_Physical_Inventory	The quantities on hand as of the date of the physical inventory.
	INV-Period_Balance	Inventory information regarding its beginning and ending balances, quantities and durational quantities and amounts.

Table 5
Brief explanation of various tables

For the specified subset, all definitions, rules and agreements that apply to the entire ISO 21378:2019 also apply to the Customs extension.

4.6 Standard analyses

The auditor performs analyses on data to find answers to his specific audit question for a particular audit. This thesis deals with standard analyses on standardized data. The analyses and the standard analyses differ in nature and purpose. Table 6 below shows the differences between an analysis and a standard analysis, as used in this thesis.

	Analysis	Standard analysis
Definition	Data Analytics, when used to obtain audit evidence in a financial statement audit, is the science and art of discovering and analysing patterns, deviations and inconsistencies, and extracting other useful information in the data underlying or related to the subject matter of an audit through analysis, modelling and visualisation for the purpose of planning and performing the audit. (AICPA)	A standard analysis performs the same checks on the standardized audit file every time it is started. The outcome of the analysis is always valid and can always be used. Standardizing an analysis means that you can perform the analyses more effectively and efficiently in a repetitive manner on a standard audit file.
Purpose	Analysis is written for the auditor's specific audit question for the audit, of that company.	Repetitive periodic pre-established systematic research, regardless of the company.
	Analysis specific to an audit question	Predetermined analysis for specific purpose. Based on Customs supervision.
Result	Report (custom) based on audit question. To be assessed by the auditor.	Same standardized reporting / dashboard / error messages / signals. The company itself can play a major role in this (such as demonstrating compliance).
Execution	Occasional / Ad hoc	Periodically / continuously
Source	Data file based on audit question, so specific to the audit question.	Standard audit file, for many audit questions
Requirement		Always unambiguous
		Outcome must always be valid
		Meaning of outcome must always be the same

*Table 6
Difference between analysis and standard analysis*

Examining the data starts with questions (information needs) from the auditor, which are aimed at answering the audit objective. Based on this, the analysis of the data is organized by the auditor [the auditing organisation has its own requirements for the audit]. The auditor must take note of the available data in advance and in what technical form the available audit file is provided by the company. In most cases this is company-specific, so it will have to be re-analysed at every company for each audit. As R. Stamsnijder (2019) claims in an opinion piece on the NBA platform; *The Tax and Customs Administration, external accountants and other supervisors spend an estimated sixty to eighty percent of their time and energy on 'making it verifiable' data supplied through the various accounting programs.*

The standardization of audit data, previously described, offers the possibility to also standardize the analyses on data. These analyses could therefore be used on the same standard data from all companies using the standard. This simplifies monitoring and data analysis takes less time. In addition, when using standard data and standard analyses, it is possible that AEO-certified companies would no longer have to submit audit files to Customs (as is currently the case with the EPD). When carrying out the analyses themselves, they can ultimately submit data to a dashboard with the results of the analysis, at a regular interval. With this method, customs supervision of such companies could shift further to supervision outside the logistics chain and companies have more assurance up-front about the completeness and correctness of the declarations. In general, if the audit file and standard analyses are properly built-into the operational systems and are embedded in the internal controls and governance structure of the company, administrative controls on the audit file can replace physical inspections, which will reduce the administrative burden for these companies and avoid delays in the logistics process. This offers Customs the opportunity to modernize the supervision of these companies.

It is also possible for companies to develop their own standard internal analyses. In the vision of mr L. Alewijnse it will in the future even be possible to share and develop standard analyses in a "Wikipedia-like" way. Where standardized analyses can be used for standard internal controls, which have already proven their effectiveness elsewhere. This standardization gives companies the opportunity to optimize their internal control process. In addition, this optimization will lead to better control of the processes and the degree of internal control will improve.

The standard analyses used during the test (chapter 5) are aimed at demonstrating compliance by the company. The analyses are not exhaustive and are aimed at demonstrating the operation of the artefact. The analyses were made and performed using the Microsoft Power Pivot program. It maybe clear that more standard analyses can and will be developed. Standard analyses can contribute in al phases of the audit in according to CAB. The goal of the analyses in this research is to show that standard analyses can be used in all phases of the CAB.

Figure 11 shows the artifact (in green) in the environment of the business administration. The condition for using the artifact is standardized data. In this case, it concerns standardized data in accordance with ISO 21378:2019 with the customs extension. This requires an addition to the business software to convert the data that is written to the database of the company to the standard used. Software suppliers have made such software for other standard audit files, such as in the Netherlands for the audit standard XAF of the tax authorities.

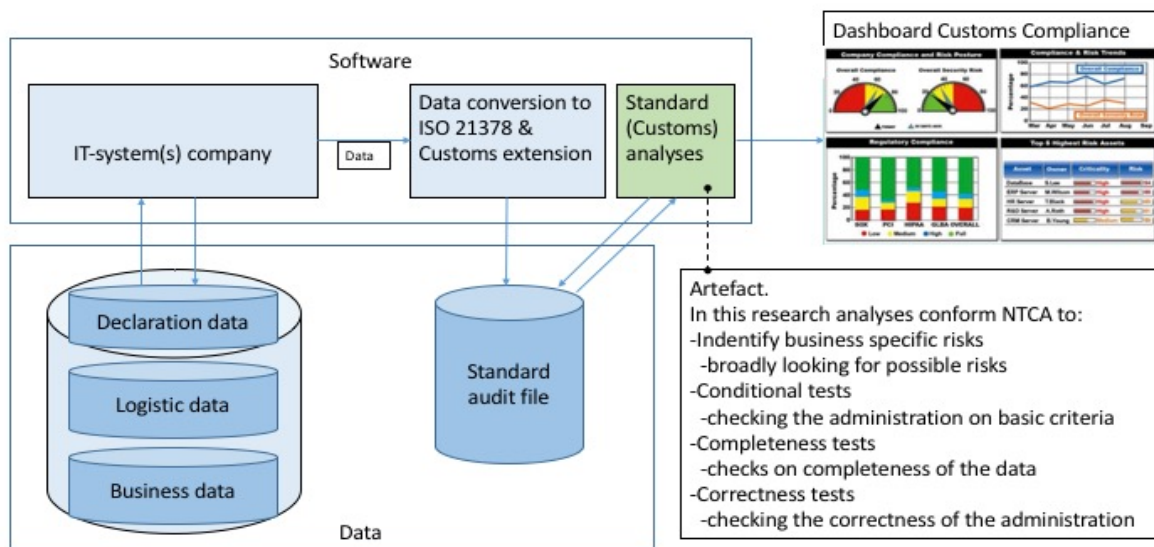


Figure 13
Place of the artefact in software of a company

Figure 14 shows an elaborated standard analysis, as performed. The result of this analysis can be found in dashboard 5 (dashboard Closing stock). The dashboard shows the status of the balance of the goods movements by means of colour balls. In this case by means of the colours green, yellow and red. The status red is applying when the balance of the goods movements in quantity is not equal to zero. The status yellow applies when the balance of the goods movements in quantity equals zero, but there is a small deviation in amounts. In other cases, the status is green (the wanted outcome for compliance!) This can be seen in dashboard 5.

```
StatusGoederenbeweging:=IF( ISFILTERED( BEDRIJF[Klantaanduiding] ) ;
    IF( ABS( [TotaalHoeveelheid] ) > 0 ;
        [StatusRood] ;
        IF( ABS( [TotaalVV] ) > 0,2 ;
            [StatusGeel] ;
            [StatusGroen]
        )
    ) ;
    BLANK()
)
```

Figure 14
Script Closing stock

4.7 How can standard analysis be conceptualized?

Various steps have been taken to conceptualize the analyses in this study. First of all, the purpose of the analyses was considered, in the case of this study it is to demonstrate compliance by the company itself. This involved looking at what compliance is and how it can be demonstrated by using the company's data. The details of the analyses are given in chapter 5 and mainly concern checking that the administration is balanced.

The method used for performing an audit within Customs is the NTCA, which is the starting point for the design of the analyses. Then, step by step in the NTCA, it was examined how this can contribute to the ultimate goal of demonstrating compliance by the company.

Subsequently, it was examined step by step what an auditor would like to see as a basis in that step. We also looked at what the data in that particular step should meet in order to demonstrate compliance. So as an example; what makes a balanced opening and closing stock (dashboard 6) demonstrating compliance? What should the dashboard of such an analysis look like; what information does it display and what is the meaning of the information in the dashboard?

The analyses in this study were developed by Customs, which provides a somewhat one-sided view of demonstrating compliance. The development of standard analyses should be a co-creation between Customs and the (representation of) the business community. The NTCA is known to the business community and could be used as a guideline for the development of analyses. The analyses from this research could be used as a starting point.

Summary

In the supervision of companies (its primary task), Customs must make choices in how they will supervise which company (customization). However, Customs suffers from white spots in supervision, especially in goods supervision in customs warehouses. In addition, Customs has the ambition to visit all the companies' every 3 or 5 years as part of cyclical supervision. You do not encourage compliance with a longer period between audits, so frequent visits are important.

What Customs therefore needs in order to continue to properly perform its task as supervisor is another form of supervision. *Partly because customers see the control of Customs as an extension of their internal control* (interview Leo Alewijnse). These await the report of the audit and then adjust processes and / or procedures where necessary. However, many companies have their administration in order. They want no surprises after an audit and less bothered by checks carried out by Customs.

Standardization is the agreement of a certain standard (norm) of a design and its application. Standards come from institutes such as the OECD, NEN and ISO. There may also be internal standards, such as the NTCA within the Tax and Customs Administration. There is evidence that standardization increases efficiency (Gotzamani and Tsiotras, 2002; Boiral and Roy, 2007). In addition, benefits have been found in product quality, cost reduction, productivity and operational benefits (Poksinska et al. 2002; Naveh and Marcus 2005).

The introduction of a standard generally aims to make work easy. In the case of a standard audit file and standard analyses, it is possible to have it performed by another type of employee. This allows the auditor to engage in the analysis of the results. Beside this is the standard audit file available for the company to perform internal audits on processes. So deviations in the process can be found early and corrected, which will increase the opportunity for companies to be more compliant.

Chapter 5. Validation

In the previous chapters the environment of the standardization of an audit file and the analyses were described. This chapter focuses on the standard analyses (artifact) and testing them on standardized Customs data. The aim of the test is to determine whether standard analyses on standardized data could work. In addition, it must be clear whether the standard analyses can contribute to the demonstration of compliance to Customs by companies.

When testing the artifact on the standard audit file, the workflow model according to the NTCA is followed. This was chosen because this is the way in which the audit process is structured within the Tax and Customs Administration. In addition, this method is known to companies that are involved in customs (and tax authorities) audits.

The standard analyses for the test are categorized in the previously described NTCA steps. A standard analysis therefore provides insight / response to a risk up to the time of the audit. Such as, for example, incorrectly using different commodity codes for the same item (aim: checking correctness). Also the balanced movement of goods is a good example of this (AGP, free stock, etc.) (conditional test). Although the goal of the standard analysis may differ, the way of working with them is the same and that must be the strength.

In the examples the Customs data used has been anonymised and dated, to exclude any form of traceability to the original data. The data has been converted to a look-a-like of the ISO 21378:2019 standard with the Customs extension.

5.1 Testing

The testing of the artefact is used to determine the applicability of the standard audit file (data) and the standard analyses within the control approach of Customs (NTCA). During the test, each step is performed in accordance with the workflow model of the NTCA, followed by one or more examples of standard analyses illustrated with an anonymized example (dashboards). The purpose of the test is to verify whether the standard data shows the expected outcome by means of the defined (standard) analyses. For example, deliberate omissions have been made in the originally completely correct data. These omissions should be reflected in the outcome of the analysis. The dataset is fictitious, anonymised and is still used for training within Dutch Customs. The year and month shown are fictitious and not relevant for the test. The tests are made in Microsoft Power Pivot (Ferrari & Russo, 2016) and the results of the analyses are shown in dashboards. This can be clicked through to the underlying data in a live environment.

The starting point for the analyses was that they can be carried out by companies themselves. By opting for a set-up in accordance with the NTCA workflow, Customs wants to build in more security, reliability of the results and the actual degree of compliance of the company. In addition, this way of working by Customs during the conduct of an inspection is known to the companies.

5.2 Validation.

Step 1: Orientation on the company as part of “Understanding the business”

Focus in this step is on the activities below:

Step 1. Understanding the business

This step mainly consists of the following activities:

1. exploration of the organization and identify the (business / industry) specific risks;
2. establishing relevant connections between critical business processes;

The purpose of this step is to familiarize the auditor with the control environment within the company. So the auditor gets to know the company and the risks, for example those risks related to the type of goods. It is essential to gain insight into the company, such as the types of goods movements, their size, the types of goods and their Customs value. An insight into risks is also important, such as the risks associated with the type of good. As an example, the export goods codes related to Corona. Due to the pandemic, the European Union (EU) wanted to keep as many goods that were necessary for the fight against Corona within the EU borders, so there was a list of Corona related goods that could not be exported without a license.

An important activity in this step is to carry out an initial assessment of the figures in the business administration. The auditor will compare figures with similar companies in the sector and / or compare the figures with previously conducted audits. After this phase it is also clear what role information technology plays within the company.

