Workshop B
The Maturity Component of IP2M METRR

This workshop is a continuation of the workshop focused on environment that was conducted earlier.

Recall that planning for a Department of Energy project was started in September 2021 to renovate, modernize and repurpose an existing scientific facility that was originally constructed in the 1960's. This $550 million project is in Greenland. Project-specific goals include achieving environmental and safety upgrades and enhancing the facility by ensuring it is more energy and operationally efficient and supports scientific research. The facility has had periodic renovations in the intervening years. Much of the scope is renovation, with 4 sub-projects:

- Demolition of some of the existing facilities
- Construct a water tank and upgrade the existing water system
- Outside plant infrastructure improvement including a new airfield
- Core facilities including a new 400,000 sf facility and other building renovations

On-site construction is expected to start in June 2022 and is very seasonally driven with an expected (hoped for) completion of late 2027. The front end planning is complete and design phases are mostly complete; now the project is at 90% design complete with project approval for construction expenditures expected in the near term.

As a contractor you have policies in place to provide standardized EVM solution for projects that require the use of EVMS during the execution of the project. You have different resources for project performance management tools such as a control account work authorization (CAWA) project management process tool, Cobra for cost, Primavera (P6) for scheduling, a Risk Register for risk management, and a project management process tool (PMPT) for change management.

Your cost and schedule baseline will be finalized after the final design review in two months before beginning construction. Your subcontracts are managed by the subcontract program manager. Your risk management plan coincides with your customer's requirements.

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The customer will conduct an EVMS review in 3 months, you were asked to lead an informal internal review using the IP2M METRR, to prepare, identify gaps, and start working on corrective actions ahead of the customer's formal review. The IP2M METRR session will be attended by the project manager, project controls manager, financial analyst, senior scheduler, executive manager, risk manager, control account managers, and subcontracts manager.

Some information about the current conditions on the project include:

- There is misalignment between the sponsor/customer and the contractor especially on how to apply EVMS.
- There is miscommunication with the customer especially regarding EVMS understanding and contractual requirements.
- Changes are not managed in a timely manner.
- There are integration issues especially between planning, scheduling, and budgeting.
- Customer constraints especially those related to the core facilities are not clear.

Note: on the next page, we provide additional maturity details.

Your team is working on evaluating the maturity component of IP2M METRR for this project. You have already assessed 53 of the 56 attributes; your work thus far is documented in Appendices A and B. Below, we will provide instructions for you to complete this assessment.

Instructions

1. Applying the IP2M METRR on the fictitious project provided earlier, complete your assessment for maturity attributes A4, C5, and I1. The detailed descriptions for each of these maturity attributes are provided in Appendix C of this handout. You are asked to discuss and decide on the maturity level of each of these attributes. *Note: on the next page, we provide additional details on these three maturity attributes.*
2. Once your assessment is completed, you can finish calculating the project's total maturity score. Discuss what the overall score means in terms of risk, realizing where we are for this project. What does this level of maturity tell you? What are some key risks for this project?
3. List the maturity attributes that you are not comfortable with. How would you resolve these issues? What is/are your next step(s)? Develop a list of recommendations and corrective actions for the project.

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Given (fictitious) information for the three maturity attributes

Evaluation of Attribute A4, Integrated System with Common Structures

For Attribute A4, the following items are in order:

- ✓ Responsibility Assignment Matrix (RAM)
- ✓ Manufacturing/Enterprise Resource Planning (M/ERP) operational schedules
- ✓ Statement of Work (SOW)/Statement of Objectives (SOO)

However, the team identified the following issues:

- There is no common coding structure between the Work Breakdown Structure (WBS) and the Organizational Breakdown Structure (OBS).
- There are disconnects across the CAs.
- There is weak or not at all integration between schedule and the other sub-systems. For example, budgeting and planning.
- A unique and flexible coding structure to link schedule hierarchy and cost accumulation does not exist.

Evaluation of Attribute C5, Budgeting by Elements of Cost (EOC)

For Attribute C5, the following items have been completed:

- ✓ EOCs are reviewed on a monthly basis.
- ✓ Every source code is assigned an EOC.
- ✓ Subcontractor budgets are time-phased.
- ✓ Budgets is reflected in CAPs by EOC.
- ✓ Budgets are stated in units of currency, hours, or other measurable units.

