IT Project Management Practices Guide

Introduction

The IT Project Management Practices Guide (Guide) contains a repeatable, institution-wide approach for the management of application development and/or software procurement and deployment projects. These project management (PM) practices are transferable to other types of projects (beyond IT) that would benefit from project management. The following sections of the Guide represent the ordered steps for each project, to ensure that proper activities and management are utilized:

> Step 1. Application of Project Management – distinguishes what types of work should and should not be categorized as projects and includes the general flow of projects from idea into deployment. This step also defines and outlines project management process groups;
> Step 2. Project Classification – assigns a classification level to a project based on a combination of complexity and risk; this step also defines projects that require an additional level of management, as defined by State of Texas guidelines;
> Step 3. PM Required Processes – details processes required to be completed for each level of project, as classified in Step 2; and
> Step 4. Document Management – outlines document management requirements for documents created as part of PM Required Processes

Appendix A provides detailed document templates, based on the State of Texas DIR general templates. Note that DIR announced that templates will change in the fall 2008. At that time, the templates in Appendix A will be updated accordingly. Appendix B offers project management guidelines for portfolio management and Appendix C lists the references used in the development of this Guide.

Step 1. Application of Project Management

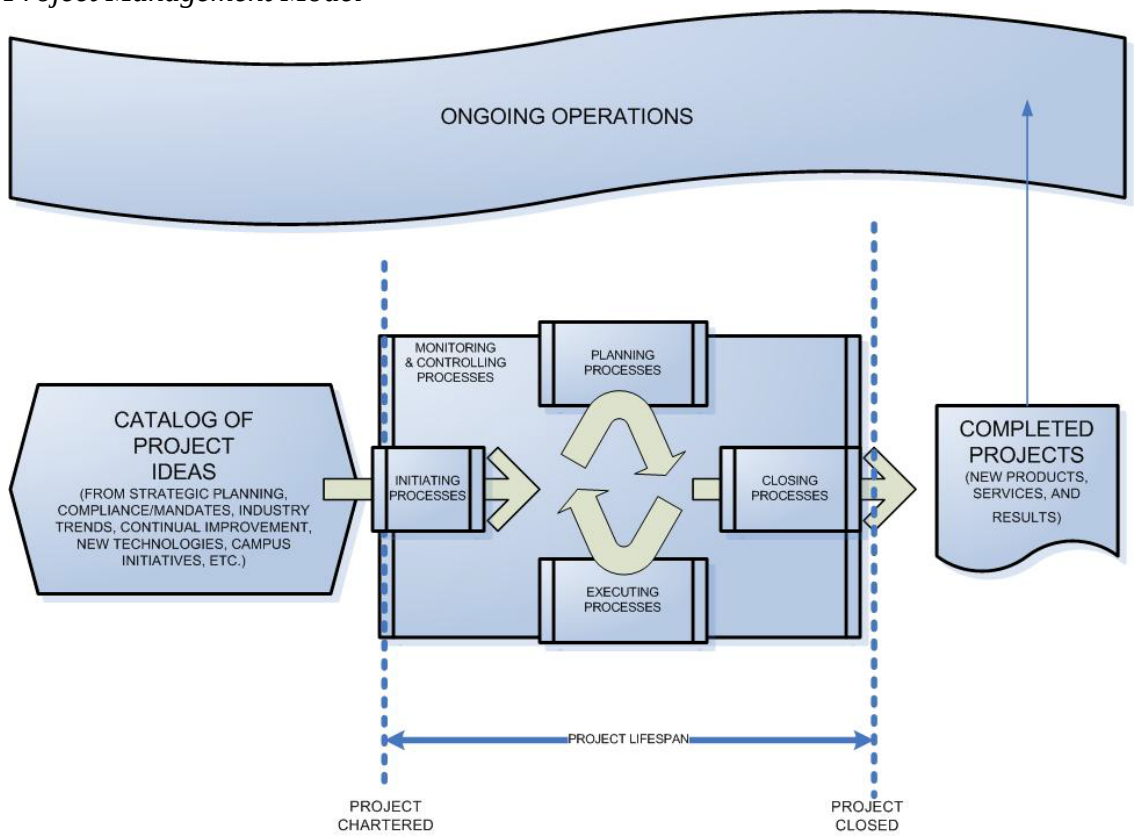
Types of Work

The Guide should be used for the management of Information Technology projects. Initiatives categorized as 'tasks' or 'operational' are not required to follow the project management methodologies outlined within the Guide. Upcoming/potential work should be analyzed to determine which category is applicable:

- Task
  - Small piece of work
  - Independent of a project
  - Lasting not longer than a few person-hours
  - Involving only a few people
  - Meant to accomplish a simple and straightforward goal
  - May be a component of operational work
  - May require change management processes

    - Rated as such Project Complexity and Risk Assessment model (Step 2)
- Operational
    - Ongoing work to sustain or provide a service
    - Change management processes applicable for non project-related changes
- Project
    - Temporary endeavor (defined beginning and end)
    - Which uses progressive elaboration
    - To create products, services, or results
- Texas Project Delivery Framework Project
    - Identified in a state agency's biennial operating plan whose development costs exceed $1 million and either takes longer than one year to reach operation status; involves more than one agency of the State; or substantially alters work methods of state agency personnel or the delivery of services to clients; or
    - So designated by the legislature in the General Appropriations Act.
    - Such projects are *also* considered major information resources projects, as defined in Texas Government Code, Chapter 2054.003 910). In addition to local standards, major information resources projects will follow the Texas Project Delivery Framework found at www.dir.state.tx.us/pubs/framework.

Project Management Model



Project Management Process Groups (PMI, 2004):

- Initiating Processes – defines and authorizes the project or a project phase
- Planning Processes – defines and refines objectives, and plan the course of action required to attain the objectives and scope that the project was undertaken to address
- Executing Processes – integrates people and other resources to carry out the project management plan for the project
- Monitoring & Controlling Processes – regularly measures and monitors progress to identify variances from the project management plan so that corrective action can be taken, when necessary, to meet project objectives
- Closing Processes – formalizes acceptance of the product, service, or result and brings the project or a project phase to an orderly end

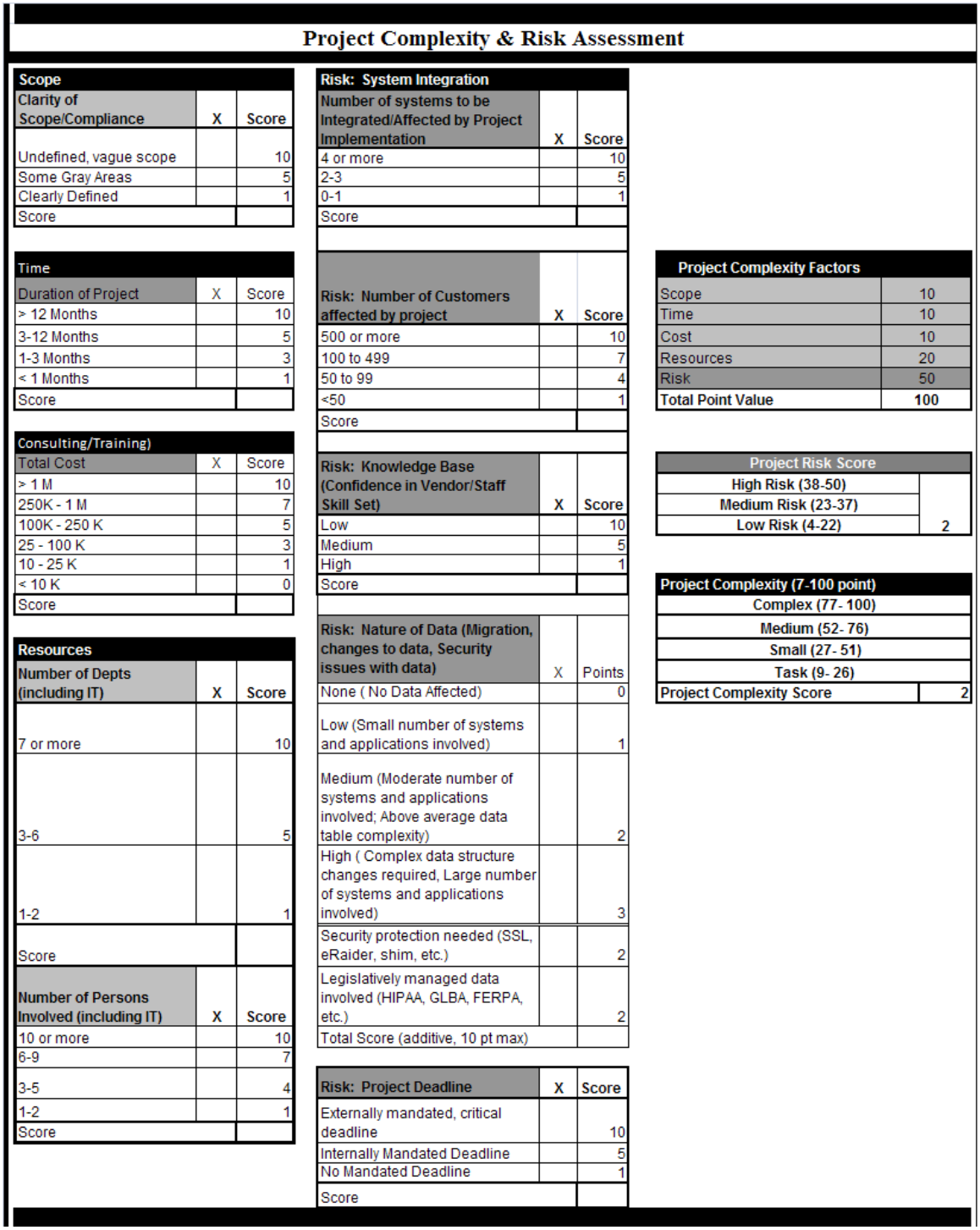
Within each Project Management Process Group, there are many processes that can be used to manage a project. Based on the classification of each project, different combinations of processes should be used to successfully complete the project. Some factors included in this classification include: complexity of scope; risk; size; time frame; institutional experience; access to resources; maturity; and current available resources.

