Corso di Laurea Magistrale in Economia

Data Science

A.A. 2018/2019

Introduzione a PRINCE2

Definizione

- PRINCE2 = PRojects IN Controlled Environments 2
- Approccio strutturato per la gestione dei progetti
- Deriva da precedenti metodologie
  - PROMPT II (Project Resource Organisation Management Planning Technique)
  - PRINCE: sviluppato dalla Central Computer and Telecommunications Agency (CCTA) come standard di project management per i sistemi informativi
- Versione più recente PRINCE2: 2009 Refresh (Office of Government Commerce)
- Standard in UK e in altri 50 paesi

Caratteristiche di un progetto

- Secondo PRINCE2 ci sono 5 aspetti che caratterizzano un progetto rispetto alle *operations*:
  1) Cambiamento
  2) Incertezza
  3) Temporaneità
  4) Unicità
  5) *Cross-functional*
- Sei variabili di *performance:*
  1) Costi
  2) Tempi
  3) Qualità
  4) Scopo
  5) Benefici
  6) Rischi

Caratteristiche di PRINCE2

- L'approccio si basa su 7 principi
  - Fondamentali per gestire un progetto con PRINCE2
- Descritto mediante 7 temi
  - Descrivono gli aspetti del project management
  - Richiamati durante la vita del progetto
- Codificato in 7 processi
  - Insiemi di interventi che producono particolari risultati

Principi

1) Continued business giustification
2) Learning from experience
3) Defined roles and responsabilities
4) Manage by stages
5) Manage by exception
6) Focus on products
7) Tailor to suit the project environment

Continued business giustification

- Every project must have a business case that justifies why the project is needed and what benefits it will deliver.

- Do not start a project unless there is a sound business case of it

- Stop the project if the giustification has disappeared

- The business case should be:
  - Documented and approved
  - The basis for the decision making

- Ensure the project remains aligned to its business objectives and the expected benefits

Learning from experience

- The project management should never be «reinventing the wheel».
- Importance of lessons learned
  - At the beginning
  - As the project progresses
  - At the closing

Defined roles and responsabilities

- An «explicit» project management team structure is required
- Each one should know what his and other people's responsibilities are
- 3 groups for roles and responsabilities:
  - Business
  - User
  - Supplier
- The chosen people agree to a role description and sign their acceptance of that role

Manage by stages

- Project divide into management stages
- To ensure projects continue to be worth doing the project board approves continuation and the commitment of resources on a stage by stage basis.
- The three things to remember are:
  1) Planning only what is foreseeable and sensible (known as the Planning Horizon)
  2) Project is run on a stage by stage basis
  3) Decision points between stages for the project board to approve

Manage by exception

- There are 3 levels within a Prince 2 project:
  - Project
  - Stage
  - Work Package

- For each level there are different tolerances set that project team members are allowed to work within without asking for approval to continue.

- For example, a work package may be planned to take 4 days to complete and have a 25% tolerance level. That means the work package can take 5 days without anyone on the project needing to get permission to work the extra day.

Focus on products

- Instead of being focused on the activities, Prince 2 is focused on the outputs, the products.
- The three things to remember about products are:
    1) Product descriptions are used for each product
    2) Each description is agreed and approved
    3) The complete set of products form the scope of the project

Tailor to suit the project environment

- Prince 2 can be used for any size or nature of a project, however in order to be successful it must be tailored to each project.

- This prevents:
    1) Disproportionate effort
    2) Inappropriate approach
    3) Reduced chances of project success

Temi

1) Business case
2) Organization
3) Plans
4) Progress
5) Risk
6) Quality
7) Change

Business case

- Purpose of Business Case is that the project is:
  - Desirable (Worth doing)
  - Viable (Still worth doing)
  - Achievable (Is possible to do)

- 4 activities
  1) Develop – getting the right information upon which decisions can be made
  2) Verify – assessing whether the project is (still) worthwhile
  3) Maintain – to update the Business Case with actual costs and benefits and current forecast for costs and benefits
  4) Confirm – assessing whether the intended benefits have been (or will be) realized. Confirming benefits will mostly take place post project.

Business case

- A typical business case includes the following:
  - Executive Summary
  - Reasons – why the project is required
  - Business Options – do nothing, do the minimum, do something
  - Expected Benefits – achieved outcomes
  - Expected Dis-Benefits – a negative consequence of the project
  - Timescale – how long it will take
  - Costs – how much is it going to cost
  - Investment Appraisal – when will the project payback
  - Major Risks – by doing this project

