

# PCA & ISO TC 184/SC4 ISO 15926 Standardisation Process

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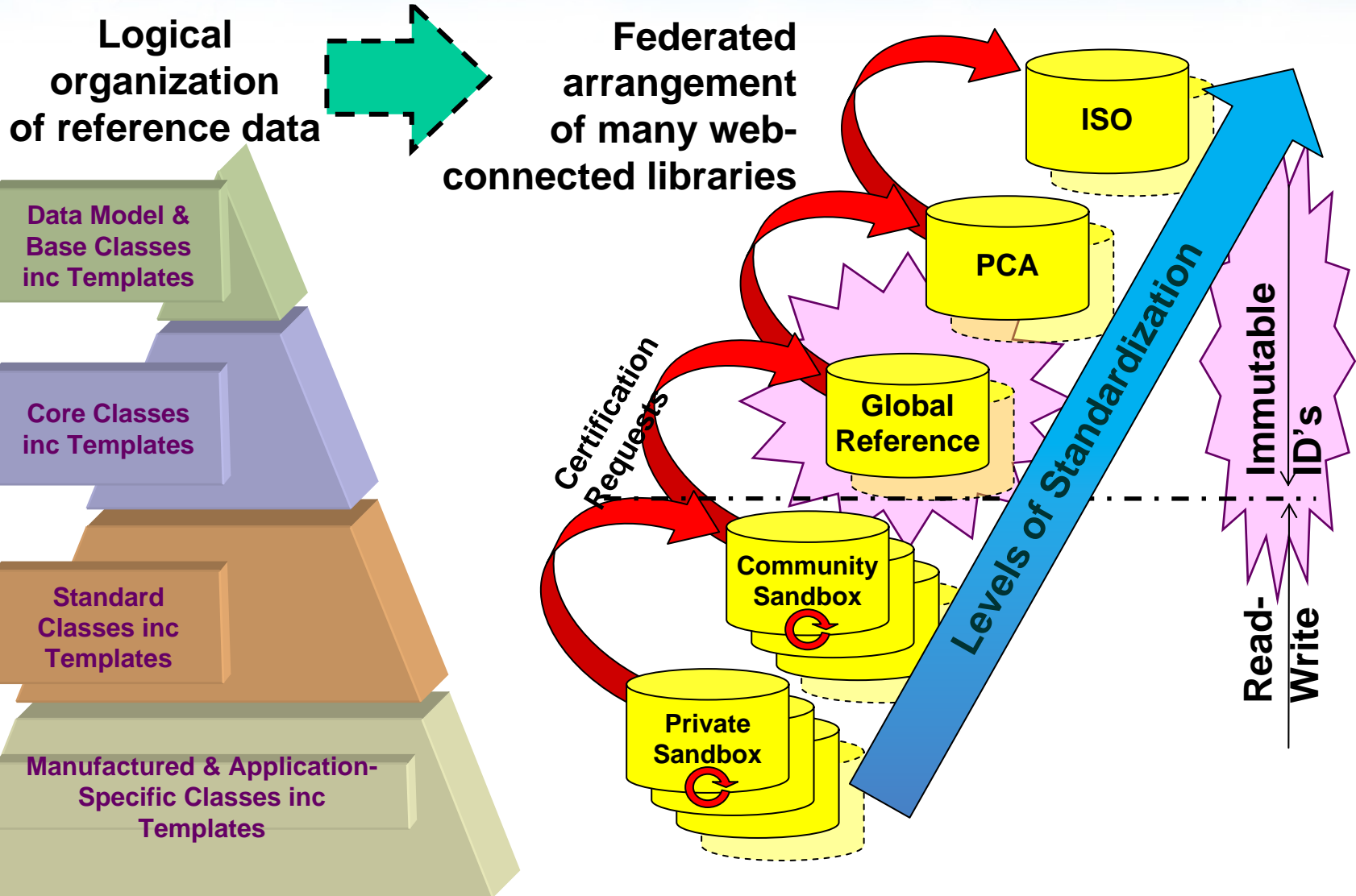
## Axis Of Reference Data

