

**THE
COMPLETE
PROJECT
MANAGEMENT
OFFICE
HANDBOOK**
THIRD EDITION

GERARD M. HILL



CRC Press
Taylor & Francis Group

AN AUERBACH BOOK

THE
COMPLETE
PROJECT
MANAGEMENT
OFFICE
HANDBOOK

THIRD EDITION

ESI International Project Management Series

Series Editor

J. LeRoy Ward, Executive Vice President

ESI International, Arlington, Virginia

The Complete Project Management Office Handbook, Third Edition

Gerard M. Hill • 978-1-4200-6631-6 • 2013

PgMP® Exam: Practice Test and Study Guide, Fourth Edition

Ginger Levin and J. LeRoy Ward • 978-1-4822-0135-2 • 2013

PgMP® Exam Challenge!

Ginger Levin and J. LeRoy Ward • 978-1-4822-0208-3 • 2013

PMP® Exam: Practice Test and Study Guide, Ninth Edition

Ginger Levin • 978-1-4822-0224-3 • 2013

PMP® Exam Challenge! Sixth Edition

J. LeRoy Ward and Ginger Levin • 978-1-4665-9982-6 • 2013

Determining Project Requirements, Second Edition:

Mastering the BABOK® and the CBAP® Exam

Hans Jonasson • 978-1-4398-9651-8 • 2012

Team Planning for Project Managers and Business Analysts

Gail Levitt • 978-1-4398-5543-0 • 2012

Practical Project Management for Building and Construction

Hans Ottosson • 978-1-4398-9655-6 • 2012

Project Management Concepts, Methods, and Techniques

Claude H. Maley • 978-1-4665-0288-8 • 2012

Program Management Complexity: A Competency Model

Ginger Levin and J. LeRoy Ward

978-1-4398-5111-1 • 2011

Project Management for Healthcare

David Shirley • 978-1-4398-1953-1 • 2011

Managing Web Projects

Edward B. Farkas • 978-1-4398-0495-7 • 2009

Project Management Recipes for Success

Guy L. De Furia • 978-1-4200-7824-4 • 2008

Building a Project Work Breakdown Structure:

Visualizing Objectives, Deliverables, Activities, and Schedules

Dennis P. Miller • 978-1-4200-6969-3 • 2008

A Standard for Enterprise Project Management

Michael S. Zambruski • 978-1-4200-7245-7 • 2008

The Complete Project Management Office Handbook, Second Edition

Gerard M. Hill • 978-1-4200-4680-9 • 2007

THE
COMPLETE
PROJECT
MANAGEMENT
OFFICE
HANDBOOK

THIRD EDITION

GERARD M. HILL



CRC Press

Taylor & Francis Group

Boca Raton London New York

CRC Press is an imprint of the
Taylor & Francis Group, an **informa** business
AN AUERBACH BOOK

CRC Press
Taylor & Francis Group
6000 Broken Sound Parkway NW, Suite 300
Boca Raton, FL 33487-2742

© 2014 by Taylor & Francis Group, LLC
CRC Press is an imprint of Taylor & Francis Group, an Informa business

No claim to original U.S. Government works
Version Date: 20130723

International Standard Book Number-13: 978-1-4665-6633-0 (eBook - PDF)

This book contains information obtained from authentic and highly regarded sources. Reasonable efforts have been made to publish reliable data and information, but the author and publisher cannot assume responsibility for the validity of all materials or the consequences of their use. The authors and publishers have attempted to trace the copyright holders of all material reproduced in this publication and apologize to copyright holders if permission to publish in this form has not been obtained. If any copyright material has not been acknowledged please write and let us know so we may rectify in any future reprint.

Except as permitted under U.S. Copyright Law, no part of this book may be reprinted, reproduced, transmitted, or utilized in any form by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying, microfilming, and recording, or in any information storage or retrieval system, without written permission from the publishers.

For permission to photocopy or use material electronically from this work, please access www.copyright.com (<http://www.copyright.com/>) or contact the Copyright Clearance Center, Inc. (CCC), 222 Rosewood Drive, Danvers, MA 01923, 978-750-8400. CCC is a not-for-profit organization that provides licenses and registration for a variety of users. For organizations that have been granted a photocopy license by the CCC, a separate system of payment has been arranged.

Trademark Notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

Visit the Taylor & Francis Web site at
<http://www.taylorandfrancis.com>

and the CRC Press Web site at
<http://www.crcpress.com>

Contents

Acknowledgmentsxvii
Authorxix
Introduction.....xxi

SECTION I PRACTICE MANAGEMENT

1 Project Management Methodology3
Project Environment Interface Concepts.....5
Business Environment Interface Concepts5
Project Management Methodology Activities across the PMO
Continuum 6
Project Management Methodology Function Model8
 Establish Basis for Project Management Methodology8
 Convene Methodology Development Team.....9
 Prepare Methodology Deployment Strategy10
 Examine Current Practices19
 Develop Methodology Solution22
 Identify Methodology Components.....23
 Design Life Cycle Processes25
 Develop Project Management Practices31
 Introduce Methodology Platform33
 Conduct Methodology Implementation35
 Plan Methodology Implementation35
 Plan Project Transition39
 Conduct Methodology Training and Implementation..... 42
 Manage Methodology Maturity43
 Evaluate Methodology Implementation.....43
 Analyze Methodology Performance..... 44
 Manage Methodology Maintenance45
Postscript for the Smaller PMO 46

Establish Simple, Critical Processes for Project Management	47
Gain Increased Support for Process Expansion	47
Expand and Incorporate Technical and Business Processes.....	48
2 Project Management Tools.....	51
Project Environment Interface Concepts.....	52
Business Environment Interface Concepts	54
Project Management Tools Activities across the PMO Continuum.....	56
Project Management Tools Function Model	58
Select Project Management Tools	58
Identify the Need for Project Management Tools	59
Examine General Types of Project Management Tools.....	60
Assess Specific Project Management Tools.....	62
Acquire Project Management Tools	64
Implement Project Management Tools	65
Plan Tool Implementation	65
Plan Tool Transition.....	66
Conduct Tool User Training	66
Conduct Tool Implementation	67
Evaluate Tool Performance	67
Identify and Resolve Utilization Problems.....	68
Identify and Resolve Functional Problems.....	68
Assess Overall Tool Effectiveness.....	69
Postscript for the Smaller PMO	69
3 Standards and Metrics.....	71
Project Environment Interface Concepts.....	72
Business Environment Interface Concepts	73
Standards and Metrics Activities across the PMO Continuum	74
Standards and Metrics Function Model.....	76
Implement Project Management Standards	76
Examine Standards Sources.....	77
Identify Applicable Standards.....	80
Introduce Preferred Standards	82
Conduct Benchmarking	84
Determine Project Metrics Requirements	86
Identify Process Management and Improvement Metrics	87
Identify Project Performance Metrics	89
Identify Business Management Metrics.....	92
Introduce and Use Project Metrics.....	94
Establish Metrics Measurement Plan.....	94
Compare Metrics Performance	95
Establish Corrective Actions.....	95
Postscript for the Smaller PMO	96

4	Project Knowledge Management.....	99
	Project Environment Interface Concepts.....	100
	Business Environment Interface Concepts	101
	Project Knowledge Management Activities across the PMO Continuum.....	102
	Project Knowledge Management Function Model.....	102
	Establish Knowledge Management Framework	104
	Information Management	105
	Document Management.....	108
	Process Management	110
	Collaboration Management.....	111
	Project Archive and Reference Library Management	114
	Introduce Knowledge Management System.....	117
	Conduct Installation and Establish Connectivity	117
	Perform Function and Feature Customization.....	117
	Introduce Project Knowledge Management Content	120
	Implement Knowledge Management System	121
	Develop PMIS	121
	Develop Executive Dashboard.....	130
	Construct Project Management Library	131
	Implement Online Project Collaboration	132
	Implement Other Knowledge Management Tools.....	134
	Postscript for the Smaller PMO	135

SECTION II INFRASTRUCTURE MANAGEMENT

5	Project Governance	139
	Project Environment Interface Concepts.....	140
	Business Environment Interface Concepts	141
	Project Governance Activities across the PMO Continuum	142
	Project Governance Function Model	144
	Prepare and Maintain PMO Charter	144
	Define Business Purpose.....	146
	Specify Organizational Alignment	148
	Highlight Functional Responsibility.....	148
	Specify PMO Authority.....	149
	Identify PMO Funding	150
	Develop Project Management Policies	150
	Evaluate Policy Needs.....	151
	Demonstrate Senior Management Support.....	151
	Prepare Policy Guidance.....	152
	Develop Project Classification Guidance	154
	Examine Project Classification Purpose.....	154

	Identify Project Classification Criteria	154
	Implement Project Classification Guidance	157
	Establish Project Manager Authority	157
	Establish Executive Control Board	159
	Determine Executive Oversight Requirements	160
	Set Control Board Parameters	161
	Prepare Control Board Operating Procedures	162
	Align Business and Technical Committees	163
	Postscript for the Smaller PMO	164
6	Assessment.....	167
	Project Environment Interface Concepts.....	168
	Business Environment Interface Concepts	168
	Assessment Activities across the PMO Continuum	169
	Assessment Function Model	171
	Conduct Competency Assessments.....	171
	Identify Competency Assessments.....	172
	Perform Competency Assessments.....	173
	Implement Competency Improvement Plans.....	174
	Conduct Capability Assessments	175
	Identify Capability Assessments	175
	Perform Capability Assessments	177
	Implement Capability Improvement Plans.....	179
	Conduct Maturity Assessments	180
	Identify Maturity Assessments.....	181
	Perform Maturity Assessments	182
	Implement Maturity Advancement Plans	184
	Postscript for the Smaller PMO	185
7	Organization and Structure	187
	Project Environment Interface Concepts.....	188
	Business Environment Interface Concepts	188
	Organization and Structure Activities across the PMO Continuum	188
	Organization and Structure Function Model.....	189
	Set Up the PMO Structure.....	191
	Identify Staff Needs for PMO Functions.....	192
	Introduce PMO Staff.....	195
	Analyze and Establish PMO Relationships.....	196
	Establish Project Team Structure.....	198
	Specify Project Team and PMO Relationship.....	198
	Define Standard Project Team Structure	202
	Define Extended Project Team Alignment	205
	Develop Stakeholder Participation	208
	Manage Internal Project Team Stakeholders.....	209

Manage Internal Oversight Stakeholders.....	210
Manage Internal-Support Stakeholders.....	211
Manage Customer Stakeholders	212
Manage Vendor/Contractor Stakeholders	214
Manage Other Project Stakeholders	215
Postscript for the Smaller PMO	216

8 Facilities and Equipment Support.....219

Project Environment Interface Concepts.....	220
Business Environment Interface Concepts	221
Facilities and Equipment Support Activities across the PMO Continuum	221
Facilities and Equipment Support Function Model	223
Establish Project Team Requirements.....	224
Establish Work Space Requirements.....	224
Establish Equipment Requirements	226
Manage Project Facilities	229
Manage Facility Acquisition Options	230
Monitor Facility Utilization.....	232
Monitor Facility Disposition	234
Manage Project Equipment	236
Manage Equipment Acquisition	236
Manage Equipment Assignments	238
Manage Equipment Disposition	240
Postscript for the Smaller PMO	241

SECTION III RESOURCE INTEGRATION

9 Resource Management245

Project Environment Interface Concepts.....	246
Business Environment Interface Concepts	246
Resource Management Activities across the PMO Continuum.....	247
Resource Management Function Model	249
Acquire Project Resources.....	249
Identify Resource Providers	251
Establish Resource Requirements	253
Fulfill Resource Requests.....	254
Assign Project Resources.....	255
Prepare Resource Assignment Notifications.....	255
Obtain Individual Resource Commitments.....	256
Introduce Resources to the Project Team.....	256
Deploy Project Resources.....	256
Perform Deployment Administration	257
Identify and Arrange Relevant Training	259
Monitor Travel Arrangements	260

Manage Resource Performance.....	260
Develop Performance Management Guidance.....	261
Conduct Project Resource Performance Reviews.....	262
Monitor Project Resource Performance	263
Close Project Resource Assignments.....	264
Coordinate Resource Extensions	265
Facilitate Resource Transfers and Reassignments.....	265
Manage Resource Terminations	265
Postscript for the Smaller PMO	266
10 Training and Education	267
Project Environment Interface Concepts.....	268
Business Environment Interface Concepts	268
Training and Education Activities across the PMO Continuum	269
Training and Education Function Model	271
Establish Training Program	271
Assess Training Needs	272
Determine Training Requirements.....	273
Identify Training Resources	275
Prepare Training Plan.....	277
Select and Develop Training Courses	279
Manage Training Program	280
Establish Training Registration Capability.....	281
Publicize and Promote Training Program.....	282
Conduct Project Management Training	283
Evaluate Training Program.....	284
Evaluate Training Plan Implementation	285
Evaluate Training Resources.....	285
Update Training Program	286
Postscript for the Smaller PMO	287
11 Career Development.....	289
Project Environment Interface Concepts.....	290
Business Environment Interface Concepts	291
Career Development Activities across the PMO Continuum	291
Career Development Function Model.....	293
Develop Project Management Career Path	294
Establish Project Management as a Professional Discipline.....	294
Develop Basis for Executive Support	295
Define Career Advancement Model.....	298
Construct Position Descriptions and Qualifications	304
Integrate New Career Path into the Organization	306
Support Project Management Career Planning.....	307

Provide General Career Guidance	308
Promote Business Skill Development.....	309
Implement Career Planning Support	310
Establish Professional Certification.....	311
Develop Project Management Certification Program	311
Facilitate Technical and Professional Certification	314
Postscript for the Smaller PMO	314

