Working with the Business Process Management (BPM) Life Cycle

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INTRODUCTION

Business processes are collections of one or more linked activities that realize a business objective or policy goal, such as fulfilling a business contract and/or satisfying a specific customer need. The life cycle of a business process involves everything from setting up process goals and requirements, capturing the process in a computerized representation, as well as automating the process. This typically includes specific steps for measuring, evaluating, and improving the process. Currently, commercially available workflow management systems (WFMSs) and business process modeling tools (BPMTs) provide for complementary aspects of business process life-cycle management.

Furthermore, new concepts and interoperating tools in these categories are emerging to provide comprehensive support for managing the entire business process life cycle. In this chapter, we provide an overview and an evaluation of the Process Life Cycle phases, as well as details around process modeling, analysis, automation, and coordination capabilities. The life cycle represents the course of developmental changes through which the process evolves in terms of transformation and/or innovation as it passes through six different phases during its lifetime. From process analysis, design, construction, deployment, implementation, as well as governance and continuous improvement. The life cycle helps guide the practitioner to complete categorizations of process areas and groups, mapping of processes, their steps, activities, operations, improvements, and planned changes for the future by using change management as the driving force in the project.

The Process Life Cycle consists of a set of steps and phases in which each step and phase uses the results of the previous one. It provides a highly useful sequence of actions that any Business Analyst, Process Expert, Process Engineer, Process Architect, Business Architect, and/or Enterprise Architect can follow during any process-oriented projects. This can be used in combination of various process methods and approaches such as Business Process Reengineering [BPR], Business Process Management (BPM), Lean, and Six Sigma exist today, but no end-to-end BPM Life-cycle models have been developed in the market thus far. However, parts of the BPM Life Cycle can be found within Control Objectives for Information and related Technology (COBIT) and Information Technology Infrastructure Library (ITIL) v2 and v3, which are both Application and Service Life-cycle concepts, but they concentrate only very little on process maturity and the architectural aspects of processes.

The Complete Business Process Handbook. http://dx.doi.org/10.1016/B978-0-12-799959-3.00014-8

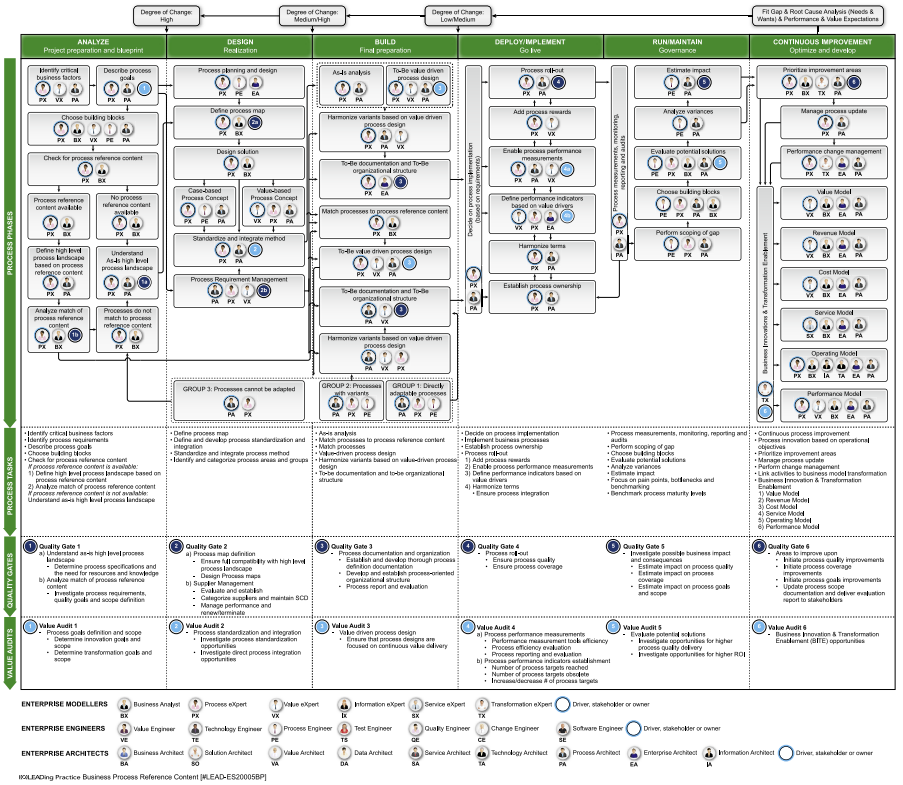


FIGURE 1

The BPM Life Cycle at a glance.

Ref. 1.

The proposed BPM Life Cycle concept interlinks with, and can be integrated with, the previously mentioned life cycles and helps practitioners place focus on all process-relevant aspects from business and application requirements to process modeling, engineering and architecture (see Figure 1).

PHASE 1: ANALYZE—PROJECT PREPARATION AND BLUEPRINT

The ultimate goal when we model business processes is to describe what the business does in a hierarchy of detail from the top level down to the level at which documents and other types of specific information components become visible. When we analyze processes, the information we discover will come from many sources and at many levels of abstraction and granularity. This information helps ensure consistency and completeness if we try to answer the same questions for each process that we encounter throughout the process landscape. In this context,

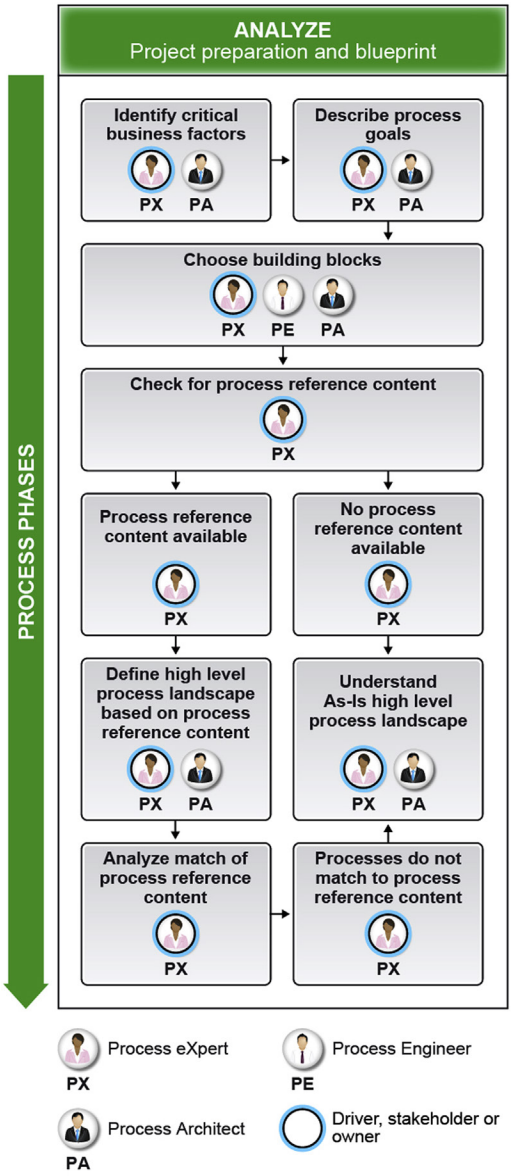


FIGURE 2

The Analyze phase of the BPM Life Cycle.

Ref. 2.

process analysis is a step-by-step breakdown of all the relevant aspects, including inputs, outputs, and the BPM Center of Excellence (CoE) operations that take place during the phase.

As an example, if our goals are strategic, we would be taking a top-down approach and interviewing senior executives or managers with a holistic and big picture view of an organization to identify the critical business factors and the process goals. Process recognition on this level tends to yield processes that are very abstract or very generic, partitioning activity into large, goal-oriented chunks. Among the questions, the answers for which describe processes at this level, are:

- What are the critical business factors?
- Which processes exist?
- What are the names of the processes?
- What are the goals and/or purposes of the processes?
- What industries, functional areas, or organizations are involved with the processes?
- Who are the stakeholders, owners, and/or participants in the processes?
- What is the process landscape?
- Does process reference content exist that could be used?
- Do the current processes present problems?

The process analysis phase can, therefore, be used to improve understanding of how the process operates, determine potential targets for process alignment with business goals, and identify increasing efficiency. Asking questions and recording their answers in a disciplined way rapidly creates a web of related information about interconnected processes from which we can develop models. The various BPM roles will get more information that is useful if they both ask questions and record the answers, using;

1. a standard vocabulary and definitions for the various process concepts described (see the BPM Ontology chapter or take a look at Figure 3).
2. process reference content that already exists within the domain in which the organization is working [3].

In this chapter, we will show the kinds of reference content that already exist. The 1st phase, the Process Analysis Phase (see Figure 2), is the phase in which the organization's processes are analyzed, captured, and defined based on the business goals and specific process requirements (e.g., business needs and wants), as well as on any interlinked business and process demands. Process goals and detailed process requirements are defined, choices are clarified through blueprinting, and the initial process maps are populated with the identified processes. Traditional output of the analyze phase would be problem analysis, As-Is analysis, measurement analysis, as well as establishment of business goals. This phase includes a link to change management and the continuous improvement loop through change management of the BPM Life Cycle. The degree of changes made during this phase is considered high.

Process Lifecycle Verb Taxonomy

ANALYZE	DESIGN	BUILD	DEPLOY/IMPLEMENT	RUN/MAINTAIN	CONT. IMPROVEMENT
Analyze	Aim	Accept	Accomplish	Administer	Adjust
Appraise	Align	Adapt	Achieve	Assign	Alter
Approximate	Arrange	Assemble	Activate	Audit	Amend
Ascertain	Begin	Assure	Apply	Calculate	Boost
Assess	Blueprint	Build	Assimilate	Chronicle	Change
Capture	Categorize	Chart	Carry out	Communicate	Condense
Clarify	Characterize	Check	Cause	Conserve	Convert
Collate	Classify	Codify	Close	Control	Coordinate
Collect	Cluster	Combine	Complete	Engage	Correct
Consider	Commence	Compile	Conclude	Exchange	Decrease
Count	Compare	Compose	Conduct	Fix	Diminish
Demand	Convene	Configure	Conform	Govern	Eliminate
Detain	Describe	Confirm	Deliver	Handle	Enhance
Detect	Design	Constitute	Deploy	Keep	Escalate
Diagnose	Determine	Construct	Do	Maintain	Improve
Discover	Devise	Craft	Educate	Manage	Incorporate
Estimate	Display	Create	Employ	Measure	Moderate
Evaluate	Draft	Customize	Evolve	Monitor	Modernize
Examine	Draw	Define	Execute	Operate	Modify
Explore	Drive	Develop	Finish	Oversee	Optimize
Find out	Enter	Enact	Generate	Preserve	Realign
Forecast	Enumerate	Enlarge	Get done	Process	Reassess
Formulate	Establish	Erect	Implement	Oversee	Reconsider
Gage	Form	Expand	Include	Promote	Redevelop
Gather	Format	Extend	Initiate	Protect	Redirect
Gauge	Found	Fabricate	Instigate	Reconcile	Redraft
Identify	Idea	Increase	Integrate	Record	Reduce
Inspect	List	Itemize	Interlink	Recover	Reevaluate
Investigate	Negotiate	Make	Launch	Register	Reexamine
Judge	Obtain	Manufacture	Migrate	Reintroduce	Reform
Learn	Organize	Match	Perform	Report	Refresh
Observe	Outline	Pilot	Present	Respond	Regulate
Recognize	Plan	Procure	Progression	Retain	Renew
Reflect on	Plot	Provide	Put into action	Retire	Renovate
Research	Prepare	Purchase	Put into operation	Run	Reorganize
Review	Prioritize	Raise	Put into service	Save	Reprioritize
Revise	Propose	Rank	Realize	Service	Restore
Search	Quantify	Scan	Reallocate	Set up	Restructure
See	Recommend	Secure	Set off	Supervise	Revert
Seek out	Select	Shape	Shift	Support	Revolutionize
Study	Sketch	Systemize	Teach	Turn on	Rework
Survey	Start	Test	Train	Update	Standardize
Think about	Suggest	Translate	Transfer	Uphold	Transfigure
Understand	Verify	Unify	Transition	Withdraw	Transform

FIGURE 3

The process life-cycle verb taxonomy model can be used to help identify the terminology associated with the organization's BPM life cycle around analyzing, designing, building, implementing, running, and improving business processes.

Ref. 4.

Step 1: Identify Critical Business Factors

To identify and define process goals effectively, an organization must first and foremost identify the existence and possible impact of any internal and external value and performance drivers and how they relate to the critical business factors. This is primarily done to identify the drivers for change, plan for the requirements, identify the resources needed, and relate to the process landscape the most critical business factors that are expected to impact the organization. For the most part, this step typically involves identifying both the internal and external value and performance drivers that may impact the design and creation of new business processes and/or to create an effective and reliable environment in which to support an eventual reengineering of existing processes. The output of step 1 is consumed by step 2.

Typical tasks that are done within this step:

- Identify which critical value and performance drivers are impacting and/or influencing the process landscape
- Prioritize value and performance drivers based on level of impact, severity, and/or urgency
- Associate the value and performance drivers to the critical success factors (CSFs) of the various business areas/groups (based on level of opportunity, priority, and/or importance)

Typical templates that are used:

- Forces and Drivers Map
- Vision, Mission and Goals Map
- Stakeholder Map

Typical BPM CoE roles involved:

- Process Experts/Business Analysts
- Value Experts
- Process Architects

Step 2: Describe Process Goals

Process goals have to be clearly defined, documented, and agreed upon by stakeholders, process owners, and all involved process roles of the organization. Defining the process goals of the organization is the natural continuation from the identification of critical business factors, as those are the main tools—and critical for the goal descriptions—to compare against process goals and plan and prepare for the upcoming design and construction phases of the life cycle. Many BPM CoE organizations are in the habit of working with process goals and, in many cases, it is business as usual to define and document them. Among typical process goals are reducing complexity, aligning processes, identifying duplication, creating new processes by which new business goals are supported, or removing business bottlenecks through automation. Process goals can, however, also link to very multifaceted

business innovation and transformation initiatives and therefore be difficult and complex to relate to individual processes. More on how this is done is found in the value-driven process design.

The output of step 2 is consumed by multiple other steps, such as:

- Step 6 to lay the foundation of goals and requirements for the upcoming process planning and design steps, and then moves back again to step 3.
- Step 12 for the purpose of identifying and defining both the high-level requirements as well as the detailed requirements of the entire process landscape of the organization.

Typical tasks that are done within this step:

- Develop the process goals based on the specific critical business factors
- Develop process goals based on the business innovation and transformation initiatives
- Split process goals to specific main, supporting, and management processes
- Define and document process goals
- Relate and connect all of the defined process goals to established business, application, and technology goals.

Typical templates that are used:

- Vision, Mission, and Goals Map and/or Matrix
- Stakeholder Map and/or Matrix
- Process Map

Typical BPM CoE roles involved:

- Process eXperts/Business Analysts
- Process Architects

Value Audit 1:

- Process goals definition and scope
- Determine innovation goals and scope
- Determine transformation goals and scope

Step 3: Choose Building

Similar to software development, for example, building blocks are reusable pieces of content. In BPM, the most common building blocks would be strategic, organizational, process, and technology contexts. The following is an example of typical BPM Building Blocks and thereby reusable aspects that need to be considered again and again (Figure 4).

Choosing the right building blocks for the creation of new business processes or relating to strategy, and linking to organizational context or technology automation are daunting tasks for any BPM CoE organization. These choices should always be based upon review, identification, and documentation of the current baseline

STRATEGIC CONTEXT		ORGANIZATIONAL CONTEXT		PROCESS CONTEXT		TECHNOLOGY CONTEXT	
Strategy	Principles & Rules	Organization	Guidelines & Standards	Business Processes	Process Development	IT Operations	IT Enablement
Vision & Mission	Stakeholder Management	Organizational Structure	Organizational Interaction	Process Models	Process Owner	IT Management	IT Enablement
Market Approach	Business Issues / Problem Chain	Critical Success Factors	Business Governance	Pain Chain	Process Governance	IT Operations	IT Business Model
Strategic Business Objectives	Operating Model	Roles & Tasks	Reward & Motivation	Business Process Execution	Process Performance Indicators	End-user Focus IT Support	IT Documentation
Business Model	Business Value Management	Key Performance Indicators	Program Management	Process Drivers	Process-based Rewards	Software Capabilities / Competencies	IT Standardization
Strategy Map	Value Audits	Change Management	Change Policy	Process Audits	Process Domains	Application Lifecycle Management	IT Integration
Value Map	Value Clusters	Information Need	Business Competency Modelling	Process Policies	IT Process Parameters	Service Orientation Competencies	IT Process Flow
Scorecards	Business Performance Management	Goal Chain	Portfolio Management	Process Measurements	Process Architecture	IT Governance	Process Means / Tools
Enterprise Value Architecture	Business Maturity Models	Training & Education	Organizational Maturity Models	Continuous Improvement	Process Maturity Models	Service Level Agreement	Technology Maturity Models

FIGURE 4

Example of BPM building blocks.

Ref. 5.

(including all of the systems that are already involved with the process landscape) of the organization, and then executing the choices from a perspective of the needed functionality that is required to create new or to re-engineer any existing processes.

The output of step 3 is by step 4.

Typical tasks that are done within this step:

- Identification of relevant building blocks
- Alignment and unification of building blocks across areas
- Review and document current baseline and compare viewpoints of possible solutions

Typical templates that are used:

- Process Map and/or Matrix
- Object Map and/or Matrix
- Service Map and/or Matrix
- Application Service Map and/or Matrix
- Data Service Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Business Analysts
- Value eXperts

- Process Engineers
- Process Architects

Step 4: Check for Process Reference Content

Today, most BPM CoE organizations already have a process landscape. The process landscape might not be very well defined or documented, however, and to define the expectations and purpose of both new and existing processes, it is essential to clearly define and document the existing process landscape of the organization. This is achieved through extensive process mapping across all business units, and through meticulous and detailed documentation work. The documentation and mapping task is likely going to require a substantial number of man-hours to allow both process owners and the involved process roles to get an established overview of the "As-Is" situation. It also enables decision makers to make their decisions based on which processes to create and/or reuse (Figure 5).

The output of step 4 is consumed by step 4a (if any process reference content is available) and step 5 (if no currently available process reference content).

Typical tasks that are done within this step:

- Review the existing process portfolio for any available process reference content

Typical templates that are used:

- Information Map and/or Matrix
- Process Map and/or Matrix
- Object Map and/or Matrix
- Service Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Business Analysts

Step 4a: Process Reference Content Available

If process content is available for the BPM CoE organization to re-use within the existing process landscape, the process reference content should be clearly identified, reviewed, documented, and prepared for evaluation at the time of analysis and comparison to the existing process landscape. The output of step 4a is consumed by step 4b.

