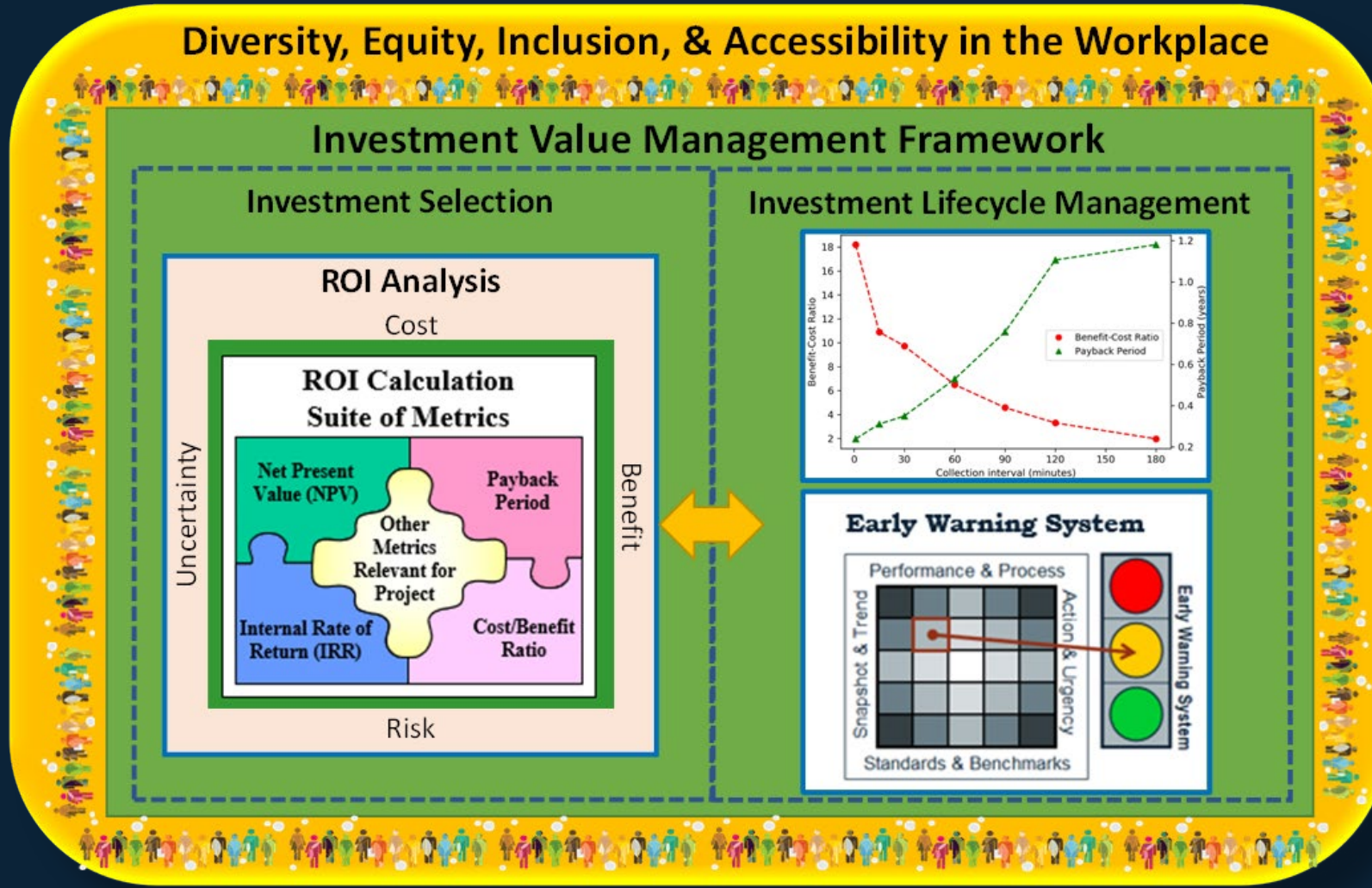


Return on Workplace Diversity, Equity, Inclusion, and Accessibility (DEIA) Investment Applying MITRE's Investment Value Management Framework (IVMF)



May 2023

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Context

- The Administration is committed to overcoming the systemic problems of discrimination that arise from implicit and unconscious bias (EO 14035)
- Government agencies are encouraged to make significant DEIA investments, including conducting DEIA assessments, developing strategic plans, and managing and reporting performance of DEIA programs on a quarterly basis (EO 14035)
- GAO recently highlighted that agencies need “ways to measure progress and enhance accountability” to foster diverse and inclusive workplaces
- DEIA outcome metrics are not always measured consistently nor applied effectively to inform workforce investments
 - Agencies are seeking capability to quantify the value of DEIA outcomes to justify long-term investments and sustain enduring change

Scope of DEIA Investment and On-Going Expenditure

DEIA workplace and workforce investments for government organizations as described in Biden EOs 13985 and 14035



- Data collection
- Paid internships
- Partnerships and equitable recruitment
- Professional training
- Pay equity
- Employment opportunities and advancing equity for marginalized groups



Executive Order (EO) 14035: Diversity, Equity, Inclusion, and Accessibility (DEIA) in the Federal Workplace (opm.gov)

Problem Statement

- Government agencies must address new EO directives, and make investments in DEIA with existing appropriations
- The list of mandated agency DEIA requirements is extensive, and expected upfront investments and on-going expenses will be significant relative to other agency expenditures
- Agencies must justify investments in DEIA workplace initiatives just as they do for other investments
 - Many DEIA benefits, uncertainties, and risks are difficult to monetize
 - There is limited DEIA investment experience and experiential data

