MAR 0 2 2010

DepEd ORDER
No. 17, s. 2010

GUIDELINES IN THE DEVELOPMENT AND/OR ACQUISITION OF VARIOUS INFORMATION AND LEARNING SYSTEMS IN THE DEPARTMENT OF EDUCATION

To: Undersecretaries
Assistant Secretaries
Bureau Directors
Directors of Services/Centers and Heads of Units
Regional Directors
Schools Division/City Superintendents
Regional/Divisional ICT Coordinating Committees

1. Due to complexities in the Department's operations brought about by the sudden need for data and information, the DepEd managers have begun to notice a need for the development and/or acquisition of information and learning systems.

2. Information and Learning Systems (ILS) are types of software solutions designed to simplify, accelerate and perform a specific function to provide its users/clients accurate reports which can be used for the improvement of school and office operations performance.

3. Before any ILS may be acquired or developed, the Department of Education (DepEd) hereby issues the following guidelines:

a. All offices with the need to acquire and/or develop information and learning systems must conform to these guidelines and shall be presented and subject to the scrutiny of the DepEd Information, Communications Technology (ICT) Technical and Governance Committee for comments, suggestions and recommendations.

b. In addition, a Systems Development Life Cycle (SDLC) must be presented to serve as the documentation where the models and methodologies that the people used in developing the system are stored.

c. The following are included in the SDLC:

Phase 1: Visioning and Planning

The purpose of this phase is to identify the requirement/need for the potential project. The outcome of this phase is the approval of the initial project plan that includes but is not limited to the activities and deliverables that define the following:

- Operation needs
- Stakeholders
- Scope
- Goals

- Critical success factors
- Expected outcomes
- Needs assessment
- Costs

The information that must be completed during and/or by the end of Phase 1 includes but is not limited to the following:

1. Initial Project Plan – in the form of a Work Breakdown Structure (WBS);
2. Phase Approval and Sign-off – for Technical Team and Operations Team;
3. Project Vision Statement – A high level document to be presented to the DepEd ICT Technical and Governance Committee;
4. Initial Cost-Benefit Analysis (CBA) – a high level description of the benefits and costs for the project; and
5. Phase Sign-off Checklist – a document that contains a verification checklist sign-off for stakeholders, clients, information development groups, end-users for each deliverable in this phase and the verification and approval to move to the next phase.

Phase 2: Analysis and Design

The purpose of this phase is that the end-users manage the analysis and design with the Application Development Project Team. The detailed operations processes that will be impacted for the said project must be determined. The outcomes of this phase are:

1. Commitment from the operation units and departments that they will provide to the best of their ability the priority and resources to the development of the agency and integration systems in their departments to accept and distribute information from/to the integrated system;
2. Commitment from the agency units and departments responsible for the post implementation systems operations and support with drafts of Service Level Agreements (SLAs); and
3. Approval of the technical plan that includes but is not limited to the following activities and deliverables that define the following:

- Operation models
- Data models
- Prototypes
- Costs
- Schedule
- Estimated milestones
- Expected results

The set of information that must be completed during and/or by the end of Phase 2 includes but is not limited to the following:

1. More Detailed Project Plan – a follow-on to the Work Breakdown Structure (WBS) that contains more detailed tasks, durations, resources and expertise levels;
2. Joint Application Design (JAD) Decision Document;
3. Updated Operation and Data Models;
4. Business Unit Interface Specification;
5. Initial Information Technology Service Management (ITSM) Service Level Agreement (SLA) Plan;
6. Phase Approval and Sign-off – for Technical Team and Operations Team;
7. More Detailed Cost-Benefit Analysis (CBA) – a follow-on to the high level CBA that provides a greater description of the benefits and costs for the Information Development Project with qualifications and quantifications for each; and
8. Phase Sign-off Checklist – a document that contains a verification checklist sign-off for stakeholders, clients, information development groups, business end-users for each deliverable in this phase and the verification and approval to move to the next phase.

Phase 3: Application Development and Testing

The purpose of this phase is that Application Development Project Team will develop and test the system. The outcomes of this phase are the demonstration of the application in the test environment and review of test results and the approval to proceed with the Operational Testing and Implementation Step.

