EUROPEAN UNION AGENCY
FOR CYBERSECURITY

CYBERSECURITY IN MARITIME AND ENISA'S RELATED ACTIVITIES

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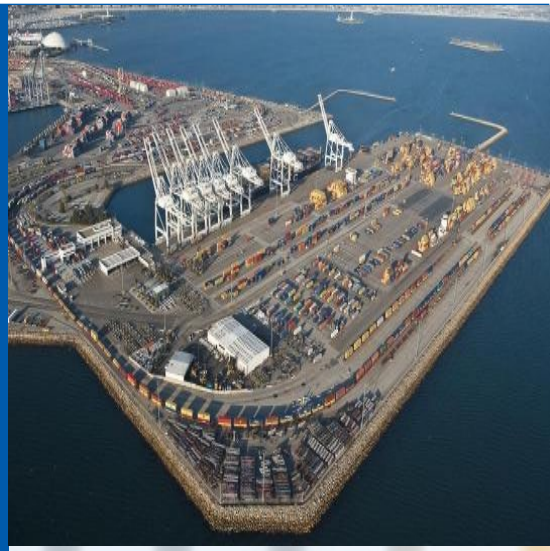
ENISA – The EU Agency for Cybersecurity

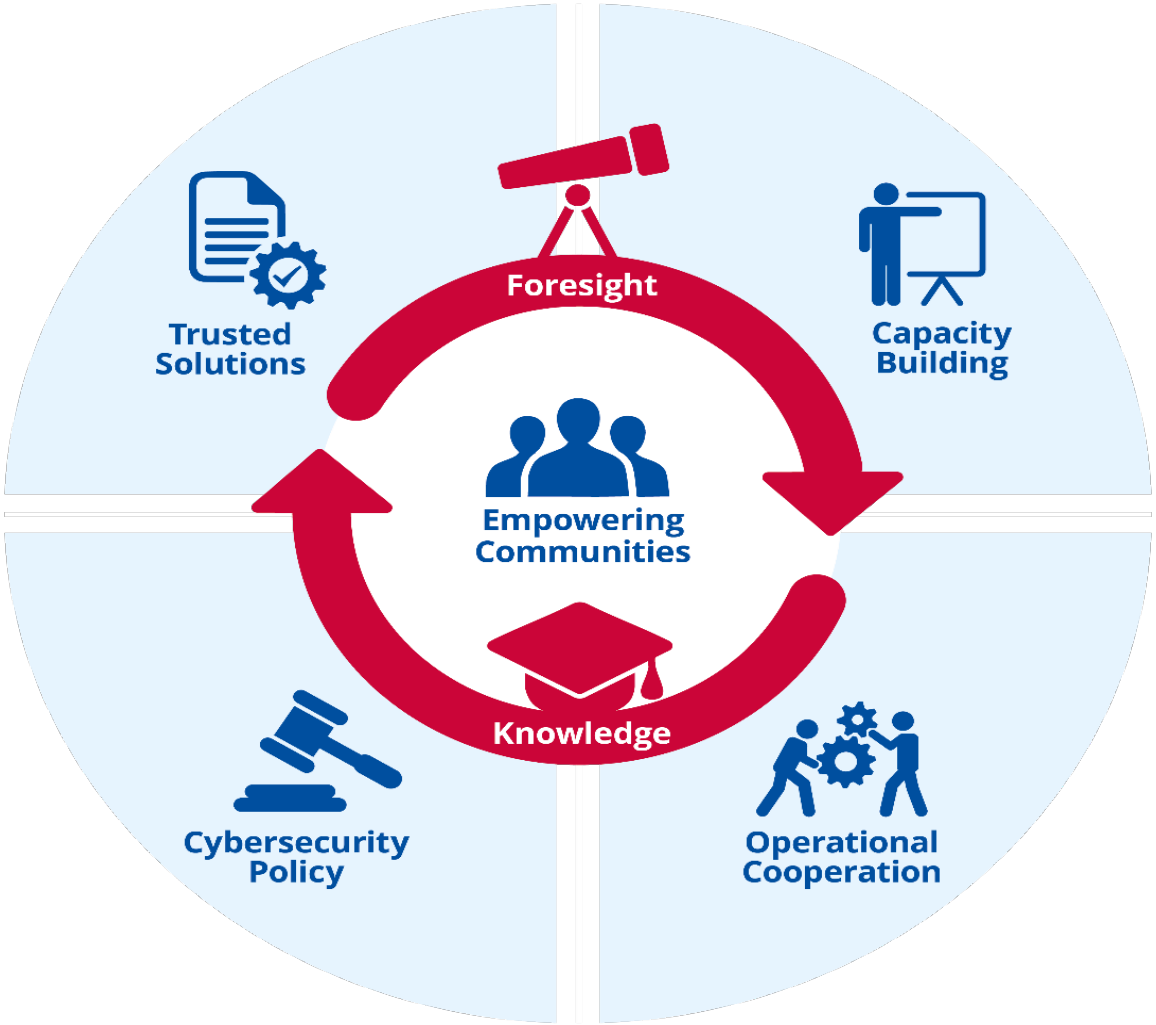
8th ShipIT Conference
27 | 09 | 2022



EUROPEAN UNION AGENCY
FOR CYBERSECURITY

A TRUSTED AND CYBER SECURE EUROPE

Our mission is to achieve **a high common level of cybersecurity** across the Union in cooperation with the wider community



RECENT INCIDENTS IN MARITIME

Bureau Veritas hit by cyber attack

All Four of the World's Largest Shipping Companies Have Been Hit By Cyberattacks (zdnet.com)

Posted by **BeauHD** on Tuesday September 29, 2020 @06:30PM from the shore-based-attacks dept.

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An anonymous reader quotes a report from ZDNet:

> With today's news that French shipping giant CMA CGM has been hit by a ransomware attack, this now means that all of the four biggest maritime shipping companies in the world have been hit by cyber-attacks in the past four years, since 2017. Previous incidents included: 1.)

Cyberattack Hits Multiple Greek Shipping Firms

Japan's "K" Line Apologizes for Second Cyberattack in Months

Hurtigruten hit by cyber-attack

by The Editorial Team — December 15, 2020 in Cyber Security

IMO hit by cyber attack

This web site is under maintenance. We are sorry for any inconvenience caused.

IMO INTERNATIONAL MARITIME ORGANIZATION

GISIS | IMODOCS | Virtual Publications | eRoster

Shipping's global regulatory body the International Maritime Organization (IMO) has been hit by a cyber attack.

