

Master Thesis

The role of Customs in the enforcement of EU regulations and the associated expectations outlined in EU regulation

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KEYWORDS

ENFORCEMENT – ROLE OF
CUSTOMS – EU REGULATION –
COMPETENCIES OF CUSTOMS
AUTHORITIES – FUTURE ROLE OF
CUSTOMS – EXPECTATIONS –
ENFORCING PARTY – EU BORDER
REQUIREMENTS – REQUIREMENT
FORMULATION – COMPETENCE
DEVELOPMENT

ABSTRACT

This thesis examines the role of Customs in enforcing EU regulations and the associated expectations within this framework. As global conditions continue to evolve and new challenges emerge, understanding the shifting responsibilities of Customs becomes crucial to effectively redefine the competence profile. The research seeks to evaluate whether the competencies outlined in EU regulations align with the actual capabilities of Customs foreseen in the Union Customs Code and whether their role requires expansion. Additionally, the study assesses the clarity of requirement formulations in new regulations, determining if these regulations are appropriately targeted at Customs and can be accurately interpreted and implemented. To meet these objectives, a mixed-method approach was employed, incorporating a thorough literature review, legal analysis, and qualitative research. The findings reveal that while EU regulations often lack clarity in their requirement definitions, the competency profile of Customs does not inherently require enhancement. However, the ongoing expansion of their responsibilities is giving rise to additional challenges that are not addressed in this thesis. These insights contribute to a better understanding of the future role of Customs and offer recommendations for improving the formulation of regulatory requirements to more effectively support their enforcement duties.

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Preface

This thesis concludes an inspiring yet demanding journey, while also serving as the beginning of a new chapter. Participating in this program has not only allowed me to enhance my academic skills, but also to connect with remarkable individuals from across the globe. I am truly grateful for this unforgettable experience and for the opportunity to be part of something so significant.

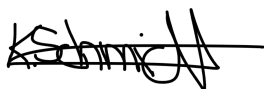
The choice of this research topic was shaped by both personal and academic factors. As someone who prefers practical, hands-on tasks, I have often found theoretical work challenging. Circumstances compelled me to embrace this challenge and delve into more analytical and theoretical subjects. My interest in structure and rules, combined with the forward-looking nature of the research, ultimately drew me to this topic. Reflecting on the journey, I am grateful for this research topic, as it has pushed me beyond my comfort zone and allowed me to grow both personally and academically. This thesis serves as a significant milestone in the completion of my master's degree and therefore I would like to take this opportunity to express my sincere appreciation to several individuals.

First, I would like to express my heartfelt gratitude to the Rotterdam School of Management. The university not only provided me with a remarkable and memorable academic experience, but also stood by me during difficult personal times with constant support. Without their support and understanding, I would not have been able to submit my thesis and complete this program. I am particularly grateful to Prof. dr. Albert Veenstra and Dr. Andrew Grainger, whose guidance and support were essential throughout this period.

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Third, I would like to sincerely thank my partner for his constant emotional support, especially while completing this thesis. His encouragement and understanding have been a source of strength during the challenges I faced in completing this thesis.

Finally, I want to take a moment to thank my mother, whose unwavering belief in persistence has always inspired me to keep pushing forward, no matter the challenges.



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Executive Summary

This research delves into the role of Customs in enforcing EU regulations, with a specific focus on the expectations set forth by these EU regulations and the implications for the future responsibilities of Customs authorities. In light of the evolving regulatory landscape, this research aims to answer questions regarding the alignment of new EU regulations with existing provisions in the Union Customs Code (UCC), as well as the competencies required of Customs in light of these changes.

To address these overarching questions, the research is structured around several key sub-questions that aim to clarify the provisions outlined in the UCC, and the extent to which these provisions coincide with the new regulatory requirements set out in pre-selected EU regulations. By systematically analyzing the compatibility of the new EU regulations with the UCC, the study seeks to determine whether the role of Customs should be expanded to meet the identified demands.

The research methodology employed in this study is mixed, comprising a comprehensive literature review as its foundation, followed by detailed legal research, requirement definition analysis, and qualitative research through expert interviews. The initial literature review forms the basis for understanding the current opinion of the future role of Customs, Customs provisions under the UCC and identifying suitable EU regulation. Through a rigorous selection process based on predefined criteria, the following EU regulations were identified as particularly relevant to addressing the research questions: Regulation (EU) 2024/573 on fluorinated greenhouse gases, proposed EU Regulation on prohibiting products made with forced labour on the Union market, Regulation (EU) 2023/1115 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation, Regulation (EU) 2019/1020 on market surveillance and compliance of products and Regulation (EU) 2023/956 on establishing a carbon border adjustment mechanism.

Given the identified gap in the existing literature regarding the proper definition of requirements within EU regulations, a model grounded in system engineering principles was developed to serve as a template for analyzing individual requirements across specific components. The primary objective of this model is to evaluate the clarity, specificity, and feasibility of the identified requirements, thereby determining their suitability for implementation. The legal research examined the specific requirements outlined in each EU regulation, which were then systematically analyzed using the previously mentioned model. By comparing the identified requirements with the provisions of the UCC, the alignment between the two legal constructs was assessed, thereby evaluating whether the current competency profile of Customs is sufficient or if an expansion is necessary. To enhance the validity and depth of the research findings, semi-structured interviews were conducted with customs experts as part of the qualitative research.

In the course of the research, a total of 41 specific requirements were identified in the EU regulations that directly pertain to Customs responsibilities. Notably, none of these requirements fulfilled the necessary criteria for proper definition, lacking essential details that would facilitate their practical implementation. Upon matching these identified requirements against the provisions in the UCC, it was found that 33 out of the 41 requirements align with the established UCC provisions. This significant finding indicates that while the majority of the requirements meet the competency profile of Customs, the principal challenge lies not in an overextension of the competency profile but rather in the vagueness of the requirements themselves. This ambiguity can hinder effective implementation and may lead to capacity-related challenges for Customs authorities.

Validation of these findings was achieved through qualitative research, specifically expert interviews conducted with customs professionals. These interviews reaffirmed the notion that the core functions of Customs remain largely unchanged.

However, there is a notable expansion in the scope of customs-related activities necessitated by the new regulatory environment. One of the foremost challenges identified by experts is the need for Customs to be responsive to rapid global changes and the substantial increase in data generated by growing trade volumes. This surge in data necessitates an enhancement of Customs competencies in various areas, including supply chain management, to ensure effective enforcement and compliance.

In conclusion, this research underscores the substantial role of Customs in enforcing new EU regulations, as many requirements are explicitly directed towards Customs. Customs authorities are expected to assume additional responsibilities that enhance their operational scope without exceeding their established competencies. Furthermore, they must remain responsive and adaptable to the evolving regulatory framework. The research identifies poorly defined requirements as the most significant risk to ensuring proper and successful implementation of these regulations.

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Abbreviations

CBAM.....	<i>Carbon Border Adjustment Mechanism</i>
EU	<i>European Union</i>
F-gas	<i>Fluorinated gas</i>
HFC	<i>Hydrofluorocarbons</i>
MUCC	<i>Modernize Union Customs Code</i>
TCT.....	<i>Trust and Check Traders</i>
UCC.....	<i>Union Customs Code</i>

1. Introduction

1.1 General Context

The founding of the European Customs Union in 1968 had a clear vision: no tariff duties among the member states of the European Customs Union and same tariffs, valid for all members, on imported goods.¹ 54 years later, the vision has long been reality and therefore the vision seems to expand steadily. It is no longer exclusively about duties and tariffs. These days the European Customs Union pursue multiple objectives by appointing the national European Customs authorities to monitor goods that are crossing the European border to protect the European Union (EU) from entering goods that could probably harm the economic, safety and health. Goods entering and leaving the European Union must comply with the rules and requirements resulting from import and export policies.²

The regulatory environment in the EU is dynamic, with frequent updates and new regulations aimed at addressing emerging issues such as Covid19. These changes necessitate an assessment of whether existing competencies of Customs authorities are sufficient or require adjustments to align with the new regulatory demands.

This development is also underlined by the newest development and the measures presented in the framework of the EU reform in May 2023. The EU reform is considered as answer to the latest developments within the international trade, namely the increase of goods crossing the EU border, ever higher standards that are to be inspected at the border and ongoing crisis. The fact that the EU reform considers, among others, a new EU Customs authority, shows how significant the pressure on the EU Customs authorities is and how relevant their activities and responsibilities are.³

The role of Customs is advancing and therefore becoming more and more important pertaining to enforcing new regulation.⁴ Customs authorities are managing crisis and responding more often to new expectations when it comes to border protection set out in new regulation. The question is, if Customs is the right party who have the competencies and capacities to execute new responsibilities regarding the supervision in EU regulation when it comes to enforcement.

This research compares the original concept of Customs responsibilities with the requirements outlined in pre-selected regulations. It examines whether the competency profile for Customs authorities needs to be adjusted based on the requirements specified in the EU regulations. In summary, the analysis determines not only whether Customs authorities need to expand their roles and enhance their competencies but also whether the formulation of the identified requirements supports clear understanding and effective implementation.

¹ (Bundesfinanzministerium, 2023)

² (European Union Official Website, 2023)

³ (European Commission P. r., 2023)

⁴ (Wise Persons Group on the Reform of the Customs Union, 2022)

1.2 Scientific Problem and Relevance

The core scientific problem addressed in this thesis is the potential misalignment between the traditional responsibilities of Customs authorities and the evolving demands outlined in EU regulations. Over time, the role of Customs has been increasingly scrutinized, particularly in response to legislative changes. However, there is a significant gap in the literature concerning whether the competencies of Customs authorities remain sufficient to meet these new regulatory expectations or whether a broader adjustment in their competency profile is necessary.

This research investigates whether the current competency framework of Customs authorities adequately reflects the requirements introduced in the pre-selected EU regulations. The comparison between the historical understanding of Customs responsibilities and the new regulatory environment is crucial, especially given the dynamic nature of EU law. Despite various studies pointing to the increasing complexity and multilingual challenges of EU regulations, there has been little focus on whether the formulation of these requirements is precise enough for Customs authorities to understand and implement them effectively. Properly defined regulatory requirements are essential to ensure uniform enforcement across different EU countries, yet the literature lacks a thorough analysis of these definitions.

Furthermore, although multiple sources suggest that the role of Customs is shifting⁵, particularly in response to new regulatory demands, there is currently no comprehensive evaluation of whether this shift has occurred in practice or whether it is merely a perceived trend. Many reports indicate that the responsibilities of Customs are expanding beyond traditional duties such as tariff collection and border control. However, no research has systematically analyzed whether these new EU regulations have concretely impacted the roles and competencies of Customs authorities, nor whether Customs authorities are equipped to handle these expanded responsibilities.

This research seeks to fill this gap by critically examining the assumption that the role of Customs has evolved. It evaluates whether the current formulation of EU regulations facilitates a clear understanding and effective enforcement. In doing so, it will also consider whether the requirements themselves are well-defined and practical.

Addressing this issue carries substantial theoretical and practical implications. Theoretically, it helps to bridge an existing gap in the literature. On a practical level, this research could inform legislative processes, particularly concerning the drafting of more precise and implementable requirements. It could also guide further research on the evolving competency profiles of Customs authorities, offering a more grounded approach to understanding how they should be trained and equipped to meet new regulatory challenges.

1.3 Research Objective

The assumption for this research is that the changes in the competence profile of the Customs authorities result, among other things, from the latest EU regulations. The objective of this study is to analyze pre-selected EU regulations that are looking for a role of Customs in order to validate if new EU regulation matches the responsibilities that are foreseen in the UCC. This study investigates the phrasing of the requirements towards the enforcing body used in the pre-selected regulation. The aim is to research whether the EU regulations are formulated in such a way that they are feasible to implement.

⁵ (Wise Persons Group on the Reform of the Customs Union, 2022)

1.4 Research Question

Given the problem definition in chapter 1.2 *Scientific Problem and Relevance*, this master thesis aims to answer the following question:

“What is Customs' role in the enforcement of EU regulations, and what are the associated expectations outlined in EU regulations?”

Foremost, this study analyses the actual competencies of the European Customs authorities. Next, an analysis of requirements towards Customs that are projected in selected EU regulations is conducted. The objective is the analysis of the expectations towards Customs as enforcing agency. Both results, the actual competencies as well as the competencies that are indicated in the EU regulation are matched against each other in order to identify gaps and areas of completeness. Final, this study analyzes the identified requirements in the selected EU regulations based on their formulation as well as probability for successful enforcement.

In the course of the study, the following sub-questions support to answer the research question:

- 1. What are the requirements towards Customs that are projected in new EU regulations?**
- 2. To what extent do the requirements meet the actual competencies of Customs as enforcing party?**
- 3. Should the role of the European Customs authorities be expanded? To what extent is Customs capable of addressing the new requirements associated with an expanded role?**

Chapter 3 *Research Methodology* examines how the answers to these questions are developed in order to define the role of the Customs authorities and to indicate the trend of the changing role of Customs as an enforcing party.

1.5 Structure of the Thesis

This thesis is structured into six chapters, each addressing a different aspect of the research and leading to the final conclusions.

The first chapter introduces the overarching problem that Customs responsibilities seem to be increasing due to the evolving nature of the globalized world and growing regulatory frameworks becoming more complex. Based on these challenges, the research questions are outlined, establishing the primary focus of the study.

In the second chapter, the literature review is presented. It begins by explaining the process of how relevant literature was identified and selected, ensuring that the sources used are comprehensive. Key academic and legal sources are then discussed in detail. A foundational part of the thesis is the definitions used in the UCC and the responsibilities and tasks of Customs authorities. Furthermore, the basis for analysis in relation to requirements for enforcement and the proper definition of requirements towards Customs is explored. In this section, a significant gap is identified in the literature concerning requirement definition in Customs requirements in EU regulation. To address this gap, concepts from the field of system engineering are introduced to provide a foundation for further analysis.

The third chapter delves into the research methodology, which employs a mixed-methods approach. The research design underscores that the study is built upon several types of research: literature review, legal research, and research focused on requirement definition. A model grounded in system engineering principles is developed and applied to the area of legal requirement definition, bridging the gap identified in the literature review. Finally, the chapter outlines the qualitative research phase, where expert interviews were conducted. The insights from these interviews serve as a means of validating the findings obtained through the earlier stages of the research.

The fourth chapter presents the analysis of pre-identified EU regulations that pertain to Customs enforcement. The chapter begins by describing the relevant EU regulations and identifying the specific requirements placed on Customs authorities. These requirements are then analyzed using the structured definition framework developed earlier in the thesis. Finally, the regulations are compared to the propositions outlined in the UCC, and their adequacy in terms of enforcement requirements is critically assessed.

In chapter five the results of the qualitative research, specifically expert interviews, are presented and discussed. The chapter summarizes the findings from these interviews, assessing whether the experts validate the research's conclusions and analyses. The experts' feedback provides an external perspective on the validity of the findings.

The final chapter concludes the thesis by answering the research questions posed in chapter 1 *Introduction*. It provides a summary of the key findings and their implications for Customs. Additionally, it offers the limitation of the research as well as the theoretical contribution and recommendations for future research, particularly in areas where the study encountered limitations or identified gaps that require further exploration.

2. Literature Review

2.1 Introduction

This chapter aims to provide a comprehensive analysis of the existing literature, serving as a cornerstone for the research. To effectively address the research questions outlined in chapter 1.4 *Research Question*, it is essential to delve into the theoretical frameworks and empirical findings related to the evolving role of Customs. This chapter examines the available literature on the legal background, including the provisions of the UCC pertaining to this matter. Furthermore, it will delve into theoretical perspectives on effective enforcement and the precise definition of requirements.

Consequently, the following sections explore several key aspects: the available literature on the future role of Customs, the role of Customs the UCC foresees, the point in time of Customs involvement, in order to understand when Customs is the right appointed party, the foreseen Customs tasks in the UCC in order to elaborate a reference model for comparison, the requirements for enforcement in order to understand what is necessary to make a regulation work and an analysis of available research regarding proper requirements definition.

The literature review serves as the groundwork for the analysis presented in chapter 4 *Research Analysis and Results*.

2.2 Literature Search and Selection Process

The literature research has as target not only to compile information on existing work in this area, but to further acquire knowledge of theories and regulation. The selection process of the literature research can be outlined as follows:

Literature Search

Firstly, the analysis is carried out to assess the existing literature and identify any gaps or related topics from other fields that might be applicable to the research topic. This literature review helps to avoid duplication of research efforts. Additionally, examining the existing literature allows for the identification of unique research approaches and suitable research methodologies that can effectively address the research questions. Secondly, the literature research aims to acquire knowledge about the research topic and relevant theories. This involves familiarizing oneself with current developments in the field and understanding the research problem.

Data collection is carried out using various sources, including literature, articles, papers, regulations, laws, and websites. For the theoretical framework mainly electronic databases, websites and the UCC are utilized. To find appropriate literature, the following two electronic databases are employed: Erasmus Online Library and Google Scholar. Based on the structure of this thesis, the following key words are used in order to find useful literature: "Law enforcement"; "Customs responsibilities"; "Benchmarking"; "Comparative analysis"; "Policy comparison"; "Guide comparison"; "Conceptual comparison"; "How to compare"; "Law implementation"; "Public law"; "Law comparison"; "Attributes requirements"; "Customs requirements"; "Requirements theory"; "EU policy theory"; "Public enforcement"; "Supervisory enforcement".

Titles and corresponding tables of contents are examined to determine their relevance. Many sources are deemed irrelevant, leading to an extension of the research into less related subject areas. Additional keywords, such as "Requirements IT" and "Requirements definition" are used to yield a greater number of useful sources. Once relevant literature is identified, it is carefully analyzed, often uncovering further useful references through detailed examination.

The list below presents the primary publications referenced in this study.

(1) Wise Persons Group on the Reform of the Customs Union, R. (2022). Putting More Union in the European Customs. Brussels.

The research is grounded on the assumption that new regulations lead to changes in Customs competencies and, consequently, to higher expectations. To support this assumption with expert observations, the report by the Wise Persons Group is used as a framework. This report provides valuable insights into the anticipated changes and highlights the evolving importance of Customs both now and in the future.

(2) Engel, Fechner, Berthold-Kraicz, Homrighausen, & Dillhage, R. (2018). Anforderungsmanagement in großen IT-projekten. Informatik-Spektrum: Organ Der Gesellschaft Für Informatik E.v. Und Mit Ihr Assoziierter Organisationen.

This publication delves into the challenges of managing requirements in IT projects and gives insights for the effective gathering, documentation and management of requirements. Since there is a lack of literature on requirements management specifically within the area of Eu regulation, insights are drawn from the IT subject area to understand the significance of requirements management.

(3) Koelsch, G. (2016). Requirements writing for system engineering.

The focus of this research is the analysis of requirements for Customs, approached both from a content perspective and a formalistic standpoint. Requirements are evaluated based on their formulation. To conduct this analysis, insights from another field, system engineering, are applied. System engineering has already identified that projects often fail due to imprecise and poorly defined requirements. This publication provides general guidelines for formulating clear and actionable requirements, ensuring requirements are both understandable and implementable.

(4) Kestemont, L. (2018). *Handbook on Legal Methodology*. Intersentia.

This thesis also aims for a comparison of legal constructs, namely EU regulation and the UCC, in order to find differences and/or similarities. With regard to the analysis of the study, this literature represents the core element and serves as the foundation for developing a framework to conduct the legal research and facilitate a relevant comparison.

Despite literature, websites are used that are mainly official pages of national authorities like the European Union and its affiliates, the World Trade Organization and the World Customs Organization.

EU Regulations

In order to find suitable EU regulation to analyze the role of the Customs authorities, the European Parliamentary Research Service is used. Here, EU legislation in progress is listed.⁶ Furthermore, official newsletters are monitored to stay updated on recent changes. Regulations are selected based on their relevance to the topic, and their impact on Customs. To determine if a regulation affects Customs, the regulation text is scanned for the following keywords: “Import”; “Export”; “Border”; “Entry”; “Customs”. Regulations that do not contain these keywords are deemed unsuitable for this research. Regulations where only partial matches of the keywords are found are further cross-checked to determine whether Customs has a role in that EU regulation. The following regulations were selected based on the criteria outlined and the matches found. Due to the scope of this thesis, the number of regulations considered is limited to the following five

- F-gases: Regulation (EU) 2024/573 on fluorinated greenhouse gases
- Forced labor: Regulation proposal on prohibiting products made with forced labour on the Union market
- Deforestation: Regulation (EU) 2023/1115 on making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010
- Market surveillance: Regulation (EU) 2019/1020 on market surveillance and compliance of products and amends Directive 2004/42/EC and Regulations (EC) No 765/2008 and (EU) No 305/2011.
- CBAM: Regulation (EU) 2023/956 on establishing a carbon border adjustment mechanism (CBAM)

The detailed analysis of these EU regulations is presented in chapter 3 *Research Methodology*, which outlines the methodological foundation for what the EU regulation is examined, and in chapter 4 *Research Analysis and Results*, where the actual analysis of the EU regulations is conducted.

2.3 Role of Customs

*“Customs authorities shall be primarily responsible for the **supervision of the Union's international trade**, thereby contributing to fair and open trade, to the implementation of the external aspects of the internal market, of the **common trade policy** and of the other **common Union policies having a bearing on trade**, and to overall supply chain security.(...)”⁷*

This quote from the Article 3, UCC illustrates very well the mission of the European Customs authorities: Firstly, Customs is in control of the supervision, which is the process of ensuring that actions are done according to rules, of the Union’s international trade.⁸ International trade can be understood as the exchange of goods and/or services across the national borders.⁹ This means that Customs is responsible for ensuring that goods crossing the border of the European Union comply with all applicable regulations. This leads to the second key aspect of this Article: the reference to the applicable regulations. According to Article 3 of the UCC, European Customs authorities are required to support the implementation of common trade policies and all Union policies that affect trade and supply chain security.

⁶ (European Parliamentary Research Service, 2023)

⁷ (Article 3 UCC)

⁸ (Dictionary Supervision, Cambridge, 2023)

⁹ (Statistisches Bundesamt, 2023)

The European Customs authorities are apparently responsible for supporting the realization of all common trade policies. Unlike the definition on international trade, trade as such refers not to the exchange of goods and/or services across the national borders, but to the activity of purchasing and selling goods/services between economic actors that can be situated in the same or different countries.¹⁰

Customs is also responsible for contributing to the implementation of policies that, while not directly related to trade, impact trade and supply chain security. The key word in Article 3 UCC is “contributing”. Based on its definition, to contribute refers to give something in order to achieve something together with other people.¹¹ By choosing this verb, the responsibility is clearly defined. It states that Customs is not only responsible for implementing certain regulations in specific cases but is also required to assist relevant institutions with their implementation.

However, Article 3 of the UCC lacks details on the specific scope and extent of Customs' obligations to contribute. In other words, according to Article 3 of the UCC, Customs' mission extends beyond merely protecting the EU's external borders from non-compliant goods and services. It also involves contributing to the implementation of policies that may affect trade and supply chain security. However, the extent of this contribution is not specified. In summary, Customs is not always the legally mandated enforcer for the implementation of new regulations.

2.4 Point in Time of Customs Involvement

To determine if new regulations designate Customs authorities as the enforcing party, it is essential to identify when the required action takes place. The UCC specifies the beginning of Customs' involvement, which is tied to the arrival of goods. This is precisely outlined in Article 134(1) UCC, which states:

“Goods brought into the customs territory of the Union shall, from the time of their entry, be subject to supervision and may be subject to customs controls. (...)”

The term “import” is not explicitly defined in the UCC but is described as the entry of goods into the Customs territory of the Union (Article 134(1) UCC). This means that Customs becomes involved as soon as goods enter the Customs territory, marking the commencement of their control over the goods.

This understanding serves as a prerequisite for analyzing the selected EU regulation, particularly in scenarios where Customs is not explicitly named as the enforcing party. It is important to clarify the requirements relevant to Customs, as these play a critical role in determining when Customs takes on responsibilities, particularly at the point when goods enter the Customs territory.

2.5 Foreseen Customs Tasks

Chapter 2.3 *Role of Customs* already focusses on the role of Customs based on Article 3 UCC. This article goes further by outlining the tasks that Customs must fulfill. Accordingly, this chapter aims to list the duties that Customs is required to perform in order to accomplish its mission. The tasks specified in Article 3 of the UCC can be grouped into four main categories: taxation, safety, security, and facilitation.¹² Article 46 and 47 UCC are referring to Customs controls and risk management activities. The list of tasks in table 1 *Foreseen Customs tasks*, is not exhaustive and does not include all tasks outlined in the UCC. The listing is limited to Articles 3, 46, and 47 of the UCC, as these articles encapsulate the core mission of Customs and serve as the foundation for the analysis in chapter 4 *Research Analysis and Results*.

¹⁰ (Dictionary Trade, Cambridge, 2023)

¹¹ (Dictionary Contribute, Cambridge, 2023)

¹² (Heijmann & Peters, 2022)

In other words, table 1 *Foreseen Customs tasks* serves as a reference model against which the competencies of Customs, as outlined in the regulation under analysis, are compared to.