Key figures per period		
Period	Number of lines	TotaalTrCode
200502	51.956	5.058.249.402
200503	58.450	5.701.477.944
Total	110.406	10.759.727.346

	Period		
	200502	200503	In both periods
Unique customers	18	18	19

	Period		
	200502	200503	In both periods
Currencies	5	5	5

	Period		
	200502	200503	In both periods
Tariff chapters	22	17	23

*Dashboard 1
Understanding the business.*

Dashboard 1 shows the basic dashboard for “understanding the business”. This dashboard is for the auditor to show him the trends in time. It gives an overview of the periods¹⁵ in the audit file and a few key figures: in February, 18 different customers were present in the stock administration with this service provider. That was also the case in March, but apparently not the same, because over the entire period there were 19. So one customer may have left in March and a new one has taken its place, or it is a name change of an existing customer. Perhaps with new risks and thus an indication for the auditor.

For currencies in the administration applies that the same currencies were in use in both months. For the Customs tariff chapters applies that there is a significant difference between the rate of February and March. There may be a new risk, this is an indication for the auditor.

Year	Time period	Customer code						
2005	200502	ABC						
	200503	ASE						
		BAL						
Customer code	Customer	Openings stock	Inbound	Outbound	Closing stock	Difference	Status	
ABC	ABC Europe Limited	1.340.558,58	5.900.779,28	-4.753.586,50	-2.491.991,12	-4.239,7521	666	
ASE	Anjin San Europe Ltd	129.459,53	204.196,00	-155.004,65	-177.844,10	806,7849	4140	
BAL	Bal Hars Ltd	118.334,10	148.338,82	-212.027,72	-54.939,99	-294,7951	299	
BAM	Bal Hars B.V.	1.439.623,01	2.011.877,26	-1.690.390,69	-1.765.058,16	-3.948,5684	2002	
BM1	Boor- en zaag B.V.		3.014.178,13	-3.014.178,13			422	
BM2	Boor- en zaag B.V.		1.510.590,24	-1.510.590,24			953	
BM3	Boor- en zaag B.V.		1.881.614,69	-1.881.614,69			877	
CWP	Charles Watering Products Inc.	18.065,17		-2.855,52	-15.209,65		19	
DIE	Dom-Con International Europe B.V.	181.424,07	270.750,00	-210.132,00	-243.726,16	-1.684,0927	150	
DSE	Dom-Con Silicons Europe B.V.	1.647.334,83	1.917.086,22	-1.739.383,32	-1.825.327,09	-289,3619	1561	
FGH	FGH Corporation	87.701,11	79.333,45	-122.560,28	-196.119,45	-151.645,1687	1081	
GKB	GKB Service Center	29.889.598,04	52.004.635,31	-48.601.834,96	-33.458.703,59	-166.305,2000	88825	
MIG	Migraine B.V.		6.781.273,85	-2.134.205,90	-4.647.067,95		852	
SAE	Sake Europe GmbH		152.721,00	-152.721,00		0,0039	95	
SSS	Sudie Snel B.V.	296.312,15	245.505,00	-395.061,06	-146.897,42	-141,3361	394	
STC	Standaard confections BV	1.359.636,43	691.811,82	-2.051.448,18		0,0700	3784	
TSC	Techno Service Center	0,00	21.733,13	-118.542,94	-2.540,28	-99.350,0986	58	
XYZ	XYZ Corporation LTD	1.757.627,83	2.830.367,68	-2.939.429,80	-1.652.248,16	-3.682,4568	745	
YNI	Yellocon Netherlands International	699.646,70	36.894,13	-167.374,65	-585.385,01	-16.218,8382	3483	
Total		38.965.321,56	79.703.686,01	-71.852.942,23	-47.263.058,14	-446.992,8098	110406	

Dashboard 2
Goods value

The figures in **dashboard 2** are in euros per client. This logistics service provider has quite a few customers, with different throughput values. This overview can also be made per period, confirming the conclusions from **dashboard 1**. This overview is not a good indication of the extent of the goods value of the customer in question, because of the way of calculating the value in EURO's. Different currency-rates in the different months were used.

¹⁵ the dataset unfortunately covers just 2 months

Code	Customer	Period	Commodity code chapters			Chapter
011000	ABC	200502				28
100100	ASE	200503				29
100900	BAL					32
100902	BAM					34
100904	BM2					

Customer	Chapter	200502	200503	Total
ABC	48	-11,47	-39,88	-51,34
ABC	84	-1.797.917,83	-2.585.214,43	-4.383.132,26
ABC	85	-66.507,99	-35.161,04	-101.669,03
Totaal ABC		-1.864.437,29	-2.620.415,35	-4.484.852,63
ASE	39	-24.396,12	-35.565,35	-59.961,47
Totaal ASE		-24.396,12	-35.565,35	-59.961,47
BAL	29	-122.792,17	-89.235,54	-212.027,72
Totaal BAL		-122.792,17	-89.235,54	-212.027,72
BAM	28	-6.023,08		-6.023,08
BAM	29	-715.972,43	-625.334,07	-1.341.306,49
Totaal BAM		-721.995,51	-625.334,07	-1.347.329,58
BM2	84	-75.069,60		-75.069,60
BM2	85	-33.820,00		-33.820,00
Totaal BM2		-108.889,60		-108.889,60
BM3	84	-114.516,38		-114.516,38
BM3	90	-24.132,60		-24.132,60
Totaal BM3		-138.648,98		-138.648,98
CWP	39	-2.855,52		-2.855,52
Totaal CWP		-2.855,52		-2.855,52

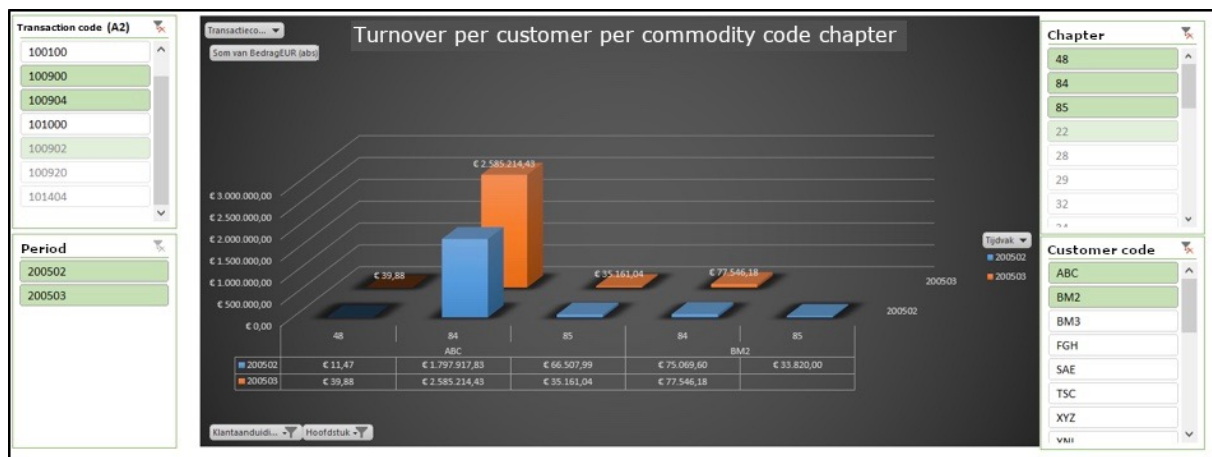
Dashboard 3
Commodity code chapters

In this overview in [dashboard 3](#), we see the chapters from the Customs tariff for each client from [dashboard 2](#), which is relevant for the auditor for the purpose of the risk analysis. In this overview you can select on type of transaction (Code), the client (Customer) and per period and if desired also per chapter from the Customs tariff.

The risks of the goods depend on the classification in the tariff chapter¹⁶. [Dashboard 3](#) provides an overview of the chapters affected by the goods package of this service provider and corresponding amounts, which is an indication for the auditor of the potential risk.

The numbers of [dashboard 3](#) can also be displayed graphically as a graph, as in [dashboard 4](#) below. This shows that the exposure for ABC is much larger, than for other clients.

¹⁶ A declarant might choose a tariff chapter less complicated because of less logistical intervention by Customs or to reduce duty's.



Dashboard 4
Turnover per customer

In the business exploration phase, the auditor (broadly speaking) looks for possible risks. Such as, signalling shifting of commodity codes (physical checks / duty benefit), the occurrence of certain commodity codes (so the customer must have certain processes and documents due to that commodity code), the occurrence of certain flows of goods (e.g. deliver to prohibited countries or persons). In this dataset we see by performing the analyses in the dashboards that this risk is very limited.

Step 2: Conditional tests

Focus in this step is on the activities below:

Step 2. Conditional tests

Conditional tests are performed to determine whether a company meets the basic conditions of auditability. The purpose of this step in the process is to have prior insight into whether the audit to be carried out involves limitations and, if so, which ones. The conditional tests consist of the following activities:

6. Assess whether the records are kept and available (retention obligation);
7. Assess whether the audit trail is available as described;
8. Assess whether the records can be checked within a reasonable period of time;
9. Determine the material reliability of the administration.

During the first step, the auditor determines that the company's records and audit file meet a number of basic criteria (in the scheme here above: 6-9), which is done during the Conditional tests. After all, if the basis of the administration is not good, it is also more difficult to perform a good audit. To determine whether the company meets the basic criteria, the auditor may perform context checks, such as the check that the general ledger account is in balance. Organizing a third-party investigation is also an option, although it is important to have certainty about the reliability of the information from the other party.

Below are 2 detailed examples of analyses, namely the "Closing Stock" and the "Opening stock - closing stock" as at 31 January (according to previous audit file) and stock 1 February (according to current audit file).

Analysis Closing stock.

This check establishes that the calculation:

“Opening stock + Inbound – Outbound = Closing Stock” is conclusive.

The result of the calculation is comparable to the requirement that debit and credit must be equal in a general ledger account. The standard here is: If you have all (goods) transactions in an audit file, you should therefore NOT receive a report if you use EXCEPTION reporting.

This analysis was made as an exception report, in which it only shows those batches in the overview (the stock administration is for Customs at batch level), where the calculation is not conclusive. In case of a not conclusive calculation of the stock records, the company can suffice to report the exception to Customs. In addition, the company can include the measures taken to report possible future risks of not closing the administration.

Closing stock							
Customer	Article	Batch	Currency	Difference in amount	Difference in quantity	Number of lines	Status goods movement
001	BR-CSPLE	15/0170180	EUR	0,24	0	204	●
001	HHR-20SCPY05	15/0185383	EUR	-0,24	0	132	●
001	HHR-380AB34	16/0095112	EUR	-0,24	0	192	●
002	CA-FS6270F	10/0001314	EUR	1068,00	0	120	●
002	CA-FS6270F	10/0001750	EUR	0,00	-48	120	●
004	GX10-B1E+A	16/0004196	USD	-0,48	0	252	●
004	GX90XA-B10-U	16/0004250	USD	0,36	0	132	●
004	ISC450G-BD-A	15/0132191	USD	0,24	0	192	●
004	ZR01A01-B01	15/0139960	USD	0,24	0	600	●
125	100013895	15/0116166	USD	-20880,00	-36	156	●
125	100013896	15/0116166	USD	20880,00	36	60	●
125	60001778	11/0092438	EUR	0,00	120	288	●
125	60003128	11/0127441	EUR	0,00	12.000	324	●
125	60003129	14/0134575	JPY	0,24	0	312	●
125	60003978	15/0160075	EUR	-0,36	0	288	●
125	Q44GJ1122010	13/0052362	USD	-5,76	-12	384	●
Total				1062,24	12.060	3756	●

Dashboard 5
Closing stock

Dashboard 5 shows the result of the calculation per article batch (but then translated into: Opening stock + Inbound – Outbound = Closing Stock, which should be zero). Where there is a difference in quantities, the signal light is red. Where there is a difference, only in money and not in quantities (and thus may have been caused by revaluation or rounding, for example), the signal is green. The batches, where this sum is zero in both quantities and money, are not shown. With this dashboard, the focus of the auditor has only to be placed on the actual exceptions and everything that goes well isn't in the dashboard.

Analysis opening stock - closing stock

In this analysis 2 audit files are used, namely that of January and that of February. In this analysis the opening stock of the period must equal the end stock of the previous period. The closing stock of January 31 (audit file January) and the opening stock of February 1 (audit file February) are taken.

In addition to the fact that during the audit period, one month in this analysis, the stock of debit and credit must be in balance, the stock at the beginning of the audit period must also be equal to the stock at the end of the preceding - subsequent - period.

The standard in this type of analysis is that deviations in quantity between opening stock and closing stock are not permitted. Differences, expressed in money, can be present, but must have a demonstrable cause. This analysis therefore yields an exception report from a limited number of parties, although differences have been identified. In [dashboard 6](#) it is visible (by filter) that there is one batch with a difference in quantity (line 1) and an other batch with only difference in money (line 2). If the company is compliant, the result of the analysis would produce an empty report. This dataset does not comply with this standard, so accountability to Customs by the non-compliant company is required.

Opening stock - closing stock

Customer	Article number	Batch-number	Quantity 31 jan.	Amount € 31 jan	Quantity 1 febr.	Amount € 1 feb	Difference in quantity	Difference in amount
ABC	PSAS-NL	20464401	16	1493,60	8	746,8	-8	-746,80
ABC	PSAS-NL	20464403	20	1925,00	20	1867	0	-58,00

[Dashboard 6](#)
Opening stock - closing stock

Conclusion step 2

The dashboards of both analyses show a difference, this is a signal to the auditor that omissions have been found in the stock administration. The company must explain the results of these analyses to the auditor and make corrections to the errors found in the business records.

