

IPA-MIMOSA OIIE Capital Projects Working Group Meeting #10 – 9/28/2021 Meeting Minutes

Deborah J. McNeil (Independent Project Analysis, Inc.)

Alan Johnston (MIMOSA)

Dr. Matt Selway (University of South Australia)

Dr. Karamjit Kaur (University of South Australia)

Von Gusa (GUSA Consulting Services)

Luke Wallace (Independent Project Analysis, Inc.)



OIIE Capital Project Working Group Leaders

IPA



Deborah J. McNeil Director, IPA Capital Solutions And Digitalization dmcneil@ipaglobal.com





Alan Johnston President, MIMOSA ajohn@mimosa.org



Luke Wallace Senior Consultant lwallace@ipaglobal.com



Dr. Matt Selway Research Fellow, University of South Australia Matt.Selway@unisa.edu.au



OIIE Capital Project Working Group: 09-21-2021 Meeting Agenda

- Share the OIIE Capital Project Working Group Purpose
- Sub-team updates:
 - Cost Estimating
 - RFI/ RFI Response
 - Asset Installation
- OIIE Pilot Update
- Key Issue Discussion:
 - What are our 2022 Priorities?
- Define OIIE Capital Project WG Next Steps



Open Industrial Interoperability Ecosystem (OIIE) Capital Project Working Group Purpose

This working group will meet monthly to help align the efforts of owner companies; engineering, procurement, and construction (EPC) firms; industry standardization organizations (e.g., IOGP/CIFHOS, ISA, MIMOSA) and international standards organizations (ISO, IEC, etc.).

All participants will work together to set the owner/EPC firm priorities for interoperability solution delivery to enable pragmatic industry digital transformation on a timely basis.

Meeting Slides For all Previous Meetings Can Now be Found on:

https://www.ipaglobal.com/event/digitalization-ipa-mimosa-oiie-capital-project-working-group-meetings/



Interoperability Definition: ISO TS 18101-1 Paragraph 3.1 - Terms and Definitions

interoperability

capability of two or more entities to exchange items in accordance with a set of rules and mechanisms implemented by an interface in each entity, in order to perform their specified tasks

Note 1 to entry: Examples of entities include devices, equipment, machines, people, processes, applications, computer firmware and application software units, data exchange <u>systems (3.2)</u> and enterprises.

Note 2 to entry: Examples of items include <u>services (3.7)</u>, information, material in standards, design documents and drawings, improvement projects, energy reduction programs, control activities, <u>asset (3.5)</u> description and ideas.

Note 3 to entry: In this context, entities provide items to, and accept items from, other entities, and they use the items exchanged in this way to enable them to operate effectively together.

[SOURCE: ISO 18435-1:2009, 3.12, modified — The word "respective" has been replaced with "specified", Notes 1 and 2 to entry have been modified and Note 3 to entry has been added.]

Meeting Slides For all Previous Meetings Can Now be Found on:

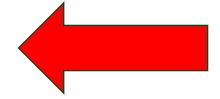


https://www.ipaglobal.com/event/digitalization-ipa-mimosa-oiie-capital-project-working-group-meetings/

2021 MEETING SCHEDULE

- November 4, 2020 Meeting Minutes
- December 17, 2020 Meeting Minutes
- February 16, 2021 Meeting Minutes
- March 16, 2021 Meeting Minutes
- April 20, 2021 Meeting Minutes
- May 18, 2021 Meeting Minutes
- June 15, 2021 Meeting Minutes
- July 20, 2021 Meeting Minutes | Recording
- August 17, 2021 Meeting Minutes | Recording
- September 21, 2021
- October 19, 2021
- November 17, 2021
- December 21, 2021

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Sub-Team Report Outs

Subteams 1&2 – Cost Estimating – (Von Gusa/ Luke Wallace)

IPA/MIMOSA OIIE Capital Project Team Cost Estimating Sub-Team Tiger Team Charter

- The intent of this team's focused effort is to create a "strawman" of the industry good practice regarding the cost estimating process at a level of detail (granularity) to allow for identification of data and data management that can be improved (both internally to the company or industry and externally).
- At the same time these industry good practices need to be at the right level to allow for adoption across the industry and represent what your company's, industry, group or other entity you are presently doing regarding practices and processes.
- Therefore, this group will be leveraging the individual team members and publicly available representations and existing industry good practices and processes to develop the strawman.

IPA/MIMOSA OIIE Capital Project Team Cost Estimating Sub-Team Tiger Team High Level Starting Point

