Realizing Open Information Interoperability – ROI²

JORD
(Joint Operational Reference Data)

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Representing :

JORD - Agenda

Overview & Justification

- **Phase F - April to July 2010**

- **Commitment – August & September 2010**

- **Phases 1 & 2 – October 2010 to end 2011**

Deliverable

- **Sustainable & scalable core RDS Operation with defined services, SLA's and pricing.**

Scope

- **Core Procedures (for using & managing content) in Ph1**

- **Core Content (supporting core procedures) in Ph1**

- **Core System Enhancements (supporting operations)**

  - **Fixes, specifications & ITB / RFP in Ph1**

  - **Upgrades and migration in Ph2**

Next Steps - Participation & Funding & Governance
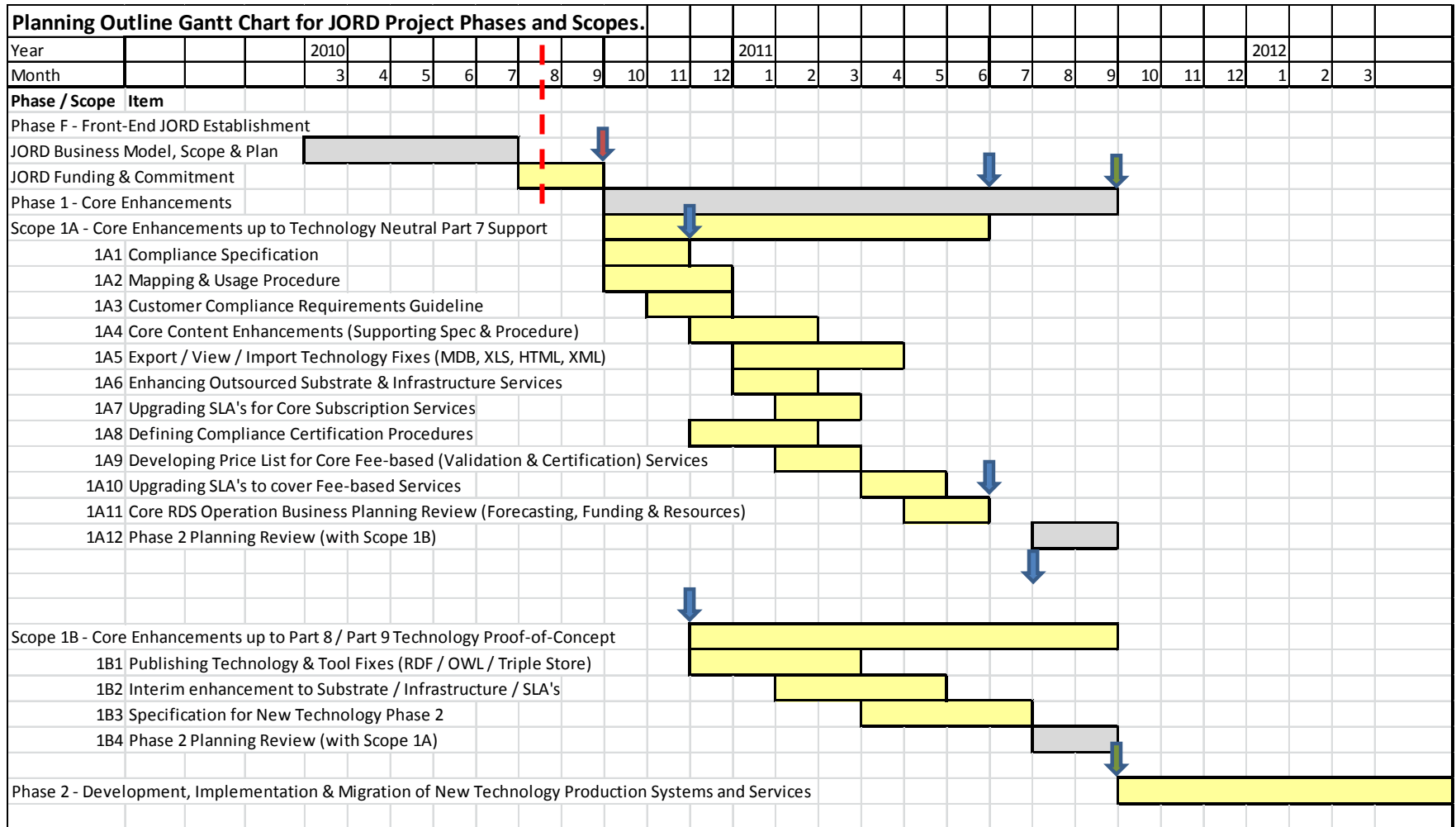
(FAQ's)

