Update on project on Integrated Risk Management in Single Window Systems

Valentin Nikonov

IRM in SW Project Lead

Vice Chair, WP.6 GRM

Integrated Risk Management in Single Window Systems Project

ECE/TRADE/C/WP.6/2011/14 **Recommendation P on Crisis Management within a Regulatory Systems**	2011	PDF	PDF	PDF
ECE/TRADE/C/WP.6/2011/14/Rev.1 **Recommendation P on Risk Management in Regulatory Systems v2**	2020	PDF	PDF	PDF
ECE/TRADE/C/WP.6/2011/4 **Recommendation R on Managing Risk in Regulatory Frameworks**	2011	PDF	PDF	PDF
ECE/CTCS/WP.6/2016/7 **Recommendation S on Applying Predictive Risk Management Tools for Targeted Market Surveillance**	2016	PDF	PDF	PDF
ECE/CTCS/WP.6/2018/5 **Recommendation T on Standards and Regulations for Sustainable Development**	2018	PDF	PDF	PDF
ECE/CTCS/WP.6/2020/6 **Recommendation V on Addressing Product Non-Compliance Risk in International Trade**	2020	PDF	PDF	PDF

Managing Risk for Safe, Efficient Trade

GUIDE FOR BORDER REGULATORS

https://intracen.org/resources/publications/Managing-Risk

Implementing risk management within trade procedures remains a challenge

Individual risk management capacity challenge

Regulatory authorities involved in border control often lack the risk management capacity:

- Risk management methodologies
- Information technology (IT) systems
- Competences

Evaluations of incoming shipments are biased or incomplete

No risk criteria established

Regulatory interventions are not proportionate to risks

Integration challenge

Risk management at the border is as good as it is applied by the least efficient regulatory agency

If just one regulatory agency lacks the IT or human resources - the entire system will be inefficient

Differences in approaches to risk evaluation compromise the entire system

Risk management efforts in many countries seem to have stalled at the single agency (customs) stage

Strategy for optimizing border compliance time and costs while maintaining regulatory requirements

Implementing the risk management principles of the WTO Agreements

- TFA, SPS,TBT

Setting priorities in border control based on evaluation of non-compliance risk

- Probability of non-compliance
- Consequences of non-compliance

**Integrating risk management systems of regulatory agencies**

- All non-compliance risks within one system
- Every regulatory agency implements its enforcement policy
- Overall border compliance time and costs as metrics
- Harmonized – cross agency – criteria for evaluating different non-compliance risks

**Strengthening the role of import compliance in market surveillance**

- 1. Building **individual risk management capacity** of each border control agency:
  - Management of non-compliance risk
  - A reference model for targeting non-compliance at the border
- 2. **Integrating risk management systems** of product regulators and the Customs:
  - Methodology
  - Data
  - IT resources
  - Risk management expertise
  - Applying compliance rules at the border
  - A reference model of an integrated system

