

PRINCE2 – An Overview

COMP6204: Software Project Management and Secure
Development

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Overview

- What is PRINCE2?
- PRINCE2 7 Principles
- PRINCE2 7 Themes
- PRINCE2 7 Processes
- The 7 roles in PRINCE2
- 6 Aspects/Key Variables of PRINCE2
- 6 Types of PRINCE2 documentation

Objectives

- To learn about **PRINCE2** project management methodology
- Describe it **7 Principles, 7 Themes, 7 Processes, 7 Roles**
- Identify the **Key Performance Indicators**
- Name and explain the **Key Documentation**

What is PRINCE2?

首字母缩略

- The acronym PRINCE stands for "PRojects IN Controlled Environments".
- PRINCE2 is a structured project management method that emphasises on dividing a project into manageable phases.
- PRINCE2 is a principles-driven project management methodology.
- PRINCE2 is based on seven principles, seven themes and seven processes.
- PRINCE2 is a planned-ahead methodology and follows a stage-by-stage process.

History of PRINCE2

- First edition of PRINCE2 was released in 1996 by OGC (formerly CCTA), The Office of Government Commerce (an independent office of the UK Treasury reporting to the Chief Secretary to the Treasury).
- Second edition of PRINCE2 was released in 1998 by OGC.
- Third edition of PRINCE2 was released in 2002 by OGC.
- Fourth edition of PRINCE2 was released in 2005 by OGC.
- Fifth edition of PRINCE2 was released in 2009 by OGC.
- Sixth edition (also known as 2017 edition) of PRINCE2 was released in 2017 by AXELOS.
- Seventh edition of PRINCE2 was released in 2023 by People Cert.

Project and Project Management is PRINCE2

- **PRINCE2 defines a project as:**

- A temporary organisation that is created for the purpose of delivering one or more business products according to an agreed business case.

- **PRINCE2 identifies project management as:**

- Project management is the application of methods, tools, techniques, and competencies to enable the project to meet its objectives.

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PRINCE2 – The 7 Principles

- There are **seven principles** and unless all of them are applied, it is not a PRINCE2 project.
- These seven principles are:
 1. Continued Business Justification
 2. Learn from Experience
 3. Defined Roles and Responsibilities
 4. Manage by Stages
 5. Manage by Exception
 6. Focus on Products
 7. Tailor to the Environment



PRINCE2 – The 7 Principles

1. Continued Business Justification

- Justify every project otherwise it could be a waste of time and/or resources.
- The most important document in PRINCE2 is the **business case**, which is reviewed and revised throughout the life cycle of the project.
- This is done to make sure the project remains **viable**. If not, the project ends.

2. Learn From Experience

- Enables organisations to **improve** their project management abilities.
- Avoid **repeating bad things** from previous projects. **Repeat** the **good** things.
- There is a **lesson log** attached to every project that acts as a **repository** for **lessons learned** in **previous projects** to avoid repeating past mistakes.

PRINCE2 – The 7 Principles

3. Roles and Responsibilities Are Defined

- Every **decision-maker** must understand their **responsibilities**.
- This avoids 'passing the buck'.
- Project members can take on **multiple roles** or **share a role**.
- There are four levels that make up the structure of people in a project: **corporate**, **project board**, **project manager** and **team**.

4. Manage by Stages

- **Break down** the project into '**management**' stages.
- These form '**go or no-go**' decision points. If the project is still worthwhile, proceed to the next stage. Otherwise close the project.
- When transitioning between stages the **business case**, **risk** and **project plan** are all updated.

PRINCE2 – The 7 Principles

5. Manage by Exception

- There are what are called **tolerances** for each project objective.
- In PRINCE2 Senior management **delegates** day-to-day responsibility to a **project manager**.
- It **delegates authority** by setting permitted 'tolerances' – e.g. 10 days +/- 2 days.
- This creates **limits** and defines how authority is delegated.
- If a plan will **exceed tolerances**, it's an 'exception' to be **escalated** for a decision.

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PRINCE2 – The 7 Principles

6. Focus on Products

- The **quality requirements** of deliverables are of paramount concern.
- This principle highlights that a project team's focus must always be on the end product delivery.

7. Tailor to Suit Project Environment

- All projects are **different**.
- Adapt the PRINCE2 methodology to suit the project's needs.
- The amount of **oversight** and **planning** should fit the **size of the project, number of people** involved, **complexity, importance**, time, risk, etc.

