

En control,
En cualquier lugar,
En cualquier momento.

Mr. José Carlos García (Damen)
Mr. Pierre van Brussel (ILIAS)
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SPEAKERS

Name and surname: José Carlos García
Role: ILS Team Lead
Company : DAMEN NAVAL
Booth in Colombiamar: #66
Email: J.Garcia@damennaval.com
Number phone: +31 623359814



Name and surname: Pierre van Brussel
Role: Solution Engineer
Company : ILIAS
Email: Pierre.Van.Brussel@ilias-solutions.com
Number phone: +32 27088150



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DAMEN +ILIAS

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Integration

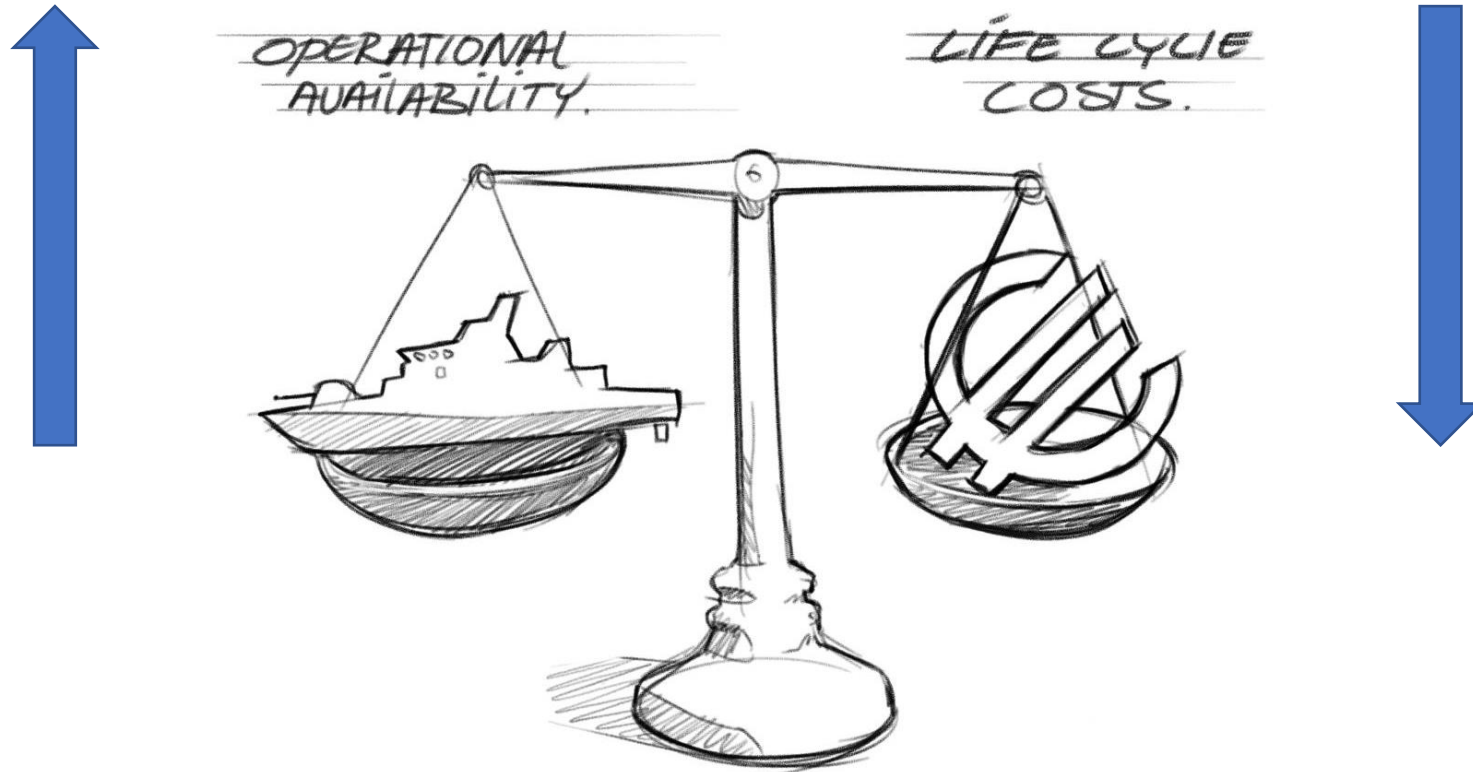
Integration with Legacy Systems

06

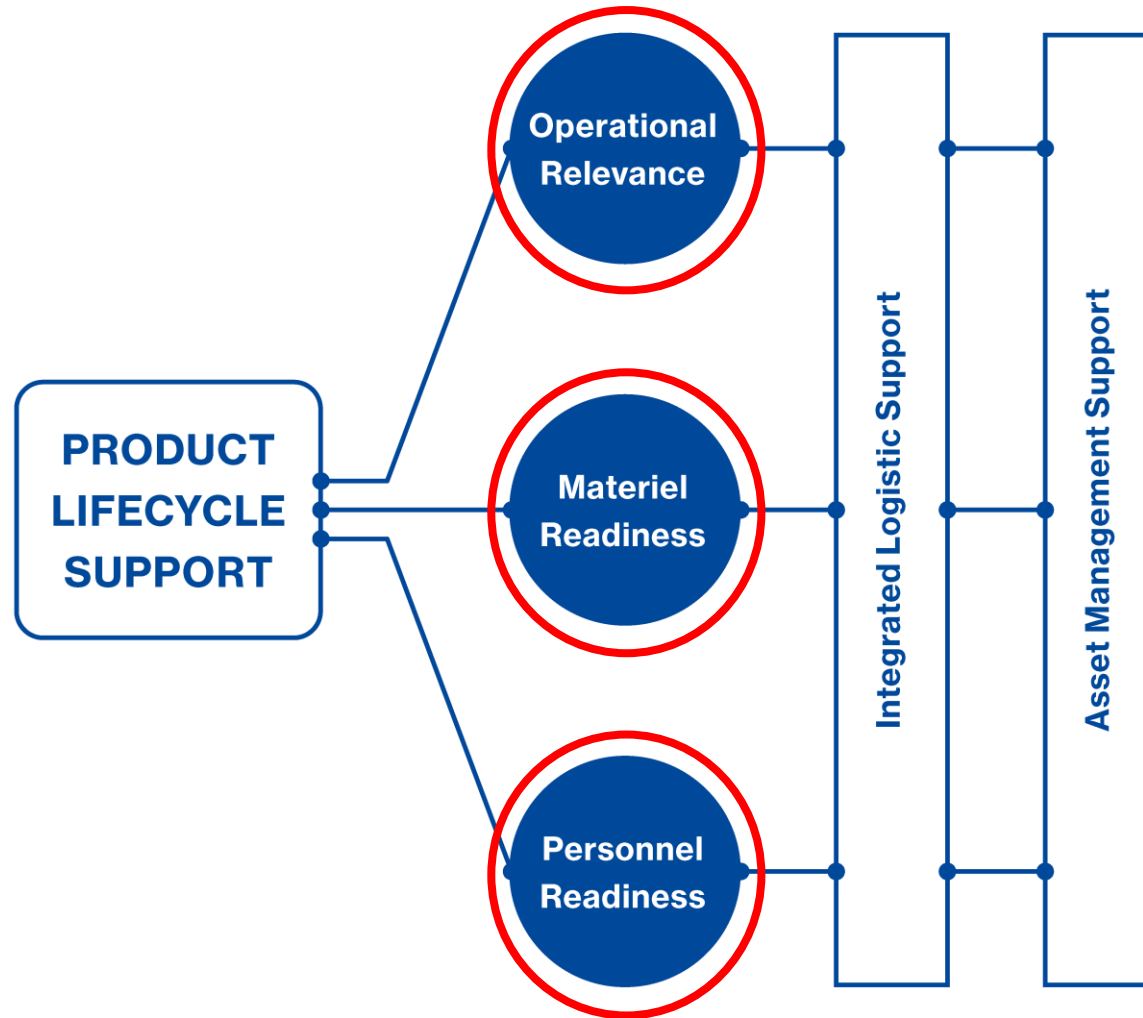
Summary

Why A2M ?
Conclusion

Life Cycle Management



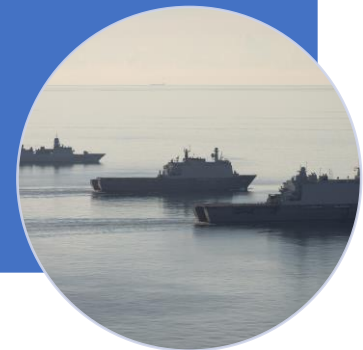
Product Lifecycle Support





- Supporting our Customers in their missions through supporting materiel readiness, personnel readiness and maintaining operational relevance
- Creating sustainable partnership with our Customers and local industries
- Transfer of Technology to enable local support for our vessels
- Providing Lifecycle Support Services with A2M Autonomous Asset Management
- Be the #1 Defense Management System Worldwide
- Strategic partnership between DAMEN and ILIAS on Naval industry