Table 1
Foreseen Customs tasks

No.	Source	Competency
1	Article 3 UCC	Responsible for the supervision of the Unions international trade
2	Article 3 UCC	Contributing to the implementation of the external aspects to the internal market
3	Article 3 UCC	Contributing to the implementation of the common trade policy
4	Article 3 UCC	Contributing to the implementation of other Union policies having a bearing on trade
5	Article 3 UCC	Protecting the financial interests of the Union
6	Article 3 UCC	Protecting the Union from unfair and illegal trade
7	Article 3 UCC	Ensuring the security and safety of the Union
8	Article 3 UCC	Maintaining a proper balance between customs controls and facilitation
9	Article 46 UCC	Carrying out customs controls based on risks analysis including examining goods, taking samples, verifying completeness and accuracy of information
10	Article 46 UCC	Validate documents
11	Article 46 UCC	Examine accounts of the economic operator
12	Article 46 UCC	Performing risks analysis
13	Article 46 UCC	Exchanging risk information and risks analysis results with other administration
14	Article 46 UCC	Establishing common risks criteria and standards
15	Article 47 UCC	Cooperating with other authorities

2.6 Requirement Definition

The term “requirement” has a broad meaning. In short it can be understood as a need to be satisfied.¹³ In many cases, defining requirements is the initial step to provide direction and clarity. In other words, without clearly stating goals or objectives, achieving the desired outcome becomes difficult. It is presumed that new regulation imposes requirements on certain stakeholders to ensure effective implementation. The question is, how requirements should be phrased to ensure clarity.

In the context of EU regulation there are several guidelines focusing on drafting principles in EU legislation. The article "Better Regulation in Europe: An Action Plan for the Next Commission" underscores the critical need for the EU to improve its regulatory framework and to fostering consistency in EU legislation.¹⁴

The EU Interinstitutional Style Guide outlines essential protocols for drafting and editing documents within EU institutions, aiming to enhance clarity and consistency. It advocates for uniform terminology and formatting to facilitate effective communication. The style guide seeks to standardize writing practices, thereby improving the overall quality of EU documentation.¹⁵

¹³ (Dictionary Requirements, Cambridge, 2023)

¹⁴ (Meyers, 2024)

¹⁵ (Official Journal - Publications Office of the European Union, 2022)

“Legislative Drafting and Language in the EU” by Helen Xanthaki examines the challenges and best practices of creating clear and precise legal texts in the multilingual context of the European Union, emphasizing the need for consistency and accessibility for various stakeholders.¹⁶

Based on the literature review, it can be concluded that there is a recognized need for greater clarity and consistency in EU regulations, and that the associated challenges have been duly identified and documented. However, a definitive framework for effectively phrasing requirements within this context remains absent. We serve ourselves from system engineers who are using certain rules to phrase requirements adequately. In this approach, requirements are articulated as statements containing the function, a verb as well as the need.¹⁷

Additionally, for a requirement to be effective, it should possess several key attributes. The following elements must be defined in order to make a requirement powerful: Application case, actor, trigger, pre-condition, post-condition. The application case represents the problem as such. What is the condition that makes the situation unwelcome? The actor refers to the party who faces the problem in a certain situation. The trigger means the exact moment when the process starts. Moreover, defining pre-conditions is essential to determine when the requirements should be applied. To understand the fulfillment of the requirement, post-conditions need to be specified as well.¹⁸

These factors have not yet been incorporated into the requirement definition of EU regulations and currently pertain solely to IT requirements as prerequisites for developments and implementations. The literature review clearly identifies a gap in this area, indicating the need to draw upon insights from other disciplines to address this shortcoming.

2.7 Requirements for Enforcement

This chapter aims to explain the concept of enforcement, specifically addressing the purpose of law and what is required to make it applicable. Enforcement can be understood as public action that aims to implement and realize law and to prevent actors from violating regulation.¹⁹ The primary goal of implementing law is to prevent harmful actions. The mechanism to enforce certain law is based on procedural rules, including monitoring, investigation and sanctioning. However, these actions do not necessarily have to be carried out by a single party.²⁰ In general, many actors are needed in order to enforce law. For example, the regulator may appoint agents to carry out the aforementioned actions, such as monitoring, investigation, and sanctioning.

Certain requirements must be met in order to effectively enforce the law. First and foremost, it is essential to be aware of the law's existence in order to enforce it.²¹ Given that not everyone fulfills their duties appropriately, punishment is what makes enforcement effective. Yet, punishment is not the goal of law enforcement, it is deterrence, the expected punishment that makes the law work.²² Another important point that relates to the successful implementation of law, are the costs of enforcement.

¹⁶ (Xanthaki, 2024)

¹⁷ (Koelsch, 2016)

¹⁸ (Engel, Fechner, Berthold-Kraiczky, Homrighausen, & Dillhage, 2018)

¹⁹ (Montaldo, Costamagna, & Miglio, 2021)

²⁰ (Vervaele, 2017)

²¹ (Kühnau, 2007)

²² (Cooter & Gilbert, 2022)

If the costs of enforcement are lower than the benefits, meaning the social value is not significant, the enforcement will be weak. Weak enforcement, in turn, means that the law will not be effective.²³ In summary, the following requirements should be considered to ensure successful law implementation:

Table 2
Requirements for enforcement

COMPONENT	REASON
Regulator	Someone that officially controls and takes actions to set standards (regulations) in order to protect public in a compliant way.
Executing party	Someone that officially ensures that set standards (regulations) are realized and is appointed to do so.
Publication/ Communication	Means by which it is ensured that new regulation is communicated and reaches the affected parties.
Social relevance	Meaningfulness of new regulation must be apparent, so that the willingness to act compliant is present.
Actions	Actions like monitoring, investigation and sanctioning are to be defined and conducted by an appointed party.
Punishment	Penalties must be predefined for non-compliance with the new regulation.

In this thesis, the focus is on the European Union: The European Parliament is the regulator, or rather the party that establishes new law. Customs authorities are governmental agents who aim to ensure compliance and to detect and to sanction violators of legal rules. In chapter 4 *Research Analysis and Results* the EU regulations are analyzed based on the requirements listed in table 2 *Requirements for enforcement* in order to analyze the likelihood of a successful implementation of the whole EU regulation.

2.8 Conclusion

This chapter reviewed the literature, covering essential definitions and legal requirements regarding Customs authorities' responsibilities.

First, the UCC offers a well-established and widely accepted framework, providing useful definitions of the role of Customs and the point of time of Customs' involvement. These definitions serve as a crucial reference point throughout the analysis of Customs regulations. However, a notable limitation in the existing UCC definitions is the lack of details regarding the scope and extent of the provision regarding tasks and responsibilities.

Second, EU regulations are systematically identified and analyzed, offering a basis for examining the requirements imposed on Customs authorities.

Additionally, there is existing literature that explores the future role of Customs, considering how Customs responsibilities may evolve in the future. It offers valuable insights into potential trends Customs authorities may face. However, the review reveals a clear gap in the literature. There is currently no detailed analysis focusing on the proper definition of requirements specifically within the context of EU regulations.

In summary, while existing literature provides a strong foundation on definitions and the future role of Customs, there is a lack of research on proper requirement definition specifically within EU regulations.

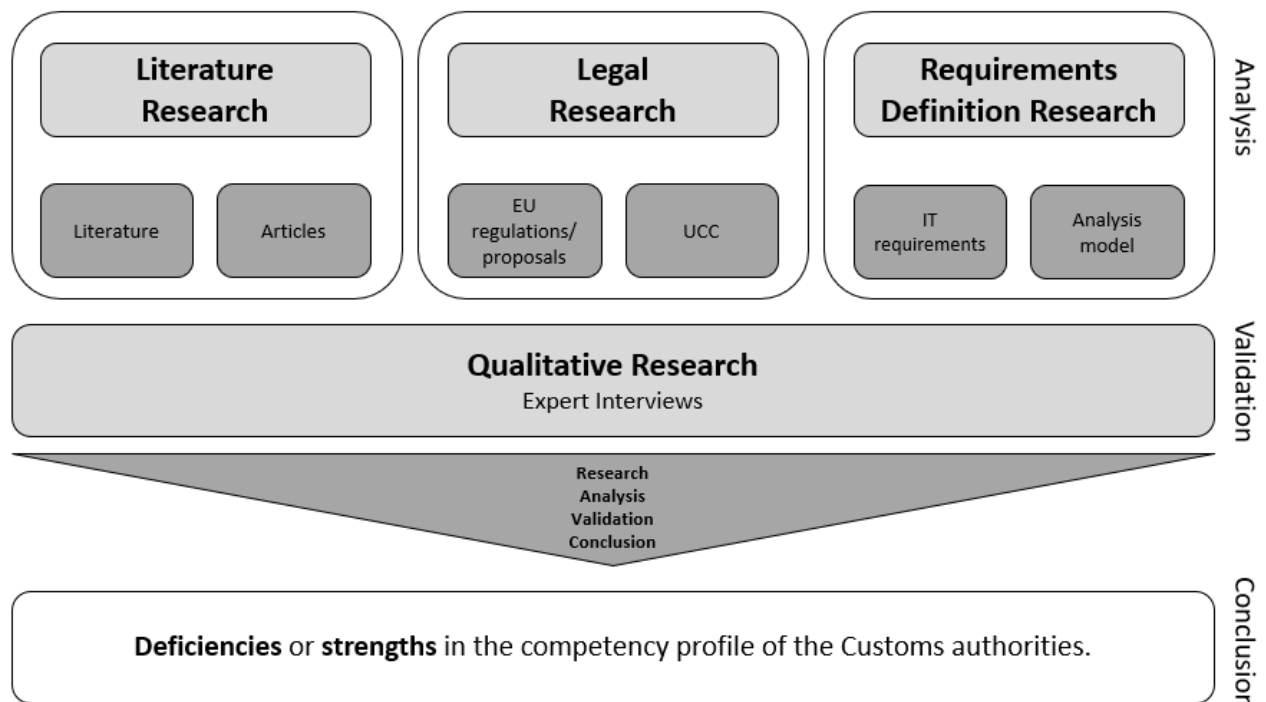
²³ (Cooter & Gilbert, 2022)

3. Research Methodology

3.1 Introduction

The following chapter describes the research design of this thesis. In order to illustrate the research approach, a conceptual model, Figure 1 *Conceptual Design*, is showing the overall approach of this thesis. Figure 1 *Conceptual Design* contributes to defining the steps that have to be taken aiming to resolve the research questions described in chapter 1.4 *Research Question*.

Figure 1
 Conceptual Design



3.2 Research Design

Figure 1 *Conceptual Design* illustrates that for this study a combination of different research methodologies is used. For the overall analysis, a comprehensive literature review, legal research, and requirements definition study were conducted. To validate the findings, qualitative research was employed through expert interviews. This approach ensures that the theoretical insights gained from the literature and legal frameworks are supported by practical perspectives, enhancing the robustness of the study.

Firstly, as referenced in the previous chapter, the analysis commences with an examination of the available literature. This methodological approach is used to understand the relevance of the topic, to observe discussions as well as to assess potential solutions. The result, the different theories regarding the role of Customs together with enforcement, represent the basis for the next research steps.

As figure 1 *Conceptual Design* shows, the second research methodology of this study is the legal research. The objects of the study are on the one hand the UCC as well as legal texts, more precisely EU regulations that entered recently into force or are still under discussion. A limited selection of EU regulations is made.

The basis of the legal research is the UCC and an analysis of the responsibilities assigned to the Customs authorities. The subsequent assessment of the EU regulations aims to first analyze whether actions are provided for Customs, and if so, how the identified requirement towards Customs is formulated, which is represented by the third research method, the requirements definition research. The primary objective of the legal research is to find matches or differences between the selected legal texts on the subject of responsibilities and competencies of the Customs authorities. Conversely, the primary objective of the requirements definition research is to assess whether the requirements related to Customs are clearly articulated and sufficiently defined to ensure their implementability.

Finally, it is important to emphasize that the qualitative research focuses on the validation of the findings resulting from the literature research as well as the legal research. The verification process is concluded by means of semi-structured interviews to allow a certain flexibility.²⁴ Taking into account that this topic may raise associated problems, discussions and questions that might be relevant to this topic, a certain adaptability during the interviews is key. Likewise, it is expected that the experts have sufficient experience to reflect reality along with the feasibility of implementing the EU regulations successfully and to evaluate if the set of competencies of the Customs authorities needs to be enhanced.

In essence, non-numerical data is collected in order to gather insights and to learn from the experts' opinions and experiences. This is done by interviews as one-by-one conversations allow to have relevant discussions and to dig deeper, if necessary. The data collected is primary and descriptive data.²⁵

In summary, the presented research design aims to answer the research questions defined in chapter 1.4 *Research Question* to finally understand what the role of Customs is or is supposed to be. In case there are differences between the theoretical role and the practical execution, identified gaps are listed and validated.

3.3 Legal Research

As described in chapter 3.2 *Research Design*, legal research is used in order to look into European law, the UCC coupled with a well-selected number of EU regulations. In this research, the UCC is regarded as the foundational legal framework, where the competencies of Customs are outlined. The conception of the UCC is considered as being the starting point of the current role of Customs and serves therefore as benchmark and reference model for this research. In conclusion, when stating UCC only the Regulation (EU) No 952/2013 is meant. Additional regulations underlining and complementing the UCC are not taken into account, as the focus is on comparing the EU regulations discussed later with the original concept of Customs' intended responsibilities.

In order to perform the comparison, UCC definitions regarding the Customs responsibilities and tasks are mapped against the provisions in the pre-selected EU regulations. Therefore, this research focuses on the following Articles:

- Article 3 UCC – Responsibilities of Customs
- Article 46 UCC – Risk management and Customs controls
- Article 47 UCC – Cooperation between authorities

A detailed elaboration on these responsibilities and tasks is done in chapter 2.5 *Foreseen Customs Tasks*.

²⁴ (Flick, 2004)

²⁵ (Hox & Boeije, 2005)

The second legal construct is represented by precisely selected EU regulations. Although these regulations can be considered as complements to the UCC, this research focuses on analyzing the expectations placed on Customs within these regulations and comparing them with the competencies outlined in the UCC. The following list contains all EU regulations that fulfill the requirements emphasized in chapter 2.2 *Literature Search and Selection Process*.

- (1) **F-gases: Regulation (EU) 2024/573 on fluorinated greenhouse gases**
Content: Regulation to control the use and import of products that contain F-gases in order to reduce the usage of these F-gases in the EU by two-thirds in 2030 and to transitioning to sustainable alternatives.
- (2) **Forced labor: Proposal for regulation on prohibiting products made with forced labour on the Union market**
Content: Effectively prohibit the placing on the EU market of products produced in whole or in part by forced labor [not yet entered into force, adopted text P9_TA(2024)0309 used]
- (3) **Deforestation: Regulation (EU) 2023/1115 on making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010**
Content: Prevention of deforestation and exploitation of the world's forests in connection with the production of various agricultural products
- (4) **Market surveillance: Regulation (EU) 2019/1020 on market surveillance and compliance of products and amends Directive 2004/42/EC and Regulations (EC) No 765/2008 and (EU) No 305/2011.**
Content: Monitoring of items on the European market and to protect consumers from non-compliant products.
- (5) **CBAM: Regulation (EU) 2023/956 on establishing a carbon border adjustment mechanism (CBAM)**
Content: Prevention of carbon leakage.

In conclusion, comparative legal analysis seeks to explore legal constructs to identify both similarities and differences.²⁶ This methodology is employed in this research by following specific steps for each selected EU regulation. Initially, the EU regulation is described to ensure clarity and comparability. Next, the EU regulation is examined to identify and summarize tasks assigned to Customs. Following this, the identified requirements are analyzed in terms of its formulation and the EU regulation in terms of fulfilling the enforcement requirements. Finally, the described legal construct and its competencies towards Customs are compared to the expectations laid down in the UCC to highlight similarities and differences. This comparative analysis is conducted within the same legal system, the European Union and is therefore an internal comparison.²⁷ In summary, this research examines two European legal constructs, the UCC and the selected EU regulations, comparing their similarities and differences. These differences may highlight gaps in the competency requirements for European Customs authorities. This procedure ensures that the legal basis is thoroughly understood, analyzed, and compared. Ultimately, this comparison addresses the question of whether there are gaps in the requirements and competencies of European Customs authorities. In summary, the legal research is a key component of the study, essential for addressing the research questions outlined in chapter 1.4 *Research Question*.

²⁶ (Kestemont, 2018)

²⁷ (Kestemont, 2018)

3.4 Research Requirements Definition

As discussed in chapter 2.6 *Requirement Definition*, there is currently a lack of research focused on how to properly define requirements in EU regulations. This gap is particularly significant given that this study examines both the existing and evolving requirements in EU regulations pertaining to Customs. Recognizing that these requirements are subject to continuous change and adaptation, this study seeks to delve deeper into whether the requirements outlined in EU regulations are adequately formulated for Customs authorities to effectively integrate them into their operations. While this may initially seem tangential, this thesis goes beyond simply identifying new regulatory requirements. It critically examines whether these requirements align with the current competencies of Customs authorities and questions whether the role of Customs may need to expand in response. Furthermore, the study challenges whether the requirements in pre-selected EU regulations are sufficiently clear in terms of expectations. For effective enforcement, it is essential to establish not only what needs to be done when, but also who is responsible for doing it. Without such clarity, enforcement becomes uncertain.

To address these issues, a template was developed, based on the literature review in chapter 2.6 *Requirement Definition*, to systematically analyze the requirements identified in EU regulations. The template provided in table 3 *Template formulation requirements* outlines the structure and content necessary for accurately formulating a requirement, as well as an example demonstrating how to clearly specify a requirement. This template serves as a guide for analyzing the clarity in identified requirements towards Customs in EU regulation. In the subsequent analysis, each component, namely, the requirement as such, application case, actor, trigger, pre-condition, and post-condition, is considered essential for well-defined requirements, ensuring that all relevant aspects are addressed for the proper understanding and successful implementation.

Table 3
 Template formulation requirements

COMPONENT	EXAMPLE
Requirement (Function, verb, need)	[Function] As a Customs expert [Verb] I want [Need] the tariff classification entry field XY to be limited to numbers to prevent wrong input when creating a new part number or the tariff classification needs to be adapted due to changes in regulation.
Application case	In case a part number does not have the correct tariff classification assigned, it cannot be imported nor exported. By restricting the input to only valid characters, we can ensure that the tariff classification field contains the correct information.
Actor	Customs expert
Trigger	a) Creation of new part number b) Change of tariff classification due to changes in regulation
Pre-condition	User authorization to change content of tariff classification field
Post-condition	Field „Tariff classification“ only contains numbers

While the original template for defining requirements was developed within the context of system engineering, its fundamental principles can be adapted and applied to the legal domain as explained above. Both IT and law share a common goal of establishing order, accuracy, and adherence to rules to ensure compliance and effective functioning. By carefully considering the specific characteristics and objectives of Customs regulations, the established methodologies and best practices from system engineering can be used to develop a systematic approach to defining requirements in EU regulation. This approach will contribute to the development of clear, comprehensive, and enforceable requirements in EU regulation. To facilitate the application of the template illustrated in table 3 *Template formulation requirements* to each identified requirement within the selected EU regulations, a conceptual model has been developed.

This model provides a structured framework for step-by-step analysis of the requirements, outlining the implications of the findings. The model incorporates the key components of the template, ensuring a comprehensive and systematic approach. To streamline the analysis process, a set of predefined questions are formulated for each component. These questions are explained in detail below, providing clear guidance. By following this conceptual model and utilizing the predefined questions, it is anticipated that the analysis of EU regulations will be more efficient, accurate, and informative.

Figure 2
 Conceptual Model: Research Requirement Definition

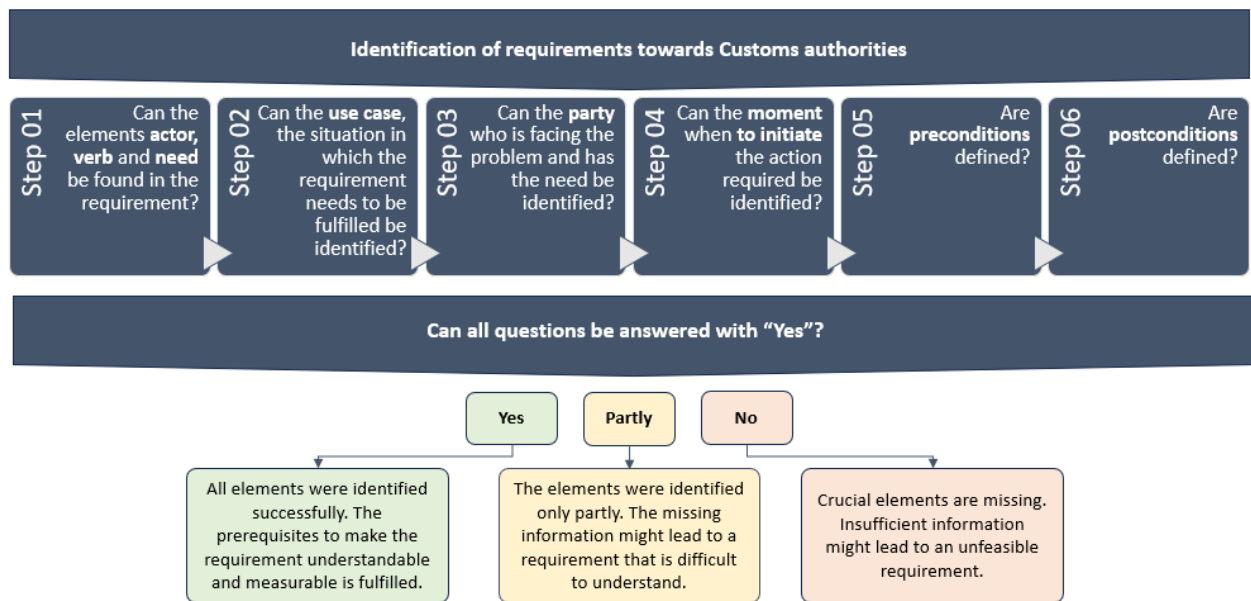


Figure 2 *Conceptual Model: Research Requirement Definition* shows pre-defined questions to find the answer within the requirement itself or EU regulation as well as its conclusions.

Only if all questions can be answered with “yes” and all elements can be found, the requirement can be considered as being well-defined and understandable. This in turn means, that the probability that this requirement will be fulfilled is high. In other words, if a requirement is not fulfilled despite having all the necessary elements for a proper definition, the issue is likely related to feasibility or capacity, which are not addressed in this study. In case the answer is clearly “no”, the requirement cannot be defined as being well formulated and the missing element may lead to a requirement that can hardly be understood and realized. The missing information may be crucial in order to know who needs to do what in which moment and why. The requirement is considered as being unfeasible. It is also possible that an element only partially fulfills the requirement. This applies in cases where some information is available, but additional details would still be beneficial.

Once the legal text has been thoroughly analyzed and all Customs requirements within the EU regulation have been identified, each requirement will be systematically compared against the predefined questions. This comparative analysis will be conducted using a structured table, where the degree of fulfillment for each requirement will be visually represented using the same color-coding system employed in the template. By making the analysis process transparent and explicit, the results, in addition to the color-coded indicators, will be accompanied by detailed explanations.

This comprehensive approach will ensure that the analysis is both rigorous and informative, providing a clear understanding of the extent to which the identified requirement addresses the prerequisites for being a well-formulated requirement.

In summary, the lack of information reduces the feasibility and successful implementation of the requirements. The clearer the requirement is formulated, the higher the probability of successful implementation. Considering the aforementioned questions when formulating a requirement enhances its quality, understanding, and likelihood of successful realization.

3.5 Qualitative Research

In addition to literature, legal and requirement definition research, qualitative data is required to conduct the final analysis and validate the findings. The following sections outline the steps involved in conducting qualitative research.

Overview:

Qualitative research is chosen, because it is ideal for exploring perceptions and experiences²⁸, and to especially gain deep insights into the perspectives of Customs experts on the future role of Customs. This research highlights how these experts interpret and understand the issue within their respective professional contexts, acknowledging the existence of multiple perspectives and recognizing that each participant contributes a unique viewpoint shaped by their background, experience, and knowledge.

Semi-Structured Interviews:

Semi-structured interviews were chosen for their balance of structure and flexibility. They allow to prepare essential questions while also adapting to the conversation flow and exploring emerging topics in more depth.²⁹

Interview Guide:

An interview guide was developed to organize the semi-structured interviews, incorporating open-ended as well as closed-ended questions that align with the study's research goals, namely, to find out how the future role of Customs looks like. Based on the research objectives as described in chapter 1.3 *Research Objective*, key areas of focus were defined and transformed into both open-ended and closed-ended questions. Open-ended questions were included to capture detailed insights and nuanced experiences. Closed-ended questions were formulated to gather specific information, with the intention of guiding responses and ensuring consistency among interviewees, thereby facilitating precise analysis.³⁰

The interview guide (*Appendix I*) is applied consistently across all interviews.

Selection of Experts:

Experts were chosen for their extensive knowledge and experience in the field of Customs and foreign trade. The criteria for selecting interview participants include a minimum of 10 years of relevant professional experience. Leaders are ideal candidates due to their deep expertise, strategic decision-making skills, and broad understanding of industry trends. Their access to professional networks, along with their ability to provide both historical and forward-looking insights, make them well-positioned candidates for interviews.³¹

²⁸ (Merriam & Tisdell, 2015)

²⁹ (Kvale & Brinkmann, 2009)

³⁰ (Kvale & Brinkmann, 2009)

³¹ (Patton, 2015)

To ensure a broad range of perspectives, interviewees were selected from diverse backgrounds. These included a Customs Officer (public sector), two former Customs Officers (transitioned to the private sector), and an Industry Expert (private sector), allowing for a comprehensive and well-rounded validation of the research. Four experts were chosen based on prior contact either in a professional or academic context.

