



**PUBLICATIONS OF THE HAZARD PROJECT
2:2016**

SIMPLER SAFETY AND SECURITY PLANNING FOR PORTS

Ilkka Laitinen
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Simpler Safety and Security Planning for Ports

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Abstract

In the 2000s, legislative amendments and new acts have substantially increased the number of safety and security plans and safety management systems that are required from merchant shipping ports by law. Drafting and maintaining separate plans, as well as the related compulsory training are very time-consuming, because the established practices in the administrative branches have not supported more extensive, functional planning. The high number of plans also burdens the authorities in form of audits, approvals and inspections.

The aim of the Finnish Port Association project was to find ways to simplify safety and security planning and thus lighten the administrative burden of port authorities and officials, decrease the costs incurred from maintaining the plans, and release personnel resources from planning to other duties.

Within the project, a list of legislation on safety and security planning requirements was compiled and the contents of the statutes were examined in order to identify any overlapping. It was found out that the requirements can be grouped according to themes (preparedness and security, transport, rescue operations and occupational safety), which can serve as a basis for combining the plans in the future.

The ports can reduce the number of plans by using one core plan with basic information, including a brief theme-specific code of conduct, in all planning. The number of inspections and trainings related to the plans may be reduced through coordination and merging. More emphasis in the port safety and security planning will be laid to safety management.

In order to achieve the goals, influence should be exerted when legislation is being prepared and implemented. Active cooperation is also needed. The proposed changes would also change the work of the authorities and call for expertise in the themes and port management.

FOREWORD

The project started off from the need to reduce the administrative burden on port authorities and state officials imposed by drafting, reviewing and implementing statutory safety and security plans that might include overlapping parts. At the same time, the goal was to discover means to cut plan maintenance costs incurred in ports and in administration and free up personnel resources from planning to other tasks.

The project steering committee included the steering committee president Kari Himanen, Kirsti Tarnanen-Sariola from the Finnish Port Association, Lassi Hilska from the Ministry of Transport and Communications, Matti Aaltonen from the Finnish Transport Agency, and Tapio Tourula from the Finnish Transport Safety Agency Trafi. The project was administered by the Finnish Port Association and a company called Sito Oy was in charge of assembling information. Sito's project group included Ilkka Laitinen, Jussi Kurikka-Oja and Raisa Valli.

The project involved analyzing plans that are legally required from port authorities by administrative branches as well as identifying content requirements, possible redundancy in the content, and overlap in plan-related processes of authorities. The project organized two workshops both of which were attended by the port security committee of the Finnish Port Association. The other workshop brought together many authorities as well.

TERMS

AVI	Regional State Administrative Agencies
ELY	Centre for Economic Development, Transport and the Environment (ELY Centre)
EU	European Union
HELCOM	Helsinki Commission, Baltic Marine Environment Protection Commission
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISPS	International Ship and Port Facility Security Code
LiVi	Finnish Transport Agency
LVM	Finnish Ministry of Transport and Communications
PV	Finnish Defense Forces
SM	Finnish Ministry of the Interior
SOLAS	Safety of Life at Sea Convention
Trafi	Finnish Transport Safety Agency
TUKES	Finnish Safety and Chemical Agency
TDG	Transport of Dangerous Goods

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Legislation on Ports

1 INTRODUCTION

1.1 Origins and Scope

Statutory safety and security requirements have been constantly expanding in the 2000s. Legislative amendments have brought about completely new as well as further extended contingency requirements. In practice, this has brought about new planning requirements. Ports are facing the challenge of complying with numerous safety and security planning requirements provided in acts of different areas of law.

Plans are drafted and updated periodically in different safety and security sectors in order to adapt them to, for example, meet the needs of different modes of traffic, promote occupational and environmental safety and serve rescue services and contingency planning. The plans are prepared as separate plans (background information, risks, measures, and responsibilities) required under each statute and submitted to corresponding competent authorities also when same issues are discussed in different plans.

A basis for change has previously been studied for example in the context of METKU, a project for Development of Maritime Safety Culture. The law provides even now that ports invest in safety and security in many ways. However, the legislation should be further developed from the point of view of safety management. Development efforts should aim to harmonize and clarify the legislation. All reforms, however, should take into account existing requirements so that parts and/or elements from existing measures and safety ensuring subsystems could be used as a basis for new requirements.

From the business perspective, requirements could be met with a comprehensive safety management system, which should be able to comply with all the requirements of legislators. The simplification of safety and security planning improves the overall safety management and creates a precondition for managing safety efforts based on organization's own background. The main emphasis of the project was on statutory and sector-based safety and security plans as well as management plans in the traffic administration.

1.2 Content and Realization

The project was launched by analyzing the requirements provided in the legislation. An initial list of requirements was delivered to the project working group via the Finnish Port Association. The list of requirements was analyzed by studying the legislation behind the demands. These relevant statutes and requirements were compiled in a matrix. At this stage, the requirements were grouped under following themes: safety measures, contingency planning, rail network, transport, rescue services, environment and occupational safety.

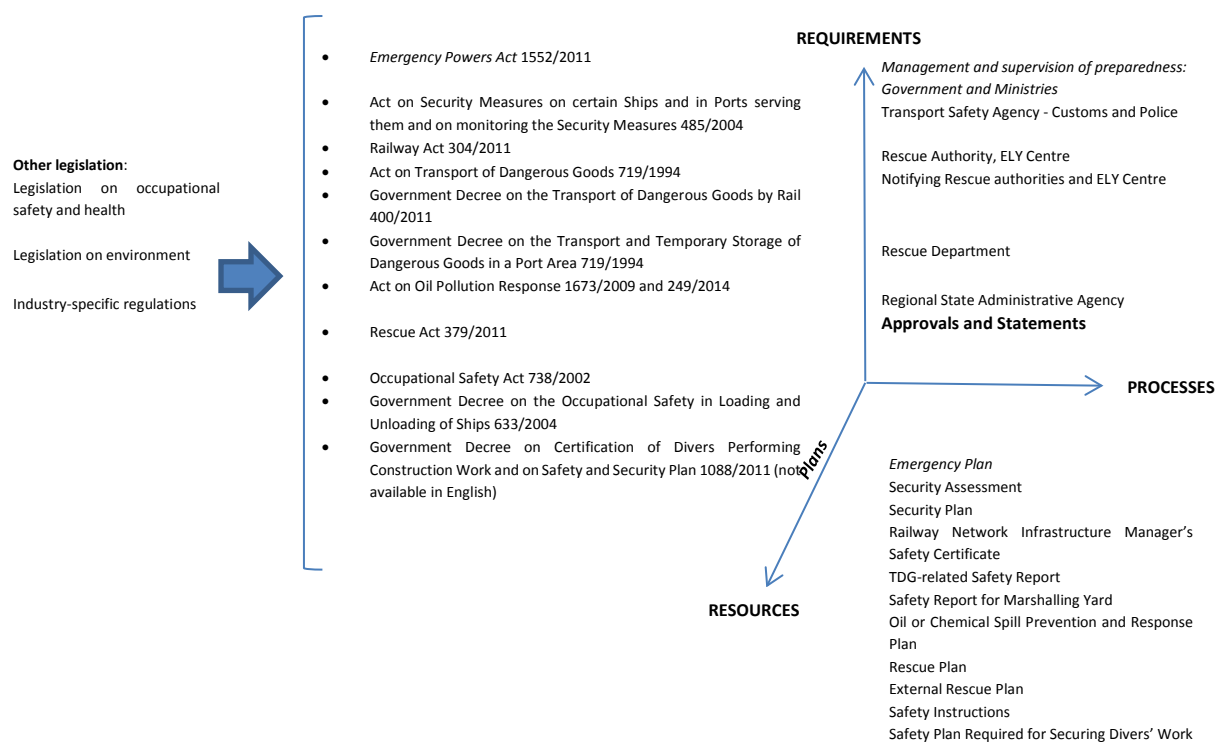


Figure 1 Framework for the management of requirements defined in the project

Ports' views on safety plans and on their management were put together in a workshop held in January 2015. The ports were asked beforehand to evaluate the requirement groups that had been defined based on the preliminary analysis and to answer some questions.