The Project Classification Model described in the next section includes the most predominant factors contributing to determining the Classification Level of a project. The section also includes the Project Management Processes required to successfully implement a project.

Step 2. Project Classification

Information technology projects will be managed through standardized project management practices. However, the specific processes engaged within each Project Management process group will be based upon a project's classification level. As new project ideas and requests are brought for consideration, they must first be classified through the **Project Complexity and Risk Assessment** model, which scores factors that define a project's complexity and risk. The **Classification Matrix** uses this information to determine the **Classification Level** of a project. Note that the templates in Appendix A are required for all Level I projects and encouraged for Level II and Level III. These classification exercises are used to identify the project management methodologies required for each phase of the project life cycle of the project.

Project Complexity and Risk Assessment Criteria



Project Complexity & Risk Assessment

Scope		
Clarity of Scope/Compliance	X	Score
Undefined, vague scope		10
Some Gray Areas		5
Clearly Defined		1
Score		

Time		
Duration of Project	X	Score
> 12 Months		10
3-12 Months		5
1-3 Months		3
< 1 Months		1
Score		

Consulting/Training)		
Total Cost	X	Score
> 1 M		10
250K - 1 M		7
100K - 250 K		5
25 - 100 K		3
10 - 25 K		1
< 10 K		0
Score		

Resources		
Number of Depts (including IT)	X	Score
7 or more		10
3-6		5
1-2		1
Score		

Number of Persons Involved (including IT)	X	Score
10 or more		10
6-9		7
3-5		4
1-2		1
Score		

Risk: System Integration		
Number of systems to be Integrated/Affected by Project Implementation	X	Score
4 or more		10
2-3		5
0-1		1
Score		

Risk: Number of Customers affected by project	X	Score
500 or more		10
100 to 499		7
50 to 99		4
<50		1
Score		

Risk: Knowledge Base (Confidence in Vendor/Staff Skill Set)	X	Score
Low		10
Medium		5
High		1
Score		

Risk: Nature of Data (Migration, changes to data, Security issues with data)	X	Points
None (No Data Affected)		0
Low (Small number of systems and applications involved)		1
Medium (Moderate number of systems and applications involved; Above average data table complexity)		2
High (Complex data structure changes required, Large number of systems and applications involved)		3
Security protection needed (SSL, eRaider, shim, etc.)		2
Legislatively managed data involved (HIPAA, GLBA, FERPA, etc.)		2
Total Score (additive, 10 pt max)		

Risk: Project Deadline	X	Score
Externally mandated, critical deadline		10
Internally Mandated Deadline		5
No Mandated Deadline		1
Score		

Project Complexity Factors	
Scope	10
Time	10
Cost	10
Resources	20
Risk	50
Total Point Value	100

Project Risk Score	
High Risk (38-50)	
Medium Risk (23-37)	
Low Risk (4-22)	2

Project Complexity (7-100 point)	
Complex (77- 100)	
Medium (52- 76)	
Small (27- 51)	
Task (9- 26)	
Project Complexity Score	2

Each institution should use the factors listed in the Project Complexity & Risk Assessment criteria, but may also use additional factors as necessary when assessing a

project for its classification level. Additional factors may be used as long as all projects within the entity are assessed using the same factors.

Classification Matrix

Complexity	High risk	Medium risk	Low risk
Complex	Level 1	Level 1	Level 2
Medium	Level 1	Level 2	Level 3
Small	Level 2	Level 3	Level 3

Risk management is an integral part of IT project management, as reflected in the categorization matrix and project scoring mechanisms. Risk has three fundamental elements: nature of the possible disruptive event; the probability that an event will occur; and the impact should the event occur (Cooke, 2005). Risk is assessed in terms of business continuity and institutional impact, as well as influence on the strategic mission of the entities involved in the project. In rare cases, risk is too great to initiate a project, but typically strategies of risk avoidance, acceptance, mitigation, and transfer are adopted.

Based on the risks identified through the **Project Classification** process, a project's risk score is used to help assess the **Classification Level** (Level 1, Level 2, Level 3) of the project and indicate the project management processes required for the project. Classification level one indicates that risk will play a very crucial role throughout the project development, planning, implementation, and closeout. A more detailed analysis and documentation of procedures are required to avoid, mitigate, and transfer risks associated with the project. Level two denotes less complex projects with medium-to-low risk and risk is handled as a key project *component* that influences development, planning, implementing, and closeout. Level three identifies risk as a *consideration* in development, planning, implementing and is particularly important in the closeout stage. The level of risk dictates the manner in which risk is managed throughout the project cycle, as well as the necessary level of risk management involvement from stakeholders and IT management.

The classification level of a project will determine the project management methodologies (Project Management Process Group Processes) required or recommended for each phase of the project lifecycle of the project.

Step 3. PM Required Processes

The Texas Department of Information Resources (DIR) has identified a Project Delivery Framework for Statewide Project Delivery of Major Information Resources projects. Included within the Project Delivery Framework are documents that are required to be submitted to DIR throughout each phase of the project as it is being implemented. The templates for the required documents are contained in the table below and provided in Appendix A. The templates in Appendix A have been customized for the Texas Tech System; you may find that DIR boilerplate templates at www.dir.state.tx.us/pubs/framework.

For our purposes, projects classified as Level 1, which are also classified as Major Information Resource projects, will be required to follow the Texas Project Delivery Framework. Framework documents will be required for each project. They must be submitted and approved by the CIO of the implementing institution before being submitted to DIR.

For projects classified as Level 1 but not as Texas Project delivery Framework Projects, a modified version of the DIR templates will be required to be submitted to the CIO of the implementing institution for approval. Projects classified as Level 2 will have specific recommended templates for use, but will not be required to be submitted for approval. Projects classified as Level 3 will not be required to use or submit any of the modified templates or the DIR templates.

We do realize that all projects, no matter how complex, need to follow a Project Management Methodology. Larger more complex projects will require more stringent procedures and documentation than smaller, less complex projects. As we continue in our quest to standardize the implementation and documentation of technology related projects, we will continue to update our library of suggested templates for Level 1, 2, and 3 projects that do not fall within the requirements of the Project Delivery Framework.