News

Mediterranean Shipping Company MSC hit by a Cyber Attack

News / CMA CGM hit by cyber attack, but says it's business as usual

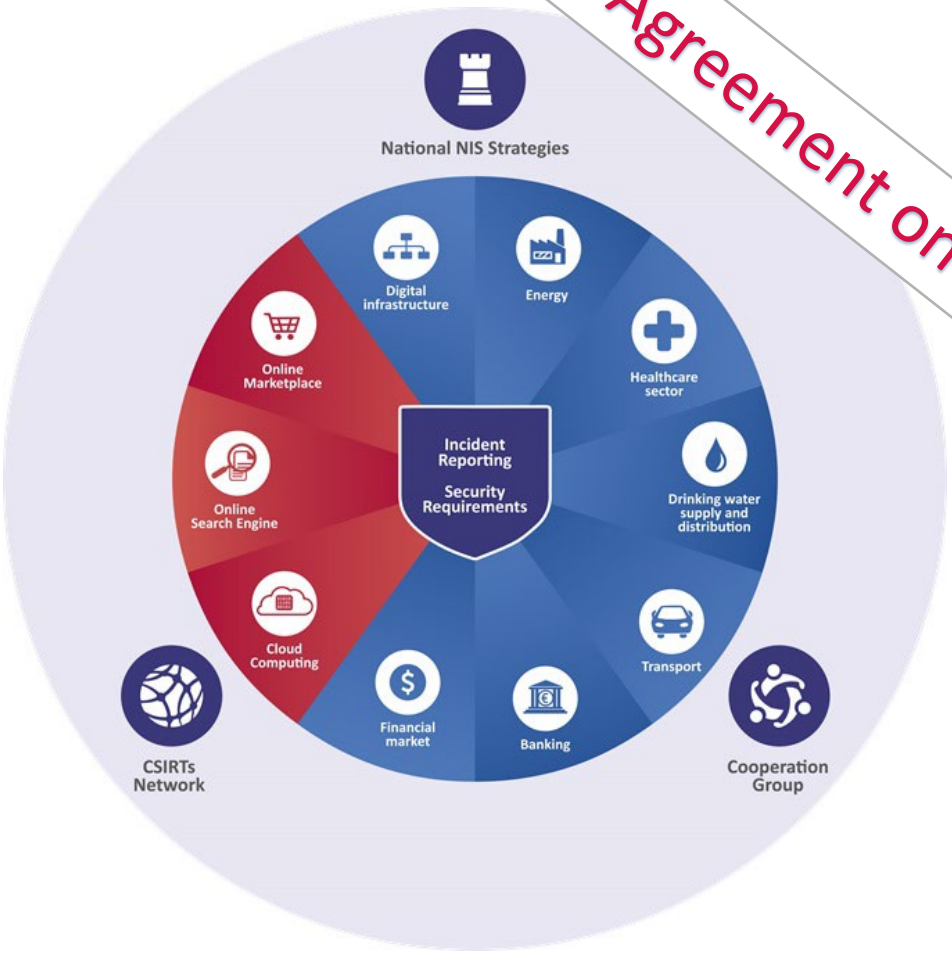
TECH

South Africa port operations halted and workers reportedly put on leave after major cyberattack

PUBLISHED TUE, JUL 27 2021·5:14 AM EDT | UPDATED TUE, JUL 27 2021·6:45 AM EDT

THE NIS DIRECTIVE

Agreement on NIS2



NIS2 PROPOSAL – MAIN PILLARS

MEMBER STATE CAPABILITIES

- Identification of National authorities
- National strategies
- **CVD frameworks**
- **Crisis management frameworks**

RISK ASSESSMENT

- **Accountability for top management for non compliance**
- Security measures for companies
- Incident notifications for companies
- European cybersecurity certification schemes

COOPERATION AND INFO EXCHANGE

- Cooperation group
- CSIRTs network
- **CyCLONE**
- **CVD and European vulnerability registry**
- **Peer reviews**
- **Biennial ENISA cybersecurity report**
- **EU registry for some entities (e.g. DNS service providers,TLDs, cloud providers)**

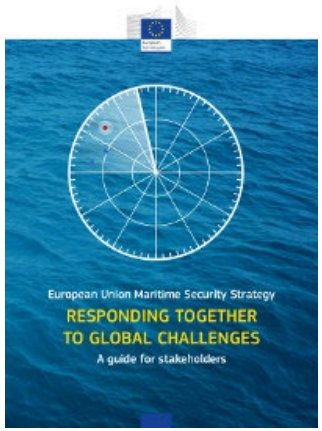
BROADER EU POLICY CONTEXT

CSA

CRA

MOVE

EU Maritime Security Policy



EUMSS

MARITIME – ENISA PUBLICATIONS

November 2019

December 2020

SECURITY MEASURES

POLICIES

- Security policy and organisation
- Risk and Threats Management
- Security and privacy by design
- Asset inventory and management
- Cyber resilience (Business continuity and crisis management)

ORGANISATIONAL PRACTICES

- Endpoints protection and lifecycle management
- Vulnerabilities management
- Human Resource Security
- Third-party management
- Detection and Incident response
- Control and auditing
- IT and OT physical protection

TECHNICAL PRACTICES

- Network security
- Access control
- Administration and Configuration Management
- Threat management
- Cloud security
- Machine-to-machine security
- Data protection
- Update management
- Detection and monitoring