- **ISO 15926-1:2004 3.1.18 reference data**
  - process plant life-cycle data that represents information about classes or individuals which are common to many process plants or of interest to many users
  - and are instances of ISO 15926-2 (Data Model)
- **“ISO 15926 RD” are instances of ISO 15926-2 (Data Model)**
  - But this does not necessarily make it “Standard Reference Data”
- **“Standard Reference Data” is standardised in ISO 15926-4 (or subsequent parts)**
- **PCA Reference Data is ISO 15926 RD, but it is not “Standard Reference Data”**
  - It will be progressed to become so in due course, but is not so by default
  - It is, when standardised by PCA “Industry Standard Reference Data”
- **Domain Reference Data can become PCA or ISO 15926-4 RD by being subject to the appropriate level of standardisation**
- **Company specific RD is not standard in any way unless it has been progressed through some levels of standardisation**
- **Work in-progress (WIP) RD is new RD Items being processed.**

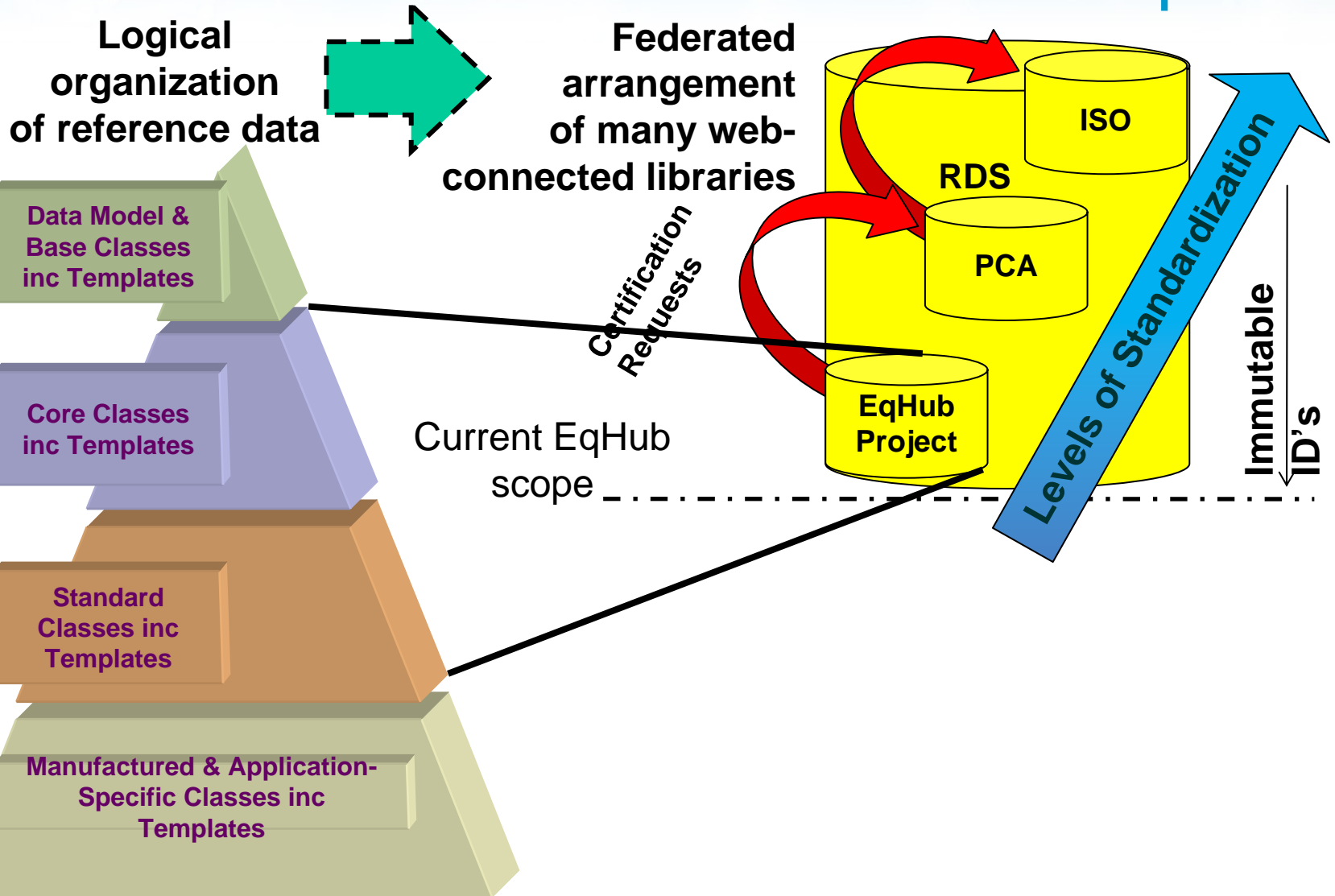
## Types of Classes (Examples are “physical object” classes)

