



PPDMTM

What is a Facility?

FEASIBILITY STUDY, summary package

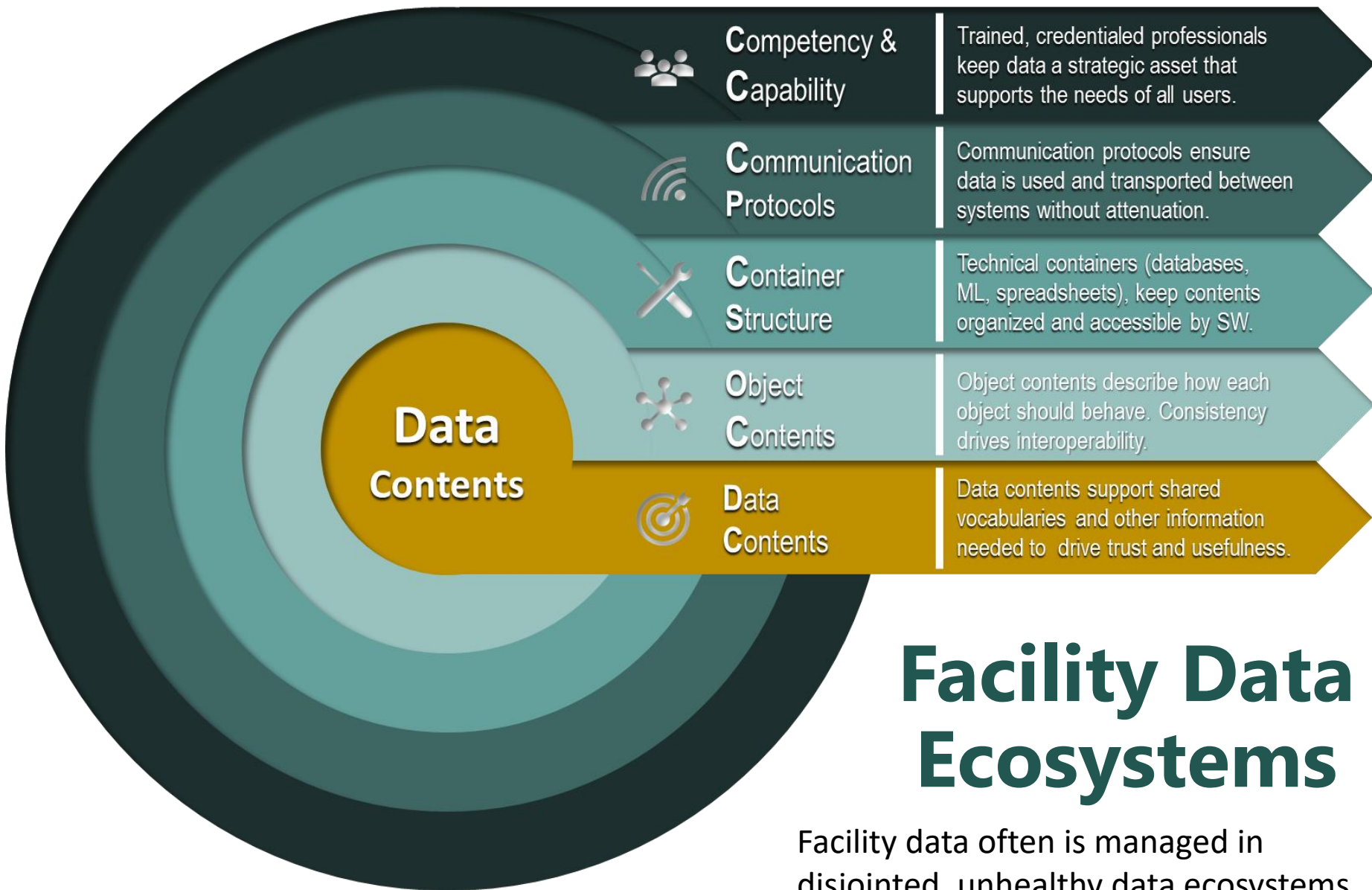
June 29, 2020

About the Professional Petroleum Data Management Association

- PPDM's objectives and strategies are focused on data and data professionals
 - PPDM is intentionally vendor neutral
 - PPDM is not for profit
- PPDM has a long, trusted industry relationship (30 years).
 - The PPDM Board of Directors is elected from the membership
 - PPDM Community is over 14,000 strong in over 130 countries
 - Membership mix of operators, regulators, vendors, service companies, educators
- PPDM's reputation for creating materials that make sense and are practical is excellent.
 - PPDM creates business driven standards and best practices
 - Most PPDM products are available to anyone (not just members)
 - The PPDM Methodology supports cross industry participation and strong collective processes.