12 Team Development..... 317

Project Environment Interface Concepts.....	318
Business Environment Interface Concepts	318
Team Development Activities across the PMO Continuum.....	319
Team Development Function Model	321
Facilitate Cohesive Team Formation.....	321
Examine Project Team Composition	321
Develop Project Team Orientation Program.....	324
Integrate Vendors and Contractors	325
Facilitate Virtual Team Management	327
Establish Virtual Team Alignment	327
Facilitate Virtual Team Interactions	329
Introduce Virtual Team Technology.....	332
Enable Project Team Development	333
Promote Team Skill Learning.....	333
Develop Project Manager Tools and Techniques	334
Facilitate Leadership Development	335
Monitor Project Team Performance.....	337
Assess Team Dynamics.....	337
Examine Team Effectiveness.....	338
Conduct Team Improvement Activities	339
Postscript for the Smaller PMO	341

SECTION IV TECHNICAL SUPPORT

13 Mentoring..... 345

Project Environment Interface Concepts.....	346
Business Environment Interface Concepts	348
Mentoring Activities across the PMO Continuum.....	348
Mentoring Function Model	350
Establish Project Management Mentoring Program	350
Develop the Mentoring Approach	352
Identify Mentor–Protégé Roles and Responsibilities.....	357
Determine Mentor Sourcing Process	362
Engage Project Management Mentors	366

	Identify Mentor Candidates	366
	Conduct Mentor Candidate Qualification.....	367
	Prepare Project Management Mentors.....	368
	Conduct Project Management Mentoring	369
	Identify Engagement	370
	Assign Mentor(s).....	370
	Prepare for Mentoring Engagement.....	371
	Perform Mentoring Engagement Activities.....	372
	Close Out Mentor–Protégé Relationship	372
	Evaluate Mentoring Program.....	373
	Evaluate Mentor Performance.....	373
	Monitor Mentoring Program Results.....	374
	Postscript for the Smaller PMO	374
14	Project Planning.....	377
	Project Environment Interface Concepts.....	378
	Business Environment Interface Concepts	379
	Project Planning Activities across the PMO Continuum	379
	Project Planning Function Model.....	381
	Establish Project Planning Capability.....	382
	Define Project Plan Components.....	382
	Implement Project Planning Processes and Tools	384
	Establish Planning Facilitation and Support Capability	389
	Facilitate Project Planning Workshop.....	393
	Manage Planning Workshop Arrangements	393
	Facilitate Project Work Plan Development	396
	Perform Follow-Up Planning Support	398
	Administer Project Planning.....	400
	Specify Primary Project Management Plans	400
	Recommend Essential Project Support Plans.....	413
	Prepare Project Plan Content Guidance	416
	Evaluate Project Planning.....	417
	Postscript for the Smaller PMO	421
15	Project Auditing	423
	Project Environment Interface Concepts.....	424
	Business Environment Interface Concepts	425
	Project Auditing Activities across the PMO Continuum.....	425
	Project Auditing Function Model	427
	Set Up Project Auditing Capability	428
	Determine Project Auditing Needs.....	428
	Identify Project Auditing Resources	438
	Establish Project Audit Performance Points.....	441
	Conduct Project Auditing.....	442

Prepare for Project Audits and Reviews	443
Conduct Project Audit.....	445
Prepare Project Audit Report.....	446
Manage Project Auditing Results.....	447
Review Project Audit Results.....	447
Analyze Aggregate Program Results	449
Monitor Project Audit Follow-Up Actions.....	450
Postscript for the Smaller PMO	450
16 Project Recovery.....	453
Project Environment Interface Concepts.....	454
Business Environment Interface Concepts	454
Project Recovery Activities across the PMO Continuum	455
Project Recovery Function Model.....	457
Develop Recovery Assessment Process	458
Identify Recovery Indicators.....	458
Assess Project and Identify Problem Areas.....	460
Prepare Project Recovery Decision Package.....	466
Coordinate Project Recovery Decision	467
Plan and Conduct Project Recovery.....	468
Establish Project Recovery Team.....	468
Develop Project Recovery Plan	473
Stabilize Project Using Recovery Solution	475
Conclude Project Recovery.....	478
Capture Recovery Lessons Learned	480
Examine Project Management Indicators	480
Examine Project Selection Criteria	480
Examine Project Recovery Process.....	481
Update Routine and Project Recovery Remedies	482
Postscript for the Smaller PMO	482
 SECTION V BUSINESS ALIGNMENT	
17 Project Portfolio Management	487
Project Environment Interface Concepts.....	488
Business Environment Interface Concepts	488
Portfolio Management Activities across the PMO Continuum	489
Project Portfolio Management Function Model.....	491
Set Up Project Portfolio Management	491
Validate Business Strategy and Interests	491
Identify Project Selection Criteria.....	494
Determine Project Selection Mechanism.....	498
Identify Project Portfolio Management Roles.....	505
Establish a Supportive Project Environment.....	509

Perform Project Selection.....	511
Conduct Project Screening	512
Develop Project Business Plan	514
Develop Project Resource Allocation Plan.....	520
Conduct Project Selection	523
Integrate Projects in the Portfolio	524
Validate Project Selection	525
Determine Project Priority.....	525
Approve Initial Project Funding	526
Conduct Project and Portfolio Reviews	527
Compile Project Performance Information	527
Conduct Project Gateway Reviews	528
Conduct Portfolio Reviews.....	532
Manage Portfolio Attrition	534
Perform Project Closeout.....	535
Assess Strategic Advantage.....	536
Assess Customer Satisfaction	537
Postscript for the Smaller PMO	537
18 Customer Relationship Management	539
Project Environment Interface Concepts.....	540
Business Environment Interface Concepts	541
Customer Relationship Management Activities across the PMO	
Continuum	541
Customer Relationship Management Function Model	543
Manage Customer Relationships	544
Manage Customer Project Opportunity Information	544
Manage Customer Business Information	545
Manage Customer Project Participation	547
Manage Customer Contracts.....	548
Produce and Manage Customer Proposals.....	549
Establish Customer Contracts	554
Conduct Customer Contract Administration	555
Manage Customer Satisfaction	561
Measure Customer Satisfaction	562
Conduct Customer Relationship Programs.....	564
Implement Customer-Centric Improvements	565
Postscript for the Smaller PMO	567
19 Vendor/Contractor Relationship Management	569
Project Environment Interface Concepts.....	570
Business Environment Interface Concepts	570
Vendor/Contractor Relationships Activities across the PMO Continuum...	571

Vendor/Contractor Relationships Function Model	571
Manage Vendor/Contractor Relationships	573
Identify Vendor and Contractor Needs.....	573
Manage Vendor and Contractor Information	575
Prescribe Vendor and Contractor Participation.....	577
Manage Vendor/Contractor Acquisition	579
Identify and Qualify Vendors and Contractors.....	579
Solicit Vendor and Contractor Proposals	581
Prepare Vendor and Contractor Contracts.....	584
Manage Vendor/Contractor Performance	585
Administer Vendor and Contractor Contracts.....	585
Monitor Vendor and Contractor Performance.....	590
Postscript for the Smaller PMO	592
20 Business Performance Management.....	595
Project Environment Interface Concepts.....	596
Business Environment Interface Concepts	596
Business Performance Management Activities across the PMO	
Continuum	597
Business Performance Management Function Model	599
Develop Integrated Business Solutions.....	600
Demonstrate Project Management Business Value	600
Generate Executive Value Awareness	606
Align Business and Project Management Performance	609
Manage Business Collaboration.....	611
Conduct Operational Business Collaboration.....	611
Conduct Tactical Business Collaboration	613
Conduct Strategic Business Collaboration	614
Manage PMO Business Fulfillment	615
Manage PMO Business Function Evolution	615
Develop PMO and Enterprise Business Alignment.....	620
Postscript for the Smaller PMO	623
Appendix A.....	625
Appendix B.....	657

Acknowledgments

Since the previous edition of this handbook was issued, I've had the opportunity to engage a few more clients and business program participants to discuss and apply prominent project management office (PMO) concepts that are considered within this publication. I was pleased to find that guidance from this PMO handbook enabled many managers across diverse industries to develop a common frame of reference in their efforts to examine and implement solutions that produced PMO capability and business results within their organizations.

In that time, as an invited speaker and consultant, I also traveled to present these PMO handbook concepts at client and public forums in Milan, Rio de Janeiro, Athens, Warsaw, and Sao Paulo, as well as a few venues in the United States. While I was sometimes a stranger in foreign lands, I was readily welcomed by groups and individuals who knew of me through their personal use of the PMO and methodology books I have published. My interactions with old and new acquaintances alike prompted hearty and valuable discussions that have distinctly influenced the content of this third edition. I am grateful for all of the feedback, concept discussions, innovative suggestions, and practical insight that were shared with me by participants in client engagements and at programs that I attended. I continue to learn a great deal about my professional interests from the experiences of other professionals.

The publisher's request to prepare this third edition was also very gratifying; it meant that my work has been well received by professionals in project management as well as an array of business managers in a variety of industries. Therefore, I would again like to extend my sincere appreciation to all readers, as well as to all those who have reviewed and promoted or endorsed this publication.

The initial publication of *The Complete Project Management Office Handbook* was created during my tenure with ESI International, when I served as vice president of technical services. I continue to recall that period of my career with genuine appreciation for my affiliation with ESI, especially for the encouragement and support provided by my colleagues on the executive management team that enabled my original work to be published.

I am still pursuing professional project management and business interests through my work as an independent consultant. I started my consulting practice several years ago as Hill Consulting Group, and that has transitioned to become Hill Methods, LLC. However, I continue to refine the products and services of my earlier work for practical use today. In particular, since the last edition of this PMO handbook, I have authored an accompanying publication, *The Complete Project Management Methodology and Toolkit* (CRC Press, 2010). This publication provides general cross-industry methodology guidance for effective project management, and it includes a comprehensive tool kit of 96 tools on diskette.

Finally, and once again, this third edition was made possible by the love, encouragement, and support of my wife, Rita, who continues to shine a persistent light on the paths I take to pursue my life's work and my professional interests.

Gerard M. Hill
ghill@HillMethods.com

Author

Gerard Hill is the Principal of Hill Methods, LLC, and has more than 25 years experience in project management practice design and implementation, information systems integration, and business process engineering. His specialty is enabling businesses to gain and sustain a competitive edge through development and implementation of *total-practice* project management solutions. He has conceived and constructed processes and practices that have enabled Fortune 100 and other client organizations to realize maximum benefit from their investment in project management.

Prior to introducing Hill Methods (formerly Hill Consulting Group), Mr. Hill was with ESI International, where he served as Vice President of Technical Services. His work included responsibility for international consulting programs, technical product design and development, and knowledge management. He also served as an instructor and frequent public forums speaker during his tenure with ESI.

Mr. Hill, as an internationally recognized thought leader, has led or contributed to the design and development of project management methodologies currently deployed by organizations around the world. He is the architect of capability and maturity assessments for business and project management. He also has particular expertise in designing and developing practical Project Management Office (PMO) solutions.

His recent work includes development of the new matrix-based ProjectPRISM *Project Management Methodology*, and this has been introduced in his new project management methodology publication. He has refined an approach to “PMO design and implementation” in a workshop based on the content of his PMO handbook publication. In recent years, Mr. Hill has chaired two annual and national-scope Project Portfolio Management conferences in the United States. In 2008 he was an invited keynote speaker and presenter at two professional conferences in Milan, Italy; in 2009 he was a keynote speaker and presenter at the National PMI Project Management Meeting in Rio de Janeiro, Brazil, and at the Greece PMI Chapter Congress in Athens, Greece; and in 2010 he was an invited guest speaker at the PMI Poland Congress in Warsaw, Poland. He has also written articles published in professional journals around the world, and he has presented in webinars and at technical conferences and forums.

Mr. Hill's broad competencies are based on an extensive educational background that includes a bachelor's degree in Applied Mathematics (North Carolina State University), a master's degree in Human Resource Management/Organization Development (Pepperdine University), and completion of the Advanced Management Program for Executives (Duke University, Fuqua School of Business).

Mr. Hill also holds a Master's Certificate in Project Management from The George Washington University, and he is certified as a Project Management Professional (PMP) by the Project Management Institute.

Mr. Hill is the author of two books: *The Complete Project Management Office Handbook, 2nd Edition* (Auerbach Publications, 2007), and *The Complete Project Management Methodology and Toolkit* (CRC Press, 2010), which includes 96 tools on CD.

Introduction

Concept Overview

During the past few decades, modern project management precepts have emerged to instill a vitalized, professional approach to project management across countless industries. Individual capabilities in project management have been strengthened and enlarged through a combination of developments in project management processes and practices, implementation of training programs, and introduction of automated tools that use advanced design concepts and technology. As a result, today's project managers who practice these principles find themselves in the dual roles of a technical expert in a particular specialty or discipline as well as the business leader for the project.

The Complete Project Management Office Handbook extends these modern project management concepts and considerations into the scope of project management oversight, control, and support. It recognizes the need for an organizational entity—the project management office (PMO)—to perform in a capacity that achieves one or more of these three operational objectives. It positions the PMO as a business integrator—whether in a role that is limited to managing multiple projects as a program or expanded to serve as a business unit representing the organization's project management environment—to encompass all the people (project stakeholders), processes (methodologies and practices), and tools (automated systems and work aids) that manage or influence project performance. In either case, the PMO helps both the project manager and the relevant organization to understand and apply professional practices of project management and to adapt and integrate business interests into the project management environment with which it is associated.

The relevant organization is the business unit or department that is influenced by PMO functions and that receives direct business benefits from PMO operations. As such, it is both the primary “customer” and the governing body of the PMO. In contrast, the sponsoring organization is that business unit or department that designs and implements the PMO capability, provides PMO resources, and holds

responsibility for PMO functional and operational capability. That is to say, the sponsoring organization may be a business component of the relevant organization. Ideally, these two organizations are the same entity; this is normally the case when the PMO is first established. However, it is not uncommon for a sponsoring organization to establish a PMO for its own purpose and then see it emerge over time to serve the broader interests of a larger relevant organization or even the full business enterprise. Hence, the alignment of the PMO within the relevant organization structure can be an indicator of its authority and responsibility, it and presents a major point of deliberation for PMO designers. Nevertheless, the depth and extent of PMO functional responsibility will usually guide its placement within a relevant organization, which can be adjusted as organizational needs warrant.

