Report on the Workshop on VTS Competent Authorities

WORKSHOP REPORT

20 to 24 January 2025

Italian Coast Guard

Rome, Italy

Thomas Southall

Workshop Secretary

10, rue des Gaudines – 78100 Saint Germain en Laye, France

Tél. +33 (0)1 34 51 70 01 – Fax +33 (0)1 34 51 82 05 – contact@iala.int

www.iala.int

International Organization for Marine Aids to Navigation

24 January 2025

This page intentionally blank

Report on the Workshop on VTS Competent Authorities

Executive Summary

The workshop on VTS competent authorities was held between the 20 and 24 January 2025 in Rome.

The workshop was well attended with 74 participants from 32 countries.

The workshop participants considered the various presentations that were given and the following was concluded:

1. Recognition that governments and competent authorities may give effect to their responsibilities in various ways dependent on their constitution and national law.
2. Consideration should be given to actively assisting contracting governments, competent authorities, VTS providers and participating ships fulfil their responsibilities for VTS, including understanding their responsibilities as described in IMO Resolution A.1158(32) and IALA standards.
3. Recognition of the significance of the link between the government, the competent authority and VTS providers in establishing national law and regulations to give full effect of the international framework for VTS.
4. Recognition of the interrelationships between policy, legislation, regulation and governance in establishing an effective and functional legal framework.
5. A clear compliance and enforcement framework should be established and communicated.
6. Guidance should be developed to demonstrate how VTS reduces casualties, incidents and near misses.
7. Consider the need for international recognition of accredited training organizations and VTS Model Course certificates.
8. Two or more governments may successfully implement a common VTS on the basis of an agreement and cooperation.
9. Consider how IALA may contribute to IMO on relevant areas of the IMSAS audit.

Contents

Executive Summary 3

Introduction 7

Day 1 – Monday 20 January 2025 7

1. Session 1 – Opening of the Workshop 7

1.1 Administration and safety briefing 7

1.2 Welcome from IALA, Francis Zachariae, Secretary-General 8

1.3 Welcome from Italy 8

2. Session 2 – Introduction / Background 8

2.1 Workshop aim and objectives, Monica Sundklev – VTS Committee Chair 8

2.2 Introduction of Workshop Topics, Trond Ski – VTS Committee Operations Working Group Chair 9

2.3 Background - IALA history and role in VTS, Trond Ski – VTS Committee Operations Working Group Chair 9

2.4 Results from the previous VTS Questionnaire, Neil Trainor 10

Day 2 – Tuesday 21 January 2025 10

3. Session 3 – Regulatory and Legal Framework 10

3.1 International Framework – Trond Ski, NCA 10

3.2 Policy, legislation, regulation and governance – Neil Trainor 11

4. Session 4 - Translating international commitments into actionable and enforceable measures at national level 12

4.1 Contracting Governments – their responsibilities 12

4.1.1 Establishing a legal basis for VTS that gives effect to SOLAS regulation V/12 – Neil Trainor 12

4.1.2 Contracting Governments – their responsibilities - Maarten Berrevoets, the Netherlands 14

4.1.3 Contracting Governments – their responsibilities - Mayumi Arita, Japan 15

4.2 Competent authorities - their responsibilities 15

4.2.1 Regulatory framework - Neil Trainor 15

4.2.2 Regulatory framework - Keeta Rowlands, UK 17

4.2.3 Regulatory framework - Matti Latvalahti, Finland 17

4.2.4 Regulatory framework - Monica Sundklev, Sweden 17

4.2.5 Authorization of VTS providers - Neil Trainor 17

4.2.6 Authorization of VTS providers - Keeta Rowlands, UK 18

4.2.7 Authorization of VTS providers - Toni Sobott, Finland 18

4.2.8 Authorization of VTS providers - Maarten Berrevoets, the Netherlands 19

Day 3 – Wednesday 22 January 2025 19

Summary of discussions from day two 19

Continuing Competent authorities - their responsibilities 19

4.2.9 Ensuring VTS providers have appropriate equipment, systems and facilities in place to interact with vessel traffic and respond to developing situations within a VTS area – Richard Aase, Norway 20
4.2.10 Ensuring VTS providers have appropriate equipment, systems and facilities in place to interact with vessel traffic and respond to developing situations within a VTS area – Song-I Song, Republic of Korea 20
4.2.11 Ensuring VTS providers have appropriate equipment, systems and facilities in place to interact with vessel traffic and respond to developing situations within a VTS area – Neil Trainor 20
4.2.12 Compliance and enforcement - Monica Sundklev, Sweden 20
4.2.13 Compliance and enforcement – Keeta Rowlands, UK 21
4.2.14 Compliance and enforcement – Neil Trainor 21
4.2.15 Compliance and enforcement – Jeanette Assev-Lindin, Norway 21
4.3 Competent authorities – training responsibilities 21
4.3.1 Exploring two approaches to ensure VTS training is approved and personnel are certified – Kerrie Abercrombie, The Nautical Institute 21
4.3.2 Ensuring that VTS training is approved and VTS personnel are certified – Stefaan Priem, Belgium 22
4.3.3 Ensuring that VTS training is approved and VTS personnel are certified – Elisa Giangrasso, Italy 22
4.3.4 Ensuring that VTS training is approved and VTS personnel are certified – Juan Carlos Salinas & Raquel Rojo, Spain 23
4.3.5 Ensuring VTS personnel are competent and supporting ongoing professional development - Kerrie Abercrombie, The Nautical Institute 24
4.3.6 Ensuring VTS personnel are appropriately trained and qualified for their VTS duties - Malin Dreijer, Norway 24
4.3.7 Ensuring VTS personnel are appropriately trained and qualified for their VTS duties - Maarten Berrevoets, the Netherlands 24
Day 4 – Thursday 23 January 2025 25
Summary of discussions from day three 25
4.4 VTS Providers – their perspective and experiences 26
4.4.1 Views from a VTS provider's perspective – Milou Aerts, the Netherlands 26
4.4.2 Views from a VTS provider's perspective – Sari Talja, Finland 26
4.4.3 Views from a VTS provider's perspective – Mayumi Arita, Japan 26
5. Session 5 – Other elements to consider 26
5.1.1 When competent authority and VTS provider are the same entity – Barbara Magro, Italy 26
5.1.2 When competent authority and VTS provider are the same entity – Keeta Rowlands, UK 26
5.1.3 Two or more Governments have a common interest in establishing VTS in a particular area - Niels Mygind, Denmark 27
5.1.4 Two or more Governments have a common interest in establishing VTS in a particular area - Stefaan Priem, Belgium 27
5.1.5 VTS beyond territorial waters in a different prospective – Michele Landi, Italy 27
5.1.6 VTS beyond the Territorial Sea – Neil Trainor 27
5.1.7 Cyber security considerations – Martijn Ebben, the Netherlands 29
5.1.8 Cyber security considerations – Richard Aase, Norway 30

5.1.9 Demonstrating conformance with IMSAS (IMO Member State Audit Scheme) – Jeanette Assev-Lindin, Norway 30
5.1.10 Demonstrating conformance with IMSAS (IMO Member State Audit Scheme) – Matti Latvalahti & Toni Sobott, Finland 30
Day 5 – Friday 24 January 2025 30
Summary of discussions from day four 30
6. Session 6 - Outcomes, feedback and comments from the sessions 31
7. Session 7 – Workshop review and conclusions 31
7.1 Way forward for the VTS Committee – Trond Ski, Norway 32
7.2 Closing of the workshop 32
7.2.1 Monica Sundklev, VTS Committee Chair 32
7.2.2 Francis Zachariae, IALA Secretary-General 33
7.2.3 Representative of the Italian Government, Edoardo Rixi – Vice Minister of Infrastructure and Transport 33
7.2.4 Admiral Nicola Carlone, Italian Coast Guard 33
7.3 Review workshop report 34
8. Social events and technical visit 34
8.1 Welcome Reception at the Roma Eventi Congress Center 34
8.2 Workshop Gala dinner at Roma Eventi Congress Center 34
8.3 Tour to the Vatican Museums 35

Report of the 2nd joint IALA/IHO workshop on S-100/200

INTRODUCTION

The Italian Coast Guard, hosted a workshop in Rome between 20 – 24 January 2025, to support and contribute to the development of guidance to assist competent authorities for VTS to meet their international obligations for establishing and operating VTS.

74 participants from 32 countries participated in the Workshop plus three members of the IALA secretariat.

DAY 1 – MONDAY 20 JANUARY 2025

1. SESSION 1 – OPENING OF THE WORKSHOP

This session was chaired by Monica Sundklev, Chair of the VTS Committee. The Secretary was Thomas Southall and the logistics for the event were organized the Italian Coast Guard. The event was kindly sponsored by Elman, a member of IALA and VTS equipment provider.

1.1 Administration and safety briefing

The hosts provided a safety and administrative briefing. Presentations can be found on the fileshare as PDFs. A list of participants can be found in Annex A.

1.2 Welcome from IALA, Francis Zachariae, Secretary-General

Francis Zachariae, Secretary-General of IALA, welcomed attendees to Rome, noting the city's jubilee celebrations. He expressed gratitude to the hosts for organizing the workshop in such a historic location and congratulated the Italian Coast Guard on 160 years of service since its establishment in 1865 by Royal Decree.

He emphasized the importance of the workshop to IALA's mission of developing guidance for VTS competent authorities, aligning with the IMO resolution's focus on well-structured Member States and competent authorities for harmonized VTS operations.

The global representation at the workshop highlighted the significance of the work being undertaken. He concluded by expressing hope for productive discussions to enhance VTS operations and wished everyone a successful week.

1.3 Welcome from Italy

Rear Admiral Sergio Liardo, Deputy Commander General of the Italian Coast Guard, welcomed attendees to Rome on behalf of Admiral Nicola Carlone. He expressed pride in hosting the workshop organized by IALA, which focuses on the responsibilities of VTS competent authorities in establishing and managing VTS within national laws.

He highlighted the significance of this year for the Italian Coast Guard as it celebrates 160 years of service with the motto, "Anchored in the past with a course set for the future." This anniversary reflects both their long tradition of maritime safety and their commitment to addressing future challenges in a complex, interconnected world.

Admiral Liardo underlined the workshop's importance in discussing harmonization between international regulations and national laws for VTS planning and operation. He noted that VTS is not merely technical but a critical component of maritime safety, traffic efficiency, and environmental protection.

He explained that the Italian Coast Guard has managed VTS services since their inception in the 1990s, fulfilling institutional tasks such as search and rescue, anti-pollution efforts, navigation safety, port traffic management, and marine environment protection. Since November 2023, the General Command of the Coast Guard has been formally recognized as the national VTS competent authority, legally formalizing their long-standing role.

The Admiral emphasized the Coast Guard's extensive presence along Italy's 8,000 km coastline and its collaboration with IMO, IALA, and other international organisations to promote safe, sustainable, and harmonized navigation.

He thanked IALA for its work and for choosing Rome as the venue, recognizing the contributions of international experts to the program. He also extended gratitude to sponsoring partners and the Ministry of Infrastructure and Transport for their support during the Coast Guard's 160th anniversary celebrations, specifically mentioning ELMAN for their long-standing partnership and sponsorship of the event.

Concluding, Admiral Liardo expressed his hope that the workshop would strengthen international cooperation, vital for addressing future challenges. He wished attendees a productive and inspiring week ahead.

2. SESSION 2 – INTRODUCTION / BACKGROUND

This session was chaired by Dirk Eckhoff, VTS Committee Vice-chair.

2.1 Workshop aim and objectives, Monica Sundklev – VTS Committee Chair

Monica Sundklev, as Chair of the VTS Committee, explained the objectives of the workshop, which was designed to support the development of IALA guidance for VTS competent authorities. She outlined three main aims.

First, the workshop sought to foster discussion and active participation to identify key areas where guidance is needed. This was intended to help competent authorities establish effective policies and regulatory frameworks, ensuring they and VTS providers meet their respective responsibilities.

