The Shipdex protocol

(www.shipdex.org)

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IMPROVEMENT OF THE WHOLE LIFE-CYCLE EFFICIENCY AND COST PREDICTION

Big Data allows to manage large volumes of data like:

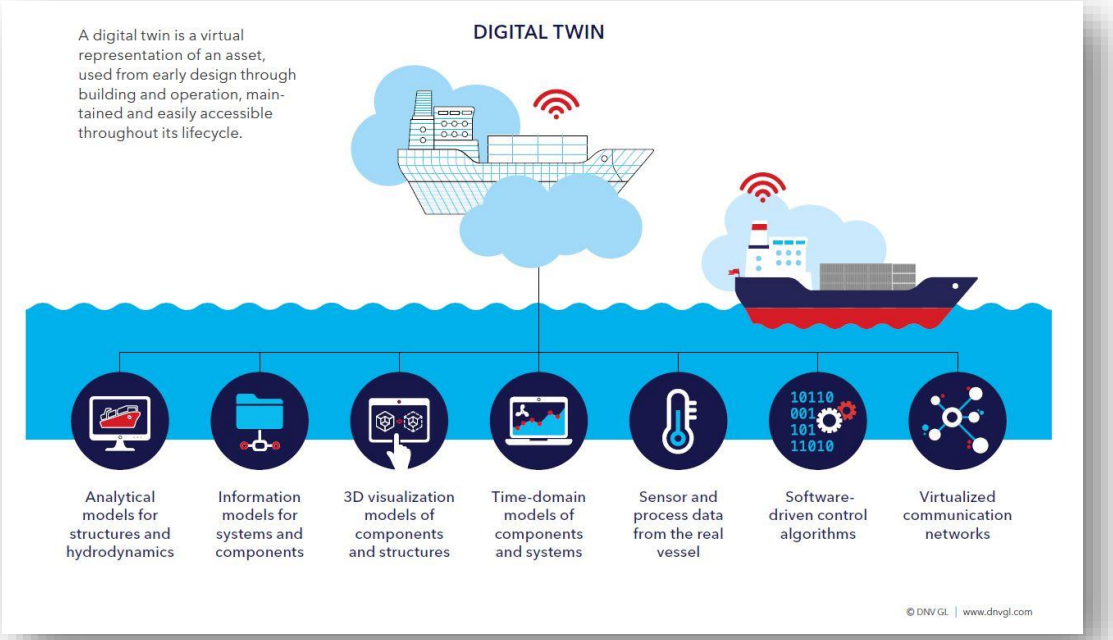
- Text
- Audio
- Video
- Animation
- Simulation
- Data collected by equipment sensors
- Reliability information
- etc

The ultimate goal is to:

- Reduce the risks
- Improve safety on-board
- Improve performance
- Reduce costs
- Automate operations and navigation
- Integrate systems
- etc

A huge amount of “reliable” data from manufacturers is required !

Projects like:



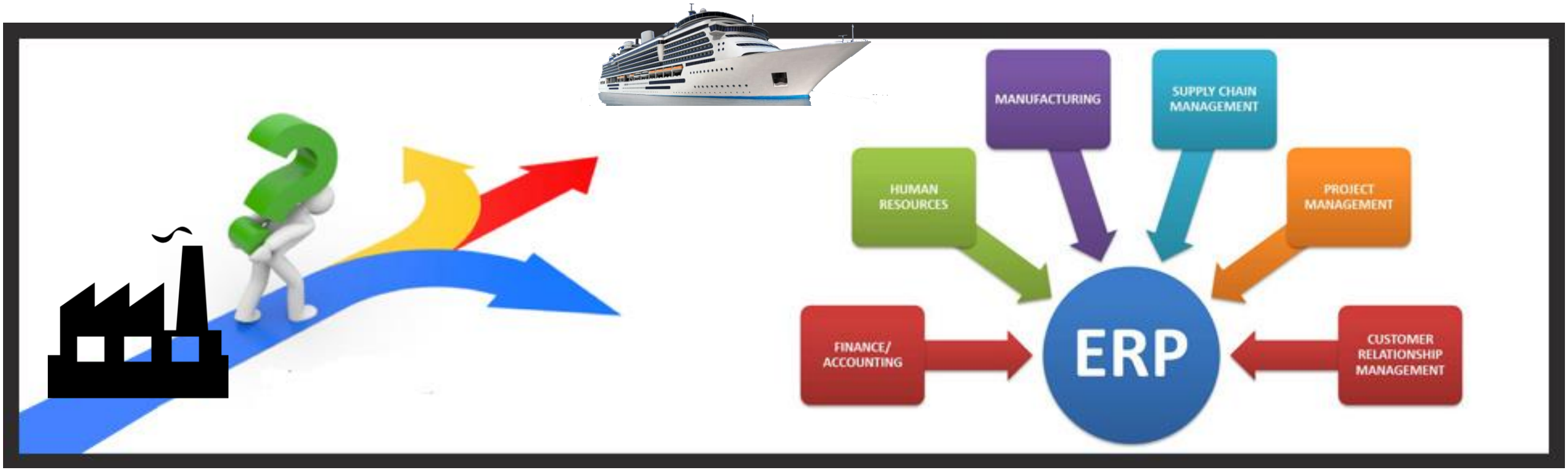
Autonomous ship

Digital twin ship

require huge amount of standardized electronic data

SMART ship systems

Information must move from suppliers to customers in a **<u>standardised electronic format</u>**!