- For management and responsibility purposes the classes are grouped in the following categories
  - **Core Classes**
    - Classes where the specifications of conditions for membership is expressed without reference to any Standard and/or proprietary specification. (Commonly understood terms)
    - Example: Elbow, Elbow 90 Degree Long Radius
  - **Standard Classes**
    - Classes where the proprietary rights to the specifications of conditions for membership is owned/controlled by a standardisation body. (E.g. ISO, IEC, ANSI, ASME, CEN, BS, SAE, API)
    - Example: Elbow 90 Deg. LR ASME B16.9 BE 3” Sch. 80
  - **Proprietary Classes**
    - Classes where the proprietary rights to specifications of conditions for membership is owned/controlled by a proprietary company/body non-standardisation body.
    - Example: Sandvik SteelXYZ, Graylock type ABC
  - **Commodity Classes**
    - Types of Things which can be specified by reference to Standards and/or publicly available Proprietary Specifications, and where several types of manufactured items may meet the requirements.
    - Example: Elbow Type X (ELL 90-DEG BE, ASME B16.9 LR, 3” SCH 80,CS ASTM A234 GR WPB/NACE MR-01-75, BS-EN-10204:3.1B)
  - **Manufactured Item Classes**
    - Example: Manufacturer A’s Type X

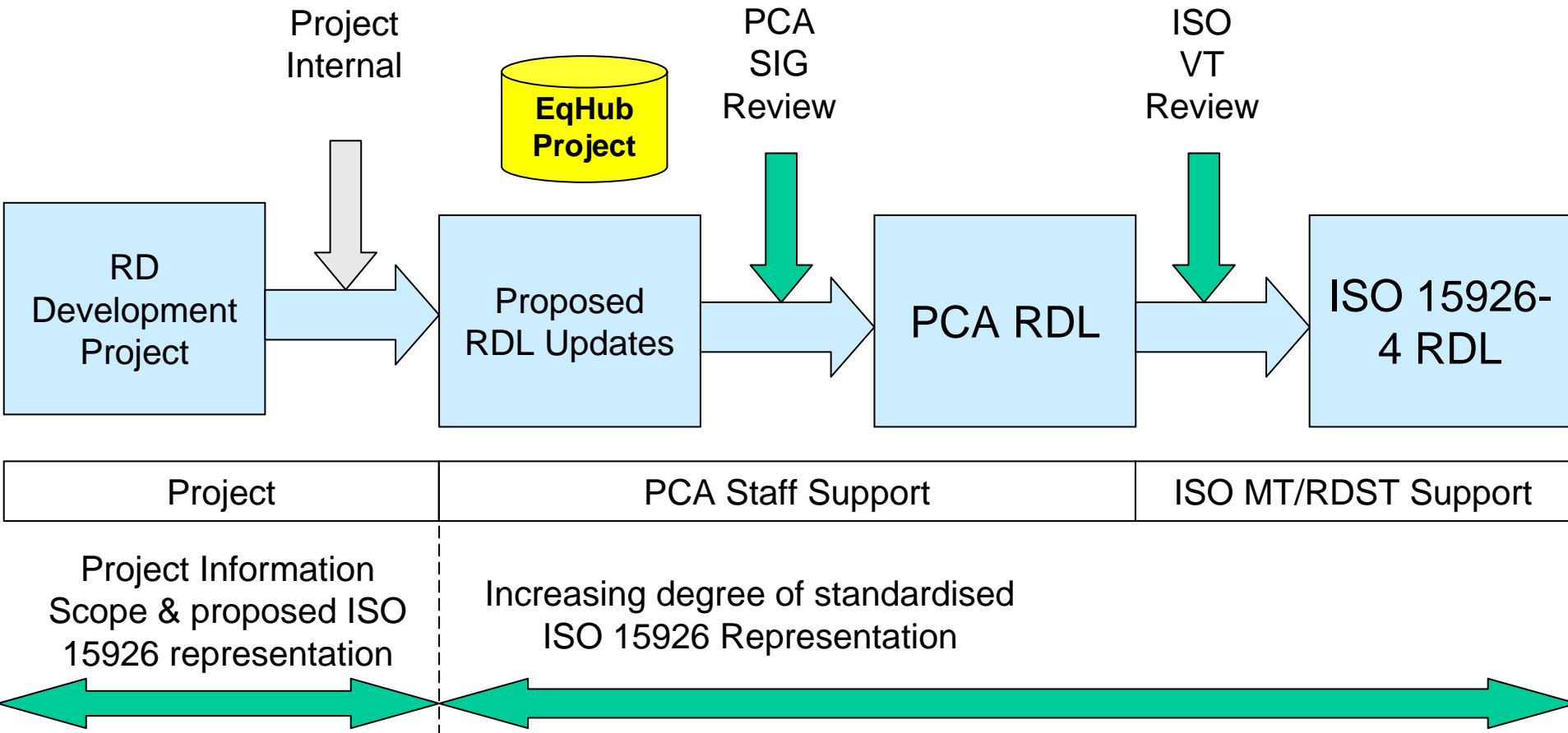
# 15926 & Federated Reference Data



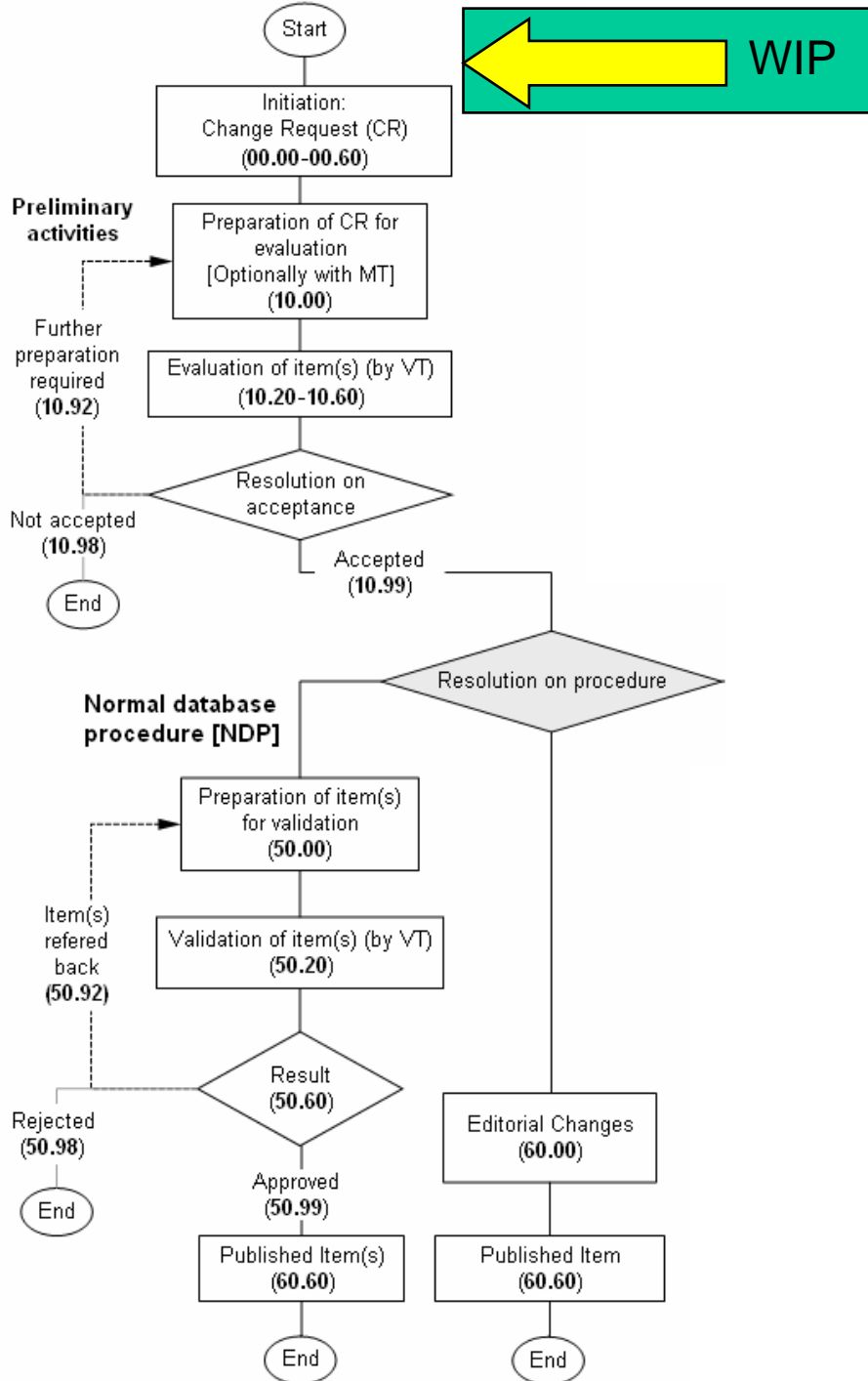
# 15926 & Federated Reference Data in EqHub



