PROPOSAL FOR A NEW FIELD OF TECHNICAL ACTIVITY

PROPOSER: SAC

DATE OF CIRCULATION: 

CLOSING DATE FOR VOTING: 

A proposal for a new field of technical activity shall be submitted to the Office of the CEO, which will process the proposal in accordance with ISO/IEC Directives, Part 1, Clause 1.5.

Furthermore, a proposal will be considered as complete if every information field is complete and follows the guidelines for proposing and justifying a new field of activity given in the ISO/IEC Directives, Part 1, Annex C.

TITLE
(Please see the ISO/IEC Directives, Part 1, Annex C, Clause C.4.2)

Innovative Ports and Terminals

SCOPE
(Please see the ISO/IEC Directives, Part 1, Annex C, Clause C.4.3)

The scope of the Innovative Ports and Terminals mainly includes the standardization regarding the design, construction, internal management and upgrade related to ports and terminals based on emerging information and energy technologies. For the purpose of sustainable development, this proposal intends to provide technical support to the innovative development of ports and terminals, while enhancing the operation effectiveness, safety, resilience and improving the working environment of the ports and terminals.

In particular, the standardization will include, but is not limited to:
- layout and equipment configuration during the design,
- automated technology and new energy technology application during the internal management, and
- the automated upgrade of existing aged ports and terminals.

Excluded: Relevant work within the scopes of the following committees:
- Ships and marine technology (ISO/TC 8)
- Intermodal and Short Sea Shipping (ISO/TC 8/SC 11)
- Smart shipping (ISO/TC 8/SC 26)
- Buildings and civil engineering works (ISO/TC 59)
- Production, transport and storage facilities for cryogenic liquefied gases (ISO/TC 67/SC 9)
- Cranes (ISO/TC 96)
- Continuous mechanical handling equipment (ISO/TC 101)
The ports and terminals are the gathering points and hubs between water and hinterland for transportation, as well as the distribution centers for industrial and agricultural products and foreign trade import and export materials. They are also places for ships to berth, load and unload goods, passengers to board and disembark, and supplementary supplies. As pointed out by the World Bank in *The Container Port Performance Index 2022*, efficient, high quality port infrastructure can facilitate investment in production and distribution systems, engender expansion of manufacturing and logistics, create employment opportunities, and raise income levels.

Technologies applied at ports and terminals have been continually updated. The growing-size of vessels as well as the continuous development of automated terminal technologies and new energy technologies have contributed to the development of the innovative ports and terminals, such as:

- The growing-size of vessels is calling for higher requirements on the port hydraulic structure, the facility and device equipped, the water depth, the handling process and the transport efficiency;
- The development of automated terminal technologies, which changes the operation mode of the ports and terminals, is calling for higher requirements on the safety and resilience of operation, the devices equipped and the operation management;
- The development of new energy technologies is calling for higher requirements on the application of low-carbon and energy-saving technologies, the promotion of the management for energy saving and emission reduction, and the increases of shares of renewal energy consumption as well as the energy efficiency.

This proposal aims to suggest the ISO to form a Technical Committee on the Innovative Ports and Terminals to conduct studies and develop relative international standards for ports and terminals, and share experiences and the best practices among countries in the design, construction, internal management and upgrade of ports and terminals. The purposes include:

- To provide countries and regions intending to develop their ports and terminals with relevant standards, and help the realization of ISO's mission “to support global trade, drive inclusive and equitable economic growth, advance innovation and promote health and safety to achieve a sustainable future”.
- Via the development of standards regarding the design, construction and internal management of automated terminals, to improve the handling process, ensure the smoothness of cargo handling. Consequently, the turnover period of ships at ports will be reduced. The cargo throughput per unit time of the ports will be increased. It can also benefit the problem-solving of port congestion and the smooth movement of cargos, promote technical cooperation, information exchange and trade, and safeguard the resilience of global supply chain. Meanwhile, it can facilitate the realization of UN’s SDG9 “Industry, Innovation and Infrastructure”, and comply with the fundamental goal of the WTO in expanding global trade in goods and services.
- To explore the energy transition of cargo-handling equipment and reduce the energy consumption and pollutant emission at terminals via the development of standards regarding the new energy technology application for terminals. Meanwhile, the proper configuration of equipment will promote
the handling efficiency with the decrease of energy consumption per unit of cargo handling. The above initiatives will help the governments monitor and manage carbon emissions, benefiting the environmental protection and sustainable development, which could enhance meeting the net-zero emission target mentioned by the International Workshop Agreement (IWA 42) on Net-Zero Guiding Principles, and the realization of UN SDG13 “Climate Action”.