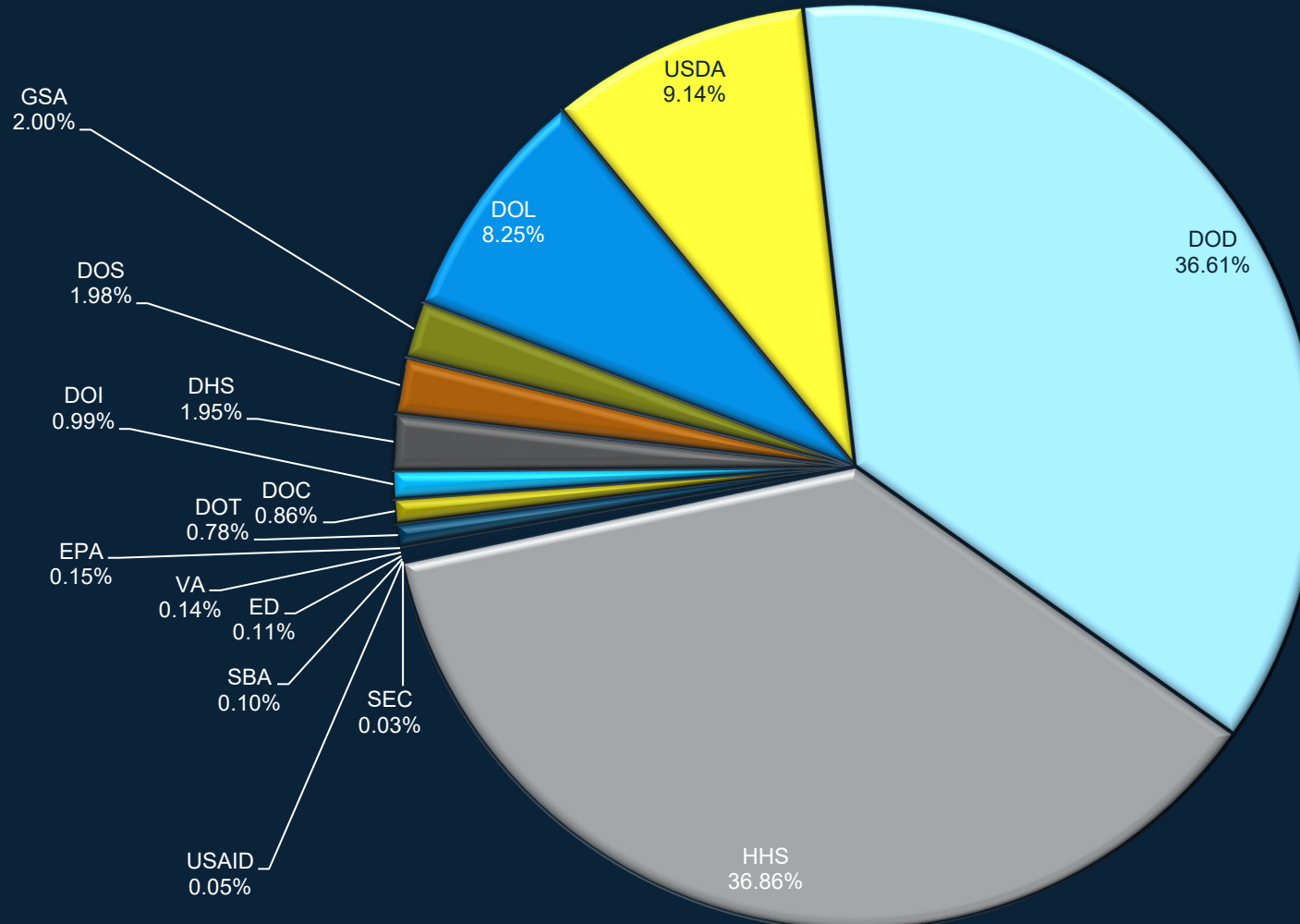
2021-2022 DEIA Spending by Agency

- DEIA investments are anticipated to be significant based on the Biden EO's but published spending data is incomplete and difficult to identify

Top 10 spending agencies \$M

- HHS - \$17.1
- DOD - \$16.9
- USDA - \$4.2
- DOL - \$3.8
- GSA - \$0.93
- DOS - \$0.91
- DHS - \$0.90
- DOI - \$0.46
- DOC - \$0.40
- DOT - \$0.36

DEIA Expenditures by Agencies - % of \$M

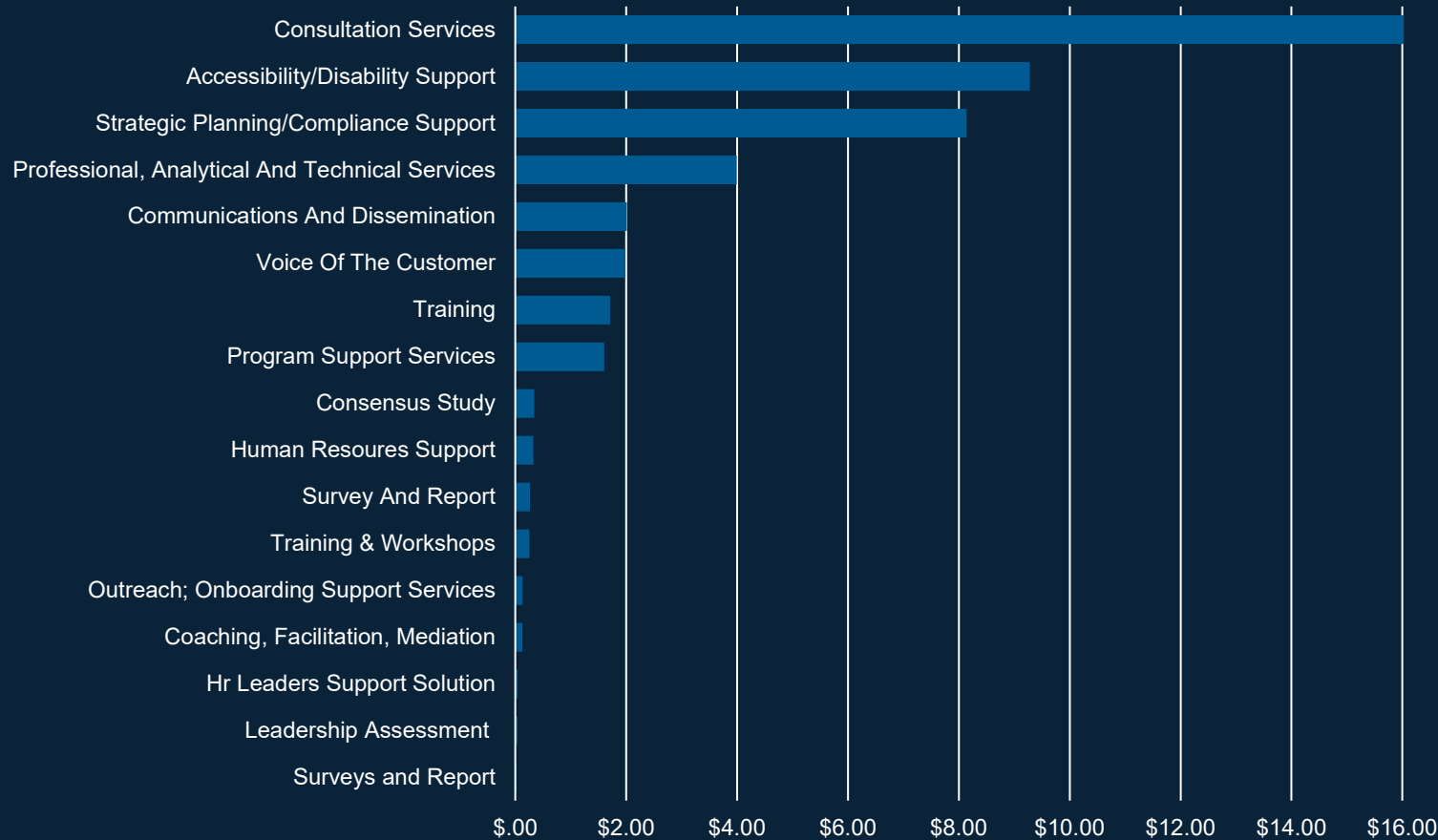


Abbreviations

- HHS = Health & Human Services
- DoD = Dept of Defense
- USDA = US Dept of Agriculture
- DOL = Dept of Labor
- GSA = General Svcs Admin
- DOS = State Dept
- DHS = Dept of Homeland Security
- DOI = Dept of Interior
- DOC = Dept of Commerce
- DOT = Dept of Transportation
- EPA = Environmental Protection Agency
- VA = Veterans Admin
- ED = Department of Education
- SBA = Small Business Admin
- USAID = Agency for International Development
- SEC = Securities & Exchange Commission