MOST IMPORTANT PROBLEMS TODAY

for makers, shipyards and ship-owners

- NO INTEGRATION WITH CORPORATE IT SYSTEMS (PLM, ERP, etc.)
- DATA RETYPING
- DATA DUPLICATION
- HIGH RISKS TO PROVIDE/USE NOT UPDATED INFORMATION
- HIGH RISKS TO PROVIDE/BUY THE WRONG SPARE PARTS
- DIFFERENT MAKER = DIFFERENT FORMAT, STRUCTURE, LAYOUT
- HIGH MANAGEMENT COSTS

In other words:

LOW QUALITY AT HIGH COST

A Nightmare !

Shipdex is a very important component of the solution

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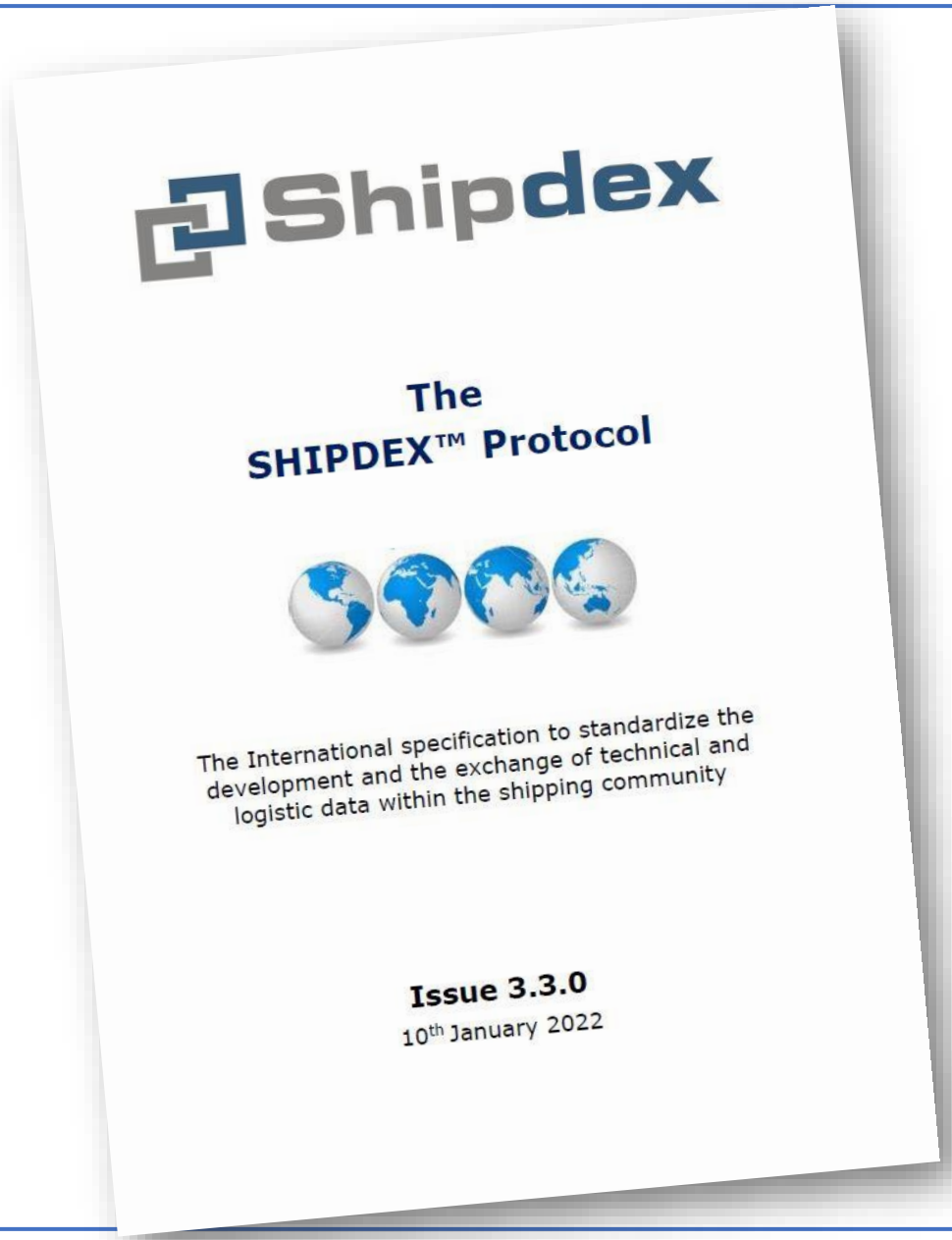


Shipdex is
a common language
to standardize the production, exchange and use of technical, logistic and training data
for the whole shipping community

