

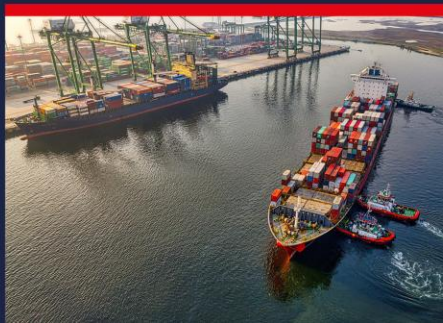
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SMART CONTAINER IN THE PRISM OF ISO
MARIANNA LEVTOV



TC 104 SC4 STRUCTURE



- 2 WORKING GROUPS
- 18 Participating Country Members
- 11 Observing Country Members
- 4 Liaison Organisations

Organizations in liaison (Category A and B)

Acronym ↑	Title	Category
DCSA	Digital Container Shipping Association	A
GS1	GS1	A
IACS - classification	International Association of Classification Societies	A
ITCO	International Tank Container Organisation	A



WORKING GROUP 2- RECENT PROGRESS



ISO/TS 7352:2023

Freight containers

NFC or/and QR code seals

Status : **Published**

← ICS ← 55 ← 55.180 ← 55.180.10

ISO/TS 7344:2024

Short-range wireless sensor to device
communication

Status : **Published**



SCOPE ISO TS 25287

“SMART CONTAINER: IDENTIFICATION & FUNCTIONALITY”



- review the **existing IoT equipment** which is applied on containers
- evaluate its **specifications and compatibility** with the operational environment
- specify the **technical requirements** for IoT systems
- establish **operations principles** that accommodate the features of smart containers



FOCUS: DRY/TANK/REEFER/ALTERNATIVE DESIGN (SOC)

EXTERIOR	REGISTRATION	INTEROPERAB. STRUCTURAL	INTEROPERAB. FIRMWARE	INTEROPERAB. CONNECTIVITY
Visual identification of Smart Container	Smart vs Regular	IoT Hardware Dimensions and Mounting Location	Update, Upgrade, Repair	Connectivity Global
Device Location	"Digital Container Passport": tech and components certificates; communication type; battery certificate	Guidelines for alternative positions	Pairing Local Systems (sensors to device)	Connectivity Local
Post Mortem	Stowage principles	Compatibility of supportive materials	Pairing External Systems	Compatibility to Global Frequencies



® Post Mortem

DIVERSITY OF HARDWARE ON THE MARKET



TECH REQUIREMENTS & COMPATABILITY



- SAFETY AND SECURITY
- INSTALATION AND REMOVAL
- MAINTENANCE OVER-THE-AIR
- COMPATABILITY OF THE OPERATIONAL REQUIREMENTS



OPERATIONAL ENVIRONMENT COMPATABILITY



- REGISTRATION OF SMART VS REGULAR



device type, device ID, certifications, communication protocols, battery type and certificate



STOWAGE PLAN



TRANSSHIPMENT



VESSEL CONNECTIVITY
(TRIGGER BASED ALERTS TO THE BRIDGE)





Thank You

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