Evaluation of Attribute I1, Subcontract Identification and Requirements Flow Down

For Attribute I1, the following items have been considered:

- ✓ Processes, instructions, and related command media for subcontractor flow down
- ✓ requirements
- ✓ Data reporting requirements, such as Subcontract Data Requirements Lists (SDRL)
- ✓ Appropriate subcontract EVMS clauses
- ✓ EVMS reports (prime and subcontract)
- ✓ Subcontracts and purchase orders
- ✓ Feedback shared with subcontractor for corrective actions related to EVMS

However, the team is not sure of the following items:

- Prime contract requirements and prime make/buy documents
- Cost/schedule/technical risks with subcontractor data included
- Charge number structure

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Appendix A: IP2M METRR maturity scoresheet for today's case study exercise

SUB-PROCESS A: ORGANIZING								
Attribute	**Maturity Level**						**Score**	**Comments**
	N/A	**1**	**2**	**3**	**4**	**5**		
A.1. Product-Oriented Work Breakdown Structure (WBS)		0	5	11	(16)	22	16	
A.2. Work Breakdown Structure (WBS) Hierarchy		0	5	10	(14)	19	14	
A.3. Organizational Breakdown Structure (OBS)		0	4	(7)	11	14	7	
A.4. Integrated System with Common Structures		0	6	11	17	23		
A.5. Control Account (CA) to Organizational Element		0	4	(9)	13	18	9	
Maximum Column Totals		**0**	**24**	**48**	**71**	**96**		

SUB-PROCESS B: PLANNING AND SCHEDULING								
Attribute	**Maturity Level**						**Score**	**Comments**
	N/A	**1**	**2**	**3**	**4**	**5**		
B.1. Authorized, Time-Phased Work Scope		0	6	11	(17)	22	17	
B.2. Schedule Provides Current Status		0	6	11	(17)	22	17	
B.3. Horizontal Integration		0	5	(10)	15	21	10	
B.4. Vertical Integration		0	5	10	(14)	19	14	
B.5. Integrated Master Schedule (IMS) Resources		0	(4)	9	13	17	4	
B.6. Schedule Detail		0	5	(9)	14	18	9	
B.7. Critical Path and Float		0	7	(13)	20	27	13	
B.8. Schedule Margin (SM)		0	2	(5)	7	10	5	
B.9. Progress Measures and Indicators		0	5	(11)	16	21	11	
B.10. Time-Phased Performance Measurement Baseline (PMB)		0	6	(13)	19	25	13	
Maximum Column Totals		**0**	**51**	**102**	**152**	**202**	**113**	

Maturity Levels:
N/A= Not Applicable; 1 = Not Yet Started; 2 = Major Gaps; 3 = Minor Gaps; 4 = No Gaps; 5 = Best in Class

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SUB-PROCESS C: BUDGETING AND WORK AUTHORIZATION								
Attribute	**Maturity Level**						**Score**	**Comments**
	N/A	**1**	**2**	**3**	**4**	**5**		
C.1. Scope, Schedule and Budget Alignment		0	(5)	11	16	22	5	
C.2. Summary Level Planning Packages (SLPPs)		0	2	3	5	(6)	6	
C.3. Work Authorization Documents (WADs)		0	4	8	(13)	17	13	
C.4. Work Authorization Prior to Performance		0	3	6	9	(12)	12	
C.5. Budgeting by Elements of Cost (EOC)		0	4	8	12	16		
C.6. Work Package Planning, Distinguishability, and Duration		0	4	(8)	12	16	8	
C.7. Measurable Units and Budget Substantiation		0	4	(7)	11	15	7	
C.8. Appropriate Assignment of Earned Value Techniques (EVTs)		0	5	10	15	(20)	20	
C.9. Identify and Control Level of Effort (LOE) Work Scope		0	3	7	(10)	13	10	
C.10. Identify Management Reserve (MR) Budget		0	4	8	(12)	17	12	
C.11. Undistributed Budget (UB)		0	3	6	(8)	11	8	
C.12. Reconcile to Target Cost Goal		0	3	7	(10)	13	10	
Maximum Column Totals		**0**	**44**	**89**	**133**	**178**		