Step 3: Completeness tests

Focus in this step is on the activities below:

- Activities that supplement the irreplaceable internal control:
 - Third-party audits (for example, suppliers and customers);
 - On-site observations;
 - Information reports;
- Activities that perform replaceable controls:²⁰
 - Analytical procedures

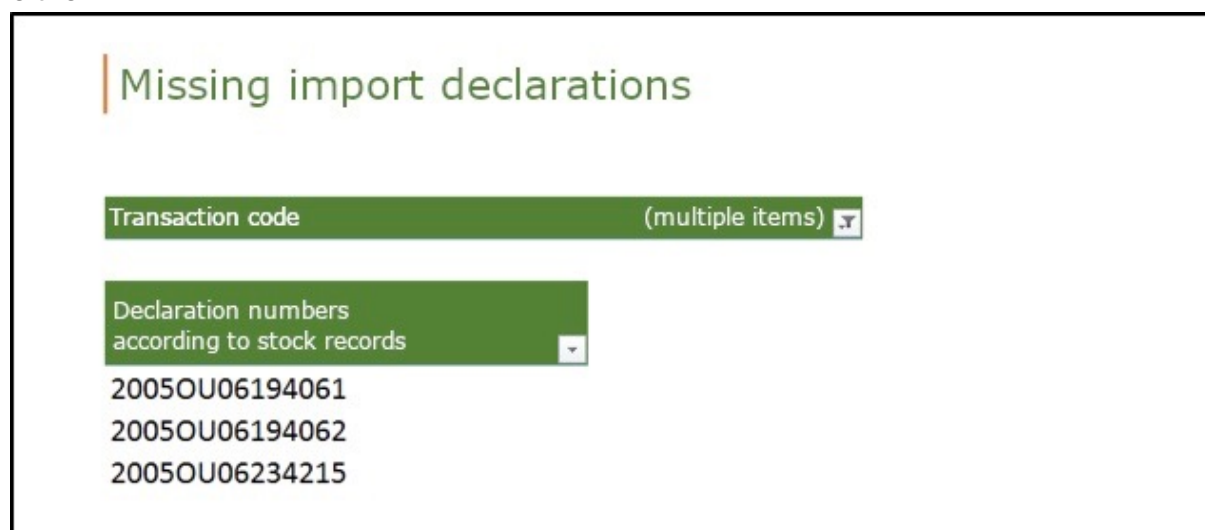
With the results of the company survey and the conditional checks, the activities for completeness tests can be carried out. After carrying out the activities from the previous steps, the quality of the internal controls and that of the registration of transactions is known. If it appears that the quality of internal controls is in order, the auditor is not yet completely certain about the completeness of the administration. When the quality turns out to be inadequate, the degree of uncertainty about completeness increases further.

When performing this analysis, Customs uses the data from its own (Customs) declaration systems for cross-verification, and where possible data from third parties (carriers, present link). Analytical review and grade assessments will be carried out on all of these data in order to obtain an overview of the completeness. In this example, the customer's data has been retrieved from the Customs declaration system, but a company can also do this analysis itself. The necessary declaration data can then be extracted by the company from its own Customs management system. The reason for this is that the declaration data are not included in the ISO 21378: 2019 with Customs extension audit file.

Import declaration analysis.

With this analysis, a check is performed whether there are declarations that are in the audit file (in stock), but are not known in the Customs declaration system.

This analysis determines that, according to the audit file, all results with the label “import” have actually resulted in a declaration in the customs system AGS (or DMS or EPD). The result of this exception report must therefore not yield anything here either.



Missing import declarations

Transaction code (multiple items) ▼

Declaration numbers according to stock records ▼

2005OU06194061
2005OU06194062
2005OU06234215

*Dashboard 7
Missing import declarations*

Conclusion step 3

The result of this analysis on the audit file and the data from the declaration system can be seen in [dashboard 7](#). The exception report shows 3 declarations that are in

the stock records, but have not been found in Customs' declaration system. The signal to the auditor in this case is that there is a mismatch between the declaration numbers in the company's stock records and those of Customs. The administration thus seems demonstrably not complete, further investigation will have to determine the cause of this mismatch.

Step 4: Correctness test

Focus in this step is on the activities below:

The correctness tests can be scheduled, with the audit information obtained from the previous steps. Customs auditors are trained to apply the knowledge and techniques from the field of Statistical Audit in order to organize correctness tests correctly and to carry them out efficiently. The risk analysis can be made usable and transparent by means of Statistical Audit. After that the correctness tests have been carried out, the evaluation of the results in the activity before the completion of the study will take place.

When checking the correctness of the administration, more detailed information must be taken into account. The results of the correctness tests performed relate to the testing of individual transactions.

The examples in the dashboard below are dual:

- Consistency checks as a source of detailed information;
- Checking the accuracy of the data.

Consistency check on commodity code analysis

[Dashboard 8](#) provides an overview of the analysis “Consistency check on commodity code”. The commodity code is the code with which goods are classified for Customs. Normally, the commodity code for an article does not change in a short period of time. The designation of the batch of goods is irrelevant, since it is the same article (number) according to the stock records.

The main rule for this analysis is that there is no change in the commodity code in the period. The result of this analysis is an exception report that provides insight into the changes that can nevertheless be identified. When several calendar months are included in the audit file, the chance of justified changes is greater. After all, commodity codes sometimes change. All kinds of factors, such as legal regulations, can be responsible for this. That is why it is possible to choose which months to consider for this report.

Reporting on February gives the following dashboard:

Time period	Customer	Commodity code consistency			
200502	ABC				
200503	ASE				
	BAL				
	BAM				
		customer designation	Item number	commodity code	Number of lines
		GKB	00411572	9009120000000000000000	226
				9009910000000000000000	377

Dashboard 8
Commodity code consistency February

The commodity code of Item number 00411572 of customer GKB has changed in February. The auditor can use this signal to check whether this is correct.

And the following dashboard for March:

Time period	Customer	Commodity code consistency			
200502	ABC				
200503	ASE				
	BAL				
	BAM				
		customer designation	Item number	commodity code	Number of lines

Dashboard 9
Commodity code consistency March

In the month of March ([Dashboard 9](#)) no commodity code changes have been determined.

And over the months of February and March together:

Time period	Customer	Commodity code consistency			
200502	ABC				
200503	ASE				
	BAL				
	BAM				
		customer designation	Item number	commodity code	Number of lines
		GKB	00411572	9009120000000000000000	226
				9009910000000000000000	1.268
			00411719	9009120000000000000000	204
				9009990000000000000000	330

Dashboard 10
Commodity code consistency February & March

It is clear from these reports that the overview “February and March” ([Dashboard 10](#)) is not the sum of “February” and “March”. Item 00411719 appears to be consistent in February and consistent in March, but the commodity code has changed over both

months. Perhaps there is other insight from the declarant, possibly driven by a tariff advantage in the classification of the goods in another commodity code.

Correctness of data entry analysis

Each data standard works with determined code tables, this also applies within a standard audit file. In this example of a standard audit file it is possible to register the stock with different currencies, see [dashboard 11](#). The coding has been determined internationally for this. The standard states that this international table must be used.

In this standard analysis for checking the correctness of the administration, the use of these codes is checked. [Dashboard 11](#) lists all rates used in that month and whether the currency is in the international table. This dashboard also shows that the US dollar had two rates in March. In a separate dashboard ([Dashboard 12](#)) this exception (not allowed in general) is emphasized separately.

Time period	Currency	Exchange rate			
200502	GBP	0,00074638			
200503	JPY	0,00729927			
	SGD	0,46779248			
	USD	0,46855964			

Stock overview					
Currency	Period	Exchange rate	Number of lines	In tabel	
EUR	200502		1	48.287	
	200503		1	54.769	
Totaal EUR				103.056	
GBP	200502	1,43564712		84	
	200503	1,44644536		80	
Totaal GBP				164	
JPY	200502	0,00074638		606	
	200503	0,00729927		444	
Totaal JPY				1.050	
SGD	200502	0,46855964		105	onbekend
	200503	0,46779248		81	
Totaal SGD				186	
USD	200502	0,76435068		2.874	
	200503	0,76628352		1	
				0,76687116	3.075
Totaal USD				5.950	

[Dashboard 11](#)
Exchange rate

Non consistent exchange rates

Currency	Period	Exchange rate	Number of lines
USD	200503	0,76628352	1
		0,76687116	3.075
Total USD			3.076

[Dashboard 12](#)
Non consistent exchange rate

Conclusion step 4

The analysis “Consistency check on commodity code” shows that there has been one change in the “commodity code” of customer GKB. Changing a commodity code in a current period is unusual. It will have to be investigated what the underlying reason is, this could be a human error, a change in Customs' tariff code or for reasons of advantage from the use of a different tariff code. The analysis for the consistent use of exchange rates shows that in period three, there were two exchange rates for USD. Since it is only one line of the USD 3,076 lines, this could be human error, further investigation should reveal. The analyses performed had to provide insight into the correctness of the administration. Both analyses show (small) differences that require further investigation. Although the correctness of the administration is not complete, the errors found are minor.

Step 5. Completion of the investigation

In the final step of the audit, the auditor evaluates all audit evidence collected from the previous steps. The auditor will conclude the investigation with a report containing his findings.

In this step, the auditor evaluates the information found. After which he draws up a report with his findings. In this case, the company can collect the dashboards in a pre-formatted report (Kocken & Hulstijn, 2017), in which key data are automatically inserted and send them to Customs with the measures taken.

5.3 Conclusion technical validation

The standard analyses in this test were performed on a standard audit file and yield dashboards as output. The data file used contains omissions, specifically for training purposes. These omissions can also be found in the dashboards by performing the standardized analyses. From which it is likely that the analyses are effective. The dashboards shown give Customs some insight into the degree of compliance of the company. In addition to the analyses carried out for this test, further expansion is possible, the analyses have been chosen so that the steps in the NTCA could be followed.

Table 7 provides an overview of the analyses performed, the expected outcome and the result. In accordance with the stated objective of the study (section 4.6), it can be deduced from table 7 that the standard analyses can be applied in all phases of the CAB.

Analysis	Contribution to compliance	Desired outcome	Outcome analysis	Conclusion	Follow up
Conditional test					
Closing stock	Balancing stock is conditional for a correct setup of the administrative system	No differences: empty report	16 batches with a discrepancy	Non compliance	Report and correction of the administration
Opening stock - closing stock	Stock of consecutive month should equal, conditional for a correct setup of the administrative system	No differences: empty report	1 difference in quantity and 1 in money	Non compliance	Report and correction of the administration
-----'					
Completeness test					
Import declaration	Comply to import regulation: Completeness of declaring all imports	Empty report	3 declarations that are unknown to Customs	Non compliance	Report and declaration of the goods
-----'					
Correctness test					
Consistency check on commodity code	No change in the commodity code in the period	Empty report	1 change of commodity code of customer GKB	Check possible classification change	Check and based on outcome, take conclusion on compliance
Correctness of data entry	Check on use of international currency rates	Report with 1 currency rate in a period	USD has 2 different rates in period 3	Non compliance	Report and correction of the administration
-----'					

*Table 7
Results of the analyses*

5.4 Empirical validation

In designing the study, a conscious choice was made to validate the results of the thesis at experts of companies (section 2.6). After all, if companies see no advantages in demonstrating compliance by performing the standard analyses on the standard audit file, then the artifact does not add value. The validation was done through interviews with the experts Mr J. Akkermans and Mr M. Heijnen. The interviews are designed in such a way that they answer the sub-questions from this study.

Q2. What is the function of standard analyses?

As discussed with Mr. L. Alewijnse and Mr. R. van 't Hof, the function of standard analyses is to perform these analyses more efficiently and effectively. Standard analyses must be well described, well programmed and documented. The purpose of

this is that you know what a standard analysis checks, which data fields are used and what the outcome is. A condition is that the data on which the analyses are performed meet the standard for which the analysis was developed. So that there can be no difference of opinion about the results of the analysis.

The results of these standard analyses are easier to compare over periods. Due to their repetitive nature, trends in the outcomes are easier to observe by comparing the outcomes of multiple periods. It will also be possible for Customs to compare the results of the standard analyses of different companies, for instance to see trends in an industry.

In this test, the standard analyses are aimed at demonstrating compliance by a company. But standard data and analyses can contribute more, as Mr. M. Heijnen stated in the interview, “standard analyses can also contribute to simplifying the internal control of a company”. The advantages of standardizing an audit file therefore go further than just those of demonstrating compliance to Customs. The internal control of a company can therefore also be simplified. Or, as Mr M. Heijnen stated, “I want to check whether what is happening within the company is done according to the rules and the correct method”.

Mr. J. Akkermans (expert of customs software) stated in the interview that “controls increase the quality of the process”. In addition, he saw the advantage that “If real-time correctness, timeliness and completeness checks are performed, insight can be gained quickly as to whether the activities to be performed still meet expectations”. With the aim of reducing the number of errors in a process.

Q3. How can standard analyses be implemented?