DAMEN + ILIAS

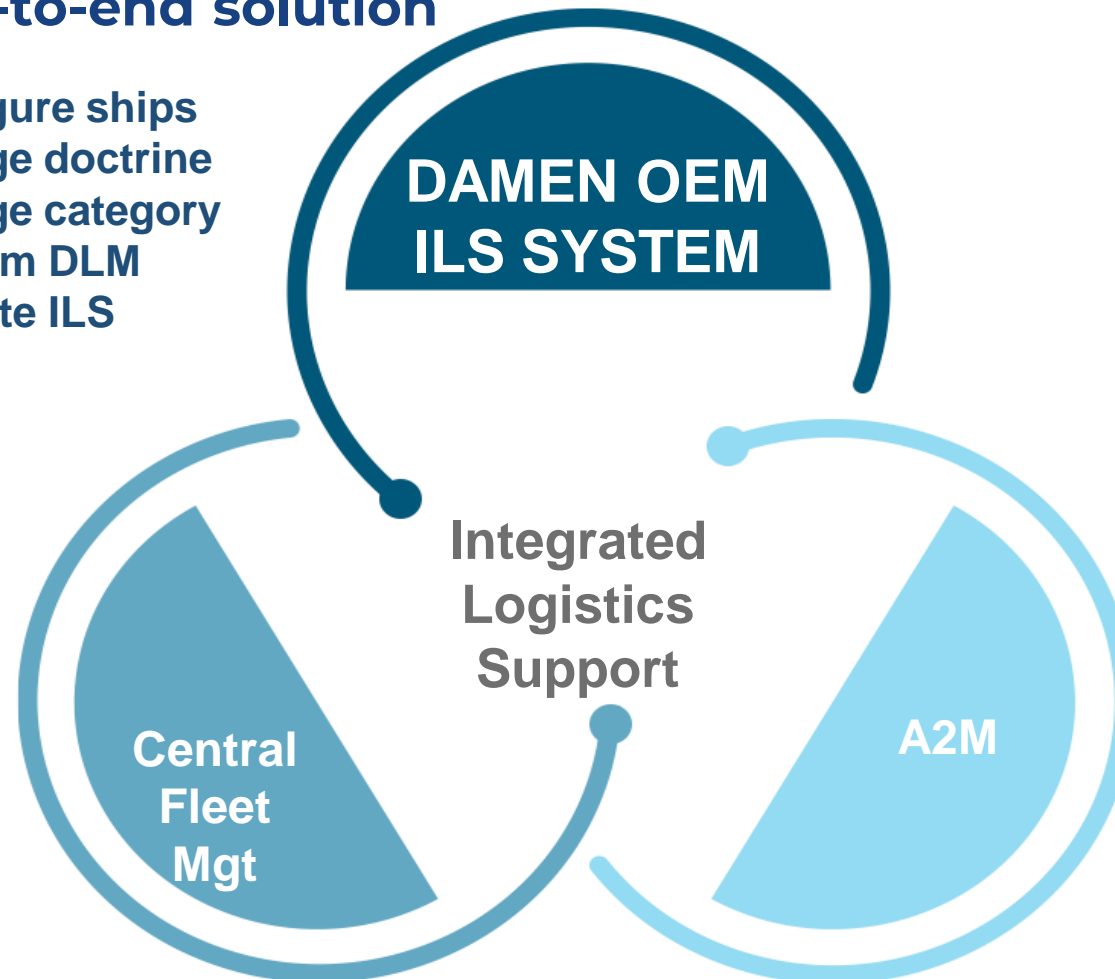


30 years of in-service support

The need for an end-to-end solution

- Configure ships
- Manage doctrine
- Manage category
- Perform DLM
- Execute ILS

- Operate Fleet
- Organize mission
- Organize supply
- Monitor activities



Manage data
between
disconnected
systems

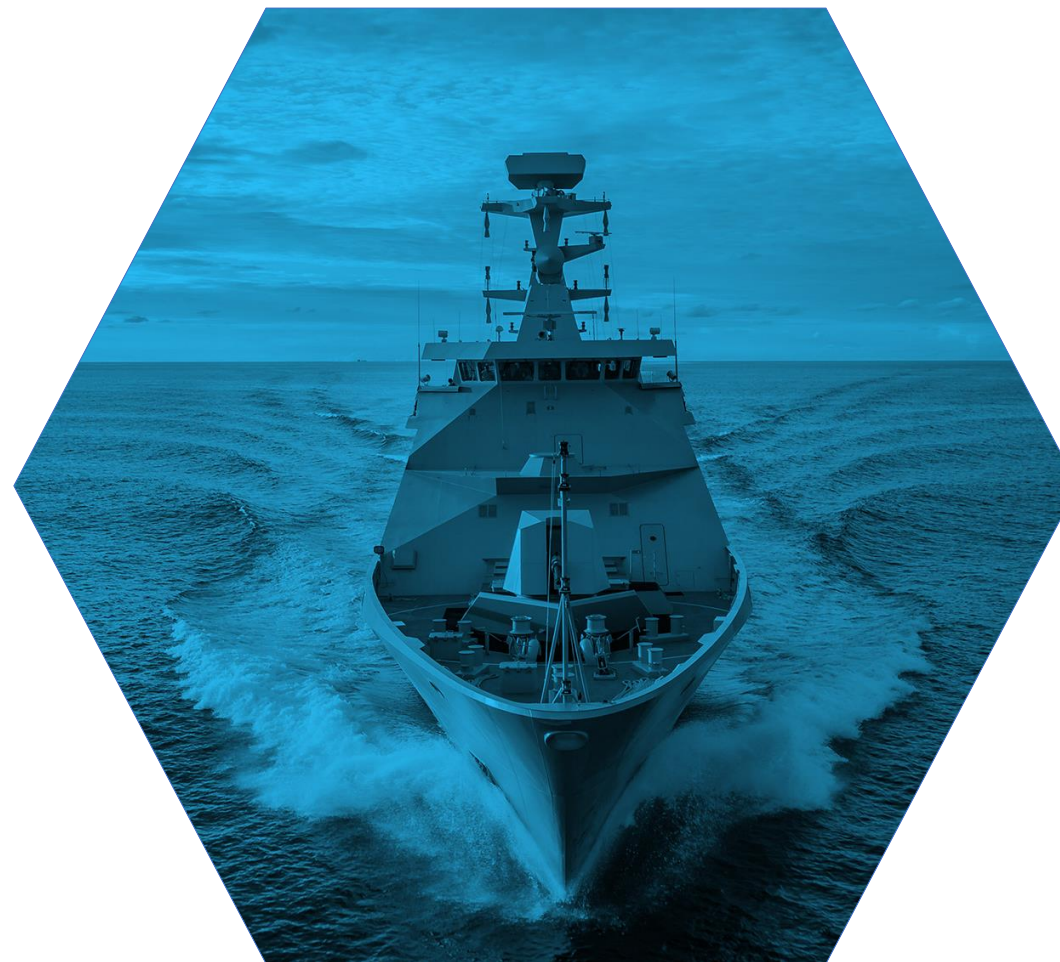
- Operate ship
- Maintain readiness
- Perform maintenance
- Organize resources
- Keep track on supply