# EQHub RD Standardisation Process



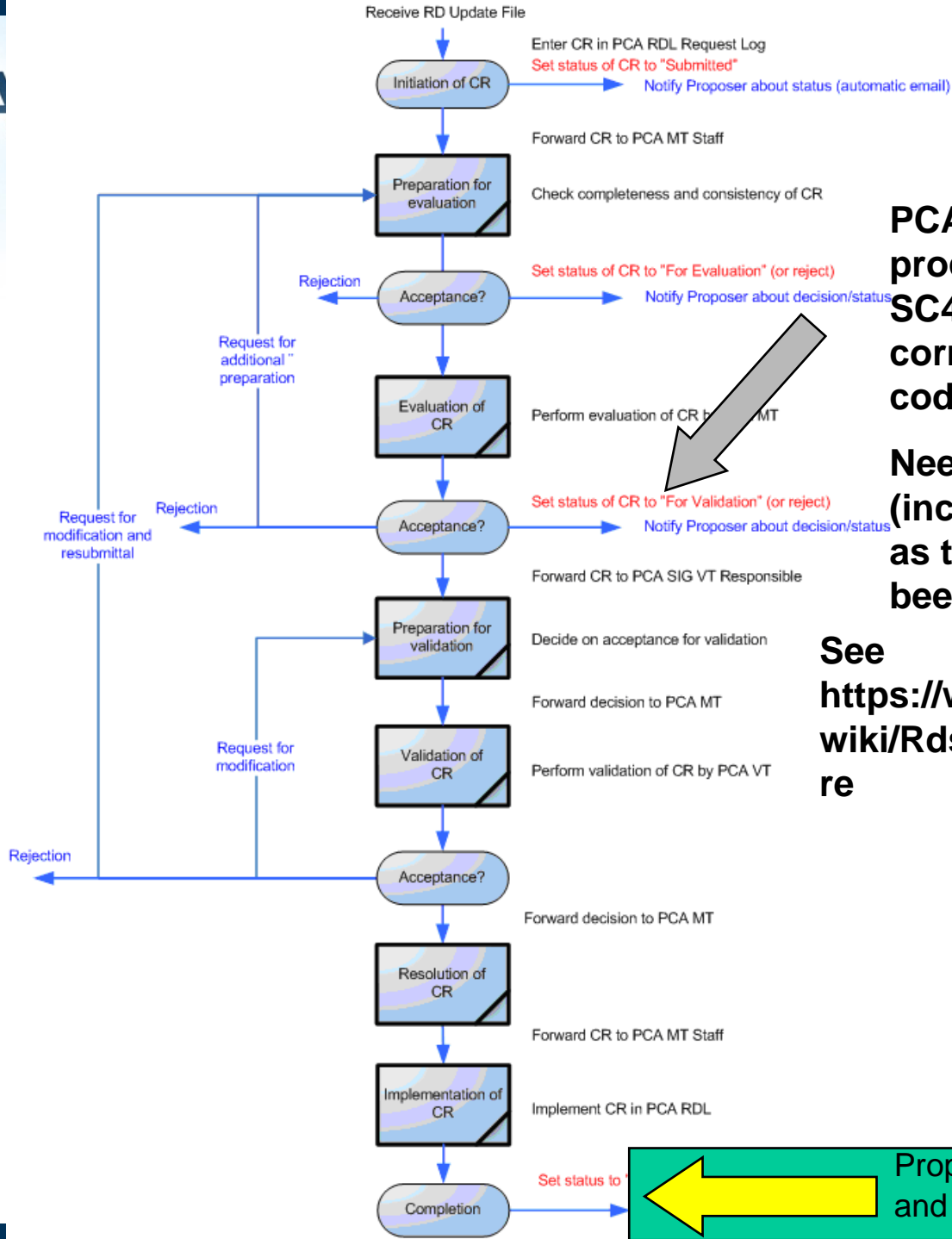
# SC4 Normal process for the maintenance of existing standards as databases



# PCA Process for the Development of PCA RDL and submissions of proposals to ISO



[www.posccaesar.com](http://www.posccaesar.com)



PCA has developed a procedure that mirrors the SC4 process and corresponding status codes.