The set of information that must be completed during and/or by the end of Phase 3 that includes but is not limited to the activities and deliverables that define the following:

1. Test Project Plan – that contains detailed development and testing tasks, durations, resources, and expertise levels;
2. Test Results;
3. More Detailed IT Service Management Plan – that includes Service Level, Incident/Problem, Change, Configuration, Release, Service Continuity, and Performance Management;
4. Step Approval and Sign-off – for Technical Team and Operations Team;
5. Finalized Cost Benefit Analysis (CBA) – a detailed level CBA that provides an in-depth description of the benefits and costs for the Application Development Project with qualifications and quantifications for each; and
6. Phase Sign-off Checklist – a document that contains a verification checklist sign-off for stakeholders, clients,

application development groups, business end users for each deliverable in this phase and the verification and approval to move to the next phase.

Phase 4: Operational Testing and Implementation

The purpose of this phase is the system to be deployed is moved to the operational environment for final end-user acceptance testing before implementation for operational use. The outcomes of this phase are the review and approval of the operational environment test results, Approval to implement and implementation.

The set of information that must be completed during and/or by the end of Phase 4 includes but is not limited to the activities and deliverables that define the following:

1. Implementation Project Plan – that contains detailed implementation, deployment, and possible recovery tasks, durations, resources, and expertise levels;
2. Disaster Recovery Test Results;
3. Further Detailed IT Service Management Plan that includes Availability, Capacity, and Financial Management, and Service Desk;
4. Step Approval and Sign-off – for Technical Team and Operations Team; and
5. Phase Sign-off Checklist – a document that contains a verification checklist sign-off for stakeholders, clients, application development groups, business end users for each deliverable in this phase and the verification and approval to move to the next phase.

Phase 5: Post Implementation Operations and Support

The infrastructure for this phase is defined and approved in the Analysis and Design Step. Once the system is deployed to operational use, the SLAs are put in place and the IT Service Management procedures for Change, Release, and Incident/Problem, and Service Continuity management take effect.

The set of information that must be completed during and/or by the end of Phase 5 includes but is not limited to the activities and deliverables that define the following:

1. Template Set of Project Plans – that contains generic templates for detailed analysis and design tasks, development and testing tasks, implementation and deployment tasks, durations, resources, and expertise levels;
2. Disaster Recovery Plan;
3. Full IT Service Management Service Delivery and Service Support methods and best practices;

4. Final Project Approval and Sign-off – for Technical Team and Operations Team. This is presented to the DepEd ICT Technical and Governance Committee; and
5. Final Step and Project Sign-off Checklist – a document that contains a verification checklist sign-off for stakeholders, clients, application development groups, end-users for each deliverable in this phase and the verification and the approval of all steps.

4. Definition of Terms, Sample Forms/Templates and Process Flows which will help the end-users/stakeholders in the proper accomplishment of all requirements/documents can be researched through the internet and are also enclosed to this DepEd Order.

5. Immediate dissemination of and compliance with this Order is directed.

JESLI A. LAPUS
Secretary

Encls.:
As stated

Reference:
None

Allotment: 1- -(D.O. 50-97)

To be indicated in the Perpetual Index
under the following subjects:

INFORMATION TECHNOLOGY
POLICY
RULES & REGULATIONS

Sheila/Sally: DO Acquisition of Various Information Final
February 12, 2010/02-15-10

Enclosure No. 1 to DepEd Order No. 17, s. 2010

Definition of Terms

- **Cost-Benefit Analysis** – refers to helping appraise, or assess, the case for a project or proposal, which itself is a process known as project appraisal and an informal approach to making decisions of any kind.

  It involves weighing the total expected costs against the total expected benefits of one or more actions in order to choose the best or most profitable option.

- **IT Service Management (ITSM) –** addresses the need to align the delivery of IT services closely with the needs of the agency.

- **Joint Application Design -** is a management process which allows Information Systems to work more effectively with users in a shorter time frame.

- **Service Level Agreement (SLA)** – part of a service contract where the level of service is formally defined. It is sometimes used to refer to the contracted delivery time (of the service) or performance.

- **Work Breakdown Structure (WBS)** – is a tool used to define and group a project's discrete work elements (or tasks) in a way that helps organize and define the total work scope of the project.

  A WBS, also provides the necessary framework for detailed cost estimating and control along with providing guidance for schedule development and control. It is also a dynamic tool and can be revised and updated as needed by the project manager.