Second, she highlighted the goal of identifying gaps in existing IALA documentation concerning the role of competent authorities and recommended practices. Addressing these gaps would improve the relevance and effectiveness of future guidance.

Finally, she emphasized the importance of broadening participation in the preparation of guidance, encouraging wider engagement to enhance the quality of contributions and recommendations.

2.2 Introduction of Workshop Topics, Trond Ski – VTS Committee Operations Working Group Chair

Trond Ski, Chair of the VTS Committee Operations Working Group, introduced the workshop topics, which focused on supporting the VTS Committee's efforts to develop guidance for competent authorities. The topics aimed to review the regulatory and legal framework for VTS and explore how these frameworks could be translated into actionable and enforceable measures at the national level.

He also outlined the workshop's goal of gathering knowledge and perspectives on how member States have established their regulatory frameworks for VTS and fulfilled their responsibilities as contracting governments and competent authorities. Specific areas of discussion included the authorization of VTS providers, requirements for VTS systems and equipment, handling violations of regulatory requirements, and the training and qualification of VTS personnel.

The full programme of the workshop can be found in Annex A.

2.3 Background - IALA history and role in VTS, Trond Ski – VTS Committee Operations Working Group Chair

Trond Ski provided a background on the history and role of IALA in VTS. He explained that shore-based radar and communication systems for traffic monitoring were first introduced in ports in 1948, with numerous radar sites being established globally during the 1950s. Following several major shipping disasters from the 1960s onwards, public demand for better marine environmental protection led to increased pressure on authorities to enhance shipping safety, including the expanded use of radar surveillance and vessel traffic management.

In 1968, the IMO Maritime Safety Committee adopted a resolution on 'Port Advisory Services,' acknowledging the importance of traffic monitoring for navigation safety. The need for standardisation in implementing traffic monitoring systems led to the adoption of the 1985 resolution titled 'Guidelines for Vessel Traffic Services.' This resolution was later revised in 1997 to include guidelines on the recruitment, qualifications, and training of VTS operators.

In 2018, IALA initiated a further review and update of the resolution to reflect global developments. This work culminated in the adoption of the current IMO Assembly Resolution A.1158(32) in December 2021, which recognizes IALA's role in achieving global harmonisation of VTS. Trond noted that IALA's involvement in this field dates back to the establishment of its VTS Committee in 1981.

Trond also highlighted that VTS was not explicitly mentioned in the 1974 SOLAS Convention until a new regulation was added to Chapter V on safety of navigation in 1997, defining when VTS could be implemented. A revised version of SOLAS Chapter V, which included this regulation, came into force in 2002.

2.4 Results from the previous VTS Questionnaire, Neil Trainor

The questionnaire was initiated by the IALA VTS Committee as part of its 2014-2018 Work Programme. Its purpose was to collect information from competent authorities and VTS providers to:

- Establish a common understanding of how VTS is delivered globally.
- Harmonize service quality, training, and operating procedures across the world.
- Contribute to the enhancement of IALA's VTS-related documentation.

Key results from the questionnaire:

- 155 responses were received from individual VTSs.
- These responses represented 113 VTS providers.
- 31 Competent authorities participated, covering 31 countries.

DAY 2 – TUESDAY 21 JANUARY 2025

3. SESSION 3 – REGULATORY AND LEGAL FRAMEWORK

This session was chaired by Trond Ski, Norway.

3.1 International Framework – Trond Ski, NCA

Trond Ski explained the key components of the international framework that Contracting Governments needs to consider when establishing a legal basis for VTS. These components includes:

- The International Convention for the Safety of Life at Sea (SOLAS);
- IMO Resolution A.1158(32) Guidelines for Vessel Traffic Services;
- IALA Standards; and
- National Law.

He highlighted that the 1974 SOLAS Convention recognized VTS as an international navigational safety measure, contributing to the safety of life at sea, the efficiency of navigation, and the protection of the marine environment. Regulation V/12 in SOLAS outlines the responsibilities of Contracting Governments, requiring them to establish VTS where traffic volume or risk justified it and to ensure flag-state participation and compliance with VTS provisions. It also requires that VTS planning and implementation followed IMO guidelines wherever possible.

The IMO Resolution A.1158(32) describes:

- The purpose of VTS;
- The regulatory and legal framework for establishing and operating VTS;
- The roles and responsibilities of Contracting Governments, competent authorities, VTS providers, and participating ships; and
- The qualifications and training requirements for VTS personnel.

Trond explained that the establishment of VTS relied on national law and international conventions, considering factors such as traffic volume, risk levels, and geographical and environmental conditions. The guidelines require Contracting Governments to establish a legal framework for VTS aligned with SOLAS Regulation V/12 and to appoint a competent authority for VTS.

The IMO Resolution also encourages Contracting Governments to consider IALA Standards and related recommendations, guidelines, and model courses. While IALA Standards are not mandatory, organisations claiming compliance with them are required to implement any normative recommendations referenced within the standards. These recommendations contain the necessary provisions for demonstrating compliance.

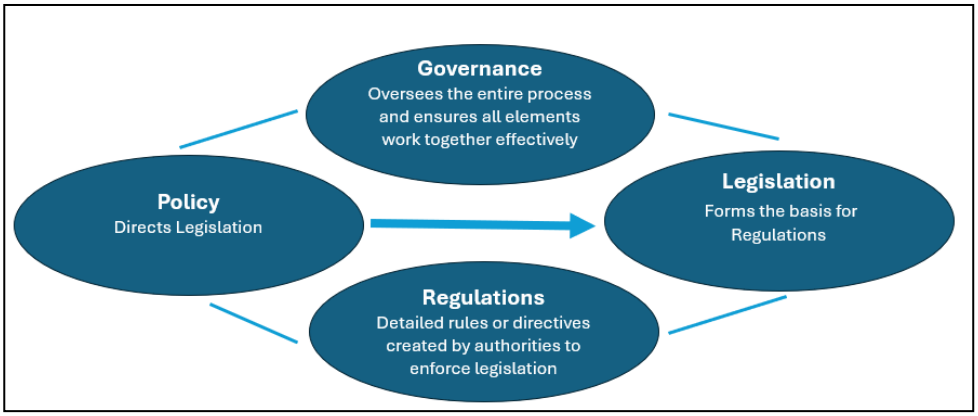
3.2 Policy, legislation, regulation and governance – Neil Trainor

Giving effect to a convention in national law is a comprehensive process involving legal, political, institutional, and practical considerations. Key elements to consider include ensuring constitutional compatibility, securing legislative approval, creating or amending laws, judicial enforcement, establishing monitoring mechanisms, raising public awareness, and addressing conflicts with existing national laws.

Policy, legislation, regulation, and governance are generally recognized fundamental components of a functioning legal and administrative system. While they all work together to shape how a society is governed, each has a distinct role in creating and enforcing rules, shaping public behaviour, and managing public affairs.

The presentation provided a brief overview of the role and interrelationships of these components in translating international commitments into actionable and enforceable measures at a national level, highlighting:

- **Policy**
  - Represents the high-level framework or set of principles guiding decisions and actions.
  - Shapes the vision, goals, and priorities of a government or organization.
- **Legislation:**
  - Laws passed by a governing body (e.g., Parliament or Congress).
  - It implements policies by creating enforceable laws that set out specific mandates.
  - Establishes the legal foundation upon which regulations are built.
- **Regulation** provides:
  - Detailed rules or directives created by authorities to enforce legislation.
  - Practical, operational guidelines on how legislation is implemented.
  - Is enacted by regulatory bodies, agencies, or departments.
- **Governance**
  - Refers to the processes, structures, and practices that ensure policies, legislation, and regulations are created, monitored, and enforced effectively.
  - It is overarching and connects policy, legislation, and regulation, ensuring alignment and accountability.



4. SESSION 4 - TRANSLATING INTERNATIONAL COMMITMENTS INTO ACTIONABLE AND ENFORCEABLE MEASURES AT NATIONAL LEVEL

4.1 Contracting Governments – their responsibilities

This session was chaired by Trond Ski, Norway.

4.1.1 Establishing a legal basis for VTS that gives effect to SOLAS regulation V/12 – Neil Trainor

The presentation provided an example of establishing a legal basis for giving effect to SOLAS regulation V/12 using the basis established in Australia as an example, highlighting:

1. **The Navigation Act 2012:**
   - Provides that regulations may provide for giving effect to the International Convention for the Safety of Life at Sea (SOLAS).
   - Authorises the Governor-General to make regulations necessary or convenient for carrying out or giving effect to the Navigation Act.
   - Provides that the regulations may provide for the imposition of penalties for contravening a provision of the regulations, including providing for the imposition of civil penalties.
   - Allows the Australian Maritime Safety Authority (AMSA) to make Marine Orders for any matter in the Act for which provision must or may be made by regulations.
   - Provides that the regulations may provide for vessel traffic services. Specifically, this includes that the regulations may make provision in relation to:
     - establishment and recognition of vessel traffic services,
     - authorisation by AMSA of vessel traffic services,
     - testing of vessel traffic services,
     - training, certification and auditing in relation to vessel traffic services,
     - provision of reports and information to a vessel traffic service provider by specified persons in relation to the identity, intended passage and geographical location of vessels, and
     - the form of such reports and information and the period within which such reports are to be provided.
2. **Marine Order 64 (vessel traffic services)** - is the regulation that provides for VTS for Australia and sets out the arrangements for AMSA to regulate:
     - VTS providers, including authorisation, certification and auditing.
     - VTS training organisations, including accreditation, approval of model courses and auditing.

- Masters of vessels to provide reports required by VTS authorities and to comply with their instructions.

In summary, Australia gives effect to SOLAS regulation V/12 in the Navigation Act by:

- Providing that regulations may provide for giving effect to SOLAS.
- Establishing AMSA as the competent authority for VTS in Australia.
- Allowing regulations to be made in relation to VTS (such as VTS providers, participating ships and VTS training organisations) - That is – *Marine Order 64 (Vessel traffic services)*.

Translating international commitments into actionable and enforceable measures at a national level

The presentation continues on from Session 4.1 (Part 1) - providing an example of translating international commitments into actionable and enforceable measures at a national level using the basis established in Australia for the following:

1. Appointing and authorizing a competent authority for VTS
2. Compliance with the provisions of VTS
3. Future Technical and other developments

1. Appointing and authorizing a competent authority for VTS

As highlighted in 4.1 (Part 1) in Australia, the Navigation Act establishes the Australian Maritime Safety Authority (AMSA) as competent authority for VTS.

2. Compliance with the provisions of VTS

Marine Order 64 is the regulation that provides for VTS for Australia, setting out the arrangements for AMSA to regulate, amongst other things, masters of vessels to provide reports or information required by VTS providers and to comply with their instructions:

- **Masters of vessels to provide reports or information required by a VTS**. This includes matters such as:
  - the vessel's identity, position and condition,
  - the vessel's course and speed,
  - the vessel's attributes, cargo and communication methods,
  - the vessel's route before entering the VTS area and the time and location of its entry into the VTS area,
  - the vessel's route or intended route after leaving the VTS area,
  - the time and location or intended time and location of leaving the VTS area,
  - the vessel's last and next ports of call, and
  - conditions of the VTS area relevant to the safety of shipping or pollution of the environment.
- **Masters of vessels to comply with instructions from VTS**.

The Navigation Act and Marine Order 64 (Vessel traffic services) also provide offence provisions. In summary, this includes:

- **Provision of reports to a VTS provider** – That is, when a person is required by regulations to provide a report or information to a VTS provider, and they do not provide the report or information.
- **Provision of false or misleading information provided to a VTS provider** – That is when a person provides a report or information to a VTS provider and the report or information is false or misleading.
- **Instructions** - A master commits an offence if the master:
  - receives an instruction from a VTS provider for the movement of the vessel; and

- does not obey the instruction.