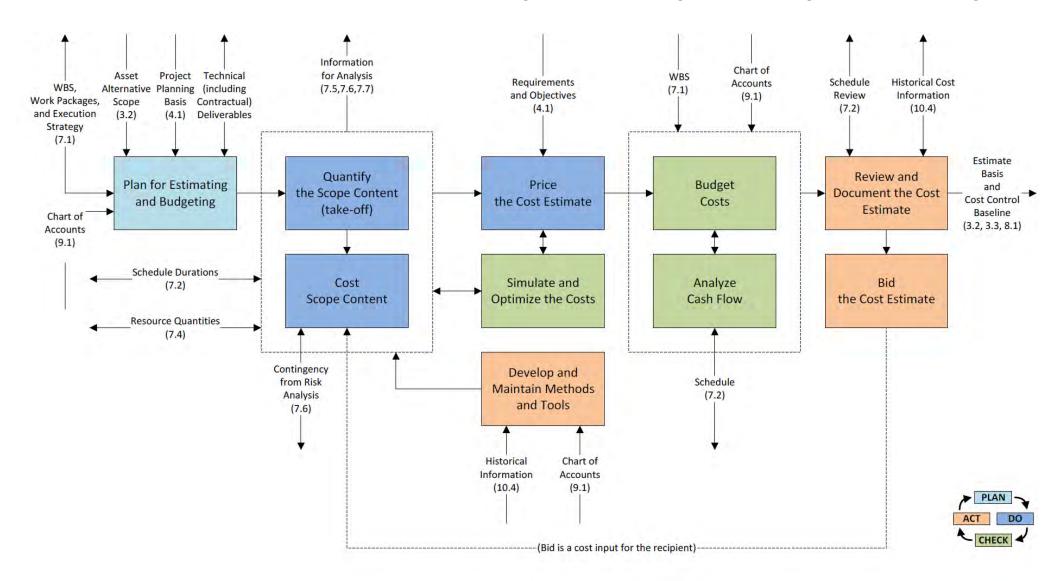


Figure 7.3-1 Process Map for Cost Estimating and Budgeting

IPA/MIMOSA OIIE Capital Project Team Cost Estimating Sub-Team Tiger Team Drill Down

Cost Code	Description						
	Cost Categories (Level 2)		СС	RC, OC, MC and EC			
	Cost Groups (Level 3)						
1.	Construction Costs (CC)						
2.	Renewal Costs (RC)						
3.	Operation Costs (OC)						
4.	Maintenance Costs (MC)						
5.	End of Life Costs (EC)						
1.	Construction Costs (CC)		Cost Categories CC	C, RC and MC use			
2.	Renewal Costs (RC)		the same Cost Gro	ups			
4.	Maintenance Costs (MC)						
01.	Demolition, site preparation and fo	ormation					
	Scope: All necessary advance or facilitating work to prepare, secure and form the site to enable substructure [construction renewal maintenance]						

Cost	Description									
Code										
	Cost Categories (Level 2)		CC	RC, OC, MC and						
				EC						
	Cost Groups (Level 3)									
02.	Substructure Scope: All the load bearing work underground or underwater up to and including the following (including related earthwork, lateral support beyond site formation, and non-loadbearing components and services and equipment forming an integral part of composite or prefabricated load bearing work) and as illustrated in Part 4.2:									
	for buildings: lowest floor s including relatedwaterpro	ofing and insulation	1							
	for roads, runways and mo	torways: sub-base t	to pavements							
	• for railways: sub-base to ra	ail track structures								
	 for bridges: pile caps, footings, bases nearest ground level or water level if constructed inwater 									
	for tunnels: external faces of structural tunnel linings									
	for tanks and the like underground: external faces of tanks									
	for tanks and the like above ground: bases supporting tanks									
	for pipelines underground: beds and surrounds to underground pipes									
	 for pipelines above ground 	: bases to structures	supporting pipes							
	for wells and boreholes: ba	ses to structures su	pporting well heads							
	for dams and reservoirs: seepage ditch, drainage layer/blanket, drain channels, foundation,base,footings, cut-off wall, heel and toe									
	for mines and quarries:	underground mine	s: bases to structure	s supporting shaft						
	headgear;open pits: bases	to structures; proc	esses: bases to struct	ures, tanks, and						
03.	bases to major process eq Structure	uipment.								
- 55.										
	Scope: All the load bearing work, in	cluding non-load be	earing components an	d services						
	and equipment forming an integral p	art of composite or	prefabricated load be	aring work,						
04.	excluding those included in Substructural works Non-structural		ral works Non-struct	cural works.						
	Scope: All architectural and non-load	bearing work exclu	ding services, equipm	ent,						
	andsurface and underground drainage.									

Cost	Description					
CUSL						
Code						
	Cost Categories (Level 2)		CC	RC, OC, MC and		
				EC		
	Cost Groups (Level 3)					
05.	Services and equipment					
	Scope: All fixed services and equipm Construction Costs to sustain the t Maintenance Costs], whether they a communication, security, electrical of drainage.	use after completion are mechanical, hyd	n of construction for draulic, plumbing, fire	Renewal and e-fighting, transport,		
06.	Surface and underground drainage	2				
	Scope: All underground or external su underground construction.	urface drainage syst	tems excluding those	insidebasement or		
07.	External and ancillary works					
	Scope: All work outside the external face of buildings or beyond the construction entity required to fulfil the primary function of the Project and not included in other Cost Groups.					
08.	Preliminaries Constructors' site overheads general requirements					
	Scope: Constructors' site management, temporary site facilities, site services, and expenses, not directly related to a particular Cost Group, but commonly required to be shared by all Cost Groups.					
09.	Risk Allowances					
	Scope: As defined in section 4.1 but related to [Construction Renewal Maintenance] Costs and not included in other Cost Groups.					
10.	Taxes and Levies					
	Scope: As defined in section 4.1 and r	not included in othe	r Cost Groups.			
11.	Work and utilities off-site					
	Scope: All payments to government authorities or public utility companies to connect keep connected public work and utilities to the site, or services diversions, to enable the Project, including related risk allowances, taxes and levies.					
12.	Post-completion loose furniture, fitt	ings and equipmen	t			
	Scope: Those provided for the Pro ofconstruction, including related risl			or after completion		
13.	Construction Renewal Maintenand	ce-related consultar	ncies and supervision			
	Scope: Fees and charges payable to S related risk allowances, taxes and le	ervice Providers no				

