Project Management Guide and Terminology

By Uruk Project Management

Front Matters

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[1] This table of contents is currently detailed to the 4th level, the lowest level terms we define.

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Acknowledgment

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Version Control

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General Information

Introduction

We present our readers with a project management guide and glossary of terms. We started this project as a project management dictionary or glossary of terms. However, the idea evolved into a project management guide centered around project management terminology. Therefore, these sections include definitions of terms, explanations, examples, and graphics, where possible[2].

Definitions

Many of these definitions align with common practices and terminology suggested by professional associations and other literature. However, in many instances, we offer the author(s) and UrukPM perspectives and approaches. Therefore, what we provide here might deviate from conventional definitions.

In addition, some of these terms might be unique to UrukPM and the Uruk Platform.

Purpose of the Guide

The primary purpose of this guide is to provide it to Uruk Platform subscribers as a supplemental educational reference. We will also include this document in the Community of Practice element of the platform as a PDF reference.

Subsequently, in the mid and long-term we intend to embed this guide into the platform as a module with search capabilities. It would be paired with the frequently asked questions module.

In the future, we plan to publish a modified version of this reference as a book.

Structure of the Guide

We have considered two approaches for the structure of this guide:

1. Alphabetical listing by term.
2. Grouping these topics with a relevant hierarchy.

We adopted option 2 since it provides a better setting for learning. With this format, all the terms related to a topic are together. Also, when we add to the Uruk Platform, we can show it in groups or link it to the relevant modules. Finally, our selection of groups would align with the approach we are using in the Uruk Platform since this is the approach that we believe is most practical.

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[2] In Edition 1, we are still limited to definitions with only a few terms including examples or graphics. We will continue to enhance this guide with future editions.

Relevant Guidance

We subdivide this guide into sections for the highest-level grouping. Each section has parts consisting of a few groups of terms. Subsequently, all definitions are at level 4.

- We will sequence the terms within a category that makes sense for a better understanding.
- When we add examples to a definition, we use *italics blue font*.
- For formulas, we use *italics and dark red fonts*.
- If we have an example that is a case study, we will use *italics green font*.

Disclaimers

In the broadest sense, project management includes many sectors, domains (industries), and project types. Therefore, some of these terms could be applicable or common in one or more domains, but not all of them. Where it makes sense, and there are terms unique to a domain, we will endeavor to segregate them.

Also, this is still a work in progress. Therefore, we have not subjected this document to formal editing.

Recommendation

If you find another term in the definition of a term that you might not be familiar with, we likely defined it elsewhere in this guide. Therefore, we recommend looking for it. With this approach, we can keep the definitions as concise as possible.

Section I.   Organizations

A. Organizational Types and Forms

This section includes information about the various types of organizations and their relevant terms. Some of them are limited to the project management field, while others are general.

1. General Types

Organization

- Organization refers to any entity, such as NGO, NPO, government agency, or business.
- We use the term instead of business or company when we need to be generic.
- This is also important since an "organization" could have many "units."

Non-Governmental Organization (NGO)

- An NGO (Non-Governmental Organization) is a group that operates independently of any government, with the primary objective of improving social conditions**.**
- These organizations are typically non-profit institutions and are sometimes referred to as civil society organizations.
- NGOs can be established at the community, national, or international levels and serve various social or political goals.

Non-Profit Organization (NPO)

- An NPO (Nonprofit Organization) is a non-business entity.
- It is a legal organization that operates for the collective, public, or social benefit rather than aiming to generate profits for its owners.

Startup Development Organization (SDO)

- A Startup Development Organization is an organization, often a company, that focuses on supporting startups.
- These include Startup Studios, Incubators, and Accelerators, among others.

Semi-Government Entity

- A Semi-Government Entity is common in some regions of the world and refers to a wholly or partially owned business by a government entity.

Project Management Consultancy (PMC)

- A Project Management Consultancy could mean more than one thing based on the context.
- There are two common understandings of this term.
- One definition is for a consultancy engagement or service related to project management.
- Another definition, especially when using the PMC acronym, refers to a service provider specializing in managing large projects and programs on behalf of a client. Alternative terms for this context would be program manager (the company, not a person) or program management consultancy.

Project Management Office (PMO)

- See Section II, Part B.

Project Owner

- A Project Owner could be a person.
- However, this term often refers to the organization launching the project, paying for it, owning it, and realizing the generated benefits. In this context, it would be a short version of a project owner organization.

Service Provider

- A service provider is any organization providing services to a client.
- Alternative terms would be consultants, contractors, and vendors.

2. Project Team Organizational Structure

This group is for the organizational form of a project team.

Functional Organization

- In the project management context, a functional organization is where the project team members come from within an organizational unit, and no one is assigned to lead the work. It is left with the functional manager.
- This type of structure is suitable for basic projects where most of the work is within an organizational unit.
- It is not ideal for projects with multiple units and many resources.

Matrix Organization

- In the project management context, matrix organization is where the project team members come from different organizational units and report to a project manager who could also come from a separate unit.
- Various project management references suggest different sub-categories for matrix organizations, including weak, balanced, and strong matrix.
- As a result of this structure, team members end up reporting to their functional managers and the project manager.

Weak Matrix

- See Matrix Organization first, then come back to this.
- A Weak Matrix is where the project manager's authority is relatively weak compared to a functional manager.
- It is also likely that a project manager might not exist in this form of organization. Instead, there could be a project coordinator, team leader, or other title.
- The person in charge of the project is likely a member of the organizational unit that is handling the project.

Balanced Matrix

- See matrix organization first, then come back to this.
- A balanced matrix is where the project manager could have somewhat equal authority to a functional manager, although this is not an exact science.
- The person in charge of the project is likely a member of one of the organizational units involved. We often refer to these roles as accidental project managers.

Strong Matrix

- See Matrix Organization first, then come back to this.
- A Strong Matrix is where the project manager's authority could be pretty strong compared to a functional manager.
- In these organizations, the project manager likely comes from a project management department or office. In other words, the project manager's primary job is project management.

Projectized Organization

- Projectized Organization, in the project management context, is where the project team members are assigned to a project, often on a full-time basis.
- They could be transferred from various organizational units or hired as dedicated team members on a project.
- As a result, they only report to the project manager instead of dual reporting to a project manager and a functional manager.
- In this context, it is most likely that the project managers are professional, meaning their job is only to manage projects and do not have another functional or technical role in the organization.

B. Organizational Categories for Tailored Methods

This section covers the organizational categories relevant to tailored methods and the Uruk Platform. However, these terms are not limited to Uruk and could be used in other contexts.

The principle idea is that a tailored method depends on many variables, including the project type, which is a function of the sector, domain, and, in some cases, category. We will present information about tailored methods later in this document.

1. The Hierarchy

Sector

- A sector is at a higher level than a domain; therefore, it is a group of domains.
- In the Uruk Platform, we use the following domains: Capital Projects, Technology Projects, General Projects, and Academic Projects. As we develop more tailored methods, we will be adding more sectors.

Domain

- Domain refers to an application area in the context of project management.
- It is often used interchangeably with industry.
- In the Uruk Platform and in the context of tailored methods, we use domains to help define specific areas (under a Sector).
- For example, software projects would be a domain in the technology projects sector, infrastructure projects would be a domain in the capital projects sector, and so on.

Category

- Some domains might still be too broad to lead to bespoke tailored methods. Therefore, we need further subdivision.

- For example, we could have offshore or onshore projects in oil and gas.

Verticals

- A vertical often refers to a sector, domain, or industry.
- We are not using this term in Uruk.

2. Sectors in the Uruk Platform[3]

Academic Projects (AP)

- In the context of the Uruk Platform, Academic Projects is a sector.
- It refers to all domains and types of projects related to academia, including course development, curriculum design, student projects, etc.

Capital Projects (CP)

- In the context of the Uruk Platform, Capital Projects is a sector.
- A capital project requires significant investment (millions or billions of dollars).
- These projects often include building physical assets (facilities) like hotels, hospitals, power plants, etc.
- Alternative terms include Construction Project and Capital-Intensive Project.

General Projects (GP)

- In the context of the Uruk Platform, General Projects is a sector.
- The general projects term refers to all sectors where we do not yet have tailored methods.

Technology Projects (TP)

- In the context of the Uruk Platform, Technology Projects is a sector.
- It refers to all domains and types of projects related to technology, including hardware, software, digital transformation, robotics, etc.

Other sectors we are currently considering include NGOs, Startups, and Startup Development Organizations (SDOs).

3. Domains in the Uruk Platform

There are too many domains to include; we will leave that to future editions. In the meantime, we have another document for tailored methods showing what is currently active[4].

C. Sectors/Domains Specialized Terms

This part includes project management terms that might be unique within a sector or domain.

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[3] We include only the sectors for which we have built the initial tailored methods.

[4] Tailored Methods Master Document

1. Academic Projects

Capstone Project

- A capstone project is a multifaceted academic experience typically required for students during the final year of an academic program.
- It is a culminating academic and intellectual endeavor, allowing students to apply the knowledge and skills acquired throughout their careers to real-world problems or issues**.**

2. Capital Projects

Capital-Intensive Project (CIP)

- See Capital Project

Construction Project

- The construction project term is ambiguous and could mean one of two things.
- A capital project (defined elsewhere).
- The construction phase of a capital project.

Long Lead

- Long Lead is a term we often use when making Long Lead purchases (or something like that).
- It is for things that will take a long time to deliver after the purchase or contract award.
- It is common in the capital projects sector.
- Consequently, organizations might order these items sooner than the ideal time based on preliminary design data (increasing risks).
- *Example: On some projects, we might need a machine (pump, compressor) or industrial equipment (reactor, vessel) with a long cycle time from design to delivery. The lengthy cycle time would be longer than the project can absorb without delaying the project if one follows the logical sequence. Therefore, organizations might be willing to take a risk and place the order for these long lead purchases using preliminary design information, even before final funding (approval). This practice increases the risks to the parties involved. This is a form of accepting risks to accelerate work.*

Discipline

- In engineering, discipline refers to an engineering field, like electrical or mechanical discipline.

Front End

- The Front End term refers to the early stages of a project's life cycle.
- It is a common term in the capital projects sector.
- It refers to the stages before the final investment decision (final approval).
- This phase includes business case, selection, framing, feasibility, basic design, management planning, and preliminary engineering (FEED).
- In this industry, Execution Phase is a common term for the implementation work, which may include engineering, construction, and commissioning.

- In the Uruk Value Delivery Methodology, the Front End is equivalent to the Discovery and Development Phases. The Execution Phase is somewhat comparable to Uruk's Delivery Phase.
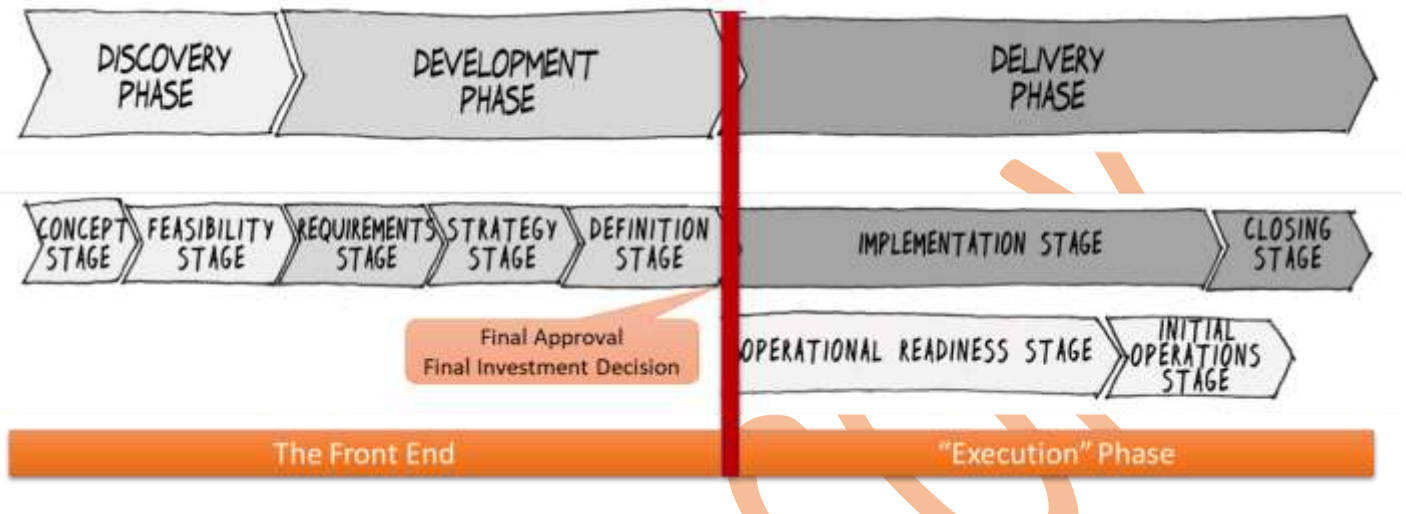
Figure 1: A project life cycle highlighting the front end in comparison to the Uruk methodology

Front End Loading (FEL)

- Front-End Loading (FEL) is about the level of project development in the early stages of a project.
- It often includes feasibility analysis, conceptual planning, programming/schematic design, and early project planning.
- It is the process for conceptual development of projects in processing industries such as upstream oil and gas, petrochemical, natural gas refining, extractive metallurgy, waste-to-energy, and pharmaceuticals.