3. Future Technical and other developments

Australia's legal and regulatory framework for VTS recognises that IMO instruments and IALA Standards and recommendation, guideline and model courses specifically related to the establishment and operation of VTS change with time. As such the framework takes this into consideration and reflect that the international framework may be amended from time to time to take into account technical and other developments. For example:

1. **SOLAS** - With respect to SOLAS, the Navigation Act states that Safety Convention means the International Convention for the Safety of Life at Sea, done at London on 1 November 1974, as amended and in force for Australia from time to time.
2. **IMO Resolution A.1158(32)** - With respect to the IMO Resolution, VTS Marine Order 64 refers to "the guidelines", which is defined as the Guidelines for Vessel Traffic Services adopted by IMO Resolution A.1158(32) and as amended from time to time.
3. **IALA Standards** - With regards to IALA standards, recommendations, guidelines and model courses specifically, Marine Order 64 refers to IALA standard 1010, 1040, 1050 and 1070 as amended from time to time.

4.1.2 Contracting Governments – their responsibilities - Maarten Berrevoets, the Netherlands

The Netherlands is a small country along the North Sea., with a coast line of 353 km. Although the coast line is of limited length the area of responsibility in the North Sea (basically the EEZ is 57.000 km^2, 1.5 times the size of the country itself) it is one of the busiest coastal areas of the world.

At any moment there are over 350 ships present in the area, mostly concentrated in shipping lane – such as traffic separation schemes and deep water routes – totalling over 250.000 vessel movements per year. Shipping is only one of the many uses of the North Sea, among offshore mining (oil and gas), fisheries, wind farming, recreation and others uses. Close to the busy shipping lanes there are environmentally sensitive areas, such as the wetlands of the Wadden Sea, adopted as a particular sensitive sea area by the International Maritime Organization.

Apart from the importance of seagoing shipping, the importance of inland shipping for the Netherlands is quite unique in the world. There are some 2.500 km navigable waterways in the Netherland, accommodating the transport of over 270 million tons of cargo to and from the hinterland, including about 40% of the total long-haul transport.

Our main Act is the Shipping Traffic Act. First I have to explain how we have divided responsibilities in the Netherlands. The Netherlands is a decentralized unitary state. That means that in general we have 3 layers: national, provincial and local level. The overall responsibility for shipping is with the Minister of Infrastructure and Water Management. On the state level my minister is responsible, but the actual work is being done by the Directorate General for Public Works and Water Management, the ports of Rotterdam and the port of Amsterdam.

I leave the second level for what it is, because they have no VTS on the provincial waterways. On the local level the municipalities are responsible for the VTS in ports itself. According to the Shipping Traffic Act this is in the hands of the Major and/or an Alderman. So for instance for Rotterdam the Minister is responsible for shipping on the Nieuwe Waterweg and the Mayor/Alderman is responsible for shipping in the docks.

Like in most countries, vessel traffic management is the prime responsibility of the Department of Transport, in the Netherlands the Ministry of Infrastructure and Water Management, with the head office in The Hague. In general, within this ministry three areas of main concern are distinguished; policy development (basically including the Netherlands' participation in international organizations such as IMO and IALA), secund the implementation and executing of policy and thirdly inspection, monitoring and certification.

When I focus on the North Sea we have the Netherlands Coast Guard. For search and rescue, salvage and calamity reducing and other operational tasks on the North Sea, the Netherlands Coast Guard is coordinating and pooling the maritime activities of 6 ministries, such as the ministry of Infrastructure and Water Management, the ministry of Defense, the ministry of Justice an Security, the ministry of Finance, the ministry of Economic Affairs and Climate Policy and the ministry of Agriculture, Nature and Food Quality.

The second in line are two ports, the port of Rotterdam and the port of Amsterdam. Vessel traffic management on the governmental waterways in the port and the port approaches to Rotterdam and Amsterdam has been mandated by the ministry to the respective Port Authorities. Under their employment people are involved in vessel traffic management duties, mostly as VTS-operators.

When I focus on Future technical and other developments in the field of VTS, I see the following initiatives in the Netherlands are ongoing or imminent; 1. The continuous updating and modernization of all VTS's in all our ports and port approach areas, 2. Extension and improvement of the radar coverage seawards, 3. And I see monitoring vessel traffic on the North Sea due to windmill farms close to shipping lanes.

And then of course the more or less autonomous ships that are coming. Within IALA we have a task force on this matter, which I have the honour to chair. But in all technical committees we are looking at this topic. It is not a question on if, but more the question on when will these ships sail the seas. There are some test beds on a small scale all around the world. In my opinion all those more or less autonomous ships have to meet the standards that are in use for conventional ships, we can look at our AtoN and if improving is possible we shall do this.

In the Netherlands we have some test beds. We are monitoring it and we can learn a lot from these test beds. We have to keep in mind that this is a niche market. But our VTS has to evolve that also these now still rather small vessels are being detected on for instance the radar. We don't want a collision on our waterways. Conventional shipping will be the major part of seagoing vessels. In September 2023 IALA organized a Workshop on MASS. You can find the report on the IALA website. One of the conclusion was that for at least 40-50 years conventional ships will sail the seven seas.

We have to be prepared for these future technological developments and there I can see a major role for IALA as THE technical worldwide organization and network where all knowledge and expertise on AtoN is bundled.

4.1.3 Contracting Governments – their responsibilities - Mayumi Arita, Japan

Mayumi Arita from Japan gave a presentation on the responsibilities of Contracting Governments regarding the legal basis for implementing VTS. She explained that VTS operations in Japan were conducted under the responsibility of the Japan Coast Guard (JCG), which served as the competent authority for Aids to Navigation.

Mayumi also outlined the structure and role of VTS within the JCG and described how the JCG responded to vessels that failed to comply with the rules.

4.2 Competent authorities - their responsibilities

This session was chaired by Neil Trainor

4.2.1 Regulatory framework - Neil Trainor

Translating international commitments into actionable and enforceable measures at a national level

The presentation continues on from Session 4.1 (Part 1) - providing an example of translating international commitments into actionable and enforceable measures at a national level using the basis established in Australia for the following:

- Appointing and authorizing a competent authority for VTS

- Compliance with the provisions of VTS
- Future Technical and other developments

4. Appointing and authorizing a competent authority for VTS

As highlighted in 4.1 (Part 1) in Australia, the Navigation Act establishes the Australian Maritime Safety Authority (AMSA) as competent authority for VTS.

5. Compliance with the provisions of VTS

Marine Order 64 is the regulation that provides for VTS for Australia, setting out the arrangements for AMSA to regulate, amongst other things, masters of vessels to provide reports or information required by VTS providers and to comply with their instructions:

- **Masters of vessels to provide reports or information required by a VTS**. This includes matters such as:
    - the vessel's identity, position and condition.
    - the vessel's course and speed.
    - the vessel's attributes, cargo and communication methods.
    - the vessel's route before entering the VTS area and the time and location of its entry into the VTS area.
    - the vessel's route or intended route after leaving the VTS area.
    - the time and location or intended time and location of leaving the VTS area.
    - the vessel's last and next ports of call.
    - conditions of the VTS area relevant to the safety of shipping or pollution of the environment.
- **Masters of vessels to comply with instructions from VTS**.

The Navigation Act and Marine Order 64 (Vessel traffic services) also provide offence provisions. In summary, this includes:

- **Provision of reports to a VTS provider** – That is, when a person is required by regulations to provide a report or information to a VTS provider, and they do not provide the report or information.
- **Provision of false or misleading information provided to a VTS provider** – That is when a person provides a report or information to a VTS provider and the report or information is false or misleading.
- **Instructions** - A master commits an offence if the master:
    - receives an instruction from a VTS provider for the movement of the vessel; and
    - does not obey the instruction.

6. Future Technical and other developments

Australia's legal and regulatory framework for VTS recognises that IMO instruments and IALA Standards and recommendation, guideline and model courses specifically related to the establishment and operation of VTS change with time. As such the framework takes this into consideration and reflect that the international framework may be amended from time to time to take into account technical and other developments. For example:

4. **SOLAS** - With respect to SOLAS, the Navigation Act states that Safety Convention means the International Convention for the Safety of Life at Sea, done at London on 1 November 1974, as amended and in force for Australia from time to time.
5. **IMO Resolution A.1158(32)** - With respect to the IMO Resolution for VTS Marine Order 64 refers to "the guidelines", which is defined as the Guidelines for Vessel Traffic Services adopted by IMO Resolution A.1158(32) and as amended from time to time.

6. **IALA Standards** - With regards to IALA standards, recommendations guidelines and model courses specifically, Marine Order 64 refers to IALA standard 1010, 1040, 1050 and 1070 as amended from time to time.

4.2.2 Regulatory framework - Keeta Rowlands, UK

This presentation explained the structure of UK VTS regulations, guidelines and stresses the importance of linking national legislation and guidance to international law for the benefit of the seafarer. It describes how the privately owned Port Authority VTS benefits from further legislation relation to ports, giving them power to create their own local laws for the safety of navigation in their delineated VTS area.

4.2.3 Regulatory framework - Matti Latvalahti, Finland

The presentation was on the legal basis for Vessel Traffic Services in Finland. The presentation focused on how the IMO resolution (A.1158(32) Guidelines for vessel traffic services) has been implemented in Finland's national VTS law. In the presentation were also couple of examples how the legislation was changed to reflected the revised IMO resolution.

The "key message" of the presentation is the experiences gained from the legislation update. The feedback has been positive and especially the VTS operators have been satisfied with the update of the national VTS legislation.

4.2.4 Regulatory framework - Monica Sundklev, Sweden

Monica presented an overview of the Swedish VTS and SRS areas. The regulatory VTS framework in Sweden was also presented, which mainly consisted of regulations to participating ships. The Swedish Government had appointed the Swedish Transport Agency competent authority for VTS and the Swedish Maritime Administration VTS provider. However, there were no legal basis for VTS so the competent authority had yet no authorization to establish a regulatory framework for VTS. The consequences and future considerations on this were also mentioned.

4.2.5 Authorization of VTS providers - Neil Trainor

The presentation provided an example of how Australia has established policies and procedures associated with authorizing VTS providers under national law and assessing their conformance with their responsibilities for VTS. Key items highlighted include:

1. To comply with its instrument of authority, a VTS provider must:
    - Operate in accordance with the IMO Guidelines for VTS as if the Guidelines were mandatory.
    - Establish and operate the vessel traffic service in accordance with the normative provisions of IALA Standards 1010, 1040, 1050 and 1070.
    - Comply with any further conditions imposed by AMSA on the instrument of authority.
2. Key mechanisms to ensure VTS providers conform with the conditions attached to their instrument of authority include:
    1) **Compliance Audits** - Compliance audits are undertaken under Marine Order 64 (Vessel traffic services) to determine whether:
        - An applicant satisfies the requirements for the issue of instrument of authority, that is, the applicant can meet the responsibilities of a VTS provider described in:
        - IMO Resolution A.1158(32) Guidelines for Vessel Traffic Services; and
        - IALA Standards, recommendations, guideline and model courses specifically related to the establishment and operation of VTS.
        - A VTS provider is complying with the conditions of the instrument of authority that it holds.

2) **VTS Provider Annual Report** - A "*VTS Provider Annual Report*" is used as a complimentary measure to the compliance audit regime for VTS providers to demonstrate they continue to meet their responsibilities in accordance with Marine Order 64 with regards to:
   - IMO Resolution A.1158(32) Guidelines for VTS.
   - The normative provisions of IALA Standards 1010, 1040, 1050 and 1070.
   - Any other conditions imposed by AMSA.

