

# **PMKI Taxonomy**

# **Information Structure:**

**PMKI Sub-Index** (1 page) – shows the sections of the PMKI with a list of subjects in each and direct links to each 'subject page'.

**1. Sections** (8 off pages) – annotated list of subjects in each section and topics within each subject.

**1.1 Subject** (*n* pages) – describes the subject and its related topics.

1.1.1 **Topic**– describes a 'topical information set' within the subject, with links to the related papers and other web resources for accessing or downloading.

# Page URL Structure:

Main Index:

PMKI.php

Sections pages	Organisations & Governance Project Controls & Scheduling Stakeholder Management PMBoK Knowledge Areas People Skills and Qualifications PM History IT & Construction General & Reference	PMKI-ORG.php PMKI-SCH.php PMKI-SHM.php PMKI-PBK.php PMKI-TPI.php PMKI-ZSY.php PMKI-ITC.php PMKI-XTR.php
Subject pages	Defined area of knowledge (initial numbering sequence 005, 010	<b>PMKI-###-005.php</b> ), 015, etc.)
Topics (many)	2 to 6 per Subject page – information and links out to content.	

# **Definition of document types** (linked from Knowledge Clusters):

- **PP: Published Papers**: Written conference papers, journal articles, significant magazine articles and books.
- Prs: Presentations: Conference presentations (PowerPoint only).
- **DP: Discussion Papers**: An in-depth discussion of a topic, including third party resources.
- **WP: White Papers**: Shorter reference papers.
- Art: Articles: Short topical discussions published in a variety of media.
- Blg: Blogs: Selected blog posts from Mosaic and SRMM websites.

**1. Organisations & Governance** Subjects covered in this section focus on the way organisations interface with and benefit from project, program and portfolio management, including both a general management and a governance perspective.

# 1.1. Corporate/Organisational Governance

PMKI-ORG-005.php

This subject covers the creation and implementation of the organisational objectives, policies, practices and systems that are responsible for ensuring organisational resources are utilised effectively and the work of the organisation is aligned with its strategy and objectives. The concepts outlined in these papers are consistent with ISO 21505 *Project, programme and portfolio management - Guidance on governance* and ISO/IEC 38500:2010 *Corporate governance of information technology*.

- 1.1.1. The Function of Governance and Governing
- 1.1.2. Governance and Stakeholders
- 1.1.3. Governance systems
- 1.1.4. Governing the organisation's Projects, Programs & Portfolios
  - Overview and Objectives
  - Governing for Success
- 1.1.5. Governance failure
- 1.1.6. Differentiating Governance and Management

# **1.2.** Ethics and Culture in Organisations

# PMKI-ORG-010.php

PMKI-ORG-015.php

PMKI-ORG-020.php

PMKI-ORG-025.php

This subject looks at the central role of ethics, culture, and the associated outcomes such as CSR, sustainability and the 'triple bottom line', in successful organisations.

- 1.2.1. The Importance of Ethics in Governance
- 1.2.2. The Culture of Organizations

# 1.3. Corporate/Organisational Management

This subject covers aspects of general management, and aspects of the overall management of projects that are primarily the responsibility of the organisation's Directors supported by senior executives.

- 1.3.1. General Management
- 1.3.2. The Strategic Management of Project and Program Management
- 1.3.3. Sponsorship and Project Control Boards

# 1.4. Organizational Strategy

This subject looks at the strategic alignment of projects, programs and portfolios with the organisation's strategy, to support the achievement of the organization's objectives.

- 1.4.1. Organizational strategy
- 1.4.2. Strategic Planning

1.4.3. Strategic Alignment

# 1.5. Portfolio Management

This subject focuses on the function of project portfolio management.

- 1.5.1. Portfolio Management Overview
- 1.5.2. Project/Program Selection Processes



#### 1.6. Program Management

PMKI-ORG-030.php

This subject looks at the function of program management and how it differs from project management.

1.6.1. Program Management Overview

1.6.2. Differentiating Programs from Projects

# 1.7. Defining Projects and Programs

PMKI-ORG-035.php

This subject focuses on defining the different types of project and program, and developing a definition of precisely what projects and programs are.

1.7.1. Project Definition and Typology

1.7.2. Program Definition and Typology

# **1.8. Complexity & Mega Projects (and Programs)** PMKI-ORG-040.php This subject considers the effect of complexity theory on the management of project and programs of all sizes with a focus on 'complex project management' and 'mega projects'.

