

Pilot demonstrating:

Data centric procurement of LV motor IEEE 841 for O&G based on IOGP/JIP33 S-733 Procurement specification, CFIHOS reference data libraries, NORSOK JIP READI Information Modelling Framework and relevant ISO/IEC information standards and class standards

Feedback of objectives, conclusions and recommendations

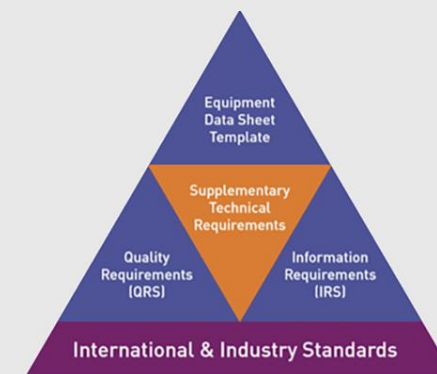
To

THTH Autumn Webinar 2021

Agenda

Agenda Item
Introduction
Feedback
• Who was involved
• The Why, the What and the How
• Examples
• Conclusions
• Recommendations
Questions

Who was involved in the Pilot.



**Pilot based on
IOGP JIP33
LV motor specification**

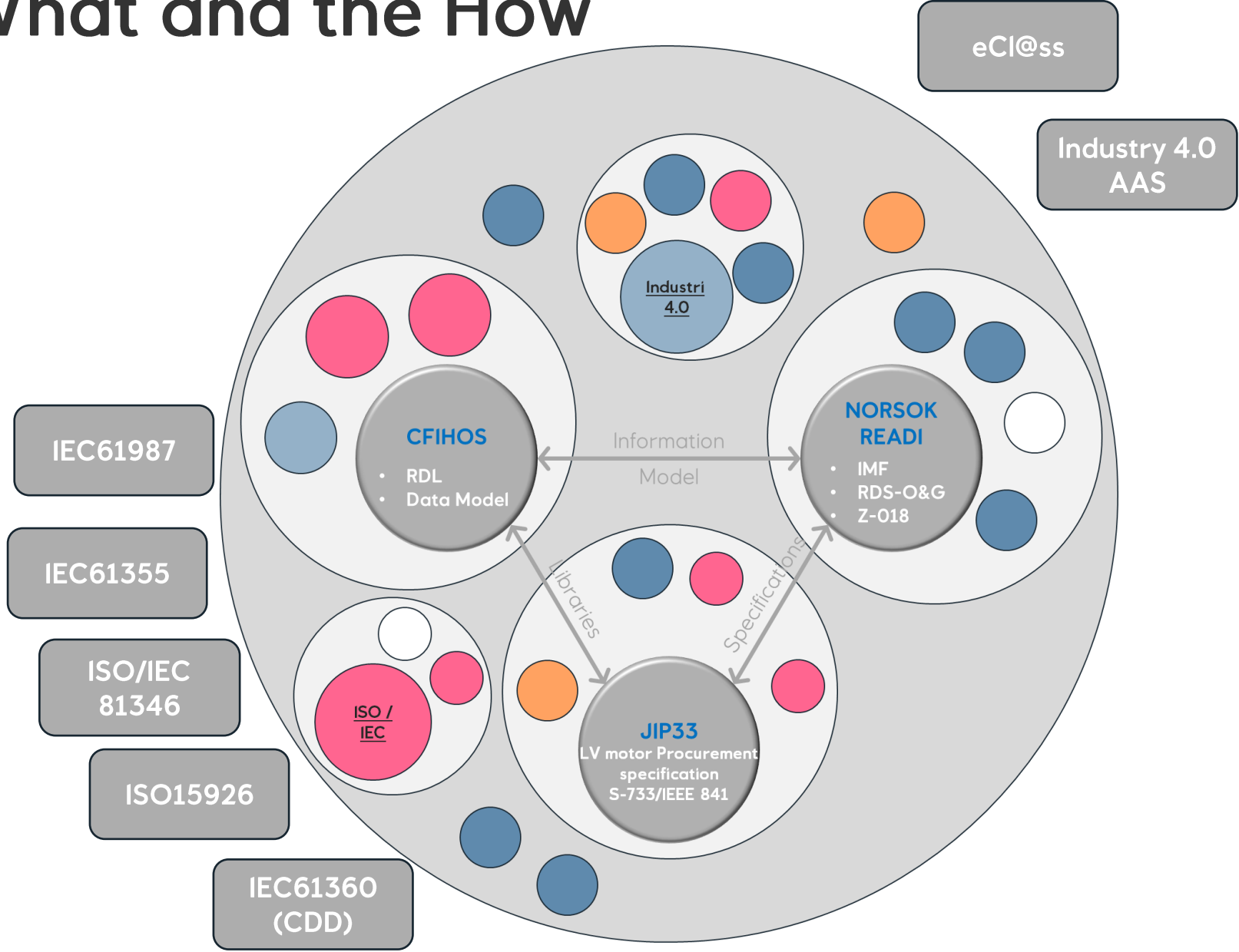
Pilot the Why, the What and the How

WHY

Demonstrate how major initiatives currently fit together

Identify where strengthening / reinforcement is required

Are we ready as an industry to embrace digitalization along with the cultural and technical challenges this will bring?



