## Contents

### Overview

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Overview of the CA-BPR</td>
</tr>
<tr>
<td>7</td>
<td>Framework Conventions and Structure</td>
</tr>
<tr>
<td>12</td>
<td>Alignment to Other Frameworks</td>
</tr>
<tr>
<td>14</td>
<td>BPR Knowledge Areas</td>
</tr>
</tbody>
</table>

### Templates

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Approach</td>
</tr>
<tr>
<td>7</td>
<td>CA-BPR Templates</td>
</tr>
</tbody>
</table>

### Concept

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Approach</td>
</tr>
<tr>
<td>7</td>
<td>Knowledge Areas</td>
</tr>
<tr>
<td>28</td>
<td>Process Phase Checklist</td>
</tr>
</tbody>
</table>
## Closing

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Approach</td>
</tr>
<tr>
<td>7</td>
<td>Knowledge Areas</td>
</tr>
<tr>
<td>20</td>
<td>Process Phase Checklist</td>
</tr>
</tbody>
</table>

## Additional Resources

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Approach</td>
</tr>
<tr>
<td>11</td>
<td>Framework Resources</td>
</tr>
<tr>
<td>14</td>
<td>Glossary</td>
</tr>
</tbody>
</table>
Version History

Document history and version control is used to record detail of minor and major changes to the California Business Process Reengineering Framework (CA-BPR).

<table>
<thead>
<tr>
<th>Version #</th>
<th>Date</th>
<th>Author</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>7.18.2017</td>
<td>CDT</td>
<td>Initial Publication</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
This chapter provides an overview of the California Business Process Reengineering Framework, its purpose and use, and how it will help you with your projects.
In this chapter...

1. Overview of the CA-BPR Framework
   - 1.1 Purpose and Use of the CA-BPR
   - 1.2 The Value of the CA-BPR
   - 1.3 A Thoughtful Approach to BPR

2. Framework Conventions and Structure
   - 2.1 Colors and Icon Conventions
   - 2.2 Chapters
   - 2.3 Key Navigation Elements
   - 2.4 Call-Out Boxes

3. Alignment to Other Frameworks
   - 3.1 Related Frameworks

4. BPR Knowledge Areas
   - 4.1 Purpose of Knowledge Areas
   - 4.2 BPR Knowledge Areas
Technology is a transformative element within California state government used to achieve improvements to its business. And while technology solutions alone can produce outcomes, optimization of the related business processes can maximize the realization of efficiencies and benefits. Technology implementations demand varying degrees of change to business processes within and across an organization. It is important for projects to plan, assess, design, and optimize their business processes to leverage and maximize the capabilities of technology.

To aid state organizations in this effort, the California Project Management Office (CA-PMO) has developed the California Business Process Reengineering Framework (CA-BPR or BPR Framework) to provide practitioners with a solid foundation to successfully effect business process changes within their organization. The CA-BPR provides guidance on Business Process Reengineering (BPR) methods and approaches through the use of resources, tools, and templates, as well as narratives describing when specific BPR activities should be performed throughout the Project Management Lifecycle (PMLC).

While the CA-BPR Framework is written in the context of information technology (IT) implementation efforts, it is applicable to any type of project that requires changes to an organization’s business processes. This must be done with a thoughtful approach that navigates California's unique environment and characteristics. This framework aligns to and can be used with the California Project Management Framework (CA-PMF) and the California Organizational Change Management Framework (CA-OCM or OCM Framework).

### 1.1 Purpose and Use of the CA-BPR

Business Process Reengineering is a specific process improvement approach introduced by Michael Hammer and James Champy in the early 1990s. BPR employs the *fundamental* redesign of business processes to achieve major improvement over a relatively short amount of time. Because improvement goals are larger than those of incremental improvement strategies including
Total Quality Management and Six Sigma, BPR embraces technology as a cornerstone of the approach. The CA-BPR provides a roadmap to conduct BPR to improve an organization’s performance in areas such as service, cost, and quality. The CA-BPR includes recommended practices, activities, tools and templates, as well as leverages multiple industry standards and resources. The intended audience for the CA-BPR includes practitioners responsible for performing or managing BPR activities, roles that may be held by state and/or contractor resources. The CA-BPR also provides useful information to project sponsors, project participants, and Stakeholders regarding BPR concepts and best practices. Practitioners should leverage these tools and templates, as applicable, and modify them to fit their specific project needs.

Projects vary in size, type, and complexity. No matter what a project’s size or complexity, the objective(s) of BPR remains consistent; however, the approach and methods may differ to meet a specific project’s needs. BPR practitioners should adjust the level of complexity and rigor to match the needs of an individual project. The CA-BPR provides guidance and adaptability to account for these project differences.

1.2 The Value of the CA-BPR

The CA-BPR provides a common foundation for state organizations to leverage and apply to project implementation efforts, to strive for a level of efficiency and consistency in BPR practices across the state. The many benefits include:

1. A guide for BPR Practitioners across a range of experience levels, with practical language that is easy to understand and use.

2. A BPR framework, nomenclature, and toolset with templates, examples, and instructions that can be customized to meet different project needs, but are structured to be consistently applicable across a wide range of project types, sizes, and complexities.


4. A statewide BPR perspective that addresses the relationships between project management activities, organizational change management activities, project approval lifecycle activities, and system development activities.
1.3 A Thoughtful Approach to BPR

The CA-BPR offers a set of useful tools and techniques to provide a structured, disciplined, and repeatable approach to BPR. Though a set of tools and techniques can increase the likelihood of success, BPR also requires the appropriate skills and experience to apply them. The ultimate success of a BPR effort depends on the knowledge, skills, and abilities of the BPR Practitioner.

Every BPR effort should have a common goal of achieving improvements in performance: reduced costs, improved services, increased revenue, and/or improved quality including a potential need driven by large scale system changes. In leading these efforts, the BPR Practitioner should possess the knowledge, skills, and abilities described below:

Knowledge

- Operational knowledge. Effective decision-making relies on past experience and knowledge. The BPR Practitioner often draws upon his/her knowledge and experience of an organization’s operations to ask relevant questions, draw out required detail, and design the most effective processes.

- Technology knowledge. An effective BPR Practitioner should have an understanding of various technologies and their potential applications. Furthermore, understanding an organization’s existing technology applications and infrastructure enables the BPR Practitioner to bridge the potential communication gap between operational and technical resources.

- Business process concepts and methodology knowledge. While the CA-BPR describes key concepts, it is important for the BPR Practitioner to have BPR experience in order to effectively apply BPR activities, tools, and templates.

- Organizational change management knowledge. Often, the BPR Practitioner works closely with the OCM Practitioner. Having an understanding of OCM concepts and principles helps the BPR Practitioner know when and where to leverage the OCM resources on a project.
Skills

- **Collaboration and negotiation.** The BPR Practitioner should demonstrate an ability to foster collaboration among a variety of business and technical resources from an organization. Often, the practitioner must help negotiate potential solutions to address potential gaps between the business and technology.

- **Facilitation.** Facilitation skills and techniques enable the practitioner to focus attention and elicit an appropriate level of detail during working sessions. These skills help maximize the productivity of resources.

- **Interviewing.** Strong interviewing and listening skills are critical for obtaining a correct understanding of current business processes, Stakeholder priorities, and requirements.

- **Problem-solving.** The BPR Practitioner identifies business problems, assesses those problems, and determines the most appropriate solutions. The BPR Practitioner routinely uses problem-solving throughout the project and draws upon past experience to aid in decision-making.

Abilities

- **Grasp new concepts.** The BPR Practitioner often does not have the subject matter expertise on a specific business process. The BPR Practitioner must be able to actively listen, learn, and appropriately apply new concepts when documenting current processes and designing future states.

- **Create visual representations of business processes.** A critical ability for a BPR Practitioner is to capture information from Stakeholders and effectively translate it into a visual model for analysis and validation. The accuracy of the models enables the project team to make informed decisions regarding the design of the future solution.
This section of the CA-BPR describes the conventions and structure that is used throughout. The graphical elements, strategic use of color, and call-out boxes are used to clearly communicate practical BPR concepts, as well as engage the reader's attention and improve information retention. The structure of the CA-BPR also organizes information through the use of chapters, knowledge areas (which are described later in this chapter), and key navigational elements to guide the reader.

### 2.1 Colors and Icon Conventions

Each chapter of the CA-BPR correspond to the process phases of the PMLC and is identified with a specific color and distinct icon. These unique colors and icons are presented at the beginning of each chapter and continue throughout to visually guide readers as they progress through the document.

Groupings of related BPR activities are organized into knowledge areas. These serve to organize sets of BPR activities that share a common objective and purpose. Activities from multiple knowledge areas may occur within a single process phase. These knowledge areas are represented by their own icons and colors placed below each PMLC process phase chapter header. The methodical use of color is designed to help readers navigate the CA-BPR quickly and easily.

Icons used throughout this framework are shown by grouping for your reference:

<table>
<thead>
<tr>
<th>Recommended Practices</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inputs</td>
<td>Tools</td>
</tr>
<tr>
<td>Roles</td>
<td>Outputs</td>
</tr>
<tr>
<td>Skills</td>
<td></td>
</tr>
</tbody>
</table>
Overview

Project Management Lifecycle

Business Process Re-engineering

Concept

BPR Lifecycle Management

Initiating

Business Analysis and Future Definition

Planning

Business Process Design

Executing

Performance Measurement

Closing

Overview

Templates

Additional Resources
2.2 Chapters

The CA-BPR is comprised of eight chapters. These chapters organize content into logical domains to help readers easily navigate the document. The eight chapters of the CA-BPR Framework are:

Overview
This initial chapter provides an introduction to the CA-BPR and its purpose and use. It discusses how specific icons and colors are used to facilitate navigation. It also offers a high-level overview of the BPR lifecycle and knowledge areas that are a core part of the BPR Framework.

Templates
This chapter contains information about the collection of templates that are available to help the BPR Practitioner successfully conduct BPR activities.

Concept
This chapter helps the BPR Practitioner determine the basis of the effort by first identifying whether BPR is the correct approach and beginning the development of the business case.

Initiating
This chapter focuses on justifying the BPR effort by clearly defining the business issues and opportunities for improvement.

Planning
This chapter provides information on how to establish the future state at a high level and determine performance targets for those business processes.

Executing
This chapter describes principles and activities to fully develop the future state processes such that they can be implemented.

Closing
This chapter provides guidance for closing the project and transitioning to support and continuous improvement.

Additional Resources
This chapter provides resources to support the CA-BPR. It includes a glossary of project roles and common BPR terms.
2.3 Key Navigation Elements

The CA-BPR contains seven categories of information to help the BPR Practitioner navigate the framework. These categories, referred to as key elements include:

**Recommended Practices**
Techniques or methods that, through experience and research, help achieve a desired result.

**Inputs**
Information and/or documents that feed into a process.

**Roles**
Roles for project Stakeholders, including a list of key responsibilities associated with process phase and knowledge area activities.

**Skills**
Special or unique human expertise that should be applied to achieve a successful project outcome.

**Activities**
Actions or activities for BPR practitioners to undertake.

**Tools**
Templates or other resources to help create project outputs. Templates are documents that have been pre-developed for project use.

**Outputs**
Work products that are developed.
2.4 Call-Out Boxes

Throughout the CA-BPR, “call-out” boxes are used to bring attention to information that further supports the narrative. These graphics have been integrated into the document to highlight useful information at a glance. Examples of call-out boxes may include:

- Navigation elements: recommended practices to consider, roles involved, knowledge areas, activities to undertake, tools available for assistance, and outputs to create

- Skills that are helpful for a particular process

- Website links or other references for additional information

- Guidance on when to use a tool based on project complexity

- Quotes and tips that are called out for greater emphasis

**Recommended Practices**

- Review recommended practices at the start of the process phase.

**Inputs**

- The following is an input to the activity:
  - Organizational Process Assets

**Roles**

- For a complete list of all CA-BPR roles, see the BPR Role Definitions in the Glossary.

**Skills**

- Use the following skills to complete the activity:
  - Interviewing
  - Facilitation

**Tools**

- A template is available: BPR Approach Assessment

**Outputs**

- The following is an output to the activity:
  - Identified Customer Needs

**Web Link/ Info**

- See the Schedule Management section within the Planning Chapter of the CA-PMF.

> “If the root causes are not well understood and/or there is a lack of well-documented evidence, the business case will not be compelling.”
3.1 Related Frameworks

The CA-BPR aligns with the CA-PMF and other frameworks that support the project implementation effort. It is important to recognize the integration points between the different frameworks and their associated lifecycles. The BPR lifecycle spans throughout the entire PMLC and refers to a series of activities that are conducted to transform and improve the way an organization conducts business. This design accommodates projects that vary in size, complexity, and type, and all project BPR efforts can be aligned to the PMLC structure.

In addition to the PMLC, the BPR Lifecycle also aligns with:

- Organizational Change Management (OCM) Lifecycle
- Project Approval Lifecycle (PAL)
- System Development Lifecycle (SDLC)

During project implementations, the BPR Lifecycle, PMLC, OCM Lifecycle, and SDLC may support one another and often occur in parallel. Figure 3-1 depicts the BPR Lifecycle in association with the other lifecycles. The successful management of each lifecycle can greatly affect the others and contribute to the success of the overall project. In addition to these lifecycles, California has adopted the Project Approval Lifecycle (PAL) to improve the quality, value, and likelihood of success of technology projects undertaken by the State of California.
Project Management Lifecycle (PMLC)

Concept
Initiating
Planning
Executing
Closing

Organizational Change Management (OCM) Lifecycle
Business Process Reengineering (BPR) Lifecycle
Project Approval Lifecycle (PAL)
System Development Lifecycle (SDLC)

Figure 3-1
The CA-BPR is comprised of four knowledge areas. A knowledge area is an area of specialization that groups a set of BPR activities that share a common purpose and objectives and can span across multiple PMLC process phases. This section describes the four BPR knowledge areas including the purpose, objectives, and timing within the PMLC.

4.1 Purpose of Knowledge Areas

The purpose of the BPR knowledge areas is to define what the BPR Practitioner needs to understand and the associated activities to perform. It is important to note that knowledge areas and their associated activities often have interdependencies and interrelationships with other BPR knowledge areas. The four knowledge areas of the CA-BPR are:

- BPR Lifecycle Management
- Business Analysis and Future Definition
- Business Process Design
- Performance Measurement

The CA-BPR provides guidance on when specific knowledge area activities should occur during a project. Each BPR Practitioner will need to determine applicability and align BPR activities to the specific needs of a project. Guidance on tailoring BPR efforts to specific projects and project needs is provided throughout the CA-BPR.
4.2 BPR Knowledge Areas

Knowledge areas span multiple process phases and occur at different times during the PMLC. Figure 4-1 identifies the BPR knowledge area goal within each process phase where there are associated activities. Additionally, a single, overarching goal is presented for each knowledge area.

The following provides a brief description of the four BPR knowledge areas:

**BPR Lifecycle Management**

BPR Lifecycle Management focuses on managing the performance of the BPR effort through planning and scheduling activities. These activities guide the direction and govern the sequence and resourcing of all other knowledge area activities. BPR Lifecycle Management requires continuous coordination with the Project Manager to ensure the BPR effort is integrated with other project activities and milestones.
Business Analysis and Future Definition

During Business Analysis and Future Definition, the BPR Practitioner ensures the viability of the future state through analysis of the structure, mandates, policies, and operations of an organization, and development of the future vision. The principle benefit of business analysis is to understand an organization’s current environment, thereby creating a foundation based on documented and validated facts.

Business Process Design

The focus of the Business Process Design Knowledge Area is to ensure that the future state is achieved through the reengineering and modeling of business processes to improve efficiency, effectiveness, quality, and/or service. Activities in this knowledge area are core to BPR and initially involve using specific facilitation and modeling techniques to document current processes. After the current state is documented, the BPR Practitioner leads the design of the future state processes which are then implemented by the project team.

Performance Measurement

The purpose of the Performance Measurement Knowledge Area is to ensure improvements to current state processes are measurable. This is achieved by establishing a baseline of performance, identifying future performance targets, and measuring results after implementation. Ongoing performance measurement provides the factual basis to assess the effectiveness of business processes. Process measures include cycle time, backlogs, errors and exceptions, costs, scrap or waste, handoffs, and volume.
This chapter describes the collection of templates that are referenced in the California Business Process Reengineering Framework (CA-BPR). These are designed to support the BPR effort throughout the entire project lifecycle.
In this chapter...

1

Approach

2

CA-BPR Templates

Page 3

1.1 Advantages of Using Templates
1.2 Template Sources Referenced in the CA-BPR
1.3 CA-BPR Template Types
1.4 Templates by Knowledge Area and Process Phase

Page 7

2.1 Concept Process Phase
2.2 Initiating Process Phase
2.3 Planning Process Phase
2.4 Executing Process Phase
2.5 Closing Process Phase
Business Process Reengineering (BPR) is a discipline that follows a consistent series of activities. The CA-BPR provides standardized templates to accompany key activities. These templates are a core component of the CA-BPR and will help the BPR Practitioner document these activities and provide clear, meaningful results. In some cases, the CA-BPR refers to these templates as “tools.” A template, just like any other tool, helps get the job done.

1.1 Advantages of Using Templates

Pre-developed templates offer the BPR Practitioner a standardized method for the collection, analysis and documentation of BPR-related content required throughout the PMLC. This standardization reduces the time to complete BPR activities, increases transparency into BPR activities, reduces risk, and improves outcomes. Some organizations may already possess well-developed BPR templates; however, the BPR Practitioner may still benefit by supplementing templates that exist within the organization with those that are part of the CA-BPR.

1.2 Template Sources Referenced in the CA-BPR

The CA-BPR references and links to a variety of supporting templates designed for a specific purpose and with the objective of guiding project teams through their projects. There are two main sources of templates referenced in the CA-BPR.

1.2.1 CA-BPR Templates

The CA-BPR templates are designed to enable project teams to complete BPR projects successfully, consistently, and efficiently. These templates are specific to BPR activities and will help the team document, analyze, model, design,
and implement business processes. The CA-BPR templates support BPR activities through all process phases, focusing on the transition from the current to future state.

1.2.2 CA-PMF Templates
The California Project Management Framework (CA-PMF) templates are designed to help project managers keep the project on schedule, on budget, and on time. The CA-PMF templates provide project managers with the resources to manage all aspects of a project, including requirements, risk, schedule, scope, deliverables, cost, communication, and changes. CA-PMF templates are leveraged to support BPR activities where there are outputs that are the same or similar in content. CA-PMF templates are available at: http://cdt.cdt.ca.gov/Templates.html.

1.3 CA-BPR Template Types
The CA-BPR templates have been developed to accommodate differences in the experience of the BPR Practitioner. As a result, the CA-BPR templates have been designed in two formats or types: templates with instructions for those that require more guidance and template shells for those with more experience.

1.3.1 Templates with Instructions
The templates with instructions contain a significant amount of instructions describing how to complete the template. The templates with instructions are intended for the less experienced BPR Practitioner. The instructions serve as a guide and can be deleted as the template is completed. Many templates with instructions also contain examples and sample text that may be helpful. This text may also be deleted or modified to suit the needs of the project as the template is completed.

1.3.2 Templates Shells
The template shells contain the same template structure and content headings as the templates with instructions; however, they do not include significant amounts of instructional text or examples. These template shells are intended to assist the more experienced BPR Practitioner who is already familiar with similar tools and prefer to use a shell template, and/or those that have previously worked with the template with instructions and prefer to now start with a template shell.
### 1.4 Templates by Knowledge Area and Process Phase

Some of the templates that are used during the CA-BPR are used throughout multiple process phases and knowledge areas. The table below lists each of the templates by knowledge area and identifies which process phases it is being used in.

To access the templates in a fillable format see the CA-BPR website at the following link: [http://projectresources.cdt.ca.gov/bpr](http://projectresources.cdt.ca.gov/bpr) or by clicking [here](http://projectresources.cdt.ca.gov/bpr) and expand the templates tab. CA-PMF templates can be accessed at: [http://capmf.cdt.ca.gov/Templates.html](http://capmf.cdt.ca.gov/Templates.html) or by clicking [here](http://capmf.cdt.ca.gov/Templates.html).

<table>
<thead>
<tr>
<th>Knowledge Area/ Template Name</th>
<th>Concept</th>
<th>Initiating</th>
<th>Planning</th>
<th>Executing</th>
<th>Closing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BPR Lifecycle Management</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BPR Approach Assessment Template</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BPR Schedule Template</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Lessons Learned Template (CA-PMF)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td><strong>Business Analysis and Future Definition</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Charter Template (CA-PMF)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current State Assessment Template</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>BPR Improvement Plan Template</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td><strong>Business Process Design</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Process Modeling Tool</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Knowledge Area/ Template Name</td>
<td>Concept</td>
<td>Initiating</td>
<td>Planning</td>
<td>Executing</td>
<td>Closing</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>---------</td>
<td>------------</td>
<td>----------</td>
<td>-----------</td>
<td>---------</td>
</tr>
<tr>
<td>Performance Measurement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current State Assessment Template</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Performance Metric Assessment Template</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance Target Inventory Template</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BPR Performance Report Template</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Note: This table does not include the BPR Process Phase Checklists that correspond with each process phase chapter.
CA-BPR Templates

The templates that are used in the CA-BPR are grouped by the five project process phases: Concept, Initiating, Planning, Executing, and Closing. Each of the CA-BPR templates is listed and described along with the CA-PMF templates that support them. Note that the same template may be listed in multiple process phases as it may be used throughout the effort. To access the CA-BPR templates in a fillable format see the CA-BPR templates web page at the following link: http://projectresources.cdt.ca.gov/bpr or by clicking here and expand the templates tab.

2.1 Concept Process Phase

The following CA-BPR templates accompany the Concept Process Phase:

- **BPR Approach Assessment Template** - The BPR Approach Assessment provides a method for determining if BPR is an appropriate approach for the proposed project. The assessment involves evaluating the project’s magnitude of change and the disruptiveness of the potential technology solution in order to determine the appropriate approach.

- **Business Process Modeling Tool** – The Business Process Modeling Tool is used by the BPR Practitioner to capture, model, and document various levels of an organization's current and future state business processes. The tools contain templates for the model and narrative elements including process steps, preconditions, process triggers, key inputs, key outputs, policies and regulations, and supporting systems.

- **Project Charter Template (CA-PMF)** – This CA-PMF template is available at http://capmf.cdt.ca.gov/Templates.html. The Project Charter formally authorizes a project. It describes the business need for the project and the anticipated project results. It formalizes the existence of the project and provides the project with the authority to expend organizational resources to support project activities.

- **BPR Concept Process Phase Checklist Template** – The checklist identifies the key activities that are to be completed during the Concept Process Phase.
2.2 Initiating Process Phase

The following CA-BPR templates accompany the Initiating Process Phase:

- **BPR Schedule Template** – This template provides a structure to document the BPR activities and tasks required during the current process phase required for the project. The BPR Practitioner coordinates closely with the Project Manager when developing the process phase schedule. Though other tools to develop and manage the schedule may be available to the BPR Practitioner, this template may be useful to help gather information from multiple team members that may not have access or be familiar with other project schedule tools.

- **Business Process Modeling Tool** – The Business Process Modeling Tool is used by the BPR Practitioner to capture, model, and document various levels of an organization’s current and future state business processes. The tool contains templates for the model and narrative elements including process steps, preconditions, process triggers, key inputs, key outputs, policies and regulations, and supporting systems.

- **Current State Assessment Template** – The Current State Assessment is a structured document that contains the BPR work products resulting from the Initiating Process Phase. This document supports the case for change by demonstrating that the BPR Practitioner performed the necessary analysis of the current state.

- **Performance Metric Assessment Template** – The Performance Metric Assessment describes criteria by which the BPR Practitioner can assess performance metrics under consideration. Criteria include accuracy, alignment to goals and objectives, and availability.

- **BPR Initiating Process Phase Checklist Template** – The checklist identifies the key activities that are to be completed during the Initiating Process Phase.
2.3 Planning Process Phase

The following CA-BPR templates accompany the Planning Process Phase:

- **BPR Schedule Template** – This template provides a structure to document the BPR activities and tasks required during the current process phase required for the project. The BPR Practitioner coordinates closely with the Project Manager when developing the process phase schedule. Though other tools to develop and manage the schedule may be available to the BPR Practitioner, this template may be useful to help gather information from multiple team members that may not have access or be familiar with other project schedule tools.

- **Business Process Modeling Tool** – The Business Process Modeling Tool is used by the BPR Practitioner to capture, model, and document various levels of an organization’s current and future state business processes. The tools contain templates for the model and narrative elements including process steps, preconditions, process triggers, key inputs, key outputs, policies and regulations, and supporting systems.

- **Performance Metric Assessment Template** – The Performance Metric Assessment describes criteria by which the BPR Practitioner can assess performance metrics under consideration. Criteria include accuracy, alignment to goals and objectives, and availability.

- **Performance Target Inventory Template** – Documents the performance metrics and targets identified during the planning process phase. The template contains fields for Business Process ID, Performance Metric ID, Performance Metric Description, Target Value, and Target Date. Targets are used in future process phases to determine the level of performance improvement realized through the BPR effort.

- **BPR Planning Process Phase Checklist Template** – The checklist identifies the key activities that are to be completed during the Planning Process Phase.
2.4 Executing Process Phase

The following CA-BPR templates accompany the Executing Process Phase:

- **BPR Schedule Template** – This template provides a structure to document the BPR activities and tasks required during the current process phase required for the project. The BPR Practitioner coordinates closely with the Project Manager when developing the process phase schedule. Though other tools to develop and manage the schedule may be available to the BPR Practitioner, this template may be useful to help gather information from multiple team members that may not have access or be familiar with other project schedule tools.

- **Business Process Modeling Tool** – The Business Process Modeling Tool is used by the BPR Practitioner to capture, model, and document various levels of an organization’s current and future state business processes. The tools contain templates for the model and narrative elements including process steps, preconditions, process triggers, key inputs, key outputs, policies and regulations, and supporting systems.

- **Performance Target Inventory Template** – Documents the performance metrics and targets identified during this process phase. The template contains fields for Business Process ID, Performance Metric ID, Performance Metric Description, Target Value, and Target Date. Targets are used in future process phases to determine the level of performance improvement realized through the BPR effort.

- **BPR Executing Process Phase Checklist Template** – The checklist identifies the key activities that are to be completed during the Executing Process Phase.
2.5 Closing Process Phase

The following CA-BPR templates accompany the Closing Process Phase:

- **BPR Improvement Plan Template** – This document is used to capture incremental improvement opportunities identified after solution implementation. Elements captured include opportunity description, priority level, timeframe, and resources assigned.

- **BPR Performance Report Template** – This template documents the baseline, target, and actual performance metrics associated to the reengineered business processes. The template helps to identify underperforming business processes that may be candidates for post-implementation improvements.

- **Lessons Learned Template (CA-PMF)** – This CA-PMF template is available at [http://capmf.cdt.ca.gov/Templates.html](http://capmf.cdt.ca.gov/Templates.html). The lessons learned documentation represents knowledge and experience gained during the project. It documents how project events were addressed, and how they should be addressed in the future, with the purpose of improving future performance.

- **BPR Closing Process Phase Checklist Template** – The checklist identifies the key activities that are to be completed during the Closing Process Phase.
Business Process Reengineering (BPR) activities within the Concept Process Phase focus on establishing a foundation for the BPR effort by defining the business needs and aligning these needs with the organization’s mission and strategy.
In this chapter...

1. Approach
   - 1.1 Introduction
   - 1.2 Recommended Practices

2. Knowledge Areas
   - 2.1 BPR Lifecycle Management
   - 2.2 Business Analysis and Future Definition
   - 2.3 Business Process Design

3. Process Phase Checklist
   - 3.1 Complete the Checklist
The Concept Process Phase is the first phase of the California Project Management Framework (CA-PMF) Project Management Lifecycle (PMLC). It begins defining the business drivers, problems, and opportunities in order to gain support to formally launch and initiate a project. As indicated in Figure 1-1, activities from three BPR knowledge areas occur within this process phase which focus on understanding the business problem, identifying affected business processes, and establishing the initial scope of the BPR effort.

1.1 Introduction

The objective of BPR within this process phase is to understand the scope of the BPR effort for subsequent PMLC process phases. This is done by evaluating the impact the project concept has on the current environment to determine the need to design or redesign business processes. Three knowledge areas are active during this process phase to scope the BPR effort: BPR Lifecycle Management, Business Analysis and Future Definition, and Business Process Design.
**BPR Lifecycle Management**

The primary objective for BPR Lifecycle Management is to determine whether BPR is an appropriate approach for the project. This requires outputs from the Business Analysis and Future Definition and Business Process Design knowledge areas that are completed in this process phase and will occur after their respective activities are performed.

**Business Analysis and Future Definition**

Clearly establishing the business rationale for the BPR effort is essential for project success. This is established in Business Analysis and Future Definition by clearly defining the business problem or need and aligning it to the mission, goals, and objectives of the organization. The resulting Business Problem Statement is used as an input to both BPR Lifecycle Management and Business Process Design activities within this process phase.