Project Classification: Institutional Requirements by Project Level

	Project Classification		
	Level 1	Level 2	Level 3
TEMPLATE USAGE REQUIREMENTS	• For framework-level projects, templates required as listed at www.dir.state.tx.us and included in Appendix A. • For non-framework-level projects, templates or equivalent required as indicated by links in each process	• Templates or equivalent recommended as indicated by links in each process	• None recommended, but project manager may choose to use any which deemed necessary for the success of the project
REVIEW GATE APPROVAL REQUIREMENTS	• IT Project – review gate approval by Central IT • Texas Project Delivery Framework Project – coordinated through Central IT and follows requirements listed at www.dir.state.tx.us	• Review gate approval by sponsoring department(s) head(s)	• N/A
PROCESS GROUP			
INITIATE (Initial review gate for the selection and approval of the project.)	• Develop Project Charter Project Charter Template • Develop Preliminary Scope Statement (Includes Project Classification) • Itemize Identified Risks • Define Potential Risk Impacts • Gain Review Gate Approval Review Gate Approval Template	• Develop Project Charter Project Charter Template • Develop Preliminary Scope Statement (Includes Project Classification and Risk Assessment) • Gain Review Gate Approval Review Gate Approval Template	• Develop Project Charter (Include Scope Statement and Project Classification)
PLAN (Planning for both project management and	• Develop Project Management Plan Project Plan Template	• Complete Project Management Plan Project Plan Template	• Allocate and Schedule Resources • Define Activities • Plan Quality Assurance

technology-related activities and deliverables.)	• Plan Scope • Define Scope • Create Work Breakdown Structure • Define Activities • Sequence Activities, Optimizing to Minimize Risk • Estimate Activity Resources • Estimate Activity Durations • Schedule Development • Estimate Cost • Budget Cost • Plan Quality Assurance • Plan Human Resources • Plan Communications • Create Risk Minimization and Management Strategy • Identify Stakeholder to Manage Identified Risks • Identify Risks • Analyze Qualitative Risks • Analyze Quantitative Risks • Plan Risk Response Risk Management Template • Plan Purchases and Acquisitions • Plan Contracting (If Applicable) • Gain Review Gate Approval Review Gate Approval Template	• Define Scope • Create Work Breakdown Structure • Define Activities • Sequence Activities • Estimate Activity Resources • Estimate Activity Durations • Schedule Development • Estimate Cost • Budget Cost • Plan Quality Assurance • Plan Human Resources • Plan Communications • Plan Risk Management • Identify Risks • Plan Purchases and Acquisitions • Plan Contracting (If Applicable) • Gain Review Gate Approval Review Gate Approval Template	• Plan Communications • Identify Risks • Plan Purchases and Acquisitions
IMPLEMENT (Development, testing, and deployment based			

on project planning deliverables.)			
EXECUTING PROCESSES	• Direct and Manage Project Execution • Perform Quality Assurance; Include Risk Management Processes • Acquire Project Team • Develop Project Team • Distribute Information • Request Seller Responses (If Applicable) • Select Sellers (If Applicable)	• Direct and Manage Project Execution • Perform Quality Assurance • Acquire Project Team • Develop Project Team • Distribute Information • Request Seller Responses (If Applicable) • Select Sellers (If Applicable)	• Direct and Manage Project Execution • Distribute Information
MONITORING & CONTROLLING PROCESSES	• Monitor and Control Project Work Monitoring Report Template • Integrate Change Control • Verify Scope • Control Scope • Control Schedule • Control Cost • Perform Quality Control • Manage Project Team • Report Performance • Manage Stakeholders • Monitor and Control Risks and Report to Identified Stakeholder • Administer Contract (If	• Monitor and Control Project Work • Integrate Change Control • Verify Scope • Control Scope • Control Schedule • Control Cost • Perform Quality Control • Manage Project Team • Monitor and Control Risks • Administer Contract (If Applicable) • Gain Review Gate Approval Review Gate Approval Template	• Monitor Scope • Monitor Cost • Perform Quality Control • Manage Project Team • Monitor and Control Risks

	Applicable) • Gain Review Gate Approval Review Gate Approval Template		
CLOSE (Final review gate for measurement and evaluation of all project outcomes.)	• Close Project • Close Contract (If Applicable) • Perform Post Implementation Review (Include Impact/Risk Avoidance Report) Post Implementation Review Template • Gain Review Gate Approval Review Gate Approval Template	• Close Project • Close Contract (If Applicable) • Perform Post Implementation Review • Gain Review Gate Approval Review Gate Approval Template	• Close Project

Step 4. Document Management

Project documentation must be maintained throughout the life of an active project and for a certain amount of time after project closure, as determined by the IT Division and the University Archivist. Records flagged as having historical value should be transferred to the University Archives, as cited by section 441.186 of the State Records Management Laws. At the time of closure of an IT project, project documents must be consolidated into a single repository for record-keeping purposes. Digital project repositories must receive regular backups to ensure recoverable copies are available. Prior to the destruction of project documents, review by IT Division and University Archivist must occur to ensure records of technical relevance and/or archival value are not destroyed.

Guidelines to Records Retention

The retention time applies to the master [original] copy of a document. Each document has only one official master copy. Duplicate copies of a document are disposable at the discretion of the project manager, project team, and project team members. However, the IT project manager is responsible for complying with the following records retention schedule:

PM Level	**Record Type**	**Retention Period**	**Archival Value**
Level One	Initiation documents and correspondences	Permanent	Yes
	Planning documents and correspondences	Permanent	Yes
	Implementation documents and correspondences	Permanent	Yes
	Process correspondence	3 Years	No
	Closure documents and correspondences	Permanent	Yes
Level Two	Initiation documents and correspondences	3 Years	Yes
	Planning documents and correspondences	1 Year	No
	Implementation documents and correspondences	1 Year	No
	Process correspondence	1 Year	No
	Closure documents and correspondences	3 Years	Yes
Level Three	Initiation documents and correspondences	1 Year	Yes
	Planning documents and correspondences	Duration of project	No
	Implementation documents and correspondences	Duration of project	No
	Process correspondence	Duration of project	No
	Planning documents and correspondences	1 Year	Yes
All	Transitory Information	Duration of	No

Levels	(Internal meeting notes, design sketches and preliminary diagrams, Internal correspondences)	project	

Document rention requirements will be disseminated to all project participants at project inception during the intiation phase. Note that documents containing confidential or sensitive data must be stored on an institutional server and carefully managed.

According to Texas Administrative Code 202, information and data shall be classified by its level of access control as one of the following:

> ***Confidential*** - Confidential Information as defined by the Texas Administrative Code Information Security Standards, which is information that is exempt from disclosure requirements under the provisions of applicable state or federal law.
>
> ***Sensitive*** - Information pertaining to Access Control data, Account Management Data, procedures, security documentation of Information Resources, or any other information the institution so designates.
>
> ***Public*** - Information specifically designated by state or federal law as Public and/or in accordance with the Texas Public Information Act.

Information and data shall be classified by its level of criticality as one of the following:

> ***Mission Critical*** - Information considered essential to the function(s) of an institution, a business unit within an institution, or a higher education research project.
>
> ***Non-Mission Critical*** - Information considered nonessential to the function(s) of an institution, a business unit within an institution, or a higher education research project.

Appendix A: Project Management Document Templates

Customized from DIR, State of Texas

TEXAS PROJECT DELIVERY FRAMEWORK

PROJECT CHARTER

Angelo State University

Texas Tech University

Texas Tech University Health Sciences Center

Texas Tech University System

[PROJECT NAME]

VERSION: [VERSION NUMBER] REVISION DATE: [DATE]

Approval of the Project Charter indicates an understanding of the purpose and content described in this document. By signing this document, each individual agrees work should be initiated on this project and necessary resources should be committed as described herein.

Approver Name	Title	Signature	Date

Contents

Section 1. Project Overview

1.1 Problem Statement

Describe the business reason(s) for initiating the project, specifically stating the business problem.

⇒

1.2 Project Description

Describe the approach the project will use to address the business problem.

⇒

1.3 Project Goals and Objectives

Describe the business goals and objectives of the project. Refine the goals and objectives stated in the Business Case.

⇒

1.4 Project Scope

Describe the project scope. The scope defines project limits and identifies the products and/or services delivered by the project. The scope establishes the boundaries of the project and should describe products and/or services that are outside of the project scope.

Project Includes

Project Excludes

1.5 Critical Success Factors

Describe the factors or characteristics that are deemed critical to the success of a project, such that, in their absence the project will fail.

⇒

1.6 Assumptions

Describe any project assumptions related to business, technology, resources, scope, expectations, or schedules.

⇒

1.7 Constraints

Describe any project constraints being imposed in areas such as schedule, budget, resources, products to be reused, technology to be employed, products to be acquired, and interfaces to other products. List the project constraints based on the current knowledge today.

⇒

Section 2. Project Authority and Milestones

2.1 Funding Authority

Identify the funding amount and source of authorization and method of finance (i.e., capital budget, rider authority, appropriated receipts) approved for the project.

⇒

2.2 Project Oversight Authority

Describe management control over the project. Describe external oversight bodies and relevant policies that affect the agency governance structure, project management office, and/or vendor management office.

⇒

2.3 Major Project Milestones

List the project's major milestones and deliverables and the target dates for delivery. This list should reflect products and/or services delivered to the end user as well as the delivery of key project management or other project-related work products.

Milestone/Deliverable	Target Date

Section 3. Project Organization

3.1 Project Structure

Describe the organizational structure of the project team and stakeholders, preferably providing a graphical depiction as shown by the sample project organization chart in the instructions.
⇒

3.2 Roles and Responsibilities

Summarize roles and responsibilities for the project team and stakeholders identified in the project structure above.

Role	Responsibility

3.3 Responsibility Matrix

Complete the responsibility matrix for each of the project roles. As a graphical depiction of a more detailed perspective of responsibilities, the matrix should reflect by functional role the assigned responsibility for key milestones and activities.