In order to clarify the procedures, port activities were explored. Different questions were discussed, such as the following: Is the plan part of another plan or could it be combined with some other plan? Does the plan include same information that can be used in other plans? Is it possible to receive data from enterprise resource planning or quality systems to be used in drafting a plan? As for resources, the job titles or departments of responsible persons or groups in the port were identified. The follow-up to plan implementation was covered by the question: How are the follow-up, implementation and monitoring organized?

Preliminary assignments were used for mapping current practices on merging the plans, possibilities for merging, structures of responsibility in the ports, and authorities involved in implementation, follow-up, and monitoring of the plans. Main findings from the preliminary assignments were broken down in the first workshop, which, besides the project staff, was attended by the working group on port safety. The participants are presented in the appendices of the report.

Based on the analysis of the results from the first workshop, the analysis of the legislation and requirements was pursued by identifying requirement clusters, or groups, which were further

studied. This further analysis helped in identifying redundancy, because the plans were observed as a whole. On this basis, a process outline was drafted following the goals of the project.

The findings of the project were explored in the second workshop held in April 2015. Besides the port safety working group, the participants included representatives of the following authorities: LVM, Trafi, LiVi, SM, TUKES, PV, and the police. The process outline and the approach for development presented in the meeting were approved by a common position of the authorities within the second workshop.

2 LEGISLATION AND PROVISIONS

In the 2000s, amendments to legislation on safety and security have included additions and changes, which have brought increased preparedness requirements, plans and updates as well as exercises and drills for companies. Similarly for authorities, amendments have entailed additional duties and work in discussing and approving the plans, organizing inspections, and participating in exercises.

The amendments to the legislation in the field of port management and planning requirements adopted after the year 2000 include (acts and decrees which include completely new provisions are presented in bold, and the relevant administrative branch is marked in brackets in the end, cf. the list of terms on page 5):

- Occupational Safety and Health Act 738/2002 (STM)
- **Act on Security Measures on certain Ships and in Ports serving them and on monitoring the Security Measures 485/2004 (LVM)**
- **Government Decree on the Occupational Safety in Loading and Unloading of Ships 633/2004 (STM)**
- **Government Decree on the Transport and Temporary Storage of Dangerous Goods in a Port Area 251/2005 (LVM)**
- Government Decree on the Transport and Temporary Storage of Dangerous Goods by Rail 195/2002 (LVM)
- Act on Oil Pollution Response 1673/2009 (SM)
 - **Government Decree** on Oil Pollution Response 249/2014 (not available in English)
- **Railway Act 304/2011 (LVM)**
- Rescue Act 379/2011 (SM)
- Ministry of the Interior Decree on external rescue plan for objects that present a special risk 406/2011 (SM) (not available in English)
- **Government Decree on Certification of Divers Performing Construction Work and on Safety and Security Plan 1088/2011 (STM) (not available in English)**
- Emergency Powers Act 1552/2011 (OM)

During the project, representatives of port authorities compiled a list of statutes that include safety and security obligations that they must obey. One part of the legislation applies to all ports and the remaining part only to some ports. More than 74 acts and decrees on safety and security were identified.

A significant part of safety and security legislation affecting transport and port operations originates from the international level: the EU, IMO and HELCOM. Participating in the preparation of legislative proposals and influencing their content entails persistent work that requires expertise on the content and processes, active networking, and resources in both administration and trade associations. In the 2010s, the obligations resulting from legislation on

safety and security are perceived to be part of port operations. However, in the context of current economic challenges, increasing competence on safety and security as well as on networking is difficult, though not impossible. One proof of this is the nomination of a Finnish IMO Maritime Ambassador in 2015, which was set as an objective in Maritime Transport Strategy for Finland published in 2014. Nevertheless, the preparation and enforcement of national legislation is a central phase in shaping safety and security obligations because concrete decisions on requirements, parties, and processes related to planning and on the question on how port authorities verify the fulfilment of obligations are usually made at a national level.

It turned out that the statutes examined in the project did contain overlapping requirements. This is partly due to inconsistency between established terminologies used in different administrative branches and even to the accuracy of translations. For example, the term “port authority” (*satamanpitäjä*) is used in the transportation sector, whereas its equivalent in the legislation on occupational safety is “port holder” (*satamanhaltija*). Accuracy and equivalence between different terms and meanings is altogether essential in defining duties and responsibilities. The commonly used expression “port authority” (*satamaviranomainen*) has various interpretations, which give different meanings to the role of port holder aka port operating authority. An example of the lack of equivalent terms between different languages can be seen in the case of conceptions “drill” and “exercise” both of which can be used for the Finnish word “*harjoitus*”, even though their meaning is completely different.

Other weaknesses in the legislation can be identified in defining requirements and responsibilities. For example, finding an unambiguous definition for the duration of temporary storage of dangerous goods appeared to be difficult. As for the pipe systems of the port structure, it is not clearly defined under which area of responsibility they fall.

The EU regulations, which are binding in their entirety and do not allow for national interpretation, pose challenges of their own. For example, obligations of a railway holder concerning the content of the safety management system are provided in an EU regulation. According to the regulation, the requirements are the same for all types of railway holders and no distinction is made between, for example, national level actors (i.e. Finnish Transport Agency), organizations operating only in railway traffic, or SMEs of which the main business is something else than railway services (i.e. small port company). The Finnish administrative and operational culture is still not very well prepared to deal with the implementation challenges caused by such issues. This results in plans and systems that fail to support the operations but instead, are unconnected and increase administrative burden.

The aim should be to prevent overlap in the law drafting process but plan documentation should nevertheless be flexible. Each port authority must analyze what the requirements provided in each law mean for their own operating environment and organization. Natural operation models are based on transport, characteristics of the port area, infrastructure, and organization and can cover entities related to several laws. If ports make more general plans, authorities need to know the port authorities better in order to audit them. The current vicious circle, which

increases the number of narrow plans, audits, and inspections as well as decreases the time allowed for concentrating on the substance and on the functionality of ports' plans, can be reversed by grouping the plans in more coherent clusters. This enables ports as well as authorities to concentrate better on developing safety and security in the field and in practice.

Goal based standards will be, and in part already are, guiding law-making and the division of work. Instead of providing a norm monitored by the authorities or a precise method, the legislation allows the port to assess its own success in complying with set limits or in achieving a given goal. This approach gives companies substantially more freedom to organize and describe their own safety and security operations.