**Business Process Design**

The identification of the end-to-end business processes that will be affected by the proposed project is a key activity of Business Process Design during the Concept Process Phase. Knowing the affected business processes sets the stage for assessing the size of the effort and the BPR activities needed in future process phases. The output of Business Process Design activities is the Business Process Scope Model which is used as an input to BPR Lifecycle Management activities in this process phase.

Once all BPR-related Concept Process Phase activities have been completed, the BPR Practitioner will complete the BPR Concept Process Phase Checklist. Figure 1-2 lists all of the goals, inputs, activities, and outputs for each knowledge area during the Concept Process Phase.

**Sequence of Activities**

Although the knowledge areas are presented in a specific order for consistency throughout the CA-BPR, the order in which the activities occur is independent of each other. Activities may occur simultaneously and iteratively rather than sequentially. Where an output from one knowledge area is an input to another, it is not required that they have to be in final form; however, they should be reasonably drafted to contain a majority of the information the input/output is expected to contain. The experience and knowledge of past projects and individual judgment should be used to determine the most appropriate sequencing of activities for each unique project.
### Concept Process Phase Goal: Determine the Basis for the Effort

<table>
<thead>
<tr>
<th>BPR Lifecycle Management</th>
<th>Business Analysis and Future Definition</th>
<th>Business Process Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inputs</td>
<td>Activities</td>
<td>Outputs</td>
</tr>
<tr>
<td>- Business Goals and Objectives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Business Problem Statement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Business Process Scope Model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Organizational Process Assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Mission Statement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Organizational Process Assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Strategic Goals and Objectives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Business Goals and Objectives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Business Problem Statement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Business Process Scope Model</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Business Goals and Objectives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Business Problem Statement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Organizational Process Assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Determine if BPR is the Right Approach</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Define Vision and Align with Mission</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Completed BPR Approach Assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Identify Current End-to-End Business Processes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Business Problem Statement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Business Goals and Objectives</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 1-2**
1.2 Recommended Practices

The following recommended practices support the activities to conceptualize and define the project. The practices apply to all BPR knowledge areas in this process phase and will help establish a sound basis for the project.

**Business Need should Drive the BPR Project**

Successful BPR projects are driven by the need to satisfy business problems or opportunities. BPR projects normally involve significant technology implementations and are large, involved, and cause significant changes in the workforce and business processes. Without strong business drivers that are supported by the organization’s leadership, the rationale for a BPR project is likely to be called into question. Focus on identifying business drivers such as financial benefit, improvements to service delivery and quality, satisfaction of mandates, and reduction of risk; technology by itself should not be the driver of the changes.

**Engage Business Process Owners Early**

Stakeholder engagement is a key success factor for BPR and it begins early in the project. Identifying and involving Stakeholders in the first discussions about problem definition and approach fosters collaboration and support at an early stage. This practice will help identify project champions as well as those who may challenge assumptions or analysis going forward.
2.1 BPR Lifecycle Management

BPR Lifecycle Management includes planning and management activities to ensure the successful performance of the BPR effort, as shown in Figure 2-1. In the Concept Process Phase, the project concept is assessed to determine if BPR is the appropriate methodology to utilize for business process improvements. This is done using the outputs of the other two knowledge areas in this process phase to understand the initial scope of the effort. A summary of the inputs, roles, skills, activities, tools, and outputs for BPR Lifecycle Management in this process phase are presented in Figure 2-2.

Figure 2-1
### BPR Lifecycle Management

#### Inputs
- Business Goals and Objectives
- Business Problem Statement
- Business Process Scope Model
- Organizational Process Assets

#### Roles
- BPR Practitioner
- Project Sponsor
- Stakeholders

#### Skills
- Judgment
- Analysis
- Facilitation

#### Activities
- Determine if BPR is the Right Approach

#### Tools
- BPR Approach Assessment Template

#### Outputs
- Completed BPR Approach Assessment

---

**Figure 2-2**

**2.1.1 Inputs**

In order to complete the Concept Process Phase BPR Lifecycle Management activities, the BPR Practitioner will need a thorough understanding of the following inputs:

**Business Goals and Objectives:** These describe specific goals and objectives for the proposed project and are main inputs when considering approach and scope. The Business Goals and Objectives are developed under the Business Analysis and Future Definition Knowledge Area in this process phase.

**Business Problem Statement:** The Business Problem Statement is a clear, concise articulation of the business problem or opportunity under consideration. The Business Problem Statement is developed under the Business Analysis and Future Definition Knowledge Area in this process phase.

**Business Process Scope Model:** Understanding the project’s approach and the scope of the BPR effort requires an understanding of the scope of the processes.
that will be affected. These processes are modeled in the Business Process Scope Model, which is developed under the Business Process Design Knowledge Area in this process phase.

**Organizational Process Assets:** These include existing procedures, methods, and guidelines the organization may employ for business analysis, BPR, or other related processes. Examples include the CA-PMF, PAL, organization charts, enterprise architecture documents, existing process models, desk guides, manuals, and prior project work that will be useful for the BPR Practitioner.

### 2.1.2 Roles

The following table lists the roles and their associated responsibilities of those involved in BPR Lifecycle Management activities during the Concept Process Phase.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR Practitioner*</td>
<td>• May be an informal, transitory role during the Concept Process Phase</td>
</tr>
<tr>
<td></td>
<td>• May be held by the Project Sponsor or delegated to others</td>
</tr>
<tr>
<td></td>
<td>• Completes the BPR Approach Assessment</td>
</tr>
<tr>
<td>Project Sponsor</td>
<td>• Either completes the BPR Approach Assessment or delegates to the BPR Practitioner</td>
</tr>
<tr>
<td></td>
<td>• Key to allocating initial resources needed to complete the necessary tasks in the Concept Process Phase</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>• Any person or group with an active interest in the project outcome or process who wishes to participate, or is invited to participate, in the tasks associated with the Concept Process Phase, including SMEs</td>
</tr>
</tbody>
</table>

*Depending on factors such as project complexity or resource constraints, the BPR Practitioner role may be informally assigned to one or more resources with other responsibilities, or a project may formally commit a resource that is focused on BPR. The BPR Practitioner is the role of the person completing the activities outlined in the CA-BPR and may evolve or transition to a different resource as the project is planned, formalized, and completed.*
2.1.3 Activities

The tasks completed under the BPR Lifecycle Management Knowledge Area are sequenced and organized into logical groupings of activities to help determine if BPR is the right approach for the project.

Determine if BPR is the Right Approach

During the Concept Process Phase, the BPR Practitioner evaluates if BPR is the best suited approach for the proposed project concept by performing a BPR Approach Assessment that evaluates the project’s magnitude of change and the disruptiveness of the potential technology solution. Depending on the magnitude of the change created by the technology solution, there are a variety of business process improvement approaches that may be utilized and are described in the table below.

<table>
<thead>
<tr>
<th>Improvement Methodology</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Quality Management</strong></td>
<td>TQM focuses on orienting manager and employee attitudes to embrace continuous quality improvement through the measurement of the outputs of redesigned work processes.</td>
</tr>
<tr>
<td><strong>Six Sigma</strong></td>
<td>Six Sigma seeks to improve process outcomes by establishing acceptable levels for defects and modifying processes until the defect level is achieved.</td>
</tr>
<tr>
<td><strong>Lean Six Sigma</strong></td>
<td>This is a blended methodology that incorporates the principles of Lean and Six Sigma to mitigate the weaknesses inherent in both methodologies if applied individually. It focuses on reducing waste and variation to add customer value.</td>
</tr>
<tr>
<td><strong>Kaizen</strong></td>
<td>Kaizen means &quot;continuous improvement&quot; in Japanese. Its core principle is that small changes should be made by all employees with the aim of improving overall organizational performance.</td>
</tr>
</tbody>
</table>
To determine if BPR is the suitable approach for the project, the BPR Practitioner must complete the following tasks:

- Assess the Magnitude of Change
- Assess the Disruptiveness of the Technology

### Assess the Magnitude of Change

Using the Business Problem Statement, the Business Goals and Objectives, the Business Process Scope Model, and organizational process assets, the BPR Practitioner will assess the magnitude of the potential change on the organization’s business processes. In evaluation, the BPR Practitioner should also leverage past experiences and good judgment to determine how much change will be required of the current business processes.

Using the Business Process Scope Model (which is developed under the Business Process Design Knowledge Area in this process phase), the BPR Practitioner determines if the potential changes to the existing business operations are significant (evaluated as a large on the scale) or if the changes are minor or incremental (evaluated as a small on the scale). For example, if the proposed project only affects a sub-process, BPR may not be the best option to address the scale of change. If the project will most likely affect an end-to-end business process, then BPR is likely a suitable and relevant approach. The BPR Practitioner should answer the following questions in the BPR Approach Assessment to help determine the magnitude of the change:

- Is it likely that the project would result in major changes to existing business processes?
- Is it likely that changes would affect the entire end-to-end business process?
- Is it likely that the project would require significant training for employees?
- Is it likely that the project requires significant performance improvement to succeed?
Assess the Disruptiveness of the Technology

The next area for the BPR Practitioner to evaluate is the disruptiveness of implementing the potential technology solution from the current system environment. The BPR Practitioner will assess the likelihood and extent to which the potential technology solution will contribute to and enable changes by reviewing the Business Problem Statement, Business Goals and Objectives, and the Business Process Scope Model. If it is high, the technology likely plays a significant role in changing and affecting the current business operations. If it is low, the technology likely plays a minor or smaller role in the business process changes. For example, an entire system replacement with new software will likely be disruptive to operations compared to a minor software upgrade with limited changes to functionality. The BPR Practitioner uses the following questions in the BPR Approach Assessment to estimate the likelihood and extent to which technology will be used:

- Is it likely that technology would play a central role in achieving business changes?
- Is it likely that the project would involve technology that is new to the organization?
- Is it likely that the project would involve the replacement of a legacy system?
- Is it likely that the project would involve technology to automate and/or eliminate manual processes?
- Is it likely that the project would involve technology that will integrate disparate data or systems?

Figure 2-3 illustrates the relationship between the magnitude of change to business processes and the disruptiveness of the technology.
Once the impact of the proposed project concept has been assessed, the BPR Practitioner then determines the relevant business process improvement approach. If the impact to the business process is large, or technology is likely and highly disruptive, then BPR is likely the most suitable approach and the BPR Practitioner should continue with the BPR activities outlined in the following process phases. However, if the magnitude of change is small and the disruptiveness of technology is low, the other business process improvement methodologies should be explored to better align with the work effort.

2.1.4 Tools

The tool that the BPR Practitioner will use within BPR Lifecycle Management during the Concept Process Phase includes the following:

- BPR Approach Assessment Template

2.1.5 Outputs

BPR Lifecycle Management produces the following output during the Concept Process Phase:

- Completed BPR Approach Assessment
2.2 Business Analysis and Future Definition

Business Analysis and Future Definition seeks to ensure the project's vision is sound by firmly aligning it to the organization's mission and strategic goals and objectives. The goal of BPR within this process phase as depicted in Figure 2-4 helps to root the project's vision with the organization's mission and is key to moving the project forward. The main activity of the Business Analysis and Future Definition knowledge area in the Concept Process Phase consists of defining the business problem or need, determining clear goals and objectives, and aligning those with the organization's purpose. A summary of the knowledge area's inputs, roles, skills, activities, tools, and outputs for this process phase are presented in Figure 2-5.
2.2.1 Inputs

In order to complete the Concept Process Phase Business Analysis and Future Definition activities, the BPR Practitioner will need a thorough understanding of the following inputs:

**Mission Statement:** The mission statement identifies the core purpose of the organization and provides the basis for the alignment of goals and objectives of the proposed project. Mission statements may exist for divisions as well as the overall organization.

**Organizational Process Assets:** These include existing procedures, methods, and guidelines the organization may employ for business analysis, BPR, or other related fields. Examples include the CA-PMF, PAL, organization charts, enterprise architecture documents, existing process models, desk guides, manuals, and prior project work that will be useful for the BPR Practitioner.
**Strategic Goals and Objectives:** In addition to the mission statement, organizations often have strategic goals or objectives that document its intent and guide its actions over a period of time. Strategic goals and objectives may exist for divisions as well as the overall organization.

### 2.2.2 Roles

The following table lists the roles and their associated responsibilities of those involved in Business Analysis and Future Definition activities during the Concept Process Phase.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| BPR Practitioner    | • Creates the Business Problem Statement  
                     | • Documents Business Goals and Objectives                                        |
|                     | • Aligns the project vision to the organization                                 |
| Project Sponsor     | • Either performs or delegates the activities of the BPR Practitioner            |
|                     | • Key to allocating initial resources needed to complete the necessary tasks in the Concept Process Phase. |
|                     | • Approves the Business Problem Statement                                       |
|                     | • Approves the Business Goals and Objectives                                    |
| Stakeholders        | • Any person or group with an active interest in the project outcome or process who wishes to participate, or is invited to participate, in the tasks associated with the Concept Process Phase, including SMEs. |
### 2.2.3 Activities

The tasks completed under the Business Analysis and Future Definition Knowledge Area in the Concept Process Phase create the foundation for the BPR effort by making it relevant to the organization’s mission. This effort creates strong agreement between existing organizational goals and the goals of the proposed project.

#### Define Vision and Align with Mission

During this activity, the BPR Practitioner creates the project’s Business Problem Statement and Business Goals and Objectives, and ensures that they are aligned to the organization’s mission statement and strategic goals. These elements are documented in the Project Charter and serves to articulate the business rationale for the project. While the creation of the Project Charter is performed by the Project Management workstream during the Initiating Process Phase, the BPR Practitioner provides inputs to the development during the Concept Process Phase.

The tasks for this activity include:

- Define the Business Problem Statement
- Define Business Goals and Objectives
- Align Business Goals and Objectives with Organizational Mission and Strategy

#### Define the Business Problem Statement

Creating a clear and concise business problem for the BPR effort is critical to focusing project efforts. For instance, the team might agree that a purchasing process is too cumbersome. However, this simple formulation provides little actionable detail. Is the process too manually intensive? Do users not fully understand the process? Does it take too long? Is there a lot of rework due to frequent errors? In helping teams answer these types of questions, the BPR Practitioner can clearly articulate and document the business problem with greater focus and precision. Documenting the business problem is especially important during the Concept Process Phase as it will help identify a suitable approach. Additionally, a clearly stated business problem will ultimately enable the technology solution to focus on and solve specific business needs.
An initial step in defining the business problem is collecting the results of any relevant work that has already been produced. The output from previous meetings and analyses can help frame the problem statement or serve as a way to validate the project concept. Useful outputs can include discussion notes, existing performance metrics, current reports, or recent examples of the business problem. In some cases, work groups may have already started to informally document concerns or even map processes visually. The BPR Practitioner should determine if there is any history or other organizational process assets that can be leveraged to help define the project’s scope and objectives.

Once relevant background material has been gathered and reviewed, the BPR Practitioner’s next step is to create the Business Problem Statement that will be solved by the proposed project. Developing and refining the business need helps reveal the root causes of the problem and how it affects the organization. Furthermore, clarifying and defining the relationship between the problem’s cause and effect will help the BPR Practitioner develop a viable approach to solving it. This clarification provides a basis for defining a vision and eventually aligning it with the organization’s mission. Without these elements, the Business Problem Statement is too vague to guide the BPR effort.

The following examples present two Business Process Statements about the same problem. However, they are presented differently, with the second example being more refined and precise.

- Example 1 - “We need to improve our recruiting and hiring process because it takes too long to execute. We seem to invest too much time reviewing applications and getting interviews set up.”

- Example 2 - “We need to improve our recruiting and hiring process. We spend too much time manually getting the paperwork together for a recruitment, and it takes too long to process handwritten applications. As a result, we are losing good candidates to other organizations, and we are seeing reduced service levels as positions remain open too long.”

The first example states the problem but does not go beyond that. It suggests that the recruiting and hiring process is cumbersome and too long. It does not offer a possible cause and effect and the description is general and somewhat vague.

The second example suggests that the recruiting and hiring processes are manually intensive and might benefit from automation. We also see that the business problem has a clear impact on the organization – they are losing candidates to competitors and their service levels are declining. Neither of these details can be gleaned from the first example. Example two is a more refined, precise, and complete example of a problem statement.
The BPR Practitioner should encourage the Project Sponsor and Stakeholders (as necessary) to discuss, clarify, and refine the Business Problem Statement, focusing on potential causes and impacts. Once finalized, the Business Problem Statement can be documented in a preliminary draft Project Charter.

**Define Business Goals and Objectives**

Goals are a high level statement of purpose while objectives are specific targets that support the goal. With a completed Business Problem Statement, the BPR Practitioner can focus on articulating the individual goals of the BPR effort. The practitioner should start with business goals first as it makes defining specific objectives easier.

Developing a solution to the business problem depends greatly on an organization’s goals and what it is trying to accomplish. For instance, if the goal is to improve efficiency in small increments, the best approach might be to eliminate time-consuming and unnecessary steps. If the goal is to significantly reduce costs, the BPR Practitioner may consider new technology to support organizational and process changes. It is very difficult to outline the right approach without understanding what is driving the change. Similarly, alignment of the improvement effort with overall organizational goals cannot be accomplished without a clear understanding of those goals.

The most effective objectives share similar characteristics – quantifiable, realistically achievable, singular, business-based, and specifically related to the Business Problem Statement. The BPR Practitioner can use the mnemonic acronym, SMART (specific, measurable, achievable, realistic, time-bound) to help when specifying objectives. When objectives follow these guidelines, they are better defined and more actionable. For example, an objective of “getting better at this process” might be accurate, but it does not specifically define the organization’s desired future state. This example objective limits the ability to develop an approach or to investigate alignment. In comparison, an objective of “reducing recruitment times by 25% or more within 5 years” clearly states expectations for the future state and provides a basis for evaluating the desired outcome against organizational goals.

The BPR Practitioner will help the Stakeholders identify two or three specific, clear goals and supporting objectives of the project effort. Try to avoid vague objectives such as “improve efficiency” or “increase productivity” and focus instead on measurable ones such as “cut processing time by 30 percent by the end of the fiscal year.” Once the goals and objectives have been specified, the BPR Practitioner will document them in the preliminary draft Project Charter, so they can be communicated and discussed by Stakeholders.
Align Goals and Objectives with Organizational Mission and Strategy

Following the definition of specific goals and objectives, the BPR Practitioner will compare them to the organization’s mission and strategic goals. It is important to remember that alignment with the organization’s strategy increases the level of support and likelihood of success of the BPR effort. For example, if the organization has a strategic goal of reducing costs and improving service through automation of manual processes, and the BPR effort is seeking to automate the recruitment and applicant process, the BPR goals and objectives and the organization’s strategy are in strong alignment.

If the goals and objectives of the BPR effort are not aligned with organizational strategy, the BPR Practitioner will need to make adjustments. For example, the BPR Practitioner may need to focus more on cost reduction than on automating manual processes. Often, this process is simply a matter of restating an existing goal, but the BPR Practitioner may need to revisit assumptions or constraints.

Once BPR goals and objectives have been aligned with organizational strategy, it is important for the BPR Practitioner to document the alignment in order to communicate with executives and the rest of the organization. If the BPR Practitioner can effectively demonstrate that the project will help achieve organizational goals, the team should achieve a higher degree of acceptance, less resistance to change, better access to resources, and faster decision-making.

2.2.4 Tools

The tool that the BPR Practitioner will use within Business Analysis and Future Definition during the Concept Process Phase includes the following:

• Project Charter Template

2.2.5 Outputs

Business Analysis and Future Definition produces the following outputs during the Concept Process Phase:

• Business Problem Statement
• Business Goals and Objectives
2.3 Business Process Design

The overarching goal of the Business Process Design Knowledge Area is to ensure the future processes and vision are established, as detailed in Figure 2-6. During the Concept Process Phase, the BPR Practitioner focuses on identifying and documenting the major business processes that will be impacted by the project.

Prior to documenting the business processes, the BPR Practitioner will conduct research on internal processes and external influences, and elicit feedback from Stakeholders. The BPR Practitioner then documents business processes by creating an inventory of those that will be affected by the proposed project. The resulting Business Process Scope Model is used as an input for BPR Lifecycle Management to help determine the approach and understand the scope of the BPR effort. A summary of the knowledge area's inputs, roles, skills, activities, tools, and outputs for this process phase are presented in Figure 2-7.
2.3.1 Inputs

In order to complete the Concept Process Phase Business Process Design activities, the BPR Practitioner will need a thorough understanding of the following inputs:

**Business Goals and Objectives:** Business Goals and Objectives establish purpose and targets and are important in determining which business processes will be affected. The Business Goals and Objectives are outputs of the Business Analysis and Future Definition Knowledge Area in this process phase.

**Business Problem Statement:** The Business Problem Statement is a clear, concise articulation of the business problem or opportunity under consideration. The Business Problem Statement is developed under the Business Analysis and Future Definition Knowledge Area in this process phase.
Organizational Process Assets: These include existing procedures, methods, and guidelines the organization may employ for business analysis, BPR, or other related fields. Examples include the CA-PMF, PAL, organization charts, enterprise architecture documents, existing process models, desk guides, manuals, and prior project work that will be useful for the BPR Practitioner.

2.3.2 Roles

The following table lists the roles and their associated responsibilities of those involved in Business Process Design activities during the Concept Process Phase.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| BPR Practitioner      | • Collaborates with the Project Sponsor and Stakeholders to discuss business process inputs and outputs  
                          | • Gathers and reviews business process input and output documents                
                          | • Identifies impacted end-to-end business processes                            
                          | • Documents high-level business process impact of proposed project              
                          | • Develops the Business Process Scope Model                                    |
| Project Sponsor       | • Either performs or delegates the activities of the BPR Practitioner            
                          | • Provides input regarding impacted business processes                         
                          | • Reviews and approves the Business Process Scope Model                        |
| Stakeholders          | • Any person or group with an active interest in the project outcome or process who wishes to participate, or is invited to participate, in the tasks associated with the Concept Process Phase, including SMEs |
2.3.3 Activities

The main activity of Business Process Design in the Concept Process Phase is to explore the potential impact of the project by identifying which end-to-end business processes are involved. Although the BPR Practitioner may intuitively know which processes these are, the act of defining and documenting them at a high level will aid in impact analysis and developing a common understanding of the scope of the BPR effort.

Identify Current End-to-End Business Processes

In BPR, business processes are categorized by levels of detail which provide a structured way to organize and relate processes and sub-processes to each other. The levels of detail range from 0 (the least detail) to 4 (the most detail). Level 0 business processes are also known as “end-to-end business processes”. The BPR Practitioner needs to be familiar with the definitions of these levels prior to documenting the impacted processes by reviewing the Business Process Modeling Tool.

The BPR Practitioner uses the Business Problem Statement and works with the Project Sponsor and Stakeholders to identify the business processes that will be affected. The BPR Practitioner does this by completing the following activities:

- Research and Analyze the Internal Organization
- Research and Assess the External Environment
- Create the Business Process Scope Model

Research and Analyze the Internal Organization

To identify the end-to-end business processes that are affected by this project, the BPR Practitioner will begin by identifying all of the organization’s operating and supporting processes.

- Operating processes are those process that directly add value to the organization’s vision and mission. For example, for an agency that delivers social services, the provisioning of a constituent’s social service benefits would be an operating process. To help identify operating processes, the BPR Practitioner can ask the following questions:
  - What products or services does the organization provide in support of its mission?
What are the high-level processes related to the identified product or service?

- **Supporting processes** are the processes that do not directly contribute to achieving the organization’s mission, but they indirectly enable it. For example, the social services agency’s human resources (HR) process hires employees that in turn provide social services benefits for constituents; hence, the HR process supports the operating process. To help identify supporting processes, the BPR Practitioner can ask the following questions:
  - Does this process directly impact the customers/constituents of the organization?
  - Does this process directly relate to the vision or mission of the organization?

Most organizations will have similar supporting processes. Examples of supporting processes include managing HR, managing IT, or managing financial resources. In contrast, operating processes will be unique to a specific organization and will focus on the organization’s delivery of its unique services to its constituents. It is important to identify both types of processes and understand the relationships between them.

After identifying all of the organization’s operating and supporting processes, the BPR Practitioner should identify those that are impacted by the proposed project. BPR projects can be focused on redesigning either operating processes, supporting processes, or both. Sometimes the redesign of one process type will lead to a change in another. For example, the social service agency implements a new financial system and redesigns a supporting process: how it processes payments to third-party vendors. But if this change affects how the agency disburses its benefits to constituents, it might affect its operating processes. Whether the BPR project is focused on operating or supporting processes, the BPR Practitioner needs to identify and understand all of the internal end-to-end processes that will be impacted by the BPR effort.

**Research and Assess the External Environment**

Because business processes often extend beyond the organization itself, it is also important to consider the relationships with the external environment. Business processes can be influenced by external factors, including other government agencies, legislative bodies, and other constituents and groups. In order to fully understand the organization’s processes and the extent of the BPR effort, the BPR Practitioner needs to know how the external environment affects them and vice versa.
Many end-to-end business processes begin and end somewhere outside of the organization itself. For example, a social services agency wants to hire a new employee. The agency has its own internal hiring process, but the first step in that process actually takes place outside the agency: the applicant submits a general application on the state website and the state routes the application to the social services agency. This step is an external “input” to the agency’s internal hiring process. On the other end of the process, once an employee is hired, he or she must be registered with the agency that issues payroll. This step is an “output” of the agency’s internal hiring process.

Inputs and outputs extend beyond the organization itself, but they are still part of its business processes and can influence BPR projects. Organizations must account for constraints imposed by external partners in the BPR effort. For example, the format and type of data that an input will include, or the format and type of data that must be included in an output must be considered in a business process design. Inputs are dictated by how the external Stakeholder provides them and outputs are influenced by how the receiving external Stakeholder uses them.

The BPR Practitioner needs to identify the external inputs of end-to-end business processes and should use the following questions to help uncover them:

- What is the starting point (or trigger) for the end-to-end processes that were identified in the internal research and analysis?
- What information is needed in order for the organization to take action?
- What actions cause the organization to take action?

Outputs are identified in a very similar way, except the processes are traced through to their end (instead of back to their beginning). The practitioner should use the following questions to uncover outputs of an organization:

- Who is a service or product being provided to and why?
- How are customers/constituents of this organization being helped?
- Are there other external organizations that benefit from the process?
- What are these external organizations gaining from the process?

With an understanding of the process inputs and outputs of an organization, the BPR Practitioner can document the end-to-end business processes more accurately. It is important to remember that most organizations do not operate in isolation and that external inputs and outputs need to be considered—a key activity in this phase.
Create the Business Process Scope Model

After assessing the internal and external environments, the BPR Practitioner will document the results of the analysis as a high-level Business Process Scope Model. Business Process Scope Models are visual representations of the end-to-end business processes and serve many important purposes:

- It establishes a common understanding of the scope of the project.
- It identifies the end-to-end business processes that will be impacted.
- It aligns the inputs, impacted end-to-end business processes, and outputs with the project’s vision and organization’s mission.
- It defines the business processes that need to be further analyzed and decomposed.

It is important to keep in mind that in this phase, the process model captures high-level processes. The BPR Practitioner may choose to depict relationships and sequences between processes, but it is not necessary to identify every relationship or sequence at this stage. As BPR progresses, processes will be decomposed into more detail, including relationships and supporting processes.

2.3.4 Tools

The tool that the BPR Practitioner will use within Business Process Design during the Concept Process Phase includes the following:

- Business Process Modeling Tool

2.3.5 Outputs

Business Process Design produces the following output during the Concept Process Phase:

- Business Process Scope Model
3.1 Complete the Checklist

Once all of the BPR activities within the Concept Process Phase are done, the process phase checklist should be completed. The checklist provides a list of “why, how, what, who, where, and when” questions to verify that all items in the process phase are complete.

The process phase checklist helps to identify and document repeatable steps, from project to project, to ensure that the correct activities are completed at the right time, every time.

Process phase checklists assist the BPR Practitioner in quickly and confidently identifying areas of concern within this process phase. In this case, completion of the checklist provides a clear milestone that the Concept Process Phase is complete, including:

- BPR Approach Assessment
- Business Problem Statement
- Identified Business Goals and Objectives
- Business Process Scope Model
- Completed BPR Concept Process Phase Checklist

Tools

A template is available: BPR Concept Process Phase Checklist

Outputs

Complete the BPR Concept Process Phase Checklist to validate that all process phase activities are complete.
The Initiating Process Phase focuses Business Process Reengineering (BPR) activities on developing a clear understanding of the business drivers for the change initiative. The focus includes documenting the business process issues and opportunities for improvement.
In this chapter...

1. Approach
   - 1.1 Introduction
   - 1.2 Recommended Practices

2. Knowledge Areas
   - 2.1 BPR Lifecycle Management
   - 2.2 Business Analysis and Future Definition
   - 2.3 Business Process Design
   - 2.4 Performance Measurement

3. Process Phase Checklist
   - 3.1 Complete the Checklist
The Initiating Process Phase is the second process phase of the California Project Management Framework (CA-PMF) Project Management Lifecycle (PMLC). During this process phase, the BPR activities focus on defining and justifying the prospective project. As shown in Figure 1-1, activities from all four BPR knowledge areas occur and include defining the opportunities, documenting current processes, and identifying the performance baseline.

