

Handling Bid Clarification Meetings (BCM) and Handover with Digital Twins

Practical use of Asset Administration Shell for data exchange of structured data

THTH Spring Webinar 2025



Per Øyvind Øverli
AIBEL



Michael Mayer
Endress+Hauser



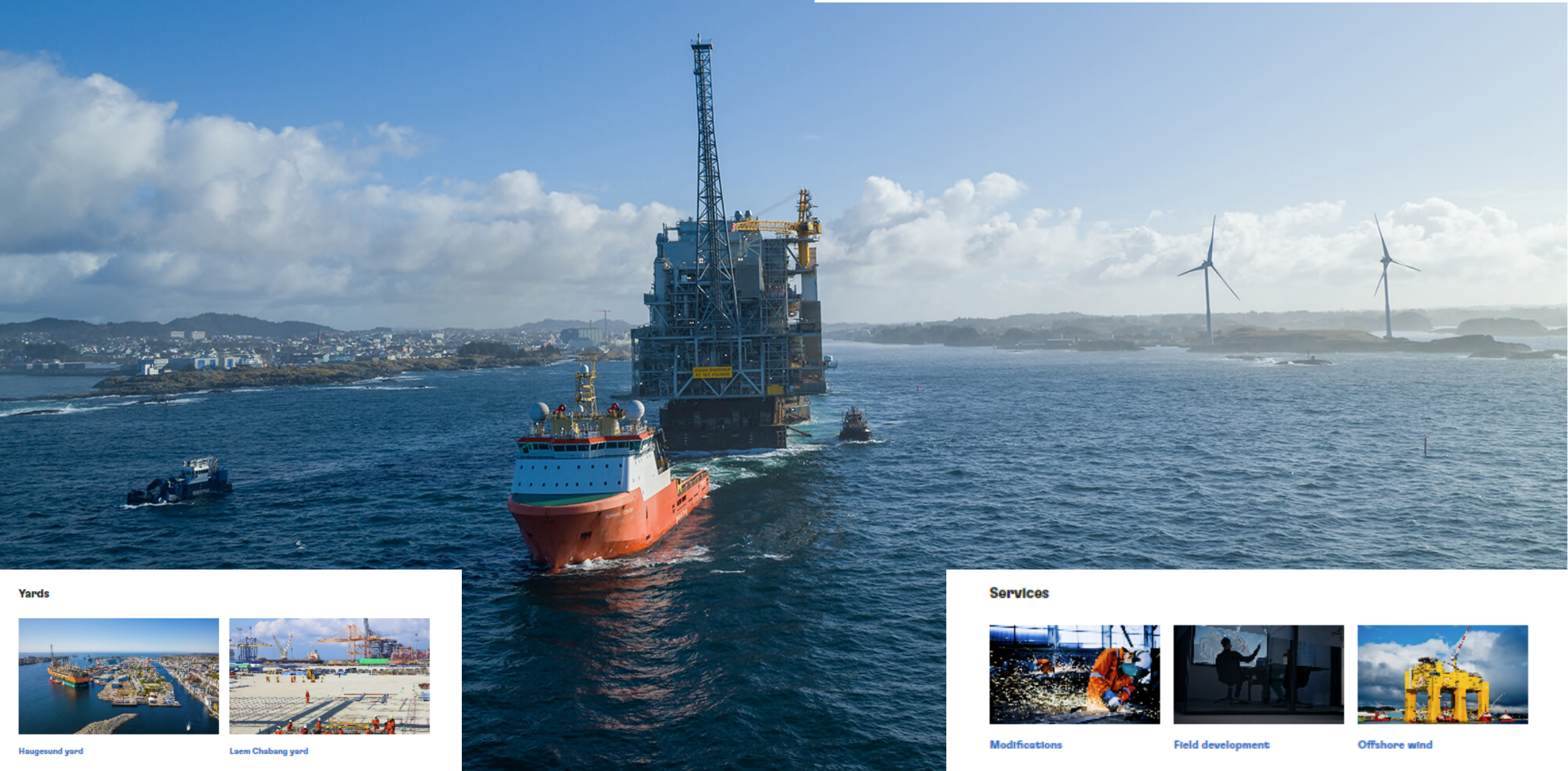
aibel®

4950
EMPLOYEES

3
COUNTRIES

8
LOCATIONS

142
YEARS OF EXPERIENCE



Yards



Haugesund yard



Laem Chabang yard

Services



Modifications

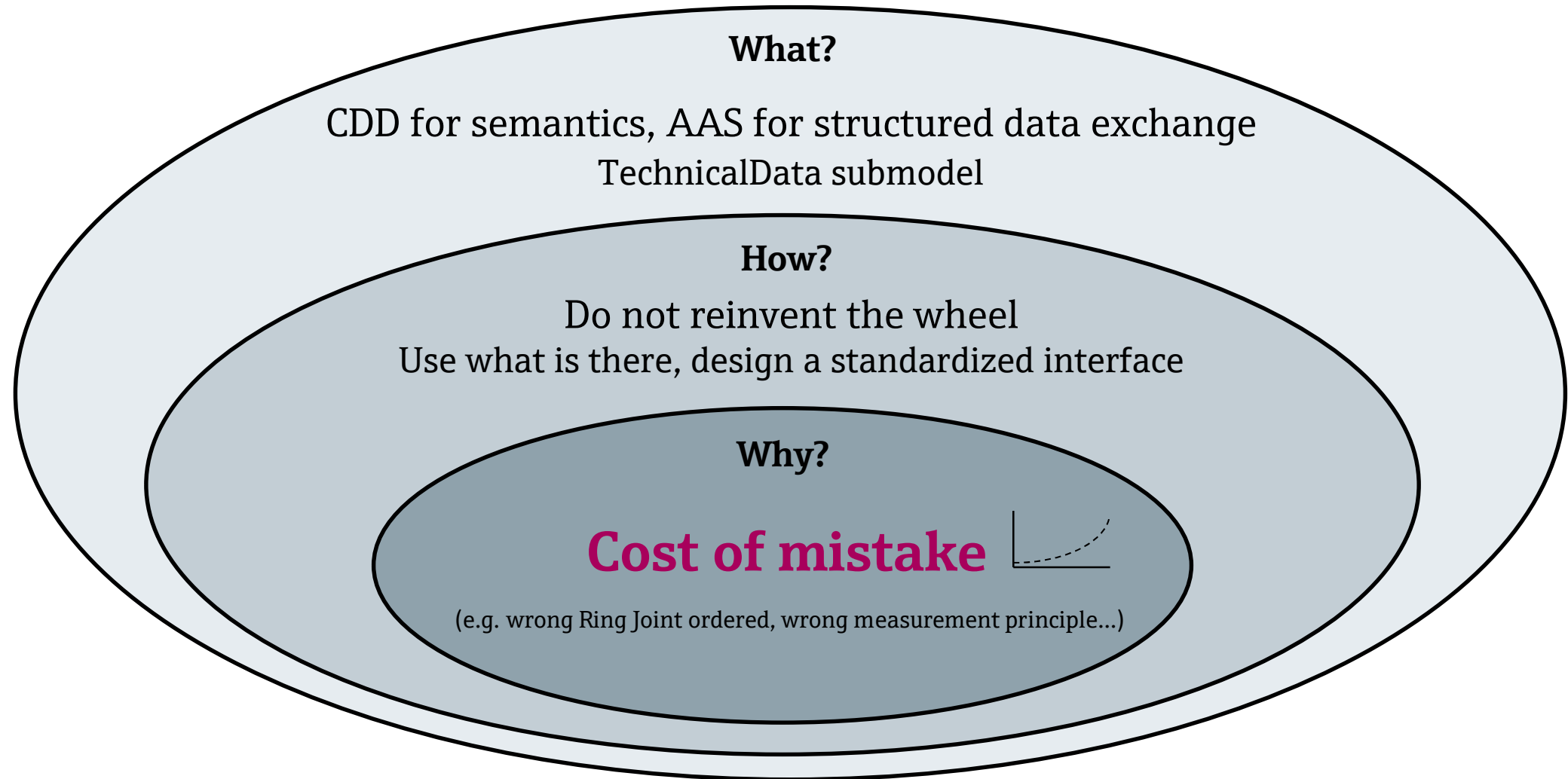


Field development

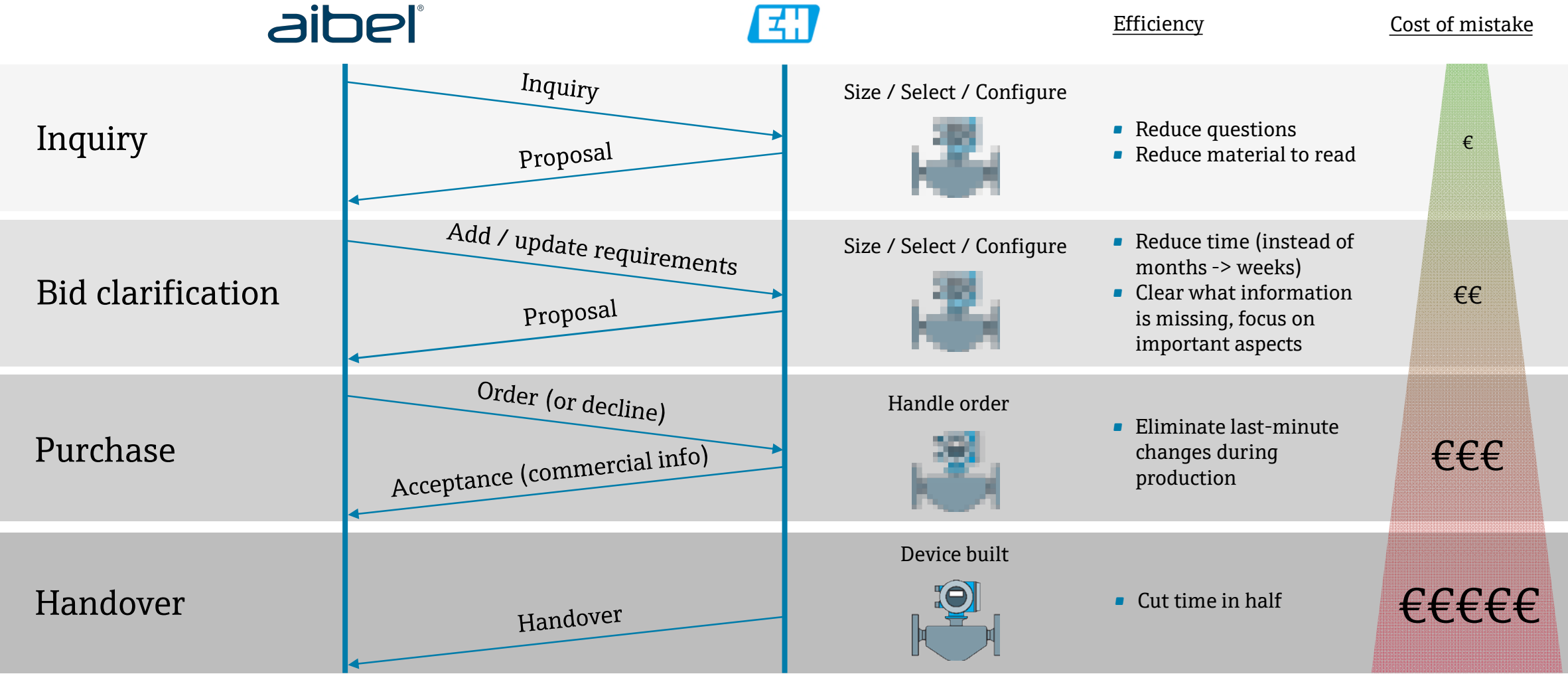


Offshore wind

Purpose of our project



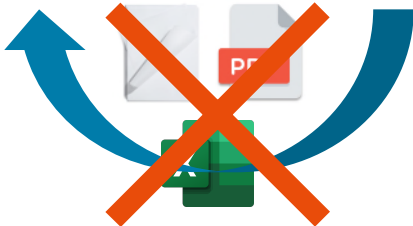
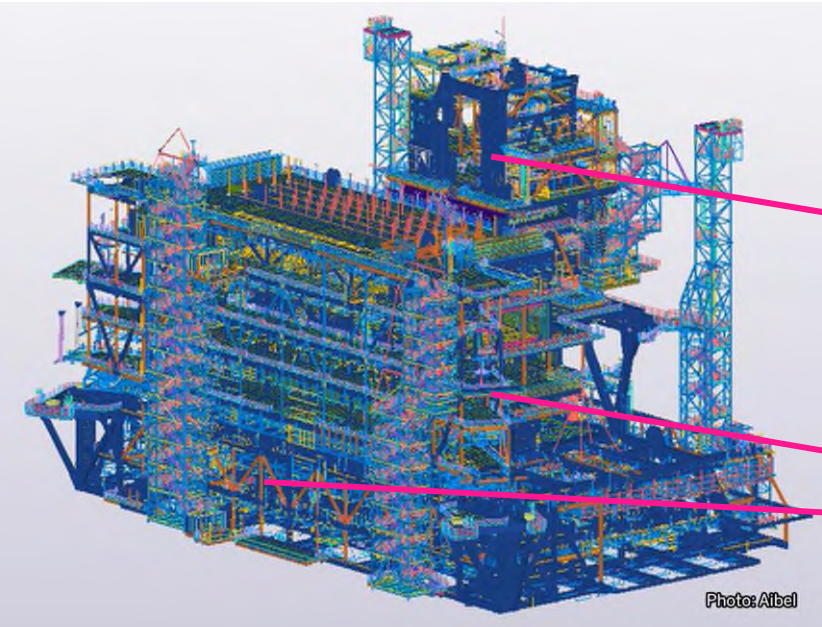
Workflow, efficiency gain and cost of mistake