   Key elements in the Annual Report include:

   - **VTS Objectives** - Evidence provided that the provider continues to monitor and assess that the objectives set for the VTS are met and regularly reported to management.
   - **Operational procedures** - Evidence provided that operational procedures have been reviewed / updated to reflect new or revised IMO instruments, IALA standards and other relevant international guidance specifically related to the establishment and operation of VTS.
   - **Quality Management** - Evidence provided that VTS operations have been subjected to an audit to ensure that the integrity of the Quality Management System is being maintained.
   - **Equipment and Systems** - Evidence provided to demonstrate availability and reliability targets for the VTS system are being met.
   - **Business Continuity** - Evidence provided that contingency plans are being maintained and failover / redundancy exercises are regularly conducted to ensure the safety of VTS personnel and the continuity of operations in the event of an emergency.
   - **Qualifications and Training** - Evidence provided that all VTS personnel are appropriately trained and qualified for their VTS duties consistent with IALA Guideline 1156 and AMSA training and qualification policy.
   - **Incident and near-miss reporting -** Evidence provided to demonstrate incidents are being recorded and analysed as described in IALA Guideline G1118 – Marine Casualty / Incident Reporting and Recording, Including Near-miss Situations as it Relates to a VTS.
   - **Compliance and enforcement** - Evidence provided to demonstrate non-compliance is being documented and actioned in accordance with AMSA's VTS Compliance and Enforcement Framework.
   - **Regular evaluation** - Evidence provided to demonstrate processes and procedures are in place to routinely conduct an evaluation to ensure that the VTS operational objectives have been met, and the problems identified and defined for implementing the VTS have been either alleviated or at least reduced to an acceptable level.

4.2.6 Authorization of VTS providers - Keeta Rowlands, UK

This presentation explains the process a VTS provider would take in determining the requirement for VTS and applying to the MCA for approval to be designated as a VTS. Discussions around the importance of the Navigation Risk Assessment and the responsibility of the applicant to ensure the capability, both operationally and financially of the VTS.

4.2.7 Authorization of VTS providers - Toni Sobott, Finland

Toni Sobott from Finland outlined Finland's approach to authorising VTS providers, which emphasises collaboration, transparency, and adherence to international standards.

Key principles included:

- Cooperation: Respecting roles and responsibilities to serve the best interests of the service.

- Transparency: Sharing information and data to build trust.
- Customer Orientation: Using co-created operating models to achieve shared success.

These principles underpin a regulatory framework designed to ensure efficiency and quality in VTS operations.

4.2.8 Authorization of VTS providers - Maarten Berrevoets, the Netherlands

The presentation outlined the Netherlands' Vessel Traffic Services (VTS) system, which complied with IMO Resolution A.1158(32). It addressed several key areas:

- VTS services were IMO-approved and included monitoring anchor areas to prevent ship collisions.
- The coastline was divided into five vessel traffic areas (Ems, Den Helder, North Sea Channel, Rotterdam-Rijnmond, and Scheldt), each managed with VTS support. Smaller ports like Groningen-Seaport and Scheveningen operated voluntary VTS centers in compliance with IALA standards.
- Major waterways such as Rotterdam, Amsterdam, and the Scheldt were supported by VTS centers. The Wadden Sea was monitored from Terschelling's Brandaris lighthouse.
- The Netherlands Coast Guard coordinated activities on the North Sea, ensuring safe navigation alongside offshore activities like oil and gas extraction, fisheries, wind farms, and military exercises.
- Initiatives included the modernization of VTS systems, expansion of radar coverage, and monitoring traffic near wind farms.

The Netherlands' vessel traffic management focused on minimizing risks while maximizing efficiency through comprehensive VTS, regulatory measures, and modernization efforts.

This summary highlighted the strategic role of VTS in ensuring maritime traffic safety and efficiency across Dutch waterways and the North Sea.

DAY 3 – WEDNESDAY 22 JANUARY 2025

Summary of discussions from day two

From the open discussions and comments raised, Monica Sundklev summarized the following:

- There is a clear and compelling need for guidance to assist competent authorities for VTS in understanding and fulfilling their responsibilities for establishing and operating VTS under national law.
- Recognition of the link between the competent authority and the Government in establishing national law and regulations to give full effect of international framework and requirements within a VTS area.
- Governments and competent authorities may give effect to their responsibilities in various ways dependent on their constitution and national legal system.
- Clear benefits were identified by being able to demonstrate how a VTS has reduced casualties, incidents and near misses.

Continuing Competent authorities - their responsibilities

4.2.9 Ensuring VTS providers have appropriate equipment, systems and facilities in place to interact with vessel traffic and respond to developing situations within a VTS area – Richard Aase, Norway

Richard Aase from Norway gave a presentation on ensuring that VTS providers have the necessary equipment, systems, and facilities to manage vessel traffic and respond to situations within a VTS area. He also addressed the importance of verifying that VTS providers meet their responsibilities and comply with requirements, including how to ensure the delivery of appropriate equipment and systems.

4.2.10 Ensuring VTS providers have appropriate equipment, systems and facilities in place to interact with vessel traffic and respond to developing situations within a VTS area – Song-I Song, Republic of Korea

Song-I Song shared her experiences of ensuring VTS providers have appropriate equipment, systems and facilities in place to interact with vessel traffic and respond to developing situations within a VTS area in the Republic of Korea.

4.2.11 Ensuring VTS providers have appropriate equipment, systems and facilities in place to interact with vessel traffic and respond to developing situations within a VTS area – Neil Trainor

The presentation highlighted the importance of ensuring appropriate equipment, systems and facilities are provided to ensure a VTS has the capability to interact with vessel traffic and respond to developing situations to fulfil its purpose to improve safety and efficiency of navigation, contribute to the safety of life at sea and support the protection of the environment.

Specifically, the presentation:

- Focussed on how IALA *Recommendation 0128 - VTS Systems and Equipment* and its associated guideline assists VTS providers and/or competent authorities when arranging for the establishment of the functional and performance requirements for VTS systems and equipment, taking into consideration factors such as:
    - The objectives of the VTS.
    - The degree of mitigation expected with the associated volume of traffic and degree of risk in the waterway.
    - The inherent characteristics of the waterway.
    - The functional and performance requirements for VTS system.
- Explored the roles of both the competent authority and VTS provider in ensuring appropriate equipment, systems and facilities are in place for a VTS to achieve its objectives and fulfil its purpose.
- Provided a brief overview of how this can be ensured using the regulatory framework for VTS in Australia as an example. That is, it is a condition of authorisation that a VTS provider must establish and operate the VTS in accordance with the normative provisions of IALA Standards 1010, 1040, 1050 and 1070. This includes *Recommendation 0128 - VTS Systems and Equipment* and the use of compliance audits to ensure their capability to interact with vessel traffic and respond to developing situations is maintained on an ongoing basis.

4.2.12 Compliance and enforcement - Monica Sundklev, Sweden

Monica gave a presentation on how ensuring compliance with VTS rules in Sweden.

Mentioning also the international requirements in SOLAS V/12 and IMO Res. A.1158(32), where both the Government, the competent authority as well as participating ships had responsibilities on reporting VTS violations. The Swedish Transport Agency has established VTS regulations and any breaches should be reported back to the Agency for further action. As the Swedish Transport Agency also has responsibility to

send flag State reports on TSS violations, the internal TSS procedures have been merged with VTS and SRS violations as they also are being sent to the flag States.

4.2.13 Compliance and enforcement – Keeta Rowlands, UK

This presentation explained the simplified process taken by the UK from an incidence of non-compliance occurring, to the investigations team contacting the vessel's flag State and owner.

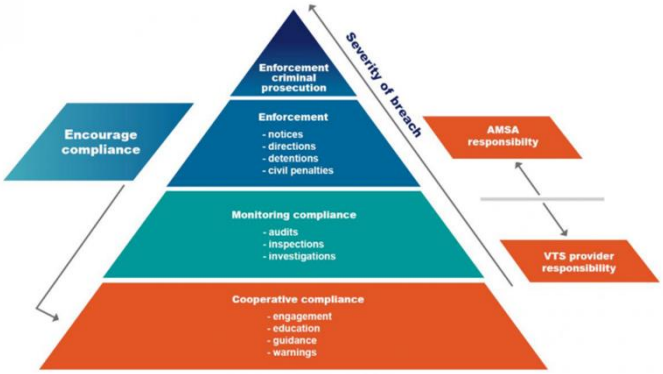
4.2.14 Compliance and enforcement – Neil Trainor

The presentation provided an overview of Australia's compliance and enforcement framework with respect to violations of VTS regulatory requirements under the Navigation Act and Marine Order 64 for participating ships to provide reports or information required by a VTS provider and to comply with their instructions.

Specifically, it describes the respective compliance and enforcement responsibilities of:

- VTS providers, and
- The competent authority.

A copy of the framework is available at https://www.amsa.gov.au/safety-navigation/navigating-coastal-waters/vts-compliance-and-enforcement-framework



4.2.15 Compliance and enforcement – Jeanette Assev-Lindin, Norway

Jeanette Assev-Lindin from Norway gave a presentation on the Norwegian legal framework for sanctions and responses to violations of VTS requirements. She provided an overview of the available responses, highlighted the most common types of violations, and explained Norway's approach to identifying and preventing these breaches.

Jeanette also presented specific cases where administrative fines had been imposed as part of enforcement measures.

4.3 Competent authorities – training responsibilities

This session was chaired by Stefaan Priem, Belgium.

4.3.1 Exploring two approaches to ensure VTS training is approved and personnel are certified – Kerrie Abercrombie, The Nautical Institute

The presentation provided two examples of how a competent authority ensures that VTS training is approved and personnel certified. This included:

Example 1 – The Australian approach using inhouse expertise to regulate and audit VTS Training Organisations

Australia regulates VTS training in Marine Order 64 which has provisions to issue a VTS training organisation with a certificate of accreditation, and the conditions they need to comply with such as the normative provisions of IALA standard 1050 and demonstrating they are a Registered Training Organisation (RTO) under national law. It also describes when the auditing of training organisations may be conducted, and what areas may be reviewed.

Audits on training organisations are based on IALA Guideline G1014 which recognises the two discrete activities:

- Accreditation where a training organization operates under a quality framework to deliver effective training.
- In Australia, a national training standard ensures consistency, requiring RTOs to meet rigorous criteria and undergo regular audits tailored to the specific training they deliver.
- Approval to deliver the course where the training organisation demonstrates they meet the standards specified in an IALA model course for its implementation, delivery and assessment.

Example 2 – Engaging services of a third party such as The Nautical Institute to to conduct VTS training audits for the accreditation and approval of model courses.

An alternative accreditation pathway is to outsource the auditing process to a third party such as The Nautical Institute, which can be particularly beneficial for competent authorities that lack experience in VTS training and auditing.

The Nautical Institute conducts audits on behalf of the competent authority and provides recommendations when they are confident that the training organisation and the courses being delivered meet IALA standards. As always, the final decision and responsibility to grant the accreditation and approval of the model course rests with the competent authority who will issue the certificate of accreditation.

More information on the scheme of VTS training audit for accreditation can be found on the Nautical Institute's website at: https://www.nialexisplatform.org/accreditation/vessel-traffic-services-operator-training-audit/

General discussion proceeded on the international recognition of Accredited Training Organisations and how other countries recognize reciprocal arrangements for VTS personnel certification. It was noted that several countries currently do not have any reciprocal arrangements in place for the accreditation of training organisations.

4.3.2 Ensuring that VTS training is approved and VTS personnel are certified – Stefaan Priem, Belgium

Stefaan Priem from Belgium gave a presentation on ensuring that VTS training is approved and that VTS personnel are certified. He explained that their organisation was established VTS in 1991, which necessitated the training of VTS personnel. Over the past 25 years, this process involved gradual progress, significant investment in expertise and human capital and the development of substantial experience.

Stefaan outlined the benefits, including addressing training needs with tailored programmes, strengthening relationships as trainees become part of the organisation during their generic training, leveraging instructors' extensive operational VTS experience, and the mutual advantages gained by integrating VTS training with operations. This approach does however involve a few challenges, such as instructor availability, and implementing a framework for accreditation of the organization and audits to approve the training courses.

4.3.3 Ensuring that VTS training is approved and VTS personnel are certified – Elisa Giangrasso, Italy

Elisa Giangrasso from Italy gave a presentation on the Italian VTS training system. She outlined key aspects, including the national frameworks for accrediting training centres, approving courses and issuing certificates, as well as mechanisms implemented by the National Competent Authority (NCA) to ensure compliance and achieve international certification recognition.