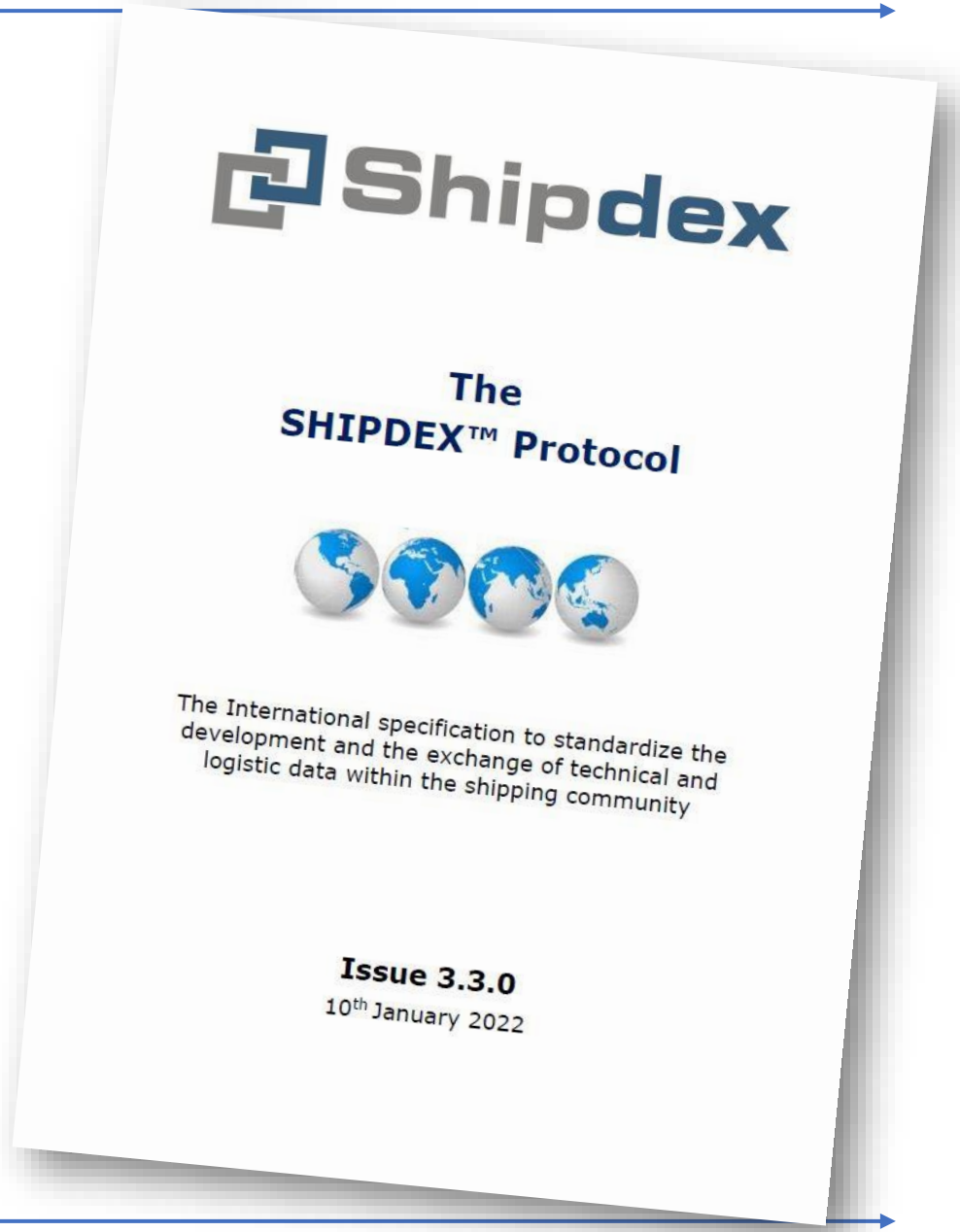
Digitalization instead of Digitization

Shipdex is an independent and non-proprietary standard protocol, open to all shipping stakeholders

Shipdex has been created and is managed by **Shipdex Co. (non profit organization)**

Shipdex is a collection of business and writing rules developed to standardize and improve the production and the exchange of electronic (xml) technical information

Shipdex is compliant with the aero-space, defence and civil aviation **S1000D specification,** that is sponsored by **AIA**, **ASD** and **ATA** e-Business Program (www.s1000d.org)



ILS S-series specifications

Shipdex

Shipdex F

ASD-STE100 Simplified technical English

S1000D International specification for technical publications using a common source database

S2000M International specification for materiel management - Integrated data processing

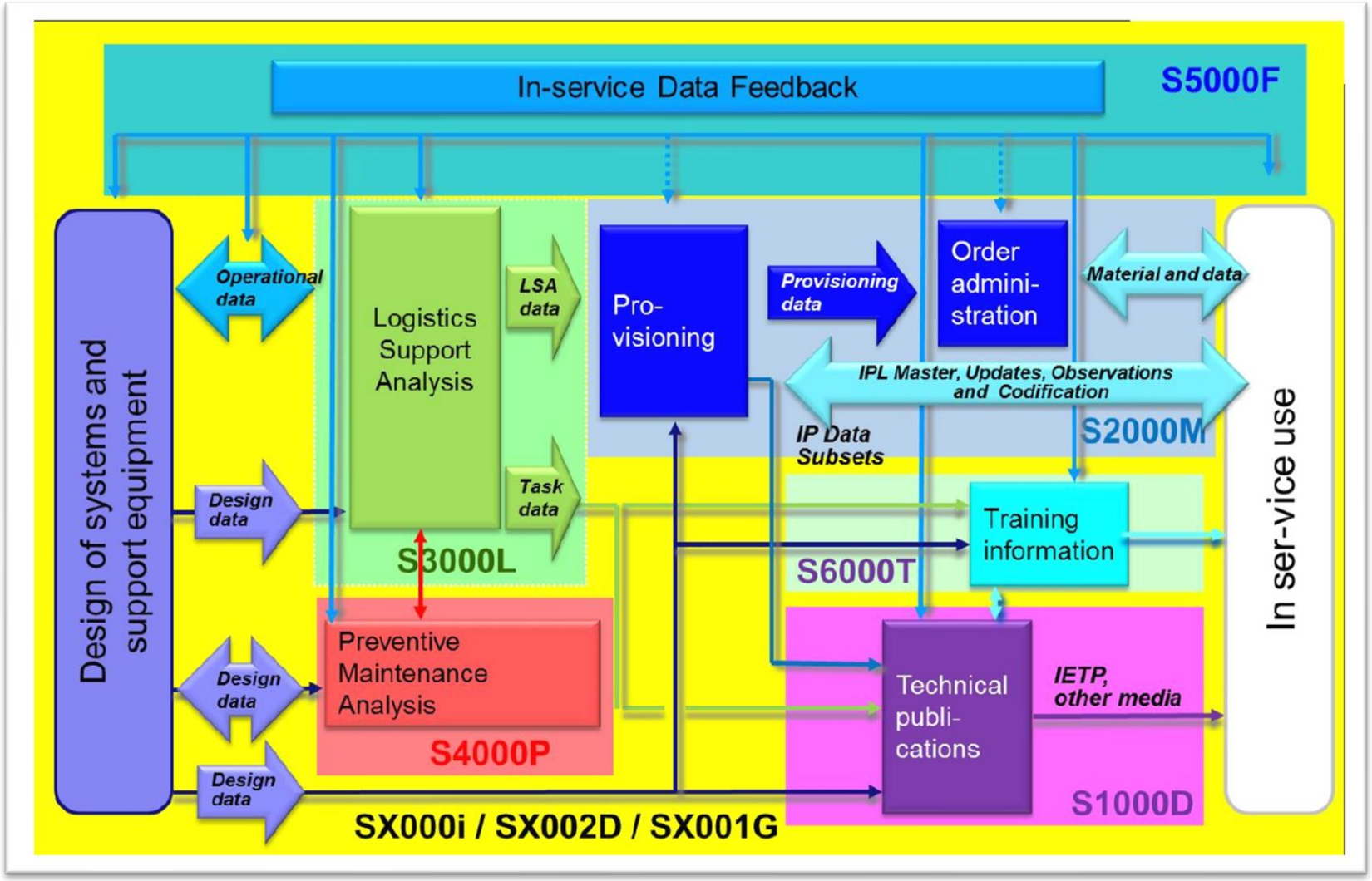
S3000L International specification for Logistic Support Analysis - LSA