Typical tasks that are done within this step:

- Identify and review the current process reference content
- Document (as needed) and prepare the current process reference content for analysis and comparison

Typical templates that are used:

- Information Map and/or Matrix
- Process Map and/or Matrix

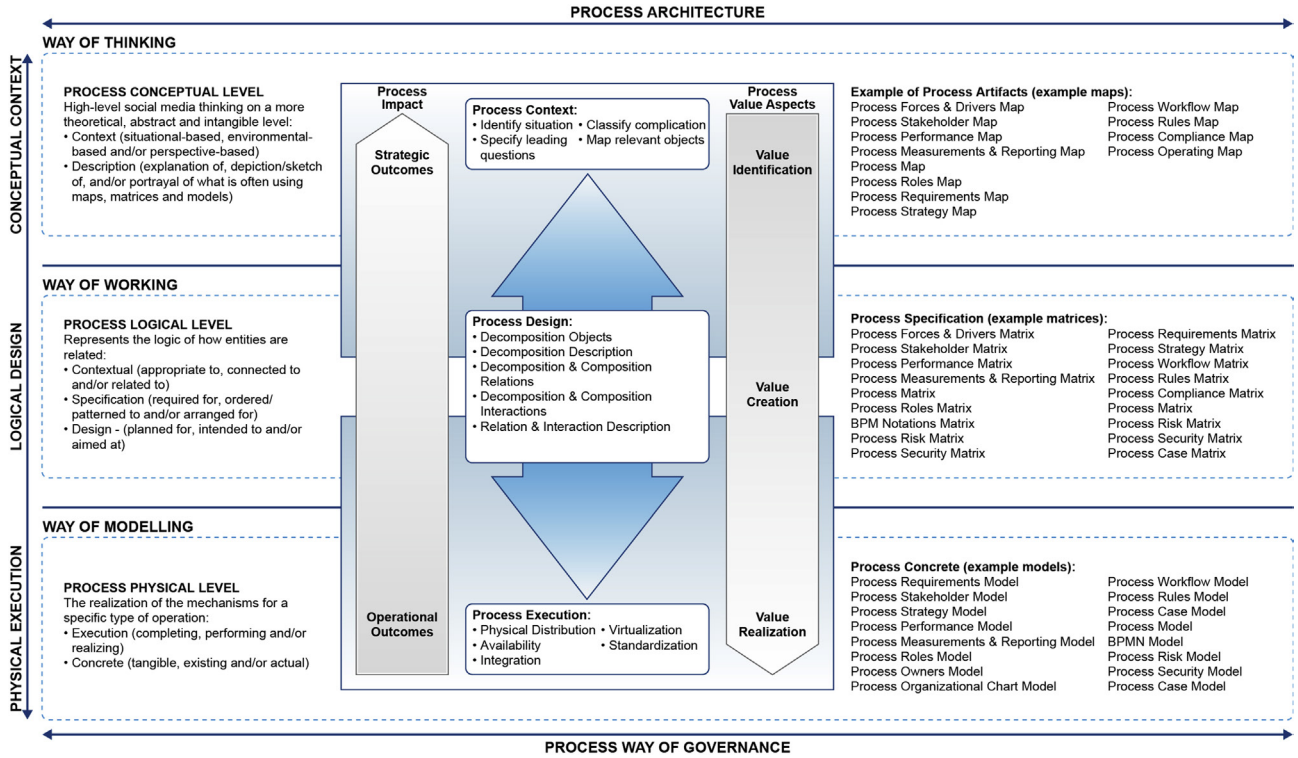


FIGURE 5

Example of a model showing how and when the different parts (maps, matrices, and models) of process reference content is used across the Layered Process Architecture of an organization.

Ref. 6.

- Object Map and/or Matrix
- Service Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Business Analysts

Step 4b: Define High-Level Process Landscape Based on Process Reference Content

The definition of a high-level process landscape includes using architecture standards and creating relationships between the different process levels used by the organization. The high-level process landscape is often referred to as the Value Chain View, and is a visualization of a process that is used to illustrate how an organization's business units (both primary and supporting) work together to facilitate and execute the organization's business model. The high-level process landscape of an organization is typically used as a tool for setting a standard for how the rest (when diving deeper into the detailed view of the process landscape) of the organization is expected to (and should) use processes. The output of step 4b is consumed by step 4c.

Typical tasks that are done within this step:

- Define the high-level process landscape by defining the objectives and intended content of process areas and process groups (process levels 1–2)
- Define and document the main process areas (process level 1) and process groups (process level 2)
- Define and document the management process areas (process level 1) and process groups (process level 2)
- Define and document the supporting process areas (process level 1) and process groups (process level 2)

Typical templates that are used:

- Information Map and/or Matrix
- Requirement Map and/or Matrix
- Role Map and/or Matrix
- Owner Map and/or Matrix
- Process Map and/or Matrix
- Object Map and/or Matrix
- Service Map and/or Matrix
- Application Service Map and/or Matrix
- Data Service Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Process Architects

Step 4c: Analyze Match of Process Reference Content

When moving towards the analysis of the process reference content that is available, and when comparing it to the existing process landscape, it is important to draw upon the documentation work done during steps 4a and 4b. Also note that the analysis of all of the processes of the organization is likely to become a very time-consuming process in itself, although much of the work has already been done during the previous review and documentation steps. This analysis and comparison focuses almost exclusively on extracting knowledge, know-how, efficiencies, advantages, and other benefits and nuggets of wisdom that might somehow aid the BPM CoE organization in creating new processes in the future, or to prepare them for process optimization through process reengineering. The output of step 4c is consumed by step 4d. It is important to note, however, that the output of step 4c may (if wanted or deemed required) be consumed directly by step 18 to immediately begin matching existing processes to the available process reference content.

Typical tasks that are done within this step:

- Select the process reference content that *cannot* be used within the currently established process landscape
- Categorize the main, supporting, and management business processes from the process reference content that *can* be used within the currently established process landscape

Typical templates that are used:

- Information Map and/or Matrix
- Process Map and/or Matrix
- Object Map and/or Matrix
- BPM Notations Map and/or Matrix
- Application Service Map and/or Matrix
- Data Service Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Business Analysts

Quality Gate 1b:

- Analyze match of process reference content
- Undergo detailed comparison of process reference content to the existing process landscape
- Investigate process requirements, quality goals, and scope definition

Step 4d: Processes That Do Not Match Process Reference Content

Based on the analysis of process during step 4c, there will be a need to collect and gather the processes that does not match the current process reference content. In

this regard, it is necessary to thoroughly examine these processes for the purpose of discarding them entirely based on the process goals and the newly defined high-level process landscape, or to prepare them for any reengineering purposes. The output of step 4d is consumed by step 4e.

Typical tasks that are done within this step:

- Collect and gather existing processes that do not match the available process reference content
- Examine and document the processes that do not match the available process reference content

Typical templates that are used:

- Information Map and/or Matrix
- Process Map and/or Matrix
- Object Map and/or Matrix
- BPM Notations Map and/or Matrix
- Application Service Map and/or Matrix
- Data Service Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Business Analysts

Step 4e: Understand As-Is High-Level Process Landscape

If no current process reference content is available or if the current process landscape does not match the existing process reference content, it is essential to generate a mutual understanding throughout the organization of the current As-Is high-level process landscape. The output of step 4e is consumed by step 7, yet step 6 is preceded by step 5 that focuses entirely on process planning and design.

Typical tasks that are done within this step:

- High-level process landscape identification and documentation
- Teams must collaborate and spread awareness of the current As-Is process situation
- Examine process requirements and resources needed
- Identify and categorize the main process areas and process groups
- Identify and categorize the management process areas and process groups
- Identify and categorize the supporting process areas and process groups

Typical templates that are used:

- Information Map and/or Matrix
- Process Map and/or Matrix
- Object Map and/or Matrix
- Service Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Process Architects

Quality Gate 1a:

- Understand As-Is high-level process landscape
- Determine process specifications and the need for resources and knowledge

Step 5: No Process Reference Content Available

If no current process reference content is available for the organization to further build upon, the output of step 5 is consumed by step 4e.

Typical tasks that are done within this step:

- Examine availability of process reference content
- Research for resources of knowledge, know-how, and firmly established best and leading practices to support the creation and/or reengineering of processes

Typical templates that are used:

- Information Map and/or Matrix
- Process Map and/or Matrix
- Object Map and/or Matrix
- BPM Notations Map and/or Matrix
- Application Service Map and/or Matrix
- Data Service Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Business Analysts

In the first phase of the BPM Life Cycle, we focused on the identification of critical business factors, description of process goals, and choosing the correct building blocks for the upcoming design phase. We also put much of our effort on process analysis and checking whether any process reference content was currently available. In the next phase of the BPM Life Cycle, the Design phase, we will begin designing our process solutions through planning, definitions, requirements, and standardization (Figure 6).

PHASE 2: DESIGN—PROJECT REALIZATION AND DESIGN

Business process design is the method by which an organization understands and defines the business activities that enable it to function. Process design is concerned with designing business processes to ensure that they are optimized, effective, meet customer requirements and demands, and support and sustain organizational development and growth. A well-designed process will improve efficiency, deliver greater

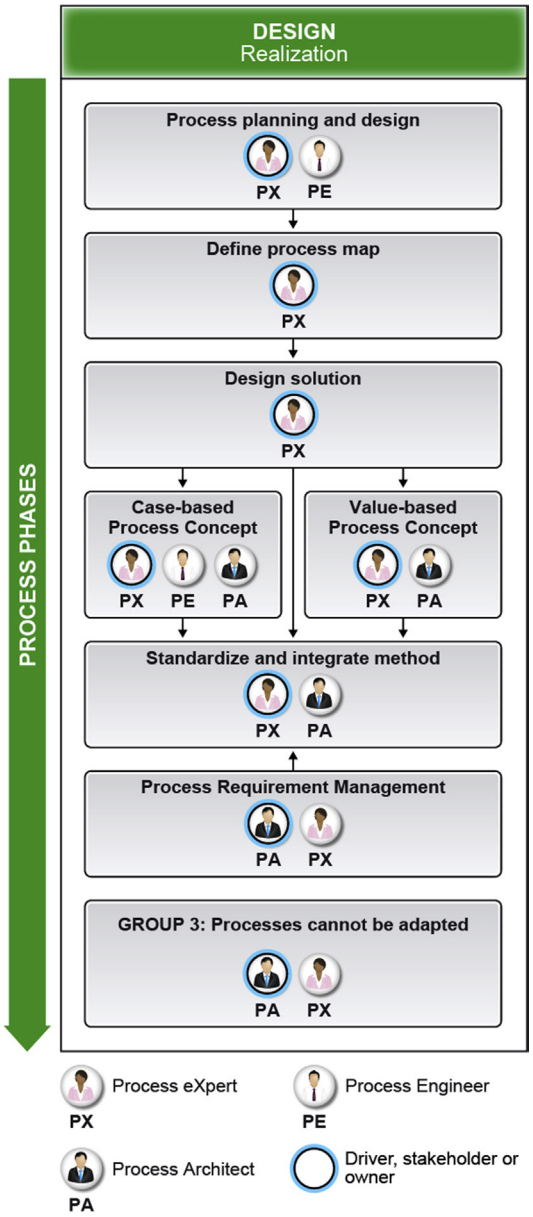


FIGURE 6

The Design Phase of the BPM Life Cycle.

Ref. 7.

productivity, and create more business value.[8] The most common initiatives behind business process design projects are:

- customer and supply chain management;
- operational performance improvement;
- business process integration, standardization, and automation;
- cost reduction; and
- creating new business opportunities.

Business process design typically occurs as an early, critical phase in BPM projects, rather than as an end in itself. The goal of the overall project is to implement business change, whether that change is primarily organizational (improving business operating processes), technical (implementing or integrating software systems), or a combination of the two.

In a process improvement project, the focus of the business process design phase is to streamline the process: to understand and measure the requirements, and to eliminate the risk of losing value through inefficient or inappropriate activities. In a technology implementation project, the focus is on understanding the processes that are being automated, and ensuring that the appropriate technology is selected, configured, and implemented to support them. In both cases, the process design activities can range from modest (e.g., tweak existing processes and look for some quick wins) to aggressive (e.g., identify major opportunities to increase value or drive down costs through radical process improvement or outsourcing). In short, business process design is a tool that can serve many different kinds of projects.

The 2nd phase, the Process Design Phase (see Figure 6), is the phase in which the BPM CoE organization initiates, aligns, arranges, categorizes, defines, determines, as well as quantifies, drafts, outlines, and designs the processes and the process structures. The process design phase considers the identified business requirements and the specific process design considerations for the processes, steps, and activities, as well as events and gateways. Relating requirements and goals to the identified processes applies composition principles and, therefore, process matrices are created to assist project teams in relating the relevant aspects. This phase also includes change management aspects of the defined process innovation and/or transformation. The continuous improvement feedback loop through change management of the BPM Life Cycle, and the likelihood of changes made during this phase, is considered to be medium/high.

Step 6: Process Planning and Design

As a direct continuation from defining and describing the overall process goals, planning and design steps are initiated with the purpose of designing new processes from scratch and/or plan the redesign and reengineering requirements of existing processes. The level of detail in this area is also increased dramatically, as the design process slowly moves away from the high-level process landscape and into a much more detailed process landscape (Figure 7).

The output of step 6 is consumed by step 7.
Typical tasks that are done within this step:

- Determine the need for new main, management, and/or supporting (classification of) processes
- Organize and structure process hierarchy
- Determine and define each required process level
- Gather and categorize process steps, process activities, and events and gateways
- Collect information around process meta objects

Process Workflow Connection Diagram

		STRATEGIC					TACTICAL												OPERATIONAL												
		1. Strategy (S)	2. Plan (S)	3. Forecast (S)	4. Value Management (S)	5. Budget (S)	6. Strategic Advice (T)	7. Strategic Guidance & Compliance (T)	8. Monitoring (T)	9. Reporting (T)	10. Evaluation and/or Audit (T)	11. Policy (T)	12. Procedures (T)	13. Measurements (T)	14. Administration (T)	15. Communication (T)	16. Performance Management (T)	17. Risk Management (T)	18. Administration (O)	19. Issue Management (O)	20. Operational Planning (O)	21. Process Management (O)	22. Monitoring (O)	23. Reporting (O)	24. Evaluation and/or Audit (O)	25. Measurements (O)	26. Procedures (O)	27. Operational Advice and/or Support (O)	28. Operational Guidance & Compliance (O)	29. Processing (O)
STRATEGIC	1. Strategy (S)	x	x	x	x	x						x					x														
	2. Plan (S)		x	x		x						x		x	x	x					x										
	3. Forecast (S)		x	x		x								x																	
	4. Value Management (S)	x	x	x		x				x				x			x														
	5. Budget (S)		x	x		x				x				x					x		x										
TACTICAL	6. Strategic Advice (T)		x	x	x	x						x																			
	7. Strategic Guidance & Compliance (T)																			x				x			x	x			
	8. Monitoring (T)									x	x	x					x	x													
	9. Reporting (T)		x								x					x	x	x													
	10. Evaluation and/or Audit (T)																x	x													
	11. Policy (T)	x	x				x	x					x	x		x	x	x													
	12. Procedures (T)														x	x	x					x									
	13. Measurements (T)								x		x						x	x													
	14. Administration (T)		x																												
	15. Communication (T)																														
	16. Performance Management (T)		x		x				x	x	x			x	x							x									
	17. Risk Management (T)				x					x																					
OPERATIONAL	18. Administration (O)																			x											
	19. Issue Management (O)										x												x	x			x				
	20. Operational Planning (O)																		x									x		x	
	21. Process Management (O)																		x											x	
	22. Monitoring (O)										x						x					x		x	x	x	x		x		
	23. Reporting (O)										x										x			x		x			x		
	24. Evaluation and/or Audit (O)										x										x			x	x				x		
	25. Measurements (O)								x		x						x							x	x		x		x		
	26. Procedures (O)										x								x			x							x	x	
	27. Operational Advice and/or Support (O)																			x	x									x	
	28. Operational Guidance & Compliance (O)																			x	x			x	x	x				x	
	29. Processing (O)																		x				x			x					

FIGURE 7

The process workflow connection diagram is a process matrix that shows the connectivity between the services delivered by business processes in the process landscape. This is a very powerful and important tool to use when designing an organization's business processes as it shows how strategic, tactical, and operational service deliverables relate to one another.

Ref. 9.

Typical templates that are used:

- Information Map and/or Matrix
- Process Map and/or Matrix
- Object Map and/or Matrix
- BPM Notations Map and/or Matrix
- Role Map and/or Matrix
- Owner Map and/or Matrix
- Requirement Map and/or Matrix
- Workflow Map and/or Matrix
- Application Service Map and/or Matrix
- Data Service Map and/or Matrix
- Application Rule Map and/or Matrix
- Data Rule Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Process Engineers
- Enterprise Architects

Step 7: Define Process Map

When preparing for the design of the process solution, definition of the organization's process maps, matrices, and models is needed to create a foundation upon which to build the organization's future processes. The design foundation also defines criteria for the redesign and/or reengineering of existing processes. The output of step seven is consumed by step 8.

Typical tasks that are done within this step:

- Define process content and the process maps, matrices, and models to be used
- Define relationships between process levels 1–5 and business goals and objectives
- Identify and define business process areas and groups
- Identify and define business processes, steps, and activities
- Identify and define stakeholders, process owners, managers, and roles
- Identify and define the required resources

Typical templates that are used:

- Process Map
- Service Map
- Application Service Map
- Data Service Map

Typical BPM CoE roles involved:

- Process eXperts
- Business Analysts

Quality Gate 2a:

- Process map definition
- Ensure full compatibility with high-level process landscape
- Design process maps

Step 8: Design Solution

Designing the organization's process solution is a huge task in itself, but is fully and extensively supported by the detailed process analysis and documentation done during phase 1. The process solution is designed through an extensive use of detailed process maps, matrices, and models. The process maps, matrices, and models represent information of how the processes relate to the business layer (purpose and goals, value aspects, business competencies, and business services), the application layer (software and data), as well as the underlying technology layer (platform and infrastructure) of the organization. The output of step 8 is consumed by step 9; however, if the need for business cases is present, it would be consumed by step 10, and then consumed by step 11.

Typical tasks that are done within this step:

- Develop and design process maps, matrices, and models
- Develop and design the process meta model to illustrate the connections and relationships between process meta objects and the identified business, application, and technology meta objects

Typical templates that are used:

- Information Map and/or Matrix
- Process Map and/or Matrix
- Object Map and/or Matrix
- BPM Notations Map and/or Matrix
- Role Map and/or Matrix
- Owner Map and/or Matrix
- Requirement Map and/or Matrix
- Workflow Map and/or Matrix
- Application Service Map and/or Matrix
- Data Service Map and/or Matrix
- Application Rule Map and/or Matrix
- Data Rule Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Business Analysts

Step 9: Case-Based Process Concept

While designing the process solution, it is of great importance to simultaneously develop a case-based process concept that will serve to illustrate how new

processes will function in practice, and how re-engineered processes will support the objectives and goals of the organization. In reality, one may consider a case-based process concept to be constructed much like a business case, although this particular case evolves predominantly around the technical requirements, capabilities, and functionality of both the high level and the detailed process structures that are to be built for the organization. The output of step 9 is consumed by step 11, unless a business case is needed, then the output of step 9 would be consumed by step 10.