Conducting the interview:

Based on literature, interviews can be conducted either face-to-face or through video conferencing.³² Due to the varying availability of the selected interviewees, both approaches were employed. The interview process was divided into two stages. Initially, questions related to the thesis topics were asked to gather unbiased perspectives. In the second stage, a summary of the research findings was presented by showing a PowerPoint slide deck to the experts to gather their feedback on the results. Each interview lasted between 25 and 50 minutes.

Data analysis:

The process begins with essential data preparation. Face-to-face interviews are recorded and then paraphrased to capture the main points. In contrast, online interviews are not recorded, instead, paraphrasing is done during the interview using bullet points and follow-up questions for clarification during the interview. Next, the transcripts are carefully reviewed to identify codes, which represent the overall themes. These codes are then aggregated into thematic categories. Each category is examined to assess how it addresses the research questions and contributes to the overall findings.³³

3.6 Conclusion

This chapter explained the mixed-research methodology used and visualized in figure 1 *Conceptual Design*. The focus of this research is the legal research by using the legal construct UCC as well as well-selected EU regulations. The goal of the literature as well as the qualitative research is to underline the context and to validate the findings.

³² (Kvale & Brinkmann, 2009)

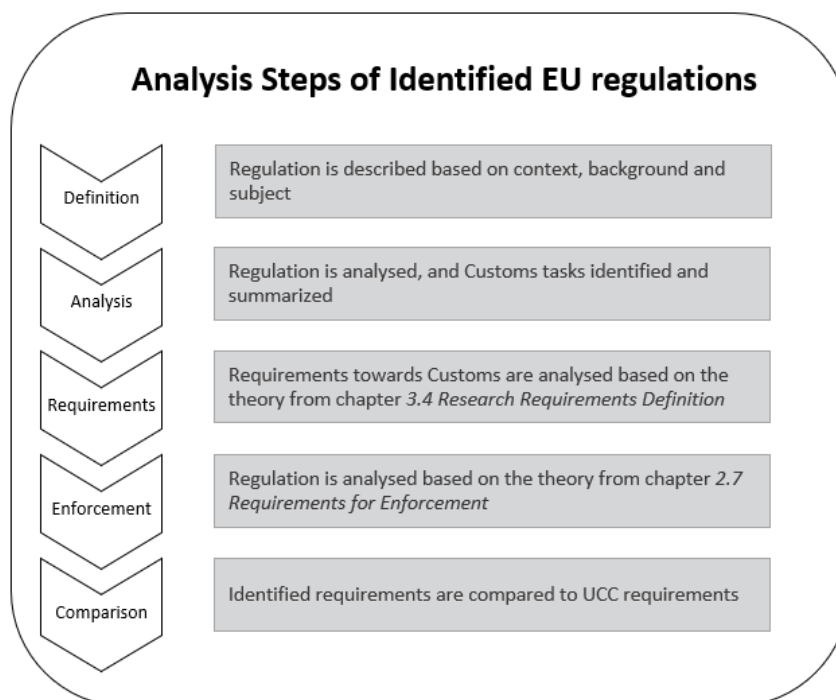
³³ (Creswell & Poth, 2018)

4. Research Analysis and Results

4.1 Introduction

This chapter presents the analysis and findings from the legal research. As detailed in section 3.3 *Legal Research* various regulations have been selected for comparison with the UCC to address the research questions outlined in section 1.4 *Research Question*. The process of comparison involves the following steps: The first step involves describing the legal text to clarify its context, background and subject to facilitate comparison.³⁴ The context aims to outline the circumstances surrounding the regulation and offer a broader perspective on the topic. The background provides detailed information about the regulation's development and context, while the subject focuses specifically on the main topic addressed by the regulation. In the second step, the regulation is analyzed according to the anticipated Customs tasks. As detailed in chapter 2.2 *Literature Search and Selection Process*, the selected regulations were reviewed for keywords such as "Import," "Export," "Border," "Entry," and "Customs," ensuring that the identified EU regulation includes tasks assigned to Customs. In the third step, the identified Customs responsibilities are compared with the provisions outlined in chapter 3.4 *Research Requirements Definition* to assess whether these requirements are clearly defined and feasible for implementation. Additionally, the identified EU regulations are evaluated against the criteria in chapter 2.7 *Requirements for Enforcement* to determine if they meet the enforcement standards. As a final step, the analyzed legal construct, the EU regulation, is compared to another legal construct, the UCC, to identify similarities and differences in terms of responsibilities and expectations towards Customs.³⁵ The UCC definitions are already covered in chapter 2 *Literature Review*, and are therefore not repeated in this chapter. Figure 3 *Analysis Steps of Identified Regulations* illustrates the five steps performed for each EU regulation. The chapters 4.2, 4.3, 4.4, 4.5, and 4.6, provide details regarding the analysis performed.

Figure 3
Analysis Steps of Identified EU regulations



³⁴ (Kestemont, 2018)

³⁵ (Kestemont, 2018)

4.2 Legal Regulation A: Regulation on fluorinated greenhouse gases

4.2.1 Description of legal text

Regulation:

Regulation (EU) 2024/573 of the European Parliament and of the Council of 7 February 2024 on fluorinated greenhouse gases, amending Directive (EU) 2019/1937 and repealing Regulation (EU) No 517/2014, establishes new rules aimed at reducing the production and consumption of F-gases.

Context:

The European Green Deal represents a plan for Europe to become the first continent that achieves climate neutrality by 2050.³⁶ In order to reach that goal, the "fit for 55" package, a bundle of measures to modify and update EU legislation as well as to put new initiatives into place, was introduced in order to lower net greenhouse gas emissions by at least 55% by 2030.³⁷ The Commission put forth a proposal for a fluorinated greenhouse gas rule on April 5, 2022 that aims to repeal Regulation (EU) No 517/2014. The adopted regulation on fluorinated greenhouse gas is one of the last from the "fit for 55" package.

Background:

The f-gas regulation (EU) No 517/2014 already achieved a remarkable decrease of emissions, but the goal of emission savings by 2030 will not be fully reached. That is the main reason why there is a proposal to repeal the named regulation.

Subject:

Fluorinated greenhouse gases (f-gases) are synthetic compounds that are thousands of times more potent than carbon dioxides and can linger in the atmosphere for thousands of years. The global warming potential is significant.³⁸ With other gases, f-gases belong to the greenhouse gases that are included in the Paris Agreement on Climate Change. But unlike the other gases, the emission of the f-gas has doubled between 1990 and 2014. Particularly alarming, f-gases can be found in a broad variety of goods and machinery, where f-gases are primarily released during use. These are the reasons why there's a particularly strong focus on f-gases.³⁹ The overall goal of the regulation is to cut fluorinated greenhouse gas (F-gas) emissions even more, including hydrofluorocarbons (HFC), by tightening the HFC quota system, implementing additional obligations for importers, new limitations on the usage of F-gases in equipment and incentives for the usage of f-gas alternatives. Furthermore, the process of controls and surveillance will be simplified, especially during imports and exports. Therefore, procedures will be improved and monitoring as well as reporting activities optimized. Penalties shall be more consistent across the European Union and become stricter.⁴⁰

³⁶ (European Parliament N. , 2023)

³⁷ (European Council G. D., 2023)

³⁸ (Simoes, 2023)

³⁹ (Commission, Proposal on fluorinated greenhouse gases, amending Directive (EU) 2019/1937 and repealing Regulation (EU) No 517/2014, 2022)

⁴⁰ (Commission, Proposal on fluorinated greenhouse gases, amending Directive (EU) 2019/1937 and repealing Regulation (EU) No 517/2014, 2022)

4.2.2 Foreseen customs responsibilities

As demonstrated in the preliminary analysis, this EU regulation establishes requirements for Customs, positioning Customs as a key stakeholder in the enforcement process. The specific requirements directed at Customs are clearly defined in the regulation and have been listed and summarized. The summary is found in table 4 *Regulation A: Customs requirements* and serves as foundation for further analysis in the upcoming chapters.

Table 4
Regulation A: Customs requirements

NO.	SOURCE	EXTRACT	SUMMARY
1.0	Article 20 (7)	"The competent authorities, including customs authorities, of the Member States shall have access to the F-gas Portal to enable the implementation of the relevant requirements and controls. (...)"	Customs has to enable the implementation of certain controls.
1.1	Article 23 (1)	"Customs authorities and market surveillance authorities shall enforce the prohibitions and other restrictions set out in this Regulation with regards to imports and exports."	Customs has to enforce prohibition/restrictions sets with regards to imports and exports.
1.2	Article 23 (4) Part 1	"Customs authorities shall verify, in particular, that in cases of release for free circulation, the importer indicated in the customs declaration has quota or authorizations to use quota as required by this Regulation before releasing the goods for free circulation."	Customs has to verify information on the Customs declaration.
1.3	Article 23 (4) Part 2	"Customs authorities shall also ensure that in cases of imports the importer indicated in the customs declaration, or where not available the declarant, and in cases of exports the exporter, indicated in the customs declaration is registered in the F-gas Portal pursuant to Article 20."	Customs has to check if the quota is used correctly and if the f-gas portal registration is used to indicate the Customs declaration.
1.4	Article 23 (5)	"Where relevant, customs authorities shall communicate information regarding the customs clearance of goods to the F-gas Portal via the EU Single Window Environment for Customs."	Customs has to provide information via the Single Window.
1.5	Article 23 (9)	"Customs authorities shall verify compliance with the rules on imports and exports set out in this Regulation when carrying out the controls based on risk analysis in the context of Customs Risk Management Framework and in accordance with Article 46 of Regulation (EU) No 952/2013. The risk analysis shall take into account, in particular, any available information on the likelihood of illegal trade of fluorinated greenhouse gases, and the compliance history of the undertaking concerned."	Customs shall perform risk analysis.
1.6	Article 23 (10)	"Based on risk analysis, when carrying out physical customs controls on the substances, products and equipment covered by this Regulation, the customs authority shall, in particular, verify the following on imports and exports: (a) that the goods presented correspond to those described in the licence and in the customs declaration; (b) that the product or equipment presented does not fall under the prohibitions referred to in Article 11(1) and (3); (c) that the goods are appropriately labelled in accordance with Article 12 before those goods are released for free circulation. (...)"	Customs shall carry out physical controls and check that the physical goods match with the description on documents, does not fall under certain restrictions and are correctly labelled.
1.7	Article 23 (11)	"Customs authorities or market surveillance authorities shall take all necessary measures to prevent attempts to import or export the substances, products and equipment covered by this Regulation that were already not allowed to enter or exit the territory."	Customs shall prevent the import and export of prohibited substances.
1.8	Article 23 (12)	"Customs authorities shall confiscate or seize non-refillable containers as referred to in Article 11(3), second subparagraph, point (a), of this Regulation, that are prohibited by this Regulation for disposal by destruction in accordance with Articles 197 and 198 of Regulation (EU) No 952/2013 or shall inform the competent authorities in order to ensure the confiscation and seizure of such containers for disposal by destruction."	Customs shall confiscate or seize prohibited non-refillable containers or inform competent authorities accordingly.
1.9	Article 23 (13)	"(...)Controls shall be carried out by customs office personnel or by other authorised persons in accordance with national rules, who are knowledgeable about matters related to the prevention of illegal activities covered by this Regulation and have access to suitable equipment to carry out the relevant physical controls based on risk analysis."	Customs shall control in accordance with national rules by providing knowledgeable and equipped personnel.

2.0	Article 28 (1)	“Where required to ensure compliance with this Regulation, the competent authorities of each Member State, including customs authorities, market surveillance authorities, environmental authorities and any other competent authority with inspection functions, shall cooperate with each other, with the competent authorities of other Member States, with the Commission and, if necessary, with administrative authorities of third countries.(...)”	Customs shall cooperate with various competent authorities.
2.1	Article 28 (2)	“When customs authorities, market surveillance authorities or any other competent authority of a Member State have detected an infringement of this Regulation, that competent authority shall notify the environmental authority or if not relevant any other authority responsible for the enforcement of penalties in accordance with Article 31.”	Customs shall notify any infringement of this regulation to the competent authorities.
2.2	Article 28 (4)	“(…) Customs authorities shall also exchange any relevant information related to infringements of this Regulation in accordance with Council Regulation (EC) No 515/97(28) and shall request assistance from the other Member States and the Commission where necessary.”	Customs shall exchange information and request assistance where necessary.

Table 4 *Regulation A: Customs requirements* outlines thirteen specific requirements assigned to Customs authorities, which call for proactive involvement and expands the lists of tasks. The following section analyzes these thirteen requirements, concentrating on precise terminology.

4.2.3 Analysis of definition of requirements

As mentioned in 4.2.2 *Foreseen customs responsibilities*, the regulation outlines specific requirements directed at Customs authorities. These requirements are analyzed based on their wording to evaluate whether they meet the criteria for proper requirement definition. The analysis uses the attributes of formulation, application case, actor, trigger, pre-condition, and post-condition defined in chapter 3.4 *Research Requirements Definition*.

Table 5 *Regulation A: Analysis requirement formulation* summarizes the analysis. To emphasize the findings, distinct colors are utilized: green represents a positive outcome, indicating that the requirement for precise formulation has been satisfied, orange denotes a partial fulfillment of the requirement and red signifies that the fulfillment cannot be confirmed based on the available data.

Table 5
Regulation A: Analysis requirement formulation

Requirement from table 4	Formulation	Application Case	Actor	Trigger	Pre-condition	Post-condition
1.0	“The <u>competent authorities, including customs authorities</u> , of the Member States <u>shall have access to the F-gas Portal to enable the implementation of the relevant requirements and controls.</u> (...)”(Article 20, (7) Regulation (EU) 2024/573)					
	Function: Customs authorities, competent authorities Verb: have access Need: to enable implementation	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	No trigger.	Article 20 (2), (3) from the regulation indicates as pre-condition that an interconnection between the F-gas Portal and the EU Single Window needs to be ensured and access shall be granted. Additionally, Article 10 (3) indicates that personnel carrying out controls under this Regulation have to have the appropriate knowledge, equipment and training.	Access to the F-gas Portal is granted.

1.1	<p>“Customs authorities and market surveillance authorities shall enforce the prohibitions and other restrictions set out in this Regulation with regards to imports and exports.” (Article 23, (1) Regulation (EU) 2024/573)</p>					
Function: Customs authorities, market surveillance authorities Verb: shall enforce Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	No trigger.	Article 20 (2), (3) from the regulation indicates as pre-condition that an interconnection between the F-gas Portal and the EU Single Window needs to be ensured and access shall be granted. Additionally, Article 10 (3) indicates that personnel carrying out controls under this Regulation have to have the appropriate knowledge, equipment and training.	Prohibitions and restrictions are enforced.	
1.2	<p>“Customs authorities shall verify, in particular, that in cases of release for free circulation, the importer indicated in the customs declaration has quota or authorizations to use quota as required by this Regulation before releasing the goods for free circulation.” (Article 23, (4) Regulation (EU) 2024/573)</p>					
Function: Customs authorities Verb: verify customs declaration Need: to use quota as required	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	In cases of release for free circulation.	Article 20 (2), (3) from the regulation indicates as pre-condition that an interconnection between the F-gas Portal and the EU Single Window needs to be ensured and access shall be granted. Additionally, Article 10 (3) indicates that personnel carrying out controls under this Regulation have to have the appropriate knowledge, equipment and training.	Required data is verified.	
1.3	<p>“Customs authorities shall also ensure that in cases of imports the importer indicated in the customs declaration, or where not available the declarant, and in cases of exports the exporter, indicated in the customs declaration is registered in the F-gas Portal pursuant to Article 20.” (Article 23, (4) Regulation (EU) 2024/573)</p>					
Function: Customs authorities Verb: ensure registration Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	In cases of imports and exports.	Article 20 (2), (3) from the regulation indicates as pre-condition that an interconnection between the F-gas Portal and the EU Single Window needs to be ensured and access shall be granted. Additionally, Article 10 (3) indicates that personnel carrying out controls under this Regulation have to have the appropriate knowledge, equipment and training.	Registration number in customs declaration is validated.	
1.4	<p>“Where relevant, customs authorities shall communicate information regarding the customs clearance of goods to the F-gas Portal via the EU Single Window Environment for Customs.” (Article 23, (5) Regulation (EU) 2024/573)</p>					
Function: Customs authorities Verb: shall communicate Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	“Where relevant”	Article 20 (2), (3) from the regulation indicates as pre-condition that an interconnection between the F-gas Portal and the EU Single Window needs to be ensured and access shall be granted. Additionally, Article 10 (3) indicates that personnel carrying out controls under this Regulation have to have the	Information is communicated.	

					appropriate knowledge, equipment and training.	
1.5	<p>“Customs authorities shall verify compliance with the rules on imports and exports set out in this Regulation when carrying out the controls based on risk analysis in the context of Customs Risk Management Framework and in accordance with Article 46 of Regulation (EU) No 952/2013. The risk analysis shall take into account, in particular, any available information on the likelihood of illegal trade of fluorinated greenhouse gases, and the compliance history of the undertaking concerned.” (Article 23, (9) Regulation (EU) 2024/573)</p>					
	<p>Function: Customs authorities Verb: shall verify Need: identifying and evaluating the risks (Article 46 (2) UCC)</p>	<p>Regulation as such serves as application case.</p>	<p>Actor: Not clear who is facing the problem and who has a need to be satisfied.</p>	<p>In cases of imports and exports.</p>	<p>Article 20 (2), (3) from the regulation indicates as pre-condition that an interconnection between the F-gas Portal and the EU Single Window needs to be ensured and access shall be granted. Additionally, Article 10 (3) indicates that personnel carrying out controls under this Regulation have to have the appropriate knowledge, equipment and training.</p>	<p>Risk analysis framework (Article 46 (2) UCC) is taken into account.</p>
1.6	<p>“Based on risk analysis, when carrying out physical customs controls on the substances, products and equipment covered by this Regulation, the customs authority shall, in particular, verify the following on imports and exports: (a) that the goods presented correspond to those described in the licence and in the customs declaration; (b) that the product or equipment presented does not fall under the prohibitions referred to in Article 11(1) and (3); (c) that the goods are appropriately labelled in accordance with Article 12 before those goods are released for free circulation. (...)” (Article 23, (10) Regulation (EU) 2024/573)</p>					
	<p>Function: Customs authorities Verb: shall verify Need: ensure that goods presented correspond to those described in the licence, the product or equipment presented does not fall under the restrictions referred, goods are appropriately labelled</p>	<p>Regulation as such serves as application case.</p>	<p>Actor: Not clear who is facing the problem and who has a need to be satisfied.</p>	<p>When carrying out physical Customs controls of the gases and products covered under this Regulation.</p>	<p>Article 20 (2), (3) from the regulation indicates as pre-condition that an interconnection between the F-gas Portal and the EU Single Window needs to be ensured and access shall be granted. Additionally, Article 10 (3) indicates that personnel carrying out controls under this Regulation have to have the appropriate knowledge, equipment and training.</p>	<p>Risk analysis is done properly according to expectations.</p>
1.7	<p>“Customs authorities or market surveillance authorities shall take all necessary measures to prevent attempts to import or export the substances, products and equipment covered by this Regulation that were already not allowed to enter or exit the territory.” (Article 23, (11) Regulation (EU) 2024/573)</p>					
	<p>Function: Customs authorities, market surveillance authorities Verb: shall take Need: to prevent illegal imports / exports</p>	<p>Regulation as such serves as application case.</p>	<p>Actor: Not clear who is facing the problem and who has a need to be satisfied.</p>	<p>In cases of imports and exports.</p>	<p>Article 20 (2), (3) from the regulation indicates as pre-condition that an interconnection between the F-gas Portal and the EU Single Window needs to be ensured and access shall be granted. Additionally, Article 10 (3) indicates that personnel carrying out controls under this Regulation have to have the appropriate knowledge, equipment and training.</p>	<p>Illegal import/export are prevented.</p>

1.8	<p>“Customs authorities shall confiscate or seize non-refillable containers as referred to in Article 11(3), second subparagraph, point (a), of this Regulation, that are prohibited by this Regulation for disposal by destruction in accordance with Articles 197 and 198 of Regulation (EU) No 952/2013 or shall inform the competent authorities in order to ensure the confiscation and seizure of such containers for disposal by destruction.” (Article 23, (12) Regulation (EU) 2024/573)</p>					
	<p>Function: Customs authorities Verb: shall confiscate or seize, shall communicate Need: to ensure the confiscation and seizure of such containers for disposal by destruction</p>	<p>Regulation as such serves as application case.</p>	<p>Actor: Not clear who is facing the problem and who has a need to be satisfied.</p>	<p>No trigger.</p>	<p>Article 20 (2), (3) from the regulation indicates as pre-condition that an interconnection between the F-gas Portal and the EU Single Window needs to be ensured and access shall be granted. Additionally, Article 10 (3) indicates that personnel carrying out controls under this Regulation have to have the appropriate knowledge, equipment and training.</p>	<p>Relevant containers are confiscated.</p>
1.9	<p>“(…) Controls shall be carried out by customs office personnel or by other authorised persons in accordance with national rules, who are knowledgeable about matters related to the prevention of illegal activities covered by this Regulation and have access to suitable equipment to carry out the relevant physical controls based on risk analysis.” (Article 23, (13) Regulation (EU) 2024/573)</p>					
	<p>Function: Customs authorities, authorized persons Verb: shall be carried out Need: to carry out the relevant physical controls based on risk analysis</p>	<p>Regulation I as such serves as application case.</p>	<p>Actor: Not clear who is facing the problem and who has a need to be satisfied.</p>	<p>No trigger.</p>	<p>Article 20 (2), (3) from the regulation indicates as pre-condition that an interconnection between the F-gas Portal and the EU Single Window needs to be ensured and access shall be granted. Additionally, Article 10 (3) indicates that personnel carrying out controls under this Regulation have to have the appropriate knowledge, equipment and training.</p>	<p>Personal is able to carry our controls.</p>
2.0	<p>“Where required to ensure compliance with this Regulation, the competent authorities of each Member State, including customs authorities, market surveillance authorities, environmental authorities and any other competent authority with inspection functions, shall cooperate with each other, with the competent authorities of other Member States, with the Commission and, if necessary, with administrative authorities of third countries. (...)” (Article 28, (1) Regulation (EU) 2024/573)</p>					
	<p>Function: customs authorities, market surveillance authorities, environmental authorities and any other competent authority with inspection functions Verb: shall cooperate Need: /</p>	<p>Regulation as such serves as application case.</p>	<p>Actor: Not clear who is facing the problem and who has a need to be satisfied.</p>	<p>“Where required”</p>	<p>Article 20 (2), (3) from the regulation indicates as precondition that an interconnection between the F-gas Portal and the EU Single Window needs to be ensured and access shall be granted. Additionally, Article 10 (3) indicates that personnel carrying out controls under this Regulation have to have the appropriate knowledge, equipment and training.</p>	<p>Communication flow is working.</p>

2.1	“When <u>customs authorities, market surveillance authorities or any other competent authority</u> of a Member State have detected an infringement of this Regulation, that competent authority shall notify the environmental authority or if not relevant any other authority responsible <u>for the enforcement of penalties</u> in accordance with Article 31.” (Article 28, (2) Regulation (EU) 2024/573)					
	Function: Customs authorities, market surveillance authorities or any other competent authority Verb: shall notify Need: for the enforcement of penalties	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	In case of the detection of an infringement.	Article 20 (2), (3) from the regulation indicates as pre-condition that an interconnection between the F-gas Portal and the EU Single Window needs to be ensured and access shall be granted. Additionally, Article 10 (3) indicates that personnel carrying out controls under this Regulation have to have the appropriate knowledge, equipment and training.	Any infringement is notified.
2.2	“(…) <u>Customs authorities shall also exchange</u> any relevant information related to infringements of this Regulation in accordance with Council Regulation (EC) No 515/97(28) and <u>shall request</u> assistance from the other Member States and the Commission <u>where necessary.</u> ” (Article 28, (4) Regulation (EU) 2024/573)					
	Function: Customs authorities Verb: shall exchange, shall request Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	“Where necessary”	Article 20 (2), (3) from the regulation indicates as pre-condition that an interconnection between the F-gas Portal and the EU Single Window needs to be ensured and access shall be granted. Additionally, Article 10 (3) indicates that personnel carrying out controls under this Regulation have to have the appropriate knowledge, equipment and training.	Information is exchanged.

For the analysis, not only the content of the requirements from table 4 *Regulation A: Customs requirements* is considered. Additional information from the regulation is considered, particularly for the application case and the pre- and post-conditions.

The resulting outcome is as follows:

Based on Table 5 *Regulation A: Analysis requirement formulation* it can be stated that none of the requirements fully meet all the criteria defined in chapter 3.4 *Research Requirements Definition*. Specifically:

- In five out of thirteen requirements (1.1, 1.3, 1.4, 2.0 and 2.2), the specific need to be addressed is not clearly defined.
- Four out of thirteen requirements (1.0, 1.1, 1.8 and 1.9) lack a clear trigger, creating uncertainty about when cooperation or information exchange should take place. Requirements 1.4, 2.0 and 2.2 do have a trigger, but the wording used is very vague which makes it ineffective.
- None of the requirements specify the actor, making it unclear who is responsible for addressing the problem and whose needs should be met.

In conclusion, the requirements outlined in chapter 3.4 *Research Requirements Definition* are not fully satisfied.

4.2.4 Analysis for enforcement requirements

As outlined in chapter 2.7 *Requirements for Enforcement* several criteria must be met to enhance the likelihood of effective enforcement. The following table examines Regulation (EU) 2024/573 on fluorinated greenhouse gases against the enforcement criteria defined in chapter 2.7 *Requirements for Enforcement*, including the regulator, executing party, communication, social relevance, actions, and punishment. Meeting these requirements is essential to increasing the probability of successful enforcement.