SUB-PROCESS D: ACCOUNTING CONSIDERATIONS								
Attribute	**Maturity Level**						**Score**	**Comments**
	N/A	**1**	**2**	**3**	**4**	**5**		
D.1. Direct Costs		0	4	9	(13)	17	13	
D.2. Actual Cost Reconciliation		0	5	9	(14)	18	14	
D.3. Recording Direct Costs to Control Accounts (CAs) and/or Work Packages (WPs)		0	5	(9)	14	18	9	
D.4. Direct Cost Breakdown Summary		0	3	6	9	(12)	12	
Maximum Column Totals		**0**	**17**	**33**	**50**	**65**	**48**	

Maturity Levels:
N/A= Not Applicable; 1 = Not Yet Started; 2 = Major Gaps; 3 = Minor Gaps; 4 = No Gaps; 5 = Best in Class

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SUB-PROCESS E: INDIRECT BUDGET AND COST MANAGEMENT								
Attribute	**Maturity Level**						**Score**	**Comments**
	N/A	**1**	**2**	**3**	**4**	**5**		
E.1. Indirect Account Organization Structure		0	3	6	9	(12)	12	
E.2. Indirect Budget Management		0	4	8	12	(16)	16	
E.3. Record/Allocate Indirect Costs		0	3	7	10	(14)	14	
E.4. Indirect Variance Analysis		0	3	7	10	(13)	13	
Maximum Column Totals		**0**	**13**	**28**	**41**	**55**	**55**	

SUB-PROCESS F: ANALYSIS AND MANAGEMENT REPORTING								
Attribute	**Maturity Level**						**Score**	**Comments**
	N/A	**1**	**2**	**3**	**4**	**5**		
F.1. Calculating Variances		0	4	8	12	(17)	17	
F.2. Variances to Control Accounts (CAs)		0	5	10	(15)	19	15	
F.3. Performance Measurement Information		0	5	10	(16)	21	16	
F.4. Management Analysis and Corrective Actions		0	7	(13)	20	26	13	
F.5. Estimates at Completion (EAC)		0	6	(13)	19	26	13	
Maximum Column Totals		**0**	**27**	**54**	**82**	**109**	**74**	

Maturity Levels:
N/A= Not Applicable; 1 = Not Yet Started; 2 = Major Gaps; 3 = Minor Gaps; 4 = No Gaps; 5 = Best in Class

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SUB-PROCESS G: CHANGE CONTROL								
Attribute	**Maturity Level**						**Score**	**Comments**
	N/A	**1**	**2**	**3**	**4**	**5**		
G.1. Controlling Management Reserve (MR) and Undistributed Budget (UB)		0	5	11	16	(21)	21	
G.2. Incorporate Changes in a Timely Manner		0	6	(11)	17	23	11	
G.3. Baseline Changes Reconciliation		0	5	(10)	15	20	10	
G.4. Control of Retroactive Changes	X	0	5	9	14	19	N/A	
G.5. Preventing Unauthorized Revisions to the Contract Budget Base (CBB)/Project Budget Base (PBB)	X	0	5	10	16	21	N/A	
G.6. Over Target Baseline (OTB)/Over Target Schedule (OTS) Authorization		0	3	6	9	(12)	12	
Maximum Column Totals		**0**	**29**	**57**	**87**	**116**	**54**	

SUB-PROCESS H: MATERIAL MANAGEMENT								
Attribute	**Maturity Level**						**Score**	**Comments**
	N/A	**1**	**2**	**3**	**4**	**5**		
H.1. Recording Actual Material Costs		0	4	8	12	(15)	15	
H.2. Material Performance		0	4	8	11	(15)	15	
H.3. Residual Material		0	(2)	5	7	9	2	
H.4. Material Price/Usage Variance		0	3	6	(9)	12	9	
H.5. Identification of Unit Costs and Lot Costs	X	0	2	4	6	8	N/A	
Maximum Column Totals		**0**	**15**	**31**	**45**	**59**	**41**	

Maturity Levels:
N/A= Not Applicable; 1 = Not Yet Started; 2 = Major Gaps; 3 = Minor Gaps; 4 = No Gaps; 5 = Best in Class