	Description							
Cost								
Code								
	Cost Categories (Level 2)		CC	RC, OC, MC and				
				RC, OC, IVIC and				
				EC				
	Cost Groups (Level 3)							
	, <u>, , , , , , , , , , , , , , , , , , </u>							
3.	Operation Costs (OC)							
01.	Cleaning							
	Scope: Periodic, routine and specia	list cleaning of inte	ernal and external wo	orks.				
02.	Utilities							
	Scope: Fuel, including gas, electrici water rates, effluents sewerage dr	**		nd drainageincluding				
03.	Waste management							
	Scope: Collection, compaction, ren from the constructed asset.	noval and disposal	and/or recycling ger	ieral and toxicwaste				
	from the constructed asset.							
04.	Security							
	Scope: Physical security (such as access control, CCTV camera) including staff or contractors							
	involved in providing security controls via remote support centres, to the constructed asset.							
05.	Information and communications technology							
	Scope: Information communications systems (such as Public address and Communications cabling and IT support services built as a constructed asset, as well as technology used for							
	cabling and IT support services built as a constructed asset, as well as technology used for monitoring assets (i.e. Building Management Systems) and physical sensors.							
06.	Operators' site overheads general requirements Scope: Operators' site management, temporary site facilities, site services, and expenses, not							
	directly related to a particular Cost Group, but commonly required to be shared by all Cost							
	Groups.							
07.	Risk Allowances							
07.	Scope: As defined in Part 4.1 but re	lated to Operation	Costs and not include	ded in other Cost				
	Groups.							
08.	Taxes and Levies							
	Scope: As defined in Part 4.1 but re	lated to Operation	Costs.					
5.	End of Life Costs (EC)							
01.	Disposal inspection							
	Scope: Inspections carried out in connection with demolition, dilapidations or other contractual							
	requirements.							
02.	Decommissioning and decontamin							
	Scope: All post-occupation activitie demolition.	s required to rend	er the constructed as	sset ready for				
	demontion.							

IPA/MIMOSA OIIE Capital Project Team Cost Estimating Sub-Team Tiger Team Drill Down

Cost Code	Description						
	Cost Categories (Level 2)		СС	RC, OC, MC and EC			
	Cost Groups (Level 3)						
1.	Construction Costs (CC)						
2.	Renewal Costs (RC)						
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5.	End of Life Costs (EC)						
1.	Construction Costs (CC)		Cost Categories CC	C, RC and MC use			
2.	Renewal Costs (RC)		the same Cost Gro	ups			
4.	Maintenance Costs (MC)						
01.	Demolition, site preparation and fo	ormation					
	Scope: All necessary advance or facilitating work to prepare, secure and form the site to enable substructure [construction renewal maintenance]						

Cost code	Descr		Note				
	Cost Category (Level 2)						
	Cost Group (Level 3)						
	Cost Sub-Group (Level 4)						
1.	Construction Costs (CC)						
2.	Renewal Costs (RC)						
4.	Maintenance Costs (MC)						
	(CC, RC, and MC share the same Cos	t Groups belo	ow, so f	ar as applicable.			
	Those separated by ' ' in [] are resp	ective altern	ative te	rms.)			
01.	Demolition, site preparation and for						
01.010	Site survey and ground investigation						
01.020	Environmental treatment	, , ,					
01.030	Sampling of hazardous or useful materials or conditions						
01.040	Temporary fencing						
01.050	Demolition of existing buildings and support to adjacent structures						
01.060	Site surface clearance (clearing, grubbing, topsoil stripping, tree felling,						
	minor earthwork, removal)						
01.070	Tree transplant						
01.080	Site formation and slope treatment						
01.090	Temporary surface drainage and dewatering						
01.100	Temporary protection, diversion and	relocation o	of public	utilities			
01.110	Erosion control						
02.	Substructure						
02.010	Foundation piling and underpinning: 010 – mobilisation and demobilisation 020 – trial piles and caisson 030 – permanent piles and caisson040 – pile and caisson testing 050 – underpinning						

Cost code	Descrip	otion		Note		
	Cost Category (Level 2)	СС	RC or MC			
	Cost Group (Level 3)					
	Cost Sub-Group (Level 4)					
02.020	Foundations up to top of lowest floor slabs: 010 – excavation and disposal020 – lateral supports 030 – raft footings, pile caps, column bases, wall footings, strap beams, tie beams 040 – substructure walls and columns 050 – lowest floor slabs and beams (excluding basement bottom					
	slabs)060 – lift pits					
02.030	070 – composite or prefabricated work Basement sides and bottom: 010 – excavation and disposal020 – lateral supports 030 – bottom slabs and blinding040 – sides 050 – vertical waterproof tanking, drainage blanket, drains and skin wall 060 – horizontal waterproof tanking, drainage blanket, drains andtopping slab 070 – insulation 080 – lift pits, sump pits, sleeves 090 – composite or prefabricated work					
03.	Structure					
03.010	Structural removal and alterations					

IPA/MIMOSA OIIE Capital Project Team Cost Estimating Sub-Team Tiger DRAFT User Story Listing

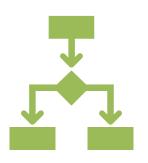
User Story Theme: Cost Estimation

As an	Actor / Role (Who - People & Systems)	I want to	Activity / Task / Goal (What)	so that	Reason (Why)	when	Triggering Event (When - Optional)
1	Cost Estimation System		have database of past projects		AI can be realized/leveraged		new projects are planned
2	Estimator		perform a scope & estimate review		I can validate completeness and accuracy of the estimate		first draft or preliminary estimate
3	Gatekeeper		ensure completeness of scope definition		I can ensure the project has met objectives		Project gate review process FEL 1, 2, 3 reviews
4	Project/Lead Estimator		Material take-offs from the P&IDs pose the greatest level of accuracy (combination of parametric and expert judgement)		Parametric estimating is likely the best case scenario since it is data intensive and considered highly accurate (deterministic and probabilistic)		FEL 3 Stage Gate Review
Also (Considered						
a	Estimator (Construction manager input)		workforce transperancy, relates to cost estimate, availability, quantity, productivity (internal or external)		predictibility and accuracy while building of cost estimate		creation of execution phase of estimate for successful installation
b	Estimator (Global Lead) Benchmarking		access accurate and standardized scope information for the purpose of building benchmark and estimate triggering vendors		when the need for an estimate arises		pro-active, IPA style cost modeling
С	Procurement		approved vendor list		expedite or shorten the cycle and reliable quotation		standard compliant
d	Procurement Leader		collect info and provide vendor costing info		I can provide up to date quotes		as the estimate is developed and scope identified