FEL Index

- The Front-End Loading (FEL) Index is a quantitative measure to assess the level of development of the project's front end.
- It is a term developed by Independent Project Analysis (IPA).
- It assesses the quality of project definition at various stages, from conceptual design to completion of front-end deliverables and before project authorization.

Preliminary Engineering

- Preliminary Engineering refers to the early engineering work for a project.
- It typically takes place before final approval and funding.
- It provides general guidance and requirements for detailed engineering.
- Typically, this is not detailed enough to use for construction.
- In the standard model of the Uruk Platform, this would be equivalent to the Project Detailed Plan.
- An alternative term for the process domains is FEED.
- *Examples: For a building project, this might be equivalent to the architectural design that shows dimensions, elevations, etc. For a highway project, it is likely to show the routing, specifications, etc.*

Front-End Engineering Design (FEED)

- See Preliminary Engineering.

Detailed Engineering

- Detailed Engineering is the engineering design of the various projects' engineered components.
- The end product of this work would be drawings and specifications with the designation of Issued For Construction (IFC).

Issued for Construction (IFC)

- Issued for Construction refers to the engineering design packages, a product of detailed engineering, that are given to the construction team to start working on the next stage of development.

Best Practice (BP)

- Best Practices is a misleading term; we do not use it in Uruk.
- It implies that there are best practices, but the challenge is determining the best for whom or under what circumstances. What is best in one sector, organization, or condition might not be suitable in another setting.
- Some practitioners refer to the processes of the PMBOK® Guide as best practices, but that is misleading. The PMBOK® Guide refers to Good Practices.
- It is essential to mention that the Construction Industry Institute (CII) uses this term extensively. They have identified 17 Best Practices. In their context, a best practice would be a set of rules/guidance that, if implemented on projects, would result in performance improvement (cost, schedule).

Value Improving Practices (VIP)

- Value Improving Practices are similar to what the Construction Industry Institute (CII) views as best practices.
- We believe this term originated with a company called Independent Project Analysis (IPA).

Good Practice

- Defined elsewhere in this document.

Advanced Work Packaging (AWP)

- Advanced Work Packaging (AWP) is a construction-driven planning and collaboration system for building capital projects.
- Its primary focus is on creating a constraint-free work environment in the field.
- AWP requires that detailed work packages be created early in the project life cycle, i.e., in advance.

Tool Box Meeting

- Tool Box Meeting is a common term in construction, and it refers to the morning meeting that a construction crew would have to discuss the day before starting work.

3. Technology Projects

Will add in future editions.

Section II.   Project Management

A. Introduction

Project management could have two definitions.

- The standard definition is managing a single project, including a project management methodology.
- However, in a broader sense, it refers to the bigger picture of managing organizational projects. For this more general definition, we use 4PMs: projects, programs, products, and portfolio management. It also includes relevant topics like governance, project management office, and organizational project management.

Our definitions in this section include related topics, such as stage management, product development, and methodology.

B. Organizational Project Management

Governance

- Governance is the rules, procedures, and policies determining how projects, programs, and portfolios are managed and overseen.
- As part of the oversight process, governance also determines the metrics by which project success is measured.
- We have embedded many project governance actions into the methodology of the Uruk Platform.
- In addition, we will have an element of the platform dedicated to governance, as it applies to the 4PM.

Organizational Project Management (OPM)

- Organizational project management is another way of presenting the broader view of project management, focusing on the organization and standardizations.
- This term could lead to an organizational project management system and maturity, among many other things.

Organizational Project Management Maturity (OPMM)

- Organizational Project Management Maturity is often linked to a scale and scoring model to define the level of development of the organizational project management system.
- An alternative term is project management maturity.
- It is not limited to the system's existence but also the degree of compliance and performance.
- It is noted that organizations with a higher level of OPMM achieve higher performance.
- There is no unified OPMM model, but many use a model with five levels, from 1 to 5. Others might include level 0 as a starting point.

Organizational Project Management System (OPMS)

- An Organizational Project Management System is a reference for organizations' systems to manage projects (or the 4PMs).
- It is about standardization and consistency, which could be very strict or loose.

Figure 2: The Uruk perspective on different level of organizational project management maturity

- The word system does not mean technology; it refers to policies, procedures, methodologies, guidelines, and frameworks.

Project Management Information System (PMIS)

- The Project Management Information System is a logical organization required for successful project execution.
- It could include the historical records and project archives.

Project Management Office (PMO)

- A Project Management Office is an organizational unit dedicated to project management.
- It could also refer to a program management office, a portfolio management office, and many other terms.
- A PMO's role, mandate, and staffing could vary greatly depending on needs, organizational culture, and policies.
- A PMO could be operational, at a department level, or strategic, at a corporate level.
- Some practitioners refer to a project or program management team as a temporary PMO; we do not subscribe to this terminology.
- We prefer to see PMO on a continuum; an example is in the following illustration.

Steering Committee

- A steering committee is a form of organizational governance.
- It often comprises a group of senior managers responsible for project business issues.
- This committee could have budget approval authority and make decisions about objective changes.
- A project sponsor might be part of the steering committee or report to it.

3PM (P3M)

- 3PM and P3M could be used interchangeably in the project management community to mean project, program, and portfolio management.

Figure 3: An example of a PMO continuum, from our SUKAD days

4PM

- 4PM refers to project, program, product, and portfolio management.
- 4PM includes the product aspect, which is not included in the 3PM.
- We prefer 4PM over 3PM since we view the objective of projects and programs is to deliver product(s).
- We also use this term as the name and theme of the UrukPM Podcast, The 4PM Podcast.

C. The 4PMs

1. Portfolio Management (PfM)

Portfolio

- Portfolio refers to all the projects and programs in the organization.
- In the Uruk Platform, it is top-level for a given client.
- Organizational units would have their portfolios, a sub-portfolio of the parent organization portfolio.

Portfolio Management

- Portfolio management is the coordinated management of the entire portfolio and its projects and programs.
- In the Uruk Platform, we have a dedicated element for portfolio management.

Sub-Portfolio

- Sub-portfolio refers to all the projects and programs within an organization unit.

2. Program Management (PgM)

Program

- The simple definition is that a program is a group of related projects and associated non-project work.
- We have three types of programs in the Uruk Platform, which we will explain later.

Program Management

- This is the coordinated management of a program and its projects.
- In the Uruk Platform, we have a dedicated element for program management.

Program Life Cycle (PgLC)

- The program life cycle is the 'span of time' for a program, from idea to closure.
- Like the project life cycle, it would have phases and stages, stage deliverables, and stage gates.

Program Management Team (PgMT)

- The team that will help the program manager manage the program.
- These are project and program management team members, not those doing the technical work.

Project-Based Program

- The simple definition is that a program is a group of related projects and associated non-project work.
- This type of program consists primarily of projects and tasks not linked to a project.

Initiative-Based Program

- An initiative-based program is an ongoing program that might be funded annually.
- Most of these programs would be related to given initiatives that might repeat from year to year.
- They could include some projects or significant areas of work.
- These are not like what we might call "programs" that are actually operations.

Blended Program

- A blended program is a program that could have projects and initiatives.

3. Project Management (PjM)

Project

- A project is a temporary change initiative that has clearly defined objectives.
- A project has a 'project life cycle' covering the project from concept to closure.
- The Value Delivery Methodology subdivides the PjLC into three defined phases.
- We realize that some practitioners might use the term project to refer to a stage or piece of a project.
- The vital differentiator for us is that a project is end-to-end.

Project Management

- This is the coordinated management of a project.

- In the Uruk Platform, we have a dedicated element for project management.

PLC Management

- PLC Management is a term in the Uruk Platform for managing a project across the PjLC stages.
- We also use it in program management, which refers to managing a program across the PgLC stages.

Project Management Team (PjMT)

- The team that will help the project manager manage the program.
- This is typically required on large and complex projects.
- These are project and program management team members, not those doing the technical work.

Technical Project Management (TPM)

- We use technical project management to refer to the conventional thinking that a project starts with a charter and ends with an output (product, service, etc.).
- In other words, this is only a piece of the project, per the Uruk definition.

Project Life Cycle (PjLC)

- The project life cycle (PLC) is a project's "span of time" from beginning to end[5].
- The PLC consists of phases or stages; in UrukPM, we use both terms.
- At the highest level, it is typical to divide the PLC into two parts: (a) the front end, from beginning to final approval[6], and (b) the "execution" or implementation[7].

For project management methodologies, please refer to Part D of this Section.

4. Product Management

Product

- A product is the final output or deliverable of a project.
- For example, a water bottling factory is the product of a project to establish the factory. The water bottles produced by the factory would be the factory's product, not the project's.

Product Management (PdM)

- Product Management refers to managing a product across the entire product life cycle.

Product Delivery

- Product Delivery is a term we use to refer to a project where the objective is to deliver the project's product.
- An example is a water bottling plant that is the product of a project.
- Therefore, a product delivery methodology focuses on delivering the product.
- This is project management level 4, per this video: https://youtu.be/MQc_w5SZF7o.

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[5] These points (beginning and end) might vary depending on the organizational preference or guides used.

[6] In UrukPM, this consists of the Discovery and Development Phases.

[7] In UrukPM, this is the Delivery Phase.

- The product delivery project would be somewhat equivalent to the acquisition phase of a product life cycle.

Product Life Cycle (PdLC)

- The product life cycle typically consists of a few phases covering the product from product vision until dissolution or end-of-life.
- That life cycle, also known as useful life, varies depending on the product. For example, a building might have 20 or 25 years of life, whereas computers might have 3 years.
- In this context, end-of-life is when the owner removes a product from the market.
- The names of the phases in the product life cycle also vary, but the following are typical: Acquisition, Growth, Maturity, Decline, and Withdrawal.

Product Breakdown Structure (PBS)

- A product breakdown structure, or PBS, looks like a WBS.
- However, PBS presents the hierarchy of the product.
- In other words, it visualizes the final product (output) and its various components.

Proof of Concept (POC)

- A Proof of Concept (POC) is a crucial step in product development.
- It demonstrates the feasibility and viability of an idea or project before committing significant time and resources.
- A POC is the process of gathering evidence to support the feasibility of a project.
- Project managers perform a POC in the early stages to assess whether an idea can be successfully executed.
- It helps demonstrate project viability to product teams, clients, and stakeholders.

Minimum Viable Product (MVP)

- A Minimum Viable Product (MVP) is a concept from Lean Startup that emphasizes learning during new product development.
- An MVP is the most pared-down product version that can still be released.
- It includes just enough features to be usable by early customers.
- The goal is to gather feedback for future product development.

5. Stage Management

Stage

- A stage is a time and scope-based component within the project or program life cycle.
- Each stage should produce a primary stage deliverable (the output), subject to reviews at the stage gate.
- The VDM standard model has nine stages. However, the number of stages will vary depending on the tailored method.

Process Groups

- Process Groups is a term PMI and ISO use to refer to the five process groups in their guides.

PMI/ISO	Uruk
Process Group	Process
Process	Process Step

Figure 4: Terminology differences, Uruk vs. PMI/ISO

- Each of these process groups has one or more processes.
- The idea is that these process groups repeat in every stage of the project.
- Despite common misconceptions, the process groups ARE NOT project phases or stages.

Stage Management Processes

- This term is specific to Uruk and is a modified version of the PMI/ISO process groups.
- These processes are Authorize, Plan Management, Plan Details, Implement, Control, and Close the stage[8].
- Each process consists of a few process steps.

Stage Management Process

- Stage management process refers to one of the six main processes needed to manage a stage.

Process Step

- A process step is one of many steps in a stage management process.
- It would be equivalent to a process in PMI/ISO language.
- For the process steps of the advanced stage management process, please refer to Appendix B.

Stage Management Module

- A stage management module is a module within the Uruk Platform that manages a given stage.
- This module exists for both projects and programs.
- We have two versions of this module, Simplified Stage Management and Advanced Stage Management.

Simplified Stage Management

- The Simplified Stage Management module is straightforward and suitable for small stages with limited effort.
- It consists of four stage management processes.
- These are for planning the stage work, implementing the stage work, controlling the stage work, and closing the stage.
- Each of the above processes has a few process steps.