Elisa explained that the Italian VTS competent authority, operating under the Italian Coast Guard, established a training system aligned with IALA standards. The system adheres to accredited principles and procedures for course approval, with quality assurance maintained through a certified Quality Management System.

The Italian training centre provides courses and issues certificates in line with IALA model courses for VTS operators, supervisors, OJT instructors, and revalidation. A specific national standard certificate is also issued for VTS Managers.

She noted that the centre is currently developing and implementing the C0103 Ed. 2022 model courses. Italy decided to retain learning outcome levels 2 and 3 for the VTS operator course, with level 4 achievable through work experience. However, no formal mechanism exists to validate informal learning.

While Italy does not automatically recognize certifications from foreign organisations, it is open to arranging courses for foreign entities based on specific agreements. Elisa emphasized Italy's commitment to cooperation and networking among training centres to enhance the implementation of IALA training standards.

4.3.4 Ensuring that VTS training is approved and VTS personnel are certified – Juan Carlos Salinas & Raquel Rojo, Spain

The presentation given by the Jovellanos Training Centre (Spain) covered various aspects of the relationship with the competent authorities and the VTS training process.

First, it emphasised, how risk prediction, an innate skill in human nature, plays a crucial role in VTS operations. Taking this into account, Jovellanos Centre develops training courses, focusing not only on the provision of VTS, but also on the other aspects related to the daily work of a VTS operator: the basis that the operator needs in terms of nautical knowledge, as well as the legal basis on which VTS functions are performed. The skills of developing communications, especially VHF, and the handling of equipment are aspects that must be covered in a VTS training course as well. And finally, it is particularly important to know how human factors influence VTS work and how to deal with emergency situations, if they occur.

Secondly, it was explained, how the Jovellanos Centre's outlook changed in 2011, when Spanish Administration granted the Jovellanos Centre the accreditation to teach courses with the IALA stamp. Since then, many courses and collaborations have taken place with Competent Authorities (national and foreign), private companies, IALA Worldwide Academy and agencies such as the European Maritime Safety Agency.

This background includes not only training following IALA model Operator, Supervisor, and Instructor courses, but also other aspects related to VTS, such as risk analysis studies, stress management or VTS Manager courses. These training course have been carried out both at the Jovellanos Centre itself and in situ at the ports of the Competent Authorities, where the staff and the portable simulator travelled.

Finally, all these years of experience have turned the Jovellanos Centre an international referent in VTS training, which has also allowed us to learn five important lessons:

1) Any skill can be taught and trained, even those that may seem like an innate gift. it's just a matter of finding the right methodology for it.

2) Human beings do not like change. The first phase of teaching is to overcome the barrier of the comfort zone, so that new knowledge can be introduced.

3) In the field of VTS, the trainer is not an ordinary teacher, who possesses the absolute truth. The methodology should be based on leading the discussion, allowing people to express their points of view and come to their own conclusions.

4) The VTS trainer should enable the learners to discover knowledge on their own.

5) And a very important lesson: not everyone sees the world from the same perspective. There are differences in culture, religion, thinking... At Jovellanos Centre, we consider an essential factor in learning is the fact that the pupil feels safe and comfortable, because only by being relaxed can we get them to open to knowledge. The intercultural understanding is a fact, especially when dealing with cultures different from yours. By this reason, for instance, our menus are adapted to special diets or a special place for praying is set.

4.3.5 Ensuring VTS personnel are competent and supporting ongoing professional development - Kerrie Abercrombie, The Nautical Institute

This presentation provided an example of how Australia ensures that VTS personnel are appropriately trained and qualified for their VTS duties. It also highlighted the importance of professional development for VTS personnel.

An example was provided to how Australia gives effect to the IMO Resolution A.1158(32) through Marine Order 64. In particular, on a VTS providers Instrument of Authority there are several conditions which they must comply with such as operating in accordance with the IMO Resolution A.1158(32), and establishing and operating the VTS in accordance with the normative provisions of IALA Standards as well as any additional conditions set, of which, there is a national policy on Qualifications and training which they also need to comply with.

This policy on the qualifications and training of VTS personnel addresses areas such as when a person is permitted to carry out the duties of a VTS operator, who can assess OJT and how to maintain VTS qualifications. To ensure compliance with policy compliance audits are conducted on VTS providers. Copy of the policy can be found at: https://www.amsa.gov.au/safety-navigation/navigating-coastal-waters/qualifications-and-training-vts-personnel

It was acknowledged that VTS providers conduct various in-house activities that contribute to the ongoing professional development (CPD) of VTS personnel. However, the responsibility for maintaining qualifications does not rest solely with the VTS provider and VTS personnel should be encouraged to take ownership of their own professional development. To further develop their skills, VTS personnel may consider becoming a member of The Nautical Institute, as it recognizes IALA VTS C0103 qualifications.

4.3.6 Ensuring VTS personnel are appropriately trained and qualified for their VTS duties - Malin Dreijer, Norway

Malin Dreijer from Norway presented the Norwegian VTS Training Program, a comprehensive five-year plan for certifying VTS operators through a mix of theoretical and practical training. The program includes annual courses, simulator training, and evaluations to ensure competency.

The presentation highlighted the following:

- Incorporating standardised equipment for realistic training experiences.
- Limited staff can be advantageous for adaptability but also creates vulnerabilities in certain situations.
- Addressing the need for new learning methods as retirement ages rise globally.

Digital tools and collaboration: Using digital platforms and forums for on-the-job training (OJT) instructors and course instructors to harmonize and standardize course materials and delivery.

The programme reflects Norway's commitment to maintaining high standards in VTS training and qualification.

4.3.7 Ensuring VTS personnel are appropriately trained and qualified for their VTS duties - Maarten Berrevoets, the Netherlands

In the Netherlands the NNVO (National Nautical Training Service Organization) is the key training institute for the nautical sector. They train vessel traffic managers, but also bridge and lock operators and personnel with a sailing function such as on patrol vessels. They thereby focus on quality, development and innovation and in doing so, NNVO contributes significantly to sound and safe port and fairway management in the Netherlands.

The VTSO training at NNVO is the key training for VTS operators in the Netherlands. NNVO organizes the VTSO training in cooperation with the seven VTS provider in the Netherlands. The training is competent based learning. The training consists of two parts; an initial training and a sector training. The sector training is the training in the area where the student will find his actual job. The initial training takes approximately five month, after successful completion of which a certificate is awarded. Then the trainee takes the sector training at the VTS provider where he is going to work. The duration of this training differs per portcompany. The trainee gains all specific knowledge for that sector. After successful completion of the sector training the trainee receives a pass with the competences achieved.

The VTSO takes theoretical and practical refresher training annually. Every three years, after successful completion of all annual parts, the trainee receives a new pass.

The training at NNVO is a competence-based training according to IALA regulations. In the picture belowyou can see what the topics on the left are referring to R0103. While on the right you see the competences in the training.

DAY 4 – THURSDAY 23 JANUARY 2025

Summary of discussions from day three

Monica Sundklev summarized the themes from the previous days' presentations about the responsibilities of the competent authorities concerning:

- Ensuring VTS providers having appropriate equipment, systems and facilities in place to interact with vessel traffic and respond to developing situations within a VTS area;
- Compliance and enforcement, including examples of framework with respect to violations of VTS as well as SRS and TSS;
- Ensuring that VTS training is approved and VTS personnel are certified, including how a framework on accreditation, approval and certification can be made; and
- Ensuring VTS personnel being appropriately trained and qualified for their VTS duties.

From the discussions and comments raised on day 3, the following were noted:

- When describing VTS equipment and system needs, it should be in the form of functional requirements.
- It is important that clear compliance and enforcement procedures are established for both the competent authority and VTS provider.

- VTS operator training on the use of new or updated VTS equipment and systems is vital and should, where appropriate, be reflected in operational procedures.
- Lifelong learning / informal training should be taken into consideration when developing VTS training.
- Consider the need for a mechanism for international recognition of Accredited Training Organizations and VTS Model Course Certificates.

4.4 VTS Providers – their perspective and experiences

This session was chaired by Remi Hoeve, the Netherlands.

4.4.1 Views from a VTS provider's perspective – Milou Aerts, the Netherlands

Milou Aerts shared views from a Dutch VTS provider's perspective.

4.4.2 Views from a VTS provider's perspective – Sari Talja, Finland

Sari Talja from Finland explained the key elements that enable Fintraffic VTS to deliver effective and compliant VTS while meeting customer needs and regulatory requirements. She identified three critical components forming the framework for operations:

- The VTS Act: Provides the legal foundation and operational guidelines.
- The Operational Manual: Details procedures and processes to ensure consistency and reliability.
- The Quality Management System (QMS): Ensures high standards and supports continuous improvement.

Sari emphasized that the VTS field, involving two authorities and one VTS provider, relies on a clear understanding of roles and responsibilities among all parties to ensure smooth and efficient operations. She highlighted the importance of effective two-way information sharing between the authorities and the VTS provider to maintain transparency and coordination.

4.4.3 Views from a VTS provider's perspective – Mayumi Arita, Japan

Mayumi Arita from Japan gave a presentation on VTS provision from the perspective of the Japan Coast Guard (JCG) as a VTS provider. She explained that, since all VTS centres in Japan are operated solely by the JCG, it was important to clarify the relationship between the VTS provider and the VTS provider within the organisation.

Mayumi also outlined the legal basis for VTS operations in Japan, providing insight into how the JCG manages its dual roles effectively.

5. SESSION 5 – OTHER ELEMENTS TO CONSIDER

This session was chaired by Trond Ski, Norway.

5.1.1 When competent authority and VTS provider are the same entity – Barbara Magro, Italy

Barbara Magro shared the experiences from an Italian perspective of when competent authority and VTS provider are the same entity.

5.1.2 When competent authority and VTS provider are the same entity – Keeta Rowlands, UK

This presentation highlighted the key points to ensure separation between the competent authority and the VTS provider when they are the same entity. Keeta's presentation also touched on the considerations when implementing a VTS when two or more governments have a common interest in the VTS area.

5.1.3 Two or more Governments have a common interest in establishing VTS in a particular area - Niels Mygind, Denmark

Niels Mygind from Denmark shared experiences related to the planning, implementation, and operation of the joint Danish-German VTS in the Femern Belt. He highlighted key considerations in the process, such as agreeing on the type of VTS, selecting a common language, and determining manning and training requirements.

Niels also shared both positive and negative experiences from the operation of the DK-GE VTS in the Femern Belt, providing valuable insights into the challenges and successes of such a collaborative effort.

5.1.4 Two or more Governments have a common interest in establishing VTS in a particular area - Stefaan Priem, Belgium

Stefaan Priem from Belgium gave a presentation on the Joint Nautical Management between Belgium and the Netherlands. He explained that, due to their geography and geopolitical history, the two countries had been cooperating in managing the waterways of the river Scheldt area since 1839. Over 186 years, various treaties had been adopted to ensure access to ports in both countries and to enhance the safety and efficiency of navigation in the area.

Stefaan highlighted that through joint decision-making, investment and management, the Joint Nautical Management successfully implemented VTS in 1991, established a unified admission policy for all ports involved and set up a shared VTS simulator for both parties.

He also noted the role of the Permanent Committee, a joint decision-making body representing both countries since 1840. The committee, which has convened 695 times, stands as one of the world's longest-running nautical forums.

5.1.5 VTS beyond territorial waters in a different prospective – Michele Landi, Italy

Michele Landi from Italy discussed the establishment of an Ecological Protection Zone (EPZ) in the Tyrrhenian Sea, aimed at safeguarding the environment and biological resources in the area. He described the EPZ from an international law perspective and explained how VTS can function, within a limited scope, as an Associated Protective Measure (APM).

Michele highlighted that this approach relies on the legal framework for the establishment of an exclusive economic zone (EEZ) under the United Nations Convention on the Law of the Sea (UNCLOS).