Typical tasks that are done within this step:

- Include and document process meta objects
- Include and relate process meta objects to application and technology meta objects
- Create a storyline with illustrations of graphical models that show functionality, principles, and behavior

Typical templates that are used:

- Value Map, Matrix, and/or Model
- Cost Map, Matrix, and/or Model
- Revenue Map, Matrix, and/or Model
- Competency/Business Model Map, Matrix, and/or Model
- Requirement Map, Matrix, and/or Model
- Vision, Mission and Goals Map, Matrix, and/or Model
- Stakeholder Map, Matrix, and/or Model
- Strategy Map, Matrix, and/or Model
- Case Map, Matrix, and/or Model

Typical BPM CoE roles involved:

- Process eXperts
- Process Engineers
- Process Architects

Step 10: Value-Based Process Concept

Much like a case-based process concept, the value-based process concept focuses almost exclusively on the relationship between business processes and the value concepts of the organization. It is typically created to demonstrate how processes relate specifically to each business goal and objective as well as the previously documented value and performance drivers of the organization. The output of step 10 is consumed by step 11.

Typical tasks that are done within this step:

- Relate the value objects, i.e., strategic business objectives (SBOs), critical success factors (CSFs), and performance indicators (KPIs) to the processes
- Sort processes according to the SBOs and CSFs
- Document the connection between process objects and value objects

Typical templates that are used:

- Value Map, Matrix, and/or Model
- Cost Map, Matrix, and/or Model
- Revenue Map, Matrix, and/or Model
- Competency/Business Model Map, Matrix, and/or Model
- Requirement Map, Matrix, and/or Model
- Vision, Mission and Goals Map, Matrix, and/or Model
- Stakeholder Map, Matrix, and/or Model
- Strategy Map, Matrix, and/or Model
- Case Map, Matrix, and/or Model

Typical BPM CoE roles involved:

- Value eXperts
- Process eXperts
- Process Architects

Step 11: Standardize and Integrate

Standardization and integration of the previously designed solution is a necessary step of any BPM project. The definitions have to be clearly documented to categorize which processes can, or should be, standardized, and, in continuation thereof, how they will be integrated. For clear BPM definitions, see the chapter on BPM Ontology. The standardization and integration of the processes are done in the following sequence: output of step 11 is consumed by step 14 and step 15 simultaneously to document the As-Is analysis to prepare for the creation of the To-Be value-driven process design. The output of step 11 is also consumed by step 18 for matching processes to existing reference content.

Typical tasks that are done within this step:

- Identify which processes need to be standardized and/or integrated
- Investigate and thoroughly examine available methods for standardization
- Investigate and thoroughly examine available methods for integration
- Agree on and choose best possible methods for process standardization and integration
- Standardize and integrated chosen processes
- Document changed processes

Typical templates that are used:

- Process Map, Matrix, and/or Model
- Service Map, Matrix, and/or Model
- Operating Map, Matrix, and/or Model
- Information Map, Matrix, and/or Model

Typical BPM CoE roles involved:

- Process eXperts
- Process Architects

Value Gate 2:

- Investigate process standardization opportunities
- Investigate direct process integration opportunities
- Document changed processes

Step 12: Process Requirement Management

Process requirements need to be clearly defined and documented. They are essential and critical information for the purpose of the process design solution, and will contain useful information, such as requirements around:

- Business resources/actors
- Organizational requirements (i.e., does the organization contain process-educated personnel)
- Knowledge of process architecture and process modeling
- Application-layer-specific requirements (i.e., has the process design software been decided upon, does the data support thereof exist, etc.)
- Technology-layer-specific requirements (i.e., does the platform and infrastructure inventory support the automation of processes, etc.)

For the purpose of defining and delivering process requirements for each of these steps, the output of step 12 can be simultaneously consumed by steps 15, 16, 17, and 18.

Typical tasks that are done within this step:

- Identify and categorize process requirements based on resources, business needs and wants, as well as application- and technology-layer aspects

Typical templates that are used:

- Process Map, Matrix, and/or Model
- Requirement Map, Matrix, and/or Model
- Service Map, Matrix, and/or Model
- Application Service Map and/or Matrix
- Data Service Map and/or Matrix

Typical BPM CoE roles involved:

- Process Architects
- Process eXperts
- Value eXperts

Quality Gate 2b:

- Supplier management
- Evaluate and establish
- Categorize suppliers and maintain supply chain design (SCD)
- Manage performance and renew/terminate

Step 13: Processes Cannot Be Adapted

Unadaptable processes that are encountered during the Design phase often require back stepping to step 4d to establish a new or, at the very least, an updated As-Is high-level process landscape. This proactive move enables process owners and decision makers to continuously analyze and plan for the support and requirement of substitute processes that are to be designed and built during the Design and Build phases. The output of step 13 is consumed by step 4d in the Analyze phase because these processes are evaluated as being unadaptable.

Typical tasks that are done within this step:

- Document and compile a list of processes that are expected to be re-engineered and modified to fit with the established process landscape
- Document and compile a list of unadaptable processes
- Eliminate processes that are evaluated as unusable or irrelevant to the established process landscape

Typical templates that are used:

- Process Map, Matrix, and/or Model
- Requirement Map, Matrix, and/or Model
- Information Map, Matrix, and/or Model
- Object Map, Matrix, and/or Model
- Service Map, Matrix, and/or Model

Typical BPM CoE roles involved:

- Process Architects
- Process eXperts

In the second phase of the BPM Life Cycle, we have developed process design solutions to create a strong foundation for business process development to prepare for the upcoming build phase. In the third phase of the BPM Life Cycle, the Build phase (see Figure 8), we turn our attention toward executing upon the previously defined process solution plans and framework based upon the As-Is situation, aiming toward a To-Be value-driven process design. We will be matching existing processes to any available process reference content, and harmonize variants, while documenting changes prior to process release and going live.

PHASE 3: BUILD—FINAL PROJECT PREPARATION

Process models (on all process levels 1–5) are created as flow charts to give a clear, graphical indication of *what* happens *when*.

High-level process models (process levels 1–2)—usually referred to as Value Chain Diagrams (VCDs)—are used to illustrate how primary and supporting (secondary) business units work together to fulfill one or more specific goals. A value chain is then a chain of activities that an organization performs to deliver a product or a service to the customer (whether internal or external).

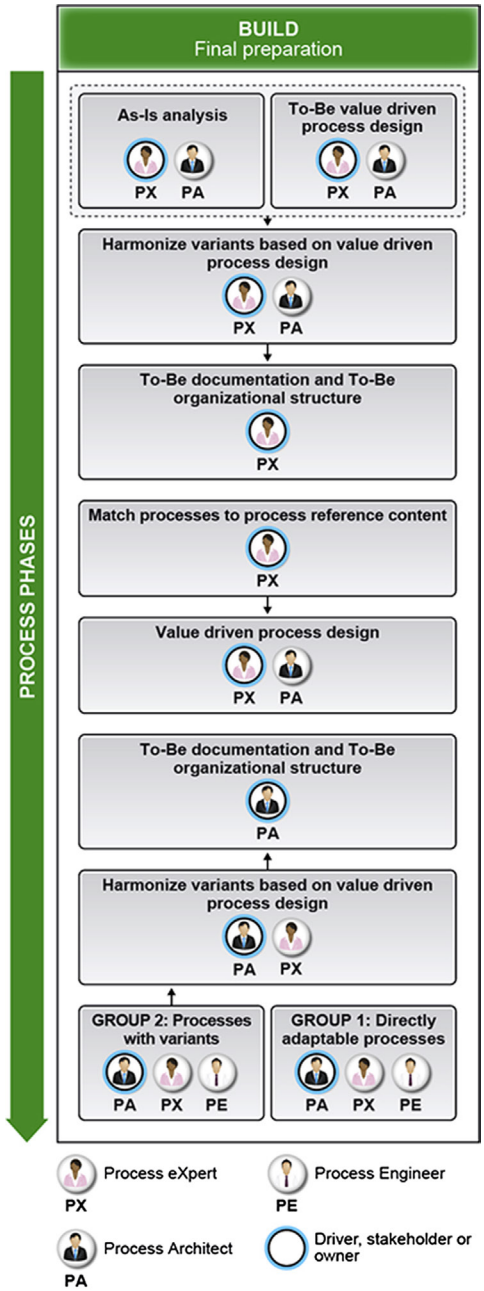


FIGURE 8

The Build phase of the BPM Life Cycle.

Ref. 10.

Business process models (process level 3) are used to demonstrate the activities of an organization or within or around a specific project team (they can also move across multiple business units), such as planning activities, people's actions (what they do), and reactions (internal and/or external outputs) necessary to carry out given tasks within the organization. Creating a business model can, for an example, give the employees of an organization an easy-to-use reference guide that outlines the tasks that they are expected of them to carry out, including their responsibilities and the steps necessary to complete each task correctly and proficiently.

Business Process Modeling Notation (BPMN) models (process levels 4 and 5) is a standard for business process modeling that provides a graphical notation for specifying business processes in a Business Process Diagram (BPD), based on a flowcharting technique very similar to activity diagrams from Unified Modeling Language (UML). The objective of BPMN is to support business process management for both technical and business users, by providing notation that is intuitive to business users, yet able to represent complex process semantics. The BPMN specification also provides a mapping between the graphics of the notation and the underlying constructs of execution languages, particularly Business Process Execution Language (BPEL).

The primary goal of BPMN is to provide a standard notation readily understandable by all stakeholders. These include the process experts, process engineers, and process architects who create and refine the processes, the technical developers (process engineers and process architects) responsible for implementing them, and the business managers (process owners, process experts, process architects, and business analysts) who monitor and manage them. Consequently, BPMN serves as a common language, bridging the communication gap that frequently occurs between business process design, development, execution, monitoring and optimization.

Regardless of whether a business process model's level (levels 1–5, the higher the more detailed, i.e., levels 4 and 5 are considered BPMN diagrams), the same rules apply to all process models.

A business process, therefore:

1. Has a goal.
2. Has specific inputs.
3. Has specific outputs.
4. Uses resources.
5. Has a number of activities that are performed in some order.
6. May affect more than one organizational unit.
7. Creates value of some kind for the customer (internal or external).

The 3rd phase, the Process Build Phase (see Figure 8), is the phase in which the BPM CoE organization builds, creates, develops, and crafts the processes and the process structures of the organization (see Figure 9). The process build phase takes into account the identified business requirements and the different process design solutions that have been generated for the purpose of process construction.

This phase is where the process models are created. This phase also includes change management aspects of the To-Be process innovation and/or transformation enabled in the value-driven process design. The continuous improvement feedback loop through change management of the BPM Life Cycle, and the degree of changes made during this phase, is considered low/medium.

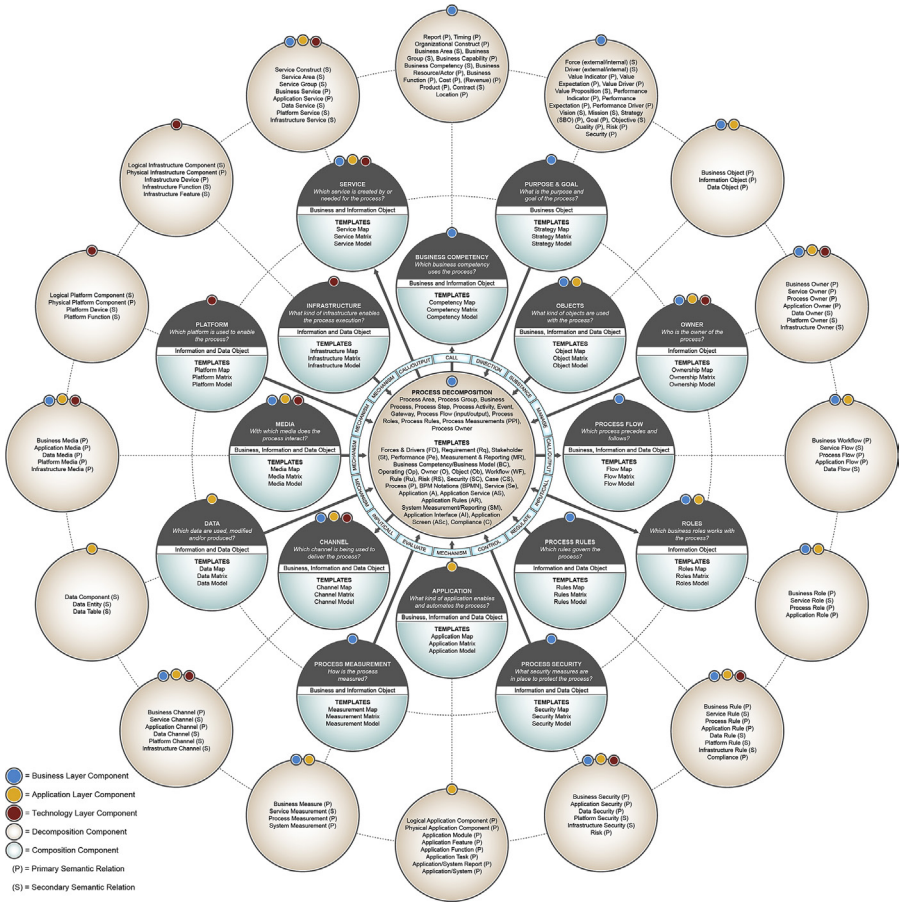


FIGURE 9

The process decomposition and composition model is used to show which meta-objects are combined when building (composing) a business process and which meta-objects are extracted by disassembling (decomposing) a business process. This particular illustration shows intricate detail, as it also connects each specific process-related area with which type of objects (business, information, and data) are used in the creation process. Not only that, it also shows whether the semantic relation between the related meta-objects is primary (required) or secondary (optional).

Ref. 11.

Step 14: As-Is Analysis

The As-Is analysis of the currently developed process design serves as a staging point for the creating the To-Be value-driven process design. In today's organizations, the focus on getting the most value out of the process requires understanding the as-is situation and thereby understanding the different capabilities. The output of step 14 is consumed by step 16.

Typical tasks that are done within this step:

- Conduct thorough process analysis across the current process landscape
- Specify which processes should be blueprinted (as-is blueprint) for the build phase
- Put the As-Is situation into BPM Notations
- Identify which challenges correspond to the processes

Typical templates that are used:

- Process Map, Matrix, and/or Model
- Information Map, Matrix, and/or Model
- Object Map, Matrix, and/or Model
- Service Map, Matrix, and/or Model
- BPM Notations Map, Matrix, and/or Model
- Application Service Map and/or Matrix
- Data Service Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Process Architects

Step 15: To-Be Value-Driven Process Design

Value-driven process design has but a single focus point; to create and build processes that generate and deliver previously unacquired value to the company and its customers or to enhance already established processes that have been re-engineered to produce even more value than before. The output of step 15 is consumed by step 16.

Typical tasks that are done within this step:

- Align value objects (based on step 10) with the defined process goals
- Sort processes according to the SBOs and CSFs
- Focus on the creation of process designs that put process objects into relationships with value objects across the organization
- Focus on value designs shaped by process structures
- Model the process based on relationships and connectivity between process and value objects
- Identify duplication of processes, business functions, and services
- Review and document current baseline and compare viewpoints of possible solutions

Typical templates that are used:

- Process Map, Matrix, and/or Model
- Information Map, Matrix, and/or Model
- Object Map, Matrix, and/or Model
- Service Map, Matrix, and/or Model
- BPM Notations Map, Matrix, and/or Model
- Value Map, Matrix, and/or Model
- Application Service Map and/or Matrix
- Data Service Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Value eXperts
- Process Architects

Value Gate 3:

- Value-driven process design
- Ensure that process designs are focused on continuous value delivery

Step 16: Harmonize Variants Based on Value-Driven Process Design

In the context of Business Process Management, harmonization defines the extent of standards and how they fit together, but it does not attempt to make different standards uniform. Harmonization avoids a one-size-fits-all approach. It makes the trade-off between too many and too few process standards and avoids inconsistencies between standards.[12] The output of step 16 is consumed by step 17.

Typical tasks that are done within this step:

- Identify, assess, and establish process level commonality across the organization
- Identify, assess, and establish process harmonization opportunities across the organization
- Identify, assess, and establish process standardization opportunities across the organization

Typical templates that are used:

- Process Map, Matrix, and/or Model
- Information Map, Matrix, and/or Model
- Object Map, Matrix, and/or Model
- Service Map, Matrix, and/or Model
- BPM Notations Map, Matrix, and/or Model
- Value Map, Matrix, and/or Model
- Application Service Map and/or Matrix
- Data Service Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Process Architects
- Value eXperts

Step 17: To-Be Documentation and To-Be Organizational Structure

The To-Be definitions of the process, its structure, and how it relates to the organizational structure (the As-Is as well as the To-Be) is relevant to both the process designs as well as the innovation and transformation potential of the organization. The way this is done is to:

1. Relate it through the process maps and process matrices to processes on all 5 levels:
   a. Process Level 1: Process Areas
   b. Process Level 2: Process Groups
   c. Process Level 3: Business Processes
   d. Process Level 4: Process Steps
   e. Process Level 5: Process Activities (including sub-processes)
2. Adapt the BPM Notations based on the To-Be changes

The output of step 17 is consumed by step 21.
Typical tasks that are done within this step:

- Document process direction and organizational structure
- Document high-level To-Be process landscape
- Document detailed To-Be process landscape
- Document process descriptions and technicalities

Typical templates that are used:

- Process Map and/or Matrix
- Organizational Chart Map and/or Matrix
- Service Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Enterprise Architects

Quality Gate 3:

- Process documentation and organization
- Establish and develop thorough process definition documentation
- Develop and establish process-oriented organizational structure
- Process report and evaluation

Step 18: Match Processes to Process Reference Content

Matching of existing processes to any available process reference content of the organization is required. This enables process owners and other organizational roles to reduce the number of processes that are used by the organization, and to lessen the chance of overly complex process portfolios in the process landscape. The output of step 17 is consumed by step 15.

Typical tasks that are done within this step:

- Compare existing processes to the process reference content (if any)
- Chose relevant process reference content
- Tailor process reference content
- Agree and align tailor process reference content with own process content

Typical templates that are used:

- Process Map and/or Matrix
- Service Map and/or Matrix
- Object Map and/or Matrix
- Application Service Map and/or Matrix
- Data Service Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Business Analysts

Step 19: Processes with Variants

If the initiation of a BPM Life-cycle project has been decided upon and is to be carried out with the intent of updating, reengineering, and/or re-evaluating an already established existing process landscape, processes with different variants will likely already exist in multiple places within the organization. Therefore, it is essential that such processes are identified, accounted for, and re-engineered through process variant harmonization to support the goals of the value-driven process design that has previously been decided upon by the management. In this regard, see step 16. Step 19 is grouped with steps 13 and 20, and relate directly to the process reference content in Phase 1: Analyze. The output of step 19 is consumed by step 16.