1.1 Introduction

During the Initiating Process Phase, the BPR Practitioner performs the work necessary to build the case for change and justify the project by performing an assessment of the current state which includes:

- The identification of customer needs
- The identification of business process issues
- The identification of the performance baseline
- The prioritization of opportunities.

This information is aggregated into the Current State Assessment that documents all of the work completed in this process phase. It becomes a foundational document for subsequent process phases and provides the context for why the effort is taking place and the overall goals to be achieved.
BPR Lifecycle Management
The BPR Practitioner works closely with the Project Manager to establish a schedule to document the activities and resource needs for all knowledge areas in this process phase.

Business Analysis and Future Definition
The BPR Practitioner performs a number of business analysis activities, including the identification of customer needs; business process issues; leading practices and benchmarks; and prioritized opportunities. With inputs from other knowledge areas, these activities culminate in the completion of the Current State Assessment.

Business Process Design
The BPR Practitioner performs the modeling and documenting of current business processes that results in the development of the Current State Process Model and is included in the Current State Assessment. These models are used as an input to the business process issue identification activities within the Business Analysis and Future Definition Knowledge Area and in the Planning Process Phase to help determine process improvements.

Performance Measurement
The current performance levels of existing business processes are identified and documented by the BPR Practitioner to create the performance baseline and is included in the Current State Assessment. This baseline establishes a frame of reference from which future improvement can be compared and is used during the Planning Process Phase.

Once all BPR-related Initiating Process Phase activities have been completed, the BPR Practitioner will complete the BPR Initiating Process Phase Checklist. Figure 1-2 summarizes the inputs, activities, and outputs for all active knowledge areas in the Initiating Process Phase.
## BPR Lifecycle Management

**Inputs**
- Business Process Scope Model
- Stakeholder Register

**Activities**
- Determine and Plan for BPR Activities

**Outputs**
- Completed BPR Schedule

## Business Analysis and Future Definition

**Inputs**
- Business Goals and Objectives
- Business Problem Statement
- Business Process Scope Model
- Completed Current State Process Model
- Completed BPR Schedule
- Identified Performance Baseline

**Activities**
- Identify Customer Needs
- Identify Business Process issues
- Identify Leading Practices and Benchmarks
- Identify, Validate, and Prioritize Opportunities
- Document the Current State Assessment

**Outputs**
- Identified Customer Needs
- Identified Business Process Issues
- Identified Benchmarks
- Identified Leading Practices
- Prioritized Opportunities
- Completed Current State Assessment

## Business Process Design

**Inputs**
- Business Process Scope Model
- Completed BPR Schedule
- Organizational Process Assets

**Activities**
- Document Current State Business Processes

**Outputs**
- Completed Current State Process Model

## Performance Measurement

**Inputs**
- Business Goals and Objectives
- Business Process Scope Model
- Completed Current State Process Model
- Completed BPR Schedule
- Identified Customer Needs

**Activities**
- Determine the Performance Baseline

**Outputs**
- Identified Performance Baseline
- Completed Performance Metric Assessment

---

**Figure 1-2**

Initiating Process Phase Goal: **Justify the Project**
1.2 Recommended Practices

The following Recommended Practices will help the BPR Practitioner build the business case. These recommended practices apply to all BPR knowledge areas and help establish a sound basis for the project.

Have a Compelling Business Case for Change

It is important to clearly understand and analyze the business problems and issues. If the root causes are not well understood and/or there is a lack of well-documented evidence, the business case will not be compelling. It then can potentially be criticized and can lead to many downstream undesirable consequences, such as not obtaining the necessary approvals or increasing the resistance to change. The case for change needs to be compelling for the organization to obtain the necessary support and buy-in.

Focus on the Perspective of the Customer

The customer’s needs should be documented based on their perspective. Often, current processes in a state organization have been defined over years of legislation and policies. With an opportunity to design new processes, it is important to understand the customer perspective in order to design processes that create the most value for the organization.

Have a Clear Baseline to Measure Performance Against

In order to measure improvements, it is important to clearly define key metrics and establish a baseline for each business process that is in scope for the BPR effort. This will allow the project team to determine the amount of progress towards meeting project goals as the change is being implemented.

Don’t Over-Document the Current State

Documenting the current state facilitates discussions with Stakeholders to determine business process problems, issues, and challenges that help define the future state. To this goal, the BPR Practitioner should use good judgment and their experience to manage the level of detail obtained and avoid falling into the trap of “current state paralysis”—a situation where participants spend unnecessary time documenting the details of how process steps occur which are subsequently rendered obsolete after the processes are redesigned. It is important to understand “who,” “what,” “when,” and “where,” but not the “how.”
Keep Lessons Learned in Mind Throughout the Project

Early in the BPR effort, it is important to take the time to seek out lessons learned that have been developed by other projects or different parts of the organization. By reviewing and implementing these lessons learned, it reduces the chance of repeating the mistakes others have experienced and build upon their successes.

On an ongoing basis, project team members should be encouraged to informally document their own lessons learned as they are executing the project. Lessons learned sessions are normally conducted at the end of the project or with the completion of a phase or milestone; in some cases, a lot of time may have passed from when an event occurred to when a lessons learned session takes place. Individually documenting the lessons learned ahead of time will ensure that project team members are able to remember all the successes and challenges that have happened.
2.1 BPR Lifecycle Management

The goal of BPR Lifecycle Management in the Initiating Process Phase is to determine and plan for the BPR activities necessary to support the case for change, as shown in Figure 2-1. The BPR Practitioner will work closely with the Project Manager to establish a BPR schedule for this process phase that identifies activities and resources necessary for BPR activities.

A summary of the inputs, roles, skills, activities, tools, and outputs for BPR Lifecycle Management in this process phase is presented in Figure 2-2.
2.1.1 Inputs

In order to complete the Initiating Process Phase BPR Lifecycle Management activities, the BPR Practitioner will need a thorough understanding of the following inputs:

Business Process Scope Model: This model, which identifies all of the end-to-end business processes affected by the proposed project, is developed during the Concept Process Phase.

Stakeholder Register: In order to identify resources needed for Initiating Process Phase activities, the BPR Practitioner will refer to Stakeholders and SMEs identified in the project’s Stakeholder Register. This register is an output of the Project Management workstream.
2.1.2 Roles

The following table lists the roles and their associated responsibilities of those involved in BPR Lifecycle Management activities during the Initiating Process Phase.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| BPR Practitioner  | • Leads the effort to determine the specific BPR activities that will be conducted during the Initiating Process Phase  
                    • Develops BPR staffing and resource estimates |
| Project Sponsor   | • Provides input to the BPR schedule  
                    • Assists with identifying BPR resources |
| Project Manager   | • Assists with developing project staffing and resource estimates  
                    • Assists with BPR schedule development  
                    • Maintains the BPR schedule |

2.1.3 Activities

The tasks completed under the BPR Lifecycle Management Knowledge Area revolve around establishing the resource and scheduling needs for this process phase.

**Determine and Plan for BPR Activities**

The Initiating Process Phase focuses on building the case for the BPR effort. To support the case for change, BPR activities within this process phase must be identified, resourced, and scheduled. The BPR Practitioner will identify tasks, document them in a BPR schedule, and support the Project Manager in identifying the necessary resources to complete the tasks.
To develop the schedule, the BPR Practitioner should complete the following:

- Review the entirety of this chapter to identify the various activities and outputs that must be developed within each knowledge area in the Initiating Process Phase.

- Based on the project and organizational characteristics, identify the tasks necessary to complete the identified activities. Consider any constraints that will dictate the timing, frequency and order the activities need to be completed.

- Estimate the duration and effort to complete each task. Consider the scope and complexity of the project to come up with appropriate numbers.

- Work with the Project Manager to identify available resources to complete the tasks. The availability of resources to support the effort may require re-work of the schedule. Resources assigned to BPR tasks should have essential skills and experience to perform them. These include previous business process modeling, meeting facilitation, and business analysis experience. This experience is essential for tasks to be completed efficiently and with the appropriate level of detail.

In addition to BPR Practitioner tasks, a pool of resources needs to be identified for a number of key activities during this process phase. The pool will consist of Stakeholders, SMEs, and customers who are familiar with the business processes in the project scope. They are needed for the following activities:

- Participation in business process elicitation sessions
- Identification of customer needs
- Identification of business process issues
- Identification of performance metrics

The BPR Practitioner should work with the Project Manager and leverage the Stakeholder Register to identify and allocate these resources in the BPR Schedule. Once the schedule has been developed, the BPR Practitioner will work with the Project Manager to integrate the tasks into the greater project schedule to monitor and control. The management of the BPR effort should not occur in isolation, but should be fully integrated with the project management effort for the entire project.
2.1.4 Tools
The tool that the BPR Practitioner will use within BPR Lifecycle Management during the Initiating Process Phase includes the following:

• BPR Schedule Template

2.1.5 Outputs
BPR Lifecycle Management produces the following output during the Initiating Process Phase:

• Completed BPR Schedule
2.2 Business Analysis and Future Definition

The goal of Business Analysis and Future Definition in the Initiating Process Phase is to build the case for change, as shown in Figure 2-3. The case for change is built by creating the Current State Assessment that documents customer needs, business process issues, leading practices and benchmarks, and prioritized business opportunities that address the issues. This activity formally establishes the business case which drives subsequent design activities.

A summary of the inputs, roles, skills, activities, tools, and outputs for Business Analysis and Future Definition in this process phase are presented in Figure 2-4.
2.2.1 Inputs

In order to complete the Initiating Process Phase Business Analysis and Future Definition activities, the BPR Practitioner will need a thorough understanding of the following inputs:

**Concept Process Phase Work Products:** These include the Business Problem Statement, Business Process Scope Model, and Business Goals and Objectives.

**Completed Current State Process Model:** The BPR Practitioner uses these process models to guide discussions with Stakeholders on process issues. The Completed Current State Process Model is an output of the Business Process Design Knowledge Area in this process phase.
**Completed BPR Schedule:** BPR Schedule describes the allocation of Stakeholder resources for key BPR activities. The schedule is an output of the BPR Lifecycle Management Knowledge Area in this process phase.

**Identified Performance Baseline:** The Performance Baseline is an output of the Performance Measurement Knowledge Area in this process phase and helps the BPR Practitioner determine benchmark metrics.

### 2.2.2 Roles

The following table lists the roles and their associated responsibilities of those involved in Business Analysis and Future Definition activities during the Initiating Process Phase.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR Practitioner</td>
<td>• Facilitates the activities of Business Analysis and Future Definition, organizing and conducting work sessions with Stakeholders  &lt;br&gt; • Determines the availability of Organizational Process Assets  &lt;br&gt; • Elicits and documents customer needs  &lt;br&gt; • Elicits and documents process issues  &lt;br&gt; • Identifies and collects information from other organizations for benchmarking and identifies leading practices  &lt;br&gt; • Validates and prioritizes business opportunities  &lt;br&gt; • Completes the Current State Assessment</td>
</tr>
<tr>
<td>Project Sponsor</td>
<td>• Approves any purchasing and resourcing decisions regarding benchmarking and leading practices research  &lt;br&gt; • Participates in the identification of opportunity prioritization criteria  &lt;br&gt; • Approves the Current State Assessment</td>
</tr>
</tbody>
</table>

For a complete list of all CA-BPR roles, see the BPR Role Definitions in the Glossary.
### Role Responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| Project Manager              | • Provides input to purchasing and resourcing decisions regarding benchmarking and leading practices research  
• Assists in identifying opportunity prioritization criteria |
| Stakeholders (Including SMEs) | • Has domain knowledge regarding specific requirements or needs  
• Participates to identify business process issues and opportunities |

### 2.2.3 Activities

The tasks under Business Analysis and Future Definition include the identification of customer needs, business process issues, leading practices, benchmarks, process improvement opportunities, and the completion of the Current State Assessment. The completion of these activities will help justify the need for this effort.

**Identify Customer Needs**

Understanding the customers of a business process is critical to any reengineering effort. A customer-centered approach optimizes the business value of the process in service of those who are affected the most. The BPR Practitioner will elicit and document customer needs to complete the business analysis.

**Elicit and Document Customer Needs**

During the BPR Lifecycle Management Knowledge Area, a pool of customers were identified for customer needs elicitation. In this activity, the BPR Practitioner will perform elicitation with these customers and document their needs. As a first step, the BPR Practitioner determines the best elicitation method for the project. SMEs that are familiar with the customers should be consulted to help determine what methods may be most beneficial. If the customer needs are perceived to be simple and/or homogeneous, interviews with a handful of customers may be sufficient.
Larger, more diverse groups of customers may be better served by a survey. Each method will require that a series of questions be posed about the customer’s perception of the service, product, and/or process. Example questions include:

- What is the main reason you participate in the process?
- What are the most important factors to you regarding the service/product/process?
- What do you feel are the strengths of the current service/product/process?
- What areas do you feel need improving in the current service/product/process?
- What one thing would you change regarding the current service/product/process?

The BPR Practitioner will perform whatever number of elicitation sessions are needed to gain an understanding of the customer’s needs. Once this data is collected, an analysis is performed on the information with the goal of identifying the core needs to be considered for the project. The BPR Practitioner reviews the data for common themes and impactful items.

Customer needs are summarized and documented as a needs statement. For example, “The customer service desk needs to provide prompt resolution to basic requests.” The customer needs serve as an element by which process improvement opportunities are aligned in subsequent activities. Once identified, they are documented in the Current State Assessment.

**Identify Business Process Issues**

A key activity during this process phase is the identification of business process issues. Understanding the issues associated with the business processes will help to identify areas that, once addressed, will lead to better performance and increased satisfaction.

These issues are usually identified by Stakeholders and SMEs that use the system and have the necessary domain knowledge. After business process issues are collected, they are converted to opportunities and are prioritized in subsequent
activities. These prioritized opportunities become the basis of the design efforts in the Planning Process Phase. This activity consists of the following tasks:

- Determine Elicitation Method
- Elicit and Document Business Process Issues

Determine Elicitation Method

During this activity, the BPR Practitioner again references the pool of participants identified during the BPR Lifecycle Management Knowledge Area. These participants consist of Stakeholders and SMEs that have the process knowledge and experience to describe process issues. The BPR Practitioner’s first step in this activity is to determine the best way to elicit the data from these participants. Common methods include focus groups, one-on-one interviews, and surveys. Each method is suitable to specific circumstances:

- **Focus groups** – Useful when Stakeholders are in a single location rather than being geographically dispersed. With focus groups, the BPR Practitioner serves as a facilitator, asking a series of questions and letting the participants discuss and provide feedback. Focus groups are valuable because they present opportunities for the group to confirm their thoughts and provide a consensus view. They also allow for the BPR Practitioner to ask follow-up questions for clarity. A potential drawback of focus groups is that some participants may feel uncomfortable sharing their views in a group setting.

- **One-on-One Interviews** – Useful for situations where scheduling difficulties and geographic challenges prevent focus groups. With interviews, the BPR Practitioner asks a series of questions of the Stakeholder and records their answers. Interviews, which can be done in person or remotely, are valuable in that individual attention is given to each Stakeholder. In this way, certain information may be revealed that may be missed in a focus group or survey. Additionally, interviews allow for follow-up questions for clarity. The main drawback to interviews is that they are labor intensive.

- **Surveys** – Useful for situations where large groups of Stakeholders need to be addressed and/or are geographically dispersed. Surveys are valuable in that they are cost effective and can yield large amounts of data in short time frames. However, the quality of the survey data depends greatly on how questions are written; experienced BPR Practitioners should employ this method or leverage the appropriate expertise to help draft the survey. One drawback for surveys is they do not allow for ad hoc follow up questions for clarification.
Another method to elicit information from Stakeholders is to combine the activity with other activities already scheduled. For example, the activity of gathering information on the current business processes covered in the Business Process Design Knowledge Area can be leveraged for identifying business process issues as well. Suitability is dependent on factors such as project size and Stakeholder composition. For smaller projects, this combination can be achieved without overburdening participants. However, on larger projects with more diverse Stakeholder groups, it may be more beneficial to separate the efforts and have a clear agenda and objectives for each. The BPR Practitioner should take the time to assess these factors to make a determination.

After taking the previous areas into account, the BPR Practitioner determines the appropriate elicitation methods and schedules sessions as needed.

**Elicit and Document Business Process Issues**

During elicitation activity, the BPR Practitioner should pose a series of questions that are meant to identify business process issues. The nature, wording, and context of the questions may vary from process to process and according to the elicitation method selected; the BPR Practitioner needs to apply knowledge, judgment, and experience when creating questions that best suit the project. The following are example questions that may be used for the elicitation activity:

Questions to identify process problems and issues:

- What are the major goals or objectives associated with the process?
- How are these goals/objectives measured?
- What barriers or constraints are faced in meeting these goals/objectives?
- How would you rate the performance of the program/process?
- What are the process’s key strengths?
- What are the process’s weaknesses?
- Are there any backlogs associated with the process?
- Are there any resourcing issues?
- Does staff possess the right knowledge, skills, and abilities?
- How is process-related work prioritized?
- Is there any duplication of effort?
• What tools and/or systems do you desire that you currently do not have?

• How urgent are decisions/actions dealt with? Are decisions made in a timely manner?

Once the data has been collected, the BPR Practitioner performs an analysis on the information. The goal of the analysis is to identify the core issues that warrant process reengineering. The BPR Practitioner reviews the data for common themes and impactful items to identify process issues that are documented with the following elements:

• **Problem Statement** – a short statement of the problem itself. For example, “Manual prioritization of customer service requests require significant expenditures of employee time.”

• **Impact** – what significance does this problem or issue have? What is the impact to the organization in terms of cost, inefficiency, lost productivity, dissatisfied customers, etc.

• **Causes and notes** – to the extent possible, identify root causes for the problem, and document any background, context, or extraneous items that would help the reader better understand the improvement opportunity.

The resulting documentation of business process issues serve as the basis for opportunity prioritization in subsequent activities and for process redesign activities in the Planning Process Phase. Once identified, the business process issues are included in the Current State Assessment.

### Identify Leading Practices and Benchmarks

Another key activity for the BPR Practitioner during the Initiating Process Phase is the identification of leading practices and benchmarks. In addition to business process issues identified in the prior activity, leading practices are an important source of improvement opportunities. Benchmarks, on the other hand, help the BPR Practitioner in determining future performance targets in the Planning Process Phase.

- Leading practices are effective strategies, operations, or processes that are employed by peer organizations with a record and reputation of high performance in the industry. For example, a leading practice may be to co-locate information technology infrastructure with similar agencies in order to save on facility operation costs.
• Benchmarks are known levels of performance from peer organizations that allows for performance comparison. For example, a benchmark may be a 24 hour processing time for application forms.

While leading practices and benchmarks are different and used for separate purposes, they are grouped in this activity because they are often collected from the same organizations. This activity consists of the following tasks:

• Identify Leading Practice or Benchmark Organizations
• Identify Collection Methods
• Collect and Document Leading Practices and Benchmarks

Identify Leading Practice or Benchmark Organizations
As a first step to identifying leading practices and benchmarks, the BPR Practitioner needs to identify an appropriate pool of organizations from which to elicit data. Characteristics the BPR Practitioner should consider include type of product/service and types constraints, such as mandates and legislation. Additionally, organizations should have a record and reputation of high performance.

A number of research organizations exist that specialize in providing leading practices and benchmarks. Examples include Gartner and Forrester Research. These may be cost-effective options and should be considered. In cases where costs are prohibitive or the data is not readily available, the BPR Practitioner can reach out to industry associations such as the National Association of Chief Information Officers, the Government Finance Officer’s Association, or the Center for Digital Government to identify top performing government organizations.

It should be noted that while government agencies frequently look to other government agencies for leading practices and benchmarks, private sector companies should also be considered. The private sector is more responsive to market changes due to factors such as more lax governing rules and regulations and cultural differences. Though it may be difficult for the state organization to wholly adopt and strive for the leading practices and benchmarks of private sector organizations, they may offer innovative methods that can be leveraged for improvement.

Identify Collection Methods
Once organizations are identified, the BPR Practitioner needs to determine a suitable method for collecting the information. The BPR Practitioner should first determine what level of data may already exist. As mentioned previously,
research firms often offer leading practice and benchmark research. However, such research is often proprietary and the information may need to be purchased, so the BPR Practitioner will need to weigh the applicability of the research against cost.

If existing research cannot be obtained, the BPR Practitioner will need to perform research to collect the data from the identified organizations. One successful method of data collection is telephone interviewing. This allows the Practitioner to receive immediate results and ask follow-up questions as necessary. Another viable and often complementary option is a survey. The survey can be useful in gathering information from a large number of targets at one time, but doesn’t allow for impromptu follow-up questions or additional context that may be needed. In order for a survey to work properly, the BPR Practitioner needs to ensure the readability of the questionnaire and applicability of each question and answer choice. The BPR Practitioner will need to weigh the pros and cons of the available methods and use good judgment to determine a suitable approach.

**Collect and Document Leading Practices and Benchmarks**

After the collection method has been determined, the BPR Practitioner executes upon the collection activity. Depending on the method and the amount of desired data, this may require a significant amount of time and expenditure of resources, something that will need to be considered. The questions below are recommended in order to capture a larger set of answers.

When eliciting leading practices, the BPR Practitioner can use questions such as:

- What do you consider as leading practices regarding [business process]?
- What practices regarding [business process] sets your organization apart from your peers?
- What innovations regarding [business process] do you think are instrumental in your organization’s success?

Benchmarks can be elicited by using questions such as:

- What performance metric(s) do you currently use for [business process]?
- What is your current performance value for this metric?
- What is your target performance value for this metric? What timeframe is tied to this target?
After the data collection is complete, the BPR Practitioner documents the leading practices and benchmarks in the Current State Assessment. Each leading practice should be summarized into a succinct statement for readability since leading practices are typically narrative in nature. Benchmarks are often numeric in nature and may include ranges of performance. At a minimum, documentation should include a description of the leading practice or benchmark and the business process(es) to which it is relevant. Once the documentation is complete, the BPR Practitioner will utilize the identified leading practices and benchmarks in opportunity prioritization and determining future performance targets, respectively.

### Identify, Validate, and Prioritize Opportunities

During this activity, the BPR Practitioner evaluates the previously identified business process issues and leading practices to identify the organization’s opportunities for improvement. These are then documented in the Current State Assessment. The resulting prioritized opportunities become a useful input for the Project Manager when developing the Project Charter. Specifically, they aid in identifying in-scope and out-of-scope activities. Furthermore, the prioritization becomes the basis for future reengineering and redesign activities in the Planning Process Phase. This activity consists of the following tasks:

- Identify Opportunities
- Validate Opportunities
- Determine Prioritization Criteria
- Prioritize and Document Opportunities

### Identify Opportunities

To identify opportunities, the BPR Practitioner converts each identified process issue or leading practice from prior activities into opportunity statements. An opportunity is a chance to make a change resulting in a benefit. The statement should succinctly define the improvement opportunity that would resolve the process issue. For example, the problem statement, “manual prioritization of customer service requests require significant expenditures of employee time” is converted to “improve the ability to automatically prioritize customer service requests.”
Validate Opportunities

Valid opportunities are ones that align to the project's Business Goals and Objectives and meets customer needs. The BPR Practitioner should validate the opportunities by assessing if these criteria are met. The following questions can be used for this validation:

- Which Business Goals and Objectives does it support?
- Which customer need does it support?

Only opportunities that demonstrate alignment to these criteria should be prioritized and included in the scope of the project.

Determine Prioritization Criteria

After validating that the opportunities are appropriate, the BPR Practitioner needs to establish criteria by which to prioritize them. The criteria will vary from project to project, so the BPR Practitioner should work with the Project Manager and Project Sponsor to identify the appropriate prioritization criteria. The BPR Practitioner can begin by using the following list and add or subtract criteria as needed:

- What level of expenditure does it require?
- How many Stakeholders will it impact?
- What level of expertise is required to implement it?
- What is the timeframe for implementing it?
- Is it dependent on other opportunities?
- Does it enable other opportunities?
- What is the level of urgency of the associated issue?
- Is the process associated with it critical to the organization?
- Does it require changes to labor agreements?
- Does it require any legislative or regulatory changes?
One criteria the BPR Practitioner should make note of is regarding policy or legislative changes. It is somewhat rare that a process improvement opportunity of any consequence can be realized without considering governing policies, state law, or federal law. The BPR Practitioner should investigate these and any other constraints identified through this process with Stakeholders to understand any regulations or internal policies that govern the process or may impact the process in some way.

Once identified, the constraints should be documented along with a brief discussion as to the possibility of addressing them. For example, in many organizations, there are administrative policies that have existed for decades but no longer reflect operating needs. It may be possible to ask a governing body to allow changes, or to eliminate certain policies altogether. In other cases, state law may govern a process, and the likelihood of changing such a situation is either low or would take considerable time.

**Prioritize and Document Opportunities**

A final step is to assign a priority to each opportunity based on the established criteria and document them in the Current State Assessment. This is typically a simple A, B, C classification, or High, Medium, Low.

The resulting prioritized opportunities are used to both build the case for change by illustrating which opportunities can be seized and articulating the high-level benefits that would result. This in turn helps the Project Manager in developing the Project Charter’s in-scope activities by identifying which improvement activities have the highest potential value. Furthermore, they serve as the basis for reengineering activities in the Planning Process Phase.

**Document the Current State Assessment**

Lastly, the BPR Practitioner will document the current state in a formalized document. This incorporates the work products from the Business Analysis and Future Definition, Business Process Design, and Performance Measurement Knowledge Areas. It provides the foundation for the project in building the business case for change as well as demonstrates that the BPR Practitioner has completed a thorough analysis of the current state. In documenting the current state, the BPR Practitioner includes the following:

- Documented current state business processes
- Documented customer needs
• Identified business process issues
• Prioritized improvement opportunities
• Defined current performance baseline

The BPR Practitioner incorporates these components of work products into the Current State Assessment. The BPR Practitioner then presents this information to the Project Manager, Project Sponsor, and Stakeholders as determined by the Project Manager. The Current State Assessment then becomes an important input to the Project Approval Lifecycle (PAL) and design and reengineering activities in subsequent process phases.

### 2.2.4 Tools
The tool that the BPR Practitioner will use within Business Analysis and Future Definition during the Initiating Process Phase includes the following:

• Current State Assessment Template

### 2.2.5 Outputs
Business Analysis and Future Definition produces the following outputs during the Initiating Process Phase:

• Identified Customer Needs
• Identified Business Process Issues
• Identified Benchmarks
• Identified Leading Practices
• Prioritized Opportunities
• Completed Current State Assessment
2.3 Business Process Design

Figure 2-5

The focus of Business Process Design during the Initiating Process Phase is to understand the current state of the organization's business processes that are in scope of the project, as shown in Figure 2-5. The BPR Practitioner does this by modeling the current state to a level of detail needed to identify business process issues and opportunities.

The BPR Practitioner will document the current business processes through interviews and facilitated work group sessions. The results will be documented and are used during the Business Analysis and Future Definition Process Phase to identify process problems and improvement opportunities by illustrating connection points, numbers of handoffs, and overall complexity. A summary of the inputs, roles, skills, activities, tools, and outputs is presented in Figure 2-6.
2.3.1 Inputs

In order to complete the Initiating Process Phase Business Process Design activities, the BPR Practitioner will need a thorough understanding of the following inputs:

**Business Process Scope Model:** The Business Process Scope Model provides a basis for the BPR Practitioner to work from when documenting the current state business processes.

**Completed BPR Schedule:** In order to identify Level 1 and Level 2 process details (described later in this knowledge area), the BPR Practitioner will rely on the input of Stakeholders and SMEs. The BPR Schedule describes the allocation of these resources. The schedule is an output of the BPR Lifecycle Management Knowledge Area in this process phase.
Organizational Process Assets: An organization might have existing documentation, including organization charts, enterprise architecture documents, existing process models, desk guides, manuals, and prior project work that will be useful for the BPR Practitioner.

2.3.2 Roles

The following table lists the roles and their associated responsibilities of those involved in Business Process Design activities during the Initiating Process Phase.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR Practitioner</td>
<td>• Facilitates the work group sessions with Stakeholders</td>
</tr>
<tr>
<td></td>
<td>• Documents and models the current state business processes</td>
</tr>
<tr>
<td>Stakeholders (including SMEs)</td>
<td>• Has domain knowledge regarding specific needs, processes, or functional areas</td>
</tr>
<tr>
<td></td>
<td>• Participates in the identification of current state business processes</td>
</tr>
</tbody>
</table>

2.3.3 Activities

The tasks completed under the Business Process Design Knowledge Area center on completing the Current State Process Model. Although these tasks are grouped and sequenced in the sections that follow, the BPR Practitioner needs to apply his/her knowledge and experience to ensure the appropriate sequence for each project.
Document Current State Business Processes

A Business Process Model is a graphical swim-lane diagram representing a sequence of activities with the associated responsible roles. It contains information that enables the analysis and identification of current business process issues (an activity that occurs within the Business Analysis and Future Definition knowledge area). An example of a simple model is presented in Figure 2-7, showing the process beginning and end, activities and decision points.