- To safeguard the safety of both terminal equipment and workers via the development of standards for application of automated cargo handling technologies; and to improve working conditions of workers at terminals, to provide more employment opportunities to women and the disabled, and to promote gender equality and social inclusion via the development of standards for terminal upgrade towards automation. As a result, to facilitate the realization of UN SDG3 “Good Health and Well-being”, SDG5 “Gender Equality”, SDG8 “Decent Work and Economic Growth”, SDG10 “Reduced Inequalities” and SDG16 “Peace, Justice and Strong Institutions”.

**PROPOSED INITIAL PROGRAMME OF WORK** (Please use the field immediately below or attach an annex)

Please see the ISO/IEC Directives, Part 1, Annex C.4.4 and C-4.5)

For each item, the initial work programme shall define the deliverable type and target dates. The initial work programme shall also assign priorities to the different items.

Basic Standards for the Innovative Ports and Terminals
1. Innovative ports and terminals — Vocabulary

Design Standards for the Innovative Ports and Terminals
1. Technical requirements for general layout of ports and terminals
2. Technical requirements for handling process design of ports and terminals

Standards for Application of the Automated Technologies at the Innovative Ports and Terminals
1. Guidelines for the design of automated container terminals
2. Guidelines for the design of automated coal and ore terminals
3. Technical requirements for automated operations of container terminals
4. Technical requirements for automated operations of dry bulk terminals

Standards for Green Development and Renewal Energy Application at the Innovative Ports and Terminals
1. Guidelines for green design regarding engineering of ports and terminals

Standards for Upgrading and Renovation at the Innovative Ports and Terminals
1. Technical guidelines for automation renovation of terminals

Note: For all kinds of ISO deliverables developed by the proposed TC, including IS, TS, PAS and TR. Priority will be given to the development of the standards related to general terminology, the application of automated technologies and renewal energy technology, once the TC is founded.

**RELATION OF THE PROPOSAL TO EXISTING INTERNATIONAL STANDARDS AND ON-GOING STANDARDIZATION WORK**
The proposer has checked whether the proposed scope of the new committee overlaps with the scope of any existing ISO or IEC committee or JTC1 sub-committee.

☐ If an overlap or the potential for overlap is identified, the affected committee has been informed and an agreement has been reached between proposer and committee on
  i. modification/restriction of the scope of the proposal to avoid overlapping,
  ii. potential modification/restriction of the scope of the existing committee to avoid overlapping.

☐ If agreement with the existing committee has not been reached, please explain why the proposal should be approved.

☐ Have proposals on this subject been submitted into an existing committee and rejected? If so, what were the reasons for rejection?

LISTING OF RELEVANT DOCUMENTS (SUCH AS STANDARDS AND REGULATIONS) AT INTERNATIONAL, REGIONAL AND NATIONAL LEVEL

(Please see the ISO/IEC Directives, Part 1, Annex C, Clause C.4.6)

1. International Maritime Organization (IMO) Documents
   2) IMO IB290E—2007 Safe Transport of Dangerous Cargoes and Related Activities in Port Areas

2. ISO and IEC Standards
   1) ISO 28004-2—2014 Security management systems for the supply chain guidelines for the implementation of ISO 28000 Part 2: Guidelines for adopting ISO 28000 for use in medium and small seaport operations
   2) IEC 60364-7-709—2012 Low-voltage electrical installations – Part 7-709: Requirements for special installations or locations – Marinas and similar locations (Edition 2.1 Consolidated Reprint)
   5) IEC/IEEE PAS 80005-3—2014 Utility connections in port–Part 3: Low voltage shore connection (LVSC) systems–General requirements