Reference model of a risk-based targeting framework
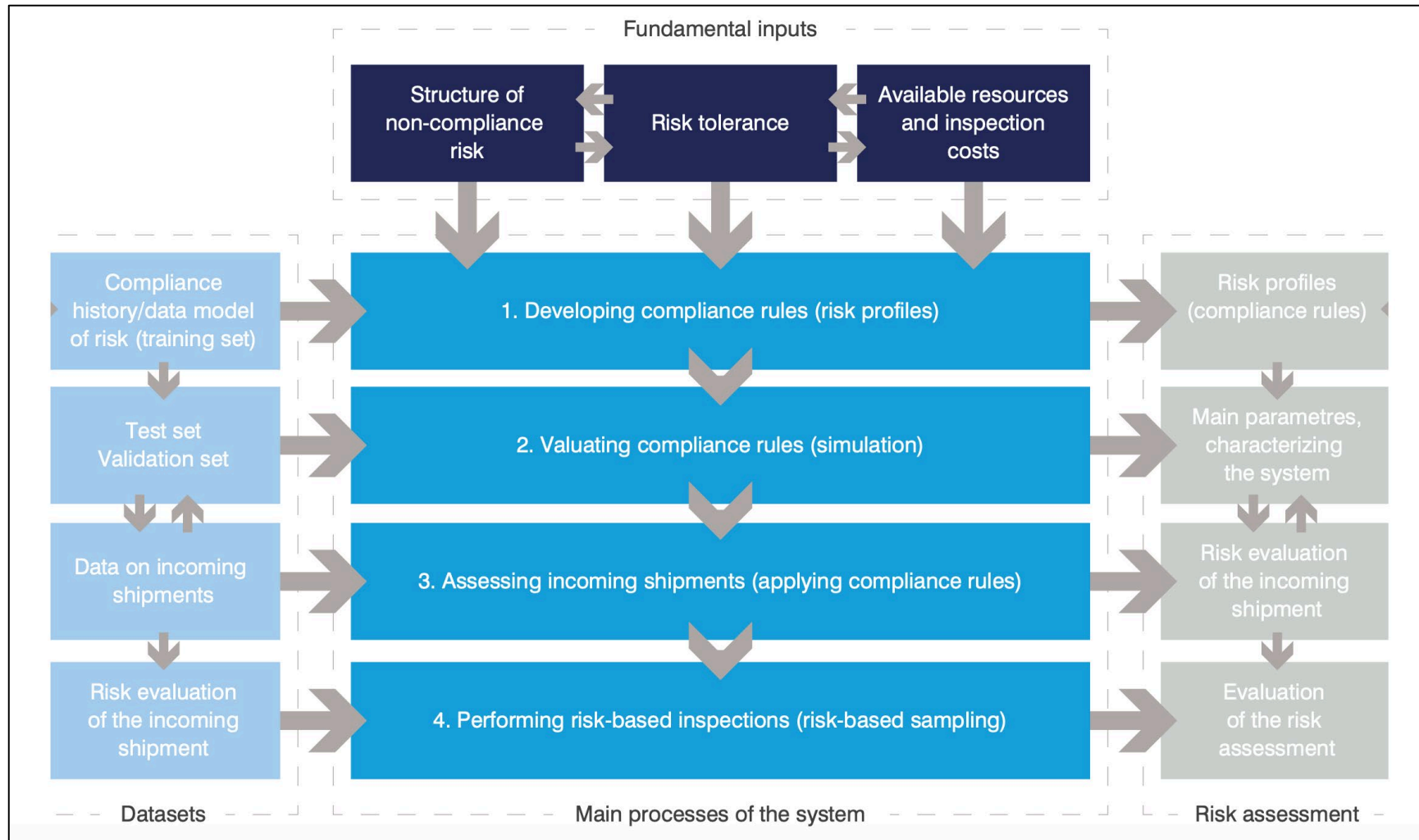
Reference model of an integrated risk management framework