Organization

- The purpose of the Organization theme is to define and establish the project's structure of accountability and responsibilities
- 3 groups
  - Business – Is concerned with the investment in the project.
  - User – Affected by what the project produces.
  - Supplier – Responsible for delivering the project.
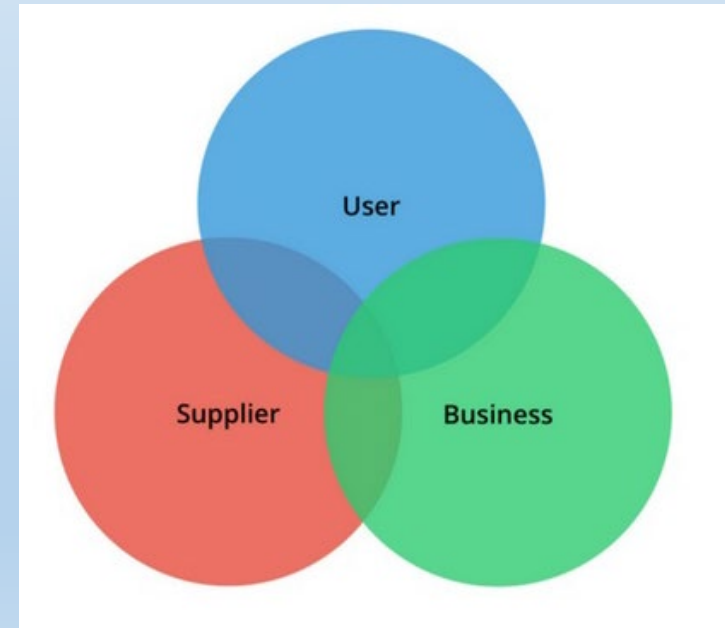
Organization

- 4 levels of management:
  - Corporate (top) management
  - Project Board – Responsible for the overall management and direction of the project.
  - Project Manager – Responsible for the day to day management of the project. Prime responsibility for the project manager is to ensure that the project does not exceed the set tolerances of time, cost, quality and scope.
  - Team Manager – Responsible for the production of the products that they have been assigned to do by the Project

Plans

- The purpose of the Plans theme is to facilitate communication and control by defining the means of delivering the products
- Different levels of planning
  - Project Plan – shows at a high level what will be done and when
  - Stage Plan – a detailed plan about the stage that the project is at
  - Exception Plan – a plan to recover from a tolerance that has been exceeded
  - Team Plan – an optional plan for team managers to allocate work to team members

Progress

- The purpose of the progress theme is to establish mechanisms to monitor and compare actual achievements against those planned; provide a forecast for the project objectives and the projects continued viability; and control any unacceptable deviations.

- Progress controls enable the next level of management to:
  - Monitor progress
  - Compare level of achievement with plan
  - Review plans and options against future situations
  - Detect problems and identify risks
  - Initiate corrective action
  - Authorize further work

Risk

- The purpose of the Risk theme is to identify and control uncertainty and, as a result improve the ability of the project to succeed.
- What is risk?
  - Something that may happen that if it does will impact on the project. If it is a negative then it is viewed as a threat. If it is a positive then it is viewed as an opportunity
- What is Risk Management Strategy?
  - How the risks will be identified and managed during the project

Risk Management Procedure

- Identify (context and risks)
- Assess (estimate and evaluate)
- Plan
- Implement
- Communicate

Quality

- The purpose of the Quality theme is to define and implement the means by which the project will verify products that are fit for purpose
- Quality is:
  - Meet business expectations
  - Enable the desired benefits to be achieved
- PRINCE2 approach to quality:
  - Identify all the project's products
  - Include quality criteria within product description
  - Implement and track quality methods throughout the project

Quality Planning

- Understanding the customer's quality expectations
- Define the project's acceptance criteria
- Documenting the customer's quality expectations
- Documenting the project's acceptance criteria in the Project
- Production Description
- Formulating a Quality Management Strategy
- Writing clear Product Descriptions containing quality criteria, quality tolerances, quality method and quality responsibilities
- Setting up the Quality Register

Quality Control

- Carrying out the quality methods
- Maintaining quality and approval records
- Gaining acceptance