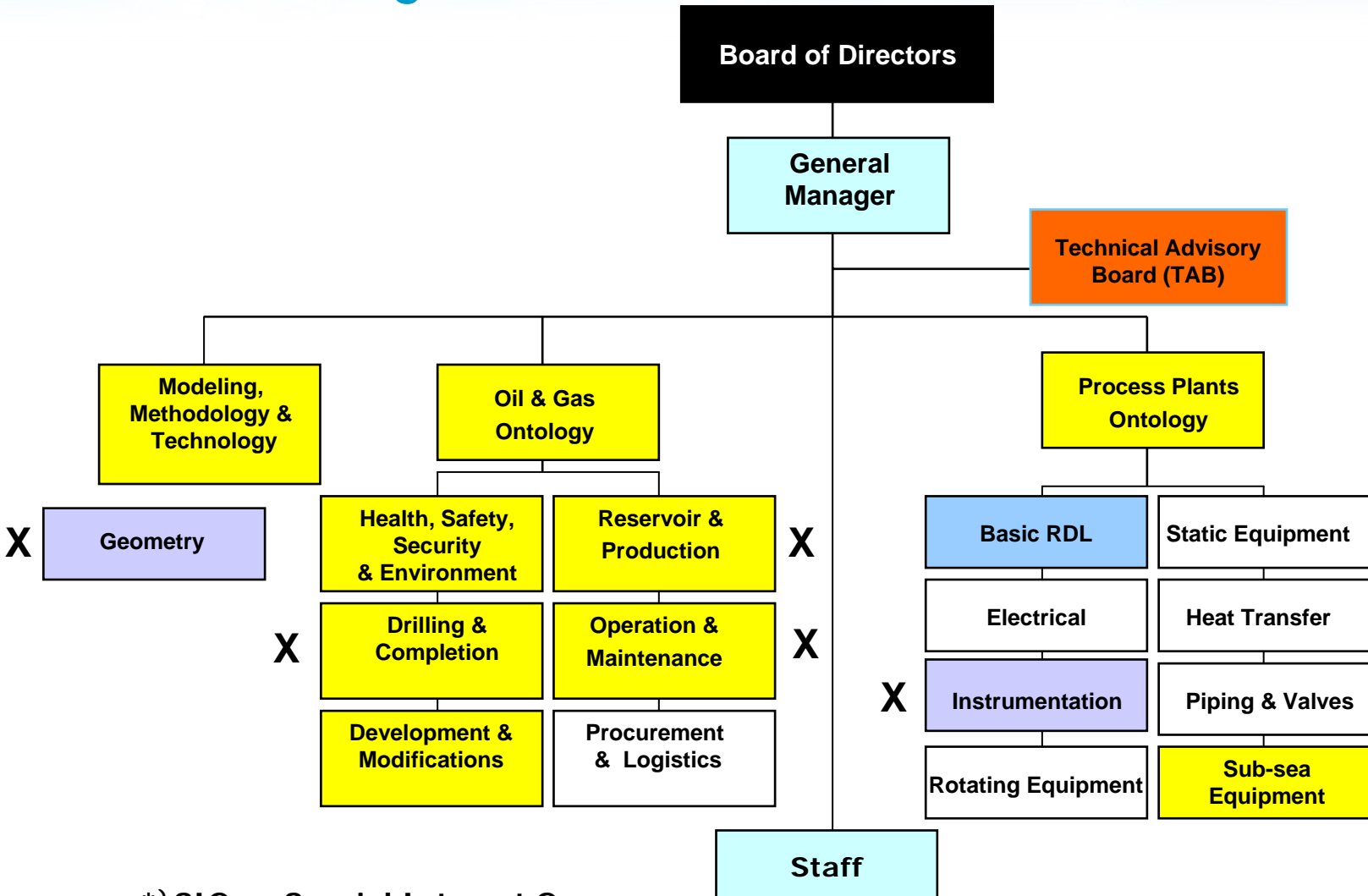
Needs minor updates (including status codes) as the SC4 procedure has been updated.