5.1.6 VTS beyond the Territorial Sea – Neil Trainor

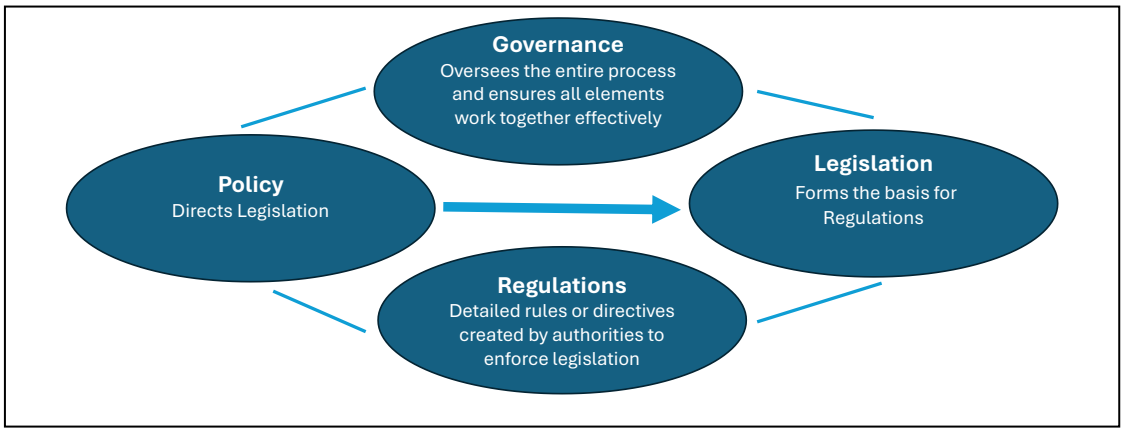
This presentation provided an insight into the following considerations:

- When competent authority and VTS provider are the same entity
- Two or more Governments have a common interest in establishing VTS in a particular area
- VTS beyond the Territorial Sea

1. When competent authority and VTS provider are the same entity

Giving effect to a convention in national law is a comprehensive process involving legal, political, institutional, and practical considerations. Key elements to consider include ensuring constitutional compatibility, securing legislative approval, creating or amending laws, judicial enforcement, establishing monitoring mechanisms, raising public awareness, and addressing conflicts with existing national laws. With careful planning and coordination, a country can fulfil its international obligations while maintaining its legal and social framework.

The role of policy, legislation, regulation, and governance are fundamental components of achieving a functioning legal and administrative system, which was discussed in Session 3.2 - *Policy, legislation, regulation and governance*.



2. Two or more Governments have a common interest in establishing VTS in a particular area

IMO Resolution A.1158(32) Guidelines for Vessel Traffic Services states:

> *7.7 Where two or more Governments have a common interest in establishing VTS in a particular area, they should develop coordinated VTS on the basis of an agreement between them. Where coordinated VTS are established, they should have uniform procedures and operations.*

When establishing coordinated VTS, the governments involved should consider elements such as:

- The legal basis for VTS that gives effect to regulation V/12 of the Convention.
- Establishing the competent authority/authorities.
- Establishing the regulatory framework for establishing and operating VTS in accordance with relevant international conventions and IMO instruments, IALA standards and national law/s.
- Authorizing a VTS provider or providers to operate the VTS.
- Establishing uniform and clear procedures and operations for interacting with ship traffic, managing ship traffic and responding to developing unsafe situations.
- Should there be two or more VTS centres, ensuring each centre has appropriate equipment, systems and facilities for the delivery of VTS and if / how data and information is shared between each centre in real time.

3. VTS beyond the Territorial Sea

IMO Resolution A.1158(32) Guidelines for Vessel Traffic Services states:

> *4.4 VTS may be established in association with IMO adopted ships' routeing systems or mandatory ship reporting systems, in accordance with regulations V/10 and V/11 of the Convention, respectively.*
>
> *4.5 VTS may also be established beyond the territorial seas of a coastal State to provide information and advice on the basis of voluntary participation*.

IALA *Guideline G1089 - Provision of a VTS* provides guidance for establishing VTS beyond the territorial sea in association with IMO adopted ships' routeing systems or mandatory ship reporting systems, or, on a voluntary basis.

1. VTS in association with an IMO adopted system IMO Resolution A.1158(32)

The Guideline highlights that the principles of the provision of VTS to participating ships set out in paragraphs 4.1 – 4.3 of the IMO Resolution for VTS still apply. That is

> *4.1 VTS are recognized internationally as a navigational safety measure through regulation V/12 of the Convention.*
>
> *4.2 Under the general provisions of treaty law and of IMO conventions, Contracting Governments are responsible for promulgating laws and regulations and for taking all other steps which may be necessary to give those instruments full and complete effect.*
>
> *4.3 The establishment of VTS is dependent on national law and relevant international conventions, recognizing factors such as the volume of traffic, degree of risk, and geographical and environmental conditions.*

However, the Guideline specifically states that *"consideration may need to be given to the legal basis for any powers of regulation and enforcement."*

2. VTS on the basis of voluntary participation

Guideline G1089 states:

> *When a VTS is established beyond the territorial seas of a coastal State solely on the basis of voluntary participation, it is unlikely that it will have any powers of regulation or enforcement.*
>
> *While the principles of the provision of VTS set out in paragraphs 4.1 – 4.3 (that is IMO Resolution A.1158(32) Guideline for Vessel Traffic Services) above still apply, a VTS established on the basis of voluntary participation is unlikely to be empowered to regulate or issue instructions.*
>
> *VTS personnel should take into account that where a VTS is established on the basis of voluntary participation, not all ships present in the VTS area may be participating and may not even be monitoring the designated communications channel(s).*

Further, it recognizes that voluntary participants may not provide all the information required of mandatory participants.

Noting the above, when established on a voluntary basis, consideration should be given to referring to the waters beyond the territorial as a sector and that this is clearly promulgated to mariners on nautical charts or other publications, including that:

- Participation is voluntary; and
- In cases where the VTS is not empowered to regulate or issue instructions, there should be no expectation that the VTS will be provided in a manner that would be expected where participation is mandatory. Specifically, with regards to:
  - *The provision of timely and relevant information on factors that may influence ship movements and assist onboard decision-making.*
  - *managing ship traffic to ensure the safety and efficiency of ship movements*
  - *responding to developing unsafe situations*

5.1.7 Cyber security considerations – Martijn Ebben, the Netherlands

Depending on the area, VTS is often a critical service for passing and arriving vessels and this requires integrity and high availability of the VTS information and services provided. Traditionally, VTS systems are usually

isolated from other IT systems and from the internet, providing protection from threats from the outside. But times are changing.

Like all data these days, VTS data needs to be shared with external systems or third parties, where it is analysed and processed to be used in other processes and to enhance efficiency within ports and fairways. This requires outbound connections from the VTS systems and implies external connections.

S-100 and MASS add to the complexity as also inbound data streams need to be processed by VTS. And while human operators will be required as long as there are traditional (non-MASS) ships, it is likely that VTS tasks will be performed by new systems or even AI in the near future.

These aspects make the traditional isolation of VTS systems impossible so additional measures have to be taken. There needs to be more attention to regular security updates and monitoring of threats and software vulnerabilities, while maintaining the high availability. When looking at MASS, reliable communication between ship and shore will even be more important than it is today.

All this requires extra effort and skills from both authorities' system administrators and from software vendors. IT systems need to be updated or replaced and Business Continuity plans have to be updated to address the new digital risks. Don't forget to train the VTS operators on these new systems and how to recognize and respond to cyber incidents.

And we need to start working today (if you didn't already start) on the required changes to be ready in time.

5.1.8 Cyber security considerations – Richard Aase, Norway

Richard Aase from Norway presented on cybersecurity considerations for VTS. He focused on the key considerations and the necessary mind-set required to address cybersecurity challenges effectively.

5.1.9 Demonstrating conformance with IMSAS (IMO Member State Audit Scheme) – Jeanette Assev-Lindin, Norway

Jeanette Assev-Lindin from Norway gave a presentation on Norway's IMSAS audit conducted in March 2023. The audit reviewed the implementation of IMO regulations, covering strategy, execution, evaluation, and improvement.

Jeanette highlighted key areas of focus, including compliance with SOLAS requirements, documentation, and systems for archives and quality management. She discussed the audit's findings, execution, and follow-up, specifically in relation to VTS.

5.1.10 Demonstrating conformance with IMSAS (IMO Member State Audit Scheme) – Matti Latvalahti & Toni Sobott, Finland

The presentation focused on how a State should prepare to an IMSAS audit. In the presentation the preparation phase is described/divided into three parts:

- Information required to be sent beforehand (PAQ, Pre-Audit Questionnaire)
- Preparing yourself for the audit
- Getting ready for the actual audit session.

The presentation's key message is that States preparing for an IMSAS audit should not hesitate to contact States that have already been audited. Finland is glad to share our experiences and give assistance to States that are preparing for their audit.

DAY 5 – FRIDAY 24 JANUARY 2025

Summary of discussions from day four

Monica Sundklev began by thanking the Italian Coast Guard for a most interesting visit to the Vatican Museums and the great finale of the previous day with the culmination at the Gala Dinner. She continued by mentioning that Thursday was as motivating as the other days with interesting presentations on other elements to consider as regards:

- When competent authority and VTS provider are the same entity;
- Two or more Governments have a common interest in establishing VTS in a particular area;
- VTS beyond the Territorial Sea;
- Cyber security considerations; and
- Demonstrating conformance with IMSAS.

6. SESSION 6 - OUTCOMES, FEEDBACK AND COMMENTS FROM THE SESSIONS

This session was chaired by Piero Pellizzari, Italy. Each session chair summarised the important points that were taken from both the presentations as well as from the questions and comments at the open discussions from their sessions, including:

- The contribution of IALA standards in achieving global harmonisation on the provision of VTS.
- The benefits of workshops such as this in understand how they may do this in different ways and the exchange of ideas amongst members.
- Competent authorities give effect to their responsibilities associated with IMO Resolution A.1158(32) and IALA Standards in national law by various means.
- Several participants suggested a need to establish mechanisms to assist Member States and mariners fulfill their respective responsibilities as described in IMO Resolution A.1158(32) and IALA standards.
- Clear compliance and enforcement frameworks greatly contribute to the delivery of VTS.

The key outcomes are included in the workshop conclusions listed in section 8.

7. SESSION 7 – WORKSHOP REVIEW AND CONCLUSIONS

This session was chaired by Monica Sundklev and Dirk Eckhoff, Chair and Vice-chair of the VTS Committee.

Monica Sundklev began by mentioning that this workshop was probably one of the most important workshops that the VTS Committee had organized. There had been many interesting aspects of what should be considered when implementing VTS rules and regulations nationally and that all the interesting presentations from many different national viewpoints were highly appreciated. She hoped that everyone would bring home practices and examples on how to implement relevant regulatory framework for establishing and operating a VTS in accordance with international rules and conventions.

The workshop participants considered the various presentations that were given and the following was concluded:

1. Recognition that governments and competent authorities may give effect to their responsibilities in various ways dependent on their constitution and national law.
2. Consideration should be given to actively assisting contracting governments, competent authorities, VTS providers and participating ships fulfil their responsibilities for VTS, including understanding their responsibilities as described in IMO Resolution A.1158(32) and IALA standards.

3. Recognition of the significance of the link between the government, the competent authority and VTS providers in establishing national law and regulations to give full effect of the international framework for VTS.
4. Recognition of the interrelationships between policy, legislation, regulation and governance in establishing an effective and functional legal framework.
5. A clear compliance and enforcement framework should be established and communicated.
6. Guidance should be developed to demonstrate how VTS reduces casualties, incidents and near misses.
7. Consider the need for international recognition of accredited training organizations and VTS Model Course certificates.
8. Two or more governments may successfully implement a common VTS on the basis of an agreement and cooperation.
9. Consider how IALA may contribute to IMO on relevant areas of the IMSAS audit.

7.1 Way forward for the VTS Committee – Trond Ski, Norway

Trond Ski, outlined the way forward for the VTS Committee. He stated that the workshop addressed various topics relevant to the Committee's ongoing work on developing guidance to help competent authorities establish appropriate policies and regulatory frameworks to meet their obligations.

