

ISO 15926 Compliance

POSC CAESAR, 20th – 21st October 2009
Kuala Lumpur, Malaysia

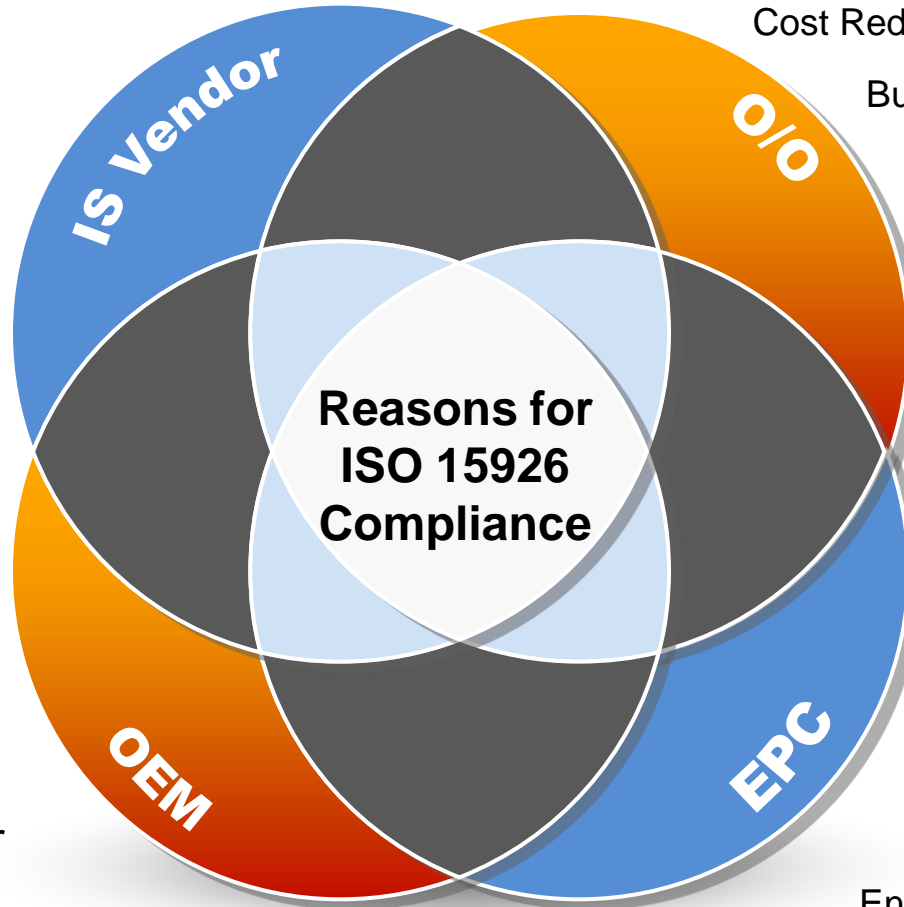
toralf.mueller@alcim.com



Why ISO 15926 Compliance?

Competitive Advantage
Market Requirement
Marketing Tool
Survival

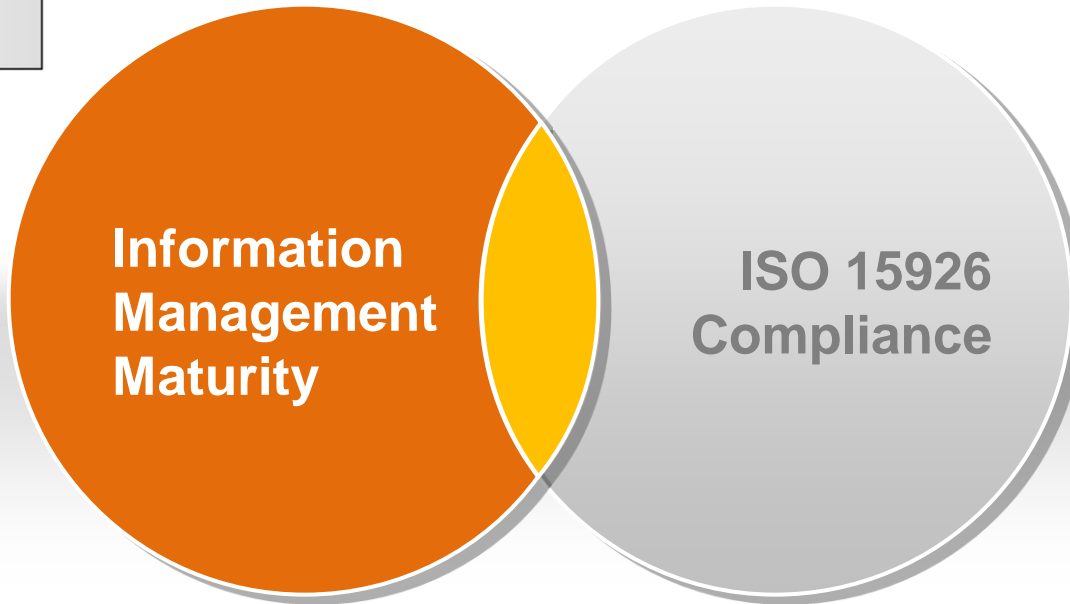
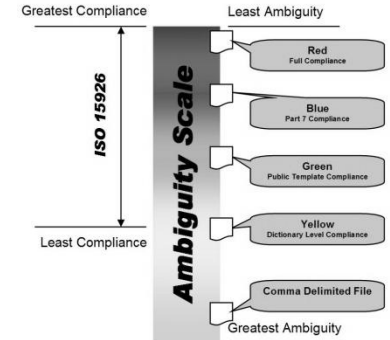
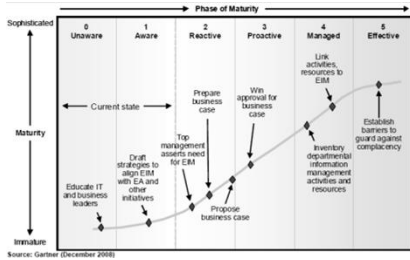
Correct and Complete Asset Information
Cost Reduction for Manual Data Entry
Business Process Improvement
Managing Risk
Information Quality