7 PRINCE2 Practices (formerly themes)

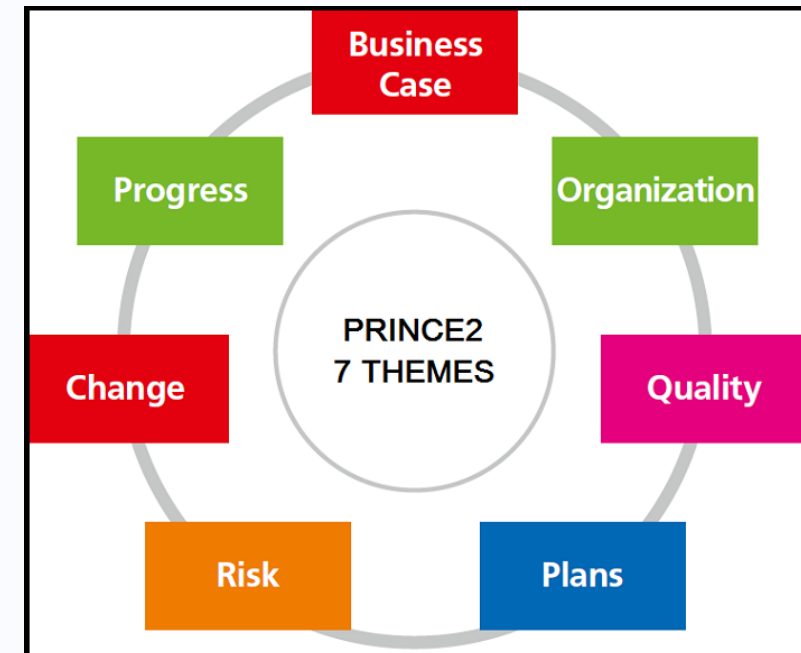
原来

- The **practices** describe essential **aspects** of **project management** that must be applied consistently and throughout the project lifecycle.
- In the **PRINCE2 methodology** **themes** **equate** to Knowledge Areas in the **PMBOK Guide®**.

相当于

- These seven **practices** are:

1. Business Case
2. Organisation
3. Quality
4. Plans
5. Risk
6. Change
7. Progress



PRINCE2 – The 7 Practices

1. Business case

- Document the project's justification.
- Maintain the justification in the form of a business case.
- The business case should contain a cost-benefit analysis to weigh up the benefits versus costs, times and risks.

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PRINCE2 – The 7 Practices

2. Organisation

- The highest level of decision-making is the project board.
- It delegates to a project manager who delegates to team managers.
- It “*manages by exception*” and doesn’t need regular progress meetings with the project manager.
- Project assurance monitors the project’s performance and products.
 - It advises the project board and project manager.
- A change authority decides about changes.
- Project support assists project and team managers.

PRINCE2 – The 7 Practices

3. Quality

- The users must get the **right products**. Otherwise, they won't get the outcomes and benefits expected.
- Products must be delivered to **user specifications**.

4. Plans

- Different plans (project, stage, team) are needed by the project board, project and team manager.
- Plans define the **what**, **when**, **who** and **how much**?
- After approval manage **baseline plans** under change control.

PRINCE2 – The 7 Practices

5. Risk

- Risk is any uncertain event which could have a **negative** or **positive** impact on the project.
- Manage risks regularly.
- Escalate risks to senior management if necessary.

6. Change

- Change always happens - either from outside (e.g. new laws) or inside (e.g. users' requirements change).
- In PRINCE2 a **change authority** uses a **change budget** to pay for changes.

PRINCE2 – The 7 Practices

7. Progress

- Track progress using regular **time-driven** reports.
- Take decisions using ad-hoc reports.
- Send reports to the next highest management level.
- Compare what's happened against what should have happened.
- Adjust the plan to get things 'back on track'.

7 PRINCE2 Processes for Effective Project Delivery

- The **seven processes** describe the **entire project lifecycle**, from activities **before getting started**, through the **stages of project delivery**, and to the final act of **project closure**.
- Each **process** has **checklists of recommended activities** and related **responsibilities**.

