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 !

Digital Ship

December 2019 / January 2020

www.thedigitalship.com

Get onboard with digitalisation to reap the benefits

IEC Telecom's vice-president - maritime Nabil Ben Soussia urges maritime companies to get onboard the digital transformation train or risk missing the trip.

IN THIS ISSUE

Communications & Cyber Security

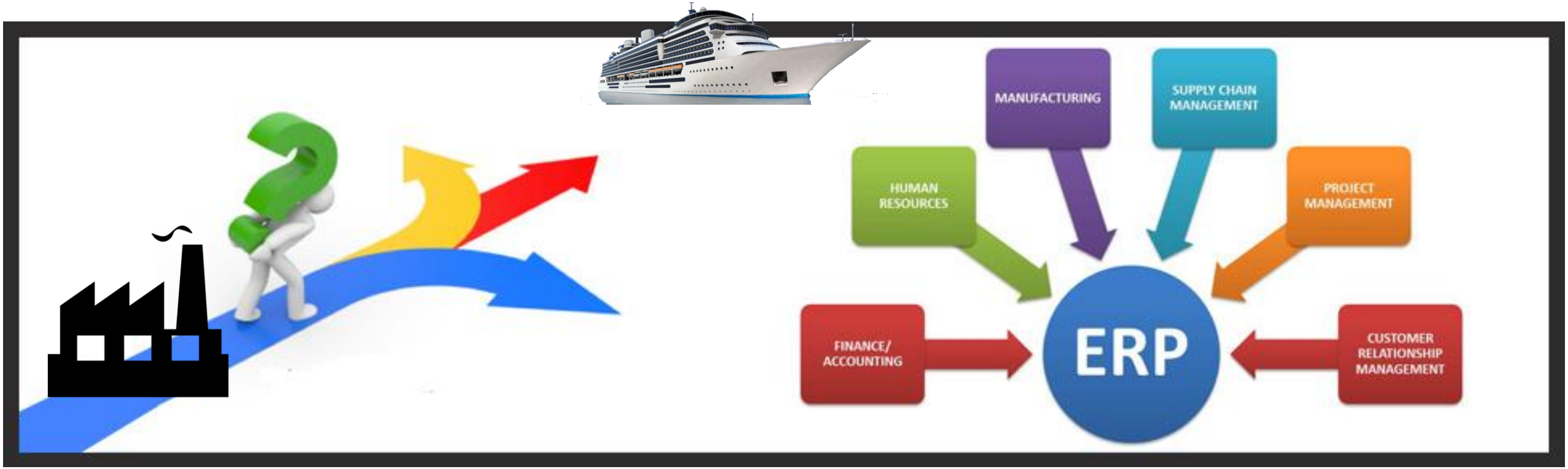
Marlink and Intelsat expand

Speaking during *Digital Ship's* CIO forum held in Singapore on October 9, Mr Ben Soussia said, "Digitalisation brings great benefits and has the potential to create greater equality in the world. The reality is that the train is leaving the station and individuals and organisations need to get onboard quickly.

"For the maritime sector, the march of digitalisation offers the opportunity for greater efficiency, substantial cost savings, optimisation of vessel processes, and vastly improved communications between ship and shore, as well as for crew members."

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

A Nightmare !

In other words:

LOW QUALITY AT HIGH COST

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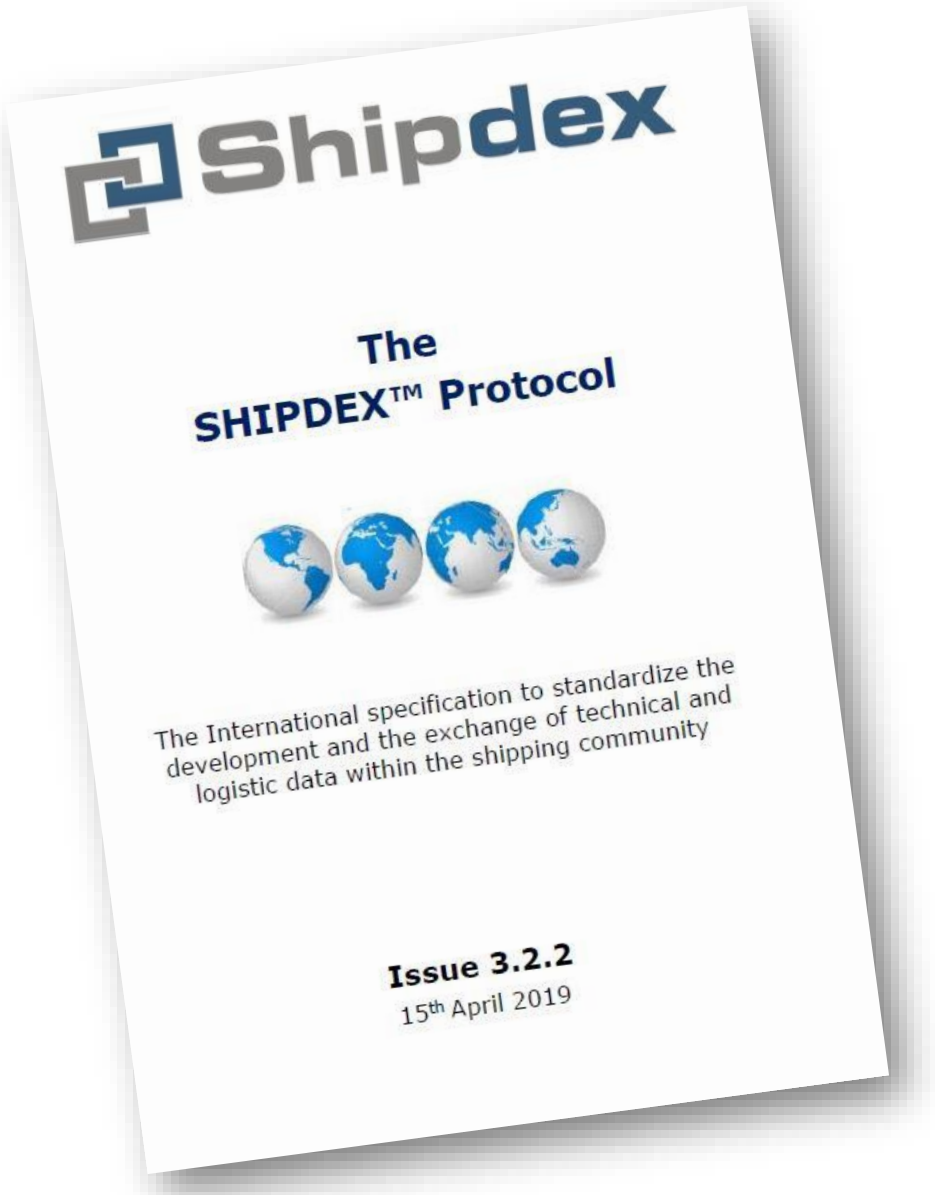