Marketing Tool
Market Requirement
Value add Services for
.Customer
Competitive Advantage

Integrated Engineering
Avoiding Rework Costs
Transparency in Project
Management
Engineering Information Quality
Business Process Improvement

Information Management Maturity and ISO 15926 Compliance



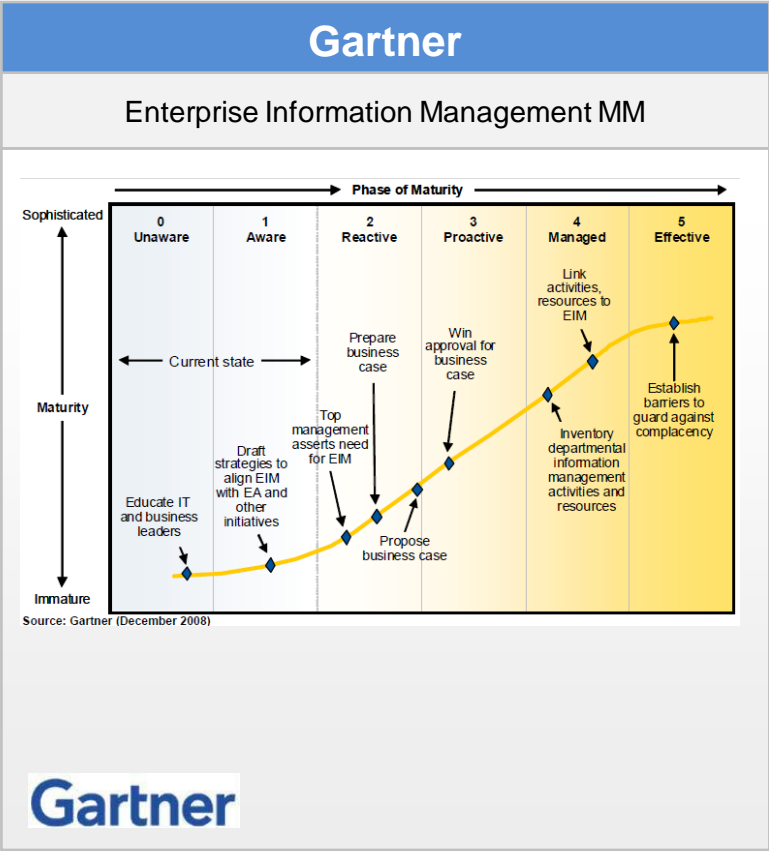
Information Management Maturity

ISO 15926 Compliance

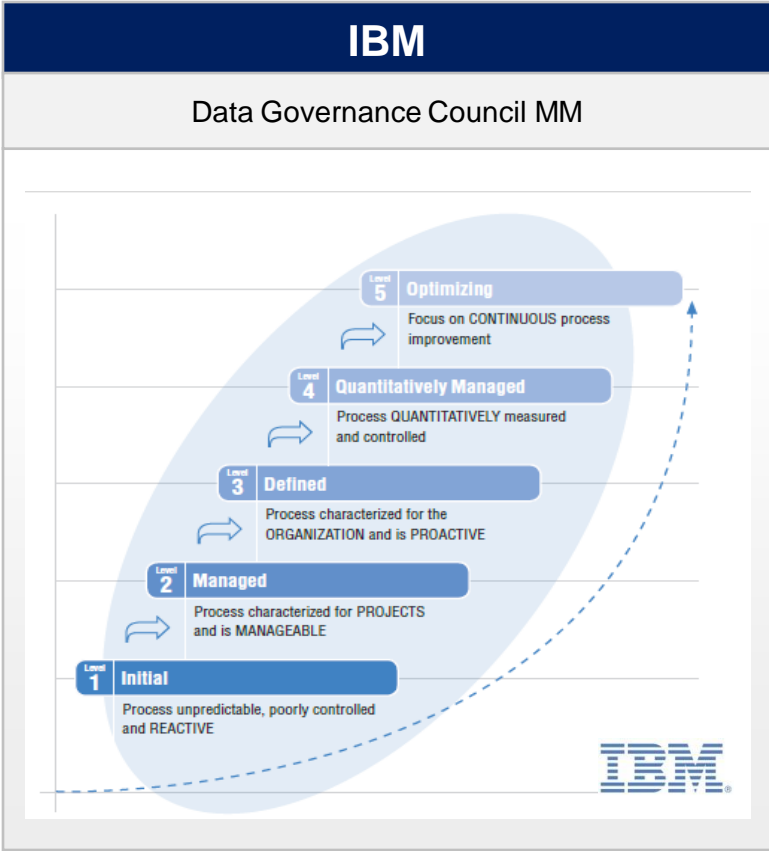
Information Management Maturity describes how an organization is managing information.