3. PEMA Documents
   1) PEMA IP03 Container Terminal Yard Automation
   2) PEMA IP12 Container Terminal Automation
   3) PEMA IP18 Automating Yard Operation in Brownfield Container Terminals: Infrastructure
   4) PEMA IP17 Collision Prevention at Ports & Terminals
   5) PEMA IP22 Battery & Charging Solutions in Ports and Terminals
6) PEMA BP02 Recommended Minimum Safety Features for Container Yard Equipment

4. PIANC Documents
   1) MarCom WG Report No.208—2021 Planning for Automation of Container Terminals

5. The U.S. Standards
   1) ASCE/COPRI 61-14  Seismic Design of Piers and Wharves

6. The UK Standards
   1) BS 6349-2—2019 Maritime Works. Code of Practice for the Design of Quay Walls, Jetties and Dolphins

7. Austrian Standards
   1) OENORM B 4920-4—2014 Terminals for Transshipments of Goods - Planning - Part 4: Connection to Waterways

8. Russian Standards
   1) GOST R 55507—2013 Operation of the River Ports. Terms and Definitions
   2) GOST R 56244—2014 Inland Water Transport. Cargo Transfer Complexes and Passenger Terminals of River ports. Cargo Handling Machines and Equipment maintenance. Safety requirements

9. Australian Standards
   1) AS 3962—2020 Marina design
   2) AS 3846—2005 The handling and transport of dangerous cargoes in port areas

10. Brazilian Standards
    1) ABNT NBR 13209—1994 Harbor Planning - Shoring Works - Procedure
    2) ABNT NBR 11240—1990 Marine Fenders in docks - Utilization - Procedure

11. Vietnam Standards
    3) TCVN 11820-5—2021 Marine Port Facilities-Design Requirements-Part 5: Wharves
    4) TCVN 12250—2018 Inland port - Berth Construction - Design Standard

12. Chinese Standards
    1) GB/T 8487—2010 Terms for cargo handling in port
    2) GB 11602—2007 The safe rules for handing in container port
    3) GB/T 27875—2011 Technical requirements for project and heavy lift cargoes handling in port
    4) GB/T 28399—2012 The safety rules for handling in Ro-Ro terminal
    5) GB/T 38567—2020 General specification for data interchange in port logistics operation
    6) GB/T 42809—2023 Technical requirements for automated container terminal operating system
    7) GB/T 43380—2023 Technical requirements of integrated management and control system for automatic bulk cargo port
    8) JT/T 245—2011 The safe technical requirements for steel product handling in port
    9) JT/T 1485.1—2023 Safety operation code for remote control of automated container crane - Part 1: Quayside container crane
10) JT/T 1485.2—2023  Safety operation code for remote control of automated container crane - Part 2: Container gantry crane
12) JTS 166—2020  Design Code of General Layout for River Ports
13) JTS/T 174—2019  Code for design of automated container terminals
14) JTS/T 188—2022  Technical code of automated coal and ore terminals
15) JTS/T 189—2023  Guideline for Green Design of Port Engineering

LISTING OF RELEVANT COUNTRIES WHERE THE SUBJECT OF THE PROPOSAL IS IMPORTANT TO THEIR NATIONAL COMMERCIAL INTERESTS (Please see the ISO/IEC Directives, Part 1, Annex C, Clause C.4.8)

The subject of the proposal is relevant to countries where innovative ports and terminals have been built and put into operation, which include but not limited to:

- Europe: Greece, Belgium, Germany, Netherlands, Spain, the UK, Italy, Austria, Russia
- North America: the U.S.
- South America: Brazil
- Oceania: Australia
- Asia: UAE, the Republic of Korea, Japan, Singapore, Indonesia, China, India, Thailand, Israel, Vietnam
- Africa: Morocco

LISTING OF RELEVANT EXTERNAL INTERNATIONAL ORGANIZATIONS OR INTERNAL PARTIES (OTHER THAN ISO AND/OR IEC COMMITTEES) TO BE ENGAGED AS LIASONS IN THIS WORK (Please see the ISO/IEC Directives, Part 1, Clause C.4.9)