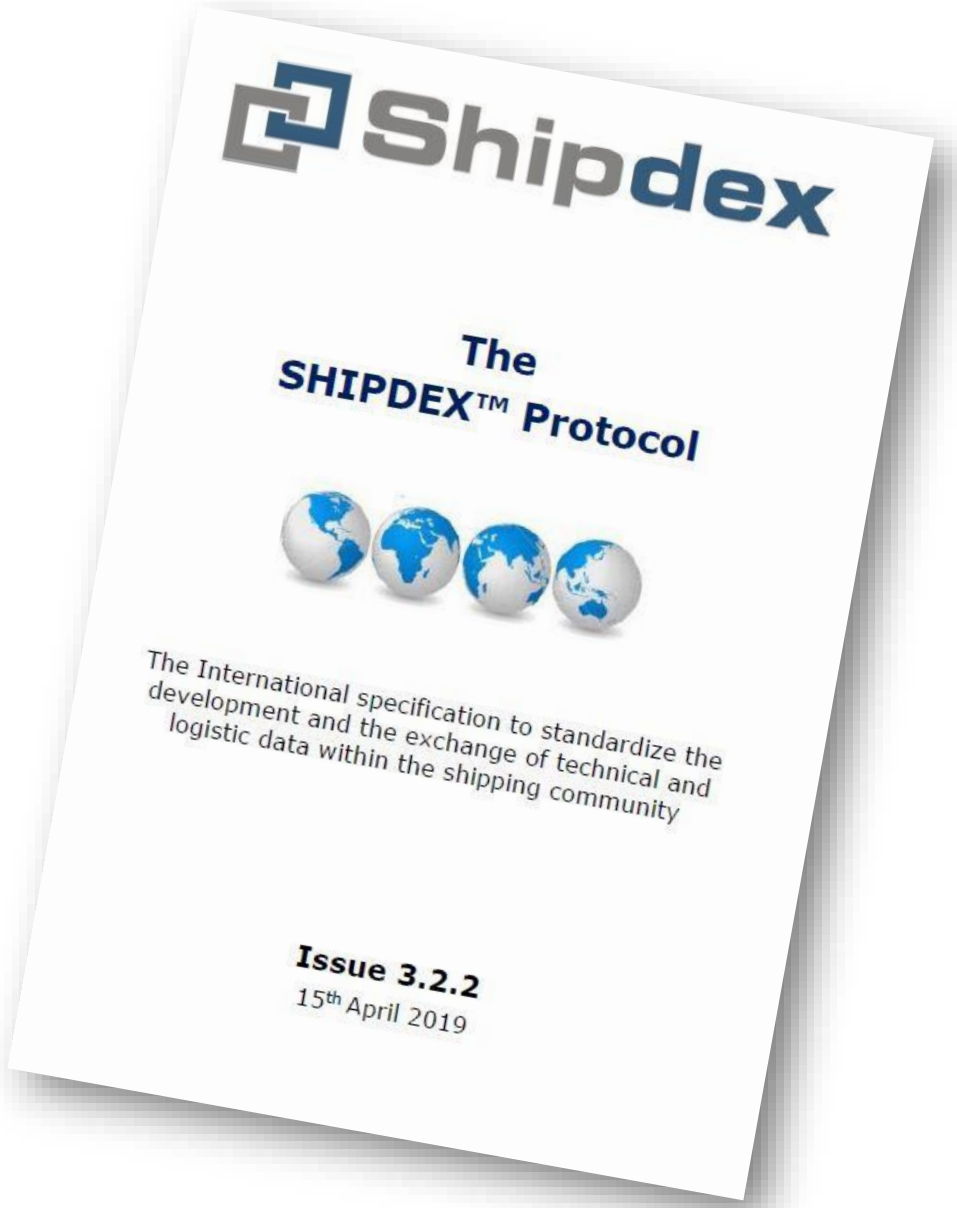
A common language to standardize the development, management, exchange and use of technical, logistic and training data

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

Shipdex is free-of-charge (non profit organization)

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

Shipdex is compliant with the aero-space and defence **S1000D specification** (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