The Complete Project Management Office Handbook focuses on what can be done to establish the depth and extent of PMO functional responsibility that the relevant organization requires. This is presented through two primary perspectives. First, *The Complete Project Management Office Handbook* considers five stages of PMO capability along a competency continuum. These represent progressive stages of PMO development and capability categorized specifically as a frame of reference. Each PMO stage suggests a particular level of functional capability that the PMO will have achieved if functions are fully implemented. The five PMO stages are also indicative of organizational maturity in project management, with the PMO's role and responsibilities advancing from project management oversight and control at the lower end of the competency continuum to strategic business alignment at the higher competency stages.

The second focus of *The Complete Project Management Office Handbook* is in the presentation of 20 function models that can be used to guide deliberation and development of PMO operational capability. These models suggest what capability can be realized through comprehensive implementation of each PMO function. Note that the actual implementation of PMO functions in an organization will undoubtedly be refashioned as adaptations of the function models presented in this handbook, depending on the appropriate use and fit within the relevant organization.

The following sections describe the PMO competency continuum, the PMO functions, and the underlying concepts regarding the context and considerations for PMO implementation.

The PMO Competency Continuum

The PMO competency continuum provides a vehicle that defines a series of progressive PMO stages of development that can be examined for application in an organization. The naming convention is relatively simple and somewhat consistent with PMO implementation efforts across most industries. However, these names provide only a frame of reference; other names can be applied as appropriate to the nature of PMO responsibilities and the business environment in which it operates.

Five general stages of PMO competency are prescribed for consideration. Figure 0.1 presents an overview of the PMO competency continuum and a description of each of its stages. These five PMO stages represent a progressive competency and advancement of functionality that can be attained to meet the needs of the project management environment and the associated business objectives of the relevant organization. It is presumed that a higher-stage PMO has already achieved the competencies prescribed for any lower-stage PMOs. Thus, if an organization wants to establish a stage 3 standard PMO, it will also have to ensure that it has first realized the competencies prescribed for stage 1 and stage 2 PMOs. It is also possible that a PMO at any stage can pursue activities at any level to address the needs within the relevant organization, which is far more important than stepping through levels of competency in sequence. Moreover, it is critical to discern the approximate level of PMO competency that the relevant organization needs. Not every organization needs to have a PMO at stage 5. In fact, for most organizations, the stage 3 standard PMO is probably more than adequate.

The following subsections provide a descriptive overview of each stage in the PMO competency continuum.

Stage 1: The Project Office

The stage 1 PMO is the fundamental unit of project oversight in the project management environment. The project office is created as a domain of the project manager,

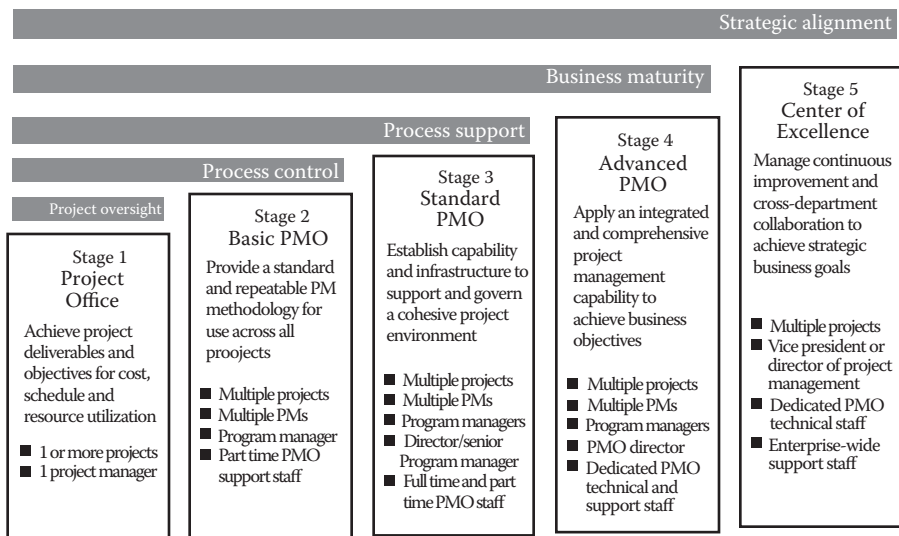


Figure 0.1 Overview of PMO capabilities across the PMO competency continuum.

who is responsible for the successful performance of one or more projects. It provides the capability to ensure professionalism and excellence in applying widely accepted principles and preferred project management practices to each project effort.

However, more than one project office may exist within an organization. When this occurs, an obvious challenge lies in ensuring that each project office pursues a common approach to project management. Ideally, senior members of the project management staff will collaborate in their design and implementation of project office capability. Alternatively, a single, higher-level PMO can be established to guide and support project office activities.

The inclusion of the project office in the PMO competency continuum is arguably an uncertain fit. By definition, it does not influence actions and activities of more than one project manager; it has no program-level authority or direct strategic business relevance; and it does not fulfill the traditional role of a PMO. However, the project office implements and monitors the “rules of project performance” at the project team level, and that oversight in itself is a responsibility of PMOs at all levels. Thus, the placement of the project office at the beginning of the PMO competency continuum ensures that effective project management oversight at the project level is considered and implemented in the context of PMO responsibility.

The project office performs a variety of essential project management activities, including the following:

- Applying principles and practices of modern project management, through the skill and knowledge of the project manager, to ensure that successful project performance is achieved. The project office concentrates on producing deliverables associated with project objectives, and it manages the vital signs of each project effort—cost, schedule, and resource utilization. Managing these details invariably enhances examination of project performance and facilitates the application of corrective actions to any problems that are identified.
- Serving as the direct interface to project team performance management. Because most project teams likely have a technical performance focus, the project office will introduce and facilitate using the elements of project management. Accordingly, the project office provides for differentiation between the technical methods, which are prescribed to create an excellent technical product, and the use of project management methods, which are prescribed to ensure project and business success.
- Applying organizational guidance in the form of policies, standards, executive decisions, and so forth to each project effort. The project office also acts as the frontline point of supervision for implementing and integrating business processes in the project management environment.
- Serving as the first level of project oversight and, sometimes, the highest level of technical oversight. Whereas higher-stage PMOs may mandate and introduce technical methods and procedures, it is the project office that

implements them in the project management environment. Indeed, at this level, there is probably less emphasis on business issues, unless the project manager has the double duty of serving also as a program manager.

The project office's role is that of implementer, applying most PMO functions. It carries the policies, practices, and guidance prescribed by higher authority—possibly higher-stage PMOs above it—into the project management environment for project team implementation. Yet the project office does not have to achieve advanced levels of functionality beyond the one or several projects it supports. Rather, a project office can exist formally in name or informally by virtue of its responsibility for project and project team performance. The formal project office can examine its roles in each of the PMO function models as a means to create a complete and comprehensive project oversight capability.

Stage 2: The Basic PMO

Stage 2, or basic PMO, is the first PMO level that deals with multiple project oversight and control. It furnishes the capability to provide aggregate oversight and control of multiple projects relative to the performance of multiple project managers.

In some industries, this stage is traditionally known as the “program office” and represents the domain of the program manager. It is possible that there could be more than one basic PMO in the relevant organization—one for each program manager. However, it is not practical for every program manager to independently build the comprehensive capability that is prescribed here. Therefore, in the context of *The Complete Project Management Office Handbook*, the basic PMO is presumed to be the highest centralized entity of project management that pursues its mission under the leadership and guidance of one designated program manager.

The basic PMO will likely have minimal staff, in some cases just one individual assigned to build the PMO's capability. Presumably, this person will be assigned full time to the PMO effort and have access to at least a few additional part-time support resources. This staffing arrangement is essential to accomplish the prescribed functionality of the basic PMO. An initiative that is fully supported financially and appropriately resourced should be able to achieve basic PMO capability and prescribed functionality within 1 year or less. This time, however, may vary based on the business commitment and culture of the relevant organization.

With an emphasis on establishing control in the project management environment, the basic PMO performs a variety of centralized project management activities, including the following:

- Having primary responsibility for establishing a standard approach to how project management is conducted in the relevant organization. This includes the introduction of common tools, repeatable processes, and preferred practices, ideally represented by implementation of a comprehensive project management methodology.
- Providing the means to compile aggregate results and analyses of project status and project progress as a basis for identifying and responding to project variations, evaluating project and project manager performance, and ensuring the achievement of project objectives.
- Introducing project management as a professional discipline in the relevant organization through its prescription of applicable standards, designation of qualified project managers, training and empowerment of project teams, and specification of roles and responsibilities of stakeholders in the project management environment.

The basic PMO has responsibility for implementing capability across all PMO functions. Nevertheless, most of that capability is fundamental and emphasizes establishing the foundation of a viable project management environment. As a result, the new stage 2 PMO will likely be treading new ground within the relevant organization; functional capability advancements may initially be slow as business units become accustomed to the PMO's presence, accept transition of certain responsibilities to the PMO, and evolve with greater reliance on PMO management capability to achieve business interests associated with project oversight and control. Conversely, the new basic PMO must demonstrate its full alignment within the relevant organization and its professionalism in the practice of project management. This often requires the PMO to be proactive in planning its functionality and prepared to defend its business position.

Stage 3: The Standard PMO

The stage 3 PMO is central to the PMO competency continuum, representing the essence of a complete and comprehensive PMO capability. While it continues to address project management oversight and control, the stage 3 PMO introduces a new focus on support that optimizes individual and project performance in the project management environment. Its purview ranges from managing multiple projects and multiple project managers and may even include overseeing or otherwise aligning with one or more program managers.

The standard PMO can evolve from earlier efforts to construct a basic PMO. It can also be designed and implemented as the initial “from-scratch” effort to introduce centralized oversight, control, and support in the project management environment. If a new PMO at the standard PMO level is to be pursued, the designers and developers must ensure that functionality prescribed for the basic PMO is incorporated into their PMO design and implementation plans.

Stage 3 PMO functionality is the solution for organizations seeking to implement project management as a core business competency or otherwise looking to improve project management capability or increase project management maturity. The new stage 3 PMO necessitates minimal staffing of a full-time PMO manager or director and at least two additional full-time and part-time staff members qualified to perform and facilitate PMO functionality design and implementation. Furthermore, the extent of standard PMO functionality may warrant some part-time, possibly extended involvement from other participants in the project environment, as well as potential participation of business units in the relevant organization. As functionality is established, it is likely that a few more full-time staff members will be needed to fulfill professional specialty positions. As this PMO grows, additional full- and part-time administrative support personnel also will be required. The assignment of these resources, along with distinct executive business commitment to the effort, should enable complete stage 3 PMO functionality to be achieved within a 2- to 3-year time frame. Of course, timely deliberation and planning of operational needs and priorities, along with assignment of adequate initial resources, will enable significant PMO functionality to be implemented within a matter of months. Initial standard PMO operating capability normally can be realized within the first year of the implementation initiative.

The standard PMO performs complete centralized project management oversight and control activities, with an added emphasis on introducing process and practice support in the project management environment. These activities include the following:

- Serving as the centerpiece of project management support in the relevant organization—a project management resource for business units, a professional practice facilitator for project managers and project team members, and a coordinator and collaborator for project stakeholders (e.g., resource managers, customers, vendors, and management) activity and involvement.
- Functioning as the interface between the business environment and the project management environment. The standard PMO translates, as appropriate, policy and executive guidance for project performance and implements actions and activities associated with strategic business interests and objectives in the project management environment.
- Acting as the facilitator of project management environment process and practice design and as a catalyst for project management excellence. This extends from attending to project management methodology development and practices used to assure project success to introducing project reporting tools and collaboration practices, to providing executive support processes regarding matters of project governance, project portfolio management, and business performance.
- Serving as the representative of the project management environment to the senior executive of the relevant organization and participating in or possibly convening and leading associated control boards comprising executives and senior managers. As such, the standard PMO can be the relevant

organization's project management representative to business and industry affiliates, partners, and professional institutions.

- Operating as the recognized organizational entity that directly or indirectly influences resource participation on projects, to include addressing such matters as project resource acquisition, qualification, training, assignment, and evaluation.

The standard PMO has responsibility for implementing a complete capability across all designated PMO functions. It should examine the needs of the project management environment in each of the 20 prescribed PMO function models presented in this handbook. It will therefore be challenged to adapt each function model for optimized operational fit and maximized business benefit within the relevant organization. It should be reiterated that not every PMO needs to develop full or any capability in all 20 function areas. However, the PMO established at the standard level should at least consider every option for functionality.

Stage 4: The Advanced PMO

The stage 4 PMO normally evolves from an existing, complete PMO capability and therefore is the “big brother” of the standard PMO. Its focus is on integrating business interests and objectives into the project management environment. This implies introducing common practices to be applied to both project management processes and business processes. To use a term familiar to many professional project managers, the advanced PMO helps create a “projectized” business environment.

Thus, by definition, the advanced PMO cannot be new. Rather, standard PMO functionality must be fully established before an advanced PMO capability can be implemented. Of course, this should not limit PMO designers and developers from incorporating advanced PMO considerations in their PMO implementation plans. Establishing the functionality and capability of the advanced PMO can be the next phase in plans for PMO fulfillment within the relevant organization. It is anticipated that this stage in the PMO competency continuum can be achieved within 1 to 2 years following establishment of the standard PMO capability.