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Subteam 3 – RFI/RFI Response- Capital Supply Chain (Karamjit Kaur)

OIIE Purchasing Use Case





Identified OIIE Scenarios

Push Request for Business Information

Push Request for Catalog Information

Push Request for Technical Information

Publish Request for Quotation

Push Purchase Order

Detailing OIIE Scenarios

System Actors (MATERIALS, OEM PRODUCT, ..)

Data Content

Reference Types

System Interoperability Events

Data Formats

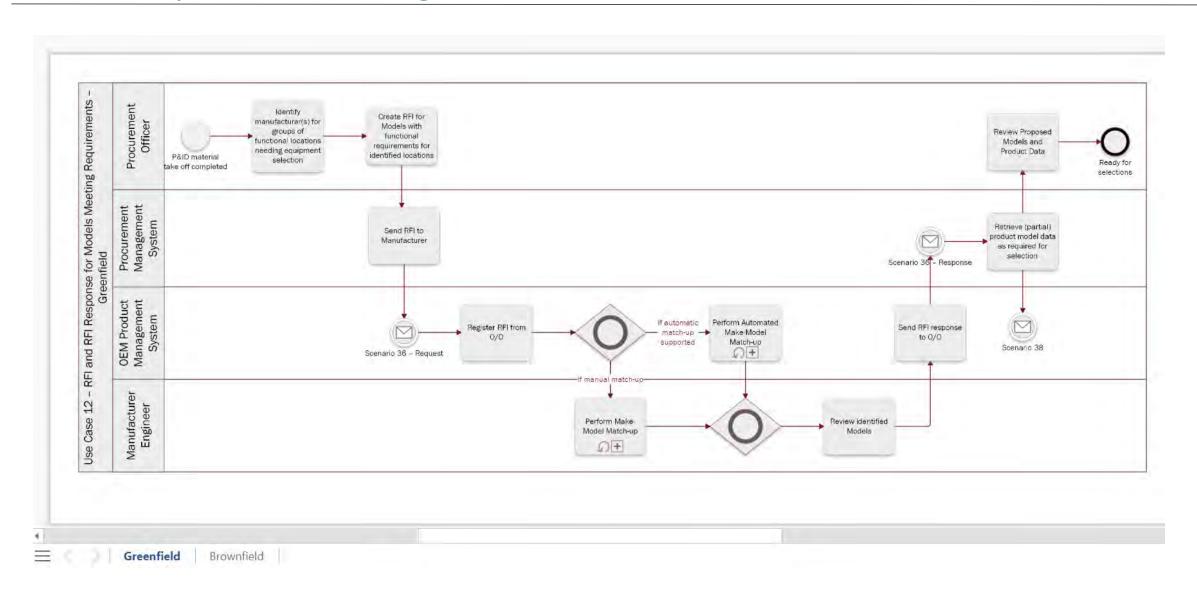
Infrastructural Components

Event Sequence



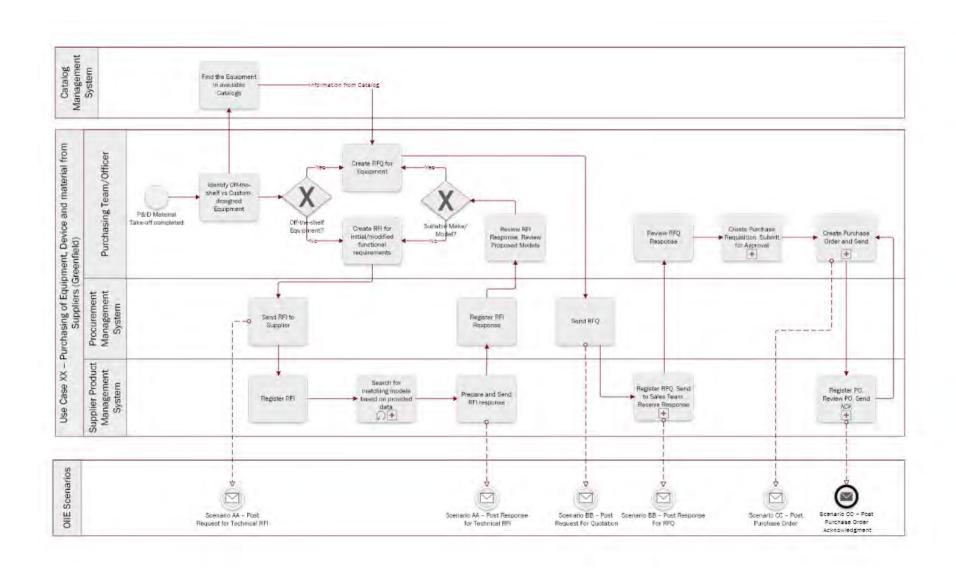


RFI/RFI Response Purchasing Use Case - Greenfield





RFI/RFI Response Purchasing Use Case – Brown Field



Subteam 4- Asset Installation – Capital (Matt Selway)

