

The JORD Project *(POSC Caesar & FIATECH, ISO15926)* **Joint Operational Reference Data**

PCA Conference & Members Forum
Woodside, Perth, WA
13th October 2011

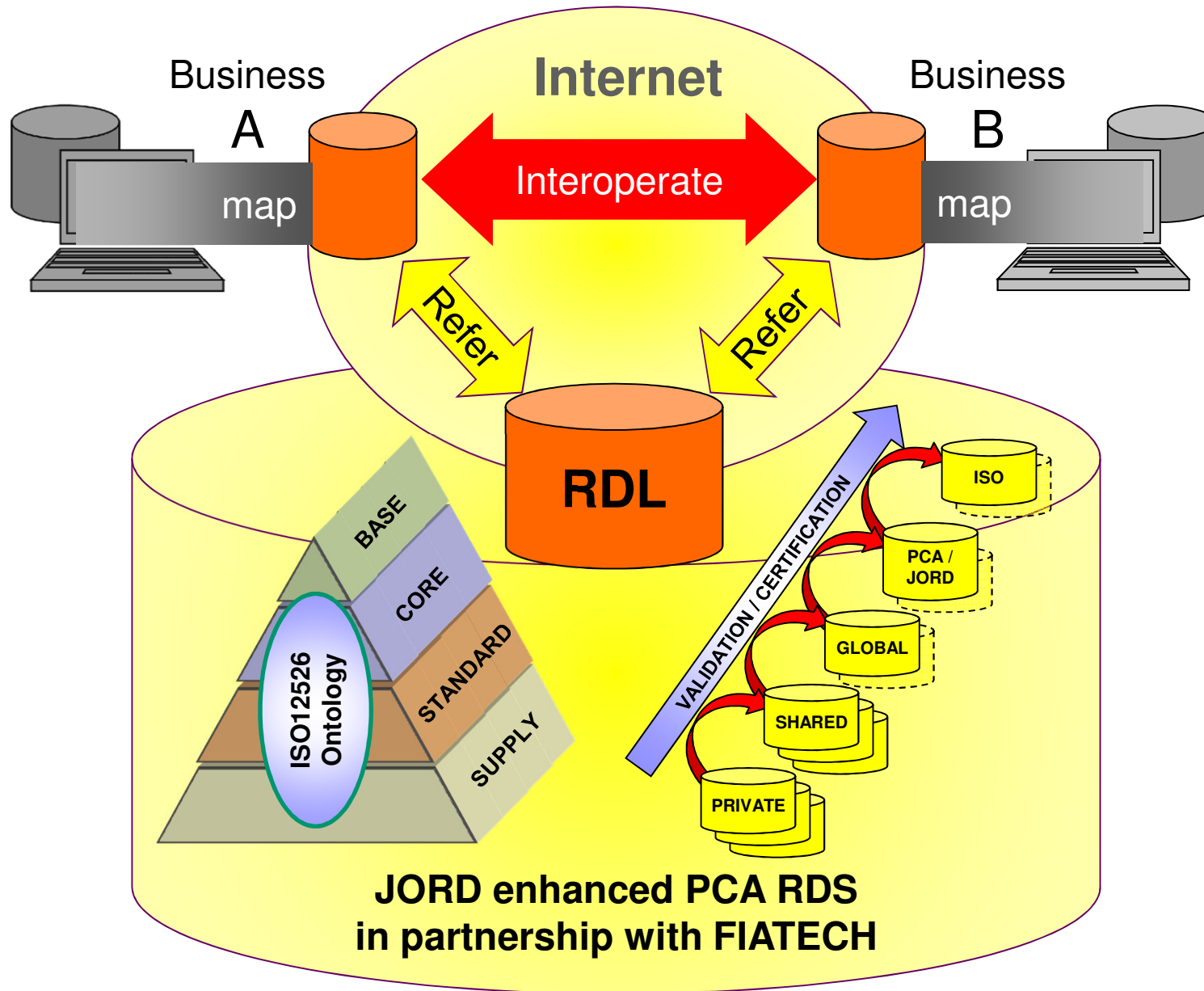
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Glencois – Interoperability through Reference Data