A precondition for a standard analysis is to have a standard data set, audit file. This set must be accepted and implemented by companies as widely as possible. The latter refers to both the companies and the software developers. Dutch Customs sees ISO 21378: 2019 with a Customs extension as a possible data standard.

Mr. J. Akkermans sees software suppliers who are developing initiatives to explore the possibilities of the new data standard together with their customers. In addition to having a standard audit file, this development must offer advantages for both the companies and the software suppliers themselves. The latter looking at a standardization of the audit file that a software package generates, where it is now often company-specific and expensive to maintain.

If the audit file can internationally be standardized then Mr. M. Heijnen sees the most added value, certainly if more regulators were to use it. The company he works for has to deal with different systems and data standards in the countries where parts of

the company are located. Due to an international standard audit file, he sees great advantages in easier checking of all Customs activities of those companies.

Q4. Based on the future vision formulated by Customs; on which elements of this vision do the standard analyses contribute?

The standard analyses contribute to making the vision on Customs supervision possible. The interview with Mr. F. Vermeulen shows that the current flow of goods with the corresponding numbers of declarations is such that Customs has insufficient capacity to perform the desired percentages of physical checks. The standardized audit file could further support Customs in making a standard analysis of frequently occurring risks in a particular industry, i.e. specific analyses for covering risks in industries.

Customs is increasingly becoming a data-driven organization that supervises companies based on data, according to Mr. W. Visscher. We use more and more sources of data, both from companies and other external sources. Standards and formats will help to increase data quality and make it easier to interpret the data. With a standard dataset you can use a tool to investigate the data more easily and form an opinion about the quality of the data and possible omissions in it.

Mr. M. Heijnen indicates that if Dutch Customs is able to modernize their supervision based on a standard audit file, they would be ahead of all other countries. As an example, he indicates that Germany still likes to check everything directly. Where Dutch Customs is more focused on post audits and compliance.

Q5. Do standard analyses based on standardization of data offer the possibility to demonstrate Customs compliance to reduce administrative burden?

Mr. M. Heijnen sees advantages in performing standard analyses on standardized data, as long as it is done automatically. If every step is automatically checked and corrections are made immediately (by hand or automated), this form of showing compliance will save on administrative burden. He also sees compliance as making the administration directly verifiable. My company is controlled in many ways and by many authorities. If analyses and the accessibility to data are good, the supervisor can immediately see whether the company is compliant, which saves time (costs) and thus contributes to reducing the administrative burden. In addition, Mr. M. Heijnen sees a positive effect on especially management information about customs matters at an international level for his company. This is now limited and he indicates that if there were more (standardized) customs information about international customs matters within Döhler, the company could recoup the investment for a new audit file through efficiency.

Mr. J. Akkermans also sees advantages in showing compliance to Customs in this way, given his statement “if it doesn't, we might as well stop”. He sees an increase in the number of logistics operations and therefore also operations that have to be reported to customs. In his opinion, the digital environment offers opportunities to reduce turnaround times. As a critical note, on the other hand, all participants in the flow of goods must be able to stay in control.

Q6. What are the standard analyses, based on the ISO 21378:2019 and the customs extension to demonstrate Customs compliance?

As examples, a limited set of analyses has been developed for testing the analyses on the standardized data (chapter 5), which give a first impression of the possible compliance of a company. Discussions within Customs and with experts from the business community show that a basic set for compliance could be developed, and specific analyses will also have to be developed for each sector. There is an explicit request from the business community to develop these analyses together.

Conclusion empirical validation

From the interviews with both the experts from the business community and Customs it can be concluded that there is support among the interviewees for a standard audit file on which standard analyses can be performed. There is support among all experts for demonstrating compliance and modernizing Customs supervision in this way. In addition, the experts from the business sector see added value for their specific business. For software suppliers, this seems like a new market for offering standard analyses and lowering maintenance costs for software by standardizing the audit file. For international companies, there seem to be advantages in simplifying internal controls and more insight into Customs affairs of their local offices in different countries by being able to compare standard data. Customs sees advantages in modernizing supervision and reducing the administrative burden for businesses.

Chapter 6. Conclusions, Contribution and Recommendations

Dutch Customs would like to modernize its supervision of companies, towards more data-driven supervision. They can use data from their own systems, but that doesn't cover all the data that is needed to get a reliable overview of accuracy and completeness of inventory movement, for filling these gaps it is of great importance to obtain data from the systems of the companies. The problem here is that not all companies have the same IT system for their business administration. The available data (or format) therefore differs per company, which makes it difficult for an auditor to quickly and easily have access to the desired data from the business administration for performing an audit.

This research is aimed at the use of standard analyses for demonstrating compliance by companies, on a standard audit file. The starting point is the new audit file standard ISO 21378:2019 with an extension developed by Dutch Customs. As a result, in addition to financial data, data about the stock movement of the goods is also available in the audit file and the connections to Customs Systems are defined

6.1 Conclusion of the research and sub-research questions

Main research goal:

The goal of this project is to investigate whether the ISO 21378:2019 with the customs extension and related standard analysis method is supported by both Customs and by companies to professionalize and innovate supervision (more effective by data driven supervision, more effective and efficient by demonstrating compliance, more efficient by reducing administrative burden).

Conclusion sub-questions:

Q1. How can standard analysis be conceptualized?

The interviewees indicate that Customs should develop standard analyses for demonstrating compliance together with the business community.

Q2. What is the function of standard analyses?

The conclusion for this question is that standardization of analyses (and data) can contribute to the quality of the processes and internal control within a company. The business community expects standard analyses will contribute to reducing the administrative burden of both internal control and Customs supervision.

Q3. How can standard analyses be implemented?

The conclusion for this question is that the Customs extension to ISO 21378:2019 must first have to be approved by ISO. Afterwards, Mr. Akkermans and Heijnen both recognize benefit from implementing these in software and companies. In addition,

the business community will be more likely to switch to the standard if it has been shown to be useful, this research can contribute to this. Beside that the possibilities for a proof of concept are explored between Customs, software suppliers and the business.

Q4. Based on the future vision formulated by Customs; on which elements of this vision do the standard analyses contribute?

Dutch Customs wants to develop further and further into a data-driven enforcement organization, where they want to increase the self-reliance and compliance of companies. According to the interviewee, standardizing of audit data and performing standard analyses on that data contribute to these elements from the future vision of Customs.

Q5. Do standard analyses based on standardization of data offer the possibility to demonstrate Customs compliance to reduce administrative burden?

The conclusion for this question is that compliance can be demonstrated by means of standardized analyses on standardized data. For companies with offices in more countries, standardization can contribute to increasing efficiency.

Q6. What are the standard analyses, based on the ISO 21378:2019 and the customs extension to demonstrate Customs compliance?

The conclusion here is that the set of analyses used is limited and only served as an example of the possibilities. However, these do give a first impression of the possibilities of standard analyses proving compliance. In addition, it is preferable to develop analyses together.

Conclusion

This study shows that there is a need for a new form of supervision within both Customs and the business community. The basis for this could be ISO 21378:2019 with Customs extension, on which standard analyses can be performed. In the opinion of the business community (section 5.4) and the experts within Customs, this method of supervision would indeed contribute to more effective and efficient supervision by Customs. Despite the investment this requires from the business community, the benefits that all experts see, seem to go beyond just demonstrating compliance to Customs. Other supervisors can also benefit from the standard audit file in their supervision. In addition, the business community sees opportunities to better control processes and improve internal control. It can be concluded that there is support within both Customs and the business community for standard analyses and standard audit data, in order to take a step in modernizing supervision.

6.2 Contribution for research

This study contributes to knowledge in the field of data-driven supervision such as the studies by Pligt (2015) and Van 't Hof (2017), more specifically about the use of

standardized analyses on a standard audit file. In this study, analyses were used that companies could perform themselves, if they had a standard audit file in accordance with ISO 21378:2019 with a Customs extension. The operation of standard analyses has been validated on an audit file. The standard audit file used contained anonymized company data. The analyses carried out have shown that compliance can be demonstrated on the basis of the data in the audit file.

The standardization of analyses and the demonstration of compliance to Customs in this way leaves room for modernization of supervision. This not only concerns Customs supervision, but also that of other supervisors such as for instance Dutch tax authorities and the NVWA who also use data on the flow of goods within a company. With the standardization of the audit data, companies are even given the opportunity to standardize their own internal controls and thus simplify them. The possibilities offered by this new form of supervision could reduce the administrative burden.

Although this study is limited to showing compliance to Customs by standard analyses, the idea is simply extensible to other supervisors on goods like NVWA and for business purposes as internal control.

6.3 Contribution for practice

This research adds value for business, software suppliers and other stakeholders. Standardizing analyses makes it easy to demonstrate compliance to Customs, and compliance with other supervisors can also be simplified. In addition, a standard audit file and standard analyses can contribute to reducing the administrative burden in supervision. With this renewal, Customs has the opportunity to modernize the current supervision and to implement more data-driven supervision. A new market appears to be emerging for software suppliers in offering standard analyses and reports to improve the internal control of a company. In addition, only having to maintain one standard audit file would reduce the complexity of the software and reduce the costs of maintenance.

6.4 Possibilities for further research

The standard analyses used for testing on the standard data file are - as an example - a basic set analyses, developed by Customs and aimed at demonstrating compliance by the company. It is recommended to further develop this set and to do this together with the business community. It can be investigated what the content of a basic set of analyses would be. In addition, specific analyses could be examined per industry.

Dashboards for each analysis are shown in this study. In the interviewee there seems to be a need for one dashboard that can be clicked on when there is a

deviating from the standard. It is recommended to keep the dot on the horizon; shared dashboards remotely in real-time.

Standard analyses can also be developed as a kind of toolbox, from which the auditor (or internal auditor) can choose. In the supervision of certain types of companies, he can choose the standard control set for that type of company. In that case, the choice depends on the context and no longer depends on the insight of the auditor. The analyses are worked out in advance and the outcome is known in advance. This could make supervision more effective and efficient for both the supervisor and the company where the audit is performed.

Chapter 7. List of References

- Aalst van der, W.M.P., Hee van, K.K., Werf van der, J.M. & Verdonk, M., 2010. IEEE, March 2010 90-93.
- Adams, M., Compton, P., Czarnecki, H., Schroer, B.J., 1999. "Simulation as tool for continuous process improvement"
- Alles, M.G., Kogan, A., Vasarhelyi, M.A., 2002. Feasibility and economics of continuous assurance. A journal of Practice & Theory, Vol. 21, No. 1: 125-138
- Auksztol J., Chomuszek M., 2020. A data control framework for SAF-T reporting: A process-based approach. Journal of Entrepreneurship, Management and Innovation, Vol. 16, Is. 1, 2020:13-40
- Ayres, I., Braithwaite, J., 1992. Responsive regulation: transcending the deregulation debate.
- Belastingdienst, 'Controle aanpak Belastingdienst (CAB): De CAB en zijn modellen toegepast in toezicht', Belastingdienst. DV 422 - 1Z*1FD.
- Bharosa, N., van Wijk, R., de Winne, N. & Janssen, M.F.W.H.A. 2015. Challenging the chain, governing the automated exchange and processing of business information. Delft: Logius & Thauris.
- Bleker-van Eyk, S. C., & Hortensius, D., 2014. ISO 19600 - The development of a global standard on compliance management. Business Compliance, 2014(2), 3-5.
- Boiral, O., Roy, M.J. 2007. ISO 9000: Integration Rationales and Organizational Impacts, International Journal of Operations & Production Management, vol. 27, no. 2, p. 226-247.
- Bottemanne, G., 2013. Auditfiles: haal eruit wat er in zit. Accountant april 2013.
- Chan, D.Y., Chiu, V., Vasarhelyi M.A., 2018. Continuous auditing : theory and application
- COSO 1992, COSO ERM, several publications, Committee of Sponsoring Organizations of the Treadway Commission (COSO).
- COSO 2004, COSO Enterprise Risk Management — Integrated Framework Committee of Sponsoring Organizations of the Treadway Commission (COSO).
- Customs Administration of the Netherlands, 2013. Rapport co-creatie AGS 4. Report presented at the end of the project AGS 4, Rotterdam (confidential).
- Customs Administration of the Netherlands, 2013b. Discussienota co-creatie AGS-4. Note presented at the end of the project AGS 4, Rotterdam (confidential).
- Customs administration of the Netherlands. 2014. 'Pushing boundaries: the Customs Administration of the Netherlands' point on the horizon for the enforcement on continuously increasing flow of goods. Customs Administration of the Netherlands/Tax and Customs Administration'
- Customs administration of the Netherlands. 2018. 'Richtinggevende kaders klantmanagement' (confidential)