See <https://www.posccaesar.org/wiki/RdsMaintenanceProcedure>

Proposal to SC4 RDDB and PCA approved



# PCA's Organization



\*) SIGs – Special Interest Groups

To be extended reflecting business needs

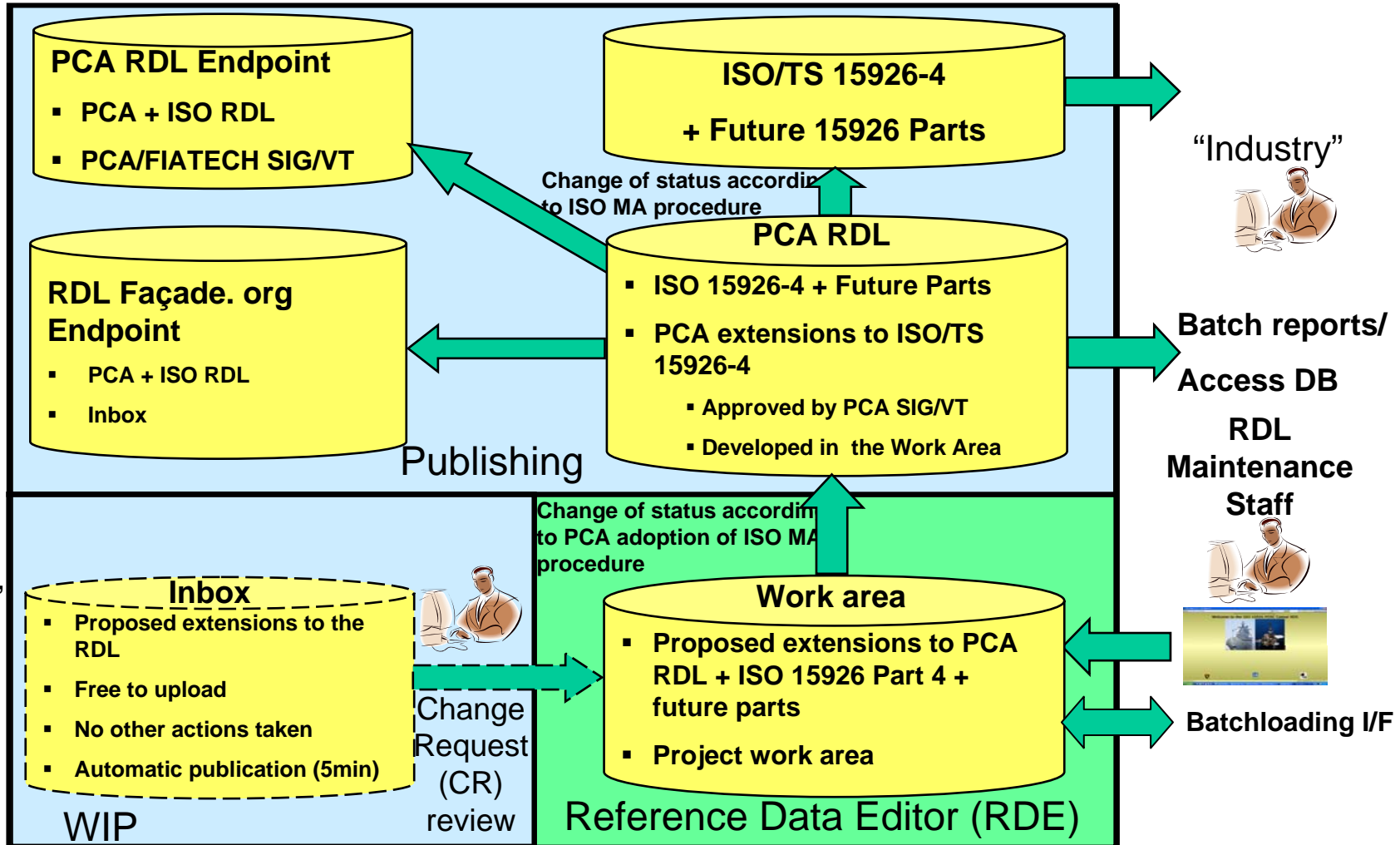
## .... some challenges with existing PCA RDL