Pilot the Why, the What and the How

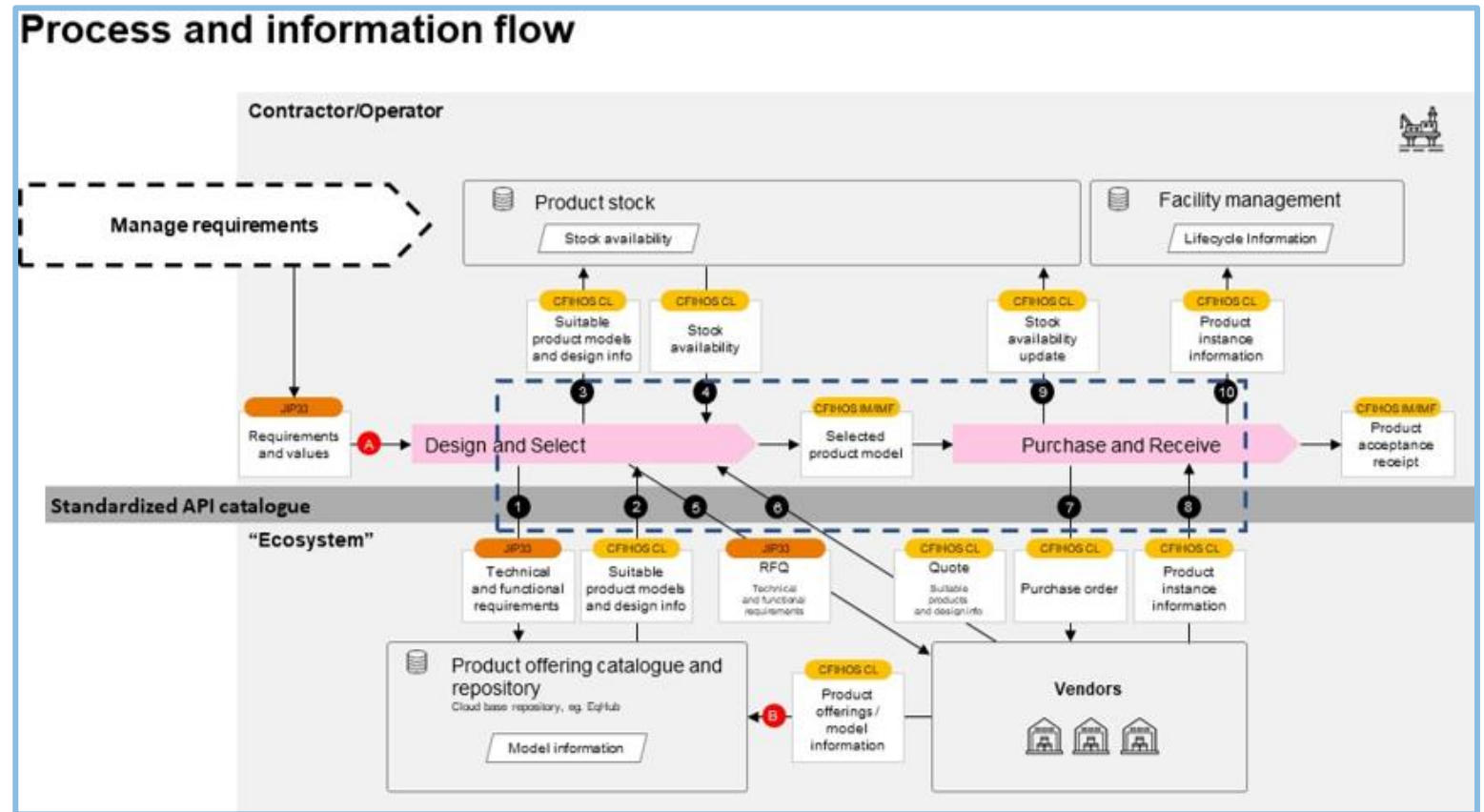
WHAT

Use of:

- the Information modelling framework including RDS O&G from READI
- the RDL from CFIHOS
- and industry recognized information standards

to perform the data centric procurement of the LV motor and its associated information based on the procurement specification IOGP JIP33 S-733

Starting with requirements dispatch, and ending by required information being received