Change

- The purpose of the change theme is to identify assess and control any potential and approved changes to the baseline
- The Aim is not to prevent change but to ensure that every change is agreed by the relevant authority before it takes place
- Types of issues:
  - Request for Change – Changes to what has previously been agreed
  - Off-Specification – Something that should be delivered as part of the project but is forecast not to be done
  - Problem/Concern – Anything that the Project Manager needs to resolve or escalate
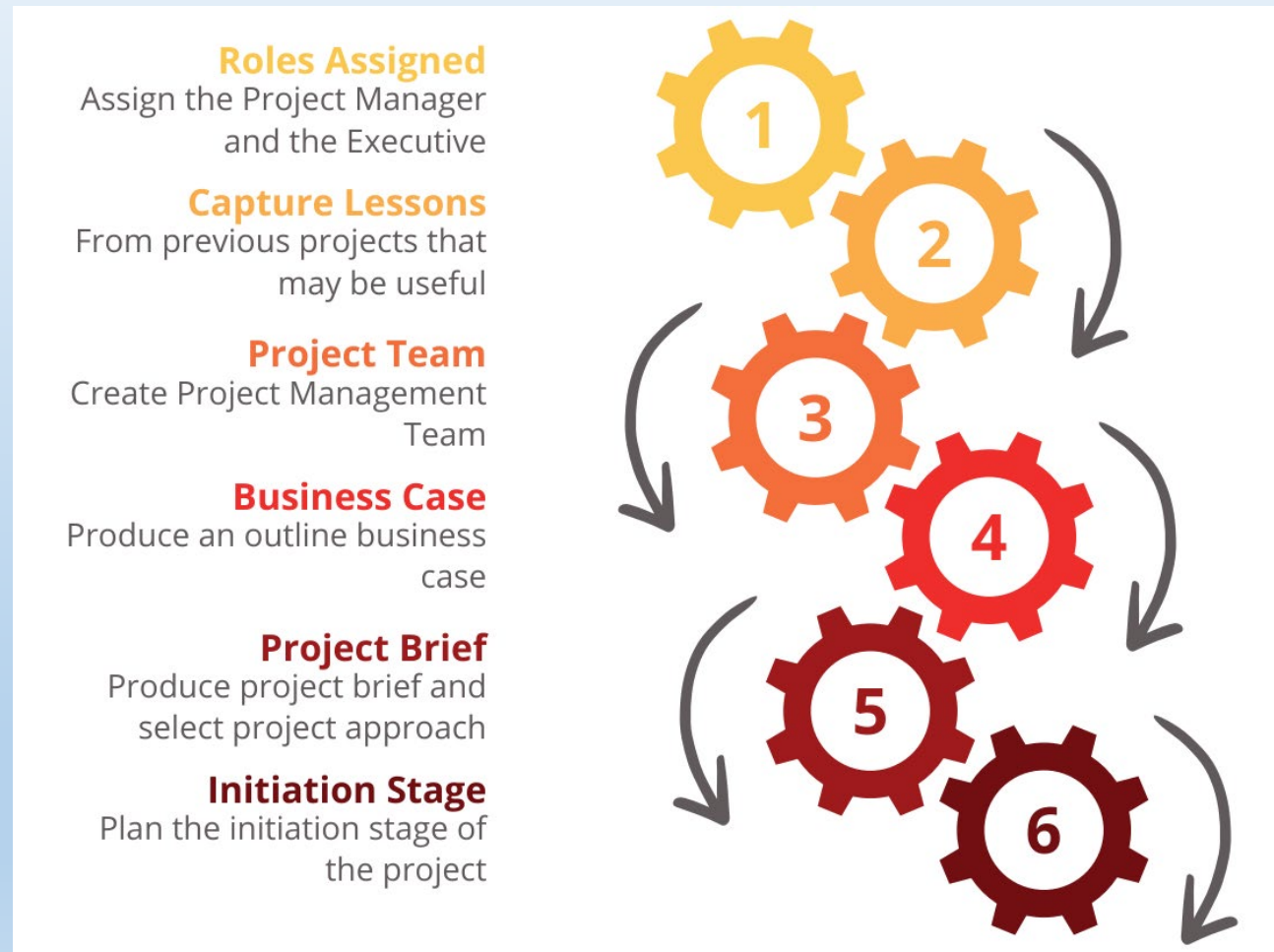
Processi

1) Starting up a project
2) Directing a project
3) Initiating a project
4) Controlling a stage
5) Managing product delivery
6) Managing a stage boundary
7) Closing a project

Starting up a project

- The purpose of the Starting up a Project process is to ensure that the prerequisites for Initiating a Project are in place by answering the question: do we have a viable and worthwhile project?

- Objectives
  - Document in an outline Business Case what the reason is for the project
  - Put in place the people who have the authority to initiate the project
  - There is enough information available to be able to produce the project scope and write a project brief
  - A project approach is selected based upon the different ways the project delivered
  - People are assigned to undertake the initiation of the project and/or take a project management role in the project
  - Documented in a Stage Plan and planned is the work required to initiate the project
  - The project is not initiated due to poor assumptions about the scope, timescales, constraints and acceptance criteria