Advanced Stage Management

- The Advanced Stage Management module is substantial and is suitable for significant stages that require a great deal of work.
- It includes all of the six-stage management processes and their steps.
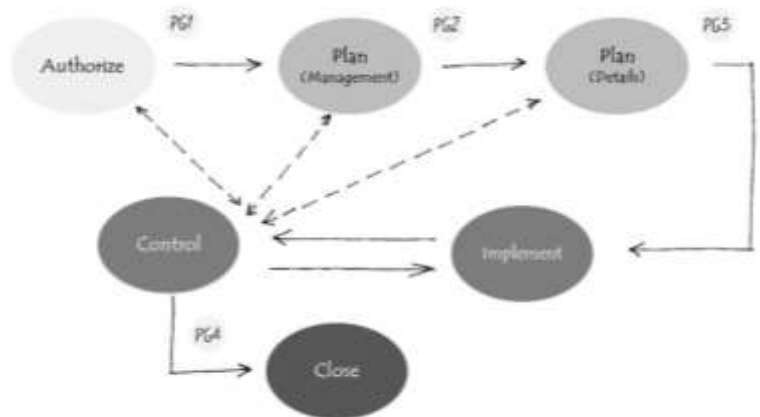
Figure 5: The Uruk's advanced stage management processes

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[8] For more details, you can refer to our book: Project Management Beyond Waterfall and Agile.

Stage Deliverable

- Generally, each stage in a Uruk project life cycle has one primary stage deliverable, although it is possible to have more than one.
- Also, a stage deliverable could be subdivided into many subsidiary deliverables in large projects.

Process Deliverable

- A process deliverable is the output of a given process[9].
- A deliverable of one of the stage management processes, such as a Stage Management Plan.

Process Gate

- The gate for approving one of the stage management processes.
- Process gates are optional and often approved by the project manager. Meanwhile, stage gates often require project sponsor approval.

The following are the process deliverables of the advanced stage management processes.

Stage Authorization Document (SAD)

- The Stage Authorization Document is the output of the Authorize Process.
- There are four process steps under the *Authorize* process per CAMMP™, which would apply as needed in every stage or phase.
- These would be the steps to authorize and produce a stage authorization document.

Stage Management Plan (SMP)

- The Stage Management Plan is the output of the Plan (Management) Process.
- Seven process steps would be necessary to complete the stage management plan at every stage.
- The content of the stage management plan from one stage to another is similar.
- These would be the steps to help manage a stage of the project.

Stage Detailed Plan (SDP)

- The Stage Detailed Plan is the Plan (Details) Process output.
- There are 20 process steps necessary to complete the stage's detailed plan for every stage.
- The content of the detailed plan for each stage would vary based on the scope of the stage.
- However, regarding topics, the SDP includes the detailed scope of work, WBS, schedule, cost, quality, and all other functions—but for the given stage, not the project.

Stage Close-Out Report (SCOR)

- The Stage Close-Out Report is the output of the Close Process.
- Eight closing process steps would be required to close every stage and publish the stage close-out report.

In addition to the above, two more stage management processes do not have a primary deliverable but include many process steps.

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[9] Refer to the Stage Management Process for more information.

Implement Stage Work

- The Implement Process includes nine process steps.
- They are mostly related to completing the work and managing resources and contracts.
- There is no specific deliverable document for this process. However, we include sections for the project manager's comments in the Uruk Platform.

Control the Stage Work

- The Control Process includes sixteen process steps.
- These would be active from the start of the stage to close the stage.

D. Project Management Methodologies

Except for Groups 1 and 2, most of the content of this Part is about the Uruk Value Delivery Methodology (VDM)[10]. For more in-depth learning on these topics, refer to our book, Project Management Beyond Waterfall and Agile[11].

1. Essential Definitions

Project Management Methodology

- Per the UrukPM perspective, a project management methodology:
- … is for managing the entire project from vision to closure.
- … is the foundation for building tailored methods.
- … consists of six components (https://youtu.be/SiUkQrHQAHY).

Project Management Method

- This is a specific method for a given context; please refer to tailored methods.

2. The Various Methodologies

Customizable and Adaptable Methodology for Managing Projects™ (CAMMP)

- CAMMP is The Customizable and Adaptable Methodology for Managing Projects™.
- Although the name implies project management, it is about value delivery since it covers a product from product vision until it is in operation and delivering value.
- Mounir Ajam's book, Project Management Beyond Waterfall and Agile is the primary reference for CAMMP Version 3.
- Subsequently, due to the Uruk Platform, Version 4 of CAMMP is now the knowledge foundation for the project management element of the Uruk Platform.

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[10] The Value Delivery Methodology (VDM) is the current version of The Customizable and Adaptable Methodology for Managing Projects™ (CAMMP™).

[11] https://urukpm.com/project-management-books/

Value Delivery Methodology (VDM)

- Value Delivery Methodology is the term we use to refer to CAMMP as we modified it for the Uruk Platform.
- We might use VDM and CAMMP interchangeably. However, unless we are referring to history, VDM is the adopted term that we currently use.
- We also refer to this methodology as the Level 5 model. Refer to this video, https://youtu.be/MQc_w5SZF7o, for a discussion on the project management levels.
- The methodology covers the entire project life cycle from product vision to operations (beneficial use) and final assessment.
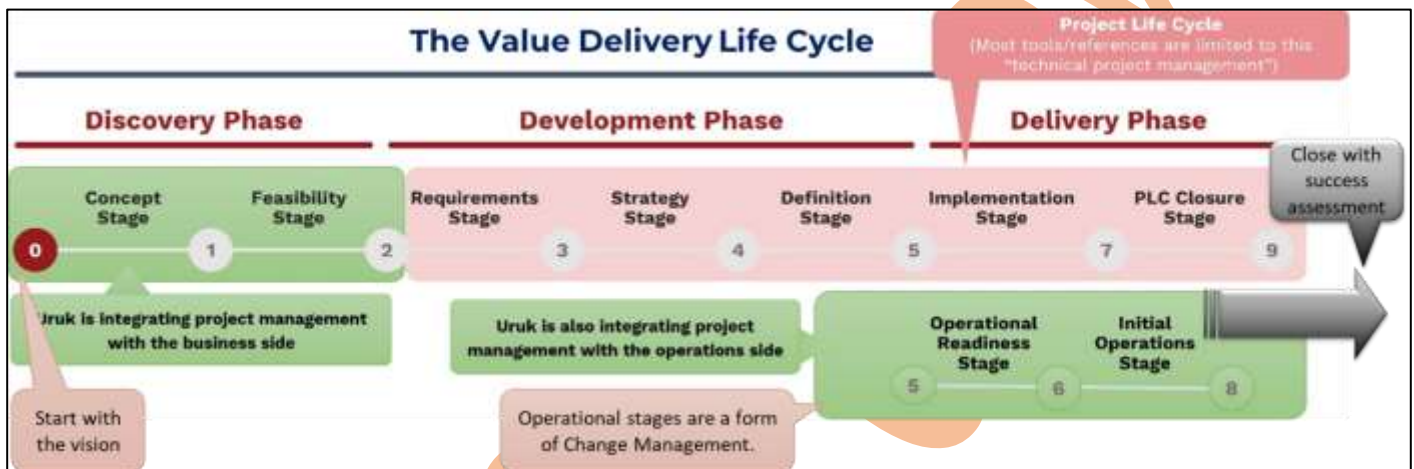
Figure 6: The value delivery life cycle, the standard model

Plan-Driven

- Plan-driven is a common term in the project management community often used with the "waterfall" thinking.
- It implies that the project plan is finalized early (in detail) and then somewhat set in stone.
- We do not like to use this term since we do not see it as a logical condition for real-world project management.

Value-Driven

- Value-driven is often used as a counter to the idea of plan-driven to imply that we should focus on value instead of being driven by a plan that could have become outdated.
- We agree with the above thinking and believe that competent project management has always been (or should be) value-driven. Hence, the Uruk methodology is named the Value Delivery Methodology.
- However, some in the project management community use this term to refer to agile as the logical approach focusing on value. We cannot agree with this thinking.

Six Components of a PM Methodology

- This is related to one of the five Uruk Way Project Management Framework solutions.
- It offers the six components of a project management methodology, such as the UrukPM Value Delivery Methodology.
- References: UrukPM Website - https://urukpm.com/value-delivery-methodolgy/, and this video - https://youtu.be/SiUkQrHQAHY.

The following are other concepts that are often labeled project management methodologies but are not. They are mostly product development.

Agile

- Most use of the term Agile is about agility.
- Another usage often relates to the Manifesto of Agile Software Development.
- Any reference to Agile Project Management or PM Methodology is often not logical. This a lengthy discussion that we leave outside this guide.

Waterfall

- Waterfall is where water cascades down from a higher terrain to a lower elevation.
- In project management, some equate waterfall to traditional project management, which is not logical.
- The idea of "Waterfall" in project management is not logical. Therefall, any reference to Waterfall Project Management is not realistic.

Figure 7: The six components of a project management method

Standard Model

- Standard Model is a term that refers to the base model that we use in CAMMP™ and the Uruk Platform.
- It is the starting point for building tailored methods.
- As is, the standard model might apply to medium-moderate or large-complex projects.

Tailored Method

- Refer to the Tailored Method relevant definitions in Section V.

3. Project Types

Please refer to Section I, Part B. It is about the sector, domain, and category that determines the project type.

4. Project Classification

- The classification system is a way to classify projects based on specific variables.
- It incorporates project size, complexity, degree of innovation, and organizational impact.
- We use it for the tailored methods to have these methods as narrowly focused as possible.
- Uruk uses five project classes, which we mention here.
- We must stress that this classification system is not generic or uniform across sectors.
- It must be tailored to the sector, domain, and company preferences.
- *Example: A micro project in oil and gas might be a million-dollar project. However, a million-dollar project might be large and complex in software development.*

Micro Project (MiP)

- This is one out of five project classes.
- It is for the most basic projects, typically requiring a few people, low cost, and short duration.

Small Simple Project (SSP)

- This is one out of five project classes.
- In this case, the project is still considered small and straightforward, but it would be more involved than a Micro Project.

Medium Moderate complexity Project (MMP)

- This is one of five project classes.
- As the name indicates, these projects are more substantial than SSP but less than LCP[12].

Large Complex Project (LCP)

- This is one of five project classes.
- Typically, this class is for projects that could last more than one year, cost substantially, and require numerous resources.
- Many capital projects could fall into this class, although some could be SSP and MMP.

Megaproject (MP)

- This is one out of five project classes.
- Typically, these would be "facilities" projects with over $1 billion.
- We have not built any tailored method in the platform for this class yet.

5. Development Approaches

Iterative Development

- Iterative Development is where we develop the product in iterations.
- This means it is the same product, but with every iteration, we enhance it (see example).
- We use it for projects where the final product is handed over to the client in multiple **working** iterations.
- Notice the emphasis on **working**. The intent is that each iteration should be available for use, adding value to the customer/user.
- It is an Agile Development concept.
- *Example: An example of this is this guide. Let us say we completed this guide with all of the definitions. Later, we come back and add examples. Then, in another edition, we provide graphics. So, all editions are the same product but with enhancements.*

Incremental Development

- Incremental Development is where we develop the product in increments.

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[12] Please note that in this document, the differentiation is qualitative. We can convert this qualitiative classification into an actual project class system for a given client.

- This means it is the same product, but with every increment, we are adding features/functionalities (see example).
- We use it for projects where the final product is handed over to the client in multiple **working** increments.
- Notice the emphasis on **working**. The intent is that each iteration should be available for use, adding value to the customer/user.
- It is an Agile Development concept.
- *Example: An example of this is this guide. Let us say we completed this guide with Sections I & II only. Later, we come back and add Section III. Then, Section IV, V, etc. So, all editions refer to the same purpose, but the product is changing.*

Agile Development

- We see Agile Development as Iterative/Incremental Development.

Iterative/Incremental Development (IID)

- Most projects use both iterative and incremental development.
- Therefore, when building a tailored method, one must incorporate the development approach, and Uruk uses IID as a combined approach.
- *Example: In building the Uruk Platform, some sprints are enhancements (iterations), whereas others add functionalities (increments) or both.*

Big Bang Development (BBD)

- Big Bang Development is one of the two approaches we use in the Uruk Platform.
- We use it for projects where agile development is not practical or possible.
- It is for projects where the final product is handed over to the client in one piece at the end of the implementation stage.
- Some call this Waterfall, but we disagree with this term. An excellent alternative term would be Adaptive Sequential Development. However, BBD works equally, and no need for new terms.
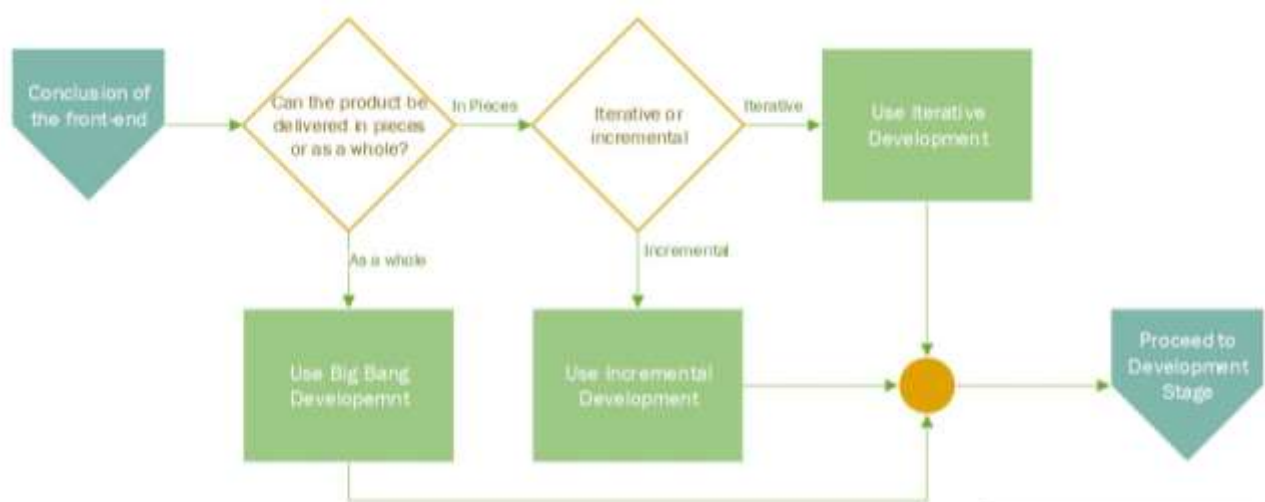
Figure 8: Selecting the most suitable development approach

How do you choose which development approach is best? Refer to Figure 8.