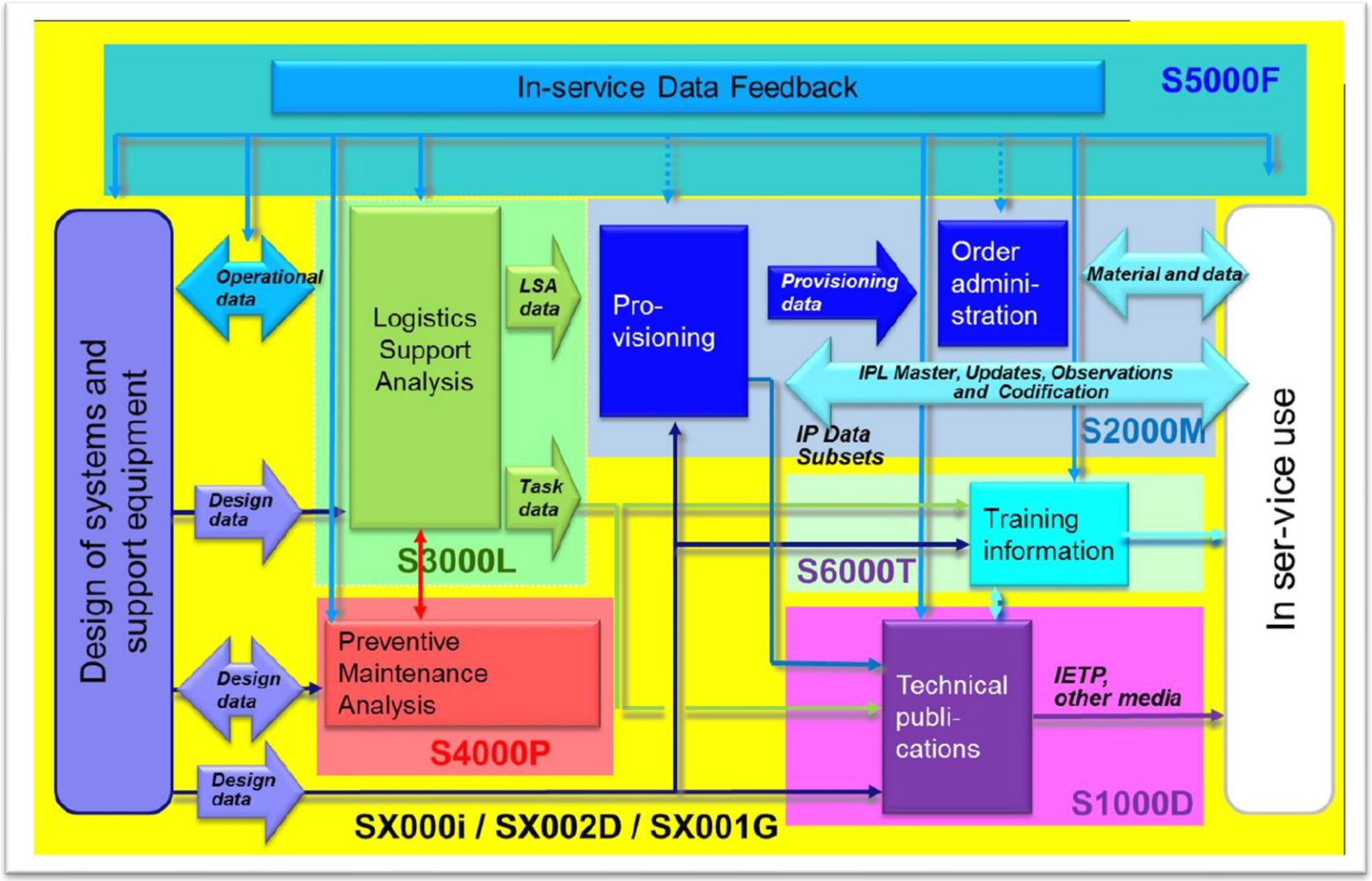
S3000L International specification for Logistic Support Analysis - LSA

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

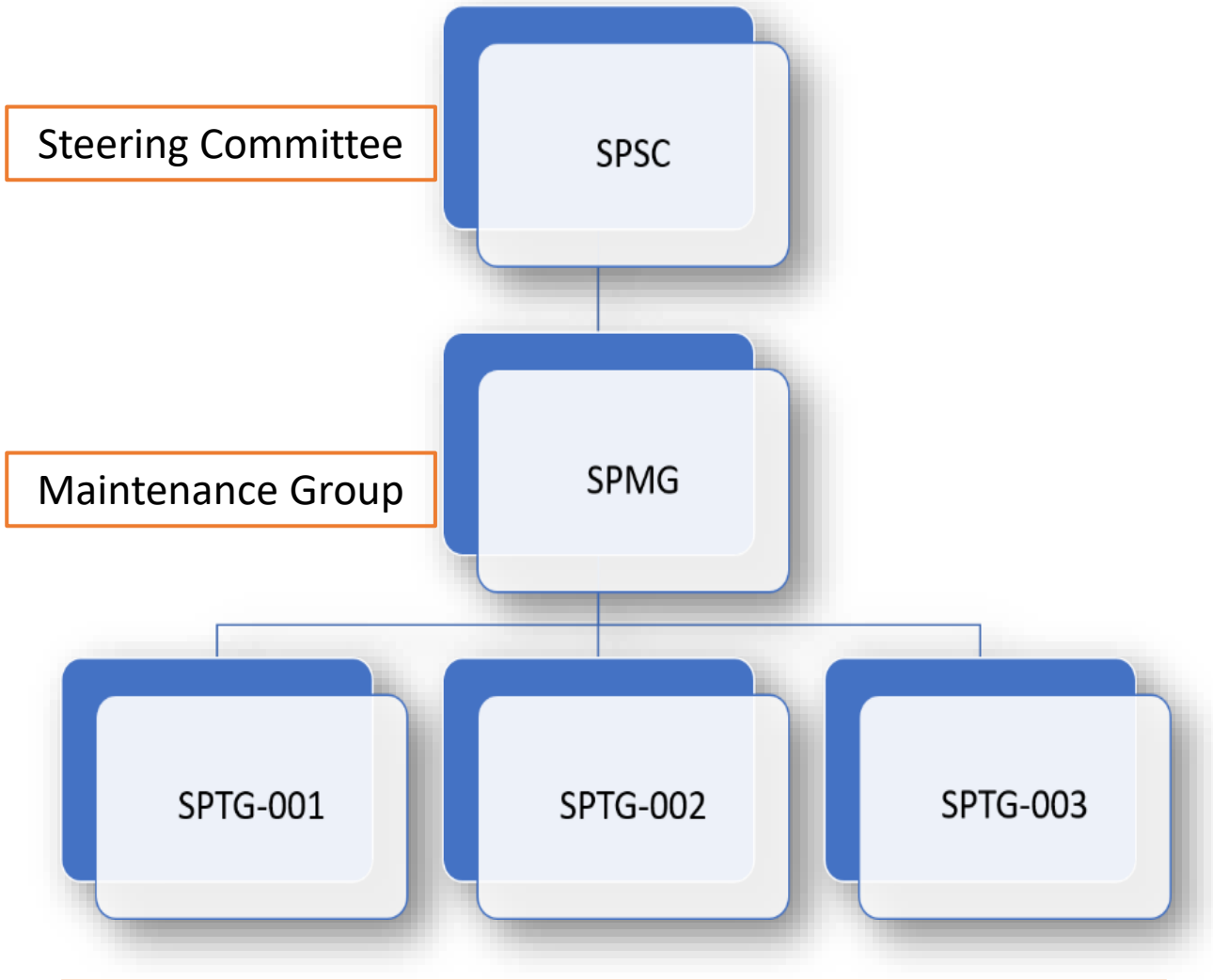


Shipdex shares the same S1000D Vision and Mission

- *To be the most globally adopted specification for efficient interoperable technical information in the product support life cycle*

