



Project Management Standards

MDA402 Project Management

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Lecture Overview

1. Individual Competence Baseline - ICB

- Overview

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- Framework

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- Overview

- Definition

- Project Performance Domains

- How to?

Individual Competence Baseline

Overview

- created by **International Project Management Association (IPMA)**
- first version ICB1 was published in 1997
- latest publication from 2015: **Individual Competence Baseline for Project, Programme & Portfolio** describing ICB4 (fourth version) [4]



Figure: IPMA logo [4]



Version 4.0

Figure: IPMA Global Standards [4]

Individual Competence Baseline

Definition

Definition 2.1

ICB is the global standard for individual competence in **project, programme and portfolio management**.

IPMA's **goals** with ICB are:

- enrich and improve individual's competence in project, programme and portfolio management
- provide inventory of competences that represent complete mastery of management domains
- support the growth of individuals and organizations in increasingly competent project environments

Individual Competence Baseline

Competence

Definition 2.2

Individual competence is the application of **knowledge**, **skills** and **abilities** in order to achieve desired results.

Knowledge is the collection of information & experience.

- being able to understand concept of a Gantt chart

Skill is specific technical capability enabling to perform a task.

- being able to build a Gantt chart

Ability is effective delivery of knowledge & skills in given context.

- being able to devise and successfully manage project schedule

Individual Competence Baseline

Competence

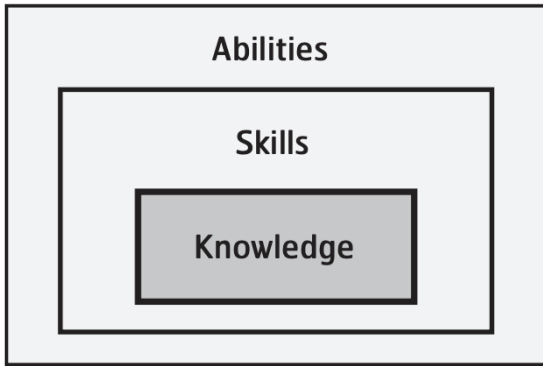


Figure: Relationship between knowledge, skill & ability. [4]

Individual Competence Baseline Framework

ICB tries to codify competences around these key concepts:

1. Domains

- ICB does not discuss competences in terms of specific roles (project manager)
- it discuss competences in terms of domains (individuals working in project management)
- each of the domain may contain role that fit into overall competence domain
- 3 important domains: **project**, **programme** & **portfolio**

2. Competence areas

- three areas that form The Eye of Competence: **People**, **Practice** & **Perspective**

Individual Competence Baseline Framework

Portfolio

... is a group of programs and/or projects within the same organization, which may be related or unrelated to one another.

Programme

... is a group of projects that are similar or related to one another and that are often managed as a group instead of independently.

Project

... is a temporary endeavor undertaken to create a unique product, service, or result.

Individual Competence Baseline Framework

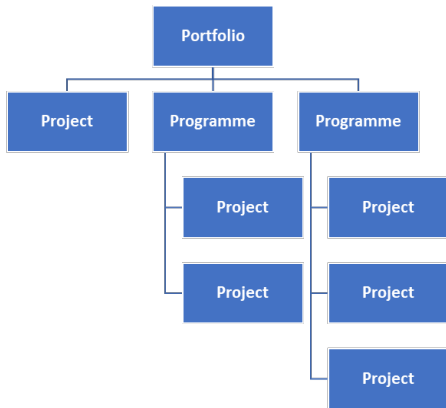


Figure: Project \subset Programme \subset Portfolio [1]

Individual Competence Baseline Framework

People competences

... consist of the personal and interpersonal competences required to successfully participate in or lead project / programme / portfolio.

Practice competences

... are specific methods, tools & techniques used in project / programme / portfolio to realise success.

Perspective competences

... are methods, tools & techniques allowing individuals interact with environment and rationale that leads them to start and support project / programme / portfolio.