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SUB-PROCESS I: SUBCONTRACT MANAGEMENT								
Attribute	**Maturity Level**						**Score**	**Comments**
	N/A	**1**	**2**	**3**	**4**	**5**		
I.1. Subcontract Identification and Requirements Flow Down		0	5	9	14	19		
I.2. Subcontractor Integration and Analysis		0	6	11	(17)	22	17	
I.3. Subcontract Oversight		0	5	9	(14)	19	14	
Maximum Column Totals		**0**	**16**	**29**	**45**	**60**		

SUB-PROCESS J: RISK MANAGEMENT								
Attribute	**Maturity Level**						**Score**	**Comments**
	N/A	**1**	**2**	**3**	**4**	**5**		
J.1. Identify and Analyze Risk		0	8	16	(24)	32	24	
J.2. Risk Integration		0	7	14	(21)	28	21	
Maximum Column Totals		**0**	**15**	**30**	**45**	**60**	**45**	

Maturity Levels:
N/A= Not Applicable; 1 = Not Yet Started; 2 = Major Gaps; 3 = Minor Gaps; 4 = No Gaps; 5 = Best in Class

IP2M Maturity raw score is transformed to IP2M maturity adjusted score by the following formula:

$$\frac{\text{IP2M maturity raw score}}{1000 - \sum \text{maturity level 5 scores of the attributes assessed as "N/A"}} \times 1000 = \frac{}{1000 - (++)} \times 1000 =$$

IP2M MATURITY TOTAL SCORE

(Maximum Score = 1000)

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Appendix B: IP2M METRR maturity sample identified gaps for today's case study exercise

Attribute	Attribute title	Gaps
Sub-process A. Organizing attributes		
A3	Organizational Breakdown Structure (OBS)	• There is lack of sharing the OBS and its related information for everyone to know where the elements connect. • There is lag in updating Cobra to reflect the OBS; they do not match but this should be an easy fix.
A4	Integrated System with Common Structures	• There are many disconnects across control accounts, including schedule integration. • P6 does not have the ability to communicate with Cobra (cost and schedule are not integrated).
A5	Control Account (CA) to Organizational Element	• The CAs are setup in Cobra but the OBS is not updated in the system. • Organizationally strong, but it is not reflected in Cobra.
Sub-process C. Budgeting and Work Authorization attributes		
C1	Scope, Schedule and Budget Alignment	• There are some alignment issues at the CA level. • Budgets are not aligned.
C6	Work Package Planning, Distinguishability, and Duration	• Work package (WP) planning is not fully integrated with other sub-processes. • There are discrepancies in integration.
C7	Measurable Units and Budget Substantiation	• There is deficiency in defining WPs in a logical scope (at low enough level to determine what the scope exactly is).
C9	Identify and Control Level of Effort (LOE) Work Scope	• We are still working on figuring out integration and how to show it.
C10	Identify Management Reserve (MR) Budget	• We are not allowed to manage the contingencies due to the customer.

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Appendix C: Descriptions of the maturity attributes we are assessing today