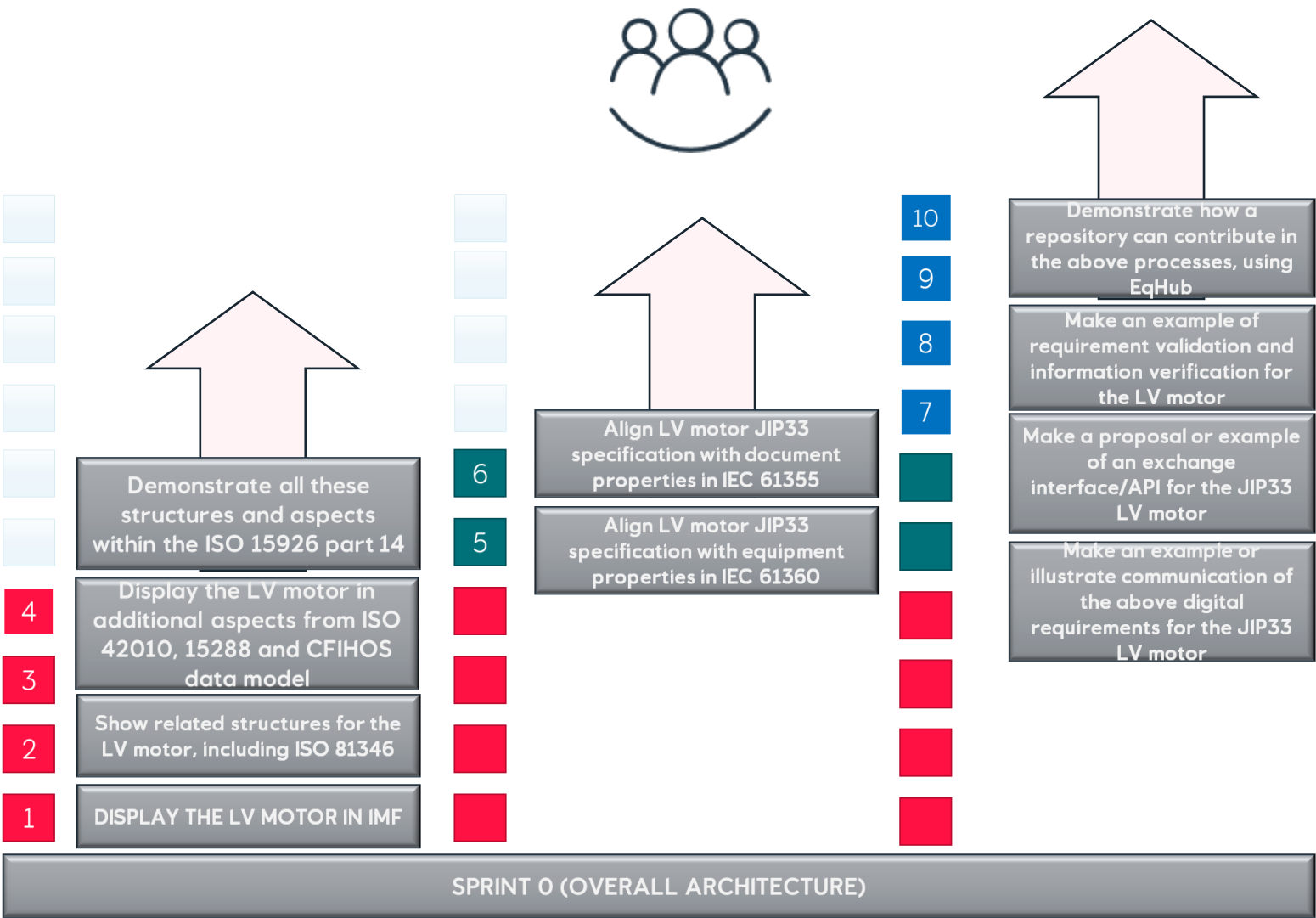


Pilot the Why, the What and the How

HOW

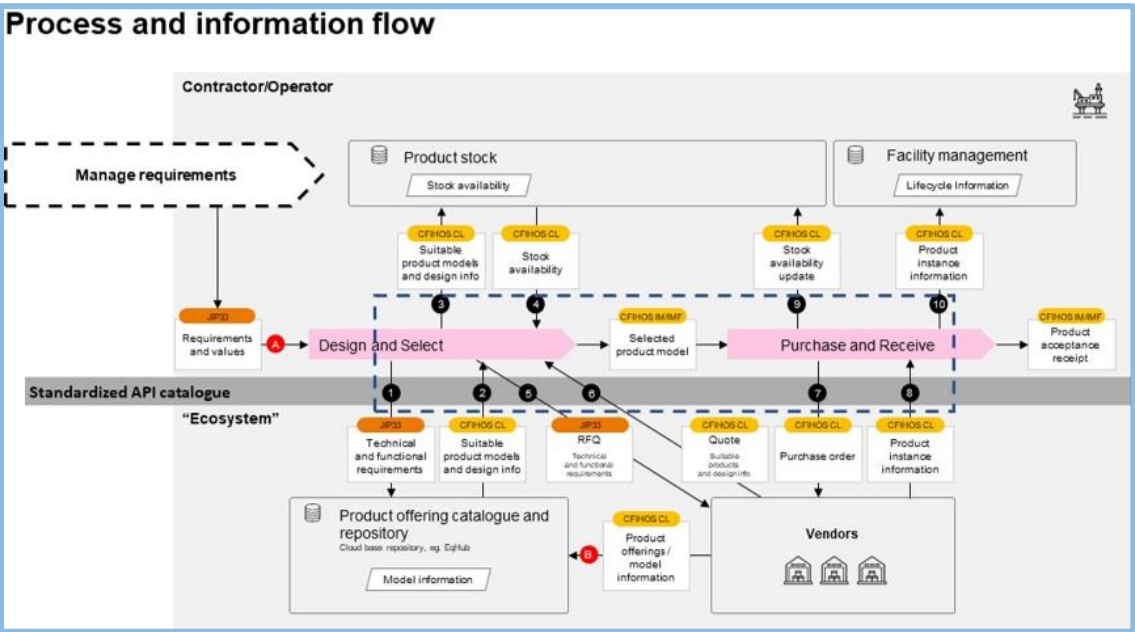