Autonomous Asset Management



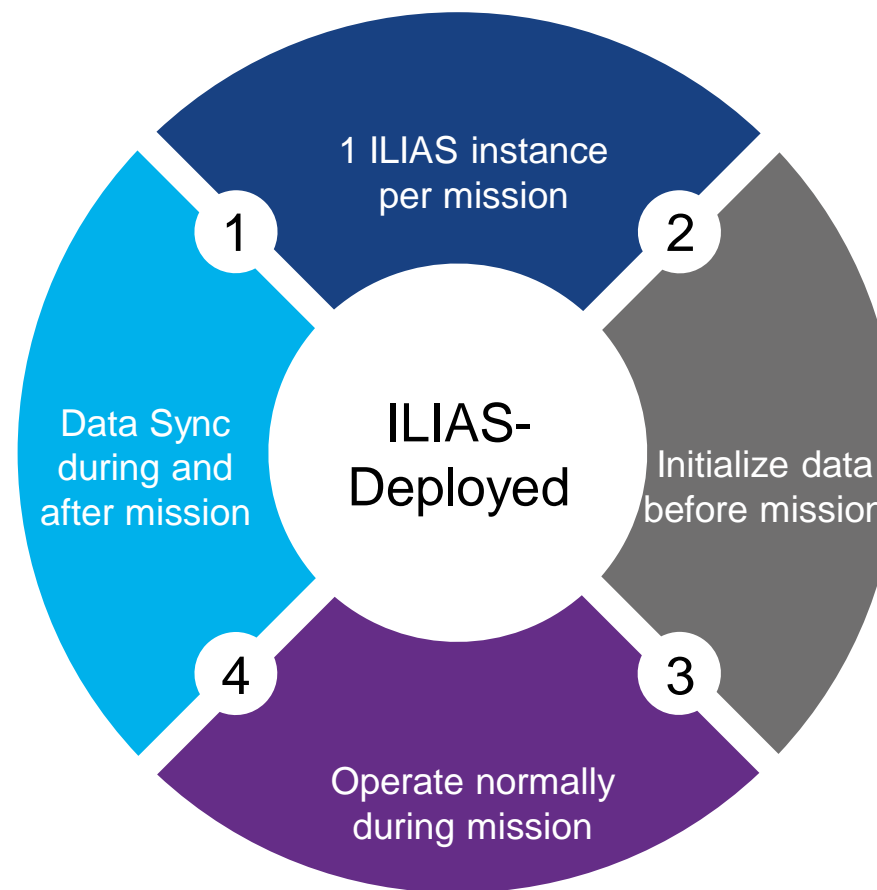
Vision

A fully functional ILIAS
Deployed (mobile) System
with ***multiple*** and
independent instances,
capable of working in
highly constrained
operational environments

