

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
Washington, DC 20314

Regulation
No. 25-1-106

Information Management
INFORMATION TECHNOLOGY CAPITAL PLANNING AND INVESTMENT
MANAGEMENT

1. **Purpose.** This regulation establishes policy, roles and responsibilities, and implements the U.S. Army Corps of Engineers (USACE) Information Technology (IT) Capital Planning and Investment Management (CPIM) process (see Appendix C) as prescribed by the Clinger Cohen Act of 1996 and Army Regulation 25-1, Army Knowledge Management and Information Technology Management. The IT CPIM is an integrated management process focused on achieving a desired business or mission outcome through the continuous review for the selection, management and evaluation of IT investments. The CPIM process uses the USACE's Corps Enterprise Architecture (CeA) as the framework to validate and prioritize IT requirements (see USACE website at <https://cea.usace.army.mil/DesktopDefault.aspx>). The CPIM process provides IT investment requirements as outputs that integrate and feed into the budget process as inputs to elicit funding decisions.
2. **Applicability.** This regulation applies to all elements of Headquarters (HQ) USACE, the Office of the Chief of Engineers (OCE), and all USACE Commands.
3. **Distribution.** Approved for public release; distribution is unlimited.
4. **References.** References are at Appendix A.
5. **Terms.** Special terms used in this publication are presented in Appendix B.
6. **Background.** The Clinger-Cohen Act of 1996 mandates that Federal agencies establish a CPIM process to significantly improve how agencies plan, select, fund, manage, and evaluate IT investments (see Appendix C for description of CPIM Process). It also requires agencies to devise enterprise architectures which support a desired business or mission outcome. Office of Management and Budget (OMB) Circular A-130, Management of Federal Information Resources, provides general guidance for the implementation of the Clinger-Cohen and related Acts. The annually updated OMB Circular A-11, Preparation, Submission, and Execution of the Budget, provides specific guidance for content and presentation of the IT Capital Asset Plan and Business Cases (Exhibit 300s), the agency IT Investment Portfolio (Exhibit 53), and how agencies are to use and analyze earned value data to manage IT investment performance. The OMB scrutinizes federal IT investments to ensure maximum interoperability and minimal

redundancy. The Department of Army also provides guidance to Army organizations for their IT investment requirements in their Program Objective Memorandum.

7. **Policy.** The USACE will use the defined set of IT CPIM process functions and activities set forth in this regulation as the official USACE-wide methodology for *pre-selecting, selecting, managing, and evaluating* IT investments. Funds will not be obligated or expended, nor released for use for any IT investments until successful completion of appropriate management oversight reviews as required by this and other regulations. This policy and the CPIM business process outlined in this regulation are mandatory and will be used by Senior Regional Information Officers throughout USACE. At all levels, IT investment proposals and the IT investment decisions will be:

- a. Tied to USACE-specific strategic business goals, mission, and programs/projects;
- b. Linked to strategies that foster and enable e-government (see Office of Management and Budget website at: <http://www.whitehouse.gov/omb/egov/>) for the effective and efficient delivery of products and services to citizens, partners, stakeholders and customers;
- c. Selected by a disciplined governance process based on business value and risk;
- d. Managed and evaluated using cost, schedule, and performance measurements that are monitored and reported to the IT Executive Sponsor and IT Investment Decision Authority to ensure IT investments are meeting project and business goals;
- e. Made in accordance with the USACE CeA, including the technical standards in order to maximize interoperability and eliminate duplicative investments; and
- f. Made to share data/information and create opportunities to unify and/or simplify systems and processes USACE-wide.

8. **Responsibilities.**

- a. The USACE Commanding General will:
 - (1) Serve as the IT Investment Decision Authority for the USACE IT Investment Portfolio or delegate the authority to the Deputy Commanding General; and
 - (2) Champion the IT CPIM process, and ensure that a CPIM process has been implemented within all USACE Regions.
- b. The Deputy Commanding General will serve as the Chairman, Executive Functional Assessment Team (EFAT) and the IT Investment Decision Authority, as delegated.

c. The Chief of Staff will serve as Co-Chair of the Cross Functional Assessment Team (CFAT) along with the Director, Corporate Information (who also serves as the USACE Chief Information Officer).

d. The Senior Review Group, consisting of the Director of Civil Works, the Director of Military Programs, and the Director of Strategy and Integration, will establish high level command guidance and priorities (budget, funding, and manpower) for USACE which complements the strategic direction and strategic vision provided by the Chief of Engineers and approved in the strategic plans.

e. The USACE Chief Information Officer (CIO), as the senior USACE information management official, will:

(1) Serve as the Commanding General's principal agent to facilitate the IT CPIM process by providing the Headquarters Prioritization Group a prioritized list of validated IT investment requirements as output from the IT CPIM process and as input to the integrated priority list (IPL) as detailed in ER 37-1-31, Planning, Programming, Budgeting, and Executing Operations;

(2) Manage and maintain the USACE IT investment portfolio ensuring that requirements are selected to provide the best business value with manageable risks;

(3) Serve as the Life Cycle Management of Information Systems (LCMIS) Milestone Decision Authority (MDA) for the management and evaluation of USACE-wide IT investment programs and projects;

(4) Appoint Enterprise Architecture/E-Government Program Manager(s) to ensure that the USACE CeA is maintained and updated within the guidelines of the Federal Enterprise Architecture Framework (FEAF) models, and to ensure appropriate configuration management practices;

(5) Serve in partnership with the Directorate of Contracting to achieve efficiencies and economies in USACE-wide IT acquisition strategies;

(6) Support the USACE Chief Financial Officer (CFO) and IT Project Managers (PMs) in the preparation and submission of the OMB Exhibit 53 and supporting Capital Asset Plans and Business Cases (Exhibit 300s), and the Department of Army Program Objective Memorandum for major IT investments; and

(7) Serve as Co-Chair of the Cross Functional Assessment Team along with the Chief of Staff.

f. The USACE Chief Financial Officer (CFO), Director, Resource Management) will:

(1) Facilitate the coordination of budget forums, e.g., Plant Replacement and Improvement Program, Fee For Service (FFS), Executive Direction and Management, to determine the affordability of validated IT requirements;

(2) Provide guidance to IT PMs or Executive Sponsors regarding equitable charging procedures and appropriate funding for IT investments during all lifecycles. Oversees the budget execution process by assuring that the final FFS budget is fully coordinated with each IT PM and the Executive Sponsors before being finalized; and

(3) Ensures IT PM's accountability for IT investments. Provides mechanism for tracking obligations/expenditures against IT authority levels as approved by the DCG.

g. The Director, Strategy and Integration will assist the CIO ensuring Command and budget guidance is applied in the CPIM analyses.

h. The Director of Contracting will serve in partnership with the USACE CIO to achieve efficiencies and economies in USACE-wide IT acquisition strategies.

i. Executive Sponsors from HQUSACE and the Regions will:

(1) Streamline and reengineer business processes before submitting IT investments or modernization proposals to support the business processes;

(2) Ensure that IT investments/proposals are submitted in accordance with and follow the CPIM business process;

(3) Appoint IT Program Managers (PgMs) and/or IT PMs and establish a Project Delivery Team (PDT) in accordance with ER 5-1-11 and ER 25-1-2;

(4) Ensure that their IT PgMs and IT PMs manage their investments as required in AR 25-1, Army Knowledge Management and Information Technology Management, and ER 25-1-2, Life Cycle Management of Information Systems, with particular emphasis on: Security requirements; business performance goals and measures; records management and Privacy Impact Assessment requirements; E-Government initiative identification and partnering; and project schedule, cost and performance goals.