The stage 4 PMO normally has increased staffing and greater potential for direct alignment of resources. In particular, the PMO staff is enhanced to include the professional and administrative resources needed to develop, implement, and manage expanded processes, programs, and functionality. The PMO director will have expanded authority to address business interests in the project management environment. Assigned PMO resources may be aligned with a few key functional activities within the PMO that provide the means to integrate business and project management practices.

The advanced PMO performs comprehensive, centralized project management oversight, control, and support activities, together with expanded functionality that represents a mature and business-oriented project management organization. These activities include the following:

- Appearing more and more like a separate business unit. If a distinct PMO budget has not already been established at an earlier PMO stage, the advanced PMO normally prepares and manages its own budget as a means of pursuing development and implementation of advanced project management practices and business integration activities.
- Collaborating with business units within the relevant organization and participating in the development or adaptation of processes and practices that are common to both the business environment and the project management environment.
- Providing distinct expertise in state-of-the-art project management processes and practices. Senior staff members are assigned full time and represent highly skilled and knowledgeable professionals who apply business acumen and advanced business and project management concepts to solutions implemented in the project management environment. These individuals help implement such functionality as mentoring services, project audits, and project recovery services. They monitor and manage project results in terms of business performance. The advanced PMO staff also can include business analysts and specialists from diverse professional disciplines, such as legal, contract and procurement management, customer service, and so forth, as needed full time or part time to achieve PMO functionality.

The advanced PMO will revisit the 20 PMO functions to introduce expanded capacity and programs to manage activities in the project management environment. Because it has a focus on integrating business interests, the advanced PMO also ensures that PMO functions are also integrated for efficient and effective business support.

Stage 5: The Center of Excellence

The center of excellence is usually designated as a separate and distinct business unit within the relevant organization, and it may even have responsibility for enterprise-wide project management operations. Although lower-stage PMOs may be assigned similar responsibilities, it is most distinct at this highest PMO level. Even so, lower-stage PMOs may have a business alignment or reporting affiliation with the center of excellence. Notwithstanding, the PMO functionality prescribed for the center of excellence has a focus on strategic business interests across the relevant organization or enterprise.

Normally, there is an executive in charge of the center of excellence, and that individual should either report to or have direct access to the chief executive officer or any other top executive in the relevant organization. To that end, the center of excellence can be established within the time frame it takes an organization to establish a new business unit, which generally takes from 1 to 2 years to create a viable presence.

Although it appears at the top of the PMO competency continuum, the center of excellence is a unique project management entity. The center of excellence does not necessarily perform all of the prescribed lower-level PMO functionality, but it could. There are two perspectives on how a center of excellence can be established. First, it could be created as a result of the growth and expansion of a lower-stage PMO, which would normally be the case in a small- to medium-sized organization. Conversely, it could be established independent of any existing PMOs, with the objective of providing strategic business guidance and direction to those subordinate PMOs. This would likely be the case in a large, global organization where the center of excellence provides some aspect of oversight, control, and support to PMOs serving regional business interests.

Consequently, the center of excellence assumes a strategic alignment role in the relevant organization and guides the project management environment in its continuous-improvement efforts. These activities include the following:

- Providing direction and influence for enterprise project management operations. It also may oversee subordinate PMO functionality where the relevant organization has constructed other PMO operations relative to its international, national, or other expanded geographical business focus.
- Building both project management environment and project stakeholder awareness, representing project management and business interests across business units, and managing customer relationships, as well as vendor and partner relationships.
- Sponsoring and conducting studies and evaluations of project management functionality and business effectiveness, with particular focus on its own operations or those of affiliated PMOs.
- Representing the business interests of the relevant organization in the project management environment, and vice versa.

The center of excellence should review the 20 PMO functions for strategic business implications, together with how they can be adapted, adjusted, or redesigned for optimized use, including application by other subordinate PMOs within the relevant organization.

The PMO Functions

The Complete Project Management Office Handbook presents 20 function models for practical application of oversight, control, and support solutions in the project management environment. These functions have a combined influence on the business environment and on the project management environment in the relevant organization. In addition, there are interrelationships among most of the PMO functions: Some functional processes or procedures overlap; some cross-function references will be apparent as each function is examined.

The 20 PMO functions are grouped within the following five function categories.

- *Practice management*: Provides a common approach and frame of reference for conducting project management activities within an organization. This PMO function area establishes project management processes and practices; introduces associated project management tools; specifies project performance standards and metrics; and creates a collaborative project management environment that guides project information management and includes access to project archives and a reference library. It concentrates on developing an effective organizational project management capability at the project level.
- *Infrastructure management*: Facilitates establishing a professional project management environment. This PMO function area examines the current state of project management; collaborates plans for the future state; and introduces the policies and oversight mechanisms needed to achieve organizational competency, capability, and maturity goals. It helps to define the project structure and stakeholder involvement necessary to support successful project performance, and it provides for administration of facilities and equipment needed to accomplish project objectives.
- *Resource integration*: Manages the competency, availability, and performance of project resources. This PMO function area enables the PMO to collaborate with resource managers to acquire, assign, and manage project managers and project team members; allows the PMO to administer training in the project management environment; and enables the PMO to shape the career progression of the project manager and support aspects of project team development.
- *Technical support*: Provides project management advice, counsel, and support to project managers and project teams. This PMO function area leverages the skill, knowledge, and experience of available project management experts to provide mentoring in the project management environment; provides a range of project planning, facilitation, and support activities; plans and conducts routine and special project audits and project management reviews; and provides appropriate project recovery support, as needed.
- *Business alignment*: Introduces the organization's business perspective into the project management environment. This PMO function area oversees project portfolio management; facilitates executive involvement in project management to include overseeing project management contributions to business performance; and manages customer and vendor/contractor relationships, facilitating their roles as project stakeholders.

These PMO function areas are, in turn, further divided into 20 specific PMO functions prescribed for comprehensive and complete coverage of PMO responsibilities in the relevant organization. Each of the 20 chapters of *The Complete Project Management Office Handbook* presents a comprehensive description of one of these PMO functions. Table 0.1 provides a snapshot of the diverse activities of each function.

Table 0.1 Overview of PMO Functions

<i>Practice Management</i>	<i>Infrastructure Management</i>	<i>Resource Integration</i>	<i>Technical Support</i>	<i>Business Alignment</i>
<p>Project management methodology</p> <ul style="list-style-type: none"> • Establish basis for project management • Develop methodology solution • Conduct methodology implementation • Manage methodology maturity 	<p>Project governance</p> <ul style="list-style-type: none"> • Prepare and maintain PMO charter • Develop project management policies • Develop project classification guidance • Establish project manager authority • Establish executive control board • Align business and technical committees 	<p>Resource management</p> <ul style="list-style-type: none"> • Acquire project resources • Assign project resources • Deploy project resources • Manage resource performance • Close project resource assignments 	<p>Mentoring</p> <ul style="list-style-type: none"> • Establish project management mentoring program • Engage project management mentors • Conduct project management mentoring • Evaluate mentoring program 	<p>Project portfolio management</p> <ul style="list-style-type: none"> • Set up project portfolio management • Perform project selection • Integrate projects in the portfolio • Conduct project and portfolio reviews • Manage portfolio attrition
<p>Project tools</p> <ul style="list-style-type: none"> • Select project management tools • Implement project management tools • Evaluate tool performance 	<p>Assessment</p> <ul style="list-style-type: none"> • Conduct competency assessments • Conduct capability assessments • Conduct maturity assessments 	<p>Training and education</p> <ul style="list-style-type: none"> • Establish training program • Manage training program • Evaluate training program 	<p>Project planning</p> <ul style="list-style-type: none"> • Establish project planning capability • Facilitate project planning workshop • Administer project planning 	<p>Customer relationship management</p> <ul style="list-style-type: none"> • Manage customer relationships • Manage customer contracts • Manage customer satisfaction

<p>Standards and metrics</p> <ul style="list-style-type: none"> • Implement project management standards • Determine project metrics requirements • Introduce and use project metrics 	<p>Organization and structure</p> <ul style="list-style-type: none"> • Set up the PMO structure • Establish project structure • Develop stakeholder participation 	<p>Career development</p> <ul style="list-style-type: none"> • Develop project management career path • Support project management career planning • Establish professional certification 	<p>Project auditing</p> <ul style="list-style-type: none"> • Set up project auditing capability • Conduct project audits • Manage project auditing results 	<p>Vendor/contractor relationship management</p> <ul style="list-style-type: none"> • Manage vendor/contractor relationships • Manage vendor/contractor acquisition • Manage vendor/contractor performance
<p>Project knowledge management</p> <ul style="list-style-type: none"> • Establish knowledge management framework • Introduce knowledge management system • Implement knowledge management system 	<p>Facilities and equipment support</p> <ul style="list-style-type: none"> • Establish project team requirements • Manage project facilities • Manage project equipment 	<p>Team development</p> <ul style="list-style-type: none"> • Facilitate cohesive team formation • Facilitate virtual team management • Enable project team development • Monitor project team performance 	<p>Project recovery</p> <ul style="list-style-type: none"> • Develop recovery assessment process • Plan and conduct project recovery • Capture recovery lessons learned 	<p>Business performance management</p> <ul style="list-style-type: none"> • Develop integrated business solutions • Manage business collaboration • Manage PMO business fulfillment

Concepts and Content Overview

The prescribed PMO functions and associated activities are presented for due examination and consideration by individuals and organizations looking to establish a PMO capability that will enhance project performance, increase project management capability and maturity, and integrate business interests and objectives. The prescribed functions provide insight and guidance regarding the type of PMO functionality that can be pursued and suggest how they can be modeled or constructed. They suggest or prescribe possibilities, leaving it up to the individuals responsible for implementing PMO functions to deliberate and decide how to implement these model concepts in their business environment. Undoubtedly, adaptations and adjustments of the PMO function models will be the rule rather than the exception.

Similarly, it is unlikely that any individual PMO will use all of the functions or activities proffered here. There are too many unique business environments and organizational circumstances to presume that they would all fit nicely in every location and every business environment. Instead, the PMO can use the recommended function models as guidance, implementing only the particular PMO functions essential to its project management environment.

It should also be noted that the PMO function models are not particularly project management models. Whereas each PMO function model has significant relevance in the project management environment, these models represent what the PMO does, not what the project manager does. At best, the embedded prescriptions for the project office are activities performed by project managers when they conduct oversight as a stage 1 PMO. That considered, readers should nevertheless gain tremendous insight into what project managers should do through examination of the content prescribed in each chapter for PMO use.

Throughout this handbook is the underlying premise that the PMO is a “business integration” activity. To that end, most PMO function models present concepts that not only approach, but also sometimes include, traditional business functions. It is never intended that the PMO replace organizational business functionality or functional departments. Rather, the PMO has responsibility for working with them to facilitate or adapt business functionality for use in the project management environment. The PMO function model may state that the PMO “should” or “will” do something, but that is only in the context of the prescriptive nature of this work. It is considerably more important that the PMO identify where in the relevant organization such functionality may already exist and then develop collaborative means to have it be represented in and supportive of activities in the project management environment. The PMO should facilitate the positive influence and integration of business functionality in the project management environment. The applicable PMO function model can, in turn, be used to aid in introducing such business integration.

Likewise, when a PMO function model prescribes an action or activity for the PMO to perform, it should fulfill those efforts to the extent permitted by existing PMO competency and maturity, current business capability, and acceptance within the overriding organizational culture. The PMO function models enumerate what is needed in the project management environment to effectively conduct project management oversight, control, or support. Smaller PMOs, usually with limited staff and authority, certainly cannot begin to address the full scope of activities recommended for each PMO function model. Some larger PMOs may not be chartered to pursue certain functionality. In those cases, the PMO should adopt as much or as little of the model prescription as needed. When a PMO inherently is not able to fully implement a PMO function, it can work and maneuver within the business environment to facilitate implementation of PMO functional interests by a better-suited business unit or other functional department. In some cases, the PMO will discover that proposed functionality already exists in the relevant organization. It then becomes the PMO's responsibility to introduce it into the project management environment, to the extent possible, to align with widely accepted, professional project management practices and precepts.

Given these underlying concepts, each of the 20 subsequent chapters delineating PMO functions contains the following recurring sections.

- *Chapter introduction*: Presents a brief overview of applicable concepts for the given PMO function, including a specification of what capability the PMO achieves as a result of implementing the function.
- *Project Environment Interface Concepts*: Identifies the impact and general benefits to be realized within the project management environment as a result of implementing the particular PMO function.
- *Business Environment Interface Concepts*: Identifies the impact and general benefits to be realized within the business environment as a result of implementing the particular PMO function.
- *[Function Area] Activities across the PMO Continuum*: Highlights the prescribed PMO activities for implementing the particular PMO function at each of the five progressive PMO competency stages.
- *[Function Area] Function Model*: Provides a detailed and comprehensive discussion of the prescribed activities to be performed in conjunction with implementing the particular PMO functionality. This portion of extensive content within each chapter varies significantly according to the prescribed activities of the particular function model.
- *Postscript for the Smaller PMO*: Provides a brief statement of insight and focus for individuals associated with a more modest PMO function implementation. Following examination of the extensive and comprehensive descriptions that present the activities, concepts, and considerations of each PMO function model, this final section of each chapter suggests the fundamental capabilities that the smaller PMO can address.

Notes on the Third Edition of this Handbook

The preparation of this third edition of *The Complete Project Management Office Handbook* included a detailed review of concepts and content, and where appropriate, revisions have been made to present more current thinking or expanded thoughts regarding the original material. As well, the content of each chapter was examined for readability and how well the concepts were portrayed and conveyed for reader use. To that end, every chapter received extensive attention, and every chapter was revised in some way to improve its value to the reader.

The changes made in this third edition of *The Complete Project Management Office Handbook* are highlighted by the addition of two new appendices that are distinctly on topic for managers having an interest or mandate for PMO development in their organizations.