- Applying formal and standardized methodologies to manage non-compliance risk in border control agencies;
- Strengthening the role of import compliance procedures in product compliance;
- Integrating import compliance processes applied at the border with other building blocks of regulatory systems (support all regulatory goals and respective SDGs);
- Ensuring efficient **integration of risk management processes** of all regulatory agencies involved in border control (when appropriate, on the basis of existing risk management frameworks of the customs authorities);
- **Integrating risk management in border control with other trade facilitation tools**, such as the single window.
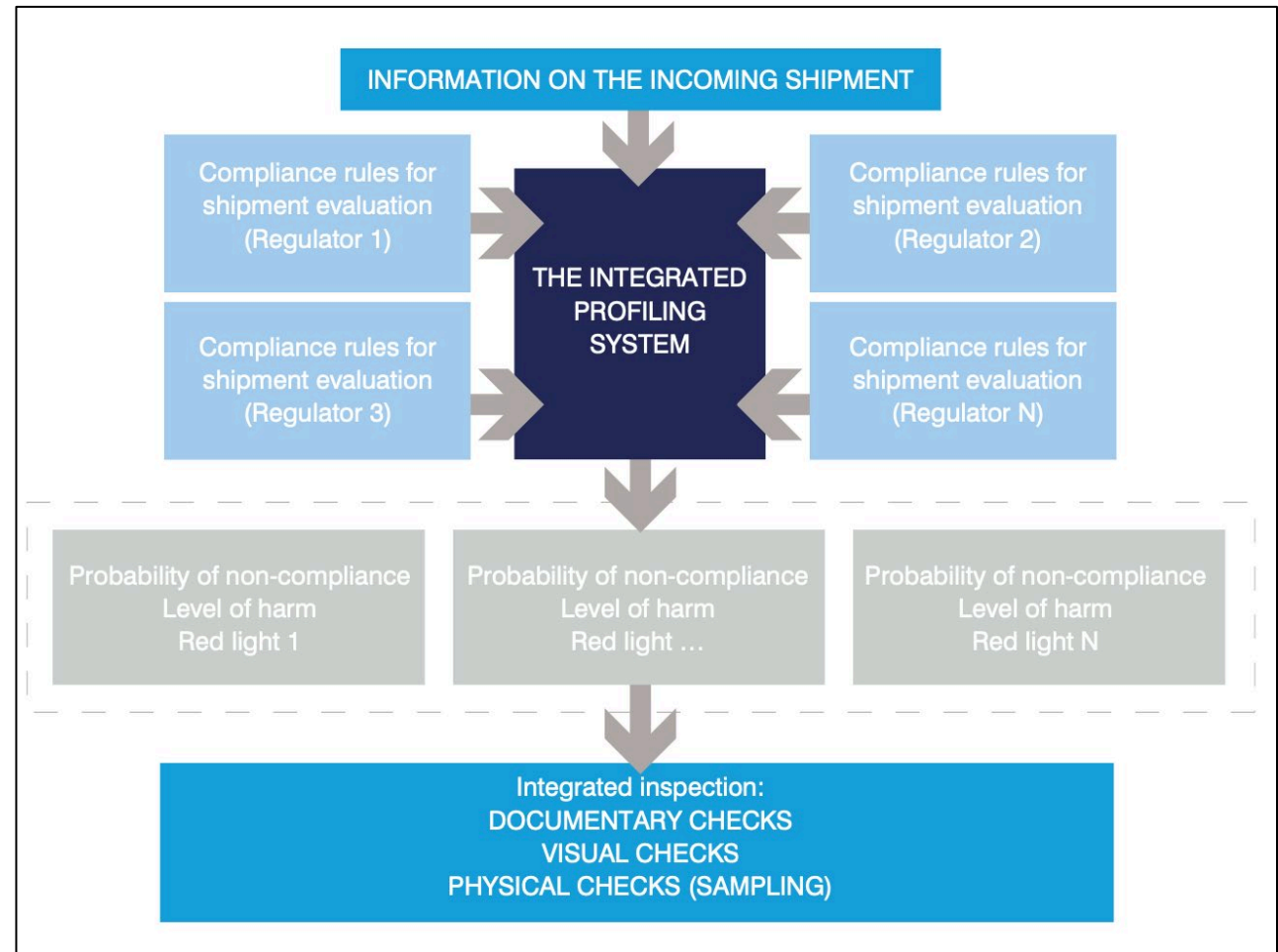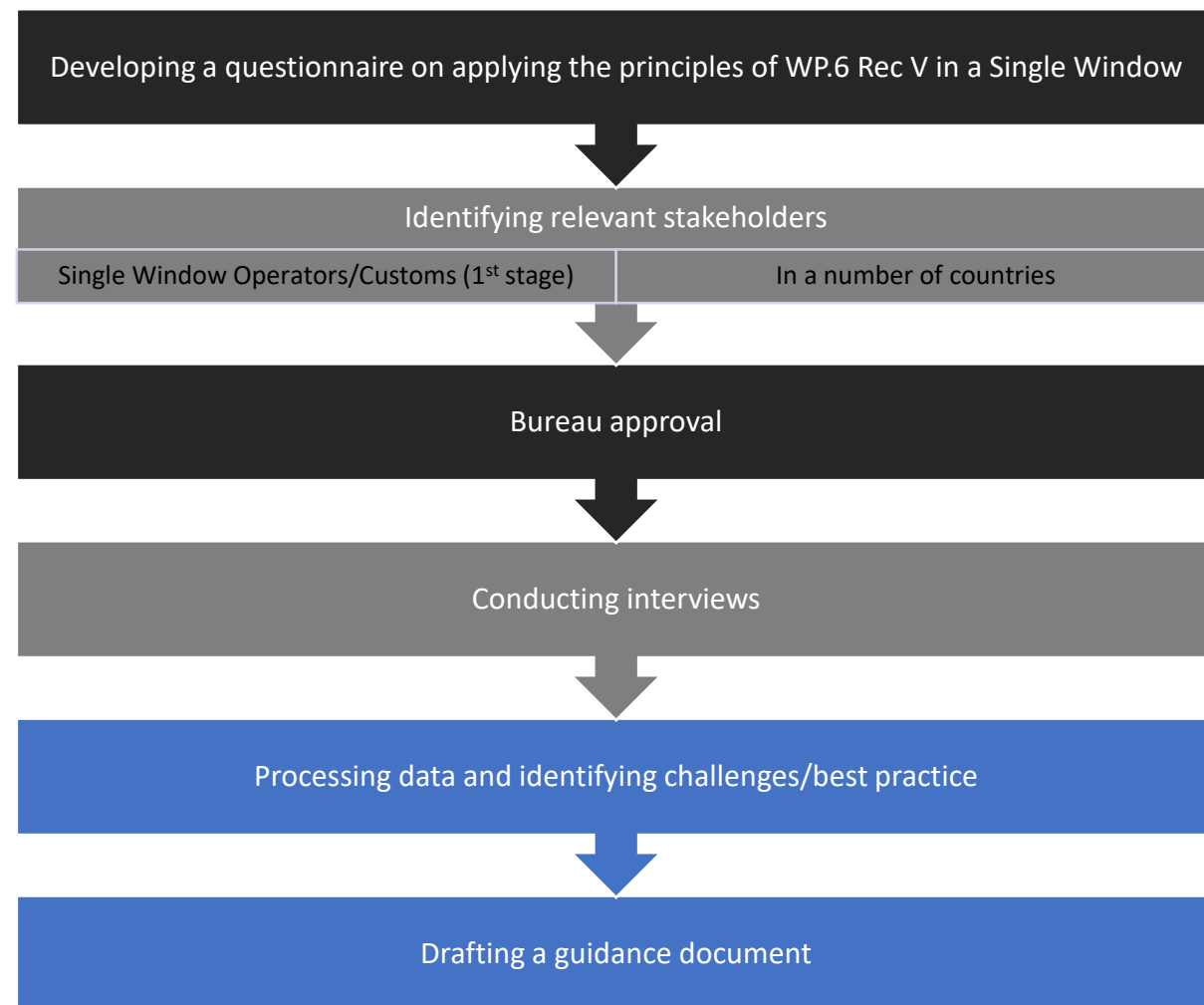
Objectives of the project