Starting up a project

- Activities

Roles Assigned
Assign the Project Manager and the Executive

Capture Lessons
From previous projects that may be useful

Project Team
Create Project Management Team

Business Case
Produce an outline business case

Project Brief
Produce project brief and select project approach

Initiation Stage
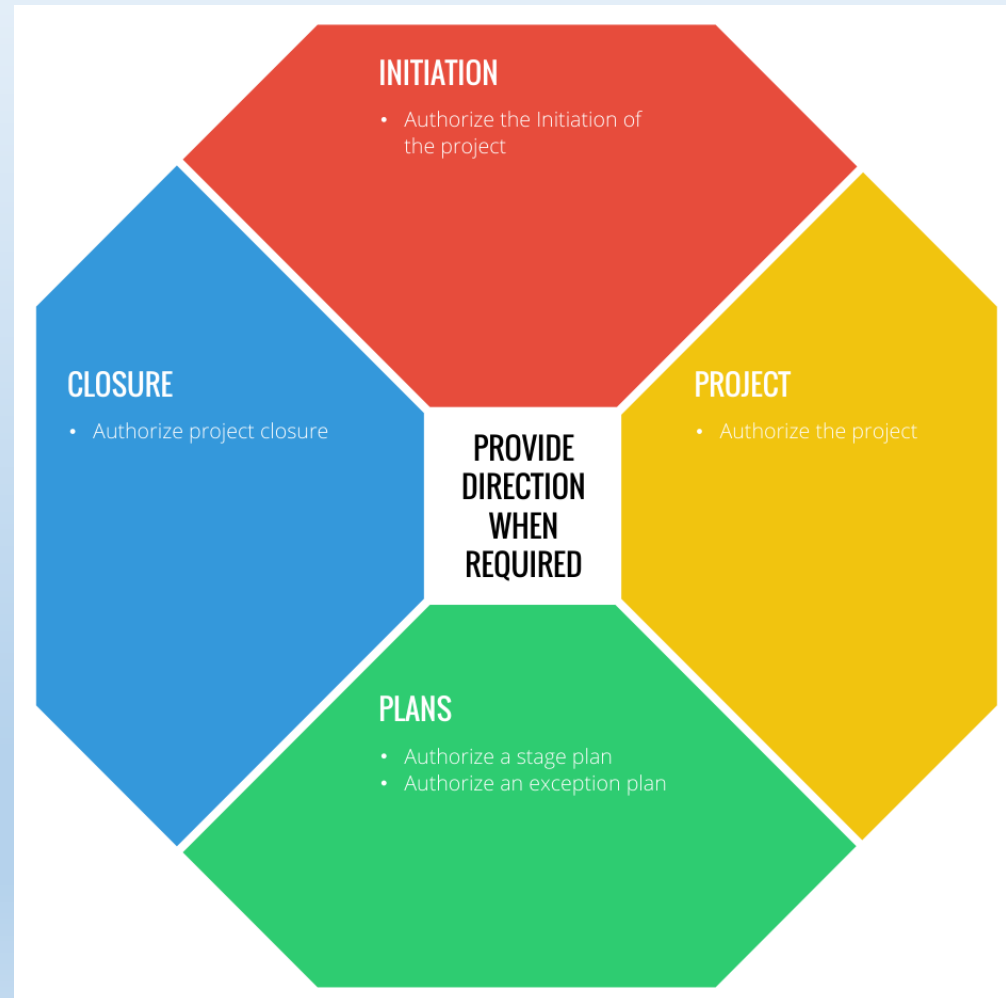Plan the initiation stage of the project

Directing a project

- The purpose of the Directing a Project process is to enable the Project Board to be accountable for the project's success by making key decisions and exercising overall control while delegating day-to-day management of the project to the project manager

- Objectives
  - Able to authorize Initiating the Project
  - Able to authorize the delivery of the project's products
  - Ensure the project remains viable and that control and management direction is provided to the project
  - Provide an link to the corporate or programme management level above the project
  - Able to authorize to close the project
  - Manage and review the plan for realizing the postproject benefits
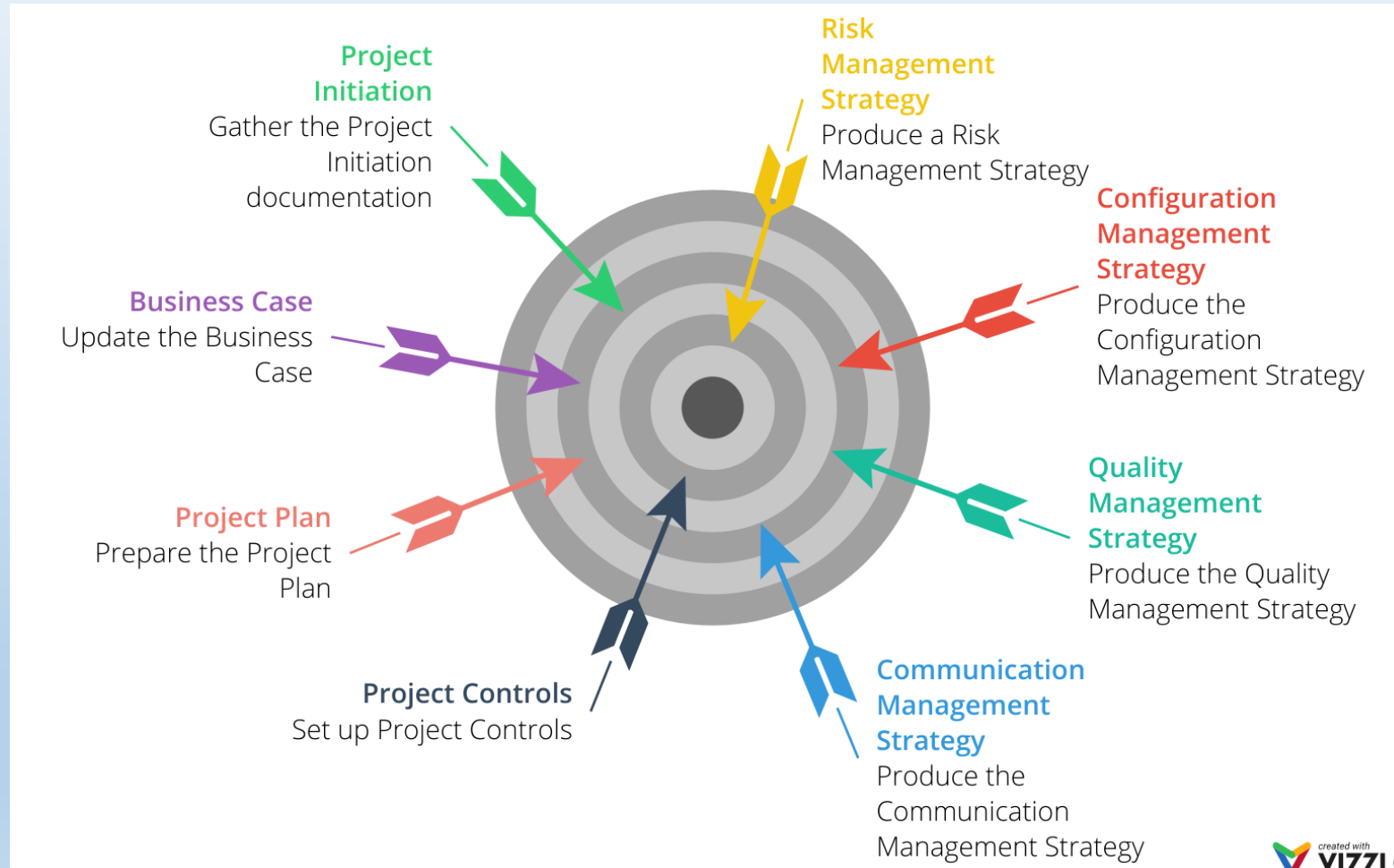
Directing a project