The ISO 15926 compliance describes the information interoperability capability of an organization or a system.

Examples for Information Management (IM) Maturity Models (MM)



<http://www.gartner.com/DisplayDocument?id=829515>



http://www-935.ibm.com/services/uk/cio/pdf/leverage_wp_data_gov_council_maturity_model.pdf

IM Maturity Models will enable Organizations to identify what stage of maturity of Information Management they have reached and what actions to take to reach the next level

Gartner Enterprise Information Management Maturity Model

Level 0 - 5



Level 0	Unaware	At Level 0, the organization runs significant risk from undermanaged information, such as compliance failures, poor customer service and low productivity.
Level 1	Aware	At Level 1, the organization attains some awareness about information management.
Level 2	Reactive	At Level 2, business and IT leaders react favorably to the demand for consistent, accurate and faster information across key business units. They take corrective measures to address immediate needs.
Level 3	Proactive	At Level 3, the organization perceives information as necessary for improved business performance and, therefore, moves from project-level information management to EIM. Information supports process optimization.
Level 4	Managed	At Level 4, the organization perceives information as critical for business. The organization has implemented significant portions of EIM, including a consistent information infrastructure.
Level 5	Effective	At Level 5, the organization exploits information across the entire information supply chain, with service-level agreements that are continuously reviewed.

Gartner EIM Maturity Model

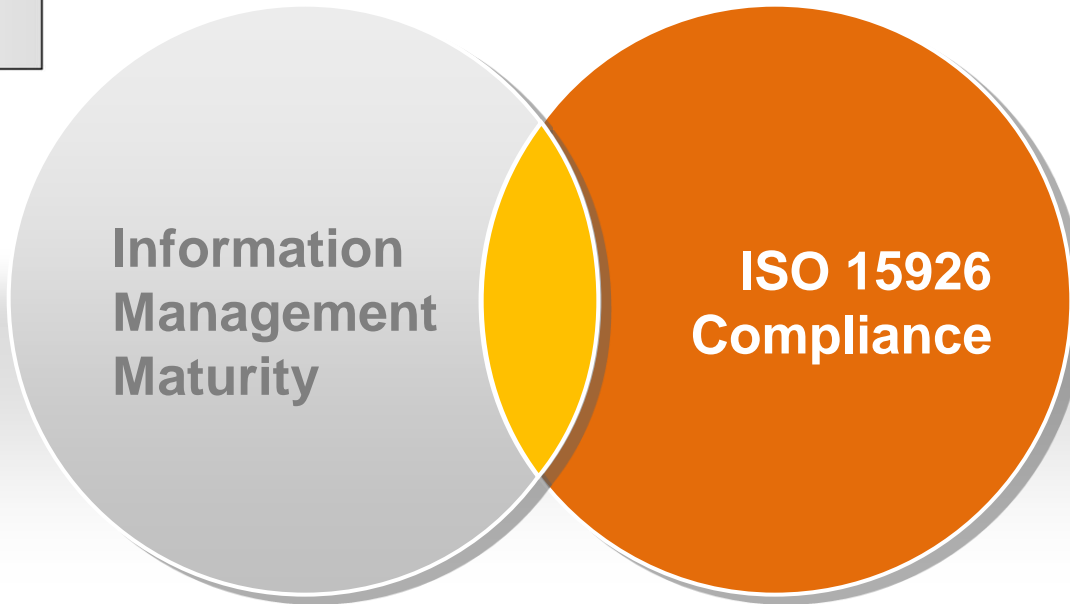
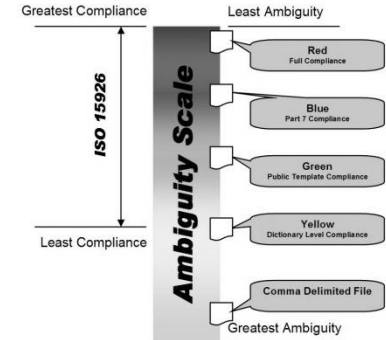
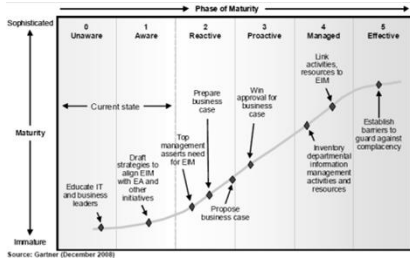
Example Level 0 (Unaware)

At Level 0, the organization runs **significant risk from undermanaged information**, such as compliance failures, poor customer service and low productivity.