- Developing a White Paper guideline to describe the best practices of coordinated risk management among multiple government agencies through a Single Window
  - A practical example of applying the principles of WP.6 GRM Recommendation V (and preceding recommendations)
  - To the principles of the UN/CEFACT developed Recommendation 33 (and subsequent SW recommendations).
- Planned to be developed in close collaboration with the experts of the UN/CEFACT Single Window domain

Project Meetings-Progress/Plan of work

- Project launch meeting - 6 March 2023 - Georgia, Singapore

- GRM Annual Session - 25 May 2023:
  - Customs - experience of Georgia, Nigeria, Mexico
  - Product regulators – experience of New Zealand, Greece, NAPPO

- Development of a concept paper and a draft questionnaire

- Project Meeting – 2 August 2023 (around 10 people)

- Comments on the draft

- Preparation of the final version of the questionnaire

- Questionnaire sent out December/January 2024

- 4 Interviews conducted January 2024

- 1 Interview March 2024

Developing a questionnaire on applying the principles of WP.6 Rec V in a Single Window

Identifying relevant stakeholders	
Single Window Operators/Customs (1st stage)	In a number of countries

Bureau approval

Conducting interviews

Processing data and identifying challenges/best practice

Drafting a guidance document

Strategy, SW and IRM, PGA involvement

Question	Response
1. Does your single window system conduct risk assessment of incoming shipments?	☐ YES ☐ NO
1a. If yes, for which agencies?	
2. Is there a separate system for an integrated risk management (IRM) system for border control as described in UNECE WP.6 *Recommendation V*?	☐ YES ☐ NO
2a. Who is the lead agency responsible for IRM at the border?		
2b. How many agencies are involved in the IRM system?	
2c. How many agencies participating in the SW are not involved in the IRM system?	
3. Is the SW operated by an external entity?	☐ YES ☐ NO
4. Do databases storing historic data of SW operations exist?	☐ YES ☐ NO
4a. Does historic data contain results of inspections?	☐ YES ☐ NO
4b. Can other regulatory agencies access SW system historic data?	☐ YES ☐ NO
4c. How is historic data used by regulatory agencies?	
4d. Who is responsible for maintaining the databases with historic data?	☐ SW operator; ☐ Customs agency (if different from SW operator); ☐ Communication administration; ☐ Other, please specify:

RM cooperation among RA, common criteria, and the SW

Question	Response
5. What kind of risk management cooperation exists among regulatory agencies? Please indicate which statement best describes such cooperation:	☐ The SW system centralizes risk criteria and the risk analysis is performed within the SW. ☐ The SW acts as a bridge of information which is transferred to the relevant regulatory agencies and the risk analysis is performed in the regulatory agencies' systems. ☐ The SW transfers the data to another platform where the risk analysis is performed for all regulatory agencies. ☐ Other, please specify:
6. Is there a legal framework in place that enables the exchange of information between regulatory agencies (for example, on incoming shipments as well as using the related history data)?	☐ YES ☐ NO
7. Is there a mechanism for reviewing and updating risk criteria of different regulatory agencies as well their impact on border compliance time?	☐ Individual agencies update their risk criteria and inform the lead agency responsible for the IRM; ☐ Individual agencies update their risk criteria in cooperation with the lead agency responsible for the IRM; ☐ The lead agency responsible for the IRM updates risk criteria of regulatory agencies involved;

	☐ Other, please describe:
	☐ There is no such mechanism.
8. Are risks ranked according to their severity (e.g. "high" – "medium" – "low" risk) for incoming shipments?	☐ YES ☐ NO

Historic data and integrated database, overall border compliance time as metric

9. How often (annually, quarterly, monthly) is overall border compliance time analyzed?	☐ Annually ☐ Quarterly ☐ Monthly ☐ Other, please specify:
10. Is historic data used in the analysis of the overall border compliance time?	
11. Which agency analyzes correlations among various non-compliance risks (e.g., correlation among cases of non-compliance with customs regulations and food safety regulations?) Are correlations among non-compliance risks taken into account by regulatory agencies and/or lead agency responsible for the IRM when developing their risk criteria?	

Providing data/assistance for building profiling system by regulatory agencies

12. Does the SW signal to regulatory agencies cases of non-compliance	☐ YES
relevant to their scope of responsibility with historic data?	☐ NO
12a. If the data is not pushed to the agency, where is this data made available?	
13. Does SW operator or customs authority assist other regulatory agencies in developing tools for targeting non-compliance?	☐ YES ☐ NO
13a. If so, how is this cooperation organized? Is there a targeting center?	

Testing risk criteria

14. Does the system perform an integrated overview of the targeting system (simulations) and harmonize risk tolerance levels?	☐ YES ☐ NO
14a. Who performs simulations on historic data?	
15. Is there an integrated overview of risk management performance involving all regulatory agencies at the border?	