SUB-PROCESS A: ORGANIZING	Maturity Level				
	LOW		MEDIUM		HIGH
A.4. Integrated System with Common Structures	**1**	**2**	**3**	**4**	**5**
The planning, scheduling, budgeting, work authorization and cost accumulation systems should be integrated with each other. This integration occurs via common data elements and a common coding structure through the Work Breakdown Structure (WBS) and the Organizational Breakdown Structure (OBS). The integration of planning, scheduling, budgeting, work authorization, and cost accumulation management processes provides the capability for establishing the Performance Measurement Baseline (PMB), identifying work progress, and collecting actual costs, thereby facilitating management analysis and corrective actions. Having integrated data linked to WBS and OBS elements ensures the availability of program information needed to support all levels of management insight and control. The intent is to build a framework that integrates the project/program processes (e.g., planning, scheduling, budgeting, work authorization, and cost accumulation) to support effective management of the contract by accurately integrating cost, schedule, and technical information. Interoperability is an important characteristic of the EVMS to work between and amongst sub-systems. The data and/or narrative from one sub-system must be consistent with the data and/or narrative in other related sub-systems. Items to consider include: □ Data item matrix describing the unique coding structure that defines the common data elements that link the management systems □ A unique and flexible coding structure (e.g., code structure used to identify Control Account (CA), work package/planning package, earned value technique, charge code, risk identification number, etc.) that integrates sub-systems to support current and future internal and external data requirements □ Consistency among common data elements between sub-systems □ Work authorizations and documentation □ Master, intermediate, and detail level schedules □ Manufacturing/Enterprise Resource Planning (M/ERP) operational schedules □ Control account plans □ WBS and OBS, including management performance reports □ Responsibility Assignment Matrix (RAM) □ Statement of Work (SOW)/Statement of Objectives (SOO) □ A schedule hierarchy linked (either manually or electronically) to the other sub-systems (e.g., budget work authorization) □ Other The Integrated System requirement should be integrated with the Planning and Scheduling sub-process, Budgeting and Work Authorization sub-process and Accounting Considerations sub-process. *References:* NDIA EVMS EIA-748-D Intent Guide GL 3; DoD EVMSIG GL 3; DOE CAG GL 3; EIA748-D; ANSI PMI 19-006-2019	**Not yet started.**	**Integration among planning, scheduling, budgeting and work authorization elements is lacking. A common coding structure is not in place.** The process to integrate systems has started. A number of significant issues still exist. The WBS or OBS structures are not integrated. WBS and OBS elements are missing and/or not clearly defined. Little mapping has occurred among the planning, scheduling, budgeting, work authorization and cost accumulation documents and systems. Key data is not aligned across sub-systems.	**Integration of the planning, scheduling, budgeting and work authorization elements, and a common coding structure throughout the project/program documentation and reports are mostly in place. Some issues, that are not easily corrected, still exist but these have minimal impact on the project/program.** The process to integrate systems has been defined. Common structures accurately reflect the products, services, and deliverables. A few open items remain. Most WBS and OBS elements are present and linked throughout project/program documentation and systems. Management reports are traceable to the planning, scheduling, budgeting, work authorization and cost accumulation documents. There are minor gaps with a few traceability issues throughout the systems or elements that are not mapped to CA levels. Most key data is aligned across sub-systems. The Integrated System requirement is coordinated with the Planning and Scheduling sub-process, Budgeting and Work Authorization sub-process and Accounting Considerations sub-process.	**Integration of the planning, scheduling, budgeting and work authorization elements, and a common coding structure throughout the project/program documentation and reports, are in place.** All WBS and OBS elements are clearly defined and traceable through all project/program documentation and systems. All key data is aligned across sub-systems. All CAs clearly map to one WBS and one OBS. Management reports are traceable to the planning, scheduling, budgeting, work authorization and cost accumulation documents and representative systems. Integration is rigorously monitored by management. Any issues are minor and easily correctable with no impact to the project/ program. Problems are identified, logged, tracked, mitigated, corrected and closed, providing management with insight to make timely decisions The Integrated System requirement is fully integrated with the Planning and Scheduling sub-process, Budgeting and Work Authorization sub-process and Accounting Considerations sub-process.	**Integration is in place. Internal processes are in place to validate the integration of the structures and data flows and verify accuracy. Changes are readily accommodated to the integrated systems with no impact to the project/program data integrity.** The project/program is actively checking its WBS and OBS common coding structure for each CA for traceability and accuracy on a monthly basis, with no errors in deliverables. System integration is monitored, used for management control, and automatically tested to assess system health and integrity. Necessary corrective actions are implemented, completed, and recurring issues resolved. A Storyboard (or like) approach is routinely used to validate data integration and consistency. Surveillance results of system integration are fully disclosed with all key stakeholders, who maximize use of these results. Manual data entry has been reduced; key data is automatically aligned across systems. System integration is continuously improved and optimized.