- Activities

Initiating a project

- The purpose of the Initiating a Project process is to establish solid foundations for the project, enabling the organization to understand the work that needs to be done to deliver the project's products before committing to a significant spend

- Objectives: providing a common understanding of
  - The risks, benefits and reason for doing the project
  - What products will be delivered and the scope of what will be done
  - The when and how the projects products will be delivered and how much they will cost
  - Who will make the project decisions
  - What is the required level of quality and how will it be achieved
  - How will a baseline be set and monitored
  - How will changes, issues and risks be identified, assessed and managed
  - Who needs what information, when do they need it and in what format

Initiating a project

- Activities

Project Initiation
Gather the Project Initiation documentation

Risk Management Strategy
Produce a Risk Management Strategy

Configuration Management Strategy
Produce the Configuration Management Strategy

Business Case
Update the Business Case

Project Plan
Prepare the Project Plan

Quality Management Strategy
Produce the Quality Management Strategy

Project Controls
Set up Project Controls

Communication Management Strategy
Produce the Communication Management Strategy

created with VIZZLO

Controlling a stage

- The purpose of the Controlling a Stage process is assign work to be done, monitor such work, deal with issues, report progress to the Project Board, and take corrective actions to ensure that the stage remains within tolerance

- Objectives
  - The delivery of the products that the stage will produce
  - Monitor to ensure products are produced as agreed. Any change is called scope creep
  - Manage risks and issues
  - Make sure the business case is still valid by reviewing it
  - Products are delivered to the agreed level of cost, quality, effort and time in support of the achievement of the benefits
  - Project management team deliver within the agreed Tolerances