International Maritime Organization (IMO)
International Association of Ports and Harbors (IAPH)
The World Association for Waterborne Transport Infrastructure (PIANC)
Port Equipment Manufacturing Association (PEMA)
ISO/TC 8: Ships and marine technology
ISO/TC 8/SC 11: Intermodal and Short Sea Shipping
ISO/TC 8/SC 25: Maritime GHG reduction
ISO/TC 8/SC 26: Smart shipping
ISO/TC 59: Buildings and civil engineering works
ISO/TC 67/SC 9: Production, transport and storage facilities for cryogenic liquefied gases
ISO/TC 96: Cranes
ISO/TC 101: Continuous mechanical handling equipment
ISO/TC 110: Industrial trucks
ISO/TC 154: Processes, data elements and documents in commerce, industry and administration
ISO/TC 184: Automation systems and integration
ISO/TC 199: Safety of machinery
ISO/TC 204: Intelligent transport systems
ISO/TC 267: Facility management
ISO/TC 268: Sustainable cities and communities
ISO/TC 268/SC 1: Smart community infrastructures
ISO/TC 268/SC 2: Sustainable cities and communities - Sustainable mobility and transportation
## IDENTIFICATION AND DESCRIPTION OF RELEVANT AFFECTED STAKEHOLDER CATEGORIES

(Please see ISO Connect)

<table>
<thead>
<tr>
<th>Stakeholder Category</th>
<th>Benefits/Impacts/Examples</th>
</tr>
</thead>
</table>
| **Industry and commerce – large industry** | With unified standards in place, it can help port owners gain consistency in terminal planning, construction, management and operation, which will reduce the fragmented application of technical requirements and differences among countries.  
Examples:  
PSA  
Saigon Newport Corporation  
DP WORLD  
ADANI GROUP  
Shanghai International Port Group |
| **Industry and commerce – SMEs** | With unified standards in place, it can ensure compatibility, information interoperability and operational efficiency among different terminal facilities. It can also help raw material production and processing enterprises procure raw materials and deliver goods to their destinations in a timely and efficient manner.  
Example:  
SMEs who need purchasing goods |
| **Government** | With unified standards in place, it will help governments make informed decisions on resource planning, equipment procurement, infrastructure construction and maintenance plans more effectively. It will also ensure the planning, design, construction, operation and sustainable development of ports in the region. Besides, the development of ports and terminals can drive local economic growth and bring increased tax revenue.  
Example:  
Central and local governments where ports and terminals are located |
| Consumers | With unified standards in place, it can help improve the efficiency of loading and unloading operations at ports and terminals, achieve rapid flow of goods, and improve the efficiency of logistics enterprises.  
Examples:  
Logistics enterprises  
Customers |
|---|---|
| Labour | With unified standards in place, it can improve the efficiency of cargo handling at ports and terminals, and mitigate the difficulty of operation and maintenance of ports and terminals. It can also improve the work environment and occupational safety of workers, and provide more employment opportunities for women and the disabled.  
Examples:  
Wharfman  
Maintenance personnel of terminal facilities |
| Academic and research bodies | With unified standards in place, it will help realize the interoperability and comparability of academic research findings on ports and terminals. Researchers will find it more convenient to conduct cross-border and cross-regional comparative studies. As a result, it will also create more opportunities for international exchanges, and help promote relevant academic organizations to conduct researches on cutting-edge technologies of ports and terminals.  
Examples:  
The National University of Singapore (NUS)  
Shanghai Maritime University(SMU)  
Any institute engaging in researches related to the Innovative Ports and Terminals |
| Standards application businesses | With unified standards in place, it can facilitate port and terminal builders to plan and design ports and purchase equipment and facilities according to the standards, making the layout and integration of the port equipment and facilities more simple and efficient. In the meantime, application of unified standards can facilitate the exchange and information sharing on technologies, which can effectively mitigate the negative impact of monopoly on market.  
Examples:  
Stakeholders who are responsible for port design and construction  
Any organization who applies these standards |
Non-governmental organizations

The development and application of unified standards can fill the gap of existing standards and guidelines developed by organizations like IAPH and PEMA.

Examples:
IAPH
PEMA
PIANC

Other (please specify) | N/A

EXPRESSON OF LEADERSHIP COMMITMENT FROM THE PROPOSER
(Please see the ISO/IEC Directives, Part 1, Annex C, Clause C.4.12)

China is willing to undertake the work of the new TC Secretariat when the proposal is approved.