Benefits of structured data exchange



Plant fit for purpose



Instruments fit for purpose

Central Engineering Platform | Aibel AS - 10/10/2025 | Endress+Hauser

Settings | Import data | Engineer materials | Pricing | Export

Item | Order_Code_Status | Product_Status | Tag_Name | Order_Code_Ext | Order_Code | Product | Material_Labels

Material_Width_Sizing | Custom_Field_001

19 of 19
Clear filter
Configure filter
Sort list by

Item	OCS	Tag name	QTY	Order code ext	Order code	Product	Labels
5	2 tag names		2	BATCH: 1000 401 9999A2+CADCERJB	9999A2+CADCERJB	Promass O 300, BL...	
10	2 tag names		2	BATCH: 1000 401 9999A2+CADCERJB	9999A2+CADCERJB	Promass O 300, BL...	
20	<<no tag name>>		1	99-DOK	99-DOK	DOCUMENTATION	
30	0 tag names		4	DTSP1-OC1CC1	DTSP1-31E3/O	TSP Version Flow, service	
40	0 tag names		2	DTSP1-OC1CC2	DTSP1-35E4/O	TSP Version Flow, service	
60	0 tag names		4	99-PAKKING	99-PAKKING	Packing and shipping	
70	0 tag names		4	99-36003771	99-36003771	Coating NOROSK M-S01 System 2A	
80	0 tag names		4	DTSP1-051SC3	DTSP1-344B/O	TSP Version Flow, service	
90	<<no tag name>>		1	XD13AP-BNA	XD13AP-10L1/O	Extended Warranty Service	
100	<<no tag name>>		1	XD13AP-BNA	XD13AP-10L1/O	Extended Warranty Service	
105	0 tag names		2	DTSP1-OC1CC4	DTSP1-1W74/O	TSP Version Flow, Welder Qualification	
110	A-20FT0124/0144		1	DFAT1-ASA-G1	DFAT1-AAL7/O	Factory Acceptance Test (FAT)	
120	A-27FT0152/0158		1	DFAT1-ASA-BA	DFAT1-11D1/O	Factory Acceptance Test (FAT)	
130	<<no tag name>>		1	DFAT1-S1A-GA	DFAT1-A7L8/O	Factory Acceptance Test (FAT)	
200	<<no tag name>>		1	XP00037-AAF101	XP00037-10E3/O	I/O module, slot 1, 300/500	
210	<<no tag name>>		1	XP00038-AA1A00	XP00038-1014/O	I/O module, slot 2/3/4, 300/500	

+ New material | Bulk operation

Transfer & export | Transfer to commercial

Material details (Tutorial videos)

General | QTY & Tagging | Details | Commercial | Documents | Specs

Material number: 7... (5)

Order code ext: 9999A2+CADCERJB

Order code: 9999A2+CADCERJB

Product: Promass O 300, 803B1H, DN100 4"

Country of origin: OH

Delivery time: On request

HS code: 90268020

Sizing conflict: 1

Customer material no:

Notes:

Process data:

Medium: 0 Dummy-Liquid (Water) based on SP

Customer medium:

OLOP

https://data.aibel.com

0 •
1 • 0 •

Submodel

Submodel element

Submodel element

AAS "AAS"

Asset AssetInformation

SM "TechnicalData"

TED Technical Data Viewer ready

SMC "GeneralInformation" (5 elements)

SMC "ProductClassifications" (1 elements)

SMC "TechnicalProperties" (5 elements)

SMC "FurtherInformation" (2 elements)

Generic Frame for Technical Data
for Industrial Equipment in
Manufacturing 1.2 (IDTA #02003)

Semantic ID

IEC CDD
Block

Property 1

Property n

Element Content

Technical Data

Lang - All

P-DT-FT-003 - OLOP for flow transmitters - liquid service - structured according
to CDD (ABE757 - Temperature tran

2.0018.0001
61987

designation of process case	0112/2///61987#ABB165#005	min.
Total fluid		
fluid	0112/2///61987#ABB289#003	HC Liquid and produced water
phase	0112/2///61987#ABB296#002	Non-aqueous liquid phase
temperature[°C]	0112/2///61987#ABA927#005	49.9
pressure[barg]	0112/2///61987#ABB182#004	25.0
mass flow rate[kg/h]	0112/2///61987#ABB290#005	8586.6
actual volume flow[m3/h]	0112/2///61987#ABB291#005	100
velocity[m/s]	0112/2///61987#ABA948#003	0.67
viscosity[cP]	0112/2///61987#ABB067#001	4.09
mass density[kg/m3]	0112/2///61987#ABA946#004	858.7
permanent pressure drop[bar]	0112/2///61987#ABB995#002	0.24
Solid/particle phase		
phase	0112/2///61987#ABB296#002	Solid/particle phase
phase mass concentration[ppm]	0112/2///61987#ABB011#001	3 ppm (wt%) / mix of particles (asphaltene, wa
density[kg/m3]	0112/2///61987#ABB319#001	2650-2700
mass flow rate[kg/h]	0112/2///61987#ABB290#005	
particle size[μm]	0112/2///61987#ABA564#001	40
Process case 2		
designation of process case	0112/2///61987#ABB165#005	max.
Total fluid		
fluid	0112/2///61987#ABB289#003	HC Liquid and produced water
phase	0112/2///61987#ABB296#002	Non-aqueous liquid phase
temperature[°C]	0112/2///61987#ABA927#005	77.3
pressure[barg]	0112/2///61987#ABB182#004	110.7
mass flow rate[kg/h]	0112/2///61987#ABB290#005	445364.3
actual volume flow[m3/h]	0112/2///61987#ABB291#005	621
velocity[m/s]	0112/2///61987#ABA948#003	4.15
viscosity[cP]	0112/2///61987#ABB067#001	1.35
mass density[kg/m3]	0112/2///61987#ABA946#004	717.3
permanent pressure drop[bar]	0112/2///61987#ABB995#002	0.44
Solid/particle phase		
phase	0112/2///61987#ABB296#002	Solid/particle phase
phase mass concentration[ppm]	0112/2///61987#ABB011#001	3 ppm (wt%) / mix of particles (asphaltene, wa
density[kg/m3]	0112/2///61987#ABB319#001	2650-2700