(5) Ensure that their IT PgMs and IT PMs properly register their IT investment(s) into the portfolio management system (currently called the Information Technology Investment Portfolio System – ITIPS) and manage them not to exceed the approved funding authority level;

(6) Validate and prioritize per the CPIM Select component the IT investments within their respective organizations, i.e., Office of Council; Civil Works; Corporate Information; Equal Opportunity Office; Human Resources; Logistics Directorate; Military Programs; Public Affairs; Directorate of Contracting; Resource Management; Strategy and Integration; Small Business; Safety Office and other offices not listed, as needed.

(7) Evaluate per the CPIM Evaluate component the business performance goal attainment of the IT investments within their respective organization.

j. USACE Senior Regional Information Officers will:

(1) Implement the IT CPIM process described in this regulation applicable to and appropriate with their delegated authority to pre-select, select, manage, and evaluate the IT investments in their IT Investment Portfolios;

(2) Be responsible for providing direction to ensure IT investments produce meaningful improvements in cost, quality, timeliness of service, and mission accomplishment; and

(3) Provide feedback on corporate, command-wide, standard information systems to the CIO and the appropriate Executive Sponsors.

k. IT PMs will:

(1) Enter their IT investment information into the USACE IT investment portfolio system;

(2) Ensure the IT investment portfolio system information is kept up-to-date and accurate;

(3) Prepare documentation, justification, and OMB Exhibit 300s for major IT investments;

(4) Populate and keep current the CeA reference models; and

(5) Review IT investments for potential partnering with other Federal E-Government initiatives.

(6) Ensure that Earned Value Management clauses are included in contracts involving development, modernization, and enhancement requirements.

(7) Provide agreed upon deliverables to the IT Executive Sponsor based upon a project management plan and within cost, schedule and performance goals using Earned Value Management for development, modernization and enhancement requirements.

(8) Manage their investments as required in AR 25-1, Army Knowledge Management and Information Technology Management, and ER 25-1-2, Life Cycle Management of Information Systems, with particular emphasis on: Security requirements; business performance goals and measures; records management and Privacy Impact Assessment requirements; E-Government initiative identification and partnering; and project schedule, cost and performance goals.

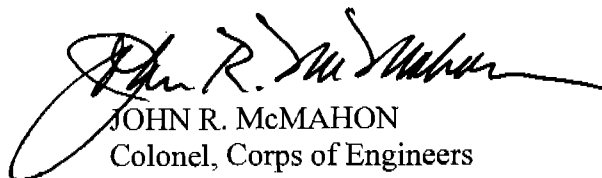
9. Implementation. HQUSACE and all USACE Major Subordinate Commands will immediately implement the policy, guidance and CPIM process prescribed in this regulation.

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USACE Major Subordinate Commands may tailor their implementation consistent with their delegated authority.

FOR THE COMMANDER:

4 Appendices
App A – References
App B – Explanation of Terms
App C – Description of CPIM Process
App D – DME vs SS Definitions



JOHN R. McMAHON
Colonel, Corps of Engineers
Chief of Staff

APPENDIX A

References

The references cited contain policy and guidance directly related to the functions, roles, and responsibilities inherent with the IT Capital Planning and Investment Management process.

Federal Regulations, Laws, Guidance

National Defense Authorization Act for FY2001, Title X, Subtitle G, 44 U.S.C. 3531, et. seq.

Clinger-Cohen Act, 40 U.S.C. 11101, et. seq.

E-Government Act, 2002 PL 107-347

National Information Infrastructure Protection Act, 18 U.S.C. 1030

Paperwork Reduction Act, 44 U.S.C. 3501, et. seq.

Government Performance and Results Act of 1993, 31 U.S.C. 1101, et. seq.

Government Paperwork Elimination Act, 44 U.S.C. 3504, et. seq.

Privacy Act, 5 U.S.C. 552a, as amended

Executive Order 13011, 16 Jul 96, "Federal Information Technology"

OMB Circular A-11, Preparation and Submission of Budget Estimates

OMB Circular A-123, Management Accountability and Management

OMB Circular A-127, Financial Management Systems

OMB Circular A-130, Management of Federal Information Resources

OMB Memorandum M-97-02, Funding Information Systems Investments

OMB Memorandum M-00-07, Incorporating and Funding Security in Information System Investments

Federal CIO Council, Architecture Alignment & Assessment Guide

Federal CIO Council, Federal Enterprise Architecture Framework (FEAF), Version 1.1

Federal CIO Council, A Practical Guide to Federal Enterprise Architecture

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Department of Defense Regulations and Guidance

DoD Instruction 5000.2, "Operation of the Defense Acquisition System," April 5, 2003

DoD Instruction 5200.40, "DOD Information Technology Security Certification and Accreditation Process (DITSCAP)"

DoD 5400.11-R, Department of Defense Privacy Program

DoD C4ISR, Architecture Framework, Version 2.0

Department of the Army Regulations and Guidance

AR 11-18, Cost and Economic Analysis Program

AR 25-1, Army Knowledge Management and Information Technology Management

AR 25-2, Information Assurance

AR 70-1, Army Acquisition Policy

AR 71-9, Materiel Requirements

AR 340-21, The Army Privacy Program

Joint Technical Architecture – Army (JTA-A), V6.5

Department of the Army, Economic Analysis Manual, U.S. Army Cost and Economic Analysis Center

Department of the Army, Cost Analysis Manual

USACE Regulations and Guidance

ER 5-1-11, USACE Business Process

ER 25-1-2, Life Cycle Management of Information Systems (LCMIS)

ER 37-1-31, Planning, Programming, Budgeting and Executing Operations

APPENDIX B

Glossary of Terms

Alignment. The degree of relational agreement, conformance, and consistency between organization's mission, vision, values and goals with its policies, guidance, structures, processes and systems, competencies, and individual behaviors.

Architecture Alignment & Assessment. The determination made about an IT investment's alignment with the Corps Enterprise Architecture (*CeA*). Using criterion to evaluate whether or not, and to what degree, there is conformance determines the IT investment alignment. IT investment alignment is evaluated against each of the *CeA* architectural models – Business, Information, Solutions, Performance, and Technical.

Benefit. A term used to indicate an advantage, profit, or gain attained by an individual or organization. Tangible benefits can be explicitly quantified. Such benefits may include reducing costs, increasing productivity, decreasing cycle time, or improving quality.

Business Case. A document, generally having a structured format, which articulates an initiative, action or change requiring the allocation of resources and a management decision. A business case typically includes a statement about why the initiative, action or change is required; assumptions, constraints, and risks; economic analysis on alternatives; return-on-investment (benefits and costs); and a recommendation.

Business Process. A systematic, disciplined and consistent means by which people perform work to produce products or achieve results/outcomes, or deliver services. Business processes usually have policy and guidance associated with them and, characteristically, have sub-processes, procedures, activities, events, and tasks. Business processes have inputs, outputs, and mechanisms to ensure efficiency, effectiveness, quality, and customer satisfaction. Time-to-Delivery is generally one measure of business process performance.

Chief Information Officer (CIO). Executive HQUSACE level position responsible for executing the IT Capital Planning and Investment Management Process within HQUSACE, and for ensuring that the Process is being executed within USACE Regions.

Corps Enterprise Architecture (CeA). The United States Army Corps of Engineers Corps Enterprise Architecture (*CeA*) is a management tool to enhance communications between business leaders and Information Technology (IT) experts to ensure IT is effectively used to achieve current and future business needs. The *CeA* collects, shares, and manages information relative to current (Baseline architecture) and future (Target architecture) business functions, business and IT performance metrics, information and data, applications, technology and security. The purpose of the *CeA* is to facilitate exchanging ideas, functional requirements, and technical solutions between business owners/managers, strategic planners, Automated Information System (AIS) developers and Chief of Information Officer (CIO) staff.