Major Milestone	Role 1	Role 2							Role N

Legend
E = responsible for execution (may be shared)
A = final approval for authority
C = must be consulted
I = must be informed

3.4 Project Facilities and Resources

Describe the project's requirements for facilities and resources, such as office space, special facilities, computer equipment, office equipment, and support tools. Identify responsibilities for provisioning the specific items needed to support the project development environment.

Resource Requirement	Responsibility

Section 4. Points of Contact

Identify and provide contact information for the primary and secondary contacts for the project.

Role	Name/Title/Organization	Phone	Email

Section 5. Glossary

Define all terms and acronyms required to interpret the Project Charter properly.
⇒

Section 6. Revision History

Identify document changes.

Version	Date	Name	Description

Section 7. Appendices

Include any relevant appendices.
⇒

TEXAS PROJECT DELIVERY FRAMEWORK

BUSINESS JUSTIFICATION REVIEW GATE APPROVAL

Angelo State University

Texas Tech University

Texas Tech University Health Sciences Center

Texas Tech University System

[PROJECT NAME]

VERSION: [VERSION NUMBER] REVISION DATE: [DATE]

Approval of the Business Justification Review Gate indicates an understanding and formal agreement that the project is ready to proceed to the next project delivery stage. By signing this document, the agency head agrees that the state should further invest in delivery of the project.

Approver Name	Title	Signature	Date
	Agency Head		

Section 1. General Information

Project Name			
Agency			
Contact	**Phone**	**Email**	**Fax**
Project Manager	**Phone**	**Email**	**Fax**

Section 2. Review Gate Deliverables

Deliverable	Version	Agency Head Approval Date
Business Case		
Statewide Impact Analysis		
Project Charter		

Section 3. Review Gate Checklist

Item	Question	Response
1	Does the project demonstrate that it solves the business problem?	**Yes** ☐ **No** ☐
2	Have other alternatives been considered?	**Yes** ☐ **No** ☐
3	Has the impact of not doing the project been determined?	**Yes** ☐ **No** ☐
4	Is the project justified by the expected benefits?	**Yes** ☐ **No** ☐
5	Is there a projection of when the project will deliver expected benefits and business outcomes?	Yes ☐ No ☐
6	Were opportunities for reuse of business processes and technical components maximized?	Yes ☐ No ☐

Section 4. Open Issues

Describe any open issues and plans for resolution within the context of formally approving the Business Justification Review Gate.

Issue	Planned Resolution

TEXAS PROJECT DELIVERY FRAMEWORK

PROJECT PLAN

Angelo State University

Texas Tech University

Texas Tech University Health Sciences Center

Texas Tech University System

[PROJECT NAME]

VERSION: [VERSION NUMBER] REVISION DATE: [DATE]

*Approval of the Project Plan indicates an understanding of the purpose and content described in this document and the related, **attached** plans for communication, configuration, performance, and risk management. Approval of the Project Plan constitutes approval of the Project Plan and the related plans. By signing this document, each individual agrees the project has been planned effectively as described herein.*

Agency Head		
[Name]	[Email]	[Telephone]
Signature		Date

Executive Sponsor		
[Name]	[Email]	[Telephone]
Signature		Date

Technology Sponsor		
[Name]	[Email]	[Telephone]
Signature		Date

Project Manager		
[Name]	[Email]	[Telephone]
Signature		Date

Information Security Officer		
[Name]	[Email]	[Telephone]
Signature		Date

Contents

Section 1. Project Overview

1.1 Project Description

Describe the approach the project will use to address the business problem, including summarizing how the project will deliver the expected business outcomes and performance objectives.

⇒

1.2 Project Scope

Describe the project scope. The scope defines project limits and identifies the products and/or services delivered by the project. The scope establishes the boundaries of the project and should describe products and/or services that are outside of the project scope.

Project Includes

Project Excludes

1.3 Assumptions

Describe any project assumptions related to business, technology, resources, scope, expectations, or schedules.

Assumptions

1.4 Constraints

Describe the limiting factors, or constraints, that restrict the project team's options regarding scope, staffing, scheduling, and management of the project.

Constraints

Constraints

Section 2. Project Organization

2.1 Internal Structure

Describe the organizational structure of the project team, preferably providing a graphical depiction as shown by the example project organization chart in the instructions.
⇒

2.2 External Stakeholders

Specify and describe the administrative and managerial liaisons between the project and the primary entities with which it interacts.

Stakeholder Organization	Organization Description/Nature of Relationship	Stakeholder Name

2.3 Roles and Responsibilities

Describe roles and responsibilities for the project management organization and external stakeholders identified in the project structure above.

Role	Responsibility

Section 3. Project Start-Up

3.1 Project Life Cycle

Describe the project's product or service delivery life cycle. Identify the development method(s), standards, policies, procedures, programming language(s), and other tools, techniques, and methods to be used to develop the work products or services for the project.

⇒

3.2 Methods, Tools, and Techniques

Identify the method(s), standards, policies, procedures, programming language(s), reusable code repositories, and other notations, tools, and techniques that may be used to develop and/or deploy the products and/or services for the project.

⇒

3.3 Estimation Methods

Describe the methods used to estimate the project level of effort, schedule, and budget. Describe tools and techniques used to obtain the estimates.
Provide estimates for the project dimensions listed and identify the source or basis of the estimates and the level of uncertainty and risk associated with the estimates.

Estimation Methods/Tools/Techniques	
Description	
Effort in person-months or person-hours	
Schedule in calendar months	
Budget in dollars	
Source/Basis of Estimate	
Level of Uncertainty	

3.4 Work Activities

Provide a reference to the location of the work breakdown structure (WBS) and work packages within the WBS or provide the actual WBS and work packages within the WBS that will be maintained through the life of the project.

Identifier	**Work Package Description**	**Definition/Objective**	**Milestone/Deliverable**

3.5 Schedule Allocation

From the work packages or WBS work activities and other inputs, develop the project schedule. For each activity or task, identify the resource(s) assigned and whether the activity is designated as a milestone, the duration of the work, estimated start and finish dates and task dependencies. The schedule should accurately reflect the work plan and project life cycle methodology used for the project. If the project schedule is maintained separately from the Project Plan, and to avoid redundancy, identify the name and location of the project schedule instead of including the following table.

Identifier	Task/Activity Name	Resource Name	Milestone (Y/N)	Effort/ Duration	Start	Finish	Dependent Task

3.6 Resource Plan

3.6.1 Resource Profiles

Generally describe primary resources that will be needed for the project including personnel (FTE and contract), equipment, facilities, hardware, software, materials, supplies, and training.

⇒

3.6.2 Resource Detail

For each of the resources described under Resource Profiles, provide information on the cost estimate, number of hours required, availability of each resource and skill set requirements. For non-personnel resources, such as facilities or hardware, indicate "not applicable" under skill set.

Resource	Cost Estimate	Estimated Hours	Availability	Skill Set	Work Product/Deliverable

3.6.3 Resource Staffing

For all staffing (FTE and contract) required on the project, develop a staffing plan that shows the number of personnel, by type, that will be required on a monthly basis.

Personnel Category	Month	Month	Month	Month	Month	Month	Month

3.7 Budget Allocation

Identify by work package or budget category the amount allocated to each major WBS work activity. Alternatively, provide the project budget by standard cost categories such as personnel, travel, equipment, and administrative support. If the budget is maintained separately from the Project Plan, and to avoid redundancy, identify the name and location of the budget instead of including the following table.

Identifier	Work Package or Budget Category	Cost

Section 4. Monitoring and Control

4.1 Change Control

4.1.1 Change Request Tracking

Describe the tracking process for all proposed changes, including how change requests are initiated, logged and tracked, and assigned for analysis and recommendation.

⇒

4.1.2 Change Request Review

Describe the review process, including a description of the roles involved in determining specific resolution actions such as approval, rejection, or delay of a change request.

⇒

4.1.3 Additional Project Control

Describe any additional processes that may exist to further control changes to certain aspects of the project. Include a description of these processes, if different than the change request process, for changes such as project scope, schedule, and budget.

⇒

4.2 Issue Management

Describe the resources, methods, and tools to be used to report, analyze, prioritize, and handle project issues. Describe how the issues will be tracked and managed to closure.

⇒

4.3 Status Reporting

Describe how project status reporting information will be used to monitor and control the project, including escalation procedures and thresholds that may be used in response to corrective actions identified as part of the reporting process. If a consistent process has been established at the organization or agency level for how project status reporting information will be used to monitor and control the project, refer to the process.

⇒

Section 5. Quality Management

5.1 Quality Objectives

Describe of the overall quality objectives established for the project. These quality objectives will be used to identify the quality standards by stating the desired end result. If quality objectives have been established at the organization or agency level for all projects, refer to the agency and/or organizational quality objectives. Include project specific quality objectives as needed.