JORD - Overview

- **Public managed reference data is fundamental to business interoperability aims of ISO15926 and beyond. PCA RDS Operation exists and has been evolving since 1990's. In the last 5 years that evolution has been accelerated by collaboration with FIATECH. Continuing growth demands a core operation that is sustainable and scalable *and* which is better defined and coordinated – so that the value of multiple investment projects is properly leveraged.**

- ***Excluding* PCA & FIATECH members own internal investments and in-kind contributions, the operational systems and content to date represent *at least* 60 million US dollars of investment, inc. several sponsorships, as well as subscriptions and project contributions.**

- **JORD proposes a project investment of 1.47 mUSD, and an initial annual operating budget of 1.06 mUSD.**

- **JORD invites a mixture of annual subscriptions of 5, 10 and 25 kUSD across all commercial user organizations, and sponsorships (on a lump sum or 3 year basis) of 100 to 250 kUSD from larger EPC and OO organizations or their projects.**

JORD Status – Needing commitment to Phase 1

PHASE	Phasing Overview from original joint high-level plan (Feb 2010)				
	Software (Systems, Tools & Services)	**Business (Procedures & Processes)**	**Core Content (Classes & Templates)**	**New Content (Classes & Templates)**	**Ongoing RDL/RDS Operation (OPEX)**
Phase E (Existing 2009 & Pre-Agreement)	Existing PCA RDS / mdb / xls / xml / html & Existing IDS-ADI / iRING / p2/7/8/9 triple stores	Existing PCA & FIATECH membership & project activities. Outline planning agreement.	Existing PCA RDL 15926 p3/p4 content & PCA extensions & Existing *proposed* user content.	Existing PCA RDL	Existing PCA RDS Operational Support SLA
Phase F (Front-End Establishment) *July 2010*	Nil	Establishing PM. Planning Ph1/Ph2. Funding model. Business-case(s). Creating EL9/15926 "road-map" context.	Nil (*Only as funded by existing projects*)	Ongoing as existing	Ongoing as existing
October 2010 **Phase 1 (Enhancement & RFP)**	Minimum maintenance development of existing mixed systems & tools.	Agree compliance methodology. Synchronization of mixed systems. Create specification for third-party RFP.	Extend Core RDL to Template Signatures *Initial set* consistent with methodology	New Content Projects & SIG's out of JORD Scope (AEX, EELCAT & Proteus schems b*udgetted and planned FIATECH projects, but not part of JORD scope*)	Enhanced PCA SLA to support Ph1 systems, business & content.
Phase 2 (New Development)	Develop and migrate content to new third-party supported systems & services.	Place contracts for new third-party systems & services.	Nil (*Separate funded projects*)		New SLA's based on third-party RFP.

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JORD – Planning Schedule from Phase F

Planning Outline Gantt Chart for JORD Project Phases and Scopes.

Year					2010								2011												2012		
Month					3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3

Phase / Scope Item

Phase F - Front-End JORD Establishment
JORD Business Model, Scope & Plan
JORD Funding & Commitment
Phase 1 - Core Enhancements
Scope 1A - Core Enhancements up to Technology Neutral Part 7 Support
- 1A1 Compliance Specification
- 1A2 Mapping & Usage Procedure
- 1A3 Customer Compliance Requirements Guideline
- 1A4 Core Content Enhancements (Supporting Spec & Procedure)
- 1A5 Export / View / Import Technology Fixes (MDB, XLS, HTML, XML)
- 1A6 Enhancing Outsourced Substrate & Infrastructure Services
- 1A7 Upgrading SLA's for Core Subscription Services
- 1A8 Defining Compliance Certification Procedures
- 1A9 Developing Price List for Core Fee-based (Validation & Certification) Services
- 1A10 Upgrading SLA's to cover Fee-based Services
- 1A11 Core RDS Operation Business Planning Review (Forecasting, Funding & Resources)
- 1A12 Phase 2 Planning Review (with Scope 1B)

Scope 1B - Core Enhancements up to Part 8 / Part 9 Technology Proof-of-Concept
- 1B1 Publishing Technology & Tool Fixes (RDF / OWL / Triple Store)
- 1B2 Interim enhancement to Substrate / Infrastructure / SLA's
- 1B3 Specification for New Technology Phase 2
- 1B4 Phase 2 Planning Review (with Scope 1A)

Phase 2 - Development, Implementation & Migration of New Technology Production Systems and Services

Note - Phase 1 has two scopes 1A (technology-neutral) and 1B (Part 8/9 technology-specific) *in parallel*, for distinct resource and funding priorities.