Corps Enterprise Architecture/E-Government Program Manager (CeA PgM). The individual appointed in writing by the Chief Information Officer to assist the Executive Sponsors and Project Managers in meeting architectural goals and the CPIM process.

Cost. A term used to indicate the obligation and expenditure of funds or as a means to express the aggregation of difference types of costs over time. It is not unusual for “cost” to be preceded or followed by a noun, adverb, or adjective to clarify or emphasize its meaning, such as “overhead cost” or “recurring cost.”

Cross Functional Assessment Team (CFAT). Working level committee that evaluates IT investments and provides recommendations including authority levels to the Executive Functional Assessment Team. The Director, Corporate Information and the Chief of Staff co-chair the CFAT and are voting members. The CFAT operates in the Select Component of the IT Capital Planning and Investment Management Process.

Development, Modernization and Enhancements (DME). The costs for new IT investments and any changes or modifications to existing IT investments to improve capability or performance, or to implement changes mandated by Congress or agency leadership, (i.e., Department of Defense, Department of Army, Headquarters USACE), labor costs for project management and direct support. Improved capability or performance achieved as a by-product of the replacement of broken IT equipment to continue an operation at the current service levels is not categorized as DME. See Appendix D for DME examples.

DoD Information Technology Security Certification and Accreditation Process (DITSCAP). The standard DoD management process for identifying information security requirements, providing security solutions, and managing information system security activities.

Earned Value Management. A project management tool which integrates the scope of work with schedule and cost elements for optimum planning and control. The qualities and operating characteristics of earned value management systems (EVMS) are described in American National Standards Institute (ANSI)/Electronic Industries Alliance (EIA) Standard –748–1998, *Earned Value Management Systems*, approved May 19, 1998.

Enterprise Architecture (EA). A strategic tool that defines the business, information, applications (information systems), and information technologies necessary to support the mission, programs, and projects of the organization. The EA identifies the current “state” (AS-IS) as well as the “objective, end-state” (TO-BE), and serves as a “blueprint” for implementing changes to the business, information, applications, and information technology needs of the organization. The EA is a “tool” used in the architecture alignment and assessment management process and is a critical component in the IT capital planning and investment management process for selecting, managing and evaluating IT investments.

Enterprise Architecture Framework (EAF). A graphical representation that documents the linkages between an organization’s business (mission and processes), information requirements,

information system (applications), and information technology infrastructure (IA assets and technical standards).

Executive Functional Assessment Team (EFAT). Senior level committee that reviews and validates the CFAT's recommendations, and forwards the recommendations to the Headquarters Prioritization Group for integration with non-IT investments for Senior Program and Budget Advisory Committee and the Deputy Commanding General's approval. The Deputy Commanding General is the EFAT Chairman and the IT Investment Decision Authority. The EFAT operates in the Select Component of the IT Capital Planning and Investment Management Process.

Executive Sponsor (ES). Executive level representative from a HQUSACE Directorate or Region responsible for: Sponsoring the IT requirements/investments within the organization; conducting reviews of the organization's IT investments for validation/prioritization and representing the investments to the CFAT/EFAT per the CPIM Select component; evaluating the IT investments' business performance goal attainment per the CPIM Evaluate component.

Functional Analysis Team. Functional representatives responsible for rating and prioritizing requirements with the Executive Sponsor in the Select Component.

Federal Enterprise Architecture. Is a business-based framework for government-wide improvement. It describes the relationship between business functions and the technologies and information that support them. The FEA is being constructed through a collection of interrelated "reference models" designed to facilitate cross-agency analysis and the identification of duplicative investments, gaps, and opportunities for collaboration within and across federal agencies.

Headquarters Prioritization Group (HPG). Consists of the Director of Civil Works and the Director of Military Programs with support from other offices, and which: Reviews all requirements, dollar and manpower, submitted by Corps activities; evaluates un-resourced requirements; prioritizes and develops the integrated list of resource requirements for recommendation to the Senior Program and Budget Advisory Committee.

Information System. The organized collection, processing, transmission, and dissemination of information in accordance with defined procedures, whether automated or not.

Information Technology. Any equipment or interconnected system or subsystem of equipment, that is used in the acquisition, storage, manipulation, management, movement, display, switching, interchange, transmission, or reception of data or information. For the purpose of the preceding sentence, equipment is used by the government, or is used by a contractor under a contract with the government, which (1) requires the use of such equipment, or (2) requires the use, to a significant extent, of such equipment in the performance of a service or the furnishing of a product. IT includes the computers, ancillary equipment, software, firmware and similar procedures, services (including support services), and related resources used by an organization to accomplish a function (40 U.S.C. 11101(6)).

Investment. An asset, initiative, program, or project as well as service and support service for which the organization is or will allocate resources, in particular funds. Also, the “decision” by the organization to expend resources or the actual expenditure of resources on selected information technologies or IT-related initiatives for which there is an expectation that the benefits from the expenditure exceed the value of the resources expended.

Investment Decision Authority. The organization's commander or designated senior management official having the authority to approve the proposed IT investment and/or aggregation of IT investments as having value/benefit to the organization, i.e., approve the authority levels recommended via the CPIM Process.

Investment Portfolio. The aggregation of the organization’s IT assets, initiatives, programs, projects, automated information systems and services/support services requirements, both planned and installed and operational.

Major IT Investment. A system or investment that requires special management attention because of its importance to the Corps' mission which meets one of the following criteria: An investment in current fiscal year which continues into subsequent fiscal years; used for financial management and spends more than \$500,000; directly tied to the top two layers of the Federal Enterprise Architecture; an integral part of the CeA; has significant program or policy implications; has high level executive visibility; and/or any e-government investment or those that use e-business technologies regardless of cost.

Milestone. A point-in-time or event that an expected deliverable or activity is scheduled to be started, completed or is in the process of being completed. A milestone is typically used to measure progress, and to hold an individual, team, or organization accountable for success or failure.

Milestone Decision Authority (MDA). Senior USACE officials who are the approving authority at each milestone decision within an information technology project’s life cycle in accordance with Engineer Regulation 25-1-2, Life Cycle Management of Information Systems.

Operational Analysis. Management oversight actions of investments in steady state. It involves the collection of information concerning an IT investment’s performance and the comparison of this performance with an established baseline. An investment’s performance measures should include how well the investment supports customers and stakeholders and how well the investment is managed by the agency. The outputs of this process are recommendations to agency Project Managers and/or Executive Sponsors as to the investment’s continued use, modification, improvement, or termination.

Outcome. The actual results, effects, or impacts of a business process, procedure, activity, task or action taken or not taken. Actual outcomes typically are compared to expected outcomes.

Process. A sequence of procedures, activities/events, and tasks/actions performed for a given purpose.

Program Manager (PgM) An individual appointed in writing by the Executive Sponsor who is responsible for providing oversight to Project Managers for related IT investments.

Project Delivery Team (PDT). The individuals serving on a team, who share collective responsibility, for the successful delivery of the service, product, program or project assigned the team. A PDT is often composed of individuals with diverse competencies needed to ensure delivery success.

Project Manager (PM). The individual appointed in writing by the Executive Sponsor who is responsible for the delivery of agreed upon deliverables to the IT Executive Sponsor. A manager responsible for the resources provided and for the execution of the approved project management plan with cost, schedule and performance goals.

