Shipdex

the marine and maritime technical data exchange protocol

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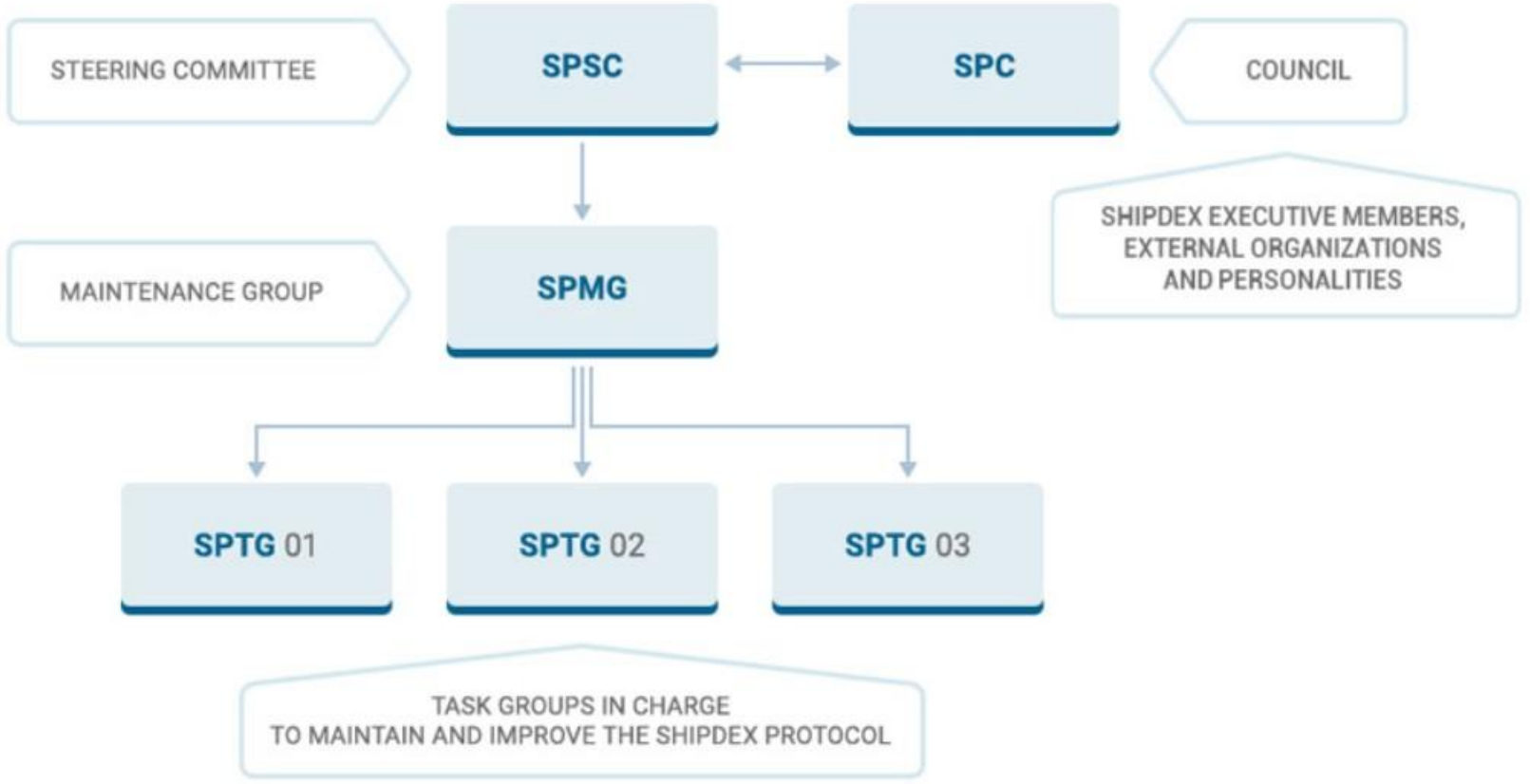
The Shipdex Organization