⇒

5.2 Quality Standards

Identify the agency, industry, or regulatory project quality standards that will be followed and assessed by the project. Include standards that are related to the project and not the product and/or service that will be delivered by the project. If quality standards have been established at the organization or agency level for all projects, refer to the agency and/or organizational quality standards. Include project-specific quality standards as needed.

No.	Quality Standard	Tracking Tools or Measures
1		
2		
3		
4		
5		
6		
7		
8		

5.3 Project Reviews and Assessments

Describe the types of project reviews that are directly related to the project and not to the product and/or service. Describe the tools used, reviewer(s), and the report that will be generated as a result of the review.

Review Type	Quality Standard	Tools	Reviewer	Reports

Describe how the results of project reviews will be monitored, evaluated, and how variance to acceptable criteria will be reported and resolved.

⇒

5.4 Deliverables Acceptance

For each project deliverable, describe the final approval process for product acceptance from an overall quality perspective and include the objective criteria to be used for customer acceptance.

Deliverable	Final Approval Process	Customer Acceptance Criteria

5.5 Process Improvement Activities

Describe the activities that will be performed periodically to assess the project's processes, identify areas for improvement, and implement improvement plans.

⇒

Section 6. Project Transition

6.1 Closeout Plan

Describe the plan for closing the project from an administrative, financial, and logistical perspective.

⇒

6.2 Phase Closeout

Describe phase closeout if applicable.

⇒

Section 7. References

Provide a list of all documents and other sources of information referenced in the Plan and utilized in the project. Include for each the document number, title, date, and author.

Document No.	Document Title	Date	Author

Section 8. Glossary

Define all terms and acronyms required to interpret the Project Plan properly.
⇒

Section 9. Revision History

Identify changes to the Project Plan.

Version	Date	Name	Description

Section 10. Appendices

Include any relevant appendices.
⇒

TEXAS PROJECT DELIVERY FRAMEWORK

RISK MANAGEMENT PLAN

Angelo State University

Texas Tech University

Texas Tech University Health Sciences Center

Texas Tech University System

[PROJECT NAME]

VERSION: [VERSION NUMBER] REVISION DATE: [DATE]

Approval of the Project Plan indicates an understanding of the purpose and content described in this document and the related plans for communication, configuration, and performance management. Approval of the Project Plan constitutes approval of the Project Plan and the related plans which are attached to the Project Plan.

Contents

Section 1. Risk Management Approach

1.1 Overall Strategy

Describe the overall, high-level approach to risk management for the project. Summarize how the following risk management activities outlined in this Risk Management Plan will be accomplished collectively: risk identification, analysis, prioritization, response, monitoring, and control.

⇒

1.2 Roles Definition

Complete the risk management activity matrix for each of the project roles and/or functional areas. When complete, the matrix should reflect by functional role the assigned responsibility for key risk management activities.

Risk Management Activity	Role 1	Role 2						Role N

Legend
J = joint/shared responsibility
P = primary/lead responsibility
S = support/participatory responsibility

Section 2. Risk Assessment

2.1 Risk Identification

Describe how risks are identified and organized in preparation for performing risk analysis, such as use of methods and techniques like brainstorming, interviews, and risk factor tables.

⇒

2.2 Risk Analysis

Describe how risks will be analyzed to establish the project exposure for each risk and to determine which risks are the most important ones to address. Describe scales for rating risks and risk threshold values.

Risk Analysis Description	
Scales Description	
Risk Threshold Values Description	

2.3 Risk Response Strategies

Describe how risk response strategies are assigned for each risk.

⇒

Section 3. Risk Monitoring and Control

3.1 Risk Tracking

Describe how risks will be continually tracked to ensure that effective risk management is performed throughout the life of the project, such as use of methods and techniques like risk checklists and watch lists.

⇒

3.2 Risk Reporting

Describe methods and techniques to review and present the status of project risks, such as use of reports for examination of risk response strategies in a summarized (collection or risk items) or detailed (single risk item) manner.

⇒

Section 4. Glossary

Define all terms and acronyms required to interpret the Risk Management Plan properly.
⇒

Section 5. Revision History

Identify changes to the Risk Management Plan.

Version	Date	Name	Description

Section 6. Appendices

Include any relevant appendices.
⇒

TEXAS PROJECT DELIVERY FRAMEWORK

PROJECT PLANNING REVIEW GATE APPROVAL

Angelo State University

Texas Tech University

Texas Tech University Health Sciences Center

Texas Tech University System

[PROJECT NAME]

VERSION: [VERSION NUMBER] REVISION DATE: [DATE]

Approval of the Project Planning Review Gate indicates an understanding and formal agreement that the project is ready to proceed to the next project delivery stage. By signing this document, the agency head agrees that the state should further invest in delivery of the project.

Approver Name	Title	Signature	Date
	Agency Head		

Section 1. General Information

Project Name			
Agency			
Contact	**Phone**	**Email**	**Fax**
Project Manager	**Phone**	**Email**	**Fax**

Section 2. Review Gate Deliverables

Deliverable	Version	Agency Head Approval Date
Project Plan		
Communication Management Plan		
Configuration Management Plan		
Performance Management Plan		
Risk Management Plan		
Monitoring Report		

Section 3. Review Gate Checklist

Item	Question	Response
1	Have the business needs used to justify the project remained consistent?	**Yes** ☐ **No** ☐
2	Are both project management and technology-related activities planned?	**Yes** ☐ **No** ☐
3	Are quantifiable outcomes measuring success defined?	**Yes** ☐ **No** ☐
4	Is the defined scope achievable?	**Yes** ☐ **No** ☐
5	Are the cost, schedule, and performance baselines complete and thorough?	Yes ☐ No ☐

Item	Question	Response
6	Have the projects risks been identified and ranked?	Yes ☐ No ☐

Section 4. Open Issues

Describe any open issues and plans for resolution within the context of formally approving the Project Planning Review Gate.

Issue	Planned Resolution

TEXAS PROJECT DELIVERY FRAMEWORK

MONITORING REPORT

Angelo State University

Texas Tech University

Texas Tech University Health Sciences Center

Texas Tech University System

[PROJECT NAME]

REPORTING PERIOD: [STARTDATE] TO [ENDDATE]

VERSION: [VERSION NUMBER] REVISION DATE: [DATE]

Approval of the Monitoring Report indicates an understanding and acceptance of the project information included within this report. By signing this document, each individual agrees the project information is accurate, complete, and ready to be forwarded to the Quality Assurance Team (QAT).

Approver Name	Title	Signature	Date

Section 1. General Information

Project Name		Reporting Period	
		Start Date:	End Date:
Agency			
Contact	**Phone**	**Email**	**Fax**
Project Manager	**Phone**	**Email**	**Fax**

Section 2. Project Cost, Schedule, and Accomplishments

2.1 Cost

Project Item	Report to Date
Initial Estimated Project Cost	
Last Reported Estimated Project Cost	
Current Estimated Project Cost	
Explanation of Variance between Last Reported and Current Project Cost	
Cost Expenditures to Date (Fiscal) Cost Expenditures to Date (Total)	
Description of Cost Tracking Mechanism	

2.2 Project Schedule

Project Item	Report to Date	
Initial Planned Project Start and Finish Dates		Baseline Date:
Last Reported Project Start and Finish Dates		Baseline Date:
Current Estimated Project Start and Finish Dates		Baseline Date:
Explanation of Variance between Last Reported and Current Start and Finish Dates		
Estimated Percentage of Project Complete		
Description of Method Used to Track Progress		
Description of Reporting Mechanism Used to Ensure that		

Project Item	Report to Date
Project Participants and Management are Aware of the Project's Progress	

2.3 Accomplishments

Project Item	Report to Date
Accomplishments Achieved During this Reporting Period	
Accomplishments Planned for Next Reporting Period	

Section 3. Milestones

Provide any background information that may be needed to clarify the milestone information provided in this section. List the project's major milestones, and the planned and actual start and finish dates. Specifically include deliverables in relation to the milestones as identified in the Project Plan. Identify the percent complete for each deliverable.

Milestones: Background Information

Project Milestones	Planned Start Date	Actual Start Date	Planned Finish Date	Actual Finish Date	Percentage Complete

Section 4. Risks

Provide any background information that may be needed to clarify the project risk information provided in this section. List the current highest risk factors for the project and any actions taken to mitigate the risk.

Risks: Background Information

Risk Factor	Mitigation

Risk Factor	Mitigation

Section 5. Project Changes

Provide any background information that may be needed to clarify the project change information provided in this section. Describe major project changes (e.g., scope, budget, system requirements, and technology) that occurred during this reporting period. Describe actions for managing the project changes.

Project Changes: Background Information

Change Description	Actions for Managing the Change

Section 6. Project Issues

Provide any background information that may be needed to clarify the project issues identified in this section. Identify major issues that are currently being addressed during this reporting period. Describe actions for managing each issue.