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Data Contents

Facility Data Ecosystems

Facility data often is managed in disjointed, unhealthy data ecosystems. PPDM Proposes a project to help remediate the problem.

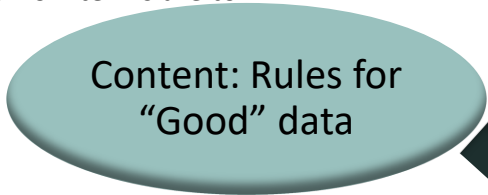


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Data Object Contents conform to PPDM Data Object Definitions applied according to Data Governance methods.

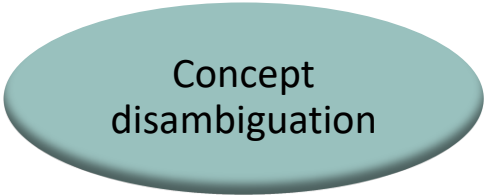
Rules

Express how “well formed” data should behave. They are atomic, measurable, specific and testable.
Rules prevent content attenuation.
Rules may include reference data libraries, and specifications for when and how terms are to be used.



Concept Clarity

Clear descriptions and definitions ensure that integration and data preparation focus on business concepts, and don’t get hung up on proprietary terminology.

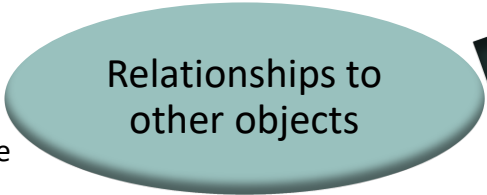


Identity

Criteria for establishing the data difference between “new” objects and “versions” of the same object must be clearly understood.

Relationships

Relationships and cardinality describe real world relationships between objects. Knowledge of these relationships ensures that data represents the business, rather than a specific process. .



Attributes

Each object is defined and described by specific attributes. Some of these definitions are globally applicable, while others are regional or situation dependent.