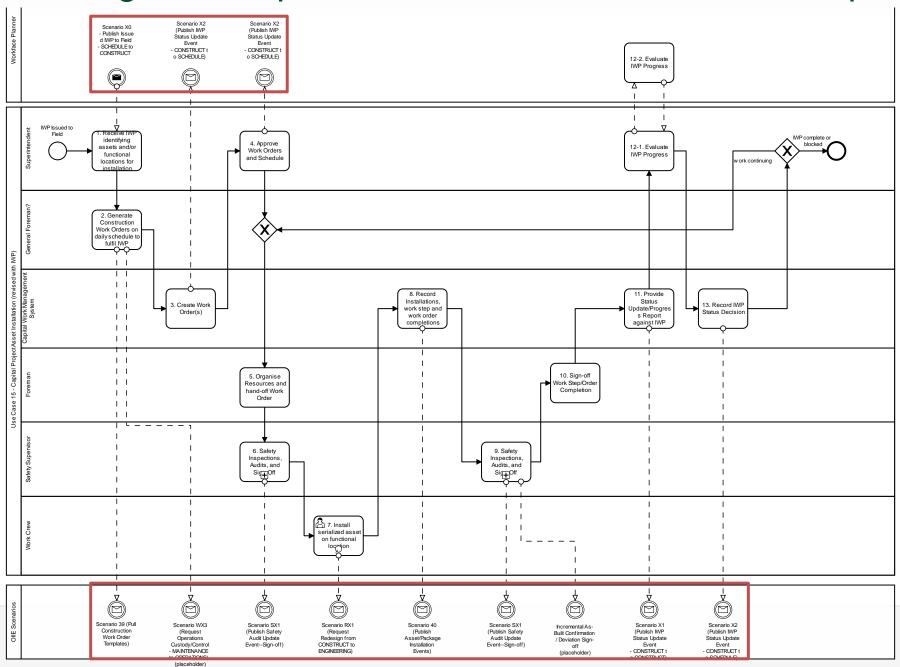
Back-End Sub Team Progress: Capital Asset Installation Use Case Update

Incorporating:

- IWP issuance as trigger;
- breakdown into daily work;
- scenarios for safety audits and sign-offs; and
- IWP evaluation and status updates

Identified large number of scenarios (system interactions):

- Taking 3 to pilot
- IWP Issuance to Field (entry point)
- IWP Status Updates (internal)
- IWP Status Updates (to scheduling/planning)





Back-End Sub Team Progress: Next Steps

- Continue detailing out IWP Issuance scenario
 - Key scenario as it provides the input into the Use Case
 - Incorporating relevant AWP data requirements
 - Mapping to MIMOSA CCOM
 - Work Requests, Work Orders, and their Work Steps; Documents and other related
 - Reference Data Mapping and Creation (where necessary)
 - Generate example data set for pilot
- Detail out the other 2 selected scenarios:
 - IWP Status Updates (construction-to-construction systems)
 - IWP Status Updates (construction-to-scheduling/planning systems)
 - These will be similar and should have good reuse



Open Industrial Interoperability Ecosystem (OIIE)™ OGI Pilot Phase 3.3/3.4 Update AT Johnston

Gaining Business Value Through Mutually Beneficial Collaboration

Industrial Digital Transformation in Asset Lifecycle Management using the Open Industrial Interoperability Ecosystem (OIIE) and OIIE OGI Pilot

OIIE Capital Projects WG September 28, 2021

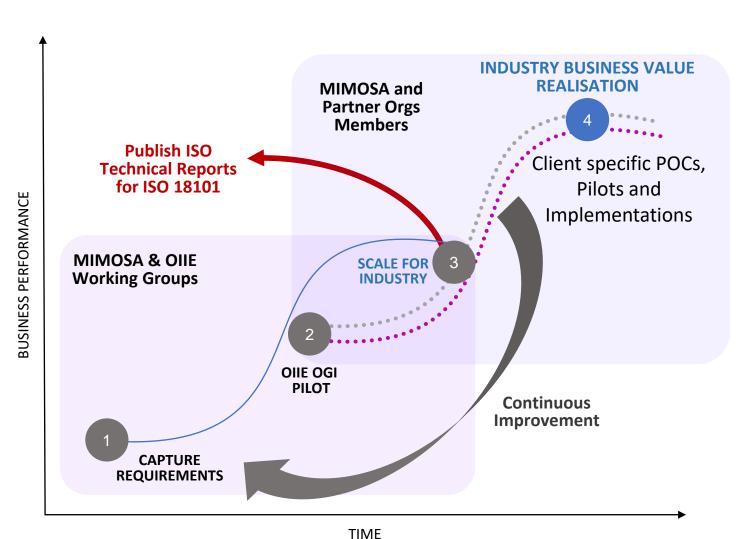
Alan T Johnston

President MIMOSA- A 501(c)6 non-profit Industry Standards Developing Organization Convenor ISO TC 184/WG 6 (Asset Intensive Industry Interoperability)





The OIIE R&D Program Drives Industry Digital Transformation and Business Value Realization Sharing Costs, Risks and Standards



- 4 Industry Business Value Realization
 - Participant/Client Specific Solutions
 - Client Ecosystem and Interdependencies
 - Industry participants assemble their own interoperating OIIE systems of systems using intranets and extranets
- Scale for Industry
 Industry participants build supported
 implementations of OIIE elements for industry use in
 OIIE systems of systems
- OIIE OGI Pilot (Currently Phase 3.3)
 - Develop prototype OIIE use cases and software
 - Validate use cases and software in industry pilot
 - Publish version managed standards and specifications (use cases, scenarios, events...)
- Capture Industry Requirements
 Process of capturing industry user stories and
 prioritizing them for the OIIE OGI Pilot



OpenO&M

Industrial Digital Transformation – 2021 and Beyond A Pragmatic Solution: Standards-based Interoperability and the OIIE

OIIE R&D Program

Industry Requirements Driven OIIE Use Cases
OIIE OGI Pilot Program

Open Industrial Interoperability Ecosystem (OIIE)

ISO 18101

Supports/Standardizes

- Digital Twins
- Digital Services
- Systems of Systems
- Interoperability
- Al, Ontology, OTDs
- ID Management
- IIOT and Analytics
- Risk Mgt: Ops & Cyber

Model, Monitor and Manage

MIMOSA has helped lead the development of the Model Driven Architecture for Physical Asset Management Paradigm for 20+ yrs.