2021-2021 DEIA Spending Categories

2021-2022 Nature of Agency Spending for DEIA Initiatives
\$M



- Approximately 34% of the total DEIA spending is dedicated to Consultation Services
- The total DEIA spending from 2021 to 2022 by 16 Agencies is ~\$46M

Purpose of Our Work

- Create a decision-making framework government agencies can apply to objectively select, prioritize, and manage workplace DEIA investments
- Example investment decision:

Employees lack a sense of belonging because of recent organizational changes. Leadership focuses on increasing sense of belonging by:

- Hiring staff, including a Chief Diversity Officer
- Administering surveys and conducting focus group sessions
- Investing more in the corporate mentorship program
- Creating more opportunities for staff to get together socially
- Advertising counseling opportunities for employees feeling left out
- Highlighting achievements and struggles of diverse and underserved employees in newsletters

How do you compare alternative investment courses of action on an ROI basis?

DEIA IVMF Overview

Presented at the ICEAA 2023 Professional Development & Training Workshop www.iceaaonline.com/sat2023

COST

DEIA IVMF Model



Supports more informed and evidenced-based DEIA investment decisions



Considers the cost, benefit, risk, and uncertainty of proposed DEIA courses of action



Answers the question as to which DEIA course of action is the most effective and affordable relative to the status quo



Supports lifecycle management using the same metrics as were applied to inform initial investment selection



Includes process guidelines to better manage DEIA programs and investments

CES #	Cost Element (\$k)	2023	2024	2025
0.0	INITIAL CASE	\$10,350	\$10,350	\$10,350
1.0	New Non-Recurring Investment	\$10,350	\$10,350	\$10,350
1.1	Program Management Investment	\$ 1,000	\$ 1,000	\$ 1,000
1.2	Concept Exploration	\$ 2,000	\$ 2,000	\$ 2,000
1.3	System Development	\$ 5,600	\$ 5,600	\$ 5,600
1.3.1	System Design and Specification	\$ 4,000	\$ 4,000	\$ 4,000
1.3.2	Development, Prototype & Test Site Invest	\$ 350	\$ 350	\$ 350
1.3.3	Software Development	\$ 400	\$ 400	\$ 400
1.3.4	System Documentation	\$ 250	\$ 250	\$ 250
1.3.5	Test & Evaluation	\$ 350	\$ 350	\$ 350
1.3.6	Other System Development	\$ 250	\$ 250	\$ 250
1.4	System Procurement	\$ 1,750	\$ 1,750	\$ 1,750
1.4.1	Hardware	\$ 500	\$ 500	\$ 500
1.4.2	Software	\$ 1,000	\$ 1,000	\$ 1,000

INVESTMENT SELECT

Project XYZ	Method	Without	With
		Uncertainty	
	Incremental NPV (\$M)	52.4	(50.8)
	Incremental IRR	20.2%	4.1%
	Incremental DPP (years)	5.9	0.1
	Incremental BCR	0.63	-0.1

Benefit Score				
Benefit Categories	Weight	Status Quo	Investment	Delta
Enhance Organizational Capacity	25%	3.0	3.6	▲ 19%
Improve Customer Satisfaction	11%	3.0	3.8	▲ 28%
Improve Operational Effectiveness	54%	3.0	3.6	▲ 19%
Improve Cybersecurity and Information Assurance	11%	3.0	4.2	▲ 39%
Non-Monetary Benefits Subtotal	100%	3.0	3.7	▲ 22%

INVESTMENT MONITOR

IVMF Early Warning System (EWS) - Investment Expectations vs. Actual				
WBS Number	Cost Element	Initial Expectation (\$k)	Current Actual (\$k)	Percent Change (%)
1.1.1	Leadership	\$ 1,000	\$ 1,500	50.0%
1.1.2	Program Control	\$ 9,000	\$ 8,500	-5.6%
1.1.3	Contracts	\$ 8,000	\$ 8,000	0.0%
1.1.3	Business Process Management	\$ 4,000	\$ 4,000	0.0%
1.1.7	Performance Measures	\$ -	\$ -	0.0%
Non-Monetary Benefits		Initial Expectation	Current Actual	Absolute
Increase adaptability by promoting competition - MDP - Increase effective number of suppliers		4.00	4.00	0.00
Increase adaptability by promoting competition - eMDP - Increase # of % competitive contracting processes created or refined		5.00	4.00	1.00
Risk Assessment		Initial Expectation	Current Actual	Absolute
Life-cycle Risk Standards Conformability		30.00	30.00	0.00
Opportunity Cost		30.00	20.00	40.00
Other performance risks		30.00	30.00	0.00
Variance Analysis		Financial	Non-Monetary Benefits	Risk Assessment
# of red variables		0	0	0
# of amber variables		1	1	1
# of green variables		4	1	2
EWS Recommendation?		Contact the CRB to determine if ROI analysis will be reassessed		
EWS Choices:		Threshold		
Stay the Course?		If no red variables and <= 3 amber variables		
Investment is Flagged for closer EWS monitoring		Selected if 3 variables are amber		
Contact the CRB to determine if ROI analysis will be reassessed		Selected if ANY variable is red		