The proposer confirms that this proposal has been drafted in compliance with ISO/IEC directives, part 1, annex c

SIGNATURE OF THE PROPOSER

SAC

COMMENTS OF THE ISO CENTRAL OFFICE (IF ANY)
FORM A – ISO/CS INITIAL ASSESSMENT – TS/P ON INNOVATIVE PORTS AND TERMINALS

The ISO/CS initial assessment

- The ISO/CS initial assessment will facilitate the evaluation process for TMB, which will occur during the 4-week review period.
- TPMs will work with the leadership team of relevant committees to provide factual/neutral feedback for this initial assessment. It is the role of the leadership team to provide feedback on behalf of the committee, and proposals will not be distributed widely to the entire committee.
- The ISO/CS initial assessment will only be shared with the TMB during the 4-week review.

Proposer’s response

- Prior to the circulation of their proposal for the 4-week review, the proposer will have the opportunity to review the feedback provided during the ISO/CS initial assessment.
- The ISO/CS initial assessment will be completed within a maximum period of 4 weeks.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TC 110 – Ships and marine technology</td>
<td>Yes</td>
<td>Port Community Systems, Electronic port facilitation and data exchange standards (ISO 20085 series) are under the scope of TC 59, which deals with port data interchange on the terminals and ships. Additionally, ISO 20256 (smart shipping) data exchange standard will be seen as a part of the new committee. Member states that in order to reduce gaps, members should agree on the information exchange (port data) in the same way and the member states need to liaised. Creating new TC will lead to an overlap.</td>
<td>Allocation of the proposed work to an existing committee</td>
<td>We appreciate concerns of TC 199. If new TC is formed, we recommend liaising this new TC with the existing committee for information exchange.</td>
<td>Proposer</td>
<td>We endorse the comments of TC 199. We appreciate the efforts of TC 199. We will liaise with TC 199 for information exchange.</td>
</tr>
<tr>
<td>TC 59 – Buildings and civil engineering works</td>
<td>No</td>
<td>Both the scope of TC 59 and the proposed scope (innovative ports and terminals) are in areas of focus. TC 59 primarily focuses on buildings and civil engineering works while the new committee will take into account aspects like design for maintenance in their areas of work.</td>
<td>No overlap and no objections. ISO/TC 67/SC 9 standards are clearly excluded from the scope of the new TC.</td>
<td>No objections.</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>TC 57 – Production, transport and storage facilities for cryogenic liquefied gases</td>
<td>No</td>
<td>No overlap and no objections. ISO/TC 67/SC 9 standards are clearly excluded from the scope of the new TC.</td>
<td>No overlap and no objections. ISO/TC 67/SC 9 standards are clearly excluded from the scope of the new TC.</td>
<td>No overlap and no objections. ISO/TC 67/SC 9 standards are clearly excluded from the scope of the new TC.</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>TC 96 – Cranes</td>
<td>No response</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
</tr>
<tr>
<td>TC 101 – Chemical and industrial (including oil)</td>
<td>No response</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
</tr>
<tr>
<td>TC 119 – Industrial trucks</td>
<td>No</td>
<td>The Committee thinks the absence of such an activity in the new TC.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
</tr>
<tr>
<td>TC 144 – Automated systems and integration</td>
<td>No response</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
</tr>
<tr>
<td>TC 198 – Safety of machinery</td>
<td>No response</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
</tr>
<tr>
<td>TC 240 – Intelligent transport systems</td>
<td>No response</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
</tr>
<tr>
<td>TC 267 – Facility management</td>
<td>No response</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
</tr>
</tbody>
</table>
The new TC proposal focuses on ‘environmental-friendly and sustainable development’. To prevent unnecessary duplication and potential conflicts, it’s recommended to revise the scope of the proposed new committee. The new TC proposal will resemble TC 344 in focusing on the work of ports and terminals, which is already the working area of ISO/TC 268/SC 2, because ISO TC 268/SC 2 is developing standards relating to electric road systems.

Additions of exclusion clause to the proposed scope for the proposed new committee although the expertise of the proposed technical committee seems to be different from that of TC 268, there may be some areas of overlap with the developing work of ISO TC 268/SC 2. Therefore, ISO TC 268 should be included in the ‘excluded’ committee in the scope. Alternatively, a liaison agreement should be considered.