Table 6
Regulation A: Analysis enforcement criteria

COMPONENT	EXPLANATION/OUTCOME
Regulator	Regulation (EU) 2024/573 of the European Parliament and of the Council of 7 February 2024 on fluorinated greenhouse gases, amending Directive (EU) 2019/1937 and repealing Regulation (EU) No 517/2014, establishes new rules aimed at reducing the production and consumption of F-gases.
Executing party	Competent authorities of Member States, Customs authorities and market surveillance authorities are named in the requirements.
Publication/Communication	Official regulation published from European parliament and of the council.
Social relevance	Climate change is an important topic for everyone; one is confronted with it every day and notices the extent of it; social relevance is given.
Actions	Monitoring, investigation, and sanctioning are defined and conducted by an appointed party.
Punishment	Penalties are foreseen in Article 31.

As table 6 *Regulation A: Analysis enforcement criteria* shows, the regulation on fluorinated greenhouse gases is checked against the criteria defined in chapter 2.7 *Requirements for Enforcement*. Colors green, orange, and red are used to indicate the level of fulfillment.

In summary, the analysis reveals that the regulation meets all the enforcement criteria outlined in chapter 2.7 *Requirements for Enforcement*. This suggests a high probability of successful enforcement.

4.2.5 Comparison of legal artefacts

In chapter 2 *Literature Review*, the legal basis is established, focusing on the role of Customs, the timing of Customs involvement, and the foreseen Customs controls. The key question is whether the definitions and provisions in the UCC align with the requirements outlined in the regulation. To perform this comparison, the three defined aspects, role of Customs, timing of involvement, and Customs controls, are assessed against the regulation to identify similarities and differences. The analysis uses the foreseen Customs responsibilities as a basis for this comparison.

Table 7 *Regulation A: Comparison regulation A against UCC* shows all requirements towards Customs that are identified in the EU regulation. These requirements are first compared with Article 3 of the UCC, which covers the mission of Customs authorities, and then with Article 46 of the UCC, which addresses risk management and Customs controls, as further explained in chapter 2 *Literature Review*. If a match is not found, additional articles are analyzed to verify the presence of any differences. The last column provides a summarized result: green and "Yes" indicate a match between the UCC and the EU regulation, while red and "No" denote a difference.

Table 7
Regulation A: Comparison regulation A against UCC

	REQUIREMENT	CONTAINED IN ARTICLE 3, UCC	CONTAINED IN ARTICLE 46, UCC	OTHERS	RESULT
1.0	Article 20, 74) Regulation (EU) 2024/573 - enable the implementation of controls	“contributing (...) to the implementation (...) of the other common Union policies”			Yes
1.1	Article 23, (1) Regulation (EU) 2024/573 - enforce restriction with regards to imports and exports	“contributing (...) to the implementation (...) of the other common Union policies”			Yes
1.2	Article 23, (4) Regulation (EU) 2024/573 - verify information on the Customs declaration		“Customs controls may in particular consist of (...) verifying the accuracy and completeness of the information given in the declaration (...)”		Yes
1.3	Article 23, (4) Regulation (EU) 2024/573 - verify information on the Customs declaration		“Customs controls may in particular consist of (...) verifying the accuracy and completeness of the information given in the declaration (...)”		Yes
1.4	Article 23, (5) Regulation (EU) 2024/573 - provide information via Single Window				No
1.5	Article 23, (9) Regulation (EU) 2024/573 - perform risk analysis		“Customs controls shall be performed within a common risk management framework, based upon the exchange of risk information and risk analysis results between customs administrations (...)”		Yes
1.6	Article 23, (10) Regulation (EU) 2024/573 - carry out physical controls		“Customs controls may in particular consist of (...) examining goods (...)”		Yes
1.7	Article 23, (11) Regulation (EU) 2024/573 - prevent import and export of prohibit substances	“(…) protecting the Union from unfair and illegal trade while supporting legitimate business activity”			Yes

1.8	Article 23, (12) Regulation (EU) 2024/573 - confiscate non-refillable container			Article 198 UCC: "The customs authorities shall take any necessary measures, including confiscation and sale, or destruction, to dispose of goods in the following cases where one of the obligations laid down in the customs legislation concerning the introduction of non-Union goods into the customs territory of the Union has not been fulfilled (...)"	Yes
1.9	Article 23, (13) Regulation (EU) 2024/573 - shall control in accordance with national rules by providing knowledgeable personnel				No
2.0	Article 28, (1) Regulation (EU) 2024/573 - shall cooperate with various competent authorities	"(...) ensuring the security and safety of the Union and its residents, and the protection of the environment, where appropriate in close cooperation with other authorities"		Article 47 UCC : "Where, in respect of the same goods, controls other than customs controls are to be performed by competent authorities other than the customs authorities, customs authorities shall, in close cooperation with those other authorities, endeavour to have those controls performed (...)."	Yes
2.1	Article 28, (2) Regulation (EU) 2024/573 - notify any infringement	"(...) ensuring the security and safety of the Union and its residents, and the protection of the environment, where appropriate in close cooperation with other authorities"	"Customs controls shall be performed within a common risk management framework, based upon the exchange of risk information and risk analysis results between customs administrations (...)"		Yes
2.2	Article 28, (4) Regulation (EU) 2024/573 - shall exchange information	"(...) ensuring the security and safety of the Union and its residents, and the protection of the environment, where appropriate in close cooperation with other authorities"	"Customs controls shall be performed within a common risk management framework, based upon the exchange of risk information and risk analysis results between customs administrations (...)"		Yes

In summary, eleven out of thirteen requirements directed at Customs in the fluorinated greenhouse gas regulation, align with the provisions concerning Customs responsibilities laid down in the UCC. However, two requirements are not covered by the UCC.

Requirement 1.4 (Article 23, (5) Regulation (EU) 2024/573) specifies: "Where relevant, Customs authorities shall communicate information regarding the Customs clearance of goods to the F-gas Portal via the EU Single Window Environment for Customs." The UCC does not mandate that Customs authorities supply specific information to support another system, here the F-gas portal. Consequently, requirement 1.4 establishes a new obligation for the Customs authorities.

Requirement 1.9 (Article 23, (13) Regulation (EU) 2024/573) requires: “(...) Controls shall be carried out by Customs office personnel or by other authorized persons in accordance with national rules, who are knowledgeable about matters related to the prevention of illegal activities covered by this Regulation and have access to suitable equipment to carry out the relevant physical controls based on risk analysis.”

The UCC does not specify particular expectations regarding the competence profile of Customs personnel. Although it is generally assumed that individuals can only carry out their roles based on their competence profiles, this requirement can be viewed as a specific expectation for Customs that was not detailed before.

4.2.6 Research Summary F-gas

In summary it can be stated that Regulation (EU) 2024/573 on fluorinated greenhouse gas contains thirteen requirements towards the Customs authorities. As the analysis of the formulation reveals, none of the requirements is clearly defined. All requirements lack essential information necessary to understand who is responsible for what actions and when. The requirements are not adequately detailed to ensure clarity and implementability. The criteria outlined in Chapter 3.4 *Research Requirements Definition* for defining requirements effectively have not been met.

The analysis shows that the regulation on fluorinated greenhouse gases meets all the requirements outlined in chapter 2.7 *Requirements for Enforcement*. It can be concluded that all necessary criteria have been addressed to ensure the effective implementation of the law.

The comparison of the EU regulation with the UCC reveals that not all requirements listed are also found in the UCC. Specifically, two out of thirteen requirements are not part of the original scope of Customs responsibilities. Requirement 1.4 introduces a new obligation for Customs authorities. While it is likely that this task does not exceed the competence profile of Customs, it may have additional implications that fall outside the scope of this thesis. Requirement 1.9 clarifies expectations for Customs regarding competent personnel, which was not previously detailed in the UCC. From an analytical perspective, these findings do not imply an increase in competency or a shift in expectations for Customs but do suggest a higher likelihood that the requirements might not be met due to insufficient information and additional implications on Customs side.

4.3 Legal Regulation B: Regulation on prohibiting products made with forced labour

4.3.1 Description of legal text

Regulation:

The European Parliament approved the proposal for the EU Forced Labour Regulation on April 23, 2024. The regulation is not formally approved by the Council and not published in the EU Official Journal. This regulation did not yet enter into force. [August 2024]

Context:

Forced labour refers to a job or service that is required of a person under punishment and not performed voluntarily.⁴¹ It is estimated that still 27,6 million people on the globe work in forced labour.⁴² This implies that many products produced with forced labor are available on the European market.

Background:

The EU is committed to respecting human rights with the international goal of ending forced labor by 2030. Additionally, the EU endorsed the Human Rights Action Plan 2020-2024, which prioritizes the eradication of forced labor.⁴³ Both the international goal of ending forced labor by 2030 and the Human Rights Action Plan 2020-2024 have led to this regulation, which seeks to impose a complete ban on products made with forced labor from the EU market.⁴⁴

Subject:

This regulation bans products made with forced labor from being placed on the EU market or exported from the EU. It provides a framework through investigations, digital tools, and collaboration among Member States. The regulation is comprehensive, applying to all products and companies, regardless of size or sector, preventing them from making such products available in the EU or exporting them from the EU. With this content, the regulation seeks to address gaps in the current legislative framework on forced labor, as there is presently no explicit ban on placing products made with forced labor on the EU market.⁴⁵ Member States must designate one or more competent authorities responsible for carrying out the tasks outlined in the regulation. These authorities are required to implement a risk-based approach, concentrating on the products, companies, and regions where the risk of forced labor is most prevalent. The focus will primarily be on companies at the early stages of the value chain. The proposed regulation does not introduce specific due diligence requirements for companies regarding forced labor.⁴⁶

⁴¹ (International Labour Organization, Forced Labour Convention No. 29, 1930)

⁴² (International Labour Organization, Global Estimates of Modern Slavery - Forced Labour and Forced Marriage, 2021)

⁴³ (European Parliament, Briefing: Proposal for a ban on goods made using forced labour, 2023)

⁴⁴ (European Commission, 2022)

⁴⁵ (European Parliament, Briefing: Proposal for a ban on goods made using forced labour, 2023)

⁴⁶ (European Parliament, Briefing: Proposal for a ban on goods made using forced labour, 2023)

4.3.2 Foreseen customs responsibilities

One of the key parties involved are the Customs authorities, which are central to this research. The specific requirements directed at Customs are clearly defined in the regulation on prohibiting products made with forced labour on the Union market and are listed and summarized. The summary is found in table 8 *Regulation B: Customs requirements* and serves as foundation for further analysis in the upcoming chapters.

Table 8
Regulation B: Customs requirements

NO.	SOURCE	EXTRACT	SUMMARY
1.0	Article 7 (1)	" (...) customs authorities shall have access to that system for the purposes of this Regulation."	Customs shall have access to the system.
1.1	Article 26 (4)	"Customs authorities shall rely on the decisions communicated pursuant to paragraph 3 to identify products that may not comply with the prohibition laid down in Article 3. For that purpose, they shall carry out controls on products entering or leaving the Union market based on risk management as laid down in Regulation (EU) No 952/2011."	Customs shall stop the import and export in case the competent authority has communicated to do so and to still perform risk management and Customs controls.
1.2	Article 28 (Part 1)	"Where customs authorities identify, through their relevant risk management system, a product entering or leaving the Union market that may, according to a decision communicated pursuant to Article 26(3), be in violation of Article 3, they shall suspend the release for free circulation or the export of that product. (...)"	Customs shall stop the import and export of products produced with forced labour.
1.3	Article 28 (Part 2)	" (...) Customs authorities shall immediately notify the competent authorities of their respective Member State of the suspension and transmit all relevant information to enable them to establish whether the product is covered by a decision communicated pursuant to Article 26(3)."	Customs shall inform competent authorities and transmit all related information.
1.4	Article 29	"(...)the product shall be released for free circulation or exported where all the other requirements and formalities relating to such a release or export have been fulfilled (...)"	If there is no violation, Customs shall release the product for free circulation or export.
1.5	Article 30 (2)	" (...) shall not allow the release for free circulation or export of that product and shall also include the following notice in the customs data-processing system and, where possible, on the commercial invoice accompanying the product and on any other relevant accompanying document: 'Product made with forced labour - release for free circulation/export not authorised - Regulation (EU) .../...' [OP to indicate reference of this Regulation]."	Customs shall stop the import and export of products produced with forced labour and add a notice in the system and on available documents.
1.6	Article 30 (3)	"Where the release for free circulation or export of a product has been refused in accordance with paragraph 1, customs authorities shall dispose of the product concerned in accordance with national law in compliance with Union law."	Customs shall dispose of the product concerned.
1.7	Article 30 (4)	"Upon request of a competent authority and on behalf and under the responsibility of that competent authority, customs authorities may alternatively seize that product and put it at the disposal of and under the authority of that competent authority.(...)"	Customs shall seize the product.
1.8	Article 31 (1)	"To enable a risk-based analysis for products entering or leaving the Union market and to ensure that controls are effective and performed in accordance with the requirements of this Regulation, the Commission, competent authorities and customs authorities shall cooperate closely and exchange risk-related information, in which the Commission will take on a coordination role."	Customs shall collaborate with the competent authority in order to ensure the functioning of the risk-based approach.

In summary, table 8 *Regulation B: Customs requirements* shows nine requirements that are clearly appointed to the Customs authorities. While Customs is named as party and assigned tasks, these tasks are not always proactive activities, as Customs shall act based on others decisions. Customs acts based on information received and is responsible for stopping imports and exports at the border, but not for finding out where the risk of forced labour is likely to be high. In the following these nine requirements are analyzed based on its wording.

4.3.3 Analysis of definition of requirements

As mentioned in section (2) *Foreseen customs responsibilities*, the regulation contains certain requirements that are directed to the Customs authorities. In the following, these requirements are analyzed based on their wording as a way of evaluating if they fulfill the requirements for proper requirement definition. In order to perform this analysis, the attributes formulation, application case, actor, trigger, pre-condition as well as post-condition defined in chapter 3.4 *Research Requirements Definition* are used. Table 9 *Regulation B: Analysis requirement formulation* shows the summary of the analysis. For the purpose of emphasizing the finding, different colors are used. Green represents a positive finding, meaning the requirement for precise formulation is fulfilled. Orange means, that the requirements are fulfilled to some extent and red means that the fulfillment cannot be approved based on the given data.

Table 9
Regulation B: Analysis requirement formulation

	Formulation	Application Case	Actor	Trigger	Pre-condition	Post-condition
1.0	“ (...) customs authorities shall have access to that system for the purposes of this Regulation.” (Article 7 (1) P9_TA(2024)0309)					
	Function: Customs authorities Verb: shall have access Need: for the purposes of this Regulation	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	No trigger.	Only system access to the information system of the Commission as pre-condition defined.	Access to system is granted.
1.1	“Customs authorities shall rely on the decisions communicated pursuant to paragraph 3 to identify products that may not comply with the prohibition laid down in Article 3. For that purpose, they shall carry out controls on products entering or leaving the Union market based on risk management as laid down in Regulation (EU) No 952/201.” (Article 26 (4) P9_TA(2024)0309)					
	Function: Customs authorities Verb: shall carry out controls Need: to identify products	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	When decision received from competent authorities.	Only system access to the information system of the Commission as pre-condition defined.	Imports or exports will be suspended if directed by the competent authority.
1.2	“Where customs authorities identify, through their relevant risk management system, a product entering or leaving the Union market that may, according to a decision communicated pursuant to Article 26(3), be in violation of Article 3, they shall suspend the release for free circulation or the export of that product. (...)” (Article 28 (Part 1) P9_TA(2024)0309)					
	Function: Customs authorities Verb: shall suspend Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	When Customs authorities identify a product.	Only system access to the information system of the Commission as pre-condition defined.	Imports or exports are stopped if required.
1.3	“ (...) Customs authorities shall immediately notify the competent authorities of their respective Member State of the suspension and transmit all relevant information to enable them to establish whether the product is covered by a decision communicated pursuant to Article 26(3).” (Article 28 (Part 2) P9_TA(2024)0309)					
	Function: Customs authorities Verb: shall suspend and transmit Need: to enable them	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	When Customs authorities identify a product.	Only system access to the information system of the Commission as pre-condition defined.	Any suspension will be communicated, and information will be shared accordingly

1.4	“(…) the product shall be released for free circulation or exported where all the other requirements and formalities relating to such a release or export have been fulfilled (…)” (Article 29 P9_TA(2024)0309)					
	Function: / Verb: shall be released or exported Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	When requirements and formalities are fulfilled.	Only system access to the information system of the Commission as pre-condition defined.	Compliant products are released for free circulation or exported.
1.5	“(…) customs authorities shall not allow the release for free circulation or export of that product and shall also include the following notice in the customs data-processing system and, where possible, on the commercial invoice accompanying the product and on any other relevant accompanying document: ‘Product made with forced labour - release for free circulation/export not authorised - Regulation (EU) .../...’ [OP to indicate reference of this Regulation].” (Article 30 (2) P9_TA(2024)0309)					
	Function: Customs authorities Verb: shall not allow and shall also include Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	When a product produced with forced labour has been identified.	Only system access to the information system of the Commission as pre-condition defined.	The import and export of products made with forced labor will be suspended, and a note will be added to the accompanying documents.
1.6	“Where the release for free circulation or export of a product has been refused in accordance with paragraph 1, customs authorities shall dispose of the product concerned in accordance with national law in compliance with Union law.” (Article 30 (3) P9_TA(2024)0309)					
	Function: Customs authorities Verb: shall dispose Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	Where the release for free circulation or export of a product has been refused.	Only system access to the information system of the Commission as pre-condition defined.	The concerned product is disposed of.
1.7	“Upon request of a competent authority and on behalf and under the responsibility of that competent authority, customs authorities may alternatively seize that product and put it at the disposal of and under the authority of that competent authority.(…)” (Article 30 (4) P9_TA(2024)0309)					
	Function: Customs authorities Verb: may seize and put it Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	Upon request of a competent authority and on behalf and under the responsibility of that competent authority.	Only system access to the information system of the Commission as pre-condition defined.	The affected products are seized and placed under the control of the competent authority.
1.8	“To enable a risk-based analysis for products entering or leaving the Union market and to ensure that controls are effective and performed in accordance with the requirements of this Regulation, the Commission, competent authorities and customs authorities shall cooperate closely and exchange risk-related information, in which the Commission will take on a coordination role.” (Article 31 (1) P9_TA(2024)0309)					
	Function: Customs authorities, competent authorities, Commission Verb: shall cooperate Need: to enable a risk-based approach and to ensure controls	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	No trigger.	Only system access to the information system of the Commission as pre-condition defined.	Risk-related information is exchanged.

For the analysis, not only the content of the requirements from table 8 *Regulation B: Customs requirements* is considered. Additional information from the regulation is considered, particularly for the application case and the pre- and post-conditions.

The resulting outcome is as follows:

Based on table 9 *Regulation B: Analysis requirement formulation* it can be stated that none of the requirements fully meet all the criteria defined in chapter 3.4 *Research Requirements Definition*. Specifically:

- Requirement 1.4 is lacking information regarding the function.
- In five out of nine requirements (1.2, 1.4, 1.5, 1.6 and 1.7), the specific need to be addressed is not clearly defined.
- Two out of nine requirements (1.0 and 1.8) lack a clear trigger, creating uncertainty about when cooperation or information exchange should take place.
- The pre-condition is only partially defined. Although the need for system access is noted, there is insufficient information on additional aspects such as knowledge, training, intended processes, and capacity.
- None of the requirements specify the actor, making it unclear who is responsible for addressing the problem and whose needs should be met.

In conclusion, the requirements outlined in chapter 3.4 *Research Requirements Definition* are not fully satisfied.

4.3.4 Analysis for enforcement requirements

As outlined in chapter 2.7 *Requirements for Enforcement* several criteria must be met to enhance the likelihood of effective enforcement. The following table examines the EU regulation on prohibiting products made with forced labour against the enforcement criteria defined in chapter 2.7 *Requirements for Enforcement*, including the components regulator, executing party, communication, social relevance, actions, and punishment. Meeting these requirements is essential to increasing the probability of successful enforcement.

Table 10
Regulation B: Analysis enforcement criteria

COMPONENT	EXPLANATION/OUTCOME
Regulator	The European Commission proposed new regulation for the European parliament and of the council.
Executing party	Competent authorities of Member States, Customs authorities and the European Commission are named in the requirements.
Publication/Communication	On 23 April 2024, the European Parliament approved the proposal of the EU Forced Labour Regulation. The final approval from the EU Council is pending.
Social relevance	Forced labour does not only have a negative impact on the economy, it further violates human rights.
Actions	Monitoring, investigation, and sanctioning are defined and conducted by an appointed party.
Punishment	Penalties are foreseen in Article 37.

As table 10 *Regulation B: Analysis enforcement* shows, the regulation on prohibiting products made with forced labour on the Union market is checked against the criteria defined in chapter 2.7 *Requirements for Enforcement*. Colors green, orange, and red are used to indicate the level of fulfillment. In summary, the analysis reveals that the regulation meets all the enforcement criteria outlined in chapter 2.7 *Requirements for Enforcement*. This suggests a high probability of successful enforcement.

4.3.5 Comparison of legal artefacts

In chapter 2 *Literature Review*, the legal basis is established, focusing on the role of Customs, the timing of Customs' involvement, and the foreseen Customs controls. The key question is whether the definitions and provisions in the UCC align with the requirements outlined in the EU regulation. To perform this comparison, the UCC provisions are assessed against the identified Customs requirements in the analyzed EU regulation to identify similarities and differences.

Table 11 *Regulation B: Comparison regulation B against UCC* shows all requirements towards Customs that are identified in the regulation. These requirements are first compared to Article 3 of the UCC, which covers the mission of Customs authorities, and then to Article 46 of the UCC, which addresses risk management and Customs controls, as further explained in chapter 2 *Literature Review*.

If a match is not found, additional articles are analyzed to verify the presence of any differences. The last column provides a summarized result: green and "Yes" indicate a match between the UCC and the proposal, while red and "No" denote a difference.

Table 11
Regulation B: Comparison regulation B against UCC

	REQUIRE- MENT	CONTAINED IN ARTICLE 3, UCC	CONTAINED IN ARTICLE 46, UCC	OTHERS	RESULT
1.0	Article 7 (1) P9_TA(2024)0309 - shall have access to the system				No
1.1	Article 26 (4) P9_TA(2024)0309 - stop the import and export upon instruction and perform risk management tasks	"(...) protecting the Union from unfair and illegal trade while supporting legitimate business activity"	"Customs controls shall be performed within a common risk management framework, based upon the exchange of risk information and risk analysis results between customs administrations (...)"		Yes
1.2	Article 28 (Part 1) P9_TA(2024)0309 - stop the import and export of products produced with forced labour	"(...) protecting the Union from unfair and illegal trade while supporting legitimate business activity"			Yes
1.3	Article 28 (Part 2) P9_TA(2024)0309 - shall inform competent authorities and transmit all related information	"(...) ensuring the security and safety of the Union and its residents, and the protection of the environment, where appropriate in close cooperation with other authorities"	"Customs controls shall be performed within a common risk management framework, based upon the exchange of risk information and risk analysis results between customs administrations (...)"		Yes
1.4	Article 29 P9_TA(2024)0309 - release for free circulation and export			Article 5 (16), UCC Article 201, UCC "Non-Union goods intended to be put on the Union market or intended for private use or consumption within the customs territory of the Union shall be placed under release for free circulation."	Yes

1.5	Article 31 (1) P9_TA(2024)0309 - stop the import and export of products produced with forced labour and document ban in system and relevant documents				No
1.6	Article 31 (1) P9_TA(2024)0309 - dispose of the product	“(…) protecting the Union from unfair and illegal trade while supporting legitimate business activity”		Article 198 UCC: “The customs authorities shall take any necessary measures, including confiscation and sale, or destruction, to dispose of goods in the following cases where one of the obligations laid down in the customs legislation concerning the introduction of non-Union goods into the customs territory of the Union has not been fulfilled (...)”	Yes
1.7	Article 31 (1) P9_TA(2024)0309 - seize concerned product	“(…) protecting the Union from unfair and illegal trade while supporting legitimate business activity”		Article 198 UCC: “The customs authorities shall take any necessary measures, including confiscation and sale, or destruction, to dispose of goods in the following cases where one of the obligations laid down in the customs legislation concerning the introduction of non-Union goods into the customs territory of the Union has not been fulfilled (...)”	Yes
1.8	Article 31 (1) P9_TA(2024)0309 - collaborate with the competent authority to enable a risk-based approach	“(…) ensuring the security and safety of the Union and its residents, and the protection of the environment, where appropriate in close cooperation with other authorities”	“Customs controls shall be performed within a common risk management framework, based upon the exchange of risk information and risk analysis results between customs administrations (...)”		Yes

In summary, seven out of nine requirements directed at Customs in the regulation on prohibiting products made with forced labour on the Union market, align with the provisions concerning Customs responsibilities laid down in the UCC. However, two requirements are not covered by the UCC.

Requirement 1.0 (Article 7, (1)) specifies: “ (...) customs authorities shall have access to that system for the purposes of this Regulation.” Since this requirement also serves as a prerequisite for meeting all obligations related to this regulation, it does not constitute a new responsibility for Customs. Due to the different years of publication, the UCC cannot include a requirement for Customs to have access to different systems.

Requirement 1.5 (Article 31, (1)) requires: “(…) shall not allow the release for free circulation or export of that product and shall also include the following notice in the customs data-processing system and, where possible, on the commercial invoice accompanying the product and on any other relevant accompanying document: ‘Product made with forced labour - release for free circulation/export not authorised - Regulation (EU) .../...’ [OP to indicate reference of this Regulation].”