- 1.8.1. Complexity Theory
- 1.8.2. Complex Project (and Program) Management
- 1.8.3. Megaproject Issues and Challenges

# **1.9.** PMOs (Project, Program or Portfolio Management Offices)PMKI-ORG-045.phpThis subject looks at the challenges faced in setting up and managing PMOs (Project,<br/>Program or Portfolio Management Offices):

- 1.9.1. Developing and Managing a PMO
- 1.9.2. Setting and using performance targets
- 1.9.3. Enterprise PMOs

# **1.10.** Organisational Inputs, Methodologies & Maturity Models PMKI-ORG-050.php

This subject looks at the various inputs, methodologies and maturity models organisations can use (typically supported by a PMO) to improve the management of their projects and programs.

- 1.10.1. Organizational Inputs to Project Management
- 1.10.2. Methodologies for Project and Program Management
- 1.10.3. Maturity Models

# 1.11. Value and Benefits Realisation

PMKI-ORG-055.php

This subject focuses on the process of creating value for the organisation through the measurement and management of benefits from identification to realisation and understanding the link between delivering benefits and creating value.

- 1.11.1. Value and Benefits Overview
  - Defining project success
- 1.11.2. Benefits Management
- 1.11.3. Value Management and Value Engineering



#### 1.12. Organisational Change Management

PMKI-ORG-060.php This subject focuses on two aspects of change. First the management of change created by projects and programs within the organization to maximize the realization of value. Second, the need to adapt to manage the consequences of changes in the environment caused by COVID19..

- 1.12.1. Organisational Change Management
- 1.12.2. Project Management in the time of COVID
- 2. Project Controls and Scheduling. Subjects covered in this section take an in-depth look at the function of project controls, scheduling, and EVM.

#### 2.1. Integrated Project Controls

PMKI-SCH-005.php

Project controls is an integrated process that include the data gathering, management and analytical processes used to predict, understand and constructively influence the time and cost outcomes of a project or program through the communication of useful information. This subject focuses on the overall integrated process of 'controlling' a project or program.

- 2.1.1. Project Controls Overview
- 2.1.2. Project Control Functions & Techniques
- 2.1.3. Future Trends in Project Controls
- 2.1.4. Project Control & CPM Failures and Challenges.

#### 2.2. Controls professionals, skills, competency & training

PMKI-SCH-007.php

The future of project management is predicted to be one that focuses on the 'soft skills' including; communication, motivation and leadership. Uncertainty will be recognized as normal and skills for managing uncertainty will become essential for successful project delivery. Consequently, the skills needed by project controls professionals, and schedulers will be focused on using the schedule to assist in the effective management of the use of time, by supporting the PM Team with useful information. This paradigm emphasizes:

- Collaboration and agreement
- Coordination and timely information, and
- The ability to adapt to changing circumstances quickly.

This subject looks at the skills and competencies needed by effective controls staff and the qualification framework

- 2.2.1. Project controls competencies and skills
- 2.2.2. EVM and schedule training
- 2.2.3. Scheduling and controls certifications

#### 2.3. Reporting & Communicating Controls Information

PMKI-SCH-008.php

This subject considers the challenges associated with communicating project controls information effectively. Managers need to understand the information before they can make effective use of the knowledge to make informed decisions.

2.3.1. Communication theory, strategy and practice

2.3.2. The challenge of communicating controls information effectively



### 2.4. CPM Schedule Management - Overview

PMKI-SCH-010.php This subject provides an overview of scheduling good practice using the critical path

method (CPM), its benefits, and the issues and challenges of delivering effective schedule support to the project management team.

2.4.1. Scheduling overview

2.4.2. The role of scheduling in support of project delivery

- 2.4.3. Schedule challenges and issues
  - Traditional scheduling challenges
  - Schedule control in Agile and Distributed projects
  - Technical Debt

### 2.5. Schedule Strategy, Planning & Design

PMKI-SCH-011.php

Successful projects are planned. This subject looks at the role of strategy, planning the project, and designing the project controls system, in crafting success.

2.5.1. Project strategy

2.5.2. Project planning

2.5.3. Designing an effective project controls framework

2.6. Schedule Development & Time Analysis PMKI-SCH-012.php This subject covers the development of a dynamic CPM schedule, time analysis calculations, the critical path, and float.

- 2.6.1. Building a dynamic CPM schedule
- 2.6.2. CPM time analysis calculations
- 2.6.3. The critical path and float

# 2.7. Resource & Costs Analysis

PMKI-SCH-013.php This subject considers the effect of including costs and resources in the CPM schedule.