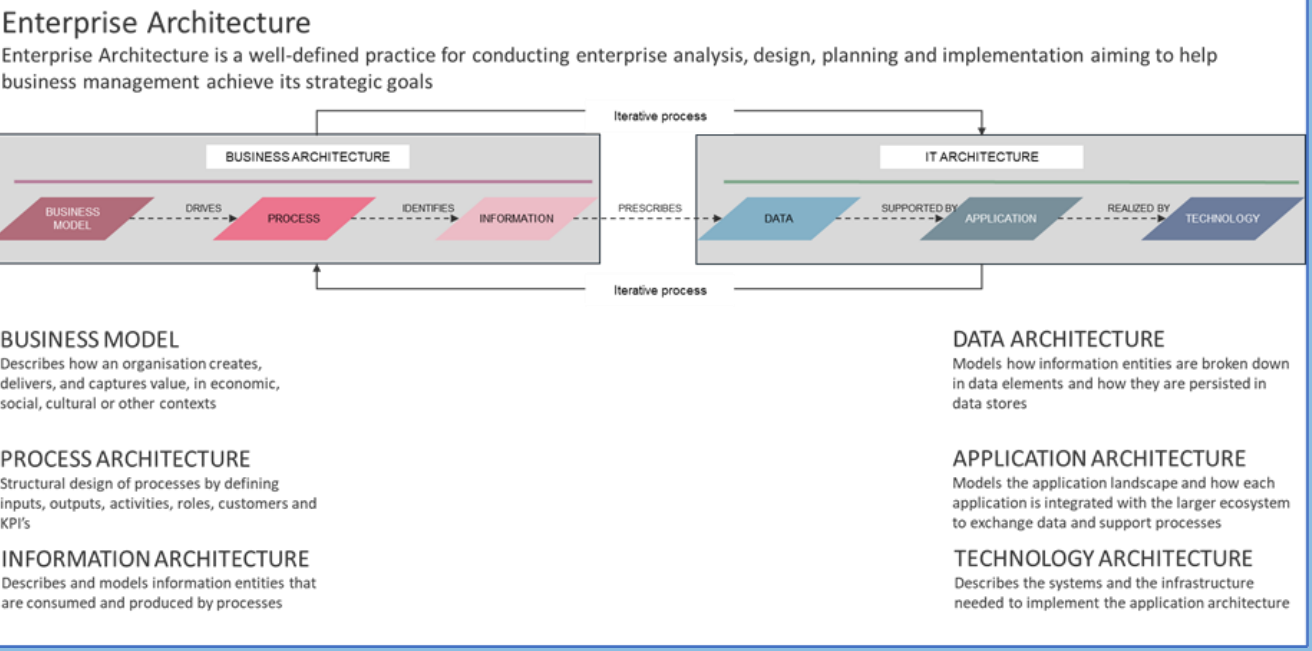
Work was performed in 10 sprints being grouped in :