- **The current PCA RD consists of**
  - **Data imported from PCA Snapshot E DB (including PCA project data + STEPLib data)**
  - **Data imported from ISO 15926-4 CD/TS spreadsheets**
    - **Originating from PCA Snapshot E and STEPLib**
  - **PCA project data (IIP, IOHN)**
- **Some of the SC4 spreadsheets are not compliant with ISO 15926-2**
  - **The relationship classes does not have the related classes modelled so they could not be directly imported to the RDS**
    - **ADI helped fix the scale spreadsheet, so this was basically correct**
  - **This affects the property, scale, information, information representation**
- **The Snapshot E data also missed related end data**
  - **Some data was incorrectly migrated**
- **Late understanding of how to use and model templates**
  - **Some data is in the wrong place (In particular in the 'single\_property\_dimension', 'document\_definition' and 'class\_of\_identification' area)**

## ISO 15926-4 Initial Set (Included in PCA RDL)

- ISO TS 15926-4 (2007) ACTIVITY
- ISO TS 15926-4 (2007) BASICS
- ISO TS 15926-4 (2007) CLASS OF CLASS
- ISO TS 15926-4 (2007) CONNECTION MATERIAL
- ISO TS 15926-4 (2007) CONTROL FUNCTION
- ISO TS 15926-4 (2007) ELECTRICAL
- ISO TS 15926-4 (2007) ENCODED INFORMATION
- ISO TS 15926-4 (2007) HEAT TRANSFER
- ISO TS 15926-4 (2007) INFORMATION
- ISO TS 15926-4 (2007) INSTRUMENT
- ISO TS 15926-4 (2007) PIPING
- ISO TS 15926-4 (2007) PROPERTY
- ISO TS 15926-4 (2007) PROTECTION
- ISO TS 15926-4 (2007) ROTATING EQUIPMENT
- ISO TS 15926-4 (2007) SOLID HANDLING
- ISO TS 15926-4 (2007) STATIC EQUIPMENT
- ISO TS 15926-4 (2007) TRANSPORT
- ISO TS 15926-4 (2007) UOM
- ISO TS 15926-4 (2007) VALVES

# Logical Map of RDS



End

## POSC Caesar Special Interest Groups (SIG)

For assuring high quality of the reference data, POSC Caesar (PCA) has established Special Interest Groups (SIG) for some business domains in the upstream sector of Oil and Gas industry and for discipline areas in Process Plants. The SIGs are accountable for their domains. PCA's Technical Advisory Board (TAB) is accountable for the consistency and quality of the reference data across domains.

A 3 step quality process has been defined by PCA:

- Submission of terminology from research or industry projects
- Work-In-Progress (WIP)
- ISO standard

The [IIP](#) and [IDS projects](#) are examples of projects delivering terminologies of high quality. To obtain status as an ISO standard (become a Part of [ISO 15926](#)) for ontology in one or more domains, an ISO standardization process has been carried out. Part 3 and 4 are examples of existing ontology parts in ISO 15926.

This Trac system was initially set up to serve the PCA SIGs. The SIG's will maintain and develop domain-specific areas of the POSC Caesar Reference Data Library.

The SIGs have a [mandate](#).

POSC Caesar Special Interest Groups: [edit](#)

- [Modelling, Methods and Technology](#)
- [Drilling and Completion](#)
- [Health, Safety, Security and Environment](#)
- [Development and Modifications](#)
- [Operation and Maintenance](#)
- [Procurement and Logistics?](#)
- [Reservoir and Production?](#)
- [Subsea Equipment?](#)
- [Instrumentation and Control](#)
- [SIG Technical Advisory Board](#)

## Proposed Future Conformance Level

- **Dictionary Conformance (Adding RDL identifiers to your data)**
- **Signature Conformance (Part 7)**
  - Signatures as defined in RDL
  - Camelot (IDS3) - iRING
- **Lifting/lowering Conformance**
  - Signatures as defined in RDL
  - + Full Part 7
- **Part 8 as the data carrier format**
- **Part 9 for the API**
- **This does not prevent other solutions, but these will be the standardised**
- **Dictionary conformance level will still provide substantial business benefits**