Level 1 – Post a Job Notification

The following are inputs to the activity:
- Business Process Scope Model
- Completed BPR Schedule

The BPR Practitioner will use their knowledge, judgment and experience to maintain the analysis at a high enough level to capture the “who,” “what,” “when,” and “where” work is performed, and avoid getting into “how” work is being performed. It is critical to understand the activities that need to occur to achieve the outcome, but not how it is done today. This enables a redesign of the business processes to occur during the Planning Process Phase.

Business process modeling is normally done at various levels of detail enabling complex business processes to be divided into smaller, less complex, and more manageable sub processes, activities, and tasks. This is known as levels of decomposition. The CA-BPR employs the use of 5 levels of decomposition, as presented in Figure 2-8.
A Level 0 End-to-End Business Process describes an organization's business process at the highest level. This level, which is made up of a single phrase, can be seen as an umbrella business process under which all other business processes (Level 1), sub-processes (Level 2), activities (Level 3), and tasks (Level 4) are encapsulated. In Figure 2-8, Procure-to-Pay is an End-to-End Business Process.
The next highest level of process decomposition is Level 1 Business Process, which is a series of related actions performed by one or more stakeholders in order to complete a business transaction or accomplish an organizational goal. While multiple business processes working together make up an end-to-end business process, multiple sub-processes working together make up a business process. In Figure 2-8, Purchasing, Receiving, Invoice Processing, and Payment Processing are all examples of business processes.

The next level of process decomposition is Level 2 Sub-Process, which is a series of steps necessary to the completion of a business process, but insufficient on its own to achieve an organizational goal. For example, “create a purchase requisition” is a sub-process of purchasing that is a necessary step to procuring goods for a department, but by itself will not accomplish the goal of procuring those goods. While multiple sub-processes working together make up a business process, multiple activities working together make up a sub-processes. Examples of sub-processes in Figure 2-8 include: Approve Requisition, Create Purchase Order, and Forward Purchase Order to Vendor.

A Level 3 Activity is a series of tasks required to execute a sub-process. Activities are further decomposed into tasks. For example, the sub-process of completing a purchase requisition may require the activities of a “budget check” to verify funds availability and “obtain supervisor approval” if the dollar amount exceeds a certain threshold. Other examples of activities in Figure 2-8 include: Identify Commodity Code, Complete Requisition Form, and Obtain Approval.

The last level of decomposition is a Level 4 Task which is a single action step performed by a single Stakeholder and is the smallest part of the business processes. Multiple tasks performed together make up a single activity. To complete the requisition form, the employee indicates the quantity desired and verifies the price. He or she then selects the preferred vendor and provides shipping information. Examples of tasks in Figure 2-8 include: Indicate Quantity, Verify Price, and Select Preferred Vendor.

To document the current state business processes, the BPR Practitioner will normally employ Level 1 or Level 2. Further guidance on business process modeling is presented in the Business Process Model Tool, including process modeling techniques and templates. This activity consists of the following tasks:

- Prepare for Business Process Modeling
- Facilitate Sessions and Model Processes
Prepare for Business Process Modeling

Business Process Modeling elicitation requires the BPR Practitioner to facilitate elicitation sessions with Stakeholders who can describe the business processes. To increase the likelihood of success, the BPR Practitioner should prepare for elicitation by carefully considering the following areas when scheduling model sessions:

- **Participants** – the BPR Practitioner refers to the Phase BPR Schedule when scheduling participants and sessions. Stakeholders identified as participants in modeling activities need to be able to accurately describe the business processes.

- **Elicitation Methods and Group Size and Composition** – for most projects, business processes are elicited via interviews, facilitated group work-sessions, or a combination thereof. The goal of the elicitation is to document the processes accurately while controlling for cost. In many cases, one or two SMEs are knowledgeable enough to describe entire business processes. In these cases interviews are employed. When a business process is larger and requires a group of Stakeholders, group work-sessions are typically used. In such cases the BPR Practitioner should consider group size and composition as important factors of success. Smaller groups may help improve dialogue and discussions. Meetings with larger groups should allow for smaller breakout groups to encourage more participation. Composition of groups should include Stakeholders across the entire end-to-end processes to address handoffs and other issues.

- **Timing and Schedule** – it is generally best to keep interviews or sessions to no more than two to three hours per session to limit participant fatigue. Keep in mind that facilitating several such meetings in a single day is difficult. It is wise to allow time between interviews or sessions to accommodate other work requirements, and document and prepare for the next session.

- **Preparation and Materials** – In preparing for facilitated sessions, the BPR Practitioner should review pertinent organizational process assets to become familiar with the business processes that are in scope of the project. Documentation, such as training manuals or desktop procedures, can provide good information and can be leveraged prior to the facilitated sessions. When possible, it is helpful to create a basic draft model to serve as a scaffold for more detailed processes. Stakeholders will be much more willing to discuss business processes with a facilitator who has taken the time to prepare and can use the business terminology specific to their domain.

**Inputs**

The following is an input to the activity:
- **Organizational Process Assets**

**Skills**

Use the following skill to complete the activity:
- **Analysis**
Facilitate Sessions and Model Processes

As the facilitator of the modeling sessions, the BPR Practitioner is responsible for guiding the participants into producing the Current State Process Model that provides enough detail to help identify process issues. This typically means describing and documenting them no further than Level 2 sub-processes.

The session begins with an introduction of the purpose of the session, the anticipated outcomes, and the roles of the participants. Establishing this upfront is important to establishing the expectations of the participants. It is helpful to keep these items visible, such as on a white board or flip chart, so the BPR Practitioner can refer to them in case discussions go off-track.

The BPR Practitioner then performs a guided walkthrough of the Business Process Scope Model to orient the participants. The BPR Practitioner then leads participants through the initial draft model and prompts participants to elaborate upon it. If a model was not prepared in advance, the BPR Practitioner prompts the participants into identifying the individual steps in the business process until the process is fully described.

The BPR Practitioner, while facilitating the work session, should document the results in a swim-lane diagram. Guidance regarding the documentation of the models along with templates are provided in the Business Process Modeling Tool. Modeling sessions can be challenging, especially with large groups. Below are useful tips the BPR Practitioner can use for facilitating sessions:

- Use the first five minutes of the session to establish ground rules. Let the participants know that the purpose is to gather specific information from multiple viewpoints. The Practitioner will stop and refocus the discussion if it gets off track. Also, make sure they understand that the discussion will be documented, and that it may be necessary to backtrack to fill in gaps.

- When using process mapping to document a process flow, take the time to explain the various symbols and standards used to ensure participants can follow along.

- The BPR Practitioner must be careful to allow all the participants a chance to provide input. It is the facilitator’s role to ensure that the information gathered does not simply reflect the views of the most dominant personality in the group.
If tangential items come up during the session that are important but not directly relevant to your topic, use a white board or flip chart to record them as “parking lot” items that can be discussed at another time.

If you are using process mapping to document a business process or sub-process, verify the diagram with Stakeholders prior to moving on to the next process.

After the model and documentation is complete, its accuracy should be verified by the participants. The resulting Current State Process Model is added to the Current State Assessment and becomes an important input into the Business Analysis and Future Definition knowledge area.

### 2.3.4 Tools

The tool that the BPR Practitioner will use within Business Process Design during the Initiating Process Phase includes the following:

- Business Process Modeling Tool

### 2.3.5 Outputs

Business Process Design produces the following output during the Initiating Process Phase:

- Completed Current State Process Model
2.4 Performance Measurement

The goal of Performance Measurement is to ensure that improvements resulting from the project are measurable, as shown in Figure 2-9. The BPR Practitioner should identify the processes being measured and the level of performance of the current state as a baseline to which the future state can be compared. It is fairly common that metrics for each business process as defined by the project are not readily available, in which case a collection effort is performed to obtain them. Baseline metrics will need to be measured throughout the project to demonstrate improvement and should be aligned to the business processes. A summary of the inputs, roles, skills, activities, tools, and outputs is presented in Figure 2-10.
2.4.1 Inputs

In order to complete the Initiating Process Phase Performance Measurement activities, the BPR Practitioner will need a thorough understanding of the following inputs:

**Business Goals and Objectives:** The BPR Practitioner aligns current and future performance measures to the Business Goals and Objectives.

**Business Process Scope Model:** The Process Scope Model provides a basis for the BPR Practitioner to work from when determining which of the processes need performance baselines.

**Completed Current State Process Model:** The Current State Process Model is developed within the Business Process Design Knowledge Area in this process phase and provides details regarding the processes impacted by the
project. This detail will be helpful in aiding the BPR Practitioner in determining performance measurements.

**Completed BPR Schedule:** In order to identify current levels of performance, the BPR Practitioner will rely on the input of Stakeholders and SMEs. The BPR Schedule describes the allocation of these resources. The schedule is an output of the BPR Lifecycle Management Knowledge Area in this process phase.

**Identified Customer Needs:** When determining performance targets the needs of customers are important to consider. Documentation of customer needs is an output of the Business Analysis and Future Definition knowledge area in this process phase.

### 2.4.2 Roles

The following table lists the roles and their associated responsibilities of those involved in Performance Measurement activities during the Initiating Process Phase.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR Practitioner</td>
<td>• Works with the Stakeholders (as needed) to identify current performance measures</td>
</tr>
<tr>
<td></td>
<td>• Analyzes the current performance measures to determine adequacy</td>
</tr>
<tr>
<td></td>
<td>• Analyzes the current performance levels to determine accuracy</td>
</tr>
<tr>
<td></td>
<td>• Documents current performance baseline</td>
</tr>
<tr>
<td>Project Sponsor</td>
<td>• Assists in identifying the current performance measures</td>
</tr>
<tr>
<td></td>
<td>• Formally approves the performance baseline</td>
</tr>
<tr>
<td>Stakeholders (including SMEs)</td>
<td>• Has domain knowledge regarding specific needs, processes, and/or functional areas</td>
</tr>
<tr>
<td></td>
<td>• Participates in the identification of current performance measures</td>
</tr>
</tbody>
</table>
2.4.3 Activities

The tasks required to determine the performance baseline are presented in a logical sequence below. The BPR Practitioner should leverage his/her experience and judgment to adjust tasks and the sequence as needed.

Determine Performance Baseline

Organizations often track metrics to determine their level of performance. Examples of performance metrics are number of applications processed within a week, number of forms in a backlog per day, number of customer service calls dropped before reaching a representative, and average time to process a form or other product from beginning to end.

During the Initiating Process Phase, the BPR Practitioner determines the performance baseline, or current level of performance, for business processes in the scope of the project. The resulting performance baseline provides a basis for measuring future improvements. This activity consists of the following tasks:

- Determine What Metrics are Being Used
- Assess Existing Metrics
- Create New Performance Metrics
- Collect and Document the Current Performance Baseline

Determine What Metrics are Being Used

The first step in determining the performance baseline is identifying what, if any, metrics are currently in use. The BPR Practitioner does this by speaking to SMEs that have insight into the processes. If it is determined that metrics are in use, they should be evaluated to determine adequacy. If there are no metrics, the BPR Practitioner should work with the Project Sponsor and SMEs to create them as needed.

Assess Existing Metrics

If there are existing metrics, the BPR Practitioner will evaluate their adequacy by performing a Performance Metric Assessment. This involves assessing each metric against a series of criteria. These criteria are:
• **Accuracy** – metrics should reflect the realities of the process

• **Clarity** – metrics should be easy to understand and if calculated, the calculation should be documented

• **Low cost** – metrics should not require inordinate effort or cost to collect

• **Numeric** – metrics should be quantifiable so that they can be compared over time

• **Discrete** – metrics should be singular and not compound

• **Relevancy** – metrics should reflect important objectives and should be traceable back to the organization’s strategic goals

• **Adequacy** – metrics should describe all of the required objectives for a comprehensive picture

• **Time** – metrics need to exist for a significant amount of time to show they are reliable

The BPR Practitioner will work with the Project Sponsor and SMEs as necessary to complete the assessment. If the outcome of the assessment shows that the existing metrics are inadequate, the BPR Practitioner will need to lead an effort for the SMEs to create new metrics.

**Identify New Performance Metrics**

To create new performance metrics, the BPR Practitioner should conduct brainstorming sessions with SMEs to identify potentially viable metrics. The goal of these sessions is to create metrics that satisfy the criteria within the Performance Metric Assessment. To prompt brainstorming activities, the BPR Practitioner can use the following categories and questions:

• **Time** – How much time is spent generating products or services? What is the complete cycle time from end-to-end? What is the cycle time for each business process and sub-process?

• **Quality** – How many defects are associated with the product or service? How many items are returned due to being defective, have errors, or missing information?

• **Cost** – How much cost is associated with conducting the end-to-end business process? Are there components of the business process that are highly manual?
• **Inputs/Outputs** – Are there backlogs? What is the quality of the end results?

The BPR Practitioner will rely upon the domain knowledge of SMEs to help determine if the metrics are available or can be measured with reasonable effort. For example, if cycle time is identified as a candidate, the BPR Practitioner should ask the relevant SMEs how the cycle times could be currently measured. This may be as simple as creating a new system report or by manually timing cycles because the system functionality does not exist. In situations similar to the latter, the BPR Practitioner needs to weigh the cost and effort required to gather the current level of performance against the value of the metric. Once viable metrics are determined, the BPR Practitioner needs to collect the metrics, validate their accuracy, and document them in the Current State Assessment.

**Collect and Document the Current Performance Baseline**

Using the metrics identified in the prior task, the BPR Practitioner collects the current performance baseline values. This often involves submitting requests for system reports to various Stakeholders that have access to the data. When the data is collected, it is documented in the Current State Assessment.

Once the performance baseline values have been collected and documented, the BPR Practitioner finalizes the performance baseline of each business process in the Current State Assessment. It is recommended that the baseline be established for an entire year, either calendar or fiscal year. This way, any fluctuations over time can be accounted for. The finalized performance baseline is then used in reengineering activities during the Planning Process Phase.

**2.4.4 Tools**

The tools that the BPR Practitioner will use within Performance Measurement during the Initiating Process Phase include the following:

- Current State Assessment Template
- Performance Metric Assessment Template

**2.4.5 Outputs**

Performance Measurement produces the following outputs during the Initiating Process Phase:

- Identified Performance Baseline
- Completed Performance Metric Assessment
3.1 Complete the Checklist

Once all of the BPR activities within the Initiating Process Phase are done, the process phase checklist should be completed. The checklist provides a list of “why, how, what, who, where, and when” questions to verify that all items in the process phase are complete.

The process phase checklist helps to identify and document repeatable steps, from project to project, to ensure that the correct activities are completed at the right time, every time.

Process phase checklists assist the BPR Practitioner in quickly and confidently identifying areas of concern within this process phase. In this case, completion of the checklist provides a clear milestone that the Initiating Process Phase is complete, including:

- Completed BPR Schedule
- Identified Customer Needs
- Identified Business Process Issues
- Identified Benchmarks
- Identified Leading Practices
- Prioritized Opportunities
- Completed Current State Assessment
- Completed Current State Business Process Model
- Identified Performance Baseline
- Completed Performance Metric Assessment
- Completed BPR Initiating Process Phase Checklist
The Planning Process Phase focuses on developing the future state, identifying performance targets, and documenting the future business processes.
In this chapter...

1. Approach
   1.1 Introduction
   1.2 Recommended Practices

2. Knowledge Areas
   2.1 BPR Lifecycle Management
   2.2 Business Analysis and Future Definition
   2.3 Business Process Design
   2.4 Performance Measurement

3. Process Phase Checklist
   3.1 Complete the Checklist
Figure 1-1

The Planning Process Phase is the third process phase of the Project Management Lifecycle (PMLC). In this process phase, the project team will analyze solution alternatives, secure the necessary funding, document requirements, and determine an implementation approach. The BPR Practitioner works closely with the Project Manager and project team to assist in the selection of the technology solution. As shown in Figure 1-1, activities from all four knowledge areas occur within this process phase and focus on:

- Planning the BPR work
- Designing the future state
- Supporting project activities such as the assessment of solution alternatives
- Identifying performance targets

1.1 Introduction

During the Planning Process Phase, the BPR Practitioner takes the first steps in laying out the future state of the business processes. This is done by designing the future state business processes at a high level, supporting a solution gap analysis, and determining the performance targets the business process improvements will be measured against. The BPR Practitioner will engage the project team and subject matter experts (SMEs) to ensure these items are
represented thoroughly and accurately in preparation for the Executing Process Phase. These activities are contained with the four active knowledge areas of this process phase.

**BPR Lifecycle Management**

The emphasis of the project shifts from building a business case towards supporting the business process design effort. The BPR Practitioner works closely with the Project Manager throughout the Planning Process Phase to integrate BPR activities into the project schedule and coordinate with other project team members.

**Business Analysis and Future Definition**

The BPR Practitioner may be asked to assist in project team activities including market research to identify solution alternatives, analysis of solution alternatives to identify gaps, and requirements development.

**Business Process Design**

The BPR Practitioner leads the development of the future state business process by facilitating design sessions with the BPR Design Team. This results in the creation of the Future State Process Model with associated assumptions and constraints that will meet the Business Goals and Objectives and the needs of customers.

**Performance Measurement**

In addition to the BPR Design Team’s efforts to establish the future state business process, they will work to establish performance targets for each. These targets help to provide direction for the amount of redesign that is necessary.

Once all BPR-related Planning Process Phase activities have been completed, the BPR Practitioner will complete the BPR Planning Process Phase Checklist. Figure 1-2 lists all of inputs, activities, and outputs for each knowledge area during the Planning Process Phase.

**Sequence of Activities**

Although the knowledge areas are presented in a specific order for consistency throughout the CA-BPR, the order in which the activities occur is independent of each other. Activities may occur simultaneously and iteratively rather than sequentially. The BPR Practitioner should apply experience and knowledge of past projects, along with individual judgment, to determine the most appropriate use sequencing activities for each unique project.
### Planning Process Phase Goal: Establish the Future State

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Completed BPR Schedule&lt;br&gt;- Stakeholder Register</td>
<td>- Determine and Plan for BPR Activities</td>
<td>- Completed BPR Schedule</td>
</tr>
<tr>
<td>- Completed Future State Process Model&lt;br&gt;- Solution Alternatives</td>
<td>- Project Support Activities</td>
<td>- None</td>
</tr>
<tr>
<td>- Business Goals and Objectives&lt;br&gt;- Completed Current State Process Model&lt;br&gt;- Completed Future State Process Model&lt;br&gt;- Identified Benchmarks&lt;br&gt;- Identified Customer Needs&lt;br&gt;- Identified Performance Baseline&lt;br&gt;- Prioritized Opportunities</td>
<td>- Identify and Document Performance Targets</td>
<td>- Completed Performance Target Inventory</td>
</tr>
</tbody>
</table>

**Figure 1-2**
1.2 Recommended Practices

The following recommended practices will help the BPR Practitioner develop the Future State Process Model and support the assessment of solution alternatives. These recommended practices apply to all BPR knowledge areas and help identify a preferred solution.

Establish the “What” Before the “How”

As the BPR Practitioner works on developing the Future State Process Model, the focus of design should be on “what” needs to happen, as opposed to “how.” Focusing on the “how” may limit the solution alternatives. This increases the risk of creating a solution that may not address the business needs or issues, or allow the organization to fully capitalize on potential opportunities.

Take the Time to Document the Environment

It can be very tempting for the BPR Practitioner to skip over or shortchange the documentation of assumptions, constraints, and impacts because the solution may appear obvious. But taking the time to document will provide substantial benefits. This helps improve planning, provides early identification of potential issues to address, and fosters the ability to compare solutions in an objective manner.

Make Sure the Gaps are Known and Understood

It is rare that an out-of-the-box technology solution will fit perfectly with the future state. Knowing this is important for Stakeholders to understand where and what the gaps are, and how those gaps will need to be addressed to achieve the future state. Without a thorough gap analysis, an organization risks wasting time, effort, and budget on an unsuitable solution.

Coordinate Resource Needs with the Project Manager

Keep in mind that when considering project resources for development or support of the future state, it is likely that those same resources are needed for technology selection, transition planning, or other tasks. To minimize resource contention and keep BPR tasks in alignment with other project efforts, the BPR Practitioner should work with the Project Manager to make sure that resource needs are communicated and coordinated with other project workstreams.
2.1 BPR Lifecycle Management

The goal of BPR Lifecycle Management in the Planning Process Phase is to plan the BPR activities and secure the BPR resources that are needed, as shown in Figure 2-1. Activities across all knowledge areas gain momentum and need to be coordinated and managed to ensure the project is ready for Execution Process Phase activities. Significant emphasis needs to be placed on effective communications in this phase, as many resources will be shared between BPR and other project workstreams.

A summary of the inputs, roles, skills, activities, tools, and outputs of the knowledge area is presented in Figure 2-2.
2.1.1 Inputs

In order to complete the Planning Process Phase BPR Lifecycle Management activities, the BPR Practitioner will need a thorough understanding of the following inputs:

**Completed BPR Schedule**: The Completed BPR Schedule from the Initiating Process Phase will be leveraged and elaborated upon for Planning Process Phase tasks.

**Stakeholder Register**: A product of the Project Management workstream, the register lists Stakeholders and other project resources involved or affected by the project. The BPR Practitioner and Project Manager will use the register to identify resources needed for BPR tasks during the Planning Process Phase.
2.1.2 Roles

The following table lists the roles and their associated responsibilities of those involved in BPR Lifecycle Management activities during the Planning Process Phase.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR Practitioner</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Leads the effort to determine BPR needs for the Planning Process Phase</td>
</tr>
<tr>
<td></td>
<td>• Supports the Project Manager with developing BPR staffing and resource estimates</td>
</tr>
<tr>
<td></td>
<td>• Supports the Project Manager in scheduling and resourcing BPR activities</td>
</tr>
<tr>
<td>Project Sponsor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Assists with securing BPR resources</td>
</tr>
<tr>
<td></td>
<td>• Determines if external resources are needed to support BPR activities</td>
</tr>
<tr>
<td>Project Manager</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Leads the development of the project’s approach, work plan, schedule, and budget</td>
</tr>
<tr>
<td></td>
<td>• Monitors and controls project performance</td>
</tr>
<tr>
<td></td>
<td>• Manages project staffing and resourcing</td>
</tr>
<tr>
<td></td>
<td>• Aligns and integrates BPR activities with other project activities</td>
</tr>
</tbody>
</table>

2.1.3 Activities

The tasks completed under the BPR Lifecycle Management Knowledge Area center on establishing the resources and scheduling needs for this process phase. Although these activities are presented in a logical sequence, the BPR Practitioner should apply his/her knowledge and experience to determine the necessary activities and the order of activities for each project.
**Determine and Plan for BPR Activities**

Similar to what was completed in the Initiating Process Phase, BPR activities within the Planning Process Phase must be identified, resourced, and scheduled. As these items are addressed, they are added to the BPR Schedule that was established during the Initiating Process Phase. To update the BPR Schedule, the BPR Practitioner should complete the following:

- Review the entirety of this chapter to identify the various activities and outputs that must be developed within each knowledge area in the Planning Process Phase.

- Based on the project and organizational characteristics, identify the tasks necessary to complete the identified activities. Consider any constraints that will dictate the timing, frequency, and order the activities need to be completed.

- Estimate the duration and effort to complete each task. Consider the scope and complexity of the project to come up with appropriate numbers.

- Work with the Project Manager to identify available resources to complete the tasks. The availability of resources to support the effort may require re-work of the schedule.

To the extent possible, the same pool of resources identified during the Initiating Process Phase should be used for Planning Process Phase activities. However, new project team members and Stakeholders may become involved during this process phase and should be considered for inclusion. This pool of resources will be used for the following key activities:

- Participation in the Solution Gap Analysis

- Design of Future State Processes

- Identification of Performance Targets

Of particular importance is the identification of the BPR Design Team. The purpose of the BPR Design Team is to design future state processes and identify performance targets. Major design activities occur multiple times over the PMLC—at a high level during this process phase and at a more detailed level during the Executing Process Phase when the technology solution has been acquired. While these activities do not require dedicated, full-time resources, it is important to form a team that will remain intact to maintain continuity of knowledge and momentum.
The BPR Practitioner will need to work with the Project Manager to identify BPR Design Team members that have technical and functional knowledge and skills to perform these activities. This team should have the following characteristics:

- A team of 6 to 12 people have been shown to be the most effective.
- The team should include staff who are directly involved in executing the process, staff who provide input to the process, and staff who use the output of the process.
- The team should contain members with decision-making authority.
- The team should contain members who have a broad perspective on the intent of the process and member who have the knowledge and experience executing the process.
- The team should contain members with BPR or other process improvement experience.
- For larger efforts involving processes that span multiple departments or agencies, the BPR Practitioner should include one or two staff who are not involved with the process in any capacity. This can aid in providing objectivity and provides a unique source of valuable input.

The BPR Practitioner should work with the Project Manager and leverage the project organization chart and the Stakeholder Register to identify and allocate these resources in the BPR Schedule. Once the schedule has been developed, the BPR Practitioner will work with the Project Manager to integrate the tasks into the greater project schedule to monitor and control.

### 2.1.4 Tools

The tool that the BPR Practitioner will use within BPR Lifecycle Management during the Planning Process Phase includes the following:

- BPR Schedule Template

### 2.1.5 Outputs

BPR Lifecycle Management produces the following output during the Planning Process Phase:

- Completed BPR Schedule
2.2 Business Analysis and Future Definition

The focus of Business Analysis and Future Definition during the Planning Process Phase is to help the project team define the solution by assisting in market research to identify potential solution alternatives, solution gap analyses to determine the fit of solution alternatives, and functional requirements development. While these are project activities that the BPR Practitioner may support, they are key inputs to the decision making process on whether and how to move forward with both the BPR effort and the larger project as a whole. Consequently, this knowledge area is critical to providing support for defining the technology solution, as show in Figure 2-3.

A summary of the inputs, roles, skills, activities, tools, and outputs of the knowledge area is presented in Figure 2-4.
## Business Analysis and Future Definition

### Inputs
- Completed Future State Process Model
- Solution Alternatives

### Roles
- BPR Practitioner
- Project Manager
- Project Team
- Subject Matter Experts

### Skills
- Judgment
- Facilitation
- Analysis

### Activities
- Project Support Activities

### Tools
- None

### Outputs
- None

### Figure 2-4

#### 2.2.1 Inputs

In order to complete the Planning Process Phase Business Analysis and Future Definition activities, the BPR Practitioner will need a thorough understanding of the following inputs:

**Completed Future State Process Model:** This model depicts the desired future state business process and is the basis for the gap analysis. The Future State Process Model is an output of the Business Process Design Knowledge Area in this process phase.

**Solution Alternatives:** Proposed alternatives (outside of small, low complexity solutions) should have a business case that includes a description, development approach, cost information, and other elements. Solution alternatives are identified by the project team through market research.
2.2.2 Roles

The following table lists the roles and their associated responsibilities of those involved in Business Analysis and Future Definition activities during the Planning Process Phase.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR Practitioner</td>
<td>• May assist in market research to identify solution alternatives</td>
</tr>
<tr>
<td></td>
<td>• May assist as a participant during Solution Gap Analysis sessions</td>
</tr>
<tr>
<td></td>
<td>• May help facilitate parts of the Solution Gap Analysis sessions</td>
</tr>
<tr>
<td></td>
<td>• May assist in requirements development activities</td>
</tr>
<tr>
<td>Project Manager</td>
<td>• Participates in the gap analysis work sessions</td>
</tr>
<tr>
<td>Project Team</td>
<td>• Performs market research to identify solution alternatives</td>
</tr>
<tr>
<td></td>
<td>• Facilitates the Solution Gap Analysis sessions</td>
</tr>
<tr>
<td></td>
<td>• Documents the Solution Gap Analysis sessions</td>
</tr>
<tr>
<td></td>
<td>• Develops functional and non-functional requirements</td>
</tr>
<tr>
<td>Subject Matter Experts</td>
<td>• Participates in gap analysis work sessions</td>
</tr>
</tbody>
</table>

2.2.3 Activities

The tasks required to support project activities are presented in a logical sequence below. The BPR Practitioner should leverage his/her experience and judgment to assist in these tasks as needed.
Project Support Activities

During the Planning Process Phase, the project team may require the support of the BPR Practitioner to perform certain activities. Typically, these involve providing business process domain expertise since the BPR Practitioner is instrumental in designing the future state. The BPR Practitioner should be aware of these support activities and coordinate closely with the Project Manager to ensure they are accounted for in the project schedule. This activity consists of the following tasks:

- Support Market Research
- Support Solution Gap Analysis
- Support Requirements Development

Support Market Research

During the Planning Process Phase, the project team takes the Future State Process Model and performs market research to collect information and analyze the capabilities of solutions in the existing market. The BPR Practitioner may be asked to help support the project team’s market research by serving as a consultant and subject matter expert regarding future state processes.

Once the Future State Process Model (including impacts, assumptions, and constraints) is complete, the project team will begin assessing the model in order to perform market research and develop alternative solutions. For BPR projects, this almost always means the acquisition or development of new or improved technology. As the project team is working, there may be questions regarding the intent and impact of various processes in the Future State Process Model. Furthermore, the project team may solicit the BPR Practitioner’s opinions regarding the applicability of various solutions. The BPR Practitioner’s support of the project team concludes when the project team completes its market research and identifies solution alternatives.