AGENDA - Achieving Interoperability with JORD

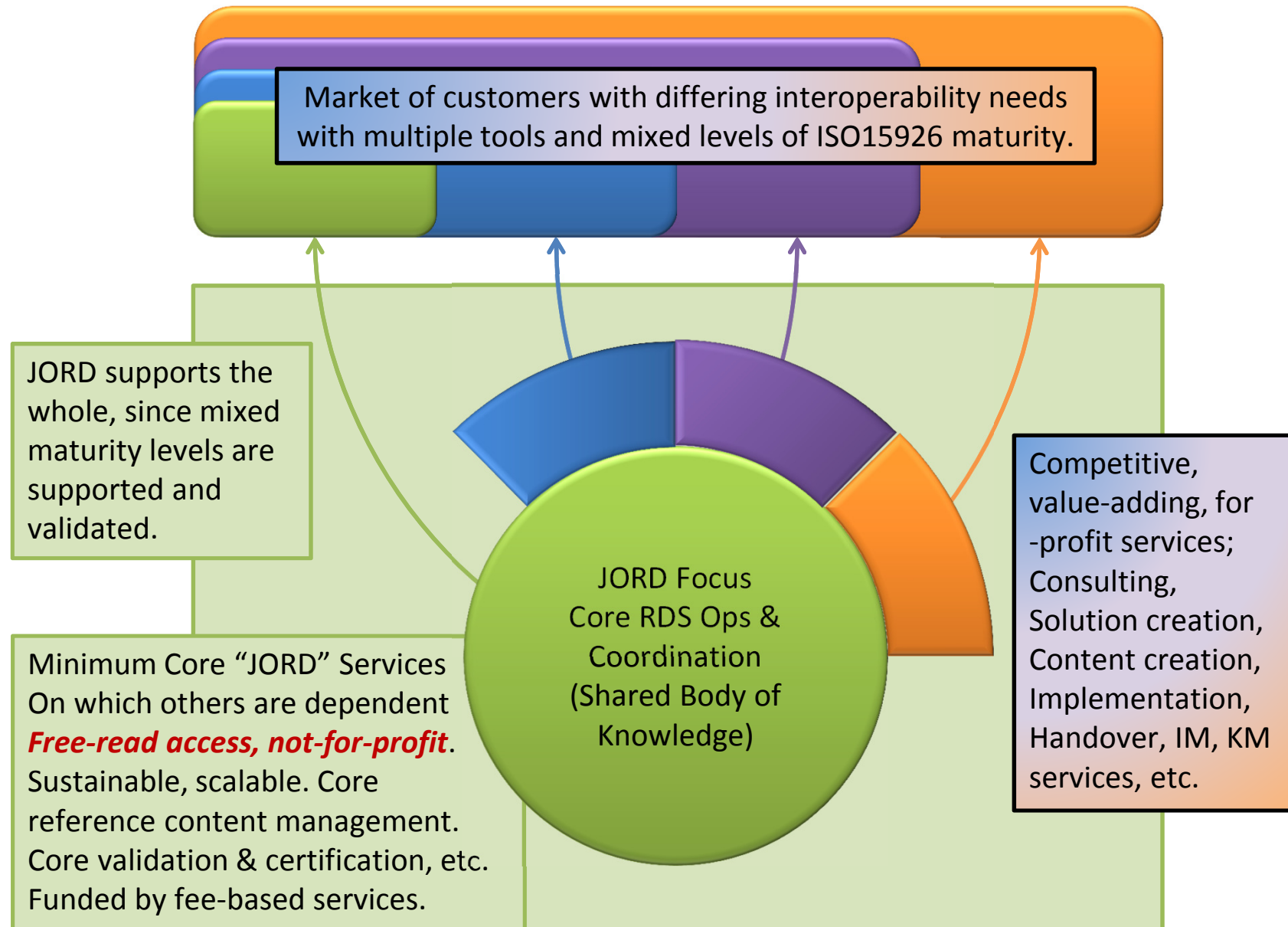
- ISO15926 & JORD – *The basics*, the objectives
- JORD – *Project* phasing, deliverables scope & *real progress*
- Interoperability – some *Buzzwords & Issues*
- How to get involved / find out *more information*