SHIPDEX

The executive members



The non-profit Shipdex organization's EXECUTIVE MEMBERS

G & C SHIPPING

Everllence

(Secretary General and Technical Manager)

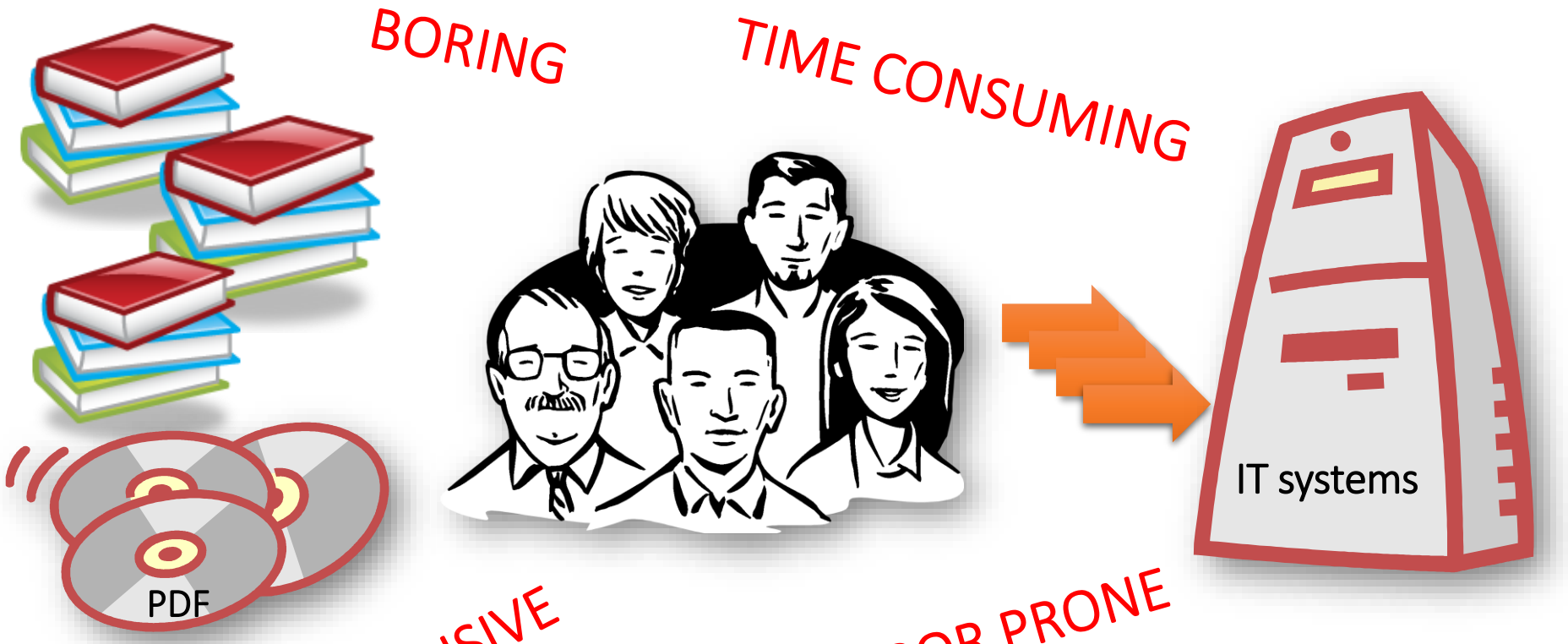
(Chairman)