Support Solution Gap Analysis

A key project team activity during the Planning Process Phase is performing a gap analysis between each identified solution alternative (outputs of market research activities) and the Future State Process Model. The BPR Practitioner will assist the project team as a subject matter expert (SME) during gap analysis sessions. The goal of the BPR Practitioner is to help the project team
have a basis for objective comparison of each solution alternative by helping surface the business process gaps and associated impacts, assumptions, and constraints. Having these items identified allow for careful decision making on how the project should move forward.

The solution gap analysis is a structured process performed in facilitated sessions with SMEs and led by an analyst from the project team. To assist in this effort, the BPR Practitioner needs to review both the future state (as documented in the Future State Process Model) and each solution alternative. Becoming familiar with these items prior to the analysis will make the BPR Practitioner a more effective participant. In addition to providing domain knowledge and expertise, the BPR Practitioner may be asked to help guide other participants through a walkthrough of the Future State Process Model during the sessions.

**Support Requirements Development**

A requirement is a documented representation of a condition or function that must be met or possessed by a solution or solution component to satisfy a contract, standard, specification, or business rule. The main objective or goal in defining requirements is to communicate Stakeholder objectives, needs, and outcomes.

During the Planning Process Phase, the BPR Practitioner may be asked to provide consultation and input to the project team’s definition of business and solution requirements. Initially, the strategic business goals, business problems or opportunities may form the basis for the business requirements. Thus, questions may be asked regarding the Business Problem Statement, the Business Goals and Objectives, Prioritized Opportunities, and Identified Customer Needs that the BPR Practitioner produced in the previous process phases.

### 2.2.4 Tools

There are no BPR tools for the BPR Practitioner within the Business Analysis and Future Definition Knowledge Area during the Planning Process Phase.

### 2.2.5 Outputs

There are no BPR outputs for the Business Analysis and Future Definition Knowledge Area during the Planning Process Phase.
2.3 Business Process Design

The focus of Business Process Design during the Planning Process Phase, is to develop and document the Future State Process Model for business processes that are in the scope of the project. The desired future state includes designing future Level 1 and may include Level 2 business processes. This Future State Process Model will then be used to guide the identification and evaluation of solution alternatives. The knowledge area’s goal for the Planning Process Phase is shown in Figure 2-5.

A summary of the inputs, roles, skills, activities, tools, and outputs of this knowledge area is presented in Figure 2-6.
2.3.1 Inputs

In order to complete the Planning Process Phase Business Process Design activities, the BPR Practitioner will need a thorough understanding of the following inputs:

**Completed BPR Schedule:** The BPR Schedule identifies the resources needed to design the Future State Process Model. The Completed BPR Schedule is an output of the BPR Lifecycle Management Knowledge Area in this process phase.

**Concept Process Phase Work Products:** Outputs from the Concept Process Phase that will assist the BPR Practitioner in this knowledge area include the Business Goals and Objectives.

**Initiating Process Phase Work Products:** Outputs from the Initiating Process Phase that will assist the BPR Practitioner in this knowledge area include the Completed Current State Process Model, Identified Benchmarks, Identified Customer Needs, Identified Performance Baseline, and Prioritized Opportunities.
2.3.2 Roles

The following table lists the roles and their associated responsibilities of those involved in Business Process Design activities during the Planning Process Phase.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR Practitioner</td>
<td>• Facilitates work group sessions with the BPR Design Team</td>
</tr>
<tr>
<td></td>
<td>• Documents and models the Future State Business Processes Model and associated assumptions and constraints</td>
</tr>
<tr>
<td>BPR Design Team</td>
<td>• Participates in work group sessions to produce the Future State Process Model and associated assumptions and constraints</td>
</tr>
</tbody>
</table>

2.3.3 Activities

The tasks completed under the Business Process Design Knowledge Area center on creating the Future State Process Model. Although these tasks are grouped and sequenced in the sections that follow, the BPR Practitioner needs to apply his/her knowledge and experience to ensure the appropriate sequence for each project.

Design Future State Business Processes

An important BPR activity during the Planning Process Phase is creating a high-level Future State Process Model along with documenting related assumptions and constraints. This is done by documenting the desired future state to achieve the following goals:

• Solves the business problem
• Addresses the Business Goals and Objectives
• Addresses the Prioritized Opportunities
• Improves upon the Performance Baseline
• Leverages technology solutions as enablers

• Supports the identification of solution alternatives

The level of detail required in the Future State Process Model is dependent on the complexity of the end-to-end business processes under investigation. As a general rule, the future state should at least be modeled to the Level 1 business process. For complex scenarios, the BPR Practitioner should include the Level 2 sub-processes. The BPR Practitioner should consult with the project team and Project Manager as necessary to determine the appropriate level of detail needed to achieve the goals outlined above.

The Future State Process Model is developed and documented in facilitated sessions consisting of carefully chosen participants who form the BPR Design Team. The quality and efficacy of the resulting Future State Process Model developed during the Planning Process Phase will depend heavily on the knowledge, skills, and experience of the BPR Practitioner to apply BPR techniques and facilitate design sessions. Additionally, effective design sessions depend on:

• **Effective preparation.** Design sessions are most effective when there is a common understanding of the current business processes, business problems and issues, improvement opportunities, and legislative or union contract constraints.

• **Keep the business goals and objectives at the forefront.** Clear objectives are needed to drive the design sessions. The BPR Practitioner needs to ensure a common understanding of the business goals and objectives, including customer needs.

• **Participants’ expertise to analyze and suggest improvements.** Design sessions will require the input from participants to identify improvements. It is valuable to have participants with experience in business process reengineering. Also, individuals with an understanding of various technologies can also be helpful in understanding how the solutions may be applied.

• **Employ cross-functional teams for outside-the-box thinking.** The best improvements tend to take place when multiple viewpoints are solicited. It may be challenging for certain participants to see past the “but that’s how we’ve always done it” view.
This activity consists of the tasks below and are described in the sub-sections that follow:

- Prepare for Design Sessions
- Facilitate Design Sessions
- Document and Model Future State Business Processes

**Prepare for Design Sessions**

The BPR Practitioner will first refer to the BPR Schedule to identify the BPR Design Team resources that will participate in the facilitated sessions to produce the Future State Process Model, assumptions and constraints. The BPR Practitioner needs to verify that participants include SMEs, Stakeholders, and/or project team members that have domain knowledge regarding specific needs, processes, or functional areas. Additionally, the team must be cross-functional, and the size of the team should be based upon the breadth and depth of experience of those selected and the number of participants needed to cover all processes and functional areas.

The BPR Practitioner should serve as the facilitator during the design sessions, guiding the participants in the creation of the Future State Process Model. The BPR Practitioner will also need to document the designs using business process models and forms for capturing assumptions and constraints. Templates for these models and forms are included in the Business Process Modeling Tool. To ensure that the participants have a common understanding of the effort and in preparation for the design sessions, the BPR Practitioner should share the following information ahead of the first scheduled meeting for review:

- **Business Goals and Objectives.** The BPR Practitioner should refer to these goals and objectives as a way to verify the Future State Process Model resolves the underlying problems and issues.

- **Identified Performance Baseline and Identified Benchmarks.** The Future State Process Model should result in process improvement. The BPR Practitioner will therefore refer to these performance indicators and levels regularly.

- **Prioritized Opportunities.** The BPR Practitioner should refer to these opportunities to ensure newly designed processes are aligned.
• **Current State Process Model.** When developing the Future State Process Model, it is often easier and more productive to begin with the Current State Process Model rather than try to develop a new model from scratch.

• **Identified Customer Needs.** The key to the process designs is to ensure that they meet the needs of customers.

To help facilitate the discussion, the BPR Practitioner should develop a Level 1 Future State Process Model based on the inputs identified above to have something for the BPR Design Team to react to and use as a starting point. The BPR Practitioner should employ redesign techniques that are discussed below.

It is important to plan and structure the sessions in advance to secure the necessary participation. The number and length of sessions required depends on the number and complexity of the business processes. A business process that contains numerous sub-processes will most likely require more reengineering considerations than a simpler process. The BPR Practitioner will need to take these into account and leverage past experience and good judgment when identifying the number of sessions.

**Facilitate Design Sessions**

As the facilitator of the design sessions, the BPR Practitioner is responsible for guiding the participants to produce a Future State Process Model that addresses the goals identified above, and identifying the associated assumptions and constraints with the newly designed processes.

The session begins with an introduction of the purpose of the session, the anticipated outcomes, and the roles of the BPR Design Team. Discussing this upfront is important to establishing the expectations for the team. It is helpful to keep these items visible, such as on a white board or flip chart, so the BPR Practitioner can refer to them in case discussions go off-track.

After introductions, the BPR Practitioner performs a guided walkthrough to orient the team to the Current State Process Model and the preliminary design to introduce the key reengineering opportunities. The BPR Practitioner uses a number of BPR techniques to solicit feedback from the participants. Eight techniques are presented on the following pages.
**Technique #1: Task integration and compression**

The task integration and compression technique takes sequential processes that often include handoffs to other resources, and integrates these processes to be performed by one person or team. Look at the process model for a sequential series of two, three or more processes that could be combined into a single process. For example, if a process model shows one party initiating a transaction, another party reviewing it, and a third party approving it, see if those could be combined into a single party performing a review/approval.

This technique can be used with many models and especially applicable for those that have:

- Relatively simple sequences of business processes and sub-processes;
- Slow throughput identified as an issue;
- Large numbers of handoffs identified as an issue; and/or
- Large numbers of errors identified as an issue.

Below are examples of questions the BPR Practitioner can use to employ this technique.

- Can we combine these related processes?
- Why do they need to be done by separate groups?
- Can we eliminate this process? What value does it add here?

The key benefits of task integration and compression include:

- Reductions of handoffs which reduces errors and delays.
- Reductions of process administration overhead associated with fewer quality checks and reconciliations.
- Improved control due to fewer actors in the process.
**Technique #2: Natural precedence**

The natural precedence technique sequences processes and sub-processes into an order that is a natural and efficient flow. For example, if the current process has mail coming into a warehouse and then being transported somewhere for sorting, it may be more efficient to include all mail sorting and processing at the point of entry to cut down on transportation time.

This technique can be used with many models and especially applicable for those that have:

- Many business processes and/or sub-processes;
- Many handoffs and decisions areas; and/or
- Points in the model where extensive rework is common.

Below are examples of questions the BPR Practitioner can use to employ this technique.

- Would it function better if the processes were rearranged?
- Why does this process occur here rather than there?
- Can we move this process closer to related processes?

The key benefits of natural precedence include:

- Reductions of cycle time due to removal of intermediary sub-processes.
- Reductions of rework needed due to the elimination of unnecessary transitions.
Technique #3: Hybrid centralization and decentralization

In some cases, previous process design work may have followed a strict rule to either centralize or decentralize, when in fact, a combination works best. For example, an organization may determine that centralized receipt of vendor invoices coupled with decentralized departmental approvals is the most efficient way to begin processing a payment cycle.

This technique can be used with many models and especially applicable for those that have:

- Multiple identical processes;
- Multiple analogous processes; and/or
- Inefficient centralized processes.

Below are examples of questions the BPR Practitioner can use to employ this technique.

- Would it be better if this process were handled by a single business group rather than individually?
- Would it be better if this process were handled by individual business groups?
- What aspects of this centralized process may be better done by the individual?

The key benefits of hybrid centralization and decentralization include:

- Reductions of cycle time due to fewer handoffs (decentralization).
- Increases in cross-trained employees (decentralization).
- Increased economies of scale due to increased volume and specialization (centralization).
Technique #4: Minimal input/output sources

The minimal input/output sources technique simplifies the number of inputs or the number of outputs for a process. For example, if a process requires many forms, it may simplify data collection if the inputs could be streamlined, consolidated, or even eliminated. The BPR Practitioner should have the participants review cases of multiple input or output forms to see if there are efficiencies to be gained through redesigning and consolidating those forms.

This technique can be used with many models and especially applicable for those that have:

- Multiple inputs/outputs and/or sources;
- Extensive reconciliation steps; and/or
- Instances of duplication of processes/sub-processes.

Below are some examples of questions the BPR Practitioner can use to employ this technique.

- Can we modify inputs/outputs to improve this process?
- Do we truly need all of these items as inputs? Why?
- Do we need all of these inputs at this point in the process?
- Does this end-user truly need these items in the output?
- How can we eliminate the number of dependencies here?

The key benefits of minimal input/output sources include:

- Reductions of cycle time due to fewer inputs/outputs required.
- Increases in product/service consistency by better timely delivery of essential items.
- Reductions of reconciliations and quality checks.
Technique #5: Shifting work boundaries

The shifting work boundaries technique shifts the work from the organization to either the customer, supplier, or third party. For example, if an organization manually manages vendor registration and certification, it can shift much of the vendor data management to the users themselves through a vendor web portal. Another simple example is having an automated system for resetting passwords that customers can use themselves.

This technique can be used with many models and especially applicable for those that have:

- Highly specialized partners;
- Backlogs due to insufficiently trained resources or lack of data; and/or
- High overhead or transaction costs.

Below are some examples of questions the BPR Practitioner can use to employ this technique.

- Why does the business group do this process? Is it really a core function?
- Is there anyone else that would do this process better?
- What processes can we ask input-providers to do?
- What processes can we ask output-users to do?
- What can we ask input-providers/output-users to do differently to improve this process?

The key benefits of shifting work boundaries include:

- Reductions of handoffs to specialized intermediaries.
- Decreases in cycle time due to fewer processes/sub-processes.
- Reductions of overhead costs due to fewer specialized resources.
Technique #6: Decreased alternatives

The decreased alternatives technique focuses on eliminating low value alternatives that often complicate and increase decision-making time. For example, an automobile manufacturer which has a vehicle with many available options and features may choose to eliminate the number of options which can allow for improved economies of scale. In an office environment, an agency may reduce the number of methods an employee can use to enter their time from several to one (for example, manual punch cards, fingerscans, manual timesheets), simplifying and streamlining the first steps of the payroll process.

This technique can be used with many models and especially applicable for those that have:

- High information collection and analysis costs;
- Many similar and separate process inputs; and/or
- Many alternate paths.

Below are some examples of questions the BPR Practitioner can use to employ this technique.

- How much value does this option provide? Is it core to the business process?
- Is this alternative worth having this separate process for it?
- Why does this alternative process exist? How often does this happen? What would happen if it did not exist?

The key benefits of decreased alternatives include:

- Reductions of information collection costs due to fewer options serviced.
- Faster decision-making due to a focus on core functions.
- Reductions of overall model complexity.
Technique # 7: Increased alternatives

The increased alternatives technique focuses on providing more options, allowing users to determine the most expeditious alternative for each situation. For example, instead of requiring a user to always mail a document, it may be beneficial to allow them to scan and email it, fax it, or electronically attach it to a system transaction.

This technique can be used with many models and especially applicable for those that have:

• Interfaces with a variety of input-providers; and/or
• A high volume of data collection.

Below are some examples of questions the BPR Practitioner can use to employ this technique.

• Does separating these into different processes improve efficiency?
• Does providing additional means of input improve the process?
• What kind of options can be provided to reduce this backlog?

The key benefits of increased alternatives include:

• Reductions of cycle times for various services/products.
• Increases in customer service and satisfaction due to reduced cycle times.
• Increases in customer satisfaction due to additional input modes.
Technique #8: Timing of decision-making

The timing of decision-making technique focuses on moving decision-making tasks in the process to improve efficiencies and reduce errors. Decision-making tasks can either be moved to occur earlier in the process or moved to occur later in the process. Decision-making tasks that are moved earlier reduce the effort spent committed to potentially unfruitful items. Moving decision-making tasks later in the process allows for more data to be aggregated to make a correct decision, thus reducing the number of errors and amount of rework.

This technique can be used with many models and especially applicable for those that:

- Have many decision points;
- Have identified high costs associated with slow decision-making;
- Instances of case-by-case decision-making; and/or
- Decisions that may be delayed due to lack of information.

Below are some examples of questions the BPR Practitioner can use to employ this technique.

- What can be done earlier to reduce reconciliation and quality checks?
- How can we filter out these issues earlier in the process?
- What impact does waiting for more information have?
- Can this be done in aggregate later in the process?
- Does this decision need to be made at this point in the process?
- What benefits might there be if this decision were made at a later point?

The key benefits of early decision-making include:

- Reductions of overhead and process management costs due to fewer decision points.
- Increases in resource utilization.
- Avoidance of extraneous decision-making costs.
- Reductions of rework due to erroneous decision based on insufficient data.
It is not unusual to see a BPR team struggling to find improvement ideas while looking at a Current State Process Model. The BPR Practitioner can use the questions associated with each technique above to spur discussion and brainstorm improvement ideas. While facilitating the session, the BPR Practitioner should document the results. The responsibilities of facilitating and documenting may be split amongst multiple BPR Practitioners, if available. The BPR Practitioner must also remember to prompt the participants to identify assumptions and constraints associated with the design.

Assumptions are beliefs assumed to be true, but not yet proven. Examples of assumptions include:

- The technological ability to run parallel processes.
- The ability to modify job responsibilities without impacting civil service union classifications.
- The ability to modify a mandate or regulation prior to implementation.
- The availability of resources to maintain the new solution.

Constraints are things that might restrict or limit capabilities. Generally, there are two categories of constraints:

- Business Constraints – constraints related to limitations on available solutions or processes that cannot be changed. Examples include having a fixed budget, inability to redesign inputs, limitation on type of responsibilities that can be shared between employee types, limitations based on privacy laws, inability to outsource job functionality, and processes that must occur prior to others.

- Technological Constraints – constraints related to the technological capabilities of a solution. Examples include compatibility with existing technology platforms, use of specific development language, use of existing hardware, required methods of access, availability and uptime requirements, and cybersecurity concerns.

Once this information is collected, the BPR Practitioner completes the Future State Process Model. Guidance regarding the documentation of the models, assumptions, and constraints along with templates are provided in the Business Process Modeling Tool. The completed documentation should be shared and validated with the participants to ensure the information has been captured and represented accurately before shared with a larger audience, including review and approval.
Once finalized, the resulting Future State Process Model serves as the basis for evaluating technology solutions and effectively illustrates the future vision of the project. The Future State Process Model then serves as an input to other project activities, such as:

- Market research of solution alternatives
- Requirements development activities
- Gap analysis of the identified solution alternatives
- Request for Proposal or other solicitation development activities (if needed)

### 2.3.4 Tools

The tool that the BPR Practitioner will use within Business Process Design during the Planning Process Phase includes the following:

- Business Process Modeling Tool

### 2.3.5 Outputs

Business Process Design produces the following output during the Planning Process Phase:

- Completed Future State Process Model
2.4 Performance Measurement

The goal of Performance Measurement is to document the business process improvements made and provide quantifiable objectives for the BPR effort, as shown in Figure 2-7. During the Planning Process Phase, the BPR Practitioner facilitates the identification of performance targets for the future state business process that are aligned to the objectives of the project. Identifying meaningful performance targets provides a quantifiable method to describe improvements for a given business process.

A summary of the inputs, roles, skills, activities, tools, and outputs of the Performance Measurement Knowledge Area is presented in Figure 2-8.
2.4.1 Inputs

In order to complete the Planning Process Phase Performance Measurement activities, the BPR Practitioner will need a thorough understanding of the following inputs:

**Business Goals and Objectives:** An output of the Concept Process Phase, they are referred to during the facilitated sessions in this knowledge area to ensure suggested performance targets are aligned to the project’s goals and objectives.

**Completed Future State Process Model:** This model is reflective of the improvements the BPR Design Team has made to the current state. As such, they provide a gauge for how reasonable suggested targets may be. The Completed Future State Process Model is an output of the Business Process Design Knowledge Area in this process phase.
Initiating Process Phase Work Products: Outputs from the Initiating Process Phase that will assist the BPR Practitioner in this knowledge area include the Identified Performance Baseline, Completed Current State Process Model, Identified Benchmarks, Identified Customer Needs, and Prioritized Opportunities.

2.4.2 Roles

The following table lists the roles and their associated responsibilities of those involved in Performance Measurement activities during the Planning Process Phase.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| BPR Practitioner        | • Facilitates work sessions to identify performance targets for future state business processes  
                          | • Documents future state performance targets                                     
                          | • Facilitates review of performance targets with Stakeholders and the Project Sponsor |
| Project Sponsor         | • Provides input on achievability of performance targets                          |
| BPR Design Team         | • Participates work sessions to determine future state performance targets       |
| Stakeholders            | • Provides input on achievability of performance targets                          |

2.4.3 Activities

The tasks required to determine the performance targets are presented in a logical sequence below. The BPR Practitioner should leverage his/her experience and judgment to adjust tasks and sequence as needed.
Determine Performance Targets

Performance targets are measurements that become indicators of how much improvement is expected from the Future State Process Model. Each process that undergoes reengineering should have at least one performance target as a means of measurement. To establish these targets, the BPR Practitioner will facilitate sessions with the BPR Design Team to identify target values for each performance baseline metric. The results are then documented in the Performance Target Inventory. This activity consists of the following tasks:

- Identify and Document Performance Targets

Identify and Document Performance Targets

During the same design sessions that produce the Future State Process Model, the BPR Practitioner directs the BPR Design Team to identify new performance target values for the future state. Participants should aim to create target values that:

- Are based on facts and careful analysis of the baseline and current environment;
- Challenge the organization to achieve performance improvements; and
- Are achievable within a reasonable timeframe.

Participants use a number of resources to identify target values. These include:

- Identified Performance Baseline. This baseline provides participants with previously identified metrics and a starting point for each metric’s target value.

- Identified Benchmarks. Benchmarks provide performance levels of peer organizations. These values provide a sanity-check for participants to gauge reasonableness of suggested target values.

- Future State Process Model and Current State Process Model. Participants compare the future state against the current state and discuss and analyze how process improvements will impact performance improvement. This helps participants choose performance targets supported by process improvements.

- Identified Customer Needs and Business Goals and Objectives. Participants refer to these to ensure target values align to the stated goals of the project and help achieve customer needs.
Using these resources, the BPR Practitioner facilitates the BPR Design Team in establishing new target values and target dates for each metric. The BPR Practitioner asks participants to review and consider the baseline, benchmarks, and improvements to the future state before soliciting best-guess target values. The BPR Practitioner then facilitates a discussion on the reasonableness of the suggested target values by again comparing them to the benchmarks and improvements in future state process model. Once a consensus is reached, target values are documented in the Performance Target Inventory.

It should be noted that during the identification of target values, it may become apparent that certain baseline performance metrics are no longer a part of the future state. This may happen to a very small number of the metrics and is usually a result of the elimination of sub-processes that are related to the generation of the metric. In these cases, the BPR Practitioner may need to direct the BPR Design Team to create new replacement metrics, if needed, and use the criteria in the Performance Metric Assessment as a guide to do so.

After the Performance Target Inventory is completed, the BPR Practitioner elicits input from Stakeholders, including the Project Sponsor. It is important to get input from executives and business process owners as they often provide an additional perspective on the appropriateness of target values. These Stakeholders tend to keep a big-picture of the future vision of the organization in mind, and may increase targets to challenge the organization further or decrease targets to facilitate achievability. After getting input from these Stakeholders, the BPR Practitioner finalizes the Performance Target Inventory, which becomes an important input in the detailed future state design activities in the Executing Process Phase.

### 2.4.4 Tools

The tools that the BPR Practitioner will use within Performance Measurement during the Planning Process Phase includes the following:

- Performance Metric Assessment Template
- Performance Target Inventory Template

### 2.4.5 Outputs

Performance Measurement produces the following output during the Planning Process Phase:

- Completed Performance Target Inventory
3.1 Complete the Checklist

Once all of the BPR activities within the Planning Process Phase are done, the process phase checklist should be completed. The checklist provides a list of “why, how, what, who, where, and when” questions to verify that all items in the process phase are complete.

The process phase checklist helps to identify and document repeatable steps, from project to project, to ensure that the correct activities are completed at the right time, every time.

Process phase checklists assist the BPR Practitioner in quickly and confidently identifying areas of concern within this process phase. In this case, completion of the checklist provides a clear milestone that the Planning Process Phase is complete, including:

- Completed BPR Schedule
- Completed Future State Process Model
- Completed Performance Target Inventory
- Completed BPR Planning Process Phase Checklist
The Executing Process Phase focuses on designing the details (the activities and tasks) of the future state business processes. This includes identifying performance metric reporting solutions and implementing new business processes.
In this chapter...

1. Approach
   1.1 Introduction
   1.2 Recommended Practices

2. Knowledge Areas
   2.1 BPR Lifecycle Management
   2.2 Business Analysis and Future Definition
   2.3 Business Process Design
   2.4 Performance Measurement

3. Process Phase Checklist
   3.1 Complete the Checklist
Approach

Figure 1-1

The Executing Process Phase is the fourth process phase of the Project Management Lifecycle (PMLC) and, as indicated in Figure 1-1, activities from all four knowledge areas occur. During this process phase, the BPR Practitioner works closely with the project team to align and integrate business process designs with the technology solution. This includes designing the new processes at a detailed level, defining performance metrics reporting, and supporting other project activities such as functional gap analyses, training, and implementation.

1.1 Introduction

BPR activities during the Executing Process Phase build on the business process analysis and outputs completed in the Planning Process Phase. The sections below describe these activities in context with each active knowledge area.

BPR Lifecycle Management

Because SMEs and Stakeholders are a vital part of detailed future state process design, it is important that the BPR Practitioner work with the Project Manager to build a common understanding of tasks, schedule, and resources. Any contention for SMEs and Stakeholder time should be resolved quickly so as to not negatively impact the schedule for BPR work or the overall technology project.
Business Analysis and Future Definition

The BPR Practitioner plays a support role to a number of important project team activities resulting in the implementation of the future state. These activities include rolling out the future vision to any newly informed Stakeholders, performing a functional gap analysis, training, and implementation support. In order to support these activities, the BPR Practitioner will need to work closely with the project team throughout the process phase to coordinate these activities and tasks.

Business Process Design

There is a significant amount of activity in this knowledge area for the Executing Process Phase. The BPR Practitioner must plan and execute design sessions with Stakeholders that emulate previous sessions, but document designs at a lower level of detail. These sessions will focus on the activity and task level, and to the degree possible, leverage the technical solution functionality or components. The result should be a series of process models that outline the future state at a level of detail that can be implemented and measured.

Performance Measurement

In the Performance Measurement Knowledge Area, the BPR Practitioner focuses on defining the data collection and reporting mechanisms available with the acquired solution. These activities are performed in conjunction with the project team and must be considered carefully, as the measures should be relatively easy to gather and easy to report.

Once all BPR-related Executing Process Phase activities have been completed, the BPR Practitioner will complete the BPR Executing Process Phase Checklist. Figure 1-2 lists all of inputs, activities, and outputs for each knowledge area during the Executing Process Phase.

Sequence of Activities

Although the knowledge areas are presented in a specific order for consistency throughout the CA-BPR, the order in which the activities occur is independent of each other. Activities may occur simultaneously and iteratively rather than sequentially. Where an output from one knowledge area is an input to another, it is not required that they have to be in final form; however, they should be reasonably drafted to contain a majority of the information the input/output is expected to contain. The experience and knowledge of past projects and individual judgment should be used to determine the most appropriate sequencing of activities for each unique project.
### Executing Process Phase Goal: **Implement the Future State**

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Outputs</th>
</tr>
</thead>
</table>
| **BPR Lifecycle Management** | • Completed BPR Schedule  
• Stakeholder Register | • Determine and Plan for BPR Activities | • Completed BPR Schedule |
| **Business Analysis and Future Definition** | • Completed Future State Process Model  
• Functional Requirements | • Project Support Activities | • None |
| **Business Process Design** | • Business Goals and Objectives  
• Completed BPR Schedule  
• Completed Current State Process Model  
• Completed Future State Process Model (high-level)  
• Completed Performance Target Inventory | • Design Detailed Future State Business Processes | • Completed Future State Process Model (detailed) |
| **Performance Measurement** | • Completed Future State Process Model  
• Completed Performance Target Inventory | • Determine Data Sources and Reporting Solutions | • Updated Performance Target Inventory |

---

**Figure 1-2**
1.2 Recommended Practices

The following recommended practices will help the BPR Practitioner develop and implement the Future State Process Model. These recommended practices apply to all BPR knowledge areas and help to define a detailed solution and support the implementation.

Integrate the BPR Activities with Technology and Organizational Change Management (OCM) Efforts

From the end user perspective, the deployment of processes and new technology, training, and support structures all need to work together seamlessly for a successful rollout. Therefore, setting up regular meeting times to integrate and sync BPR activities with the technology implementation schedules and approaches is vital. Similarly, integrating BPR activities with communication and training efforts will help foster a coordinated and more seamless experience for Stakeholders and end users.

Timebox the Development of Detailed Processes

In the Executing Process Phase, the BPR Practitioner will be facilitating design sessions with Stakeholders, working at a detailed task and activity level. Without a clear due date, the design work can easily become overthought and over-engineered. Limiting design time will help keep your design focused on the most prevalent needs, and will maximize the value of the time spent in the design sessions.