Project Issues: Background Information

Issue Description	Actions for Managing the Issue

TEXAS PROJECT DELIVERY FRAMEWORK

PROJECT IMPLEMENTATION REVIEW GATE APPROVAL

Angelo State University

Texas Tech University

Texas Tech University Health Sciences Center

Texas Tech University System

[PROJECT NAME]

VERSION: [VERSION NUMBER] REVISION DATE: [DATE]

Approval of the Solicitation and Contracting Review Gate indicates an understanding and formal agreement that the project is ready to proceed to the next project delivery stage. By signing this document, the agency head agrees that the state should further invest in delivery of the project.

Approver Name	Title	Signature	Date
	Agency Head		

Section 1. General Information

Project Name			
Agency			
Contact	**Phone**	**Email**	**Fax**
Project Manager	**Phone**	**Email**	**Fax**

Section 2. Review Gate Deliverables

Deliverable	Version	Agency Head Approval Date
Acceptance to Deploy		
Project Closeout Report		

Section 3. Review Gate Checklist

Item	Question	Response
1	Have the business needs used to justify the project remained consistent?	**Yes** ☐ **No** ☐
2	Does the project demonstrate that it is aligned with business requirements?	**Yes** ☐ **No** ☐
3	Does the project demonstrate that it meets defined technical requirements?	**Yes** ☐ **No** ☐
4	Did the project meet planned milestones and deliverables?	**Yes** ☐ **No** ☐
5	Has the vendor met defined performance requirements?	Yes ☐ No ☐

Section 4. Open Issues

Describe any open issues and plans for resolution within the context of formally approving the Project Implementation Review Gate.

Issue	Planned Resolution

TEXAS PROJECT DELIVERY FRAMEWORK

POST-IMPLEMENTATION REVIEW OF BUSINESS OUTCOMES

Angelo State University

Texas Tech University

Texas Tech University Health Sciences Center

Texas Tech University System

[PROJECT NAME]

VERSION: [VERSION NUMBER] REVISION DATE: [DATE]

Approval of the Post-Implementation Review of Business Outcomes indicates an understanding and acceptance of the post-implementation results described in this document. By signing this document, each individual agrees the information accurately conveys project delivery results and is ready to be forwarded to the Quality Assurance Team.

Agency Head		
[Name]	[Email]	[Telephone]
Signature:		Date:

Executive Sponsor		
[Name]	[Email]	[Telephone]
Signature:		Date:

Technology Sponsor		
[Name]	[Email]	[Telephone]
Signature:		Date:

Project Manager		
[Name]	[Email]	[Telephone]

Signature:	Date:

Information Security Officer		
[Name]	[Email]	[Telephone]
Signature:		Date:

Contents

Section 1. Project Impact on Agency Objectives

1.1 Product and/or Service Performance

Business goals and objectives were described in the Business Case and refined in the Performance Management Plan by establishing performance objectives, standards, and measurements for the product and/or service. Describe the actual performance measurement results achieved for each performance objective.

Product and/or Service Performance Objective	Performance Standard	Actual Performance Measurement Results

1.2 Goals and Objectives

Based on actual performance measurement results, describe the project's impact on the agency's ability to meet the business goals and objectives described in the Business Case and refined in the Performance Management Plan. If the stated business goals and objectives were not met, describe factors that inhibited performance.

Business Goal/Objective	Product and/or Service Performance Objective	Project Impact to Business Outcome

Section 2. Quantitative and Qualitative Benefits

2.1 Statutory Fulfillment

For each of the factors identified and described in Section 5 of the Business Case, and shown below, describe the project's quantitative and/or qualitative results. If applicable, describe reasons that inhibited achieving the expected benefit.

#	Value Factor	Project Impact to Business Outcome
1	The project is implemented to satisfy a direct mandate or regulation (state, federal, national, international)	
2	The project is implemented to satisfy a derived mandate or regulation (state, federal, national, international)	

#	Value Factor	Project Impact to Business Outcome
3	Implementing the project improves the turnaround time for responses to mandates or regulatory requirements	
4	The project results in agency compliance to mandates or regulatory requirements	
5	The project results in agency avoidance of enforcement actions (e.g., penalties) based on mandates or regulatory requirements	
6	Implementing the project achieves the desired intent or expected outcomes of the mandates or regulatory requirements	
7	Implementing the project imposes stricter requirements, or different or additional requirements, than those required by the mandates or regulations	
8	Other	
9	Other	
10	Other	
11	Other	

2.2 Strategic Alignment

For each of the factors identified and described in Section 5 of the Business Case, and shown below, describe the project's quantitative and/or qualitative results. If applicable, describe reasons that inhibited achieving the expected benefit.

#	Value Factor	Project Impact to Business Outcome
1	The project is aligned with, and delivers business outcomes, that support agency and statewide goals	
2	The project satisfies a strategic agency or state mission critical need, regardless if required by a mandate or regulation	
3	The project results in the ability of the agency or state to better share resources with other agencies or states as part of a long-term strategic alignment effort	
4	The project is aligned with the overall mission of the agency and state	
5	The project strategically consolidates and streamlines business practices and administrative processes	
6	The project is aligned with the overall vision of the agency and state	
7	The project is aligned with the overall priorities of the agency and state	

#	Value Factor	Project Impact to Business Outcome
8	Other	
9	Other	
10	Other	
11	Other	

2.3 Agency Impact Analysis

For each of the factors identified and described in Section 5 of the Business Case, and shown below, describe the project's quantitative and/or qualitative results. If applicable, describe reasons that inhibited achieving the expected benefit.

#	Value Factor	Project Impact to Business Outcome
1	The project results in systems which support the defined architecture/standards for the agency and state	
2	The project results in systems which reduce or eliminate redundant systems	
3	The project results in systems which enable reuse of code/components available from other state or federal agencies	
4	The project results in systems which improve consistency between systems within the agency through standardization	
5	The project results in systems which leverage the technical capability of commercial-off-the-shelf (COTS) software packages	
6	The project results in systems which provide the ability to evolve as new technologies emerge	
7	Other	
8	Other	
9	Other	
10	Other	

2.4 Financial Analysis

For each of the factors that represent the project's quantitative benefits (Quantitative Benefit Analysis Worksheet, Financial Analysis Worksheet) identify and quantify the benefits realized to date. Provide a forecast of the benefits not yet realized and the specific time period encompassed by the forecast.

#	Value Factor	Realized	Forecast
Identify Cumulative Savings			
1	Reduced IT and non-IT FTE costs including fringe benefits		

#	Value Factor	Realized	Forecast
2	Reduced IT and non-IT contractors/consultants		
3	Reduced outsourced labor costs		
4	Improved workflow/business processes		
5	Reduced error rate		
6	Reduced hardware maintenance/upgrade expense		
7	Reduced software maintenance/upgrade expense		
8	Reduced facilities rental/maintenance expense		
9	Reduced equipment rental/supplies and materials expense		
10	Other		
Identify Cost Avoidance			
11	Avoid penalties		
12	Avoid loss of funding		
13	Improved enforcement actions		
14	Asset protection		
15	Other		
Identify Revenue Generation			
16	Additional revenue generated		
17	Increased interest earned		
18	Other		
Identify Constituent Project Benefits			
19	Reduced constituent transaction costs		
20	Reduced service delivery cycle time		
21	Increased service availability/accessibility		
22	Expansion of services		
23	Reduced (paper) reporting requirements		
24	Improved ability to locate regulatory requirements		
25	Improved accountability/compliance		
26	Greater consistency in constituent/state transactions		
27	Other		
General Questions Regarding Financial Forecast:			
28	Will the Net Present Value exceed 0? If so, by how much?		
29	When is the expected Project Breakeven Point?		
30	What is the project's expected Return on Investment?		

Section 3. Project Outcomes

3.1 Project Quality

3.1.1 Quality Standards

Summarize the overall project quality, including the impact on business outcomes, based on an assessment of whether the project satisfied the quality standards defined for the project.
=>

3.1.2 Methodologies

Summarize the impact of using the defined project life cycle methodology, project management methodology, systems development methodology, or other methodologies on project outcomes. Describe which aspects of the planned methods were used and explain the impact of using or not using each method on project outcomes.
=>

3.2 Scope

Summarize the impact of any changes to the initial project scope on business outcomes, including approved and non-approved changes.
=>

3.3 Cost (Budget)

Summarize the impact of any changes to the initial cost baseline on business outcomes, including approved and non-approved changes.
=>

3.4 Schedule

Summarize the impact of any changes to the initial schedule baseline on business outcomes, including approved and non-approved changes.
=>

Section 4. Agency and State Lessons Learned

Identify lessons learned that should be elevated as process improvement recommendations within the agency or state. Identify the lessons learned in terms of a problem (issue). Describe the problem and include any agency/state-level documentation references (e.g., Governance Handbook, Business Continuity Plan, Texas Project Delivery Framework tool) that provide additional details. Identify recommended improvements to correct a similar problem in the future, including elevation plans for communication and follow-up about the improvement.

