



## Benefits and Issues in Managing Project by PRINCE2 Methodology

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**Abstract:** This paper will focus on implementation of structured project management methodology PRINCE2. It points out benefits and issues in managing project by using PRINCE2 methodology. PRINCE2 takes a process approach to project management, fitting each process in to a framework of essential components that need to be applied throughout the project. The PRINCE2 methodology describes the quality reviews for project documented, output driven product based planning and a change control process for agreeing potential changes and fixing faults. PRINCE2 methodology gives benefits through the process driven features. The strength of PRINCE2 lies in the areas of project direction and project management. The primary data collection method was interviews of the industry expertise. The secondary source of data is reference books and Internet articles. This paper will help to understand basics of PRINCE2 methodology, benefits and issues of PRINCE2 methodology.

**Keywords-** PRINCE2, methodology, project, management, project manager, governance.

### I. INTRODUCTION

PRINCE2 stands for **PR**oject **IN** Controlled **E**nvironment. PRINCE2 is the leading project management method in the UK and it is used across the globe in both the private and public sector. It is a process based project management methodology. PRINCE2 has been developed to establish control at the commencement, progression and termination of projects.

It is project governance and delivery method Project management is based on three constraints. These are shown in following figure.

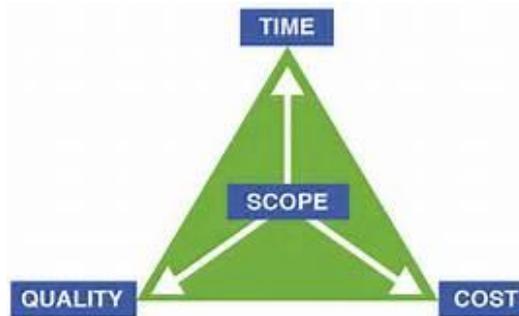


Fig. 1 Project Management Triangle

By using PRINCE2 for project management, the project is controlled within a cost constraint, time constraint and quality constraint. A good project manager understands how to make all three project constraints adjust to each other to deliver project within the scope.

The PRINCE2 method describes project management as “The planning, delegating, monitoring and control of all aspects of the project, and the motivation of those involved, to achieve the project objectives within the expected performance targets for time, cost, quality, scope, benefits and risk.” PRINCE2 clearly defines the roles and responsibilities of the project team members and focuses on the product that the project was established to deliver. It is a project management method which is designed to provide a framework which covers the wide number of activities and disciplines that are required within a project. PRINCE2 is a fully tailored project management methodology that breaks projects down into stages with a clearly defined beginning, middle and end. PRINCE2 focuses strongly on the delivery of the product that is produced at the end of each project.

### II. PRINCE2 PRINCIPLES, THEMES AND PROCESSES

#### A. PRINCE2 Principles

There are seven principles in PRINCE2. These principles are universal in that they can be applied to all projects irrespective of language, geography or culture.

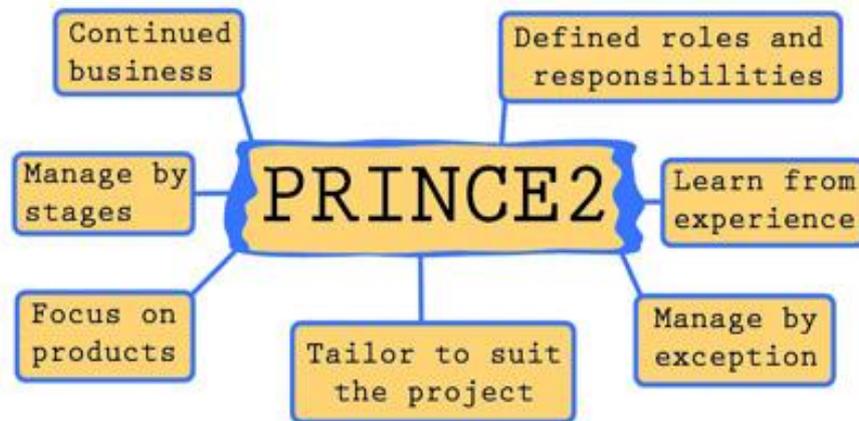


Fig. 2 PRINCE2 Principles

**a) Continued business justification**

Justification means reason to start a project, justification remains valid throughout the project life cycle. The Business Case is initially developed in outline form before the project begins and is refined in more details during the initiation stage of the project. It is then updated at the end of each stage to reflect updated forecasts for time, cost, benefits and risks. At the end of each management stage, the Business Case is reviewed to determine whether the project should continue.

**b) Learn from experience**

The team learn from past experience. PRINCE2 addresses this tendency with its requirement for reporting the lessons which we learn from projects. It recommends that previous projects are assessed for any lessons that can be applied on the current project even before the current project is initiated. When thinking of lessons, it is useful to consider what things went well and what things went badly from previous projects. These are captured and are incorporated when planning and developing strategies for any new project.

**c) Define roles and responsibilities**

Each person involved in project have defined role and responsibility. If everyone understands what is required of them, the chances of delivering a successful project are greatly improved. By clearly defining the roles and responsibilities of the project management team, it helps to avoid the problems which can occur when people are not clear what is expected from them. These types of projects are often beset by communication problems and are a common reason why projects fail.