JORD Deliverable : Defined Services

Core Services		
Read / Export Content	Free to anyone. (Funded by others, below.)	Primary Service. All references resolvable to unique content, all readable, exportable (Supported formats include Browser UI, MDB, Excel, HTML, XML and RDF/OWL.) Copyright & licensing apply.
Core Content Mgmt & Validation	Available to Subscribers & Sponsors	Maintenance and fixes of core content only and testing of proposed changes, etc. (for new domain content, see below).
Support for Users, Projects & SIG's	Available to Subscribers & Sponsors	Maintenance of core procedures and support requests concerning use of core content and processes (For *new* content processing, see below.)
Create / Read / Export new ID's	Available to Subscribers & Sponsors who are Certified	Registered subscribers to the management services are free to generate new Global ID's for content in their locally managed Libraries / Sandboxes, etc.
Content Write	Available to Subscribers & Sponsors who are Certified	Once subscribers achieve a level of certification, they will be able to write content directly (with appropriate meta-data controls on provenance & quality)
New Content & Standardization	Available for additional fees. (Per project / scope.)	Estimated cost per scope - Price list / rates development possible. Will arise from both Commercial Projects and Collaborative "SIG's".
Certification of User Org's & Tools	Available for additional fees. (Per project / scope.)	Estimated cost per scope - Price list / rates development possible. Organized around Compliance Checklist. (Free & self-certifying components)
Training & Related Consulting	Available for additional fees. (Per project / scope.)	Estimated cost per scope - Price list / rates development possible.

Plus, operational support services, business and back-office functions.

JORD – Key *Technical* Scoping Items

- **Technical – Consolidate core compliance and usage methodology.**

- **Technical – Consolidate core content supporting the methodology.**

- **Technical – Fix and support mixed content publishing. (And develop specification and ITB / RFP for future upgrade needs.)**
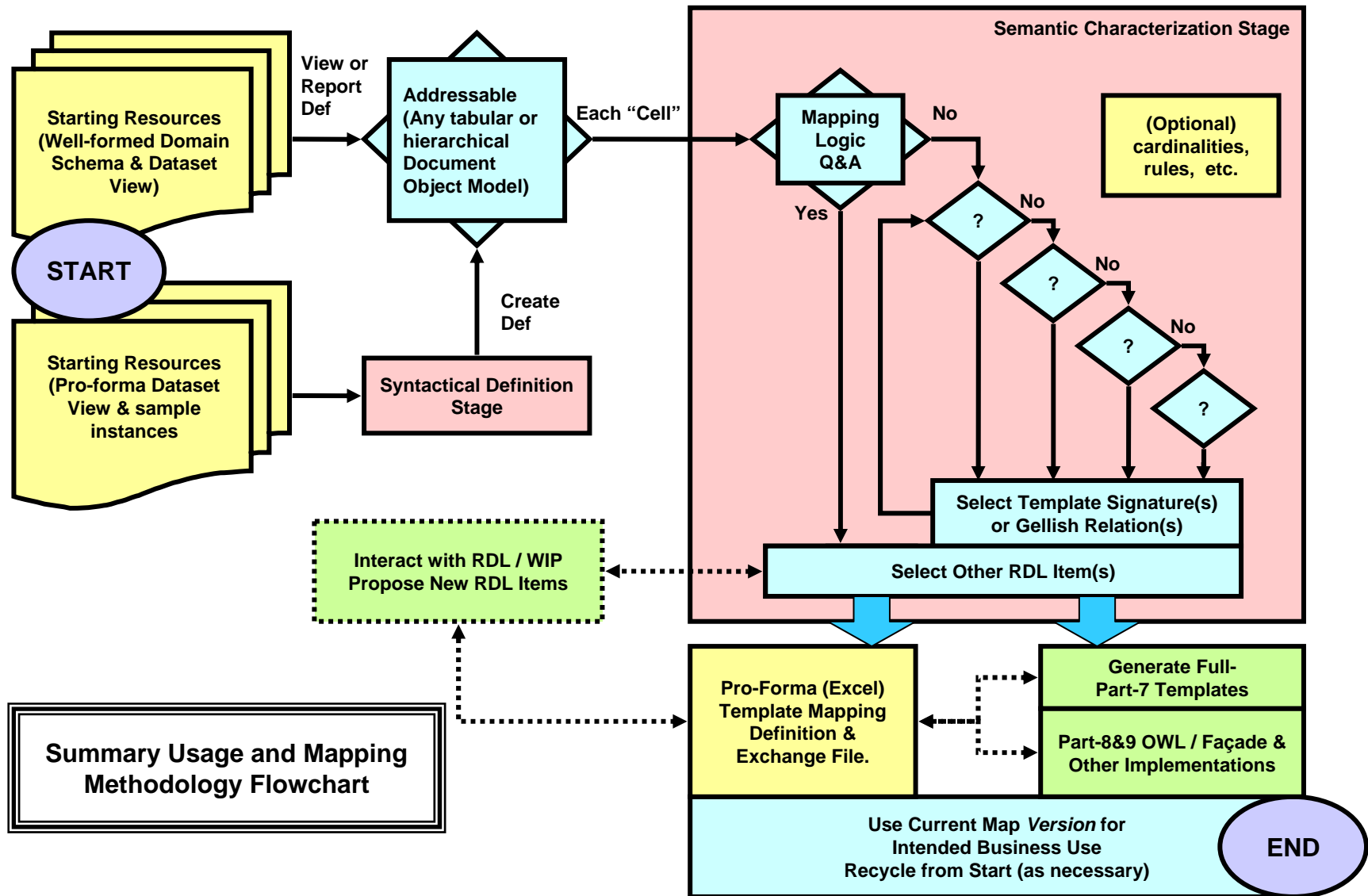
…. More description follows :