The outcomes, feedback, comment and conclusions from the workshop sessions were to serve as the basis for further preparation of the guidance. As the VTS Committee had already prepared a first version of the guidance, the plan was to finalize the document and submit it for Council approval at VTS57, scheduled for March 2025.

7.2 Closing of the workshop

7.2.1 Monica Sundklev, VTS Committee Chair

The VTS Chair expressed her sincere appreciation to all session chairs and speakers for their excellent work during the workshop. She also thanked all participants who had showed a great enthusiasm and engagement during this week and for all interesting questions that had been asked and welcomed everyone to join the VTS Committee for further work.

She also expressed her deepest gratitude to:

- the host, the Italian Coast Guard, for organizing the fantastic workshop when celebrating 160 years, and especially to Barbara Magro, Michele Landi, Gianluca Menabene and Nicola Stasi who are attending VTS Committee regularly, and who made this workshop a reality;
- ELMAN, for the generous sponsorship;
- Roma Eventi for superb technical assistance behind the scene in beautiful facilities in central Rome; and
- IALA, for the impeccable preparations and support for this workshop.

Special thanks were also given to the Vice-chair of the Committee, Dirk Eckhoff and Committee Secretary Thomas Southall for all the valuable assistance before and during the workshop.

7.2.2 Francis Zachariae, IALA Secretary-General

Francis Zachariae, Secretary-General of IALA, expressed gratitude to the Italian Government and the Italian Coast Guard for hosting the workshop and praised the efforts of all participants. He highlighted the significance of the event in advancing the role of VTS competent authorities and their responsibilities in ensuring maritime safety, efficiency, and environmental protection.

He noted the formal recognition of the Italian Coast Guard as the National VTS competent authority and acknowledged their active role in global maritime organisations, including IALA. The workshop was commended as a valuable platform for international dialogue and knowledge exchange.

The Secretary-General emphasized the importance of international cooperation, particularly in light of IALA's recent transition to an intergovernmental organization. He finally expressed confidence that the workshop's conclusions would provide actionable guidance for participants as they return to their respective countries. He thanked all attendees for their contributions and wished everyone a safe journey home and looked forward to continued collaboration.

7.2.3 Representative of the Italian Government, Edoardo Rixi – Vice Minister of Infrastructure and Transport

Vice Minister Edoardo Rixi conveyed his greetings and those of the Italian Government to the workshop participants, including IALA Secretary-General Francis Zachariae and Admiral Nicola Carlone of the Italian Coast Guard. He expressed satisfaction with the event and its focus on the critical role of VTS competent national authorities in maritime safety and environmental protection.

He outlined the Coast Guard's institutional responsibilities as the Italian national VTS competent authority, including search and rescue, pollution response, navigation safety and security, port traffic management and marine environment protection. The Vice Minister emphasised Italy's active role in international organisations such as IALA, which has become an intergovernmental organisation following recent ratifications. He announced that Italy is finalising its ratification process to formalize adherence to IALA's Convention, reinforcing its commitment to global maritime cooperation.

The Vice Minister stressed the importance of international collaboration in tackling the complexities of maritime traffic and recognized the workshop as a vital platform for dialogue and knowledge-sharing. He thanked IALA and the Italian Coast Guard for organizing the event, highlighting their efforts in fostering best practices and shaping future VTS governance.

In closing, he expressed confidence that the workshop outcomes would provide valuable insights for participants' work and called for continued international cooperation to enhance the safety, efficiency and sustainability of maritime traffic. He wished attendees a safe return home and looked forward to ongoing collaboration.

7.2.4 Admiral Nicola Carlone, Italian Coast Guard

Admiral Carlone on behalf of the Italian Coast Guard expressed satisfaction with the workshop's high level of participation, highlighting the growing interest in VTS's role in maritime safety and efficiency and the importance of international collaboration.

The Admiral reflected on Italy's longstanding engagement with IALA, noting its contribution to international regulatory harmonisation and best practices. He emphasized the 2023 formal recognition of the Italian Coast Guard as the National VTS competent authority, aligning with IMO Resolution A.1158(32), and described their two decades of service in this role, focusing on navigation safety, port traffic management and environmental protection.

Workshop discussions underscored VTS's critical role in high-traffic or high-risk areas and explored responsibilities of governments and competent authorities in creating effective regulatory frameworks.

Technological advancements, particularly the integration of artificial intelligence, were identified as key challenges for enhancing maritime traffic management and communication.

The Admiral praised the workshop as a platform for growth and international cooperation to address challenges in maritime traffic and emerging technologies. He extended thanks to IALA, the Ministry of Infrastructure and Transport and partners, particularly ELMAN, for supporting the event.

He concluded by expressing confidence that the outcomes would benefit global VTS management and strengthen international collaboration, wishing participants a safe journey home.

Following Admiral Carlone's words Monica Sundklev thanked the previous speakers for their final words and for the opportunity to be able to come to Rome, the eternal city. She wished the Italian Coast Guard a fantastic year of celebration and all participants a safe journey home and then closed the workshop.

7.3 Review workshop report

The report was reviewed and agreed upon by correspondence.

8. SOCIAL EVENTS AND TECHNICAL VISIT

8.1 Welcome Reception at the Roma Eventi Congress Center

On Monday evening, following the workshop's opening day, participants attended a warm icebreaker at the venue, Roma Eventi Congress Center. As ever, this gathering was a great success, and all had the opportunity to taste a variety of different Italian food and drink.

8.2 Workshop Gala dinner at Roma Eventi Congress Center

A wonderful dinner was enjoyed on Wednesday evening at the venue. The venue was converted into a magnificent environment enhanced by the musical accompaniment of a range of classical, modern and operatic performances that participants enjoyed greatly. Discussions were continued long into the night accompanied by Italian hospitality.

8.3 Tour to the Vatican Museums

Participants had the opportunity to tour the Vatican Museums. The tour was well received and many commented on the historical artefacts and beauty that were on display especially the gallery of maps, pictured below.

ANNEX A WORKSHOP PARTICIPANTS

Last name	First name	Country	Organisation	Email
Saravandi-Rad	Khashayar	Austria	Frequentis AG	khashayar.saravandi-rad@frequentis.com
Reisenbauer	Andreas	Austria	Frequentis AG	Andreas.Reisenbauer@frequentis.com
Stefaan	Priem	Belgium	Agency for Maritime Services and Coast	stefaan.priem@mow.vlaanderen.be
Van Den Bogerd	Toon	Belgium	Port of Antwerp Bruges	Toon.VanDenBogerd@portofantwerpbruges.com
Vervoort	Kevin	Belgium	Port of Antwerp Bruges	kevin.vervoort@portofantwerpbruges.com
Bos	Nadia	Belgium	Agency for Maritime Services and Coast - Flemish Governement	nadia.bos@mow.vlaanderen.be
Oliveira	Antonio	Brazil	Marinha do Brasil-Diretoria de Hidrografia e Navegação	acarlosoliv@yahoo.com.br
Wang	Alvin	Brunei	Maritime and Port Authority of Brunei Darussalam	alvin.wang@mpabd.gov.bn
Haji Mohamad/Besar	Haji Mohamad Aliyusra	Brunei	Maritime and Port Authority of Brunei Darussalam	yusra.mohamad@mpabd.gov.bn
Kirov	Nikola	Bulgaria	Bulgarian Ports Infrastructure Company	n.kirov@bgports.bg
Nikolov	Aleksandar	Bulgaria	Bulgarian Ports Infrastructure Company	a.nikolov@bgports.bg
Genchev	Nikola	Bulgaria	Bulgarian Ports Infrastructure Company	n.genchev@bgports.bg
Santic	Ivo	Croatia	Ministry of the Sea, Transport and Infrastructure	ivo.santic@pomorstvo.hr
Mygind	Niels Jacob	Denmark	Defence Command Denmark, Navy Command	njmyg@mil.dk
Thorn	Jan	Denmark	Ministry for Societal Resilience and Contingency	jat@dma.dk
Degner	Christian	Denmark	Ministry of Resilience and Preparedness	cde@dma.dk
Latvalahti	Matti	Finland	Finnish Transport and Communications Agency	Matti.Latvalahti@traficom.fi
Sobott	Toni	Finland	Finnish Transport and Communications Agency	toni.sobott@vayla.fi

Last name	First name	Country	Organisation	Email
Talja	Sari	Finland	Finnish Transport and Communications Agency	sari.talja@fintraffic.fi
Larue	Johann	France	Airbus Defence and Space	johann.larue@airbus.com
Christians	Olaf	France	Airbus Defence and Space	olaf.christians@airbus.com
Lelièvre	Loïc	France	Ministère chargé de la mer et de la pêche	loic.lelievre@mer.gouv.fr
Vloebergh	Dylan	France	Ministère chargé de la mer et de la pêche	dylan.vloebergh-lair@mer.gouv.fr
Eckhoff	Dirk	Germany	Federal Waterways And Shipping Agency	dirk.eckhoff@wsv.bund.de
Aditiya	Revo	Indonesia	Directorate of Navigation, Directorate General of Sea Transportations, Ministry of Transportation	revo_rizki1301@kemenhub.go.id
Boyle	Ronan	Ireland	Commissioners of Irish Lights	ronan.boyle@irishlights.ie
Laurenza	Marco	Italy	Page Europa	marco.laurenza@pageuropa.it
Partipilo	Toni	Italy	Page Europa	toni.partipilo@pageuropa.it
Romandini	Nazzareno	Italy	ICS Technologies S.R.L	nazzareno.romandini@icstechnologies.it
Mazella	Aniello	Italy	Italian Maritime Academy Technologies S.r.l.	a.mazzella@imat2006.it
Carannante	Vittorio	Italy	Italian Maritime Academy Technologies S.r.l.	v.carannante@imat2006.it
MAGRO	Barbara	Italy	Italian Coast Guard	barbara.magro@mit.gov.it
MENABENE	Gian Luca	Italy	Italian Coast Guard	gianluca.menabene@mit.gov.it
LANDI	Michele	Italy	Italian Coast Guard	michele.landi@mit.gov.it
STASI	Nicola	Italy	Italian Coast Guard	nicola.stasi@mit.gov.it
MELIS	Fabio	Italy	Italian Coast Guard	fabio.melis@mit.gov.it
GIANGRASSO	Elisa	Italy	Italian Coast Guard	elisa.giangrasso@mit.gov.it
Arita	Mayumi	Japan	Japan Coast Guard	
Kim	Min-Young	Korea (Rep. of)	Korean Coast Guard	justiceman21@korea.kr
Alrabah	Saleh	Kuwait	Ministry of Interior	s.alrabah@icloud.com
Alrasheed	Mohammad	Kuwait	Ministry of Interior	alrasheedmohammad3@gmail.com
Khalefouh	Omar	Kuwait	Ministry of Interior	ku463w@gmail.com