**d) Manage by stages**

Project should be broken down into stages, and planned/executed/controlled accordingly. Every project must have a stage called the initiation stage which is where a detailed Business Case, Project Plan, and strategies for managing risks, issues, changes, quality, products and communications are developed. Subsequently, there are one or more “delivery” stages which are management stages the where specialist products are developed. Before proceeding to the next stage, the updated Business Case is reviewed to determine whether the project continues to have business justification. If it does, then the project can move into the next stage. As previously mentioned, if business justification no longer exists, the project should be closed. Therefore in PRINCE2, a management stage boundary forms a “Go/No go” decision point and forms the main control for the Project Board, which is the main decision maker on a project. This principle of the PRINCE2 method allow for even better monitoring of a project as they divide the project into stages which can be tracked more easily.

**e) Manage by exception**

There should be a well-formed system for delegation and escalation. Project has defined tolerance for each project objective to establish limits of delegated authority. If however, the project manager cannot deliver the stage plan within these agreed stage tolerances then this is known as an “exception” in PRINCE2 and this must be escalated to the Project Board for a decision. This therefore is a very efficient use of senior management time and means that the project Board are only involved in taking decisions as and when the need arises. (They are of course still involved in taking the key “Go/No go” decisions at the end of each stage).

**f) Focus on products**

Project focus on the product defining and delivery based on their quality requirements.

**g) Tailor to suit the project environment**

Using PRINCE2 out of the box without paying attention to the project environment will not succeed.

**B. PRINCE2 Themes**

A theme refers to one aspect of project management which needs to be constantly addressed throughout the duration of the project. Themes provide insight into how the project should be managed. They can be thought of as knowledge areas, or how principles are put in practice. They are set up at the beginning of the project and then monitored throughout. Projects are kept on track by constantly addressing these themes:



Fig. 3 PRINCE2 Themes

**a) Business Case**

Related to the continued business justification principle. This theme provides knowledge about whether a project is worthwhile and achievable. The objective of a Business Case is to decide if the project is (and remains) desirable, viable and achievable.

**b) Organization**

Related to the define roles and responsibilities principle. The organisation theme requires project managers to have everyone's roles and responsibilities on record.

**c) Quality**

Related to the focus on products principle. Quality can be an abstract concept, so defining it at the beginning of a project is vital to keeping the work on track. The objective of this theme is to ensure that the project meets all its requirements without any issue.

**d) Plans**

It is the most crucial theme of PRINCE2 methodology. A plan describes how targets will be achieved. It focuses on the products, timescale, cost, quality and benefits. IT describes what to do and how to do to achieve the goal of the project.

**e) Risk**

The purpose of this theme is to identify, assess and control uncertain events during a project. These are recorded in a risk log. Negative risks are called threats and positive ones are called opportunities.

**f) Change**

A client may anytime ask to add or remove a project requirement that is called change. This theme describes efficient and reliable change management. This theme is about handling change requests and issues that arise during the project. The idea is not to prevent changes, but to get them agreed on before they're executed.

**g) Progress**

Progress is about tracking the project. This allows project managers to check and control where they are relative to the plan. Not only can projects go off the rails without this – or any one – of the themes, but by not tracking, you may not even be aware that it's happening. Objective of this theme is to ensure that project is being developed according to the plan.

**C. PRINCE2 Processes**

PRINCE2 is a process-driven method. There are 7 processes, each containing a number of activities which need to be performed. The processes describe the activities which need to be performed at different points within the project.



Fig. 3 PRINCE2 Processes

**a) Starting Up a Project (SU)**

This first process in PRINCE2 is a pre-project process. It checks that a project is worthwhile. The key input to this process is a Project Mandate that defines in business terms the reason for the project and the expected outcome. Key activities include:

- Forming project board.
- Appointing an executive and a project manager.
- Designing and appointing a project management team.
- Preparing a project brief.
- Defining the outline of a Business case.
- Ensure that the investment of time and effort required by the project is made wisely, taking account of the risks to the project.

**b) Initiating a Project (IP)**

This Process involves planning in detail. The output document of this process is PID - Project Initiation Document. Key activities include:

- Production of four management strategies: the project's Risk, Quality, Configuration and Communication Management Strategies.
- Document and confirm that an acceptable Business Case exists for the project
- Setting up project controls.
- Setting up project files.
- Assembling a Project Initiation Document (PID).

**c) Directing a Project (DP)**

This is an ongoing process from the beginning to the end of a project. This PRINCE2 process runs from the start of the project until its closure. This process is aimed at the Project Board. The Project Board manages and monitors via reports and controls through a number of decision points. Key activities include:

- Authorizing initiation.
- Authorizing a project.
- Authorizing a stage or exception plan.
- Ad hoc direction (monitoring progress, providing advice and guidance, reacting to exception situations)
- Project closure activities.

**d) Controlling a Stage (CS)**

Project managers authorize work packages, which break the project down into manageable activities. These are assigned to teams and their managers. This PRINCE2 process describes the monitoring and control activities of the Project Manager.