1. Starting up a project

2. Directing a pro

3. Initiating a project

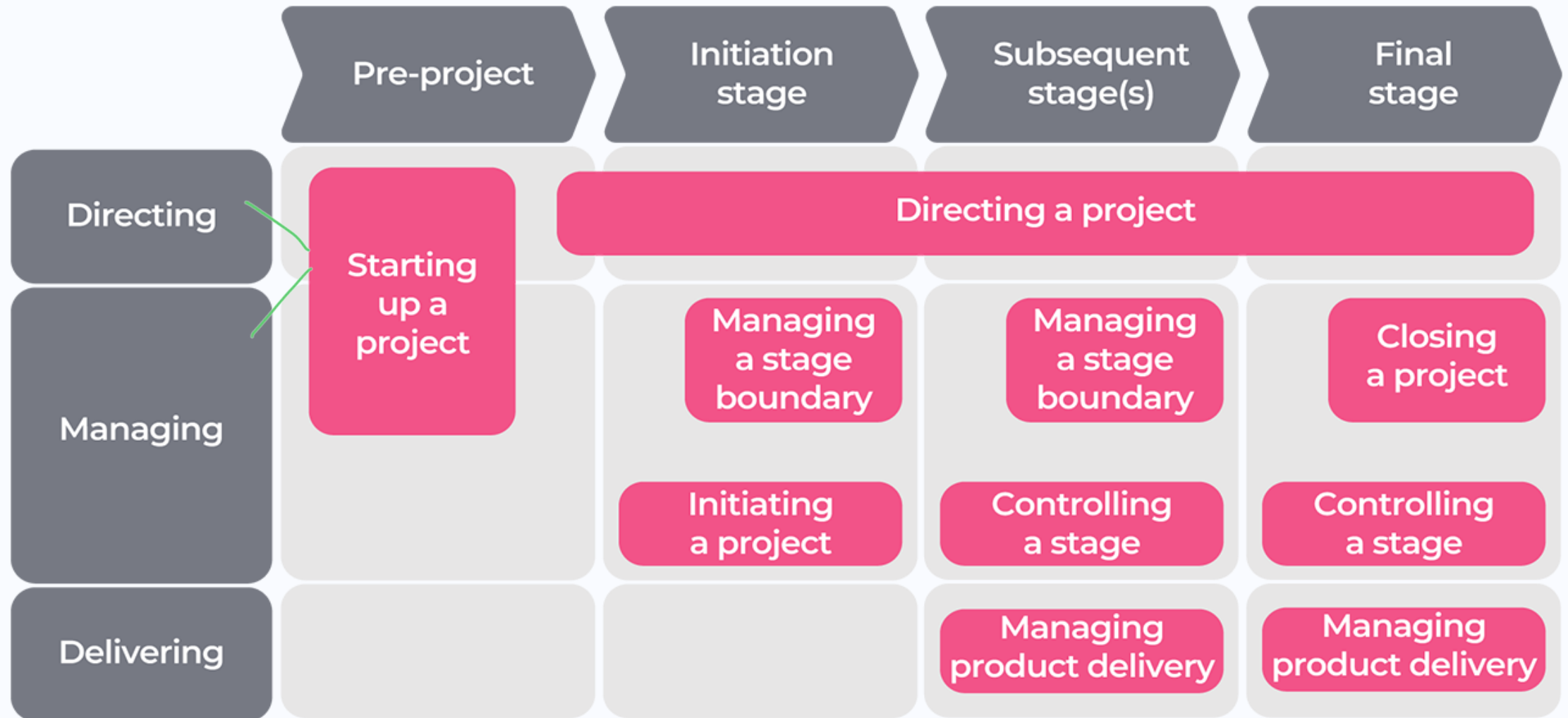
4. Managing a stage boundary

5. Controlling a stage

6. Managing product delivery

7. Closing a project

7 PRINCE2 Processes for Effective Project Delivery



PRINCE2 Methodology – Processes

- Processes in PRINCE2 describe:
 1. What decisions are required?
 2. Who takes decisions?
 3. What management products (e.g. plans or reports) support decision-making?
 4. When are decisions taken?
- The PRINCE2 processes are where the *principles* and *themes* within the *methodology* get applied.
- Processes within the PRINCE2 methodology equate to ‘*Process Groups*’ in the PMBOK Guide®.