- Customs administration of the Netherlands. 2019. 'Visie toezicht vergunninghouders' (confidential)
- Customs administration of the Netherlands. 2019. "Grensverlegend" (confidential)
- Eggert, M., 2014. Compliance Management in Financial Industries. -A Model-based Business Process and Reporting Perspective- Springer, London.
- Elferink, B.H., 2016. Push left the electronic declaration. Financiële audits een stuk efficiënter dankzij ISO 21378 (17-12-2019). <https://www.nbn.be/nl/nieuwsberichten/efficiente-audits-met-ISO-21378>
- Flood R.L., Carson E.R. (1993) Systems and Complexity. In: Dealing with Complexity. Springer, Boston, MA
- Gotzamani, K.D. and Tsiotras, G.D. , 2002. "The true motives behind ISO 9000 certification: Their effect on the overall certification benefits and long term contribution towards TQM", International Journal of Quality & Reliability Management, Vol. 19 No. 2, pp. 151-169.
- Govindan, K., Rajendran, S., Sarkis, J., Murugesan, P., 2013. Multi criteria decision making approach for green supplier evaluation an selection. Journal of Cleaner Production 98 (2015) 66-83
- Grainer, A., 2008. Customs and trade facilitation: from concepts to implementation, World Customs Journal, Vol. 2: 17-3
- Haas de, J.M.G., Meerman, P., Bree de, M.A., 2011. Compliance management and system-based supervision
- Hanskamp-Sebregts M., Robben H.B., Wollersheim H., Zegers M. 2018. Interne audit delen met extern toezicht. NED TIJDSCHR GENEESKD. 2018;162:D2517
- Hevner, A.R., March, T., Park, J. & Ram, S. 2004. Design science in information systems research. MIS Quarterly, 28 No 1: 75-105
- Hofman, W., Bastiaansen, H., 2013. Towards an IT infrastrucutre for compliance management by data interoperability - the changing role of authorities.
- Hulstijn, J., Christiaanse, R., Bharosa, N., Schmid, F., Wijk van, R., janssen, M., Tan, YH., 2011. Continuous Control Monitoring-based regulation: a case in the meat processing industry,
- Hulstijn J., Hofman W., Zomer G., Tan YH., 2016. Towards Trusted Trade-Lanes. In: Scholl H. et al. (eds) Electronic Government. EGOV 2016. Lecture Notes in Computer Science, vol 9820. Springer, Cham
- Ferrari, A., Russo, M. 2016. Introducing Mircrosoft Power BI. ISBN: 978-1-5093-0228-4
- ISO 2019, Audit Data Collection Standard, (ISO 21378)
- Klievink, B., Van Stijn, E., Aldewereld, H., Overbeek, S., Heijmann, F., Tan, YH., (2012), ' Enhancing Visibility in International Supply Chains: The Data Pipeline Concept', International Journal of electronic Government Research, October-December 2012, Vol.8, No.4, p. 14-33.
- Kocken, J., & Hulstijn, J. (2017). Providing Continuous Assurance. (VMBO workshop series). Luxembourg Institute of Science and Technology.

Littley, J., 2012. Leveraging data analytics and continuous auditing processes for improved audit planning, effectiveness, and efficiency.

Loader, D., 2004. Regulation and Compliance in Operations

Mertens, F., Scherpenisse, J., van der Steen, M., 2014. Reflecties op de ontwikkeling en professionalisering van het toezicht. Den Haag: NSOB.

Naveh, E., Marcus, A. 2005. Achieving competitive advantage through implementing a replicable management standard. Journal of Operations Management. Vol.24, Is.1, Dec.2005, P. 1-26

Organization for Economic Co-operation and Development. 2010a. Guidance for the Standard Audit File – Tax version 2.0. <http://www.oecd.org/tax/administration/45045602.pdf>.

Organization for Economic Co-operation and Development, 2010b. Guidance and Specifications for Tax Compliance of business and Accounting software. <http://www.oecd.org/tax/administration/45045404.pdf>.

Özer, Eijken., 2014. Data driven compliance.

Pligt-Benito Ruano, S., 2015. Continuous Control Monitoring Based Regulation.

Pligt-Benito Ruano, S., Hulstijn, J., 2017. Governance and collaboration in Regulatory Supervision: A Case in the Customs Domain. International Journal of Electronic Government Research, Vol. 3, Is.4 oct.2017

Poksinska, B., Dahlgaard, J. and Antoni, M. 2002. "The state of ISO 9000 certification: a study of Swedish organizations", The TQM Magazine, Vol. 14 No. 5, pp. 297-306.

Rees, J. 1988. Self Regulation: An effective alternative to direct regulation by OSHA? Policy Studies Journal: the Journal of the Policy Studies Organization, 16(3), 602–614. doi:10.1111/j.1541-0072.1988.tb01871.x

Romney, M.B. & Steinbart, P.J. 2015. Auditing information systems applications. Accounting Information Systems (13th ed): 338-340. Harlow: Pearson Education Limited.

Stamsnijder, R. 2019. 'Standaard in boekhoudsoftware lost controleprobleem op' NBA-platform voor accountant en financials (<https://www.accountant.nl/ opinie/2019/2/standaard-in-boekhoudsoftware-lost-controleprobleem-op/#>)

Tan, Y-H., Bjorn-Andersen, N., Klein, S., Rucanova, B., 2011, 'Accelerating global supply chains with IT-innovation. ITAIDE tools and methods'.

Tax and Customs Administration. 2016. Audit approach Netherlands Tax and Customs Administration. https://download.belastingdienst.nl/belastingdienst/docs/cab_dv4221z2fd.pdf.

Tusveld. R. 2018. Suspension regimes / special procedures. Presentation presented at the Master Customs and Supply Chain Compliance of the Rotterdam School of Management Erasmus University, September 19, 2018. Rotterdam.

Van der Heijden, B.A.G. & Bajnath, S. 2015. IT-audit in 2015 and beyond: data driven. Compact 2015/3 (<https://www.compact.nl/articles/it-audit-in-2015-and-beyond-data-driven/>)

Van 't Hof, R.E., 2017. Conceptual Model Customs Transactions

Vasarhelyi, M. A., & Halper, F. B., 1991. The Continuous Audit of Online Systems. Auditing, 10(1), 110–125.

Veiga, L., Janowski, T. Barbosa, L.S., 2016. Digital government and administrative burden reduction. ICEGOV '15-16 Proceedings of the 9th International Conference on Theory and Practice of Electronic Governance Montevideo, Uruguay. ACM, New York: 323-326

Wang, Y., Hulstijn, J., & Tan, YH., 2018. Regulatory supervision with computational audit in international supply chains. In A. Zuiderwijk, & C. C. Hinnant (Eds.), Proceedings of the 19th Annual International Conference on Digital Government Research (DG.o 2018): Governance in the Data Age (pp. 1-10). [1] Delft: ACM. <https://doi.org/10.1145/3209281.3209319>

Wieringa, R. J., 2014. Design science methodology for information systems and software engineering. London: Springer Verlag. doi:10.1007/978-3-662-43839-8

Chapter 8. Appendices

Interview Frans Vermeulen 25-3-2020

Frans is beleidsadviseur toezicht bij HHB

In verband met het corona virus is dit interview gehouden via Skype.

Ken jij de ontwikkelingen rond de ISO 21378:2019?

-Wat weet je van de Douane extensie op de ISO 21378:2019?

Ik ben bekend met de hoofdlijnen van de ontwikkelingen, maar niet met de technische details. Weet dat budget is vrijgemaakt door Belastingdienst en Douane om in een technical committee te werken aan tax-specifieke (Douane en Belastingen) extensie op de ISO 21378:2019.

Wat versta jij onder (regulatory) compliance?

Onder compliance versta ik het voldoen aan wet- en regelgeving, ook wel het vrijwillig voldoen aan wet- en regelgeving. Het betreft dan alle wetgeving waar een bedrijf aan moet voldoen. Voor Douane kun je daarbij denken aan de AEO-regelgeving, waarin beschreven is waar de administratieve organisatie/ interne beheersing van een vergunninghouder aan moet voldoen. Deze eisen zijn ook voor een groot aantal andere vergunningen van toepassing.

Deze eisen aan de administratieve organisatie en interne beheersing zijn niet concreet gemaakt in de wetgeving maar gerelateerd aan aard en omvang van de onderneming en plaats in de logistieke keten. Complexiteit hierbij is de aard en omvang en interpretatie hiervan, dus wat vind je hiervan vanuit het normenkader van de Douane. En heeft een bedrijf eenzelfde beeld daarbij. Bedrijven willen vaak wel aan de wet voldoen, maar kijken vooral vanuit een ander perspectief hiernaar. Douane en bedrijven moeten elkaar dus ergens vinden in wat acceptabel is. Dit kan er uiteraard nooit toe leiden dat de inrichting van AO/IB zakt onder het minimum niveau wat Douane acceptabel acht.

Compliant zijn moet je vooral bekijken vanuit een context. Wij (als Douane) zijn vaak strenger in het interpreteren van de regels dan bedrijven. Voor bedrijven heeft het vooral ook te maken met het werkbaar houden van het proces en de kosten die het afdichten van mogelijke risico's met zich mee zou brengen, zo laag mogelijk houden.

Stel dat je naar compliance kijkt en we maken de stap naar standaardisering van data?

Kan je data op basis van data iets zeggen over compliance?

Standaardisatie van de data gaat zeker helpen bij het cyclisch toezicht. Het grootste deel van de aangiftes (en dus goederen) kan gewoon door, alleen de aangiftes waar we moeten stoppen in de logistiek wil je zien. Hoe ga je zicht houden of de totale massa aan aangiftes juist is? Hierbij zijn analyses op data van belang, je kan dit dan intern verzamelen en analyses op doen. Als je dit nou af zou kunnen stemmen met bedrijfsdata, kan je veel gerichter vaststellen waar je je zorgen zou moeten maken en waar je daadwerkelijk iets mee zou moeten doen.

Bij de groep bedrijven die de interne beheersing goed op orde hebben zou je in de toekomst jaarlijks willen toetsen dat deze interne beheersing werkt. Dan kun je je bij de drie jaarlijkse afsluitende controle richten op overblijvende risico's die niet of beperkt afgedekt worden met interne beheersingsmaatregelen. Deze bedrijven, die de IB op orde hebben, zouden dan tussentijds kunnen volstaan met het aanleveren van monitoring informatie. Voorwaarde is dat in de interne beheersing voor de voor Douane meest relevante risico's de leercirkel gesloten is (PDC(R)A leercirkel Deming) Bij het gros van de vergunninghouders is de beheersing op risico's echter minder op orde. Dat wil zeggen dat de leercirkel niet gesloten is en/ of niet alle vanuit Douane perspectief relevante risico's in voldoende mate zijn gemitigeerd.

Wat is cyclisch toezicht en hoe wil je dat bereiken?

Cyclisch toezicht is dat we met elkaar afgesproken hebben dat we van vergunninghouders eens in de 3 jaar (DWU-kanten) of eens in de 5 jaar (accijns-kanten), ons een oordeel vormen over de aanvaardbaarheid van de aangiftes en het voldoen aan de vergunningsvoorwaarden.

Maar, wat tot nu toe in de praktijk blijkt is dat het voor de Douane moeilijk is om de daarvoor jaarlijks benodigde hoeveelheid controles te realiseren. De oplossing lijkt op dit moment gevonden in om iedere klant het toezicht te geven dat deze verdient. Dus op basis van risico differentiëren in hoeveelheid en zwaarte van de controle. In het kort komt het erop neer dat we naar cyclisch toezicht gaan om beter te kunnen onderbouwen op welke wijze we differentiëren in ons toezicht.

Hoe zie je compliance in relatie tot cyclisch toezicht?

We willen een zodanige risicoanalyse inrichten dat we, op basis van risico signalen, vooraf een afweging kunnen maken welke bedrijven we gaan bezoeken. Dat betekent het een en ander voor je informatiepositie. Je wil altijd zoveel mogelijk gebruik maken van de IB van bedrijven (steunen op). Naargelang je minder kunt steunen op de AO/IB van bedrijven zal je meer eigen controle werkzaamheden moeten uitvoeren. De eigen controlewerkzaamheden minimaliseren tot bijna nihil zal slechts in zeer uitzonderlijke omstandigheden mogelijk zijn. De risicoafweging die je maakt in de eigen controlewerkzaamheden wordt zowel gevoed door de resultaten van interne controlewerkzaamheden van bedrijven als signalen van de interne en externe informatie.

Hoe past compliance in cyclisch toezicht?

-Heb je voorbeelden?

-Ken je ervaring hiermee uit andere landen?

Bij een controle wil je als eerste weten wat de hoofdprocessen van het bedrijf zijn en waar de belangrijkste risico's liggen, hoe worden die risico's afgedekt, hoe controleren ze daarop en wat zijn de resultaten van die controles.

Je zou de bedrijven met die informatie ook zelf controles in willen laten richten, zoals met de EPD, verband en waarschijnlijkheidscontroles. De mooiste vorm van compliance in cyclisch toezicht is dat bedrijven deze controles zelf doen en de resultaten daarvan met de Douane delen. Op afstand (ook in abstracte zin van 'toezicht houden op het toezicht') grip kunnen houden is wat je graag zou willen, is wat je zou willen voor de toekomst.

Hoe past standaardisatie in cyclisch toezicht?

-(Customs compliance?)

-(regulatory supervision?)

Je zou de beschikbare informatie uit standaarddata dan ook kunnen gebruiken binnen het totale klantmanagementproces van de Douane. Je zou daarbij kunnen kijken naar landelijk aanpak van de mogelijke controles bij klanten met de meeste risico's voor de Douane. Hierbij zou het kunnen helpen om aangifte informatie te koppelen met de bedrijfsinformatie en zal je waarschijnlijk beter zicht krijgen op discrepanties zij die je kunnen helpen om klantmanagement landelijk te sturen.

Voordelen die Douane zou kunnen geven bij een mate van compliance?

-zijn hier gradaties in, of is een bedrijf wel/niet compliant?