The project manager has these tasks:

- Overseeing and reporting on work package progress
- Stepping in to correct problems

The team manager, meanwhile has these tasks:

- Coordinating daily work
- Communicating between team members and the project manager

**e) Managing Product Delivery (MP)**

This PRINCE2 process controls the communication between the project manager and the team managers. This process controls the flow of work packages from assignment to its delivery.

The key activities are:

- Accept a work package.
- Execute a work package.
- Ensuring that work package meet quality criteria.
- Deliver a work package.
- Obtaining approval for the completed work package.

**f) Managing Stage Boundaries (SB)**

This PRINCE2 process provides the Project Board with key decision points on whether to continue with the project or not. This process tells what should be done for a stage that has gone outside its tolerance levels. Key activities include:

- Planning a stage.
- Provide the Project Board with information needed to approve the current stage's completion.
- Authorize the start of the next stage.
- Updating the project plan, risk register, and business case.
- Reporting stage end to the project board.
- Producing an exception plan.

**g) Closing a Project (CP)**

This PRINCE2 process tells what steps should be taken at the end of a project. Key activities include:

- Decommissioning a project.
- Identifying follow-on actions.
- Check that objectives / aims set out in the Project Initiation Document (PID) have been met.
- Update Issue Register

**III. BENEFITS FOR IMPLEMENTATION PRINCE2**

**1) Reliable**

PRINCE2 is a constant, reliable and organized approach to adapt to a project from the beginning, middle and end stages. In this project management method, the project is divided into stages making the project very easy to manage. This assists the project team to maintain a motivated and focused workforce and being capable to deliver the outcome expected on time.

The use of stages is mandatory, their number is flexible according to management requirement of the project. PRINCE2 also differentiates between technical stages and management stages where technical stages are identified as a specialist skill while management stages equate to commitment of resources and authority to spend.

**2) Communication**

Another benefit is that it improves all communications between team members and other stakeholders, this provides the project to be more controlled and team members to work sufficiently with one another without having any problems. It gives stakeholders the opportunity to express their opinions when decision making as they are always informed through project reports and regular meetings. It enables good communication channels between all project participants and has an explicit recognition of project responsibilities in order for participants to understand each other's roles and needs; with a well defined structure by limiting delegation of authorities among participants.

**3) Well documented**

PRINCE2 is a procedure oriented project management methodology so in this methodology details of all the stages are well documented. So the knowledge transfer eases in different levels of team.

**4) Plan oriented:**

Whole project is divided into number of stages and every stage starts with planning step. Plans are designed to meet the needs of different levels of management.

**5) Focus on product**

Project focus on the defining and delivering of product, in particular and their quality requirements. A successful project is output oriented and not activity oriented.

**6) Clearly defined roles and responsibilities**

Project has defined roles project manager, team leader and responsibilities e.g. Project manager, Team leader

**7) Empowering**

The principles are also empowering to the project management team because they can give them added confidence and an ability to shape and manage their projects

**8) Managing by exception**

By working in this way, the Project Board "manages by exception" i.e. only gets involved when key decisions need to be taken (when an issue exceeds agreed tolerances) and hence is a very efficient use of senior management time.

**IV. ISSUES IN MANAGING PROJECT BY PRINCE2**

**1) Change management**

Every project involves change. The change in project is required if the user or customer might alter their quality expectations or requirements. PRINCE2 is procedure oriented so if the changes are required in the middle of the project development that not be accepted. The change management in PRINCE2 projects is difficult as compare to agile projects.

**2) Heavyweight**

PRINCE2 focus on comprehensive planning and heavy documentation, So it requires a extra time for documentation.

**3) Poor Risk management**

The risk management should be carried out as early as possible. PRINCE2 does not offer much guidance on how problems are resolved and how judgments are to be made, when they are identified. When problems aren't resolved properly they can lead to several consequences, leading to the project to have more risk. In the software development life-cycle for example, its faults and defects are generated in every early stages of development.

Risk management is a continuous activity throughout the whole of the project, and needs to start by identifying all risks and developing appropriate responses. The risk environments for a given project should be owned by everyone and not just the project manager. As a consequence of poor risk management, one or more of the project objectives are now at threat, then this situation could have been foreseen, controlled, or even prevented.

#### **4) Motivation**

Although the PRINCE2 method does not deal directly with the interpersonal aspects of project management, any good PRINCE2 project manager will understand the need for motivation within the project environment.

### **V. CONCLUSION**

PRINCE2 is a well planned, documented and stage oriented project management and governance methodology. Every methodology having some benefits and issues same ways PRINCE2 have also benefits and issues. This paper mainly focused on benefits of PRINCE2, to summarize reliable, communications, well documented, plan oriented, focus on product, clearly defined roles and responsibilities, manage by exceptions and empowering. An identified issues are change management, heavyweight, poor risk management and motivation.

These issues are minimized by integrating PRINCE2 with one of the Agile software development method for example Scrum, DSDM, FDD, TDD, Crystal clear, Lean and Kanban.

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