YANMAR

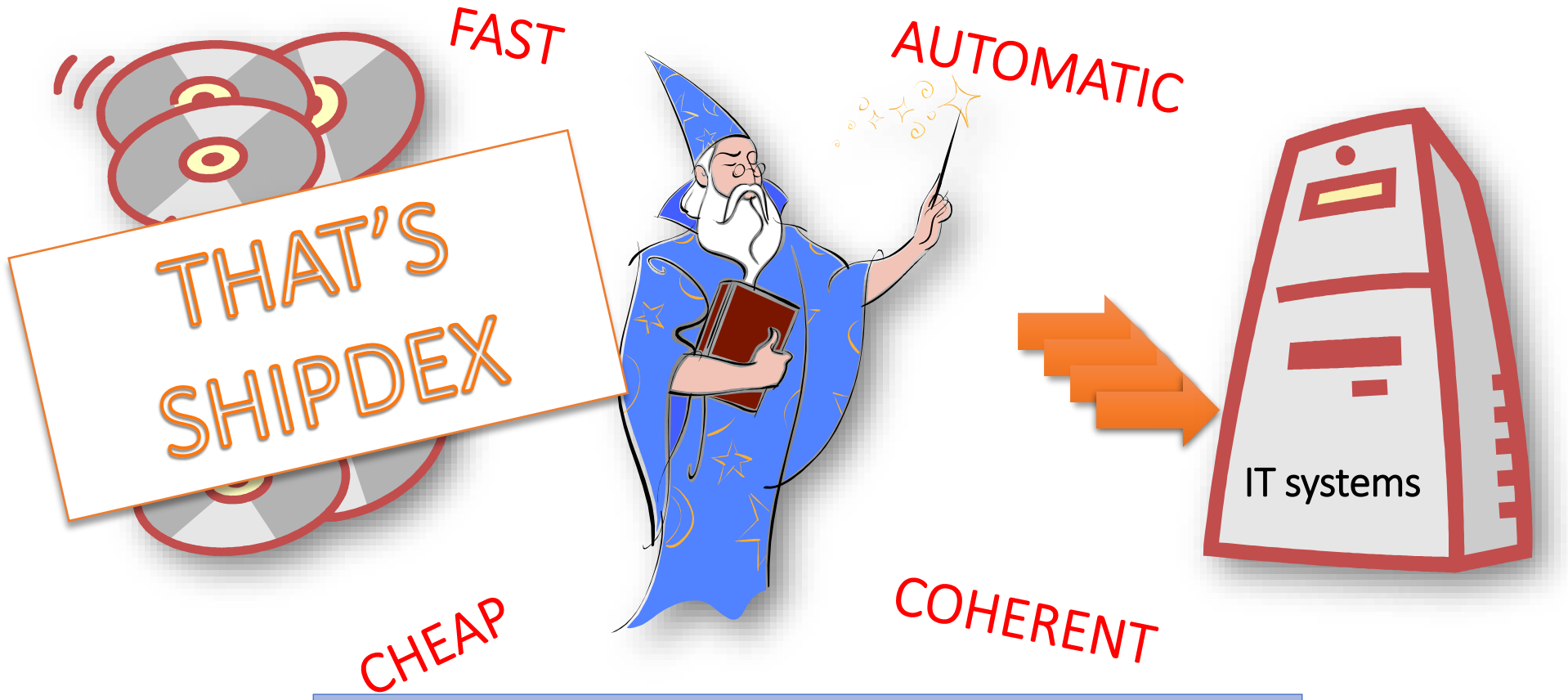
WHO and WHEN someone decided to develop a standard exchange protocol

- 2006: Intership Navigation and Grimaldi Group asked Spectec to find a solution to the long, boring and error prone work to build AMOS BS database
- 2007: first meetings involving their main equipment providers and, periodically, few class societies
- 2008: development of Shipdex protocol and release of Shipdex 1.0
- 2009 – today: Shipdex evolution and application
- 2023: Shipdex protocol has been split into **Shipdex-D** and the new **Shipdex-F**

WHY SHIPDEX ?


BORING
TIME CONSUMING
PDF
IT systems
EXPENSIVE
ERROR PRONE
Shipyard/Ship-owner office

WHY SHIPDEX ?