Industry Standard Digital Ecosystem Components

- Standard OIIE Use Cases, Scenarios & Events
- Standard OIIE Digital Services Definitions
- Standard OIIE APIs (OpenO&M ISBM)
- Standard OIIE Registers and Services Directories
- Standard Data Models (MIMOSA CCOM, PROTEUS...)
- Standard Message Models
- Standard Reference Data
- Standard OIIE Adaptors





OIIE OGI Pilot Phases (3.x Series)

Phases of the **OIIE OGI Pilot** incrementally develop, improve and validate OIIE Use Cases which are used to capture requirements and interoperability solutions specifications defining the OIIE.

- Phase 3.1 (2018-2019) Major new pilot series reflecting technology changes.
 - > Starts with specifications from prior 2.x OGI Pilot Series
 - > Phase 3.1 follows the lifecycle model previously defined in the ISO MAMI Task Force
 - ➤ Includes a set of OIIE Use Cases developed using the formal OIIE Use Case Architecture
- Phase 3.2 (2019-2020) Refined and documented multiple OIIE Use Cases
 - > Refined the OIIE Use Case Development Processes-combining Agile and Waterfall methods
 - Incorporating initial requirements from Australian Energy Sector/NERA and OpenO&M ISBM 2.0
- Phase 3.3 (2021-2021) Ongoing-Updating 3 existing OIIE Use Cases and add a Purchasing Use Case
 - ➤ Initial alignment/use of CFIHOS RDL and CII AWP/IWP specifications/requirements
 - > Adding specifications for other OIIE Primary Components to fully support OIIE in alignment with OpenO&M members
 - Capturing initial requirements for Managed Industry Clusters (Initial Example-Energy Clusters)
- Phase 3.4 (2021-2022) Planning for Next Phase (2021 Q4 Start)
 - Include more requirements established with OIIE Capital Projects WG, FEnEx CRC, CFIHOS, CII, and NOW AACE
 - Cross-Sector alignment for Critical Infrastructure Risk Management
 - Generate Technical Report to be used as input for ISO 18101
 - Shared Costs, Risks and Benefits Requirements from Members and Sponsors are Prioritized
 - > Alignment with FEnEx CRC Project on Interoperable Analytics provides matching funds for R&D/Testing
 - > Prepare for internal Production Pilots and Production Use in mid 2022 and beyond





OIIE OGI Pilot Phase 3.3 - Starts Adding AWP (IWP) and CFIHOS

The plan is to update 2 existing OIIE Use Cases and inserts a new OIIE Use Case focused on Purchasing, then follow the existing OIIE Use Cases shown here

Relevant CFIHOS RDL is being added along with AWP requirements for IWPs.

Insert New OIIE Use Case

1. Purchasing

IEEE Std 841/IOGP - JIP33 S-733D

Low Voltage Electric Motor and ISA Spec Instrument

- 1. P&ID Creation and Export of Condenser Unit P&ID to Proteus XML Format (Worley)
- 2. Transform **CCOM XML Format** (UniSA)
- 3. Greenfield RFI/RFI Response
- RFI based on functional requirements (UniSA)
- RFI Response, Models (Yokogawa)

4. Capital Project Asset Installation

(UniSA)

5. (Simulated) Handover of As-Built Data to PdMA

SAP

(add CFIHOS RDL based properties)

(UniSA)

6. CBM— Collection of Measurement data and output of Advisory

(PdMA)

7. Remove and Replace Maintenance Activity

(UniSA)

- Brownfield Information Remediation
- RFI based on limited asset data (UniSA)
- RFI Response, Model/Asset data (Yokogawa)

OIIE Use Case 1 (As-Designed)

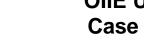
OIIE Use Case 12

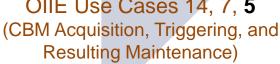
OIIE Use Case 15

OIIE Use Case 1

OIIE Use Cases 14, 7, 5 Resulting Maintenance)

OIIE Use Case 12









Revised Sprints – September 2021

Sprint 0 Task	Status
2. CFIHOS RDL 1.4.1 Analysis done by MIMOSA	Awaiting CFIHOS review

Sprint 1 (June 2021) Tasks	Status
1. Purpose of CFIHOS RDL for pilot	Completed
4. Generate CFIHOS RDL based ISDD for Motor	Completed
3. Review CFIHOS RDL based ISDD for Diff. Press Trans.	Awaiting CFIHOS review

Sprint 2 (July 2021) Tasks	Status
7. New OIIE Use Case for Purchasing	Reassigned to Sprint 4
8. Extend OIIE Use Case 15 with IWP	Reassigned to Sprint 4

Sprint 3 (Aug 2021) Tasks	Status
9. Extend OIIE Handover Use	Reassigned to
Case for CFIHOS ISDDs	Sprint 4
10. Demo extended OIIE Use	Reassigned to
Case 1	Sprint 4

Sprint #	Backlog Tasks			Task Short Description
Sprint 4 (Sept 2021)	10	8. Extend OIIE Use Case 15 with 9. Extend OIIE Handover Use 0	7. New OIIE Use Case for Purchasing8. Extend OIIE Use Case 15 with IWP9. Extend OIIE Handover Use Case for CFIHOS	
	11		8	10. Demo extended OIIE Use Case 1 11. Implement provisioning of SAP for CFIHOS ISDDs 5. Generate JIP 33 based ISDD for LV Electric Motor 6.1 ISBM 2.1 Specification update (AMQP) 6.2 Service Directory 2.1 Specification update 13. Implement Service Directory 2.1 specification 14. Development of initial capability model, FEnEx
Sprint 5 (Oct 2021)	14	6.1	5	
	6.2		13	

NOTE: Backlog task 12 will be covered in future sprints.