- Business managers and the IT organization **do not know that information is a problem**, while users mistrust data.
- The organization makes strategic **decisions without adequate information**.
- **No formal information architecture contains the principles, requirements and models** to guide teams on how to share enterprise information.
- **Information is fragmented and inconsistent** across many different applications. Each department stores and manages data and documents on its own, and chooses technology independently. **No one recognizes data quality issues** or attempts to reconcile conflicts.
- There is **no information governance, security or accountability of key information assets**. Information-related responsibilities are assigned project by project. Archiving and purging serve to maintain system performance or to control costs. No one knows how much is spent on information.
- The IT organization and business units **don't know why metadata is important**. The organization **lacks common taxonomies, vocabularies and data models**. Document management, workflow and archiving occur via e-mail.

Planners and architects should informally educate IT and business leaders on the potential value of EIM and the risks of not having it, especially legal and compliance issues.

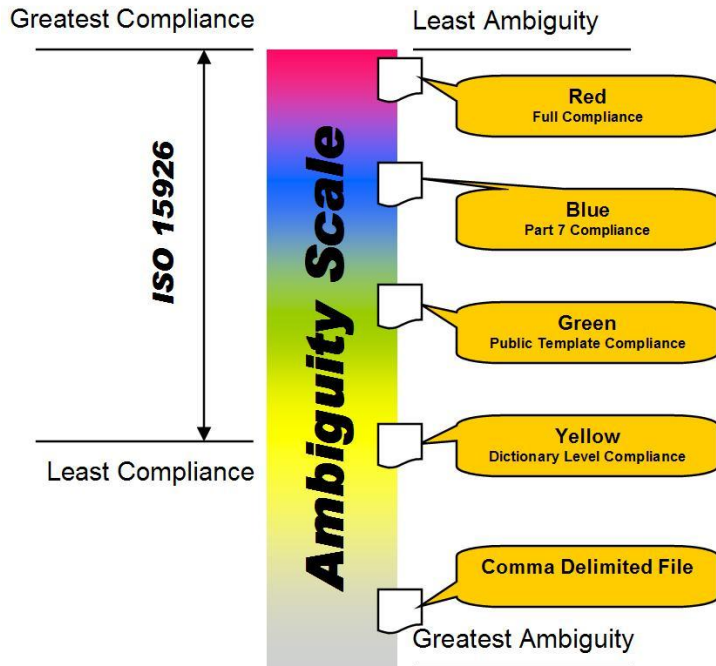
Information Management Maturity and ISO 15926 Compliance



IM maturity describes how an organization to manage information.

The ISO 15926 compliance describes the Information Interoperability capability of an organization or system.

ISO 15926 Primer_Parts_Colors Compliance Category Combination



Axis	Options	Red	Blue	Green	Yellow
Stewardship Capability	Reconcile	Yes	Optional	Optional	
	Consolidate	Yes	Optional	Optional	
	Seed	Yes	Yes	Yes	
	Import	Yes	Yes	Yes	Yes
	Export	Yes	Yes	Yes	Yes
Stewardship Metadata Scope	Status	Yes	Optional	Optional	
	Version	Yes	Yes	Yes	
	Identity	Yes	Yes	Yes	Yes
Payload Scope	BIDG Explicit	Optional	Optional	Optional	Optional
Semantic Precision	Full Part 7 Templates	Yes	Yes		
	Public Templates	Yes		Yes	
	RDL/WIP Content References				Yes
Standardization Level	Standards Body	Yes			
	Certifying Authority		Yes	Yes	
	Global Sandbox		Optional	Optional	Optional
	Community Sandbox		Optional	Optional	Optional
	Private Sandbox		Optional	Optional	Optional
Implementation Schema Type	Full Part 8 OWL/RDF Schema	Yes			
	Any ISO 15926 Schema		Yes	Yes	
	Any Explicit XML Schema			Optional	Yes
	Implicit / non-XML Schema			Optional	
Implementation Interface Type	Part 9 Façade	Yes			
	API or Query	Optional	Yes	Optional	
	File Exchange	Optional	Yes	Yes	Yes

ISO 15926 Primer_Parts_Colors Compliance Category Combination

Yellow - Dictionary Compliance

- The minimum level of compliance using any schema with **RDL terminology**
- Can use embedded RDL Designators or Endpoint URI references

Green - Public Template Compliance

- Uses implementations of Public Templates according to the Part 7 Characterization Methodology
- “Public” templates do not necessarily map unambiguously to “Private” (Part 2-explicit-Part 7) Templates

Blue - Part 7 Template Compliance

- Full Part 7 templates unambiguously represent "Private" (Part 2-explicit-Part 7) Templates
- Are not implemented using Parts 8 & 9, OWL/RDF & Façades

Red - Full Compliance

- WIP endpoint URIs certified by and ISO 15926 Part 4 authority
- Full Part 7 Templates
- Part 8 RDF/OWL schema
- Part 9 Façades

EIM Maturity Model (Gartner)

Key Findings

- The maturity model consists of six stages, or levels. **Organizations cannot skip stages** or the associated activities without introducing weaknesses into their EIM programs, which **will cause them to fail later on**.
- **Organizations encounter risk and inefficiency from poorly managed information**, such as failure to comply with legal and regulatory requirements, dissatisfied customers, and lower productivity.
- **Most enterprises are in the early stages of EIM maturity**, so IT leaders who are championing new ideas in their organizations will benefit most from using this model.