3 OUTLOOK ON THE PRESENT SITUATION OF SAFETY AND SECURITY PLANS

The project workshops examined the content of the plan requirements and grouped them under different themes to facilitate their management. The description of current safety and security plans was divided into following themes: security measures, preparedness, railway, transport of dangerous goods, environment, rescue, and occupational safety. The burden can be broken into components in the following way:

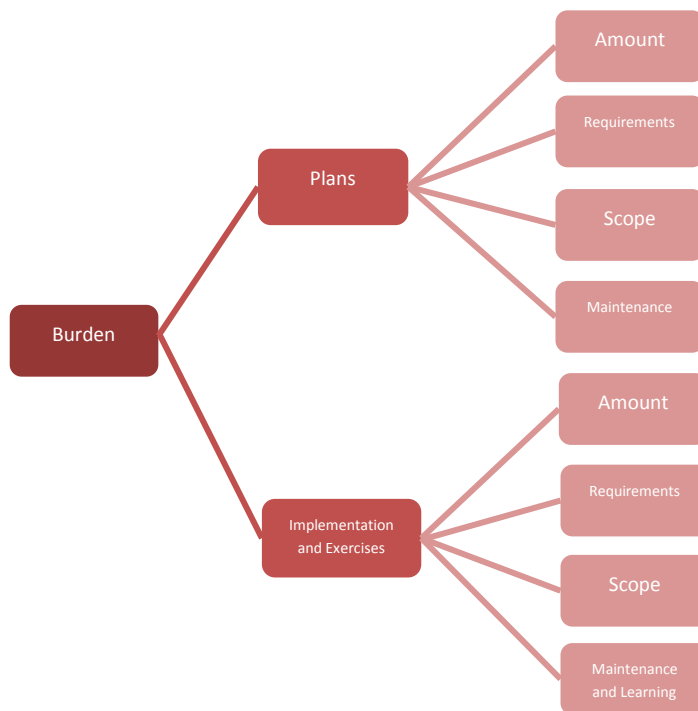


Figure 2 Components of burden

3.1 Plans and Management of their Content

Plans related to security measures are drafted in all ports that serve international routes. A security assessment and a security plan form a whole and the combined information can be used in both assessing and planning. These documents are also linked together by law. An emergency plan is drafted for almost every port. The practices for drawing up the plan vary between different ports.

The plans related to shipments, railways, and dangerous goods differ between ports due to diverging types of operations. According to the ports that draft plans, some parts of the plans can be merged, and around half of the ports take advantage of the data from the port's ERP system in drafting these plans. The oil spill prevention and response plans are drawn up in every port and they are usually closely connected with the rescue plan.

Each port draws up a rescue plan. An internal rescue plan is also an obligatory part of many plans related to transport of dangerous goods. In this context, it was discovered that the current model for complying with the planning requirements can cause a situation where separate internal rescue plans are drafted for different plans as an appendix. Typically, each planning requirement is met by drafting a separate plan. Highly specialized ports, have managed to merge plans together as unified documents.

3.2 Interaction and Cooperation between Authorities

During the project, interaction and cooperation between authorities related to plans was identified as follows:

Table 1 Plans, interaction, and cooperation between authorities

Institution's principal role in the plan: S Supervisory A Approving C Consulting O Other	Trafi	Transport Agency	Rescue Department	ELY Centre	AVI	Ministry of the Interior	Ministry of Transport and Communications	Municipality	Customs	Border Guard	Police
Emergency Plan	O	O		O			O	O			
Security Assessment	AS								CO	CO	CO
Security Plan	AS								CO	CO	CO
Railway Network Infrastructure Manager's Safety Certificate	A										
Safety report - Dangerous goods	A		C	C							
Internal Rescue Plan	O	CO	C	C							
Safety Report for Marshalling Yards	O	A	C	C							
Safety Report concerning Transport and Storage of Dangerous Goods	O	A	C	C	C						
Oil Spill Prevention and Response Plan			C	C							
External Emergency Plan			A					O			
Emergency Plan for Objects representing a Special Risk			A					O			
Occupational Safety and Health Policy					S						
Occupational Safety and Health - Obligations for Port Holders - A Shared Workplace					S						
Safety Plan for Divers Performing Construction Work					S						
Loading and Unloading of Ships - Safety and Traffic Instructions					S						

An example of a current good practice is a security measures exercise organized by ports working closely together. The ISPS code provides that drills and exercises on port safety and security measures are organized every 18 months under the direction of cooperating authorities (Finnish Transport Safety Agency, Police, and Finnish Border Guard). The ports in the Bothnian Bay region collaborate by taking turns in hosting the exercise instead of every port organizing their own exercise every 18 months. This saves time for both the ports and authorities. A common exercise can be carried out without jeopardizing port-specific confidential information. A bigger group of Port Facility Safety Officers can provide the exercise tasks with different perspectives and help disseminate good practices. Each port has only one Port Facility Safety

Officer and joint exercises enable them to deepen their professional competence related to safety officer's duties.

Personal networks are essential for successful cooperation between authorities. The project revealed that role of the authority is significant as well, because it was brought up that in some situations, the role of the authority as an advisor and inspector causes conflicts in the preparation and approval process of the plan.

3.3 Exercises and Inspections

It was considered that the amount of burden caused by exercises and inspections related to planned operations vary greatly between different ports. Some ports have highly developed exercise practices, which actively integrate exercises of different type and scope as well as cooperation with different exercise institutions. Some ports mainly carry out exercises of only one scale and always organize them by themselves. There is no national databank on exercise practice or exercises but the information is gathered through ports' own information channels that vary.

The inspecting the plans can be a very heavy burden for the port if majority of the plans are audited during the same year. Discussions revealed that combining the inspections has also been considered before but it has yet not been tried in practice.

One example of a good practice is organizing a tabletop exercise of a theme taken from the databank. Exercises are needed for learning and maintaining skills and measures related to safety and security. Both short and fast tabletop exercises by one person as well as joint exercises between many actors requiring months of preparations are good and relevant exercises. From the point of view of resource use, it is important to recognize what kind of exercises are included in the annual exercise program.

It is recommended that companies clarify the needs and goals of their own organization while preparing the exercise program. Especially in organizing frequent internal exercises, it is usually possible to take advantage of listings organized by themes of so called theme banks, which are compiled by authorities and trade associations.

4 MANAGEMENT OF REQUIREMENTS AND REQUIREMENT CLUSTERS

4.1 Emergency Plan

Contingency planning is guided by the Emergency Powers act, which provides a framework for drafting plans that aim to secure water transportation when the government has declared a state of emergency. Ports' emergency plans must contain an assessment of threats that can affect port operations, measures carried out for emergency conditions, instructions for a state of emergency, and procedures for cooperation with other actors in emergency conditions. Contingency plans are typically discussed and adopted locally by municipal boards.

Traditionally, it has been municipalities' task to draw up emergency plans and ports have not been responsible for the drafting. This clear division of duties has changed through incorporation and the role of ports in emergency preparedness planning is transforming.

4.2 Security Assessment

Port security measures are based on the provisions of international SOLAS convention of the IMO and on the ISPS code related to them. In the EU member countries, the code is implemented by the EU's regulation and directive on security measures. In Finland, the code is implemented by the Security Measures Act: Act on security measures of certain ships and of the port facilities that serve them and on monitoring of the security measures (not available in English).

Under the Security Measures Act, ports shall conduct a security assessment. The assessment is drafted by the competent authority (Trafi) in cooperation with the port. Discussions held within the project revealed that the role of ports in security assessment varies. Trafi conducts the assessment in close cooperation with some ports, whereas other ports have a more independent role in performing the assessment. Based on the legislation, the competent authority is in charge of conducting the security assessment. The assessment must be reviewed if the conditions change and at least every five years.

More precisely, the assessment shall identify the property and infrastructure of the port, possible threats to the port operations and the likelihood of their occurrence, counter-measures and evaluation of the efficiency of these measures as well as weaknesses.

The content of the security assessment is usually confidential. Thus it was not possible to view the security assessment documents. Based on the data gained in the workshops, a security assessment is conducted by each member port of the Finnish Port Association.

4.3 Security Plans

Security Measures Act requires that ports develop a port security plan based on the security assessment. The plan is prepared by the port and approved by Trafi. The security plan shall be reviewed every time conditions change and at least once in every five years.

In more detail, the security plan shall include a description of the measures designed to prevent the introduction of unauthorized, dangerous substances and devices to port facilities or on board a ship, access control systems, measures in threatening situations, a description of procedures at different security levels and a description of procedures for evacuation. In addition, the plans shall identify the security personnel and their tasks, procedures for harmonizing security measures with the ships, describe the procedures related to the revision and updates of the plan, procedures for reporting security incidents, the identity and contact details of the security officer, information security measures, measures designed to ensure the security of cargo and the cargo handling equipment, procedures for auditing the security plan, coordination of the port's and ship's security alert systems as well as procedure for shore leave for ship's personnel or personnel changes and for visitors.