Last name	First name	Country	Organisation	Email
Haider	Abdulaziz	Kuwait	Ministry of Interior	abdulazizzhaider@gmail.com
bin Abdullah	Burhanudin	Malaysia	Light Dues Board Peninsular Malaysia	burhanuddin@marine.gov.my
bin Mohd Hasni	Yasmin	Malaysia	Light Dues Board Peninsular Malaysia	yasmin@marine.gov.my
A Subramaniam	Jaganathan	Malaysia	TM Technology Services Sdn. Bhd.	jack_q@tm.com.my
Ariffin	Zulkifly	Malaysia	Greenfinder SDN BHD	zul@greenfinder.asia
Raja Othman	Raja Ahmad Zuhairi Bin	Malaysia	Johor Port Authority	zuhairi@lpj.gov.my
Sari	Sharizad Nabilla	Malaysia	Johor Port Authority	nabilla@lpj.gov.my
Mohamad Sabar	Ummulqura	Malaysia	TM Technology Services	
Azman Azit	Nor	Malaysia	TM Technology Services	
Cassar Simmonds	Bjorn	Malta	Transport Malta	bjorn.cassar-simmonds@transport.gov.mt
Galea	Noel	Malta	Transport Malta	noel.galea.1@transport.gov.mt
Mabchour	Hassan	Morocco	ISEM	hassan.mabchour@gmail.com
Ski	Trond	Norway	Norwegian Coastal Administration	trond.ski@kystverket.no
Dreijer	Malin	Norway	Norwegian Coastal Administration	
Aase	Richard	Norway	Norwegian Coastal Administration	richard.aase@kystverket.no
Assev-Lindin	Jeanette	Norway	Norwegian Coastal Administration	jeanette.assev-lindin@kystverket.no
Coster	Bjorn	Norway	Kongsberg Norcontrol AS	bjorn.coster@knc.kongsberg.com
Ali PN	Liaquat	Pakistan	M/s SI Global Solutions (Pvt) Ltd	lali_50504@yahoo.com
Sheikh	Muhammad Humayun	Pakistan	Seamax Marine Services	seamaxmarineservices@gmail.com
Mehlmauer	Migel	Slovenia	Slovenian Maritime Administration	migel.mehlmauer@gov.si
Ncanywa	Bulelani	South Africa	South African Maritime Safety Authority	bncanywa@samsa.org.za
Mudau	Lufuno	South Africa	South African Maritime Safety Authority	LMudau@samsa.org.za
De la Rue	Lee Michael	South Africa	South African Maritime Safety Authority	LMdelaRue@samsa.org.za
Mbakaza	Pretty	South Africa	South African Maritime Safety Authority	PMOLEFE@SAMSA.ORG.ZA

Last name	First name	Country	Organisation	Email
Juan Carlos	Fernandez Salinas	Spain	Centro Jovellanos	jcarlosfs@centrojovellanos.es
Rojo Diaz	Raquel	Spain	Centro Jovellanos	raquelrd@centrojovellanos.es
Victor Manuel	Fernández Fernández	Spain	Puertos del Estado	vmfernandez@puertos.es
Sundklev	Monica	Sweden	Swedish Transport Agency	monica.sundklev@transportstyrelsen.se
Kiobya	Nassibu Nassoro	Tanzania	Tanzania Ports Authority	nassibu.nassoro@ports.go.tz
Hoeve	Remi	The Netherlands	Ministry of Infrastructure and Water Management	remi.hoeve@rws.nl
Berrevoets	Maarten	The Netherlands	Ministry of Infrastructure and Water Management	Maarten.Berrevoets@minienw.nl
Aerts	Milou	The Netherlands	Ministry of Infrastructure and Water Management	m.aerts@portofrotterdam.com
Kizilelma	Abdullah	Türkiye	Directorate General of Coastal Safety	abdullahkizilelma@hotmail.com
Alnaqbi	Ahmed	United Arab Emirates	Abu Dhabi Ports Company	Ahmed.alnaqbi@safeen.ae
Rowlands	Keeta	United Kingdom	UK Technical Services Navigation	Keeta.rowlands@mcga.gov.uk
Robinson	Sarah	United Kingdom	Hawkshill Consulting Limited	sarah@hawkshillconsulting.co.uk
Del Angel Rincon	Eduardo	United States	Prodar Inc.	edelangel@prodar.com

ANNEX B **TECHNICAL PROGRAMME**

WORKSHOP PROGRAMME*

DAY 1 – Monday 20 January 2025

Time	Activity	
0930 – 1045	**Steering Committee meeting with session chairs and rapporteurs**	Workshop session chairs, rapporteurs and host
1000 – 1130	**Registration**	**Host**
1130 – 1230	**Session 1 – Opening of the Workshop**	**Chair: Monica Sundklev (VTS Chair)**
5 mins	Administration and safety briefing	Representative of the venue or host
10 mins	Welcome from IALA	IALA Secretary-General, Francis Zachariae
45 mins	Welcome from Italy	Representatives of the Italian Government and Coast Guard
1230 – 1300	**Group photo**	
1300 – 1430	**Light lunch**	
1430 – 1630	**Session 2 – Introduction / Background**	**Chair: Dirk Eckhoff (VTS Vice-chair)**
1430 – 1445	Workshop aim and objectives	Sweden, Monica Sundklev
1445 – 1500	Introduction workshop topics	Norway, Trond Ski
1500 – 1515	**Break**	
1515 – 1545	Background - IALA history and role in VTS	Norway, Trond Ski
1545 – 1630	Results from the previous VTS Questionnaire	Australia, Neil Trainor
1630 – 1730	Session chairs and speakers liaison opportunity	
Evening event **1830 – 2030**	**Welcome Reception** Venue: Roma Eventi Congress Center Dress code: Smart casual	

Time	Activity	
0900 – 0950	**Session 3 - Regulatory and Legal Framework**	**Chair: Trond Ski**
0900 – 0930	**3.1 International framework** • International Convention for the Safety of Life at Sea • IMO Resolution A.1158(32) Guidelines for Vessel Traffic Services • IALA Standards • National Law	Presentations and open discussions *Norway, Trond Ski*
0930 – 0950	**3.2 Policy, legislation, regulation and governance** The role and interrelationships of policy, legislation, regulation and governance.	Presentations and open discussions *Australia, Neil Trainor*
0950 – 1030	**Session 4 - Translating international commitments into actionable and enforceable measures at national level**	
	4.1 Contracting Governments – their responsibilities	**Chair: Trond Ski**
0950 – 1030	• Establishing a legal basis for VTS that gives effect to SOLAS regulation V/12	Presentations and open discussions *Australia, Neil Trainor*
1030 – 1100	Break	
1100 – 1700	**4.1 Contracting Governments – their responsibilities (continue)**	**Chair: Neil Trainor**
1100 – 1230	• Appointing and authorizing a competent authority for VTS • Compliance with the provisions of VTS • Future technical and other developments	Presentations and open discussions: *Netherlands, Maarten Berrevoets* *Japan, Mayumi Arita*
1230 – 1330	Lunch	
1330 – 1500	**4.2 Competent authorities - their responsibilities** **4.2.1 Regulatory framework** Establishing a regulatory framework for VTS in accordance with relevant international conventions and IMO instruments, IALA standards and national law, concerning: • VTS providers • Training Organizations • Participating ships	Presentations and open discussions: *Australia, Neil Trainor* *UK, Keeta Rowlands* *Finland, Matti Latvalahti* *Sweden, Monica Sundklev*
1500 – 1520	Break	
1520 – 1700	**4.2.2 Authorization of VTS providers** Policies, processes and procedures associated with: • Authorizing VTS providers under national law. • Assessing conformance with: ○ The responsibilities of VTS providers as described in IMO Resolution A.1158(32)	Presentations and open discussions: *Australia, Neil Trainor* *UK, Keeta Rowlands* *Finland, Toni Sobott* *Netherlands, Maarten Berrevoets*

	○ The responsibilities of VTS providers associated with normative provisions of IALA recommendations, guidelines and model courses specifically related to the establishment and operation of VTS ○ The regulatory framework set by the competent authority	

DAY 3 – Wednesday 22 January 2025

Time	Activity	
0900 – 0915	**Summary of Day 2**	**Chair: Monica Sundklev**
0915 - 1230	**4.2 Competent authorities - their responsibilities (cont.)**	**Chair: Richard Aase**
0915 - 1030	**4.2.3 Ensuring VTS providers have appropriate equipment, systems and facilities in place to interact with vessel traffic and respond to developing situations within a VTS area** • How should the functional and performance requirements for VTS systems and equipment be demonstrated? • How is digitalization of VTS being handled?	Presentations and open discussions: *Norway, Richard Aase* *Korea, Song-I Song* *Australia, Neil Trainor*
1030 – 1100	**Break**	
1100 – 1230	**4.2.4 Compliance and enforcement** • Establishing a framework with respect to violations of VTS regulatory requirements. • Ensuring participating ships conform with the regulatory framework set by the competent authority.	Presentations and open discussions: *Sweden, Monica Sundklev* *UK, Keeta Rowlands* *Australia, Neil Trainor* *Norway, Jeanette Assev-Lindin*
1230 – 1330	**Lunch**	
1330 – 1700	**4.3 Competent authorities – training responsibilities**	**Chair: Stefaan Priem**
1330 – 1500	**4.3.1 Ensuring that VTS training is approved and VTS personnel are certified** • Establishing a framework for the accreditation of VTS training organisations, approval of model courses and certification of VTS personnel. • Ensuring VTS training organisations continue to conform with the regulatory framework set by the competent authority. • International recognition of VTS certification	Presentations and open discussions: *Australia, Kerrie Abercrombie* *Belgium, Stefaan Priem* *Italy, Elisa Giangrasso* *Spain, Juan Carlos Salinas & Raquel Rojo*
1500 – 1520	**Break**	
1520 – 1700	**4.3.2 Ensuring VTS personnel are appropriately trained and qualified for their VTS duties** • Generic VTS training • On-the-job training • Periodic assessments and revalidation training • Possession of appropriate certification	Presentations and open discussions: *Australia, Kerrie Abercrombie* *Spain, Juan Carlos & Raquel Rojo* *Norway, Malin Dreijer* *Netherlands, Maarten Berrevoets*

DAY 4 – Thursday 23 January 2025

Time	Working Groups	
0900 – 0915	**Summary of Day 3**	**Chair: Monica Sundklev**
	4.4 VTS Providers – their perspective and experiences	**Chair: Remi Hoeve**
0915 – 1030	Views from a VTS provider's perspective: • VTS provider's experiences in fulfilling their responsibilities and their interaction with the Competent authority • VTS provider's challenges	Presentations and open discussions: *Netherlands, Milou Aerts* *Finland, Sari Talja* *Japan, Mayumi Arita*
1030 – 1100	Break	
1100 – 1230	**Session 5 – Other elements to consider**	**Chair: Trond Ski**
1100 – 1230	• When Competent authority and VTS provider are the same entity • Two or more Governments have a common interest in establishing VTS in a particular area • VTS beyond the Territorial Sea	Presentations and open discussions: *Italy, Barbara Magro* *UK, Keeta Rowlands* *Denmark, Niels Mygind* *Belgium, Stefaan Priem* *Italy, Michele Landi* *Australia, Neil Trainor*
1230 – 1330	Lunch	
1330 – 1415	**Session 5 - Other elements to consider (cont.)**	**Chair: Trond Ski**
	• Cyber security considerations	*Netherlands, Martijn Ebben* *Norway, Richard Aase*
	• Demonstrating conformance with IMSAS (IMO Member State Audit Scheme)	*Norway, Jeanette Assev-Lindin* *Finland, Matti Latvalahti/Toni Sobott*
1415 – 1815	Tour to the Vatican Museums	
Evening event 2000 – 2200	Workshop Gala Dinner Venue: Roma Eventi Congress Center Dress code: Business attire	

DAY 5 – Friday 24 January 2025

Time	Activity	
0830 - 0910	Steering Committee meeting with session chairs and rapporteurs	Workshop chairs, rapporteurs and host
0915 – 0930	**Summary of Day 4**	**Chair: Monica Sundklev**
	Session 6 – Open discussion	**Chair: Piero Pellizzari**
0930 – 1000	Outcomes, feedback and comments from the sessions	All workshop session chairs

1000 – 1030	Break	
	Session 7 – Workshop review and conclusions	**Chairs: VTS Chair and Vice-Chair**
1030 – 1100	Workshop review and conclusions	Monica Sundklev & Dirk Eckhoff
1100 – 1110	Way forward for the VTS Committee	Trond Ski
1110 – 1120	Closing remarks	Monica Sundklev
1120 – 1200	Closing the workshop	IALA Secretary-General, Francis Zachariae / Representative of the Italian Government and the Italian Coast Guard, Admiral Nicola Carlone
1200 – 1300	Lunch	

Please note that the times are preliminary and may be adjusted to follow the discussions.

10, rue des Gaudines – 78100 Saint Germain en Laye, France

Tel. +33 (0) 1 34 51 70 01 – Fax +33 (0) 1 34 51 82 05 – contact@iala-aism.org

www.iala-aism.org

International Organization of Marine Aids to Navigation