

Industrial Data Ontology (IDO) project

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Project Manager IDO



A new standard is in the making

IDO is supported and applied in several industries



ISO 23725-3 IDO standardization in ISO (/TC 184/SC 4)

Motivation

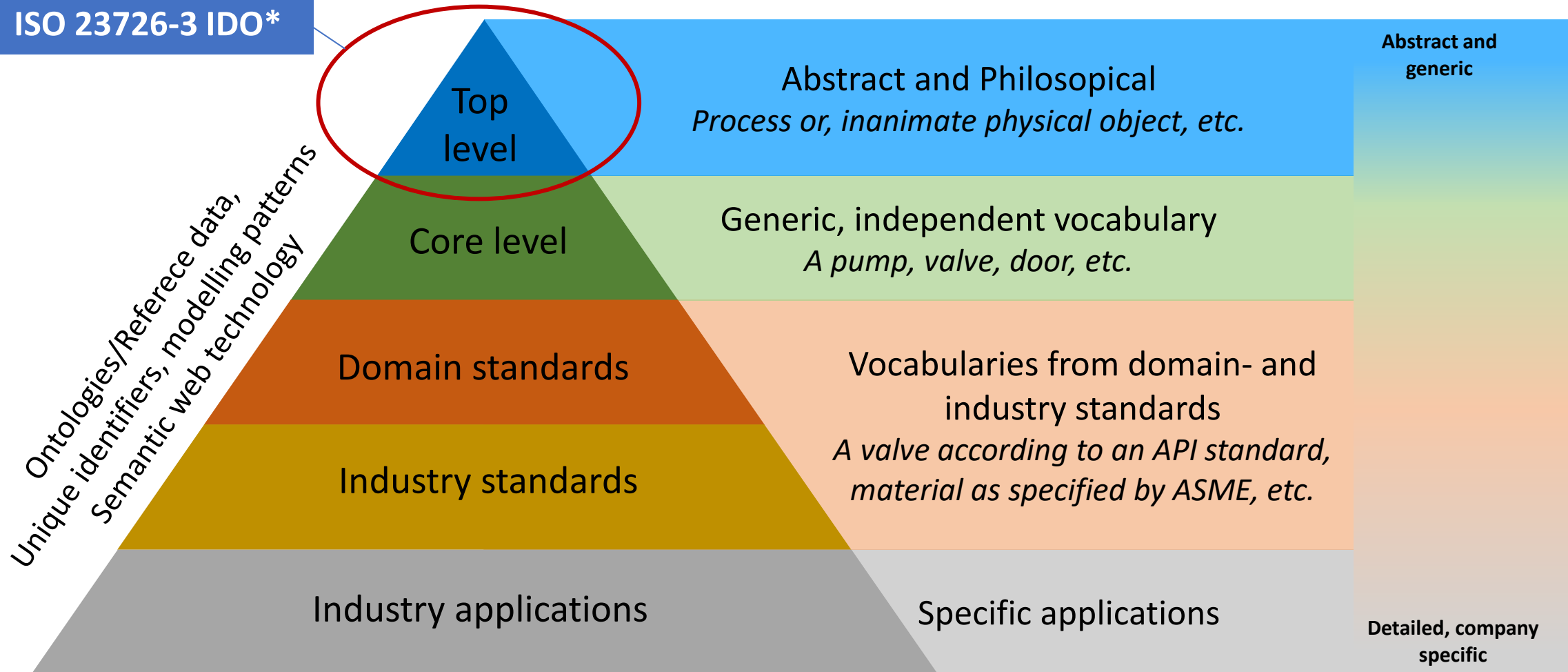
- **Stable reference to secure investments done**
 - READI, DISC (NOAKA/Yggdrasil), ILAP, etc.
- **Improvements and quality assurance through ISO process and community**
 - Ontology
 - Documentation

Industry's requirements (high level)

- **Language to integrate standards and information across industries**
- **Support automated verification, validation and quality assurance**
 - Reasoning (Artificial Intelligence)
- **Simplicity and usability**
 - Re-use when possible
 - Keep it as minimalistic as possible
 - Use cases to demonstrate

IDO is a foundation for a well organized and consistent digital vocabulary enabling «machine understandable» information and requirements

ISO 23726-3 IDO*



* Formerly known as ISO 15926 -14

IDO is the initial part (Part 3) of ISO 23726 OBI (Ontology Based Interoperability)

- Managed and developed by ISO/TCA 184/SC 4/WG 26 OBI
 - Currently 32 members from 8 countries
- Possible additional parts:
 - Part 1: Overview and fundamental principles
 - Part 2: Terms and definitions
 - Part 4: OBI Conformance
 - Part 101 Ontology for scheduling - Plan is to propose in 2024
 - Part 10x IDO Use Cases (TR or TS)/Domains/Applications
 - IMF (Information Modelling Framework)

IDO Project scope

Definitions and explanations for all ontology resources (classes and relations)