The security plan contains confidential information, thus it was not possible to view the documents related to security assessment and plans in the context of this project. Based on the data gained from the workshops, a security plan is prepared by each member port of the Finnish Port Association.

4.4 Railway Network Infrastructure Manager's Safety Certificate

The Railway Act provides that a railway network infrastructure manager shall hold a safety certificate. Infrastructure manager's functions include designing, building, maintaining and managing railway infrastructure, including traffic management. Infrastructure manager is required to apply for a safety certificate from Trafi. The application shall be appended with information on fulfilling the conditions for receiving the certificate.

One of the requirements for obtaining the safety certificate is a safety management system that complies with the provisions on the safety of railway traffic. The nature and extent of the operated railway services are taken into account in assessing the adherence to the standards. Safety management system has to ensure the management of risks in all operations the organization is in charge of.

The safety management system includes components that the infrastructure manager shall include in the system. Provisions concerning these components are implemented under the Trafi regulation on safety management system TRAFI/1065 /03.04. 02. 00 /2012.

Basic elements of the management system provided in the regulation are identified in the following: Safety policy, which is approved by the person in charge of the business

administration of the organization and communicated to the whole staff; Qualitative and quantitative targets of the organization for the maintenance and enhancement of safety, as well as plans and procedures for reaching these targets; Procedures for meeting existing, new and altered technical and operational standards or other prescriptive conditions as laid down in technical specifications for interoperability or the national safety rules referred to in Article 8 and Annex II of the Railway Safety Directive or other relevant provisions or authority decisions. In addition, procedures to assure compliance with the standards and other prescriptive conditions throughout the life-cycle of equipment and operations; Procedures and methods for carrying out risk evaluation and implementing risk control measures whenever a change of the operating conditions occurs, provision of programs for training of staff and systems to ensure staff's competence and that it is maintained; arrangements for the provision of information; procedures for how safety information is to be documented; procedures to ensure that accidents, incidents, near misses and other dangerous occurrences are reported, investigated and analyzed and that necessary preventive measures are taken; provision of plans for action and alerts and information in case of emergency; provisions for recurrent internal auditing of the safety management system.

The safety certificate is valid for not more than five years at a time, after which it shall be renewed upon application. The certificate can also be issued for a shorter period and if needed, with reservations.

It was possible to view examples of Port safety certificate documents during the project. The structure of the plans follows accurately the structure of requirements set out in the regulation.

Based on the data gathered in the workshops, 13 ports currently hold a safety certificate of a railway network infrastructure manager. In the majority of ports, the safety certificate is a separate document but according to the answers provided, there are cases where the safety certificate can be combined with planning of rescue operations and transport of dangerous goods.

4.5 Safety Report – Transport of Dangerous Goods

The Act on Transport of Dangerous Goods provides that the party operating a port and the party operating cargo-handling services in a port shall have up-dated safety reports if significant quantities of dangerous goods are transported via the port or stored there temporarily. The safety report of a port shall be approved by Trafi, which may restrict the quantities of dangerous goods to be temporarily stored in a port and order other restrictions necessary with regard to safety for the temporary storage.

For the purposes of the Act, the party operating a port means a party that manages the port and port operations, is responsible for the port services and owns the port area or administers it. The safety report provided by the Act shall contain the measures and procedures to be

implemented to ensure safe transport and temporary storage of dangerous goods. In addition, the safety report shall include an internal rescue plan.

Based on the Act, the Government Decree on the Transport and Temporary Storage of Dangerous Goods in a Port Area has been issued. A comprehensive reform of the Act on the Transport of Dangerous Goods has been launched in 2015.

4.6 Safety Reports for Marshalling Yards

According to the Government Decree on the Transport of Dangerous Goods by Rail, a safety report shall be prepared for marshalling yards where large quantities of dangerous goods pass through. The decree provides that the report shall illustrate that the hazards caused by transporting dangerous goods have been identified and necessary measures have been taken to prevent such hazards and to limit the effects of such hazards on people and on the environment. The report shall also describe the principles of a safety management system and internal emergency plans of marshalling yards.

A statement on the emergency plan contained in the safety report shall be requested from the local rescue authority and the regional environment centre. The report shall be submitted together with the statements for approval to Trafi.

The decree states specifically that the safety report shall be reviewed and updated in case of any of the following: any changes that would increase the risk of a major accident, such facts have arisen from analysis of accidents and emergencies that should be taken into consideration or any reviewing or updating requests by Trafi. The safety report shall, however, be reviewed and updated at least every five years. Trafi shall, at least every third year, systematically inspect all marshalling yards for which a safety report is required.

Based on the data gathered from the workshops, currently about one in three ports has conducted a safety report for a marshalling yard. Even now, the plans related to transport of dangerous goods are often collected in one plan.

4.7 Safety Report on Transport and Storage of Dangerous Goods

The Government Decree on the Transport and Temporary Storage of Dangerous Goods has been issued under the Act on Transport of Dangerous Goods. Pursuant to the decree, a safety report shall be prepared for a port area through which the volume of dangerous goods to be transported in packaged form exceeds 10,000 tons annually.

The safety report shall indicate that the hazards attributable to the transport and temporary storage of dangerous goods have been identified and that the necessary measures have been taken to prevent accidents and to limit the consequences of possible accidents on people and the environment. In addition, the safety report shall indicate the manner in which the

supervision of transport units of dangerous goods has been arranged in the port area. Also the other hazards and possible vulnerable targets, such as schools, hospitals, and ground-water reservoirs, in or outside the port area shall be taken into account in the report. The report shall also contain the operating principles of the safety management system. The report shall be appended with a separate internal rescue plan for the port area.

The safety management system referred to in the decree shall contain a description of the organization, management, and personnel of the port authority and the operator participating in the management of accident hazards, the duties and areas of responsibility of the personnel as well as the guidance of operations taking place in the port. In addition, adequate conveyance of information between and within the different organizations shall be ensured. The system shall also contain a description of the operating plan in accordance with the internal rescue plan and of the emergency-situation drills.

In the decree, the port authority is defined in the following way: “*port authority* means the authority who issues the port ordinance in accordance with the Act on Municipal Port Ordinances and Traffic Dues (955/1976) or the Act on Private Public Ports (1156/1995) or a private undertaking or organisation engaged in private port operations, which exercises primary control over the port area used for the operations;” and operator as follows: “*operator* means an undertaking carrying out stowage, loading, unloading or internal transfer of dangerous goods in packaged form; the definition does not mean transport undertakings which carry dangerous goods into or out of the port area;” These acts have been repealed in the beginning of 2015 but the definitions remain usable.

Under the Decree, the operator shall prepare a safety report for its part and submit it to the port authority, which shall, on the basis of the safety reports of the operators, compile a safety report for the entire port area. The port authority shall submit the safety report for approval.

The safety report shall be approved by Trafi, which before approving a safety report, shall reserve the rescue authorities, the regional environment centre, the occupational safety authorities and, where necessary, other authorities, an opportunity to express their opinion on the safety report. The approved safety report shall be made available to the authorities.

The Decree provides that Trafi shall conduct an inspection at the latest within two years from the approval of the safety report and, thereafter, every fifth year. At least the rescue authorities, the regional environment centre and the occupational safety district shall be invited to take part in the inspection. The port authority and the operator are required to arrange emergency situation drills.

Based on the data from the workshops, currently about half of the ports have safety reports related to dangerous substances. During the project, it was possible to view documents which compiled reports on the transport of dangerous goods to a single document. Discussions organized in the workshops revealed that the ports acknowledge the provisions set in the Decree and are well aware of the limit of 10,000 tons.