2.7.1. Schedule cost analysis

2.7.2. Resource analysis, challenges and opportunities

# 2.8. Authorizing & Maintaining the Schedule

# PMKI-SCH-014.php

This subject looks at authorising and baselining the project schedule and then the routine of statusing and updating the schedule to maintain its relevance.

2.8.1. Authorising and baselining the project schedule

2.8.2. Statusing and updating the project schedule

# 2.9. Schedule Risk Assessment

PMKI-SCH-015.php

Every estimate about a future outcome is uncertain! This subject looks at the effect of uncertainty on schedule predictions and the tools and techniques available to manage the consequences of uncertainty and improve the accuracy of projected completion dates.

2.9.1. Schedule Risk Overview



- 2.9.2. Risk Assessment and Analysis
- 2.9.3. Schedule Risk Tools

# 2.10. Scheduling Complexity & Mega Projects

PMKI-SCH-017.php

PMKI-SCH-020.php

The management of mega-projects and complexity are seen as specialist disciplines that extend beyond traditional project management. This section considers the implications of complexity in the scheduling of mega-projects.

2.10.1. Overview of complexity

2.10.2. Scheduling complexity

# 2.11. Schedule Quality Assessment

This subject focuses on the emerging science of measuring schedule quality and conformance to 'good practice' and the automated tools that are now available to assist in this process. There is a strong correlation between a well-constructed schedule and a desirable project outcome, applying these concepts will enhance the probability of on-time completion.

- 2.11.1. Schedule Quality Overview
- 2.11.2. Schedule Quality & Conformance Scoring
- 2.11.3. Schedule Quality Assessment Tools and Software

### 2.12. Scheduling Methodologies and Approaches

This subject looks at the wide range of scheduling methodologies and approaches to improving CPM scheduling currently available. Traditional 'critical path' scheduling is only one of the ways to develop a useful and effective schedule, and in many situations, it is far from optimal.

- 2.12.1. Scheduling concepts and theories
- 2.12.2. Scheduling methodologies and approaches

# 2.13. PM Software and Tools

This subject takes a look at the range of project, program and portfolio management software and tools available to use (many free). A brief description and links to the developers' web sites are provided.

2.13.1. Scheduling Software and Tools

- CPM and Dynamic Scheduling Tools
- Barchart & Diagramming Tools
- Line of Balance and Time/Chainage Tools
- Viewers and Data Access Tools
- Schedule Risk Tools (see risk section)
- Schedule Quality & Analysis Tools
- 2.13.2. Cost, Estimating & Earned Value
- 2.13.3. Risk management & Decision Support PMKI-SCH-031.php
  - Project Risk Management
  - Schedule Risk Management Tools
  - Decision Support Tools
- 2.13.4. Integrated Portfolio, Program and Project (PPP) Management Tools

PMKI-SCH-032.php

PMKI-SCH-031.php

PMKI-SCH-030.php

PMKI-SCH-025.php



2.13.5. Team management & Collaboration software

2.13.7. Construction / Engineering management software

2.13.6. General project management software

PMKI-SCH-032.php PMKI-SCH-033.php PMKI-SCH-033.php

# 2.14. Project Controls Books & Resources

PMKI-SCH-035.php

This page offers a brief overview of a few of the 1000s of books, standards and guides focused on scheduling and project controls available in the marketplace, plus some of the organizations we know of, and other web-based resources that are free, or easy to join. We focus on the books and other resources we have reviewed, used or written.

- 2.14.1. Scheduling & Controls, Standards & Guides
- 2.14.2. Scheduling & Controls Books
- 2.14.3. Scheduling & Controls Resources

### 2.15. Earned Value & Earned Schedule

PMKI-SCH-040.php

This subject looks at Earned Value Management (EVM) which, in conjunction with Earned Schedule, has proven itself to be one of the most effective performance measurement and feedback tools for managing projects.

- 2.15.1. Earned Value & Earned Schedule Overview
- 2.15.2. Earned Value Processes
- 2.15.3. Earned Schedule
- 2.15.4. EV & ES Resources and Training
- 2.15.5. The VIPER Experience

#### 2.16. Work Performance Management

PMKI-SCH-041.php

This subject looks at the use of Work Performance Management to overcome some of the challenges encountered in scheduling, managing, and claiming delays in agile and distributed projects.