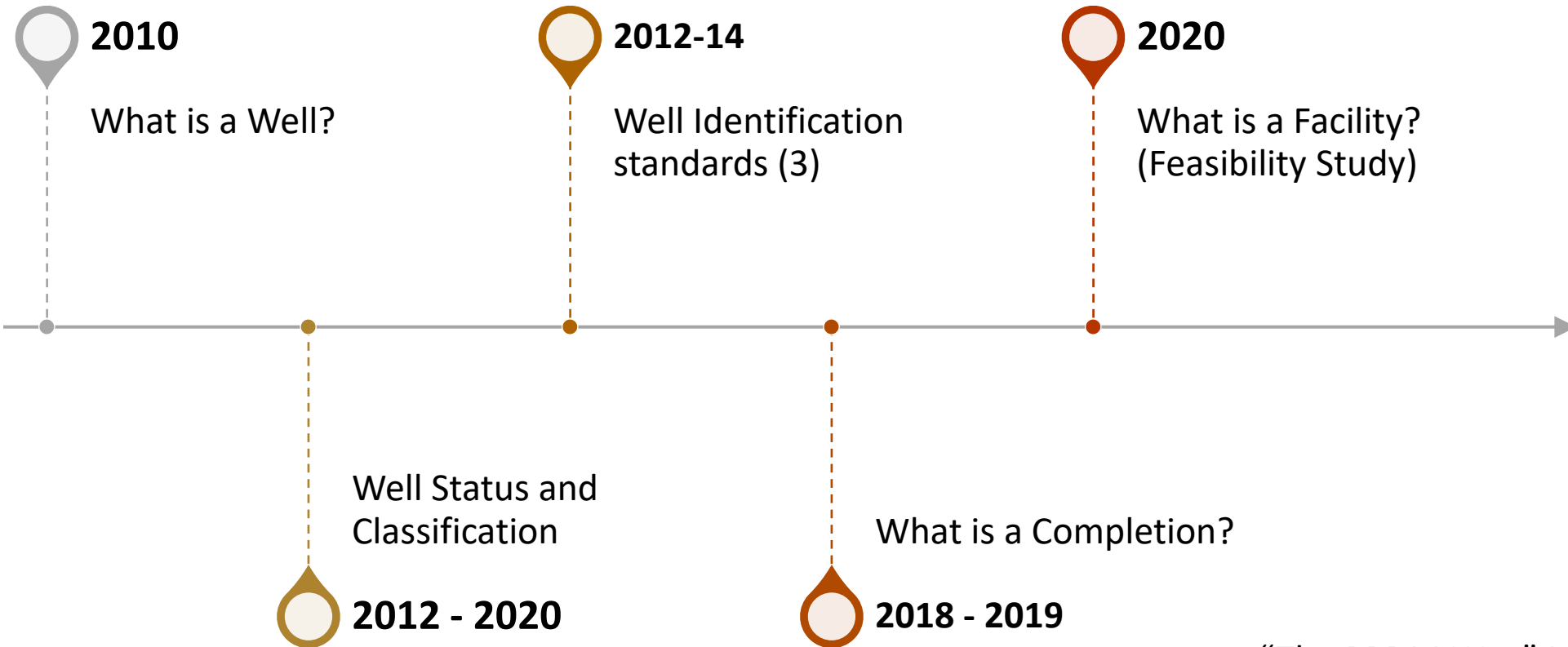
Spatial Descriptions

Most objects can be located on the surface or subsurface. They are subject to change, versioning and interpretation.



PPDM™

PPDM Publications



“The PPDM Way” Methodology has a proven track record for resolving challenges managing data ecosystems.

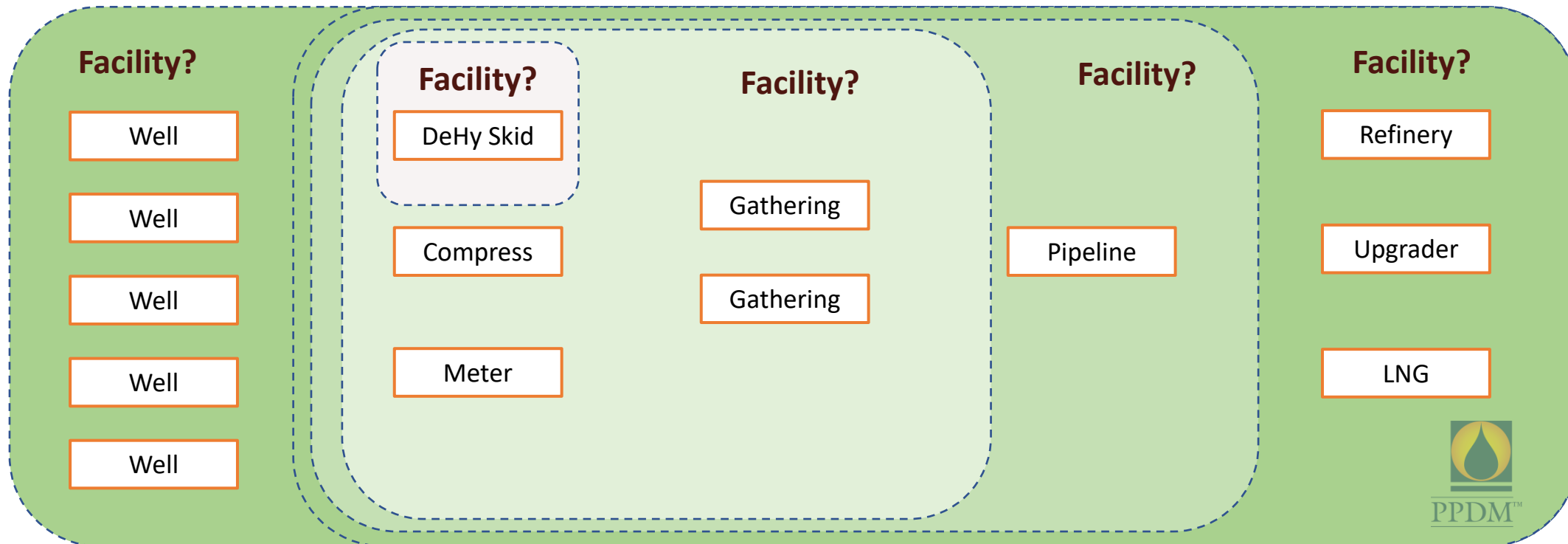


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Feasibility Study

What is A Facility?