6. Phases and Stages[13]

Phase

- A phase is a section in the project life cycle, typically with a significant work area.
- In CAMMP/VDM, there are three phases.
- They are fixed, but some clients may want to change the names, which is fine.
- Besides name changes, Phases do not have a direct functional role in the platform.

Discovery Phase

- The Discovery Phase is one of the three phases of the Value Delivery Methodology.
- It is the first one and typically includes the following stages: concept and feasibility.

Development Phase

- Development Phase is one of the three phases of the Uruk Value Delivery Methodology.
- It is the second one and typically includes the following stages: requirements, strategy, and definition.

Delivery Phase

- Delivery Phase is one of the three phases of the Uruk Value Delivery Methodology.
- It is the last one and typically includes the following stages: implementation, operational readiness, initial operations, and PLC closure.

Stage

- A stage is a time and scope-based component within the project life cycle.
- Each stage should produce a primary stage deliverable (the output), subject to reviews at the stage gate.
- The VDM standard model has nine stages.
- However, the number of stages will vary depending on the tailored method.

Concept Stage

- The Concept Stage is for developing the Project Brief.
- It is the stage where the team develops the project's business case or at least documents it.

Feasibility Stage

- In the Feasibility Stage, the team conducts a feasibility study, leading to a Feasibility Study Report.
- We view this study as a vital risk assessment to identify the factors that might positively or negatively impact the project objectives.
- The ultimate objective is to determine whether the organization should proceed with the project.

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[13] Only for the standard method. We might have phases and stages with different names for other project classifications and tailored methods.

Requirements Stage

- The Requirements Stage leads to the Project Requirements Document.
- It is the stage where the team will explore the stakeholders' expectations and identify the business requirements.

Strategy Stage

- The Strategy Stage determines the strategy for achieving the project objectives, which we document in a Project Management Plan.

Definition Stage

- The Definition Stage is a significant and last stage in the Front End (Development Phase).
- It leads to the Project Detailed Plan. Other terms include Project Execution Plan, Preliminary Engineering Design, Front End Engineering Design, and others.

Implementation Stage

- In the Implementation Stage, we develop the project's product, whether software, studies, or buildings.

Operational Readiness Stage

- Operational Readiness would be used for all activities and work to get ready to accept the project's product.
- Depending on the nature of the project, this work could be extensive.
- The work would lead to the product being handed over from the implementation team to the operations team.

Initial Operations Stage

- The Initial Operations Stage starts with the handover and lasts until Final Acceptance.
- Depending on the nature of the project, this work could include commissioning, partial operation (at reduced capacity), a pilot, soft launch, and other similar terms.

PLC Closure Stage

- The PLC Closure Stage is the last stage of the project life cycle, leading to completion and maybe closure.
- On most projects, it leads to a Project Completion Report. We stress completion and not closure because we still have to do a final success assessment, which might not be possible until months or years after completion.
- However, if the project is terminated early or the organization will not conduct a success assessment, they will likely close the project.

7. Stage Deliverables

The following stage deliverables are for the Standard Model. At the end of this part, we will include a table to show the deliverables for the other project classifications.

Project Brief (PB)

- The Project Brief is the output of the Concept Stage.
- It is simply a concise document, a few sentences that describe (1) what the project is, (2) why it is needed (justification), and (3) how it aligns with an organizational strategic plan.

Feasibility Study Report (FSR)

- The Feasibility Study Report is the output of the Feasibility Stage.
- It is primarily about validating the idea, i.e., determining whether the project is viable.
- This means the project is justified, and the organization expects to deliver it successfully and realize the expected benefits.

Project Requirements Document (PRD)

- The Project Requirements Document is the output of the Requirements Stage.
- It defines the project's output's key characteristics, features, and other provisions.
- It is essentially the high-level scope of the project.

Project Management Plan (PMP)

- The Project Management Plan is the output of the Strategy Stage.
- It presents the project management strategy/approach for the project.
- It also defines the various steps the team would perform from that point onward up to the project's close.
- It also includes other high-level strategies, such as delivery and procurement strategies.

Project Detailed Plan (PDP)

- The Project Detailed Plan is the output of the Definition Stage.
- It provides all the necessary details for the project delivery, including the scope definition, detailed quality, safety, environmental planning details, detailed schedule, cost estimate, and other functions.
- It is equivalent to preliminary engineering or FEED in the capital projects sector.

Project Completion Report (PCR)

- The Project Completion Report is the output of the Project PLC Closure Stage.
- The PCR documents the result of the project work.
- This report includes reconciling the project development and delivery events, lessons learned, organizational records updates, and other administrative requirements.

Project Close-Out Report (PCOR)

- The Project Close-Out Report is a modified version of the Project Completion Report.
- The main difference is that this report includes the final project success assessment that will be carried out months or years after project completion.

Handover (Provisional Acceptance) Documentation

- The handover is a joint deliverable to the Implementation and Operational Readiness stages since it requires input from both.
- Handover, or provisional acceptance, is the client's (operation) initial acceptance of the *project management team's product*.
- It usually indicates that the work is substantially complete and the client is ready to start using the new product or at least commission it.

Final Acceptance Documentation

- The output of the Initial Operations Stage.
- Once all the work is complete and the new project is in use, there is often a final acceptance sometime after handover—at the end of the initial operations stage if such a stage exists.

Stage Deliverables For Different Project Classifications

Table 1: Stage deliverables for different project classifications

Deliverable	Standard[14]	Small-Simple	Micro
Project Brief	Concept Stage	N/A	N/A
Project Feasibility Report	Feasibility Stage	N/A	N/A
Project Authorization	N/A	Discovery Stage	Discovery Stage
Project Requirements Document	Requirements Stage	Requirements Stage	N/A
Project Management Plan	Strategy Stage	N/A	N/A
Project Detailed Plan	Definition Stage	N/A	N/A
Project Plan	N/A	Definition Stage	Definition Stage
Implementation Summary	Implementation Stage	Implementation Stage	N/A
Handover Documentation	Operational Readiness	Operational Readiness	N/A
Final Acceptance Documentation	Initial Operations Stage	Initial Operations Stage	Delivery Stage
Project Completion Report	PLC Closure Stage	PLC Closure Stage	PLC Closure Stage
Project Closeout Report	Post PLC	Post PLC	Post PLC

8. Stage Gates

The following stage gates are for the Standard Model. At the end of this part, we will include a table to show the relevant stage gates for the other project classifications.

Stage Gate

- A formal decision point that we use along the project life cycle.
- The VDM standard model has nine gates, but the number could vary from one tailored method to another.
- The default is that all stage gates are approved by the project sponsor.
- If an organization does not have a project sponsor role, we can offer tailored methods where the project manager can approve these stage gates.

Stage Gate 0: Project Activation

- Stage Gate 0 is used for all tailored methods.
- It is required to activate a project, which means moving it from Future to Active Projects status.
- The project activation allows the project manager to start working on and manage the project across the stages (PLC Management).

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[14] In this context, the Standard is suitable for Medium-Moderate and Large-Complex Projects. The three columns on the right include the stages' names.

Stage Gate 1: Project Brief Approval

- Purpose: To approve the project idea, justifications, and ensure strategic alignment.
- The Uruk model considers that every project must align with the organizational strategic direction and objectives.

Stage Gate 2: Initial Project Authorization

- Purpose: To approve the feasibility study and project authorization.
- Executive management would review the feasibility study results at this gate and accept them if no modifications are required.
- However, if the project is not feasible, management terminates it.
- On the other hand, if it is feasible, the project's expected value is compared to others within the organization.
- If the project is a priority (higher value than other projects), executive management will authorize it.

Stage Gate 3: Stakeholders' Alignment

- Purpose: To ensure the stakeholders' alignment with project requirements.
- SG3's primary objective is to ensure stakeholders' alignment with the project requirements.
- In other words, did the project manager understand what is required to deliver this project?
- Requirements include characteristics of the output and outcome.

Stage Gate 4: Project Management Plan Approval

- Purpose: To approve the project management plan and gain necessary advance funding, if required.
- SG4 is about executive management approval of the project management plan.
- For this stage gate, the project manager would submit an updated project cost and time estimate, allowing executive Management to verify whether the project is still viable and revisit the go/no-go decision.
- If required, management will approve funding for the next stage, the advance funding process.

Stage Gate 5: Final Approval

- Purpose: Approval of the project's detailed plan and final approval to proceed with implementation.
- This gate is about the final approval of the project.
- The cost of the work performed before this point is minimal in comparison to the total project cost.
- Therefore, on most projects, this gate is crucial, and the author labels it "the point of no return" because, once there is approval, it is likely that the project will proceed to completion.

Stage Gate 6: Ready for Handover

- Purpose: To assess completion of implementation and readiness for handover.
- This gate involves reviewing the project implementation and operational readiness work to verify the deliverables' completion and determine if the project management team is ready to hand over the product to the end user's operation personnel.

Stage Gate 7: Completion of Implementation Work

- Purpose: Final acceptance of implementation work and release of the implementation team.
- This gate is at the end of the Implementation Stage.
- It is concerned with confirming that all the implementation work is complete and verified.

Stage Gate 8: Final Acceptance

- Purpose: Final acceptance of the project product.
- This gate is concerned with the final acceptance of the project's result—clearing the project management team to finalize the closure.

Stage Gate 9: Project Completion

- Purpose: Official closure of the project and financial accounts.
- This final gate is quite different from all the other stage gates because nothing is after it.
- We emphasize the need for the gate to stress that the project is not closed until all project deliverables are submitted and approved, and the project close-out report is one of those deliverables.

Stage Gates For Different Project Classifications

Table 2: Stage gates for different project classifications

Stage Gate	Standard[15]	Small-Simple	Micro
Project Brief Approval	SG1	N/A	N/A
Initial Project Authorization	SG2	SG1	SG1
Stakeholders' Alignment	SG3	SG2	N/A
Project Management Plan Approval	SG4	N/A	N/A
Final Approval	SG5	SG3	SG2
Ready for Handover	SG6	SG4	N/A
Completion of Implementation Work	SG7	SG5	SG3
Final Acceptance	SG8	SG6	N/A
Project Completion	SG9	SG7	SG4

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[15] In this context, Standard is suitable for Medium-Moderate and Large-Complex Projects.

Section III.   Supporting Actions[16]

A. Core Control Functions

1. Scope Management

Work Breakdown Structure (WBS)

- Work breakdown structure, or WBS, is a graphical representation of the scope of work.
- It is like an inverted tree with the main branches and sub-branches.
- Therefore, a WBS shows the hierarchy of the scope of work.

Work Package (WP)

- Work Package is a common term in project management, and it means a work item to produce a deliverable.
- It is often the lowest practical level of a WBS.
- By practical, the intent is to have the WP too detailed, down to the infinite details, or too large, not enough detail.
- A good rule of thumb is the 4/40 (or 8/80) rule. For example, the 8/80 rule implies that the work should not be detailed to less than a day (8 hours – for a team/crew) or longer than 80 hours (2 weeks). The reason is to maintain reasonable control.
- A work package typically includes many activities.
- In the Uruk Platform, a work package will include many tasks.

Scope Creep

- It is the addition of scope, often in stealth or without formal documentation.
- In other words, scope creep should be treated as a project change request, which could be approved or declined.

2. Cost Estimating

We start by defining estimating techniques.

Analogous Estimating

- Analogous Estimating is an estimating technique.
- It is typically conceptual and used in a project's early stages.
- It provides project estimates based on similar past projects.
- Therefore, its accuracy is low and unsuitable for project control, but it should be good enough for early decisions.

Bottom-up Estimating

- Bottom-up Estimating is an estimating technique.

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[16] This section is likely to grow significantly in future editions. We will update as we continue to build new modules in the Uruk Platform.

- It is often used in detailed estimates since it depends on estimating from the bottom (work package level) and up.
- Since this is a detailed estimating technique, it is often used for the estimate that will be used for final approval and funding.

Parametric Estimating

- Parametric Estimating is an estimating technique.
- It is mathematical and depends on quantities and unit rates.
- It could be used with other estimating techniques.