BENEFIT

Benefit Score				
Benefit Categories	Weight	Status Quo	Investment	Delta
Enhance Organizational Capacity	25%	3.0	3.6	▲ 19%
Improve Customer Satisfaction	11%	3.0	3.8	▲ 28%
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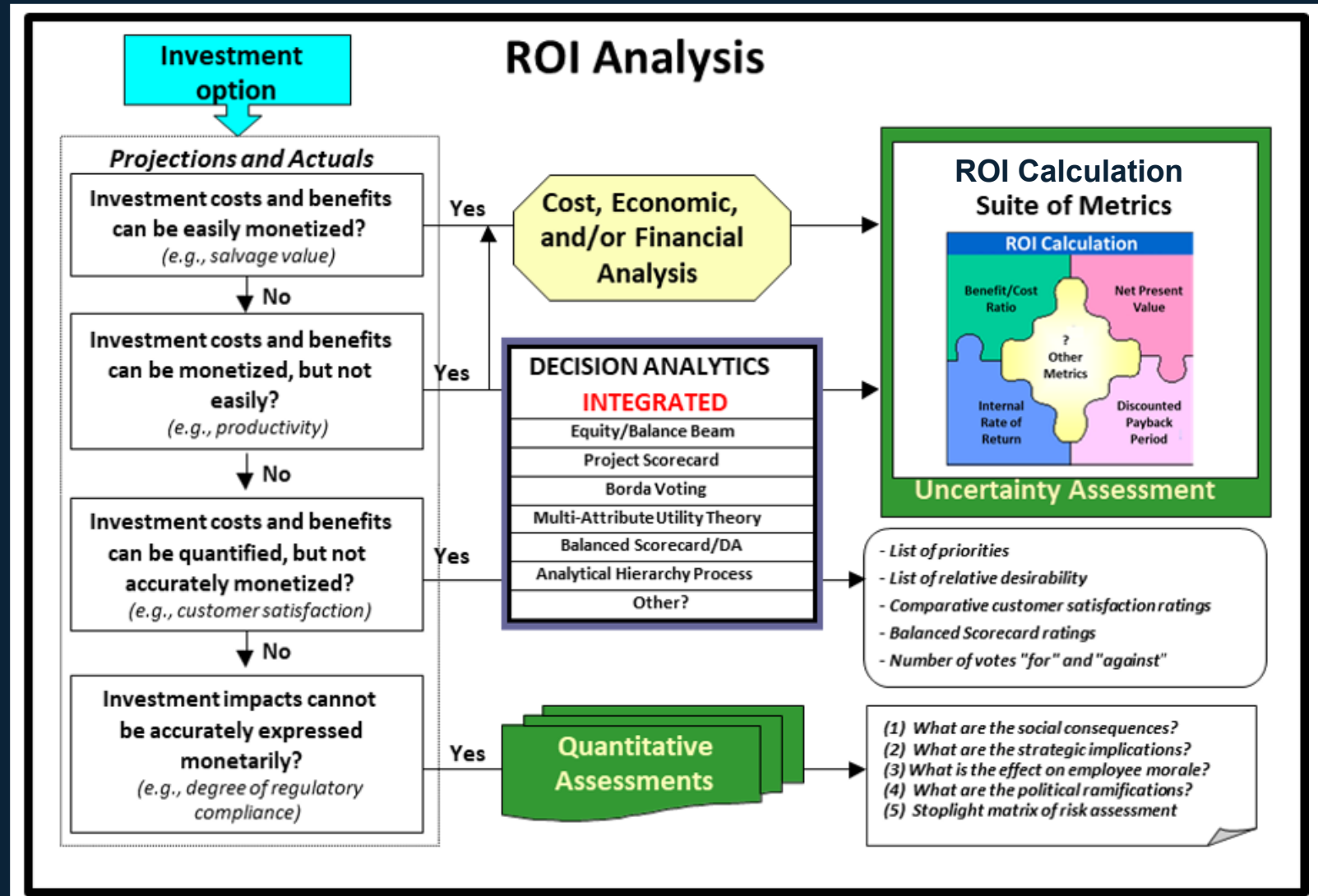
* Quantitative normalized score is based on a scale from 1 to 5. The values of 1 to 5 represent a continuous range from 0 to 100. A score of "0" equates to absolute disagreement with the statement and a score of "100" equates to absolute agreement with the statement. A score of "50" represents neither absolute disagreement nor absolute agreement.

Legend	
Red	Not acceptable
Amber	Marginally acceptable
Green	Acceptable

Investment Risk Assessment					
Risk Category	Rank	Status Quo		Scenario 2	
		Score	Rank	Score	Rank
Implementation	M	53.0	ML	33.0	
Performance	MH	77.0	ML	30.0	
Reliability	MH	60.0	ML	30.0	
Organizational	M	50.0	M	50.0	
Max Average	MH	74.0	M	42.0	

ROI Analysis Overview

- Decisions are made regarding best analytic approach to apply based on degree of monetizability for cost, benefit, uncertainty, and risk considerations
- Monetizable implications are incorporated in ROI calculation
- Other implications are evaluated separately but incorporated in overall analysis results



Estimate DEIA Cost of Investment and Sustainment

Estimate DEIA Costs

- Apply GAO Cost Estimating and Assessment Guide to develop a lifecycle cost estimate

Initiation and Research

Your audience, what you are estimating, and why you are estimating it are of the utmost importance

Assessment

Cost estimate steps are iterative and can be accomplished in varying order or concurrently

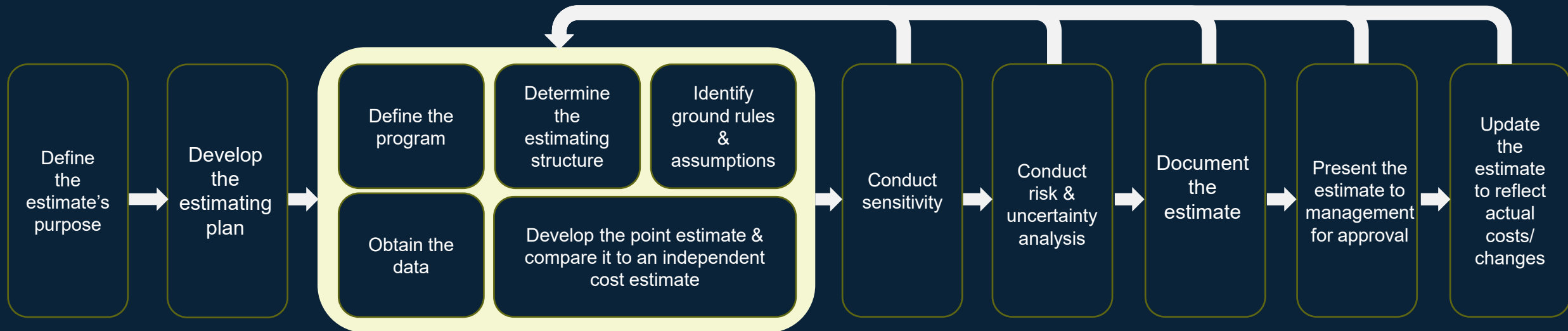
Analysis

The confidence in the point or range of the estimate is crucial to the decision maker

Presentation

Documentation and presentation make or break a cost estimating decision outcome

Analysis, presentation, and updating the estimate steps can lead to repeating previous assessment steps



Source: GAO Cost Estimating and Assessment Guide 2020

Develop DEIA Cost Estimating Structure (CES) (1 of 2)