Customs is required to document the ban on products in multiple ways, both in the system and on the relevant documents. This requirement is not included in the UCC and is therefore new to the Customs authorities.

4.3.6 Research Summary Forced Labour

In summary it can be stated that the regulation on prohibiting products made with forced labour on the Union market contains nine requirements towards the Customs authorities. As the analysis of the formulation reveals, none of the requirements is clearly defined. All requirements lack essential information necessary to understand who is responsible for what actions and when. The requirements are not adequately detailed to ensure clarity and implementability. The criteria outlined in Chapter 3.4 *Research Requirements Definition* for defining requirements effectively have not been met.

The analysis shows that the EU regulation on prohibiting products made with forced labour on the Union market meets all the requirements outlined in chapter 2.7 *Requirements for Enforcement*. It can be concluded that all necessary criteria have been addressed to ensure the effective implementation of the law.

The comparison of the regulation with the UCC reveals that not all requirements listed are also found in the UCC. Specifically, two out of nine requirements are not part of the original scope of Customs responsibilities. Requirement 1.0 introduces a new requirement, as the UCC does not anticipate the new system. Requirement 1.5 introduces a new obligation for Customs authorities. While it is likely that this task does not exceed the competence profile of Customs, it may have additional implications that fall outside the scope of this thesis. From an analytical perspective, these findings do not imply an increase in competency or a shift in expectations for Customs but do suggest a higher likelihood that the requirements might not be met due to insufficient information and additional implications on Customs side.

4.4 Legal Regulation C: Regulation on import and export of products associated with deforestation

4.4.1 Description of legal text

Regulation:

The Commission put forth the Regulation (EU) 2023/1115 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010. The Regulation became effective on June 29, 2023, after being formally published on June 9, 2023.⁴⁷

Context:

According to estimates from the Food and Agriculture Organization of the United Nations, between 1990 and 2020, 420 million hectares of forest were lost globally.⁴⁸ In turn, deforestation and forest degradation significantly contribute to climate change and the decline of biodiversity.⁴⁹

Background:

To prevent deforestation and exploitation of the world's forests in connection with the production of various agricultural products, Regulation (EU) 2023/1115 introduces extensive due diligence requirements.⁵⁰

Subject:

The new Regulation (EU) 2023/1115 expands the range of agricultural products. Regulation (EU) No 995/2010, that was repealed, covers exclusively wood products.⁵¹ The Regulation targets seven forest-risk products, which are goods that contain, have been fed with, or were made using the relevant commodities and products like cattle, cocoa, coffee, palm oil, rubber, soy, and wood. Operators and traders have to perform mandatory due diligence in order to demonstrate that the relevant products they import or sell on the EU market contain materials that are "deforestation-free" and "forest degradation-free." Only goods that fulfill the following condition may enter the EU market or leave the EU for export: These products were not part of any deforestation process but were created in accordance with applicable national law and are protected by a due diligence statement.⁵²

4.4.2 Foreseen customs responsibilities

Regulation (EU) 2023/1115 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010, contains specific requirements that must be carried out by designated parties. The regulation clearly outlines requirements for Customs authorities. These requirements are first listed and summarized, and then analyzed in the subsequent sections. The result is shown in table 12 *Regulation C: Customs requirements*.

⁴⁷ (European Parliament, Regulation (EU) 2023/1115, 2023)

⁴⁸ (Global Forest Resources Assessment, 2020)

⁴⁹ (FAO, 2020)

⁵⁰ (European Parliament, Regulation (EU) 2023/1115, 2023)

⁵¹ (European Parliament, Regulation (EU) 2010/995, 2010)

⁵² (European Parliament, Regulation (EU) 2023/1115, 2023)

Table 12
Regulation C: Customs requirements

NO.	SOURCE	EXTRACT	SUMMARY
1.0	Article 26 (3)	"(...) customs authorities shall carry out controls on the customs declarations (...) in accordance with Articles 46 and 48 of Regulation (EU) No 952/2013. (...)"	Customs shall check the Customs declarations in accordance with Articles 46 and 48 of Regulation (EU) No 952/2013 (UCC).
1.1	Article 26 (5) a	"(...) until the electronic interface referred to in Article 28(1) is in place, paragraphs 6 to 9 of this Article shall not apply, and customs authorities shall exchange information and cooperate with competent authorities in accordance with Article 27 (...)"	Until the electronic interface is in place (planned by 30 June 2028) Customs shall exchange information and cooperate with competent authorities.
1.2	Article 26, (6)	"When carrying out controls on customs declarations for release for free circulation or export of a relevant product entering or leaving the market, customs authorities shall examine, using the electronic interface referred to in Article 28(1), the status assigned to the corresponding due diligence statement by competent authorities in the information system referred to in Article 33."	When the electronic interface is in place, Customs shall use it and check the due diligence statement of the relevant product.
1.3	Article 26, (7)	"Where the status referred to in paragraph 6 of this Article indicates that the relevant product entering or leaving the market has been identified, (...) customs authorities shall suspend the release for free circulation or export of that relevant product."	When Customs identify a product with high risks, based on the information from the electronic interface, Customs shall suspend the free circulation.
1.4	Article 26 (8)	"Where all other requirements and formalities under Union or national law relating to the release for free circulation or export have been fulfilled, customs authorities shall allow a relevant product entering or leaving the market to be released for free circulation or exported (...)"	In case every national requirement is fulfilled, Customs shall release the product for free circulation or export.
1.5	Article 26 (9)	"Where the competent authorities conclude that a relevant product entering or leaving the market is noncompliant, they shall notify the customs authorities accordingly and the customs authorities shall not allow the release for free circulation or export of that relevant product."	Customs shall suspend the free circulation or export, in case the competent authorities communicate that the product is noncompliant.
1.6	Article 27 (1)	"To enable the risk-based approach referred to in Article 16(5) for relevant products entering or leaving the market and to ensure that checks are effective and carried out in accordance with this Regulation, the Commission, competent authorities and customs authorities shall cooperate closely and exchange information."	Customs shall cooperate with the Commission as well as with the competent authorities to ensure the effectiveness of the regulation.
1.7	Article 27 (2)	"Customs authorities and competent authorities shall cooperate in accordance with Article 47(2) of Regulation (EU) No 952/2013 and exchange information necessary for the fulfilment of their functions under this Regulation, including through electronic means."	Customs shall cooperate with the competent authorities and exchange relevant information.
1.8	Article 27 (3)	"The customs authorities may communicate, in accordance with Article 12(1) of Regulation (EU) No 952/2013, confidential information acquired by the customs authorities in the course of performing their duties, or provided to the customs authorities on a confidential basis, to the competent authority of the Member State in which the operator, trader or authorized representative is established."	Customs shall share relevant, confidential information to the competent authorities of the Member State in which the operator is established.
1.9	Article 27 (4)	"Risk-related information shall be exchanged as follows: (a) between customs authorities in accordance with Article 46(5) of Regulation (EU) No 952/2013; (b) between customs authorities and the Commission in accordance with Article 47(2) of Regulation (EU) No 952/2013; (c) between customs authorities and competent authorities, including competent authorities of other Member States, in accordance with Article 47(2) of Regulation (EU) No 952/2013."	Customs shall exchange information as indicated in Article 46(5) of Regulation (EU) No 952/2013 and Article 47(2) of Regulation (EU) No 952/2013 (UCC).

In summary, table 12 *Regulation C: Customs requirements* identifies ten requirements explicitly assigned to Customs authorities. These include both proactive and reactive activities, with several tasks related to Articles 46 and 47 of the UCC. The following section analyzes these ten requirements based on their precise terminology.

4.4.3 Analysis of definition of requirements

As mentioned in paragraph (2) *Foreseen Customs Responsibilities*, the regulation outlines specific requirements directed at Customs authorities. These requirements are analyzed based on their wording to evaluate whether they meet the criteria for proper requirement definition. The analysis uses the attributes of formulation, application case, actor, trigger, pre-condition, and post-condition defined in chapter 3.4 *Research Requirements Definition*.

Table 13 *Regulation C: Analysis requirement formulation* summarizes the analysis. To emphasize the findings, distinct colors are utilized: green represents a positive outcome, indicating that the requirement for precise formulation has been satisfied, orange denotes a partial fulfillment of the requirement and red signifies that the fulfillment cannot be confirmed based on the available data.

Table 13
Regulation C: Analysis requirement formulation

	Formulation	Application Case	Actor	Trigger	Pre-condition	Post-condition
1.0	“(…) customs authorities shall carry out controls on the customs declarations (…) in accordance with Articles 46 and 48 of Regulation (EU) No 952/2013. (...)” (Article 26 (3) Regulation (EU) 2023/1115)					
	Function: Customs authorities Verb: shall carry Out Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	According to Article 46 (2) UCC primarily be based on risk analysis using electronic data processing techniques.	Electronic interface based on the European Union Single Window Environment for Customs by 30 June 2028 and access to information system from Commission.	Controls on Customs declarations lodged in relation to relevant products performed.
1.1	“(…) until the electronic interface referred to in Article 28(1) is in place, paragraphs 6 to 9 of this Article shall not apply, and customs authorities shall exchange information and cooperate with competent authorities in accordance with Article 27 (...)” (Article 26 (5) a Regulation (EU) 2023/1115)					
	Function: Customs authorities Verb: shall exchange and cooperate Need: to ensure that checks are effective (Article 27)	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	According to Article 46 (2) UCC primarily be based on risk analysis using electronic data processing techniques.	Electronic interface based on the European Union Single Window Environment for Customs by 30 June 2028 and access to information system from Commission,	Relevant information to release products for free circulation or export are exchanged.
1.2	“When carrying out controls on customs declarations for release for free circulation or export of a relevant product entering or leaving the market, customs authorities shall examine, using the electronic interface referred to in Article 28(1), the status assigned to the corresponding due diligence statement by competent authorities in the information system referred to in Article 33.” (Article 26 (6) Regulation (EU) 2023/1115)					
	Function: Customs authorities Verb: shall examine Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	When carrying out controls on customs declarations for release for free circulation or export.	Electronic interface based on the European Union Single Window Environment for Customs by 30 June 2028 and access to information system from Commission,	Status assigned to the corresponding due diligence statement is checked.
1.3	“Where the status referred to in paragraph 6 of this Article indicates that the relevant product entering or leaving the market has been identified, (...) customs authorities shall suspend the release for free circulation or export of that relevant product.” (Article 26 (7) Regulation (EU) 2023/1115)					
	Function: Customs authorities Verb: shall suspend Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	When competent authorities identify relevant products with high risk.	Electronic interface based on the European Union Single Window Environment for Customs by 30 June 2028 and access to information system from Commission.	The release for free circulation or export of that relevant product is suspended.

1.4	"Where all other requirements and formalities under Union or national law relating to the release for free circulation or export have been fulfilled, customs authorities shall allow a relevant product entering or leaving the market to be released for free circulation or exported (...)" (Article 26 (8) Regulation (EU) 2023/1115)					
	Function: Customs authorities Verb: shall allow Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	Where all requirements under Union or national law relating to the release for free circulation or export have been fulfilled.	Electronic interface based on the European Union Single Window Environment for Customs by 30 June 2028 and access to information system from Commission.	Product released for free circulation or export.
1.5	"Where the competent authorities conclude that a relevant product entering or leaving the market is noncompliant, they shall notify the customs authorities accordingly and the customs authorities shall not allow the release for free circulation or export of that relevant product." (Article 26 (9) Regulation (EU) 2023/1115)					
	Function: Customs authorities Verb: shall not allow Need: identified product shall not enter	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	Where the competent authorities conclude that a relevant product entering or leaving the market is noncompliant.	Electronic interface based on the European Union Single Window Environment for Customs by 30 June 2028 and access to information system from Commission.	The release for free circulation or export of that relevant product is suspended.
1.6	"To enable the risk-based approach referred to in Article 16(5) for relevant products entering or leaving the market and to ensure that checks are effective and carried out in accordance with this Regulation, the Commission, competent authorities and customs authorities shall cooperate closely and exchange information." (Article 27 (1) Regulation (EU) 2023/1115)					
	Function: Customs authorities, Commission and competent authorities Verb: shall cooperate and exchange Need: to enable the risk-based approach referred to in Article 16(5) and to ensure that checks are effective	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	No trigger.	Electronic interface based on the European Union Single Window Environment for Customs by 30 June 2028 and access to information system from Commission.	Relevant information to release products for free circulation or export are exchanged.
1.7	"Customs authorities and competent authorities shall cooperate in accordance with Article 47(2) of Regulation (EU) No 952/2013 and exchange information necessary for the fulfilment of their functions under this Regulation, including through electronic means." (Article 27 (2) Regulation (EU) 2023/1115)					
	Function: Customs authorities and competent authorities Verb: shall cooperate Need: to fulfill their functions under this Regulation	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	Where necessary for the purposes of minimizing risk and combating fraud in accordance with Article 47 (2) UCC.	Electronic interface based on the European Union Single Window Environment for Customs by 30 June 2028 and access to information system from Commission.	Relevant information is exchanged.
1.8	"The customs authorities may communicate, in accordance with Article 12(1) of Regulation (EU) No 952/2013, confidential information acquired by the customs authorities in the course of performing their duties, or provided to the customs authorities on a confidential basis, to the competent authority of the Member State in which the operator, trader or authorized representative is established." (Article 27 (3) Regulation (EU) 2023/1115)					
	Function: Customs authorities Verb: may communicate Need: in the course of performing their duties	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	No trigger.	Electronic interface based on the European Union Single Window Environment for Customs by 30 June 2028 and access to information system from Commission.	Relevant information is exchanged.
1.9	"Risk-related information shall be exchanged as follows: (a) between customs authorities in accordance with Article 46(5) of Regulation (EU) No 952/2013; (b) between customs authorities and the Commission in accordance with Article 47(2) of Regulation (EU) No 952/2013; (c) between customs authorities and competent authorities, including competent authorities of other Member States, in accordance with Article 47(2) of Regulation (EU) No 952/2013." (Article 27 (4) Regulation (EU) 2023/1115)					
	Function: Customs authorities Verb: shall be exchanged Need: to communicate risks that are being significant or not Article 46 (5) a,b UCC	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	Where risks are assessed by Customs authorities as being significant or not.	Electronic interface based on the European Union Single Window Environment for Customs by 30 June 2028 and access to information system from Commission.	Risk-related information is exchanged.

For the analysis, not only the content of the requirements from table 12 *Regulation C: Customs requirements* is considered. Especially for the application case as well as the pre – and post-conditions, further information from the regulation is taken into account. The result is as follows:

Based on table 13 *Regulation C: Analysis requirement formulation* it can be stated that none of the requirements fully meet all the criteria defined in chapter 3.4 *Research Requirements Definition*. Specifically:

- In four out of ten requirements (1.0, 1.2, 1.3, and 1.4), the need to be satisfied is not specified.
- Two out of ten requirements (1.6 and 1.8) lack a clear trigger, making it uncertain when cooperation or information exchange should occur.
- The actor is not identified in any of the requirements, leaving it unclear who faces the problem and who has the need to be addressed.
- The pre-condition is only partially defined in all ten requirements. While an electronic interface and access to the information system from the Commission are prescribed, the regulation lacks details on aspects such as required knowledge, training, intended processes, and capacity.

In conclusion, the requirements for defining requirements, as described in chapter 3.4 *Research Requirements Definition* are not fully met. This may lead to incomplete implementation.

4.4.4 Analysis for enforcement requirements

The following analysis checks the regulation on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010, against the criteria defined in chapter 2.7 *Requirements for Enforcement*: regulator, executing party, communication, social relevance, actions and punishment. The purpose of this analysis is to evaluate whether meeting these criteria enhances the likelihood of effective enforcement.

Table 14
Regulation C: Analysis enforcement criteria

COMPONENT	EXPLANATION/OUTCOME
Regulator	The European parliament and of the council published the new regulation.
Executing party	Competent authorities of Member States, Customs authorities and the European Commission are named in the requirements.
Publication/Communication	Official regulation published from European parliament and of the council.
Social relevance	Deforestation and forest degradation play a significant role in climate change and the decline of biodiversity.
Actions	Monitoring, investigation, and sanctioning are defined and conducted by an appointed party.
Punishment	Penalties are foreseen in Article 25.

As table 14 *Regulation C: Analysis enforcement criteria* shows, the regulation on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010 is checked against the criteria defined in chapter 2.7 *Requirements for Enforcement*. Colors green, orange, and red are used to indicate the level of fulfillment. In summary, the analysis reveals that the regulation meets all the enforcement criteria outlined in chapter 2.7 *Requirements for Enforcement*. This suggests a high probability of successful enforcement.

4.4.5 Comparison of legal artefacts

In chapter 2 *Literature Review*, the legal basis is established, focusing on the role of Customs, the timing of Customs involvement, and the foreseen Customs controls. The key question is whether the definitions and provisions in the UCC align with the requirements outlined in the regulation. To perform this comparison, the UCC provisions are assessed against the EU regulation to identify similarities and differences.

Table 15 *Regulation C: Comparison regulation C against UCC* shows all requirements towards Customs that are identified in the regulation. These requirements are first compared to Article 3 of the UCC, which covers the mission of Customs authorities, and then to Article 46 of the UCC, which addresses risk management and Customs controls, as further explained in chapter 2 *Literature Review*. If a match is not found, additional articles are analyzed to verify the presence of any differences. The last column provides a summarized result: green and "Yes" indicate a match between the UCC and the regulation, while red and "No" denote a difference.

Table 15
Regulation C: Comparison regulation C against UCC

	REQUIRE- MENT	CONTAINED IN ARTICLE 3, UCC	CONTAINED IN ARTICLE 46, UCC	OTHERS	RESULT
1.0	Article 26 (3) Regulation (EU) 2023/1115 - shall carry out controls on the Customs declaration		"Customs controls may in particular consist of examining goods, taking samples, verifying the accuracy and completeness of the information given in a declaration or notification and the existence, authenticity, accuracy and validity of documents (...)."		Yes
1.1	Article 26 (5) a Regulation (EU) 2023/1115 - shall exchange information and cooperate with competent authorities	"(...) ensuring the security and safety of the Union and its residents, and the protection of the environment, where appropriate in close cooperation with other authorities"			Yes
1.2	Article 26 (6) Regulation (EU) 2023/1115 - use electronic interface to check the due diligence statement of the relevant product				No
1.3	Article 26 (7) Regulation (EU) 2023/1115 - suspend free circulation or export in case of high-risks	"(...) protecting the Union from unfair and illegal trade while supporting legitimate business activity"			Yes

1.4	Article 26 (8) Regulation (EU) 2023/1115 - release for free circulation or export in case requirements are fulfilled			Article 201 UCC: “Non-Union goods intended to be put on the Union market or intended for private use or consumption within the customs territory of the Union shall be placed under release for free circulation (...)” Article 269 UCC: “Union goods to be taken out of the customs territory of the Union shall be placed under the export procedure (...)”	Yes
1.5	Article 26 (9) Regulation (EU) 2023/1115 - suspend free circulation or export in case of high-risks	“(…) protecting the Union from unfair and illegal trade while supporting legitimate business activity”			Yes
1.6	Article 27 (1) Regulation (EU) 2023/1115 - cooperate with the Commission as well as with the competent authorities to ensure the effectiveness of the regulation	“(…) ensuring the security and safety of the Union and its residents, and the protection of the environment, where appropriate in close cooperation with other authorities“	“Customs controls shall be performed within a common risk management framework, based upon the exchange of risk information and risk analysis results between customs administrations (...)”		Yes
1.7	Article 27 (2) Regulation (EU) 2023/1115 - cooperate with the competent authorities and exchange relevant information	“(…) ensuring the security and safety of the Union and its residents, and the protection of the environment, where appropriate in close cooperation with other authorities“	“Customs controls shall be performed within a common risk management framework, based upon the exchange of risk information and risk analysis results between customs administrations (...)”		Yes
1.8	Article 27 (3) Regulation (EU) 2023/1115 - share relevant, confidential information to the competent authorities		“Customs controls shall be performed within a common risk management framework, based upon the exchange of risk information and risk analysis results between customs administrations (...)”		Yes
1.9	Article 27 (4) Regulation (EU) 2023/1115 - shall exchange information		“Customs controls shall be performed within a common risk management framework, based upon the exchange of risk information and risk analysis results between customs administrations (...)”		Yes

In summary, nine out of ten requirements for Customs outlined in the regulation on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation (repealing Regulation (EU) No 995/2010) match the provisions regarding Customs requirements in the UCC. One requirement, however, does not have a corresponding provision in the UCC.

Article 26 (6) states: “When carrying out controls on customs declarations for release for free circulation or export of a relevant product entering or leaving the market, customs authorities shall examine, using the electronic interface referred to in Article 28(1), the status assigned to the corresponding due diligence statement by competent authorities in the information system referred to in Article 33.” Although Customs is required to verify the accuracy and completeness of Customs declarations, the UCC does not stipulate that Customs must examine newly developed statements in another system. Therefore, requirement 1.2 represents a new responsibility for Customs authorities.

4.4.6 Research Summary

In summary, it can be stated that the Regulation (EU) 2023/1115 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010 does contain ten requirements towards the Customs authorities. However, the analysis reveals that all requirements lack essential information needed to clarify who is responsible for each task and when it should be carried out. The requirements are not well-defined, making them difficult to understand and implement. Consequently, the criteria for defining requirements effectively are not met.

Moreover, another finding is that not all ten requirements for Customs align with the provisions of the UCC. Requirement 1.2 wants Customs to use an electronic interface to check the due diligence statement of the relevant product. It can be assumed that this activity, while not exceeding the competencies of Customs, may have additional implications that fall outside the scope of this thesis. Apart from Requirement 1.2, the other requirements align with the current competencies of Customs, and there is no need to expand the role of Customs.

Last, the regulation also meets the requirements for enforcement. Given this, the findings do not result in additional competencies or changes in expectations for Customs. However, they do increase the likelihood that the requirements may not be fulfilled due to insufficient information.

4.5 Legal Regulation D: Regulation on market surveillance and compliance of products

4.5.1 Description of legal text

Regulation:

The Commission put forth the Regulation (EU) 2019/1020 on market surveillance and compliance of products and amends Directive 2004/42/EC and Regulations (EC) No 765/2008 and (EU) No 305/2011. The Regulation became effective in large part on July 16, 2021, after being formally published in June, 2019.⁵³

Context:

The Regulation (EU) 2019/1020 on market surveillance and compliance of products, was designed to better monitor items on the European market and to protect consumers from non-compliant products. As a result, fulfillment service providers in particular will be held accountable, economic operators' standards will be enhanced, and authorities' powers will be considerably enlarged.⁵⁴

Background:

European legislation has failed so far to address the complicated supply chains of international online commerce. As a result, people were harmed by non-compliant products. Nonetheless, the European Commission is aiming for keeping non-compliant products off the Union market. In this context, the Commission announced on October 28, 2015 the particular goal to make a special effort to ensure that non-compliant products do not enter the EU market thanks to stricter market surveillance. As a result, the EU Market Surveillance Regulation was presented that applies to almost all non-food products.⁵⁵

Subject:

According to the regulation, practically all products covered by a CE Directive may only be supplied for sale in case a responsible economic operator in the Union exists for these products. The regulation defines an economic operator as either the manufacturer established in the Union, the importer if the manufacturer is not established in the Union, or an authorized representative or fulfillment service provider established in the Union who handles products on behalf of the manufacturer. This seeks to provide a high level of safety, health, consumer and environmental protection by regularly enforcing product legal standards. This will be accomplished primarily by tightening controls on items imported into the EU and placing extra responsibilities on economic operators. The regulation is focusing on online trade, because non-compliant online purchases, for which a responsible person is often not physical, are seen as a major source of safety issues.⁵⁶

⁵³ (European Parliament and the Council, REGULATION (EU) 2019/1020 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2019 on market surveillance and compliance of products and amending Directive 2004/42/EC and Regulations (EC) No 765/2008 and (EU) No 305/2011, 2019)

⁵⁴ (European Parliament and the Council, REGULATION (EU) 2019/1020 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2019 on market surveillance and compliance of products and amending Directive 2004/42/EC and Regulations (EC) No 765/2008 and (EU) No 305/2011, 2019)

⁵⁵ (European Parliament and the Council, REGULATION (EU) 2019/1020 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2019 on market surveillance and compliance of products and amending Directive 2004/42/EC and Regulations (EC) No 765/2008 and (EU) No 305/2011, 2019)

⁵⁶ (European Parliament and the Council, REGULATION (EU) 2019/1020 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2019 on market surveillance and compliance of products and amending Directive 2004/42/EC and Regulations (EC) No 765/2008 and (EU) No 305/2011, 2019)

4.5.2 Foreseen customs responsibilities

Regulation (EU) 2019/1020 on market surveillance and compliance of products includes specific requirements for various parties, including clearly defined responsibilities for Customs authorities. These requirements are listed and summarized first, followed by a detailed analysis in the subsequent sections.