- *To provide a forward-looking, modular, platform-neutral specification utilizing standardized data structures and business rules to enable the global use community to optimize reuse and interoperability of technical information."*

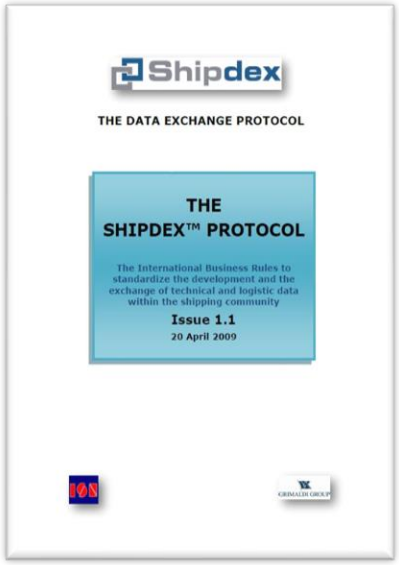
HIGHER QUALITY AT LOWER COST

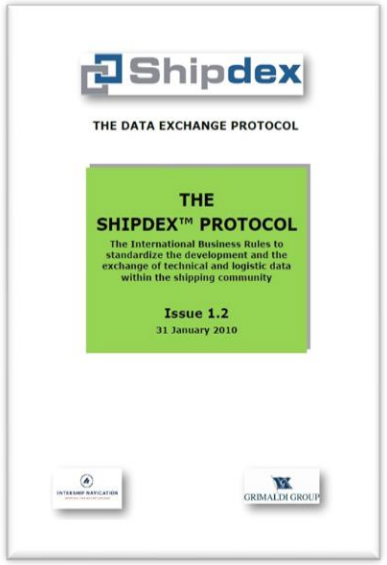


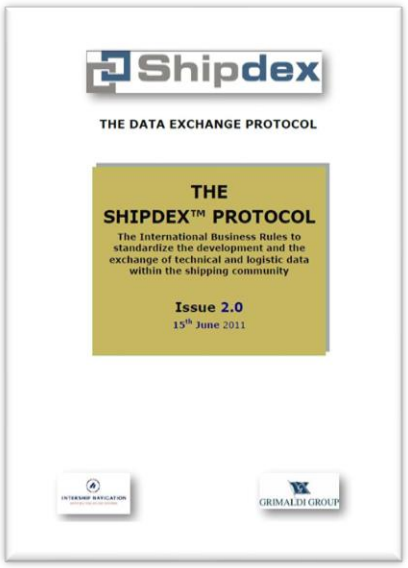
The Shipdex Executive Members:

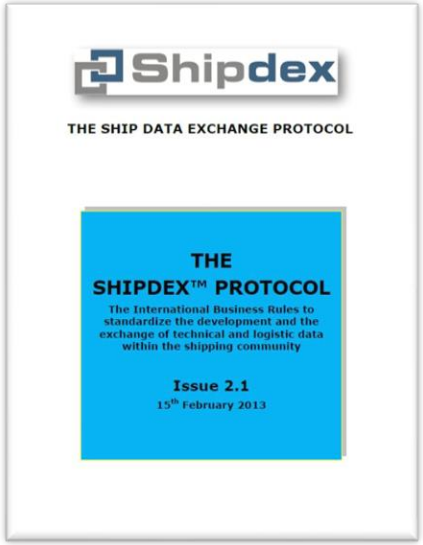
- G&C Shipping
- MAN Energy Solutions
- Mastermind Shipmanagement (*chairman*)
- Kongsberg Maritime (former Rolls-Royce Marine)
- Shipdex Consulting Ltd. (*technical manager*)
- Winterthur Gas & Diesel
- Yanmar Power Technology Co., Ltd.