Controlling a stage

- Activities
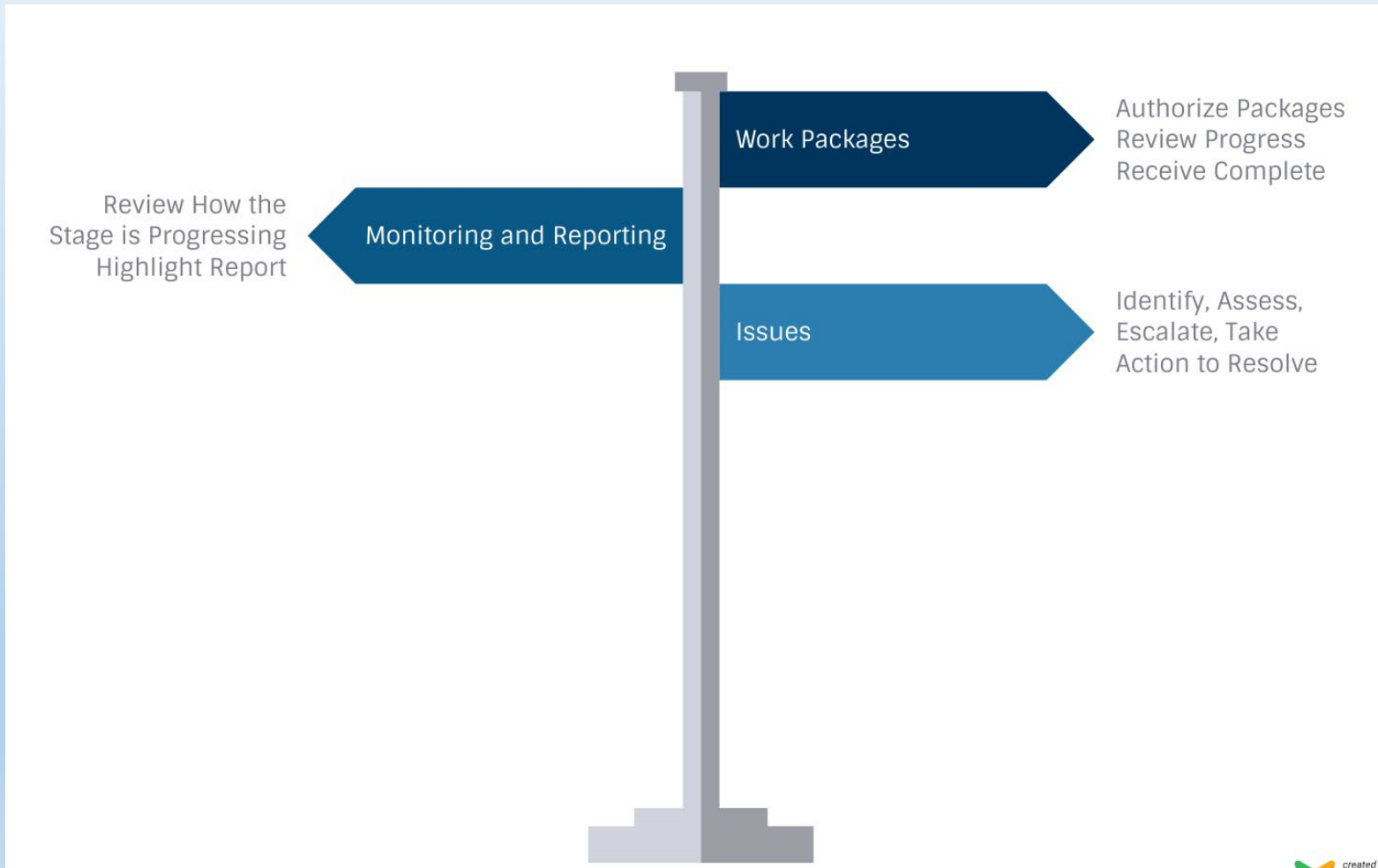
Managing product delivery

- The purpose of the Managing Product Delivery process is to control the link between the Project Manager and the Team Manager(s), by placing formal requirements on accepting, executing and delivering project work

- Objectives
  - All work is authorized and agreed before they start
  - Team Managers, members and suppliers are all clear on what needs to be done by when, at what cost and with how much effort
  - Products are delivered within the agreed tolerances
  - Progress is accurately reported at the agreed frequency so expectations can be managed