Individual Competence Baseline Framework

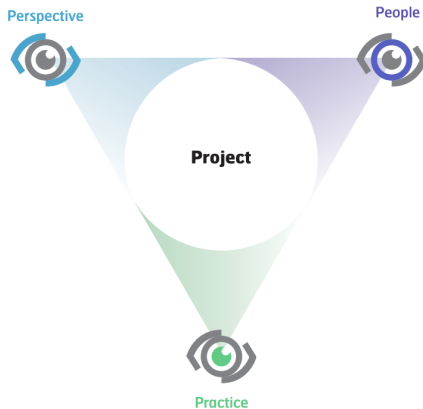


Figure: Eyes of Competence [4]

Individual Competence Baseline Framework

Practice competences

- | | |
|---------------------------------|-----------------------------|
| ■ Design | ■ Resources |
| ■ Goals objectives and benefits | ■ Procurement |
| ■ Scope | ■ Plan and control |
| ■ Time | ■ Risk and opportunity |
| ■ Organisation and information | ■ Stakeholders |
| ■ Quality | ■ Change and transformation |
| ■ Finance | ■ Select and balance |

Individual Competence Baseline Framework

Perspective Competences

- Strategy
- Governance, structures and processes
- Compliance, standards and regulation
- Power and interest
- Culture and values

Individual Competence Baseline Framework

People Competences

- Self-reflection and -management
- Personal integrity and reliability
- Personal communication
- Relationships and engagement
- Leadership
- Teamwork
- Conflict and crisis
- Resourcefulness
- Negotiation
- Results orientation

Individual Competence Baseline

How to?

- ICB is **NOT** cookbook for managing projects → it does not describe processes or steps involved in projects
- best use as a **handbook** of individual managerial competences
- it is used alongside other project management standards
- it is more suitable for experienced project managers

Individual Competence Baseline

How to?

Certification is done directly by IPMA. For ICB they offer **four levels** of certification:

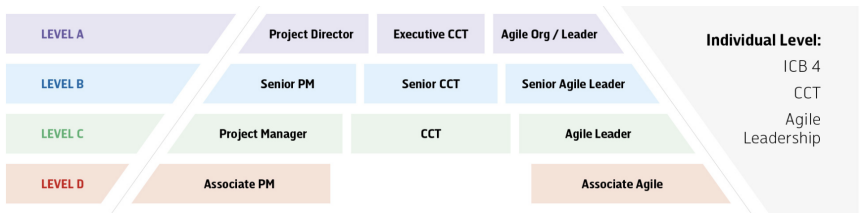


Figure: Certification levels of ICB offered by IPMA [2]

Project Management Body Of Knowledge Overview

- created by **Project Management Institute**
- first version was published in 1987
- latest publication from 2021: **A Guide to the Project Management Body of Knowledge PMBOK Guide** marking 7th edition of PMBOK [5]



Figure: PMI logo [5]

Project Management Body Of Knowledge

Definition

Definition 2.3

PMBOK contains the **standard for managing** most projects most of the time across many types of industries.

- provides best practices for project management through **project performance domains** (previously knowledge areas)
- is heavily process-oriented

Project Management Body Of Knowledge

Project Performance Domains

Definition 2.4

Project performance domains:

- are groups of **related activities** that are critical for the effective delivery of project outcomes
- are **interactive**, **interrelated**, and **interdependent** areas of focus that work in unison to achieve desired project outcomes
- operate as an **integrated system**, with each performance domain being interdependent of the other performance domains → enabling successful delivery of the project and its intended outcome

Project Management Body Of Knowledge

Project Performance Domains



Figure: Project Performance Domains [5]

Project Management Body Of Knowledge

Project Performance Domains

Stakeholders

- **Stakeholder** = An individual, group, or organization that may affect, be affected by, or perceive itself to be affected by a project.
- covers stakeholder **identification, analysis, engagement**
- stakeholder engagement → implementing strategies and actions to promote productive involvement of stakeholders
 - **Identify, Understand, Analyze, Prioritize, Engage, Monitor**

Project Management Body Of Knowledge

Project Performance Domains



Figure: Project Stakeholders [5]

Project Management Body Of Knowledge

Project Performance Domains

Team

- people who are responsible for producing project deliverables that realize business outcomes
- goal of the domain is to evolve into **high-performing project team**
- characteristics of high-performing team:
 - **Open communication, Trust, Shared ownership, Recognition ...**
- focuses on **project team culture** → developing team norms via desired behaviours:
 - **Transparency, Integrity, Respect, Positive discourse, Support, Courage, Celebrating success**

Project Management Body Of Knowledge

Project Performance Domains

Development approach and life cycle

- aims of this domain is to establish **development approach**, **delivery cadence** and **project life cycle** needed to optimize project outcomes

Delivery cadence:

- refers to the timing and frequency of project deliverables
- single, multiple or periodic deliveries

Development approach:

- is the means used to create and evolve the product, service, or result during the project life cycle
- common ones are predictive, hybrid and adaptive