Typical tasks that are done within this step:

- Identify and document processes with variants
- Outline their behavior compared to existing processes of the same type
- Catalog a process portfolio of all identified process variants
- Identify duplication (see harmonization and standardization)

Typical templates that are used:

- Process Map and/or Matrix
- Service Map and/or Matrix
- Object Map and/or Matrix

- Application Service Map and/or Matrix
- Data Service Map and/or Matrix

Typical BPM CoE roles involved:

- Process Architects
- Process eXperts
- Process Engineers

Step 20: Directly Adaptable Processes

If the initiation of a BPM Life-cycle project has been decided upon and is to be carried out with the intent of updating, reengineering, and/or re-evaluating an already established existing process landscape, directly adaptable processes simply need to be either customized or re-aligned to support the plans for the value-driven process design. For a value-driven process concept design, see steps 10 and 17. This step is grouped with steps 13 and 19, and relates directly to the process reference content in phase 1. Step 20 output is consumed by step 17.

Typical tasks that are done within this step:

- Identify process variants that can be directly adapted
- Document the process variants that can be directly adapted to fit the defined process landscape
- Catalog a process portfolio of all identified and directly adaptable processes
- Publish directly adaptable processes

Typical templates that are used:

- Process Map and/or Matrix
- Service Map and/or Matrix
- Object Map and/or Matrix

Typical BPM CoE roles involved:

- Process Architects
- Process eXperts
- Process Engineers

In the 3rd phase of the BPM Life Cycle, we went through a series of steps intent on crafting the business processes of the organization. In the 4th phase of the BPM Life Cycle however, the Deploy/Implement phase (see Figure 10), it is time to prepare for Release and Deployment Management of the business processes and going live. We do this by creating a process-rollout plan, adding rewards and incentives as well as prepare and enable performance measurements.

PHASE 4: DEPLOY/IMPLEMENT—GO LIVE

The 4th phase, the Process Deployment and Implementation phase (see Figure 10), is the phase in which the organization launches, implements, executes, deploys, activates, completes, concludes, and transitions the processes to execution (go live).

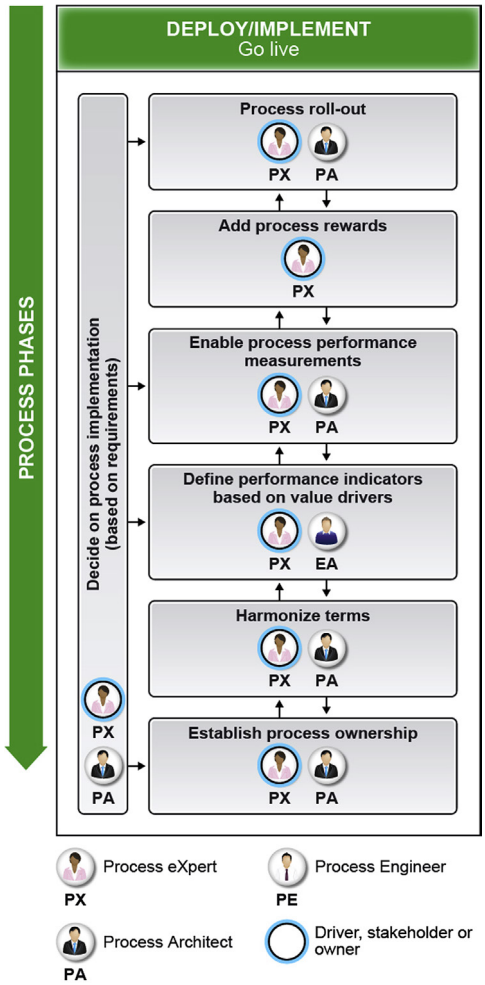


FIGURE 10

The Deploy/Implement phase of the BPM Life Cycle.

Ref. 13.

The Process Release and Deployment Management in the BPM Life Cycle aims to plan, schedule, and control the movement of releases to test in live environments. The primary goal of Release and Deployment Management is to ensure that the integrity of the live environment is protected and that the correct components are released on time and without errors.

Release and Deployment Management aims to build, test, and deliver services to the customers specified by process design by deploying releases into operation, and establishing effective use of the service to deliver value to the customer. As illustrated in Figure 11, process implementation involves multiple aspects from coordination with process owners, change management, to process training.

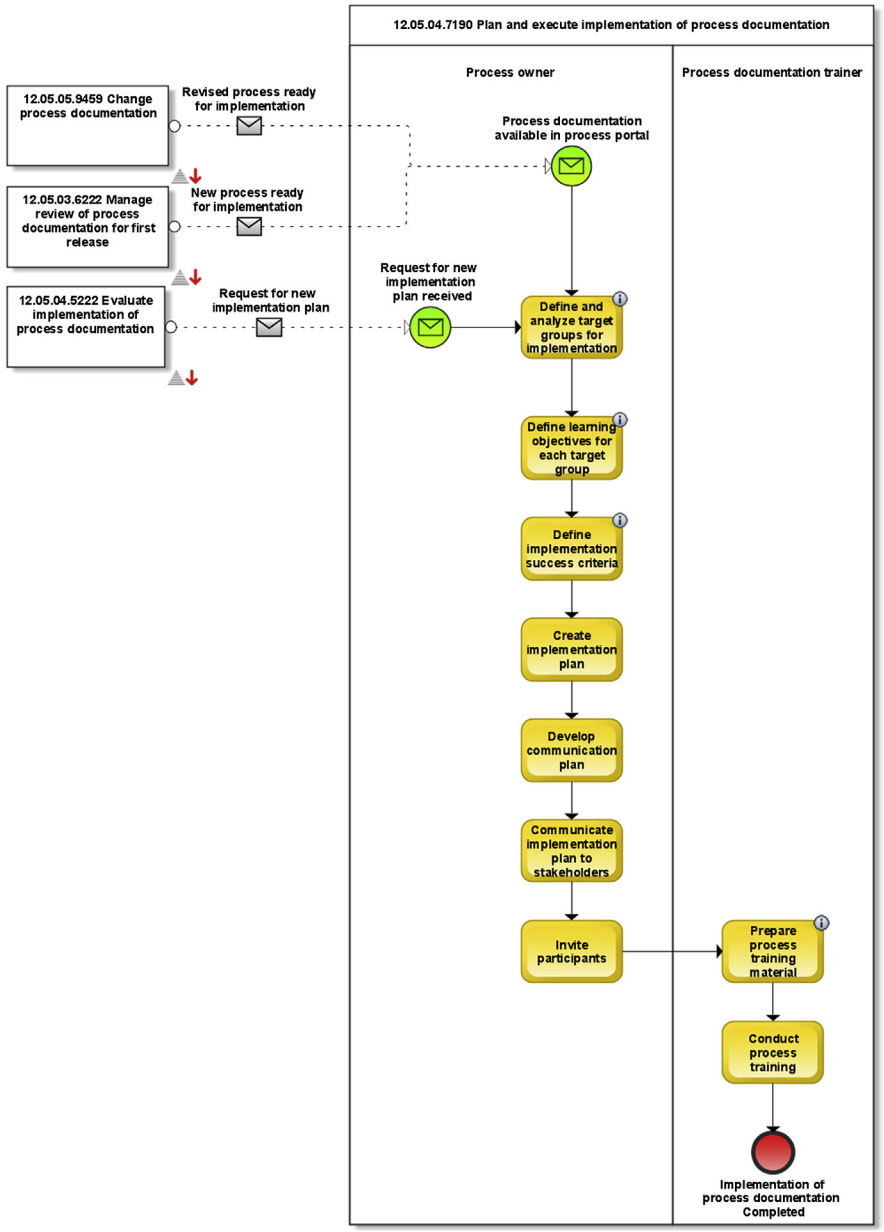


FIGURE 11

Example of a process rollout diagram (Lego Group, Anette Falk Bøgebjerg, Director).

The purpose of Release and Deployment Management is to:

- Define and agree release and deployment plans with customers/stakeholders
- Ensure that each release package consists of a set of related assets and service components that are compatible with each other
- Ensure that integrity of a release package and its constituent components is maintained throughout the transition activities and recorded accurately in the configuration management system
- Ensure that all release and deployment packages can be tracked, installed, tested, verified, and/or uninstalled or backed out, if appropriate
- Ensure that change is managed during the release and deployment activities
- Record and manage deviations, risks, and issues related to the new or changed service, and take necessary corrective action
- Ensure knowledge transfer to enable the customers and users to optimize their use of the service to support their business activities
- Ensure that skills and knowledge are transferred to operations and support staff to enable them to effectively and efficiently deliver, support, and maintain the service, according to required warranties and service levels

Plans for release and deployment will be linked into the overall service transition plan. The approach is to ensure an acceptable set of guidelines is in place for the release into production/operation. Release and deployment plans should be authorized as part of the change management process.

The plan should define the:

- Scope and content of the release
- Risk assessment and risk profile for the release
- Customers/users affected by the release
- Change advisory board (CAB) members that approved the change request for the release and/or deployment
- Team who will be responsible for the release
- Delivery and deployment strategy
- Resources for the release and deployment

Build and test planning establishes the approach to building, testing, and maintaining the controlled environments prior to production. The activities include:

- Developing build plans from the service design package, design specifications, and environment configuration requirements
- Establishing the logistics, lead times, and build times to set up the environments
- Testing the build and related procedures
- Scheduling the build and test activities
- Assigning resources, roles, and responsibilities to perform key activities
- Preparing build and test environments
- Managing test databases and test data

- Software license management

Procedures, templates, and guidance should be used to enable the release team to build an integrated release package efficiently and effectively. Procedures and documents will be required for purchasing, distributing, installing, moving, and controlling assets and components that are relevant to acquiring, building, and testing a release.[14]

Step 21: Decide on Process Implementation (Based on Requirements)

Develop a plan for implementing the processes and the tools in the organization. This plan should describe how to efficiently move from the organization's current state to the release and deployment state. To develop this plan, you need to follow specific project steps.[15] The output of step 21 is consumed by steps 22, 24, 25, and 27.

Typical tasks that are done within this step:

- Set or revise goals
- Identify risks
- Distribute responsibilities and tasks
- Decide when to launch processes and tools
- Plan training and mentoring

Typical templates that are used:

- Process Map and/or Matrix
- Service Map and/or Matrix
- Stakeholder Map and/or Matrix
- Object Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Process Architects

Step 22: Process Rollout

During the rollout phase, all areas of change are tested together in the business environment to generate confidence that everything is ready to "go live." During this phase, business users and support teams also receive appropriate training concerning the new processes and the associated systems, organization, and infrastructure.[16] The process rollout should be meticulously executed by using a step-by-step approach and also categorized into levels of importance, preferably based on criteria such as complexity, time, cost, and urgency as well as with clearly defined steps for when the main, supporting, and management process rollouts should occur, and in what sequence. The output of step 22 is consumed by steps 23 and 28.

Typical tasks that are done within this step:

- Process rollout
- Ensure end-to-end process rollout and consistency
- Bring all processes up to target performance
- Business users and process team training
- Test process capability and process adjustment
- Manage issue management and change-request handling
- Implement all the components of the solution

Typical templates that are used:

- Process Map and/or Matrix
- Service Map and/or Matrix
- Object Map and/or Matrix
- Application Service Map and/or Matrix
- Data Service Map and/or Matrix
- Application Rule Map and/or Matrix
- Data Rule Map and/or Matrix
- Compliance Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Process Architects

Quality Gate 4:

- Process rollout
- Ensure process quality
- Ensure process coverage

Step 23: Add Process Rewards

Process reward recognition is not just a nice thing to do for the organization or its employees. Process reward recognition is a communication tool that reinforces and rewards the most important process outcomes that people create for your organization. When you recognize people effectively, you reinforce, with your chosen means of process reward recognition, the actions and behaviors you most want to see people repeat. Therefore, process rewards should be defined and created to incite employee motivation for successful implementation, and as rewards for achieving process and value goals. The output of step 23 is consumed by steps 22 and 24.

Typical tasks that are done within this step:

- Establish criteria for what process performance or process contribution constitutes behavior or actions that are rewarded
- All employees must be eligible for the process reward

- Implement process rewards into the process performance model
- Build organizational motivation for chasing process rewards to elevate process performance
- The process reward recognition should occur as close to the performance of the actions as possible, so the recognition reinforces behavior the employer wants to encourage.

Typical templates that are used:

- Value Map and/or Matrix
- Stakeholder Map
- Organizational Chart Map
- Performance Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Value eXperts

Step 24: Enable Process Performance Measurements

Process performance measurement is the process of collecting, analyzing, and reporting information regarding the process performance of a group of processes or an individual process. Enabling performance measurements for processes on all measureable levels is an essential behavior of any BPM Life-cycle project and directly links to monitoring, reporting, decision making, as well as process evaluation and audits. The output of step 24 is consumed by steps 23 and 25.

Typical tasks that are done within this step:

- Develop measurement metrics for a process performance model
- Define and relate Process Performance Indicators (PPIs) for process levels 3–5
- Enable Process Performance Reporting and Evaluation
- Identify, categorize, and label Strategic, Tactical, and Operational Process Performance Indicators
- Associate and categorize processes the strategic, Tactical, and Operational Process Performance Indicators to the relevant performance goals/objectives
- Create a Performance Model with decision making and reporting that illustrates the connection and relationship between Strategic, Tactical, and Operational Process Performance Indicators and the business goals and objectives.

Typical templates that are used:

- Process Map and/or Matrix
- Measurement and Reporting Map and/or Matrix
- Performance Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Process Architects
- Value eXperts

Value Gate 4a:

- Process performance measurements
- Performance measurement tools efficiency
- Process efficiency evaluation
- Process reporting and evaluation

Step 25: Define Performance Indicators Based on Value Drivers

Establishing direct links between performance indicators and value drivers is essential for both process-modeling and value-modeling perspectives. Therefore, because value drivers indicate value-generating mechanisms, it is important to define performance indicators and let them be based on predefined value drivers. This enables process owners to control and measure the flow of value within the processes on both the high-level and detailed process landscape. The output of step 25 is consumed by steps 24 and 26.

Typical tasks that are done within this step:

- Define, associate, and relate the Process Performance Indicators based on Value Drivers
- Develop value measurements linked to the process performance measurements
- Enable Value based Reporting and Evaluation
- Create a Value Model with decision making and reporting that illustrates the connection and relationship between performance indicators and value indicators.

Typical templates that are used:

- Process Map and/or Matrix
- Performance Map and/or Matrix
- Value Map and/or Matrix

Typical BPM CoE roles involved:

- Value eXperts
- Process eXperts
- Enterprise Architects

Value Gate 4b:

- Process performance indicators establishment
- Number of process targets reached
- Number of process targets obsolete
- Increase/decrease number of process targets

Step 26: Harmonize Terms

The harmonization of process terms across the process landscape has to be continuously evaluated and managed by process owners and teams. Different BPM-oriented organizations and groups today have the tendency to call certain process objects various names, and the same thing goes for the various BPM frameworks, methods, and approaches, such as Six Sigma, Lean, and BPR that use terms in specialized ways. Several business process methodologies have described the use of terms in specific ways. Formal business process languages, like BPML, have semantic definitions that are enforced by the language. Unfortunately, many of these different sources use terms in slightly different ways.[17] We have, therefore, provided basis process terminology and definitions in the BPM ontology chapter. However, it will still be necessary for any organization to tailor these terms, gather additionally needed terms, and establish their own documentation for process terms and definitions to be able to harmonize variants across process groups and process areas to achieve process harmonization (i.e., standardization and integration). The output of step 26 is consumed by steps 25 and 27.

Typical tasks that are done within this step:

- Identify, assess, and establish process-level commonality across the organization
- Identify, assess, and establish process-harmonization opportunities across the organization
- Gather existing process terminology or use the BPM Ontology terminology as a basis to identify relevant terms
- Agree on process terms relevant for the organization
- Ensure process-term harmonization across the organization
- Identify, assess, and establish process-standardization opportunities across the organization

Typical templates that are used:

- Process Map and/or Matrix
- Information Map and/or Matrix
- Service Map and/or Matrix
- Object Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Process Architects

Step 27: Establish Process Ownership

As process owners are responsible for the management of processes within the organization, the success of the organization's BPM initiatives depends heavily on implementing good process ownership (see Figure 12). Regardless of the maturity model

Business Architecture: Value Map, Performance Map & Process Map Alignment Worksheet

Business Competency	Strategic Business Objectives	Ownership	Critical Success Factors	Ownership	Key Performance Indicators	Major Business Process and Performance Measures	Ownership	Activity and Performance Measures
						Process:		Process:
						M1.		M1.
						M2.		M2.
						Process:		Process:
						M1.		M1.
						M2.		M2.
						Process:		Process:
						M1.		M1.
						M2.		M2.
						Process:		Process:
						M1.		M1.
						M2.		M2.

FIGURE 12

A table tool that can be used to link process ownership with value maps and performance maps.

Ref. 18.

being applied by an organization, the creation or assignment of process ownership normally occurs one level up from the status quo. However, why is this difficult? Ironically, one of the most neglected areas of process transformation in any kind of change is the definition and assignment of roles and responsibilities. Although there is now a general acknowledgement that people are one of (if not *the* most) critical success factors in any type of business transformation, most organizations are not very accomplished at implementing "people"-oriented changes.[19] In some cases, process owners are current leaders/managers, and in other cases, process owners may be taken from nonleadership positions. Organizational management and structure is an effective tool to use to establish process ownership along with a clear definition of employee requirements and responsibilities. This, at the same time, also incites the need for documenting definitions around process roles, responsibilities, and the who-does-what structure within process-specific teams. The output of step 27 is consumed by step 26.

Typical tasks that are done within this step:

- Specify process ownership responsibility and tasks
- Select process owners
- Implement a process-ownership organization
- Appoint key process roles reporting or working with process owner
- Develop and implement process-improvement initiatives
- Define the process and monitor process performance
- Develop and manage policies and procedures related to the process
- Ensure process adoption, harmonization, standardization, and integration
- Enable process innovation and transformation (link to BPM Change Management and Continuous Improvement)

Typical templates that are used:

- Process Map
- Information Map
- Owner Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Process Architects

In the 4th phase of the BPM Life Cycle, we went through a series of steps to execute a successful Release and Deployment Management plan to take the business processes out of the production environment and go live. In the upcoming Run and Maintain phase (see Figure 13), we focus on management of the running process environment in which we will put a lot of effort into monitoring and governing the entire process landscape of the organization.