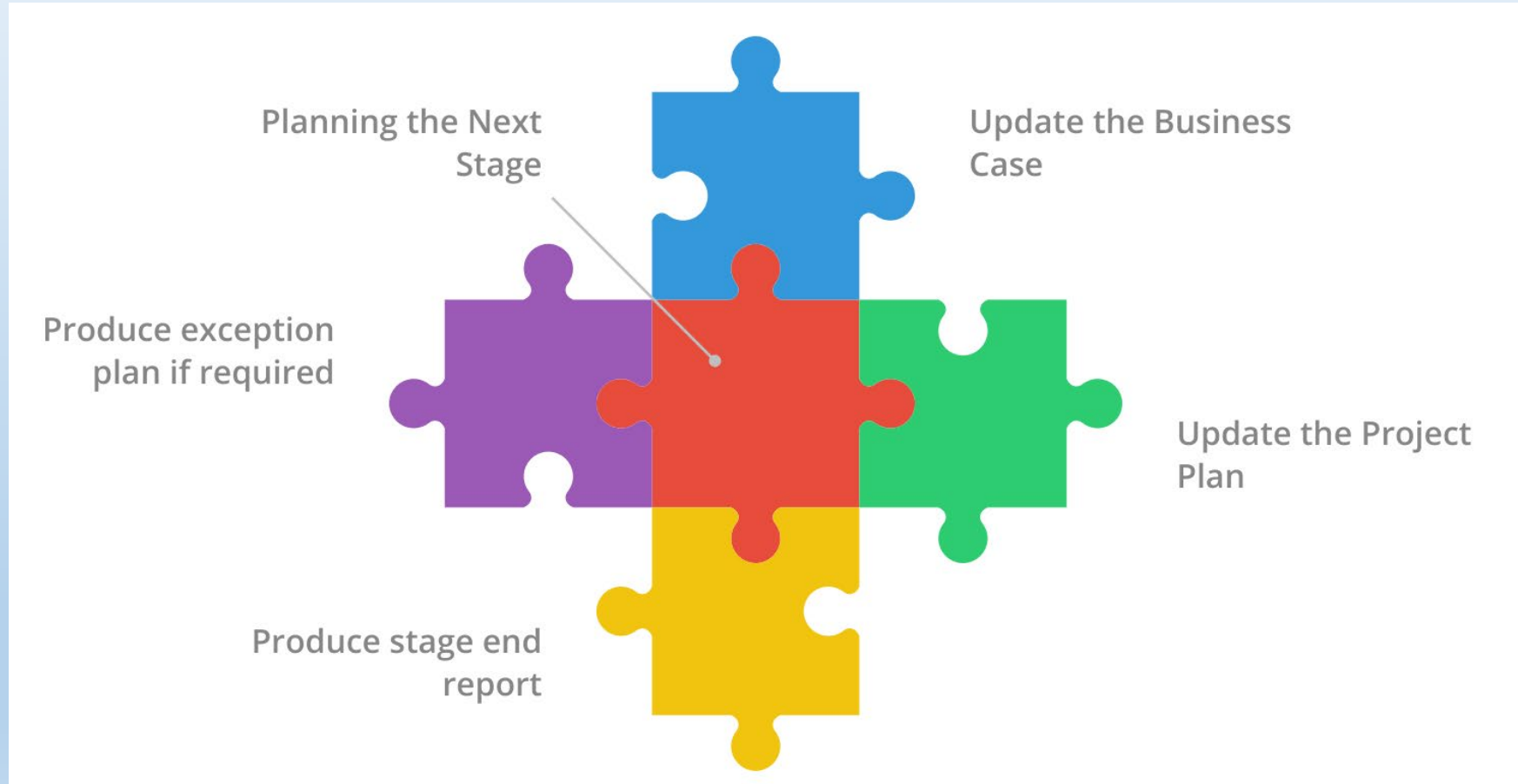# Managing product delivery

- Activities
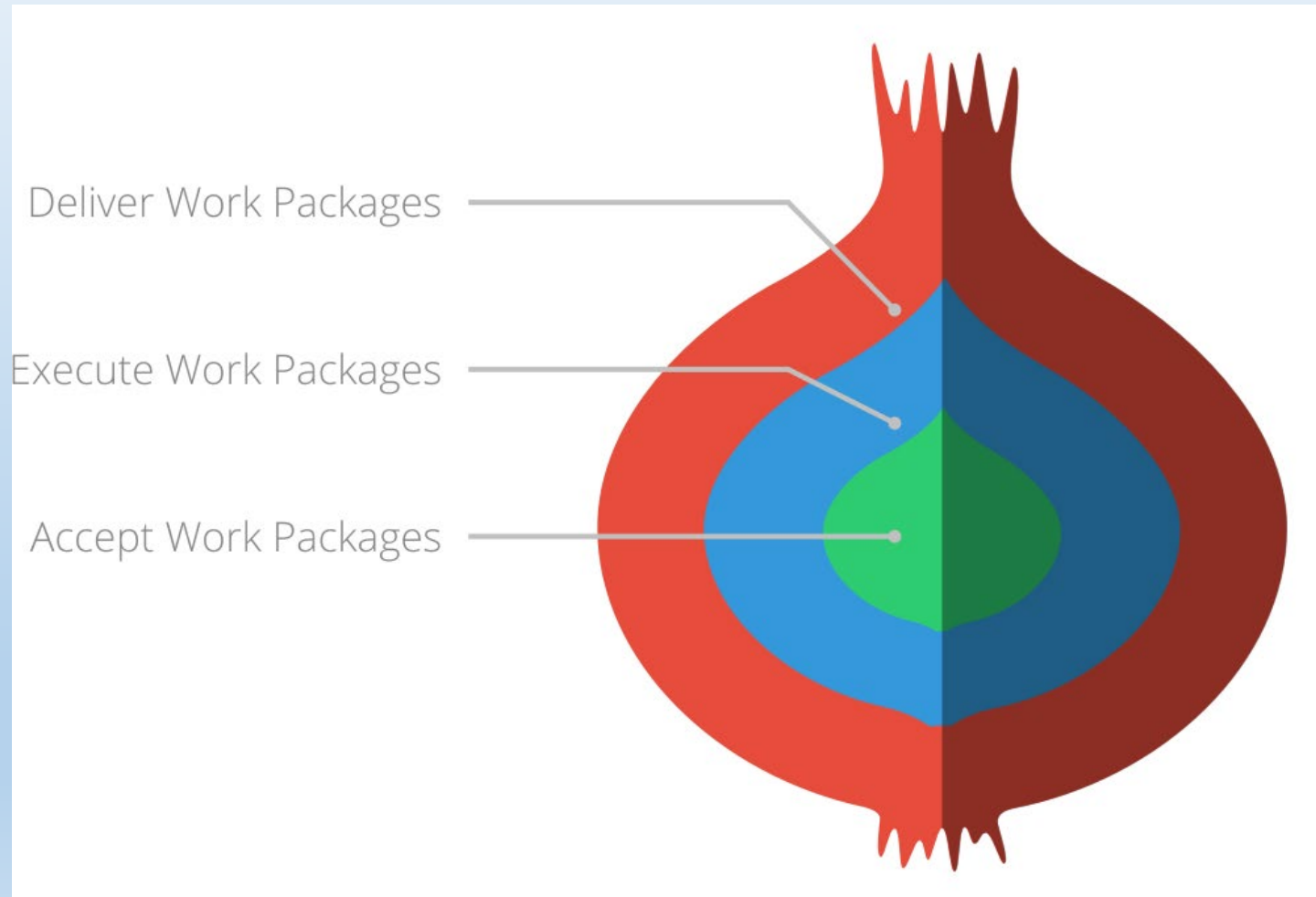
Managing a stage boundary

- The purpose of the Managing a Stage Boundary process is to enable the Project Board to be provided with sufficient information by the Project Manager so that it can review the success of the current stage, approve the next Stage Plan, review the updated Project Plan, and confirm continued business justification and acceptability of the risks