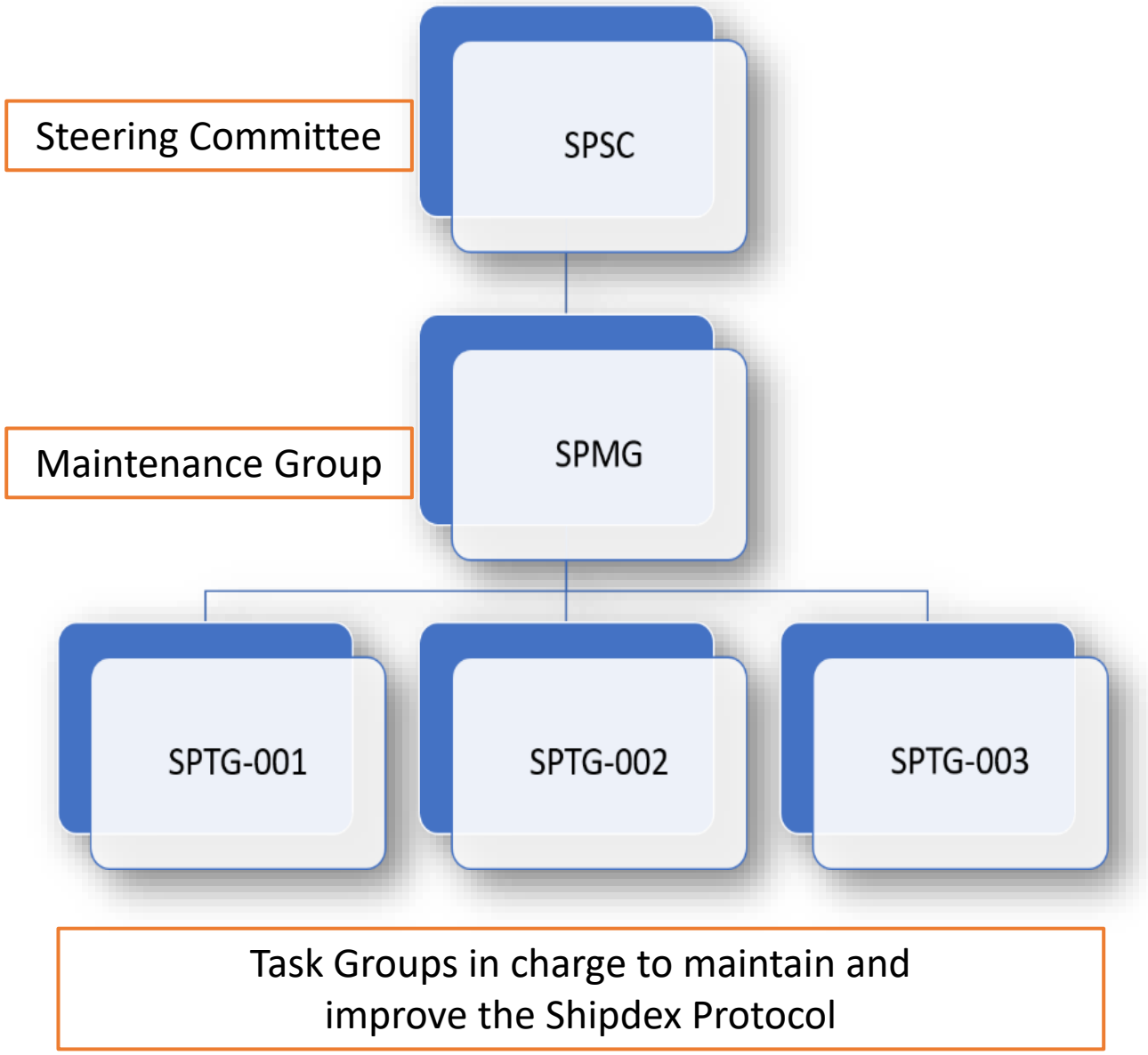
S4000P International specification for developing and continuously improving preventive maintenance