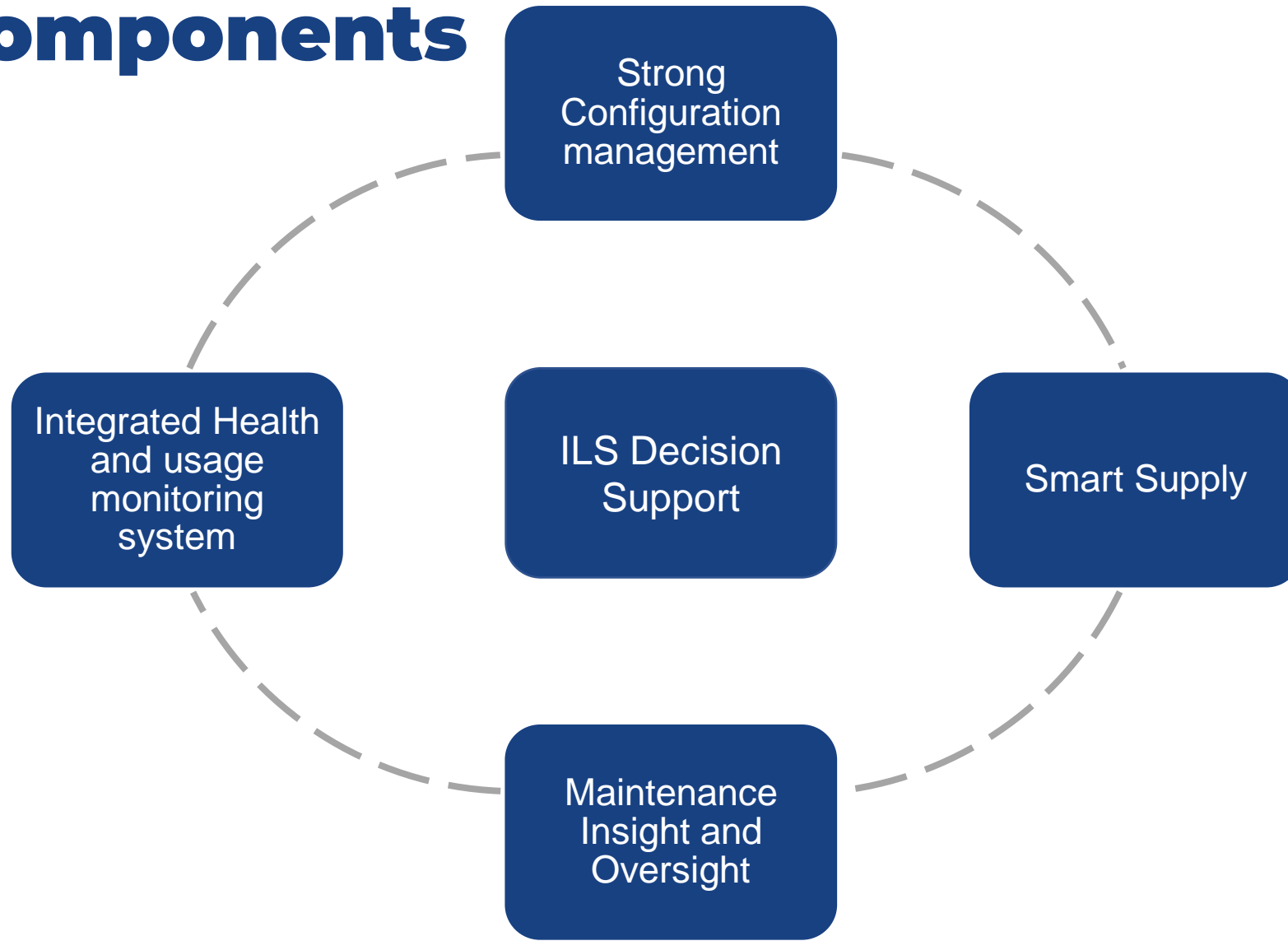


Concept

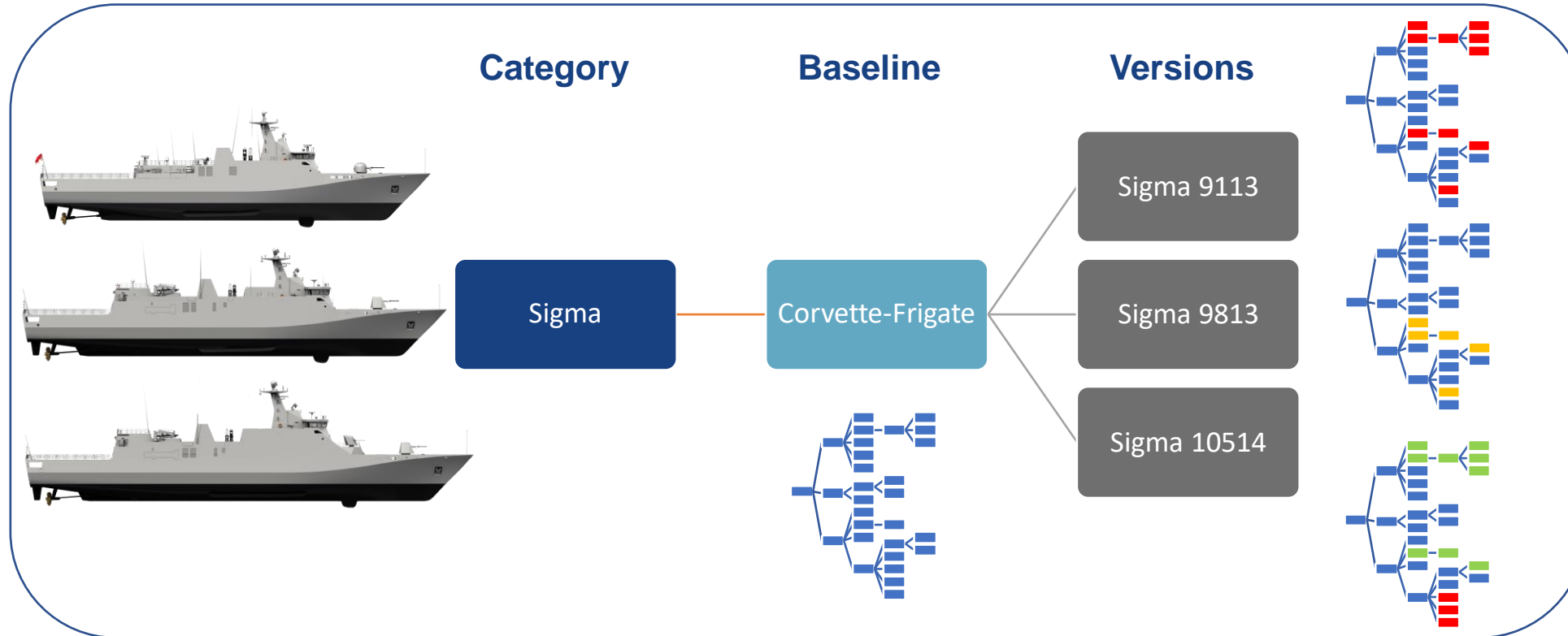
- Same application in Deployment as in Central (known system)
- Data copied before mission (full or partial)
- Full autonomy in deployment to manage deployed assets and stock and ensure readiness
- Data synchronization between central and deployed based on small messages



Key components



Strong Configuration management as backbone



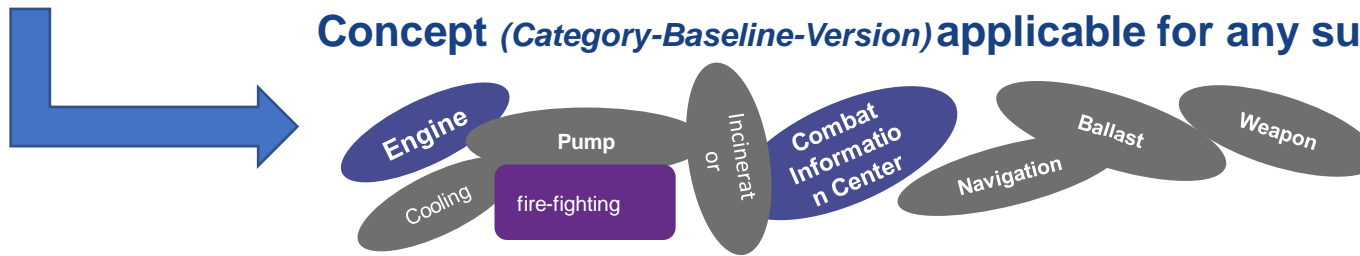
Any material categories from vessels up to detailed component

Detailed asset configuration checking valid applicability

Tracking which version is installed on which vessel

Collecting Return of experience and distributing Service bulletin

Concept (Category-Baseline-Version) applicable for any sub-system

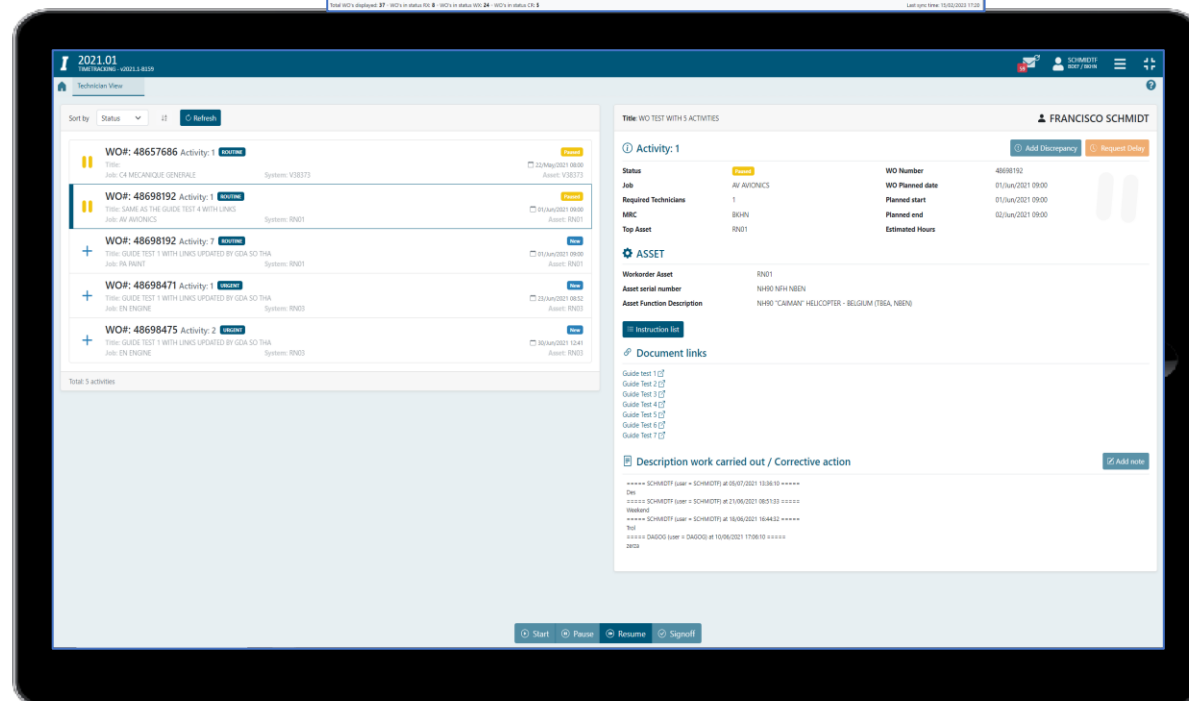




Just in time maintenance

**Always latest
version of
manual**

Technician as sensor

[illegible][illegible]

Smart Material Supply Chain



Supply and
Procurement

Factory or Warehouse

Full Inventory

Barcode to identify
your item and perform
your processes

Synthetic view on Maintenance status of sub-system




Material
Readiness

Immediate view of maintenance Status of each sub-systems of the current vessel

2022.02
FORMA - 2022.2-0208

Asset Maintenance Status



F287Sigma 9113

Hull structure

Propulsion plant

Electric plant

Command and surveillance

Auxiliary systems

Outfit and furnishing

Armament

Workorder Planning

This workbook provides the maintenance repair center with a comprehensive view of all resources to be planned for open workorders.