What are MIMOSA and OpenO&M?

MIMOSA was organized as a 501 (c) 6 not for profit industry association in 1997.

- MIMOSA is an Industry Standards Developing Organization that is recognized by ANSI and ISO.
- MIMOSA develops and encourages the adoption of open, supplier-neutral standards enabling digital transformation for asset lifecycle management spanning plants, platforms, and facilities.
- MIMOSA is funded by its members and project sponsors who include Operators, Suppliers and University Affiliated Research Centers.
- MIMOSA has MOUs with multiple other industry associations to enable collaborative development of fit for purpose industry and international standards.
- > MIMOSA provides a Safe Harbor environment for mutually beneficial collaboration for digital transformation asset lifecycle management, spanning standardization activities that are otherwise often siloed.
- MIMOSA manages the OIIE OGI Pilot to help industry participants understand how they can gain business value from standards-based interoperability by adopting the OIIE specifications they can see being used in the pilot to help solve business problems THEY are prioritizing, sharing costs, risks, standards and benefits.
- www.mimosa.org

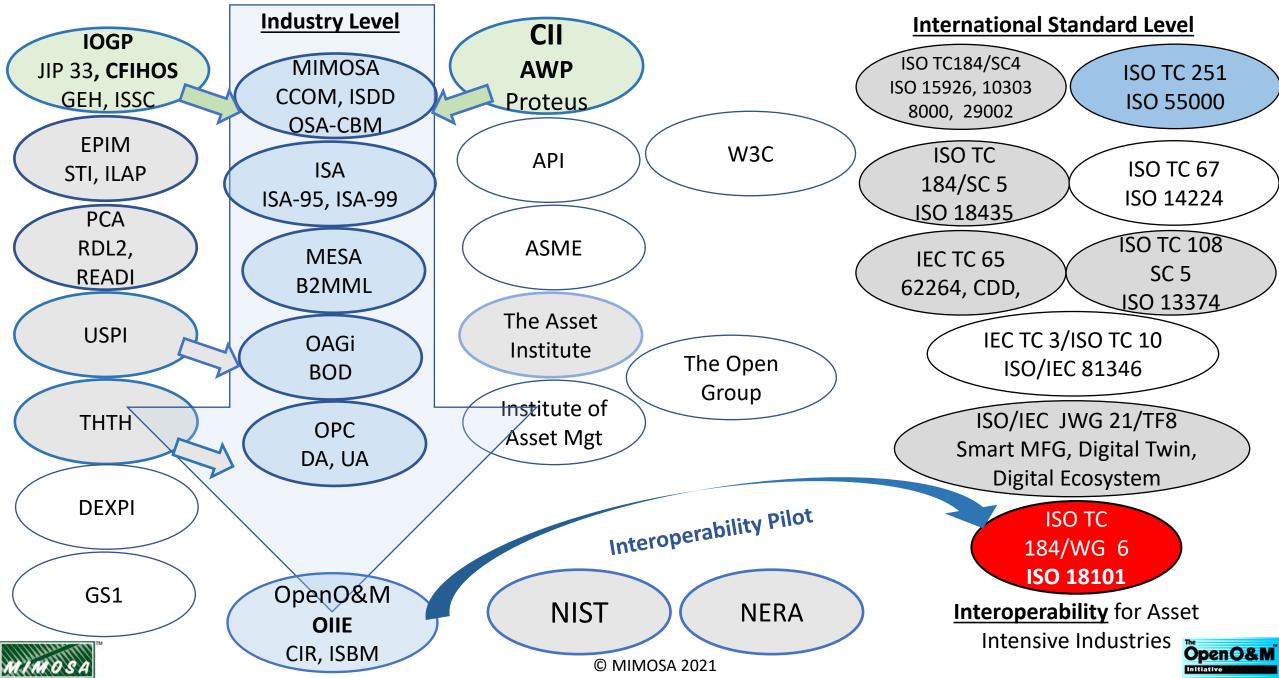
The OpenO&M Initiative was formed by a multi party MOU in 2007

- It includes ISA, MESA, MIMOSA, OAGi, and OPC Foundation
- The Open Industrial Interoperability Ecosystem (OIIE) specifications arose from this collaboration
- MIMOSA manages the IP developed by the collaborative team under the umbrella of the MIMOSA Anti-Trust and IP Rights Management Policies
- www.openoandm.org





Interoperability for Physical Asset Management-Associations and Activities



Many Collaborations, Please Join Us



OllE Australia Working Group

- NERA Sponsored for Australian Industry
- ISO mirror committee formed-Joining TC 184 as P Member
- OIIE AU WG R&D Instance, STD Endpoints –Now
- SMEs, Accademia, Operators

OIIE Capital Project Working Group

- led by IPA
- Global, Capital Projects Focus
- Workshops Ongoing
- Preliminary Collaboration in Phase 3.3 OliG OGI Pilot