Table 16
Regulation D: Customs requirements

NO.	SOURCE	EXTRACT	SUMMARY
1.0	Article 34 (6)	"(...) customs authorities shall extract from national customs systems information on products placed under the customs procedure 'release for free circulation' related to the enforcement of Union harmonization legislation and transmit it to the information and communication system."	Customs shall extract information from national Customs system and transmit it to the information and communication system.
1.1	Article 25 (3)	"(...) shall perform those controls on the basis of risk analysis in accordance with Articles 46 and 47 of Regulation (EU) No 952/2013 and (...)."	Customs shall perform controls on the basis of risk analysis in accordance with Articles 46 and 47 of Regulation (EU) No 952/2013.
1.2	Article 25 (4)	"Risk-related information shall be exchanged between: customs authorities in accordance with Article 46(5) of Regulation (EU) No 952/2013. Where, in relation to products subject to Union law (...), customs authorities at the first point of entry have reason to believe that those products are not compliant with applicable Union law or present a risk, they shall transmit all relevant information to the competent customs office of destination."	Customs shall exchange information analysis in accordance with Article 46 of Regulation (EU) No 952/2013 and transmit all relevant information to the competent Customs office of destination in case they consider the products as being non-compliant.
1.3	Article 28 (1)	"Where the market surveillance authorities conclude that a product presents a serious risk, (...) shall require the authorities designated under Article 25(1) not to release it for free circulation. They shall also require these authorities to include the following notice in the customs data-processing system, and, where appropriate, on the commercial invoice accompanying the product and on any other relevant accompanying document: 'Dangerous product — release for free circulation not authorised — Regulation (EU) 2019/1020'."	Customs shall not release products for free circulation in case they are asked to do so and further add a pre-defined notice in the Customs data-processing system, and, where appropriate, on the commercial invoice and other accompanying documents.
1.4	Article 28 (2)	"Where market surveillance authorities conclude that a product may not be placed on the market since it does not comply with the Union law applicable to it, they (...) shall require the authorities designated under Article 25(1) not to release it for free circulation. They shall also require those authorities to include the following notice in the customs data-processing system, and, where appropriate, on the commercial invoice accompanying the product and on any other relevant accompanying document: 'Product not in conformity — release for free circulation not authorised — Regulation (EU) 2019/1020'."	Customs shall not release products for free circulation in case they are asked to do so and further add a pre-defined notice in the Customs data-processing system, and, where appropriate, on the commercial invoice and other accompanying document.

In summary, table 16 *Regulation D: Customs requirements* shows five requirements that are appointed to the Customs authorities. Unlike other regulations, this one does not always explicitly name Customs. The regulation predominantly refers to Article 25(1), where it says "Member States shall designate Customs authorities, one or more market surveillance authorities or any other authority in their territory as the authorities in charge of the control on products entering the Union market.(...)".

To identify requirements specific to Customs, the following criteria are used:

1. **Reference to Article 46 and 47 UCC of Regulation (EU) No 952/2013:** These articles pertain to Customs duties.
2. **Reference to "release for free circulation":** This duty is clearly assigned to Customs, as no other authority has the authorization to perform this task.
3. **Reference to "entering the market":** Customs is typically the first authority to know when products are entering the market due to border controls.

The following analysis examines these five requirements based on their wording.

4.5.3 Analysis of definition of requirements

As demonstrated in the preliminary analysis, this EU regulation establishes requirements for Customs, positioning Customs as a key stakeholder in the enforcement process. These requirements are analyzed based on their wording to evaluate whether they meet the criteria for proper requirement definition. The analysis uses the attributes of formulation, application case, actor, trigger, pre-condition, and post-condition defined in chapter 3.4 *Research Requirements Definition*.

Table 17 *Regulation D: Analysis requirement formulation* summarizes the analysis. To emphasize the findings, distinct colors are utilized: green represents a positive outcome, indicating that the requirement for precise formulation has been satisfied, orange denotes a partial fulfillment of the requirement and red signifies that the fulfillment cannot be confirmed based on the available data.

Table 17
Regulation D: Analysis requirement formulation

	Formulation	Application Case	Actor	Trigger	Pre-condition	Post-condition
1.0	“(…) customs authorities shall extract from national customs systems information on products placed under the customs procedure ‘release for free circulation’ related to the enforcement of Union harmonization legislation and transmit it to the information and communication system.” (Article 34 (6) Regulation (EU) 2019/1020)					
	Function: Customs authorities Verb: shall extract Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	No trigger.	Set up electronic interfaces that allow automatic data transfer between Customs and market surveillance authorities. Information and communication system developed by the Commission, where Customs has access to.	Relevant information is transmitted to the information and communication system.
1.1	“(…) shall perform those controls on the basis of risk analysis in accordance with Articles 46 and 47 of Regulation (EU) No 952/2013 and (…).” (Article 25 (3) Regulation (EU) 2019/1020)					
	Function: Customs authorities Verb: perform controls Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	No trigger.	Set up electronic interfaces that allow automatic data transfer between Customs and market surveillance authorities. Information and communication system developed by the Commission, where Customs has access to.	Products were controlled on the basis of risk analysis.
1.2	“Risk-related information shall be exchanged between: customs authorities in accordance with Article 46(5) of Regulation (EU) No 952/2013. Where, in relation to products subject to Union law (…), customs authorities at the first point of entry have reason to believe that those products are not compliant with applicable Union law or present a risk, they shall transmit all relevant information to the competent customs office of destination.” (Article 25 (4) Regulation (EU) 2019/1020)					
	Function: Customs authorities Verb: transmit Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	When Customs have a reason to believe that products are not compliant.	Set up electronic interfaces that allow automatic data transfer between Customs and market surveillance authorities. Information and communication system developed by the Commission, where Customs has access to.	Information are transmitted to the competent Customs office of destination.

1.3	<p>“Where the market surveillance authorities conclude that a product presents a serious risk, (...) shall require the authorities <u>designated under Article 25(1) not to release it for free circulation</u>. They shall also require these authorities <u>to include</u> the following notice in the customs data-processing system, and, where appropriate, on the commercial invoice accompanying the product and on any other relevant accompanying document: ‘Dangerous product — release for free circulation not authorised — Regulation (EU) 2019/1020’.” (Article 28 (1) Regulation (EU) 2019/1020)</p>				
Function: Customs authorities Verb: not to release / to include Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	When surveillance authorities conclude and communicate that a product presents a serious risk.	Set up electronic interfaces that allow automatic data transfer between Customs and market surveillance authorities. Information and communication system developed by the Commission, where Customs has access to.	Product is not released and notice added on the documents and system.
1.4	<p>“Where market surveillance authorities conclude that a product may not be placed on the market since it does not comply with the Union law applicable to it, they (...) shall require the authorities <u>designated under Article 25(1) not to release it for free circulation</u>. They shall also require those authorities <u>to include</u> the following notice in the customs data-processing system, and, where appropriate, on the commercial invoice accompanying the product and on any other relevant accompanying document: ‘Product not in conformity — release for free circulation not authorised — Regulation (EU) 2019/1020’.” (Article 28 (2) Regulation (EU) 2019/1020)</p>				
Function: Customs authorities Verb: not to release / to include Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	When surveillance authorities conclude and communicate that a product is not compliant.	Set up electronic interfaces that allow automatic data transfer between Customs and market surveillance authorities. Information and communication system developed by the Commission, where Customs has access to.	Product is not released, and notice added on the documents and system.

For the analysis, not only the content of the requirements from table 16 *Regulation D: Customs requirements* is considered. Especially for the application case as well as the pre – and post-conditions, further information from the regulation is taken into account. The result is as follows:

Based on table 17, *Regulation D: Analysis requirement formulation*, it can be concluded that none of the requirements meet all the criteria defined in chapter 3.4 *Research Requirements Definition*. Specifically:

- All requirements lack clarity on what specific need they are addressing. Requirements 1.0, 1.1, 1.2, 1.3, and 1.4 do not specify the exact need to be satisfied.
- Two out of five requirements are missing a clear trigger. Requirements 1.0 and 1.1 do not indicate when information should be transmitted or controls should be performed.
- None of the requirements identify the actor responsible, making it unclear who faces the problem or who needs to be satisfied.
- The pre-condition is only partially defined. Although the need for an electronic interface and a new information and communication system is noted, there is insufficient information on additional aspects such as knowledge, training, intended processes, and capacity.

In conclusion, the requirements are not fully defined according to the standards described in chapter 3.4 *Research Requirements Definition*, which may lead to incomplete implementation.

4.5.4 Analysis for enforcement requirements

The following analysis assesses Regulation (EU) 2019/1020 on market surveillance and compliance of products against the criteria defined in chapter 2.7 *Requirements for Enforcement*. These criteria include the regulator, executing party, communication, social relevance, actions, and punishment. The purpose of this assessment is to evaluate whether meeting these criteria enhances the likelihood of effective enforcement.

Table 18
Regulation D: Analysis enforcement criteria

COMPONENT	EXPLANANTION/OUTCOME
Regulator	The European parliament and of the council published the new regulation.
Executing party	Market surveillance authorities, Customs authorities and the European Commission are named in the requirements.
Publication/Communication	Official regulation published from European parliament and of the council.
Social relevance	For consumers, ensuring that only compliant products are made available on the European internal market is of high importance for the sake of their own health and security.
Actions	Monitoring, investigation, and sanctioning are defined and conducted by an appointed party.
Punishment	Penalties are foreseen in Article 41.

As shown in table 18 *Regulation D: Analysis of enforcement criteria*, the regulation on market surveillance and compliance of products is evaluated against the enforcement criteria outlined in chapter 2.7 *Requirements for Enforcement*. The analysis uses color coding, green, orange, and red, to indicate the extent of fulfillment of these criteria. In summary, it can be concluded that the regulation meets all the enforcement criteria defined in chapter 2.7 *Requirements for Enforcement*. This suggests a high probability of successful enforcement.

4.5.5 Comparison of legal artefacts

In chapter 2 *Literature Review*, the legal basis for Customs authorities' role, the timing of their involvement, and the anticipated Customs controls are defined and analyzed. The central question for the current comparison is whether these definitions in the UCC align with the requirements laid out in the regulation. To perform this comparison, the UCC provisions are directly matched against the relevant requirements in the EU regulation. This comparison aims to identify both similarities and differences, highlighting areas where the UCC's provisions either align with or diverge from the EU regulation.

In table 19 *Regulation D: Comparison of Regulation D Against UCC* all identified requirements towards Customs authorities from the regulation are systematically compared to relevant provisions within the UCC. The requirements are first checked against Article 3 UCC, which outlines the general mission of Customs authorities, and Article 46 UCC, which pertains to risk management and Customs controls. In cases where a direct match is not found, further analysis is conducted using different UCC articles to confirm whether a discrepancy existed. This thorough examination aimed to determine if the requirements from the regulation aligned with the established framework provided by the UCC. In the final column of table 19 *Regulation D: Comparison of Regulation C Against UCC*, the summarized results are presented, with green and "Yes" indicating a match between the UCC and the regulation's requirements, and red and "No" signifying a difference. This visual representation allows for a clear and immediate understanding of the alignment, or lack thereof, between the UCC and the new regulation.

Table 19
Regulation D: Comparison regulation D against UCC

	REQUIRE- MENT	CONTAINED IN ARTICLE 3, UCC	CONTAINED IN ARTICLE 46, UCC	OTHERS	RESULT
1.0	Article 34 (6) Regulation (EU) 2019/1020 - shall extract and transmit information	“(…) ensuring the security and safety of the Union and its residents, and the protection of the environment, where appropriate in close cooperation with other authorities“	“Customs controls shall be performed within a common risk management framework, based upon the exchange of risk information and risk analysis results between customs administrations (…)”		Yes
1.1	Article 25 (3) Regulation (EU) 2019/1020 - shall perform controls	“(…) ensuring the security and safety of the Union and its residents, and the protection of the environment, where appropriate in close cooperation with other authorities“	“Customs controls may in particular consist of examining goods, taking samples, verifying the accuracy and completeness of the information given in a declaration or notification and the existence, authenticity, accuracy and validity of documents (…).”		Yes
1.2	Article 25 (4) Regulation (EU) 2019/1020 - shall exchange and transmit information	“(…) ensuring the security and safety of the Union and its residents, and the protection of the environment, where appropriate in close cooperation with other authorities“	“Customs controls shall be performed within a common risk management framework, based upon the exchange of risk information and risk analysis results between customs administrations (…)”		Yes
1.3	Article 28 (1) Regulation (EU) 2019/1020 - suspend free circulation and make note in system and documents				No
1.4	Article 28 (2) Regulation (EU) 2019/1020 - suspend free circulation and make note in system and documents				No

In summary, three out of five requirements towards Customs from the regulation on market surveillance and compliance of products align with the provisions in the UCC. However, two requirements are not addressed in the UCC:

Article 28 (1), (2) from the regulation states: “(…) They shall also require those authorities to include the following notice in the customs data-processing system, and, where appropriate, on the commercial invoice accompanying the product and on any other relevant accompanying document: ‘(Dangerous Product) Product not in conformity — release for free circulation not authorised — Regulation (EU) 2019/1020’.”

While Customs is responsible for verifying the accuracy and completeness of Customs declarations, the UCC does not require Customs to add such statements to other systems or documents. Therefore, requirements 1.3 and 1.4 introduce new responsibilities for Customs authorities that are currently not covered by the UCC.

4.5.6 Research Summary market surveillance

In summary, it can be stated that Regulation (EU) 2019/1020 on market surveillance and compliance of products contains five requirements directed towards Customs authorities, but not all of these requirements align with the wording of the provisions in the UCC. Requirements 1.3 and 1.4 want Customs use electronic interface to make notes in systems and documents. It can be assumed that while this activity is within Customs' capabilities, it is not anticipated by the UCC and may have additional implications that fall outside the scope of this thesis. Aside from these particular requirements, the other requirements are consistent with Customs' existing competencies, and there is no need to extend the role of Customs.

The analysis reveals that all requirements lack essential information needed to clarify who is responsible for each task and when it should be carried out. The requirements are not well-defined, making them difficult to understand and implement. Consequently, the criteria for defining requirements effectively are not met.

Additionally, the regulation meets the enforcement criteria as well. Therefore, while the findings do not suggest a need for additional competencies or changes in expectations for Customs, they do highlight a higher likelihood that the requirements may not be met due to insufficient information.

4.6 Legal Regulation E: Regulation on establishing a carbon border adjustment mechanism

4.6.1 Description of legal text

Regulation:

The Commission put forth the regulation (EU) 2023/956 on establishing the carbon border adjustment mechanism (CBAM) on May 10, 2023.⁵⁷ The application and thus the transitional phase starts on October 1, 2023.⁵⁸

Context:

Climate protection is a global challenge. As already described in chapter 4.2.1 *Description of legal text*, Europe wants to become the first climate-neutral continent by realizing the requirements from the "Green Deal". The European Emissions Trading Scheme (ETS) obliges certain companies to pay a price for the emissions they emit. Accordingly, companies must purchase special emission certificates for each ton of climate-damaging greenhouse gas. In turn, if a company reduces its emissions, it must subsequently buy less emissions certificates. Under certain circumstances, companies that are not subject to these requirements have a competitive advantage because they do not incur these costs. When European companies move their production, and consequently their emissions, to countries with less stringent climate protection standards, this phenomenon is known as carbon leakage.⁵⁹

Background:

The aim of the new regulation is to prevent carbon leakage, which involves the relocation of industries with high greenhouse gas emissions outside the EU. By addressing this issue, the regulation seeks to ensure a global reduction in emissions. The carbon border adjustment system is anticipated to be a key tool in achieving this objective over the long term.⁶⁰

Subject:

The CBAM regulation applies specifically to certain goods, including cement, iron and steel, aluminum, fertilizers, hydrogen, and electricity. These sectors are targeted due to their high risk of carbon leakage. Under CBAM, companies importing goods that fall under its scope must register as reporting declarants or appoint representatives, and submit quarterly CBAM reports. To complete these reports, companies need to request and retain data on the emissions associated with the imported goods from their suppliers. They must also calculate the resulting emissions and present the appropriate certificates based on these calculations along with their CBAM declarations. In short, CBAM is designed to ensure that EU manufacturers face the same cost conditions as their competitors from outside the EU by imposing equivalent CO₂ rates on imported energy-intensive products.⁶¹

⁵⁷ (European Parliament and the Council, Regulation (EU) 2023/956, 2023)

⁵⁸ (European Commission, 2023)

⁵⁹ (Bundesministerium für Wirtschaft und Klimaschutz, 2023)

⁶⁰ (European Council, 2023)

⁶¹ (Commission, Guidance document of CBAM implementation for importers of goods into the EU, 2023)

4.6.2 Foreseen customs responsibilities

Regulation (EU) 2023/956, which establishes the carbon border adjustment mechanism, outlines specific obligations for various parties, including the Customs authorities. The following section lists and summarizes these requirements which are particularly assigned to Customs, and then proceeds with a detailed analysis.

Table 20
Regulation E: Customs requirements

NO.	SOURCE	EXTRACT	SUMMARY
1.0	Article 25 (1)	"The customs authorities shall not allow the importation of goods by any person other than an authorized CBAM declarant."	The Customs authorities should not allow the importation of goods by any person other than an authorized CBAM declarant.
1.1	Article 25 (2)	"The customs authorities shall periodically and automatically, in particular by means of the surveillance mechanism established pursuant to Article 56(5) of Regulation (EU) No 952/2013, communicate to the Commission specific information on the goods declared for importation. That information shall include the EORI number and the CBAM account number of the authorized CBAM declarant, the eight-digit CN code of the goods, the quantity, the country of origin, the date of the customs declaration and the customs procedure."	Customs shall share pre-defined information on imported goods periodically.
1.2	Article 33 (1)	"The customs authorities shall inform the importer or, in the situations covered by Article 32, the indirect customs representative of the reporting obligation referred to in Article 35 no later than at the moment of the release of goods for free circulation."	Customs shall inform Customs declarants of the obligation to report the required information.
1.3	Article 33 (2)	"The customs authorities shall periodically and automatically, in particular by means of the surveillance mechanism established pursuant to Article 56(5) of Regulation (EU) No 952/2013 or by electronic means of data transmission, communicate to the Commission information on imported goods, including processed products resulting from the outward processing procedure. Such information shall include the EORI number of the customs declarant and of the importer, the eight-digit CN code, the quantity, the country of origin, the date of the customs declaration and the customs procedure."	Customs shall share pre-defined information on imported goods including processed products periodically.

In summary, table 20 *Regulation E: Customs requirements* highlights four specific requirements assigned to the Customs authorities. In the following sections, these four requirements are analyzed based on its wording.

4.6.3 Analysis of definition of requirements

As mentioned in paragraph (2) *Foreseen Customs Responsibilities*, the regulation outlines specific requirements directed at Customs authorities. These requirements are analyzed based on their wording to evaluate whether they meet the criteria for proper requirement definition. The analysis uses the attributes of formulation, application case, actor, trigger, pre-condition, and post-condition defined in chapter 3.4 *Research Requirements Definition*.

Table 21 *Regulation E: Analysis requirement formulation* summarizes the analysis. To emphasize the findings, distinct colors are utilized: green represents a positive outcome, indicating that the requirement for precise formulation has been satisfied, orange denotes a partial fulfillment of the requirement and red signifies that the fulfillment cannot be confirmed based on the available data.

Table 21
Regulation E: Analysis requirement formulation

	Formulation	Application Case	Actor	Trigger	Pre-condition	Post-condition
1.0	"The customs authorities shall not allow the importation of goods by any person other than an authorized CBAM declarant." (Article 25 (1) Regulation (EU) 2023/956)					
	Function: Customs authorities Verb: shall not allow Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	When there is no authorized CBAM declarant for the product to be imported.	The Commission shall establish a CBAM registry of authorized CBAM declarants in the form of a standardized electronic database that is available automatically and in real time to Customs authorities.	Product is not released for free circulation.
1.1	"The customs authorities shall periodically and automatically, in particular by means of the surveillance mechanism established pursuant to Article 56(5) of Regulation (EU) No 952/2013, communicate to the Commission specific information on the goods declared for importation. That information shall include the EORI number and the CBAM account number of the authorized CBAM declarant, the eight-digit CN code of the goods, the quantity, the country of origin, the date of the customs declaration and the customs procedure." (Article 25 (2) Regulation (EU) 2023/956)					
	Function: Customs authorities Verb: shall communicate Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	"Periodically" is not sufficient for a trigger, because the point of time of the need is still unclear.	The Commission shall establish a CBAM registry of authorized CBAM declarants in the form of a standardized electronic database that is available automatically and in real time to Customs authorities.	Pre-defined information on imported goods is shared.
1.2	"The customs authorities shall inform the importer or, in the situations covered by Article 32, the indirect customs representative of the reporting obligation referred to in Article 35 no later than at the moment of the release of goods for free circulation." (Article 33 (1) Regulation (EU) 2023/956)					
	Function: Customs authorities Verb: shall inform Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	"(...) No later than at the moment of the release of goods for free circulation."	The Commission shall establish a CBAM registry of authorized CBAM declarants in the form of a standardized electronic database that is available automatically and in real time to Customs authorities.	Importer are informed about their obligation to report certain information.
1.3	"The customs authorities shall periodically and automatically, in particular by means of the surveillance mechanism established pursuant to Article 56(5) of Regulation (EU) No 952/2013 or by electronic means of data transmission, communicate to the Commission information on imported goods, including processed products resulting from the outward processing procedure. Such information shall include the EORI number of the customs declarant and of the importer, the eight-digit CN code, the quantity, the country of origin, the date of the customs declaration and the customs procedure." (Article 33 (2) Regulation (EU) 2023/956)					
	Function: Customs authorities Verb: shall communicate Need: /	Regulation as such serves as application case.	Actor: Not clear who is facing the problem and who has a need to be satisfied.	"Periodically" is not sufficient for a trigger, because the point of time of the need is still unclear.	The Commission shall establish a CBAM registry of authorized CBAM declarants in the form of a standardized electronic database that is available automatically and in real time to Customs authorities.	Pre-defined information on imported goods is shared.

For the analysis, not only the content of the requirements from table 20 *Regulation E: Customs requirements* is considered, but also additional information from the regulation, particularly concerning application cases and pre- and post-conditions. The results are as follows:

Based on table 21 *Regulation E: Analysis requirement formulation*, it is evident that none of the requirements fully meet the criteria outlined in chapter 3.4 *Research Requirements Definition*. Specifically:

- All requirements lack a clear definition of the need. For requirements 1.0, 1.1, 1.2, and 1.3, the specific need is not indicated at all.
- Two out of four requirements are missing a trigger. Requirements 1.1 and 1.3 do not specify the timing for when the information should be shared.
- None of the requirements identify the actor involved, leaving unclear who faces the problem and who needs to be satisfied.
- All four requirements have only partial information regarding pre-conditions. Although the establishment of a new CBAM registry is mentioned, the regulation does not provide sufficient details on knowledge, training, intended processes, or capacity.

In conclusion, the requirements outlined in chapter 3.4 *Research Requirements Definition* are not fully satisfied as the requirements lack clarity and completeness. This potentially affects their effective implementation.

4.6.4 Analysis for enforcement requirements

The regulation (EU) 2023/956 on establishing a carbon border adjustment mechanism is evaluated against the criteria defined in chapter 2.7 *Requirements for Enforcement*, which include regulator, executing party, communication, social relevance, actions, and punishment. This evaluation aims to determine the likelihood of effective enforcement, as fulfilling these criteria generally enhances the probability of successful implementation.

Table 22
Regulation E: Analysis enforcement criteria

COMPONENT	EXPLANANTION/OUTCOME
Regulator	The European parliament and of the council published the new regulation.
Executing party	Competent authorities, Customs authorities and the European Commission are named in the requirements.
Publication/Communication	Official regulation published from European parliament and of the council.
Social relevance	Climate change and sustainability are topics that are more prominent than ever.
Actions	Monitoring, investigation, and sanctioning are defined and conducted by an appointed party.
Punishment	Penalties are foreseen in Article 26.

As table 22 *Regulation E: Analysis enforcement criteria* shows, the regulation on establishing a carbon border mechanism is checked against the criteria defined in chapter 2.7 *Requirements for Enforcement*. Here, the colors green, orange, and red are used to indicate the level of fulfillment for each criterion. In summary, the regulation (EU) 2023/956 meets all the criteria for enforcement outlined in chapter 2.7 *Requirements for Enforcement*. This suggests a high probability of successful enforcement.

4.6.5 Comparison of legal artefacts

In chapter 2 *Literature Review*, the legal basis, namely the role of Customs, in the point in time of Customs involvement as well as the foreseen Customs controls are defined and analyzed. The question is, if these definitions in the UCC match the proposition in the EU regulation above regarding the requirements towards the Customs authorities. To carry out the comparison, the UCC provisions are evaluated against the EU regulation to identify both similarities and differences.

Table 23 *Regulation E: Comparison regulation E against UCC* shows all requirements towards Customs that are identified in the regulation. These requirements are initially compared to Article 3 of the UCC, which addresses the mission of Customs authorities, and then to Article 46 UCC, which covers risk management and Customs controls, as detailed in chapter 2 *Literature Review*. If there is no match, additional articles are examined to confirm the presence of differences. The final column summarizes the results, with green and "Yes" indicating a match, and red and "No" signifying a difference between the UCC and the regulation.

Table 23
Regulation E: Comparison regulation E against UCC

	REQUIREMENT	CONTAINED IN ARTICLE 3, UCC	CONTAINED IN ARTICLE 46, UCC	OTHERS	RESULT
1.0	Article 25 (1) Regulation (EU) 2023/956 - shall not allow the importation of goods by any person other than an authorized CBAM declarant	"(...) protecting the Union from unfair and illegal trade while supporting legitimate business activity"			Yes
1.1	Article 25 (2) Regulation (EU) 2023/956 - shall share pre-defined information on imported goods periodically	"(...) ensuring the security and safety of the Union and its residents, and the protection of the environment, where appropriate in close cooperation with other authorities"	"Customs controls shall be performed within a common risk management framework, based upon the exchange of risk information and risk analysis results between customs administrations (...)"		Yes
1.2	Article 33 (1) Regulation (EU) 2023/956 - shall inform Customs declarants of the obligation to report certain information				No
1.3	Article 33 (2) Regulation (EU) 2023/956 - shall share pre-defined information on imported goods periodically	"(...) ensuring the security and safety of the Union and its residents, and the protection of the environment, where appropriate in close cooperation with other authorities"	"Customs controls shall be performed within a common risk management framework, based upon the exchange of risk information and risk analysis results between customs administrations (...)"		Yes

In summary, three out of the four requirements for Customs specified in the regulation on establishing a carbon border mechanism align with the provisions of the UCC. However, one requirement is not covered by the UCC.