DEIA Investment CES	
1.0	Non-Recurring Costs
1.2	Stand-up of DEIA
1.2.1	Recruit & Hire
1.2.2	Program Management
1.2.2.1	Define Program Governance
1.2.2.2	Setup Tools & Standards
1.2.2.3	Planning & Tracking
1.2.2.3.1	Financial Planning & Tracking Management
1.2.2.3.2	Risk Management Plans
1.2.2.3.3	Quality Control Standards & Tracking Mechanism
1.2.2.3.4	Change control Procedures & Tracking Mechanism
1.2.2.3.5	Strategic Plans
1.2.2.3.6	Stakeholder/Leadership Engagement Plan
1.2.2.3.7	Evaluation Plans
1.2.2.4	Performance Measures
1.2.3	DEIA Policies & Procedures
1.2.3.1	Define the Purpose
1.2.3.2	Development
1.2.3.3	Prepare for Implementation
1.2.3.4	Feedback & Assignment
1.2.3.5	Implementation & Improvement
1.2.4	Legal & Compliance Process
1.2.4.1	Complaints & Litigation Process
1.2.4.1.1	Grievance Investigation & Resolution
1.2.4.1.2	Civil Litigation
1.2.4.1.3	Regulatory Compliance Investigation & Audits
1.2.4.2	Coordination with EEO
1.2.5	Business Process Management
1.2.5.1	Design
1.2.5.2	Model
1.2.5.3	Execution
1.2.5.4	Monitor
1.2.6	Change management

DEIA Investment CES	
1.2.7	Acquisition/Procurement
1.2.7.1	Hardware
1.2.7.1.1	Desktop Hardware
1.2.7.1.2	Peripheral Devices
1.2.7.1.3	Communication Network Hardware
1.2.7.1.4	Other Hardware
1.2.7.2	Software
1.2.7.3	Logistic Support Equipment
1.2.7.4	Contract Services
1.2.7.5	Facilities
1.2.7.6	Other
1.2.8	Development/Infrastructure Modernization
1.2.8.1	Information System Infrastructure Investment
1.2.8.1.1	DEIA Website
1.2.8.1.2	Data Center/Data Ecosystem
1.2.8.2	Infrastructure Investment
1.2.8.3	Inclusion Roadmap
1.2.8.4	Human Resources (HR)
1.2.8.4.1	Training
1.2.8.4.2	Recruitment & Hiring
1.2.8.4.3	Talent Attraction & Retention
1.2.8.4.4	Human Capital
1.2.8.4.5	Work-Life Balance Program
1.2.8.4.6	Referral Program
1.2.8.4.7	Other
1.2.8.5	Resource Channel
1.2.8.5.1	Hotline
1.2.8.5.2	Onsite Staff
1.2.8.5.3	Employee Assistance Services
1.2.8.5.4	Other
1.2.8.6	Communication Channel
1.2.8.6.1	Questionnaires & Surveys
1.2.8.6.2	Listen/Learn/Feedback
1.2.8.7	Maturity Model
1.2.9	Implementation & Deployment

Develop DEIA CES (2 of 2)

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DEIA Sustainment CES	
2.0	O&M - Recurring Costs
2.1	Operations & Maintenance
2.1.1	Program Management
2.1.1.1	Financial Planning & Tracking
2.1.1.2	Risk Management
2.1.1.3	Quality Control Standards & Tracking
2.1.1.4	Tracking & Change Control Procedures
2.1.1.5	Communication Plans
2.1.1.6	Evaluation Plans
2.1.1.7	Strategic Plans
2.1.1.8	Stakeholder/Leadership Engagement Plan
2.1.1.9	Performance Measures
2.1.2	Policies & Procedures
2.1.3	Legal & Compliance Process
2.1.4	Communication/Coordination EEO
2.1.5	Business Process
2.1.5.1	Monitor
2.1.6	Change Management
2.1.7	Annual Operations Procurement & Leasing
2.1.8	IT System
2.1.9	Tech Refresh/Upgrade

DEIA Sustainment CES	
2.1.10	DEIA HR Process
2.1.10.1	Recurring/Sustaining Training
2.1.10.1.1	Training Equipment/Materials
2.1.10.1.2	Recurring Training Services
2.1.10.1.3	Training Facilities
2.1.10.2	Recruitment Process
2.1.10.3	Talent Attraction & Retention Process
2.1.10.4	Work-Life Balance Program
2.1.10.5	Referral Program
2.1.10.6	Other
2.1.11	Resource Channel Operations
2.1.11.1	Hotline
2.1.11.2	Onsite Staff
2.1.11.3	Employee Assistance Services
2.1.11.4	Other
2.1.12	Communication Channel Operations
2.1.12.1	Questionnaires & Surveys
2.1.12.2	Listen/Learn/Feedback
2.1.13	Maturity Model
2.1.14	Infrastructure
2.1.14.1	Facilities, Lease & Maintenance
2.1.14.2	Other

Estimate Cost Uncertainty

Notional Data

WBS Level	WBS Number	Cost Element	Probability Distribution	Uncertainty Range (Low)	Uncertainty Range (High)	Peak Value	Random Number (0,1)	Monte Carlo Sample
3	1.2.3	DEIA Policies & Procedures	Triangular	90%	130%	100%	0.36	1.02
3	1.2.5	Business Process Management	Uniform	100%	110%	100%	0.26	1.03
3	1.2.6	Change Management	Triangular	90%	130%	100%	0.19	0.99
3	1.2.4.1	Compliance & Litigation Process	Triangular	90%	130%	100%	0.78	1.14
3	1.2.8.4.2	Recruitment & Hiring	Uniform	95%	125%	100%	0.02	0.96
3	1.2.8.4.4	Human Capital	Uniform	95%	120%	100%	1.00	1.00



2	2.1.1	Program Management	Uniform
2	2.1.2	Policies & Procedures	Triangular
3	2.1.3	Legal & Compliance Process	Uniform
3	2.1.6	Change management	Triangular
3	2.1.7	Annual Operations Procurement & Leasing	Triangular
2	2.1.8	IT System	Triangular

Select High Impact Variables

▲

▼

Adjust number of variables to include in the uncertainty assessment

Count: 5

Run Uncertainty Assessment

Evaluate DEIA Benefits

Translate Goal-Aligned Metrics to Benefits

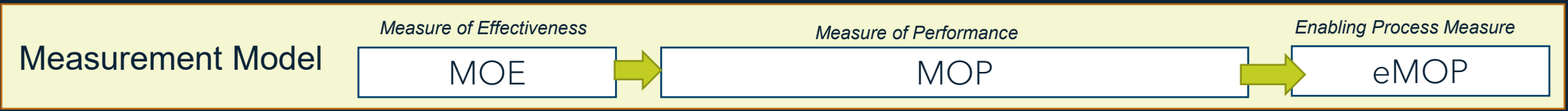
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IVMF Goal to Metric Translation



Initiative Goals	Initiative Strategies	Initiative Tactics	Funding, Work Effort, Processes
More diverse organizational culture	Enhance strategic outreach and recruitment	Establish outreach and recruitment organization	Hire/promote to staff the outreach and recruitment organization
	Fair, open, and inclusive hiring practices	Establish and implement fair, open, and inclusive hiring policies	Identify current hiring policy gaps and monitor success at gap mitigation
More equitable organizational culture	Equitable pay, recognition, and disciplinary actions	Audits and assessments of pay, recognition and disciplinary actions	
	Equitable access to benefits/services		
Greater sense of belonging	Enhance career enhancement		
	Enhance and promote DEIA training		
	Create capability to monitor work environment health		
More accessible organizational culture			
Greater accountability and sustainability			