Integrating compliance rules of product regulators into a single system

16. Where an IRM system is used, how do regulatory agencies input their risk data?	☐ By electronic data transfer system to system ☐ Through a portal where data is inputted manually ☐ Risk data is sent by email or postal mail ☐ Other, please specify:
17. How often are risk criteria updated?	☐ Multiple times per day ☐ Daily

	☐ Weekly
	☐ Monthly
	☐ On an ad-hoc basis
	☐ Other, please specify:

Getting data on incoming shipments

18. What is the source of incoming shipment data?	
19. Is the data provided to the SW on an incoming shipment sufficient for evaluating the level of non-compliance risk of the shipment?	☐ YES ☐ NO
20. Does the SW participate in interoperability arrangements with other SW?	☐ YES ☐ NO
20a. Is the data provided used for evaluation of non-compliance risk?	
21. Is advanced cargo information shared with other regulatory agencies for the evaluation of non-compliance risk of incoming shipments?	☐ YES ☐ NO

Assessment of incoming shipments

22. Who conducts risk assessment of the incoming shipments and how is this done?	☐ Regulatory agencies run their own systems for evaluating the probability of non-compliance of incoming shipment to the regulatory requirements within their scope of responsibility ☐ The SW operator evaluates the probability of non-compliance to regulation of other regulatory agencies
	☐ There is a single system for assessment of incoming shipments against different non-compliance risks ☐ Other, please specify:

Shipment clearance

23. Which of the following approaches to shipment clearance procedures with respect to non-compliance risks of regulatory agencies are performed?	☐ Shipments are released by product regulators based on its own data; ☐ Shipments are released by product regulators based on the data supplied by the customs/SW system within product regulator's own IT infrastructure, ☐ Shipments are released by the customs according to the compliance rules or algorithms developed by product regulators, ☐ Shipments are released by the customs according to the profiling system of the customs. ☐ Joint inspections on the basis of integrated evaluation of non-compliance risks are performed. ☐ Other, please specify:
24. How many regulatory authorities are physically present at the border?	
25. Which ones?	

Interviews so far

Interviews conducted:

- Cameroon
- Georgia
- Morocco
- Singapore
- EU

Roles

- Single Window Operator
- Customs
- Single Window Developer

Interviews planned:

- Mexico
- Senegal

Trying to approach:

- US
- All ideas welcome

Does your single window system conduct risk assessment of incoming shipments?

- SW1 system does not and was not planned to undertake the risk asessment of incoming shipments.
- SW2 system, while not directly assessing risk, is connected with Customs and other regulatory bodies that conduct risk assessments, with up to 25% physical inspection at the border.
- SW4 provides data to Customs, which performs the risk assessment, with plans to build an integrated risk assessment system.
- SW3 conducts risk assessments, with data input from importers reaching Customs RMS and the Market Surveillance Agency (MSA) and SPS.

- A SW system developed for various countries includes a risk management module for assessments, but not all countries/authorities use it.

- There is a gap between methodological and technological capacity of regulatory authorities.

- Single Window Systems do not conduct risk assessments of incoming shipments

Is there a separate system for an integrated risk management (IRM) system for border control?

- C1 has **no separate** IRM system (only Customs risks) with plans for the SW to lead IRM in the future.

- C3 Country **has an integrated** IRM system for border control involving various ministries and agencies, while

- C4 Country **is working on creating** a platform for risk assessment by multiple agencies with the SW being responsible.

- There are no separate IRM systems, but they are being implemented (or there are plans to implement them)

- The key role of SW within an IRM is recognized

Is the SW operated by an external entity?

- SW systems in general, including the SW2 and SW3 systems, are not operated by an external entity.

- There is a trend of even small countries establishing their own operating entities.

- SW1 is operated by an external entity.

- Most commonly, the SW systems are not operated by an external entity

Do databases storing historic data of SW operations exist?

- The SW systems provide historic data, including inspection results, which can used for risk assessment

- Within the R1 framework, there is no uniform approach to storing historic SW operation data; national practices vary.

- C2 maintains databases with some agencies storing inspection data.

- In C3, the specifics about databases storing inspection results are not clear.

- C4 stores all data from the inception of its SW, including inspection results since 2016.