Project Review. A review conducted during the Evaluate component during which: The Executive Sponsor evaluates whether the IT investment is meeting the established business goals/outcomes and decides whether to terminate or revise the investment; and during which the Chief Information Officer/Senior Regional Information Officer evaluates whether the IT investment is meeting technical objectives and recommends whether to terminate or revise the investment.

Quarterly Review. Project management oversight reviews conducted on a quarterly basis by the Chief Information Officer/Senior Regional Information Officer of an IT investment's progress/status to assess: The cost, schedule, and performance (Earned Value Management) of an investment's development, modernization, enhancement efforts; or the investment's performance against an established baseline and relative to potential other alternative solutions (Operational Analysis) during an IT investment's steady state phase.

Return on Investment. Comparison of an investment's benefits and costs.

Risk. A term used to define the class of factors which (1) have a measurable probability of occurring during an IT investment's life cycle, (2) have an associated cost or affect on the investment's output or outcome (typically an adverse affect that jeopardizes the success of an investment), and (3) have alternatives from which the organization may choose.

Senior Regional Information Officer. A management level position responsible for executing the IT Capital Planning and Investment Management Process within a Region.

Senior Review Group. Consists of the Director of Civil Works, the Director of Military Programs, and the Director of Strategy and Integration to establish command guidance and priorities for USACE which meets the direction provided by the Chief of Engineers.

Steady State. Describes the operational status of an IT investment and includes maintenance and operation costs needed to sustain at the current capability and performance levels including costs for labor, maintenance of existing information systems, corrective software maintenance, voice and data communications maintenance, and replacement of broken IT equipment. See appendix C.6 for Steady State examples.

Technical Reference Guide (TRG). Identifies and describes the technical standards pertaining to information technology and IT service delivery (e.g., databases, communications, security, software, hardware, Intranet, etc.) to be used throughout the Corps.

Technical Reference Model (TRM). Identifies and describes the technical standards for information technology and IT service delivery used for a specific IT investment. The TRM is a subset of the Technical Reference Guide (TRG). There may be many TRM's associated with the TRG.

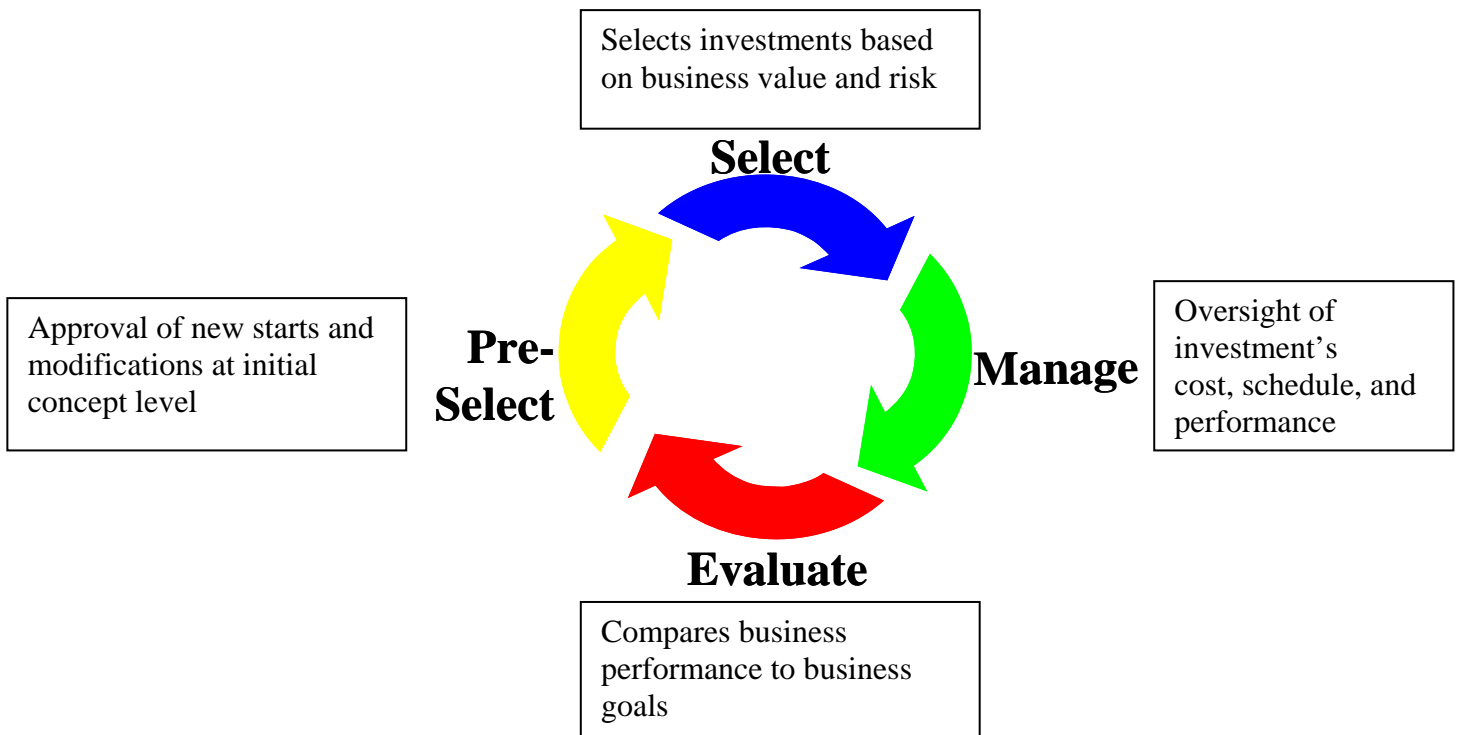
Value. A term used to identify intangible benefits that may be easy to identify but that can be difficult to quantify. These benefits may include more efficient decision-making, brand recognition, goodwill, valued partner, greater data accuracy, improved data security, reduced customer burden, or increased organizational knowledge.

APPENDIX C
IT Capital Planning and Investment Management (CPIM) Process

OVERVIEW

1. **IT CPIM Process.**

a. The Clinger Cohen Act of 1996 requires Federal agencies to implement a process that provides for: Selection of information technology investments; management of the investments; and the evaluation of the results of the investments. The Act also requires that the process be integrated with the process for making budget, financial, and program management decisions within the agency. The USACE CPIM process links the USACE mission needs, information, and information technology in an effective and efficient manner. The CPIM process includes all stages of capital programming - planning, budgeting, procurement, management, and assessment. The process is iterative as depicted in Figure 1, and the process' components are interrelated with inputs from USACE business operations and requirements and the outputs feeding into the budget process. The goal is to link resources to results. The CPIM process builds from the Corps Enterprise Architecture and its transition from the current architecture to a target architecture. The CPIM governance process provides its outputs to the Headquarters Prioritization Group. The CPIM process has four components (Figure 1):



(Figure 1)

- (1) **Pre-Select Component** – Chief Information Officer/Senior Regional Information Officer (CIO)/(SRIO) and the CeA Program Manager approve new starts and major modifications of IT investments at the initial concept level for further consideration during the Select Component. The Pre-Select component applies to all directorates and offices within HQUSACE. The Pre-Select process also applies to local and regional IT Investments based on the established dollar threshold of \$100K. SRIOs may tailor the process to meet regional needs for investments under \$100K. See appendix C.1 for details. Pre-Select Component can occur at any time.