IVMF Benefits Assessment

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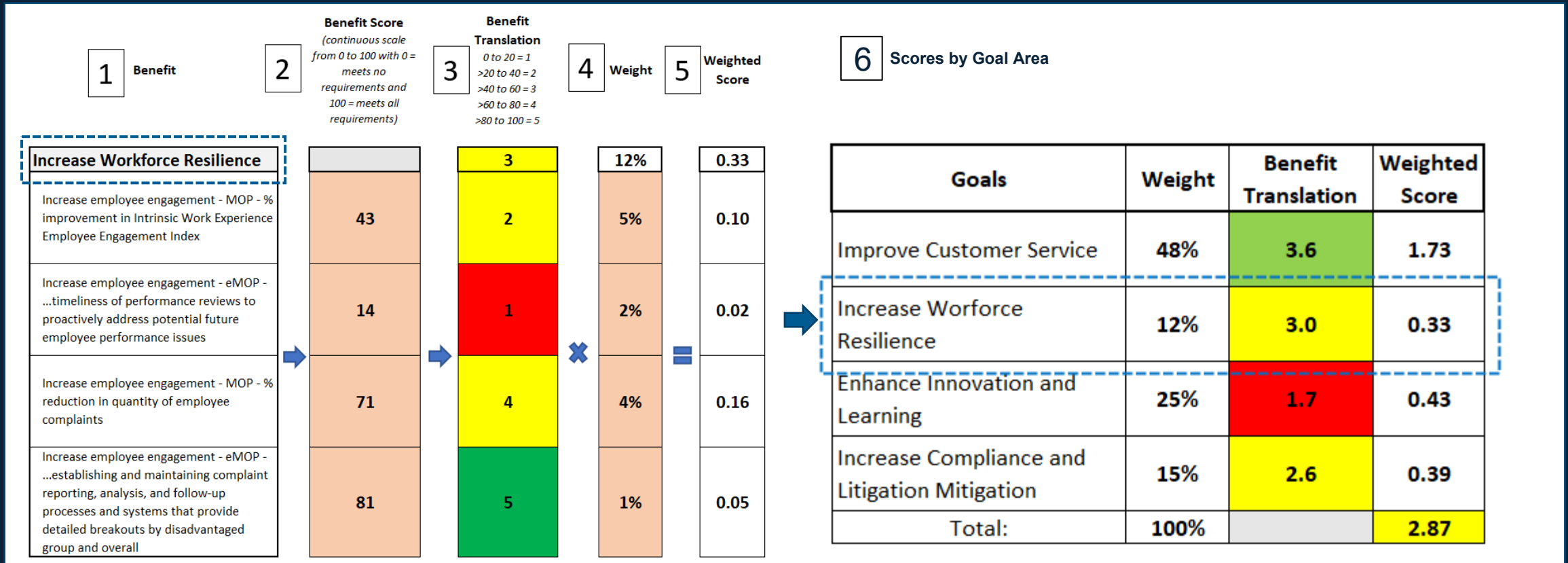
Notional Data

EXCERPT NOTIONAL DATA	Weight	Status Quo		Investment - Initial		Investment - Updated	
		Benefit Assessment (1-5 scale)*	Weighted score	Benefit Assessment (1-5 scale)*	Weighted score	Benefit Assessment (1-5 scale)*	Weighted score
Increase Equity in Customer Service	14.0%	3.0	0.43	3.5	1.61	3.8	6.79
Increase customer satisfaction index for disadvantaged groups	14.0%	3.0	0.43	3.5	1.61	3.8	6.79
Reduction in monetary benefits awarded for DEIA complaints	4.0%	3	0.12	3	0.36	4	1.44
Improvement in creating or refining existing customer service policies to address requirements for equity in customer services	4.0%	4	0.16	5	0.80	5	4.00
Improvement in complying with enhanced customer service policies that promote equity	3.0%	3	0.09	3	0.27	3	0.81
Improvement in reducing complaint resolution wait time for disadvantaged groups and overall	3.0%	2	0.06	3	0.18	3	0.54
Increase Employee Satisfaction	15.0%	2.5	0.36	3.0	1.07	3.1	3.33
Design equitable systems	4.0%	3.0	0.12	3.0	0.36	3.0	1.08
Completion with technology infrastructure, tools, and supports needed to drive ease of access and usability	1.0%	3	0.03	3	0.09	3	0.27
Increase in degree of pay equity for disadvantaged groups	1.0%	4	0.04	3	0.12	3	0.36
Improvement in creating/refining equitable pay policies	1.0%	3	0.03	3	0.09	3	0.27
Improvement in complying with equitable pay policies	1.0%	2	0.02	3	0.06	3	0.18
Improve health of disadvantaged employees	4.0%	2.5	0.10	3.0	0.30	3.0	0.90
Improvement in average health assessment overall and by disadvantaged group	2.0%	3	0.06	3	0.18	3	0.54
Improvement in establishing and implementing employee health awareness and improvement initiatives	2.0%	2	0.04	3	0.12	3	0.36
Improve trust in leaders	7.0%	2.0	0.14	2.9	0.41	3.3	1.35
Reduction in quantity of employee complaints	1.0%	2	0.02	3	0.06	3	0.18
Establishing and maintaining complaint reporting, analysis, and follow-up processes and systems that provide detailed breakouts by disadvantaged group and overall	1.0%	1	0.01	2	0.02	3	0.06
Improvement in Leaders Lead Employee Engagement Index	1.0%	2	0.02	3	0.06	3	0.18
Quantity and value of awards recognizing accomplishments by disadvantaged group and overall	1.0%	2	0.02	3	0.06	4	0.24
Quantity and quality of senior leader direct engagements with employees	1.0%	2	0.02	3	0.06	3	0.18
Improvement in Supervisors Employee Engagement Index	1.0%	2	0.02	3	0.06	4	0.24
Quantity and quality of supervisor direct engagements with employees	1.0%	3	0.03	3	0.09	3	0.27

Prioritizing Benefits

1. Identify mission areas and benefits
2. Score each benefit on a scale of 0 to 100.
3. Translate benefits to a Likert* scale of 1 to 5, where a rating of 5 is assumed to be 5 times better than a rating of 1
4. Assign weights (relative importance) to each benefit
5. Multiply the weight by the benefit score to arrive at the alternative's weighted score
6. Scores are summarized per mission area and overall

* A psychometric scale commonly involved in research that involves questionnaires.
[Likert scale - Wikipedia](#)