Problem Statement	Problem Description	References	Recommended Change	Elevated To

Problem Statement	Problem Description	References	Recommended Change	Elevated To

Section 5. Future Review Plans

Identify plans for performing future review(s) of business outcomes following project closeout if necessary. Describe the review, including planned execution and approval dates.

Review Description	Planned Date	Planned Approval Date	Assigned To	Frequency

Section 6. Glossary

Define all terms and acronyms required to interpret the Post-Implementation Review of Business Outcomes properly.

=>

Section 7. Revision History

Identify changes to the Post-Implementation Review of Business Outcomes.

Version	Date	Name	Description

Section 8. Appendices

Include any relevant appendices.

=>

TEXAS PROJECT DELIVERY FRAMEWORK

BENEFITS REALIZATION REVIEW GATE APPROVAL

Angelo State University

Texas Tech University

Texas Tech University Health Sciences Center

Texas Tech University System

[PROJECT NAME]

VERSION: [VERSION NUMBER] REVISION DATE: [DATE]

Approval of the Benefits Realization Review Gate indicates an understanding and formal agreement that the project is ready to proceed to the next project delivery stage. By signing this document, the agency head agrees that the state should further invest in delivery of the project.

Approver Name	Title	Signature	Date
	Agency Head		

Section 1. General Information

Project Name			
Agency			
Contact	**Phone**	**Email**	**Fax**
Project Manager	**Phone**	**Email**	**Fax**

Section 2. Review Gate Deliverables

Deliverable	Version	Agency Head Approval Date
Post-Implementation Review of Business Outcomes		

Section 3. Review Gate Checklist

Item	Question	Response
1	Were all expected benefits and business outcomes realized?	**Yes** ☐ **No** ☐
2	Were all expected performance standards satisfied?	**Yes** ☐ **No** ☐
3	Have lessons learned and process improvement recommendations been identified?	**Yes** ☐ **No** ☐

Section 4. Open Issues

Describe any open issues and plans for resolution within the context of formally approving the Benefits Realization Review Gate.

Issue	Planned Resolution

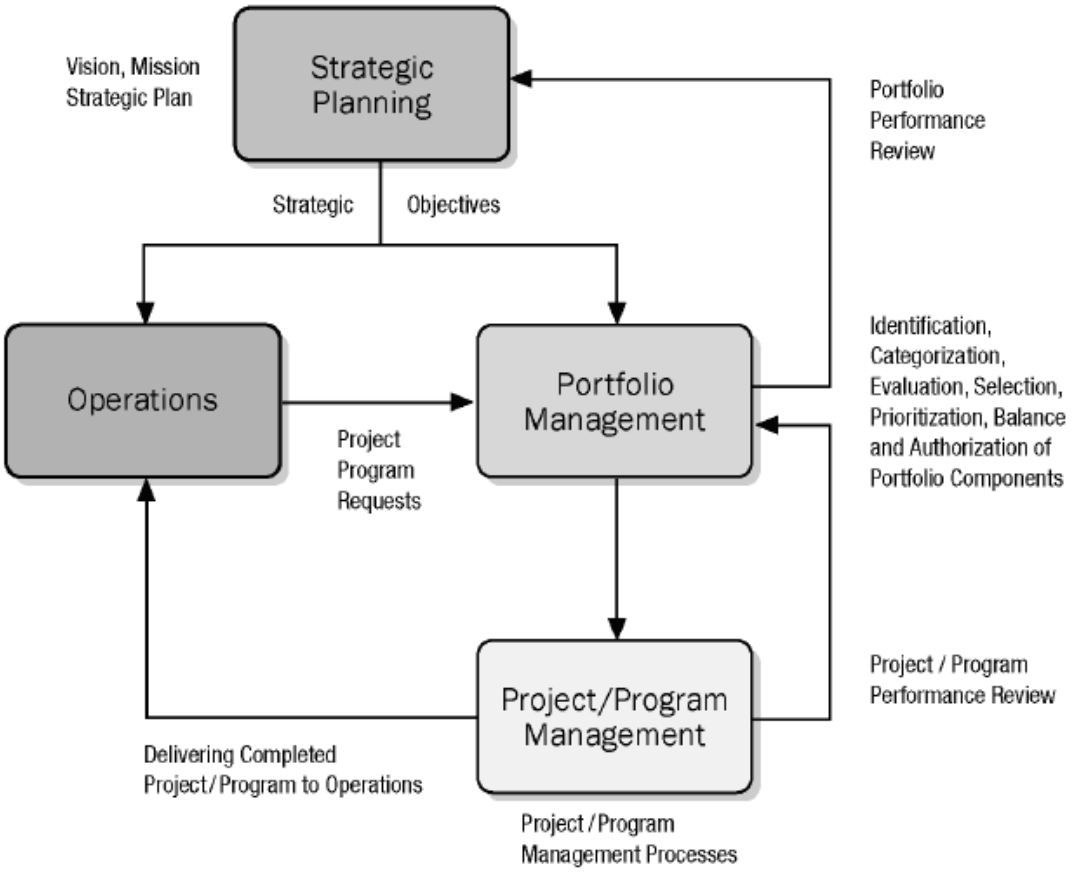
Issue	Planned Resolution

Appendix B: Portfolio Management

General Portfolio Management

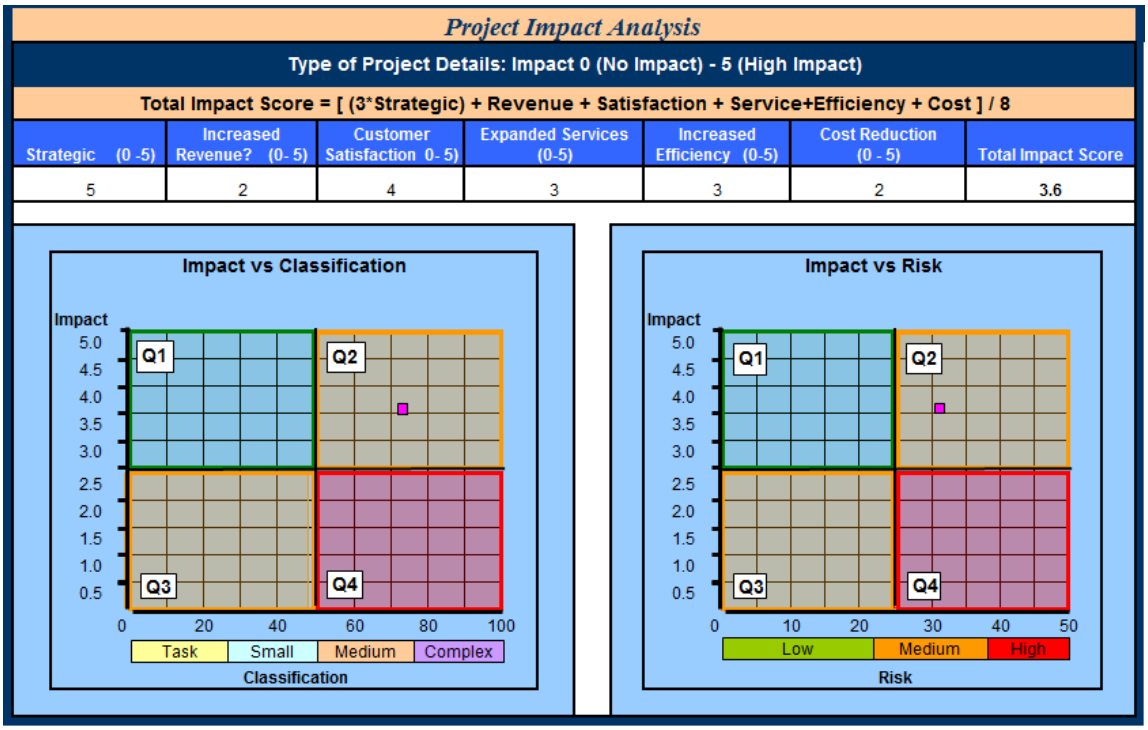
Portfolio management is a continuous business process. Selection and authorization of projects to keep the portfolio balanced should be performed at least yearly as a part of annual strategic planning. Performance monitoring of the portfolio should be a continuous process, as revision of the portfolio mix may be required as strategic goals are changed due to the evolving mission of information technology in support of the mission of the University.