- (2) **Select Component** – Provides for the selection of new starts or major modifications of IT investments which will support the USACE missions and goals. Creates a portfolio of IT investments that maximizes the business value and assesses and manages the risks of the investments by prioritizing and selecting investments using quantitative and qualitative criteria including a quantitatively expressed projected net, risk-adjusted return on investment. The Select component involves the Cross Functional Assessment Team (CFAT) and the Executive Functional Assessment Team (EFAT) (see below for CFAT/EFAT membership). The Select Component applies to all directorates and offices within HQUSACE. Normally, the Select Component occurs in the November – April timeframe following ITIPS data input/update window (September – October). Project Managers/Executive Sponsors can submit out of cycle requests to the HQ CIO if needed between 1 - 15 October, 1 - 15 January, 1 - 15 April, or 1 - 15 July each year. The CFAT Co-Chairs have the discretion to decide the evaluation/processing of the out of cycle requests. The Select process also applies to the local and regional IT Investments based on the established dollar threshold of \$100K. SRIOs may tailor the process to meet regional needs for investments under \$100K. See appendix C.2 for details.
 - (a) **CFAT Membership.** The membership of the CFAT consists of senior representatives from each of the organizations identified below:
 - Civil Works
 - Military Programs
 - Resource Management
 - Strategy and Integration
 - Human Resources
 - Research and Development
 - Contracting
 - Chief Counsel
 - The Deputy CoS represents the following offices:
 - Logistics
 - Equal Employment Opportunity
 - Safety and Occupational Health
 - Internal Review
 - History
 - Public Affairs
 - Small Business
 - Humphreys Engineer Center Support Activity.
 - Senior representatives from each of the Regional Business Centers

- Senior representatives from each of the following:
 - U.S. Army Engineering and Support Center (Huntsville)
 - Engineer Research and Development Center
 - Transatlantic Programs Center (TAC)

(b) **EFAT Membership.** The membership of the EFAT consists of Directors/Commanders from each of the organizations identified below:

- Civil Works
- Military Programs
- Corporate Information
- Resource Management
- Strategy and Integration
- Human Resources
- Research and Development
- Contracting
- Chief Counsel;
- The Chief of Staff represents the following offices:
 - Logistics
 - Equal Employment Opportunity
 - Safety and Occupational Health
 - Internal Review
 - History
 - Public Affairs
 - Small Business
- Commanders from each of the Regional Business Centers
- Commanders/Directors from:
 - U.S. Army Engineering and Support Center (Huntsville)
 - Engineer Research and Development Center
 - Transatlantic Programs Center (TAC)
 - Humphreys Engineer Center Support Activity.

(3) **Manage Component** – IT investments are monitored for cost, schedule and performance progress, and necessary adjustments are made. Project Managers and the Chief Information Officer/Senior Regional Information Officer continuously measure ongoing investments against their projected cost, schedule, and performance goals, and operational analysis, and take action to continue, modify, or cancel the investment. The Management process applies to all directorates and offices within HQUSACE. The Management process also applies to the local and regional IT investments based on the established dollar threshold of \$100K. SRIOs may tailor the process to meet regional needs for investments under \$100K See appendix C.3 for details.

(4) **Evaluate Component** - IT investments are assessed by the Executive Sponsor for their impact on business outcomes relative to USACE missions and goals. Actual business performance is measured against goals to be achieved by the IT investments. The Evaluate process applies to all directorates and offices within HQUSACE. The Evaluate process also applies to local and regional IT investments based on the established dollar threshold of

\$100K. SRIOs may tailor the process to meet regional needs for investments under \$100K.
See appendix C.4 for details.

APPENDIX C.1
IT Capital Planning and Investment Management (CPIM) Process

PRESELECT COMPONENT PROCEDURES

Responsibilities.

HQUSACE and Regional Executive Sponsors

- Appoints IT Program/Project Managers
- Collects/solicits requirements and provides them to IT Project Manager.

Project Manager.

- Develops Business Case.
- Registers the investment's requirements into the automated investment portfolio system.
- Refines requirements as necessary or terminates as directed.

Corps Enterprise Architecture/e-Government Program Managers.

- Reviews requirements against CeA and e-Government initiatives.
- Provides recommendation for approval/disapproval.

Chief Information Officer (CIO)/Senior Regional Information Officer (SRIO).

- Reviews requirements and documents.
- Provides approval/disapproval.

Procedures.

(1) Requirement Determination

- HQUSACE and Regional Executive Sponsors collects/solicits requirements for new initiatives and major modifications and provides to Project Manager.

(2) Business Case Development

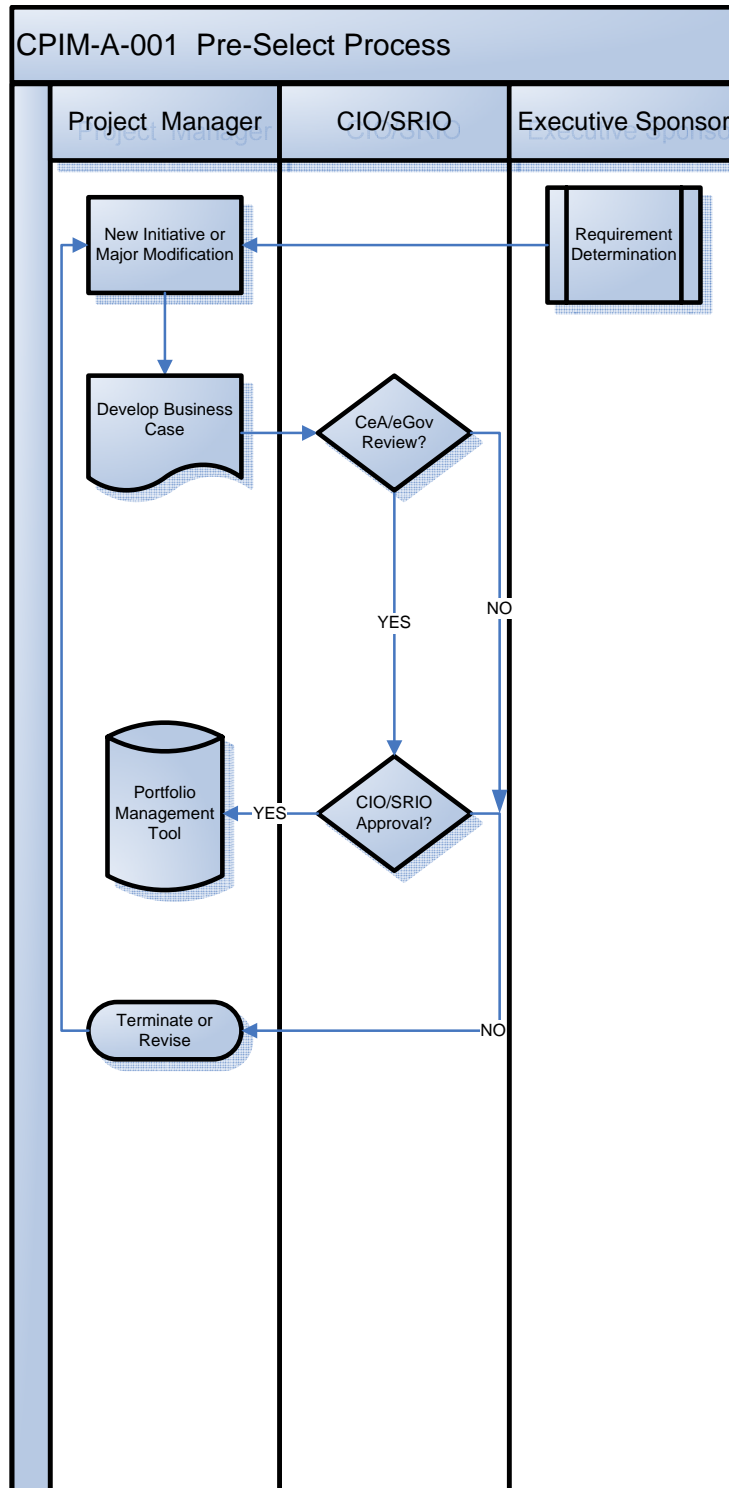
- Project Manager develops business case
- Project Manager submits business case to CeA/eGovernment Program Managers.

