Introduction to PM Body of Knowledge (PMBoK)- V 7

Agenda

1. PMBoK V7 – Principles

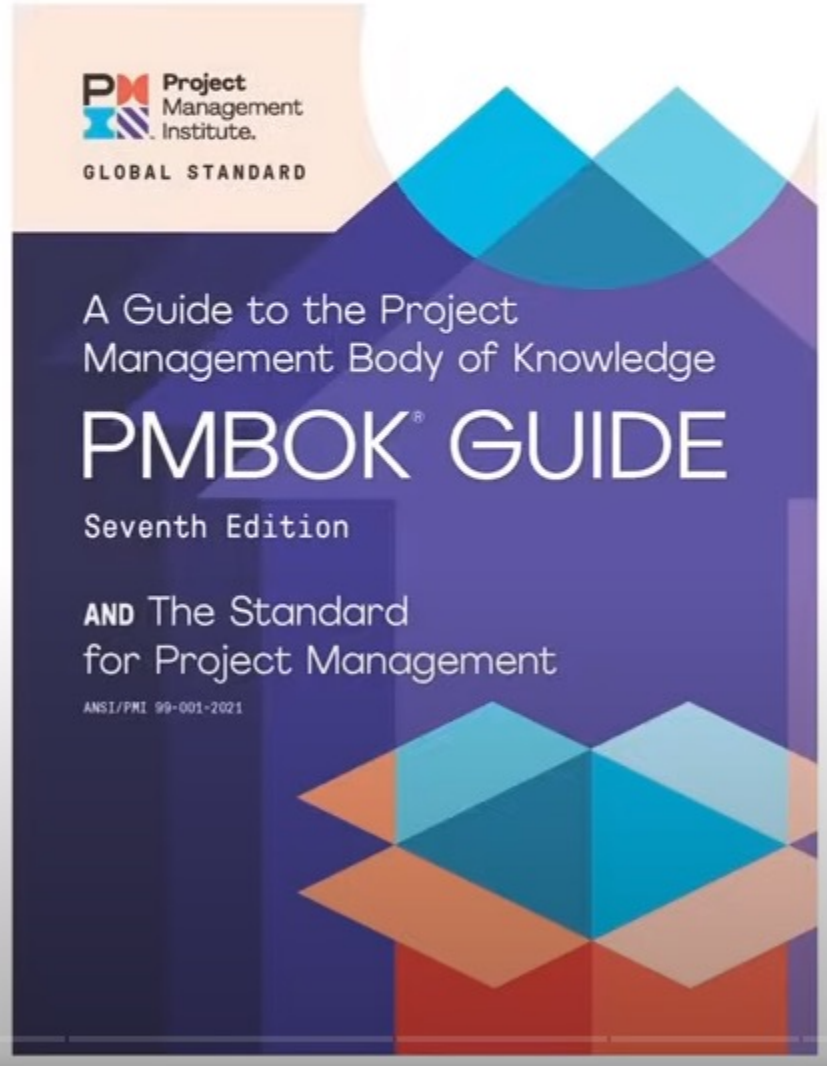
2. PMBoK V7 – Domains

3. Tailoring Considerations

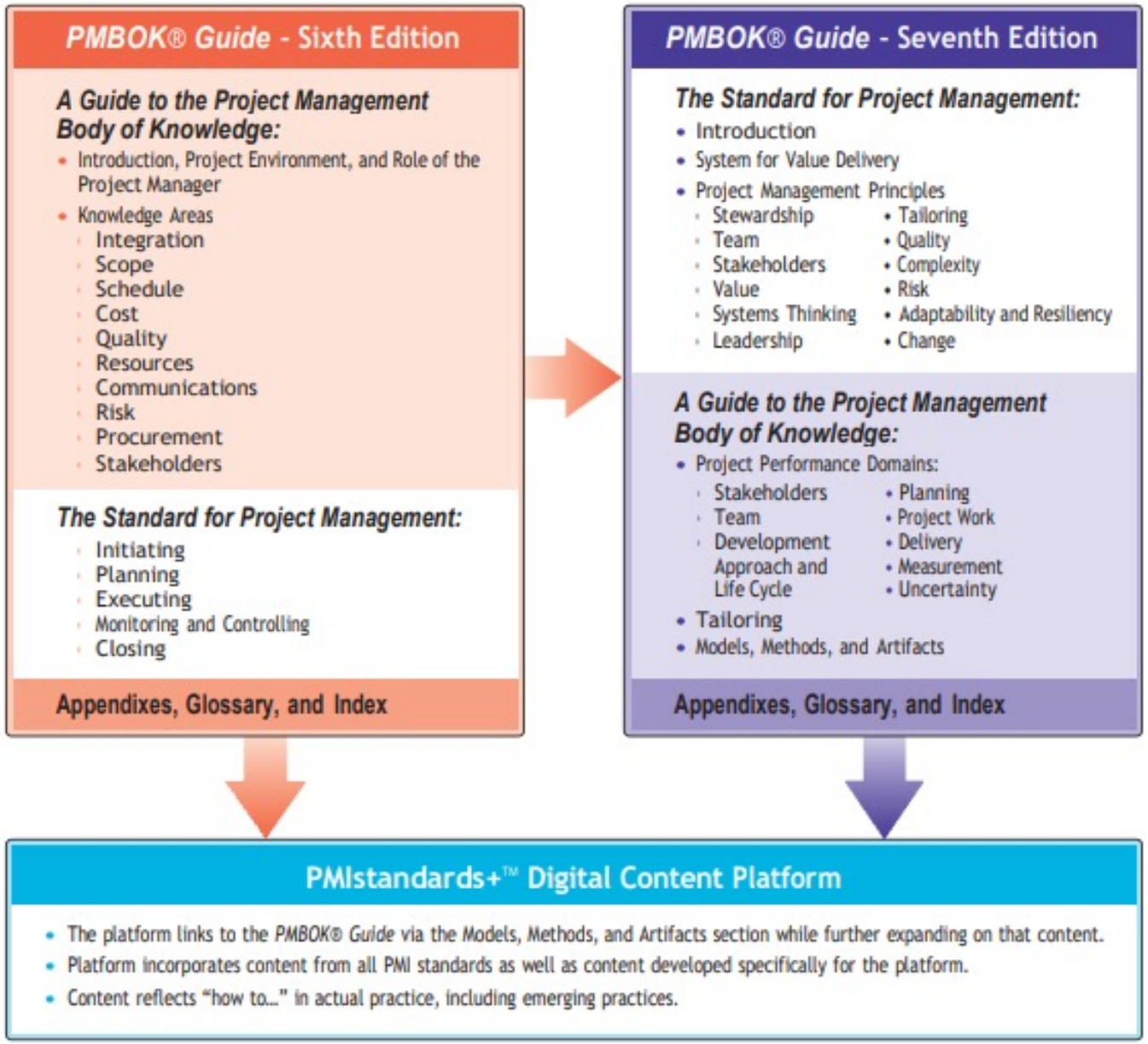
4. Tools and Techniques