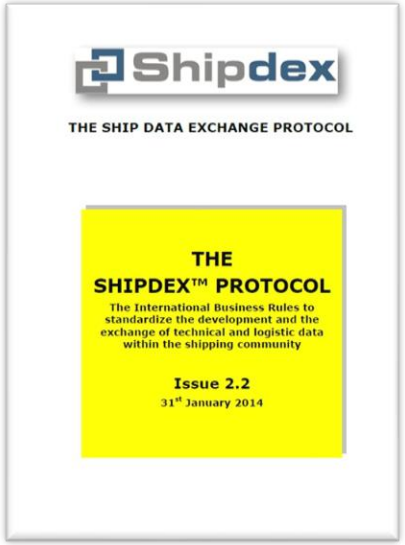
What is Shipdex

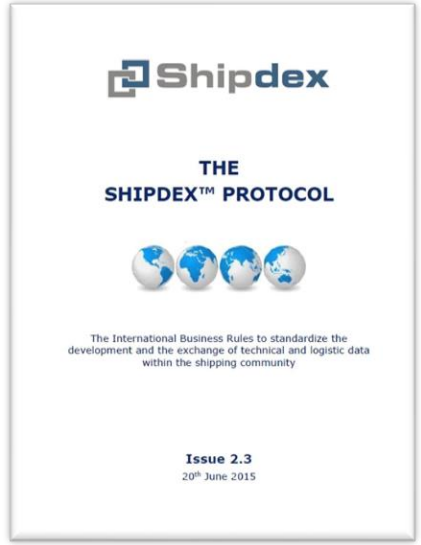


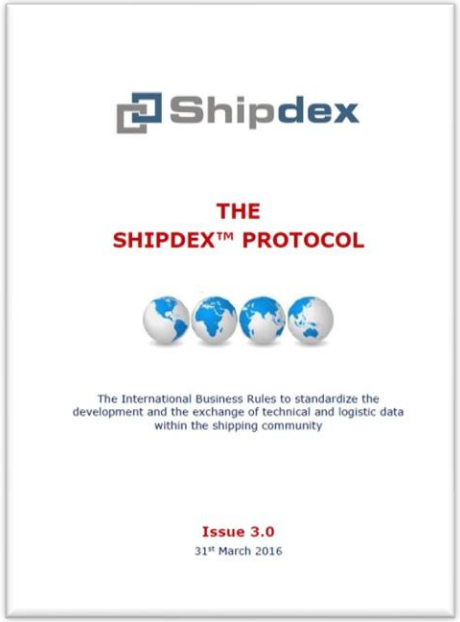


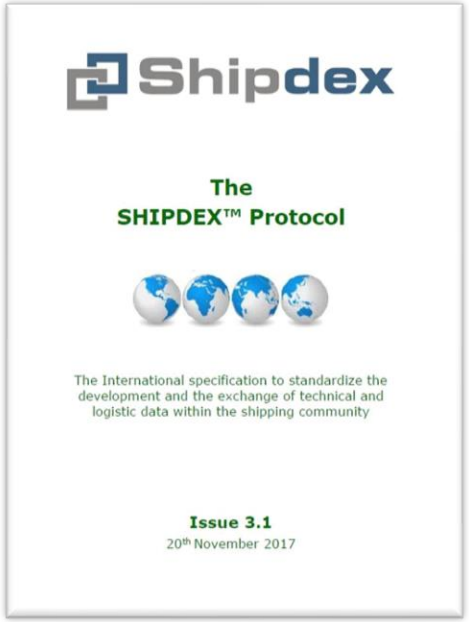


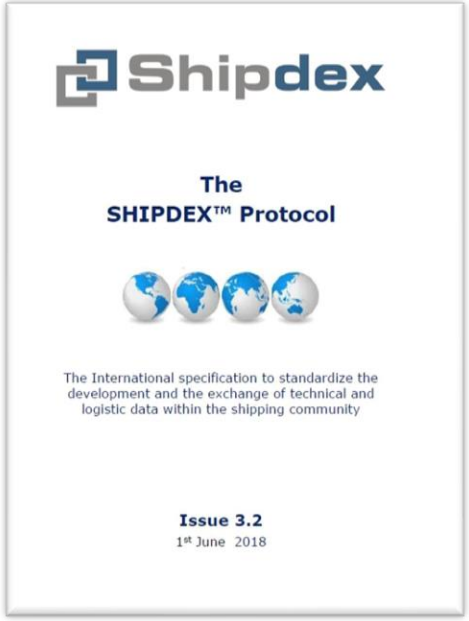


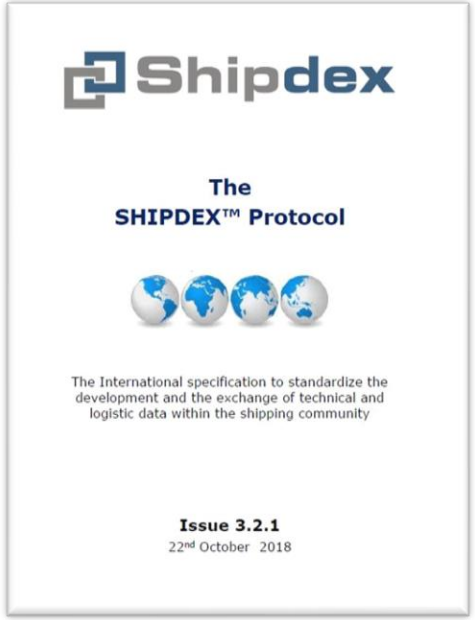


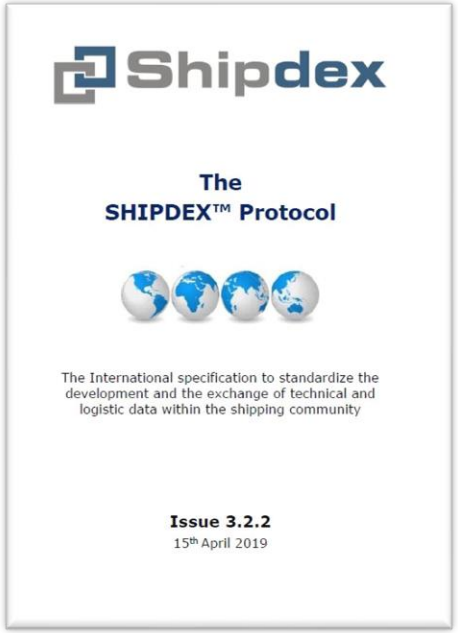








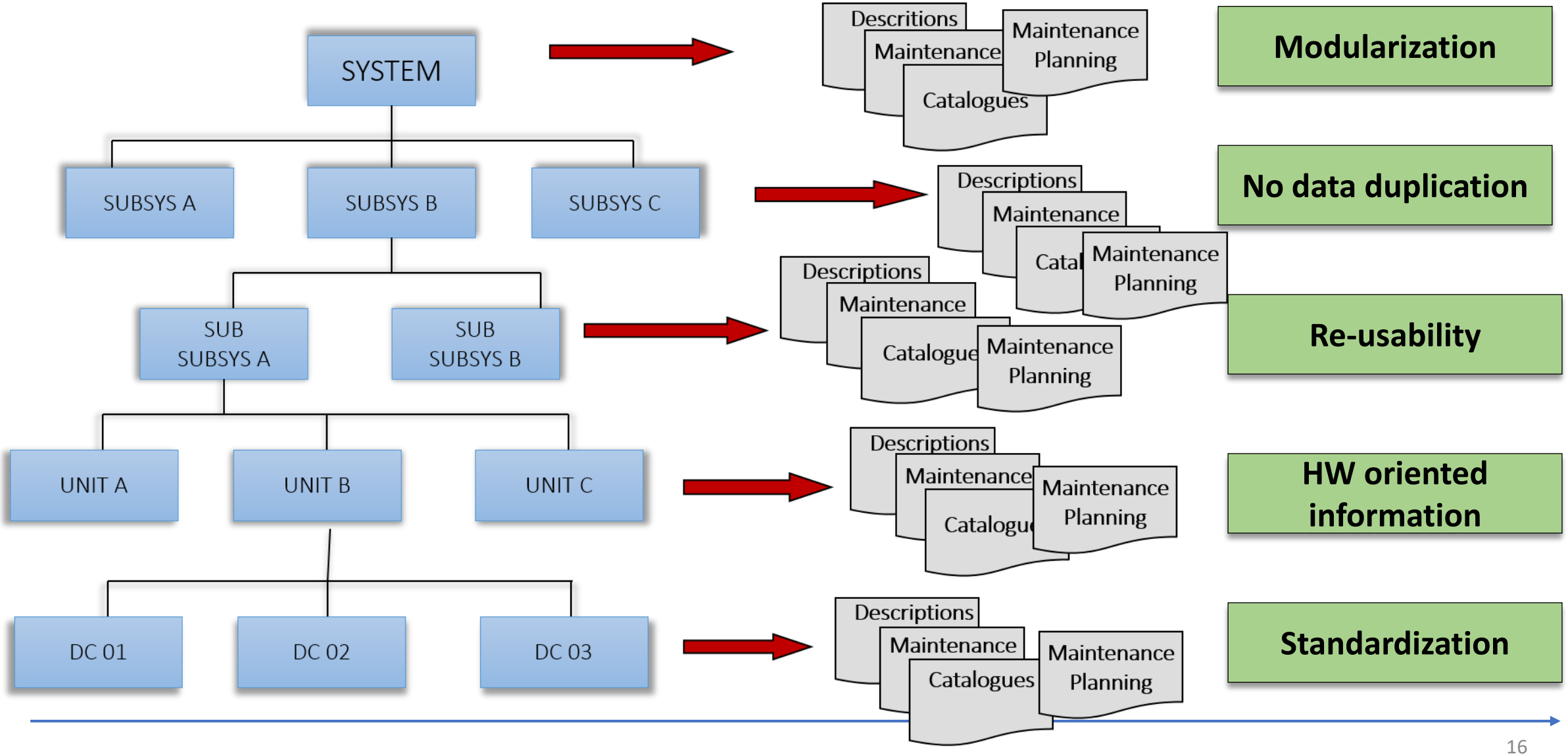




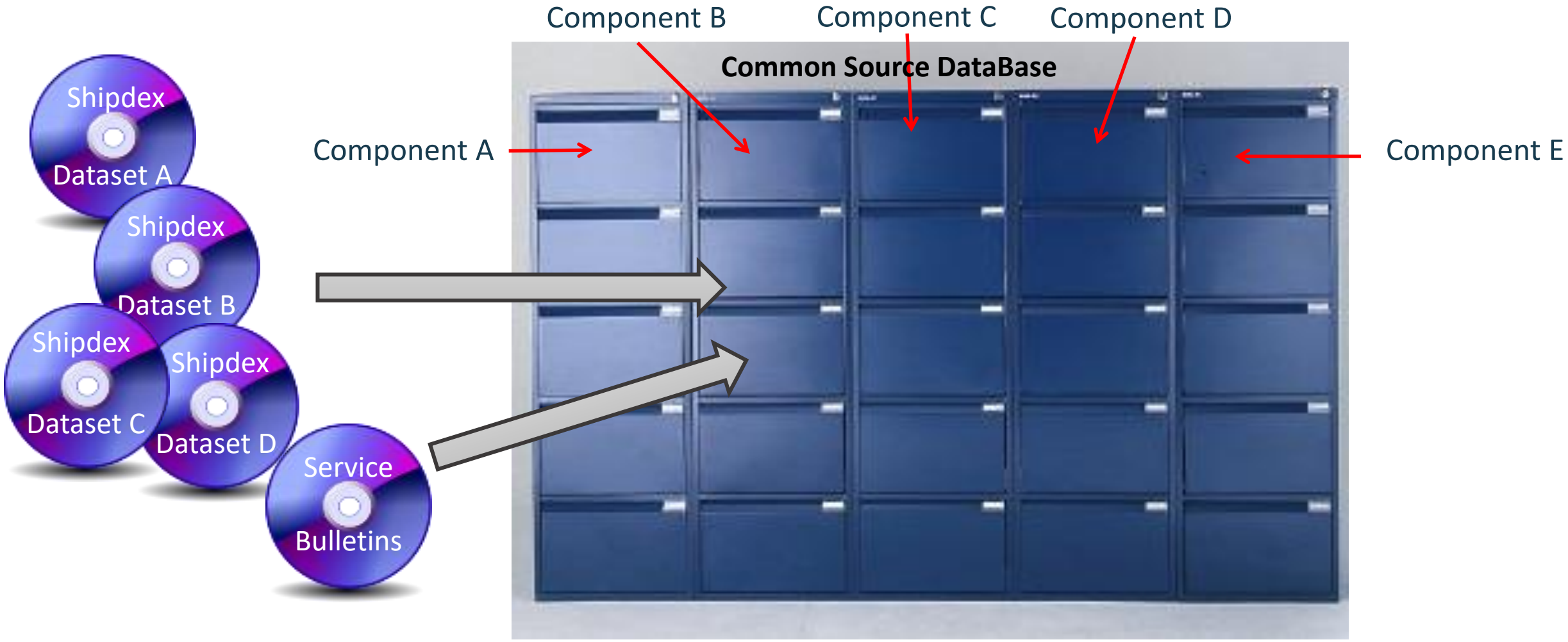
- Shipdex™ covers the following information types (information sets):
  - Description and operation
  - Maintenance procedure
  - Troubleshooting
  - Illustrated parts data
  - Service Bulletin (to update information supplied in Shipdex format)
  - Maintenance Planning
  - Learning (to be used to create 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 define which information sets are required (and more ..)