The new Appendix A, “Planning and Implementing a Project Management Office in the Organization,” provides detailed steps and guidance for managing the PMO development process. It considers the unique business needs of the relevant organization, and it prescribes the deliberations and decisions that need to be made along the path taken to design and implement an effective PMO. This appendix provides a valuable tool for managers in organizations who have been challenged to create a PMO oversight, control, and support capability in the project management environment. It also provides valuable insight for managers in organizations that already have a PMO but need to review the basis of PMO operations or enlarge its scope of responsibility.

The new Appendix B, “A Simple Examination of PMO Maturity,” offers a quick assessment of PMO capability and maturity based on the five stages of PMO development, as shown in the PMO competency continuum presented in this handbook. It provides an examination of PMO maturity indicators as a means to ascertain PMO effectiveness in the organization relative to the 20 PMO functions prescribed in this handbook. Although relatively simple, this assessment provides significant value to managers who seek to discover and understand the strengths and weaknesses of PMO functionality in their organizations.

If you are examining this handbook as a follow-on interest to your use of an earlier release, you should find a great deal of new information and guidance that were not in previous editions of this publication. If you are looking at this work for the first time, you should know that the functionality prescribed for the various levels of PMO capability in the first release have been retained and are fundamentally unchanged. These considerations make this work relevant and valuable for professionals in the project management environment as well as professionals in the business environment.

PRACTICE MANAGEMENT

I

Chapter 1

Project Management Methodology

A project management methodology provides a standard, repeatable process to guide project performance from concept to completion. It introduces and applies generally accepted project management techniques and practices that fit within the culture and business needs of the relevant organization. It includes identification of the roles and responsibilities associated with each process step, as well as specification of the input and output for the prescribed sequence of process steps. In essence, a project management methodology conveys to project managers and project team members what to do and how to do it.

The organization can begin fulfilling methodology needs by first introducing just a series of simple processes for use in the project management environment. This will ensure that the activities of project management that are most essential to the relevant organization are being completed. Then, having this foundation, the organization should aim toward developing a more complete and comprehensive process that specifies activities for the entire project management life cycle. This “complete” methodology should address five general project management functions: initiation, planning, executing, controlling, and closing.

A methodology is developed to apply adopted standards and practices to project management, such as that contained in *A Guide to the Project Management Body of Knowledge* (PMBOK®).^{*} The specification of standards and practices is what

^{*} *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)*, 4th edition, Project Management Institute, Newtown Square, PA, 2008. PMBOK® is a registered trademark of the Project Management Institute.

differentiates the project management methodology from a technical methodology. The project management methodology is a set of processes that can be applied to all types of projects in the relevant organization. In contrast, a technical methodology applies technical standards and deals primarily with the technical aspects of work associated with projects. In larger organizations, there may be one or more technical methodologies needed to accomplish work in different business units. Conversely, the project management methodology can be the same one used across all business units in the relevant organization. Ideally, the organization's project management methodology will be constructed to integrate the one or more technical processes for seamless use.

This “project management methodology” function enables the project management office (PMO) to

- Establish the standard approach to project management that is to be used by all project managers within the relevant organization
- Introduce project management practices incrementally, beginning with those that have the greatest impact on project and business success
- Achieve consensus for implementing a common project management life cycle across the relevant organization's technical and business areas
- Provide for collection of pertinent project data used in individual and aggregate analyses of project performance
- Identify and incorporate technical and business processes into the project management methodology

The “project management methodology” function requires coordination and collaboration with key stakeholders—predominantly project managers—in the project management environment. It is imperative that any project management methodology grows to be supportive of technical and business efforts, so it is essential to involve project engineers, product managers, and other technical and business specialists, as simple processes are expanded to life cycle processes. Furthermore, because policies for methodology deployment are formulated and communicated to all project participants at the executive level, the development and deployment of a standard project management methodology within the relevant organization distinctly requires executive-level and senior management buy-in and support.

Since issuing the second edition of this PMO handbook, the author has prepared and published a separate book.* This methodology provides complete and comprehensive coverage of a four-phase project management life cycle, including 96 tools on an accompanying CD-ROM disk. The methodology presented in this publication provides ready-to-use processes, practices, and tools for project management that are applicable in most industries. That methodology content is consistent with the methodology guidance prescribed for PMO functionality in this

* Hill, G.M. (2010). *The Complete Project Management Methodology and Toolkit*. CRC Press: Boca Raton, FL

chapter. In particular, it provides a viable and customizable alternative to the laborious methodology effort required in many organizations.

Project Environment Interface Concepts

A project management methodology should be responsive to the needs of all project stakeholders and guide them through the key activities of project management. An effective project management methodology conveys to all stakeholders “how we manage projects.” It accomplishes this by establishing a common frame of reference for everyone participating or having interest in project performance. To that end, it should support all interactions among business, technical, and project management participants. It also provides an immediate reference for those stakeholders on the periphery of or outside the immediate project involvement, to inform them and set expectations about what will be achieved through prescribed project management activities.

Accordingly, the project management methodology introduces the relevant organization’s philosophy, concepts, standard approach, and common terminology for project work. This allows cross-functional project managers and project team members to understand and share the same project management experience. Consequently, each project manager does not have to create and convey a tactical approach for each new project and for each new team member. As a result, over time, cross-functional teams become more efficient, more productive, and more successful in producing project deliverables and in accomplishing project objectives.

Business Environment Interface Concepts

Inasmuch as the PMO itself functions as an integrator for the organization, the project management methodology is a central mechanism for project and business management integration. A prominent aspect of this integration is seen when each business unit in the relevant organization adapts and incorporates its technical and business processes to be consistent with the methodology. This is an important concept that requires broad organizational buy-in. Once a methodology is set into place, business units having specific business function or technical area responsibilities can no longer practice old behaviors that may misalign with or be counterproductive to the project management methodology. To that end, each business unit should examine the standards and practices prescribed by the project management methodology and use them to help produce both technical and business results.

The project management methodology provides a foundation for overseeing work accomplished across business units, including facilitation of cross-functional or matrix-based resource assignments. A well-conceived, well-collaborated, and properly implemented project management methodology will ensure accomplishment of all critical project resource management activities.

Another feature of using a standard project management methodology is that it promotes effective project collaboration and reporting within the relevant organization. A coordinated approach to project management facilitates common data collection and distribution across business units. The result of using such a project management methodology is that project progress and performance information can be compiled and aggregated to facilitate timely business decisions across projects and across the organization.

Project Management Methodology Activities across the PMO Continuum

The evolution of the “project management methodology” function along the PMO competency continuum is characterized by

- Development and implementation of increasingly more complete and comprehensive project management processes and practices
- Increased integration of technical and business process activities
- Broader cross-functional business influence at advanced stages of the continuum, in association with the broader oversight authority and responsibility for project management prescribed by the methodology

Table 1.1 presents an overview of the range of prescribed PMO project management methodology activities according to each level in the PMO competency continuum.

The project office, as a formal or informal entity, is the fundamental agent of project management methodology implementation. Traditionally, project oversight has relied on the skill, knowledge, and personal experience that each project manager has brought to bear on the projects they manage. Using the project office, project managers can now share their wisdom by developing practices that can be reused and applied across other similar projects assigned to the project office. Ultimately, these practices will form the foundation of the more structured, repeatable project management processes contained in a methodology that can be shared across the organization.

Midrange PMO levels of the continuum have the responsibility of developing and deploying a full life cycle project management methodology that best fits the needs and requirements of the relevant organization. The PMO first ensures that a standard, structured, and repeatable process for conducting project management is established within the organization. This can begin with incremental development of only the most critical processes and later be expanded to encompass a more complete life cycle as the organization gains additional understanding and benefits from the initial processes. The PMO then expands its influence to develop its methodology to a comprehensive and robust level with appropriate integration or alignment of technical and business processes, according to the affiliated business units’ needs.

Table 1.1 Range of Project Management Methodology Activities across the PMO Continuum

<i>Project Office</i>	<i>Basic PMO</i>	<i>Standard PMO</i>	<i>Advanced PMO</i>	<i>Center of Excellence</i>
<p>Applies essential practices for project performance and oversight</p> <ul style="list-style-type: none"> Emphasizes processes that manage cost, schedule, and resource utilization Employs standard life cycle processes when available 	<p>Introduces critical processes and practices of project management</p> <ul style="list-style-type: none"> Identifies and develops critical processes Manages cross-project critical process use Identifies best and preferred practices 	<p>Establishes and monitors use of a complete project management methodology</p> <ul style="list-style-type: none"> Provides full project life cycle coverage Integrates technical processes Conducts methodology user training 	<p>Enhances content and monitors use of a comprehensive methodology</p> <ul style="list-style-type: none"> Integrates business processes Optimizes automated tool alignment Facilitates methodology use across relevant business units 	<p>Conducts project management methodology analyses</p> <ul style="list-style-type: none"> Examines process variation in business units Assesses methodology use and ongoing process improvement

The center of excellence performs any necessary methodology development, deployment, and review activities to formulate solutions and guide process collaboration across business units. As the interface with senior management, the center of excellence recommends and implements policy for development and deployment of the project management methodology.

The fundamental objectives of the PMO’s “project management methodology” function across the PMO continuum are to

- Determine and implement project management process and practice solutions that align with the relevant organization’s business interests
- Support the organization’s technical work performance
- Assist project managers and project teams in achieving project objectives

Project Management Methodology Function Model

This function model presents considerations for the PMO to develop a standard, cohesive process for conducting project management, to implement that process for use by the widest possible audience in the relevant organization, and to monitor and manage its use and improvement. Figure 1.1 depicts the primary activities of this PMO “project management methodology” function model. Each activity is described in the following subsections.

Establish Basis for Project Management Methodology

A frame of reference for the project management methodology is needed to ensure that all methodology development participants, particularly the PMO, have and can communicate a clear understanding regarding the direction being pursued to

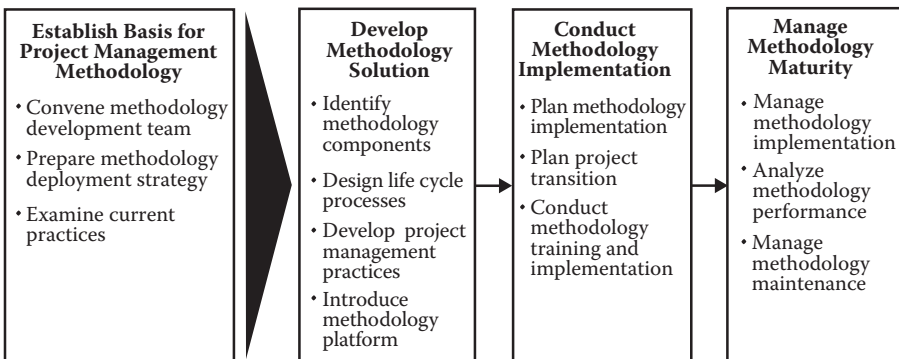


Figure 1.1 “Project management methodology” function model.

introduce a standard approach to project management. The basis for introducing a project management methodology can be formulated as described in this section.

Convene Methodology Development Team

The PMO will normally have primary responsibility for overseeing project management methodology development. However, the PMO must ensure that project managers and others having technical or business interests are properly represented in the methodology development effort. Therefore, a methodology development team is often formed to include participants both from inside and outside the project management environment to assist in the design, development, and implementation of the organization's new project management methodology.

The best way to ensure effective design, development, and implementation of a project management methodology is to involve "resident experts," particularly those managers who can contribute one or more of the following competencies:

- Extensive personal project management experience in the industry
- Knowledge and training in advanced project management practices
- Understanding of the relevant organization's project management environment
- Experience in development of processes and practices
- Familiarity with project team dynamics
- Internal sponsorship (methodology development champion)

These characteristics should be considered when selecting individuals for participation on the methodology development team.

In addition, the PMO may want to ensure effective methodology development by using external expert advisors and project management consultants in the methodology development effort. Such external resources have prior experience and can bring cross-industry insights and expertise to expedite the effort and help the methodology development team manage process structure design, practice development, organizational issue resolution, technical and business process integration, and methodology implementation planning.

The PMO should specify and communicate the type of involvement expected of the methodology development team. It should indicate the extent to which methodology development team members will be responsible for methodology concept development, process design, process construction, practice area design, practice area development, content review and approval, and subsequent methodology implementation and maintenance. For purposes of this PMO function, these activities collectively represent methodology deployment.

On average, the methodology development team should be able to accomplish its methodology development objectives with a minimum of three to five team members, to include at least one senior member of the PMO responsible for leading and

collaborating the effort. Fewer people can staff the team, but this recommended team size provides smaller to medium-sized organizations with ample exchange of alternative thoughts and perspectives necessary to deliberate and decide on how it will conduct project management. Larger, more diverse organizations may require additional team members to represent the views and interests of all involved business units.

If the methodology development team is not in itself responsible for review and approval portions of the effort, additional methodology development team members can be included as necessary to serve as reviewers of completed design and development work. Reviewers should include senior management in the relevant organization, who provide for final review and approval of the methodology.

Other factors also influence the actual size of the methodology development team and should be considered when convening the team. These include available development time and deadlines for completion, level of expertise of the team leader and team members, depth and coverage of process and practice development, and extent of subsequent implementation within the relevant organization.

The PMO can define and recommend methodology development team participation requirements by preparing a responsibility matrix similar to that used for project planning. An abbreviated responsibility matrix is depicted in Table 1.2. The activities that this matrix indicates represent a project effort. To that end, the project management methodology development effort should be planned and conducted as a project.

The methodology development team configuration should enable timely construction and implementation of a viable project management methodology within the relevant organization. An executive participant may also be identified to perform final review and approval for methodology design and to support methodology implementation.

Prepare Methodology Deployment Strategy

The methodology deployment strategy provides a roadmap for methodology design, development, implementation, and maintenance. It contains the current and emerging strategy of the organization and can therefore be revised or updated over time. As approved by senior management, this strategy represents the PMO's current intended approach to methodology deployment. The strategy can be shared throughout the organization, as necessary, with individuals having responsibility or business interests in the project management methodology deployment effort.