- Part 1 → Information modelling
- Part 2 → Reference data libraries
- Part 3 → Formats and tools



Pilot examples from Appendix B

From Sprint 0: Process and information flow:



Pilot examples from Appendix B

Sprint 5:

Different properties for LV motor in JIP33, CFIHOS and IEC 61360

Row	S-733D Data Sheet for Low Voltage Motors (IEEE Std 8)	
2	Tag No. :	Insert Tag Number
3	Service :	Insert Service Description
4	Ref. Clause	Description
5	Order status :	
6	Purchaser information	
7	Client name :	
8	Site or location :	
9	Project title or number :	
10	Purchase order number :	
11	Date :	
12	General	
13	Manufacturer :	
14	Model number :	
15	Additional certification :	
16	Duty	
17	Starting method :	
18	5.3.1 a	ASD driven :
19	Number of poles :	
20	Motor synchronous speed :	
21	Duty point shaft power :	
22	Direction of rotation :	
23	Method of motor coupling to driven equipment :	
24	External radial loading on the motor shaft end :	
25	External axial loading on the motor shaft end :	
26	Moment of inertia of the load :	
27	Rating	
28	Frame size :	

Domain: Electric/electronic components (IEC 61360-4)

Open all | Close all

Electric/electronic components (IEC 61360-4)

0112/2///61360_4#AAA001 - component

AAA002 - electric/ electronic component

AAA147 - electromechanical component

AAA148 - connector

AAA149 - fuse

AAA150 - loudspeaker

AAA159 - microphone

AAA160 - motor

AAA161 - linear motor

AAA162 - linear ac motor

AAA163 - linear dc motor

AAA164 - linear stepping motor

AAA165 - linear universal motor

AAA166 - rotational motor

AAA171 - relay

AAA172 - switch

AAA610 - connector part

AAA215 - magnetic part

0112/2///61360_4#AAA218 - material

0112/2///61360_4#AAA233 - feature

0112/2///61360_4#AAA301 - geometry

Class type:

ITEM_CLASS

Applicable documents:

Requisity of properties:

Superclass:

0112/2///61360_4#AAA161

Higher level classes:

0112/2///61360_4#AAA160 - motor
0112/2///61360_4#AAA147 - electromechanical component
0112/2///61360_4#AAA001 - component

Classifying DET:

Properties:

0112/2///61360_4#AAE184 - rated input volt

Properties tree:

0112/2///61360_4#AAA162 - linear ac m

0112/2///61360_4#AAE184 - rated f

0112/2///61360_4#AAE001 - main c

0112/2///61360_4#AAE007 - terminal

0112/2///61360_4#AAE008 - terminal p

0112/2///61360_4#AAE022 - outside diamet

0112/2///61360_4#AAE023 - terminal diameter

0112/2///61360_4#AAE024 - terminal pitch

0112/2///61360_4#AAE025 - EM component

0112/2///61360_4#AAE026 - length

0112/2///61360_4#AAE027 - material

0112/2///61360_4#AAE028 - component

0112/2///61360_4#AAE029 - component type

0112/2///61360_4#AAE030 - of motion

Open all

Close all

IEC
61360

CFHOS
RDL
Data
Model

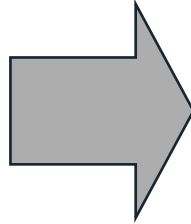
JIP33
LV
motor
spec

Conclusions

International standards are **NOT** as comprehensive or aligned as expected.

READI and CFIHOS aligned better than expected

The pilot revealed the potential in combining the building blocks of both specifications and identified areas of improvement



Instant exchange of knowledge (expert to expert) **WILL** break silos and connect people

Sharing knowledge through aligned, interoperable international standards is key

It will require business, cultural and technological change based on a compelling use case for stakeholders

Recommendations

Keep the pilot team as innovation agents to undertake following tasks:

Information model:

- Continue modelling of LV motor - to demonstrate CFIHOS implementation in the IMF and make CFIHOS available through this source,
- Establish a work group to investigate which pick list should be turned into classes
- Form team to review how to jointly approach Industri 4.0 AAS

Data dictionaries:

- Build common governance model with methodology and principles
 - **(MOU + ISO/IEC) IOGP Standards Comm + ISO TC 184/ SC core vocabulary group**
- Review alignment of strategies and/or overlap between ISO15926 and IEC61360
- Create **development/maintenance strategy**
- Ensure CFIHOS contributes to ISO/IEC continuously
- Develop content/feed into CFIHOS RDL as a intermediate step to ISO/IEC

How are we going to take this forward?

How do we engage further?