PRINCE2 – The 7 Processes

1. Starting up a project

- Here a customer submits a request for a new project which is called a project mandate. 授权
- This **mandate** is then **evaluated**, and it is **determined** whether the company can take up the project.
- Once **approved**, the customer submits a **detailed proposal** regarding the resources, **actions**, and **other information** about the project.
- The work involved in the ‘starting up a project’ process is built around the production of three elements:
 - Ensuring the information required for the project team is available
 - Designing and appointing the project team
 - Creating the initiation stage plan

PRINCE2 – The 7 Processes

- 2. Directing the project :** Directing a project runs from the start of a project until its closure. This process is aimed at the project board, who manages and monitors the project via reports and controls at a number of decision points.
- The role of the project board falls into four main areas:
 - Initiation (starting the project off on the right foot)
 - Stage boundaries (commitment of more resources after checking results so far)
 - Ad hoc direction (monitoring progress, providing advice and guidance, reacting to exceptional situations)
 - Project closure (confirming the project outcome and controlled closure)
 - Now the viability of the project is analysed, and the project is assigned to a **project manager**.

PRINCE2 – The 7 Processes

3. Project initiation

- The project manager prepares a **plan** in which **different parameters** such as the **cost**, **time** required, **quality**, **advantages**, **risk**, and **project scope** are covered.
- The objectives of **initiating** a project are to:
 - Agree whether or not there is sufficient justification to proceed with the project
 - Establish a stable management basis on which to proceed
 - Document and confirm that an acceptable business case exists for the project
 - Ensure all required resources are available for the first stage of the project
 - Enable and encourage the project board to take ownership of the project
 - Detail the decision-making process to be used throughout the project lifecycle
 - Ensure that the investment of time and effort required by the project is made wisely, taking account of the risks to the project

PRINCE2 – The 7 Processes

4. Stage control

- The project is **subdivided** into **stages** and **teams** are assigned for **each stage**.
- The project manager **tracks** the **performance** and **issues** of **each stage**.
- This process details the work required by a project manager to ensure that each project stage remains within the tolerances laid out by the project board.
- This process highlights that during each stage there should be a cycle consisting of:

- Assigning work
- Gathering information on team progress
- Monitoring risks

- Reviewing the situation
- Reporting to the project board
- Taking any necessary corrective action

PRINCE2 – The 7 Processes

5. Product delivery management

- The **project manager** makes sure that there is **no gap** between **deliverables** and **quality expectations**.
- The **project board** makes a **final evaluation** and either **approve** the **product** or **request revisions**.
- The objective of this process is to ensure that planned products are created and delivered by:

- **Making sure all project team members are aware of their role in the product delivery**
- **Ensuring that work conforms to the requirements identified in the work package**
- **Ensuring that the work is done, on time and on budget**

- **Assessing work progress and forecasts regularly**
- **Ensuring that completed products meet quality criteria**
- **Obtaining approval for the completed products**

PRINCE2 – The 7 Processes

6. Managing stage boundaries

- At the closing of each stage, the manager and the board will review the outcomes of that stage to ensure that the project is on the right track.
- This process provides the project board with key points at which they can decide whether to continue with the project or not.
- When combined with risk management and change control activity, this process should make up the majority of a project manager's day-to-day role.

PRINCE2 – The 7 Processes

6. Managing stage boundaries

- The objectives of the process are to:
 - Assure the project board that all deliverables planned in the current stage plan have been completed as defined
 - Provide the information needed for the project board to assess the continuing viability of the project
 - Provide the project board with the information needed to approve the current stage's completion and authorise the start of the next stage, together with its delegated tolerance level
 - Record any lessons or reflections which can help later stages of the project and/or other projects

PRINCE2 – The 7 Processes

5. Project closing

- The purpose of this process is to bring the project to an end in a controlled manner.
- The objectives of this process are:

PRINCE2 – The 7 Processes

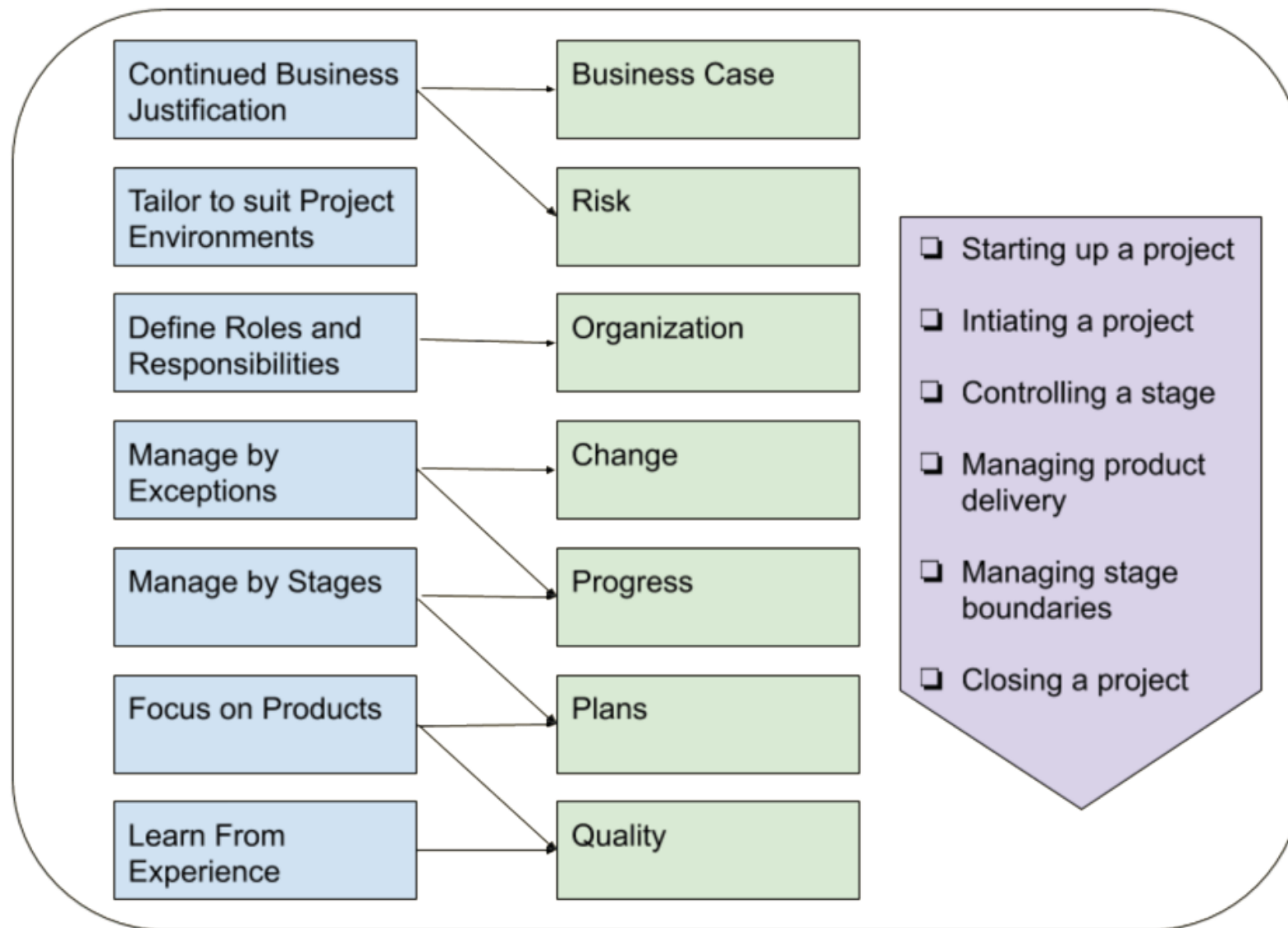
5. **Project closing** – The objectives of this process are:

- Check the extent to which the objectives or aims laid out in the project initiation document (PID) have been met
- Confirm the customer or end user is happy with the project output
- Obtain formal acceptance of the deliverables
- Confirm to what extent all expected products have been handed over and accepted by the customer
- Confirm that maintenance and operation arrangements are in place where needed
- Make recommendations for follow-on actions
- Capture lessons learnt from the project
- Prepare an end project report
- Notify the organisation of the intention to disband the project team and re-allocate resources

Principles

Practices

Processes



The Roles in PRINCE2

- According to PRINCE2, a project has 3 primary stakeholders. They are the Business sponsors, Users and Suppliers.
 - **Business sponsors** are those who make sure the project delivers value for money.
 - **Users** will use the products once created, so they receive the benefits.
 - **Suppliers** provide the resources and expertise to the project and produce the products.
- But there are many **supplemental roles** that help **ensure requirements** and **standards** are met and that **work runs smoothly**.