- 2.16.1. Schedule Control in Agile and Distributed projects
- 2.16.2. Work Performance Management
- 2.16.3. Assessing Delays in Agile and Distributed Projects
- **3. Stakeholder Management.** Subjects covered in this section focus on the importance of effective stakeholder engagement in the successful delivery of projects and programs, supported by the *Stakeholder Circle*<sup>®</sup> methodology and tool set.

**3.1.** Advanced Stakeholder Engagement PMKI-SHM-005.php Projects are managed by people, for people and everyone involved is a stakeholder. This subject moves beyond the basics to look at how organisations can build stakeholder engagement into their DNA and create a successful, sustainable outcomes.

- 3.1.1. Stakeholder Overview
- 3.1.2. Stakeholder Theory and Research
- 3.1.3. Practical Stakeholder Engagement

#### **3.2.** The *Stakeholder Circle*<sup>®</sup> Methodology

PMKI-SHM-010.php

The Stakeholder Circle® is designed to enhance the management of a business unit,



organizational activity, or projects' stakeholder community to the benefit of the stakeholders and the activity. These pages provide information on the practical concepts embedded in the five stages of the **Stakeholder** Circle<sup>®</sup> methodology.

- 3.2.1. The Stakeholder Circle® Methodology Overview
- 3.2.2. Applying the Stakeholder Circle® Methodology
- 3.2.3. Easy Stakeholder Management
  - The ESEI Stakeholder Management Series
  - Easy SHM Stakeholder management using the Stakeholder Circle<sup>®</sup> methodology
- 3.2.4. Stakeholder Circle Books

#### **3.3.** Stakeholder Circle® Methodology – Identification PMKI-SHM-011.php The first stage in the **Stakeholder** Circle® methodology is identifying the stakeholders that

The first stage in the *Stakeholder Circle*<sup>®</sup> methodology is identifying the stakeholders that have the potential to influence the activity being managed.

- 3.3.1. The Stakeholder Circle® Methodology Overview
- 3.3.2. Stakeholder Definition and Identification
- 3.3.3. Published Articles and Papers Stakeholder Identification

# **3.4.** *Stakeholder Circle®* **Methodology – Prioritization** PMKI-SHM-012.php

The second stage in the *Stakeholder Circle*<sup>®</sup> methodology is prioritizing the stakeholders to understand who is important at this point in time.

- 3.4.1. The Stakeholder Circle® Methodology Overview
- 3.4.2. Stakeholder Prioritization
- 3.4.3. Published Articles and Papers Stakeholder Prioritization

# **3.5.** Stakeholder Circle<sup>®</sup> Methodology – Visualisation PMKI-SHM-013.php The third stage in the Stakeholder Circle<sup>®</sup> methodology is visualizing the stakeholders to assist in focusing management effort on the stakeholders who matter.

- 3.5.1. The *Stakeholder Circle*<sup>®</sup> Methodology Overview
- 3.5.2. Stakeholder Visualization
- 3.5.3. Published Articles and Papers Stakeholder Visualization

# **3.6.** Stakeholder Circle<sup>®</sup> Methodology – Engagement PMKI-SHM-014.php The fourth stage in the Stakeholder Circle<sup>®</sup> methodology is engaging with the stakeholder community to enhance the probability of success by increasing the levels of support and reducing opposition.

- 3.6.1. The *Stakeholder Circle*<sup>®</sup> Methodology Overview
- 3.6.2. Stakeholder Engagement
- 3.6.3. Published Articles and Papers Stakeholder Engagement

# 3.7. Stakeholder Circle<sup>®</sup> Methodology – Monitoring

PMKI-SHM-015.php

The fifth stage in the *Stakeholder Circle*<sup>®</sup> methodology is the regular monitoring of the



stakeholder community to refine and adapt the overall engagement process in response to changes in the community.

- 3.7.1. The *Stakeholder Circle*<sup>®</sup> Methodology Overview
- 3.7.2. Stakeholder Monitoring
- 3.7.3. Published Articles and Papers Stakeholder Monitoring
- **3.8. Project Relationship Management and the Stakeholder Circle.** PMKI-SHM-020.php A dissertation submitted in partial fulfilment of the requirements for the degree of Doctor of Project Management (DPM).
- **3.9.** The Stakeholder Circle® Tools PMKI-SHM-030.php The Stakeholder Circle® is designed to enhance the management of a business unit, organizational activity, or project's stakeholder community to the benefit of the stakeholders and the activity. It is a proven methodology supported by the robust, easy to use tools defined on this page.
  - 3.9.1. Stakeholder Circle® Tools Overview
  - 3.9.2. Stakeholder Circle® Tools
  - 3.9.3. Stakeholder Circle® Tools Help Overview

#### 3.10. Stakeholder Circle<sup>®</sup> Help – Identification

PMKI-SHM-031.php

This help page provide information on the identification stage of the *Stakeholder Circle*<sup>®</sup> methodology implemented in the SWS (Stakeholder Work-Sheet) spreadsheet.