Enclosure No. 2 to DepEd Order No. 17, s. 2010

Sample Forms

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Work Breakdown Structure

Project Name:
Bureau/Division/Unit:
Focus Area:
Product/Process:

Prepared By:

Document Owner	Project/Organization Role

Project Closure Report Version Control

Version	Date	Author	Change Description

Work Breakdown Structure Purpose and Limitations

[Replace this text with a statement of the purpose and limitations of this worksheet, or use the following sample.]

The purpose of this worksheet is to:

- Identify the work to be done.
- Identify the types of resources required for the work.
- Develop estimates for each work element.
- Identify storage locations.

This worksheet does not address:

- Who will perform the work?
- When the work will be completed?

Note:

- Include the Work Breakdown Structure Organization Chart and Worksheet.

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Cost Benefit Analysis

Project Name:
Bureau/Division/Unit:
Focus Area:
Product/Process:

Prepared By:

A. **Project Overview and Background**
[Provide a brief overview, background and definition for the project.

B. **Discussion of Alternatives**
[Discuss the project ground rules and assumptions.]

Status Quo – Current Process (As-Is Model)

Discussion of Alternative Concepts and Goals

- Program Concept
- Functional Concept
- Technical Concept

Project Alternatives (To-Be Model)

Acquisition Strategy

Discussion of Alternatives

Schedule

C. **Life Cycle Costs and Benefits**
[Discuss the costs and benefits of the product according to its life cycle.

Life Cycle Cost Summary

Life Cycle Benefit Summary

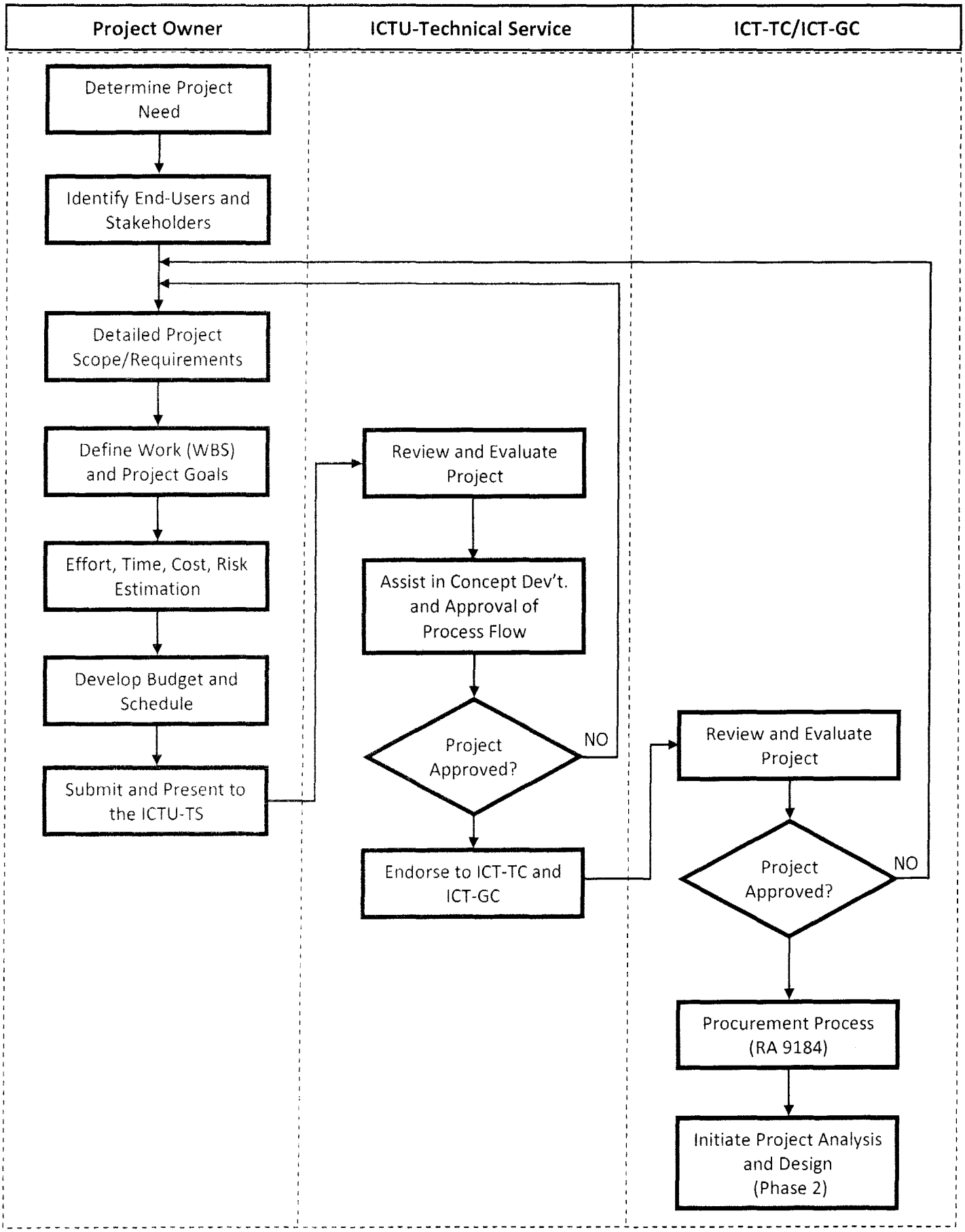
Risk Analysis

Risk Sensitivity Analysis

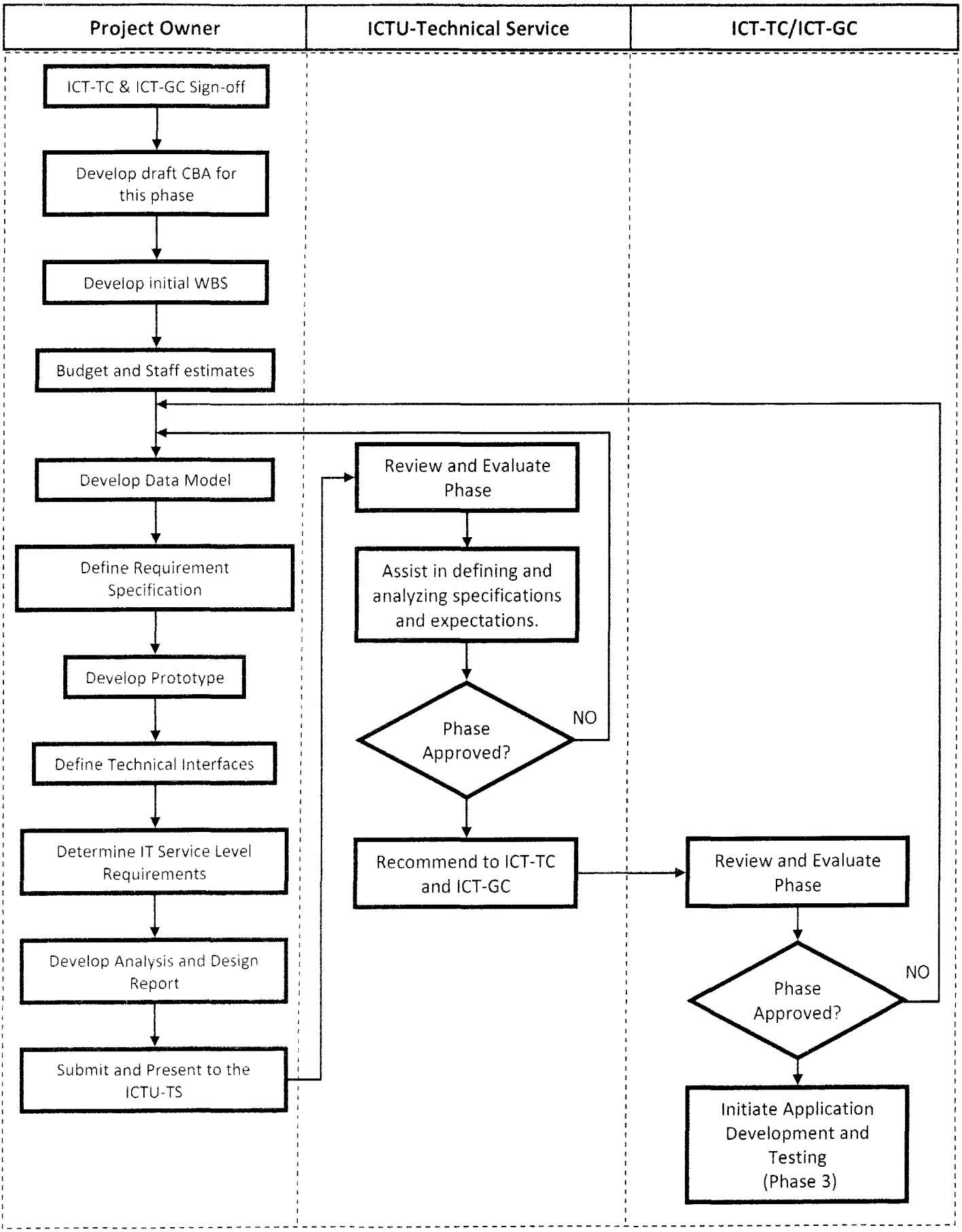
Life Cycle Cost-Benefit Comparison

PROCESS FLOW

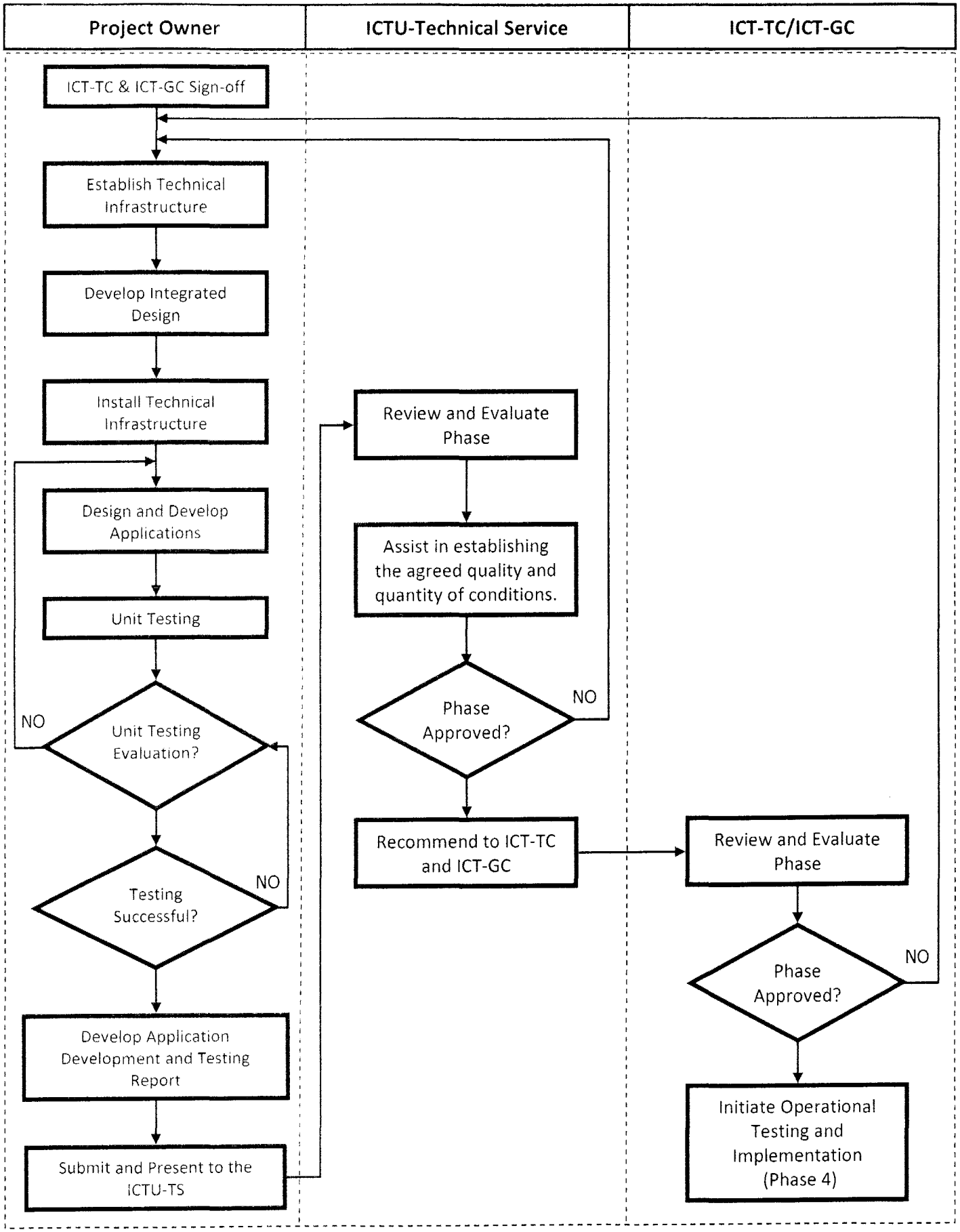
PHASE 1 – Visioning and Planning



PHASE 2 – Analysis and Design



PHASE 3 – Application Development and Testing



PHASE 4 – Operational Testing and Implementation