CFIHOS
Capital Facilities Information HandOver Specification
An IOGP programme

ExxonMobil

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A Practical Implementation of CFIHOS to meet Data Surveillance Needs in the Energy Industry

Presented jointly by ExxonMobil & IOGP

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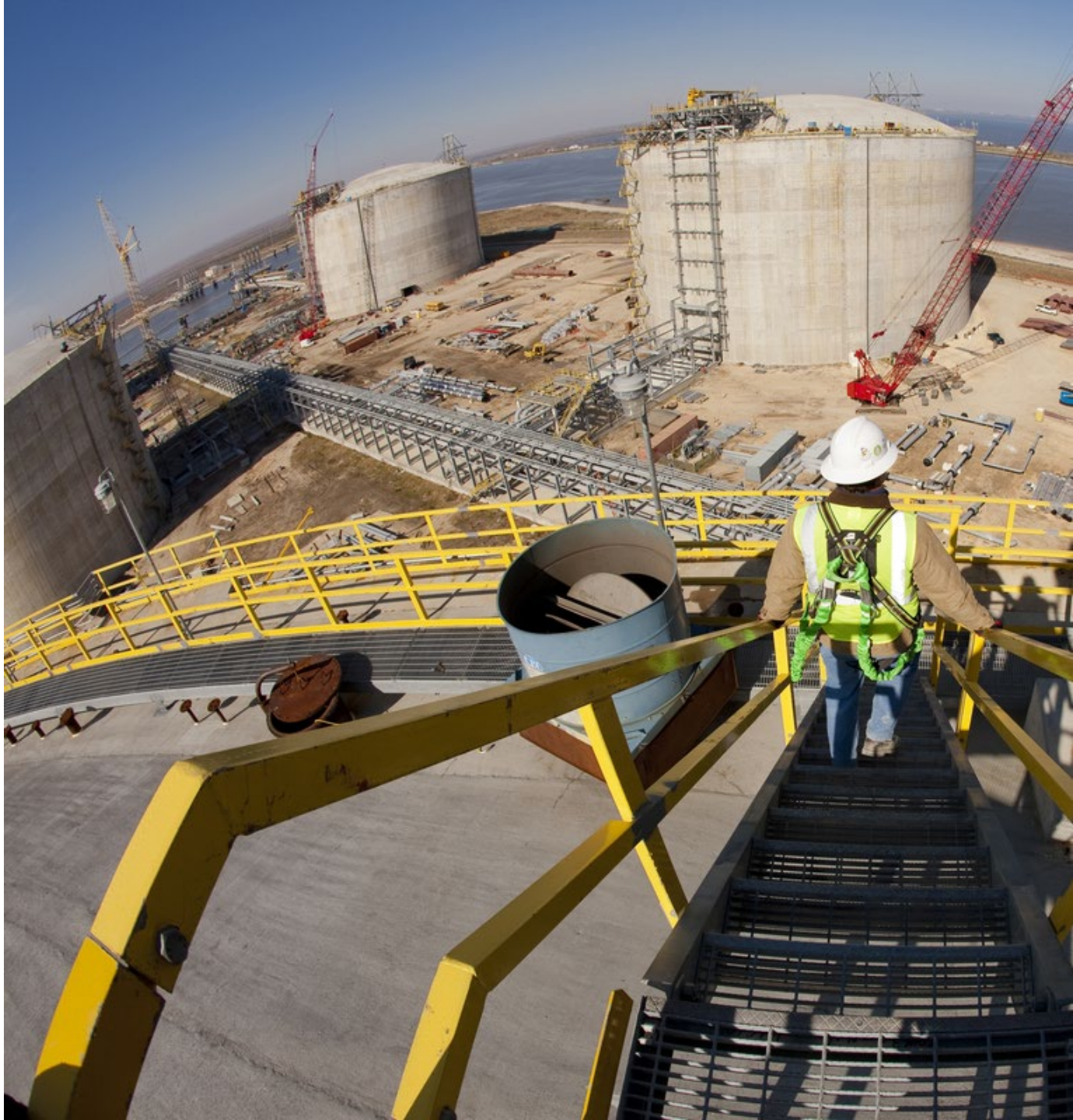
Business Challenge

Have you ever executed an equipment intensive project and found that you have inconsistent data across the suite of design tools applied by your engineering-procurement-construction (EPC) firm?



CFIHOS at a Glance

Capital Facilities Information HandOver Specification

What is it?

CFIHOS (pronounced see-foss) is an information standard delivering a common language for equipment and engineering deliverables across the supply chain. The goal of CFIHOS is to eliminate the friction in getting the right information (data and documents) to start, operate, maintain, and decommission your facilities.

Why now?

The industry is in transition with a wide range of maturity and capability. As CFIHOS matures, it creates consistency and interoperability in our equipment data.

Who is doing this?

Our competitors have been leveraging a data centric approach for years, Shell donated the seed of this standard in 2012. Five versions have been released as greater industry involvement has evolved the content to meet industry needs.