- 3.10.1. Stakeholder Circle® Help Overview
- 3.10.2. Stakeholder Circle<sup>®</sup> Help Identification
- 3.10.3. Stakeholder-on-a-Page (SoaP) Identification

#### 3.11. Stakeholder Circle<sup>®</sup> Help – Prioritization

PMKI-SHM-032.php

This help page provide information on the prioritization stage of the *Stakeholder Circle*<sup>®</sup> methodology implemented in the SWS (Stakeholder Work-Sheet) spreadsheet.

- 3.11.1. Stakeholder Circle® Help Overview
- 3.11.2. Stakeholder Circle<sup>®</sup> Help Prioritization
  - Team Assessment
  - Prioritization
  - Reset (calculate) Priority
  - Adjust Index Weightings
- 3.11.3. Stakeholder-on-a-Page (SoaP) Prioritization

#### 3.12. Stakeholder Circle® Help – Visualisation

PMKI-SHM-033.php

This help page provide information on the visualization stage of the *Stakeholder Circle*<sup>®</sup> methodology implemented in the SWS (Stakeholder Work-Sheet) spreadsheet.

3.12.1. Stakeholder Circle<sup>®</sup> Help - Overview



- 3.12.2. Stakeholder Circle® Help Visualization
  - Creating the Stakeholder Circle
  - Reading the Stakeholder Circle

### 3.13. Stakeholder Circle® Help – Engagement

PMKI-SHM-034.php

This help page provide information on the engagement stage of the *Stakeholder Circle®* methodology implemented in the SWS (Stakeholder Work-Sheet) spreadsheet.

- 3.13.1. Stakeholder Circle® Help Overview
- 3.13.2. Stakeholder Circle® Help Engagement
  - Assessing the Stakeholder Community
  - Stakeholder Engagement Index
- 3.13.3. Stakeholder-on-a-Page (SoaP) Engagement

**3.14. Stakeholder Relationship Management Maturity Model (SRMM®)** PMKI-SHM-040.php SRMM is based on the Stakeholder Circle<sup>®</sup> methodology, but any effective stakeholder management process can be used to develop 'stakeholder management maturity'.

- 3.14.1. SRMM® Overview
- 3.14.2. SRMM® Application
- 4. PM Knowledge Areas This section of the PMKI focuses on the core project and program management skills needed to support the efficient delivery of the objectives of the project or program. Subjects within this section are organised to align with the traditional subdivisions of project management processes.

Three PM topics have their own section of the PMKI:

- Project controls and scheduling (see Section 2 above)
- Stakeholder management (see Section 3 above)
- Personal skills and competencies (see Section 5 below)
- The origins and history of project management is discussed in the history section of this site (see Section 6 below).

#### 4.1. Project Initiation

#### PMKI-PBK-005.php

This subject covers the work undertaken to develop the concept of a project or program to the point where it can be formally initiated and the project charter approved.

- 4.1.1. Initiation overview
- 4.1.2. Innovation
- 4.1.3. Opportunity identification
- 4.1.4. Project or program Initiation

#### 4.2. Integration Management

#### PMKI-PBK-010.php

This subject covers the work undertaken by the project/program manager and the core team to manage the planning, execution, monitoring and control of the work of a project or program in a coordinated way from initiation to closure.



- 4.2.1. Integration overview
- 4.2.2. Develop project management plan
- 4.2.3. Direct and manage project work
- 4.2.4. Knowledge Management (manage project knowledge), including lessons learned
- 4.2.5. Monitor and control project work
- 4.2.6. Perform integrated change control
- 4.2.7. Close project or phase

### 4.3. Scope Management

# This subject covers the work required to ensure the project/program includes all of the work needed, and only the work needed, to achieve its objectives and that the work is successfully delivered to the client.

- 4.3.1. Scope management overview
- 4.3.2. Collect and manage requirements
- 4.3.3. Define and manage scope
- 4.3.4. Create WBS & other Breakdown structures

### 4.4. Cost Management

This subject covers the processes involved in planning, estimating, budgeting, financing, funding, managing and controlling costs so the project can be completed within the approved budget.