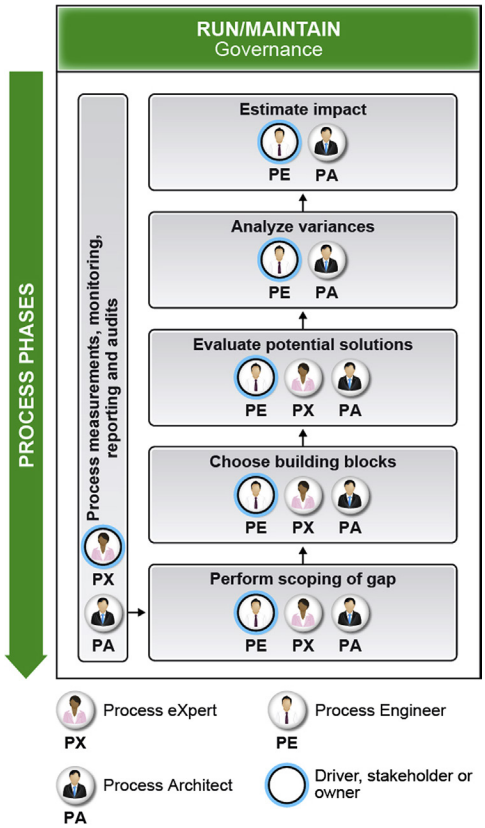


FIGURE 13

The Run/Maintain phase of the BPM Life Cycle.

Ref. 20.

PHASE 5: RUN/MAINTAIN—RUN PROCESSES AND GOVERN PERFORMANCE

The 5th phase, the Process Run and Maintain Phase (see Figure 13), is the phase in which we govern and monitor the active processes that were deployed and implemented during the previous phase. Governance, derived from the Greek verb (kubernáo)—which means to *steer*—is essentially the act of governing what already exists or is in the process of getting developed, deployed/implemented, and/or something that is running.

The *LEADing Practice Way of Process Governance* relates to decisions and guidance that define expectations and direction, grant power, or verify and ensure value identification and creation. It consists of process governance within the entire process life cycle in terms of process analysis, design, construction (build), implementation, and execution (run/maintain), and allows for process monitoring and governance as well as continuous process improvements and optimization disciplines.

The governance phase also includes the many different relationships among the many practitioners in the mentioned phases to ensure that each task enables specific value identification, creation, and realization in achieving the outlined goals. Process governance involves setting standards and priorities for BPM efforts, identifying process governance leaders, and defining BPM project participant roles—all for the purpose of executing and improving upon an organization's process transformation and innovation strategies. The ultimate goal of both business governance and process governance is to both optimize an organization's business processes and make workflow more efficient and effective by implementing and using the built-in continuous improvement concept during phase 6 of the BPM Life Cycle.

As a part of the Continuous Improvement concept, the process governance steps include the establishment of internal BPM or process centers of excellence or competency centers to share process improvement, best practices, as well as leading practices applied within the organization, and spread awareness of the process standards and priorities. Process governance also works to monitor and document both the successes and shortcomings of an organization's operational execution.

In Business Process Management, an additional purpose of governance is to assure (sometimes on behalf of others in terms of stakeholders) that an organization produces the defined pattern of good results, while avoiding an undesirable pattern of bad circumstances. Therefore, the process governance and Continuous Improvement processes and systems are typically administered by a governance body.

Business process governance is often overseen by teams made up of both business and IT professionals. The daily process governance consists of assuring, on behalf of those governed, the desired business innovation, transformation, and value creation while avoiding an undesirable pattern of high cost, process ineffectiveness, and process inefficiency (low performance). Process governance, therefore, consists of the set of governance gates within the life cycle that ensures quality and value aspects within the various phases and tasks.

Step 28: Process Measurements, Monitoring, Reporting, and Audits

Immediately after going live with the processes, it is important to establish an effective way of monitoring and governing the processes while being able to capture real-time data on measurements for the purpose of reporting process performance (see Figure 14) and performing follow-up audits. The output of step 28 is consumed by step 29.

Typical tasks that are done within this step:

- Specify process measurements
- Select real-time process monitoring and governance
- Capture process performance measurements (see Figure 15)
- Document and performance measurement results for reporting and auditing

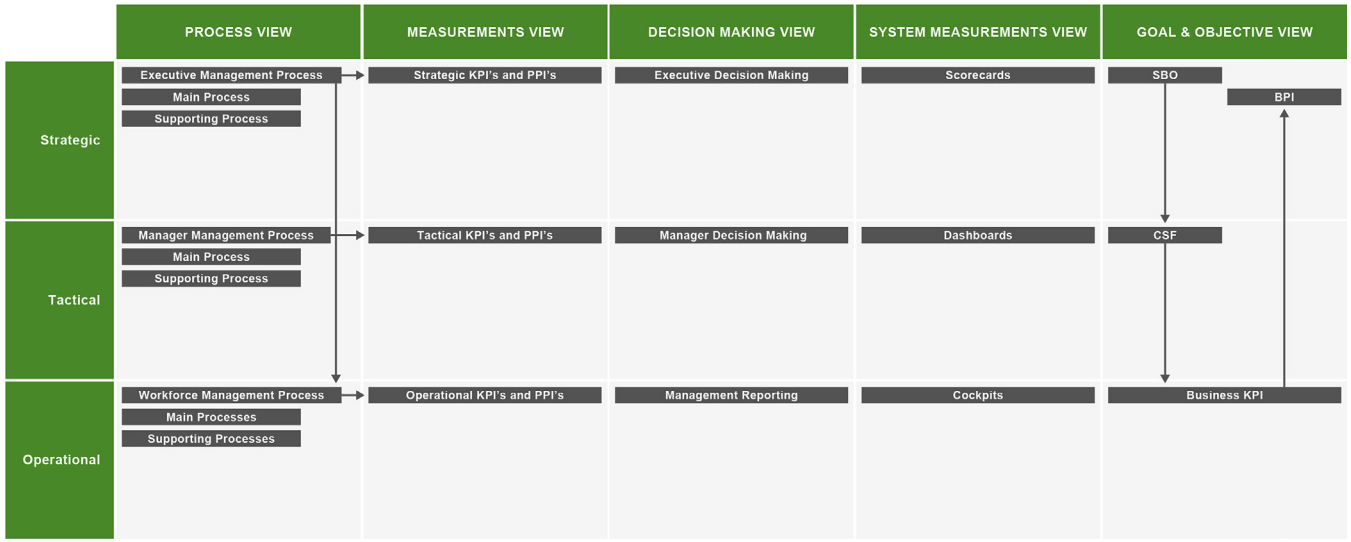
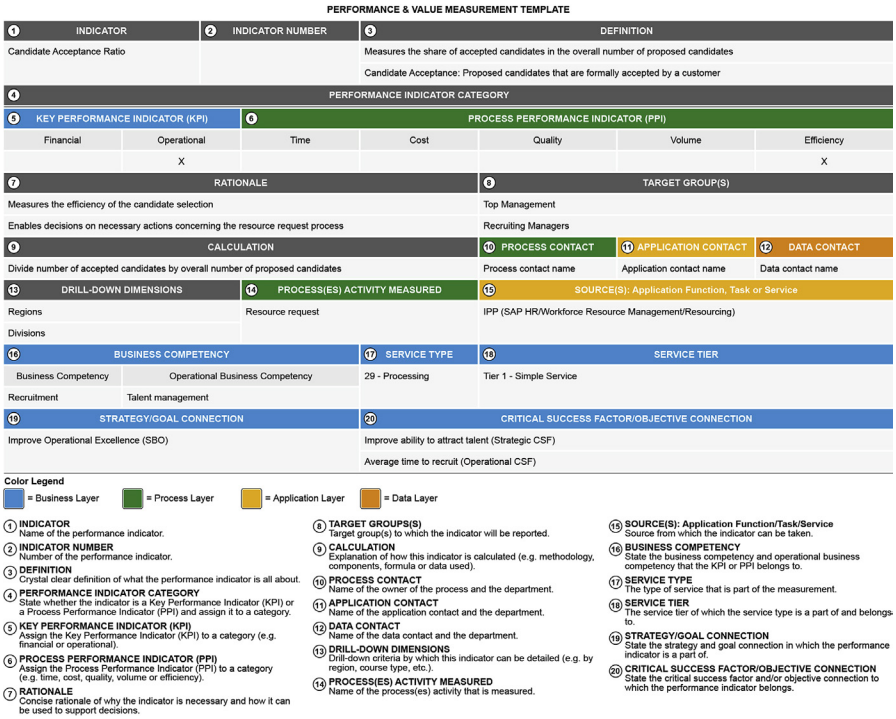


FIGURE 14

How process monitoring links to process measurements and reporting.

Ref. 21.



PERFORMANCE & VALUE MEASUREMENT TEMPLATE

1 INDICATOR	2 INDICATOR NUMBER	3 DEFINITION
Candidate Acceptance Ratio		Measures the share of accepted candidates in the overall number of proposed candidates
		Candidate Acceptance: Proposed candidates that are formally accepted by a customer

4 PERFORMANCE INDICATOR CATEGORY						
5 KEY PERFORMANCE INDICATOR (KPI)		6 PROCESS PERFORMANCE INDICATOR (PPI)				
Financial	Operational	Time	Cost	Quality	Volume	Efficiency
	X					X

7 RATIONALE	8 TARGET GROUP(S)
Measures the efficiency of the candidate selection	Top Management
Enables decisions on necessary actions concerning the resource request process	Recruiting Managers

9 CALCULATION	10 PROCESS CONTACT	11 APPLICATION CONTACT	12 DATA CONTACT
Divide number of accepted candidates by overall number of proposed candidates	Process contact name	Application contact name	Data contact name

13 DRILL-DOWN DIMENSIONS	14 PROCESS(ES) ACTIVITY MEASURED	15 SOURCE(S): Application Function, Task or Service
Regions	Resource request	IPP (SAP HR/Workforce Resource Management/Resourcing)
Divisions		

16 BUSINESS COMPETENCY		17 SERVICE TYPE	18 SERVICE TIER
Business Competency	Operational Business Competency	29 - Processing	Tier 1 - Simple Service
Recruitment	Talent management		

19 STRATEGY/GOAL CONNECTION	20 CRITICAL SUCCESS FACTOR/OBJECTIVE CONNECTION
Improve Operational Excellence (SBO)	Improve ability to attract talent (Strategic CSF)
	Average time to recruit (Operational CSF)

Color Legend

= Business Layer = Process Layer = Application Layer = Data Layer

1. **INDICATOR** Name of the performance indicator.
2. **INDICATOR NUMBER** Number of the performance indicator.
3. **DEFINITION** Crystal clear definition of what the performance indicator is all about.
4. **PERFORMANCE INDICATOR CATEGORY** State whether the indicator is a Key Performance Indicator (KPI) or a Process Performance Indicator (PPI) and assign it to a category.
5. **KEY PERFORMANCE INDICATOR (KPI)** Assign the Key Performance Indicator (KPI) to a category (e.g. financial or operational).
6. **PROCESS PERFORMANCE INDICATOR (PPI)** Assign the Process Performance Indicator (PPI) to a category (e.g. time, cost, quality, volume or efficiency).
7. **RATIONALE** Concise rationale of why the indicator is necessary and how it can be used to support decisions.
8. **TARGET GROUPS(S)** Target group(s) to which the indicator will be reported.
9. **CALCULATION** Explanation of how this indicator is calculated (e.g. methodology, components, formula or data used).
10. **PROCESS CONTACT** Name of the owner of the process and the department.
11. **APPLICATION CONTACT** Name of the application contact and the department.
12. **DATA CONTACT** Name of the data contact and the department.
13. **DRILL-DOWN DIMENSIONS** Drill-down criteria by which this indicator can be detailed (e.g. by region, course type, etc.).
14. **PROCESS(ES) ACTIVITY MEASURED** Name of the process(es) activity that is measured.
15. **SOURCE(S): Application Function/Task/Service** Source from which the indicator can be taken.
16. **BUSINESS COMPETENCY** State the business competency and operational business competency that the KPI or PPI belongs to.
17. **SERVICE TYPE** The type of service that is part of the measurement.
18. **SERVICE TIER** The service tier of which the service type is a part of and belongs to.
19. **STRATEGY/GOAL CONNECTION** State the strategy and goal connection in which the performance indicator is a part of.
20. **CRITICAL SUCCESS FACTOR/OBJECTIVE CONNECTION** State the critical success factor and/or objective connection to which the performance indicator belongs.

FIGURE 15

An example of a Performance and Value Measurement Template model that can be effectively used to measure process performance.

Ref. 22.

Typical templates that are used:

- Process Map and/or Matrix
- Measurement and Reporting Map and/or Matrix
- Performance Map and/or Matrix
- Role Map and/or Matrix
- Owner Map and/or Matrix
- Application Rule Map and/or Matrix
- Data Rule Map and/or Matrix
- Rule Map and/or Matrix
- Compliance Rule Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Process Architects

Step 29: Perform Scoping of Gaps

This includes detailed review, identification, and classification of all running processes in the process portfolio of the organization, and then scoping for performance gaps, irregularities, and other kinds of process performance mishaps and misbehavior. This serves as a staging point for choosing new building blocks to re-engineer existing processes that need to be reconfigured and/or rebuilt. The output of step 29 is consumed by step 30.

Typical tasks that are done within this step:

- Align and associate with defined process goals
- Align with process performance expectations
- Review and document performance gaps

Typical templates that are used:

- Process Map and/or Matrix
- Measurement and Reporting Map and/or Matrix
- System Measurements/Reporting Map and/or Matrix
- Performance Map and/or Matrix
- Role Map and/or Matrix
- Owner Map and/or Matrix

Typical BPM CoE roles involved:

- Process Engineers
- Process eXperts
- Process Architects

Step 30: Choose Building Blocks

As already mentioned in step 3, building blocks are important for the reusability of certain components/aspects. Also in the Run/Maintain phase can building blocks be used, in that the governance and monitoring of value creation is checked. If the value is not realized, alignment of relevant areas between strategic, organizational, process, and technology contexts is initiated. Below in (Figure 16) is an example of typical feedback loops used around business value; among them are business governance, business performance, process monitoring, and IT governance.

In step 30, if business value is not realized as expected, a feedback loop is triggered through either business governance, business performance, process monitoring, and/or IT governance. Building-block concepts are used to enable teams to reuse the artifacts, templates, and models that already have been developed starting in step 3 and through the design, build, and deploy/implement phases. So building blocks from the previously defined process reference content are chosen for the reengineering, process modeling, or process architecture of existing processes to close process performance gaps in Phase 6: Continuous Improvement.

FIGURE 16

Example of the relationship between business value realized, the areas working and focusing on value creation and realization, such as business governance, business performance, process monitoring, and IT governance, and the related building-block groups, that is, strategic, organizational, process, and technology contexts.

Ref. 23.

Therefore, the output of step 30 is consumed by step 31.
Typical tasks that are done within this step:

- Specification of the value and/or performance gaps
- Description of the pain points
- Identification of relevant building blocks
- Choose building blocks from existing process reference content
- Alignment and unification of building blocks across areas
- Review and document possible solutions

Typical templates that are used:

- Process Map and/or Matrix
- Object Map and/or Matrix
- Service Map and/or Matrix

Typical BPM CoE roles involved:

- Process Engineers
- Process eXperts
- Process Architects
- Business Analysts

Step 31: Evaluate Potential Solutions

Evaluating a potential solution is within BPM CoE as much about BPM Governance, BPM Portfolio Management, BPM Alignment, as it is about BPM Change Management. The evaluation for implementing new processes and/or reengineering existing processes is more or less solely based on the scoping of the performance gap, the available building blocks, as well as the value and performance expectations dictated by the process owners and stakeholders.

The output of step 31 is consumed by step 32.

Typical tasks that are done within this step:

- Identify performance gap (link to BPM Governance)
- Specify root cause of performance gap (link to BPM Change Management)
- Identify alternatives and potential solutions (link to BPM Portfolio Management)
- Collect and list advantages and disadvantages of potential solutions (BPM Governance and BPM Change Management)
- Compare and align potential solutions to the existing process landscape (link to BPM Alignment)
- Evaluate and decide upon alternatives, if any are proposed (link to BPM Portfolio Management)

Typical templates that are used:

- Process Map and/or Matrix
- Service Map and/or Matrix
- Performance Map and/or Matrix
- Value Map and/or Matrix
- Operating Map and/or Matrix
- Measurement and Reporting
- System Measurements/Reporting Map and/or Matrix

Typical BPM CoE roles involved:

- Process Engineers
- Process eXperts
- Business Analysts
- Process Architects

Step 32: Analyze Variances

In today's optimized organizations, analyzing process variances is a must-do. This is not only about identifying duplication and a potential for integration, it is also important for the standardization of the various processes that should be similar, but are different. While capturing existing processes in BPMN, performing value-stream mapping and statistical analysis provides critical insight into key factors that help improve business processes. Analyzing traditional business processes does not

provide enough information to be able to compare and specify variances. Detailed business process or workflow analysis is needed, in which one examines processes using various techniques, such as BPR, Six Sigma, Lean, providing alternatives to identify duplication, define variances, reduce time and cost, specify steps, waste, and other factors important to the organization when analyzing variances. It is important to remember that process variances differ by variances of a task and in the way the business process flows.

A common business process might exist in multiple variations in an enterprise, due to different legal requirements in different countries, deviations in the supporting IT infrastructure, or differences in the organizational structure. To explore and control such variability,[24] Weidlich and Weske argue that the notion of a main process, the invariant nucleus of all process variants, might be applied, because the degree of variability of process variants might be explored using the notion of a main (core) process. Such a process captures structural and behavioral aspects that are invariant across all process variants. SAP's business process handbook specifies [25] that a business process variant is a fundamental flow variant of a Business Process that uses the same input and delivers the same measurable outcome. The flow of process steps is defined at business process variant level. To keep level consistency it is necessary that each Business Process has at least one business process variant attached. A business process variant should differ from another at least in one of the following:

1. Flow of documents
2. The specific business objects needed
3. Life-cycle schema of the business objects (status and status transitions)
4. Application to Application/Business to Business (A2A/B2B) message choreography or choreography with direct interactions with other Business Processes
5. A business process variant is not just an alternative User Interface (UI)
6. A business process variant is not just another sequence a user decides to perform tasks on the User Interface (UI).
7. Two Business Process Variants differ in the way the business process flows. The difference is so important that the variants are to be considered separately in a business process analysis. The difference is so fundamental that it typically needs to be treated by special software functionality and not just configuration, if implemented in software.

The above clearly illustrates the importance of analyzing, identifying, tracking, and documenting process variances. To test possible solutions, it is important to analyze different process variants in different process scenarios and setups. The output of step 32 is consumed by both steps 33 and 34.