Joint Operational Reference Data (JORD) Objectives

- **Compliance Validation:**
 - Content validated as consistent
 - Implementations validated as compliant
- **Scalable Services:**
 - Infrastructure for 24x7x365 operation & growing, federated content
 - Critical path no longer dependent on a few specialists
- **Sustainable Operation:**
 - Business model and funding for self-sustaining operation
 - Governance model for long-term viability
- **Ease Industry Adoption and Take-Up:**
 - An organization to enable *broad* uptake of ISO 15926
 - Business Case support *as well as* Technical Training support



JORD *Core* Services – Not-for-Profit Operation – PCA RDS enhanced in partnership with FIATECH

Read / Export Content	Free to anyone.	Primary Service. All references resolvable to immutably-unique content, all readable, exportable (Supported formats include Browser UI, MDB, SQL, Excel, HTML, XML and RDF/OWL.) Copyright & IPR licensing apply.
Core Content Mgmt & Validation	Available to <i>initial</i> Project Subscribers & Sponsors & to Fee-paying service users.	Maintenance and fixes of core content only and testing of proposed changes, etc. (for <i>new</i> domain content, see below).
Support for Users, Projects & SIG's		Maintenance of core procedures and support requests concerning use of core content and processes (For <i>new</i> content processing, see below.)
Create / Read / Export new ID's	Available to <i>initial</i> Project Subscribers & Sponsors & to Fee-paying service users. (who are also Certified)	Registered users to the management services are free to generate new Global ID's for content in their locally managed Libraries / Sandboxes, etc.
Content Write		Users who achieve a level of certification will be able to write content directly (with appropriate meta-data controls on provenance & quality)
New Content & Standardization	Available as fee-paying value-adding services. (Per project / per scope.)	Estimated cost per value-added scope - Price list / rates intended. Will arise from both Commercial Projects and Collaborative "SIG's".
Certification of Users, Org's, Tools & Interfaces		Estimated cost per value-added scope - Price list / rates intended. Organized around Compliance Checklist with scopes per BIDG or other transaction sets. (<i>Economic self-certifying</i> components, as well as services.)
Training & Related Consulting		Estimated cost per scope - Price list / rates development possible. (<i>Note that these are services related only to providing and using the core RDS Operations content and procedures. Additional services are supported by commercial consultants in content creation, interoperation and integration solution planning and implementation.</i>)

Plus, operational services, business, marketing and back-office functions supporting *core* services. (Other than core 15926 technical & coordination functions –
– infrastructure and substrate technologies & specialist services are competitively outsourced.)

JORD - Project Phasing

- Phase 1 (Year 1, May 11 to May 12)
 - **Technical Enhancements & Fixes**
 - (Project Funded, including existing ongoing service operations)*
- Phase 2 (Years 2 & 3, May 12 to May 14)
 - **Scalable Organization & Platform**
 - (Project Funded, including ongoing service operations)*
- Phase 3 (Years 4 & 5, May 14 to May 16)
 - **Self-Sustaining Service Operation**

JORD - Project Deliverable Scope

- **Compliance Specification & Procedures** (*Technology Neutral, Multi-Level*)
- **Usage & Mapping Methodology** (*Technology Neutral, Mixed Maturity & Expertise*)
- **Core Content to support Methodology & Compliance** (*Technology Neutral*)
- **Triple-Store Content Publishing** (*End-Point-URI/OWL/RDF/SPARQL Technologies*)
- **Scalable Platform** (*Content Management, Validation & Hosting Technologies*)
- **Core Training & Reference Resources**
- **Core Marketing & Business-Case Resources**
- **Operational Resources** (*Organization, Staff, Subcontracts, Sales, SLA's, etc.*)

JORD - Real Progress May to Sept 2011

- **Charter Member Funding committed**
 - Sponsors – BP, EPIM, RosEnergoAtom, Black&Veatch, CCC, Hatch & VNIIAES
 - Supplementary Subscribers – Woodside & Bechtel
- **Triple-Store Content Publishing & Platform**
 - PCA RDS# Triple-Store Endpoint implemented & live posccaesar.org/endpoint/
 - Existing iRING / RDS-WIP / R# content accessible as linked-data
 - Open for evaluation on DNV development server
 - 3rd-Party hosting infrastructure specification in progress
- **Usage & Mapping Methodology**
 - Outline created and agreed in workshops
 - Workscope sub-contract split in progress
 - Draft deliverable in progress.