Roles and Responsibilities

- This principle states that these three primary stakeholders must be correctly represented in the Project Management Team and in the Project Board.
- This is done by the following default roles in PRINCE2:
- Project Board, a group of the following roles:
 - Executive, the business-oriented person who's ultimately responsible for the project
 - Senior User, one or more people who represent the final users' requirements in the board
 - Senior Supplier, one or more people who represent the interests of the suppliers
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Roles and Responsibilities – Cont.

- This is done by the following default roles in PRINCE2:
 - [Project Assurance](#), assures the interests of the primary stakeholders
 - [Change Authority](#), decides on some of the request for changes on behalf of the Project Board
 - [Project Manager](#), responsible for the day-to-day management of the project on behalf of the Project Board
 - [Project Support](#), helps the Project Manager in project management activities
 - [Team Manager](#), one or more people responsible for ensuring the quality and other variables of production in the teams

The 7 roles in PRINCE2

1. The **customer** is the person/organization **paying** for the **project** to be completed.
2. The **user** will either **use** the **project deliverables** or will be **impacted** by the project's outcome. (For some projects, the customer and user may be the same person.)
3. The **supplier** is a **subject matter expert** who **provides** the **knowledge** needed to complete the project by **designing** or building the end result.
4. The **project manager** is responsible for **organizing**, **planning** and **overseeing** work on the project.
 - They **select** and **manage** the **people** who **complete project tasks**, and they're **responsible** for making sure **work** is done **correctly** §time.

The 7 roles in PRINCE2 – Cont.

5. **Project team** is a group of employees who are doing the work and bringing the project vision to life.
6. **Team managers** oversee the detailed aspects of daily work and **report** directly to the **project manager**.
 - Might be replaced by project manager in smaller projects.
7. The **administrator** sets up meetings, Keeps everyone updated, tracks documentation, etc.
 - On small projects, project managers will often take over this responsibility, but if there are multiple projects running at once or the project is large/complex, a **project support office** is typically set up to manage these duties.

The roles in PRINCE2 – Cont.

- One of the 3 main roles, the *project board* typically includes multiple people: the *customer* (typically a senior executive), the *end user* (or a representative), and the *supplier*.
- **Project board** checks for project **assurance** from three unique perspectives:
 1. The **customer** ensures the project is still **viable financially**, typically through **cost benefit analysis**.
 2. The **user** ensures **user needs** are being met.
 3. The **supplier** checks whether the project is working towards a **realistic, practical solution**.
- On some projects, PRINCE2 assurance is done by an **unbiased, third-party team**.

PRINCE2 – Key Variables

- PRINCE2 manages **six** key variables.
- A *PRINCE2 project* identifies **six aspects** or **areas** that need to be managed in every project.
- Project managers need to use **Key Performance Indicator – KPIs** to **measure** performance goals and project tolerances:

- These key KPIs are:

1. *Costs*
2. *Timescales*
3. *Quality*
4. *Scope*
5. *Risk*
6. *Benefits*

Six Aspects/Key Variables of PRINCE2

1. **Scope:** what is the work needed to complete the project? The details of the **project scope** should be explained in the project plan.
2. **Costs:** how much does your project cost? The **project costs** are detailed in the project plan as well.
3. **Timescales:** how long will it take to complete your project?

Each project **phase** is explained in the project plan, as well as the **project duration**.

Six Aspects of PRINCE2 – Cont.

4. **Risk:** what are your project risks? You'll need a risk management approach to determine the mitigation strategies that will be used.
4. **Quality:** what are the quality requirements of your clients or stakeholders?
You'll need to have quality control and assurance procedures in place to meet quality standards.
5. **Benefits:** what are the expected benefits of your project?
Every project needs a **business case** and a cost-benefit analysis to explain its purpose and financial or strategic benefits.