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SUB-PROCESS C: BUDGETING AND WORK AUTHORIZATION	Maturity Level				
	LOW	MEDIUM			HIGH
C.5. Budgeting by Elements of Cost (EOC)	**1**	**2**	**3**	**4**	**5**
EOCs are a subset of the Control Accounts (CAs) and Work Package (WP) budgets. CAs are planned, budgeted, and segregated by EOC (i.e., labor, material, subcontract, other direct costs, and indirect costs (e.g., an EOC equivalent)) when applicable. Budgets for direct costs are those chargeable to a specific WP and include labor, materials, equipment, and any other resources defined by the project along with indirect burdens. The time-phasing of material budgets should be consistent when the material is expected to be received and consumed for acceptable points for planning and measuring material. Budgets for subcontractors are time-phased to support project schedule requirements at acceptable points for planning and measuring subcontracts to vendors. Budgets may be stated in units of currency, hours, or other measurable units consistent with the budget values reflected in the Control Account Plans (CAPs). Budgeting indirect costs supports reconciliation between the accounting system cost elements and EVMS cost system EOCs, mitigates distortion of direct EOC variances, and enhances management's analysis and understanding the indirect rate impacts. Items to consider include: □ Budget reflected in CAPs by EOC □ EOC budgets found in WAD □ Subcontractor budgets are time-phased □ Budgets are stated in units of currency, hours, or other measurable units □ Prime budgets are integrated with schedules □ Disclosure Statement (e.g., Cost Accounting Standards (CAS)) □ Other The EOC should be integrated with the Indirect Budget and Cost Management sub-process and the Material Management sub-process. *References:* NDIA EVMS EIA-748-D Intent Guide GL 9, 10, 13; DoD EVMSIG GL 9, 10, 13; DOE CAG GL 9, 10, 13; SAE EIA748-D; NDIA PASEG; ISO 21508:2018(E); ANSI PMI 19-006-2019	**Not yet started.**	**Some CA budgets are planned and authorized by EOC (i.e., labor, material, subcontract, other direct costs, and indirect costs).**	**Most CA budgets are planned but not all authorized by EOC.**	**All CA budgets are planned and authorized by EOC.**	**CA budgets by EOCs are traceable, reconciled on a monthly basis, and proactively used to track authorized work and associated scope, schedule, and budget and to assign or transfer ownership to each CA.**
		Policies, procedures, processes establishing segregation by EOC not yet drafted or reviewed for alignment with the governing requirements. System structure and resource coding for cost element segregation is not yet developed. EOCs are not yet integrated in the EVMS.	Policies, procedures, processes establishing segregation by EOC drafted, but not yet reviewed for alignment with the governing requirements. System structure and resource coding for cost element segregation are developed, but not yet reconciled or validated. EOCs are integrated in the EVMS, but not yet reconciled or validated. The EOCs are coordinated with the Indirect Budget and Cost Management sub-process and the Material Management sub-process.	Policies, procedures, processes establishing segregation by EOC reviewed for alignment with the governing requirements and approved for implementation. System structure and resource coding for cost element segregation are reconciled and validated for implementation and use. Problems are identified, logged, tracked, mitigated, corrected and closed, providing management with insight to make timely decisions. EOCs are integrated in the EVMS, traceable, reconciled, and validated for use. The EOCs are fully integrated with the Indirect Budget and Cost Management sub-process and the Material Management sub-process.	EOC budgets are monitored, used for management control and automatically tested to assess system health and integrity. Necessary corrective actions are implemented, completed, and recurring issues resolved. Routine surveillance results of EOCs are fully disclosed with all key stakeholders, who maximize use of these results. The EOC budgets are continuously evaluated for opportunities to improve or optimize.