Verschillen tussen bedrijven met een spreekwoordelijk "zesje" of een "acht". Die "acht" hebben ze niet voor ons, maar voor hun eigen bedrijfsproces en risicoafweging, het is een keuze. Vooral verantwoordelijkheid voor hun eigen proces en de aandeelhouders, het is vooral intrinsieke motivatie voor de kwaliteit van hun eigen bedrijfsvoering.

Steeds meer bedrijven hebben het ook in hun visie staan. De beweegredenen en afwegingen zijn voor een bedrijf fundamenteel anders dan voor de Douane. Wij kijken naar beleid en wet- en regelgeving. Voor bedrijven is het ook hoe kijken we naar het nemen van risico's aan en hoe houden we ons aan wet en regelgeving irt onze processen en bedrijfsvoering. Ze willen vaak wel, maar de keuzes gaan niet zover dat alle voor de Douane relevante risico's afgedicht worden.

Weet jij of deze vorm van toezicht zou passen binnen het UCC?

De commissie drukt ons graag in een bepaalde hoek met betrekking tot controleren. Je ziet dat op verschillende plekken terug, zoals bv guidelines die plotseling wetgeving worden.

Als NL Douane zijn wij er om wet- en regelgeving te handhaven, de manier waarop we dat doen, is aan de lidstaat. We hebben onze eigen inrichting van handhaving die past binnen het logistieke proces van dit land. Hoe handhaving ingericht wordt is nog steeds voor een belangrijk deel aan het land zelf. Je ziet wel dat de systeemgericht werken en systeemgerichte controles eigenlijk nauwelijks in de wetgeving verankert liggen. De basis van de wetgeving is gericht op aangiftes en mutaties.

Hoe zit het met bewijslast bij het aantonen van compliance door een bedrijf?

-Zouden ze zelf standaard analyses (op Douane risico's) kunnen "draaien" op het auditfile en de resultaten kunnen delen met de Douane?

Die standaard analyses zullen voor een deel de Douane risico's bij een bedrijf afdekken. Je zou dan wel willen kijken naar de risico's die niet in die standaard zitten, ik zie op dit moment niet dat je daar alles mee af zou kunnen dekken. Bedrijven zullen wel de toegevoegde waarde moeten zien en hier geldt voor over moeten hebben en erin willen en kunnen investeren. Aan de andere kant, de huidige manier van controleren van aangiftes is simpelweg niet meer vol te houden. Dus we zullen een bewustere keuze moeten maken in wat en hoe we controleren. Het gaat hier om het handhaven van de wetgeving, dus zouden we meer moeten kunnen steunen op de data van de bedrijven.

Mogen we binnen de wetgeving gradaties aanbrengen in de kwaliteit van de administratie van een bedrijf? Dus de spreekwoordelijke 6 of 8??

Het gaat bij ons vooral om het juist en volledig doen van de aangifte. Daarbij voldoet een bedrijf wel of niet aan een vergunning, dus hier zijn geen gradaties in hoe goed een bedrijf dat doet. Bij een vergunning gaat het vooral over het minimumniveau van interne beheersing, waarop wij kunnen steunen en hoe wij dan vervolgens ons toezicht in kunnen richten. Dus bij bedrijven met een betere interne beheersing kunnen wij meer steunen op wat het bedrijf al aan interne beheersingsmaatregelen gedaan heeft. De eerdergenoemde 6 of 8 bestaan dan ook niet, formeel voldoet een bedrijf wel of niet aan de (minimum) voorwaarde van een vergunning.

Hoe past ISO 21378:2019 in de toekomstvisie van de Douane? Zou dat veel veranderen?

Het is een ontwikkeling die past in een heleboel onderzoek dat we al gedaan hebben. Het lijkt mij dat dit deels mogelijk is. Zeker bij grote bedrijven die hun beheersing goed op orde hebben, zouden we meer grip kunnen krijgen, omdat we aan de voorkant van het proces zitten. Nu kom je na drie jaar met een correctie, die ze vervolgens niet meer aan een klant kunnen doorbelasten.

Is naar jouw mening een dergelijke ontwikkeling naar een andere mate van het aantonen van compliance levensvatbaar?

We kunnen niet zonder dit soort ontwikkelingen, het aantal aangiftes zou kunnen gaan van 8 naar 250 miljoen. Als je daar het controlepercentage op loslaat, gaat het de NL Douane niet lukken om ook maar in de buurt van het gewenste percentage te komen. We zullen in de toekomst bewustere keuzes moeten maken hoe we toezicht houden. Dit zou daar bij een beperkte groep bedrijven mogelijkheden kunnen bieden.

Interview Leo Alewijnse 25-3-2020

Leo is IT auditor bij de Douane Breda

In verband met het corona virus is dit interview gehouden via Skype.

-Wat versta jij onder compliance?

-en regulatory compliance?

Onder compliance versta ik dat uit eigener beweging wordt voldaan aan wet- en regelgeving, in de breedste zin. Niet alleen de regeltjes, d.i. naar de letter van de wet, maar vooral ook in de geest van de wet.

Wat betreft regulatory compliance, zie ik niet echt een onderscheid, compliance zie ik meer als een sociaal begrip, niet alleen wet- en regelgeving. Dus als regulatory compliance alleen over wet- en regelgeving gaat, dan past dat niet in mijn definitie van compliance.

-Hoe zie je compliance in relatie tot het Douane toezicht?

-en op de huidige visie van de Douane?

-Heb je voorbeelden?

-Ken je ervaring hiermee uit andere landen?

In de lijn van sociale betekenis, die de Douane heeft als toezichthouder op goederenstromen. In relatie met Douanewetgeving ook weer in de breedste zin.

Toezicht op goederen, goederenstromen(ZIE HHP)

➔ Definities van Douane in HHP opzoeken!!! 100% toezicht op onze goederen.

Vergelijking met andere landen heb ik niet, maar wij lopen het wel meer te verkondigen. Je ziet het binnen de organisatie dat er vaak van compliant gedrag uitgegaan wordt, dus veronderstelde compliance. Op zich niet erg, maar je moet ook met je toezicht dat compliant gedrag stimuleren. Als je niets doet als toezichthouder, dan verzandt het zeker.

Compliant gedrag; als voorbeeld de mensen op het strand van Zandvoort en op markten afgelopen weekend, terwijl verzocht was niet naar buiten te gaan en zeker 1,5 meter afstand te houden. Staat nergens in de wet dat het niet mocht en staat nergens voorgeschreven dat het niet mag, politie mag niet optreden, maar was zeker geen compliant gedrag. Rutte en Grapperhaus betitelden dit als vreselijk asociaal gedrag. Dus regulatory compliant, maar niet compliant zoals ik beschrijf.

Mindset verkeerd, dan gaat het niet goed, belangrijk hierbij is vooral "tone at the top". Als het voorbeeldgedrag er niet is kan je vanuit de top, degene daaronder ook niet aanspreken.

-Hoe past standaardisatie van de data en analyses in de visie op Douane toezicht?

-(Customs compliance?)

-(regulatory supervision?)

Vanuit EPD gedachte, we zijn schapen. Zodra er 1 schaap over de dam is, gaat de rest vaak vanzelf. De standaard moet zich zelf wel bewijzen, zodra die bijdraagt aan het efficiënt en effectief kunnen bereiken van compliant gedrag (denk aan "What is in it for me"). Een vorm van het willen bereiken van een gedrag: standaardisatie van administratie voor helpt daarbij als een bijdrage aan toezicht. Ik zie standaardisatie als een bijdrage aan het leveren van gewenst gedrag. Je maakt het makkelijker door meer efficiency en effectiviteit. Iedereen wil graag compliant zijn indien het minder kost. Er ligt een link tussen standaardisatie en gewenst gedrag.

-Voordelen die Douane zou kunnen geven bij een mate van compliance?

-zijn hier gradaties in, of is een bedrijf wel/niet compliant?

Ik denk in gradaties, door ervaring met bepaalde cases bij bedrijfsleven. Compliance heb ik in gradaties omdat een bedrijf bestaat uit onderdelen en niet op alle fronten alles even goed doorheeft, dan wel daar even goed op kan letten. Dat wil niet zeggen dat ze niet compliant zijn. Het is wel voldoende voor een vergunning, maar voor sommige plekken wat moet wat meer werk worden verzet door Douane. Noem het maar: Douane moet zijn op de vanuit compliancegedachte zwakke plekken in de organisatie. De Douane moet daar dan zijn toezicht afstemmen op de plekken waar de risico's binnen het bedrijf groter zijn. Een bedrijf zoekt faciliteiten omdat ze last hebben van de toezichthouder en ze zullen daar eerder bereid zijn om meer energie in te steken en compliance te realiseren.

Wel/niet compliant ziet meer op regulatory compliance, dus streepje op de balk = 5,5 is voldoende, dus je vergunning..... (Denk aan schooljeugd: de zesjes mentaliteit)

Compliant gedrag moet ingebakken zijn in het proces, zie hier de aansluiting met uit eigener beweging.

-Hoe zit het met bewijslast bij het aantonen van compliance door een bedrijf?

-Zouden ze zelf standaard analyses kunnen "draaien" op het auditfile en de resultaten kunnen delen met de Douane?

-hoe zit dit binnen de huidige EPD?

Middels software zou geregeld moeten zijn dat de authenticiteit gegarandeerd kan worden. Deze zaken bestaan al, dus zal in deze ook geregeld moeten worden. Als je informatie uitwisselt is authenticiteit een generiek vraagstuk, zeker als het een belangrijke plek in je toezicht inneemt en je kan of wil het niet op andere wijze verifiëren. Bij een dashboard of monitoring gaat het niet, dus moet je vertrouwen op de software.

Standaarddata en analyse aan een vergunning koppelen ->nee, ik zie het meer als een stuk gereedschap om je compliance aan te tonen. Het kan zijn dat de standaard niet past bij een bedrijf. Het is niet een 100% oplossing voor iedereen, maar vooral efficiënter en effectiever en verkorten van doorlooptijden.

Niet one size fits all, alles moet op maat gemaakt moeten worden, maar we moeten het wel zo maken dat het voor 80% al zou passen.

-Hoe past ISO 21378:2019 + Douane extensie in de toekomstvisie van de Douane? Zou dat veel veranderen?

Het zou ertoe moeten leiden dat we meer mogelijkheid voor toezicht op afstand realiseren. Ik zie de auditfile maar als de eerste stap van standaardisatie van data en analyse naar toezicht op afstand. Het hoeft niet per se in een standaard auditfile die aangeleverd moet worden aan de Douane.

We hebben hierbij wel softwareleveranciers nodig die dit bouwen en die zorgen voor de authenticiteit en ontwikkeling van toezicht tot shared dashboards op langere termijn

Tip;

Durft de Douane van het statement van de klant uit te gaan, durft de klant te verklaren dat het EPD-bestand in orde is, d.w.z. aan alle vereisten voldoet. Hoe komen ze tot die "verklaring"?

--Checklist op EPD-file meenemen in de checklist (meenemen in vragenlijst Bedr.lvn.)

_bedr.vragen om te verklaren dat file klopt.

-Hoe zou dit passen binnen het verminderen van administratieve lasten voor bedrijven?

Administratieve lasten verlichting, kost gaat voor de baat uit. Initieel moet een bedrijf investeren in welk systeem zit dat en aan welke kwaliteit moet het aan voldoen. Deze visie moet je als bedrijf wel hebben en de mogelijkheden moeten er zijn. Zie het niet als lasten verzwarende. Kort door de bocht moeten ze eerst geld uitgeven voordat ze erop kunnen gaan terugverdienen.

Op het moment dat de ISO 21378:2019 in het pakket zit heb je snelheidsvoordelen.

Presentatie Döhler => waar verdient Marco geld terug

-Is naar jouw mening een dergelijke ontwikkeling naar een andere mate van het aantonen van compliance levensvatbaar?

-wat zijn de voor-/nadelen voor Douane en bedr.leven??

Ik zie dit niet als andere vorm, meer als een logisch gevolg van de vragen van het bedrijfsleven hoe ze monitoring in moeten richten. Het is een stukje standaardisatie voor de monitoring

Vroeger deden we steekproeven omdat we de hoeveelheid data niet aankonden. Tegenwoordig

kunnen we data analyse omdat we de hoeveelheid wel aankunnen en kunnen nu vaker een 100%

controle doen. De steekproef moet je niet weggoien, maar inzetten waar die nog van nut kan zijn.

Zo kan de auditfile een belangrijk stukje gereedschap zijn / worden in het kader van het aantonen van compliant gedrag.

Interview Wim Visscher 31-3-2020

Wim is beleidsadviseur bij de afdeling handhavingsbeleid van het Landelijk Kantoor Douane. In verband met het corona virus is dit interview gehouden via Skype.

Ken jij de ontwikkelingen rond de ISO 21378:2019 en de Douane extensie op de ISO 21378:2019?
Wim is op beleidsmatig niveau betrokken bij het project en volgt de ontwikkelingen op de voet.

Wat versta jij onder (regulatory) compliance?

Vanuit Douane perspectief; bedrijfsleven moet voldoen aan de wet- en regelgeving en dat ze daar zelf de nodige maatregelen voor nemen. Specifiek is er een stuk in de wetgeving dat het bedrijf geen ernstige overtredingen heeft begaan (art 39a UCC). Breder gezien is het vaak dat ze moeten voldoen aan wet- en regelgeving en dan specifiek de Douanewetgeving.