Project Management Body Of Knowledge

Project Performance Domains

Development approach and life cycle

Project life cycle:

- projects phases/stages from beginning to an end (closely tied with development approach & delivery cadence)
- Initiate, Design, Build, Test, Deploy, Close

Deliverable	Delivery Cadence	Development Approach
Building	Single delivery	Predictive
Senior services	Multiple deliveries	Iterative
Website	Periodic deliveries	Adaptive
Community action patrol training	Multiple deliveries	Incremental

Figure: Delivery Cadence & Development approach based on deliverable [5]

Project Management Body Of Knowledge

Project Performance Domains

Planning

- purpose of this domain is to create **an approach to develop** project deliverables
- it is varying domain → each project is unique and thus amount, timing and frequency of planning is changing
- goal is to understand **business case, requirements and project scope**

Project Scope:

- the work performed to deliver a product/service with the specified features and functions
- using **work breakdown structure** (WBS) to decompose into lower level of details

Project Management Body Of Knowledge

Project Performance Domains

Project work

- goal of this domain is to establish the **processes** for the project team to deliver the expected deliverables
- keeps project activities running smoothly:
 - managing **flow** of existing work, monitoring & managing **changes**, plan and manage **procurements** & **contracts** ...
- constant process tailoring → periodically **review** and **optimize** processes
- balancing competing constraints → fixed delivery dates, regulatory changes, budget
- maintaining project team focus & managing physical resources

Project Management Body Of Knowledge

Project Performance Domains

Delivery

- focus of the domain is to meet requirements, scope, and quality expectations to produce the expected deliverables
- cater for delivery of value for buseniss, customers or other stakeholders
- deliverables reflects **requirements, scope, and quality**

Project Management Body Of Knowledge

Project Performance Domains

Measurement

- aim of the domain is to **assess** project performance and **maintain** optimal performance
- crucial to evaluate performance compared to plan, demonstrate accountability, provide information to stakeholders
- need to establish effective measure so that right things are measured and reported:
 - **Key Performance Indicator (KPI)** → quantifiable measures to evaluate success of the project
 - example: Unresolved incidents this month

Project Management Body Of Knowledge

Project Performance Domains

Measurement

- what to measure:
 - **Deliverable metrics** → number of defects created/resolved
 - **Delivery** → amount of time it takes to complete task/chunk/phase
 - **Baseline performance** → actual effort and duration vs planned
 - **Resources** → actual resources cost vs planned
 - **Business value** → return of investment (ROI)
 - **Stakeholders** → net promote score (NPS)
 - **Forecasts** → estimate time to complete

Project Management Body Of Knowledge

Project Performance Domains

Uncertainty

- purpose of this domain is to mitigate **threats** that project team explore, assess and decide how to handle
- how to respond to uncertainty:
 - **gather** information, **prepare** for multiple outcomes, **build** in resilience, ...
- biggest aspect of uncertainty is **risk**

Risk is an uncertain event that, if it occurs, has a positive (**opportunity**) or negative (**threat**) effect on project.

- response to threat: **avoid, escalate, transfer, mitigate, accept**
- response to opportunity: **exploit, escalate, share, enhance, accept**

Project Management Body Of Knowledge

How to?

- can be used at any point during project
- best use as a **handbook** of individual project domains
- it is more suitable for experienced or entry-level project managers
- processes are key focus point of the project

Project Management Body Of Knowledge

How to?

Certification is done directly by PMI. For PMBOK they offer **Project Management Professional (PMP)** certificate [3]:

- PMP acknowledges candidates who are skilled at managing the people, processes, and business priorities of professional projects

Bibliography I

- [1] "Project Portfolios", 2022. [Online]. Available: <https://mop.wiki/project-portfolios/>. [Accessed: 19-Sep-2024].
- [2] "What are the benefits of IPMA Certification?", 2024. [Online]. Available: <https://ipma.world/ipma-certification/4lc/>. [Accessed: 19-Sep-2024].
- [3] "Project Management Professional (PMP)®", 2024. [Online]. Available: <https://www.pmi.org/certifications/project-management-pmp>. [Accessed: 20-Sep-2024].
- [4] International Project Management Association. *Individual Competence Baseline for Project, Programme & Portfolio*. International Project Management Association, 2015.

Bibliography II

- [5] Project Management Institute. *A Guide to the Project Management Body of Knowledge PMBOK Guide*. 7th ed. Project Management Institute, 2021.

Thank You for Your Attention!