The methodology deployment strategy is composed of the following elements:

- Methodology development responsibility statement
- Methodology development approach
- Methodology platform
- Methodology utilization policy
- Methodology implementation approach
- Methodology maintenance responsibility statement

Table 1.2 Sample Responsibility Matrix for Methodology Development Team

<i>Responsibility by Team Member</i>	<i>PMO Manager</i>	<i>PMO Staff</i>	<i>Program Managers</i>	<i>Project Managers</i>	<i>Business Unit Managers</i>	<i>Project Consultant</i>
Select team members	P	A				
Perform make/buy decision	R	A	P	P	R	F/R
Conduct methodology design	R	P	P	P	R	F/A
Develop methodology	R	P	P	P		P/A
Plan methodology implementation	R	P	P	P		P/A
Plan methodology transition	R	P	P	P	R	P/A
Conduct methodology training	R	P				P/A

Note: F = facilitate; P = perform; A = assist/advise; R = review.

The PMO can adapt or expand these strategy elements to meet the needs of the relevant organization. In general, the PMO prepares or facilitates the preparation of the methodology deployment strategy to guide and document how the project management methodology is to be established and used. Each strategy element is described in the following subsections.

Methodology Development Responsibility Statement

The PMO prepares this statement to outline its role and responsibilities, as well as those of any other intended participants, including the methodology development team and any external consultants. It can include the methodology development team responsibility matrix discussed earlier. This statement serves as a charter for the PMO and other participants to proceed with the methodology development effort. Inasmuch as this statement may also specify approved funding and authority to act, a senior manager or executive of the relevant organization should review and sign it. However, this responsibility statement may not be necessary if the PMO charter has already adequately covered PMO responsibilities for project management methodology development.

Methodology Development Approach

The methodology development approach represents a fundamental plan for how the organization expects to conduct methodology development. It indicates the depth and extent of methodology content development, specifies the scope of methodology component development, and identifies the general methodology development schedule.

An organization can begin formalizing its approach to project management when it commits to developing a few key processes and practices. For example, it is usually prudent to develop initial processes that address issues in highly visible practice areas. These initial processes should provide some quick benefits that will help the organization resolve those issues and become accustomed to the types of organizational changes that will be encountered when a more complete and comprehensive project management life cycle methodology is subsequently introduced. Of course, the current development effort may be for full life cycle methodology deployment, and the development approach can address that expanded effort as well.

The following list illustrates several progressive levels of methodology development that can be prepared by the PMO for insertion in the methodology development approach:

- Develop a single, key project management process (for example, project risk management)
- Develop a key process series (for instance, for project selection: customer identification, project definition, business case, and project approval activities)

- Link selected technical and business process activities to the key process series
- Develop a comprehensive project management life cycle process with fully integrated technical and business activities

The PMO can prepare a descriptive approach for these or other intermediate steps of its choosing when preparing the methodology development approach. The primary consideration of this strategy element is to identify what end state of methodology development will be achieved when methodology development efforts are completed.

Inasmuch as the methodology approach element is not a detailed plan, the general timelines for methodology development activities should be identified. This could include indicating what is to be accomplished over a period of months or even years, with timelines specified in terms of quarters. However, when more information is known, a detailed methodology development plan can be prepared for each step or phase specified in the approach, and it can be attached to this strategy document for easy subsequent reference.

This element of the methodology deployment strategy also defines the PMO's perspective of the project management methodology and what each methodology component to be developed will contain. The primary methodology components often include

- Project management process guide: what to do
- Project management practice guide: how to do it
- Project management tool kit: the means to do it
- Project management glossary: relevant terminology

The PMO should use the methodology development approach to specify which components will be developed, to include those listed above or any other methodology components that are needed.

Methodology Platform

The methodology platform addresses the means by which those responsible for project management apply the project management methodology to project work. It commonly refers to automated systems that provide access to process steps, practice and technique guidance, and an associated database of project information. For purposes of this PMO function, this strategy element considers how the PMO plans to convey the established methodology process and preferred practices that project managers and project team members will use.

The PMO, with insight and assistance from the methodology development team, as well as guidance and support from the information technology (IT)/information systems (IS) department at the onset of the effort, should determine the type of platform on which the project management methodology components

will reside. Factors to weigh when selecting the methodology platform include the culture of the relevant organization, project manager familiarity with automated tools, complexity of process and practice guidance, and platform development or acquisition costs. Moreover, the PMO should consider the five fundamental types of project management methodology platforms described below.

Paper-Based Documentation — Print publications are perhaps the easiest means to deploy the organization's project management methodology. The paper-based documentation platform is composed of one or more published volumes of text containing the desired methodology guidance components. It is distributed to all users and is maintained through printed updates or revisions. Within most organizations, it remains the ideal solution for the initial introduction of project management methodology.

Even in today's highly automated business environments, many organizations still use a paper-based platform for methodology deployment. Created and implemented quickly, its development can generally be accomplished at a lower cost than other means of methodology deployment. Furthermore, this methodology platform provides the requisite structure and content needed to guide achievement of project objectives, including the use of standard templates, checklists, and report formats. If not developed internally, paper-based methodologies can be obtained from project management organizations and project management training and consulting firms.

Standard word-processing, spreadsheet, and database software applications are used to create paper-based project management methodology process guides, practice guides, and tool and template components. These standard business software applications, commonly used by project managers and project team members, provide the PMO with a familiar vehicle for disseminating the methodology to users in the project management environment. Methodology use is further enhanced when associated applications and templates reside on a common network for wide user access.

The paper-based documentation method may also be the ideal means to create the methodology structure and content for any subsequent automated platform that is introduced.

Automated Application Conglomeration — This methodology platform is a slight variation of the paper-based documentation platform. While this approach similarly uses standard business software applications, there is now more focus toward computer use and less on the use of paper. By definition, this "conglomeration" platform uses a variety of software applications, but they are generally not integrated. At best, these applications are available on a network for common access by users in the project management environment, but they may also be found isolated on individual computer systems. The direct use of software applications, even though they are not integrated for dynamic information and data exchange, is what

distinguishes this platform from the paper-based platform. However, it should be noted that methodology content must still be developed, as prescribed in the paper-based platform model. Here it becomes a matter of where that content will reside and how user access will be achieved.

Integrated Project Management Application — This methodology platform introduces a more integrated approach to accessing project management methods and tools. This is done by acquiring one of many high-end, multiuser project management applications, which inherently provides the means to collect project information and perform a broad range of project management activities in addition to managing methodology content.

The cost of acquiring a high-end, integrated project management system is usually steep—often thousands of dollars in smaller organizations up to tens of thousands of dollars or more for deployment in large organizations. Cost is therefore a distinct factor when considering an integrated project management application.

The high-end software applications available in the marketplace do not necessarily provide a comprehensive methodology process for project management as part of product delivery. That said, some vendors do recognize the difference between a project's work breakdown structure (WBS) and a project's management methodology, and these vendors have incorporated process-management and information display capability into their products. Therefore, another important factor to consider is the ability to install and manage methodology processes and practices using an integrated application. The PMO must clearly define its methodology content management requirements in conjunction with conducting a search for the "best-fit" application.

Integrated project management applications can also offer other specialized features that facilitate activities prescribed by the methodology—such as associated project team collaboration, project reporting, and scope-change management. Other features may include capability to perform processes associated with risk management, resource management, and document management. The need for such features should also be evaluated during the acquisition process.

Enterprise Business Application — This methodology platform is characterized by the acquisition of a software application package that can be used to manage activities of the project management life cycle, which integrates with the application's primary function of business function support—for example, resource management, accounting and finance, and customer relationship management (CRM). It is the broader needs of the business that drive the acquisition of an automated business application. Such an acquisition is normally a higher-level business decision beyond the purview of the PMO. However, inasmuch as the enterprise application contains features and functions that will assist the project manager and project team in achieving effective oversight of the processes of project management, the PMO should be involved in the acquisition process.

Like the integrated application described above, the enterprise business application should be examined to ensure that it facilitates the performance of all project management activities required by the relevant organization. In some cases, vendors are willing to modify their product's features and functions to enable desired practices and processes. However, such modifications sometimes can be as expensive as constructing a fundamental automated methodology application within the organization. The PMO thus has a strong incentive to closely scrutinize off-the-shelf products to ascertain whether the proposed platform can meet the organization's requirements without the need for additional modification.

Automated Methodology Application Construction — The final approach to deployment of project management methodology is to construct the desired automated platform in-house. Using this approach, the PMO can influence the design and development of the application's features and functions. In-house construction can be accomplished by using internal system-development resources from the IT department or an external system developer. It may also be beneficial to combine the two by using (1) a team of internal developers who already know existing system nuances and configuration and (2) an experienced external team that helps design and incorporate the desired collection of modern project management processes and practices.

Often, the internal construction of an automated methodology application relies on a previous paper-based design. In such cases, any paper-based platform of processes or practices that the PMO has already developed and implemented will contribute to the construction of its automated platform.

Methodology Utilization Policy

The introduction of a project management methodology is a business decision that requires overt support of senior management within the relevant organization. The way in which the methodology is promoted, anticipated, and ultimately received for use is a key success factor that senior managers directly influence. A policy statement on methodology use is an appropriate means to convey senior management support and endorsement or, better, their mandate for methodology use.

The PMO should prepare a policy statement describing the use of the proposed project management methodology and pass it on for review and approval by senior project managers. The best approach is to fashion the statement using a familiar format within the organization—policy, standard operating procedure (SOP), executive directive, and so forth. The means of communicating policy regarding the use of methodology may vary by organization, but the objective is the same: to demonstrate the support of senior management for deployment of the proposed project management methodology. Ideally, the most senior executive in the relevant organization will endorse the policy statement.

The PMO should consider including the following elements in the policy statement:

- Business interest in methodology deployment
- Benefits to be achieved through methodology deployment
- Executive direction for use of the methodology
- Statement of executive/senior management support of project management methodology use and endorsement of project management as a core competency

The policy statement should clearly and briefly describe the purpose and sponsorship of the proposed project management methodology. An executive or a representative of senior management should personally introduce the policy statement as part of the planned rollout activities for the proposed methodology. In fact, the executive should personally introduce the project management methodology and identify, promote, and sustain professional behavior adjustments to support the intended use of the methodology at all levels.

Methodology Implementation Approach

This strategy element is used to outline the activities for methodology implementation in the relevant organization. It allows preliminary requirements for implementation to be identified and examined, and it describes the approach to satisfying those requirements. In particular, it will allow the PMO and other planners to discuss and describe how the following methodology implementation activities will be conducted.

- *Demonstrate executive and senior management support for methodology deployment:* Determine executive and senior management roles for methodology introduction. Identify activities that will ensure that they are positioned to convey their buy-in and support for the new methodology.
- *Convey news and information about methodology deployment progress:* Discuss how you will use existing media or set up a new means for disseminating information about the deployment of a new project management methodology, its acquisition or development progress, and people involved in the process. This may also include initial announcements and progress information that is provided to customers and contractors.
- *Develop and conduct an associated methodology training program:* Describe the training that will be required for methodology users. This includes consideration for both general project management training to ensure understanding of underlying concepts and techniques and specific methodology training to convey processes and practices that will be required in the organization.

Prepare a preliminary training program and schedule that will satisfy methodology implementation requirements.

- *Plan project transition to the new methodology:* Specify how the status of each current and pending project will be examined to determine its candidacy for transition to the new methodology. Some projects, nearing completion, will not transition. Other projects, those midway in progress or yet to start, will transition to the new process and tools. Identify the criteria that will be used to determine which projects will make the transition.
- *Plan the methodology rollout process (i.e., organizational sequence):* Determine how the new methodology will be introduced in the relevant organization. This may include the use of a pilot program for a particular group or business unit as a means to gain early knowledge of rollout issues that can be applied to later rollout segments. It should identify the sequence or order in which business unit or individual users will be introduced during methodology implementation.
- *Plan methodology implementation support capability:* In addition to the rollout process described above, determine what support will be provided during methodology implementation. This includes such things as project management mentoring, a methodology help desk, and implementation feedback collection activities.

As the time for actual methodology implementation nears, the guidance provided by this strategy element can be examined, updated as needed, and incorporated into the detailed methodology implementation plan that is subsequently prepared. For each of the methodology implementation activities, the PMO needs to determine if they will be performed in-house by the methodology development team or other individuals or contracted to a qualified external consultant or vendor/contractor.

Methodology Maintenance Responsibility Statement

A broad group of participants will have accomplished the initial design, development, and implementation of the methodology. The PMO should deliberate and recommend whether a team of those same individuals (i.e., the methodology development team) will remain intact to perform ongoing methodology review and maintenance activities or whether that responsibility should be assigned to another team or the PMO staff. In either case, a responsibility statement for project methodology maintenance should be prepared to ensure that this determination is made.

Similar to the methodology development responsibility statement, this maintenance responsibility statement may not be required if PMO responsibilities for project methodology maintenance are already adequately covered in the PMO charter.

The PMO also should determine when specific methodology maintenance activities will be conducted. A number of items may trigger refreshing the methodology,

including changes in project metrics; results of capability or maturity assessments; changes in technology; findings of research; discovery of new approaches through application and human innovation; and developments in technical processes the methodology supports. In the absence of specific triggers, however, the PMO can plan to schedule a project management methodology review at regular intervals, normally every 12 to 18 months for a mature methodology.

Examine Current Practices

The first step in introducing formal project management processes and practices is a PMO's awareness of the starting point. The PMO should scrutinize the organization's current capability in the project management environment as a prerequisite to planning and designing the type, depth, and comprehensiveness of project management methodology support that is required. An examination of current practices provides the baseline for methodology deployment. It should be assessed per the guidelines established within the PMO's "assessment" function (Chapter 6). The PMO's examination of current project management practices is presented relative to the following three activities:

- Assess current capability
- Analyze assessment findings
- Compare best practices

Assess Current Capability

The PMO will gain considerable insight into the current state of project management capability by assessing the current processes and practices used in the relevant organization.