Gartner's Recommendation

How to use the EIM Maturity Models

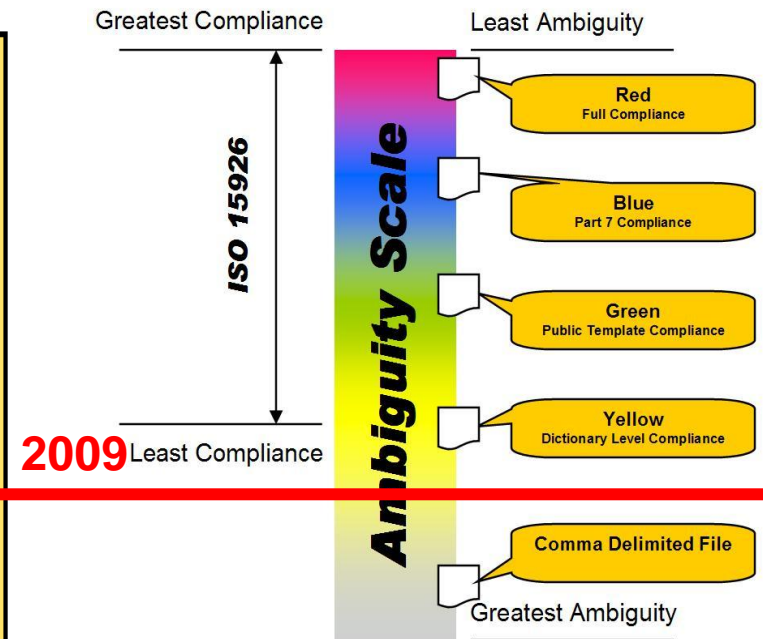
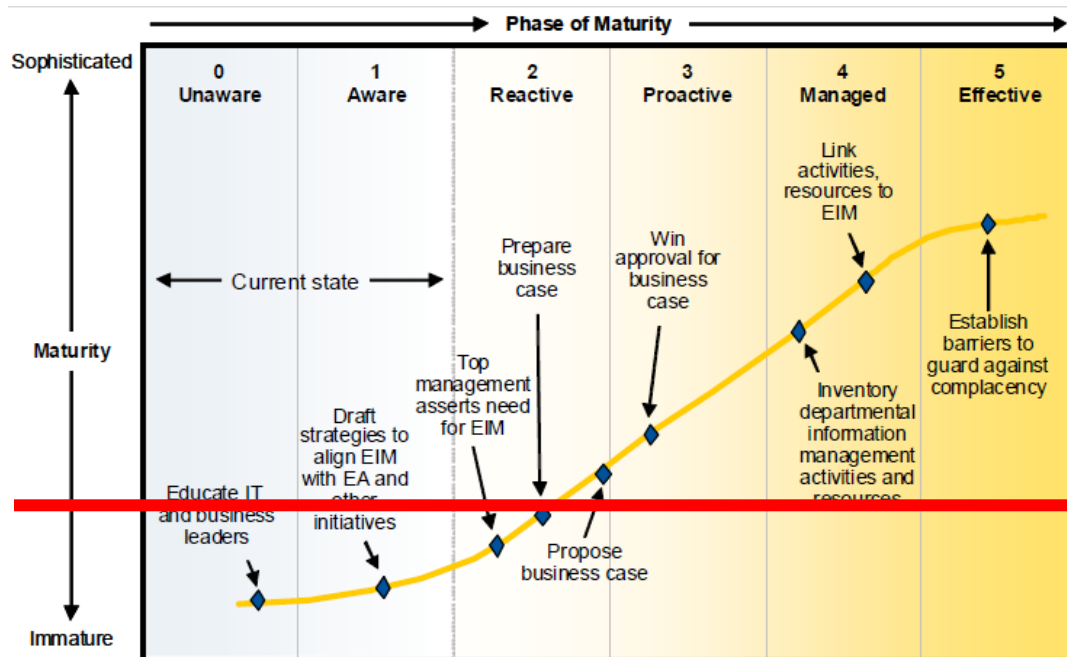
- Make the maturity model part of the effort to **educate senior management, so they understand** the phases of the **Enterprise Information Management (EIM)** journey.
- To **illustrate the risks of not having EIM**, look for examples where the organization has already failed because of poorly managed information.
- Create scenarios for the organization that **illustrate the benefits to be achieved at each level** of the maturity model.

ALCIM's view about the AS-IS Situation (2009) Information Management Maturity & ISO 15926 Compliance (Malaysian O&G Industry)



Information Management Maturity: Level 2 (Reactive)

ISO 15926: "Light Yellow"