OIIE 0&M Working Group, Open0&M Initiative

- Collaboration on the OIIE Primary Component Specifications
- ISA leading Operations Management Stream
- ISA Datasheets for ISDDs-1st Set Pending ISA Review
- Meetings Ongoing

CII/MIMOSA Interoperability JWG (University of Texas)

- Developing OIIE use cases including requirements developed by CII
- Initially focused on Advanced Work Packaging (AWP)
- Meeting series now doing joint analysis prior to joint development
- Preliminary Collaboration in Phase 3.3 OIIG OGI Pilot

IOGP CFIHOS/MIMOSA Joint Working Group

- Use of OIIE/ISO 18101 interoperability/digitalization framework
- Help coordinate OIIE Use Case Development in related industry sectors
- Conversion of CFIHOS RDL V 1.4.1 to Co-branded ISDDs
- Preliminary Collaboration in Phase 3.3 OIIG OGI Pilot

Future Energy Export Cooperative Research Centre-AU, JP, KR, US

- Industry Operators, Suppliers and Academic Members
- MIMOSA is the member SDO
- Digital Technologies and Interoperability Program
- Matching funds for approved R&D projects including OIIE OGI Pilot
- > 1st Project -Interoperability for Analytics (Including AI)-Ongoing
- OIIE Interoperability Lab at University of South Australia





Subteam 5 -- Prioritization and Value Case Definition – D. J. McNeil



Sub-Team Updates as of 9/21/21

Subteam 5 -- Prioritization and Value Case Definition -- enablers -- Deb McNeil

Goal- to stay focused on right priorities- identify economy of scale areas

- ✓ See August 2021 Meeting Minutes for where \$ and time are actually spent on Industry Projects and current industry average performance
- ☐ September Meeting 2022 Priorities

Key Issues- 2022 Priorities

Optional Priorities for OIIE OGI Pilot Phase 3.4 and Beyond

- IPA-MIMOSA OIIE Capital Project Use Cases
 - Cost Estimating
 - Supply Chain (Capital RFI/Purchasing)
 - Asset Installation
- CFIHOS 1.4.1 Based Handover
 - Critical Path items for end of 2021?
- Supply Chain Management Digital Transformation
 - Critical Path items for Q1/Q2 2022?
- AWP/CWP/IWP for Capital Projects
 - Critical Path items for Q2/Q2 2022?
- BIM/IFC and OIIE Convergence
 - Relative importance for different industry sectors?





Next Steps

Check-

Access to MIMOSA TEAMS work area –

Anyone needing an invitation contact Matt Selway:

Matt.Selway@my.unisa.edu.au

IPA – MIMOSA OIIE CPWG

Levels of Participation

General Interest

Register for Large Group
Meeting Minutes

Attend the Large Group

Meeting

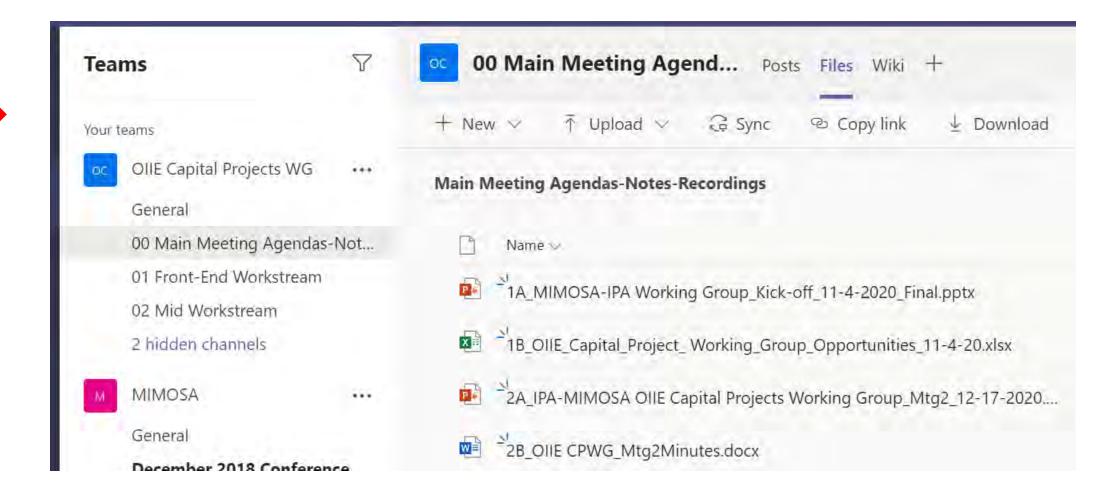
Attend the Breakout Team Working Groups

You'll be invited to join the TEAMS site.

You can then sign up for participation in one Or more of the Break-out Groups



Join us on TEAMS and let's get to work...





Next Steps:

- 1. Identify Members willing to share your digitalization journey
- 2. Register on IPA Website:

https://www.ipaglobal.com/event/digitalization-ipa-mimosa-oiie-capital-project-working-group-meetings

- a) If not already a member, you will be invited to the MIMOSA TEAMS workspace to continue development of the Use Cases
- b) Please participate in the sub-team meetings to generate the industry input to the Pilot Project and the Industry Standards work (each sub-team will set it's own meetings)
- c) Contact Alan Johnston (atjohn@comcast.net) to get more info on MIMOSA membership and access to the solutions already in place for your company to use
- d) The Main Team will meet once a month on the 3rd Tuesday from 7 to 8 am EDST to report on progress, share industry knowledge, set priorities and continue the knowledge sharing and dialog.

If you need new meeting invitation – please email dmcneil@ipaglobal.com or Register on the IPA Website

THANK YOU