Article 33(1) states: “The customs authorities shall inform the importer, or, in the situations covered by Article 32, the indirect customs representative of the reporting obligation referred to in Article 35 no later than at the moment of the release of goods for free circulation.” The UCC does not stipulate that Customs authorities must proactively inform importers about specific obligations. Therefore, Requirement 1.2 introduces a new responsibility for Customs authorities.

4.6.6 Research Summary CBAM

In summary, regulation (EU) 2023/956 on establishing a carbon border adjustment mechanism includes four requirements for Customs authorities, but not all of these align with the provisions of the UCC. Requirement 1.2 requires Customs to notify Customs declarants about their obligation to report specific information. While this task does not exceed Customs' competencies, it is not currently provided for in the UCC and may have additional implications that fall outside the scope of this thesis. Apart from this requirement, the remaining requirements are consistent with Customs' existing responsibilities and do not necessitate an expansion of their role.

Further, the analysis reveals that all requirements lack essential information needed to clarify who is responsible for each task and when it should be carried out. The requirements are not well-defined, making them difficult to understand and implement. Consequently, the criteria for defining requirements effectively are not met.

Additionally, the regulation does also fulfill the requirements for enforcement.

4.7 Conclusion

This chapter focuses on the analysis of five identified EU regulations that foresee a role of Customs in the enforcement of these EU regulations. Following a comprehensive description and analysis of enforcement criteria as well as listing of requirements towards Customs, these requirements were evaluated concerning their proper wording and alignment with the UCC. The findings are as follows: All five EU regulations meet the enforcement requirements. A total of 41 requirements for Customs were identified across these regulations. However, none fulfill the criteria for a proper definition of requirements. Out of the 41 requirements, 33 align with UCC provisions. The requirements that do not align with UCC provisions do not exceed the competence profile and are consistent with the nature of Customs tasks.

5. Review of Qualitative Research

5.1 Introduction

The purpose of conducting expert interviews is to validate the theoretical findings from chapter 4. Although the theoretical analysis is based on legal frameworks, it lacks a comprehensive perspective on practical implementation. To bridge this gap, expert interviews are conducted to gather insights into the actual realities and diverse experiences related to the topic. As described in chapter 3.5 *Qualitative Research*, the selection of experts is designed to include a wide range of viewpoints, backgrounds, and current roles to provide a comprehensive and varied perspective. The paraphrased data from these interviews, documented in *Appendix II*, is analyzed to evaluate how well it supports or contradicts the theoretical findings. This analysis sought to determine the relevance and accuracy of the theoretical insights when compared to practical, real-world evidence.

5.2 Analysis of Interviews with Experts

In this study, expert interviews were conducted using a structured approach to ensure the data was relevant and manageable.⁶² A set of pre-defined themes, based on the interview guide, directed the analysis. This chapter provides a detailed analysis by summarizing responses within these themes, which include “Changes”, “Challenges”, “Competence Profile”, and “Wording in EU Regulations”. The interviews were designed to elicit specific responses related to these key aspects. By framing questions around these themes, the study ensured consistent and focused answers. Responses were categorized and summarized to highlight key findings and insights, enabling a clear examination of the data and the identification of common trends and divergences among the experts. The summary can be seen in the table 24 *Summary expert interviews*.

Table 24
Summary expert interviews

Theme Expert	Interviewee A [Former Customs Officer]	Interviewee B [Former Customs Officer]	Interviewee C [Customs Officer]	Interviewee D [Industry Expert]
Changes	- additional tasks	- fundamental role of Customs remains intact - new responsibilities beyond their original scope	- core function of Custom remained unchanged - expansion of Customs tasks	- expansion in the scope of Customs-related activities
Challenges	- agility in response to rapid global changes	- growing complexity of Customs work - manage a wide variety of tasks daily	- extensive data validation - new types of inspections and controls	- digitalization will continue to advance rapidly - the speed at which AI is developing - growing volume and complexity of data
Competence Profile	- inadequate training, outdated IT infrastructure, and lack of preparation - new responsibilities often overwhelm the existing system - volume of tasks and the need for specialized knowledge	- competency profile of Customs officers hasn't fundamentally changed	- need for more comprehensive education in areas such as supply chain logistics and economic impacts	- no clear statement

⁶² (Creswell & Poth, 2018)

Wording [EU Regulation]	<ul style="list-style-type: none"> - too vague and lacks clarity - drafted by those who may not be well-versed in the practical aspects of the subject - problem to the increasing complexity of the world 	<ul style="list-style-type: none"> - interviewee expresses skepticism about the clarity and practicality of EU regulations 	<ul style="list-style-type: none"> - current regulations are not well-worded - discrepancies in terminology 	<ul style="list-style-type: none"> - the complexity of the regulations, which often includes historically grown terminology, makes them difficult to navigate and implement
Validation of findings	Yes	Yes	Yes	Yes

Changes

The interviews with Customs experts provide valuable insights into the evolving role of Customs. A key theme shared by all four interviewees is the widening scope of Customs duties. While Customs officers were once focused primarily on collecting duties and managing border security, their responsibilities now extend well beyond these traditional tasks. Despite this increase in duties, two experts highlighted that the core function of Customs remains unchanged. Customs officers continue to play a crucial role in regulating the flow of goods and ensuring compliance with national regulations.

In summary, Customs has transformed from a gatekeeping role into a multifaceted function that is crucial for maintaining global trade security, regulatory enforcement, and the integrity of international supply chains.

Challenges

The experts highlight several important challenges that Customs authorities will face in the future. These challenges include the need to be more flexible in adapting to global changes, handling the growing complexity of Customs work, managing large amounts of data, and keeping up with fast-developing technology and AI. Moving forward, Customs officers will need to become more agile to quickly adjust to changes in trade, regulations, and security threats. As their tasks become more complicated, they will need better training and support. Dealing with large amounts of data will also be important, especially with the growth of digital trade and global supply chains. Lastly, the rise of digital technology and AI presents both challenges and opportunities. AI could make Customs processes faster and more efficient, but it will require big investments in technology and training staff to use it.

In summary, the future of Customs will be shaped by the need for flexibility, handling complex tasks, managing data, and adopting new technologies.

Competence Profile

The experts' insights provide a detailed view on whether the existing competence profile of Customs officers meets the new challenges they encounter. Expert A highlights significant concerns about inadequate training and outdated IT infrastructure, revealing a major gap in the current profile. This suggests that Customs officers may not be fully prepared to manage the demands of modern Customs work. Expert B notes that the competence profile has not fundamentally changed, indicating a disconnect between the traditional skills of Customs officers and the expanding scope of their responsibilities. Expert C stresses the importance of more comprehensive education in areas like logistics and economic impacts, suggesting that the competence profile needs to be updated to include these new areas of expertise. Expert D did not provide a statement on this issue.

In summary, the current competence profile of Customs officers seems inadequate for addressing the evolving challenges they face. There is a clear need to update training programs, enhance IT infrastructure, and broaden the skill set to better align with contemporary Customs demands.

Wording

The feedback gathered from the expert interviews reveals a broad consensus regarding the inadequacy of requirement wording in EU regulations. Experts highlighted several primary concerns, including vagueness and lack of clarity, which hinder Customs officers' ability to interpret and enforce the regulations effectively. Additionally, they noted challenges in practical application, suggesting a disconnect between the regulatory intentions and their real-world implementation. Discrepancies in terminology were also cited as a significant issue, leading to confusion and inconsistent application. Furthermore, the use of historical terminology and the inherent complexity of the regulations complicate intuitive navigation and effective implementation.

In summary, the expert interviews revealed a consensus that the terminology employed in EU regulations to define requirements for Customs is often insufficient for ensuring clarity and implementability.

Validation of findings

Finally, the experts provided validation for the findings presented in chapter 4.7 *Conclusion* and expressed no surprise regarding the results.

5.3 Conclusion

The expert interviews conducted in this research were designed to validate the theoretical findings discussed in the preceding chapters.

First, Customs experts reveal the expanding responsibilities of Customs authorities, which now encompass regulatory enforcement, global trade security, and the integrity of international supply chains, beyond their traditional focus on duty collection and border management. Despite this broadened scope, experts emphasize that the core function of Customs, regulating the flow of goods and ensuring compliance with national laws, remains central.

Second, the experts identify several key challenges for the future of Customs, including the need for greater flexibility in response to global changes, managing increased complexity in operations, and effectively handling large volumes of data amid the rise of digital trade. Furthermore, the rapid advancement of technology and AI presents both opportunities and challenges.

Third, the experts' insights indicate that the existing competence profile of Customs officers is insufficient to address the modern challenges they face, with concerns raised about inadequate training and outdated IT infrastructure. While the traditional skill set has not fundamentally changed, there is a clear need for updates in education, particularly in logistics and economic impacts, to better equip Customs authorities for the expanding scope of their responsibilities.

Lastly, the Customs experts reveal a consensus on the inadequacy of the wording in EU regulations, with concerns about vagueness, lack of clarity, and terminology discrepancies that hinder effective interpretation and enforcement. Additionally, the complexity and use of outdated terminology in the regulations create challenges in their practical application, resulting in inconsistent implementation.

In conclusion, the experts confirmed that Customs is indeed facing challenges and that the wording in EU regulations is inadequate for effective implementation. However, they disagreed with the assumption that the competence profile does not require enhancement, emphasizing the need for improvement in this area. Lastly, contrary to the thesis' initial assumption that Customs is performing tasks beyond their intended scope, the experts clarified that while the scope of responsibilities is expanding, the core function of Customs remains unchanged.

6. Conclusion

6.1 Research Objective Review

The primary objective of this study is to analyze the role of Customs in the enforcement of EU regulations and to investigate the expectations articulated within these regulations, if any exist. The fundamental assumption of this thesis is that the role of Customs is undergoing significant transformation, especially in relation to the enforcement of new EU regulations. This shift is presumed to influence the competence profile of Customs. This research seeks to analyze specific EU regulations to evaluate their compatibility with the responsibilities delineated in the UCC. By scrutinizing the language of requirements directed at the Customs authorities within these EU regulations, the research aims to assess their practicality for implementation in the current framework.

6.2 Conclusions

Throughout this research, several important insights have been uncovered, enhancing the overall understanding of the role and expectations placed on Customs in enforcing EU regulations. The subsequent sections will summarize and address sub-questions, ultimately leading to a comprehensive answer to the main research question. The table below offers a summary of the research questions, the research methodologies employed, and the chapters in which the corresponding answers are discussed in detail.

Table 25
Overview research questions and analysis

Main research question: What is Customs' role in the enforcement of EU regulations and what are the associated expectations outlined in EU regulation?		
Sub-question	Research method	Thesis chapter
What are the requirements towards Customs that are projected in new EU regulations?	Legal Research	4. Research Analysis and Results
To what extent do the requirements meet the actual competencies of Customs as enforcing party?	Literature Research Legal Research Qualitative Research	2. Literature Review 4. Research Analysis and Results 5. Review of Qualitative Research
Should the role of the European Customs authorities be expanded? To what extent is Customs capable of addressing the new requirements associated with an expanded role?	Legal Research Qualitative Research	4. Research Analysis and Results 5. Review of Qualitative Research

The first sub-question addresses the specific requirements placed on Customs under the pre-selected EU regulations. A comprehensive analysis of five EU regulations, as detailed in chapter 4 *Research Analysis and Results*, led to the identification of 41 requirements applicable to Customs.

These requirements are discussed in detail within the following chapters:

- Chapter 4.2.2: Foreseen Customs Responsibilities
- Chapter 4.3.2: Foreseen Customs Responsibilities
- Chapter 4.4.2: Foreseen Customs Responsibilities
- Chapter 4.5.2: Foreseen Customs Responsibilities
- Chapter 4.6.2: Foreseen Customs Responsibilities

The projected requirements toward Customs encompass several core areas. These include the verification of Customs declarations, the implementation of risk management frameworks in Customs control, and the execution of enforcement measures in cases of non-compliance with EU regulations. Additionally, they involve ensuring the security and safety of the EU and its citizens, as well as the protection of the environment. Furthermore, a significant focus is placed on facilitating interagency cooperation, particularly when Customs authorities collaborate with other competent authorities to perform controls beyond the scope of traditional Customs enforcement.

In summary, the analyzed EU regulations impose a broad range of responsibilities on Customs, reflecting the critical role they play in not only safeguarding compliance with EU regulation but also contributing to broader objectives related to security, environmental protection, and interagency collaboration. These responsibilities are integral to the effective implementation of the EU regulations.

The second sub-question explores the extent to which the identified requirements in the EU regulations align with the actual competencies of Customs as the enforcing authority. To address this, it is first essential to understand the established role of Customs. Chapter 2 *Literature Review* provided a detailed discussion of the role and responsibilities of Customs, laying the groundwork for comparing these established duties with the newly identified requirements from the five EU regulations analyzed.

The comparative analysis presented in chapter 4 *Research Analysis and Results* revealed that 33 out of the 41 requirements identified are consistent with the tasks outlined for Customs in the UCC, indicating that approximately 80% of the requirements are aligned with Customs' existing competencies. This finding demonstrates a significant level of congruence between the responsibilities assigned to Customs under new EU regulations and the pre-existing framework and understanding of Customs responsibilities.

Moreover, input from Customs experts supported and reinforced this analysis. These experts confirmed that while the fundamental role of Customs remains unchanged, the new requirements primarily constitute additional task. The experts emphasized that the new EU regulations, though adding layers of complexity, do not fundamentally alter the core responsibilities of Customs. Rather, they extend the scope of their duties, while maintaining alignment with Customs' established enforcement capabilities.

In conclusion, the analysis indicates a strong correspondence between the identified regulatory requirements and the actual competencies of Customs, affirming that the newly imposed tasks largely build upon the foundational role of Customs as outlined in the UCC.

The third sub-question examines whether the role of Customs needs to be expanded and to what extent Customs is equipped to address the newly introduced requirements. As previously discussed in response to the second sub-question, only 20% of the identified requirements are not fully aligned with the provisions of the UCC. A closer analysis of these 20% reveals specific tasks such as the requirement to provide data within designated systems or to specified stakeholders, access systems that are not yet operational, verify certain information on documents, and ensure the availability of adequately trained personnel.

Although these tasks are not explicitly outlined in the UCC, primarily due to the absence of the relevant systems or documents, the nature of these tasks aligns with the broader understanding of Customs' role.

As such, it can be concluded that the role of Customs does not require significant expansion, since the tasks, though new in context, are consistent with the existing competencies of Customs.

However, Customs experts have identified several challenges related to the current capability profile of Customs. Given the increasing complexity of global trade, evolving validation processes, and the need for greater responsiveness in the face of rapid digitalization, many experts believe that Customs may struggle to meet these new requirements. Half of the experts express the view that enhancements to Customs' role are necessary, citing insufficient training, outdated IT infrastructure, an overwhelming volume of tasks, and a lack of education in critical areas such as supply chain management and the broader economic impact of Customs operations.

In summary, while the fundamental role of Customs does not require expansion, there are significant gaps that must be addressed to ensure Customs is adequately prepared to meet the demands of the evolving regulatory landscape.

With the sub-questions addressed, the response to the main research question is being provided in the following. In the context of the enforcement of EU regulations, Customs plays a crucial role, as evidenced by the multiple requirements placed upon it in the analyzed EU regulation. Specifically, Customs are increasingly being tasked with assuming new responsibilities and duties to ensure the effective implementation of EU regulations. This expanded role appears to be a logical extension of their existing functions, as discussed chapter 2 *Literature Review*, given that Customs becomes integral once goods cross the external borders of the European Union. At this point, regulatory enforcement is necessitated, particularly at the border, where EU regulations must be applied.

The analysis presented in chapter 4 *Research Analysis and Results* reveals that certain expectations associated with Customs' role do not fully align with the provisions of the UCC. These discrepancies include the requirement to provide data within specific systems or to designated stakeholders, access systems that are not yet operational, verify particular information on documents, and supply adequately trained personnel. However, many of these expectations, as stipulated in newer EU regulations, either align with the provisions of the UCC or are considered manageable extensions of Customs' traditional functions. This is because these tasks are similar to those already outlined in the UCC, showing consistency in the regulatory expectations placed on Customs.

The primary research question pertains to enforcement. An analysis of enforcement requirements and the definition of appropriate requirements indicates that the examined EU regulation meets the established enforcement criteria, however, none of the 41 identified requirements satisfy the criteria for adequate definition. Consequently, while the structure and content of the regulation support enforcement, the requirements directed at Customs lack essential information necessary for effective implementation.

Ultimately, the role of Customs in enforcing EU regulations is both evolving and expanding, yet it remains grounded in the foundational principles and responsibilities articulated within the UCC. Therefore, while there are new and additional requirements, they largely fall within the scope of Customs' established functions. However, they lack sufficient detail to ensure effective implementation.

6.3 Research Validity

The European Commission introduced a proposal for the Modernized Union Customs Code (MUCC) on May 17, 2023, aimed at repealing Regulation (EU) No 952/2013, which is the basis of this thesis. Given this potential shift, it is pertinent to assess whether the findings of this research will remain relevant upon the MUCC's implementation. This chapter provides a summary of the MUCC's key changes and briefly analyzes whether Articles 3, 46, and 47 of the current UCC have been altered in the MUCC. The analysis compares the current Articles 3, 46, and 47 of the UCC with their counterparts in the MUCC, if applicable.

In recent years, several preparatory initiatives, including the frequently referenced Wise Persons Group, have concentrated on the evolving role of Customs. The MUCC could bring these changes to reality. This proposal seeks to enhance Customs risk management and bolster the control efforts of Member States through an integrated European strategy. Key changes proposed include improving consistency in Customs controls and establishing a new EU-level authority. The major modifications to the current UCC are as follows:

- **EU Customs Authority**
 - o Single IT system for all member states for more transparency in the supply chain, better data exchange and risk analysis (Article 29 MUCC).
- **EU Customs Data Hub**
 - o EU Customs authority to support the national authorities to assist the harmonized application of the Customs law (Articles 205 – 208 MUCC).
- **Definitions**
 - o New definitions like „Importer“, “Deemed Importer”, “Data” are introduced. (Article 5 MUCC)
- **Partnership between Customs and Traders TCT**
 - o New partnership system between the Customs Authorities and Traders to benefit from simplifications is introduced.
- **E-Commerce**
 - o New provisions to regulate electronic commerce. (Article 159 (3) MUCC)
- **Crisis Management**
 - o Special power will be granted to the Commission to use for crisis management and restrictive measures when appropriate. (Articles 201-204 MUCC)

This summary is not definitive but suggests significant changes for Customs are on the horizon. This analysis aims to validate the findings of this research, considering that the following three articles from the UCC form the foundation of this thesis. To evaluate the impact of the MUCC on this research, the proposal is analyzed for:

- Article 3 UCC – Mission of customs authorities
- Article 46 UCC – Risk management and customs controls
- Article 47 – Cooperation between authorities

Article 3 UCC

Article 2 of the MUCC, like Article 3 of the UCC, outlines the mission of Customs authorities. This section examines whether the content of Article 3 UCC is also reflected in Article 2 MUCC.

A comparison of both articles reveals that while Article 2 MUCC is not identical to Article 3 UCC, it represents an updated version. Despite the differences, Article 2 MUCC includes all the elements of Article 3 UCC, often using similar wording. Additionally, Article 2 MUCC provides a more detailed description of the mission of Customs. Although no new tasks are assigned to Customs, the article offers enhanced explanations. The following components illustrate these additions:

- “ensuring the proper collection of customs duties and other charges”
- “ensuring that goods presenting a risk for the safety or the security of citizens and residents do not enter the customs territory of the Union”
- “by ensuring that goods presenting related risks do not enter or leave the customs territory of the Union”
- “close monitoring of economic operators and supply chains and a minimum core of customs infringements and penalties”

Article 46 UCC

Article 46 of the UCC deals with Risk Management and Customs Controls. The analysis indicates that there is no single article in the MUCC that directly corresponds to Article 46 UCC. However, the majority of the content covered in Article 46 UCC is addressed across several articles in the MUCC. The table below outlines where the elements of Article 46 UCC can be found within the MUCC.

Table 26
Match of Article 46 UCC to MUCC

Article UCC	Article MUCC	Chapter heading MUCC
Article 46 (1) UCC	Article 43 MUCC	Customs controls
Article 46 (2) UCC	Article 51 MUCC	Roles and responsibilities
Article 46 (3) UCC	Article 55 MUCC	Conferral of implementing powers
Article 46 (4) UCC	Article 50 MUCC	General principles
Article 46 (6) UCC	Article 52 MUCC	Common risk criteria and standards
Article 46 (7) UCC	Article 52 MUCC	Common risk criteria and standards
Article 46 (8) UCC	Article 5 MUCC	Definitions

One section, specifically section (5) of Article 46 UCC, does not have a direct counterpart in the MUCC. Given that the modernization introduces a new EU authority and a central EU data hub, the information exchange mechanisms are expected to undergo significant changes. Consequently, the tasks outlined in Article 46 UCC have been updated to reflect these new communication and data-sharing protocols through the Data Hub. A detailed listing of these updated tasks is not included here. In summary, while the MUCC provides additional details, the core content from Article 46 UCC is still addressed in the MUCC. Therefore, the modernization does not affect the findings of this thesis.

Article 47 UCC

Article 47 UCC, which addresses requirements for cooperation between authorities, does not have a direct counterpart in the MUCC. However, the content of Article 47(1) UCC is closely mirrored in Article 43(3) of the MUCC, with nearly identical wording.

The specific provisions of Article 47(2) UCC are not reflected in the MUCC, and although Article 239 UCC covers internal Customs cooperation, it does not provide the same level of detail as Article 47(2) UCC. Despite these differences, both articles emphasize the importance of close cooperation between authorities. Therefore, it is expected that the overall aim of enhancing inter-authority cooperation remains effectively addressed, even if some details vary.

Based on the analysis, it can be summarized that while the MUCC does not fully replicate Articles 3, 46, and 47 of the UCC, the essence of these articles is preserved. The content has been redistributed and reorganized across various articles in the MUCC. Although there are slight changes in wording and some new additions, these adjustments do not fundamentally alter the core principles outlined in Articles 3, 46, and 47 UCC. Therefore, it is expected that the foundational elements of this thesis, based on these UCC articles, will remain relevant and intact with the implementation of the MUCC.

6.4 Research Limitations and Contribution

Several limitations should be considered in this thesis, which may affect the validity and applicability of the results:

1. **General scope of the thesis:** The thesis is broadly framed and does not support the varying interpretations of regulations across different EU countries. As a result, the diversity of national interpretations and their impact on Customs practices within the EU is not captured.
2. **Limited selection of regulations:** Only a limited number of regulations, listed in in chapter 3.3 *Legal Research*, were examined, based on the status as of August 15, 2024. This restricted selection may overlook relevant developments or key regulations that have come into effect after this date or are still under discussion. By focusing mainly on newer regulations, it is not possible to examine the evolution of content and phrasing over time. Reviewing regulations from different years could offer valuable insights into the changing role of Customs.
3. **Use of the new EU reform MUCC:** The new EU reform, MUCC, proposed on May 17, was only used to support the validation of the thesis. A thorough analysis of this regulation was not conducted, which could limit the significance of the conclusions.
4. **No examination of passively formulated tasks:** There was no examination of whether passively formulated tasks by other authorities listed in all EU regulations lead to actively formulated requirements affecting Customs. A corresponding mapping of these tasks has not been carried out, which means that the listing of requirements for Customs may be incomplete.
5. **Relevance of existing tasks:** The thesis did not explore whether the existing tasks listed in the UCC are still relevant and necessary.
6. **Relevance of regulations:** The relevance of the current regulations and tasks was also not thoroughly evaluated or questioned. It remains unclear whether these regulations effectively serve their intended purpose.
7. **Feasibility of capacity for new tasks:** The practical feasibility or rather implications of the required requirements, especially when it comes to capacities to fulfill new tasks was not adequately analyzed. This includes both personnel and material resources, which could result in challenges when implementing new tasks in practice.

These limitations should be taken into account when interpreting the results, as they may restrict the validity and applicability of the findings. Given the fact, that the number of regulations is limited, the analysis only demonstrates a trend. Moreover, this research does not question the usefulness of the selected regulations nor of elaborated, isolated requirements and responsibilities. This information is considered as given.

Although the limitations identified may have implications, this research provides a theoretical contribution. The primary contribution of this thesis is the formulation of a model for making requirements in EU regulations implementable. Currently, there is a lack of literature that addresses the intricate details of how to articulate requirements in a manner that clearly specifies who is responsible for what actions and by when. This thesis provides a foundational model for the proper phrasing of requirements. However, it is important to note that this contribution does not extend to practical applications, as the process of drafting EU regulations is beyond the scope of this research. Consequently, there is no analysis of how this model might be integrated into that process.

This contribution is significant because not only does the research conclude that EU regulations are excessively vague, lack clarity, and are poorly worded, but Customs experts have also confirmed these deficiencies, highlighting the challenges they pose to implementation due to ambiguous terminology.