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SUB-PROCESS I: SUBCONTRACT MANAGEMENT	Maturity Level				
	LOW	MEDIUM			HIGH
I.1. Subcontract Identification and Requirements Flow Down	1	2	3	4	5
The prime contractor remains responsible for authorized work that is subcontracted to include subcontract identification, categorization, organization, management and control, and reporting, The prime contractor is responsible for the flow down of appropriate Earned Value Management System (EVMS) contract requirements to subcontractors for work scope considered by the prime contractor to be "major". Major subcontractors deliver critical, high risk, or high dollar items to the project/program. (Note a critical item may or may not be considered high dollar, but if not tracked, could impact the critical path). Identification of work scope considered by the prime contractor to be major may be the function of a make/buy strategy or some other criteria as described in the prime contractor's approved subcontractor management processes. Based on customer and prime contractor project/program management approach for subcontract management, EVMS flow down to major subcontractors includes applicable EVMS provisions, clauses, and/or data reporting requirements. Minor subcontractors are not considered by the prime contractor to include critical, high risk, or high dollar work scope, however, the prime contractor is responsible to ensure the integrity of minor subcontractor management processes and performance data. This attribute also includes inter-divisional work within an organization that is considered subcontract-like. Prime contractor flow down of EVMS requirements to subcontractors should be consistent with project/program risk, size, and complexity. EVMS flow down establishes enforceable requirements that enable the prime contractor to receive EVMS performance data from the subcontractor in order to engage in analysis and evaluation of subcontractor performance. Flow down of appropriate EVMS requirements by the prime contractor to the subcontractor ensures the implementation of sound management practices and processes, including the identification and allocation of subcontractor resources, authorization and planning of budgets, and reporting of cost, schedule, and technical performance, and assists the prime contractor decision-making providing effective forecasting submitted to the customer each month. Items to consider include: □ Prime contract requirements and prime make/buy documents □ Processes, instructions, and related command media for subcontractor flow down requirements □ Data reporting requirements, such as Subcontract Data Requirements Lists (SDRL) □ Appropriate subcontract EVMS clauses (i.e., Federal Acquisition Regulations (FARs), Defense Federal Acquisition Regulation Supplement (DFARS)) □ Cost/schedule/technical risks with subcontractor data included □ EVMS reports (prime and subcontract) □ Charge number structure □ Subcontracts and purchase orders □ Other The Subcontract Identification and EVMS Flow Down Requirements should be integrated with the Organizing sub-process, Planning and Scheduling sub-process, Budgeting and Work Authorization sub-process, Analysis and Management Reporting sub-process, Change Control sub-process, and Risk Management sub-process. *References:* NDIA EVMS EIA-748-D Intent Guide All GLs; DoD EVMSIG All GLs; DOE CAG All GLs; ISO 21508:2018(E); ANSI PMI 19-006-2019	**Not yet started.**	**Some prime contractor processes defining the EVMS flow down and/or data reporting requirements for major and minor subcontractors exist.** Major and/or minor subcontractor EVMS flow down requirements are not separately identified. The prime contractor manages subcontractor work scope using high-level milestones and summary bars. The prime contractor does not distinguish between major and minor subcontractor work scope when requesting performance data.	**Most prime contractor processes defining the EVMS flow down and/or data reporting requirements for major and minor subcontractors are documented; however, they may not be approved and routinely enforced.** The prime contractor has identified all subcontractor work scope. EVMS flow down and/or data reporting requirements are applied to most major subcontractors. Subcontract Identification and EVMS Flow Down Requirements are coordinated with the other EVMS sub-processes.	**All prime contractor processes addressing the EVMS flow down and/or data reporting requirements to subcontractors are documented, approved, and enforced. Subcontractor EVMS flow down requirements and monthly data reporting requirements are consistent with project/program risk, size, and complexity.** The prime contractor has identified all major and minor subcontract work scope, and has applied appropriate EVMS flow down and data reporting requirements. The prime contractor remains responsible for EVMS data for management and reporting of minor subcontractors. A feedback or communication loop has been established by the prime contractor to notify subcontractors to address any issues (scope, schedule, budget, etc.). Major subcontractors have a documented plan to resolve EVMS flow down requirement issues which are identified, tracked, and corrected, and closed upon successful implementation of the EVMS. In the interim, the prime contractor remains responsible for EVMS data needed for management and reporting. Subcontract Identification and EVMS Flow Down Requirements are fully integrated with the other EVMS sub-processes.	**Prime contractor EVMS flow down and/or monthly data reporting requirements are consistently applied to subcontractors, and proactively monitored to improve subcontract requirements and performance.** A feedback or communication loop is proactively used by the prime contractor, facilitating subcontractors' ability to immediately address any issues (scope, schedule, budget, etc.). Subcontract identification and flow down requirements are routinely monitored, surveilled, and shared with stakeholders. Necessary corrective actions are implemented, completed, and recurring issues resolved. Subcontract identification and flow down requirement practices are continuously improved and optimized.

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