Shipdex Dataset Structure



The Common Source DataBase (CSDB)



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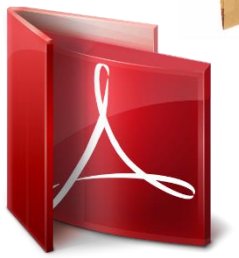
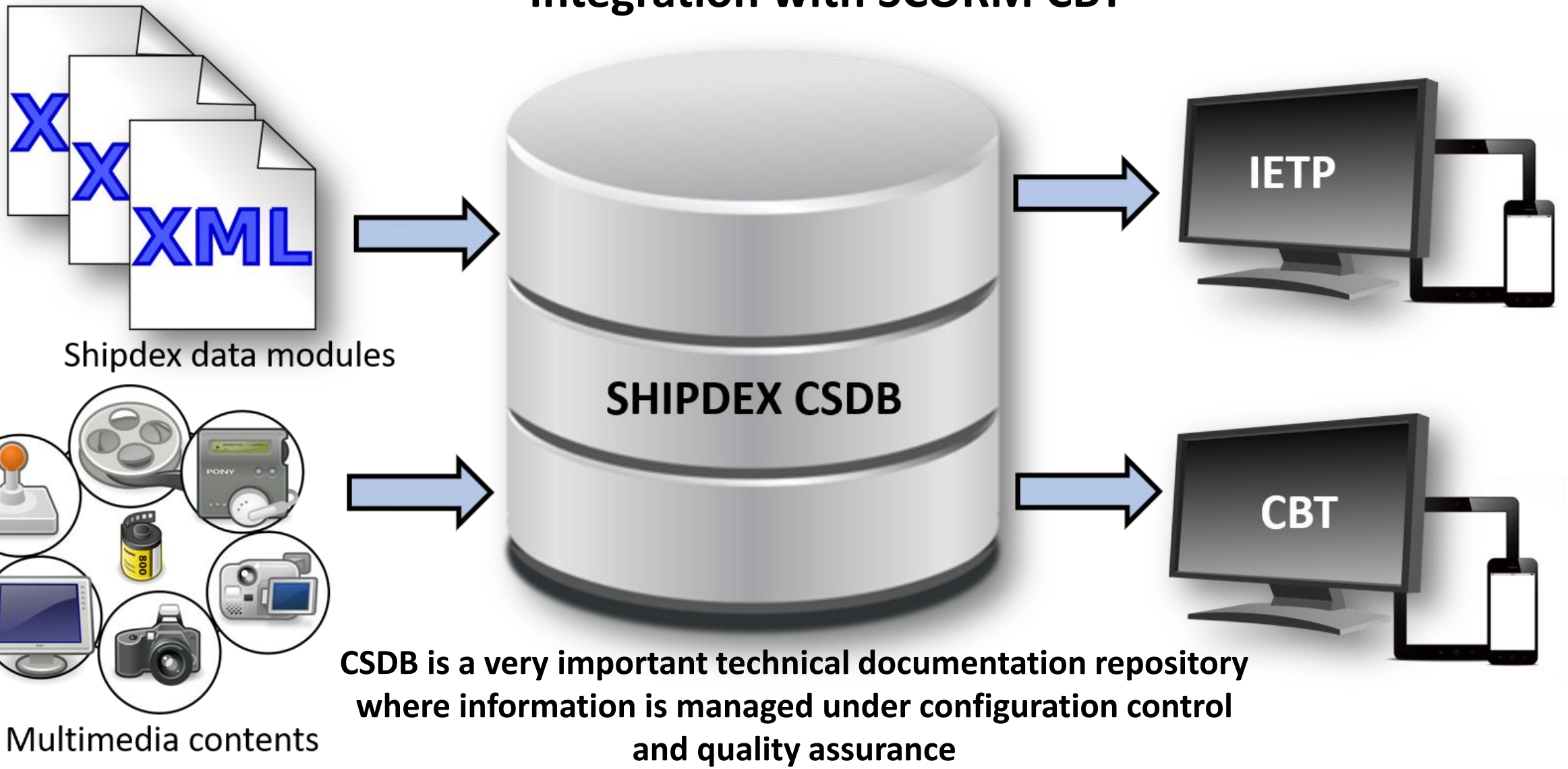
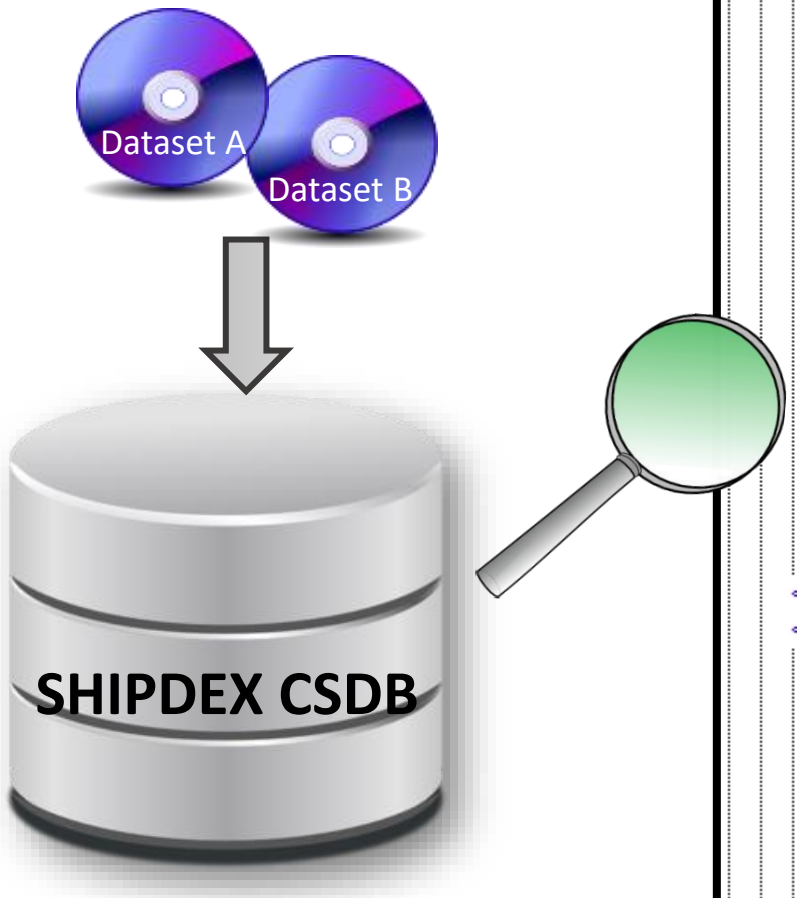