Governance

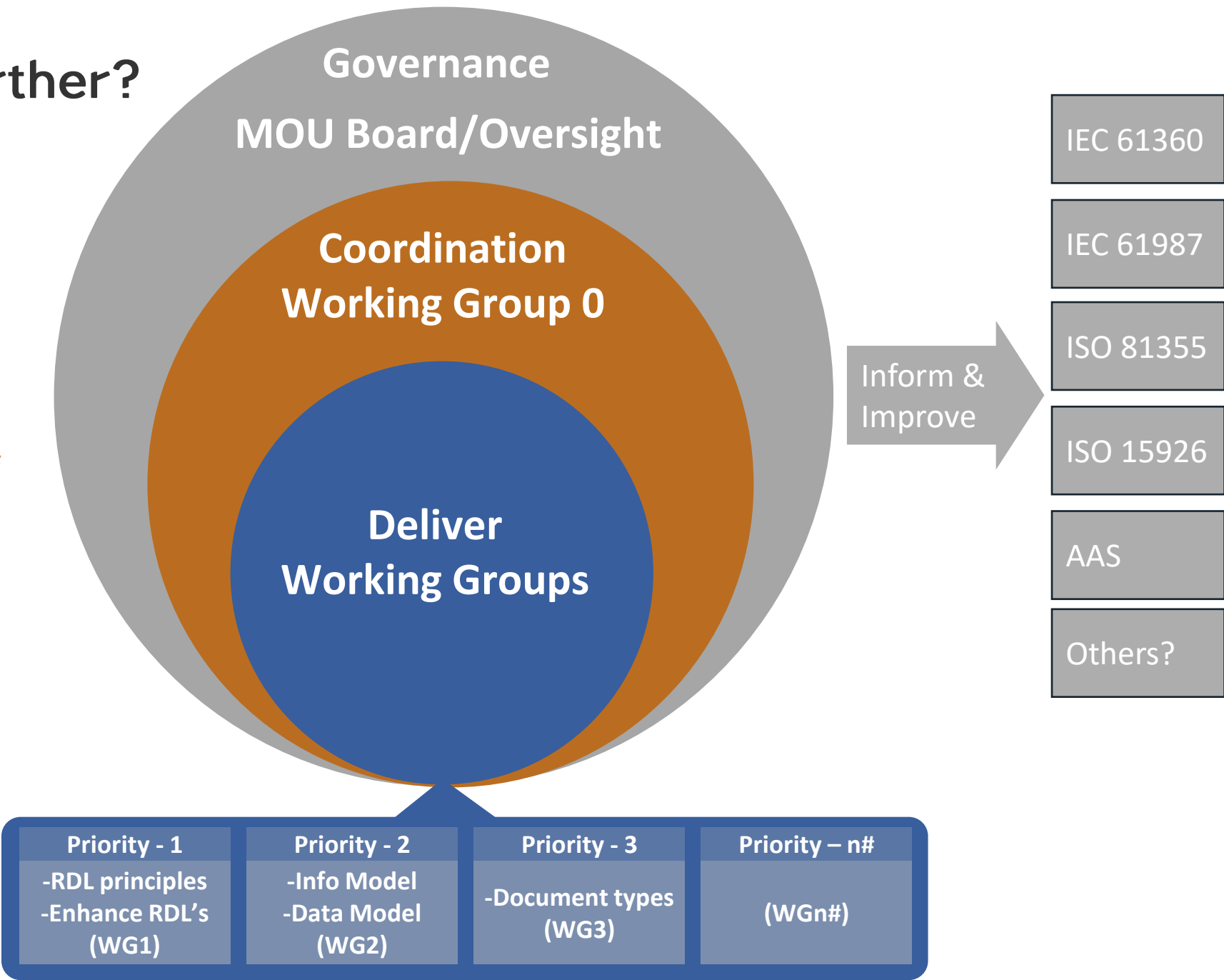
Is provided by the existing MOU board made up of members from Steering Committees of the MOU parties

Coordination (WG0)

Will coordinate the work across the working groups and will be made up of the WG lead from each working group

Working Groups

Collectively will deliver the outcomes and will be made up of SME's from the MOU parties plus any additional interest groups. It is intended that work will preformed in an agile way like the pilot. Once the outcome of the group is delivered that group is disbanded. SME's can join multiple groups.



Current Status

Two Working Groups formed

- Governance;
 - Developing principles on how international industry groups can stay aligned while working locally
 - Road Mapping
- Working group looking into the committee draft of ISO/IEC 81355

Questions



Acknowledgements

Contributors:

Townson Peter (Project director CFIHOS), Jason Roberts (Shell), Erin Jones (Exxonmobil), Adebisi Obawole (BP), Philippe Godbille (Exxonmobile), Jean-Charles Leclerc (Total), Ian Cornwell (Kraken)

Arild Waaler (UiO, Sirius) , Erlend Fjøsna (Envester, earlier FMC), Bjørn Berli (EG Z-TI), Milenija Stojkovic Helgesen (Equinor), Robert Skaar (Equinor/READI), Arild Toft (AkerBP), Torleif Saltvedt (Equinor), Johan Kluwer (DNV GL), Idar Pe Ingebrigtsen (Equinor), Bent S Lund (Equinor), Per Øivind Øverli (Aibel), Mauro Garcia (AkerBP)

Report:

[Closeout report from the MOU Pilot](#)

[Appendix A – JIP33 S-733 Dv2020-11](#)

[Appendix B – Description of tasks and material developed](#)

This Pilot report is a part of the activities within the MOU between IOGP, JIP36 (CFIHOS), Sectorial Board Petroleum/Standards Norway and READI-JIP. The published material is collected from MOU participants and is available for use upon citing this report as a resource.

We thank to all involved participants that contributed to this work.