Next, we cover the application of cost estimating across the project life cycle.

Estimate Classification

- An estimate classification system defines the different types of estimates we develop on projects.
- AACE, the Association for the Advancement of Cost Engineers, has up to five classes of estimates.
- It is expected to use up to three estimates in the front end on capital projects.
- Each estimate class requires specific requirements and produces estimates with different details and accuracy levels.

Estimates in the Uruk Platform

- We recommend three estimates for large-complex projects and medium-moderate projects.
- One estimate is often enough for micro projects.
- For small-simple projects, 1 or 2, depending on the situation.
- Figure 9 presents the estimates for MMP and LCP.

Governance and Estimating

We have implemented numerous features related to governance and estimating in the tailored methods of the Uruk Platform. These include:

- If a stage includes a suggested estimate, when submitting the stage deliverable to the stage gate, the system will remind you to complete the estimate if it is not done.
- Depending on other conditions and settings, if the estimate is mandatory, the system will not allow you to proceed until you complete the estimate. If it is optional, then the project manager can skip it.
- All estimating sections (processes) will be locked upon starting a new project. Then, depending on where you are on the project life cycle, each estimate will unlock and relock per the built-in conditions.

3. Cost Terms Across The PjLC

- Figure 9 helps identify the cost-related terms we use across the project life cycle.
- Please note that the focus is on the overall project cost. This is why the word "project" is all of these terms.
- This project life cycle is suitable for Medium-Moderate and Large-Complex Projects. However, we use similar logic for Small-Simple and Micro Projects.
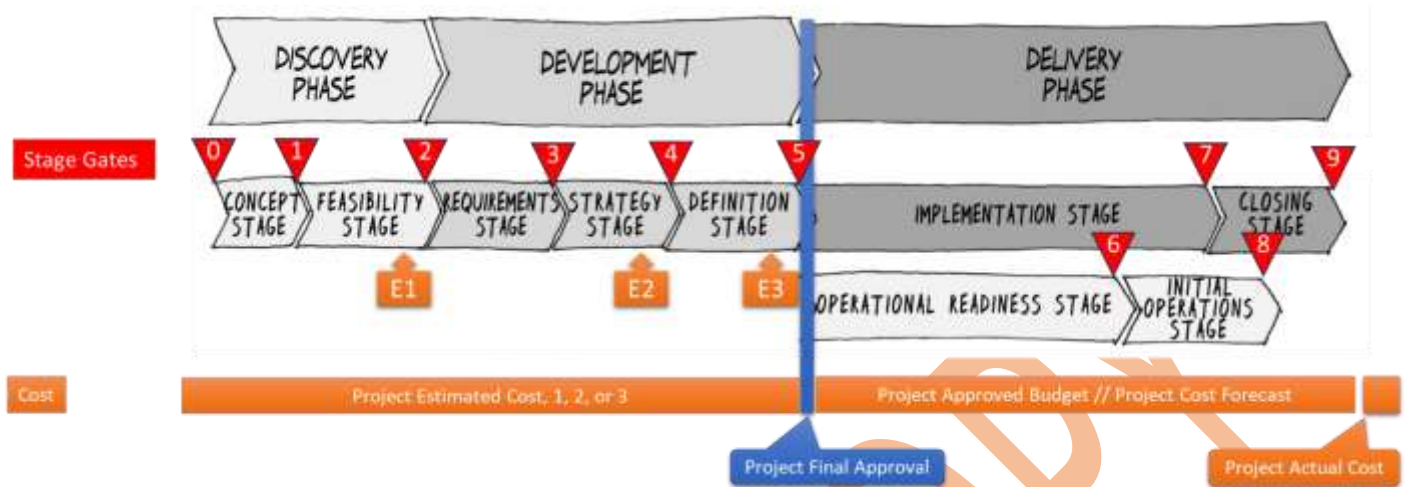
Figure 9: The Uruk Platform, cost-related terms that we use across the project life cycle

Project Estimated Cost (PEC)

- Project Estimated Cost is the estimated cost for the entire project.
- Depending on the project class, we could have more than one estimate.
- Therefore, we typically add a number to the name to refer to the appropriate estimate (see Figure 2).

Project Approved Budget (PAB)

- The Project Approved Budget represents the approved amount for the entire project.
- In the Uruk Platform, this happens at the end of the Development Phase (the project's final approval).
- The Development Phase ends at Stage Gate 5 in the standard model. However, the SG numbers could be different for other tailored methods.
- If the management accepts the final estimate, the Project Approved Budget would equal the Project Estimated Cost.

Project Cost Forecast (PCF)

- The Project Cost Forecast is the anticipated final cost of the project.
- We will use the term forecast once the project has moved into the delivery phase.
- At approval, the forecast would equal the Project Approved Budget.
- At closure, the forecast would equal the Project Actual Cost.
- The above means that the forecast could change regularly between the approved plan and the final status. The change happens due to performance matters.

Project Actual Cost (PAC)

- The Project Actual Cost is the final cost of the entire project, which we will not know with certainty until closure.

Budget

- We do not recommend this term independently since it is often used out of context.

Project Budget

- Project Budget is often used out of context and could mean different things (same as budget).
- Therefore, we avoid using this term and prefer the earlier terms linked to where we are on the project life cycle.

Project Cost

- Similar to the project budget, this is also used out of context.
- Therefore, we avoid using this term and prefer the earlier terms linked to where we are on the project life cycle.

4. Change Related Cost Terms

Change Cost Impact (CCI)

- Change Cost Impact is a metric to determine and document the impact of a given change.
- This term could also mean the total cost impact of all changes. However, in these situations, we should stress that this Total Change Cost Impact.

Total Change Cost Impact (TCCI)

- The Total Change Cost Impact is the impact of all changes on the project.
- In this metric, negative and positive changes could cancel each other.
- *Example: Let us say we have many changes resulting in a $10,000 increase to the project. Also, we have a few changes leading to a $8,000 decrease in project cost. The TCCI will be $2,000 only (10,000 - 8,000).*

Absolute Change Cost Impact (ACCI)

- The Absolute Change Cost Impact is the impact of all changes on the project.
- Per this metric, negative and positive changes are additive since we use the absolute value.
- The value of this metric is a recognition that even cost-saving changes have a disruptive impact on the project.
- *Example: Let us say we have many changes resulting in a $10,000 increase to the project. Also, we have a few changes leading to a $8,000 decrease in project cost. The ACCI will be $18,000 only (|10,000| + |- 8,000|).*
- *Case Study: We had numerous changes on one megaproject, including adding and removing complete process units[17]. The CCII for that project was about 2%, which is considered reasonable and low. However, when we calculated the ACCII, it was significant and disruptive. This was one of the factors that led to substantial delays and cost problems in the project. In other words, the CCII can give the team a sense of false security.*

Change Cost Impact Index (CCII)

- The Change Cost Impact Index is the ratio of the impact of all changes as a percentage of project cost.
- However, when we present the CCII, we must clarify if the ratio is per the Project Approved Budget, the Project Cost Forecast, or the Project Actual Cost. If there is no reference, the default would be the percentage of the Project Approved Budget.
- *Formula: Change Cost Impact Index = Total Change Cost Impact / Project Approved Budget*

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[17] A process unit is a semi independent part of an industrial projects, like a mini-plant. However, these are significant and cost in the tens of millions.

Absolute Change Cost Impact Index (ACCII)

- The Absolute Change Cost Impact Index is the ratio of the impact of all changes as a percentage of project cost.
- However, when we present the ACCII, we must clarify if the ratio is per the Project Approved Budget, the Project Cost Forecast, or the Project Actual Cost. If there is no reference, the default would be the percentage of the Project Approved Budget.
- *Formula: Absolute Change Cost Impact Index = Absolute Change Cost Impact / Project Approved Budget*

5. Cost Control

Committed Cost

- Committed Cost is the cost of a purchased item or service the buyer is likely obligated to pay, even if they cancel the order.
- It could include the amount paid, if any, and the amount still outstanding.
- An alternative term could be incurred cost.

Expended Cost

- Expended Cost is the cost of purchased items or services that the buyer has already paid.

Direct Cost

- Direct Cost refers to the cost of labor, materials, and permanent equipment to build a product.
- In capital projects, these would be the permanent facilities that remain post-completion.

Indirect Cost

- Indirect Cost refers to the cost of various things in support of building the product.
- It is for equipment, offices, management, and other things that **would not be left** in the product or permanent facility.
- *For example, construction equipment, project management, overhead, and other costs.*

6. Cost Performance

Over Budget

- Over Budget is self-explanatory and refers to when a project is over the project-approved budget.
- Some practitioners classify these projects as failures or in an overrun situation.
- *Case Study: We know of at least one organization that does not consider over-budget a failure since they expect projects to be x% over or under budget. If the project is over by less than 10%, they label it over-expended and do not require any financial control actions.*

Overrun

- Overrun is a term that could mean over budget, and it is used interchangeably.
- However, we prefer to use the term over-budget if it is less than 10% over and use overrun for more than 10% over.

7. Financial Terms

CAPEX

- CAPEX is a common term that refers to Capital Expenditures.
- When the project is complete, capital expenditures are funds that would become part of the organization's capital assets.
- This term is related to taxation rules since capital assets depreciate over the product's useful life.

OPEX

- OPEX is a common term that refers to Operating Expenditures.
- These would be expenditures that are reported as expenses in the year spent.
- This term is related to taxation rules.

Advanced Funding

- Advanced Funding is a common practice in the capital projects sector.
- Some of the work in the Development Phase might require significant funding. More funds than typically allowed from operating budgets.
- The project might also need to place purchase orders/contracts for long lead items (before final funding).
- Therefore, the organization's governance and financial control rules might require advanced funding, which might be 3-10% of the estimated project cost.
- These advanced funds will be kept in a temporary financial control account until final funding is secured. The funds will move from the temporary account to a capital account upon final approval.
- If the project is canceled before final approval, the expenditures will move into an expense account for taxation purposes.

Final Funding

- Final Funding refers to the final approval when the organization authorizes the fund for the project.
- It typically happens with the Approved Plan at the end of the Development Phase.
- In industrial projects, an alternative term is the Final Investment Decision (FID).

Opportunity Loss

- Opportunity Loss, also known as opportunity cost, refers to the potential benefits or advantages foregone when choosing one alternative over another.
- It represents what could have been gained if a different decision had been made.

Opportunity Cost

- See Opportunity Loss.

Final Investment Decision (FID)

- See Final Funding

Net Present Value (NPV)

- Net Present Value (NPV) is commonly used in capital budgeting and investment analysis.
- It is a financial metric used to evaluate the profitability of an investment or project.
- It accounts for the time value of money (TVM)**,** recognizing that the value of money changes over time due to its earning potential.
- It represents the difference between the present value of cash inflows and outflows over a specific period, discounted to the present value using a specified discount rate.

Return on Investment (ROI)

- Return on Investment (ROI) is a financial metric that evaluates the efficiency or profitability of an investment.
- It measures the amount of return relative to the investment's cost.

8. Scheduling Terms

Schedule

- A schedule logically represents the project plan with time. Therefore, the schedule is not the plan, a common misconception.
- Building a schedule (a model) involves many steps, such as identifying the activities and their logical relations, leading to the network diagram.
- From the network diagram, scheduling software allows us to view the schedule as a bar chart, which is a timeline representation of the project activities.
- A typical schedule provides us with the WBS for the project and includes activities, relations and sequence, durations, and dates.

Network Diagram

- A Network Diagram is a graphical illustration showing the project's activities and their logical relationship interdependencies.

Critical Path Method (CPM)

- The Critical Path Method is a method used to calculate the longest path on a project.
- This longest path will determine the shortest possible project duration.
- Consequently, it is the path with the least amount of float.
- As a result, any delay to any of its activities would increase the path length.

Critical Path

- The Critical Path is the path with the longest duration in a schedule, which determines the shortest project duration.

Activity

- Activity is a scheduling term that typically refers to the lowest item (row) on a bar chart display within a branch.
- An activity could be extremely specific, limited in scope, and assigned to particular resources in a schedule that provides the necessary details at the working level.

- Note that there are different levels of scheduling, with Level 1 being a summary level (suitable for executives). On the other hand, a level 5 schedule could include extensive details (ideal for construction work, working level).
- It is important to note that the project management team may have the schedule developed down to the work package only, not the activity level. Therefore, the lowest level within a branch might not be an activity.

Effort

- Effort is one of the variables that we use to define an activity.
- It is about how much work it will take to complete an activity, measured in hours or days.

Duration

- Duration, without context, does not tell us much except the amount of time for something.
- In the scheduling context, activity duration is the calendar time for an activity, which is different from effort.
- *Example: An activity requires 8 hours of work (effort) by one team member. However, the team member can only work 2 hours/day. Therefore, to complete the activity, the duration is 4 days.*

Float

- Float is how long an activity can be delayed without becoming critical, i.e., extending the critical path duration.
- Some use an alternative term, Slack.
- There are different types of "Float." These include Total Float and Free Float.