6.5 Recommendations for Future Research

Based on the limitations identified, several recommendations can be made for future research to address these gaps and enhance the understanding of Customs authorities roles and competencies:

Examine national interpretations: Future research could explore how various EU countries interpret and implement regulations, as well as how they apply specific requirements. This approach would offer a detailed perspective on the diversity of Customs practices across member states and reveal how national differences impact overall enforcement.

Application of proper requirement definition: Future research could delve into the existing requirement definition process to investigate how the model developed in this study can be effectively integrated.

Scope of regulations: Future studies should expand the selection of regulations beyond those covered in this thesis. Analyzing a wider selection of regulations from various years would facilitate an examination of how Customs responsibilities have evolved and the effects of regulatory changes over time.

Analysis of MUCC: Future research could investigate the MUCC in detail. A thorough analysis of this regulation could offer deeper insights into the evolving role of Customs and identify trends in the necessary competencies.

Explore passively formulated tasks: Research could examine how passively formulated tasks by other authorities affect Customs requirements. By mapping these tasks and evaluating their impact on Customs responsibilities, it would be possible to identify any additional requirements that may currently be overlooked. Additionally, it could reveal further shortcomings in the formulation of requirements.

Assess the relevance of existing tasks: Future studies could assess the relevance and necessity of the tasks outlined in the UCC. This evaluation would ensure that Customs authorities are focused on tasks that are currently relevant and effective.

Evaluate the effectiveness of regulations: Research on the effectiveness of current regulations and their impact on Customs operations could be made. This involves evaluating whether the regulations meet their intended goals and identifying areas where improvements could be made.

Analyze feasibility and capacity for new competency: Future research could examine the practical feasibility of developing new competencies or taking over additional tasks, including an analysis of the necessary personnel and material resources. Understanding the capacity constraints and challenges related to these new responsibilities will be essential for their successful implementation.

Addressing these recommendations in future research will provide a more comprehensive understanding of Customs authorities' roles, enhance the effectiveness of regulatory frameworks, better align competencies with regulatory requirements.

Appendices

- I Interview Guideline
- II Interview Reports

Appendix I - Interview Guideline

1. Introduction:

Introduce myself and my role.

Outline key details about the duration, confidentiality, and how the information will be used.

2. Purpose:

Clarify the purpose of the interview by highlighting the main topics to be covered and the overall objective of the meeting.

3. Interview:

Background Information of Interviewee:

- Experience with Customs & foreign trade
- Current position

Experiences and Opinion:

- I. Based on your experiences, do you believe the role of Customs has evolved over the past decade? If so, what changes have you observed, and why do you think these changes occurred?
- II. What do you see as the biggest challenge for Customs in relation to its future role?
- III. Do you believe that Customs can meet all requirements given their current competencies?
- IV. What is your opinion on the wording of requirements in EU regulations? Do you think the wording in the regulation is clear enough for the appointed parties to understand what is expected of them?

4. Present findings

PowerPoint Slide with short summary of the research findings to be presented.

- V. What are your thoughts on these findings? Would you have expected a different outcome? Do you agree with these findings?

5. Closing questions

- VI. Is there anything else you would like to mention that we haven't discussed?

6. Conclusion

Summarize the key topics covered in the interview.

Express gratitude to the interviewee for his/her time and valuable contributions.

Appendix II - Interview Reports

Interview #1 – Former customs officer with years of experience as manager in Customs consulting

1. Introduction:

Introduce myself and my role.

Outline key details about the duration, confidentiality, and how the information will be used.

2. Purpose:

Clarify the purpose of the interview by highlighting the main topics to be covered and the overall objective of the meeting.

3. Interview:

Background Information of Interviewee:

The interviewee is a former Customs officer with over 10 years of experience, having worked as both a Customs auditor and preference auditor. He has since transitioned into consulting, specializing in Customs IT, project management, and excise tax law, and is also involved in AI-driven Customs tariffing projects.

Experiences and Opinion:

- I. Based on your experiences, do you believe the role of Customs has evolved over the past decade? If so, what changes have you observed, and why do you think these changes occurred?

The interviewee, reflecting on his extensive experience in Customs, notes that the role of Customs has significantly evolved and continues to change. Historically, Customs responsibilities have expanded from traditional border duties to include tasks such as vehicle tax collection, financial control, and anti-money laundering, which were previously handled by other authorities. He observes that this shift reflects a broader trend where Customs, a major federal authority, has absorbed new functions due to its established expertise in finance and its substantial staffing capabilities. The interviewee attributes this trend to the federal government's tendency to delegate additional tasks to Customs rather than create new agencies or expand other existing ones.

He further explains that Customs' flexibility and its capacity to handle both weapon-related and non-weapon-related tasks make it an attractive choice for managing various new responsibilities. This has led to a change in the public perception of Customs, evolving from a border control function to a multifaceted federal agency. The interviewee also points out that incorporating these various tasks into Customs' responsibilities highlights its adaptability and effectiveness in handling complex administrative functions.

- II. What do you see as the biggest challenge for Customs in relation to its future role?

The interviewee observes that Customs and foreign trade have had to become increasingly agile in response to rapid global changes, including trade disputes, preferential agreements, and evolving regulatory environments. This agility is crucial as Customs must quickly adapt to new laws and restrictions and implement these changes without delay. Authorities increasingly rely on Customs data, necessitating new controls and processes, such as those required for CBAM. The interviewee highlights that Customs' ability to manage these challenges underscores the adaptability of the organization and the high level of qualification among its staff. This agility is essential not only for

handling the immediate demands of new regulations but also for maintaining efficiency amidst the ongoing changes in export control and EU legislation. The need for Customs to continuously adjust and respond to shifting conditions demonstrates the critical role of well-trained and flexible personnel in navigating the complex landscape of global trade and compliance.

- III. Do you believe that Customs can meet all requirements given their current competencies?

The interviewee expresses concern that Customs may not have the appropriate competence profile to meet the increasing number of new requirements. He cites past failures, such as the issues with vehicle tax integration, where Customs struggled due to inadequate training, outdated IT infrastructure, and lack of preparation. The interviewee highlights that Customs officers often face challenges with manual processes and insufficient staffing, which exacerbates problems when new tasks are introduced. He points out that the rapid turnover and generational change within the workforce further strain resources, leading to difficulties in adapting to new demands.

The interviewee also notes that while Customs is capable of handling its traditional duties, the influx of new responsibilities often overwhelms the existing system. The lack of integration between different digital platforms adds to the complexity, causing additional manual work and inefficiencies. Despite efforts to hire more staff, the sheer volume of tasks and the need for specialized knowledge create ongoing challenges. He underscores that Customs, while a resilient and adaptable authority, often struggles to keep pace with the evolving demands due to inadequate preparation and resource constraints.

- IV. What is your opinion on the wording of requirements in EU regulations? Do you think the wording in the regulation is clear enough for the appointed parties to understand what is expected of them?

The interviewee believes that the wording of regulations is often too vague and lacks clarity, making it difficult for individuals and organizations to understand exactly what is required of them. He observes that many regulations are drafted by those who may not be well-versed in the practical aspects of the subject, leading to a lack of precision. This vagueness often results in the need for national courts to interpret the regulations or for further clarification from Brussels. The interviewee feels that this issue has worsened over time, noting that past laws were more clearly written. He attributes the problem to the increasing complexity of the world, which makes it challenging to capture all necessary details in legislation.

4. Present findings

PowerPoint Slide with short summary of the research findings to be presented.

- V. What are your thoughts on these findings? Would you have expected a different outcome? Do you agree with these findings?

The interviewee does agree with the findings. He critiques the clarity and effectiveness of current Customs regulations, highlighting that they often suffer from vague and imprecise wording. He notes that, although the regulations aim to be thorough and modern, their implementation is complicated by unclear instructions and a lack of adequate staff. The interviewee points out that while the EU sets broad and seemingly simple requirements, such as document checks, these requirements often necessitate specialized knowledge and detailed criteria that are not always provided in training. This creates a gap between what is expected and what can realistically be achieved, especially in

Germany, where, despite better training compared to other countries, there are still significant challenges. He emphasizes that the EU's general directives, while easy to articulate, do not account for the practical difficulties faced by national Customs authorities. This misalignment between EU requirements and national capabilities contributes to ongoing issues with staff shortages and insufficient preparation, which he finds both predictable and concerning.

The interviewee identifies a significant personnel issue within the German Customs administration, noting not only a shortage of staff but also a major problem with how personnel are distributed. He explains that some employees are occupied with tasks outside the core responsibilities of Customs officers, which could be streamlined through technical innovation. This would potentially free up multiple staff members for more relevant duties. Additionally, he highlights inefficiencies in staffing at higher levels, where senior staff often have excessive administrative responsibilities. Overall, he points out that while the Customs administration is receiving more personnel, the challenge lies in effectively allocating and utilizing these resources.

5. Closing questions

VI. Is there anything else you would like to mention that we haven't discussed?

None.

6. Conclusion

Summarize the key topics covered in the interview.

Express gratitude to the interviewee for his/her time and valuable contributions.

Interview #2 – Former Customs officer with years of experience as managing director in Customs consulting

1. Introduction:

Introduce myself and my role.

Outline key details about the duration, confidentiality, and how the information will be used.

2. Purpose:

Clarify the purpose of the interview by highlighting the main topics to be covered and the overall objective of the meeting.

3. Interview:

Background Information of Interviewee:

The interviewee, a former Customs officer with several degrees in Customs and Tax Law, moved to the private sector following his education. He now has over 15 years of experience and serves as the managing director at a Customs consultancy.

Experiences and Opinion:

- I. Based on your experiences, do you believe the role of Customs has evolved over the past decade? If so, what changes have you observed, and why do you think these changes occurred?

The interviewee observed that the role of Customs in Germany has undergone significant changes over the years. Traditionally focused on Customs law and revenue management, German Customs authorities have increasingly taken on new responsibilities beyond their original scope. This includes tasks such as monitoring undeclared work, enforcing minimum wage laws, and managing vehicle tax. As a result, many Customs officers find themselves working in areas that are not directly related to Customs law, which has shifted their focus away from traditional Customs duties.

Despite these changes, the fundamental role of Customs in managing tariffs and raising revenue remains intact. However, there has been a notable expansion in their responsibilities to include areas such as anti-dumping duties, protective measures, and trade restrictions. The methods for monitoring these areas have evolved from manual processes to more advanced electronic systems, improving both efficiency and effectiveness.

The interviewee highlights that this broadening of responsibilities reflects an effort by Customs to adapt to new challenges and regulatory demands. While the shift has introduced new tasks and areas of focus, it has also enhanced the capability of Customs to protect society and ensure compliance with trade regulations.

- II. What do you see as the biggest challenge for Customs in relation to its future role?

The interviewee highlights the growing complexity of Customs work as a major challenge, noting that Customs officers are expected to manage a wide variety of tasks daily. This vast scope makes it difficult for officers to be experts in every type of good or legal requirement they encounter. As a result, efficient Customs clearance often depends on whether an officer happens to be knowledgeable about the specific issue at hand, which introduces a level of unpredictability into the process.

For auditors, while officers are not required to keep up with constant legal changes, they face a broader range of topics during audits. Their work focuses on reviewing past actions to ensure compliance with regulations at the time, but they must also manage a growing number of subjects to audit. Despite improvements in IT and electronic tools that offer some support, the increasing

demands on Customs have made it clear that more personnel are needed to handle the workload effectively. However, the Customs administration is struggling to recruit and train enough qualified staff to keep pace with these expanding responsibilities.

- III. Do you believe that Customs can meet all requirements given their current competencies?

The interviewee argues that the competency profile of Customs officers hasn't fundamentally changed, as the work still revolves around legal topics. Whether dealing with one regulation or another, the core skills remain the same. However, the range of topics officers must manage has broadened significantly. He suggests that the real issue isn't a shortage of personnel but rather a problem of staff allocation, with available resources not always being used in the most effective areas.

- IV. What is your opinion on the wording of requirements in EU regulations? Do you think the wording in the regulation is clear enough for the appointed parties to understand what is expected of them?

The interviewee expresses skepticism about the clarity and practicality of EU regulations, stating that they are often not formulated in a way that makes it easy for individuals to understand their obligations. He notes that while this lack of clarity provides work for consultants, the problem stems from how quickly regulations are sometimes drafted, particularly in politically urgent situations like with Russia. The gap between legislation and practical implementation is significant, with lawmakers seemingly disconnected from everyday challenges. Additionally, IT systems meant to support these regulations often lag behind, complicating matters further.

4. Present findings

PowerPoint Slide with short summary of the research findings to be presented.

- V. What are your thoughts on these findings? Would you have expected a different outcome? Do you agree with these findings?

The interviewee is not particularly concerned about the EU's legislative process, believing it functions well overall. He expected the requirements to be somewhat vague, as it allows member states flexibility in implementing the regulations according to their unique Customs structures. However, he acknowledges that national Customs administrations often resist too much oversight from the EU, particularly with new initiatives like the EU Customs Authority. The interviewee disputes the idea that there is a general staffing shortage in Customs, arguing instead that the issue lies in inefficient allocation of personnel rather than a lack of staff. He believes the problem is more about people being placed in the wrong roles rather than a true personnel shortage, despite common complaints from Customs officers.

The interviewee explains that the Customs administration is increasingly dealing with issues related to sustainability, such as deforestation, as well as sanctions against Russia and other countries like China and Iran. These topics, along with potential future developments like protective tariffs and anti-dumping measures, will keep Customs busy. He acknowledges that the growing focus on sustainability creates challenges for companies, particularly in sourcing from suppliers, which is

difficult to implement. While Customs is expanding its scope, the interviewee does not believe it needs to significantly expand its skills profile. Customs remains primarily a border control authority and does not make technical decisions on many newer topics like sustainability. For these issues, Customs relies on other authorities, like BAFA or the German Emissions Trading Authority, to provide the expertise while Customs enforces the regulations at the border. In essence, Customs' role has not fundamentally changed, even if the range of topics it oversees has broadened.

5. Closing questions

VI. Is there anything else you would like to mention that we haven't discussed?

None.

6. Conclusion

Summarize the key topics covered in the interview.

Express gratitude to the interviewee for his/her time and valuable contributions.

Interview #3 - Customs-Officer with nearly 40 years of experience

1. Introduction:

Introduce myself and my role.

Outline key details about the duration, confidentiality, and how the information will be used.

2. Purpose:

Clarify the purpose of the interview by highlighting the main topics to be covered and the overall objective of the meeting.

3. Interview:

Background Information of Interviewee:

The interviewee is a Customs councilor to the EU in Brussels, bringing over 38 years of experience from Dutch Customs. His distinguished career encompasses roles in directing trade and innovation, building international trade relationships, and advancing technology in Customs processes.

Experiences and Opinion:

- I. Based on your experiences, do you believe the role of Customs has evolved over the past decade? If so, what changes have you observed, and why do you think these changes occurred?

The interviewee explained that while the core function of Customs, overseeing the cross-border movement of goods, has remained unchanged for over 430 years, the methods and scope of Customs operations have undergone significant evolution. Initially, Customs primarily focused on collecting duties and inspecting goods based on national legislation. With the formation of the EU Customs Union, the role of Customs expanded to include not just duty collection but also compliance with European trade policies and restrictions. This shift involved moving from managing national regulations to adhering to a unified European framework, which started with trade and tariff regulations and evolved to include phytosanitary and plant protection measures.

In recent decades, particularly since around 2005, there has been a notable transition from national to European regulations, reflecting a broader consolidation of Customs responsibilities at the EU level. This evolution has introduced a wide array of new laws and measures, such as the recent European weapons regulation, which will come into effect in 2026. The interviewee noted that this change represents not just a shift in regulatory focus but an expansion of Customs tasks. Customs authorities are now tasked with managing a complex and growing set of regulations, which includes controls and requirements that were not previously part of national Customs functions. This ongoing expansion underscores the increasing complexity and scope of Customs work in response to evolving international trade demands and regulatory frameworks.

- II. What do you see as the biggest challenge for Customs in relation to its future role?

The interviewee identifies two primary challenges facing Customs. The first is the technical difficulty associated with the implementation of new laws that demand extensive data validation. This includes the introduction of various regulations that require Customs to handle and process large volumes of complex data. As a result, managing and processing data becomes more complex, presenting considerable technical difficulties.

The second challenge involves adapting to new types of inspections and controls. For instance, regulations related to forced labor and deforestation require Customs to verify information that is not always apparent from the goods themselves. Customs officers may struggle to identify the origins or conditions related to these issues, such as detecting forced labor or pinpointing deforestation sources within products like wood or paper.

Additionally, the interviewee points out a shift in focus towards stricter export controls, particularly concerning the export of used goods and waste. Customs will likely face more rigorous monitoring and enforcement tasks as regional trade policies evolve, including laws to prevent the export of recyclables and used goods. This shift reflects a broader trend towards increasing regulation and oversight, potentially adding to the workload and responsibilities of Customs authorities.

III. Do you believe that Customs can meet all requirements given their current competencies?

The interviewee expressed concerns about whether current Customs officers possess the skills and knowledge necessary to meet evolving requirements. He believes that, while officers are skilled in basic control functions like inspecting vehicles and ships, there is a need for more comprehensive education in areas such as supply chain logistics and economic impacts. He emphasized that the complexity of legal requirements has increased and that Customs personnel should be more highly educated to handle these complexities effectively.

Additionally, the interviewee highlighted the importance of integrating advanced technology to keep pace with product knowledge and regulatory demands. He noted that technological tools, such as scanning apps used in the Netherlands, can significantly enhance efficiency and accuracy. However, he also observed that the EU's Customs practices vary, with some member states, like the Netherlands, being more advanced than others. Overall, he stressed that while technology and improved training can address some of these challenges, there remains a need for greater consistency and advancement across the EU.

IV. What is your opinion on the wording of requirements in EU regulations? Do you think the wording in the regulation is clear enough for the appointed parties to understand what is expected of them?

The interviewee believes that current regulations are not well-worded to clearly convey to relevant parties what actions they need to take, when, and how. He highlighted that discrepancies in terminology, such as those between "bringing to market" and "release for consumption," create confusion and hinder effective implementation.

He highlighted that these ambiguities not only hinder compliance but also complicate the enforcement of regulations across different sectors. The interviewee also noted the challenge of determining when Customs legislation becomes applicable, whether at the moment goods physically enter the EU or when they are released into free circulation. This uncertainty impacts the timing and scope of inspections, such as those related to deforestation regulations. He concluded that more harmonization and clarity in regulatory language are needed to improve both understanding and enforcement across various Customs processes.

4. Present findings

PowerPoint Slide with short summary of the research findings to be presented.

V. What are your thoughts on these findings? Would you have expected a different outcome? Do you agree with these findings?

The interviewee acknowledged that the findings presented aligned with his own perceptions, indicating that the issues highlighted in the analysis matched his expectations

5. Closing questions

VI. Is there anything else you would like to mention that we haven't discussed?

None.

6. Conclusion

Summarize the key topics covered in the interview.

Express gratitude to the interviewee for his/her time and valuable contributions.

Interview #4 - Customs-Expert with mostly Industry background

1. Introduction:

Introduce myself and my role.

Outline key details about the duration, confidentiality, and how the information will be used.

2. Purpose:

Clarify the purpose of the interview by highlighting the main topics to be covered and the overall objective of the meeting.

3. Interview:

Background Information of Interviewee:

The interviewee is a certified economist with 13 years of experience in Customs and foreign trade, 10 years in the automotive industry, and 3 years in consultancy as managing director.

Experiences and Opinion:

- I. Based on your experiences, do you believe the role of Customs has evolved over the past decade? If so, what changes have you observed, and why do you think these changes occurred?

The interviewee perceives the Customs authority in two distinct ways. From his perspective, the Customs system is divided into two levels: the administrative and the operational or service level. His personal experience has been primarily with the administrative level, which involves tasks such as compliance, monitoring, and coordinating procedures. For example, his work with AIO monitoring marked his first significant interaction with Customs, where the focus shifted to physical security checks, like someone accompanying him around a fence to inspect security measures. This struck him as somewhat unusual.

Over the years, his perception of Customs has remained relatively consistent. He has often felt that Customs officials act more like inspectors rather than collaborators. This dynamic created a sense of being tested, almost as if the officials were looking for faults, leading him to feel that they were not true partners in the economy. Although he has encountered some cooperative and pleasant individuals, his overall impression has been one of a relationship with negative undertones, which he acknowledges is a very subjective view.

He believes that this is exactly what has changed now. With the rise of digital processes, his impression is that there is less direct interaction with people. In the past, he would often visit the site in person. Now, the process has become more anonymous and standardized.

Through digitalization, many procedures and processes have shifted, removing some of the human element that once existed. While someone might have had a bad day before, that factor has diminished as the system has become more automated. He acknowledges that this is a somewhat subjective perception, but it seems evident that the nature of Customs authority has changed.

Moreover, the responsibilities of Customs have evolved. Compared to 15 years ago, Customs is still responsible for declarations and vehicle tax, but the shift from paper-based processing to digital systems, along with the addition of regulations like the CBAM and deforestation policies, has altered their role.

He has noticed a significant expansion in the scope of Customs-related activities. In addition to the traditional, prohibitions and restrictions-focused topics that the authority primarily monitored during imports, there was a shift over time. The topic of SAFE (Security and Facilitation in a Global Environment) became prominent, which is where he began his career. The SAFE framework,

established by the World Customs Organization (WCO), required global implementation, bringing a new focus to Customs operations.

With the introduction of the IWO (International Wide Operation) program, Customs officers began working more closely with businesses. For example, while he was in the automotive industry in a leading position, they implemented a neighborhood security concept where neighbors were encouraged to report suspicious activities, since there were no prior Customs issues in that regard. This approach was entirely new for everyone involved, and it shifted Customs' focus. Customs became more involved in assessing risk within the supply chain, determining the likelihood of irregularities like smuggling or incorrect tariff numbers using data extracts for risk analysis.

This evolution transformed Customs into a different kind of authority, requiring new skills, particularly in the digital realm. The idea that a Customs officer would confront a company with risk evaluations was something that was only just emerging when he started his career. It was a new development at that time.

He acknowledges that digitalization plays a crucial role in the changes observed in Customs. The sheer volume of trade, combined with digital processing on the part of businesses, has pushed authorities to adapt as well, particularly with the implementation of systems like ATLAS. He believes this shift has significantly transformed Customs operations.

When asked if there are other factors driving these changes, he agrees, highlighting the increased range of tasks that Customs authorities now handle. For example, the responsibility for vehicle tax, which was assigned to Customs through ATLAS. This indicated to him that the roles and responsibilities of Customs have been restructured.

He also points out that European integration has been a major driver of change. Although some of these developments occurred before his time, the lifting of national Customs barriers and the creation of a European external border, especially following the Lisbon Treaty, has transformed the role of Customs authorities. With the establishment of free movement of goods, traditional border checks, like those previously done at the Czech border, have disappeared, which he views as a positive development.

The focus of Customs has shifted away from border control towards areas such as consumer protection and the monitoring of counterfeit goods. Issues like product standards, consumer safety, and deceptive practices have gained much more importance, reflecting a broader mandate for Customs in recent years.

II. What do you see as the biggest challenge for Customs in relation to its future role?

He believes that digitalization will continue to advance rapidly. The speed at which AI is developing, combined with the growing volume and complexity of data, including new regulations like those on deforestation and F-gases, introduces a multitude of new data attributes. Managing this influx of information requires new evaluation methods for effective risk management.

He notes that with the planned modernization of Customs codes and centralized data processing, there are significant challenges in harmonizing these systems at the European level. Despite efforts, there is still a lack of integrated Customs IT systems between member states, which remains a long-standing issue. Centralized Customs processing is a critical goal, but achieving seamless integration across all procedures remains a work in progress.

III. Do you believe that Customs can meet all requirements given their current competencies?

He acknowledges that it's challenging for him to assess the situation in detail, as he is not closely involved in the current Customs operations or training. From his experience with Customs officials, he felt that those with a certain level of experience had a general understanding of the issues being

discussed. However, he is unsure about how well-equipped they are to handle future tasks, especially with the growing demands and digitalization challenges.

He hears various opinions about the skills and training of Customs officers, but he admits that he cannot evaluate these aspects thoroughly himself due to his distance from the ongoing training and developments.

- IV. What is your opinion on the wording of requirements in EU regulations? Do you think the wording in the regulation is clear enough for the appointed parties to understand what is expected of them?

He finds it challenging to answer whether the chosen formulations in regulations clearly define responsibilities and deadlines. He believes that the complexity of the regulations, which often includes historically grown terminology, makes them difficult to navigate and implement intuitively at the administrative level.

When asked if this complexity might be intentional to allow for broader interpretation and flexibility, he admits he has not considered this before. He expresses uncertainty about why regulations are so complex, noting that he is somewhat removed from the legislative process.

He speculates that the involvement of various stakeholders with differing interests could lead to broad and sometimes vague formulations, as compromises are made to accommodate different viewpoints. However, he acknowledges that this is only a speculative context and that he does not have direct insight into the legislative process.

4. Present findings

PowerPoint Slide with short summary of the research findings to be presented.

- V. What are your thoughts on these findings? Would you have expected a different outcome? Do you agree with these findings?

He was surprised by the results, particularly the fact that none of the 41 requirements were well-defined. Although he anticipated some issues, discovering that zero out of 41 requirements met clear standards was striking.

5. Closing questions

- VI. Is there anything else you would like to mention that we haven't discussed?

None.

6. Conclusion

Summarize the key topics covered in the interview.

Express gratitude to the interviewee for his/her time and valuable contributions.

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