Top / Work Package WO

PPM Filter

Type filter

Date

Date Filter Type

MRC Tree

Parent / Execution Phase WO

MOD Filter

Status Filter

01-Feb-23

26-Apr-23

Planning Type

All with Resources

MRC

CRIP

(Multiple values)

Activities

(Multiple values)

Material

(Multiple values)

MRC	MRC Description	Number of Work Orders	Facilities to Allocate	Hours to Allocate	Materials to Allocate	Tools to Allocate
CRIP	CC R&A - MRC VEH HY QC	48		865.0	191	

Activity Number	Trade	Trade Title	Plan Date	Duration	Estimated Hours	Materials	Tools
1	L5	TECH PIR	14-Feb-23	26	149.0	1	
2	L5	TECH PIR	14-Feb-23	1	16.0		

Activity Number	NSN	UOM	Needed	Allocated
1	2910-13-122-5547	EA	1.0	0.0

Workorders (3,816)

Select at least one MRC to populate the workorders. (Multiple values)

Workorder Number	Status	Type	MRC	MTX Type	MTX Code	Title	Plan Date	Estimated Start Date	Estimated End Date	Duration	Top Asset	Asset	Asset Function	Activities	Facilities to Allocate	Hours to Allocate	Materials to Allocate	Tools to Allocate
Grand Total														183		865.0	191	
45485476	E	SH	CRIP	PPM	AIV022	MAINT PIR INSP I-LEVEL (20.000.. Null		Null	Null	26	V69697	V69697	AIGN	2		165.0	1	
46220759	P	SH	CRIP	PPM	AIV006	MAINT PIR 4 YEAR WINCH TR80..	10-Feb-23	Null	Null	7	V69557	V69557	AIFU	1		7.0		
47720532	R	SH	CRIP	PPM	AIV001	MAINT PIR 2/4 YEAR POWERPAC..	10-Feb-23	10-Feb-23	12-Feb-23	16	V69557	V69557	AIFU	1		42.0	14	
47733462	R	MO	CRIP	MOD	RBMO54	INSTALLATION UWH TYPE IV VE..	29-Jun-18	13-Feb-23	21-Feb-23	1	V69535	V69535	AIFU	4		10.7	4	
47733465	R	MO	CRIP	MOD	RBMO54	INSTALLATION UWH TYPE IV VE..	29-Jun-18	13-Feb-23	20-Feb-23	1	V69523	V69523	AIFU	4		15.6	4	
47733466	R	MO	CRIP	MOD	RBMO54	INSTALLATION UWH TYPE IV VE..	29-Jun-18	13-Feb-23	21-Feb-23	1	V69538	V69538	AIFU	4		8.7	4	
47733468	R	MO	CRIP	MOD	RBMO54	INSTALLATION UWH TYPE IV VE..	29-Jun-18	13-Feb-23	23-Feb-23	1	V69560	V69560	AIFU	4		8.0	4	
47733471	R	MO	CRIP	MOD	RBMO54	INSTALLATION UWH TYPE IV VE..	29-Jun-18	13-Feb-23	20-Feb-23	1	V69528	V69528	AIFU	4		9.6	4	
47733473	R	MO	CRIP	MOD	RBMO54	INSTALLATION UWH TYPE IV VE..	29-Jun-18	13-Feb-23	23-Feb-23	1	V69563	V69563	AIFU	4		6.0	4	
47733476	R	MO	CRIP	MOD	RBMO54	INSTALLATION UWH TYPE IV VE..	29-Jun-18	13-Feb-23	22-Feb-23	1	V69543	V69543	AIFU	4		13.6	4	
47733470	R	MO	CRIP	MOD	RBMO54	INSTALLATION UWH TYPE IV VE..	29-Jun-18	13-Feb-23	22-Feb-23	1	V69544	V69544	AIFU	4		13.6	4	

Pierre VAN BRUSSEL (ilias.local\vbrussep)

WWBWOPAN / Workorder Planning

Light communications during mission



Asset
transactions

To inform HQ of
Asset readiness,
usage and
configuration during
mission



Stock
Transactions

To keep HQ (shore)
aware of stock levels
and stock usage
during mission



Material
requisitions

To track all material
requirements during
and for a mission



Shipping
transaction

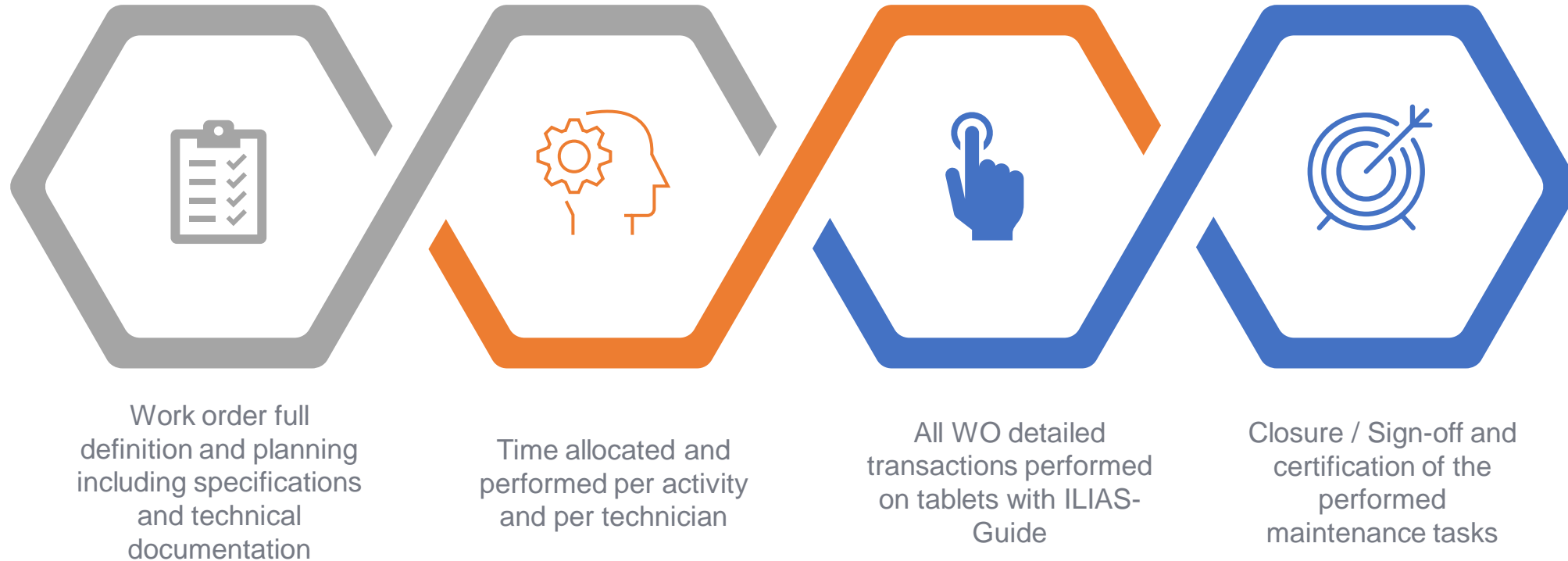
To manage shipping
and delivery of
material on deployed
theater