S5000F International specification for in-service data feedback

S6000T International specification for training analysis and design

SX000i International guide for the use of the S-Series Integrated Logistics Support Specifications





The Shipdex Executive Members:

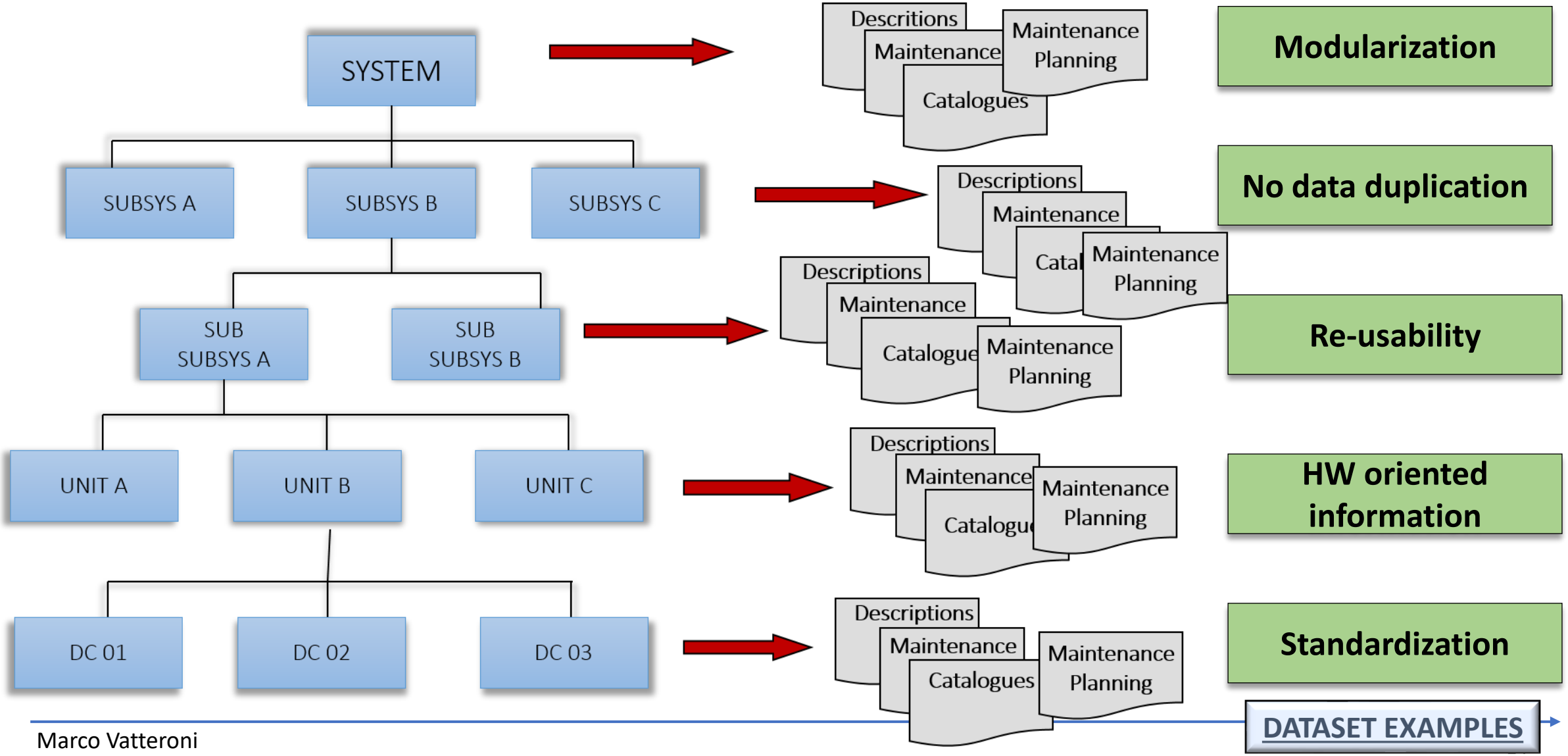
- G&C Shipping
- MAN Energy Solutions
- Mastermind Shipmanagement (*chairman*)
- Kongsberg Maritime (former Rolls-Royce Marine)
- Shipdex Consulting Ltd. (*technical manager*)
- Winterthur Gas & Diesel
- Yanmar