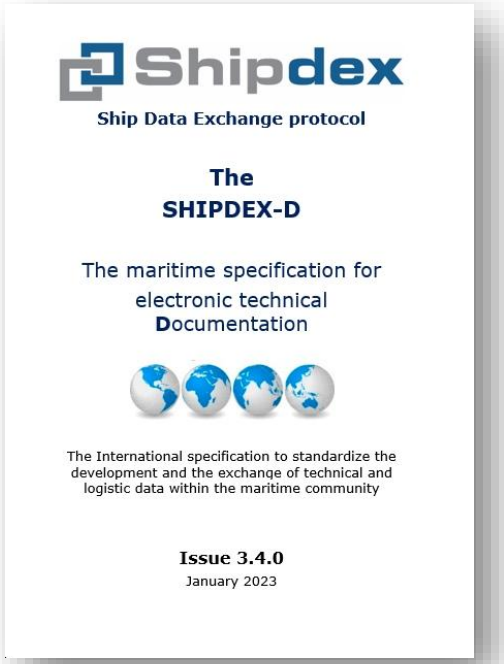
Shipyard/Ship-owner office

Shipdex protocol

Shipdex Data Exchange protocol focuses to support maritime community in producing, exchanging and using equipment technical data in a structured and standardized electronic format.

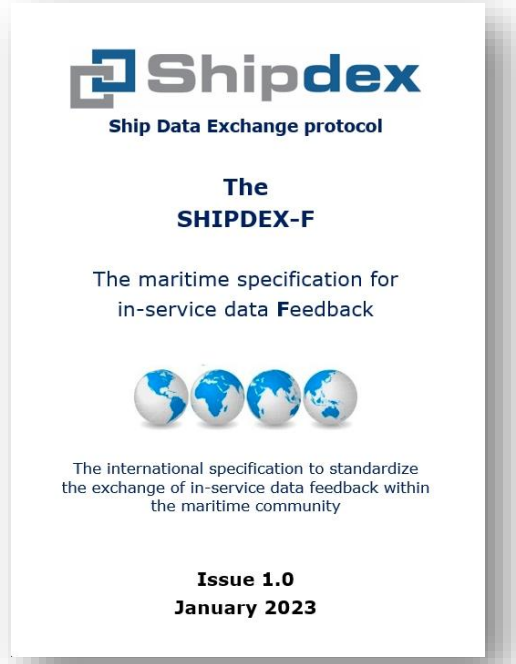
Shipdex is based on the aero-space and defence (**ASD/AIA/ATA e-Business program) S1000D** and on **S5000F**

Today, Shipdex protocol is composed of:



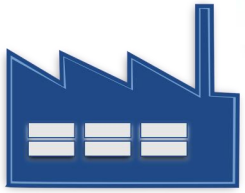
The scope of Shipdex protocol is to give an effective answer to the following main question

Can we improve the Ship Life Cycle management exchanging structured and standardized electronic information ?



Manufacturers

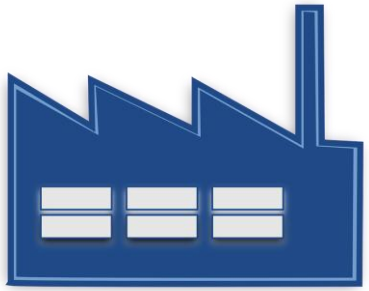
Customers



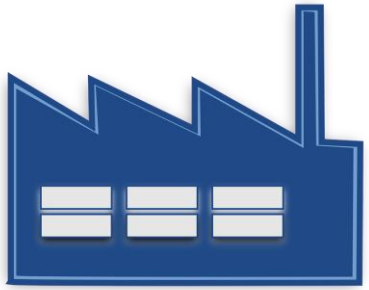
Shipyards

Maritime Authorities and Class societies

Some of the most important technical data from providers to customers



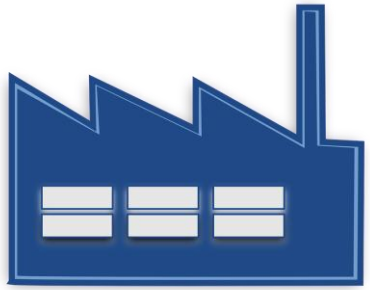
Manufacturers



Shipyards

- Drawings
- Product (engine, pump, etc) composition (breakdown)
- How to operate the product
- How to maintain the whole product and its physical components:
  - Troubleshooting
  - Preventive maintenance
  - Corrective maintenance
  - Required resources (personnel, spare parts, consumables, etc.)
  - Spare parts, support equipment and consumables catalogues
- Service Letter/Service Bulletin
- Training (CBT)