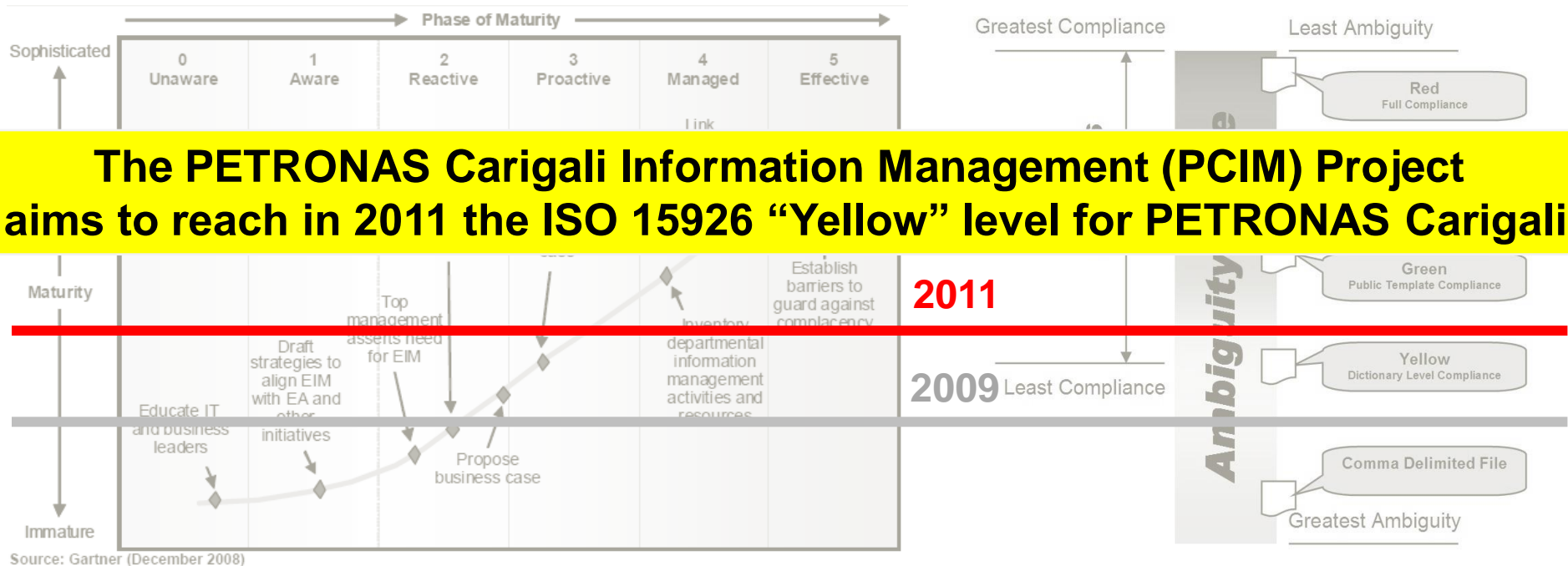
At Level 2, business and leaders react favorably to the demand for consistent, accurate and faster information across key business units. They take corrective measures to address immediate needs.

ALCIM's Forecast for 2011 regarding Information Management Maturity & ISO 15926 Compliance (Malaysian O&G Industry)



Information Management Maturity: Level 3 (Proactive)

ISO 15926: "Yellow"



At Level 3, the organization perceives information as necessary for improved business performance and, therefore, moves from project-level information management to EIM. Information supports process optimization.

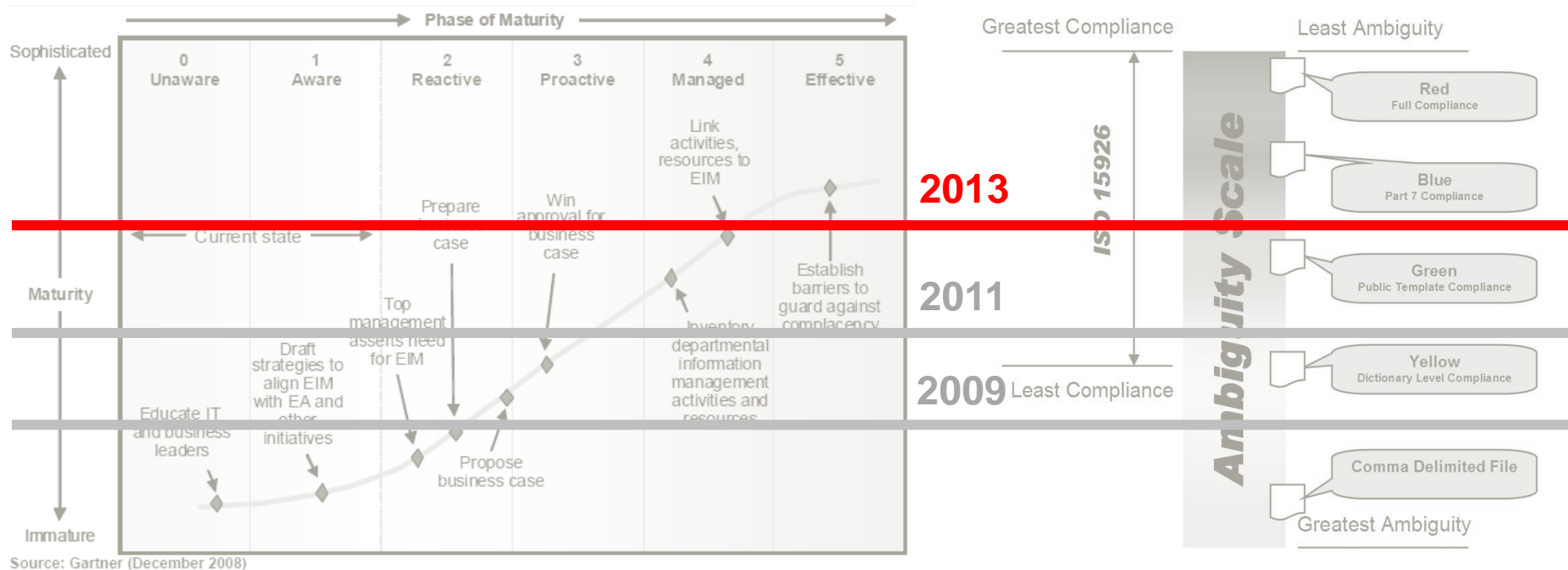
Level "Yellow"
Dictionary Level Compliance the combination of minimum compliance using any schema with explicit RDL terminology.