Free Float

- Free Float is how long an activity can be delayed without delaying the subsequent activity.

Total Float

- Total Float is the float on the entire critical path, not restricted to a single activity.
- It is used when the target completion date differs from the calculated date.
- Therefore, a negative float indicates a delay.
- On the other hand, a positive float indicates that there is a buffer.

Milestone

- A Milestone is a significant point in the project.
- It is usually about the completion or start of a significant deliverable or event.
- *Examples: Contract award date, kick-off, project completion date, etc.*

Slack

- See Float

Schedule Template

- With the Uruk Platform, we provide a schedule template for each tailored method.
- These templates include all of the phases and stages.
- They also have stage management processes.

- Further, the schedule template includes the primary methodology work packages for each stage deliverable.
- We provide these templates to accelerate project planning and reduce data entry time.
- Users can link these templates to the task management module to download tasks.

9. Schedule Terms Across the PjLC

- Figure 10 helps identify the schedule-related terms we use across the project life cycle.
- Please note that the focus is on the overall project. This is why the word "project" is all of these terms.
- We have two variables of interest for the schedule: duration and completion date.
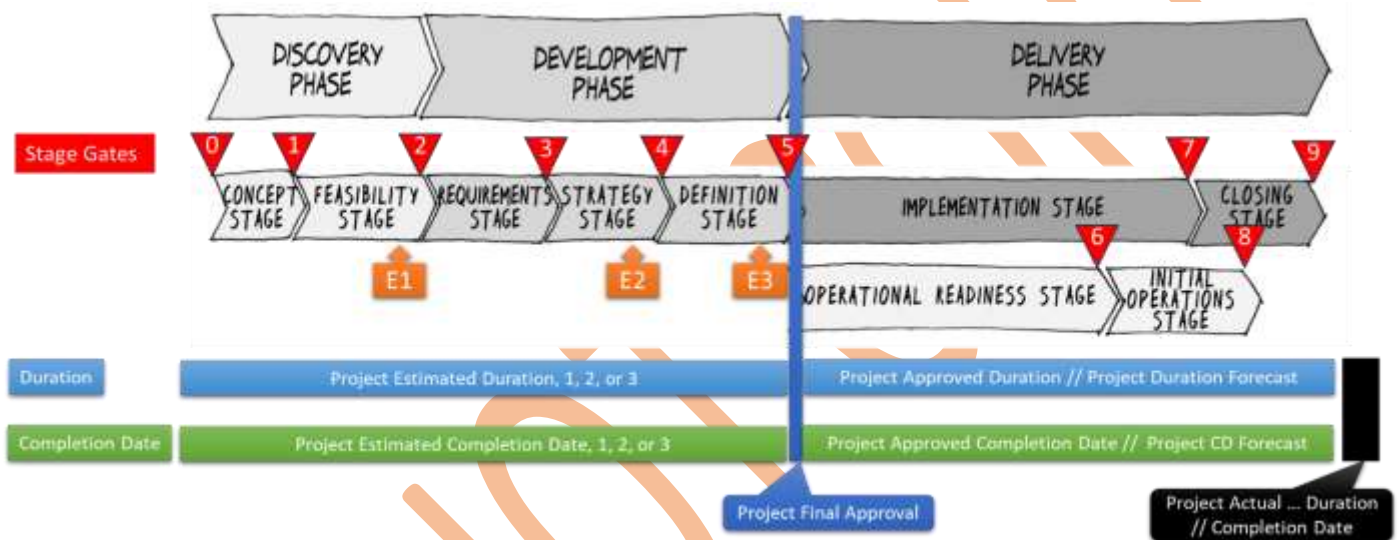
Figure 10: The Uruk Platform, schedule-related terms that we use across the project life cycle

Project Target Completion Date (PTCD)

- The Project Target Completion Date refers to a management-shared date.
- The date could be a preference, "good to have." However, it could also be mandatory, a constraint, or an imposed date.

Project Estimated Duration (PED)

- Project Estimated Duration is the estimate of the duration for the entire project.
- Depending on the project class, we could have more than one estimate.
- Therefore, we typically add a number to the name to refer to the appropriate estimate (see Figure 10).

Project Approved Duration (PAD)

- The Project Approved Duration represents the approved duration for the entire project.
- In the Uruk Platform, this happens at the end of the Development Phase (the project's final approval).
- The Development Phase ends at Stage Gate 5 in the standard model. However, the SG numbers could be different for other tailored methods.

- If the management accepts the final estimate, the Project Approved Duration would equal the Project Estimated Duration.

Project Duration Forecast (PDF)

- The Project Duration Forecast is the anticipated final duration of the project.
- We will use the term forecast once the project has moved into the Delivery Phase.
- At approval, the forecast would equal the Project Approved Duration.
- At closure, the forecast would equal the Project Actual Duration.
- The above means that the forecast could change regularly between the approved plan and the final status. The change happens due to performance matters.

Project Actual Duration (PAD)

- The Project Actual Duration is the final duration of the entire project, which we will not know with certainty until closure.

Project Estimated Completion Date (PECD)

- The project's estimated completion date is the estimated completion date for the project.
- Depending on the project class, we could have more than one estimate.
- Therefore, we typically add a number to the name to refer to the appropriate estimate (see Figure 10).

Project Approved Completion Date (PACD)

- The Project Approved Completion Date represents the approved completion date for the entire project.
- In the Uruk Platform, this happens at the end of the Development Phase (the project's final approval).
- The Development Phase ends at Stage Gate 5 in the standard model. However, the SG numbers could be different for other tailored methods.
- If the management accepts the final estimate, the Project Approved Completion Date would equal the Project Estimated Completion Date.

Project Completion Date Forecast (PCDF)

- The Project Completion Date Forecast is the anticipated final completion date of the project.
- We will use the term forecast once the project has moved into the Delivery Phase.
- At approval, the forecast would equal the Project Approved Completion Date.
- At closure, the forecast would equal the Project Actual Completion Date.
- The above means that the forecast could change regularly between the approved plan and the final status. The change happens due to performance matters.

Project Actual Completion Date (PACD)

The Project Actual Completion Date is the final Completion Date of the entire project, which we will not know with certainty until closure.

10. Schedule Control

11. Change Related Schedule Terms

Change Duration Impact (CDI)

- Change Duration Impact is a metric to determine and document the impact of a given change.
- This term could also mean the total duration impact of all changes. However, we should stress that this total change duration impacts these situations.

Total Change Duration Impact (TCDI)

- The Total Change Duration Impact is the impact of all changes on the project.

Change Duration Impact Index (CDII)

- The Change Duration Impact Index is the ratio of the impact of all changes as a percentage of the project duration.
- However, when we present the CDII, we must clarify if the ratio is per the Project Approved Duration, the Project Duration Forecast, or the Project Actual Duration. If there is no reference, the default would be the percentage of the Project Approved Duration.
- *Formula: Change Duration Impact Index = Total Change Duration Impact / Project Approved Duration*

12. Change Management

Change

- A Change typically refers to a conscious decision to change a plan (or an existing condition).
- Usually, a change would start as a change request and then become an approved change, a change order, or a change initiative.

Organizational Change Management (OCM)

- Organizational Change Management refers to the processes relevant to managing organizational change.
- Depending on various variables and organizational policies, OCM can be independent of or integrated with project management.

Project Change Management (PCM)

- Project Change Management refers to the processes and relevant information for managing project changes.
- It is a system(a subset of the organizational project management system) that would include policies, forms, guides, governance, etc.
- In the Uruk Platform, we have a dedicated module for change management.
- Although most projects are change initiatives, in this context, we focus on change within project management, not organizational change.
- The Uruk Platform has different categories of changes, such as project, contract, and objective change, which we define separately.

Change Initiative

- Change Initiative is a term we often use with organizational change management or strategic planning.
- A change initiative might start as an idea and become a program or project.
- Every project is a change initiative since we change existing conditions or create new things.

Contract Change

- A contract change is a change to a specific contract.
- It could be initiated by the contractor, the client, or a third party with the authority.
- It starts with a change request, and once approved, we typically refer to it as a Change Order.
- An alternative term in some domains or regions would be a variation order.

Project Change

- A project change refers to a change within the project objective. In other words, it does not affect the objectives.
- Various events can trigger a project change.
- Typically, the project manager can approve a project change.
- A project change could result from or trigger a contract change.

Objective Change

- An objective change is a change that affects the objective of the project, i.e., the product and expected benefits (value).
- The objectives are defined upon the project authorization[18].
- These changes would require sponsor approval.
- They might also necessitate a change in the approved plan[19] (cost and time).

13. Earned Value Management

The part includes the primary variables and metrics used in earned value management.

Earned Value Management (EVM)

- Earned Value Management is a systematic approach that we use on projects.
- It helps us determine the health of a project since it integrates scope, cost, and time.
- It helps determine whether work is progressing per plan or experiencing deviations.
- It is also used to help update the project forecast (cost, duration, completion date).

Earned Value Analysis (EVA)

- Earned Value Analysis is the team's analysis using the Earned Value Management approach.

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[18] These high-level objectives define the anticipated value of the project per its business case.

[19] This means requesting additional funding or an extension of time authorized at the same level that authorized the project.

Earned Value (EV)

- Earned Value is an Earned Value Management term.
- It refers to a work package's budget, but only for the completed work (performed, achieved).
- An alternative term is Budgeted Cost of Work Performed (BCWP).
- The Uruk Platform uses EV instead of BCWP.

Planned Value (PV)

- Planned Value is an Earned Value Management term.
- It refers to a work package's budget, but only for the work scheduled to date, regardless of whether it was completed.
- An alternative term is Budgeted Cost of Work Scheduled.
- The Uruk Platform uses PV instead of BCWS.

Actual Cost (AC)

- Actual Cost is an Earned Value Management term.
- It refers to a work package committed or expended cost.
- An alternative term is the Actual Cost of Work Performed (ACWP).
- Although we prefer terms like ACWP, the Uruk Platform uses AC instead of ACWP.

Budgeted Cost of Work Performed (BCWP)

- See Earned Value

Budgeted Cost of Work Scheduled (BCWS)

- See Planned Value

Actual Cost of Work Performed (ACWP)

- See Actual Cost

Budget at Completion (BAC)

- Budget at Completion is an Earned Value Management term.
- It refers to a work package's budget. We are unsure of the reason for "at completion" since the budget should be fixed from beginning to end.
- If there is an approved change, the budget could change.

Estimate at Completion (EAC)

- Estimate at Completion is an Earned Value Management term.
- It refers to the expected cost of a work package when completed (it is a forecast).

Estimate to Completion (ETC)

- Estimate at Completion is an Earned Value Management term.
- It refers to the estimated cost to complete a work package.
- Alternative terms would be the remaining cost or cost to complete.

Cost Variance (CV)

- Cost Variance is an Earned Value Management term.
- It is the difference between earned value (EV) and actual cost (AC).
- *Formula: CV = EV - AC*

Schedule Variance (SV)

- Schedule Variance is an Earned Value Management term.
- It is the difference between earned value (EV) and planned value (PV).
- *Formula: SV = EV - PV*

Cost Performance Index (CPI)

- Cost Performance Index is an Earned Value Management term.
- It is about cost efficiency.
- It is a ratio: The earned value (EV) over actual cost (AC).
- *Formula: CPI = EV / AC*

Schedule Performance Index (SPI)

- Schedule Performance Index is an Earned Value Management term.
- It is about work productivity.
- It is a ratio: The earned value (EV) over planned value (PV).
- *Formula: SPI = EV / PV*

Forecast

- A forecast is a prediction of the final status.
- The term 'forecast' concerns cost, duration, and completion date.
- The forecast would change as the project progresses based on various variables and the project's performance.
- At the time of final approval, the forecast would equal the approved budget, duration, or completion date.
- At closure, the forecast would become actual cost, duration, or completion date.
- *Formula: Forecast = AC + / ETC. However, there are many ways to calculate ETC. Further, the actual act of forecasting is much more intensive than a formula.*

14. Performance & Reporting

Dashboard

- A dashboard visualizes and displays various performance metrics in one place.

Executive Dashboard

- We use this term interchangeably with Dashboard.
- The word Executive (in the name) emphasizes those dashboards are designed for executives' view.
- In the Uruk Platform, we have an Executive Dashboard Module that provides a single source of truth about performance in a transparent and real-time manner.

- Executives can view the performance of a project, a program, all projects and programs of a specific organizational unit, or the entire portfolio.

Key Performance Indicator (KPI)

- Key Performance Indicator refers to specific metrics that provide input on how something is performing.
- In the Uruk Platform, we avoid using this term and prefer metrics.

Metrics

- We use metrics in project management to represent an index or a performance indicator.
- A metric would be a mathematical calculation of two or more variables, with ratios being widespread metrics.

Performance Chart

- Typically, it is a graphical representation of one or more metrics.
- In the Uruk Platform, we will have more than 100 charts of different styles to display performance.

Project Status

- A field we use to define the status of the project.
- In the Uruk Platform, we have five status conditions. These are Future, Active, Completed, Closed, and, in some cases, Hold.