4.4.1. Cost management overview

- 4.4.2. Estimating costs
- 4.4.3. Determining the budget and price
- 4.4.4. Controlling costs

#### 4.5. Quality Management

This subject focuses on the processes needed to incorporate the organisation's quality policies into the work of the project (or program) to satisfy the needs the project was chartered to fulfil, and to meet stakeholder requirements.

- 4.5.1. Quality overview
- 4.5.2. Quality planning & standards
- 4.5.3. Quality assurance & control

#### 4.6. Resource Management

This subject focuses the processes needed to identify, acquire and manage the resources, including human resources, needed to accomplish the work of the project or program.

4.6.1. Resource overview

- 4.6.2. Resource planning, acquisition & control
- 4.6.3. Human resources & teams

PMKI-PBK-030.php

PMKI-PBK-025.php

PMKI-PBK-015.php

# PMKI-PBK-035.php



4.6.4. Personal attributes

# 4.7. Communication Management

PMKI-PBK-040.php

This subject covers the purpose and effect of communication to influence stakeholders, and the processes needed to plan, collect, create, distribute, store, retrieve, and ultimately archive or dispose of project information in a timely and appropriate manner.

4.7.1. Communication overview

- The art of communication
- Communication planning
- 4.7.2. Communication theory & practice
  - Quality in communication
  - Managing communication artifacts
- 4.7.3. Communicating for effect
  - Influencing managers and executives
  - Influencing teams and meetings
  - Engaging stakeholders
  - Making controls information effective
- 4.7.4. Effective reporting

4.7.5. Communication skills & techniques

### 4.8. Risk Management

PMKI-PBK-045.php

This subject covers the processes involved in the identification and management of risk within a project or program to achieve and maintain a risk profile acceptable to the key stakeholders.

- 4.8.1. Risk Management Overview
- 4.8.2. Risk Management
- 4.8.3. Practical Risk Management Tools & Courses
- 4.8.4. Industry Perspectives on Risk
- 4.8.5. Complexity, People & Risk

# 4.9. Risk Assessment

PMKI-PBK-046.php

This subject covers the techniques and tools used to calculate and assess the risk exposure of a project or program.

- 4.9.1. Risk Assessment Overview
- 4.9.2. Risk Assessment
- 4.9.3. Probability, Standard Deviation & Statistics
- 4.9.4. PERT and Monte Carlo
- 4.9.5. Contingencies, Reserves & Averages

# 4.10. Procurement Management

PMKI-PBK-050.php

This subject covers the processes involved in acquiring goods and services from outside of



the performing organisations including the art of negotiation and an overview of contract law.

- 4.10.1. Procurement overview
- 4.10.2. Procurement & contract administration
- 4.10.3. Negotiation
- 4.10.4. Basic contract law
  - Common forms of contract
  - The law of contract
  - Dispute management
- 4.10.5. Logistics and supply chain management

# 5. People Skills & Qualifications

Subjects covered in this section focus on the key personal characteristics, soft skills, and competencies needed by a successful project and program managers.

### 5.1. Personal Ethics & Sustainability

PMKI-TPI-005.php

PMKI-TPI-010.php

This subject underpins all of the others. A strong ethical framework is vital for personal success influencing our actions and decisions. Ethics govern the conduct of a person and are founded on the collective view of a profession, organisation, or society.

- 5.1.1. Personal Ethics
- 5.1.2. Ethical Decision Making
- 5.1.3. Professionalism
- 5.1.4. Sustainability
  - Green Project Management
  - Green Building

# 5.2. Competencies & Interpersonal Skills

A competent person is capable of applying knowledge effectively to achieve a desired outcome. This section looks at competency and some of the key characteristics and skills a competent manager requires to be effective.

- 5.2.1. Competency Overview
- 5.2.2. Personal Attributes of a Project Manager
  - Innovation & Creativity
  - Managing Organizational Politics
- 5.2.3. Coaching & Mentoring
- 5.2.4. Project & Program Management Competencies
  - Competency Frameworks
- 5.2.5. Interpersonal Skills
  - Making Decisions
  - Negotiating & Mediating
  - Managing Senior Managers
  - Information Acquisition and Use
  - Conflict Management



- 5.2.6. Managing People and Teams
  - Managing People
  - Managing Teams
  - Trust
  - Meetings

# 5.3. Leadership & Motivation

# PMKI-TPI-015.php

This subject looks at the personal attributes needed by a person to lead a group of people towards achieving a common goal, and some of the many facets of effective leadership, including motivation.