Vanuit bedrijfsleven gezien is er meer waaraan ze moeten voldoen, namelijk aan de (Douane) wet- en regelgeving, privacywetgeving als wel aan eigen procedures, vertaling van hun beleid in instructies voor hun medewerkers etc.

Stel dat je naar compliance kijkt en we maken de stap naar standaardisering van data?

Kan je dan op basis van data iets zeggen over compliance?

Ja, in de huidige werkwijze vragen we in het kader van onderzoeken data op en gebruiken onze eigen data ter aanvulling van het onderzoek. In de toekomst zou je, wanneer je de data set gestandaardiseerd hebt, het bedrijf zelf vast kunnen laten stellen dat ze voldoen aan de wet- en regelgeving en dat je alleen de resultaten van die controle nog wil zien.

Nu hebben we nog de standaard set van de EPD, waarbij op dit moment alleen deze groep geschikt lijkt voor (verdere) standaardisatie van data. Bij de EPD doen we hier echter zelf ook nog veel mee, we zijn met elkaar nog niet aan toe om dit aan het bedrijf te laten. We staan aan de vooravond van een standaardisatie van data, maar daar moeten nog wel veel stappen voor gezet worden.

Als je nu kijkt naar bijvoorbeeld de groep bedrijven met een entrepots en andere regelingen die nog niet in de EPD zitten, daar is echt nog veel te verbeteren. In de coördinatiegroep toezicht hebben we het al vaak gehad over het Douane voorraad verloop en wat er dan in de file moet staan als we data bij die bedrijven opvragen. Hier liggen die meningen over de inhoud van zo'n file en wat we dan wel/niet op mogen vragen vanuit juridisch oogpunt nog behoorlijk uit elkaar. Als Douane hebben we dus ook intern nog het nodige te doen om iedereen met de neus dezelfde kant op te krijgen.

ISO 21378:2019 gaat helpen, omdat het niet per se van en voor de Douane is. Het is een standaard die internationaal omarmd wordt, maar in Nederland nu ook al door o.a. accountants, softwarebouwers en een aantal bedrijven. Waar we voor moeten waken is de toestand zoals we die nu hebben met SAF-T, waarin er verschillende standaards binnen de standaard zijn ontstaan.

Hoe past standaardisatie van data in het Douane toezicht van de toekomst?

-Zouden ze zelf standaard analyses (op Douane risico's) kunnen "draaien" op het auditfile en de resultaten kunnen delen met de Douane?

Het past wat ons betreft in de visie op toezicht. De Douane wordt steeds meer een data driven organisatie die op basis van data het toezicht op bedrijven uitoefent. We gebruiken daarbij steeds meer bronnen met data, zowel van bedrijven als van andere externe bronnen. Standaarden en formats gaan daarbij helpen om eenvoudiger de data te kunnen interpreteren. Bij een standaard data set kan je middels een tool eenvoudiger naar de data kijken en daar iets van vinden.

We zijn aan het kijken om de standaard data file die je binnen haalt, op een centrale plek (net als nu met de EPD) te kunnen analyseren. Wij voorzien dat we de data in het begin moeten binnen halen, in het groeipad zullen alleen de resultaten van de analyses bij ons binnen komen. De groep die niet in de EPD zit betreft al zo'n 750 bedrijven, in het algemeen is de beheersing bij die bedrijven minder dan bij de EPD-klanten. Die zelf analyses maken het toezicht voor de Douane en de bedrijven efficiënter, wij maken dan gebruik van wat ze zelf al gedaan hebben.

Het doel van cyclisch toezicht is om in de 3- of 5-jaarlijkse periode een vinger aan de pols te houden. Aan het eind van de periode heb je al een goed zicht op het bedrijf en kan je op wat kleine punten na het onderzoek afsluiten. In het eerste jaar wil je bij nieuw gevestigde bedrijven een grondige controle (vanuit de wetgeving: art 23 lid 5 UCC), dit vergt een behoorlijke inzet van de Douane. Bij die nieuwe bedrijven blijkt het, vanuit het verleden, effectief om er vanaf het begin kort op te zitten. Veel inzet aan de voorkant, maar het blijkt uit ervaring dat je bij nieuwe bedrijven sneller resultaat boekt als je er in het begin "bovenop" zit, de kwaliteit van de interne beheersing gaat erdoor omhoog. We verdienen die extra inspanning uit het eerste jaar terug gedurende het toezicht op die bedrijven.

Cyclisch toezicht betekend wat ons betreft dat we niet altijd een bezoek aan het bedrijf brengen. Er zijn vergunningen die je middels bureau onderzoek (kantoortoets) goed kan beoordelen. ISO 21378:2019 zou op termijn bij kunnen dragen aan het toezicht op afstand, we kunnen dan "de vinger aan de pols houden". Het biedt mogelijkheden om de gegevens van het bedrijf te koppelen met onze eigen gegevens en die van externe bronnen die we nog gaan koppelen aan onze systemen.

Voordelen die de Douane zou kunnen geven bij een mate van compliance?

-zijn hier gradaties in, of is een bedrijf wel/niet compliant?

Er is zeker gradatie in de mate van compliance. Wim is mee geweest met een "AEO field visit" naar Finland (vanuit de EU). In Finland waren ze ook bezig met hoe ze compliance bij bedrijven kunnen vormgeven. Ze probeerden middels kleuren gradatie in compliance aan te geven. Ze waren daarbij op zoek naar wat ze onder non compliance verstonden, bewuste en onbewuste fouten.

Je ziet men op meerdere plekken worstelen met wanneer vind ik het zo ernstig dat ik in moet grijpen. In hele brede zin speelt de vraag "wat nou compliant is en wanneer dat niet zo is".

Deels komt dit omdat we werken met open normen vanuit onze wetgeving. We vertellen bedrijven wat ze moeten doen, niet hoe. We bekijken daarbij per geval wat wenselijk is en wat niet, hier spelen meerdere factoren een rol. Op dit vraagstuk valt echter nog wel heel veel te ontwikkelen. Door de open normen in de wetgeving, hangt het nu nog veel af van het oordeel van de professional of die kan leven met de risico's. Hier is het dus vooral van belang dat je met elkaar die risico's en de weging met elkaar bespreekt om tot een acceptabel niveau te komen.

In het kader van standaardiseren zullen we toch iets moeten inbouwen, van wanneer je hoe gaat handelen bij welke vorm van niet compliant gedrag (risico). Bedrijven hebben dit in hun eigen interne beheersing ook zo ingeregeld. Bedrijven en de Douane zullen dus op basis van het risico en de acceptatie van wat aanvaardbaar is voor beiden, tot overeenstemming moeten komen over wat te doen als het buiten de afgesproken kaders treedt.

Weet jij of deze vorm van toezicht zou passen binnen het UCC?

Het UCC gaat niet in op de vorm van toezicht, dat is aan de lidstaat. Er zijn wel wat verplichte controle programma's vanuit de EU, wij werken niet met individuele controle of behandel programma's.

Juristen kijken dan naar zo'n auditfile en of het in de wetgeving staat. Deze staat er niet in, omdat de vorm van toezicht aan de lidstaat zelf is. Vanuit het cluster toezicht zien wij echter wel de toegevoegde waarde voor het toezichts proces van de Douane.

Hoe zit het met bewijslast bij het aantonen van compliance door een bedrijf?

Bewijslast is voor beide partijen makkelijker, die komt uit het eigen systeem van het bedrijf.

Hoe past ISO 21378:2019 in de toekomstvisie van de Douane? Zou dat veel veranderen?

We hebben hier nog niet specifiek over geschreven in de toekomstvisie Toezicht Douane, maar het wordt wel in algemene zin genoemd. We kijken nu nog vooral naar het voorraad verloop in de EPD file, die we van de bedrijven krijgen. De komende tijd zullen we mee moeten in de nieuwe ontwikkelingen (EPD naar DMS) en nieuwe data set UCC.

Met het huidige SAF-T file is niemand binnen de Douane bezig, ziet vooral op het financiële deel van de administratie. Wij zullen de komende tijd vooral kijken naar ISO 21378:2019 en samen met het bedrijfsleven hierin optrekken. Deze ontwikkeling in het toezicht ligt wat lastiger bij onze juridisch geschoolde collega's binnen de Douane. We zullen dus intern met elkaar op moeten trekken om iedereen goed te informeren over de mogelijkheden die de ISO 21378:2019 aan alle partijen biedt.

Is naar jouw mening een dergelijke ontwikkeling naar een andere mate van het aantonen van compliance levensvatbaar?

Hij past naar mijn mening in de ontwikkeling van het toezicht en lijkt een logische opvolger van de huidige EPD.

Interview Jan Akkermans 13-8-2020

-Bieden de huidige softwarepakketten voldoende mogelijkheden om de nieuwe ISO-norm met Douane uitbreiding toe te voegen aan hun functionaliteit?

Sommige wel; de meeste SWL niet. Een aantal willen graag meedoen aan de proof of concept. Ten eerste omdat ze graag vooroplopen, ten tweede om als eerste iets nieuws aan te kunnen bieden en daarmee hopelijk een stukje van de markt te kunnen pakken.

-Biedt deze ontwikkeling softwarebedrijven een markt voor de ontwikkeling van analysetools voor hun klanten, waarmee die zelf eenvoudiger hun interne controles en rapportages zouden kunnen genereren. Zijn er nog meer toepassingen te bedenken met een standaard data file?

Ja, los van de softwareleveranciers zijn er ook al initiatieven om dit te doen. Een standaard gegevens set is dan een groot voordeel. Ook publieke accountants gaan straks wellicht kijken hoe ze vanuit de financiële kant van de administratie hier anders mee om kunnen gaan. Maar in de markt gaat het straks vooral ook om de vraag hoe commercieel op deze ontwikkeling in te spelen.

-Wat versta jij onder compliance, in eigen woorden definiëren?

Werken in binnen het raamwerk van relevante wet- en regelgeving. Regelgeving beslaat ook de interne regels van een branche of bedrijf.

-Compliance en daarmee verminderen van kosten en administratieve lasten. Hoe zie jij dat compliance aangetoond kan worden middels standaard data en analyses? Zou dit bij kunnen dragen aan het verlagen van de administratieve lasten?

Werk veranderd, je stapt weg van manuele dataentry, hierdoor gaan ook banen veranderen. Controles verhogen de kwaliteit van het proces. Hoeft niet meteen te resulteren in een kostenverlaging. Maar moet wel resulteren in verbeterde verkoop (van goederen en/of diensten). Indien realtime juistheid, tijdigheid- en volledigheid controles worden gedaan kan snel inzicht worden verkregen of de uit te voeren activiteiten nog steeds aan de verwachtingen voldoen. Hiermee verlaag je het aantal fouten waardoor je bv minder kosten hebt o.b.v. retouren. Je kunt het ook gebruiken als unique selling point. Douane vertegenwoordiger kan een goed functionerende AEO inzetten en meer werk binnen halen.

-We hebben het vaak over dashboards. Zie jij mogelijkheden om voor douane een dashboard te standaardiseren?

Dat is betaalde consultancy.

Gezamenlijk belang vanuit verschillende invalshoeken. In gezamenlijkheid opstellen met oog voor de commerciële selling points van softwareleveranciers. We zijn met elkaar opzoek naar een goede invulling van de nieuwe mogelijkheden. Audit file is meer een stukje standaard waar iedereen naar verlangt.

-Zie jij een mogelijkheid om over te gaan naar op afstand kijken naar een dashboard als manier van aantonen van compliance (misschien wel de ultieme stip op de horizon)?

Is een voorwaarde. Laat gebruikers (bedrijven en Douane) via een portal naar een Cloud omgeving inloggen om daar het dashboard te benaderen. Hierdoor hoef je maar 1 dashboard te ontwikkelen die met de juist toegangsgegevens enkele de relevante gegevens voor de

betreffende gebruiker weer geeft. Misschien kan MijnDouane daar als portal iets in betekenen.

-Je bent bekend met de CAB. Past deze ontwikkeling in de CAB? Zie jij bottlenecks van deze ontwikkeling in het (Douane) toezicht? Welke?

Dit is extra. Voor een deel is dat je voor mijn gevoel voor bepaalde aspecten het fysieke toezicht kunt verminderen. Dus minder oponthoud in de supply chain, meer efficiency. Ook sluit dit aan op de “3 stromen” waar Frank Heijman al een tijdje mee onderweg is. De bottleneck is het overtuigen van dat soort voordelen aan de huidige markt. Men zal dit als een bedreiging zien. We moeten in de communicatie heel zwaar inzetten op de gezamenlijke voordelen maar ook voordelen die het potentieel voor aangevers heeft indien ze zo een dashboard enkel voor eigen doeleinden gebruiken. Daarnaast zou het goed zijn als dit in Brussel gepromoot (Wim Visscher) zou worden om in Europees verband op te pakken. Dit gaat bedrijven die buiten Nederland werken dan ook zeker helpen.

-Zou deze manier van het aantonen van compliance door bedrijven een eerste stap naar modernisering van het Douane toezicht kunnen zijn?