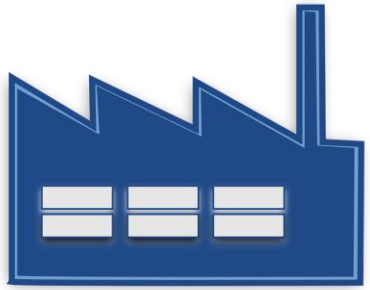
The current way to provide technical data to customers



Manufacturer

Technical data

Customer



Shipyard

Technical data

Customer

Criticalities:

- The data exchange is done providing “unstructured pages of information” instead of “structured electronic information”.
- Every provider has different information structure and quality, different layouts and chapter structures
- Every customer cannot reuse or import the data automatically into company repositories/databases/IT systems

This is just DATA DIGITIZATION

Some of the most important technical data from customers to providers (in-service data feedback)

Customer

Customer

- ❑ Product failures
- ❑ Maintenance tasks performed
- ❑ Spare parts used
- ❑ *Product performances in different scenarios*
- ❑ *CO2 emissions*

The current way to provide in-service data feedback to providers

Manufacturer

In-service data feedback

Customer

Shipyard

In-service data feedback

Customer

Criticalities:

- The data exchange is done providing “unstructured pages of information” instead of “structured electronic information”.
- The data exchange is done using a provider/customer “proprietary” template
- Providers and Customers must develop their own way to produce/export/import data feedback

This is just DATA DIGITIZATION

- **HIGH MANAGEMENT COSTS**
- **HIGH RISK TO USE NOT UPDATED INFORMATION**
- **HIGH RISK TO BUY THE WRONG SPARE PARTS**
- **NO INTEGRATION WITH COMPANY IT SYSTEMS**

In other words:

LOW QUALITY AT HIGH COST

A Nightmare !

IS THERE AN EFFECTIVE SOLUTION ?

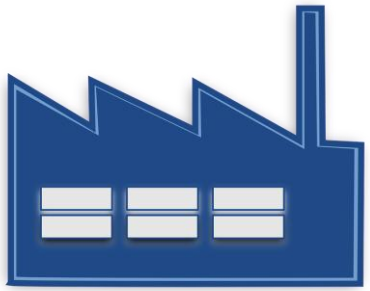
The Effective Solution is

The Effective Solution is

Shipdex™
the green (r)evolution

to **information**

The Shipdex solution

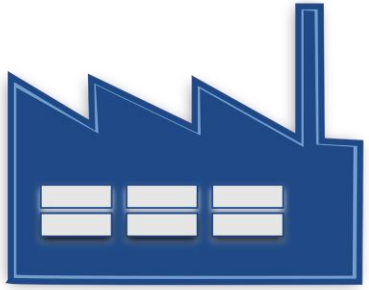


Manufacturer

Technical data

Shipdex

Customer



Shipyard

Technical data

Shipdex

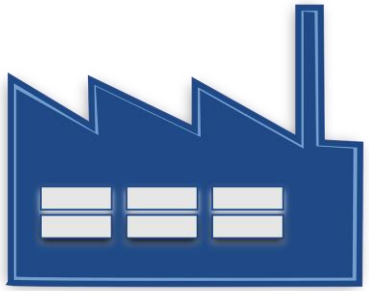
Customer

Advantages:

- The data exchange is done providing "structured and standardized electronic information" instead of "unstructured pages of information"
- Information is separated from layout that can be defined/changed later by every single user without affecting the data
- Same data structure and quality.
- NO need to retype the information into IT systems (ERP, CMMS, etc). Structured electronic information can be imported into any IT system instead of retyping the data