ALCIM's Forecast for 2013 regarding Information Management Maturity & ISO 15926 Compliance (Malaysian O&G Industry)



Information Management Maturity: Level 4 (Managed)

ISO 15926: "Green"



Source: Gartner (December 2008)

At Level 4, the organization perceives information as critical for business. The organization has implemented significant portions of EIM.

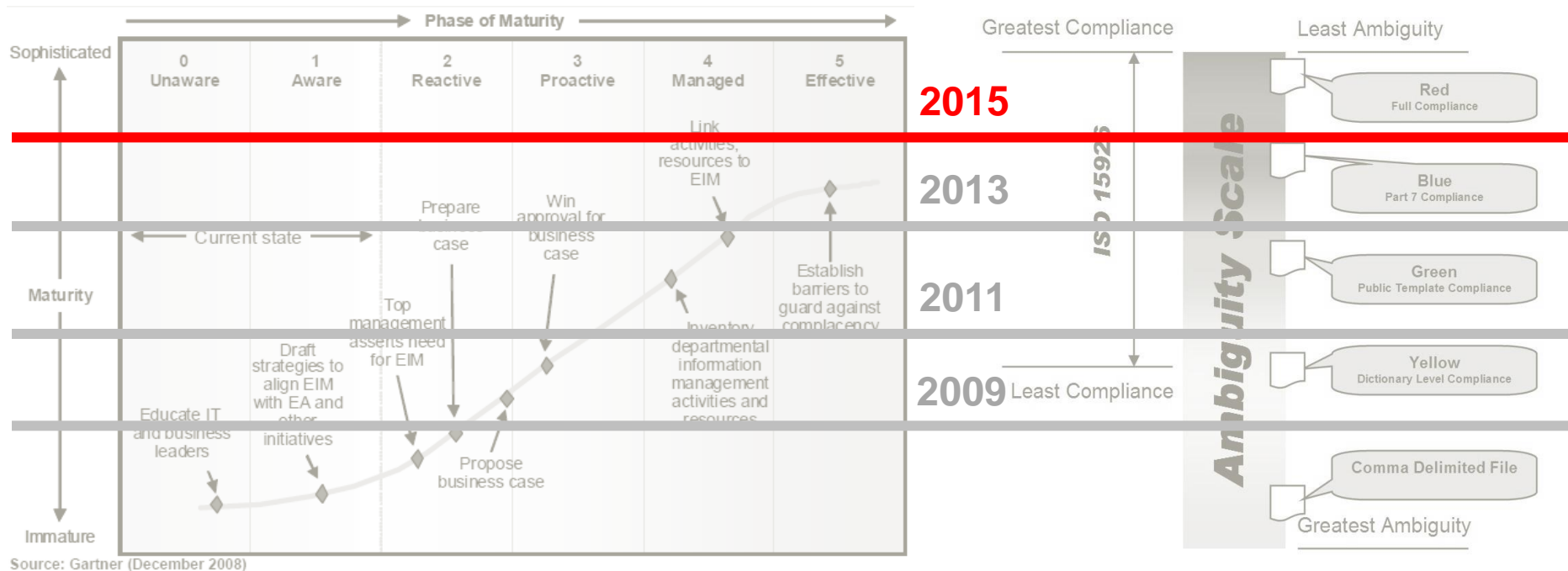
Level "Green"
Uses implementations of Public Templates according to the Part 7 Characterization Methodology

ALCIM's Forecast for 2013 regarding Information Management Maturity & ISO 15926 Compliance (Malaysian O&G Industry)



Information Management Maturity: Level 5 (Effective)

ISO 15926: "Blue"



Source: Gartner (December 2008)

At Level 5, the organization exploits information across the entire information supply chain, with service-level agreements that are continuously reviewed.

Level "Blue" Part 7 Compliance combinations using full Part7 Templates, but not implemented using Parts8&9 OWL/RDF & Façades.

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ISO-15926 COMPLIANCE GUIDELINE



<http://ids-adi.org>

POSC Caesar – FIATECH

Intelligent Data Sets - Accelerating Deployment of ISO15926
Realizing Open Information Interoperability

Will FIATECH and POSC CAESAR,
together with the International Standard Organization (ISO)
authorized independent certification bodies
to perform and/or validate
ISO 15926 Compliance Testing
and
issue the ISO 15926 certification?