Jazeker. Zie ook hiervoor. Verder, als het dat niet doet kunnen we net zo goed stoppen. Kijk naar de toename van het aantal logistieke handelingen en dus ook te rapporteren handelingen naar douane. De digitale omgeving biedt daar mogelijkheden om de doorlooptijden te verminderen. Daar staat wel tegen over dat alle deelnemers aan de goederenstromen in staat moeten zijn om in control te blijven. Anders loopt de motor vast.

-Vind jij dat er nog steeds een auditfile heen en weer gestuurd moet worden tussen bedrijven en Douane, of zie jij een ander manier? Zie jij daarin gradaties (de kwalitatief minderen sturen maandelijks in en Douane controleert, de betere sturen jaarlijks in en Douane controleert, de nog betere sturen één keer per 5 jaar in, de nog betere sturen niet meer in en rapporteren jaarlijks aan Douane, de beste sturen niet in en rapporteren op verzoek of één keer in de x jaar)?

Dit hangt af van de hoeveelheid data en douane handelingen waarover moet worden gerapporteerd. Er zijn diverse mogelijkheden van papier tot toegang tot de administratie. Ik ga die niet allemaal toelichten want jullie kennen de discussies of voors en tegens. Op basis van een visie omtrent de mogelijkheden en beperkingen moet in mijn ogen naar maatwerk worden gestreefd. Maatwerk op basis van standaarden want dat gaat het snelst. Wanneer je veel identiek/soortgelijk maatwerk hebt heb je ook weer een nieuwe standaard.

Maar in de basis, hou de informatie die je hebt, we willen alleen maar weten dat je de controles uitgevoerd hebt. Eigenlijk wil je een rapportage zien met welke controles uitgevoerd zijn op de data en wat de resultaten waren en eventuele correcties.

-Welke voorwaarden zijn er voor bedrijven en softwareleveranciers om deel te kunnen nemen aan deze nieuwe audit standaard?

Belangrijkste voorwaarde is een board of bestuur of bedrijfsleiding dat de noodzaak van compliance inziet. Kijk ook naar de notitie die jullie hebben opgesteld voor deelname aan de proof of concept. Daarnaast zullen SWL kijken naar de potentiële commerciële

mogelijkheden die het biedt. Voor bedrijven zal return on investment tellen. Daar ligt een belangrijk element. De standaard en /of dashboard moeten toegevoegde waarde hebben waardoor kosten omlaag kunnen. Dit zijn kosten van oponthoud in de logistiek maar ook als gevolg van tijd die moet worden besteed aan de ondersteuning van compliance audits (CNI) en overige belastingen. Vergeet daarbij niet de kosten aan een public accountant.

-Zie jij een (nieuwe) verplichting ontstaan en hoe kijk jij er tegenaan?

Als de nieuwe concepten werken dan ontstaat er wellicht een nieuwe verplichting, maar die zal niet als een verplichting worden ervaren. Iedereen moet dan volgens dezelfde standaard werken en dat geeft een level playing field. Als we het over een nieuwe verplichting hebben dan betekent het een nieuwe handelsbelemmering en daar is niemand bij gebaat. Dat kan op zeer veel tegenwerking van uit de markt rekenen (hebben we dus onze tijd verspild). Wellicht EU overslaan en direct gaan naar de WDO gaan. Daar zou je op in moeten gaan spelen als nieuw element in de WDO.

-Data standaardiseren staat in de schijnwerpers, ook voor AI.

Hoe kijk jij er tegenaan als de douane de auditfile hiervoor gaat gebruiken?

Volgens mij is douane daar al mee bezig. Kijk naar het WDO data model. Echter wie is douane? Dat zijn mensen uit diverse landen en culturen, die vaak tegenstrijdige belangen hebben. Zelfs in de EU kunnen we niet naar 1 aangiftesysteem komen. We proberen het via bijlage B van UVo DWU, maar het gaat heel moeizaam. Het EU datamodel is een dialect van het WDO datamodel. Voor SWL is dit een belangrijke reden om mee te werken aan de standaardisatie. Hoeven ze geen ontwikkeling en onderhoud te leveren voor 27 lidstaten. Zorg dat je transparant blijft met de AI en met name hoe deze vorm gegeven wordt en 'in control' wordt gehouden. Er zijn al genoeg privacy discussies.

-Zijn er zaken niet aan bod gekomen, die je in relatie tot het onderwerp wel zou hebben verwacht??

Nee.

Interview Marco Heijnen 18-8-2020

-Wat versta jij onder compliance? Graag in eigen woorden definiëren.

Alle handelingen, zelfs van het moment van eerste contact met nieuwe potentiële klant, tot de uitlevering van de goederen, volledig volgens de wettelijke voorschriften gecontroleerd afloopt. Wij beginnen al met de controle van onze contacten middels het checken van onze blacklist van alle locaties. De ontvangst van de goederen moet volgens alle voorschriften (levensmiddelen, Douane, etc.) plaats vinden.

-Compliance en daarmee zoveel mogelijk verminderen van kosten en administratieve lasten. Hoe zie jij dat compliance aangetoond kan worden middels standaard data en analyses? Zou dit bij kunnen dragen aan het verlagen van de administratieve lasten?

Ja, zolang dat geautomatiseerd gebeurt. Indien je geautomatiseerd iedere stap in je bedrijf controleert en correcties direct uitvoert, bespaart compliance administratieve last.

In compliance versta ik het ook direct controleerbaar maken. We worden op vele wijze door vele instanties gecontroleerd. Als je zorgt dat je analyses en je toegankelijkheid tot data dusdanig is dat je direct kan zien of je compliant bent, dan scheelt dat kosten en administratieve lasten. Zoeken is ook tijd en dat kost ook geld.

-In mijn thesis (zie hierboven) schets ik een pad om te komen van overleggen van standaarddata aan de Douane, waarna die de analyses uitvoert tot de ultieme vorm, het tonen van een gestandaardiseerd dashboard aan de Douane.

Hoe kijk jij aan tegen dit mogelijke pad? Zie jij nog andere pad(en)?

Bij Döhler is het beleid om geen externe direct toegang te verlenen tot de systemen. Voor een gestandaardiseerd dashboard zou het technisch wel kunnen, dit is wel met rechten te scheiden van de overige data, mits er niet op detail ingezoomd moet worden.

Met de Audit file & Douane extensie, waar we voor de corona langzaam aan begonnen zijn, zou zo'n dashboard, in mijn optiek, wel het doel moeten zijn. Realistisch gezien, gaat dit nog wel jaren duren. Zeker ook omdat eerst de Douane extensie nog vastgesteld moet worden. Daarmee ontstaat een standaard waar Nederland nu in voorop loopt, maar nog beter zou één standaard binnen Europa zijn en het liefst één globale standaard. Zodat gegevens eenvoudiger uit te wisselen zijn binnen hetzelfde bedrijf met meerdere locaties.

De komende wijziging in de EPD naar de aangifte via AGS, zie ik als tussenpauze voor de komende jaren. Dit blijft niet meer dan 10 jaar. Gegevensuitwisseling via ISO zou voor Döhler, met vele locaties in de wereld, op de lange termijn voordelen hebben. Het bij elkaar krijgen van alle Douane gegevens van alle locaties is nu erg lastig.

Probleem is dat iedereen een systeem bouwt met zijn eigen logica (en definities) en daarmee wordt datavergelijking lastig. Wat belangrijk is, is de definitie wat er onder ieder veld begrepen wordt. Data definitie is zeer belangrijk, maar erg moeilijk.

De volgorde van ontwikkeling zou moeten zijn; standaard analyse, standaardiseren data, technisch bouwen. Dus data vooraf definiëren in plaats van eerst bouwen en daarna pas kijken wat en hoe we de data eruit halen.

-Vanuit de Douane wordt er vaker gesproken over dashboards. Zie jij mogelijkheden om de compliance van jouw bedrijf aan de Douane te tonen middels een dashboard? Zo ja, wat zou een realistische termijn zijn om zoiets te realiseren. Zo nee, wat zijn de obstakels die dat niet mogelijk maken?

Ja, het doel is om een dashboard te hebben waar de tinten groen zijn als alles goed loopt en het rood wordt indien er iets fout loopt. Graag zou ik dan direct daarop door willen klikken naar de desbetreffende reactie en een corrigerende actie direct kan definiëren.

Rentabiliteit maakt dat lastig, als alles goed gaat en er genoeg verdiend wordt dan is er meer mogelijk, dan wanneer de verkopen teruglopen. Daarnaast speelt de vraag hoeveel geld wil en kan je erin investeren. Ook is het voor ons de vraag in hoeverre SAP mee wil werken om software toegankelijk te maken voor dat soort informatie. SAP heeft inmiddels wel een dashboard voor Tax ontwikkeld, dus wellicht kan het Douane deel daarop aansluiten.

-Zie jij een mogelijkheid om over te gaan naar op afstand kijken naar een dashboard als manier van aantonen van compliance (misschien wel de ultieme stip op de horizon)?

Ja, technisch geen probleem. Wel qua beveiliging, zeker als de Douane naar onderliggende structuren door zou willen klikken.

-Indien de software van jouw bedrijf de ISO 21378:2019 met Douane extensie zou ondersteunen en je binnen het bedrijf zelf de (Douane) analyses uit zou voeren. Wat zou dit kunnen betekenen voor jullie:

-interne controles?

Die zou hiermee veel beter worden, ik heb hetzelfde doel als de Douane. Ik wil controleren, of wat er gebeurt binnen het bedrijf volgens de regels en de juiste methode gebeurt. Dus zie ik deze standaardisering als positief voor de interne controle.

Als het internationaal gestandaardiseerd kan worden zie ik het grootste rendement ontstaan, zeker als er meerdere toezichthouders gebruik van zouden maken. Door de verschillende systemen en data standaarden van de Döhler bedrijven in andere landen kan ik nu niet heel makkelijk alle Douane activiteiten controleren.

-de medewerker die dit werk nu op andere wijze doen?

Gaat gewoon op een andere manier dan nu.

-andere voor-/nadelen?

Ik zie alleen voordelen, je hebt dan een totaaloverzicht over alle locaties binnen je bedrijf. Uiteindelijk moet je overal aan voldoen en compliant zijn.

-Je bent bekend met de CAB. Past deze ontwikkeling in de CAB? Zie jij bottlenecks van deze ontwikkeling in het (Douane) toezicht? Welke?

Eigenlijk zou je het dashboard conform de stappen in de CAB op moeten bouwen, er zit logica in. Je splitst de logische controle van de technische controle. Een dashboard is in mijn optiek niet 1 schermje die zou moeten bestaan uit verschillende controles die ieder een eigen schermje hebt.

-Zou deze manier van het aantonen van compliance door bedrijven een eerste stap naar modernisering van het Douane toezicht kunnen zijn?

Als we zover zouden komen, dan zou loopt NL erg voor. In Duitsland bijvoorbeeld, willen ze echter nog steeds graag alles direct controleren. Daar waar de Douane Nederland meer gericht is op controle achteraf en compliance.

-Heb je zicht op de mogelijke impact van de implementatie van de nieuwe audit file op de software van Döhler? Wat zie jij aan mogelijkheden om deze “terug te verdienen”? Dus “what’s in it for you”?

Ik zie een positief effect op met name managementinformatie over douane zaken die we nu niet hebben en die steeds moeilijker wordt. Niet op lokaal niveau, dat lukt allemaal wel, maar internationaal hebben we wat mij betreft geen Douane informatie. Hooguit wat Excel lijstjes,

dus geen echte controle op internationale douanezaken, wat binnen een bedrijf als Döhler eigenlijk wel nodig is. Als ik meer (gestandaardiseerde) douane informatie zou hebben over internationale douanezaken binnen Döhler, zou ik middels efficiency de investering terug kunnen verdienen.

-Zie jij een (nieuwe) verplichting ontstaan en hoe kijk jij er tegenaan?

In feite kan er geen nieuwe verplichting ontstaan, de wetgeving wijzigt niet, er komt een andere vorm van toezicht. Voorwaarde is wel dat de Douane bij het implementeren van de nieuwe vorm van toezicht, de oude laat vervallen.

-Wat zou de impact van de implementatie van deze nieuwe audit file standaard voor bedrijven kunnen betekenen? Wat zou de rol van Douane hierin kunnen/moeten zijn?

Ik verwacht een behoorlijke investering in de software (tijd en geld). Er moet vanuit de huidige software een transfer van de data naar de ISO-tabellen gemaakt worden. Er komen dan controles op de ISO-tabellen en daar zullen controles op gemaakt moeten worden.

De controles moet de Douane samen met bedrijven gaan bepalen, zodat we tot een eenheid van controles kunnen komen. Er moet governance zijn op de ISO-tabellen, dit zou er ook moeten zijn voor de standaard analyses.

Compliance is in ons belang en ik zie een dashboard als een tool om compliance te tonen.

-Zijn er zaken niet aan bod gekomen, die je in relatie tot het onderwerp wel zou hebben verwacht??

ISO-logistiek is er nu, maar wordt nog nauwelijks toegepast, uitzondering is China.

Compliance module van SAP is op Tax gebouwd, de Douane zou daar de samenwerking mee op kunnen zoeken.

Ik zie de rol van SAP als ontwikkelaar van de ISO (en Douane extensie) en de analyses binnen hun software. Graag zouden wij daar als testbedrijf van SAP aan mee willen werken en denken. Wat mij betreft moet standaardisatie dan ook vanuit de softwareleverancier komen, anders lopen we alsnog de kans op verschillen in implementatie.