(3) CeA/eGovernment Review

- CeA/eGovernment Program Managers review requirements.
 - ✓ If does not meet CeA/e-Government criteria, recommends termination or revision and return requirements to Project Manager.
 - ✓ If meets criteria, requirements forwarded to CIO/SRIO.

(4) CIO/SRIO Review.

- CIO/SRIO reviews requirements and documentation.
 - ✓ If not approved, terminate or revise and return requirements to Project Manager.
 - ✓ If approved, requirements are input into Portfolio Management Tool.



(Figure 2)

APPENDIX C.2
IT Capital Planning and Investment Management (CPIM) Process

SELECT COMPONENT PROCEDURES

Responsibilities.

Executive Sponsor.

- Receives portfolio reports from CIO/SRIO.
- Validates requirements and Business Cases.
- Oversees Functional Analysis Team (FAT) review of the requirements and Business Cases.
- Prioritizes requirements and recommends budget authority levels to the Cross-Functional Assessment Team (CFAT).
- Makes Reclama as appropriate.
- Seeks appropriate funding sources.

Chief Information Officer (CIO)/Senior Regional Information Officer (SRIO).

- Provides annual portfolio analysis reports to Executive Sponsor.
- Conducts annual portfolio analysis.
- Develops IT investment recommendation and provides to the CFAT.
- Facilitates the CFAT actions.
- Facilitates CFAT recommendations and provides to EFAT.
- Facilitates EFAT actions.
- Facilitates EFAT recommendations and provides to DCG.
- Enters budget authority into portfolio management tool.

External.

- CERM and appropriation managers provide budget affordability review to EFAT.
- CERM conducts/leads annual budgeting processes.
- Offices, Regional Business Centers, etc., participate in budgeting processes.

Procedures.

(1) Portfolio Reports

- CIO/SRIO generates portfolio reports and provides to Executive Sponsor.

(2) Executive Sponsor Validation, Prioritization and Authority Levels.

- Executive Sponsor validates the requirements.
- Executive Sponsor oversees FAT review of requirements.
- Executive Sponsor/FAT prioritizes requirements and recommends budget authority levels to the Cross-Functional Assessment Team (CFAT).

(3) CIO/SRIO Portfolio Analysis.

- Conducts the annual portfolio analysis.

- Develops IT investment recommendations and provides to CFAT.

(4) **CFAT Actions.**

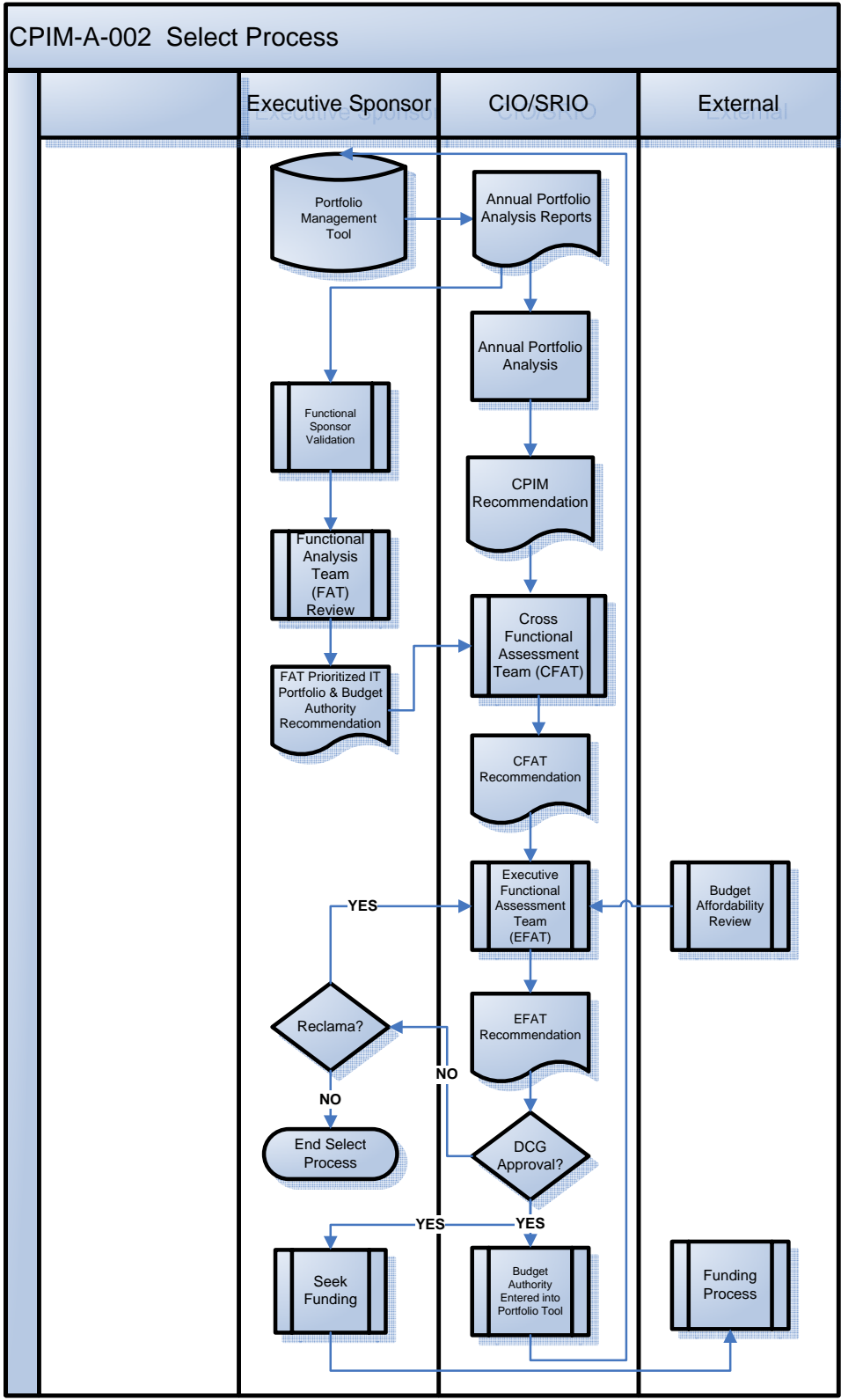
- CFAT conducts business value and risk analysis.
- Provides recommendations to EFAT.

(5) **EFAT Actions.**

- Receives and evaluates the budget affordability review.
- Evaluates and validates CFAT recommendations.
- Provides recommendations to the DCG.

(6) **DCG Approval/Disapproval.**

- If DCG Disapproves.
 - ✓ Does Executive Sponsors Reclama?
 - If no, end Select Process.
 - If yes, resubmit to the EFAT.
- IF DCG Approves.
 - ✓ CIO/SRIO enters budget authority into the portfolio management tool.
 - ✓ Executive Sponsors seek funding.



(Figure 3)

APPENDIX C.3
IT Capital Planning and Investment Management (CPIM) Process

MANAGE COMPONENT PROCEDURES

Responsibilities.

Project Manager.