Typical tasks that are done within this step:

- Perform detailed process analysis (main process, flow, roles, tasks, objects, etc.)
- Undertake process performance simulations and report on output
- Specify process variances

- Detailed and thorough testing of new processes
- Detailed and thorough testing of reengineered processes

Typical templates that are used:

- Process Map and/or Matrix
- Service Map and/or Matrix
- Performance Map and/or Matrix

Typical BPM CoE roles involved:

- Process Engineers
- Process Architects

Value Gate 5:

- Evaluate potential solutions
- Investigate opportunities for higher process quality delivery
- Investigate opportunities for higher Return on Investment (ROI)

Step 33: Estimate Impact

Based on acquired process analysis and testing simulations, it is critical to assess the possible impact that either new and/or reengineered processes have upon many different business aspects, but most importantly, what their execution will mean for the value-generating cycle of the organization (Figure 17).

The purpose of the business impact analysis (BIA) is to identify which business units/departments and processes are essential to the survival of the organization. The BIA will identify how quickly essential business units and/or processes have to return to full operation following a disaster situation. The BIA will also identify the resources required to resume business operations. Business impacts are identified based on worst-case scenarios that assume that the physical infrastructure supporting each respective business unit has been destroyed and all records, equipment, etc. are not accessible for 30 days. Please note that the BIA will not address recovery solutions.[26]

The objectives of the BIA are as follows:

- Estimate the financial impacts for each business unit, assuming a worst-case scenario.
- Estimate the intangible (operational) impacts for each business unit, assuming a worst-case scenario.
- Identify the organization's business unit processes and the estimated recovery time frame for each business unit.

The output of step 33 is consumed by step 34.
Typical tasks that are done within this step:

- Document and prepare new processes in a process-testing portfolio (separating them from active processes)

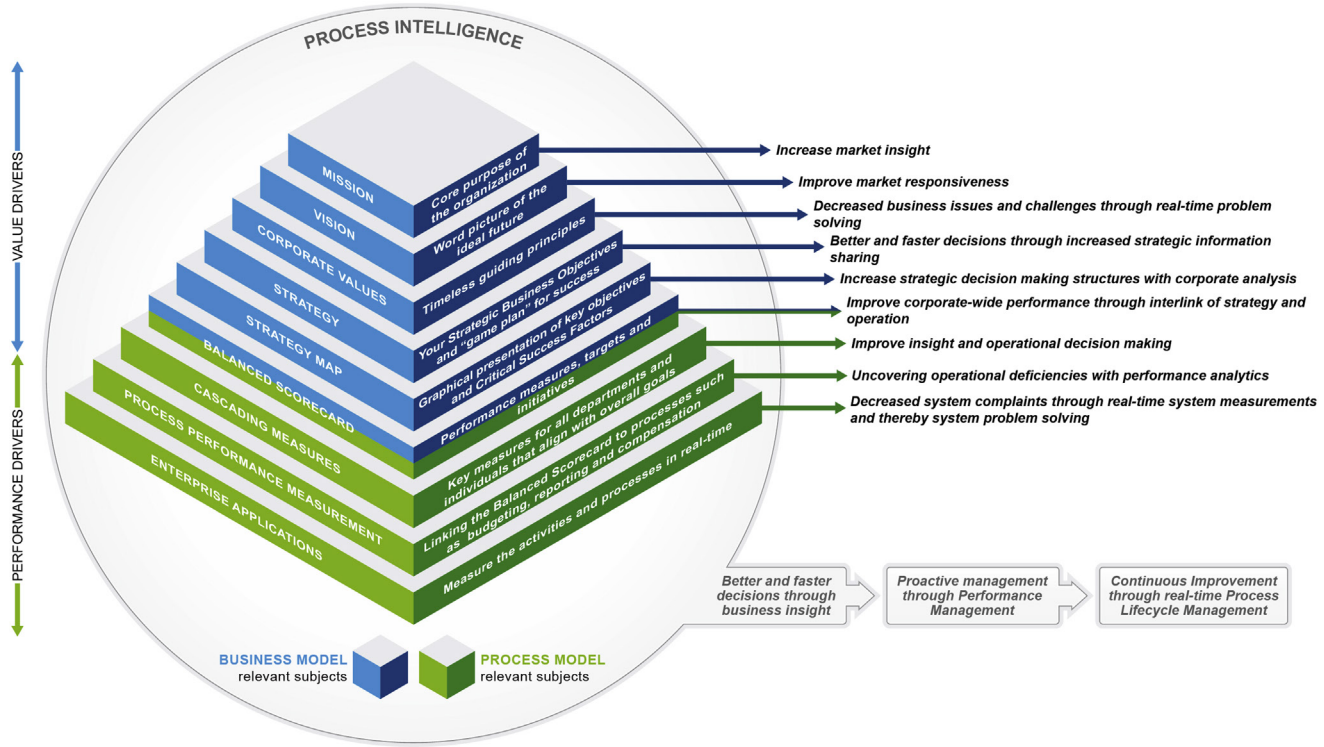


FIGURE 17

How process intelligence should be understood and undertaken by the organization.

Ref. 27.

- Document and prepare the reengineering of existing processes in a process-testing portfolio (move them out of the existing process portfolio temporarily while testing is underway)
- Execute thorough process-testing simulations of both newly created processes as well as reengineered processes

Typical templates that are used:

- Process Map and/or Matrix
- Service Map and/or Matrix
- Performance Map and/or Matrix
- Value Map and/or Matrix
- Operating Map and/or Matrix
- Measurement and Reporting
- System Measurements/Reporting Map and/or Matrix
- Risk Map and/or Matrix

Typical BPM CoE roles involved:

- Process Engineers
- Process Architects

Quality Gate 5:

- Investigate possible business impact and consequences
- Estimate impact on process quality
- Estimate impact on process coverage
- Estimate impact on process goals and scope

During the 5th phase of the BPM Life Cycle, the Run and Maintain phase, we have been focusing mainly on process measurements, monitoring, reporting, and audits. As we enter the last phase of the BPM Life Cycle, the Continuous Improvement phase (see Figure 18), we will be focusing on optimizing processes around prioritized improvement areas, such as the Value Model, Revenue Model, Cost Model, Service Model, Operating Model, and the Performance Model in a collaborative business environment using feedback loops to report on process improvements, requests for changes, and to further manage the process landscape of the organization.

PHASE 6: CONTINUOUS IMPROVEMENT—CONTINUOUSLY OPTIMIZE AND DEVELOP PROCESSES

Business Process Improvement (BPI) is a systematic approach to help an organization optimize its underlying processes to achieve results that are more efficient. The methodology was first documented in H. James Harrington's 1991 book, Business Process Improvement.[28] It is the methodology upon which both Process Redesign and Business Process Reengineering are based (see Figure 18). BPI has allegedly

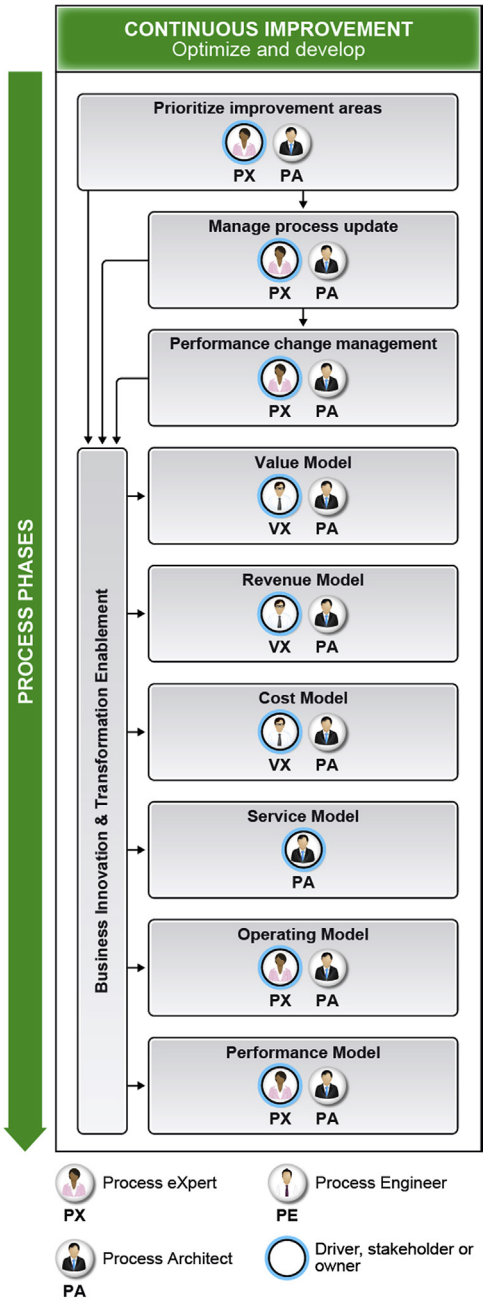


FIGURE 18

The Continuous Development phase of the BPM Life Cycle.

Ref. 29.

been responsible for reducing cost and cycle time by as much as 90% while improving quality by over 60%. In the meantime, the idea and concept of Continuous Improvement (CI) or Continuous Process Improvement (CPI) is applied in multiple areas. Many frameworks, methods, and approaches have some sort of CI and or CPI incorporated in one way or another as an ongoing effort to improve products, services, or processes. To mention some:

- Business process reengineering
- Six Sigma
- Theory of Constraints, Lean, Six Sigma
- Kaizen
- Toyota Production System
- Zero Defect
- Mottainai
- Muda
- Total productive maintenance

There has been some criticism of these approaches, however, and there are claims that these methods are more resource intensive and thereby cost-cutting-focused and that the measures come at the expense of fair labor practices and quality products. This criticism furthermore argue that real continuous improvement governance models would have to consider more than just cost drivers. They would have to incorporate both performance/cost as well as value drivers to link to business transformation and innovation aspects.

Continuous Improvement: Performance and Value Drivers

Performance drivers and value drivers can go hand in hand to specify the link to business innovation and transformation enablement. Even though they are not applied by many organizations, applying both have proven over the years to deliver above-average results. They are what we call outperforming organizations. The first time this was researched and proven was in 1984 by Dutton and Thomas.[30] They measured the results in progress ratios. The number they used represents the cost of production after cumulative production doubles. Dutton and Thomas found that those companies across different industries that apply these principles had the ratio typically around 80%. Thus, if a business has a progress ratio of 80% and it costs $100 to produce a unit after producing 100 units, when cumulative production reaches 200 units, it will cost only $80 to produce the same unit. Formally, for some commodity, if Cost(t) is cost at time t, d(t) is the number of doublings of cumulative output of the commodity in time t, and a is the percent reduction in cost for each doubling of cumulative output (note: 1−a is the progress ratio), then we have Cost(t) = Cost(0)(1−a)^d.

Here, some of the known industries that have applied the previously mentioned progress ratios (Table 1):

The core principle here is not only to identify performance/cost as well as value drivers, it is to attach them to a continuous feedback loop and thereby reflect

Table 1 ***Industry Table Index***

Technology	Period	Year 1 Production	Cumulative Production	Cost Index	Progress Ratio
Ford model T auto	1909–1923	15,741	8,028,000	0.290	87%
Integrated circuits	1962–1968	4 million unites	828 million units	0.047	67%
CFC substitutes	1988–1999	100,000 tons	3,871,000 tons	0.690	93%
Scrubbers	1987–1995	65.8 GW	84.3 GW	0.	89%
Photovoltaic	1971–2000	0.1	1451.4	0.042	72%
Magnetic ballasts	1977–1993	29.4 million	629.3 million	0.897	97%
Electronic ballasts	1986–2001	431	350 million units	0.277	88%
Refrigerators	1980–1998	5.1 million	126.3 million	0.556	88%
Freezers	1980–1998	1.8 million	26.1 million	0.374	78%
Clothes washers	1980–1998	4.4 million	104.7 million	0.536	87%
Electronic clothes	1980–1998	2.5 million	61.0 million	0.557	88%
Gas clothes dryer	1980–1998	0.7 million	18.2 million	0.593	90%
Dishwasher	1980–1998	2.7 million	69.7 million	0.450	84%
Room air conditioner	1980–1998	2.4 million	63.3 million	0.478	85%
Selective window coatings	1992–2000	4.8 million m^2	157.4 million m^2	0.394	83%

(optimization, improvement, and innovation) processes. The purpose of continuous improvement (CI), therefore, is the identification, reduction, elimination, and innovation of suboptimal processes (efficiency). This already goes beyond most approaches that are result/effect-driven and thereby focuses on effectiveness. The emphasis of CI is on incremental, continuous steps rather than giant leaps (Evolution). Continuous Improvements are thereby based on many, small changes rather than the radical optimization project that is more likely handled through a project. The change should come from the operation (the workers themselves) and enable business model changes both in the areas of revenue, value, and service model, as well as the cost, performance, and operating model. Such a feedback loop to the business model domains is more likely to succeed in enabling change. Practically speaking, process improvement is, therefore, an aspect of organizational development (OD) in which a series of actions are taken by a process owner to identify, analyze, and improve existing business processes within an organization to meet new goals and objectives, such as increasing profits and performance, reducing costs, and accelerating schedules. These actions often follow a specific methodology or strategy to increase the likelihood of successful results. Process improvement may include the restructuring of company training programs to increase their effectiveness. Process improvement is also a method to introduce process changes to improve the quality of a product or service to better match customer and consumer needs.

Continuous Business Process Improvement, however, is about taking the cycle of the process optimization phases and steps to another level of detail and efficiency.

Process change requests are received, evaluated, and carried out in support of changing process and/or business objectives and goals, and the simulation and performance measurements are then reported to process owners, stakeholders, and decision makers who are involved with the BPM Life Cycle. This ensures a chain reaction of quality assurance, evaluation, and decision making on behalf of the continuous feedback loop and collaborative work done by all participants involved.

The 6th and final phase of the BPM Life Cycle (see Figure 18), the continuous improvement phase, is the phase in which the processes are managed in terms of their effectiveness, efficiency, incidents/issues, and process change request fulfillments, etc. This is also when the organization improves the existing process operations and evaluates, adjusts, alters, amends, changes, corrects, eliminates, enhances, increases, modifies, optimizes, and/or excludes specific process parts within the process portfolios and landscapes. This phase is all about the link between business process operation and business, and thereby BPM Innovation and Transformation Enablement (see Figure 19). This interlinks with the improvement and optimization of the six business model domains.

Step 34: Prioritize Improvement Areas

Improvement areas have to be defined, documented, and selected through collaborative efforts between business, IT, and technology units of the organization (see Figure 19). As processes are heavily dependent on so many different aspects, it is important to select areas that correlate and align directly with the overall process strategy and the established process goals (Figure 20).

The first step of any process improvement initiative is to take stock of as many organizational processes as possible, because everything is connected to everything else in the value chain from concept to customer. Considering all organizational processes will force the team to think about the interdependencies between individuals, departments, vendors, and customers, all of whom may influence the process.

The next step is to determine which process, if improved, would have the greatest positive impact on the organization (i.e., would most likely contribute to the fulfillment of the organization's goals). There are five steps involved in the selection of choosing which processes to prioritize:

1. *List success criteria:* Success criteria are those measures, ranging from most tangible (e.g., financial measures) to least tangible (e.g., strategic measures), that indicate the larger organization is on the right strategic path. In this case, the organization has determined that hit ratio, combined ratio, and compliance are the three criteria that demonstrate it is performing according to its strategic plan.
2. *Weighted success criteria:* Success criteria are then weighted relative to each other using an index from 0.5 to 1.5, in which 0.5 indicates the criterion has the least weight, and 1.5 indicates the criterion has the most weight. In our example, the organization has deemed new business to be a critical success

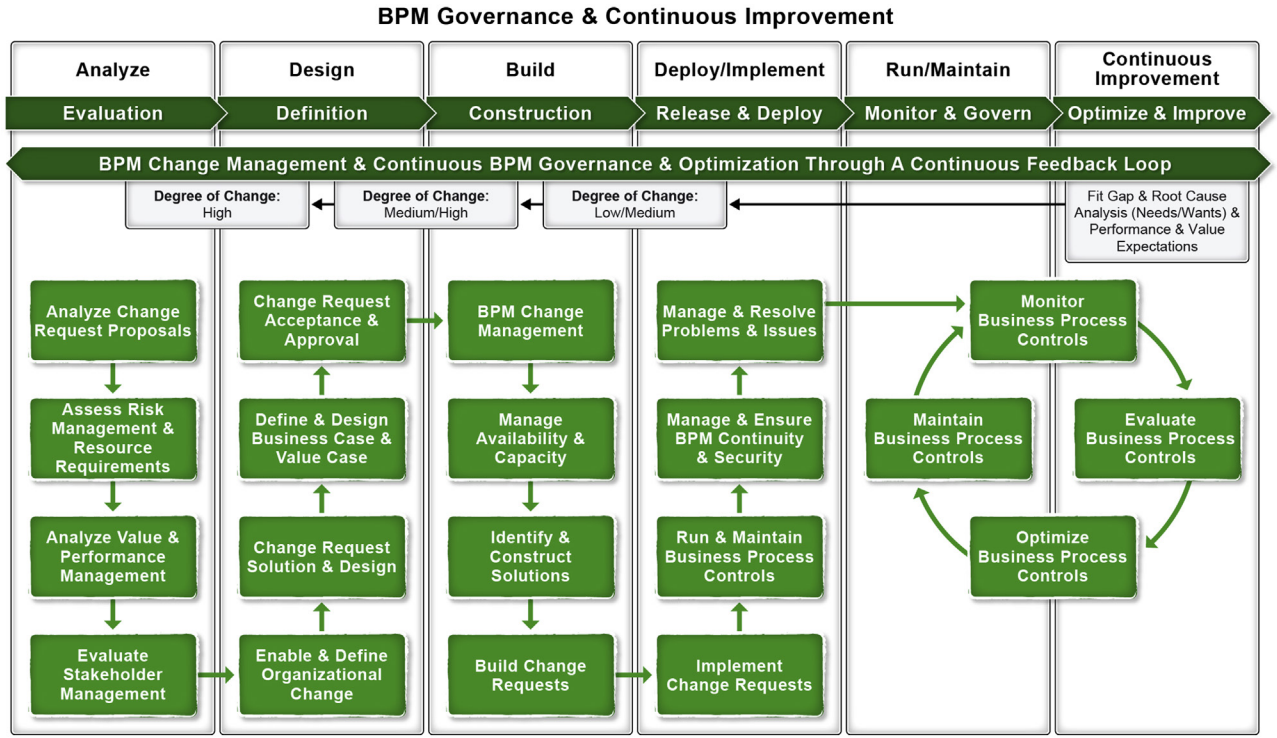


FIGURE 19

A high-level view example of a BPM Governance model that can be used to structure and organize the activities performed and to continuously monitor, govern, and administer the flow of business processes within the organization.

Ref. 31.