This is DATA DIGITALIZATION

The Shipdex solution

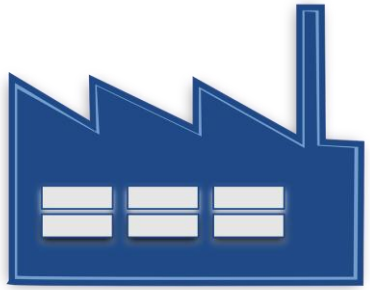


Manufacturer

Shipdex

In-service data feedback

Customer



Shipyard

Shipdex

In-service data feedback

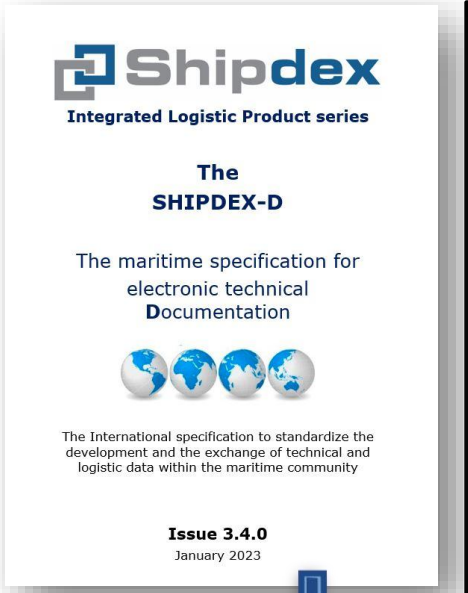
Customer

Advantages:

- Every customer provides its manufacturers with in-service data feedback in a structured and standardized electronic format
- Every provider can import in-service data feedback into its own IT systems
- Structured and standardized data can be exported/imported into any kind of IT system instead of retyping activities
- providers can use the information to improve equipment and maintenance plan quality

This is DATA DIGITALIZATION

Data exchange within maritime community in Shipdex format

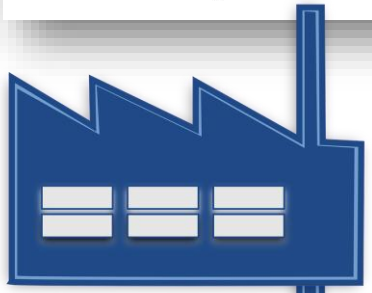


From providers (static data):

- ❑ Drawings
- ❑ Product (engine, pump, etc) composition (breakdown)
- ❑ How to operate the product
- ❑ How to maintain the product and all its physical components:
- ❑ Service Letter/Service Bulletin

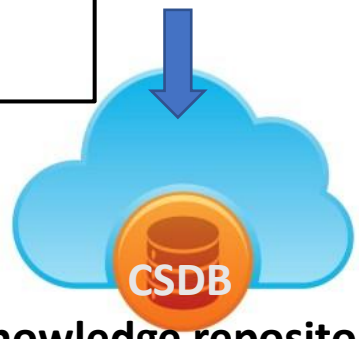
From customers (dynamic data):

- ❑ Product failures
- ❑ Maintenance tasks performed
- ❑ Spare parts used
- ❑ Product performances in different scenarios
- ❑ CO2 emissions



Shipyard

Manufacturer



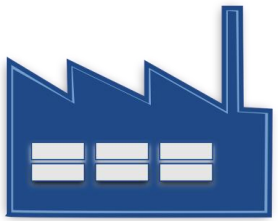
knowledge repository

Customer

Improvement of the whole Life Cycle Management

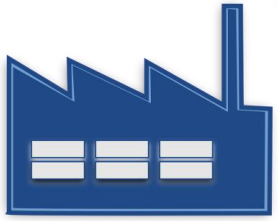
Improvement of the whole Life Cycle Management

- Improvement of the product by modifications and retrofit activities
- Enhancement of the maintenance and support concept
- Cheaper products and services
- Improved safety
- Environmental benefits
- Maritime Authorities wider involvement



Manufacturers

Customers



Shipyards

Maritime Authorities and Class societies

PRODUCT LONGER AND CHEAPER LIFE

for your kind attention

For any other question contact me at

team@shipdex.org