0 bytes

Errors: 3

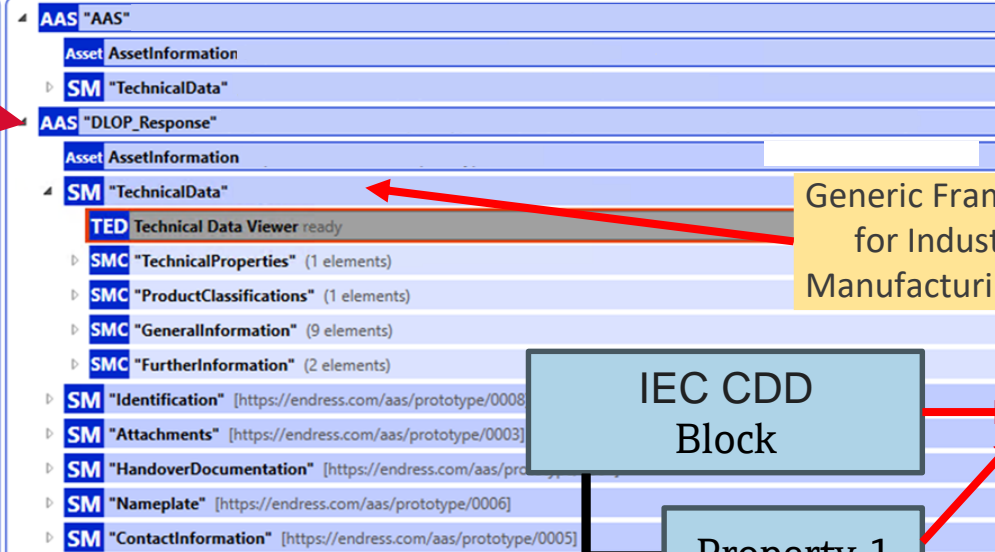
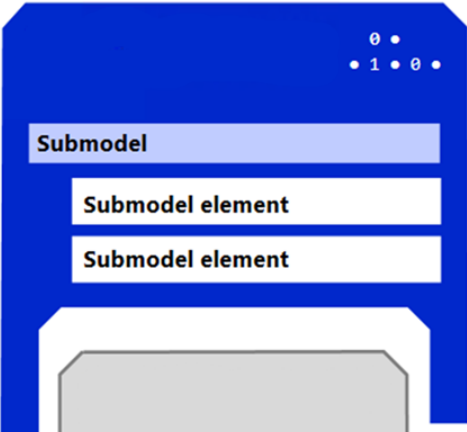
Clear

Log..

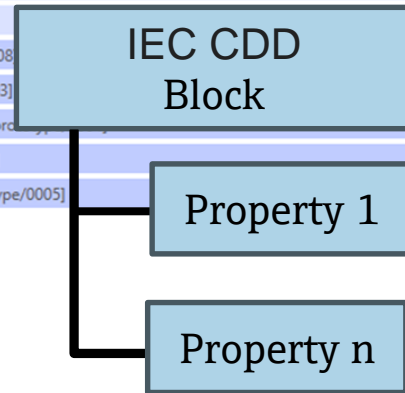
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13.06.2024

DLOP



Generic Frame for Technical Data for Industrial Equipment in Manufacturing 1.2 (IDTA #02003)



Semantic ID

Element	Content
Technical Data	
Lang - All	
Endress+Hauser	
IEC CDD 2.0018.0001	
/61987#ABA763	
Property	Semantics
Main section	
Process connection specific parameters	
Nominal rating of device	0112/2///61987#ABJ729#001
Nominal size/connection size	0112/2///61987#ABJ728#001
Connection type of process connection	0112/2///61987#ABJ731#001
Reference standard for connection	0112/2///61987#ABJ734#001
Classification of pressure devices and pressure	0112/2///61987#ABJ734#001
Properties characterizing a line or a nozzle at a line or equipment and its end connection	
Nominal size/connection size	0112/2///61987#ABJ728#001
Purpose of a line or nozzle	0112/2///61987#ABJ728#005
Connection type of process connection	0112/2///61987#ABJ731#001
Style of sealing surface	0112/2///61987#ABA893
Properties characterizing a line or a nozzle at a line or equipment and its end connection	
Nominal size/connection size	0112/2///61987#ABJ728#001
Purpose of a line or nozzle	0112/2///61987#ABJ728#005
Connection type of process connection	0112/2///61987#ABJ731#001
Style of sealing surface	0112/2///61987#ABA893
Power supply properties	
Type of power supply	0112/2///61987#ABA904#005
Minimum rated voltage	0112/2///61987#ABD461#004
Maximum rated voltage	0112/2///61987#ABD462#004
Quality certificate	
Quality certificate	0112/2///61987#ABA275#002
Material test certificate	0112/2///61987#ABA275#002
Material test certificate	0112/2///61987#ABA275#002
Pressure test approval	0112/2///61987#ABA275#002
Material test certificate	0112/2///61987#ABA275#002
Quality certificate	0112/2///61987#ABA275#002
Material test certificate	0112/2///61987#ABA275#002
Explosion protection	
Certificates and approvals	
Number of hazardous area approvals	0112/2///61987#ABA230

Conclusion