5.3.1. Leadership

- 5.3.2. Motivation
  - Key Performance Indicators (KPIs)

# 5.4. PM Training & Qualifications PMKI-TPI-020.php This subject looks at project and program management qualifications, their importance in the current job marketplace, and their effectiveness in identifying competent people.

- 5.4.1. Training & Qualifications Overview
- 5.4.2. Learning & Studying
- 5.4.3. Exam Questions
- 5.4.4. PM Credentials & Qualifications

Earning and reporting PDUsPMI's Talent Triangle

5.4.5. PMP Resources PMKI-TPI-021.php - PMP Overview - Why we stopped teaching PMP - PMP Resources - PMP Training Options 5.4.6. CAPM Resources PMKI-TPI-022.php - CAPM Overview - Why we stopped teaching CAPM - CAPM Resources - CAPM Training Options 5.4.7. PMI-SP Resources PMKI-TPI-024.php - PMI-SP Overview - Why we stopped teaching PMI-SP - PMI-SP Resources - PMI-SP Training Options 5.4.8. PMI's CCR System PMKI-TPI-023.php - CCR Overview



# 6. Project Management History

Subjects covered in this section look at the origins of modern project management and the evolution of aspects of project controls from 4000 BCE to the present. Many of the papers contain original research.

### 6.1. The Development of Modern Project Management

PMKI-ZSY-005.php

This subject looks at the origins of modern project management and its evolution into a profession.

- 6.1.1. Origins, and trends in, modern project management
- 6.1.2. The development of project management credentials
- 6.1.3. The evolution of construction management

# 6.2. The History of Ancillary Project Management Concepts PMKI-ZSY-010.php

This subject looks at the origins of diverse range of ancillary factors used in project management such as calendars, numbers, and arbitration.

- 6.2.1. The origins of numbers, calendars, and calculations
- 6.2.2. The development of general management theory
- 6.2.3. The History of Agile, Lean, and Allied Concepts
- 6.2.4. The history of dispute management and arbitration

#### 6.3. The Evolution of Governance & Ethics

PMKI-ZSY-015.php

This subject looks at the development of the concepts of governance, ethics and integrity from a project management perspective.

- 6.3.1. The evolution of ethics and integrity
- 6.3.2. The origins and development of governance

#### 6.4. The History of Project Controls

PMKI-ZSY-020.php

This subject provides a general overview of the development of project control techniques from bar charts through to modern optimisation and integration (BIM). The origins of specific techniques are discussed as separate subjects below.

- 6.4.1. The history of scheduling
  - The History of Bar Charts
- 6.4.2. The origins of the WBS
- 6.4.3. The history of Earned Value and Cost Controls
- 6.4.4. Developments in the creation and use of controls information

# 6.5. Henry L Gantt (and why bar charts are not 'Gantt Charts') PMKI-ZSY-025.php This subject looks at the important contribution of Henry L. Gantt to the development of modern management and the charts he used in his work.

6.5.1. Henry L. Gantt's work and contribution to management

6.5.2. Gantt's books and publications (original texts)



### 6.6. The Origins of CPM, PDM and PERT Schedules

PMKI-ZSY-030.php

This subject looks at the origins of the CPM, PDM, and PERT network diagramming techniques and calculations.

6.6.1. Origins of CPM (Critical Path Method and AoA)

6.6.2. Origins of PDM (Precedence Diagramming Method and AoN)

6.6.3. Origins and limitations of PERT

# 6.7. Project Management History Resources

PMKI-ZSY-035.php

This subject provides annotated links to books, websites and other resources focused on documenting the history of project management.

6.7.1. Project management history books

6.7.2. Project management history websites

# 7. IT & Construction

Subjects covered in this section focus on project management specific to the needs of the construction and engineering industry, and the software industry.

# 7.1. Construction Management

PMKI-ITC-010.php

This page focuses on the unique challenges of construction management and the tools and processes needed to deliver major projects on time, on budget and to the satisfaction of stakeholders.

7.1.1. Improving construction management

- Rethinking Construction Reports
- Scope for Improvement Reports
- Project Definition Rating Index (PDRI)
- Construction Education
- 7.1.2. Managing Construction Stakeholders
- 7.1.3. Managing time
- 7.1.4. Managing construction risk
- 7.1.5. Causes of project failure

# 7.2. Building Information Modelling (BIM)

PMKI-ITC-011.php

Building Information Modelling (BIM) is an intelligent 4D+ model-based process that gives architecture, engineering, and construction (AEC) professionals the insight and tools to more efficiently plan, design, construct, and manage buildings and infrastructure.