For the elements highlighted by TC 344 and presented in the proposed initial programme of work, TC 344 only focuses on the field of ports and terminals, and works on the standardization of design, construction, internal management and improvement in this particular field. Since the word “terminal” contains multiple meanings, in order to avoid ambiguity and clarify the scope of standardization of the new TC, we can use “port” to delineate “terminal” and bring the corresponding sustainable development to the scope.

It’s need to establish the joint working group, focus on the services for harbour cities, which have near relationship with ISO TC Innovative ports and terminals, and make the working scope clear between two TC.

The new TC proposal focuses on ‘environmental-friendly and sustainable development’. To prevent unnecessary duplication and potential conflicts, it’s recommended to revise the scope of the proposed new committee. The new TC proposal will resemble TC 344 in focusing on the work of ports and terminals, which is already the working area of ISO/TC 268/SC 2, because ISO TC 268/SC 2 is developing standards relating to electric road systems.

Additions of exclusion clause to the proposed scope for the proposed new committee although the expertise of the proposed technical committee seems to be different from that of TC 268, there may be some areas of overlap with the developing work of ISO TC 268/SC 2. Therefore, ISO TC 268 should be included in the ‘excluded’ committee in the scope. Alternatively, a liaison agreement should be considered.

For the elements highlighted by TC 344 and presented in the proposed initial programme of work, TC 344 only focuses on the field of ports and terminals, and works on the standardization of design, construction, internal management and improvement in this particular field. Since the word “terminal” contains multiple meanings, in order to avoid ambiguity and clarify the scope of standardization of the new TC, we can use “port” to delineate “terminal” and bring the corresponding sustainable development to the scope.

It’s need to establish the joint working group, focus on the services for harbour cities, which have near relationship with ISO TC Innovative ports and terminals, and make the working scope clear between two TC.

The new TC proposal focuses on ‘environmental-friendly and sustainable development’. To prevent unnecessary duplication and potential conflicts, it’s recommended to revise the scope of the proposed new committee. The new TC proposal will resemble TC 344 in focusing on the work of ports and terminals, which is already the working area of ISO/TC 268/SC 2, because ISO TC 268/SC 2 is developing standards relating to electric road systems.

Additions of exclusion clause to the proposed scope for the proposed new committee although the expertise of the proposed technical committee seems to be different from that of TC 268, there may be some areas of overlap with the developing work of ISO TC 268/SC 2. Therefore, ISO TC 268 should be included in the ‘excluded’ committee in the scope. Alternatively, a liaison agreement should be considered.

For the elements highlighted by TC 344 and presented in the proposed initial programme of work, TC 344 only focuses on the field of ports and terminals, and works on the standardization of design, construction, internal management and improvement in this particular field. Since the word “terminal” contains multiple meanings, in order to avoid ambiguity and clarify the scope of standardization of the new TC, we can use “port” to delineate “terminal” and bring the corresponding sustainable development to the scope.

It’s need to establish the joint working group, focus on the services for harbour cities, which have near relationship with ISO TC Innovative ports and terminals, and make the working scope clear between two TC.

The new TC proposal focuses on ‘environmental-friendly and sustainable development’. To prevent unnecessary duplication and potential conflicts, it’s recommended to revise the scope of the proposed new committee. The new TC proposal will resemble TC 344 in focusing on the work of ports and terminals, which is already the working area of ISO/TC 268/SC 2, because ISO TC 268/SC 2 is developing standards relating to electric road systems.

Additions of exclusion clause to the proposed scope for the proposed new committee although the expertise of the proposed technical committee seems to be different from that of TC 268, there may be some areas of overlap with the developing work of ISO TC 268/SC 2. Therefore, ISO TC 268 should be included in the ‘excluded’ committee in the scope. Alternatively, a liaison agreement should be considered.

For the elements highlighted by TC 344 and presented in the proposed initial programme of work, TC 344 only focuses on the field of ports and terminals, and works on the standardization of design, construction, internal management and improvement in this particular field. Since the word “terminal” contains multiple meanings, in order to avoid ambiguity and clarify the scope of standardization of the new TC, we can use “port” to delineate “terminal” and bring the corresponding sustainable development to the scope.

It’s need to establish the joint working group, focus on the services for harbour cities, which have near relationship with ISO TC Innovative ports and terminals, and make the working scope clear between two TC.