What is Shipdex

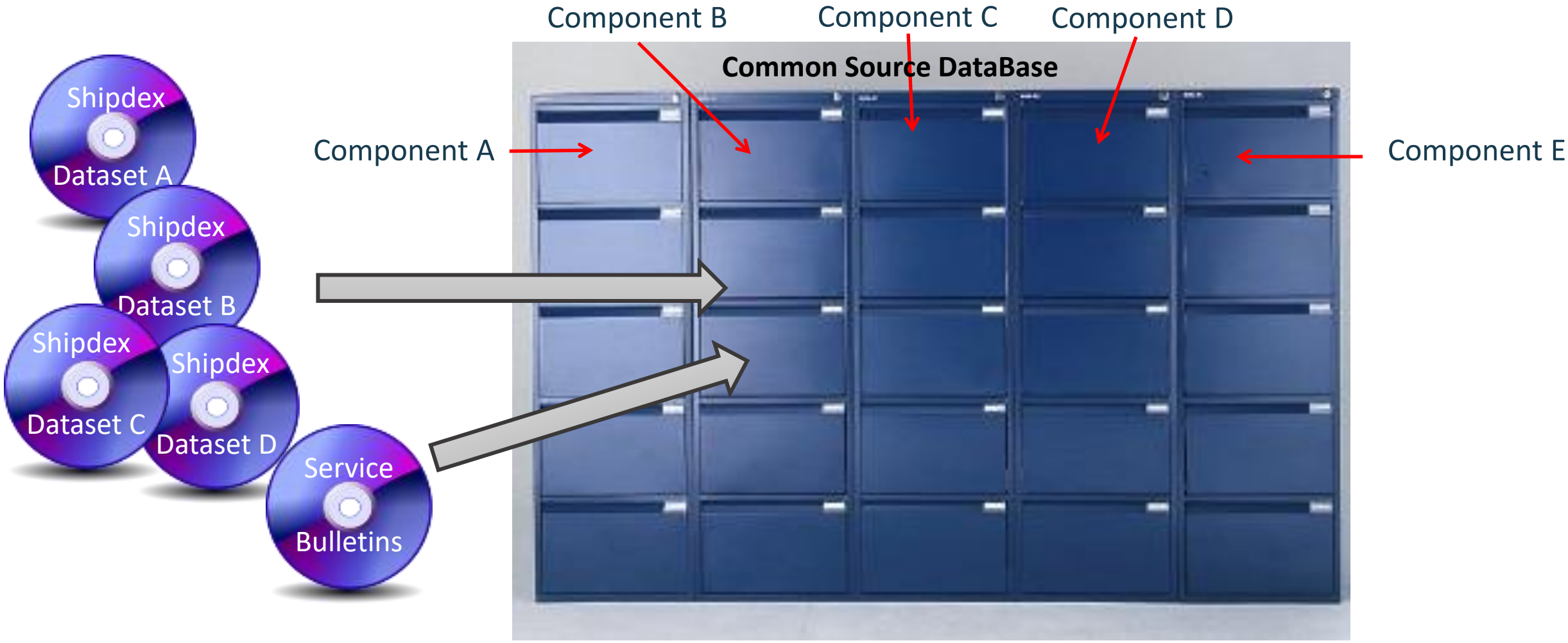
- Shipdex™ covers the following information types (information sets):
  - Description and operation
  - Maintenance procedure
  - Troubleshooting
  - Illustrated parts data
  - Service Bulletin (to update information supplied in Shipdex format)
  - Maintenance Planning
  - Learning (to be used to create "Shareable Content Object Reference Model“ SCORM compliant CBTs)

- Every information set is based on specific and mandatory electronic templates (S1000D compliant xml schemas)
- Contracts between manufacturers and ship-owners can agree on which information sets are required (and more ..)

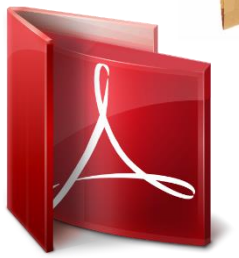
Shipdex Dataset Structure



The Common Source DataBase (CSDB)