One method of implementing this is to consider alignment with technical development. Design sessions and the resulting documentation should be completed prior to the beginning of development activities. Ideally, documentation from detailed design sessions should be completed far enough in advance of development to allow the technology team time to integrate those designs into their own work. Therefore, the BPR Practitioner should work with the project team to clearly understand implementation timeframes, and then timebox the detailed design sessions accordingly.
Limit the Design of Exceptions

It is not necessary (and rarely possible) to design a detailed process that accommodates every exception condition. This is especially true when there are multiple activities or tasks with multiple paths through each – the sheer number of possible combinations can quickly become overwhelming.

Therefore, the BPR Practitioner should focus the design effort on just those conditions and exceptions that occur most often, ignoring the options that are rare, or perhaps are possible but in fact have never occurred. This will ensure that BPR resources are focused on their highest and best use, and that design efforts are targeted to areas most likely to yield value.

Take a User–Centered Design Approach to Reengineering

The best improvements tend to take place when multiple viewpoints are solicited, especially that of the user. For example, it may be tempting to only have payroll clerks design time entry approval processes, but there is value in getting users involved that input or evaluate the time reporting data. Ensuring the needs of the users are met will ultimately increase the adoption and utilization of the business process and technology to achieve the project goals.

Customize Processes, Not Technology

When implementing commercial off-the-shelf (COTS) solutions, it may be tempting to customize systems to match existing processes. This can lead to overly complex systems with custom upgrade that require high levels of maintenance that are expensive to maintain. To realize the inherent benefits of COTS solutions, processes should be modified to the technology.

Start with Simple, Discrete Processes

Successful BPR design sessions often target low-hanging fruit first and build momentum from those early successes. Start with simple, discrete processes and sub-processes to introduce the idea of process improvement and build momentum with quick wins. Starting with simpler processes also allows the BPR Design Team to better internalize the steps involved in process improvement, producing better results when more complex processes are analyzed.
2.1 BPR Lifecycle Management

The goal of BPR Lifecycle Management in the Executing Process Phase, as shown in Figure 2-1, is to manage the BPR work. The BPR Practitioner should work closely with the Project Manager to develop and implement monitoring and control mechanisms to keep the BPR effort on track and in sync with the other project efforts.

A summary of the inputs, roles, skills, activities, tools, and outputs of the knowledge area is presented in Figure 2-2.
Figure 2-2

2.1.1 Inputs

In order to complete the Executing Process Phase BPR Lifecycle Management activities, the BPR Practitioner will need a thorough understanding of the following inputs:

**Completed BPR Schedule:** The Completed BPR Schedule from the Planning Process Phase will be leveraged and elaborated upon for Executing Process Phase tasks.

**Stakeholder Register:** A product of the Project Management workstream, the register lists Stakeholders and other project resources involved or affected by the project. The BPR Practitioner and Project Manager will use the register to identify resources needed for BPR tasks during the Executing Process Phase.
2.1.2 Roles
The following table lists the roles and their associated responsibilities of those involved in BPR Lifecycle Management activities during the Executing Process Phase.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR Practitioner</td>
<td>• Leads the effort to determine BPR needs for the Executing Process Phase</td>
</tr>
<tr>
<td></td>
<td>• Supports the Project Manager with developing BPR staffing and resource estimates</td>
</tr>
<tr>
<td></td>
<td>• Supports the Project Manager in scheduling and resourcing BPR activities</td>
</tr>
<tr>
<td>Project Sponsor</td>
<td>• Assists with securing BPR resources</td>
</tr>
<tr>
<td></td>
<td>• Determines if external resources are needed to support BPR activities</td>
</tr>
<tr>
<td>Project Manager</td>
<td>• Leads the progressive elaboration and implementation of the project’s work plan, schedule, and budget</td>
</tr>
<tr>
<td></td>
<td>• Monitors and controls project performance</td>
</tr>
<tr>
<td></td>
<td>• Manages project staffing and resourcing</td>
</tr>
<tr>
<td></td>
<td>• Aligns and integrates BPR activities with other project activities</td>
</tr>
</tbody>
</table>

2.1.3 Activities
The tasks completed under the BPR Lifecycle Management Knowledge Area center on establishing the resources and scheduling needs for this process phase. Although these activities are presented in a logical sequence, the BPR Practitioner should apply his/her knowledge and experience to determine the necessary activities and the order of activities for each project.
Determine and Plan for BPR Activities

Similar to what was completed in the Planning Process Phase, BPR activities within the Executing Process Phase must be identified, resourced, and scheduled. As these items are addressed, they are added to the BPR Schedule that was used in the Planning Process Phase. To update the BPR Schedule, the BPR Practitioner should complete the following:

- Review the entirety of this chapter to identify the various activities and outputs that must be developed within each knowledge area in the Executing Process Phase.

- Based on the project and organizational characteristics, identify the tasks necessary to complete the identified activities. Consider any constraints that will dictate the timing, frequency and order the activities need to be completed.

- Estimate the duration and effort to complete each task. Consider the scope and complexity of the project to come up with appropriate numbers.

- Work with the Project Manager to identify available resources to complete the tasks. The availability of resources to support the effort may require re-work of the schedule.

During the Executing Process Phase, the same pool of resources identified during the Planning Process Phase should be used for BPR activities. However, it is likely that new Stakeholders, such as a system integrator, have been added to the project with the acquisition of the technical solution. Resources with technical solution domain expertise are important to BPR activities during this process phase and should be added to the resource pool. These resources will be used for the following key activities:

- Design Detailed Future State Business Processes (Business Process Design Knowledge Area)

- Determine Data Sources and Reporting Solutions (Performance Measurement Knowledge Area)
Similar to the Planning Process Phase, the BPR Design Team plays a major role in the Executing Process Phase. With the acquisition of the technical solution, the team will elaborate upon the high-level Future State Process Model to flesh out detailed process activities and tasks. In addition to the team characteristics identified in the Planning Process Phase Chapter, the BPR Design Team requires solution SMEs to participate in design sessions in order to adequately account for the acquired solution’s capabilities.

The BPR Practitioner should work with the Project Manager and leverage the project organization chart and the Stakeholder Register to identify and allocate these resources in the BPR Schedule. Once the schedule has been developed, the BPR Practitioner will work with the Project Manager to integrate the tasks into the greater project schedule to monitor and control.

### 2.1.4 Tools

The tool that the BPR Practitioner will use within BPR Lifecycle Management during the Executing Process Phase includes the following:

- BPR Schedule Template

### 2.1.5 Outputs

BPR Lifecycle Management produces the following output during the Executing Process Phase:

- Completed BPR Schedule
2.2 Business Analysis and Future Definition

During the Executing Process Phase, the BPR Practitioner will participate in a number of important project team activities to support the design, development and implementation (DD&I) of the future state, as shown in figure 2-3. These activities include rolling out the future vision to any newly informed Stakeholders, performing a functional gap analysis, training, and implementation support. In order to support these activities, the BPR Practitioner will need to work closely with the project team throughout the process phase.

A summary of the inputs, roles, skills, activities, tools, and outputs of the knowledge area is presented in Figure 2-4.
2.2.1 Inputs

In order to complete the Executing Process Phase Business Analysis and Future Definition activities, the BPR Practitioner will need a thorough understanding of the following inputs:

**Completed Future State Process Model:** This model is used to inform the rollout of the future vision, training, and implementation activities. The Completed Future State Process Model is an output of the Business Process Design Knowledge Area in this process phase.

**Functional Requirements:** Characteristics of the deliverable, described in ordinary, non-technical language that is understandable to the customer. Functional Requirements are produced by the project team during the Planning Process Phase.
### 2.2.2 Roles

The following table lists the roles and their associated responsibilities of those involved in Business Analysis and Future Definition activities during the Executing Process Phase.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR Practitioner</td>
<td>• Works with the Project Manager, project team, OCM Practitioner, or others as needed to support project activities</td>
</tr>
<tr>
<td></td>
<td>• May assist with rolling out the future vision activities</td>
</tr>
<tr>
<td></td>
<td>• May assist with functional gap analysis activities</td>
</tr>
<tr>
<td></td>
<td>• May assist with training activities</td>
</tr>
<tr>
<td></td>
<td>• May assist with implementation activities</td>
</tr>
<tr>
<td></td>
<td>• Provides subject matter expertise regarding future state processes</td>
</tr>
<tr>
<td>Project Manager</td>
<td>• Works with the BPR Practitioner as needed to coordinate project support needs</td>
</tr>
<tr>
<td></td>
<td>• Requests implementation support from the BPR Practitioner as needed</td>
</tr>
<tr>
<td>OCM Practitioner</td>
<td>• Provides input to project team activities regarding communication method, communication frequency, and training activities.</td>
</tr>
<tr>
<td>Project Team</td>
<td>• Rolls out the future vision to Stakeholders</td>
</tr>
<tr>
<td></td>
<td>• Performs the functional gap analysis</td>
</tr>
<tr>
<td></td>
<td>• Performs training activities</td>
</tr>
<tr>
<td></td>
<td>• Assists with implementation planning</td>
</tr>
</tbody>
</table>
2.2.3 Activities

The tasks required to support project activities are presented in a logical sequence below. The BPR Practitioner should leverage his/her experience and judgment to assist in these tasks as needed.

Project Support Activities

During the Executing Process Phase, the project team may require the BPR Practitioner to support certain DD&I activities. Typically, these involve providing business process domain expertise since the BPR Practitioner is instrumental in designing the future state. The BPR Practitioner should be aware of these support activities and coordinate closely with the project team. This activity consists of the following tasks:

- Support the Roll Out of the Future Vision
- Support Functional Gap Analysis
- Support Training Activities
- Support Implementation

Support the Rollout of the Future Vision

With BPR projects, communication regarding the details of how end users and other Stakeholders may be impacted is released strategically over time. This communication is an exercise needed to build awareness and promote the new environment. During the Executing Process Phase, the project team leads this activity which often occurs in stages as details about the new processes and systems are developed. As such, the BPR Practitioner may be asked to provide content and domain knowledge at various times. This may include:

- **Domain Knowledge** – End users and Stakeholders typically have a myriad of questions about the new technology and its impact on their day-to-day work, especially if they have not been engaged in project activities. The BPR Practitioner can support the response by providing details and content around what the process changes are going to be and how they will impact Stakeholders.
• **Content Preparation** – Depending on the size and scope of the project, and the degree of change involved in deploying the solution, there may be a need for specialized content as part of the communication strategy. As an example, the BPR Practitioner may need to walk through process models for a specialized Stakeholder audience, prepare informational materials given to Stakeholders, or assist with a Stakeholder assessment.

• **Content Review** – The OCM Practitioner may seek the assistance of the BPR Practitioner in reviewing communication materials such as slide decks or handouts. In these cases, the BPR Practitioner is again providing support through the detailed knowledge acquired during development of the Future State Process Model.

**Support Functional Gap Analysis**

Another activity the BPR Practitioner may support is the functional gap analysis. This analysis, which is led by the project team, identifies any gaps between the project’s functional requirements and the acquired solution. The BPR Practitioner may be asked to participate in the analysis as a subject matter expert, providing domain knowledge regarding the future state processes. Additionally, when gaps are identified, participants may identify solutions that include process workarounds. Here, the BPR Practitioner helps identify process solutions to functional gaps and ensures that the appropriate information (i.e. business process and/or sub-process names) is documented such that they can be subsequently addressed. If gap documentation is found to be missing the business process and/or sub-process names, the BPR Practitioner should inform the project team what is required for completion. Gap resolutions that have impact to the future state then become inputs to the design of the detailed Future State Process Model, an activity under the Business Process Design Knowledge Area in this process phase.

**Support Training Activities**

Once the detailed Future State Process Model (produced in the Business Process Design Knowledge Area in this process phase) is complete, it becomes an input to training and workforce transition activities. Although these activities are led by the project team and the OCM Practitioner, the BPR Practitioner may be asked to support training and develop reference material on how users will execute the processes in the future state. As such, the BPR Practitioner should expect to assist the OCM Practitioner in developing training content and facilitating training sessions (as needed).
Support Implementation

Another activity that the BPR Practitioner may support is planning the implementation of the solution. In addition to coordinating on training needs, the BPR Practitioner may need to provide subject matter expertise regarding transition requirements and the integration between technical and non-technical processes.

If sufficient planning is performed, then the actual implementation or deployment of the new processes should be straightforward. The BPR Practitioner may be asked to help coordinate the deployment of new processes with deployment of the technology solution. When those two elements are in sync, users are able to see how the new processes work, and how the technology acts to support those processes. The BPR Practitioner should work with the project team to support the integration of process changes with the technology deployment.

2.2.4 Tools

There are no BPR tools for the BPR Practitioners to use within the Business Analysis and Future Definition Knowledge Area during the Executing Process Phase.

2.2.5 Outputs

There are no BPR outputs for the Business Analysis and Future Definition Knowledge Area during the Executing Process Phase.
2.3 Business Process Design

The focus of Business Process Design during the Executing Process Phase is to elaborate and document the detailed Future State Process Model for business processes that are in the scope of the project, as demonstrated in Figure 2-5.

A summary of the inputs, roles, skills, activities, tools, and outputs of this knowledge area is presented in Figure 2-6.
2.3.1 Inputs

In order to complete the Executing Process Phase Business Process Design activities, the BPR Practitioner will need a thorough understanding of the following inputs:

**Business Goals and Objectives:** A statement of the desired outcomes of the project, this input document is used to help to inform implementation planning.

**Completed BPR Schedule:** The BPR Schedule identifies the resources needed to design the Future State Process Model. The Completed BPR Schedule is an output of the BPR Lifecycle Management Knowledge Area in this process phase.

**Completed Current State Process Model:** This model, which is produced during the Planning Process Phase, may be referred to during future state design sessions to address assumptions, constraints, or requirements.
Planning Process Phase Work Products: Outputs from the Planning Process Phase include the Completed Future State Process Model and the Completed Performance Target Inventory.

2.3.2 Roles
The following table lists the roles and their associated responsibilities of those involved in Business Process Design activities during the Executing Process Phase.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR Practitioner</td>
<td>• Facilitates work group sessions with the BPR Design Team</td>
</tr>
<tr>
<td></td>
<td>• Documents and models the Future State Process Model</td>
</tr>
<tr>
<td>BPR Design Team</td>
<td>• Has domain knowledge regarding specific needs, processes, or functional areas</td>
</tr>
<tr>
<td></td>
<td>• Participates in work group sessions to produce the Future State Process Model and associated assumptions and constraints</td>
</tr>
</tbody>
</table>

2.3.3 Activities
The tasks completed under the Business Process Design Knowledge Area center on creating a detailed Future State Process Model. Although these tasks are grouped and sequenced in the sections that follow, the BPR Practitioner needs to apply his/her knowledge and experience to ensure the appropriate sequence for each project.

Design Detailed Future State Process Models
A key BPR activity during the Executing Process Phase is to develop and document the detailed future state business processes. The desired future state consists of Level 3 and Level 4 business processes and should include the activities and tasks, respectively. Business process levels are introduced in
the Concept Process Phase, and are further described in the Business Process Modeling Tool.

This future state model will capture the specific activities, tasks, and decision points needed to realize the improvements identified in the high-level Future State Process Model developed in the Planning Process Phase. Similar to the work conducted during the Planning Process Phase, this is typically done through facilitated sessions, where the group starts with the understanding of the Future State Process Model, and further details them by describing specific activities, tasks and decision points, indicating what roles should perform them. In a similar fashion to the high-level Future State Process Model, the results are documented graphically in a process model that provides a visual view of the desired future state business processes.

Documenting the future state in a graphical format allows the BPR Practitioner to effectively communicate the future state to the end users who will be most directly impacted by the new process. A well-documented Future State Process Model provides the basis for planning the implementation and training of end users and Stakeholders, and provides a platform for performance measurement and continuous process improvement activities that will be completed in the Closing Process Phase.

This activity should have a clear timeframe for completion, so that detailed design is complete and documented prior to the beginning of technical development. Without an end date, there is risk that detailed design will continue well into development, which can be the cause of costly design changes late in the project. Consequently, it is important for the BPR Practitioner to keep in mind that it is generally not practical to decompose every sub-process. Sub-processes that are composed of a single activity, or that function as entry or exit points (e.g. receipt of a document or generation of a report), typically do not need to be further elaborated. However, if there are several processes to be designed, the BPR Practitioner should consider working on simpler, more discrete processes first. This will allow the team to internalize the steps involved, and will produce “quick wins” that can help build momentum and confidence for more complex processes.

This activity consists of the following tasks:

- Prepare for Design Sessions
- Facilitate and Document Design Sessions
- Validate Detailed Future State Process Models
Prepare for Design Sessions

As with the design sessions conducted in the Planning Process Phase, the BPR Practitioner will serve as the facilitator during Executing Process Phase design sessions, guiding the participants in the creation of the detailed Future State Process Model. Again, the BPR Practitioner will need to document the designs using business process models and forms to capture key design assumptions or constraints.

It is the BPR Practitioner’s role to identify the appropriate SME’s to participate as the BPR Design Team. The same participants should be leveraged from the Planning Process Phase, with the addition of SMEs that are familiar with the technology solution. To ensure that the participants have a common understanding of the business process design effort, they should review and be familiar with the following inputs:

- **Business Goals and Objectives.** The BPR Practitioner should refer to these goals and objectives to continually verify that the Future State Process Model achieves these goals and objectives.

- **Current State Business Process Models.** When developing the Future State Process Model, it is sometimes beneficial to refer back to the Current State Process Model, either to address requirements, constraints or assumptions.

- **Future State Process Model (high-level).** A key input, the high level Future State Process Model provides the foundational design of the business processes and context for the detailed design work.

With these inputs, the BPR Practitioner works to first determine which processes or sub-processes within the high-level Future State Process Model should be further broken down to create the detailed Future State Process Model. In other words, the goal is to create detailed models of process activities and tasks identified in the high-level Future State Process Model that need further decomposition and elaboration.

It is important to plan and structure the sessions in advance to secure the necessary participation. The number and length of sessions required depends on the number and complexity of the process steps being further defined. A business process that has many activities and tasks has more reengineering considerations than a simpler process. The BPR Practitioner will need to take these into account and leverage past experience and good judgment when identifying the number of sessions.
Facilitate and Document Design Sessions

As the facilitator of the design sessions, the BPR Practitioner is responsible for guiding the participants into producing a detailed Future State Process Model that includes the activities, tasks, and decisions needed to accomplish the goals of the future state. Additionally, the BPR Practitioner is responsible for facilitating the identification of key assumptions and constraints associated with the newly designed activities and tasks.

It is also important to remember that new or redesigned activities and tasks should reflect improvements in efficiency and productivity while leveraging the new technology, rather than simply doing things the same way as before. To assist with this, the BPR Practitioner can use his or her role as facilitator to focus on specific techniques and questions. These are described in detail in the “Facilitate Design Sessions” task of the Planning Process Phase, Business Process Design Knowledge Area.

Similar to the sessions conducted during the Planning Process Phase, the Executing Process Phase sessions begin with an introduction of the purpose of the session, the anticipated outcomes, and the roles of the BPR Design Team. Establishing this upfront is important to establishing the expectations for the team. It is helpful to keep these items visible, such as on a white board, so the BPR Practitioner can refer to them in case discussions go off-track.

After introductions, the BPR Practitioner performs a guided-walkthrough of the high-level Future State Process Model to orient the team. The BPR Practitioner then begins by prompting the team to consider which process steps are composed of multiple activities, involve significant movement of information, or are otherwise complex or make heavy use of technology.

Moving from the high-level processes to more detailed activities and tasks is essentially a move to a lower level of detail. To model this, the BPR Practitioner should work with the BPR Design Team to determine the actions, decisions, and information flow needed to perform the process step and accomplish the business objectives of the improvement. To illustrate this, consider an example:

- Completed Performance
- Target Inventory
- Business Goals and Objectives
Improvement: Centralize invoice processing in Accounts Payable

Process step: Process Vendor Invoice

Detailed Tasks/Activities:

1. Receive invoice in Accounts Payable (Accounts Payable)
2. Enter invoice into financial system (Accounts Payable)
3. Match invoice to purchase order (Accounts Payable)
4. Enter account code for the item or service (Accounts Payable)
5. Is this a capital projects invoice or an operating invoice?
   a. If capital, forward to Engineering for approval (Accounts Payable)
      i. Receive invoice (Engineering)
      ii. Verify that invoice is correct and charged to appropriate project (Engineering)
      iii. Sign and date the invoice to indicate approval (Engineering)
      iv. Return approved invoice to Accounts Payable (Engineering)
   b. If operating, forward to originating department for approval (Accounts Payable)
      i. Receive invoice (Originating Department)
      ii. Verify that invoice is correct and charged to appropriate account (Originating Department)
      iii. Sign and date the invoice to indicate approval (Originating Department)
      iv. Return approved invoice to Accounts Payable (Originating Department)
6. Receive approval and forward to Treasury for payment (Accounts Payable)
In this example, Figure 2-7, the process of “Process Vendor Invoice” has been elaborated further to define the specific tasks needed to accomplish the business objective of centralized payment processing. This detailed description of activities and tasks should be repeated for each process that has been identified as needing decomposition.

While facilitating the design session, the BPR Practitioner can document the discussion and results in a swimlane diagram to provide a visual representation to the team. Figure 2-7 depicts a swimlane diagram of the “Process Vendor Invoice.”

The BPR Practitioner should seek assistance for facilitating and documenting the detailed design sessions, if necessary. Guidance regarding the documentation of the models along with templates are provided in the Business Process Modeling Tool.

Upon completion of the detailed Future State Process Model, the BPR Practitioner and BPR Design Team should also identify any assumptions and constraints associated with the detailed design.
Assumptions are beliefs assumed to be true, but not yet proven. Examples of assumptions include:

- The technological ability to run parallel processes.
- The ability to modify job responsibilities without impacting civil service union classifications.
- The ability to modify a mandate or regulation prior to implementation.
- The availability of resources to maintain the new solution.

Constraints are things that might restrict or limit capabilities. Generally, there are two categories of constraints:

- Business Constraints – constraints related to limitations on available solutions or processes that cannot be changed. Examples include having a fixed budget, inability to redesign inputs, limitation on type of responsibilities that can be shared between employee types, limitations based on privacy laws, inability to outsource job functionality, and processes that must occur prior to others.
- Technological Constraints – constraints related to the technological capabilities of a solution. Examples include compatibility with existing technology platforms, use of specific development language, use of existing hardware, required methods of access, availability and uptime requirements, and cybersecurity concerns.

Design assumptions and constraints are documented in a narrative that accompanies the detailed Future State Process Model. Once the detailed design is completed, it will be leveraged by the project team to configure and build the technology solution.

**Validate Detailed Future State Process Models**

Once the technology solution is sufficiently developed, the BPR Practitioner validates the detailed future state processes with Stakeholders (including the Project Sponsor and Project Manager). While the primary purpose of this activity is to verify that the design will produce the desired outcomes, this validation step also helps to inform the Stakeholders and is helpful for communicating organizational change.
To validate the alignment of the business processes to the technology solution, the project team will conduct testing activities such as Functional Testing and User Acceptance Testing. This will test whether the technology has been configured or developed to support the detailed Future State Process Model. In addition, the BPR Practitioner should lead a formal walkthrough of the new process with Stakeholders to validate the end-to-end process, sometimes known as a Desk Review. This involves a facilitated discussion of each pathway through the process to identify any missing steps, artifacts (such as a form or a report), or actors within the process, and comparing the results to the desired outcomes. Often, simply talking through the process from beginning to end can highlight anything that might have been missed during process design.

Should any issues arise during validation of the detailed processes, the BPR Practitioner may need to bring the BPR Design Team together to resolve those problems. The most common issues that arise include:

- Slight mismatches between end user documentation and the new process.
- Minor technology modifications or enhancements that were not properly communicated to the BPR team, and therefore were not properly documented.
- Aggregated steps that need to be broken out into more detail (i.e. user feedback from training or deployment suggests the need for additional steps).

Once validated, end users are trained on the business processes before being deployed as part of the technology solution.

### 2.3.4 Tools

The tool that the BPR Practitioner will use within Business Process Design during the Executing Process Phase includes the following:

- Business Process Modeling Tool

### 2.3.5 Outputs

Business Process Design produces the following output during the Executing Process Phase:

- Future State Process Model
2.4 Performance Measurement

The goal of Performance Measurement is to implement the mechanisms to allow for measuring performance, as indicated in Figure 2-8. In order to do this, the BPR Practitioner identifies data sources and reporting needs related to the established performance targets, and supports the project team in the documentation of the reporting solutions.

A summary of the inputs, roles, skills, activities, tools, and outputs of the Performance Measurement Knowledge Area is presented in Figure 2-9.
2.4.1 Inputs

In order to complete the Executing Process Phase Performance Measurement activities, the BPR Practitioner will need a thorough understanding of the following inputs:

**Completed Future State Process Model (detailed):** The graphical depiction of the improved processes should be referenced to verify alignment of performance targets, and to assist with analysis of any indicators that are outside of targeted performance. The detailed Future State Process Model is an output of the Business Process Design Knowledge Area in this process phase.

**Completed Performance Target Inventory:** A listing of metrics that were identified in the Planning Process Phase, these data points should be key indicators of process performance, and should also be readily available, timely, and accurate.
2.4.2 Roles

The following table lists the roles and their associated responsibilities of those involved in Performance Measurement activities during the Executing Process Phase.

| Role                     | Responsibilities                                                                 |
|--------------------------|***********************************************************************************|
| BPR Practitioner         | • Works with the BPR Design Team to identify data sources for reporting performance against targets  
                           | • Works with the project team and Stakeholders to identify reporting requirements and solutions  
                           | • Documents data sources and reporting solutions                                         |
| Project Team             | • Participates in work sessions to determine reporting requirements and solutions  
                           | • Configures, tests, and implements reporting solutions                                   |
| BPR Design Team          | • Participates in work sessions to determine data sources                            |
| Stakeholders (including SMEs) | • Participates in work sessions to determine data sources and reporting requirements |

2.4.3 Activities

The tasks required to determine data sources and reporting solutions are presented in a logical sequence below. The BPR Practitioner should leverage his/her experience and judgment to adjust tasks and sequence as needed.

**Determine Data Sources and Reporting Solutions**

During the Executing Process Phase, the BPR Practitioner works with the BPR Design Team to identify and assess data sources for measuring the performance targets (metrics) that were documented in the Performance Target Inventory during the Planning Process Phase. Then, working with the project team and
Stakeholders, the BPR Practitioner can recommend specific reporting methods. The Performance Target Inventory is then updated with the data source and reporting method for each metric. This activity consists of the following tasks:

- Determine Data Sources
- Prepare for Reporting Definition
- Select Reporting Method

**Determine Data Sources**

Each target or metric that was identified as a key performance indicator for a given process should have at least one source of data for that performance information. The BPR Practitioner should consider the following in looking for specific data sources:

- Business information systems and software (including error, exception, and activity data)
- Customer satisfaction surveys, both manual and electronic
- Web site or portal information such as number of unique visitors, average length of time spent on each page of the site, etc.
- Data warehouse or other business intelligence systems
- Manual reports

To identify these data sources, the BPR Practitioner will work with the BPR Design Team, which includes SMEs with knowledge of the technical solution. For efficiency, this can occur during the detailed future state design sessions described within the Business Process Design Knowledge Area.

The BPR Design Team may find that no data source is available for a given metric in some cases. In these situations, the project team should be consulted to determine if it is feasible to create the data source (for example, it may simply be a matter of enabling a function within an existing software package). If not, then the team should reassess the metric to determine another measure that can be used.
In other cases, the data source may be unreliable, or may require excessive amounts of labor to generate. Again, the BPR Design Team should be consulted to see if it is feasible to solidify the generation of that metric. If not, then the team should reassess the metric to determine another measure that can be used.

Once all the required data sources have been identified, they should be captured in the Performance Target Inventory.

**Prepare for Reporting Definition**

At this point in the Performance Measurement Knowledge Area, a performance metric has been determined, and an appropriate data source has been identified. Now, the BPR Design Team assesses the characteristics of both the metric itself as well as the data source. Specifically, the following should be understood:

- **The frequency of data reporting** – Is the data reported continuously, daily, monthly, or some other time period? For example, financial data is often reported monthly, but some operational data may be reported daily or bi-weekly.

- **Data format** – Is the data a number, a graph, a narrative description, or in some other format?

- **Nature of the data source** – Is the data available in an electronic format from an accessible system, on a hard copy report, on an individual spreadsheet, or some other source?

- **Data manipulation** – Is the metric a key performance indicator by itself, or does it need to be combined with other data to be valuable? Are other manipulations needed to make the data meaningful?

With these variables assessed, the BPR Practitioner can work with Stakeholders and the project team to identify best available reporting methods.
Select Reporting Method

Once the characteristics of each metric are identified, the BPR Practitioner should work with the project team to review available reporting platforms and determine the best method to report the data. The BPR Practitioner should consider the following reporting methods based on the effort required to develop it and availability:

- **Online Dashboards.** Many executives like to view performance in a graph or other visual medium, often using red-yellow-green “stoplight” indicators to quickly highlight current performance. This format is excellent for data that is updated frequently (typically daily or even continuously), and is numerical in nature and easily compared to targets. Dashboard data is also generally output from one or more software systems rather than manually entered.