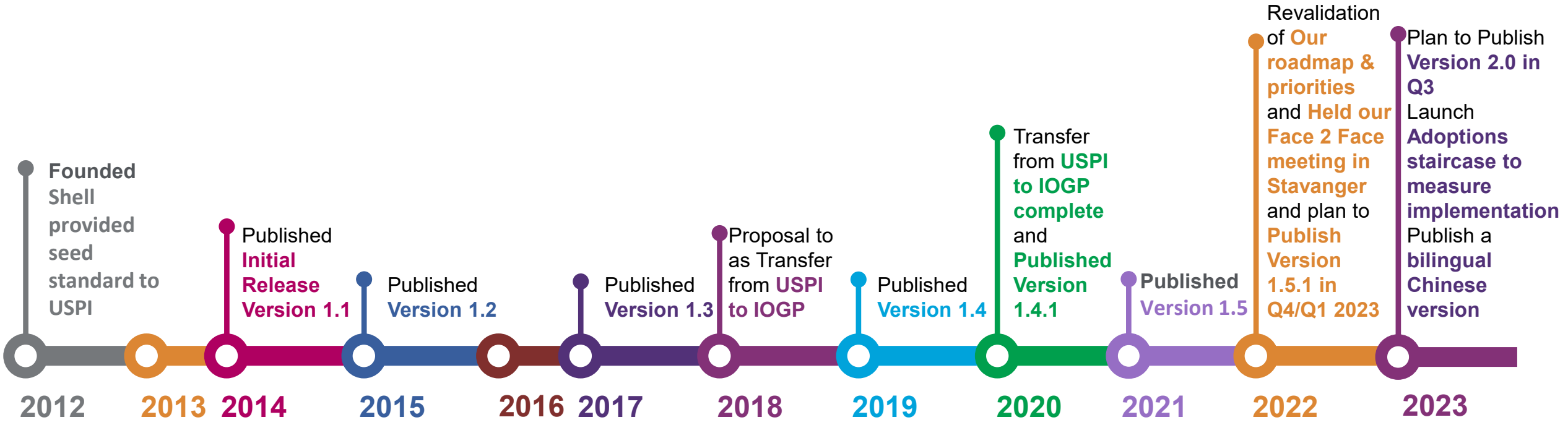
What is it not?

CFIHOS is not cost plus. What CFIHOS specifies is a common language and structure to turn over information that already exists in EPC systems.
It is not above and beyond what we have asked for before – this just elevates it from PDF to true data.

CFIHOS – Timeline

Since the initial release in 2014 there have been six versions published.

The current version is 1.5 with a point release due at the end of the year and a full release to be published in Q3 2023



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CFIHOS Key Elements

Technical Specification Document
Requirements, rules and principles for information handover

Data Model
For structuring data and documents about assets

Process & Guidance Documents
Outlining implementation steps (and do's & don'ts)

Reference Data Library (Dictionary)
Consistent naming of equipment, properties & documents

RED – *What is it?*

Repository | **Engineering** | **Data**

ExxonMobil's implementation of Aveva AIM & ISM to establish a data quality validation solution with minimal configuration to enable data centric engineering surveillance, improve data handover to operations, and build an engineering data foundation to allow for global asset analytics.

RED - *How does it work?*

Repository | **Engineering** | **Data**

ExxonMobil Data Standards

Incorporated into contractual requirements

EPC

EPC Contractor Data

Typically siloed by discipline; inaccessible for Owner Operator as data

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Completeness Compliance Consistency

Provides visibility into quality of Capital Projects equipment data

Electronic Document Management System

Data Flow

Issue Log

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Projects Data System of Record

(MVP in 2022)

- Highly searchable single source of truth for equipment data in one location
- Improved information handover to Project and Operations systems or record

Operations & Manufacturing Engineering Data System of Record

Deliver to data foundation to enable surveillance and maintenance capabilities

RED – How does it *really* work?

RED Washing Machine
Checks data against business rules

Dirty Shirts
EPC Partner 1 data

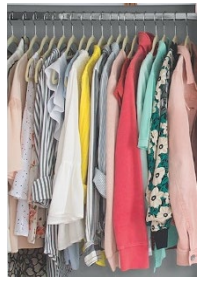
Dirty Pants
EPC Partner 2 data

Cleanses Clothes
"Data Cleansing" to remove special characters, extra spaces, "N/A", "TBD"

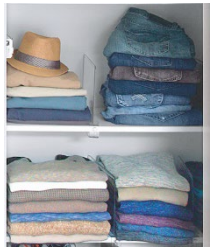
Clean Clothes
Data that has undergone quality checks

Sort Clothes
Map data to various systems of record

Hanging clothes into closet
Data to Enterprise Resource Planning tools



Folded clothes into closet
Data to Project Tools



Organized closet of all clean clothes - easy to find your favorite shirt or share with a friend
Structured and trusted Engineering Data System of Record; easily searchable and sharable

Clothes with stains, send back to dirty pile
3C Quality Report, send back to EPC Partners to correct data

RED – *What are the benefits?*

For Greenfield Projects Teams

who need a single source of truth for equipment data and a data hand-over platform, RED is:

- A data quality solution that is easy to use
- A highly-searchable and integral data-centric element for project information and handover, unlike historically document-centric project delivery

For Construction Teams

who need complete, consistent, and compliant equipment data throughout Construction, RED is:

- A data quality solution that provides a single source of truth
- A data-centric industry-established platform for finding and connecting equipment information across an entire project, unlike other tools currently in use

For Systems Completion Teams

who need to automate commissioning check sheet data population, RED:

- Is a data quality solution that streamlines data flow
- Automates data exports mapped to systems completion tools, unlike today's manual document extraction

For New Operations Readiness Teams

who need to automate ERP equipment data population from Projects, RED:

- Is a data quality solution that streamlines data flow
- Automates data exports mapped ERP as well as establish a project hand-over platform, unlike today's manual document extraction

For Operations Teams – *Phase 2*

who need access to all equipment data for maintenance and regulatory requirements, RED:

- Is a data repository that provides a single source of truth for equipment data
- Houses the equipment data and attributes for site and global use, unlike document management tools

Conclusion

The desire for greater digital transformation requires new methods to implement traditional practices. Implementing tools which can improve data quality and compliance with industry standards can underpin pursuit of varied value cases

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Questions?

Please wait for the microphone.

State your name and company.

Please remember to…

Navigate to this session in the mobile app to complete the survey.

Thank you!

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