- **Buzzwords & Issues:**
Triples & Semantic Web Technologies ?
 - For maximum flexibility and semantic precision we *can* reduce *every* piece of information in the world to a web of triples – A *is-part-of* B, B *is-a* Pump, A *is-a* Bearing, Pump *is-identified-by* 20-P101, Your Shin-Bone *is-connected-to* Your Knee-Bone, etc. (In *any* addressable / tabular view; Row *is-related-by-Column-to* Cell)
 - Inside the ISO15926 RDL & RDS we need to support this power and flexibility, so we do choose to use semantic web technologies RDF/OWL/SPARQL designed for this.
 - If you can resolve a URI (web address) to a Reference Data Resource, you can implement your ISO15926 needs with any technology or data model that suits your purpose. ***Content is King*** ... remember.

ERH - Semantic Web

Evolution:

- Web 1.0 - Pages and documents
- Web 2.0 - Social networking
- Web 3.0 - Semantic Web

- ✓ Resource¹⁾ Description Framework (RDF)

- RDF is a distributed data model on the Semantic Web consisting of a triple



- ✓ Web Ontology Language (OWL)

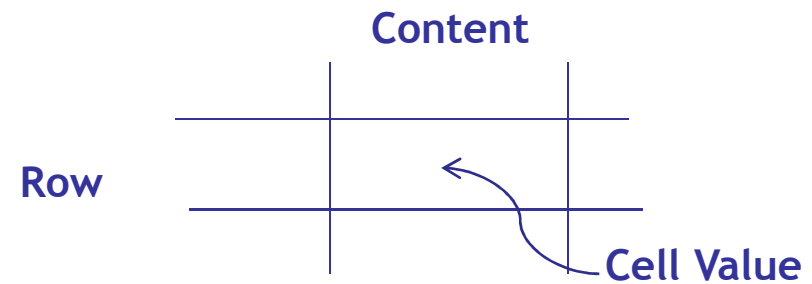
- OWL is very expressive language and provides bases for reasoning - all written as triples

- ✓ Simple Protocol and RDF Query Language (SPARQL)

- Query on RDF triples - similar to SQL for RDB

¹⁾ A resource is anything that someone want to talk about and that has a unique address through a Uniform Resource Identifier (URI)

Table



Any table of data might be expressed as RDF triples where

- ✓ Subject is the row number
- ✓ Predicate is the column content
- ✓ Object is the cell value

Subject and Predicate are resources

Why ontologies?

The real world is complex and changing, you need a solution that can cope with that complexity and adapt with the changes.

That's what ontology does for you

- **Buzzwords & Issues :**

Requirement-for ISO15926 ?

Support-for ISO15926 ?

Based-on (a version of) ISO15926 ?

Compliant-with ISO15926 ?

Absolutely top priority in JORD is clarifying

- What it takes to ask for ISO15926 compliance
- What it means to be compliant
- What it takes to validate & certify compliance.

Definitions well agreed within the JORD Front-End, will be published in Phase 1 - within 2011.

- **A checklist**

- How compliant am I ?
- What business value does that compliance give me ?

- **Buzzwords & Issues :**
 - Customer - It's my data !**
 - Software Solutions Vendor – my openness to interoperability correlates inversely with my market share in that product area.**
 - Claims for more *or* less compliance
 - are *competitive*
 - Interoperability
 - requires, and is about *collaboration*
 - Using ISO15926 as a competitive marketing tool
 - is an *oxymoron*,
 - making a virtue out of being *less interoperable*
 - Must also recognize vendor's business case
 - *for or against open interoperability*
 - **We can lead the horse to water ...**

You need the JORD Project and the JORD Project needs you

- You need the benefits of
ISO15926 Reference-Data-Based Interoperability
- JORD still requires additional project funding to deliver the
intended 3 year scope.
 - With thanks and acknowledgements to Charter Members:
BP, EPIM, RosEnergoAtom, Black&Veatch, CCC, VNIIAES, Woodside,
Bechtel & Hatch
- **More information** - <https://www.posccaesar.org/wiki/FiatechJord>
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