- Provides detailed quarterly reviews to the CIO/SRIO for cost, performance, schedule of IT investments in development, modernization, and enhancement (DME), and operational analysis of IT investments in steady state to identify issues for resolution.
- If DME requirements, then develops and provides to the CIO/SRIO the Earned Value Management (EVM) and Performance Measures Quarterly Report.
- If Steady State requirements, then develops and provides to the CIO/SRIO the Operational Analysis and Performance Measures Quarterly Report.
- Develops and provides to the CIO/SRIO recommendations on resolutions.
- Adjusts cost, schedule and performance as necessary/directed based on issue resolution guidance from CIO/SRIO.
- Enters data into portfolio management tool.

Chief Information Officer (CIO)/Senior Regional Information Officer (SRIO).

- Conducts detailed quarterly review and capital planning and architectural review of reports.
- Reports results of capital planning and architectural analysis to CIO and PMs.
- Considers termination of project.
- Considers modification of project.
- Considers if project evaluation is needed.

Procedures.

(1) Quarterly Review.

- Project Managers (PM) conduct a quarterly review to determine any development, modernization or enhancement (DME).
 - ✓ If no to DME, then PM develops and provides to the CIO/SRIO an operational analysis and Performance Measures Quarterly Report.
 - ✓ If yes to DME, then PM develops and provides to CIO/SRIO Earned Value Measurement (EVM) and Performance Measures Quarterly Report.

(2) Capital Planning and Architectural Review.

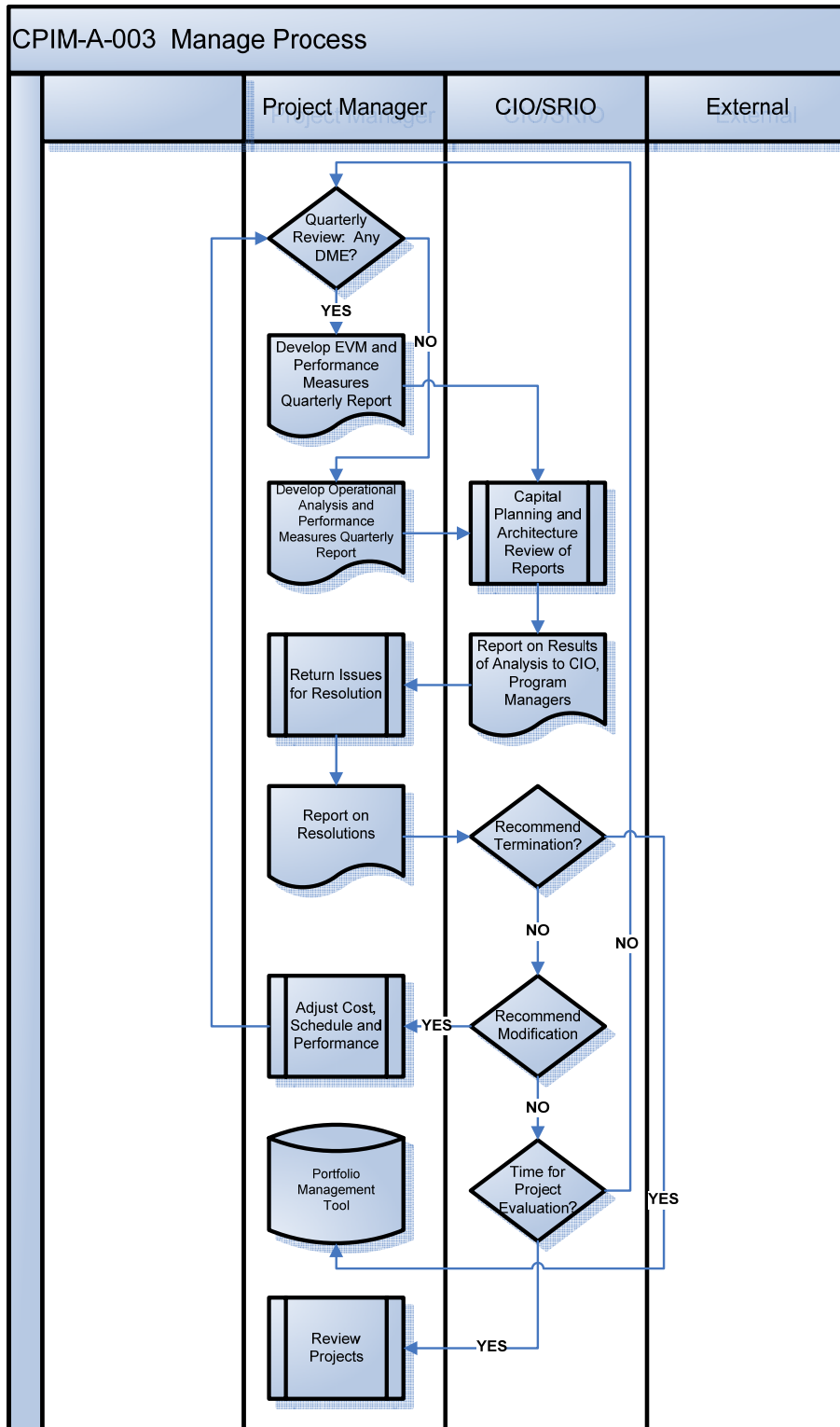
- CIO/SRIO conducts capital planning and architecture review of reports.
- CIO/SRIO provides report on results of analysis to the CIO and PMs.

(3) Issues Resolution.

- The CIO/SRIO returns issues for resolution to the PM.
- PMs provide report on resolutions to CIO/SRIO.

(4) Recommend Termination, Modification or Evaluation.

- CIO/SRIO considers termination.
 - ✓ If yes to termination, PM terminates and updates Portfolio Management Tool.
 - ✓ If no to termination, then CIO/SRIO considers modification.
 - If yes to modification, then PM adjusts cost, schedule and performance and returns project for quarterly reviews.
 - If no to modification, then CIO/SRIO considers if project evaluation is needed.
 - If no to project evaluation, then project continues with quarterly reviews.
 - If yes to project evaluation, then PM conducts project review.



(Figure 4)

APPENDIX C.4
IT Capital Planning and Investment Management (CPIM) Process

EVALUATE COMPONENT PROCEDURES

Responsibilities.

Executive Sponsor.

- Executive Sponsor conducts project review.
- Decides whether investment meets business objectives.
- Coordinates for termination/modification of investment and updates Portfolio Investment Tool.

Chief Information Officer (CIO)/Senior Regional Information Officer (SRIO).

- Determines whether investment meets technical objectives.
- CIO/SRIO approves project status/milestone in life cycle.
- In conjunction with Executive Sponsor directs that investment be terminated or modified and that Investment Management Tool be updated.

Procedures.