Material
codification

To inform mission
about any change
related to material
master data

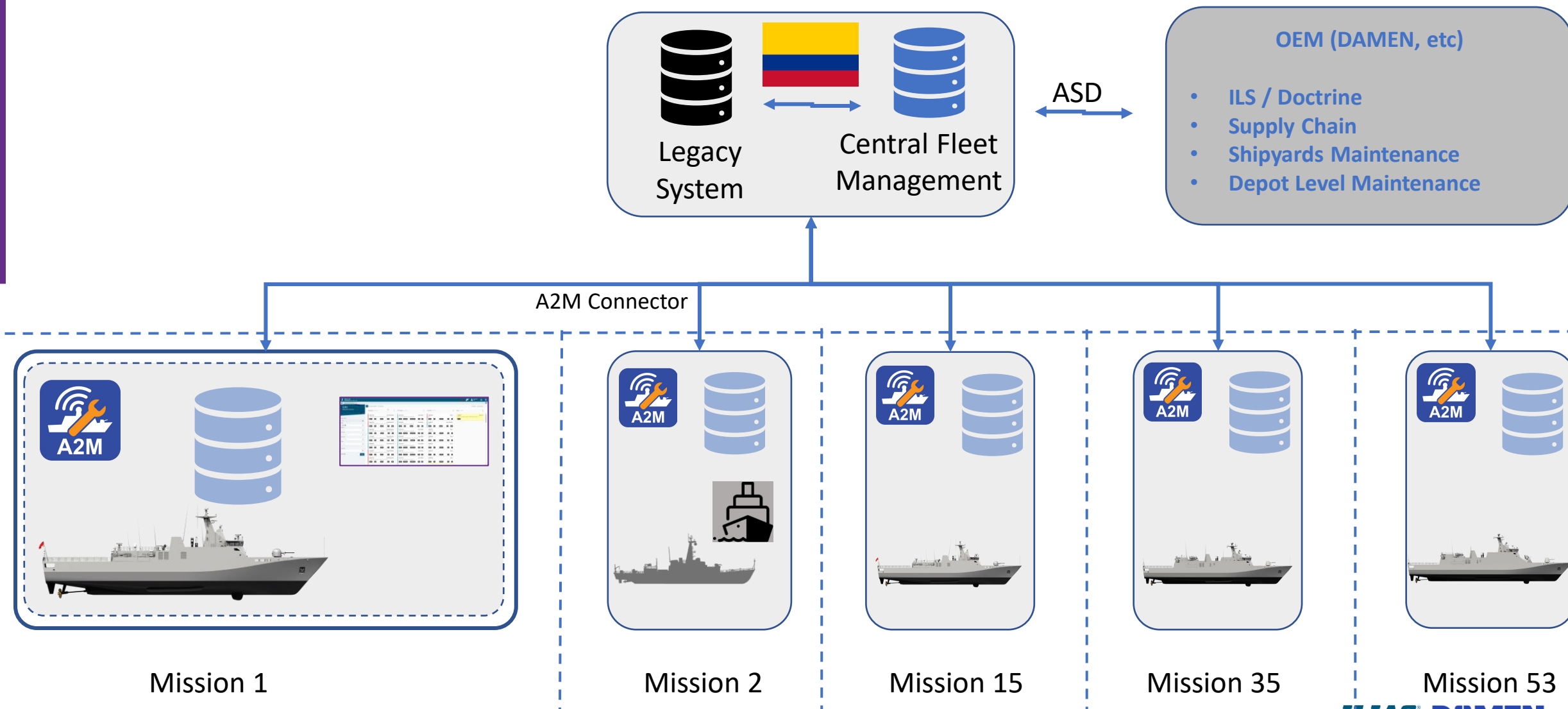
Maintenance debriefing after mission



Fleet Management



Connecting the dots



30 years of in-service support



The need for an end-to-end solution

- Configure ships
- Manage doctrine
- Manage category
- Perform DLM
- Execute ILS

**DAMEN OEM
ILS SYSTEM**

Manage data
between
disconnected
systems

**Integrated
Logistics
Support**

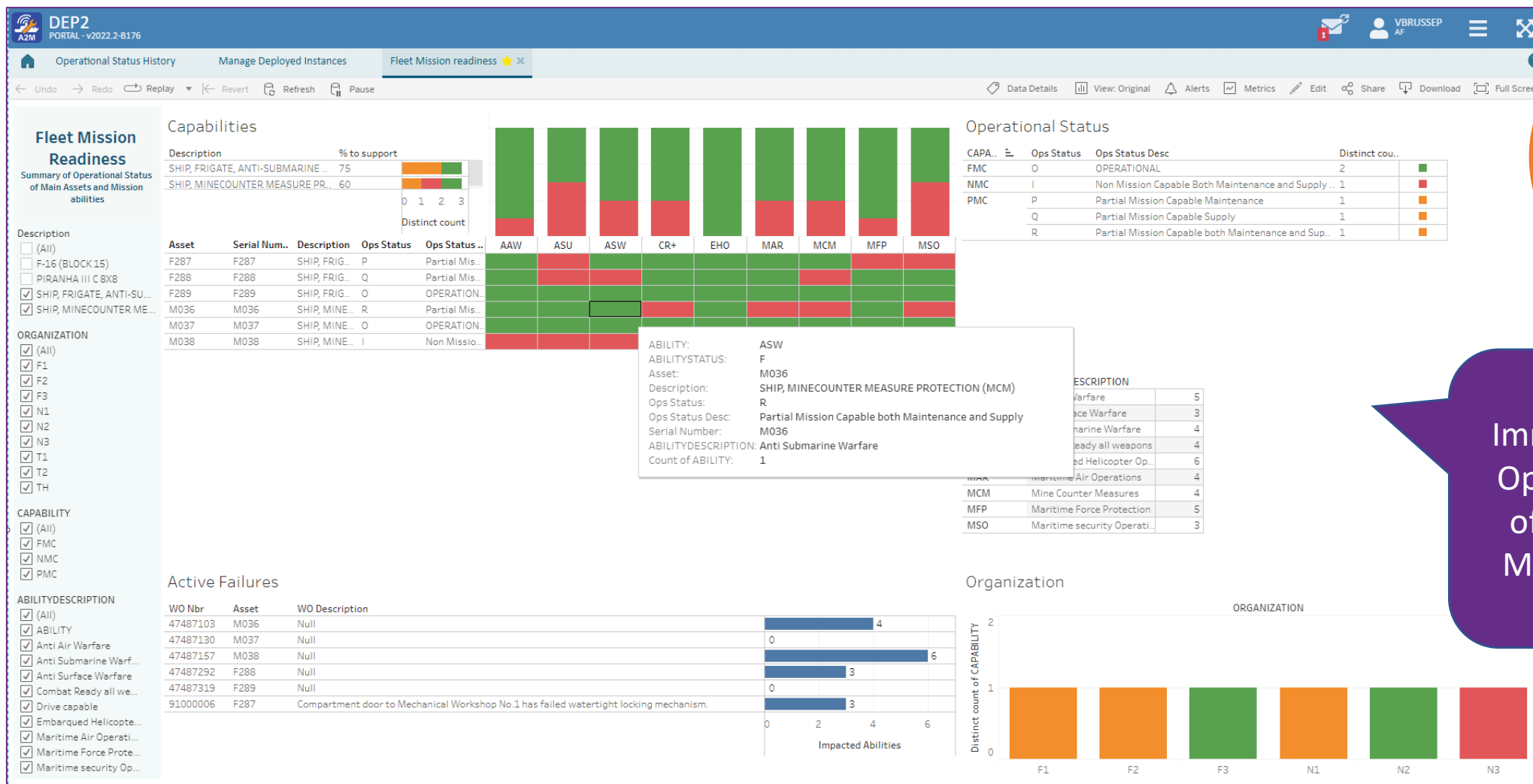
**Central
Fleet
Mgt**

A2M

- Operate Fleet
- Organize mission
- Organize supply
- Monitor activities

- Operate ship
- Maintain readiness
- Perform maintenance
- Organize resources
- Keep track on supply