Data Analytics to Support Quantification of Benefits

- Data analytics support objective assessment of benefits within the IVMF. For example, we compare related data sets to identify correlations :
 - Federal Employment Viewpoint Survey (FEVS) 2022-23 currently has index scores for "Employee Engagement" ("Leaders Lead", "Supervisors", "Intrinsic Work Experience"), "Global Satisfaction", and the newly published DEIA index (Diversity, Equity, Inclusion and Accessibility), which was previously the "Inclusion Quotient"
 - The Equal Opportunity Employment Commission (EEOC) maintains a dashboard with data related to complaints, counseling, investigations, and resolutions

<https://www.eeoc.gov/federal-sector/annual-report-dashboard>

Evaluate DEIA Risk

Evaluating DEIA Risks

Notional Data

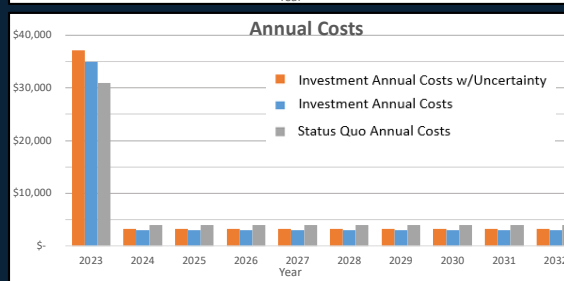
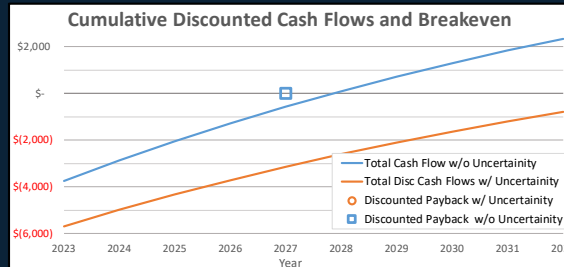
Risks Category and Metric	Risk Definition	Status Quo		Scenario 1		Scenario 2	
		Rating	Score	Rating	Score	Rating	Score
Implementation		M	53	ML	37	ML	33
Complexity	The extent to which scope of introducing DEIA represents risk that the implementation will not succeed.	MH	70	M	50	M	50
Schedule	The extent to which there is understated complexity or insufficient time allocated to perform additional (DEIA related) tasks, other new risk of errors in schedule estimation, or additional external impacts and constraints. Includes increased risk of not meeting a pre-fixed event or milestone.	M	50	ML	30	L	10
Affordability	The extent to which scope of introducing DEIA represents risk that costs will exceed budget or be otherwise unacceptable.	M	50	M	50	M	50
Opportunity Cost	The extent to which resources to be dedicated to implementing DEIA eliminates the opportunity to pursue a different course of action that would represent greater value.	MH	70	ML	30	ML	30
Information Security	The extent to which the Government or its partners (including private sector organizations) will access PII data and possible data spillage	M	50	M	50	L	10
Other execution risks	The extent to which attributes besides complexity, schedule, affordability, and data rights represent risk that the implementation will not succeed.	ML	30	L	10	M	50
Performance		MH	77	M	43	ML	30
Operational Effectiveness	The extent to which there is risk that introduction of DEIA reduces system / overall effectiveness in operational environments.	MH	70	M	50	M	50
Life-cycle DEIA Standards Conformability	The extent to which the stakeholders will not be able to maintain conformance with DEIA standards over the life-cycle, reducing the positive impacts of DEIA.	H	90	ML	30	L	10
Other performance risks	The extent to which attributes besides complexity, schedule, affordability, and data rights represent risk that the DEIA-enabled system will not meet performance requirements.	MH	70	M	50	ML	30
Reliability		MH	60	M	50	ML	30
Reliability / Availability	The extent to which there is risk that introduction of DEIA reduces overall reliability or availability	M	50	M	50	L	10
Other Reliability	The extent to which there is risk that introduction of DEIA reduces overall reliability or availability to the system	MH	70	M	50	M	50
Organizational		M	50	M	57	M	50
Government	The extent to which there is risk that Government stakeholders will not consistently provide DEIA championship or needed resources to implement and execute DEIA - such as funding, assets, or training. Includes and is not limited to senior leadership, funding sources, labs, test organizations.	ML	30	M	50	M	50
Contractor	The extent to which there is risk that private sector and other non-government stakeholders will not be amenable to DEIA implementation, or will not consistently provide needed resources to implement and execute DEIA	MH	70	M	50	M	50
Other organizational risks	The extent to which introduction of DEIA creates risks sourced in organizations besides those in the Government and contractors directly supporting the capability development or sustainment.	M	50	MH	70	M	50
Simple Average		M	59	M	44	ML	36
Max Average		MH	74	M	57	M	42

IVMF Model Outputs

- Automated reporting
- Monetizable and non-monetizable ROI dimensions are not combined
- Users determine best COA based on reported results

Notional Data

ROI Analysis Report Return to TOC Scenario 2											
Spreadsheet Objective: This is a top-level summary report of the ROI assessment, with monetized and quantified components, and risk matrix plots.			Financial Ratios								
Investment Owner Requirements: The five quantified weights are inputted on the "Quant Assess" tab, so go there to change them. They must sum to 100%.			Current Scenario Expectations								
Project XYZ			Without	With							
Method	Financial Metrics		Uncertainty								
Monetized	Incremental NPV (\$M)		\$2.4	(\$0.8)							
	Incremental IRR		20.2%	4.1%							
	Incremental DPP (years)		5.9	0.1							
	Incremental BCR		0.63	-0.1							
Benefit Score											
Benefit Categories		Weight	Status Quo	Investment	Delta						
Non-Monetary Benefits	Enhance Organizational Capacity		25%	3.0	3.6	▲ 19%					
	Improve Customer Satisfaction		11%	3.0	3.8	▲ 28%					
	Improve Operational Effectiveness		54%	3.0	3.6	▲ 19%					
	Improve Cybersecurity and Information Assurance		11%	3.0	4.2	▲ 39%					
	Non-Monetary Benefits Subtotal		100%	3.0	3.7	▲ 22%					
<small>* Quantitative normalized score is based on a scale from 1 to 5. The values of 1 to 5 represent a continuous range from 0 to 100. A score of "0" equates to absolute disagreement with the statement and a score of "100" equates to absolute agreement with the statement. A score of "50" represents neither absolute disagreement nor absolute agreement.</small>			Legend <table border="1"> <tr> <td>Red</td> <td>Not acceptable</td> </tr> <tr> <td>Amber</td> <td>Marginally acceptable</td> </tr> <tr> <td>Green</td> <td>Acceptable</td> </tr> </table>			Red	Not acceptable	Amber	Marginally acceptable	Green	Acceptable
Red	Not acceptable										
Amber	Marginally acceptable										
Green	Acceptable										