Project Performance Status

- A label we use to define how the project is performing.
- This could be a series of labels.
- For example, over or under budget, overrun, ahead or behind schedule, etc.

B. Other Supporting Functions

1. People Aspects[20]

For roles relevant to the Uruk Platform, please refer to Section V.

Accidental Project Manager

- An accidental project manager has not yet been trained in project management.
- Someone is moved into a project manager role from another role.
- This person might be a good performer in their prior role, and management assumes it is good enough to assign as a project manager.
- This is a risky practice and might lead to problems on a project, if not failure.

Organizational Unit Manager

- Organizational Unit Manager is a Uruk term that generically refers to an organizational unit's head.

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[20] We do not include all of the roles here because we list some of them in the Uruk section.

- The OU could be a division, department, section, business unit, etc.
- In this context, the "Manager" could be the manager, director, VP, EVP, CxO, etc.
- In some situations, the OU Manager is a Functional Manager.

Sponsor

- The senior manager or executive within an organization who is accountable for a project.
- Uses authority to clear project roadblocks, such as negotiating with other organizations and securing resources.

Project Executive

- A Project Executive is often an alternative term to Project Sponsor.
- It is the preferred term in the capital project sector.

Project Management Team (PjMT)

- The project management team consists of the individuals who help the project manager manage the project.
- These include positions like cost estimating, cost control, planning, etc.

Program Management Team (PgMT)

- The program management team comprises individuals who help the program manager manage the project.
- These include positions like cost estimating, cost control, planning, etc.

Project Team (PT)

- The Project Team consists of the different professionals working on a project.
- These include the project manager, teams' leaders, and project management team members, and the technical team members that are doing the technical/functional work.
- In some references, they consider the project sponsor as part of the team, other references show the sponsor is engaged with the team through the project manager but not embedded with the team.

Extended Project Team (EPT)

- The Extended Project Team is an UrukPM term and not common in the community.
- In certain domains, we can use it with project team interchangebly.
- However, we prefer to use it as a different term from project team.
- The EPT includes the PT, and add to it the operations' personnel, those responsible for commissioning and operating the product of the project.

Shareholder

- A Shareholder, also known as a stockholder, is an individual, company, or institution that owns shares in a company's stock or holds shares in a mutual fund.

Stakeholder

- A Stakeholder is a person or group interested in an enterprise or a project.
- These individuals or entities can either affect or be affected by the project.

2. Captured Lessons Learned

Captured Lesson (CL)

- A Captured Lesson is when the project team members encounter a lesson and document it.
- Typically, this is limited to identifying, documenting, and adding the lesson to a database if the organization adopts that practice.
- A lesson could be something good or a problem encountered.
- Generally, any time the team runs into a situation that could have been avoided or planned, that would be a captured lesson.
- An alternative widespread term is Lesson Learned, but we avoid it since we use it to mean something else.

Lesson Learned (LL)

- A Lesson Learned, as used in the community, is a captured lesson in Uruk.
- We use this term to mean something else, a reference that the organization has learned that lesson.
- Here is our logic. We often run into organizations that might discuss their lessons (calling them lessons learned), but the process ends there. Other organizations might document the lessons (captured) and add them to a database, only to be forgotten. What we are implementing in the Uruk Platform is a process to capture and learn from the lessons.

Captured Lessons Learned (CLL)

- This is the name of a module in the Uruk Platform. It includes the CLL database, workflow, and other relevant information.
- For more information, we have a document that explains this concept, which we include in the Knowledge Portal.

3. Risk Management

First, we start with a few general terms.

Expected Monetary Value (EMV)

- Expected Monetary Value is used in risk management.
- It helps in understanding the relative value of a risk.
- It is calculated by multiplying the risk probability by its expected impact.
- *Formula: EMV (Expected Monetary Value) = P (Probability) x I (Impact)*

4. Procurement Management

Long Lead

- Long Lead is a term we often use with Long Lead Equipment (or something like that).
- It is for things that will take a long time to deliver after the purchase or contract award.
- It is common in the capital projects sector.
- Consequently, organizations might order these items sooner than the ideal time based on preliminary design data (increasing risks).

5. Success

Four Dimensions of Project Success (4DPSs)

- This is one of the five Uruk Way Project Management Framework solutions.
- It offers a model for assessing project success for projects and programs.
- Reference: UrukPM Website - https://urukpm.com/the-four-dimensions-of-project-success/, and a video - https://youtu.be/z2Vr6Qz1sBw.

6. Quality Management

Exception Item

- An Exception Item is an item that is incomplete at handover.
- However, these items do not affect the product's operation.
- Therefore, the operations team might grant the implementation team provisional acceptance.
- This provisional acceptance is on the condition that these exception items would be resolved before closing implementation and final acceptance.

Exception Items List

- A list of all the exception items.
- An alternative term could be snag list.
- It is an output of the Handover stage gate that includes all items that are still incomplete but do not affect the handover or operations.

7. Sustainability

P5™

- People-Planet-Prosperity-Product-Process, this is from Green Project Management.
- The P5™ Standard is a robust framework for sustainable project management**.**
- It stands as a beacon for organizations seeking to embed sustainable practices into their project management processes.

P5 Impact Assessment

- This is a model for assessing the impact of the project or initiative in line with the P5.

Sustainability Management Plan (SMP)

- The Sustainability Management Plan is another reference from Green Project Management.
- It is a practical way to include sustainability considerations while planning a project.

Sustainability Development Goals (SDG)

- The Sustainable Development Goals (SDGs)**,** also known as the Global Goals.
- They were adopted by the United Nations in 2015. They serve as a universal call to action, aiming to achieve certain level on these goals by 2030.

Section IV. Miscellaneous Categories

A. Miscellaneous Project Management Terms[21]

Acceptance

- Acceptance on its own lacks context.
- However, in most contexts, it is about accepting "something," like a deliverable, an increment, or the entire product.

Acceptance Criteria

- Acceptance Criteria outlines the conditions for accepting that "something."

Beneficial Use

- The term beneficial use refers to the period after product handover and when the owner starts receiving benefits.

Business Case

- The Business Case is the justification for the project.
- It indicates that the project (and its product) are of value to the organization.

Deliverable

- In the project management context, a deliverable is any tangible item we need to produce.
- The deliverable could be a study, a document, or a physical product.
- Since the term could mean many things, we will avoid using "deliverable" independently.
- In the Uruk Platform, we have two categories of deliverables: stage and process.

B. Startups

Will add in future editions.

C. Professional Associations

1. Relevant Terms

Good Practice

- Good Practice is an ambiguous term, but it has gained acceptance among PMI followers since it is a foundational concept in the PMBOK® Guide.

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[21] These are terms that do not fit perfectly into any other group or common between more than one group.

- It is used in conjunction with the processes of the guide to suggest that following these practices (on most projects—most of the time) would result in good practice.
- An alternative term would be "Common Practice" since these practices are supposedly quite common in the community.

2. Professional Associations & Relevant Organizations

Will add in future editions.

Section V.   Uruk Unique Terms

A. Uruk Way Terms

Uruk Way

- The Uruk Way is a term we use to refer to the solutions that we developed through our project management innovation program.
- There are five distinct solutions, which we define in this document.
- These solutions are CAMMP™, the Seven Elements of Project Management Maturity, the Four Dimensions of Project Success, the Four Control Reference Points, and the Six Steps for Performance Management.

Customizable and Adaptable Methodology for Managing Projects™ (CAMMP)

- CAMMP is The Customizable and Adaptable Methodology for Managing Projects™.
- Although the name implies project management, it is about value delivery since it covers a product from product vision until it is in operation and delivering value.
- Mounir Ajam's book, Project Management Beyond Waterfall and Agile, is the primary reference for CAMMPVersion 3.
- Subsequently, due to the Uruk Platform, Version 4 of CAMMP is now the knowledge foundation for the project management element of the Uruk Platform.
- Reference: UrukPM Website - https://urukpm.com/value-delivery-methodolgy/.

Four Dimensions of Project Success (4Ds)

- Define elsewhere in this document

Four Control Reference Points (4CRP)

- This is one of the five Uruk Way Project Management Framework solutions.
- It offers a model for determining which point is the latest control reference, which we use to compare performance to that reference point.
- Reference: UrukPM Website - https://urukpm.com/the-four-control-reference-points/.

Six Steps for Performance Management

- This is one of the five Uruk Way Project Management Framework solutions.
- It offers a model for assessing the project's health and updating the forecast.
- Reference: UrukPM Website - https://urukpm.com/the-six-steps-performance-management/.

B. Uruk Platform Terms

In this part, we include the various terms we use in the Uruk Platform, which are unique and not covered elsewhere in this document. Refer to Parts C and D of this section for the elements and modules.

1. General Terms

Uruk Platform (UP)

- The software solution includes its elements and modules.

Integrated Organizational Solution (IOS)

- The vision for the Uruk Platform is to become an Integrated Organizational Solution.
- This IOS will include integrated portfolio management elements and add other elements that would expand the scope and reach of the platform.

Integrated Portfolio Management (IPM)

- Per the Uruk Platform vision, the ultimate objective is to become an Integrated Organizational Solution.
- However, as an intermediate step, we are transforming the platform into an integrated portfolio management solution, including the 4PMs and supporting elements (Administrative and Community of Practice).

Uruk Platform Element

- An element is a significant section of the Uruk Platform, the highest level.
- The Uruk Platform currently has six elements, and we envision up to eight.
- Each element consists of many modules.
- The existing elements are Portfolio Management, Program Management, Project Management, Supporting Actions (Tools), Community of Practice, and Administrative.
- The envisioned elements are Governance and Organizational Integrations.

Uruk Platform Module

- A module is a significant part of the methodology or other platform elements.
- In the Uruk Platform, we envision more than 60 modules.
- There will be about 15 elements for the project and program management methodologies. About 5+ modules in the community of practice and administrative elements. Further, we expect about 25 elements for supporting action and another 15 in portfolio management.
- Each module could have one or more Uruk Platform processes.

Uruk Platform Process

- In Uruk, the term Uruk Process refers to specific actions within the platform.
- These are different from the methodology processes.
- For Example, the project set-up modules have five processes.

Supporting Actions

- Supporting Actions (we also call them tools) is an element of the Uruk Platform.
- There are about 25 modules in this element.
- They are the actions/tools to help manage projects and programs.
- They include those functions similar to PMI/ISO topics, such as scope, cost, and risk management.
- Also, they include other topics like funding, issues, tasks, and success.

Admin Panel (AP)

- This is the "control room" of the platform where the Platform Admin (also known as the Uruk Admin) can manage the various aspects of the platform.
- Here, the UrukPM consultants can develop new or modify existing tailored methods.
- They can also handle technical support, populate the knowledge portal, and many other tasks.

Organizational Unit (OU)

- Organizational Unit (OU) is a term we use in the Uruk Platform to refer to a department, division, branch, subsidiary, or any other name used in the organization.
- In line with the definition of organization, an organizational unit is a "part" of a bigger entity.
- Organizational units could also refer to units at different levels of the hierarchy.
- We are using this term generically since it could be a division, department, branch, subsidiary, etc.
- In the Uruk Platform, we allow up to three levels of organizational units. The relevance here is for performance management and reporting since OU managers can manage their sub-portfolio at their respective levels.
- We use it to create sub-portfolios, which would be helpful in large organizations.
- The significance of this designation is that heads of organizational units would be able to manage and monitor their sub-portfolios.

Project Management Unit (PMU)

- Some organizations have project management offices (PMOs), and others have project management departments or divisions, so we use the term PMU, Project Management Unit, to refer to these units (PMO or PMD) generically.
- In the Uruk Platform, a PMU is responsible for managing the portfolio.
- The mandate, staff, and roles of PMU could vary greatly.

Discussion Forums

- Discussion Forums is a module within the Uruk Platform.
- It is part of the Community of Practice element.
- It provides a place for users to collaborate and discuss things.

Workspace

- The Uruk Platform term for a client account.
- It is the client workspace where all users access the various authorized functionalities.
- The Client Admin can manage some workspace settings, including adding and removing users, requesting additional licenses, and renewing.

2. Tailored Methods

Tailored Method (TM)

- A Tailored Method is a project management method that applies to a given project type, class, and other variables.
- It is customized and adapted from the standard model.

Tailored Method Builder (TMB)

- The Tailored Method Builder is a module (wizard) created by the Development Team to give the Uruk Innovation Unit the ability to develop tailored methods efficiently.
- In this wizard, we can create tailored methods from scratch or using an exciting method. We can also edit existing methods.
- Currently, UrukPM consultants are the only ones that can access this wizard.

Tailored Method Selection (TMS)

- The Tailored Method Selection is a process in the project set-up module.
- It is to help users select the most appropriate tailored method for their project.
- The selection will be through a questionnaire to narrow the choice to one method out of 50+ we have already built[22].
- If we built tailored methods for a client, the client can choose from their methods only or their methods and the Uruk built-in methods.

Interim Gate (IG)

- An Interim Gate is a gate used in a given tailored method.
- There are situations where two stages might overlap, with the second stage starting sometime after the start of the previous stage but before its stage gate.
- In these situations, an interim gate would be set based on specific criteria that, once achieved, would trigger the start of the next stage, even though the previous stage's work is incomplete.