(1) Project Review

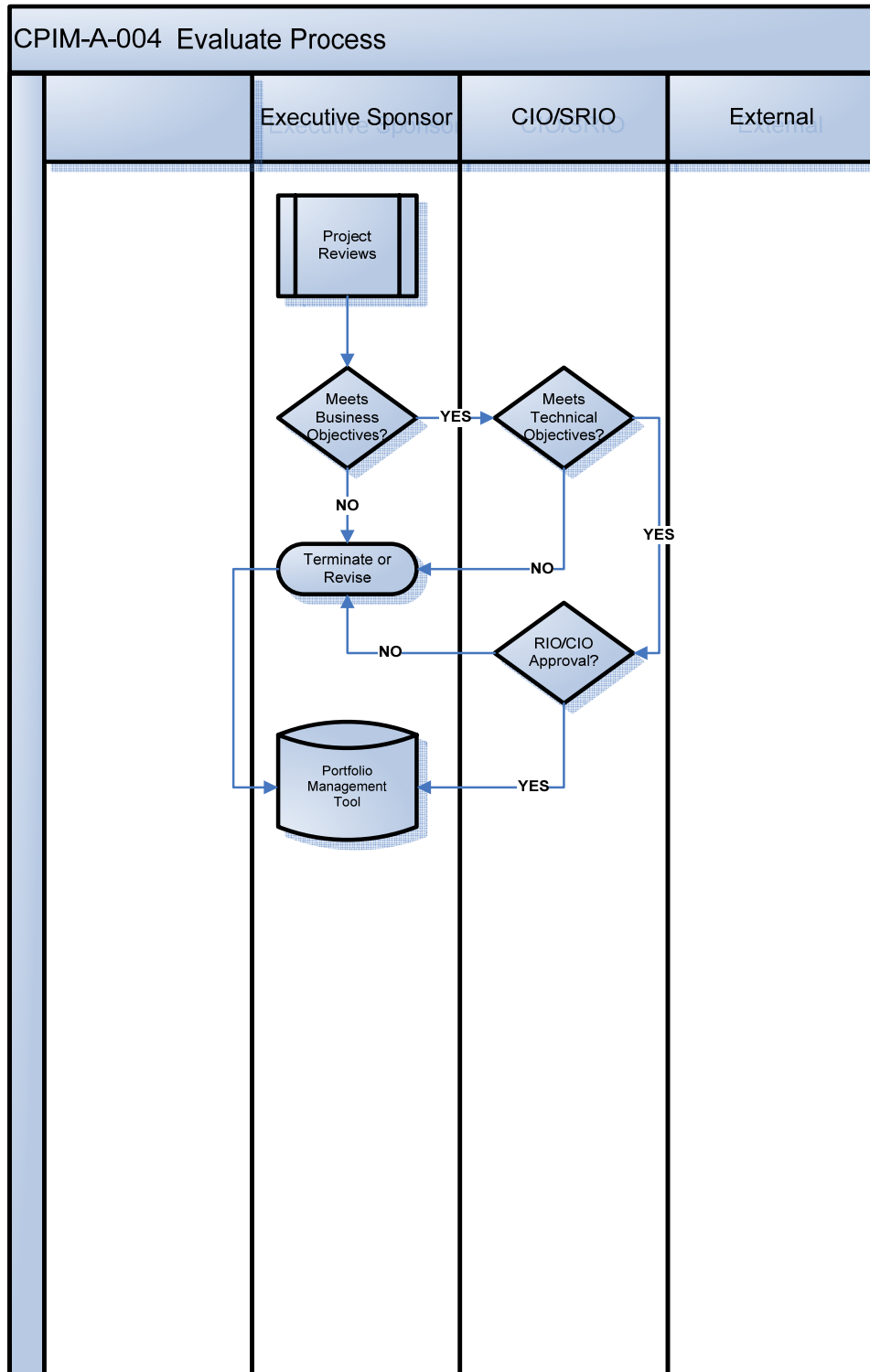
- Executive Sponsor conducts project review.
 - ✓ If project does not meet business objectives, then terminate or revise project.
 - Update Portfolio Management Tool.
 - ✓ If project does meet business objectives, then send project for technical review.

(2) Technical Review.

- ITL conducts technical review.
 - ✓ If project does not meet technical objectives, then terminate or revise project.
 - Update Portfolio Management Tool.
 - ✓ If project does meet technical objectives, then send project to CIO/SRIO.

(3) Milestone Decision Approval.

- If CIO/SRIO does not approve milestone, then terminate or revise.
 - Update Portfolio Management Tool.
- If CIO/SRIO approves project, then update Project Management Tool.



(Figure 5)

APPENDIX C.5
IT Capital Planning and Investment Management (CPIM) Process

CPIM Process Calendar			
1st Quarter	<p align="center">October</p> <ul style="list-style-type: none"> • Quarterly Reviews of Cost, Schedule and Performance • Out-of-Cycle requirements submitted 	<p align="center">November</p> <ul style="list-style-type: none"> • Initial screening of ITIPS IT Portfolio 	<p align="center">December</p> <ul style="list-style-type: none"> • ITIPS screening continues
2nd Quarter	<p align="center">January</p> <ul style="list-style-type: none"> • Quarterly Reviews of Cost, Schedule and Performance • Out-of-Cycle requirements submitted • FAT sponsor/program analysis team recommendations to CFAT • CPIM recommendations to CFAT 	<p align="center">February</p> <ul style="list-style-type: none"> • CFAT analysis & recommendations to EFAT 	<p align="center">March</p> <ul style="list-style-type: none"> • EFAT recommends authority levels to DCG
3rd Quarter	<p align="center">April</p> <ul style="list-style-type: none"> • Quarterly Reviews of Cost, Schedule and Performance • Out-of-Cycle requirements submitted • DCG decisions 	May	June
4th Quarter	<p align="center">July</p> <ul style="list-style-type: none"> • Quarterly Reviews of Cost, Schedule and Performance • Out-of-Cycle requirements submitted 	August	<p align="center">September</p> <ul style="list-style-type: none"> • ITIPS opened for updates

* PMs can conduct the Pre-Select Component for new requirements at any time of the year.

** Executive Sponsors can conduct the Evaluate Component for on-going requirements at any time of the year.

APPENDIX D
IT Capital Planning and Investment Management (CPIM) Process

DME AND STEADY STATE DEFINITION EXAMPLES:

Development, Modernization and Enhancements (DME). The costs for new IT investments and any changes or modifications to existing IT investments to improve capability or performance, or to implement changes mandated by Congress or agency leadership, (i.e., Department of Defense, Department of Army, Headquarters USACE); labor costs for project management and direct support. Improved capability or performance achieved as a by-product of the replacement of broken IT equipment to continue an operation at the current service levels is not categorized as DME. Examples of DME include:

a. Costs for new applications and/or infrastructure capabilities that are planned or under development, e.g.:

(1) Designing, developing, testing, and deploying new software for a business or science/or engineering function;

(2) Procuring and deploying new (beyond baseline) commercial off the shelf software for a business or science/or engineering function;

(3) Procuring and deploying equipment and software for local area network, wide area network, telecommunications lines, etc. for users with a new requirement, i.e. beyond baseline.

(4) Labor costs for project management and direct support.

b. Any change or modification to existing applications and infrastructure capabilities which is intended to result in improved capability or performance of the activity. These changes include (a) all modifications to existing operational software (other than corrective software maintenance); and (b) expansion of existing capabilities to new users, e.g;

(1) Designing, developing, testing and deploying application software changes for an existing system based on changes required by law, regulation, policy or business process that provides changed functionality, (i.e., capability), and/or allows for a shorter processing time, (i.e., increase performance), in order to accomplish the mission.

(2) Converting an application from a client/server technology to a web-based technology.

(3) Upgrading the processors and the memory capacity of servers in order to reduce the processing time and/or in order to improve performance.

(4) Replacement of software/hardware that is no longer supported by the manufacturer because of obsolescence.

Steady State. Describes the operational status of an IT investment and includes maintenance and operation costs needed to sustain at the current capability and performance levels including costs for personnel, maintenance of existing information systems, corrective software maintenance, voice and data communications maintenance, and replacement of broken IT equipment, e.g:

- a. Those personnel whose duties relate to the general management and operations of IT investments, including certain overhead costs associated with PM offices;
- b. Maintenance of existing application, infrastructure program or initiative;
- c. Corrective software maintenance, *including* all efforts to diagnose and correct actual errors (i.e., processing or performance errors) in a system;
- d. Maintenance of existing voice and data communications capabilities;
- e. Replacement of broken IT equipment needed to continue operations at the current service level;
- f. All other related costs not identified as DME.