- Industrial control systems
- Backups and restores

CYBER RISK MANAGEMENT FOR PORTS

Identifying cyber-related assets and services

- Define assessment focus
- Asset inventory
- Map assets to systems
- Map assets to services
- Map assets to information
- Identify 3rd party SW dependencies
- Identify vendor dependencies
- Identify IT/OT dependencies
- Automated asset management
- Cybersecurity in procurement

Identifying and evaluating cyber-related risks

- Risk assessment at enterprise level
- Roles & responsibilities
- Consolidate IT/OT security
- Integrate risk management strategy
- Comprehensive risk likelihood assessment
- Comprehensive risk impact assessment
- Engage in sectorial initiatives
- CTI in risk assessment
- Risk acceptance thresholds
- Cyber risk indicators
- Business impact analysis methodology
- Cyber vulnerability assessment
- Involve senior management

Identifying security measures

- Criteria for implementing measures
- Assess risk reduction effectiveness
- Test security measures via exercises
- Coordinate with asset risk owners
- Security by design
- Align measures with organisational maturity
- Cyber insurance
- KPIs
- Incident response/ recovery roles
- Focus incident response on key assets

Assessing cybersecurity maturity

- Ensure inclusive scope
- Cybersecurity awareness and training
- Cybersecurity working group
- Seek advice from external sources
- Cybersecurity programme

ONLINE TOOL ON PORT CYBER RISK MANAGEMENT

This tool allows port operators to conduct cyber risk management with a four-phase approach which follows common principles of risk management. The approach is also compatible with the steps of the risk assessment methodology of the ISPS code. Port operators can navigate through this tool starting at any of the four phases, identify security measures based on their priorities and assess their maturity in the implementation of these measures.