4.8 Internal Rescue Plan

An internal rescue plan is part of the requirements related to the abovementioned security plans concerning the transport of dangerous goods, safety reports for marshalling yards and safety reports concerning the transport and storage of dangerous goods. The Government Decree on the Transport of Dangerous Goods by Rail does not specify any requirements for the content of an internal rescue plan.

Under the Act on the Transport of Dangerous Goods, an internal rescue plan shall contain a plan concerning the measures to be taken in accidents. The Government Decree on the Transport of Dangerous Goods by Rail does not contain requirements on the content of an internal rescue plan.

Government Decree on the Transport and Temporary Storage of Dangerous Goods in a Port Area defines the content of internal rescue plan as follows: “The internal rescue plan shall define the measures to be taken in accident situations which are deemed possible in advance: 1) to prevent the accident and limit the consequences of the accident on people, the environment and property; 2) to implement the necessary measures to protect people, the environment and property against the consequences of the accidents; as well as 3) to prepare to repair the consequences of the accident and to clean up the environment. In preparing the internal rescue plan, the arrangements of the regional rescue authority shall be taken into account. The internal rescue plan and any updates shall be submitted to the rescue authorities.”

In addition to the legislation, Trafi and the Finnish Ministry of Transport and Communications have drawn up guidelines on the content requirements of internal rescue plans. According to the data from the workshops, an internal rescue plan is prepared in every port. Answers identified cases where separate internal rescue plans were prepared and appended to different plans, thus the coherence of information is no longer guaranteed.

4.9 External Emergency Plan

Under the Rescue Act and the Ministry of the Interior Decree on External Emergency Plan for Objects that Present a Special Risk issued in accordance with the Rescue Act, external emergency plans shall be drawn up for ports where there are railway marshalling yards referred to in the Government Decree on the Transport of Dangerous Goods by Rail or there are port areas referred to in the Government Decree on the Transport and Temporary Storage of Dangerous Goods in a Port Area.

An external emergency plan shall contain at least the following information: General information about the area; rescue organization in the area; identified risks for major accidents in the area; which function groups in their capacity as a representative of the port authority are entitled to launch rescue operations in the area; how to fast notify people of accidents, how to raise the alarm and call for help; how to perform rescue operations outside the area and how to

act in accident scenarios; how to warn and inform the population. In addition, the plans shall detail information on organizing major accident exercises. Exercises shall be organized once in every three years. The Rescue Department shall draw up an external emergency plan with the assistance of the port. External emergency plans are prepared for nearly every port.

4.10 Plan for Responding to Oil Spill

Mainly port operators of merchant shipping ports are required to draw up a contingency plan for responding to any oil spill or chemical spill from a ship in the area under the Act on Oil Pollution Response.

The Government Decree on Oil Pollution Response lays down following provisions on content requirements of the contingency plan: Information on the organization of the oil spill prevention and response of the storage area, port and department; a) report on the management of operations, maintaining the preparedness and division of responsibilities in the organization as well as the names and contact details of the persons in charge of organizing the operations related to prevention and response; b) plan presenting organizing the prevention, people involved in the prevention and establishing, supplying and maintaining prevention units as well as information on the alarm and communication systems; c) report on the management of prevention and response operations until the moment when the rescue authority of the regional rescue services or the head of the rescue operation assumes the management of the operations; d) report on cooperation with regional rescue services.

In addition, following information concerning the factors affecting the level of preparedness shall be presented: a) report on objects that risk causing an oil spill or chemical spill from a ship in the area, on their location and routes; b) report on identified risks of oil spill or chemical spill from a ship and the measures they require; c) information on other factors contributing to the risk of an oil spill or a chemical spill from a ship and especially, on amount of traffic in the port and on the number of tankers frequenting the port.

The following information shall be listed concerning the equipment and other preparedness to undertake preventive and response measures: a) report on oil spill prevention and response equipment and supplies as well as other equipment and supplies suitable for oil spill prevention and response that are necessary for the level of preparedness for oil spill prevention and response as well as on the storage and maintenance of such equipment; b) plan on organizing training and exercises; c) plan on collection, transport, storage and shipping for treatment of oily waste and waste containing other noxious substances produced in oil spill response;

In drafting the plan, particular attention should be paid to the adequacy and suitability of oil storage units, port, and facilities in the first phase of oil spill response and to the sufficient training of personnel for prevention and response operations. In preparing the plan, it shall be ensured that the flow of information and cooperation between the storage, port, and facilities as well as the regional rescue service functions well and is flexible.

Based on the data collected in the workshops, all ports draft plans to prepare for an oil spill. Oil spill prevention and response plans are usually combined with the rescue plan. Oil spill prevention and response exercises are held on average once a year. The plans are approved by the regional rescue service and confirmed by a local Centre for Economic Development, Transport and the Environment (ELY Centre).

4.11 Occupational Safety – Obligations of port holders – Common workplace

The obligations of port holders are laid down in the Occupational Safety and Health Act. The Act provides that port holders shall analyze and assess safety in the port area in order to coordinate the activities of the employers and self-employed workers and to assure the health and safety of employees working in the port. The analysis and assessment shall take into account the harm caused to loading and unloading by other work performed in the port as well as arrangements related to storage of dangerous substances.

According to the data from the workshops, around three-quarters of the ports draw up plans based on the obligations of port authorities. Half of the contestants consider that these plans could be in part combined with other plans.

4.12 Safety Plan for Divers Performing Construction Work

The Government Decree on Certification of Divers Performing Construction Work and on Safety Plan 1088/2011 lays down specific requirements for the certification of employees (divers) performing construction work in the water using scuba diving equipment as well as provisions on a safety plan for diving work.

The Decree provides following content requirements for the safety plan: special requirements for the work and working conditions; requirements for certification and competence of the employees; safe composition of the diving group; scuba diving equipment and other tools in use; rescue, communication, first aid, and other actions in case of emergency; other factors affecting employee's health and safety. The safety plan shall be understandable and its content shall be discussed with the employees. The safety plan shall be kept up-to-date.

According to the data gathered in the workshops, three-quarters of the ports draw up plans based on the obligations of port holders. Half of the respondents consider that the plans include parts that could be combined with other occupational safety plans.

4.13 Loading and Unloading of the Ships – Guidelines for Safety and Traffic

The Government Decree on the Occupational Safety in Loading and Unloading of Ships obliges the port authority to take care of "the general planning and arrangements of occupational safety as well as the general safety and health of the working conditions and work environment in the

port". In addition, "to reconcile the activities of employers and self-employed persons and to ensure the safety and health of those working in the port, the port holder must determine and assess the safety of the port area. In the determination and assessment, the hazards that other port work causes to loading and unloading and the arrangements relating to the storage of dangerous goods must be taken into account. The port holder must draw up port safety instructions that include a description of the common principles of occupational safety and a description of traffic arrangements in the port area as well as codes of conduct in emergency and dangerous situations. Traffic arrangements must be planned in an appropriate cooperation with the port users. Where necessary, special traffic instructions must be drawn up for the port."

Documentation is created under this Decree in every port. Due to the nature of these documents, it is not considered to be possible to combine them with other plans.

4.14 Other Plans

Also other plans, which have not been covered above, came up in the discussions held during the project.

During the past year, Tukes required that based on the statutes on chemical safety, some ports be involved in drawing up an assessment on so called domino effect areas, which are areas where an accident in a production plant could cause another accident in a nearby production plant, which in turn will result in a major accident. Tukes has prepared guidelines on this topic where production plant is defined as follows: An area controlled by an operator and where dangerous chemicals or explosives are produced, handled or stored in one or several places. Production plants located in a port area or in its proximity can bring about the obligation to draft a plan on cooperation or study existing plans from the point of view of the domino effect. These so called domino areas are identified by Tukes.

In addition, the discussions in the workshops suggested that ports may have to prepare many different plans related to occupational safety provided in the legislation on working tools and sources of radiation, for example.