(Skip the *technical* slides if necessary …. Depending on audience.)

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JORD - Core Methodology

- **Compliance Checklist v6 (.XLS) applies. Read with these notes …**

- **This checklist is derived from *existing* IDS-ADI Compliance Guideline, created in 2006 and updated during 2007, 2008 & 2009.**

- **The first axis "Part 7 Semantic Precision" is derived from *existing* IDS-ADI Usage and Mapping (Characterisation) Methodology, which is itself consolidated from 2006 PCA IDS Methodology and earlier EPISTLE / PCA / PISTEP / USPI best-practices, with updates as recent as 2010 EqHub project experience.**
  (For this procedure as a *Workflow* see over)

- **This is just "Two Pages" – the devil is in the detail – the document behind this will be updated and consolidated as Phase 1**

- **NOTE "Maturity" aspect. The overall technology-neutral process is solid, satisfying a wide range of needs. The focus is *the business domain user*. Collecting FAQ's would be useful in establishing explanatory updates needed in the formal documents.**

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JORD – Methodology as Workflow

Semantic Characterization Stage

Starting Resources (Well-formed Domain Schema & Dataset View)

START

Starting Resources (Pro-forma Dataset View & sample instances

View or Report Def

Addressable (Any tabular or hierarchical Document Object Model)

Each "Cell"

Create Def

Syntactical Definition Stage

Mapping Logic Q&A

No

Yes

No

?

No

?

No

?

?

(Optional) cardinalities, rules, etc.

Select Template Signature(s) or Gellish Relation(s)

Interact with RDL / WIP Propose New RDL Items

Select Other RDL Item(s)

Summary Usage and Mapping Methodology Flowchart

Pro-Forma (Excel) Template Mapping Definition & Exchange File.

Generate Full-Part-7 Templates

Part-8&9 OWL / Façade & Other Implementations

Use Current Map *Version* for Intended Business Use Recycle from Start (as necessary)

END

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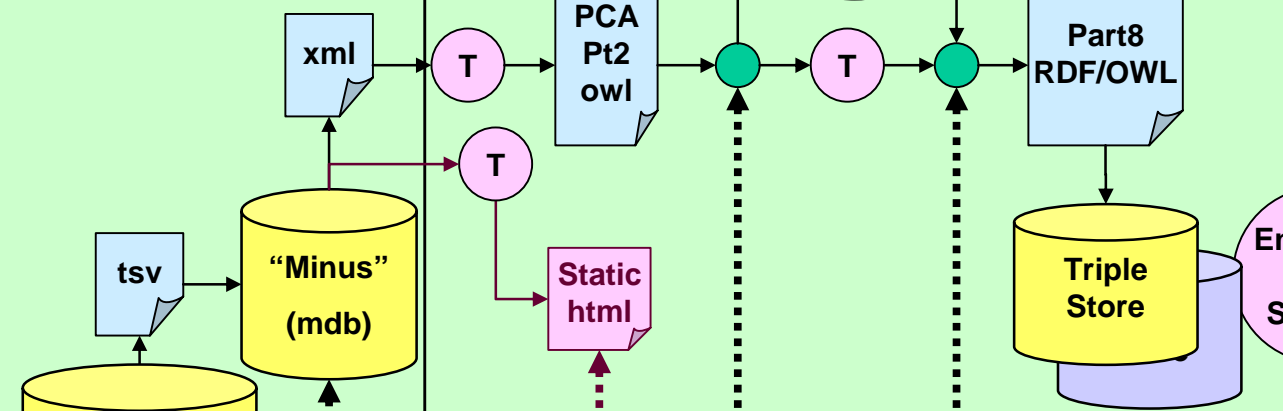# JORD – Usage and Mapping *Q&A Logic*