Ask 10 different groups and get 10 or more answers!



The answer depends on the operator, the regulator, the regulation or legislation, your software, your SME ...

Background For WIAF

Interactions between O&G operators and regulators are increasing.

- Regulatory expectations are becoming more stringent
- Substantial differences between regulatory regimes make reporting expensive, time consuming and difficult.
- Common language and data standards are vital for consistent reporting, analysis, decision-making, and interpretation.



Technology

Emerging technology
(digital twin, data
warehouses, integrated
analytics)



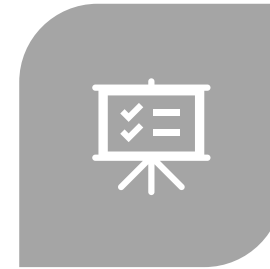
Regulators

More stringent reporting
demands



Efficiency

Internal efficiency



Standards

Common language and
data standards are vital
for consistent reporting,
analysis, decision-
making, and
interpretation

Project Purpose

A 10-week feasibility study was approved by the PPDM Board of Directors

- Determine whether PPDM methodologies can be leveraged to add value in the facilities business space.
- Explore whether a clear catalog of “What is a Facility” facets can be articulated for both operators and regulators.

Activity
Mandate
Team
KOM
Finalize Plan
Agree Scope - Jurisdiction
Agree Scope - Agencies
Extract Definitions
Ontology first pass
Juxtapose definitions
Extract facets
Review facets; macro-architecture
Interpret for Align-ability
Case law decision
Legal opinion decision
Clarify question to legal
Seek legal opinion
Agency interaction decision
Draw Conclusions
Prep Deliverables
Delivery Assetas
Delivery CVX
Delivery PPDM

	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	
Team											
Done											
Done											
Done											
Done											
			Hold								
Done											
Ref only											
Done	Team										
			done								
			Done								
			Team	Team	Team	Team	Team	Team	Team		
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			Done								
			Done								
					Team						
						CVX	CVX				
			Done								
							Team	Team			
									Team		
										Team	
											Team
											Team



Feasibility Study Scope

IN SCOPE for Feasibility Study

- Disambiguate the term “facility” from various appropriate medias, specifically for:
 - (1) Jurisdictions in Alberta, British Columbia, California, Colorado, and
 - (2) Promulgated regulations in those jurisdictions plus US Federal
- Focus on Onshore, Upstream O&G
- Focus on Operating (life cycle) facilities