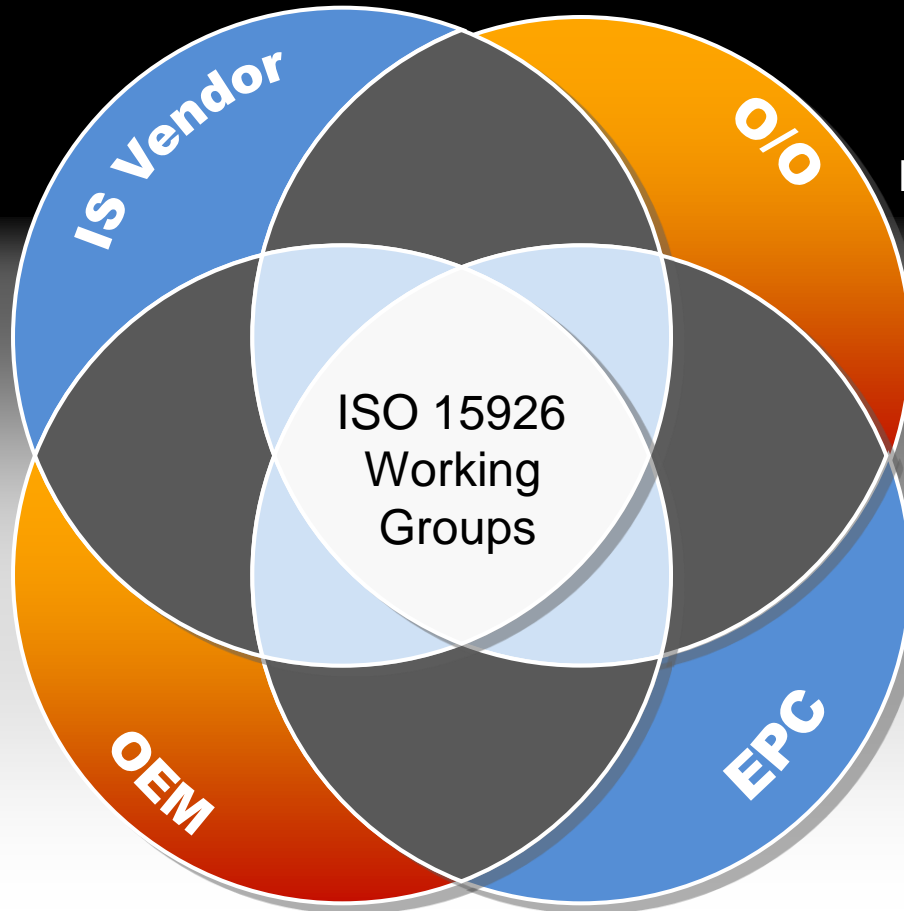


International
Organization for
Standardization



Focus and on specific tasks in ISO 15926 Stakeholder Working groups

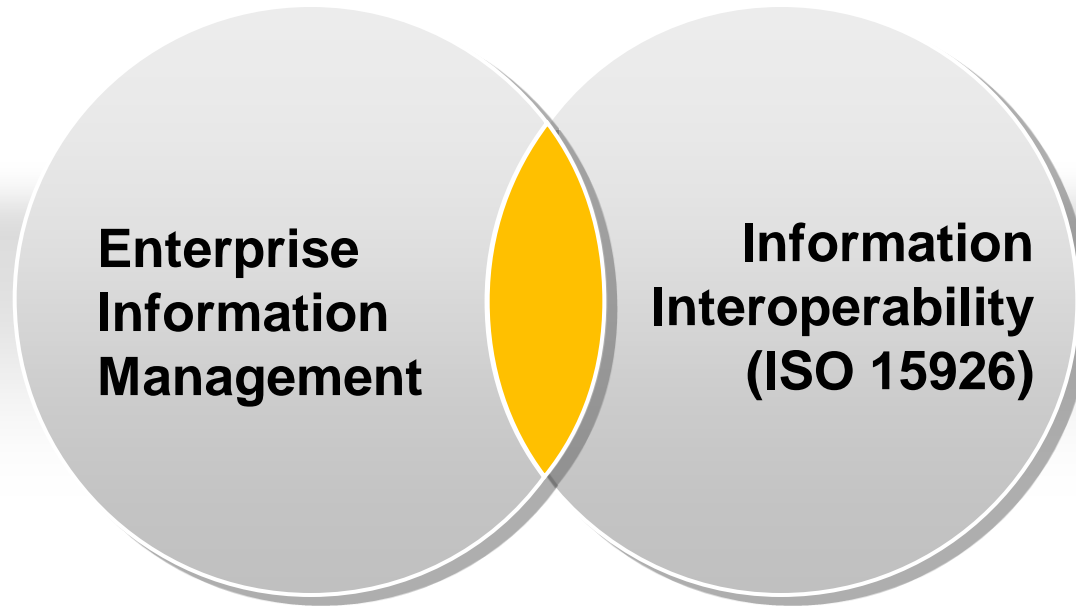
Interfaces, Exchange
Applications
ISO 15926 compliance
Data Management
IS Functionality
Improvements



O&M Terminologies,
Dictionaries
O&M Business
Processes Improvement
(incl . Integrated
Operation)

Standard Forms and
Format for Datasheets,
Manuals, Spareparts etc

Engineering
Terminologies,
Dictionaries
O&M Business
Processes Improvement
(incl. Integrated Eng)



**Enterprise
Information
Management**

**Information
Interoperability
(ISO 15926)**

Organizations cannot implement “Information Interoperability” as a single project!

The ISO 15926 implementation has to be coordinated with the Enterprise Information Management program that evolves over time!