- Objectives
  - Confirm to the Project Board that all products detailed in the stage plan have been completed and approved
  - The next stage's plan has been completed
  - Review and if required updated project documentation such as the project plan, business case, project team structure, approach, role descriptions and strategies
  - Gather information for the Project Board to assess if the project remains viable – including the total risk exposure
  - Document any lessons or information that can be used to help later stages and/or other projects
  - Request authorization to start the next stage

Managing a stage boundary

- Activities

Planning the Next Stage

Update the Business Case

Produce exception plan if required

Update the Project Plan
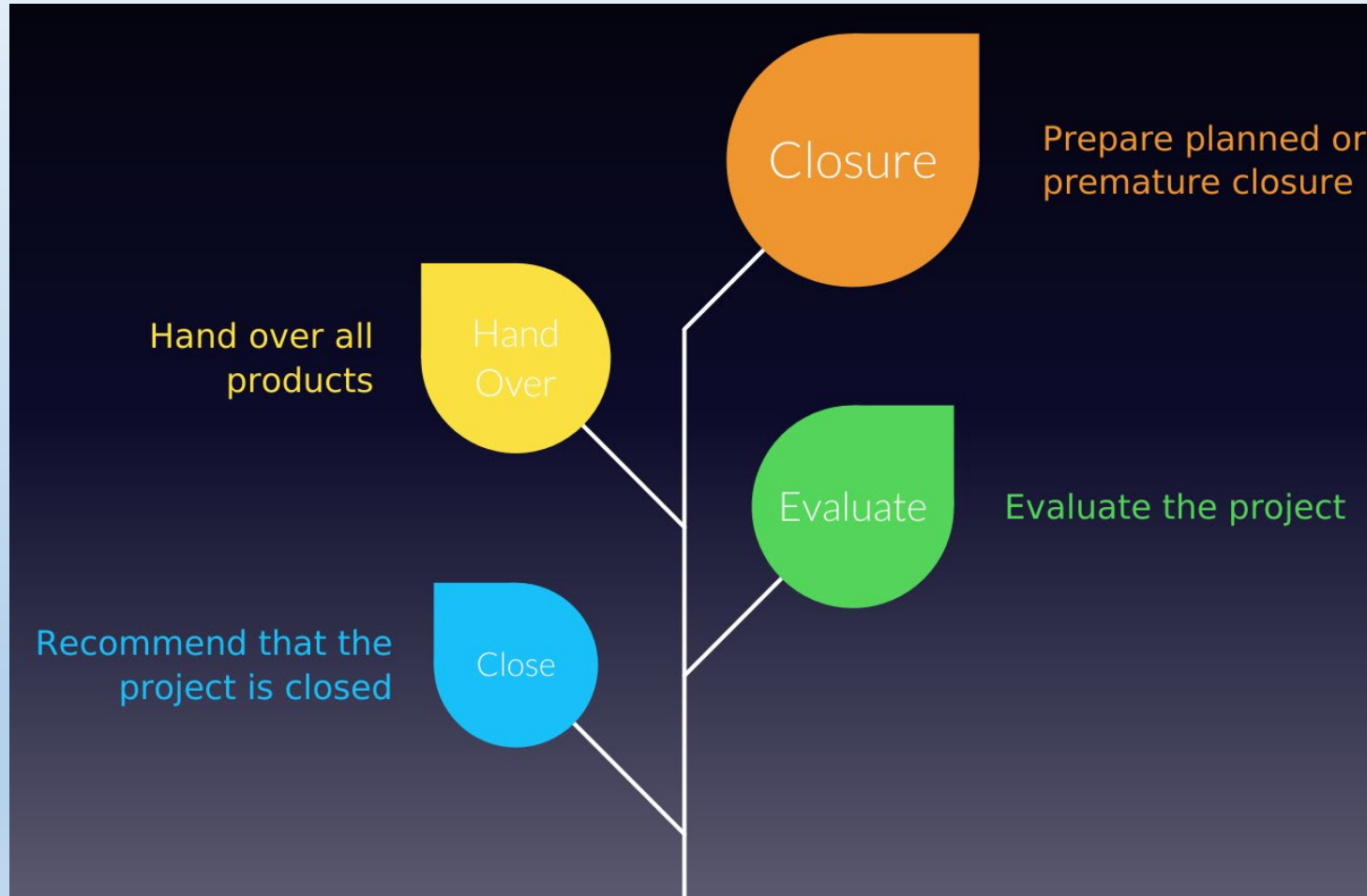
Produce stage end report

Closing a project

- The purpose of the Closing a Project process is to provide a fixed point at which acceptance for the project product is confirmed, and to recognize that objectives set out in the original Project Initiation Documentation have been achieved (or approved changes to the objectives have been achieved), or that the project has nothing more to contribute

- Objectives
  - Confirm the project's products have been accepted
  - When the project is disbanded make sure the products are properly supported
  - Review how the project performed against the set baseline
  - Produce a forecast of when benefits will be realized and assess any benefits that have already been identified
  - All open issues have follow-on action recommendations

Closing a project

- Activities

Benefici di PRINCE2

Improved effectiveness

Improved communication

Improved cost control

Improved alignment

Improved focus

Improved trust

Unite teams and processes

Influence the organizational culture