- **Periodic Reports or Online Queries.** For data that is updated monthly or less often, or requires manipulation prior to displaying it to a Stakeholder, a report or inquiry screen is often the most appropriate choice. This enables the Stakeholder to run the report or query as needed, and allows for combining data elements, performing mathematical operations, dealing with exception conditions, or other situations where programming is needed. In cases where source data can vary in format or is not easily compared to targets, reports may be the most appropriate mechanism to deliver performance results.

- **Database or Data Warehouse.** In some cases, Stakeholders may want raw data that they can manipulate and format themselves, rather than having it in a final format. Making data available in a standard database or data warehouse format can often work well for these types of Stakeholders, assuming that data analysis tools are available to them as well.

Understanding the characteristics of performance metrics is important, but the BPR Practitioner should also take care to work with Stakeholders to ensure their reporting needs and preferences are addressed. Using Stakeholders’ preferred delivery mechanisms can help increase utilization of the metric and performance target, and thereby help move the organization closer to a state of continuous improvement. Though different reporting requirements may necessitate data be presented in a prescribed format, the BPR Practitioner should aim to report metrics as simply and consistently as possible to all Stakeholders to ensure they are receiving the same message or end at the same conclusion when viewed.
Once the BPR Practitioner addresses both available reporting platforms and the preferences of Stakeholders, the BPR Practitioner documents these selected reporting solutions in the Performance Target Inventory. These reports are later generated during the Closing Process Phase.

### 2.4.4 Tools

The tools that the BPR Practitioner will use within Performance Measurement during the Executing Process Phase includes the following:

- Performance Target Inventory Template

### 2.4.5 Outputs

Performance Measurement produces the following output during the Executing Process Phase:

- Update Performance Target Inventory
3.1 Complete the Checklist

Once all of the BPR activities within the Executing Process Phase are done, the process phase checklist should be completed. The checklist provides a list of “why, how, what, who, where, and when” questions to verify that all items in the process phase are complete.

The process phase checklist helps to identify and document repeatable steps, from project to project, to ensure that the correct activities are completed at the right time, every time.

Process phase checklists assist BPR Practitioners in quickly and confidently identifying areas of concern within this process phase. In this case, completion of the checklist provides a clear milestone that the Executing Process Phase is complete, including:

- Completed BPR Schedule
- Completed Future State Process Model (detailed)
- Updated Performance Target Inventory
- Completed BPR Executing Process Phase Checklist

Outputs

Complete the BPR Executing Process Phase Checklist to validate that all process phase activities are complete.
Business Process Reengineering (BPR) activities within the Closing Process Phase focus on transitioning the project from deployment to support. It also establishes the ongoing, incremental improvement of business processes through analysis of performance measures.
In this chapter...

1. **Approach**
   - 1.1 Introduction
   - 1.2 Recommended Practices

2. **Knowledge Areas**
   - 2.1 BPR Lifecycle Management
   - 2.2 Business Analysis and Future Definition
   - 2.3 Performance Measurement

3. **Process Phase Checklist**
   - 3.1 Complete the Checklist
As shown in Figure 1-1, three knowledge areas are active in the Closing Process Phase of the Project Management Lifecycle (PMLC). The Project Team will focus on closing the BPR Project and developing an improvement plan that the organization can use for continuous improvement.

1.1 Introduction

During the Closing Process Phase, the BPR Practitioner works with the Project Manager to formally closeout the BPR effort by archiving artifacts and conducting lessons learned. The BPR Practitioner will also create a post-implementation continuous improvement plan that will be transferred to and maintained by the organization. A key input to this improvement plan, the BPR Performance Report, is initially created by the BPR Practitioner and will be updated over time by the organization after the project is closed.

BPR Lifecycle Management

The BPR Practitioner works closely with the Project Manager during the Closing Process Phase to ensure that final BPR documentation is properly stored and lessons learned are conducted for BPR-related activities. Additionally, the BPR Practitioner may be asked to assist with a Post-Implementation Evaluation Report (PIER) in the case that one is needed.
Business Analysis and Future Definition

During the Business Analysis and Future Definition Knowledge Area, the BPR Practitioner establishes a continuous improvement plan that the organization will operate and maintain after project closure.

Performance Measurement

The BPR Practitioner will collect initial performance data and create a report to demonstrate progress toward performance targets. The report, which will be maintained by the organization, becomes the basis of future process improvements.

Once all BPR-related Closing Process Phase activities have been completed, the BPR Practitioner will complete the BPR Closing Process Phase Checklist. Figure 1-2 lists all of inputs, activities, and outputs for each knowledge area during the Closing Process Phase.

Sequence of Activities

Although the knowledge areas are presented in a specific order for consistency throughout the CA-BPR, the order in which the activities occur is independent of each other. Activities may occur simultaneously and iteratively rather than sequentially. Where an output from one knowledge area is an input to another, it is not required that they have to be in final form; however, they should be reasonably drafted to contain a majority of the information the input/output is expected to contain. The experience and knowledge of past projects and individual judgment should be used to determine the most appropriate sequencing of activities for each unique project.
Closing Process Phase Goal: **Transition to Support and Process Improvement**

**Figure 1-2**
1.2 Recommended Practices

The following recommended practices will help the BPR Practitioner properly close the project, transition from deployment to support, and begin a cycle of incremental improvement. The recommended practices apply to all BPR knowledge areas.

**Leverage BPR Resources After Go-Live**

By the time new processes are deployed, BPR resources will have worked through a detailed analysis of legacy processes, collaborated on improvement alternatives, and designed and implemented new business processes in tandem with a project team. Having gone through those activities, resources that participated in BPR activities are in a unique position with subject matter expertise and insights for continuous improvement and process refinement.

**Consider Trends over Snapshots**

Often the desired productivity and efficiency gains will materialize over time after implementation of a new business process. End users and Stakeholders will need time to internalize the new process steps and to develop mastery with new technology. The BPR Practitioner should evaluate how performance metrics are changing over time, looking at trends versus evaluating a performance snapshot shortly after deployment. This trend analysis will give the BPR Practitioner a better view of the impact of the redesigned processes.
2.1 BPR Lifecycle Management

The goal of BPR Lifecycle Management in the Closing Process Phase is to close out the project in an orderly and timely fashion, as shown in Figure 2-1. The BPR Practitioner will work closely with the Project Manager to archive BPR artifacts, conduct lessons learned, and support the Post-Implementation Evaluation Report (PIER) as needed.

A summary of the inputs, roles, skills, activities, tools, and outputs of the knowledge area is presented in Figure 2-2.
2.1.1 Inputs

In order to complete the Closing Process Phase BPR Lifecycle Management activities, the BPR Practitioner will need a thorough understanding of the following input:

**Documentation from Previous Process Phases:** Documentation from previous process phases should be archived or stored during the closeout process. The BPR Practitioner should work with the Project Manager during this time as items including, but not limited to, the Future State Process Model, the Performance Target Inventory, and other important documents should be archived.
2.1.2 Roles

The following table lists the roles and their associated responsibilities of those involved in BPR Lifecycle Management activities during the Closing Process Phase.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR Practitioner</td>
<td>• Works with the Project Manager to close out the BPR project</td>
</tr>
<tr>
<td></td>
<td>• Archives BPR project artifacts</td>
</tr>
<tr>
<td></td>
<td>• Conducts lessons learned sessions and documents results</td>
</tr>
<tr>
<td></td>
<td>• Assists with the Post-Implementation Evaluation Report (PIER) as needed</td>
</tr>
<tr>
<td>Project Sponsor</td>
<td>• Provides final sign-off on the project</td>
</tr>
<tr>
<td>Project Manager</td>
<td>• Leads the overall closeout process</td>
</tr>
<tr>
<td></td>
<td>• Coordinates closeout activities across all teams</td>
</tr>
</tbody>
</table>

2.1.3 Activities

The tasks completed under the BPR Lifecycle Management Knowledge Area center on project closeout. Although these tasks are presented in a logical sequence, the BPR Practitioner should apply his/her knowledge and experience to determine the necessary activities and the order of activities for each project.

Close Out the BPR Project

In order to close out the BPR effort, the BPR Practitioner should work with the project team to identify these tasks and perform them as required. This activity consist of the following tasks:

• Archive BPR Artifacts
• Conduct Lessons Learned
• Support Completion of the Post-Implementation Evaluation Report

Archive BPR Artifacts

Artifacts from this BPR project are a crucial source of information for improving future BPR efforts. All records, both electronic and hard copy, should be stored according to applicable project document management rules and guidelines. Guidance for ongoing BPR activities (e.g., BPR Improvement Plan, Performance Target Inventory) are turned over to personnel responsible for maintenance and operation of the product, service, or other project results after deployment. The project archive should contain a document that includes a description of all files being stored, the storage location, and a point of contact for further information. Typically, at a minimum, archived BPR artifacts include:

• Current State Assessment
• Business Process Scope Model
• Current State Process Model
• Future State Process Model
• Performance Target Inventory
• BPR Improvement Plan
• Lessons Learned

Conduct Lessons Learned

During the Closing Process Phase, the BPR Practitioner should conduct lessons learned session(s) with project team members who participated in BPR activities. The objective of conducting lessons learned is to identify both the positive and negative lessons learned from the BPR effort, as well as recommended corrective actions for the negatively based observations that should be considered for future projects.

To conduct lessons learned, the BPR Practitioner should facilitate brainstorming sessions to identify and analyze each major negative and positive event that impacted the BPR workstream. As items are identified and discussed, the BPR
Practitioner documents them in the lessons learned template included in the CA-PMF. The template helps the project team document each lesson learned, identify the PMLC stage in which the event occurred, the initiator of the lesson learned and his or her role, and the recommendation to avoid the problem or take advantage of the opportunity. The BPR Practitioner also documents a description of the lesson learned and any recommendation for future BPR projects.

The completed lessons learned documentation represents knowledge and experience gained during the project and should be archived and made available for future consideration. For more information on conducting lessons learned, see the Closing Chapter of the CA-PMF.

**Support Completion of the Post-Implementation Evaluation Report**

The California Department of Technology (CDT) requires projects to complete and submit a Post Implementation Evaluation Report (PIER) following project completion. The BPR Practitioner may be asked to support or complete portions of the PIER that pertain to the BPR effort. For more information on the PIER, see Section 50 of the Statewide Information Management Manual (SIMM) which contains “Instructions for Completing the Post Implementation Evaluation Report (PIER).” These instructions describe when a PIER is required, its contents, and procedures for submission and approval.

**2.1.4 Tools**

The tool that the BPR Practitioner will use within BPR Lifecycle Management during the Closing Process Phase includes the following:

- Lessons Learned Template

**2.1.5 Outputs**

BPR Lifecycle Management produces the following outputs during the Closing Process Phase:

- Archived BPR Artifacts
- Completed Lessons Learned
2.2 Business Analysis and Future Definition

As shown in Figure 2-3, the focus of Business Analysis and Future Definition during the Closing Process Phase is to develop a post-implementation continuous improvement plan that the organization will use for future process optimization.

A summary of the inputs, roles, skills, activities, tools, and outputs of the knowledge area is presented in Figure 2-4.
2.2.1 Inputs

In order to complete the Closing Process Phase Business Analysis and Future Definition activities, the BPR Practitioner will need a thorough understanding of the following input:

**Organizational Process Assets:** Existing policies, procedures, and plans regarding performance improvement and continuous improvement (if available) will help the BPR Practitioner create the BPR Improvement Plan tailored to fit the organization’s needs.
2.2.2 Roles
The following table lists the roles and their associated responsibilities of those involved in Business Analysis and Future Definition activities during the Closing Process Phase.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR Practitioner</td>
<td>• Creates the Process Improvement Plan</td>
</tr>
<tr>
<td>Project Sponsor</td>
<td>• Helps identify post-implementation roles and responsibilities</td>
</tr>
</tbody>
</table>

For a complete list of all CA-BPR roles, see the BPR Role Definitions in the Glossary.

2.2.3 Activities
The task required to create the BPR Improvement Plan is presented below. The BPR Practitioner should leverage his/her experience and judgment to modify this task as needed.

Create the BPR Improvement Plan
Organizations that implement a BPR project should define a method of continuous improvement they will follow after the project closes to continually improve upon and gain efficiencies in the ongoing operations of a business process. A major BPR activity during the Closing Process Phase is the development of a plan that identifies how future process improvements will be handled, including roles and responsibilities, process improvement triggers, and process improvement documentation. After the BPR Practitioner creates the plan and the project is closed, the responsibility of operating and maintaining it is transferred to the ongoing maintenance organization.

A well-established improvement plan will help organizations ensure future improvement opportunities are considered and implemented in a timely and organized fashion. The CA-BPR provides a BPR Improvement Plan template containing detailed instructions and examples. The BPR Practitioner will complete the plan, including the following key sections:

- **Roles and Responsibilities** – Roles and responsibilities should be defined
to establish who is responsible for resourcing, monitoring, and executing the BPR Improvement Plan and subsequent improvement opportunities. The Project Sponsor and Project Manager can be consulted to determine appropriate resources for this.

- **Process Improvement Triggers** – Future process improvements can be triggered by ad-hoc events such as an employee identifying a process problem or opportunity and complaints from customers. They can also be triggered by the continuous evaluation of performance indicators by comparing current performance values against performance targets, an activity described under the Performance Measurement Knowledge Area in this process phase. Fields such as business process, process improvement trigger, and trigger description should be created for capturing required data.

- **Documenting the Process Improvement** – Required data for subsequent process issues or opportunities needs to be defined, including root-causes, owner assignment, and improvement plans.

When creating the plan, the BPR Practitioner should evaluate existing organizational process assets to determine whether the organization already uses a continuous improvement plan or method. In such cases, the BPR Practitioner should determine if the plan or method addresses all of the elements listed in BPR Improvement Plan; if not, the plan or method should be amended to include missing elements. Once the BPR Improvement Plan is created, the BPR Practitioner should transfer it to the appropriate resources of the organization that will provide ongoing support.

### 2.2.4 Tools
The tool that the BPR Practitioner will use within Business Analysis and Future Definition during the Closing Process Phase includes the following:

- BPR Improvement Plan Template

### 2.2.5 Outputs
Business Analysis and Future Definition produces the following output during the Closing Process Phase:

- Completed BPR Improvement Plan
2.3 Performance Measurement

The goal of Performance Measurement, as shown in Figure 2-5, is to establish a performance report that the organization can use for demonstrating progress toward goals and as the basis for future improvements. The BPR Practitioner performs this activity by creating a BPR Performance Report and populating it with an initial set of performance values.

A summary of the inputs, roles, skills, activities, tools, and outputs of the Performance Measurement Knowledge Area is presented in Figure 2-6.
2.3.1 Inputs

In order to complete the Closing Process Phase Performance Measurement activities, the BPR Practitioner will need a thorough understanding of the following inputs:

**Performance Target Inventory:** A listing of performance targets and reporting solutions for each business process. This was created during the Planning Process Phase and updated during the Executing Process Phase.

**Current Performance Metric Values:** These values are generated via the reporting solutions described in the Performance Target Inventory. The BPR Practitioner documents the initial post-implementation values in the BPR Performance Report.
### 2.3.2 Roles

The following table lists the roles and their associated responsibilities of those involved in Performance Measurement activities during the Closing Process Phase.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR Practitioner</td>
<td>• Creates the BPR Performance Report&lt;br&gt;• Collects current performance metric values</td>
</tr>
<tr>
<td>Project Team</td>
<td>• Provides current performance metric values</td>
</tr>
</tbody>
</table>

For a complete list of all CA-BPR roles, see the BPR Role Definitions in the Glossary.

### 2.3.3 Activities

The task required to create the BPR Performance Report is presented below. The BPR Practitioner should leverage his/her experience and judgment to make any adjustments as needed.

#### Create and Populate the BPR Performance Report

A key BPR activity during the Closing Process Phase is the creation of a performance report and associated data collection. This report is used to record and demonstrate the performance of the newly implemented processes. Additionally, it will be used by the organization to surface future improvement needs by identifying under-performing processes.

The report consists of a comparison of target values with current values for each performance metric listed in the Performance Target Inventory. The BPR Practitioner should create a report with the following elements:

- The business process to which the metric relates
- The performance metric description
- The baseline metric value
- The target metric value
- The current metric value

The following is an input to the activity:
- Completed Performance Target Inventory
Additionally, the report should be designed to allow for continuous capture of performance values over time. The BPR Performance Report may be developed using the provided template.

The BPR Practitioner works with the project team to collect and document current performance metric values. The sources and reporting mechanisms are described in the Performance Target Inventory.

It should be noted that data collected immediately after go-live may not show meaningful improvements. This is because time is needed for new processes to gain traction, users to perform new responsibilities efficiently, and customers to become accustomed to new processes. Thus, the BPR Practitioner should avoid taking action based on data gathered immediately after implementation.

Once the initial BPR Performance Report is generated, the BPR Practitioner transfers it to the members of the organization who will maintain and continue to update it after the project closes. The report becomes an important input to the organization's continuous improvement process described in the BPR Improvement Plan created in the Business Analysis and Future Definition Knowledge Area.

### 2.3.4 Tools

The tool that the BPR Practitioner will use within Performance Measurement during the Closing Process Phase includes the following:

- BPR Performance Report Template

### 2.3.5 Outputs

Performance Measurement produces the following output during the Closing Process Phase:

- Initial BPR Performance Report
3.1 Complete the Checklist

Once all of the BPR activities within the Closing Process Phase are complete, the process phase checklist should be completed. The checklist provides a list of “why, how, what, who, where, and when” questions to verify that all items in the process phase are complete.

The process phase checklist helps to identify and document repeatable steps, from project to project, to ensure that the correct activities are completed at the right time, every time.

Process phase checklists assist BPR Practitioners in quickly and confidently identifying areas of concern within this process phase. In this case, completion of the checklist provides a clear milestone that the Closing Process Phase is complete, including:

- Archived BPR Artifacts
- Completed Lessons Learned
- Completed BPR Improvement Plan
- Initial BPR Performance Report
- Completing BPR Closing Process Phase Checklist

Tools
A template is available: BPR Closing Process Phase Checklist

Outputs
Complete the BPR Closing Process Phase Checklist to validate that all process phase activities are complete.
This chapter provides materials that are helpful for further understanding of business process reengineering (BPR) and the coordination and planning of BPR with project management and organizational change management (OCM). Also included are a glossary of BPR role definitions and terms.
In this chapter...

1 Approach
   1.1 Introduction
   1.2 CA-BPR Quick Reference

2 Framework Resources
   2.1 Introduction
   2.2 CA-BPR Activities in Relation to the CA-PMF and the CA-OCM
   2.3 BPR Resources

3 Glossary
   3.1 BPR Role Definitions
   3.2 BPR Terms
The objective of this chapter is to provide BPR Practitioners with supplementary resources that are useful for understanding, coordinating, and planning a BPR effort. Additionally, the chapter provides material helpful to understanding the relationship between the California Project Management Framework (CA-PMF), California Business Process Reengineering Framework (CA-BPR), and California Organizational Change Management Framework (CA-OCM) over the Project Management Lifecycle (PMLC).

1.1 Introduction

The CA-BPR is a practical guide to help the BPR Practitioner and project team successfully manage a BPR effort. This chapter introduces useful resources that help give the BPR Practitioner additional information about elements of the CA-BPR and how it ties to other related State of California frameworks, such as the CA-PMF.

This chapter also includes references to BPR related resources that the BPR Practitioner or those involved in a BPR effort can use to further their knowledge.

The BPR Practitioner can refer to or use these resources at any point throughout the project; however, these may be particularly useful during project planning to help provide context for the activities. The multiple illustrations presented provide context around and promote coordination with project management and BPR.
1.2 CA-BPR Quick Reference

This section features graphics related to each of the knowledge areas goals and the key elements from each process phase. While the knowledge area goals and key elements are presented in CA-BPR chapters for each process phase, they are presented here in a consolidated view across all process phases. This includes the following key elements:

- Recommended practices
- Skills
- Roles
- Activities
- Tools
- Outputs

1.2.2 Key Elements by Process Phase

Each chapter of the CA-BPR contains graphics that summarize the following elements broken out by process phase:

- Recommended practices to consider;
- A list of skills utilized by the BPR Practitioner;
- Key roles that are active during the process phase;
- Activities that the BPR Practitioner should undertake;
- Tools that are available to assist the BPR Practitioner to perform the activities; and
- The outputs of those activities.

This section features graphics that represent each element across all process phases.
### Recommended Practices by Process Phase

The CA-BPR includes narratives describing the recommended practices that are advised for each process phase. These are based on lessons learned and best practices. Figure 1-1 shows each process phase’s key recommended practices.

<table>
<thead>
<tr>
<th>Process Phase</th>
<th>Recommended Practices</th>
</tr>
</thead>
</table>
| Concept       | • Business Need should Drive the BPR Project  
• Have a Compelling Business Case for Change  
• Focus on the Perspective of the Customer  
• Have a Clear Baseline to Measure Performance Against  
• Don’t Over-Document the Current State  
• Keep Lessons Learned in Mind Throughout the Project |
| Initiating    | • Establish the “What” Before the “How”  
• Take the Time to Document the Environment  
• Make Sure the Gaps are Known and Understood  
• Coordinate Resource Needs with the Project Manager |
| Planning      | • Integrate the BPR Activities with Technology and Organizational Change Management (OCM) Efforts  
• Timebox the Development of Detailed Processes  
• Limit the Design of Exceptions  
• Customize Processes, Not Technology  
• Start with Simple, Discrete Processes |
| Executing     | • Leverage BPR Resources After Go-Live  
• Consider Trends Over Snapshots |
| Closing       | • Engage Business Process Owners Early |

**Figure 1-1**
Skills by Process Phase
The CA-BPR identifies the skills needed by the BPR Practitioner to perform the activities in each process phase. Figure 1-2 provides a complete list of all skills by process phase.

<table>
<thead>
<tr>
<th>Concept</th>
<th>Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>判断</td>
</tr>
<tr>
<td>Planning</td>
<td>任务管理</td>
</tr>
<tr>
<td>Executing</td>
<td>任务管理</td>
</tr>
<tr>
<td>Closing</td>
<td>任务管理</td>
</tr>
</tbody>
</table>

Figure 1-2
## Roles by Process Phase

The CA-BPR lists the roles and associated responsibilities for those who are involved in the BPR effort. Figure 1-3 shows each key role within each process phase.

### Roles

<table>
<thead>
<tr>
<th>Process Phase</th>
<th>Roles</th>
</tr>
</thead>
</table>
| Concept       | • BPR Practitioner  
• Project Sponsor  
• Business Owner(s)  
• Stakeholders |
| Initiating    | • BPR Practitioner  
• Project Sponsor  
• Project Manager  
• Stakeholders |
| Planning      | • BPR Practitioner  
• Project Sponsor  
• Project Manager  
• Project Team  
• BPR Design Team  
• Subject Matter Experts  
• Stakeholders |
| Executing     | • BPR Practitioner  
• Project Sponsor  
• Project Manager  
• Project Team  
• OCM Practitioner  
• BPR Design Team  
• Stakeholders |
| Closing       | • BPR Practitioner  
• Project Sponsor  
• Project Manager  
• Project Team |

**Figure 1-3**
Activities by Process Phase

An important component of the CA-BPR are the activities that the BPR Practitioner performs. The other key elements, such as roles, tools, and outputs, revolve around and are specific to these activities. While each chapter provides a knowledge area perspective of these activities, Figure 1-4, shows an overall view of all activities by process phase.

<table>
<thead>
<tr>
<th>Concept</th>
<th>Initiating</th>
<th>Planning</th>
<th>Executing</th>
<th>Closing</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Determine if BPR is the Right Approach</td>
<td>• Identify, Validate, and Prioritize Opportunities</td>
<td>• Design Future State Business Processes</td>
<td>• Design Detailed Future State Business Processes</td>
<td>• Close Out the BPR Project</td>
</tr>
<tr>
<td>• Identify Current End-to-End Business Processes</td>
<td>• Document the Current State Assessment</td>
<td>• Identify and Document Performance Targets</td>
<td>• Determine Data Sources and Reporting Solutions</td>
<td>• Create the BPR Improvement Plan</td>
</tr>
<tr>
<td>• Identify Customer Needs</td>
<td>• Document Current State Business Processes</td>
<td>• Determine the Performance Baseline</td>
<td>• Create and Populate the BPR Performance Report</td>
<td></td>
</tr>
<tr>
<td>• Identify Business Process Issues</td>
<td>• Determine and Plan for BPR Activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Identify Leading Practices and Benchmarks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 1-4
# Tools by Process Phase

The CA-BPR includes tools provided to help the BPR Practitioner perform the activities and document outputs. Figure 1-5 provides an overall list of each tool that is used within each process phase.

<table>
<thead>
<tr>
<th>Process Phase</th>
<th>Tools</th>
</tr>
</thead>
</table>
| Concept      | • BPR Approach Assessment Template  
              • Project Charter Template |
| Initiating   | • BPR Schedule Template  
              • Current State Assessment Template  
              • Business Process Modeling Tool  
              • Performance Metric Assessment Template  
              • BPR Initiating Process Phase Checklist Template |
| Planning     | • BPR Schedule Template  
              • Business Process Modeling Tool  
              • Performance Metric Assessment Template  
              • Performance Target Inventory Template  
              • BPR Planning Process Phase Checklist Template |
| Executing    | • BPR Schedule Template  
              • Business Process Modeling Tool  
              • Performance Target Inventory Template  
              • Performance Metric Assessment Template  
              • BPR Executing Process Phase Checklist Template |
| Closing      | • Lessons Learned Template  
              • BPR Improvement Plan Template  
              • BPR Performance Report Template  
              • BPR Closing Process Phase Checklist Template |
## Outputs by Process Phase

Once a tool has been completed or updated to help perform a specific activity, the tool will become an output. These outputs may also potentially become inputs and used in another process phase or knowledge area. CA-BPR lists each of the outputs by knowledge area and process phase. Figure 1-6 provides an overall view of outputs by process phase.

<table>
<thead>
<tr>
<th>Process Phase</th>
<th>Outputs</th>
</tr>
</thead>
</table>
| Concept       | • BPR Approach Assessment  
• Business Problem Statement  
• Business Goals and Objectives  
• Business Process Scope Model  
• Completed BPR Concept Process Phase Checklist |
| Initiating    | • Completed BPR Schedule  
• Identified Customer Needs  
• Identified Business Process Issues  
• Identified Benchmarks  
• Identified Leading Practices  
• Prioritized Opportunities  
• Completed Current State Assessment  
• Completed Current State Process Model  
• Identified Performance Baseline  
• Completed Performance Metric Assessment  
• Completed BPR Initiating Process Phase Checklist |
| Planning      | • Completed BPR Schedule  
• Completed Future State Process Model (high-level)  
• Completed BPR Planning Process Phase Checklist |
| Executing     | • Completed BPR Schedule  
• Completed Future State Process Model (detailed)  
• Completed BPR Executing Process Phase Checklist |
| Closing       | • Archived BPR Artifacts  
• Completed Lessons Learned  
• Completed BPR Improvement Plan  
• Initial BPR Performance Report  
• Completed BPR Closing Process Phase Checklist |

Figure 1-6
2.1 Introduction

This section provides the BPR Practitioner with a side-by-side view of project management processes from the CA-PMF and OCM activities from the CA-OCM that typically occur during the same process phase. Additional BPR resources, including those from the Information Technology Leadership Academy 21 (ITLA21), Business Process Modeling Readiness Guide, are provided for the reader to further explore BPR concepts.

2.2 CA-BPR Activities in Relation to the CA-PMF and the CA-OCM

As detailed in the CA-BPR process phase chapters, BPR is not performed in isolation, but rather depends heavily on strong coordination with other project workstreams. Two important workstreams are project management, as described in the CA-PMF, and OCM, as described in the CA-OCM.