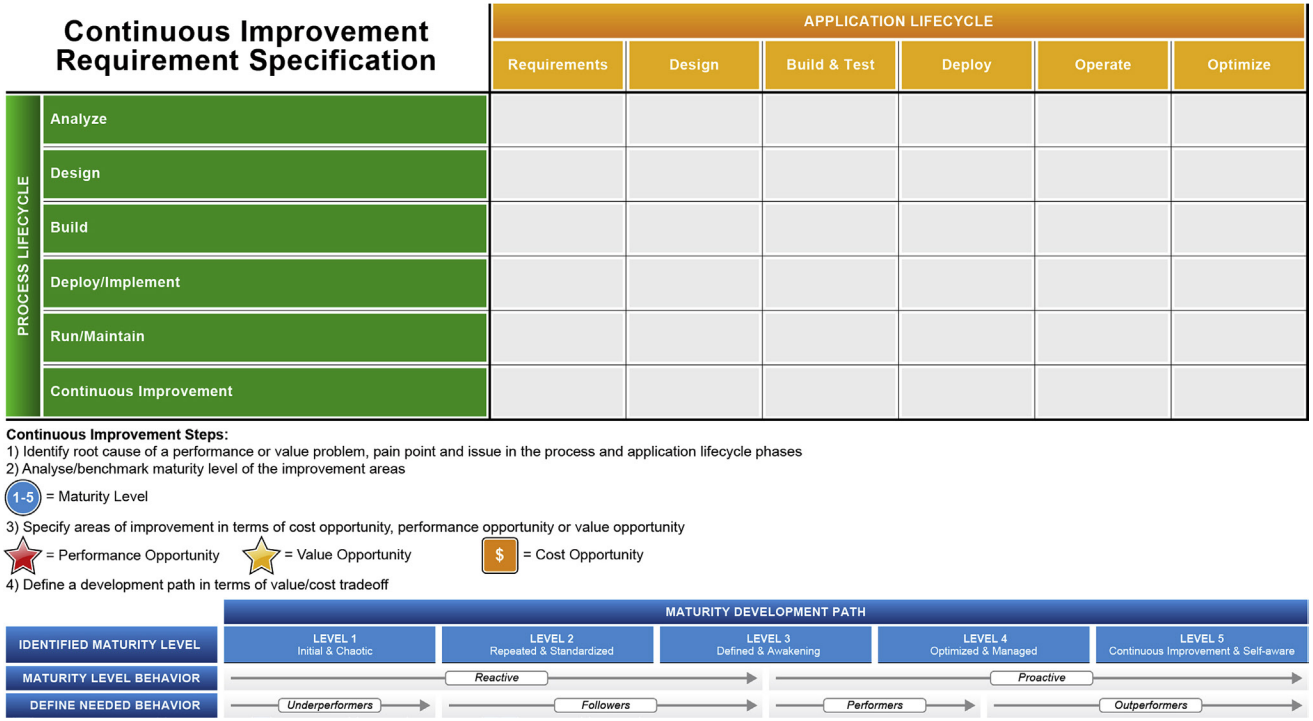


FIGURE 20

An example model of Continuous Improvement and Requirement Specification between the BPM Life Cycle and the Application Life Cycle. This model relates only to automated processes in the process landscape, and will aid the user in identifying the maturity levels as well as performance, value, and cost opportunities associated with processes throughout all six life-cycle phases.

Ref. 32.

factor. As such, the hit ratio (1.5) is the most important strategic measure relative to compliance (1.0) and combined ratio (0.5). They are all important, however; this is simply a relative weighting.

3. *List processes:* List the names of the processes from the process master.
4. *Assign anchors:* A number from 1 to 5 (each, an "anchor") is inserted in each cell indicating the strength of correlation between each process and each success criterion.
5. *Determine score and rank:* The resulting scores, which are the products of the relative weights times the anchors summed across each process, provide a ranking, based on the success criteria, which indicates what specific processes should be given improvement priority. In our example, it has been determined that the state filings process (with a score of 13) most contributes to the fulfillment of the organization's strategic objectives.[33]

The output of step 34 is consumed by step 35.
Typical tasks that are done within this step:

- Define and document steps for improving process structures around each business model domain
- Gather and list advantages and disadvantages for reengineering processes around each business model domain
- Establish process ownership and responsibilities around improvement steps
- Clarify process roles around improvement steps
- Reevaluate and reestablish process goals and requirements around each business model domain

Typical templates that are used:

- Process Map and/or Matrix
- Service Map and/or Matrix
- Information Map and/or Matrix
- Performance Map and/or Matrix
- Value Map and/or Matrix
- Operating Map and/or Matrix
- Measurement and Reporting
- Risk Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Business Analysts
- Transformation eXperts
- Process Architects

Quality Gate 6:

- Identify and determine areas to improve upon
- Initiate process quality improvements

- Initiate process coverage improvements
- Initiate process goals improvements
- Update process scope documentation and deliver evaluation report to stakeholders

Step 35: Manage Process Update

Process updates have to be continuously updated and managed by a dedicated process unit/team. This is important because process portfolios are usually quite expansive and cumbersome to manage, so it is essential that a process portfolio is efficiently managed when undergoing regular updates. The output of step 35 is consumed by step 36.

Typical tasks that are done within this step:

- Supervise and execute Change Management

Typical templates that are used:

- Process Map and/or Matrix
- Service Map and/or Matrix
- Information Map and/or Matrix
- Performance Map and/or Matrix
- Operating Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Process Architects

Step 36: Performance Change Management

Change management relevant for BPM and how it is handled across the entire BPM Life Cycle is handled in the chapter BPM Change Management. As requirements, the organizations, competitors, or the environment are constantly changing, adapting to outside changes is a challenge faced by nearly all organizations. The changes do not only impact the strategic aspects, the business models, the employees, and the way an organization utilizes technology, but the degree of outside change also influences the organization's ability to maintain control of their work. So while the organization manages the changes befalling the organization, it must also actively manage the change of their business processes. Developing an effective change road map that is integrated into the business process management life cycle and the BPM CoE change and issue management is imperative for the change effectiveness if your initiative is to avoid "the valley of despair" (see BPM Change Management chapter). Purpose and objectives of the BPM Change Management concept are to respond to both process change requests as well as the BPM client's changing requirements while maximizing value and reducing incidents, disruptions, and rework. When executing change management principles

for the purpose of managing changes to process performance, it is important to apply both BPM CoE Change Management to the process portfolio, as well as BPM Change Management throughout the life cycle. This must go hand-in-hand with the process reports on performance, their gaps, and suggested solutions and alternatives. It also has to include the expected business impact parameters as well as outline both value and performance expectations. The output of step 36 is consumed by step 37.

Typical tasks that are done within this step:

- Identify performance gaps
- Specify stakeholder value and or performance expectation (BPM Requirements Management)
- Document improvements
- Planning with link to process portfolio, program, and project management
- Business organizational changes that need to be channeled through the Process Portfolio Management channel
- Investigate BPM Continuous Improvement feedback loop in terms of degree of change (low, medium, or high)
- Clarify value and performance expectations
- Structural changes that need to be channeled through the BPM CoE management; the people-side of change that needs to be channeled through the business change management group

Typical templates that are used:

- Process Map and/or Matrix
- Service Map and/or Matrix
- Information Map and/or Matrix
- Performance Map and/or Matrix
- Value Map and/or Matrix
- Operating Map and/or Matrix
- Measurement and Reporting
- Risk Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Transformation eXperts
- Enterprise Architects
- Process Architects

Step 37: Business Innovation and Transformation Enablement

Business Innovation and Transformation Enablement (BITE) principles go hand-in-hand with Performance Change Management described earlier. BITE principles, however, do not only emphasize performance, but also go into detail around

suggested process changes and their impact on the organization's value, revenue, cost, service, and operating model as well as the performance model. The output of step 37 is consumed by steps 37a–f, depending on which business model domain the focus is placed. Please note that moving onward to any—or all—of the six different business model domains is not only allowed, but is highly recommended and should be done at all times during phases of process improvement, optimization, and development.

Doing this is also strongly advised because the vast majority of all of the existing and in-use processes in the process landscape plays an important role in the organization. It is often estimated that a significant number of active processes are likely to have a dramatic impact and effect upon the workflow within, execution of, and results delivered by any of the six different business model domains. Therefore, careful precaution and consideration has to be maintained when choosing to eliminate and/or reengineer any of the active processes in the process landscape.

The structure around Business Innovation and Transformation Enablement for the BPM Life Cycle focuses on two directions; the Process Way of thinking (innovation and transformation principles) and the Process Way of working (the sequence of actions taken). The 8 distinct interrogatives that can be used effectively for process analysis, design, construction, and monitoring, as well as for Continuous Improvement are as follows:

1. *Where:* The location/area of the process (i.e., where it is located or resides in the context of the process landscape)
2. *When:* Time of the process (i.e., the timing/time at execution or the length [time consumption] of the process)
3. *Whence:* The source of the process (what exactly is the source of the process, i.e., manual labor sequence, automation through software, etc.)
4. *How:* The manner of the process (how it behaves)
5. *What:* The context of the process (i.e., in which context does it have relevance)
6. *Why:* The reason for the process' existence (i.e., why does it exist, why do we have it/use it)
7. *Who:* Is the process of personal relevance (i.e., does it have an actor)
8. *Whether:* What are the choices, alternatives, and options of the process (i.e., should we choose another path)

The classification form of the 8 distinct process interrogatives can be structured and efficiently organized as shown in the example of Figure 21.

Typical templates that are used:

- Process Map and/or Matrix
- Service Map and/or Matrix
- Performance Map and/or Matrix
- Value Map and/or Matrix
- Operating Map and/or Matrix

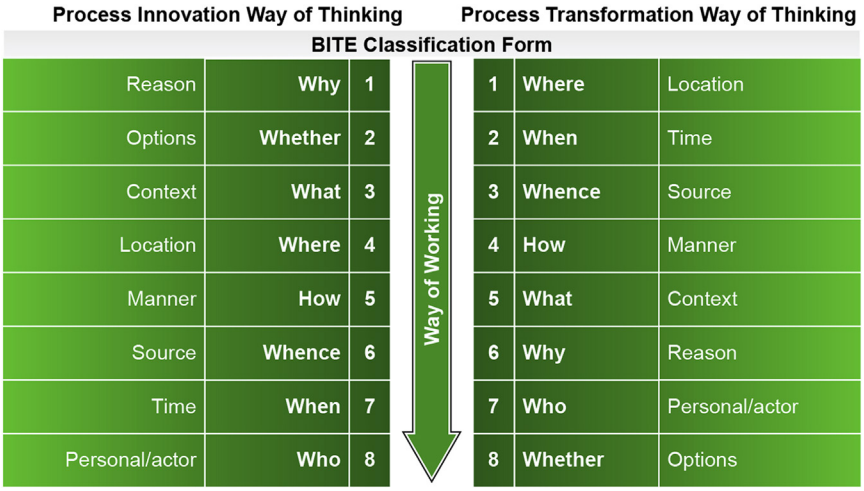


FIGURE 21

An example of a model that shows the 8 interrogatives related to process reference content. This particular example also shows the direction of and approach toward Process Innovation and Process Transformation (both of them being a way of thinking and a way of working around processes).

Ref. 34.

- Cost Map and/or Matrix
- Revenue Map and/or Matrix
- Measurement and Reporting
- Risk Map and/or Matrix

Typical BPM CoE roles involved:

- Transformation eXperts

Value Gate 6:

- Business Innovation and Transformation Enablement (BITE) opportunities

Step 37a: Value Model

Process performance changes are closely connected to the organization's value model because all processes are designed to deliver value in one way or another (see Figure 22). In most instances, it is necessary to continuously improve processes by relating them to changes in the value model, such as, for instance, updated or newly defined value drivers and value indicators. The outcome of step 37 is consumed by step 37a.

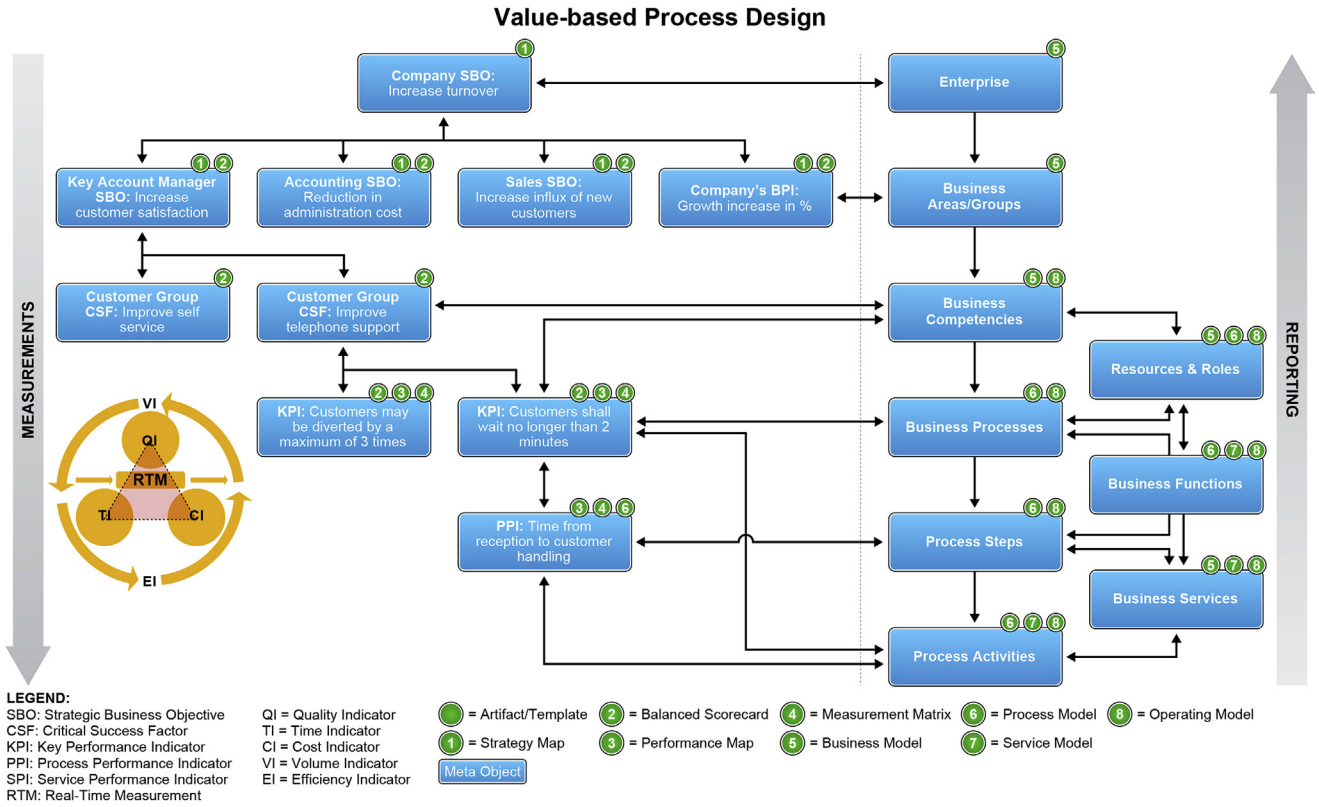


FIGURE 22

An example of a value-based process design in which the business processes of the organization have been designed, constructed, and fully integrated with the organization's value model.

Ref. 35.

Typical tasks that are done within this step:

- Align and unify all strategic, tactical, and operational processes to the strategic, tactical, and operational key Performance Indicators of the organization
- Include process performance changes to the value flow model
- Relate business processes to process performance indicators and measurements
- Relate process steps and process activities to service performance indicators and measurements
- Relate business processes to business competencies, business resources and roles, and business functions
- Relate process steps and activities to business functions and business services

Typical templates that are used:

- Process Map and/or Matrix
- Service Map and/or Matrix
- Performance Map and/or Matrix
- Value Map, Matrix, and/or Model
- Risk Map and/or Matrix

Typical BPM CoE roles involved:

- Value eXperts
- Business Analysts
- Enterprise Architects
- Process Architects

Step 37b: Revenue Model

When main processes undergo change requests, it is important to realign them with the revenue model, because they are the driving force of processes that are specifically involved with value-generation flows of the organization. The outcome of step 37 is consumed by step 37b.

Typical tasks that are done within this step:

- Optimize and improve main (value-generating) processes in the process landscape
- Focus on communication and analysis around processes that help identify customers, market to those customers, and generate sales to those customers
- Relate business processes, process steps, and process activities to revenue flows
- Relate business process owners, process roles, and process measurement to revenue flows

Typical templates that are used:

- Process Map and/or Matrix
- Service Map and/or Matrix
- Performance Map and/or Matrix
- Value Map and/or Matrix

- Revenue Map, Matrix, and/or Model
- Risk Map and/or Matrix

Typical BPM CoE roles involved:

- Value eXperts
- Business Analysts
- Enterprise Architects
- Process Architects

Step 37c: Cost Model

Processes are an essential part of production facilities regardless of industry, product, or general process practice principles. Creating new processes or reengineering existing processes within the established process portfolio enables organizations to reduce production cost, save time, reduce manpower, and automate previously manual labor through automated processes (see Figure 23). The outcome of step 37 is consumed by step 37c.

Typical tasks that are done within this step:

- Link operational processes to the cost model and cost profiles
- Define cost drivers and opportunities for cost reduction
- Examine cost reduction opportunities in operational processes
- Relate business processes, process steps, and process activities to cost flows
- Relate process roles, process measurement, and process owners to

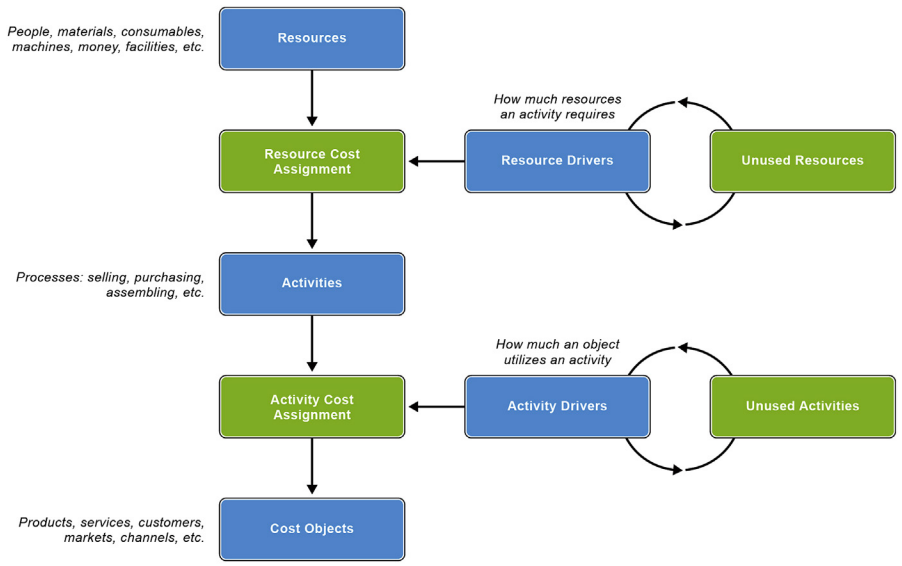


FIGURE 23

An example of how processes relate and integrate with an activity-based costing model.