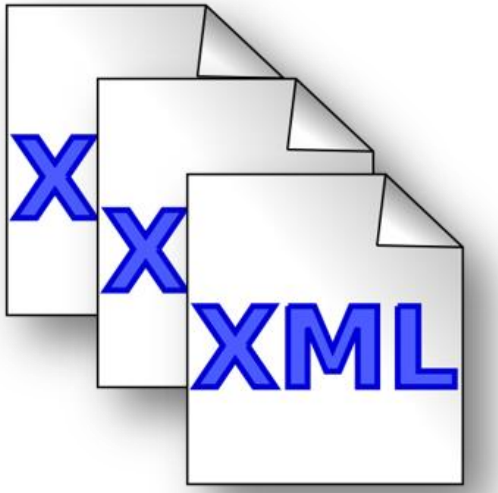
What is Shipdex



Customised PDF manual produced on-the-fly

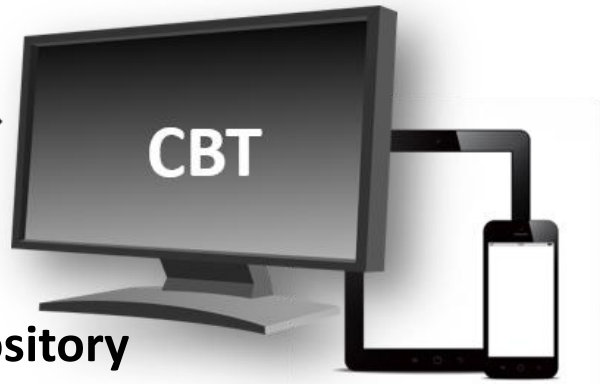
Integration with SCORM

"Shareable Content Object Reference Model“

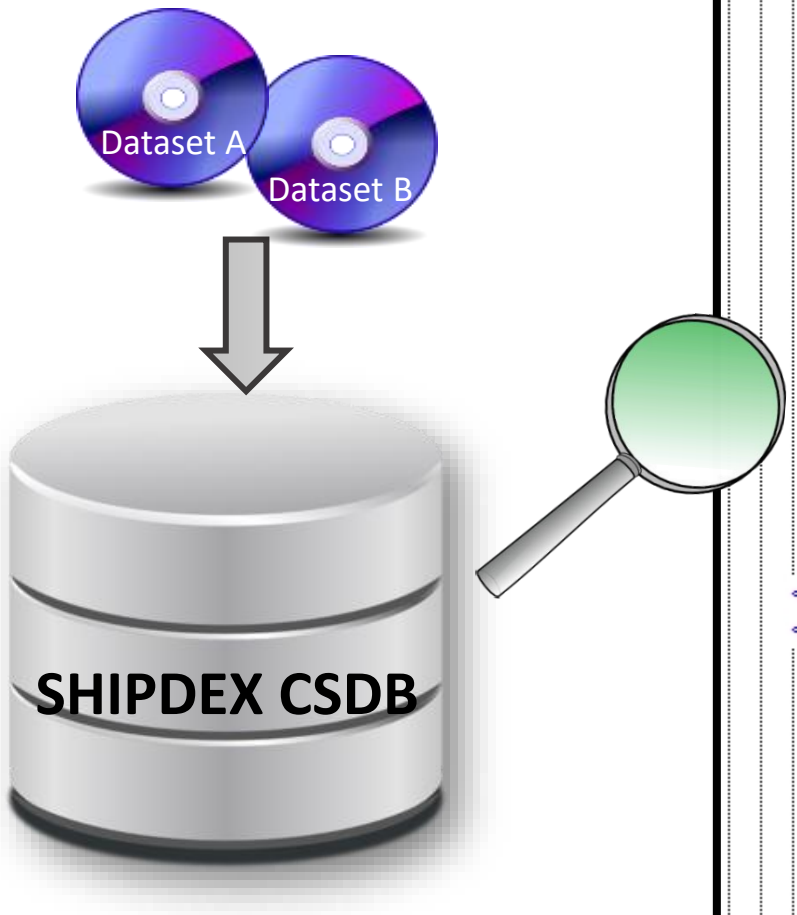


Shipdex data modules

Multimedia contents



CSDB is a very important technical documentation repository where information is managed under configuration control and quality assurance

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    <mfc>A0984</mfc>
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        <qui/>
      </pcs>
    </pas>
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      <dfl/>
    </cbs>
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Shipdex catalogue from maker A

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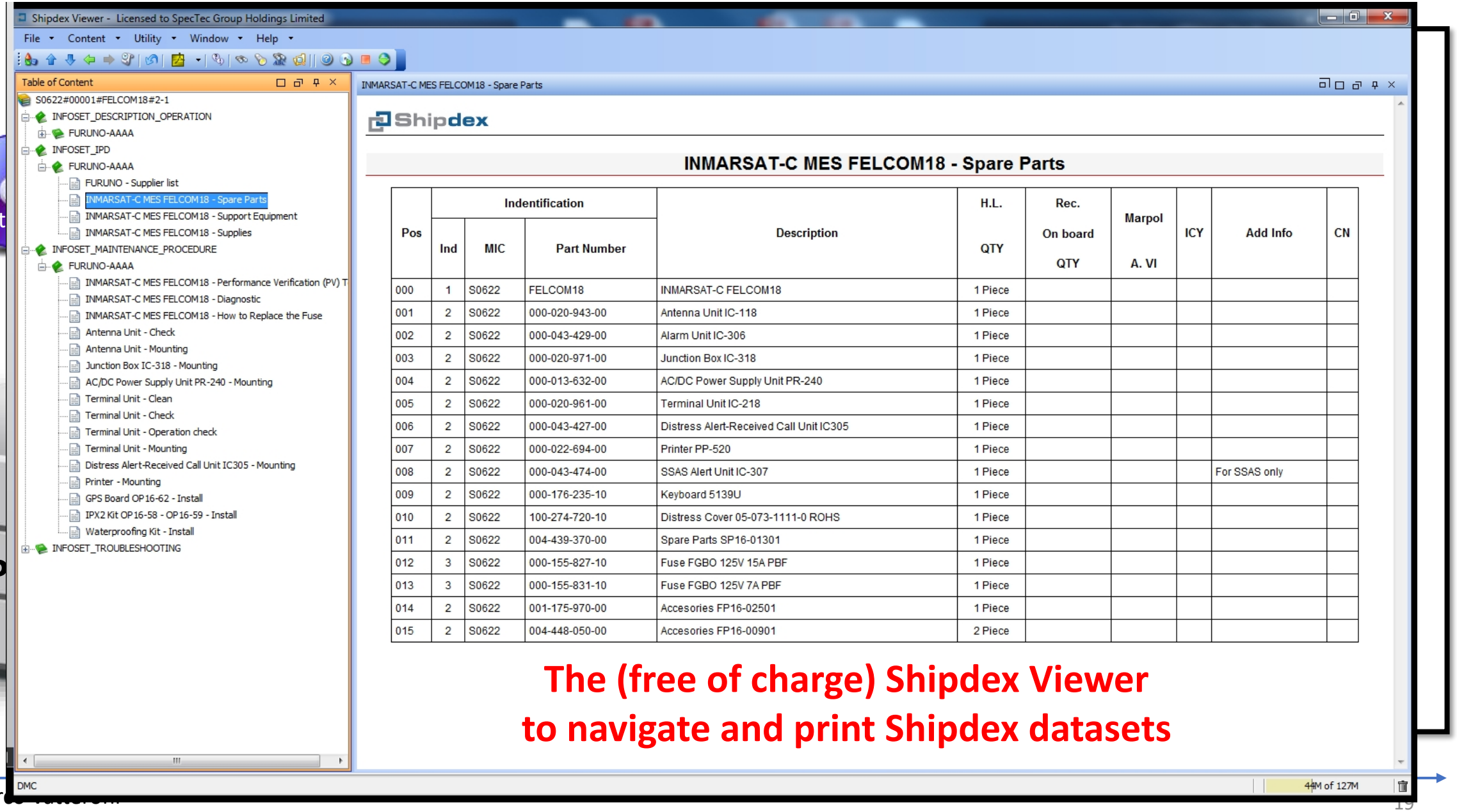
Shipdex catalogue from maker B