Customised PDF manual produced on-the-fly

Integration with SCORM CBT



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

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Shipdex catalogue from maker A

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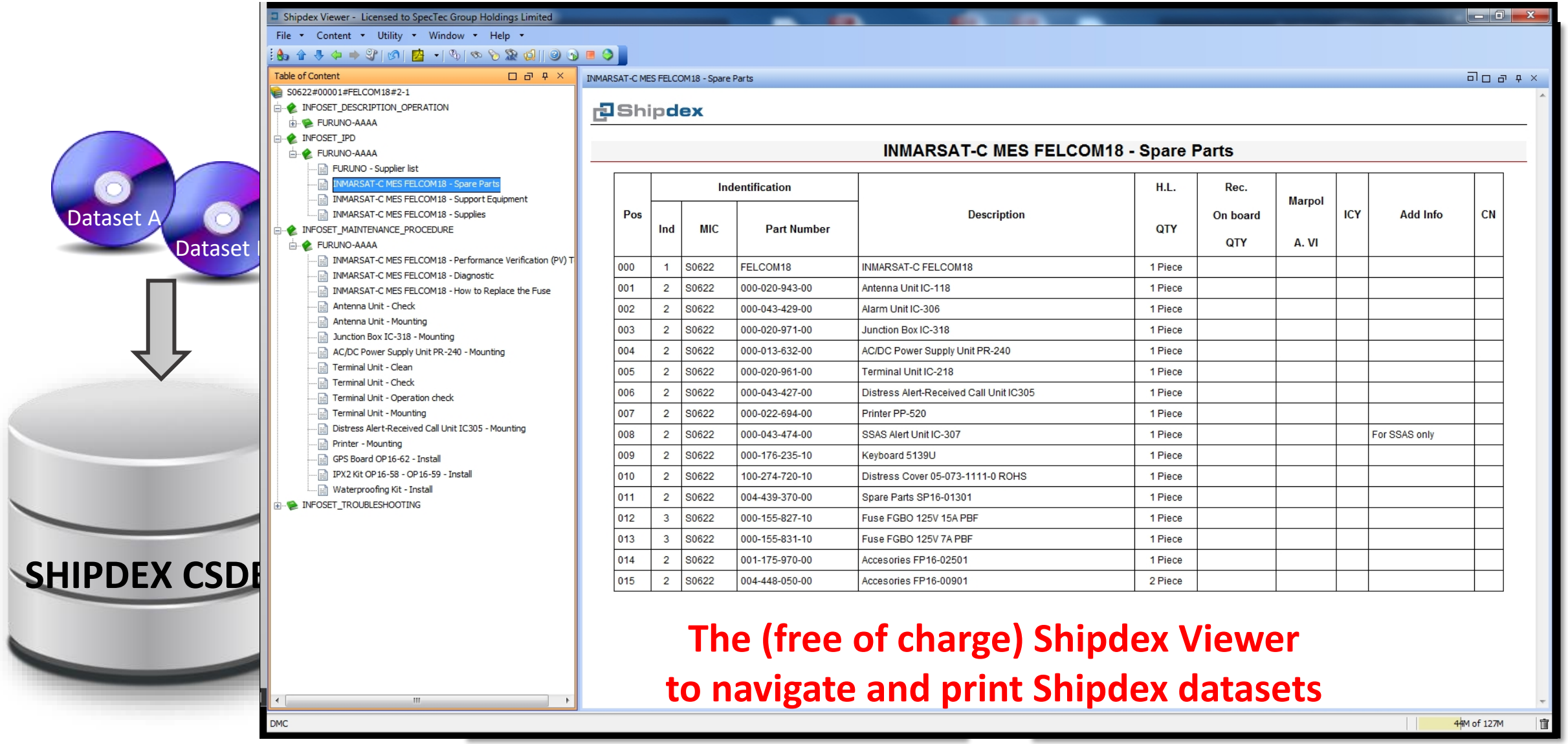
Shipdex catalogue from maker B



Pos	Indentification			Description	H.L. QTY	Rec. On board QTY	Marpol A. VI	ICY	Add Info	CN
	Ind	MIC	Part Number							
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

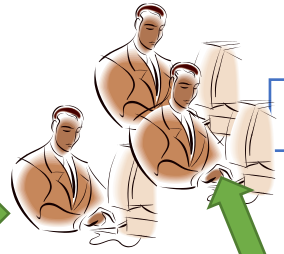
Shipdex catalogue from maker A **Shipdex catalogue from maker B**

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

Internal "world"

Shipdex Dataset

Shipdex Dataset B

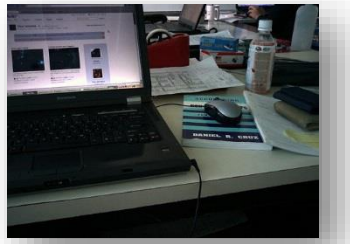
Service Bulletins

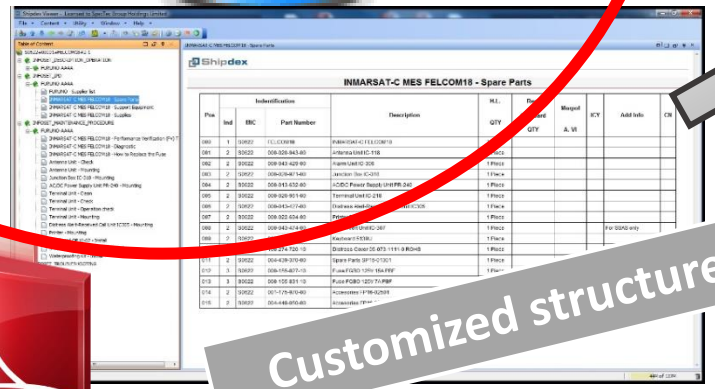
SHIPDEX CSDB

Customer process

ERP

CMMS





Customized structure and layout

External "world"

Computer Based Training

Questions ?

For any more details, contact me at

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