- **Key items to note ….. Bearing in mind we are establishing the intended *technology-neutral* semantics of the business user … these need to be understood by anyone commenting on the validity of the procedure (*but ignored by anyone actually using it*). (Implementors have separate, independent choices to make – on orthogonal axes in the compliance guideline.)**

- **Class-of-Class, Class and Individual (Generic Modeling) structures … and the IEC61346 (Engineering) guidelines … the so-called "4-level architecture". Refer to separate presentation / tutorial sessions on the usage and mapping methodology.**

- **Note in the methodology workflow process, the interaction with the RDL is two-way ….. Using RDL Items which exist in the library (as Template Signatures and Role Fillers), but also proposing new related RDL Items, whether in local RDL's or in the public library. The core methodology is fundamentally dependent on core content existing in the RDL – hence the second core technical scope item *Core Content*.**

JORD – Publishing Technology Legacy

Phase 1 – Fix & manage legacy / hybrid situation.
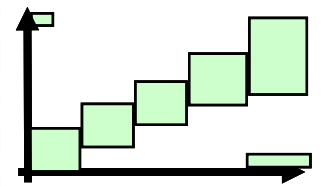Phase 2 – Migrate to Avalon / iRING architecture and retire legacy.

Synchronization, exceptions & change management by PCA MT Services

Enhanced per PoC / Tools & Technologies IDS-ADI / iRING / Avalon / DNV/ IOHN...

xml

T

PCA Pt2 owl

IDG

T

Part8 RDF/OWL

tsv

T

"Minus" (mdb)

Static html

Triple Store

Endpoint URI Service

PCA Work Area "Brutus" DB

TOOLS & METHODOLOGIES
RDL Tools (Browser / RDE / Mapper)
RDL Content Usage Rules & Methodology
Supporting Maturity Usage Model

"Maturity" Usage Model "Dictionary" through Short-Cuts / Gellish to "Full Ontology"

External Content & External ID Schemes

owl / xml / html / mdb / xls / doc
content downloads & submissions

USERS

Intelligent Data Sets
PCA POSC Caesar Association
FIATECH
Accelerating Deployment of ISO 15926

JORD – Additional Technical Description

- **Inappropriate in this presentation.**

JORD – Next Steps

- **JORD needs commitment to its funding needs.
  JORD proposes a total project investment of 1.47 mUSD,
  and an initial annual operating budget of 1.06 mUSD.**

- **The Joint PCA and FIATECH Steering Group has shared the recommendations with the PCA & FIATECH boards who are in the process of communicating to members.**

- **All user organizations (whether currently members or not) need to subscribe to the RDS service, if they expect any support with using the RDL (other than free read access itself.) 5, 10 and 25 kUSD / year.**

- **Large user organisations *or their projects* (OO's and EPC's in particular), need to recognize their dependency on the managed core RDS operation and that this is needed to leverage the value their own existing ISO15926 and RDL investments. They need to fund the project to enhance that operation to the scalable and sustainable state their business expects. They need to fund the ongoing operation itself *until such time* as any shortfall between subscriptions and operation costs is effectively eliminated. Sponsorships suggested at 100 kUSD / year for 3 years or a single lump sum of 250 kUSD.**

JORD – Return on Investment

- **All users, subscribers and sponsors need their own business case for exploiting Reference Data to support integration and interoperability needs in their own businesses.**

- **Subscribers to the enhanced operation will be customers of the RDS and will have individual customer power and collective voting rights over RDS operational management committee arrangements.**

- **Sponsors of the project and the operational shortfall will have direct influence through membership of the RDS operational management committee. Operational management committee membership will also reflect the contributions to date of both PCA and FIATECH.**

> *If you are a major OO or EPC, you need to sponsor JORD.*
>
> *If you are a subscriber anywhere in the supply chain, you need to encourage your OO & EPC customers and their projects to contribute their sponsorship to JORD.*

- **JORD will deliver the RDS operation your business needs.**

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