Fleet Mission readiness



Operational
Relevance

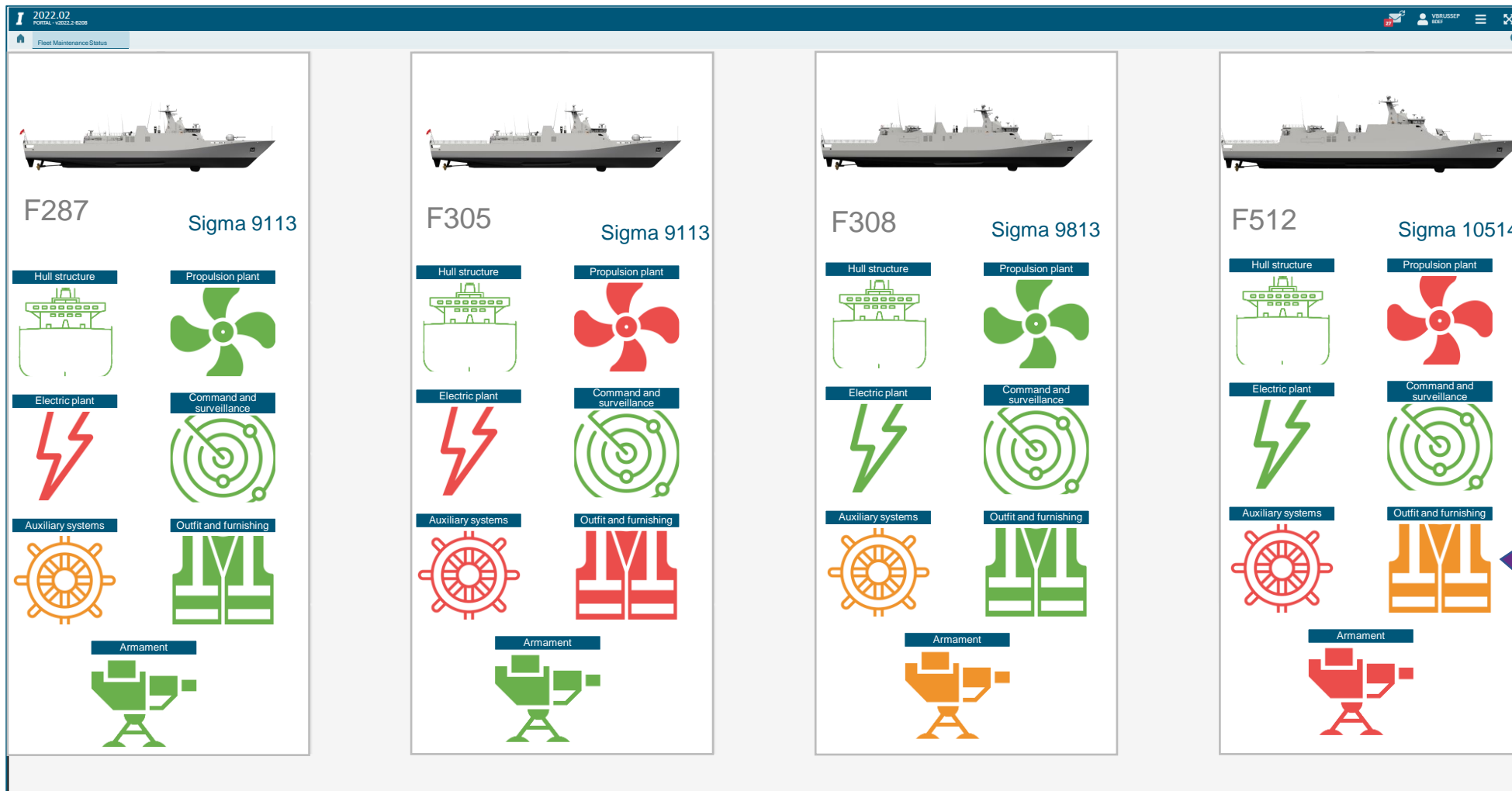
Immediate view on
Operational Status
of all vessels and
Mission readiness

Maintenance status of main vessels



Material
Readiness

Immediate view
of Maintenance
Status of each
sub-systems of
the various
vessels of the
fleet