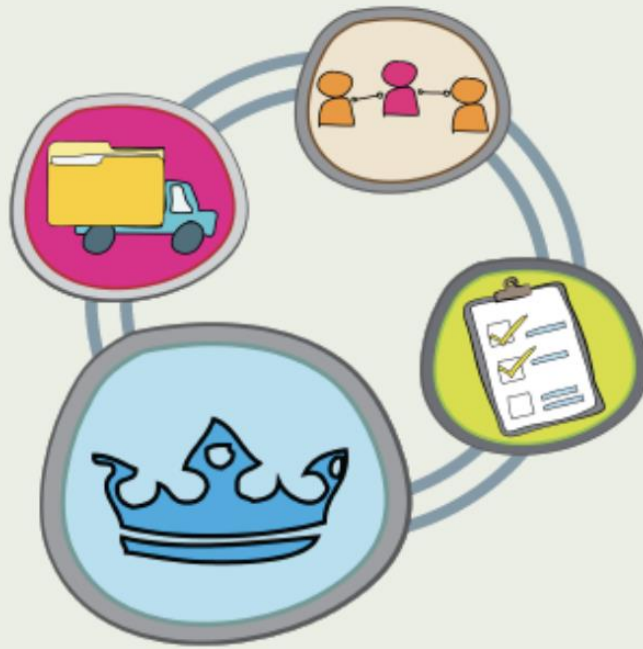
6 Types of PRINCE2 documentation

1. **Business case:** Detailed description of why the project is needed and its expected benefits to users and the business.
2. **Risk register:** Lists the probability and potential impacts of risks and opportunities.
3. **Quality register:** A running log of quality checks that ensure deliverables meet expectations.
4. **Issues register:** A list of problems and concerns from project team members.
5. **Lessons log:** Notes on lessons learned to apply to the next work stage and/or future projects.
6. **Daily log:** A daily diary written by the project manager that reports activity and progress.

Summary – Principles

Principles

These are the foundations of the method. Everything else is based on them. They can be universally applied.



There are 7 principles:

- Continued business justification
- Learn from experience
- Define roles and responsibilities
- Manage by stages
- Manage by exception
- Focus on products
- Tailor to the project environment

Summary – Themes

Themes

These are typical areas of the project which must be managed during the whole project.

There are 7 themes:

- Business case
- Organisation
- Quality
- Plans
- Risk
- Change
- Progress

PRINCE2 Methodology



Summary – Processes

Processes

PRINCE2 Methodology

These describe what decisions need to be taken, who takes them and when.



There are 7 processes:

- Starting up a project
- Directing a project
- Initiating a project
- Controlling a stage
- Managing product delivery
- Managing a stage boundary
- Closing a project

Summary – Tailoring

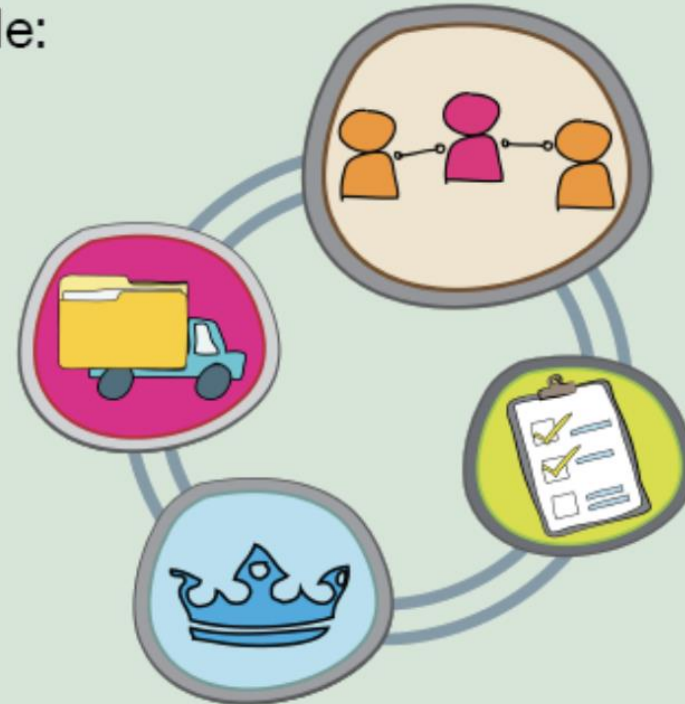
Tailor to the project management

No two projects are the same. Therefore apply PRINCE2 sensibly according to the needs of each project's specific environment.

Things which can be tailored include:

- Themes
- Processes
- Management products
- Project management team roles and responsibilities

PRINCE2 Methodology



References/Resources

- [8 Books to Read for a PRINCE2 Certification](#)
- [Passing the PRINCE2 Foundation exam e-book](#)
- [PRINCE2 Download Centre](#)
- <https://www.prince2.com/uk>

YOUR QUESTIONS