- High-cost types
- Medium-cost types; and
- Low-cost types

Typical templates that are used:

- Process Map and/or Matrix
- Service Map and/or Matrix
- Performance Map and/or Matrix
- Value Map and/or Matrix
- Cost Map, Matrix, and/or Model
- Risk Map and/or Matrix

Typical BPM CoE roles involved:

- Value eXperts
- Business Analysts
- Enterprise Architects
- Process Architects

Step 37d: Service Model

Business processes deliver business services (Service Provider) to one or more customers (whether internal or external) who then consume the services delivered to them (Service Consumer), thereby making the Service Model and the entire Service-Oriented Architecture landscape of the organization heavily dependent on a stable, reliable, and high-performance process landscape (see Figure 25).

Business services are directly affected by process-change requests and optimizations, because changes in processes will ultimately change the behavior of how services are being delivered by an organization. Therefore, it is essential to continuously update the service models to reflect any changes to existing processes and/or the introduction of new processes to allow the service models to perform at maximum efficiency (see Figure 24). The outcome of step 37 is consumed by step 37d.

Typical tasks that are done within this step:

- Associate and link changes to process steps and activities to business, application, data, platform, and infrastructure services
- Associate and link changes to events and gateways to business, application, data, platform, and infrastructure services
- Associate and link changes to process flow, process roles, and process owners to business, application, data, platform, and infrastructure services

Typical templates that are used:

- Process Map and/or Matrix
- Service Map, Matrix, and/or Model
- Performance Map and/or Matrix

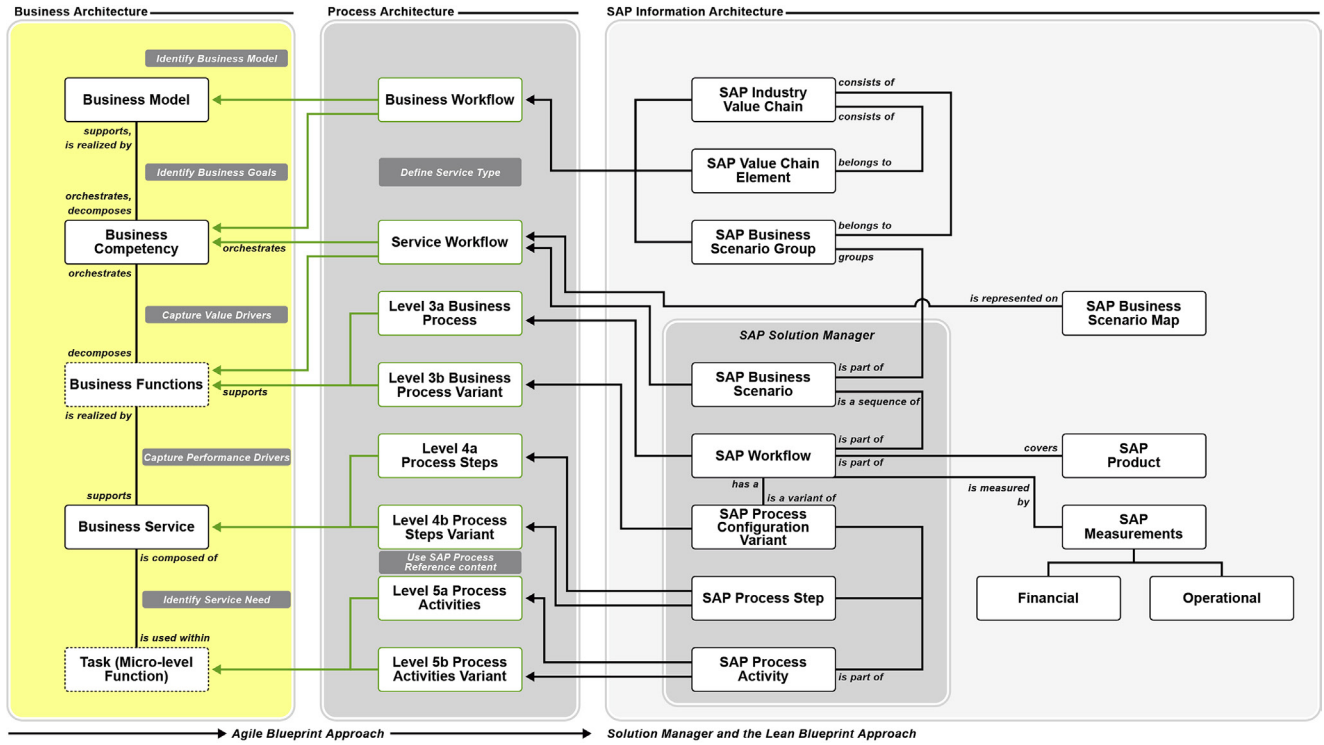


FIGURE 24

Example of how process steps (and variants thereof) deliver business services.

Ref. 36.

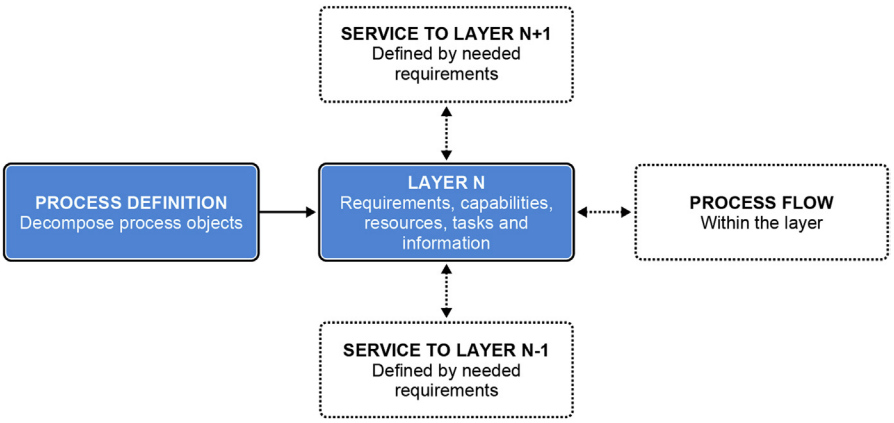


FIGURE 25

An example of a Layered Process Architecture model that shows how the execution of processes delivers services across layers within an organization based on layer requirements.

Ref. 37.

- Value Map and/or Matrix
- Risk Map and/or Matrix

Typical BPM CoE roles involved:

- Service eXperts
- Business Analysts
- Enterprise Architects
- Process Architects.

Step 37e: Operating Model

The operating model (see Figure 26) focuses on process standardization and integration across the organization, and, because of this, changes made to any of the existing processes of the process portfolio need to be updated with the current operating model to reflect changes made and how services are being delivered as either strategic, tactical, or operational services. The outcome of step 37 is consumed by step 37e.

Typical tasks that are done within this step:

- Investigate opportunities for establishing processes around:
  - *Coordination*—low process standardization but high process integration
  - *Unification*—both high standardization and integration
  - *Diversification*—businesses requiring low standardization and low integration
  - *Replication*—high standardization but low integration
- Identify and categorize business processes around

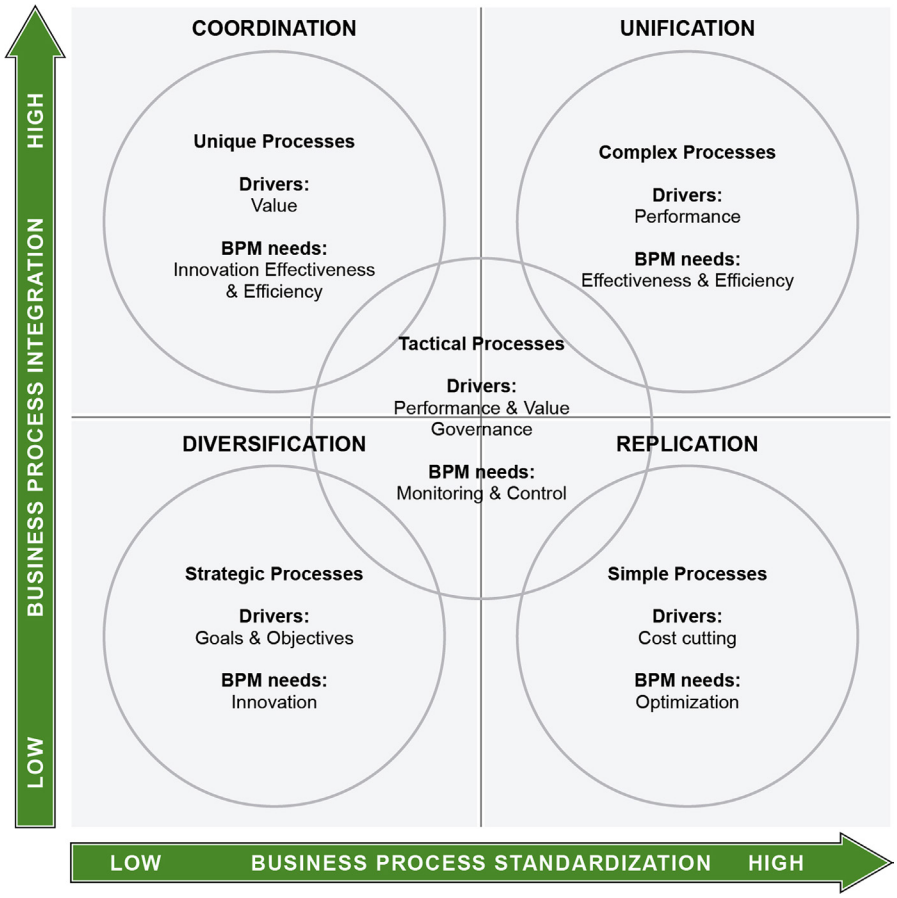


FIGURE 26

An Operating Model focusing on business process integration and business process standardization.

Ref. 38.

- business areas and groups
- business functions
- business roles and owners
- resources/actors
- business competencies
- business rules and compliance
- service construct
- service areas and groups
- service owners
- process areas and groups

    - process owners
    - application/system owners
    - data owners
    - platform owners
    - infrastructure owners
- Associate and connect the process types (i.e., main, management, and support) to
    - business areas and groups;
    - capabilities and functions;
    - business roles and owners;
    - resources/actors;
    - business competencies;
    - business rules and compliance;
    - service construct;
    - service areas and groups;
    - service owners;
    - process areas and groups;
    - business processes;
    - process owners;
    - application/system owners;
    - data owners;
    - platform owners; and
    - infrastructure owners
- Associate each process owner with
    - business and process areas and groups
- Create an Operating Model to illustrate the relationship between process owners and business and process areas and groups

Typical templates that are used:

- Process Map and/or Matrix
- Service Map and/or Matrix
- Performance Map and/or Matrix
- Value Map and/or Matrix
- Operating Map, Matrix, and/or Model
- Risk Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Business Analysts
- Information Architects
- Technology Architects
- Enterprise Architects
- Process Architects

Step 37f: Performance Model

Processes are constantly being monitored for performance gaps and issues (see Figure 27), and therefore, changes made to processes must be directly related to the performance model. The outcome of step 37 is consumed by step 37f.

Typical tasks that are done within this step:

- Relate, monitor, and measure strategic, tactical, and operational processes to Strategic Business Objectives (SBOs)
- Relate, monitor, and measure strategic, tactical, and operational processes to Critical Success Factors (CSFs)
- Relate, monitor, and measure strategic, tactical, and operational processes to Key Performance Indicators (KPIs)
- Develop, monitor, and measure Process Performance Indicators (PPIs) around operational processes
- Develop, monitor, and measure Service Performance Indicators (SPIs) around operational processes
- Connect and link process areas, process groups, process measurement, and process owners to
  - Strategic, tactical, and operational Key Performance Indicators (KPIs)
- Connect and link process steps, process activities, and process owners to
  - Strategic, tactical, and operational Process Performance Indicators (PPIs); and
  - Strategic, tactical, and operational Service Performance Indicators (SPIs)

Typical templates that are used:

- Process Map and/or Matrix
- Service Map and/or Matrix
- Performance Map, Matrix, and/or Model
- Value Map and/or Matrix
- Risk Map and/or Matrix

Typical BPM CoE roles involved:

- Process eXperts
- Value eXperts
- Business Analysts
- Enterprise Architects
- Process Architects

CONCLUSION

The organizational requirements of implementing a usable and effective BPM Life Cycle in any organization is a very demanding task in itself. Even more difficult is the need to structure the life cycle in a way that fully, and in a very detailed and explicit manner, revolves around accomplishing not only process-related goals, but

Process or Product Name:	
Responsible/Owner:	
Prepared by:	
Date (original):	
Date (revised):	

PROCESS/INPUT
Pain Point Situation & Effect Analysis Form

Process Step/Input: (What is the process step and input under investigation?)	Potential Pain Point Situation: (In what ways does the key input go wrong?)	Potential Pain Point Effects: (What is the impact on the key output variables (customer requirements)?)	Severity: 0-10	Potential Weakness Causes: (What causes the key input to go wrong?)	Occurence: 0-10	Current Weakness Cluster Controls: (What are the existing controls and procedures (inspection and test) that prevent either the cause or the Failure Mode?)	Detection: 0-10	Risk Priority Number (RPN):	Actions Recommended: (What are the actions for reducing the occurence of the weakness cluster cause, or improving detection?)	Response:	Actions Taken: (What are the completed actions taken with the recalculated RPN?)	Severity: 0-10	Occurence: 0-10	Detection: 0-10	Risk Priority Number (RPN):

General Ranking Guidelines
0-1: N/A or Limited 2-3: Low 4-6: Average 7-8: High 9-10: Critical

FIGURE 27

The Process/Input Pain Point Situation & Effect Analysis Form is a powerful tool to help monitor, identify, and suggest changes to process pain points.

Ref. 39.

more importantly, business objectives, goals, and strategy. Because, in a nutshell, processes are essentially a sequenced flow of steps and activities that have been specifically designed to achieve a defined business objective and eventually allow for the fulfilment of the strategy of the organization. Thus, processes act as a chain reaction of actions that are indirectly responsible for fulfilling the strategy of an organization, and ultimately, that is the goal.

Most BPM and process life cycles focus almost exclusively on process-oriented solutions and goals, rather than also incorporating business-related challenges. That is where many organizations go about it the wrong way. As mentioned earlier, processes are but a tool to fulfill the goals of the business, and with that in mind, it is important to maintain a strong focus on business objectives and goals when designing the structure and the steps involved with the BPM Life Cycle. Process goals have to serve the needs of the business, and designing a tight collaboration between process objectives and goals, and business objectives and goals, is of the utmost importance.

The work done by the process roles (experts, engineers and architects) in various programs and projects along with their specific tasks always relate to a specific business goal, the roles, tasks, and deliverables that link to the business goals, and can be managed within the process life cycle. This is done through managing the link to strategy on a portfolio, program, and project level, and managing the deliverables/artefacts assigned to the specific roles and their tasks within the process life cycle. As the process management life cycle has already been aligned with BPM Portfolio Management, the key touch points can be highlighted for specific focus on governance and value delivery. This clearly illustrates that the BPM Life Cycle has been specifically designed for creating process solutions that also focus on reaching business objectives and goals as well as solving business issues and challenges (see step 1: "Identify critical business factors", step 2: "Describe process goals" as well as the Business Innovation and Transformation Enablement steps around steps 37a–f).

Going through a detailed and highly analytical design and construction phase to create a useful and effective BPM Life Cycle should be top priority in most organizations. The sheer benefits and many different advantages of doing so far outweigh the number of resources required to complete the production of the life cycle. Let us take a glance at some of the many benefits and advantages you can harvest from creating and using an effective BPM Life Cycle.

Let's start with a few examples of advantages from a **strategic point of view:**

- *Industry and trends:* The identification of industry changes and key external trends can be a great asset for adapting existing processes to meet these changes. Such changes, whether internal or external, should be seen as opportunities and drivers for optimizing existing processes or simply acting as a catalyst for the creation of new processes—not only to adapt to, for instance, a changing market, but certainly also to benefit from new business opportunities and ventures.

- *Understanding and commitment:* A BPM Life Cycle helps to secure a common organizational understanding and commitment of owners, stakeholders, and management teams across organizational boundaries.
- *Proactive organization:* It will help jump start and enable a continuously proactive organization in which all share a common goal—the goal of creating or reengineering processes to reach business objectives and business goals, and thereby realize business strategies.

Advantages from an **organizational point of view:**

- *Ownership, roles, and responsibilities:* Every individual involved with the life cycle is assigned both tasks and responsibilities for carrying out particular objectives. This makes it easier to distribute the appropriate tasks and assignments to the appropriate experts across the organization. Process ownership, stakeholders, and decision makers are also involved in all of the context of the BPM Life Cycle.
- *Communication, collaboration, and feedback loop:* Because ownership, roles, and responsibilities have been placed accordingly, organizational communication across business units and effective collaboration within project teams become much more efficient because everybody knows what's going through regular status reporting, evaluations, audits, and measurements (in terms of process testing and simulation). The feedback loop ensures clear communication about improvements and optimization of existing processes, and also closes bottlenecks and encourages participation and involvement by all parties.

And advantages from a **process-oriented point of view:**

- *Overview and structure:* Creates a single point of reference for all future steps and activities that evolve around process creation and reengineering. The visual landscape and point of reference of the high-level BPM Life Cycle gives everyone involved a clear view of all the steps and activities that are to be done. These range from setting process goals, searching for existing process reference content, adjusting, matching, and/or creating new processes, and inciting high performance and good results through the distribution and assignment of process rewards.
- *Detail and granularity:* It is not only possible, but is highly recommended, to create further levels of detail from the perspective of the high-level view of the BPM Life Cycle. Note that there are literally thousands of tasks involved in all of the steps of the high-level BPM Life Cycle, and all the tasks involved need to be described in detail and with an analytical, determined approach.
- *Process innovation:* It is important to note that the BPM Life Cycle any organization creates should always adhere to innovation principles around processes on all levels. Innovation creates value that was previously unavailable, and process innovation is the key to opening up the gates to new - or better yet—the creation of entirely new markets and/or business opportunities. Process innovation should always be an integrated part of the six different business model domains (i.e., value, revenue, cost, service, operating, and performance models).

- *Process transformation:* Transformation principles have been well-known factors around process change since business process reengineering [40] was first introduced in the early 1990s. Going through a cycle of process reengineering allows for detailed and continuous process optimization and improvements while adhering to process goals and requirements. And, just as with process innovation, process transformation should also always be an integrated part of the six different business model domains (i.e., value, revenue, cost, service, operating, and performance models).

End Notes

1. The BPM Life Cycle Model, LEADing Practice Business Process Reference Content [#LEAD-ES20005BP].
2. See note 1 above.
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