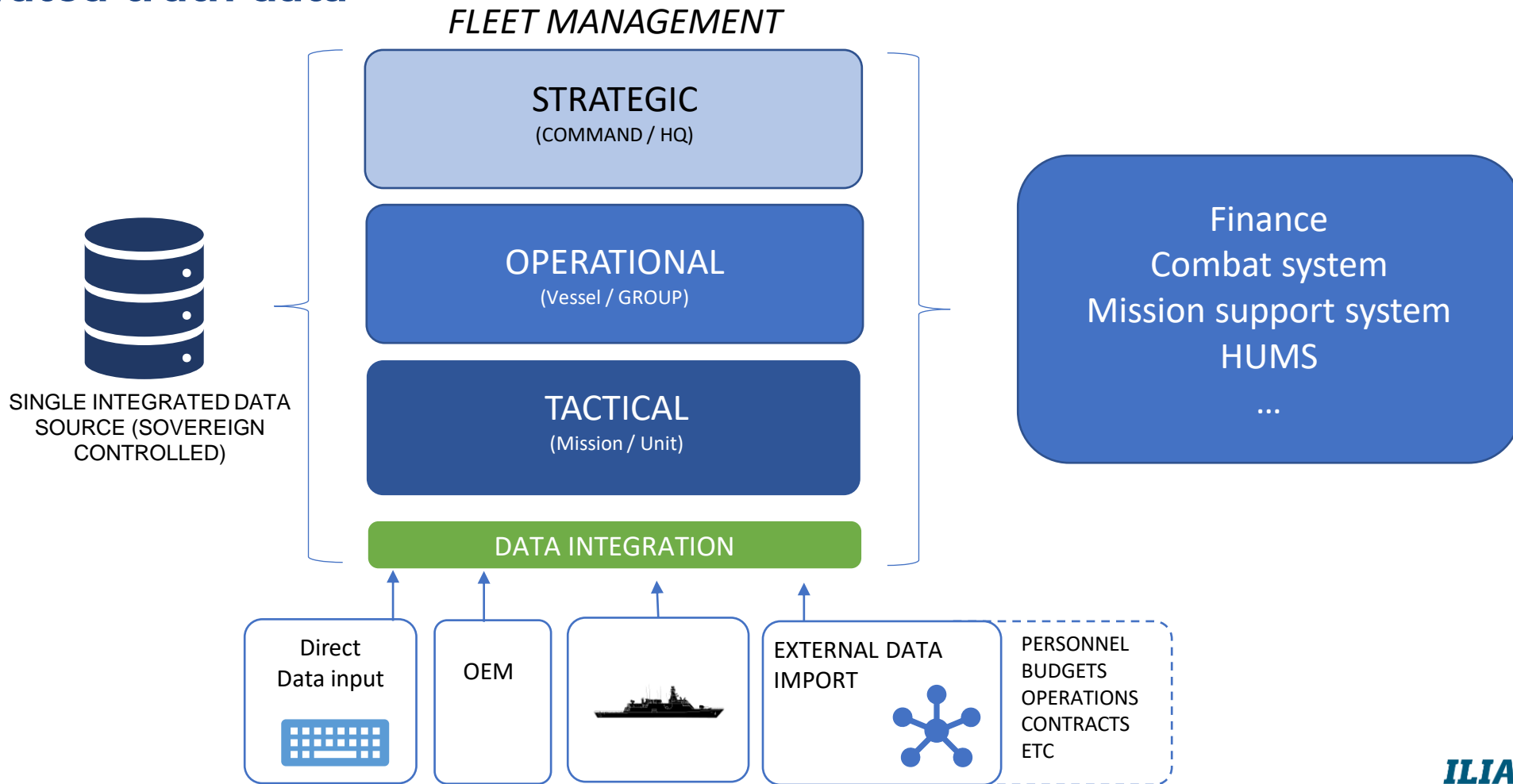
ILIAS platform integration



Joint fleet management



Integrated truth data



Joint fleet management

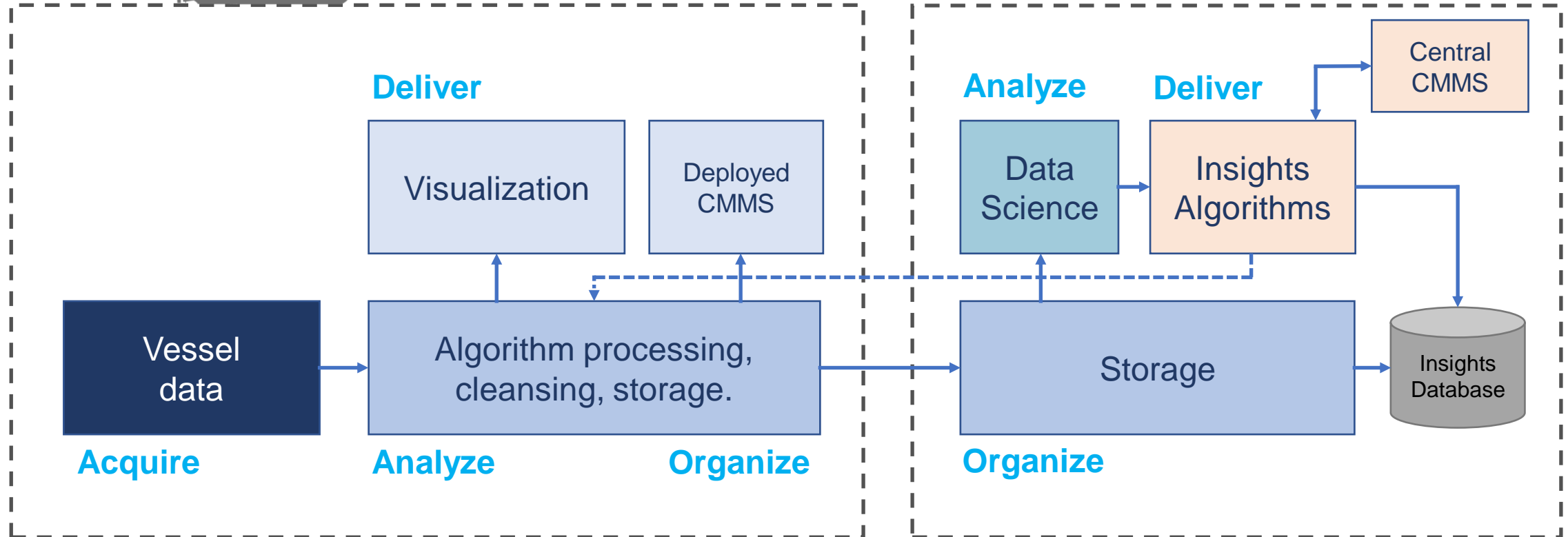


Condition-based Maintenance with I-HUMS

On-board



On-shore



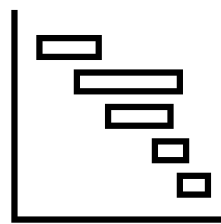
Summary



Key Ingredients of the Solution



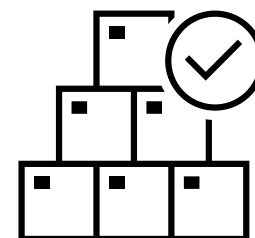
Detailed
Maintenance
specifications



Getting
organized for
success



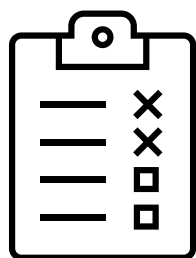
Asset
monitoring



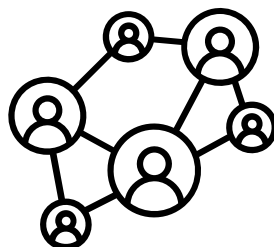
Integrated
Supply chain



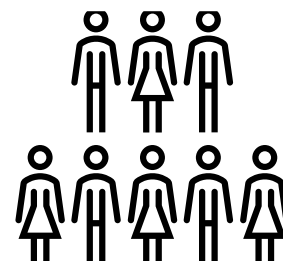
Autonomous



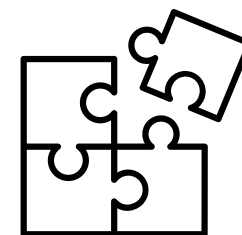
ILIAS-Guide



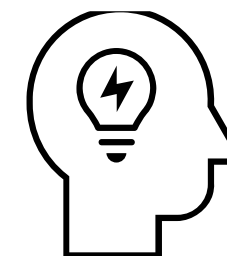
Involve all actors
look for synergy



Workforce
currency



Integrated
solution



Best Next
Action



ILS decision support Always in control

It's all about the
next best action

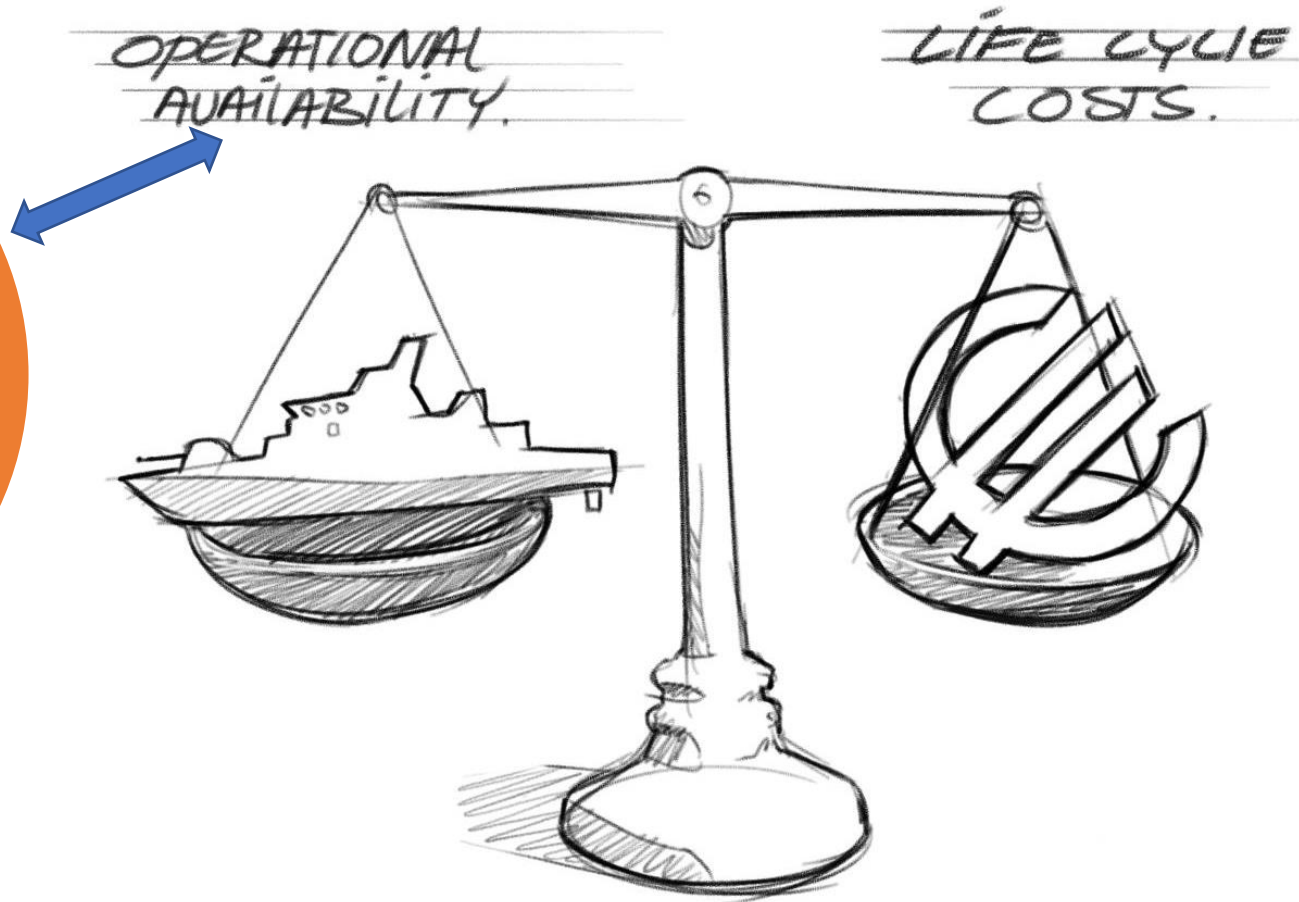
Monitoring your
process

Information at
your fingertips

In-depth
analysis




Conclusions



Thank you for your kind attention.



 Operating base

"Talent wins games, but teamwork and intelligence win championships." – Michael Jordan



DAMEN
NAVAL

ILIAS[®]
smart. reliable. ready.