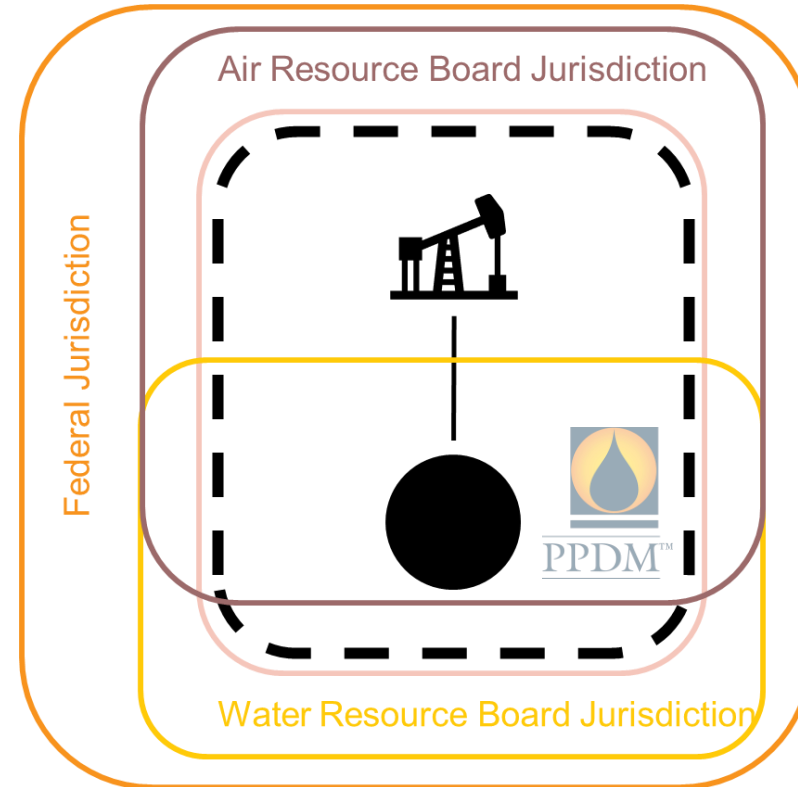
NOT IN SCOPE

- Specific engagement with regulators or legislator
- Considered but did not analyze works by other standards organization (e.g., IOGP, ISO, CFIHOS)
- No legal or informal interpretations of regulations or specific case studies

Regulatory Review

Reviewed 13 regulatory agencies for the US (Federal, California, Colorado) and Canada (Alberta and British Columbia) and their promulgated regulations, primarily for air emissions.

Significant differences in facility definitions for the same set of facility objects makes reporting and data management difficult and complex.

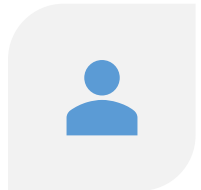




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Outcomes

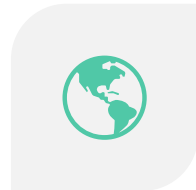
WIAF Classification Facets



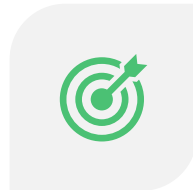
OPERATOR/
OWNER



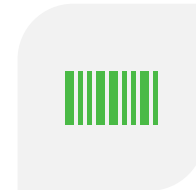
LIFE CYCLE



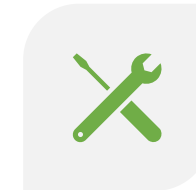
LOCATION



PURPOSE



PRODUCT



EQUIPMENT

A faceted taxonomy uses an organized set of semantic categories that can be combined to fully describe and classify an object. In a faceted taxonomy, a logical set of facets work together to fully describe (or classify) an object or situation.

The atomic nature of faceted taxonomies lends the resulting classification to analytics, reporting and business clarity.

Faceted taxonomies generally deal with topics related to the broad categories *who, what, where, when, why and how*. Each facet in the set should describe one property of an object, and therefore only one kind of information. The facets work together to tell a complete story.

Key Outcomes

The feasibility study confirms that facility data management can be improved by the PPDM Association membership.

The study group recommends that a full-fledged project be proposed to the PPDM membership for comment and feedback.

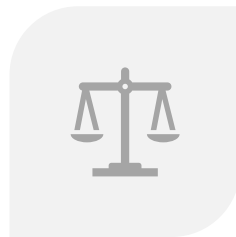
The feasibility study focused on four key functional areas:

A facility is the collection of commonly owned or operated equipment at any life cycle stage that is located within a specific geographic boundary or surface site for the purpose of production, processing, transmission, storage, or distribution of products prior to the point of custody transfer.

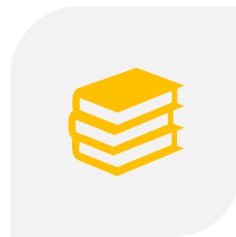
Working WIAF definition



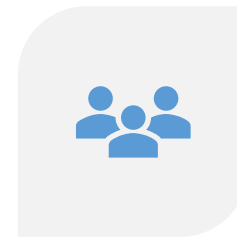
Facet framework and
baseline definitions



Regulatory review
and comparison



Reference material



Methodology &
documentation

Recommendations



1. Develop a clear catalog of facility facets for both operators and regulators.
2. Obtain industry feedback and commitments for resources
3. Form a work group to develop a PPDM “What is a Facility” project to deliver:
 - Consistent global definition of Facility for the industry.
 - Complete set of facets and related terms/data definitions to ensure a complete understanding of Facility.
 - Detailed framework demonstrating the application of the Facility definition.
 - Data object definitions demonstrating how Facility definitions can be unified.

With thanks to our contributors





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What Comes Next?

Next Steps

- Sponsor review (PPDM Board of Directors)
- Develop Terms of Reference for member input
- Obtain member support
 - Develop detailed charter
 - Priority
 - Resources
 - Funding
- Approve charter
- Launch working group

To learn more
about What is a
Facility and
discuss how you
can get involved.

Contact us at projects@ppdm.org



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