4.15 Clusters

In order to identify the burden and entities as well as to analyze factors affecting them, plans and their content requirements were studied. The following entities or clusters of different fields of operation were identified: safety and preparedness, transport, rescue, and occupational safety.

When the internal requirements of the clusters were assessed more accurately after the first workshop, it was stated that planning requirements cannot be met at this stage with a single plan.

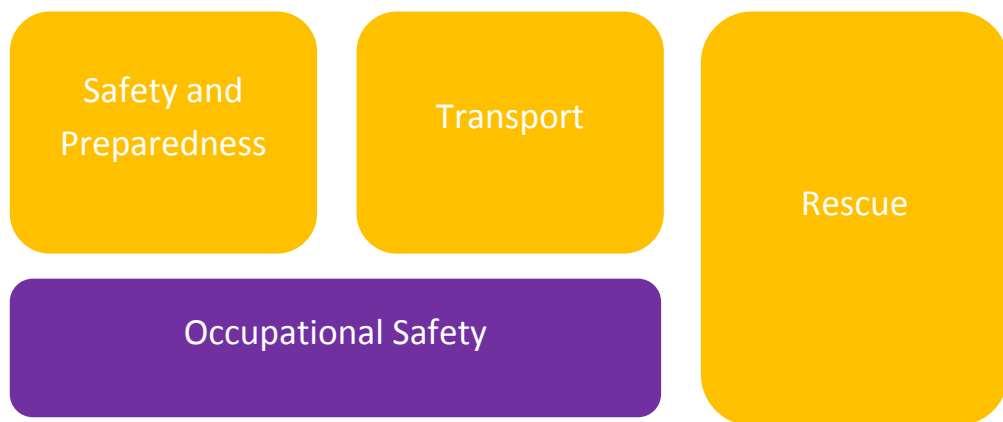


Figure 3 Clusters

Safety and preparedness as well as transport are observed here as distinct entities to which occupational safety and rescue are closely linked as separate units. Of the identified clusters, occupational safety is left outside the scope of a more precise analysis while the projects concentrate on plans in the field of traffic administration.

5 PROCESS OUTLINE FOR MANAGING THE ENTITIES

In conformity with the idea behind the project, the aim is to reduce the administrative burden of port authorities and officials. The goal is set to decrease the costs of maintaining the plans and to free human resources from planning to other duties without compromising safety and security objectives and even promoting them.

For managing the whole, the process outline can be focused on one of the main burdening factors previously identified, thus on either plans or on their administration and maintenance. In the following, the process outline is described from the perspective of plans.

5.1 Defining the Process Outline – Plans

In relation to plans, the identified safety clusters were approached from the point of view of plan requirements. The requirements were divided into following categories:

- Basic information about the port
- Organization and responsibilities
- Assessment of risks and threats
- Codes of conduct

With this method, it was possible to identify the plan requirements that are repeated in different plans and are thus, suitable for harmonization. Also, factors that are unique for each plan and cannot be merged were brought up.

5.1.1 Basic Information about the Port

In practice, basic information about the port has to be included in every plan. Based on the plans that were viewed during the project, it can be stated that the scope of the plan is commensurate with the description of the port. Basic information included also an account of different activities performed in the port area and of the companies operating there. This information helps authorities understand the operating environment and distribution of work between companies. It is assumed that basic information is not field-specific. Following information was identified as such:

Description of the port and activities include: description of the location of the port, overview of the operations and infrastructure as well as general responsibilities of different companies, amount of traffic and shipments, amount of dangerous goods, safety policy, principles of safety management, objectives for the development of the working environment as well as description of the practices related to monitoring the training and competence of the personnel.

5.1.2 Organization and Responsibilities

The description of the organization and a more detailed account of responsibilities can be differentiated from the issues presented in the basic information of the port. The plans contain detailed descriptions of different field-specific responsibilities.

The description of the organization and responsibilities identifies the people in charge of different tasks and lists their contact details in relation to both normal operations and to emergencies. The presentation of the distribution of responsibilities between different companies operating in the port is also important. Responsibilities vary between the fields, for example.

5.1.3 Assessment of Risks and Threats

The plans' aim is to contribute to responding to and managing the risks and threats identified in relation to different fields. The assessment of these risks and threats is included in different levels of each plan. The assessment of risks and threats included an account of the consequences of different scenarios and region-specific requirements.

5.1.4 Codes of Conduct

Codes of conduct respond to the factors that are identified and taken into account in risk management or in existing, generally known regulations. The section includes concrete measures that are required or recommended in the planning requirements. Codes of conduct include internal instructions (for a company/area) and external instructions (such as those directed to clients).

5.2 Process Outline – Plans

The defined process plan is applied to identified safety clusters.

5.2.1 Safety and Preparedness

During the project, it was discovered that there already exists ideas about combining preparedness planning and safety plans. The workshops identified special characteristics of safety and preparedness plans that distinguish them from other types of safety planning. These plans aim to respond to safety related threats resulting from an external factor. Combining safety and preparedness plans is also justified from the point of view of this project.

5.2.2 Transport

It is estimated that out of all the entities covered in the grouping, the most important advantage is achieved from actions related to transport. The need for transport-related planning results most often from the transport of dangerous goods thus, outlining the process also helps managing the big picture. It is suggested that in the future, transport-related plans would be managed through two document levels, core plans and function-specific plans, instead of separate plans that are currently prepared.

Core plans include all documentation concerning the port reflecting the following above-defined sections: basic information about the port, organization and responsibilities as well as assessment of threats and risks. **Function-specific plans** include codes of conduct, which are categorized to correspond to current plans. This procedure eliminates redundancy from the plans and makes it easier to update the documents.

5.2.3 Rescue

According to the assessment, the documentation related to rescue services cannot be combined with other plans as such. An internal rescue plan or the facts presented in it are included in several plans. It is suggested that the internal rescue plan would be developed so that one document would meet all the requirements set for rescue plans of different safety plans. Internal rescue plan can be considered as a function-specific document that would not repeat the basic information about the port detailed in the core plan.

5.2.4 Occupational Safety

The requirements related to plans and documentation provided in the legislation on occupational safety were not assessed. However, the presented model for a core plan can also be used in planning occupational safety.

5.3 Defining the Process Outline – Approval and Training

In the beginning of the project, following burden factors related to approval, implementation and maintenance of plans were identified: the amount of maintenance, requirements, scope and learning. One factor in reducing the burden related to approving and auditing the plans is the quality of the plans, which can be affected in a manner which was described previously in the context of process outline of the plans. This way, the documentation will form a clear and logical whole that is easy to maintain; information is updated only once, thus the risk of portraying outdated information is nonexistent.

An efficient and balanced practice concerning maintenance requirements calls for a common approach to procedures between ports and authorities. According to the workshops,

preconditions for formulating such approach do exist and it is considered to benefit both parties. A prerequisite for forming the approach is active cooperation with the authorities which entails that common requirements are successfully communicated to each party. In this context, it should be assured as well that the inspecting institutions possess sufficient competence on the wide range of requirements of the ports.

It was clearly recognized in the workshops that nowadays, ports organize a lot of drills and exercises. In order to reduce the number of exercises, best practices for combining different exercises must be identified and communicated to all parties. Requirements related to the number and scope of the exercises have to be identified as well; Not every exercise needs to be of large scope in order to be useful and several exercise requirements can be covered at once with a single exercise. Another factor contributing to burden is also lessons learned from exercises. The strain caused by the learning objective is reduced when other exercise-related burden is decreased.