PMI Portfolio Standard (PMI, 2006, pp. 16)



To ensure that the Portfolio(s) of Projects support the strategic goals of the University, proper Portfolio Management practices must be followed. By scoring the expected impact of individual projects, new projects can be compared against each other and against projects in the current Project Portfolio (those approved to be implemented and those in the process of being implemented) to determine which combination of projects would best balance the portfolio. This analysis yields the necessary information to determine which projects to halt, which to continue implementing, and which to put in the queue to be implemented.

The criterion used for obtaining the Project Impact Score should follow a repeatable method for assessing project impact, calculated based on the weighted average of several factors including, but not limited to, strategic value, increased revenue, customer satisfaction, expanded services, operational efficiency, and cost reduction.



Projects falling in quadrant 1, 2, and 3 are considered the most attractive for consideration, whereas those falling in quadrant 4 have a higher level of difficulty and risk with a lower institutional value and bring into question the strategic value of project adoption.

Once it has been determined that a project is worthy of being implemented, the project must be compared to projects currently in the portfolio and others waiting to be added to the portfolio. The comparison is accomplished by assessing the level of risk, complexity, and impact associated with each of these projects and the associated implications of adding new projects to the portfolio. A predetermined "Portfolio Balance" should be used as a criterion for project acceptance and implementation priority within the portfolio.

Portfolio Management in the Information Technology Project Office at Angelo State University

The portfolio management process for the Information Technology Project Office engages members of the ASU Steering Committee which meet quarterly. The Steering Committee members consist of the Vice Presidents and Chief Information Officer at ASU, all of which are well positioned to understand both the strategic and tactical impacts of projects considered for the Information Technology project portfolio.

Project ideas, in the form of project requests, may be submitted by anyone at Angelo State University via the Project Office website. Those who submit project ideas provide information regarding the project including a detailed description on the project, value to the institution, quantifiable savings, alignment with strategic objectives of the university, and groups impacted (student, staff, faculty, departments, community, etc.). Additionally, resource estimates from IT staff for completing the submitted projects, an analysis of the resources commitments for the work period, and estimates of resources available are provided to Steering Committee members for their review. IT staff also provide their recommendations regarding the impact projects will have on the balance of projects in the portfolio.

Portfolio Management in TTUHSC Information Technology

Through a collaborative process that involves the Deans and Vice Presidents as the IT Board of Directors of the institution, Information Technology needs are considered and prioritized so that they align with the mission and strategic goals of the institution. Projects at TTUHSC are prioritized and scheduled through the Office of the CIO under the direction of the IT Board of Directors.

Portfolio Management in TTU IT Division

Successful selection and management of projects is a key element in aligning information technology with the mission of the University. Projects are prioritized and scheduled out of the TTU Office of the CIO.

In general, the impact of projects on the mission of the University is measured through the Strategic Planning and Assessment process. This formalized process aligns area and unit goals with University goals and mission and performs an annual review of accomplishments, qualitative data, quantitative data, and strategic planning improvement suggestions at all levels of the organization. Each department is engaged in the strategic planning process and contributes to the improvement and modification of the mission, vision, strategic plan, and assessment plan.

Portfolio Management in Information Systems at TTU System

The portfolio management process for Information Systems engages members of two Projects and Resources for Information Systems Management (PRISM) Advisory Committees that meet three times each year. The Committee members were carefully chosen to fully represent Texas Tech University Health Sciences Center, Texas Tech University, and Texas Tech University System. Committee members are generally Assistant or Associate Vice Presidents, because this level is well positioned to understand both the strategic and tactical impacts of projects considered for the Information Systems project portfolio.

Project ideas, in the form of project requests, may be submitted by anyone at Texas Tech via the PRISM website. Those who submit project ideas provide information regarding the project including a detailed description on the project, value to the institution, quantifiable savings, and groups impacted (student, staff, faculty, departments, community, etc.). This information, resource estimates by the Information Systems staff for completing the submitted projects, an analysis of the resources commitments for the work period, and estimates of resources available are provided to PRISM Committee members for their review in advance of their meetings. Information Systems staff also provide their recommendations regarding impacts projects will have on the balance of projects in the portfolio.

In their meetings the PRISM Committee members share their assessments of the value of project requests submitted for the upcoming work period and allocate available resources to the projects determined to be of greatest value to the institutions. In the addition to evaluating and allocating resources for the upcoming work period, the committee reviews project status and mid-course corrections for the current work period. They also assesses the effectiveness of Information Systems' project management practices by reviewing statistics from the last completed work period. These statistics include planned resource usage compared to actual resource usage for each project and the breakdown of resources consumed by each team for each of the major categories: required support and maintenance; mandates; committed maintenance, enhancements, and development; staff development; and overhead.

Appendix C. Definitions

- Portfolio – a collection of projects or programs and other work that are grouped together to facilitate effective management of that work to meet strategic business objectives. The projects or programs of the portfolio may not necessarily be interdependent or directly related. (PMI, 2004, pp. 367)
- Portfolio Management – the centralized management of one or more portfolios which includes identifying, prioritizing, authorizing, managing, and controlling projects, programs, and other related work, to achieve specific strategic business objectives. (PMI, 2004, pp. 367)
- Process Group – a logical grouping of project management processes. Include initiating processes, planning processes, executing processes, monitoring and controlling processes, and closing processes. Collectively, the five process groups (according to the appropriate project level defined under Project Classification) are required for any project, have clear internal dependencies, and must be performed in the same sequence on each project. Process groups are not project phases or subprojects. (PMI, 2004, pp. 369)
    - Initiating Processes – define and authorize the project or a project phase
    - Planning Processes – defines and refine objectives, and plan the course of action required to attain the objectives and scope that the project was undertaken to address
    - Executing Processes – integrate people and other resources to carry out the project management plan for the project
    - Monitoring & Controlling Processes – regularly measure and monitor progress to identify variances from the project management plan so that corrective action can be taken, when necessary, to meet project objectives
    - Closing Processes – formalize acceptance of the product, service, or result and bring the project or a project phase to an orderly end
- Product – an artifact that is produced, is quantifiable, and can be either an end item in itself or a component item. (PMI, 2004, pp. 367) Could be a physical product, conceptual idea, or information system, for example.
- Product Life Cycle – a collection of generally sequential, non-overlapping product phases. The last product life cycle phase for a product is generally the product's deterioration and death. Generally, product life cycles contain one or more project life cycles. (PMI, 2004, pp. 367)
- Program – a group of related projects managed in a coordinated way to obtain benefits and control not available from managing them individually. Programs my include elements of related work outside of the scope of the discrete projects in the program. (PMI, 2004, pp. 368)
- Program Management – the centralized coordinated management of a program to achieve the program's strategic objectives and benefits. (PMI, 2004, pp. 368)
- Project – a temporary endeavor undertaken to create a unique product, service, or result. (PMI, 2004, pp. 368)
- Project Classification – the processing of assigning a project level for the purpose of applying the required processes for management.

- Project Classification Model –framework for classifying projects into different levels based on a combination of complexity and risk
- Project Delivery Framework (DIR, 2007):
    - DIR Project Delivery Framework Business Justification Review Gate – initial review gate for selection and approval of the project
    - DIR Project Delivery Framework Planning Review Gate – planning for both project management and technology-related activities and deliverables
    - DIR Project Delivery Framework Solicitation & Contracting Review Gate – development and management of technology solicitations and contracts
    - DIR Project Delivery Framework Project Implementation Review Gate – development, testing, and deployment based on project planning deliverables
    - DIR Project Delivery Framework Benefits Realization Review Gate – final review gate for measurement and evaluation of all project outcomes
- Project Impact – the breadth and depth of benefit received from the successful completion of a project
- Project Impact Score – repeatable method for assessing project impact, calculated based on the weighted average of several factors including strategic value, increased revenue, customer satisfaction, expanded services, operational efficiency, and cost reduction
- Project Life Cycle – a collection of generally sequential project phases whose name and number are determined by the control needs of the organization or organizations involved in the project; generally define what technical work to do in each phase, when the deliverables are to be generated in each phase and how each deliverable is reviewed, verified, and validated, who is involved in each phase, and how to control and approve each phase. (PMI, 2004, pp. 368)
- Project Management – is the application of knowledge, skills, tools, and techniques to project activities to met project requirements. (PMI, 2004, pp. 368) It is accomplished through the application and integration of the project management processes of initiating, planning, executing, monitoring/controlling and closing and through use of project management knowledge, skills, tools and techniques that receive input and generate outputs.
- Project Risk – an uncertain event or condition that, if it occurs, has a positive or negative effective on a project's objectives. (PMI, 2004, pp. 373)
- System Development Life Cycle – the structured development of an information system, utilizing one or more models designed to ensure a high quality system that meets or exceeds customer and business expectations within time and cost estimates, works effectively and efficiently in the current and planned information technology infrastructure, and is cost effective to maintain and enhance. (Wikipedia 2007)

Appendix D. References

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