- *Assess structure and support:* This examination should begin with a general evaluation of primary business units to determine their involvement in using project management processes and practices. The PMO may use an external consultant experienced in assessing project management organization capability or devise its own means to gain perspective relative to the following information.
 - Current project management organization structure
 - Individual project manager and project team alignment within that structure
 - Level of upper management involvement in project management activities
 - Nature of project support that functional organizations provide
 - Extent of participation in project activities across the organization
 - Need for project information and oversight by functional and senior managers

This preliminary look at the project management environment will provide the PMO with sufficient understanding of need to enhance project management awareness and support within the organization. Moreover, it will provide indicators for the design of cross-functional responsibility and involvement in project management as methodology processes and procedures are developed.

- *Assess practices and capability:* Next, the PMO should undertake an assessment of current project management practices that project managers and teams use. This is normally accomplished through a survey instrument. However, it is preferable to conduct direct interviews with project managers at various levels in the organization to examine their personal perspectives, as well as with project teams to gain the “group” perspective on how projects are accomplished. The interview method is preferable because it allows examiners to clarify and understand the information provided by each interviewee at the time of information collection.

The assessment must also examine current processes and practices against an established and complete project management life cycle process. The PMO should ensure that the project life cycle it selects for this assessment contains elements and activities that are aligned with the standards it will ultimately pursue, for example, the Project Management Institute’s (PMI’s) PMBOK. This assessment should examine the following information.

- Identify the project life cycle activities that project managers are performing
- Identify the project life cycle activities that project managers are not performing
- Identify the project management practices that are commonly used across all or most projects
- Identify the project management practices that are unique and used only by one or a few project managers
- Identify the project life cycle activities that involve project team members
- Identify the project management life cycle activities that involve business units and other stakeholders

At a minimum, the results of the current process assessment should provide the PMO with a basic understanding of the extent and type of project management practices currently in use. In a subsequent activity, when these data are further analyzed, they will expose more detailed information about gaps in the organization’s current project management practices versus best or preferred practices.

- *Assess human perspectives:* In conjunction with the above assessment, the PMO also may want to pursue an examination of the human side of project performance to formulate its understanding of additional methodology deployment needs. In particular, a PMO inquiry should capture the following information from project managers and project team members.

- Interest and enthusiasm in a structured approach to project management
- Resistance and barriers to a structured approach to project management
- Personal perspectives on the need for a formal project management process
- Personal perspectives on what the use of project management methodology entails
- Personal perspectives on individual and group training
- Current preferences for project management practices (techniques)

The results will provide user input to the methodology design and development effort.

Analyze Assessment Findings

The PMO should conduct an analysis of assessment findings to formulate a view of current capabilities. Again, this can be accomplished internally or with external assistance from project management consultants experienced in such organizational analyses. The analysis—as detailed or as simple as the PMO warrants—should be designed and conducted to provide a reasonable understanding of the relevant organization’s current state of project management performance capability. Five analysis areas are recommended and briefly described below.

- *Process flow analysis*: Based on survey or interview results, the PMO can construct the common elements of the project management process, including those unique process elements that are not widely used. This can be achieved by preparing a preliminary process flowchart to describe what is currently being accomplished to manage projects. Although similar to and somewhat based on the project management life cycle used in the earlier process assessment, this flowchart will contain only those project management activities currently performed within the relevant organization. As such, this flowchart will indicate the strengths and weaknesses of the current processes relative to the project management standards applied.
- *Process content analysis*: The process flowchart created above can be expanded to include the common input and output to each existing process, as well as to identify who is responsible for completing each process step. This analysis, in particular, will indicate what deliverables are achieved through each process step and what common results the current project management approach have accomplished.
- *Project management practice analysis*: The preceding examination provided information about how each project manager approaches project planning, oversight, and control, that is, the processes they use. In this analysis, the PMO can identify which practices are common throughout the organization and which are unique to individuals or business units. This analysis will help contrast current practices with best or preferred practices in the organization and in industry.

- *Project management tools analysis:* The assessment should have collected information regarding how project managers and their teams accomplish the processes and practices identified in the current project management approach. This step identifies the tools used to facilitate project management activities and indicates which have common use and which are unique to individuals or business units. Tools, which are discussed in greater detail in the PMO function “project management tools” (Chapter 2), include automated software applications, as well as forms, checklists, and templates that assist in performing project management activities.
- *Project management practice support analysis:* This analysis determines the extent to which project managers, business unit managers, and senior managers are involved in and support a formal, structured approach to project management. At a minimum, the assessment results should provide preliminary indications of the “culture” in which methodology deployment will be pursued. They also indicate the strengths and weaknesses of support for project management in functional and technical areas of the business.

Compare Best Practices

This step in examining the current project management practices provides an additional analysis of how well the organization is performing project management in contrast to standards and best practices. Using the previously prepared analyses, the PMO can determine if and how well all essential project management process steps are being performed. This activity enables the organization to prepare a “gap” analysis of current practices against either preferred standards or a set of best practices in project management.

It should be noted that standards are inherently different than best practices. Standards represent a basis for performance: the criteria to be met and the goals to be achieved. Best practices, on the other hand, are a set of activities to be considered and pursued to the extent that the organization understands and values them. As such, best practices are perceptions in the eye of the beholder.

This comparison is particularly valuable when it facilitates the identification of which essential processes and practices are missing from the current approach to project management. The comparison to best practices also enables the PMO to determine where any project management practices are weak or applied in an isolated manner by one or a few project managers. This best-practice comparison, performed against a set of practices in an industry- or standards-based project life cycle, will provide immediate insight for methodology development or improvement.

Develop Methodology Solution

Project management methodology development is not a simple task. Inasmuch as the development steps presented here are intended to be a guide, they are not

necessarily all-inclusive of the project management methodology development effort. This undertaking requires

- Patience in constructing detailed process steps
- Business acumen in defining processes and practices that provide a functional fit
- Product and service awareness to ensure alignment of technical processes and interests in project management performance
- Advanced project management skills on the part of developers
- Strong executive and senior management support for the development (and subsequent implementation) effort
- Time, since an average methodology deployment effort can take from 9 to 12 months or more from concept to completion

The PMO can use the information presented in this section to prepare the essential project management processes and practices that are needed to give structure and repeatability to its project management efforts. Moreover, the acquisition and installation of an accompanying methodology platform is rarely complete without some modification or data transfer requirements. This section can assist PMOs in deliberating and deciding on steps needed to install and implement an application in a manner that will be of benefit to the organization.

Identify Methodology Components

The PMO should examine creating a methodology structure relative to four fundamental methodology components, which can be developed separately or as an integrated guide to project management. The PMO can examine each prescribed component and determine if and how it will be developed in the organization.

Project Management Process Guide

The methodology process guide specifies all the steps or activities for which the project manager and project team are responsible. It may also prescribe participation and actions for other internal and external project stakeholders. The process guide also specifies the primary input needed to conduct each major process step and the output that results from performing the process step (sometimes called the “project management deliverable”). It usually contains a process flowchart that represents the sequence of project management activities to be performed for every project. In addition, it includes considerations for how the process can be scaled down for smaller projects or expanded for larger, more complex, and longer-duration projects. This process is normally created for use by both experienced and novice project managers. In its fundamental form, the methodology process guide serves as a checklist of what is to be accomplished to ensure effective project

management. Additional information about process guide content is presented in the next subsection on life cycle process design.

Project Management Practice Guide

This methodology component contains relevant guidance regarding how to perform the preferred elements of project management as presented in the aforementioned process guide. It provides step-by-step guidance for performing project management functions, and it serves as a reference that is made available to project managers, project team members, and anyone else in the project management environment involved in project planning, oversight, and control. Its content should be designed for use by the primary users (including project managers having various levels of experience) and can contain both basic and advanced practices, as may be required by different users for different classifications of projects. Additional information about practice guide content is presented in a subsequent subsection on project management practice development.

Project Management Tool Kit

This component distinctly facilitates the standardization and repeatability that is desired in an organization-wide project management practice. Methodology tools consist of checklists, forms, and templates applicable to the performance of project management. However, tools also can be developed and implemented in the broader scope of organizational processes. This includes cultivating cross-functional tools and techniques that are applicable to project management as well as tools that support associated technical processes and business interests. It may also include guidance for using automated applications as tools for project management. A more detailed discussion of the types of automated tools that can be used to facilitate project management is found in Chapter 2, “Project Management Tools.”

Project Management Glossary

This methodology component provides a reference to standard and common terminology used in the project management environment. It ensures that all project stakeholders and participants understand the language of project management. As much as the glossary facilitates discussions and information exchange, it also reduces occasions for miscommunication. Glossary development proceeds out of the growth of other project management methodology components. It should therefore be expanded as each new methodology component contributes to its content.

The content of the methodology glossary is merely a listing of terms defined for use in the relevant organization. The PMO may want to consider any existing internal documentation of terminology for such inclusion and use. Alternatively, it

may want to provide this component by acquiring a published document containing the requisite terms.

Design Life Cycle Processes

This section of methodology development addresses the “what-to-do” aspect of project management. The life cycle processes provide an overall perspective of the routine project management activities conducted in the relevant organization, and this represents the fundamental content of the project management process guide. Because its guidance will apply to all projects, care must be taken to design an approach applicable to the various types of projects to be encountered. Moreover, there will likely be the need to integrate technical and business processes. If any one technical process is prevalent in the organization, there should be little difficulty in achieving that alignment. However, if the methodology process is intended for wider use across several business areas, the process design may have to accommodate alignment and integration of multiple technical processes, as well as possible variations in business processes across business units. That said, the focus of this design effort is to ensure that all project management processes of value to the organization are appropriately included in the methodology.

For the purposes of illustration and discussion, the following four phases of a project management life cycle will be considered:

- Project initiation
- Solution planning
- Solution implementation
- Project closure

These distinct but related phases ensure the performance of all essential project management activities and tasks. Figure 1.2 depicts the process flow for the four phases of this project management life cycle.

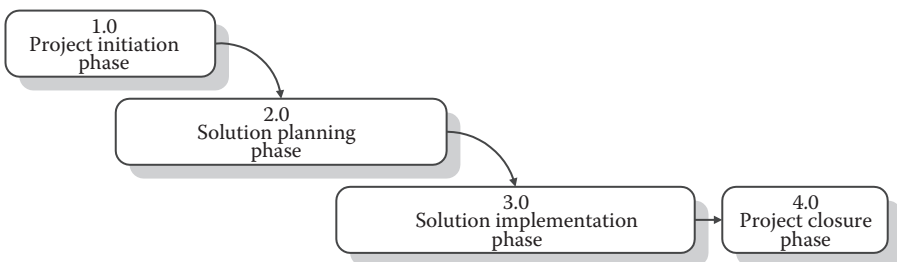


Figure 1.2 Four-phased generic project life cycle.

This life cycle process model can fulfill the project management guidance needs of most organizations. However, in many industries and technical disciplines, there are definitely conditions that warrant examination of a more comprehensive project management life cycle. In some cases, the project management life cycle may contain five, six, or more phases of project management activity.

Without doubt, the PMO should consider the nature of its business when deliberating and defining the phases of the project management life cycle to be developed. The following indicators might suggest the need for a more complex set of life cycle phases:

- Projects are related to product development and necessitate separate phases for design and development oversight.
- The normal project customer base is a combination of both internal and external (commercial) customers, requiring different approaches to manage internal agreements versus external proposals and contracts.
- The business processes of project selection (including product or service sales), CRM, and the like are not fully within the purview of the PMO or the project manager.
- The relevant organization performs different phases of projects in geographically detached locations—perhaps worldwide—thus raising the need for “handoff” phases.
- The organization has considerable distribution of cross-functional work that is best separated by distinct project management phases.
- Senior management is involved and has specified project-review points for making project-continuation decisions that are translated into project phases.

Methodology process guide development is usually performed in association with the introduction of a complete project management life cycle. However, the PMO can begin its effort with process development for specific project life cycle phases or for identified critical process series. If methodology deployment is a new pursuit for the PMO, it may want to begin with a more fundamental process design that can be expanded at a later time.

As the PMO designs the life cycle processes to be used in the relevant organization, the following is the suggested content for each process element, as can be presented in the methodology process guide:

- Process flowchart illustrating each phase, activity, and task element, and their interrelationships
- Process description for each phase, activity, task, subtask, and so forth
- Process input and output (project management deliverable) for each process element
- Process responsibility, assigned to the individual(s) responsible for completing the process element

- Process scalability, describing how the process element should be reduced or expanded according to project size, value, duration, and complexity

The PMO should determine whether any other information elements would enhance the process presentation or benefit users of the methodology. These can be included at the discretion of the PMO and the methodology development team.

When using the four-phased project management life cycle model, the process content described in the following subsections is recommended. The PMO and methodology development team should interpret these prescribed process elements for best fit within the relevant organization. Moreover, the methodology designers should consider these recommendations as an initial and fundamental approach to methodology development. More advanced content should be pursued as organizational maturity in project management advances.

Project Initiation Phase

The first phase of project management deals with identifying, examining, and qualifying project and business opportunities and conducting project selection actions to determine what projects will be performed. The following activities should be considered for inclusion in the project initiation phase.