Investment Risk Assessment					
		Status Quo		Scenario 2	
Risk Category		Rank	Score	Rank	Score
Non-Monetary Risks	Implementation	M	53.0	ML	33.0
	Performance	MH	77.0	ML	30.0
	Reliability	MH	60.0	ML	30.0
	Organizational	M	50.0	M	50.0
Max Average		MH	74.0	M	42.0

[Go to "Risk Assess" tab for details](#)

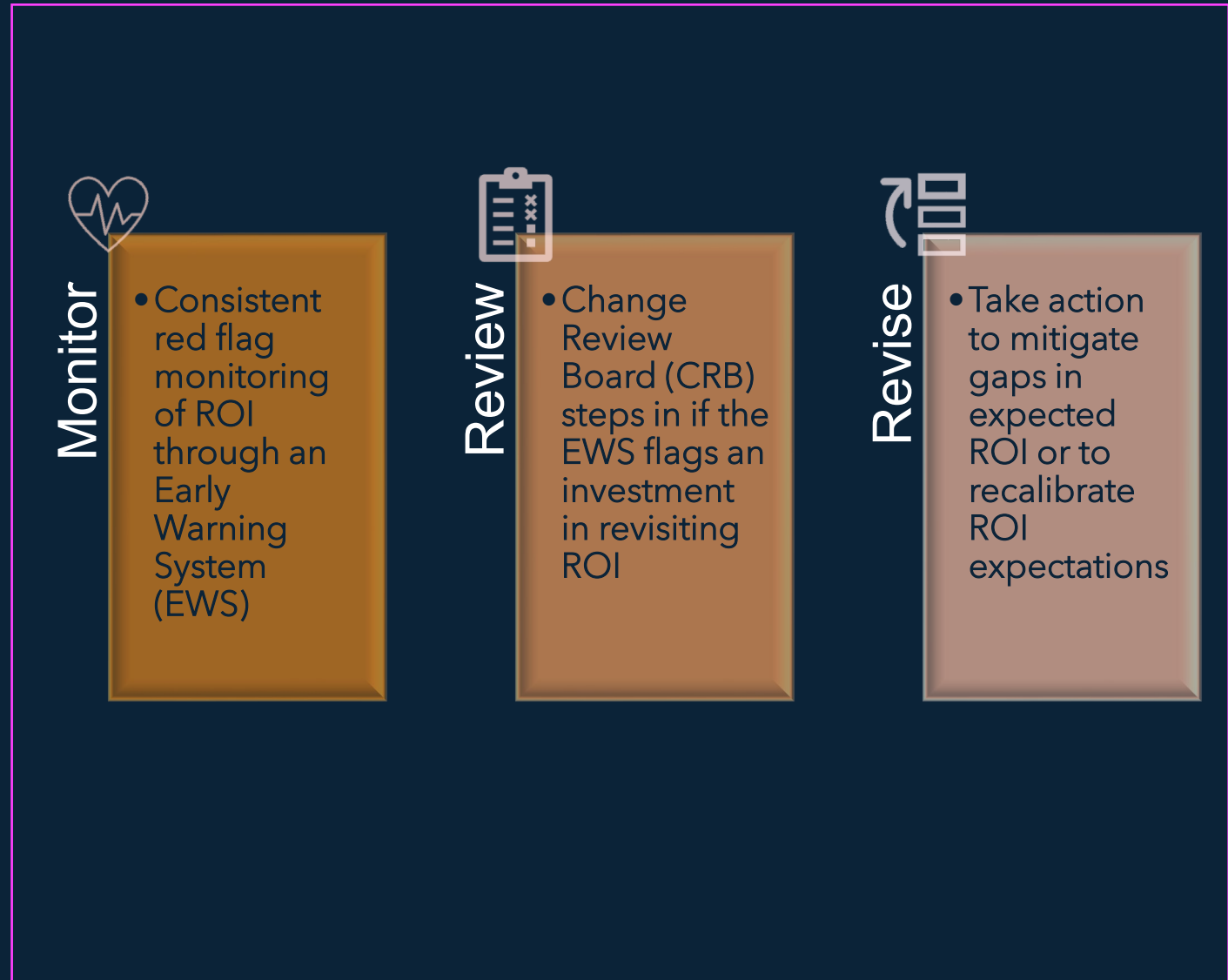
IVMF Early Warning System (EWS) - Investment Expectations vs. Actual Return to TOC										
DEIA General Version										
5/12/2023										
Investment Scenario: Scenario 2										
Legend <table border="1"> <tr> <td>Red</td> <td>Not acceptable</td> </tr> <tr> <td>Amber</td> <td>Marginally acceptable</td> </tr> <tr> <td>Green</td> <td>Acceptable</td> </tr> </table>					Red	Not acceptable	Amber	Marginally acceptable	Green	Acceptable
Red	Not acceptable									
Amber	Marginally acceptable									
Green	Acceptable									
This button selects the high impact variables below. Select High Impact Variables										
Monetizable (from ROI Calculation)										
CES Number	Cost Element	Initial Expectation (\$k)	Current Actual (\$k)	Percent Change (%)						
1.1.1	Leadership	\$ 1,000	\$ 1,500	50.0%						
1.1.2	Program Control	\$ 9,000	\$ 8,500	-5.6%						
1.1.3	Contracts	\$ 8,000	\$ 8,000	0.0%						
1.1.5	Business Process Management	\$ 4,000	\$ 4,000	0.0%						
1.1.7	Performance Measures	\$ -	\$ -	0.0%						
Non-Monetary Benefits		Initial Expectation	Current Actual	Absolute Difference						
Increase adaptability by promoting competition - MOP - Increase effective		4.00	4.00	0.00						
Increase adaptability by promoting competition - eMOP - Increase # or %		5.00	4.00	1.00						
Risk Assessment		Initial Expectation	Current Actual	Absolute Difference						
Life-cycle DEIA Standards Conformability		10.00	10.00	0.00						
Opportunity Cost		30.00	70.00	40.00						
Other performance risks		30.00	30.00	0.00						
Variance Analysis		Financial	Non-Monetary Benefits	Risk Assessment						
# of red variables		1	0	1						
# of amber variables		0	1	0						
# of green variables		4	1	2						
EWS Recommendation?		Contact the CRB to determine if ROI analysis will be reassessed								
EWS Choices:		Threshold								
Stay the Course		If no red variables and <= 3 amber variables								
Investment is flagged for closer EWS monitoring		Selected if > 3 variables are amber								
Contact the CRB to determine if ROI analysis will be reassessed		Selected if ANY variable is red								

Conclusions

Planning for IVMF



Sustaining IVMF



Any Questions?

Thank you from the MITRE Team:

Dr. Asma Abuzaakouk (asma@mitre.org)

Kevin Buck (ksb@mitre.org)

Anthony Dziepak

Matthew Griesbach

Dan Harper

Elizabeth Karpinski

Haeme Nam

Dr. Brooke Wilken

Patty Nio-Woods

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