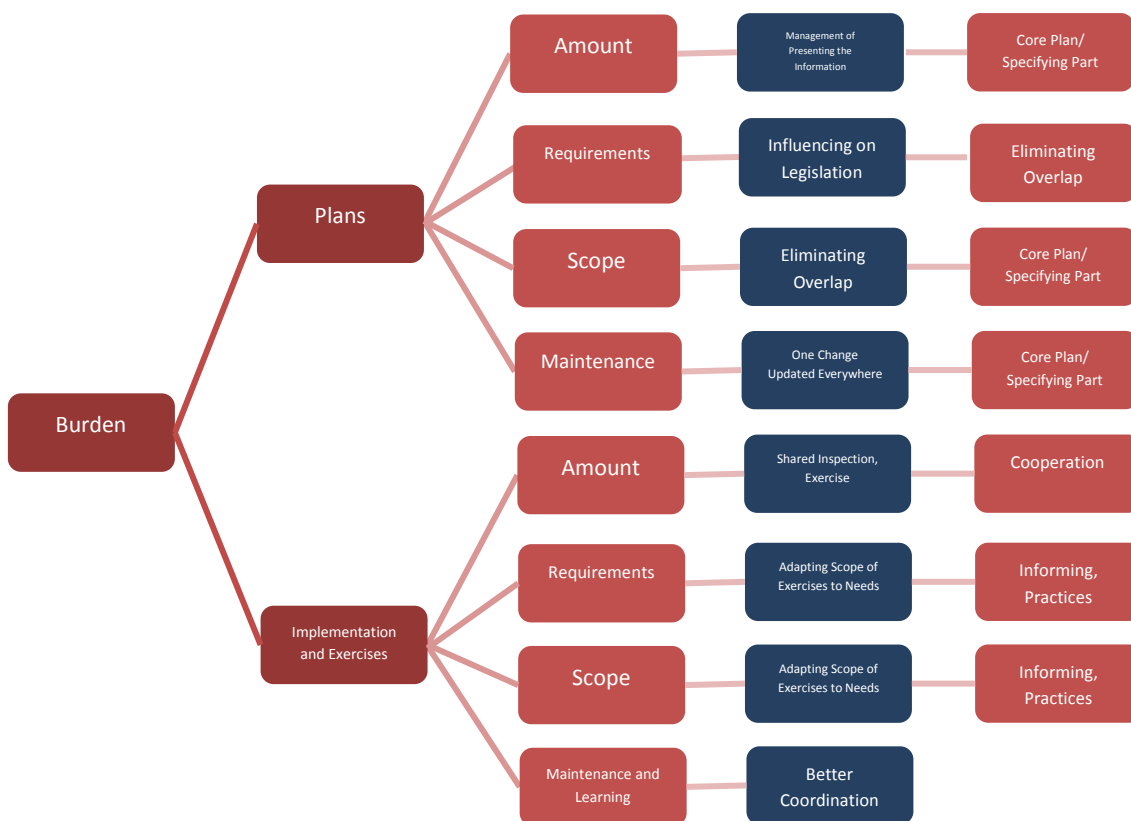


Figure 4 Process Outline

6 CONCLUSION

There are different reasons why safety plans cause burden. Based on the results of the analysis, workshops and interviews, it can be stated that plans include clearly redundant content and some obvious targets for development can be identified in plan implementation and inspection.

6.1 Documentation

It is considered that the difficulty of documentation on safety, plans, and implementation lies in the terminology, which varies between institutions even though the factual content of the document is the same. In the port, this may translate into parallel documents or meaninglessly extensive documents describing, for example, codes of conduct for exercises. Due to a large number of requirements and plans, it is challenging to draft, manage and update plans that include overlapping content without affecting the quality of the issues presented in the plans.

The plans and their management varies between the ports, which is partly due to differing activities performed in the ports. However, the project revealed that the plan management is also realized in a different way. Currently, there are no systems for finding and interpreting the best practices in the field of safety planning in the ports.

Problems related to documentation can be addressed with the help of the core planning model that has been presented above. The core plan will include the requirements that are currently repeated in every plan and that deal with basic information about the port, organization, responsibilities as well as assessment of risks and threats. Function specific documents include function specific procedures picked from current plan requirements.

The majority of the topics included in the core plan are presented in the ports' ISPS documentation. A core plan can be drafted on this basis by complementing the ISPS documentation with an assessment of port's internal threats. This document can be submitted for approval in the context of ISPS inspections. Confidential information related to ISPS documentation can be handled separately.

6.2 Exercises and Inspections

Both ports and authorities consider that ports organize a large, even an excessive, number of exercises. Even though the problem has been acknowledged, it has not been addressed so far. When the number of exercises is large, dealing with improvement targets discovered during the exercises becomes much more difficult.

At the operative level, numerous requirements and an equal number of plans cause problems in the ports in terms of resources. Besides drafting the plans, resources are largely used for complying with the plan requirements. The review concluded that the burden caused by the exercises on individual ports was extremely heavy.

Some common exercises between the ports are already organized and some exercises cover several functions simultaneously. These good practices can be disseminated to all ports. The discussions did not clarify if current instructions support the organization of common exercises.

6.3 Cooperation

Based on the feedback received from the authorities during the project, there are also shortcomings related to communication between different authorities and definition of responsibilities. In particular, it can easily take years to develop procedures for fulfilling the needs for cooperation between the authorities brought about by new plan requirements.

Regarding the inspection and auditing of plans, it was also questioned whether the instances conducting inspections have enough resources to assess the plans in such a way that it would improve overall safety. On this basis, there is a need to improve the overall cooperation between actors and authorities in order to consider both parties' views and to solve possible issues.

6.4 Regional Differences

Ports do not have an equal status and it is acknowledged that practices on requirements by authorities and on cooperation differ nationally. Regulations and policy alignments on the implementation are not the same for every port.

Concerning the ongoing organizational changes in the administration, it is important to guarantee that the expertise on the port sector will not be lost. At the moment, there is no forum for cooperation between the actors and authorities, which makes identifying and addressing regional differences difficult.

6.5 Legislation

Based on the analysis, the main challenge from the legislative perspective is an extensive set of rules prepared on grounds of different necessities to comply with the need for regulation. This has caused overlapping requirements and on the other hand, problems related to implementation in practice. From the port's perspective, this has resulted in a large number of plans with overlapping content; activities in the port, organization including responsibilities and contact details as well as rescue arrangements are detailed in every document.

In the current situation, the responsibilities are not clearly defined. During the project, questions concerning both inadequate legislation and implementation of the legislation have been brought up. The issues regarding the implementation of legislation are related to port authority's coordinating responsibilities, which have not been defined unambiguously. In addition, the significance of active involvement in preparing the legislation has been brought up

during the project. Taking into account the changing legislation calls for cooperation and a common position on the amendments.

The preliminary analysis suggests that combining contingency planning and safety measure plans is a clear procedure, which requires changes in the legislation. Other objectives do not require immediate amendments to the legislation and can be realized by developing legislation or by revising codes of conduct. In the context of developing the legislation, it has to be ensured that the safety planning as a whole is not jeopardized and that the number of plans does not grow excessively.

7 RECOMMENDATIONS AND FOLLOW-UP PROCEDURES

Based on the factors presented in the conclusion, the project suggests following recommendations and follow-up procedures.

7.1 Documentation

Instead of extensive function specific plans that are currently in use, one common core plan for the port and separate, more brief function-specific plans are introduced. A prerequisite for the deployment of the core plan model is that the authorities involved approve the proposal in its entirety and that plan-related inspection practices are updated accordingly. Discussions held during the project suggest that there are no obstacles to the procedure.

7.2 Exercises and Inspections

In order to decrease the number of exercises, function-specific exercises are combined with inspections. In addition, it is proposed in the project that a common annual plan is prepared concerning the combined exercises and inspections.

For this to succeed, active cooperation between authorities, port operators and ports across responsibility areas is needed. The same model is applicable to inspections provided in the existing legislation. The adoption of extensively combined exercises requires revision of codes of conduct of authorities so that they support the activities of regional authorities and ports. Based on the discussions organized in context of the project, there are no obstacles to this procedure.