Improvements of vocabulary and semantic constraints

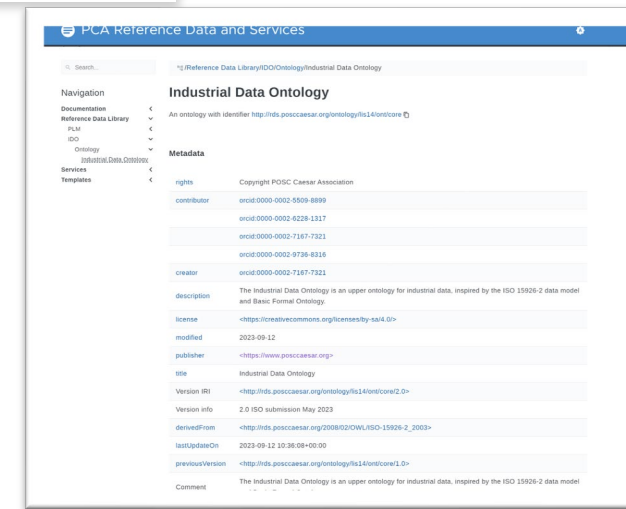
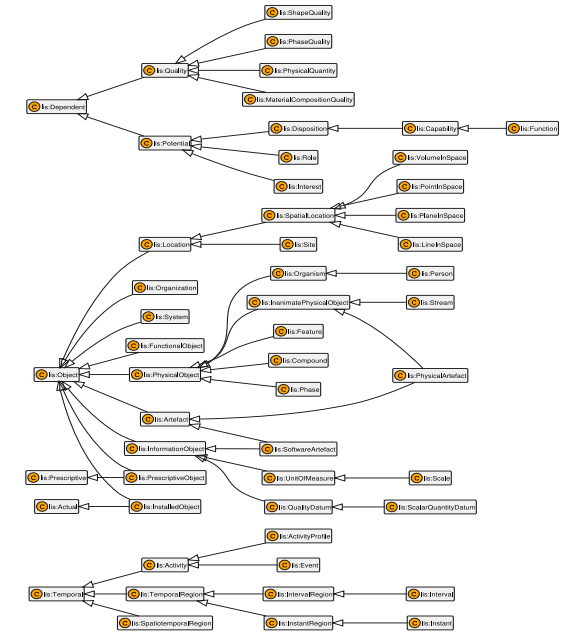
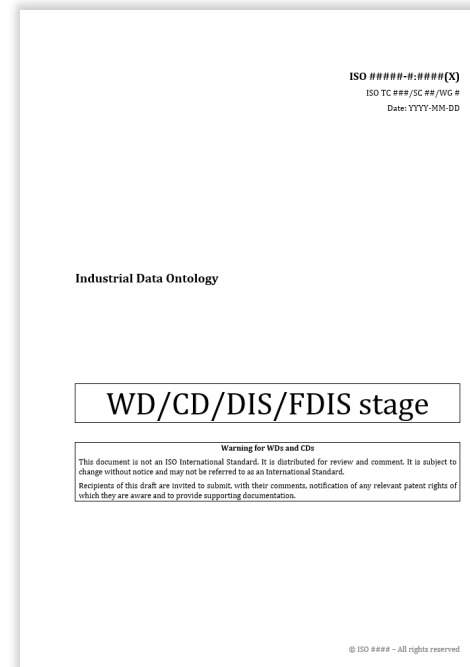
Cross-references to other standards and models

Modelling examples and detailed use cases (Now lifted out of ISO standard)

Alignment with ongoing projects and initiatives

Final Deliverables

1. Document (DIS/FDIS)
2. Ontology (Electronic insert)
3. Use Cases published on PCA web site



To ensure relevance and momentum, an international consortium of «front runners» has been established

IDO Consortium	
Members	Observers
Aker Solutions	UWA
Equinor	UNISA
AkerBP	UiO
Standards Norway	CFHIOS
Total Energies	
Grundfos	
SEIIA	
Siemens	
Aibel	
PCA	
DNV	

Work with
and support

ISO/TC 184/SC 4/WG 26	
Country	Members
Australia	7
Norway	7
France	4
India	3
Germany	2
Sweden	2
Denmark	1
USA	1
Liasons	3
ISO	2
Total	32

Planned Overall Schedule



IDO is available and is in used today

PCA Reference Data and Services

Search... /Reference Data Library/IDO/Ontology/Industrial Data Ontology

Industrial Data Ontology

An ontology with identifier <http://rds.posccaesar.org/ontology/lis14/ont/core>

Metadata

rights	Copyright POSC Caesar Association
contributor	orcid:0000-0002-5509-8899
	orcid:0000-0002-6228-1317
	orcid:0000-0002-7167-7321
	orcid:0000-0002-9736-8316
creator	orcid:0000-0002-7167-7321
description	The Industrial Data Ontology is an upper ontology for industrial data, inspired by the ISO 15926-2 data model and Basic Formal Ontology.
license	< https://creativecommons.org/licenses/by-sa/4.0/ >
modified	2023-09-12
publisher	< https://www.posccaesar.org/ >
title	Industrial Data Ontology
Version IRI	< http://rds.posccaesar.org/ontology/lis14/ont/core/2.0 >
Version info	2.0 ISO submission May 2023
derivedFrom	< http://rds.posccaesar.org/2008/02/OWL/ISO-15926-2_2003 >
lastUpdateOn	2023-09-12 10:36:08+00:00
previousVersion	< http://rds.posccaesar.org/ontology/lis14/ont/core/1.0 >
Comment	The Industrial Data Ontology is an upper ontology for industrial data, inspired by the ISO 15926-2 data model and Basic Formal Ontology.

PCA Reference Data and Services

Search... /Reference Data Library/PLM

PLM

The Product Lifecycle Management (PLM) RDL currently contains this hierarchy of modules. Click on a node to be taken to the homepage of each module.

```
graph TD; IDO --> core; core --> process; core --> UoM; core --> document; core --> ChEBI; process --> equipment; UoM --> collect; document --> collect; ChEBI --> collect; equipment --> collect;
```

<http://rds.posccaesar.org/ontology/lis14/ont/core/2.0>

<https://rds.posccaesar.org/ontology/plm/>

How to engage in “the movement”

1. Join ISO/TC 184/SC 4/WG 26

- Contact your country’s national standardization body
- Can be found here <https://www.iso.org/members.html>

2. Your organization can join the IDO consortium

- Financial commitments or in-kind work applies
- Contact Project Manager (pal.rylandsholm@dnv.com)

Learn

Influence

Drive

Adopt

Thank you!

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