PLC Indicator

- The PLC Indicator is a flag, a visual along the project life cycle.
- We use it to indicate the project's currently active stage.
- The PLC indicator is related to the stage management process and other factors.

Handover

- Handover is a term that we could use in different contexts.
- The main context is at the end of the operational readiness stage and near the end of the implementation stage. It is when the implementation team hands over the product to the customer (operations representatives).
- It is also expected to be used within the team context when one team member (including the project manager and sponsor) hands over their role to another person when leaving the project.

Final Acceptance

- Final Acceptance is at SG8[23], where the client indicates no more implementation work by the project management team or contractor.
- It is when the client accepts the final product.

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[22] We will continue to build tailored methods and we could reach more than 200 methods as we mature the platform.

[23] Per the CAMMP™ standard model (CAMMP™ is The Customizable and Adaptable Methodology for Managing Projects™).

- Depending on the product, there could be a Final Acceptance Test (FAT), mainly to test production capacity or similar aspects.

3. System Roles

System Role

- System Roles are roles in the Uruk Platform that typically have some privileges.
- They are different from the users' roles within the platform.

Platform Admin

- The Platform Admin is a UrukPM manager role that can manage the platform via the Admin Panel.
- We could have sub-roles here, where each sub-role would have certain privileges but not full access. This is necessary for security.

Uruk Admin

- See Platform Admin

Uruk Coach

- The Uruk Coach has two meanings here.
- The first refers to the Uruk Platform innovator and UrukPM CEO, Mounir Ajam.
- The second usage is within the platform. Wherever we have something, action, or header that we need to provide guidance on, we use an icon with a Uruk Coach message (text and audio).

Senior Manager

- A senior manager is a system role designated for those with the authority to activate projects and programs.
- In the platform, the role could be a project or program sponsor.

User

- A User role is a system designation for anyone carrying out platform transactions.

Viewer

- A Viewer role is a system designation for anyone who can only view but not perform work on the platform.
- We have three categories of viewers: a project viewer, an organizational unit viewer, and an executive viewer.

Client Admin (CA)

- A Client Admin (CA) is a specific role on the client side.
- The CA has many privileges that regular users or viewers do not have.
- These privileges include various organizational settings that would apply to all Uruk Platform users/viewers for the given client.
- The CA role is unique; this person cannot have other platform roles.

Client Libraries Admin (CL Admin)

- The Client Libraries Admin (CL Admin) is a specific role on the client side.
- The CL Admin has some privileges that regular users or viewers do not have.
- These privileges are limited to the Client Libraries module.
- The one with this designation could also be a regular user (team member, project manager, etc.).

Captured Lessons Learned Admin (CLL Admin)

- A Captured Lessons Learned Admin (CLL Admin) is a specific role on the client side.
- The CLL Admin has some privileges that regular users or viewers do not have.
- These privileges are limited to the Captured Lessons Learned module.
- The one with this designation could also be a regular user (team member, project manager, etc.).

4. Platform Roles

Platform Role

- A platform role is for users with access to the platform.
- The authority and access privileges of the various roles are documented in the Permissions Matrix.

Project/Program Sponsor

- If it exists, the Project or Program Sponsor role is for those who can approve the stage gates and modify the criteria.
- They are the ones that can activate, reject (cancel), hold, and remove the hold on projects.
- For someone to have this role, they must also have the senior manager system designation.

Program Manager

- A program manager is the person leading a program on the platform.
- The program manager can access all projects within the program.

Project Manager

- The Project Manager is the person leading a project in the platform.

Stage Leader (SL)

- The Stage Leader is a role for someone on the project management team who leads a given stage's work.
- The authority is similar to a project manager's, but only for the given stage.

Team Member (TM)

- A team member is any user accessing the platform with this designation.
- We are splitting this role into specialized roles. However, regardless of their designation, all team members have equal authority. This will change in the future.

Team Member, Functional/Technical (TM-FT)

- A TM-FT would be for those roles that would do technical work.

- These are the engineers, developers, analysts, etc. The implementation team.

Team Member, Generalist (TM-Gen)

- Same as Team Member for now.

Team Member, Operations (TM-Ops)

- Operations team members represent the end users and are not directly involved in building the product.
- These critical roles in specific domains and project types would work in parallel with the implementation team.

Team Member, Project Management (TM-PM)

- Project Management team members are those with project management roles and would assist the project manager in managing the project.
- They include estimators, planners, schedulers, and other project management specialists.

5. Project Status

Project Status

- A field we use to define the status of the project.
- In the Uruk Platform, we have five status conditions. These are Future, Active, Completed, Closed, and, in some cases, Hold.
- This is not about how the project is performing; that is, Project Performance Status, which is addressed separately.

Future Project

- A Future Project is a project that has been added to the Uruk Platform but has not been activated.
- The project will stay a future project until a senior manager (a project sponsor) activates it.
- Consequently, no work has been done on the project besides including it in the list.

Active Project

- An Active Project is a project that has been activated by the project sponsor.

Hold Project

- (On)Hold is a project status condition that we assign to a project to represent a project that has been active and was put on hold to a later date or indefinitely.
- Only a project sponsor can remove the old and re-activate the project.

Completed Project

- A project that has reached the last stage gate on the PLC is completed but not closed.
- The project will stay a completed project until the final success assessment.
- Consequently, the project team has completed the work and demobilized from the project.

Closed Project

- A project that has reached the endpoint and is formally closed.
- Per the Uruk Platform, a project will be designated complete (see Completed Project) after handover and awaiting the final success assessment.
- The project will be formally closed once the final success assessment is performed.

Project Performance Status

- A label we use to define how the project is performing.
- This could be a series of labels.
- For example, over or under budget, overrun, ahead or behind schedule, etc.
- We could also use other designations, such as healthy (green), caution (amber), troubled (red), etc.

C. Uruk Platform Elements and Modules

We have a separate document summarizing each of the 50+ modules, **The Uruk Platform_Summaries of Elements and Modules**.

Section VI.   Appendices

A. Common Acronyms

Many project management terms (phrases) could have the same acronyms. For example, "PM" could mean ten different things. Therefore, in writing any document or reference, we must always use the full term first, then use the acronyms in line with that context for that reference section. Further, by adding clarifiers, we tried to offer acronyms that we can use with minimal confusion. For Example, PdM refers to Product Management, whereas PjM is a reference for project management.

Acronym	Full Term
3PM	Project, Program, and Portfolio Management
4CRPs	Four Control Reference Points
4DPSs	Four Dimensions of Project Success
4PM	Project, Program, Product, and Portfolio Management
7Es	The Seven Elements of Project Management Maturity
AC	Actual Cost
ACCI	Absolute Change Cost Impact
ACCII	Absolute Change Cost Impact Index
ACWP	Actual Cost of Work Performed
AP	Academic Project(s)
AWP	Advanced Work Packaging
BAC	Budget at Completion
BBD	Big Bang Development
BCWP	Budgeted Cost of Work Performed
BCWS	Budgeted Cost of Work Scheduled
BP	Best Practice(s)
CAMMP	The Customizable and Adaptable Methodology for Managing Projects™
CAPEX	Capital Expenditure
CCB	Change Control Board
CCI	Change Cost Impact
CCII	Change Cost Impact Index
CDI	Change Duration Impact
CDII	Change Duration Impact Index
CIP	Capital-Intensive Project
CL	Captured Lesson
CLL	Captured Lesson Learned
CP	Capital Project(s)
CPI	Cost Performance Index
CPM	Critical Path Method
CV	Cost Variance
EAC	Estimate at Completion
EMV	Expected Monetary Value

Acronym	Full Term
EPT	Extended Project Team
ETC	Estimate to Complete
EV	Earned Value
EVA	Earned Value Analysis
EVM	Earned Value Management
FE	Front End
FEED	Front-End Engineering Design
FEL	Front-End Loading
FID	Final Investment Decision
FSR	Feasibility Study Report
GP	General Project(s)
IFC	Issued for Construction
IID	Iterative/Incremental Development
KPI	Key Performance Indicator
LCP	Large Complex Project
LL	Lesson Learned
MiP	Micro Project
MMP	Medium Moderate (complexity) Project
MP	Mega Project
MVP	Minimum Viable Product
NCR	Non-Conformance Report
NGO	Non-Governmental Organization
NPO	Non-Profit Organization
NPV	Net Present Value
OCM	Organizational Change Management
OPEX	Operating Exenditure
OPM	Organizational Project Management
OPMM	Organizational Project Management Maturity
OPMS	Organizational Project Management System
OU	Organizational Unit
P3M	Same as 3PM
PAB	Project Approved Budget
PAC	Project Actual Cost
PACD	Project Approved Completion Date
PACD	Project Actual Completion Date
PAD	Project Approved Duration
PAD	Project Actual Duration
PB	Project Brief
PBS	Product Breakdown Structure
PCDF	Project Completion Date Forecast
PCF	Project Cost Forecast
PCM	Project Change Mangement
PCOR	Project Close-Out Report

Acronym	Full Term
PCR	Project Completion Report
PDCA	Plan-Do-Check-Act
PDF	Project Duration Forecast
PdLC	Product Life Cycle
PdM	Product Management / Product Manager
PDP	Project Detailed Plan
PEC	Project Estimated Cost
PECD	Project Estimated Completion Date
PED	Project Estimated Duration
PfM	Portfolio Management / Portfolio Manager
PgLC	Program Life Cycle
PgM	Program Management / Program Manager
PgMT	Program Management Team
PjLC	Project Life Cycle
PjM	Project Management / Project Manager
PjMT	Project Management Team
PLC	Project Life Cycle / Program Life Cycle / Product Life Cycle
PMC	Project Management Cost
PMC	Project Management Consultancy
PMIS	Project Management Information System
PMM	Project Management Method(ology) / Project Management Maturity
PMO	Project Management Office
PMP	Project Management Plan
PMU	Project Management Unit
PO	Purchase Order
POC	Proof of Concept
PRD	Project Requirements Document
PSR	Project Status Report
PT	Project Team
PTCD	Project Target Completion Date
PV	Planned Value
RFB	Request For Bid
RFI	Request For Information
RFP	Request For Proposal
ROI	Return on Investment
RWP	Rolling Wave Planning
SAD	Stage Authorization Document
SCOR	Stage Close-Out Report
SDG	Sustainability Development Goals
SDO	Startup Development Organization
SDP	Stage Detailed Plan
SMP	Sustainability Management Plan
SMP	Stage Management Plan

Acronym	Full Term
SPI	Schedule Performance Index
SSP	Small Simple Project
SV	Schedule Variance
TCCI	Total Change Cost Impact
TCDI	Total Change Duration Impact
TM	Tailored Method
TMB	Tailored Method Builder
TMS	Tailored Method Selection
TP	Technical Project(s)
TPM	Technical Project Management
URUK	Uruk is not an acronym – it is a city name in ancient Mesoptemia, which inpsired our platform name
VDM	Value Delivery Methodology
VIP	Value Improving Practice(s)
WBS	Work Breakdown Structure
WP	Work Package

B. Advanced Stage Management Process Steps

1. Authorize Process

1. Mobilize project manager
2. Identify stakeholders
3. Establish stage[24] success criteria
4. Develop stage authorization document

2. Plan Management Process

1. Mobilize (project) management team
2. Develop a change management plan
3. Develop control plan
4. Develop a configuration management plan
5. Develop initial stage schedule
6. Develop stage initial cost estimate
7. Develop the stage management plan

3. Plan Details Process

1. Explore for expectations
2. Create stage PBS and WBS
3. Develop stage scope of work

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[24] Notice the use of the term stage, which may appear redundant. We do it to emphasize that "this action" is for the stage and not the whole project.

4. Develop stage schedule
5. Optimize stage schedule
6. Develop stage cost estimate
7. Determine stage budget
8. Identify and clarify risks
9. Assess risks
10. Plan responses to risks
11. Define quality standards
12. Define process improvements
13. Define HSE compliance requirements
14. Mobilize detailed planning team
15. Determine implementation roles and staffing requirements
16. Develop stakeholders' engagement plan
17. Determine communications requirements
18. Determine resources requirements
19. Develop procurement documents
20. Outline stage detailed plan

4. Implement Process

1. Mobilize implementation team
2. Acquire resources
3. Select and mobilize service providers
4. Manage team
5. Manage stakeholder engagement
6. Manage communications
7. Manage contracts
8. Lead and manage stage work
9. Complete work packages

5. Control Process

1. Control scope
2. Control schedule
3. Control costs
4. Control risks
5. Carry out quality assurance
6. Control quality
7. Carry out HSE assurance
8. Control HSE
9. Control team
10. Control stakeholder engagement

11. Control communications
12. Control resources
13. Control contracts
14. Control stage work
15. Control changes
16. Assess performance

6. Close Process

1. Validate product
2. Close resources
3. Close contracts
4. Reconcile stage work
5. Document captured lessons
6. Assess stage success
7. Close-out report
8. Demobilize team