7.3 Cooperation

Cooperation has two dimensions: cooperation between authorities and cooperation between authorities and ports. Authorities should develop their system for information exchange and cooperation so that it enables more efficient use of time and exchange of information in the field of inspecting and monitoring the safety plans of ports as well as organizing exercises.

Cooperation between authorities and ports is related to the functioning of the port in normal situations and in case of emergency. To improve this cooperation, joint and combined inspections and training should be developed and also, the coordination of joint exercises improved.

To enable cooperation, operations model has to be developed either by adjusting current cooperation networks between, for example, the Finnish Port Association and authorities, or in case this is not purposeful, establish a suitable forum for the development of cooperation.

7.4 Regional Differences

In order to remove regional differences in requirements, the flow of communication from the ministry/central agency to the port through regional authority should be made more effective. Regional differences can be influenced with a code of conduct which is drafted so that each party is consulted in the preparation and the review process to ensure that it corresponds to the requirements and that it is effective. In order to promote fairness and overall security, it has to be taken into account that the expertise of the competent authority is assured with sufficient training and competence requirements. The requirements and challenges of the port area from the point of view of the competent authority were also identified in the discussions with authorities during the project.

7.5 Legislation

Legislation on safety plans should be simplified and reduced. The following themes identified in the project are set as priorities for streamlining and improving the legislation: safety issues, transport, rescue, and occupational safety. Contingency planning and safety planning of the ports (ISPS) are combined in the same law. The simplification and streamlining of the legislation should be conducted following the same principles as in the ongoing overall reform of the legislation on the transport of dangerous goods where redundancies are eliminated and the content is condensed into fewer statutes.

It is relevant to emphasize in this context that the form of the changing legislation should be addressed already in the drafting process. Regarding the international legislation on safety plans of ports, national objectives and positions have to be formulated and coordinated already in the early stages of the processes. The implementation of international regulation at the national level has to support the plans as a whole more clearly instead of being sector-specific. New requirements are primarily included in the existing legislation to avoid redundancy. The preparation calls for close cooperation between legislators and lobbyists representing the ports.

7.6 Safety Planning as part of Safety Management

The use of a goal-based approach to regulation is increasing in legislation and along with it, the transition from external norms towards companies' setting their own targets and methods. The change emphasizes the importance of safety management in directing safety planning and activities in companies. The size and functioning of a company can and should be reflected in its management systems.

7.7 Follow-up Measures

In order to take up suggested measures, the Finnish Port Association conducts an implementation plan in cooperation with the Finnish Ministry of Transport and Communications, Finnish Transport Safety Agency, and Finnish Transport Agency. The plan defines the method for implementing the abovementioned measures, competent institutions, and a timetable for implementing the measures.

APPENDICES

Legislation on Ports

Act on Security Measures on certain Ships and in Ports serving them and on monitoring the Security Measures

Emergency Powers Act

Railway Act

Act on the Transport of Dangerous Goods

Government Decree on the Transport of Dangerous Goods by Rail

Government Decree on the Transport and Temporary Storage of Dangerous Goods in a Port Area

Act on Oil Pollution Response

Government Decree on Oil Pollution Response (not available in English)

Rescue Act

Occupational Safety and Health Act

Government Decree on Certification of Divers Performing Construction Work and on Safety and Security Plan (not available in English)

Government Decree on Prevention of Hazards of Explosive Gas for Employees (ATEX) (not available in English)

Ministry of Trade and Industry Decision on Equipment and Protective Systems Intended for Use in Potentially Explosive Gases (ATEX) (not available in English)

Decree on Equipment and Protective Systems Intended for Use in Potentially Explosive Gases (ATEX) (not available in English)

Pressure Equipment Act

Ministry of Trade and Industry Decision on Pressure Equipment Safety (not available in English)

Ministry of Trade and Industry Decision on Pressure Equipment (not available in English)

Ministry of Trade and Industry Decision on Simple Pressure Vessels (not available in English)

Act on Radiation (not available in English)

Decree on Radiation (not available in English)

Ministry of the Interior Decree on Notifying of the Danger of Radiation (not available in English)

Government Decree on Laser Equipment and on its Inspection (not available in English)

Government Decree on Protecting Employees from Dangers of Exposure to Optical Radiation (not available in English)

Government Decree on the Safe Use and Inspection of Work Equipment

Government Decree on Safety of Machines (not available in English)

Act on Safe Loading and Unloading of certain Bulk Carriers (not available in English)

Ministry of Transport and Communications Decree on Safe Loading and Unloading of certain Bulk Carriers (not available in English)

Government Decree on the Occupational Safety in Loading and Unloading of Ships

Government Decree on Safety and Measuring Devices for Use onboard (not available in English)

Ministry of Social Affairs and Health Decision on Safety Regulation of Lifting Devices for Use in Loading and Unloading (not available in English)

Act on marine equipment (not available in English)

Act on the Technical Safety and Safe Operation of Ships

Act on Ships' Crews and the Safety Management of Ships

Act on the Working and Living Environment and Catering for Seafarers on Board Ships

Government Decree on the Manning of Ships and Certification of Seafarers

Vessel Traffic Service Act

Ministry of Trade and Industry Decision on Handling and Storage of Petrol (not available in English)

Ministry of Trade and Industry Decision on Handling and Storage of Dangerous Chemicals in Distribution Stations (not available in English)

Ministry of Trade and Industry Decision on Inflammable Fluids (not available in English)

Decree on liquefied petroleum gas (not available in English)

Ministry of Trade and Industry Decision on Application of the Decree on liquefied petroleum gas (not available in English)

Chemicals Act

Chemicals Decree

Act on the Safety of Dangerous Chemicals and Explosives (not available in English)

Government Decree on the Supervision of Handling and Storage of Dangerous Chemicals (not available in English)

Government Decree on the Safety Requirements of Handling and Storage of Dangerous Chemicals (not available in English)

Ministry of Social Affairs and Health Decree on Submitting Information Concerning Chemicals

Ministry of Social Affairs and Health Decree on Concentrations Known to be Harmful (not available in English)

Government Decision on Prevention of Major-accident Hazards to Employees (not available in English)

Government Decision on Tanks Containing Dangerous Goods and on their Labeling (not available in English)

Ministry of Social Affairs and Health Decree on chemical classification principles and labelling

Government Decree on the Prevention of Work-related Cancer Risks

Government Decree on Environmental Tobacco Smoke and on Prevention of Smoke-Related Cancer Risks at Work (not available in English)

Government Decision on Protection of Workers from Risks related to Exposure to Biological agents at Work (not available in English)

Ministry of Employment Decision on Cancer Risk Factors (not available in English)

Ministry of Employment Decision on Work-related Risks caused by Carcinogens, Mutagens and Substances Toxic to Reproduction and Foetus (not available in English)

Government Decree on Prevention of Work-related Risks of Carcinogens, Mutagens and Substances Toxic to Reproduction and Foetus (not available in English)

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HAZARD project has 15 full Partners and a total budget of 4.3 million euros. It is executed from spring 2016 till spring 2019, and is part-funded by EU's Baltic Sea Region Interreg programme.

HAZARD aims at mitigating the effects of major accidents and emergencies in major multimodal seaports in the Baltic Sea Region, all handling large volumes of cargo and/or passengers.

Port facilities are often located close to residential areas, thus potentially exposing a large number of people to the consequences of accidents. The HAZARD project deals with these concerns by bringing together Rescue Services, other authorities, logistics operators and established knowledge partners.

HAZARD enables better preparedness, coordination and communication, more efficient actions to reduce damages and loss of life in emergencies, and handling of post-emergency situations by making a number of improvements.

These include harmonization and implementation of safety and security standards and regulations, communication between key actors, the use of risk analysis methods and adoption of new technologies.

See more at: <http://blogit.utu.fi/hazard/>