- SW is/can be a platform for storing historic data

- Data should be stored in the format which allows performing risk assessment against non-compliance risks within the scope

What kind of risk management cooperation exists among regulatory agencies?

- The SW in the C1, C2 and C3 acts as an information conduit to relevant regulatory agencies for risk analysis.

- In C4, a single form will collect data for risk analysis across agencies.

• Single Window is perceived as a center for risk management cooperation, even if there is no IRM in place

• Single is an essential basis for risk management cooperation among regulatory agencies

Is there a legal framework in place that enables the exchange of information between regulatory agencies?

- The C1 has a legal framework for information exchange between regulatory agencies.

- Both C3 and C4 have legal frameworks in place facilitating information exchange through protocols with the SW.

- C2 lacks a legal framework, yet conducts joint inspections.

→

- Legal framework does not seem to be a major issue hampering integrated risk management

- (within a very limited samples that we have)

Is there a mechanism for reviewing and updating risk criteria of different regulatory agencies?

- The C1 reviews risk criteria at both the national and regional level.

- C2 aims to centralize risk criteria at the SW level.

- No mechanism for reviewing and updating risk criteria is mentioned for C3.

- For C4's SPS, updates happen per shipment.

- Even if risk criteria are regularly updated, there is no evidence that it is performed as a part of a systemic process

Are risks ranked according to their severity?

- The SW system allows for risk ranking configuration.

- In C1, no information available on risk ranking.

- Risks are ranked by severity for incoming shipments in C2.

- C3 does not rank risks by severity, and C4 has not made a decision on ranking yet.

- It is possible that the answers reflect a situation in which evaluation of a risk is substituted by a risk factor

- "Product from Country A" = "High risk product"

- There might be a methodological gap

How often (annually, quarterly, monthly) is overall border compliance time analyzed? Is historic data used?

- The C1 analyzes overall border compliance time annually, using historic data

- C2 conducts monthly analyses with a Business Intelligence tool, which provides duration data for various steps.

- Time Release studies are used in C3, while in C4 trade facilitation body analyzes compliance time quarterly including factors affecting compliance time.

→

- Overall border compliance time is analyzed

- There is no evidence that analysis of border compliance time is linked to other functions of the risk management process

Which agency analyzes correlations among various non-compliance risks?

- SW systems allow for such analyses, but implementation varies.

- Correlation analysis among non-compliance risks is performed within relevant regulatory authorities in C1.

- This analysis is not yet applied in C2.

- In C3, risk analysts might query on correlations, and C4 plans to implement an AI-based component for this analysis.

- Integrated analysis of non-compliance risks and risk factors is not performed

Does SW operator or customs authority assist other regulatory agencies in developing tools for targeting non-compliance?

- The C1's SW operators do not assist other regulatory agencies in developing tools for targeting non-compliance.

- C2 is developing an assistance framework, but details are unclear.

- C4 operates independent RM systems, and C3 has plans to assist in tool development.

- No evidence of systemic assistance

Does the system perform an integrated overview of the targeting system (simulations) and harmonize risk tolerance levels?

- Simulations are used to harmonize risk tolerance levels before profile activation in some countries.

- There is no integrated overview or harmonization of risk tolerance levels within the C1's SW.

- C4 also lacks a system for performing an integrated overview.

- C2 approach is unclear, while C3 is planning to implement an integrated overview.

- SW systems allow for performing an integrated overview of the targeting systems

- There is no evidence that such review is performed

Preliminary conclusions

Integrated Risk Management is being implemented or planned to be implemented (some elements present)

Commonly Customs are playing the leading role in IRM (there are cases in which SW is the lead agency)

There are cases in which "technological capacity" of regulatory agencies in risk management is higher than "methodological capacity"

Providing detailed guidance on the development and management of an IRM within a SW system would be beneficial

Next steps

- Working on a preliminary report

- Continue:
  - Building a list of (potential) relevant respondents
  - Sending out the survey (offering help)
  - Conducting interviews

- Processing data
  - April 2024

- Identifying best practice and drafting a guideline paper:
  - Presentation with key findings at the GRM Annual Session