7.2.1. BIM and related technology

7.2.2. BIM Software

# 7.3. Construction & Engineering Case Studies

PMKI-ITC-012.php

This page holds a number of case studies and conference papers looking at the real-world challenges of time management and risk management on major projects.

7.3.1. Construction risk management case studies

7.3.2. Construction time management case studies



#### 7.4. CIOB Resources

PMKI-ITC-013.php

The Chartered Institute of Building (CIOB) is the world's largest and most influential professional body for construction management and leadership. Links are provided to a range of CIOB resources.

7.4.1. CIOB Contributions

- 7.4.2. The CIOB Time and Cost Management Contract Suite
- 7.4.3. CIOB Construction Management Training
- **7.5. Dispute management in construction/engineering** PMKI-ITC-014.php Disputes in the construction and engineering industries are common and often involve large amount so money. This page looks at dispute management from the perspective that preventing disputes is better than resolving disputes. But when a dispute arises you need to know how to respond effectively.
  - 7.5.1. Dealing with poor performance
  - 7.5.2. Contract & Commercial Management
  - 7.5.3. Dispute Management
    - General Concepts for Minimizing Disputes
    - Managing Contract Disputes
    - Defective Work Claims
    - Delay and Disruption Claims
    - Legal Dispute Processes

#### 7.6. Casewatch Reports – building & contract law

PMKI-ITC-015.php

Casewatch publications are topical reports on recent court cases in the construction, development and project industries.

7.6.1. Adjudication [PMKI-ITC-015.php]

7.6.2. Arbitration [PMKI-ITC-016.php]

7.6.3. Contract & Tort [PMKI-ITC-017.php]

#### 7.7. Claims and Forensic Analysis

PMKI-ITC-020.php

Many projects end up in various forms of dispute over time, money quality and/or scope. This subject looks at the causes of project failure and how to manage disputes when they arise.

7.7.1. Forensic analysis and reporting (cost & time)

- Assessing delay and disruption
- Concurrent and parallel delays
- Referenced Court Judgements

7.7.2. Claims & Expert Witness

#### 7.8. Software & IT projects

PMKI-ITC-040.php

Aspects of project controls and management specific to the ICT industries including Agile, Waterfall and other soft project development processes.

7.8.1. IT Project Management Overview



# 7.8.2. Agile Approaches to Development

- Agile Overview
- Estimating for Agile
- Controlling and Governing Agile
- Calculating status and completion
- Administering Agile Contracts
- Agile resources
- 7.8.3. Traditional Approaches to Development
  - Waterfall

### 7.9. Product Development & Maintenance

PMKI-ITC-050.php

The product lifecycle and the maintenance of facilities start with a project (or program), use project's for significant upgrades and frequently need a project to deal with the challenges of shutdown and disposal. This subject looks at the overlap and the differences between product management, maintenance management and project management.

7.9.1. Product Development

7.9.2. Maintenance Management

# 8. General & References

Subjects covered in this section include general references, links to PPP definitions and vocabulary, and other useful links.

#### 8.1. Papers of general interest

#### PMKI-XTR-025.php

PMKI-XTR-035.php

Interesting and useful papers that do not have a 'home' elsewhere in this taxonomy.

8.1.1. General Interest

#### 8.2. Retired papers

Superseded papers from the last 20 years on topics that have evolved, have dropped out of the modern view of project management, or have been updated.

8.2.1. Organizations & Governance

8.2.2. PM Knowledge Areas

- 8.2.3. Project Controls & Scheduling
- 8.2.4. People Skills and Advanced Project Management
- 8.2.5. Industries, General & References
- 8.2.6. Project Management History

# 8.3. PM Vocabulary & Lexicons

vocabularies.

PMKI-XTR-040.php Project management suffers from a lack of precision in the definition of terms. We do not intend to create yet another listing! This subject links to a number of reputable lexicons and

8.3.1. Vocabularies & Lexicons



#### 8.4. PM reference sites and blogs we like

PMKI-XTR-045.php

This page links out to reputable reference sites and blogs we own, contribute to, like and respect. If you have not found something you need in the PMKI, there's a good chance you will on one of these sites....... All of the links are annotated to make choosing your next destination easy.

- 8.4.1. Project Management Associations
- 8.4.2. Project Management Reference Sites
- 8.4.3. Project Management Journals (Free)
- 8.4.4. Project Management Blogs
- 8.4.5. People We Know