Figure 2-1 provides an at-a-glance view of each high-level activity (or process, as is the case with the CA-PMF) by process phase for each of these workstream and relates the activities of the CA-BPR with activities of the CA-OCM and processes of the CA-PMF.
### CA-PMF Processes
- Identify the Project Sponsor(s) and Stakeholders
- Conduct a Readiness Assessment
- Project Approval Process
- Concept Process Phase Review

### CA-OCM Activities
- Define the Magnitude of the Change
- Identify Project Sponsor
- Concept Process Phase Review

### CA-BPR Activities
- Determine if BPR is the Right Approach
- Define Vision and Align with Mission
- Identify Current End-to-End Business Processes
- Concept Process Phase Review

#### Concept
- Establish Project Staffing
- Create a Project Library
- Review Current Documentation
- Conduct Stakeholder Analysis
- Perform Charter Analysis
- Monitoring and Controlling
- Project Approval Process
- Initiating Process Phase Review

#### Initiating
- Prepare for Planning Process Phase Activities
- Develop Planning Process Phase Artifacts
- Approve and Baseline Planning Process Phase Artifacts
- Optimize Planning Process Phase Artifacts
- Project Approval Process
- Conduct Procurements
- Planning Process Phase Review

#### Planning
- Assemble the Resources
- Prepare for the Executing of Process Phase Activities
- Direct and Manage Project Work
- Monitoring and Controlling Project Work
- Develop Project Status Reports
- Executing Process Phase Review

#### Executing
- Determine and Plan for OCM Activities
- Assess Organizational Change Readiness
- Update the OCM Plan
- Conduct OCM Activities
- Develop the Communication Management Plan
- Deliver Planning Process Phase Communications
- Support and Assist the Project Sponsor
- Support Executive Leadership
- Conduct Team Guidelines Session
- Identify the Training Method and Approach
- Planning Process Phase Review

#### Closing
- Prepare for Project Closure
- Closeout Project Artifacts
- Conduct Lessons Learned
- Celebrate Success
- Administrative Closeout
- Closing Process Phase Review

---

**Additional Resources**

---

**Figure 2-1**

---

**California Department of Technology**

**Business Process Reengineering Framework**

---

---
2.3 BPR Resources

Well-executed BPR is recognized as critical for successfully transforming the way an organization does business. A number of BPR resources exist containing perspectives on how to perform BPR and related practices. Many of these resources have common threads and provide value for a BPR Practitioner. This section lists BPR resources to accompany the CA-BPR framework.

2.3.1 Resources


**Michael Hammer** – Michael Hammer’s article, “Reengineering Work: Don’t Automate, Obliterate“, (Harvard Business Review, July-August 1990) introduced Business Process Reengineering as a process improvement approach that focused on fundamentally rethinking business processes to remove forms of work that do not add value. For more information on Michael Hammer and BPR, visit: [www.hammerandco.com](http://www.hammerandco.com).

**International Institute of Business Analysis (IIBA®)** – The IIBA® is a professional association serving the field of business analysis. The IIBA® provides publications, including the Business Analysis Book of Knowledge (BABOK®) that describe numerous practices and techniques that are helpful to BPR Practitioners. For more information on the IIBA®, visit: [www.iiba.org](http://www.iiba.org).

This glossary offers brief, general descriptions of major BPR roles and terms, many of which are used or referenced in the CA-BPR. This glossary is not intended as a comprehensive or definitive compilation of terminology used in the profession of BPR.

The descriptions are drawn from information within the CA-BPR itself, as well as from highly regarded sources such as the California Project Management Framework (CA-PMF), the IT Leadership Academy (ITLA), the Project Management Institute (PMI), the Association of Project Management (APM), and the BPM Readiness Guide.

Understanding BPR roles and terms is vital for BPR success. While these lists do not cover all roles and terms, they include common and important ones that the BPR Practitioner should know and understand.

### 3.1 BPR Role Definitions

There are many different roles, people, groups, and organizations involved in various elements of a BPR effort. The following is a list of the different types of roles that may be involved and their respective definitions or responsibilities.

**BPR Practitioner** – The BPR Practitioner is responsible for performing BPR activities during a BPR effort. The BPR Practitioner may lead and manage a team of BPR resources including members of the BPR Design Team, Stakeholders, and other BPR Practitioners. The BPR Practitioner executes activities during all phases of the PMLC, ensuring activities and resulting work products are in line with project goals and objectives. The BPR Practitioner coordinates closely with the Project Manager on schedule, resources, work plan, and monitoring and controlling activities throughout the project. The BPR Practitioner also works closely with the OCM Practitioner to provide process-related training and communication support to ensure buy-in and adoption of new processes.
**BPR Design Team** – The BPR Design Team is a group that performs the design of future processes during the Planning, Executing, and Closing Process Phases of the PMLC. Members of this team may consist of Stakeholders, members of the Functional Project Team, members of the Technical Project Team, other BPR Practitioners, other SMEs, and End Users. The BPR Design Team is responsible for developing an organization’s future processes, an activity that is typically done in facilitated work sessions led by the BPR Practitioner.

**Customer** – The end consumer or user of a business systems service. Often the consumer of the information provided by a business system.

**End User** – The End User is the person or organization that will use the project’s end product. End Users can be state or local employees, or members of the public. There may be several categories of End Users, such as the public via a website, customer service call center employees, and financial staff. Each category may have specific project-related needs and expectations.

**External Stakeholder** – A person, outside of the organization, who has influence over a project, or who may be affected by a project. For State of CA organizations, External Stakeholders may include customers that use products or services (including citizens or members of other departments or agencies) or outside organizations that are otherwise affected by a project.

**Key Stakeholder** – A person who participates in the decision to approve or disapprove requirements on the behalf of other Stakeholders. A Stakeholder who has significant influence over a project, or who may be significantly affected by a project.

**OCM Practitioner** – The Organizational Change Management (OCM) Practitioner leads the planning and executing of project activities related to preparing the sponsoring entity and other Stakeholders for changes brought about by the new product or system. This may include training on the new system, training and implementation activities involving new business processes, Stakeholder outreach, and other activities required to successfully implement the project’s solution.
**Project Manager** – The Project Manager is responsible and accountable for successfully executing a project. He or she receives authority from the sponsoring organization to execute the project. This authority is documented in the signed Project Charter. The Project Manager is responsible for organizing and leading the project team that delivers the project goals and accomplishes all of the project deliverables. The Project Manager leads the project team through the Concept, Initiating, Planning, Executing, and Closing Process Phases, all while instituting monitoring and controlling activities to ensure timely project progress. The Project Manager guides project teams to successful completion of each project phase's milestones and deliverables, thereby meeting the goals of the organization. The Project Manager must effectively balance and influence the competing project constraints of scope, quality, schedule, budget, resources, and risks. The Manager provides the communication link between the Project Sponsor and project team. He or she also establishes effective communication between the project team and business representatives participating in the project.

**Project Sponsor** – This is a critical project role with the authority to decide whether or not a project should be undertaken, as well as the authority to provide funding, resources, support for the project and to cancel the project if necessary. The Project Sponsor ensures the needs of the business area are clearly communicated in a timely manner. With review and approval of project documents and careful progress reviews, the Project Sponsor ensures the design of the system meets all business goals. The Project Sponsor is also responsible for ensuring that adequate financial and business process resources are made available in a timely manner to address business needs. The Project Sponsor is expected to actively lead project teams to address risks and resolve project issues throughout the project lifecycle. He or she may act as senior spokesperson for the project, communicating strategic vision for the project both internally to the project team and externally to other Stakeholders. The Project Sponsor communicates project status to the organization’s executives as well as Stakeholders outside the sponsoring organization.

**Project Team** – A project team is a team whose members usually belong to different groups, functions and are assigned to activities for the same project. A team can be divided into sub-teams according to need. Usually project teams are only used for a defined period of time.
Stakeholder – A Stakeholder is an individual or organization that can influence a project, or can be affected by a project, in some way. “Stakeholder” is a very broad term that includes not only the actual project team members but also any individuals affected by changes brought about by the product.

Stakeholders typically include all of the separate units within the sponsoring organization(s) that have a role to play in conducting or supporting the project, such as the budget shop, the IT division, and the Human Resources unit. Stakeholders also include interface partners and potential users of the project’s product, whether they are part of the sponsoring organization or outside of it (including other branches of state government and federal and local government).

Stakeholders include control agencies that review project details, and those who have a role in reviewing and approving aspects of the business processes that may be modified during the course of the project (such as the State Controller approving payment processes). The Legislature is a stakeholder that may be asked to approve project funding. Public sector project Stakeholders include taxpayers, who have a stake in the effective use of public funds and an ongoing interest in the state’s ability to manage projects and tax dollars effectively. Project teams may benefit by categorizing Stakeholders in various ways, such as internal or external, a member of the project team, a person within the sponsoring organization, or members of the public. Project teams typically find it helpful to identify key Stakeholders who have significant influence over the project or are significantly affected by it.

Subject Matter Expert (SMEs) – Subject Matter Experts (SMEs) provide the project team with knowledge of the details of the business operation, financial controls, current database history and structure, and other aspects of the business processes related to the project. These experts often are not assigned full time, but they are brought in as needed during requirements definition, design sessions, validation of design, or at various stages of testing. In more iterative project development, SMEs may be closely engaged in the development process.
3.2 BPR Terms

The following is a high-level list of BPR terms that are widely used among BPR Practitioners.

**Alternative** – Different solutions and approaches that must be evaluated and potentially selected to attain the objectives of a project.

**Alternatives Analysis** – A process of breaking down a complex situation to generate different solutions and approaches in order to evaluate the impact of trade-offs.

**Assumption** – A factor in the planning process that is considered to be true, real, or certain, without proof or demonstration. [Source: PMI.]

**Backlog** – A build-up of incomplete or unperformed tasks within a business processes.

**Benchmark** – Standard point of reference used to define progress, improvement, or change.

**BPR Lifecycle Management** – One of the four BPR knowledge areas, BPR Lifecycle Management involves planning and management activities necessary to complete the BPR effort. These activities govern the performance of all other knowledge area activities and provide management for the BPR effort.

**Business Analysis and Future Definition** – One of the four BPR knowledge areas, Business Analysis and Future Definition involves the analysis of the structure, mandates, policies, and operations of an organization, and development of the future vision. The principle benefit of business analysis is to understand an organization’s current environment, thereby creating a foundation based on documented and validated facts.

**Business Driver** – Business drivers are external and internal forces that create a need for business action or “drive” the organization’s business, as well as the strategies that an organization defines in response to these forces.

**Business Goals** – The underlying basis for which a project is undertaken.

**Business Problem** – A perceived gap between the existing state and a desired state.

**Business Process** – A set of defined ad-hoc or sequenced collaborative activities performed in a repeatable fashion by an organization. Processes are triggered by events and may have multiple possible outcomes. A successful outcome of a process will deliver value to one or more stakeholders.
**Business Process Design** – One of the four BPR knowledge areas, Business Process Design establishes the design or redesign of current processes to improve efficiency, effectiveness, quality, and/or service. Activities in this knowledge area are core to BPR and involve using specific elicitation and modeling techniques to identify, design and, ultimately, implement new business processes.

**Business Process Management Notation (BPMN)** – A standardized graphical notation for drawing business processes in a workflow, facilitating improved communication and portability of process models. [Source: ITLA]

**Business Process Model** – A graphical representation for how a set of activities should operate in a flow and sequence in order to regularly achieve desired outcomes. A process model depicts the events that trigger action and the sequences of steps and the business rules used in and between those steps to support decision-making and execution flow. [Source: ITLA]

**Business Process Modeling** – The set of activities involved in creating representations of an existing or proposed business process. Business process modeling applies a critical set of skills and techniques that enable a person to understand, communicate, measure, and manage the primary components of business processes. [Source: ITLA]

**Business Process Narrative** – A narrative that can accompany the business process model and helps people to understand the model. The narrative includes information such as inputs, outputs, triggers, assumptions, and other information that is required to understand the model. The narrative complements the model to provide a comprehensive representation of the business process that can be understood and communicated.

**Business Process Reengineering** – The purpose of Business Process Reengineering (BPR) is to help prepare the users for the new or modified automated system that is being developed. The focus is on understanding and documenting current processes and business needs, and identifying where automation may help. Thereafter, the focus shifts to assisting users to modify or use new processes that incorporate the use of the automated system functionality. Training and measuring process effectiveness are important parts of the BPR effort. The goals of BPR are to streamline existing processes, to ensure the correct processes are being automated, and to ensure automation is addressing the process need. This does not mean the elimination of all manual processes. Some new processes may be a combination of manual and automated activities. In many cases, an organizational change or redesign may be part of the effort, or it may be a simultaneous effort.

**Business Requirements** – A higher level business rationale that, when addressed, will permit the organization to increase revenue, avoid costs, improve service, or meet regulatory requirements.
California Business Process Reengineering Framework (CA-BPR) – The California Business Process Reengineering Framework (CA-BPR) is intended as a practical guide to help BPR Practitioners successfully redesign business processes that are part of large, transformative projects. The CA-BPR focuses on core BPR activities including Business Process Modeling (BPM), documenting the current state, designing the future state, and coordinating with other project workstreams across the PMLC. The purpose of the CA-BPR is to provide BPR Practitioners key steps and recommended practices to promote the successful implementation of new business processes.

California Project Management Framework (CA-PMF) – The California Project Management Framework (CA-PMF) is intended as a practical guide to help project teams manage projects of all sizes so that they achieve expected outcomes. The Framework focuses on Information Technology (IT) projects in particular, but is designed for use by project teams across multiple industries. The objective of the CA-PMF is to provide project teams with useful and practical advice about what they need to do to make their projects successful.

California Organizational Change Management Framework (CA-OCM) – The California Organizational Change Management Framework (CA-OCM) is intended as a practical guide to help OCM Practitioners successfully navigate and influence changes brought about by the new product or system. This may include training on the new system, training and implementation activities involving new business processes, Stakeholder outreach, and other activities required to successfully implement the project’s solution.

Closing Process Phase – The Closing Process Phase consists of BPR activities aimed at formally ending the project. Additionally, this process phase aims at optimizing the future business processes and refining performance measures.

Commercial Off-the-Shelf (COTS) – Commercial off-the-shelf software is commercially available application sold to the general public by a vendor through public catalogue listings, not intended to be fully customized or enhanced. COTS may be integrated into custom-built software systems. Some COTS products are designed to be modifiable (MOTS).

Concept – Thoughtful work, discussion, and brainstorming done before formally initiating a project.

Concept Process Phase – The Concept Process Phase consists of activities aimed at identifying the business problem(s), business need(s), and establishing a vision for the project. The Concept Process Phase establishes a firm foundation for the purpose and direction of the project.
**Constraint** – (1) A limiting factor that affects the executing of a project, program, portfolio or process. (2) Restriction that affects the scope of the project, usually involving availability; assignment; or use of project cost, schedule, or resources. (3) Any factor that affects when or how an activity can be scheduled. (4) Any factor that limits the project team’s options and can lead to pressure and resulting frustrations among team members. *Source: PMI.*

**Continuous Improvement** – An approach to operational process improvement that is focused on ongoing improvements to products, processes, and/or services. Often associated with methodologies such as Six Sigma, Lean, and Total Quality Management, continuous improvement activities drive performance improvement in part by continuous measurement of performance indicators and through instilling a culture on quality.

**Current State** – Also known as “as-is.” A model of the current structure (such as process, data, applications, technology). The baseline used for measuring the success of future changes or improvements.

**Cycle Time** – The total time that elapses between a customer’s request for an item, service, or product and the customer’s receipt of it.

**Data Warehouse** – Houses transaction data for the purposes of querying and reporting. Main data outputs are informal and formal reports.

**DD&I** – An acronym standing for design, development, and implementation.

**Decomposition** – Subdivision of the major project deliverables into smaller, more manageable (granular) components until the deliverables are defined in sufficient detail to support future project activities (such as planning, executing, monitoring & controlling, and closing).

**Desk Review** – A facilitated discussion of each pathway through a process to first identify any missing steps, artifacts (such as a form or a report), or actors within the process, and second, to compare the likely results to the desired outcomes.

**Documentation** – The collection of reports, information, records, references, and other project data for distribution and archival purposes.

**Domain** – The functional area under consideration.

**Efficiency** – Performance measure related to inputs and outputs. Efficiency involves operating or performing without waste. An efficient process uses the least amount of resources (inputs) to achieve the greatest results (outputs).
**Elicitation** – An activity within requirements development that identifies sources for requirements and then uses elicitation techniques (e.g., interviews, prototypes, facilitated workshops, documentation studies) to gather requirements from those sources.

**Enterprise Architecture** – A coherent collection of standards, policies, and principles that guide the selection, acquisition, implementation, integration, and management of IT hardware and software resources. [Source: SIMM.]

**Executing Process Phase** – During the Executing Process Phase, the BPR practitioner elicits and elaborates the detailed future business processes. This phase also contains the implementation of the future business processes and the monitoring of performance metrics.

**Focus Group** – A group of people (5-15) who are brought to together to discuss and share ideas and opinions relating to a process that they are familiar with or are affected by.

**Framework** – The combination of the templates and structured processes that support the documentation of the architecture in a systematic and disciplined manner.

**Functional Requirements** – Characteristics of the deliverable, described in ordinary, non-technical language that is understandable to the customer.

**Future State** – Also known as “to-be.” A model of the future structure (such as process, data, applications, technology).

**Gap Analysis** – An analysis comparing actual performance with potential or desired performance. May define steps to achieve desired performance. May be applied to information technology system performance, project activity outputs, risk analysis, and other project areas.

**Handoff** – Point or points during a process where information passes from one entity to another.

**Impact Analysis** – Qualitative or quantitative assessment of the magnitude of loss or gain that would be realized should a specific risk or opportunity event or series of interdependent events occur.

**Initiating Process Phase** – During the Initiating Process Phase, practitioners build on the project objectives established during the Concept Process Phase and document high-level current business processes, Stakeholder needs, current performance metrics, leading practices, and opportunities for improvement. These elements are assessed and prioritized and become inputs into the Planning Process Phase.
**Inputs** – Information and/or documents that feed into a process. Examples of inputs include receiving an email, getting a system-generated report, or a telephone call from a customer.

**Kaizen** – Introduced in 1986 by Masaaki Imai in his book *Kaizen: The Key to Japan’s Competitive Success*, Kaizen is a process improvement practice that focuses on continuous improvement. Its core principle is that small changes should be made by all employees with the aim of improving overall organizational performance.

**Knowledge Area** – Organized groupings of related BPR activities that share a common objective and purpose. Activities from multiple knowledge areas occur within a single process phase. BPR’s four knowledge areas include BPR Lifecycle Management, Business Analysis and Future Design, Business Process Design, and Performance Management.

**Leading Practice** – Leading practices are effective strategies, operations, or processes that are employed by peer organizations with a record and reputation of high performance in the industry.

**Lean** – A philosophy and approach focused on providing higher quality, reduced cycle time, and lower costs. Lean targets the elimination of non-value-add work through a focus on continuous improvement.

**Legacy System** – An organization’s existing information and technology systems that have been heavily invested in and relied upon by the organization. Often antiquated and/or insufficient.

**Level 0 End-to-End Business Process** – An End-to-End Business Process describes an organization’s business process at the highest level. This level, which is made up of a single phrase, can be seen as an umbrella business process under which all other business processes (Level 1), sub-processes (Level 2), activities (Level 3), and tasks (Level 4) are encapsulated.

**Level 1 Business Process** – The next highest level of process decomposition is the business process, which is a series of related actions performed by one or more stakeholders in order to complete a business transaction or accomplish an organizational goal. While multiple business processes working together make up an end-to-end business process, multiple sub-processes working together make up a business process.

**Level 2 Sub-Process** – The next level of process decomposition is the sub-process, which is a series of steps necessary to the completion of a business process, but insufficient on its own to achieve an organizational goal. While multiple sub-processes working together make up a business process, multiple activities working together make up a sub-processes.
**Level 3 Activity** – The next level of process decomposition is the activity, which is a series of tasks required to execute a sub-process. Activities are further decomposed into tasks.

**Level 4 Task** – A task is a single action step performed by a single stakeholder and is the smallest part of the business processes. Multiple tasks performed together make up a single activity.

**Market Research** – Market research determines whether the business goals and objectives can be met by products or services available in the market-place; whether commercial practices regarding customizing, or modifying products or tailoring services are available to meet the Business Goals and Objectives. Market research is also used to determine the number of potential solutions to the business problem, which can help shape a future procurement.

**Mechanism** – Technology or other utility used by a business system to help automate a business process, activity, or task.

**Metric** – A quantifiable measure used to track and assess the status of a specific process, such as a business process, often with the goal of process optimization.

**Mission** – A description prepared and endorsed by members of the organization that typically answers these questions: What do we do? For whom do we do it? How do we go about it? Used as a guide for making decisions in projects.

**Model** – The graphical representation or simulation of a process, relationship, or information, along with a narrative that supports the diagram(s).

**Modeling** – Modeling is the identification and documenting of a set of processes (usually of the same nature) that are classified together into a model. Process modeling is a description of a process in a visual representation that accurately depicts the process flow. [Source: ITLA.]

**Monitoring and Controlling** – Continuous tracking, assessment, and coordination to adjust project performance for maintaining alignment with project objectives.

**Non-Functional Requirements** – The quality attributes, design and implementation constraints, and external interfaces that the product must have.

**Organizational Change Management (OCM)** – A structured approach to shifting or transitioning an organization from the current state to a desired future state. OCM is the application of a set of tools, processes, skills, and principles for managing the people side of change to achieve the desired organizational change. It is a process aimed at empowering employees to accept and embrace changes in their business environment. OCM is frequently required during a project and/or upon implementation of the project’s product or other end result.
Organizational Process Assets – Plans, processes, policies, procedures, and knowledge bases that are specific to and used by the performing organization. [Source: PMI.]

Output – The tangible or intangible product typically delivered by a project. [Source: APM.]

Performance Baseline – (1) Baseline is a specification or product that has been formally reviewed and agreed upon, that thereafter serves as the basis for further development, and that can be changed only through formal change control process. (2) Baseline is a document or set of such documents formally designated and fixed at a specific time during the lifecycle of a configuration item.

Performance Indicator – A type of value or characteristic against which to measure progress or results. Used to track, measure, and monitor management strategies.

Performance Measure or Metric – Similar to a metric (see Metric), a performance measure or metric is a tool describing how to measure and track success in achieving an organization’s goals. Performance measure targets provide the quantifiable answer to the question, “How will we know when we’ve been successful in achieving our goal?” Analyzing the gaps between current performance levels and performance targets helps organizations identify priority areas needing improvement and develop strategies to close the gap.

Performance Target – Level of performance as established by a measureable goal against which actual effort can be evaluated. Indicates a performance level that an organization intends to meet or surpass during a specific timeframe.

Planning Process Phase – The Planning Process Phase consists of a number of key BPR activities that contribute to the identification and ultimate acquisition of a solution. These activities include developing the business case, designing the high-level future business processes, and assisting in the identification of the eventual solution approach. Many of the outputs of this phase are used in formal procurement documentation.

Process – Related business activities performed to produce an end product or provide a business service. A process has a specific beginning and end point marked by the delivery or a product or other output.

Process Flow – A method of visually documenting the stages involved in performing a certain business procedure. [Source: ITLA.]

Process Improvement – A systematic approach or series of actions in which an organization identifies and optimizes its underlying processes to achieve more efficient results or meet new objectives.
**Process Mapping** – Evaluative tool used to represent and model a particular process or business operation for the purposes of improving organizational/operational efficiency.

**Process Modeling** – A graphical representation for how a set of activities should operate in a flow and sequence in order to regularly achieve desired outcomes. A process model depicts the events that trigger action and the sequences of steps and the business rules used in and between those steps to support decision-making and execution flow. [Source: ITLA.]

**Process Phase** – A collection of logically related project activities that culminates in the completion of one or more deliverables. (The California Project Management Framework (CA-PMF) describes five process phases: Concept, Initiating, Planning, Executing, and Closing.) [Source: PMI.]

**Process Time** – Amount of time it takes for a service or product to have something done to it (excluding wait time). Measured by calculating how much time it takes for work to be performed along a certain path, for all possible paths.

**Project Approval Lifecycle (PAL)** – California has adopted the PAL to improve the quality, value and likelihood of success for technology projects undertaken by the State of California. The PAL is intended to ensure projects are undertaken with clear business objectives, accurate costs and realistic schedules. The PAL includes various stages separated by gates that are specifically tailored for IT projects.

- **PAL Stage 1** – Business Analysis: Provides a basis for project management, program management, executive management, and state-level control agencies to understand and agree on business problems or opportunities, and the objectives to address them.

- **PAL Stage 2** – Alternatives Analysis: Provides a basis for how the proposal’s business objectives will be achieved, the evaluation of multiple alternative solutions, determines which alternative will yield the highest probability of meeting the business objectives, and to develop an acquisition strategy/plan for procuring services.

- **PAL Stage 3** – Solution Development: Provides confirmation of the solution requirements needed to achieve the business objectives and development of the Request for Proposal (RFP) for the acquisition of services if needed.

- **PAL Stage 4** – Project Readiness Approval: A Solution Project Readiness and Approval Analysis that solicits bids from vendors as to how they propose to meet the business requirements of the chosen alternative approach, and where the final form of the project is approved to go forward.
**Project Charter** – A document issued by senior management that gives the project manager authority to apply organizational resources to project activities, and formally recognizes the existence of a project. The Project Charter’s purpose is to demonstrate organizational support for the project and the Project Manager, as well as to document the business needs of the new product, service or other project result.

**Project Management** – The application of knowledge, skills, tools, and techniques to project activities to meet the project requirements. [Source: PMI.]

**Project Management Lifecycle (PMLC)** – A series of process phases to provide better management and control over a project. During each phase processes, activities, and tools are used to fulfill project goals or objectives. The PMLC is designed to accommodate projects that vary in size and complexity.

**Project Management Plan (PMP)** – The document that describes how executing, monitoring and controlling of the project will be conducted. [Source: PMI.]

**Project Objectives** – (1) Identified, expected results and benefits involved in successfully completing the project. (2) Quantifiable criteria that must be met for the project to be considered successful. (3) Project scope expressed in terms of output, required resources, and schedule.

**Prototyping** – Enables the simulation and evaluation of potential reengineering efforts within an organization or a systems development area. Provides feedback on the progress of a reengineering project. If done continuously, allows changes to be made before finalizing a process design.

**Root-Cause Analysis** – Root-Cause Analysis is a process of identifying underlying causes of a problem through the use of specific analytical methods. Example methods include, 5-Whys Analysis, Barrier Analysis, Change Analysis, Casual Factor Tree Analysis, Failure Mode and Effects Analysis, Fish-Bone Diagram, Pareto Analysis, and Fault Tree Analysis.

**Requirement** – A requirement is defined as “a condition or capability that must be met or possessed by a system or system component to satisfy a contract, standard, specification, or other formally imposed documents” (IEEE 610-12-1990 [R2002]). Therefore, requirements identify, in objective terms, the criteria used to measure project success. Requirements should be captured and approved as early as possible in the project.

**Scope** – The totality of the outputs, outcomes, and benefits and the work required to produce them. [Source: APM.]
Six Sigma – A data-driven set of techniques, tools, and methodologies for process improvement. Used to eliminate process defects, increase customer satisfaction, reduce costs, improve cycle time, and achieve other metrics as stipulated by the organization. Goal is to increase profitability by achieving a high level of quality at reduced costs and time.

System Development Lifecycle (SDLC) – This is a model used in project management that describes the stages (or phases) involved in an information system development. The purpose is to meet user requirements in support of business strategic goals and objectives. Also see SDLC Phase descriptions. [Source: PMI.]

Solution – Determining what should be done to best support your current and future business strategy and needs. The deliverables clearly describe the solutions goals and scope, the capabilities to be implemented, and the risks associated with the program of work that must be carried out.

Stakeholder Register – Documents the quantitative and qualitative analyses of people whose interests should be considered. Typically contains at least this minimum information for each identified Stakeholder: name, title, organization, position, and location; contact information (such as phone, email, and address); Stakeholder classification, based on the level of project influence and the level of project impact the on the Stakeholder's business or life; and the need for and type of early engagement with the Stakeholder.

Sub-process – A set of related activities and tasks within a process.

Swimlane – A visual mechanism used in a process flow diagram that depict what or who is working on a particular subset of a process and for organizing and categorizing activities, based on cross functional flowcharting, and in BPMN consist of two types:

- **Pool** – Represents major participants in a process, typically separating different organizations. A pool contains one or more lanes (like a real swimming pool). A pool can be open (i.e., showing internal detail) when it is depicted as a large rectangle showing one or more lanes, or collapsed (i.e., hiding internal detail) when it is depicted as an empty rectangle stretching the width or height of the diagram.

- **Lane** – Used to organize and categorize activities within a pool according to function or role, and depicted as a rectangle stretching the width or height of the pool. A lane contains the Flow Objects, Connecting Objects and Artifacts. [Source: ITLA.]
**Task** – The smallest unit of work, limited in duration and scope, performed by a project or organization.

**Technical Requirements** – Description of the features of the deliverable in detailed technical terms, providing project team members with crucial guidance on what needs to be done on the project.

**Timeliness** – The completion of work correctly on time, as measured by customer requirements.

**Total Quality Management** – Techniques for instilling and creating a process of continuous improvement across an entire organization. TQM relies on four core concepts: continuous improvement, customer focus, total participation, and social networking. Begun as a statistical reliability measurement approach, it is also designed to promote adherence to an organization’s policies on quality.

**User Acceptance Test** – Structured testing performed by users of the system being built or modified to determine if it meets their requirements previously identified in the project.

**Walk-through** – (1) A peer review and examination of the requirements, design, or implementation of a project by qualified experts to ensure that the project objectives will be met. (2) A process used by software developers in which a group of knowledgeable peers mentally step through the design and logic flow of a program with test cases to identify errors and inconsistencies. (3) Rehearsal of an operational procedure by stimulating the executing of all its steps, but often excluding those that are high risk or prohibitively expensive.

**Work Products** – An item or deliverable (such as a plan, document, or software) produced by the project.