- *Customer identification and qualification*: Examines each customer's business needs and interests and customer intent and capability to conduct the project.
- *Opportunity identification and qualification*: Examines each project opportunity to ensure consistency with corporate objectives and business capability.
- *Project definition preparation*: Provides a high-level description of the project in a single document, to include project objectives and scope statement, preliminary project deliverables list, project assumptions and constraints, general resource requirements, and general schedule at the project phase level; this is often used in conjunction with financial data and business case development so that a go/no-go decision can be made.
- *Staffing requirements examination*: Provides a preliminary examination of resource availability and internal staffing actions that are needed based on a review of general resource requirements.
- *Vendor/contractor requirements examination*: Provides a preliminary look at vendor/contractor options and acquisition actions that are needed based on a review of general resource requirements.
- *Business case preparation*: Compiles and analyzes all pertinent business information about the project opportunity and examines associated project and business risks in order to facilitate a project selection decision.
- *Project selection*: An examination of the relative costs and benefits of each project opportunity, usually conducted against established project selection criteria—this may be an extension of the business case preparation effort that

culminates in a recommendation that is reviewed and a project selection decision that is made.

- *Project charter preparation*: Represents the document issued by the project executive or project sponsor to name and assign a project manager (at the required qualification level for the project); specify the role, responsibility, and authority of the project manager; demonstrate upper management support; and solicit the cooperation and support of other business units and stakeholders involved in the project.
- *Formal approval to proceed*: Provides for management's review of preliminary project documents, conveys management approval to proceed with the project effort, and specifically authorizes funding so that project planning can begin. In some instances, this approval and funding authorization may be included in the project charter document.

Solution Planning Phase

This phase of project management is characterized by an examination of customer requirements, the establishment of a customer contract or agreement (including proposal development, as required), the formation of the project team and acquisition of any vendor/contractor resources, and the development of the WBS and project work plan and any other project support plans to be used during project implementation. The following activities should be considered for inclusion in the solution planning phase.

- *Customer requirements review*: Examines customer requirements as a basis for developing the project's technical solution or technical approach to be pursued and finalizes the list of project deliverables based on the solution developed.
- *Project team formation*: Provides for a detailed review of staffing requirements, preparation of a resource responsibility matrix, and development of a project staff management plan that facilitates staff acquisition and assignment to the project.
- *Vendor/contractor acquisition*: Provides for the identification of vendors and contractors needed to perform project work and specifies development of a vendor management plan to guide vendor/contractor acquisition and management.
- *Customer contract/agreement preparation*: Defines the series of steps for conducting preliminary customer coordination, preparing and submitting a customer proposal (as required), negotiating terms and conditions, and establishing a customer contract or agreement to conduct the project. It will be reiterated that this process needs to be accomplished for both internal and external customers.

- *WBS preparation*: Provides a foundation for the project planning effort and the project risk assessment by showing a decomposition of project activities and tasks.
- *Project work plan preparation*: Provides a comprehensive oversight plan that is represented by the project's WBS with relevant project cost, schedule, and resource utilization information incorporated for each work package in the WBS. The project work plan subsequently serves as the basis for monitoring, tracking, and controlling project performance during implementation. It also guides the oversight of technical and business activities, as they may be included in the WBS.
- *Project risk assessment*: Guides the project team in reviewing the project work plan (and any other project plan elements) to determine the probability and impact of potential adverse events on project management performance and project success, and normally includes the preparation of a project risk management plan.
- *Project plan preparation*: Facilitates the project team in developing additional primary and support plans that are prescribed or otherwise needed for the project; the project team's planning efforts may include developing the following frequently used planning documents.
 - Risk management plan
 - Quality and acceptance plan
 - Communications plan
 - Change control plan
 - Staff management plan
 - Vendor management plan
 - Management oversight plan

The project management effort may also include preparing technical or business plans and related documents. You can review a comprehensive list of primary and support plans and their development and use in Chapter 14, "Planning Support."

Solution Implementation Phase

The project management solution implementation phase (sometimes called the execution phase) involves performing the project oversight and control needed to achieve project objectives. The following activities should be considered for inclusion in the solution implementation phase.

- *Project tracking and control*: Provides for monitoring and managing project schedule, cost, and resource utilization; guides the project manager in taking corrective actions to minimize cost, schedule, and performance variance when preestablished variance thresholds are exceeded; and includes the ongoing oversight, management, and reporting of project risk, quality, and change control conditions and actions.

- *Customer interface management*: Provides guidance for the project manager and project team to perform activities that deal with the customer on a day-to-day or recurring basis: preparing and submitting customer reports, managing customer expectations, and keeping the customer involved and informed concerning project decisions and progress.
- *Staff management*: Provides guidance for the project manager (and any designated project team leaders) to oversee and manage project team member assignments, meeting participation, status reporting, and task performance, to include the preparation of performance evaluations and collaboration with any involved resource managers.
- *Vendor/contractor management*: Enables the project manager and project team to oversee and manage vendor/contractor reporting and task performance on a day-to-day basis and to manage the associated vendor/contractor contract or agreement, including invoicing and payment oversight activities.
- *Project communications management*: Fulfills actions for keeping project team members, customers, vendors/contractors, and upper management informed about project plans and project progress and status information that is relevant to each; includes overseeing the documentation, distribution, and disposal of project plans, progress reports, and lessons learned.
- *Contract administration*: Provides for the project manager or assigned contract management specialist to oversee conditions and take any necessary actions to fulfill contractual obligations and to manage the terms and conditions of the customer contract or agreement.

Project Closeout Phase

This final project management phase ensures a smooth and distinct wrap-up of project activities, both for the project team and the customer. The following activities should be considered for inclusion in the project closeout phase.

- *Customer acceptance and closeout*: Establishes the process for reviewing contract requirements and associated deliverables to ensure fulfillment, provides for closure of customer and project issues to include compilation of lessons learned from the customer, and obtains written customer sign-off and formal acceptance of project deliverables and project closeout; it may also include an examination of customer participation and performance.
- *Project team closeout*: Prescribes the process for compiling project lessons learned from project team members, conducting final team member performance reviews, recognizing group and individual accomplishments, and releasing project team members for their next project or other work assignment.
- *Customer contract closure*: Entails overseeing the completion of required customer contract actions with an emphasis on monitoring and managing the final customer invoice and receipt of payment.

- *Vendor/contractor contract closure*: Provides for oversight of vendor/contractor contract closeout actions and contract fulfillment and monitoring of vendor/contractor final invoices and payments, and may include compilation of project lessons learned from vendors.
- *Project documentation disposition*: Specifies how materials developed and maintained during the project (i.e., deliverables and design documents, status and progress reports, meeting minutes, and lessons learned) will be transferred to permanent or semipermanent storage for retrieval and access as historical data that can be used for future project estimating and planning activities.
- *Operations and maintenance transition*: Provides for any final actions (such as training, documentation, and transfer of responsibility) necessary for facilitating the transfer of processes, equipment, or systems to the customer and ultimate user. In some organizations, this effort is treated as a separate and distinct phase of the project management life cycle, and in others, it is sometimes not considered part of the project management life cycle.

Develop Project Management Practices

This section of methodology development addresses the “how-to” aspect of project management. For the PMO and the relevant organization, the project management practice guide is prepared to show the “how-we-do-it” approach to project management. The practice elements present the techniques used to accomplish the process steps described in the methodology process guide, so each practice element may apply to one or multiple processes across the project management life cycle. If not developed separately, any tools associated with practice elements can be incorporated or otherwise referenced along with those elements in the methodology practice guide. See Chapter 2, “Project Management Tools.”

The methodology practice guide can be constructed to include a combination of current practices and identified “best practices” from industry. For the latter, some users prefer the term “preferred practices” as a means to identify those techniques or practices that work well for the relevant organization. To that end, one organization’s “best practices” may not always work, fit, or otherwise translate well into another organization, even in the same industry. Factors such as project manager and project team member skill and knowledge, methodology user training, organizational culture, automated tool platforms, IT infrastructure, and project staffing structure will distinctly influence the acceptability, use, and success of “best practices” that are imported from an environment that already has all this in place. Of course, it is the underlying concepts contained in the “best practices” that provide value in the project management processes being developed. As such, the PMO can and should examine industry “best practices,” with consideration for making necessary adaptations—to the practices and to the project management infrastructure—for their use in the relevant organization.

The PMO should also survey project managers and other project management stakeholders to identify and examine practices and techniques that are currently used in the organization. Some current practices may indicate isolated use but with results for the independent user. Other current practices may have broader use but still need to be identified, perhaps refined, for incorporation into the methodology for access by all users.

The methodology practice guide should contain all practice elements that are essential to accomplishing project management in the relevant organization. Each practice element will describe the activities or set of activities that will be performed by the project manager and other methodology users to accomplish associated process steps.

Suggested content for the methodology practice guide includes the following project management practice elements:

- Select and initiate projects
- Define a project
- Specify project needs and requirements
- Establish a project structure
- Form and manage a project team
- Develop a WBS and project work plan
- Estimate project costs
- Develop a project schedule
- Estimate project resource utilization
- Develop project support plans
- Manage project stakeholder communications
- Manage project reporting
- Manage project documentation
- Manage change and control scope
- Manage project risk
- Ensure project quality
- Manage project team performance
- Track and control project work
- Manage project deliverables and acceptance
- Manage customer contracts
- Manage customer relations
- Manage vendors and contractors
- Close a project

The PMO should examine this list as a starting point and then develop the practice element titles and content for its own set of preferred practices. In some organizations, selected elements in this list can be combined into a single practice area. In other organizations, where more detailed guidance is desired, the elements can be further decomposed to provide a broader description of the actions and activities to be performed.

The practice elements in this list provide a fairly comprehensive degree of coverage for project management activities across the entire project management life cycle. However, when first introducing a structured approach to project management with less than a full life cycle methodology, the PMO can consider and select individual elements from this list for initial development and early results.

Introduce Methodology Platform

The methodology deployment strategy discussed earlier will provide guidance for how the project management methodology will be deployed for user access. Of the several methodology platforms considered, the PMO will generally treat project management methodology implementation either as paper based or as an automated application. The fundamental steps for development of these two platforms are described in the following subsections.

Paper-Based Methodology Deployment

This methodology platform compiles methodology components in printed document format for distribution to users. Depending on the relevant organization's needs, it can be either a formal or informal publication. However, it is important to ensure that the methodology document is distributed to all relevant project management stakeholders. Project managers and project team members, especially key project team members, and conceivably, some other stakeholders in the business and project management environment should be included. The PMO will need to identify this distribution list.

One excellent means of methodology distribution is through participation in project management methodology training. The PMO might consider this approach to document distribution, where those who complete methodology training receive a copy of the methodology document and thereby carry it back to their workplace for immediate use.

It is important that the PMO be aware of the effort required to produce and distribute even a simple methodology document. This aspect of methodology deployment can affect the timeliness of methodology introduction in the organization. It may even warrant a planning effort that considers the time, cost, and resources required to accomplish the following methodology document production and distribution activities:

- Compile and edit all methodology components
- Prepare and incorporate any graphics and artwork
- Obtain methodology development team/management concurrence on final copy
- Identify the number of users and, hence, the number of copies needed
- Produce a master methodology document

- Schedule and conduct printing or publication
- Prepare any additional methodology training materials
- Plan and conduct publication shipment to training or distribution locations

Any other influential factors prevalent in the organization should also be weighed for inclusion in this production and distribution plan. Where practical, the PMO should consider involving a preliminary user group to preview and comment on project management methodology content and to establish buy-in for its use.

Automated Methodology Deployment

When selecting an automated methodology platform, some or many of the paper-based deployment steps identified above may still need to be performed. Unless the processes and practices are constructed directly in the application, the process and practice guide material, and perhaps some tool content, will be developed first on paper. Then this methodology content can be electronically transferred or otherwise introduced into the application by the most expedient means available to the organization.

When a new, automated methodology application is developed or acquired, or when it is necessary for an existing one to be modified, such an effort should be treated as a separate project; the time, cost, and requisite resources must be addressed in planning that project. To that end, there are a number of steps to consider when planning and conducting the introduction of an automated methodology platform:

- Identification of available software applications
- Comparison of software application features and functions
- Selection of a preferred software application
- Software application acquisition
- Software application factory customization
- Management of application contract and licensing (and any negotiations)
- Software application shipment monitoring
- Software application installation and testing
- Software application general customization (if not done prior to shipment)
- Software application screen customization
- Software application report customization
- Entry for project management methodology process life cycle component
- Entry for project management practice component
- Project management tool kit preparation or attachment
- Project management information and data entry (for each project in transition)
- Project resource pool information and data entry
- Project customer information and data entry

- Project vendor/contractor information and data entry
- Identification of and providing access to primary users (project managers and team members)
- Identification of and providing access to secondary users (functional and senior managers)
- Scheduling and conducting application user training (features and functions)
- Scheduling and conducting methodology user training (processes and practices)

This list represents the highlights of what must be considered for implementation of an automated methodology platform. It is important to reiterate that it is not intended that the PMO alone conduct such automated system implementation. In fact, the PMO should turn over primary responsibility for this kind of acquisition to the IT/IS department, which will provide full and qualified attention to this effort. However, the PMO should participate in system acquisition planning and system selection to ensure that the needs of the project management community are achieved. Similarly, the PMO staff may retain primary responsibility for guiding or performing application customization and may also be among the first to be trained in automated system use.

Conduct Methodology Implementation

Project management methodology implementation should occur only when an approved methodology has been developed or acquired, customized as needed to serve its project management environment, and made ready for access and use. For any organization, project management methodology implementation is a significant series of activities; for large, multilocation organizations, it is a complex undertaking. Consequently, detailed planning is essential to the success of project management methodology implementation.

The following subsections describe three prominent activities that facilitate project management methodology implementation.

Plan Methodology Implementation

This activity ensures that the relevant organization is prepared for the introduction of a structured, repeatable approach to project management. It involves planning the means by which the project managers and project team members are introduced to the project management methodology, how executive and senior managers support it, and how it is rolled out for use in the project management environment.

Facilitated by the PMO, the project management methodology implementation planning effort can begin with a meeting of key implementation planners. This probably should include the methodology development team, where members are likely to have continued involvement in the implementation effort or at least can