Cyber Risk Management Phases:

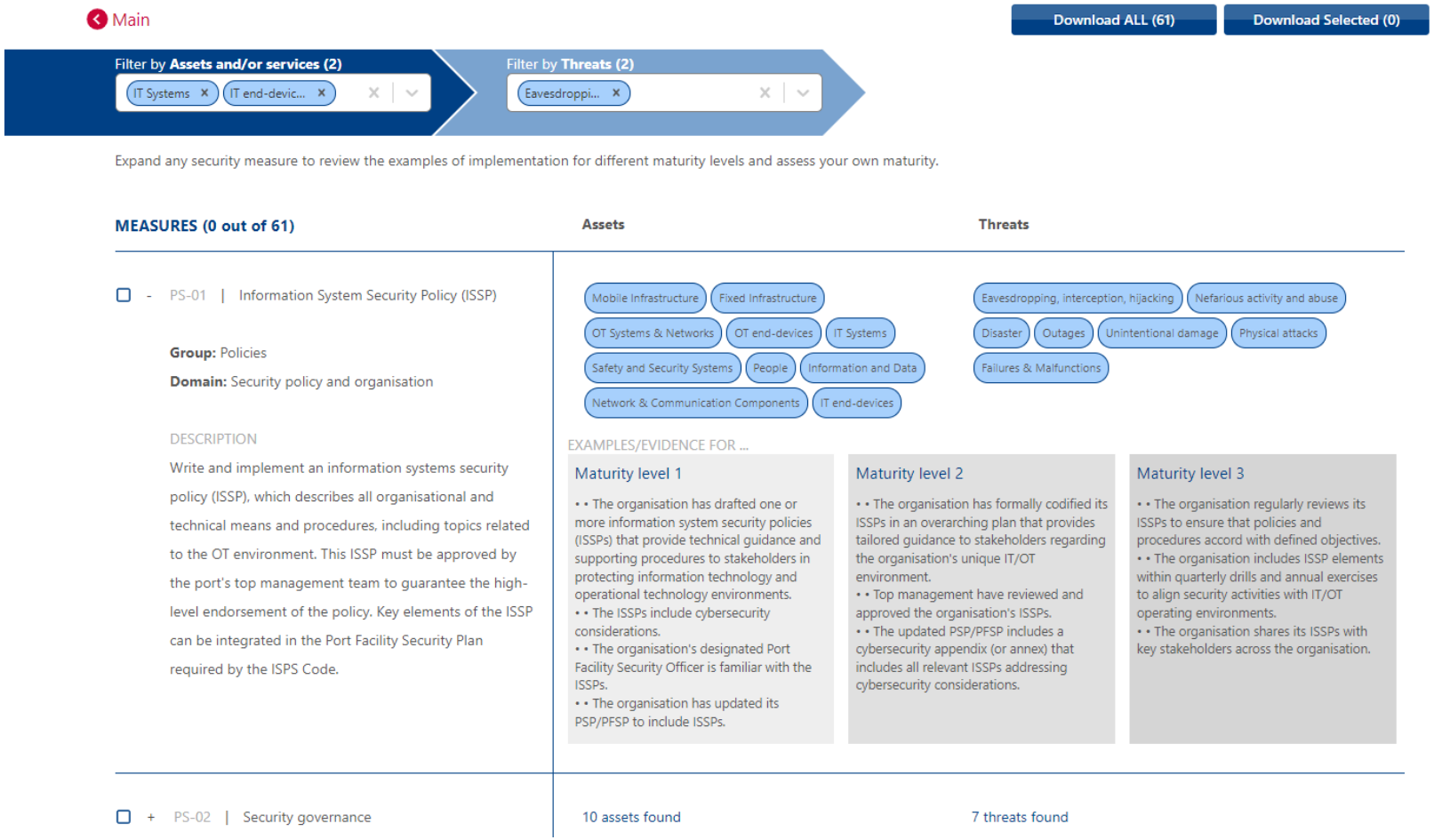
Identify cyber-related assets and services

Identify and evaluate cyber-related risks

Identify security measures

Assess cybersecurity maturity

ONLINE TOOL ON PORT CYBER RISK MANAGEMENT



OTHER ENISA ACTIVITIES IN MARITIME

Collaboration

European Commission

EMSA

CESNI

Transport TL

EM-ISAC

Community building

THANK YOU FOR YOUR ATTENTION

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