Pos	Indentification			Description	H.L.	Rec.	Marpol	ICY	Add Info	CN
	Ind	MIC	Part Number		QTY	On board QTY	A. VI			
000	1	S0622	FELCOM18	INMARSAT-C FELCOM18	1 Piece					
001	2	S0622	000-020-943-00	Antenna Unit IC-118	1 Piece					
002	2	S0622	000-043-429-00	Alarm Unit IC-306	1 Piece					
003	2	S0622	000-020-971-00	Junction Box IC-318	1 Piece					
004	2	S0622	000-013-632-00	AC/DC Power Supply Unit PR-240	1 Piece					
005	2	S0622	000-020-961-00	Terminal Unit IC-218	1 Piece					
006	2	S0622	000-043-427-00	Distress Alert-Received Call Unit IC305	1 Piece					
007	2	S0622	000-022-694-00	Printer PP-520	1 Piece					
008	2	S0622	000-043-474-00	SSAS Alert Unit IC-307	1 Piece				For SSAS only	
009	2	S0622	000-176-235-10	Keyboard 5139U	1 Piece					
010	2	S0622	100-274-720-10	Distress Cover 05-073-1111-0 ROHS	1 Piece					
011	2	S0622	004-439-370-00	Spare Parts SP16-01301	1 Piece					
012	3	S0622	000-155-827-10	Fuse FGBO 125V 15A PBF	1 Piece					
013	3	S0622	000-155-831-10	Fuse FGBO 125V 7A PBF	1 Piece					
014	2	S0622	001-175-970-00	Accesories FP16-02501	1 Piece					
015	2	S0622	004-448-050-00	Accesories FP16-00901	2 Piece					

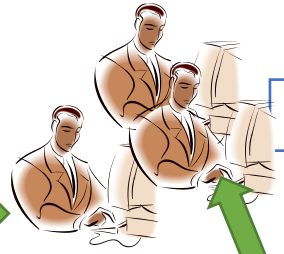
The (free of charge) Shipdex Viewer to navigate and print Shipdex datasets

Manufacturer data production process

Manufacturers
Sub-suppliers

Shipdex Management tool

- Shipdex data production
- Import Shipdex data
- Validation
- Management
- Quality Assurance
- Publishing
- Exchange
- Export



Technical authors

Corporate IT systems (PLM, ERP, etc.)

SHIPDEX CSDB

Computer Based Training

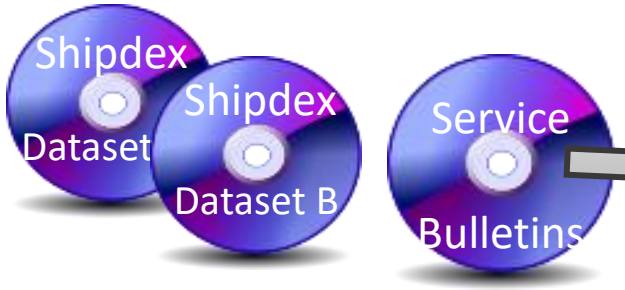
Validated Shipdex datasets

IETP

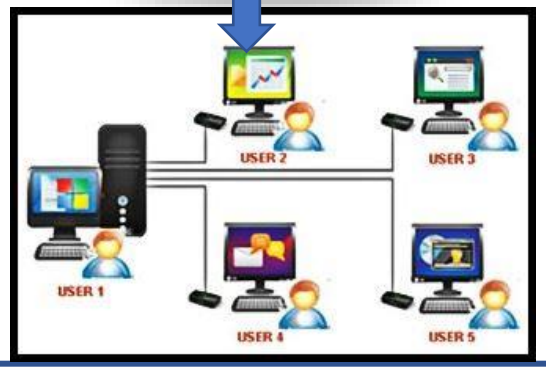
"custom"manuals

Customer process

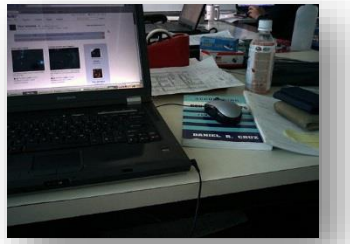
Internal "world"



SHIPDEX
CSDB

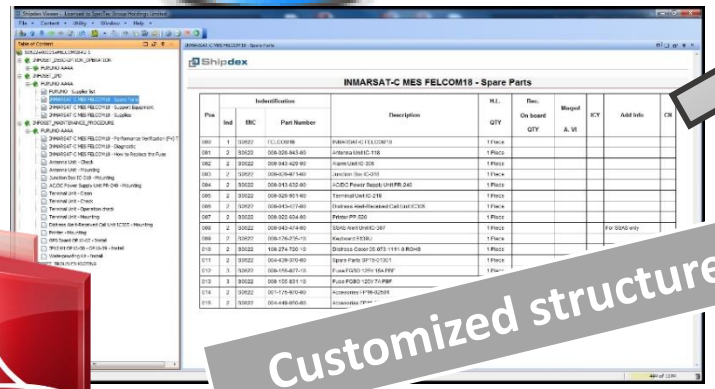


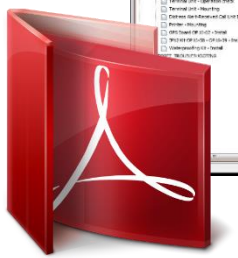
External "world"



ERP

CMMS





Customized structure and layout

Computer Based Training

Questions ?

For any more details, contact me at

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