Project Management Body of Knowledge

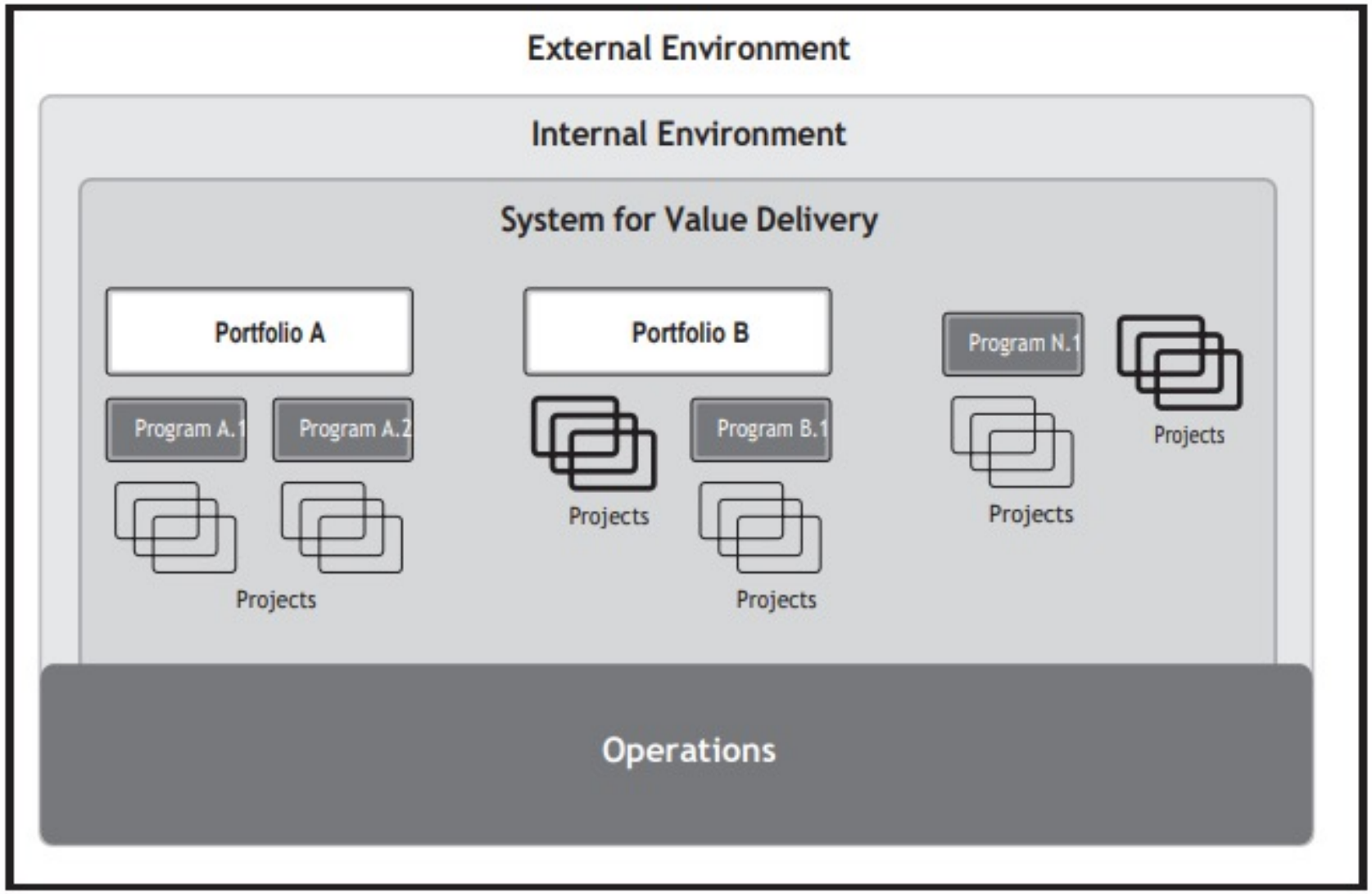
7th Edition



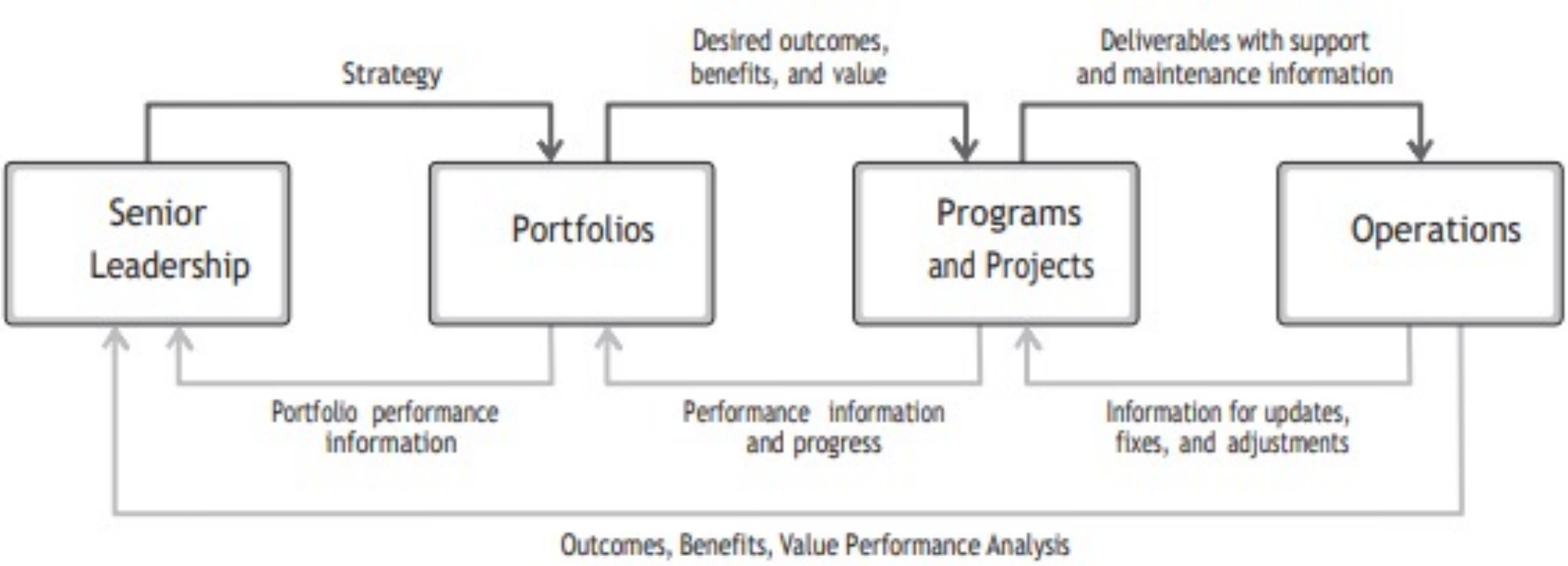
Key Change in the standard



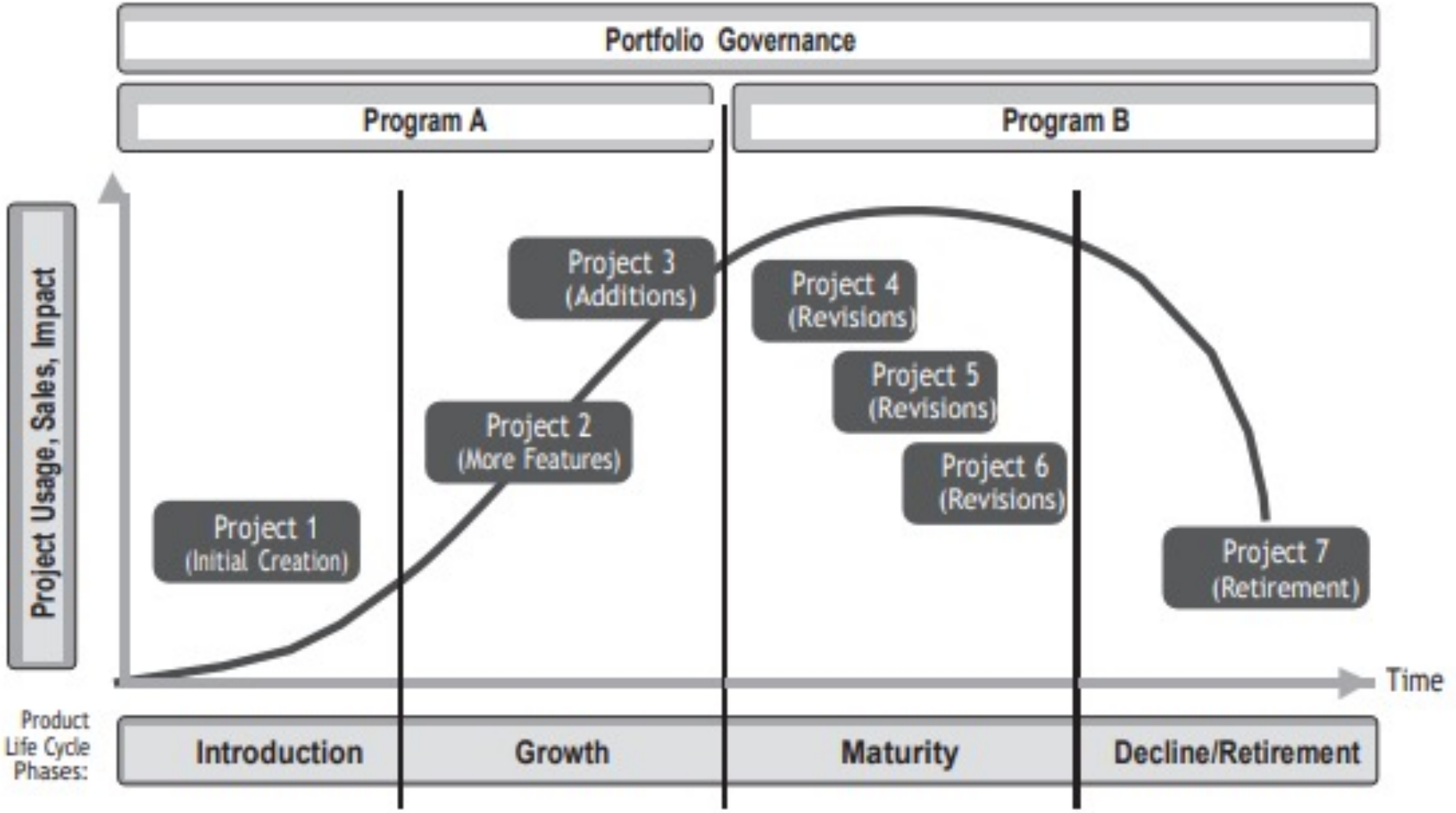
System for Value Delivery



Information Flow



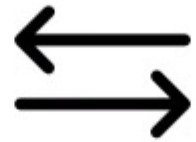
Product lifecycle



12 Principles of Project Management

Be a diligent, respectful and caring steward

Focus on value



Tailor based on content

Optimise risk responses

Create a collaborative team environment

Recognise, evaluate and respond to system interactions

Build quality into processes and deliverables

Embrace adaptability and resiliency

Effectively engage with stakeholders

Demonstrate leadership behaviours

Navigate complexity

Enable change to achieve the envisioned future state

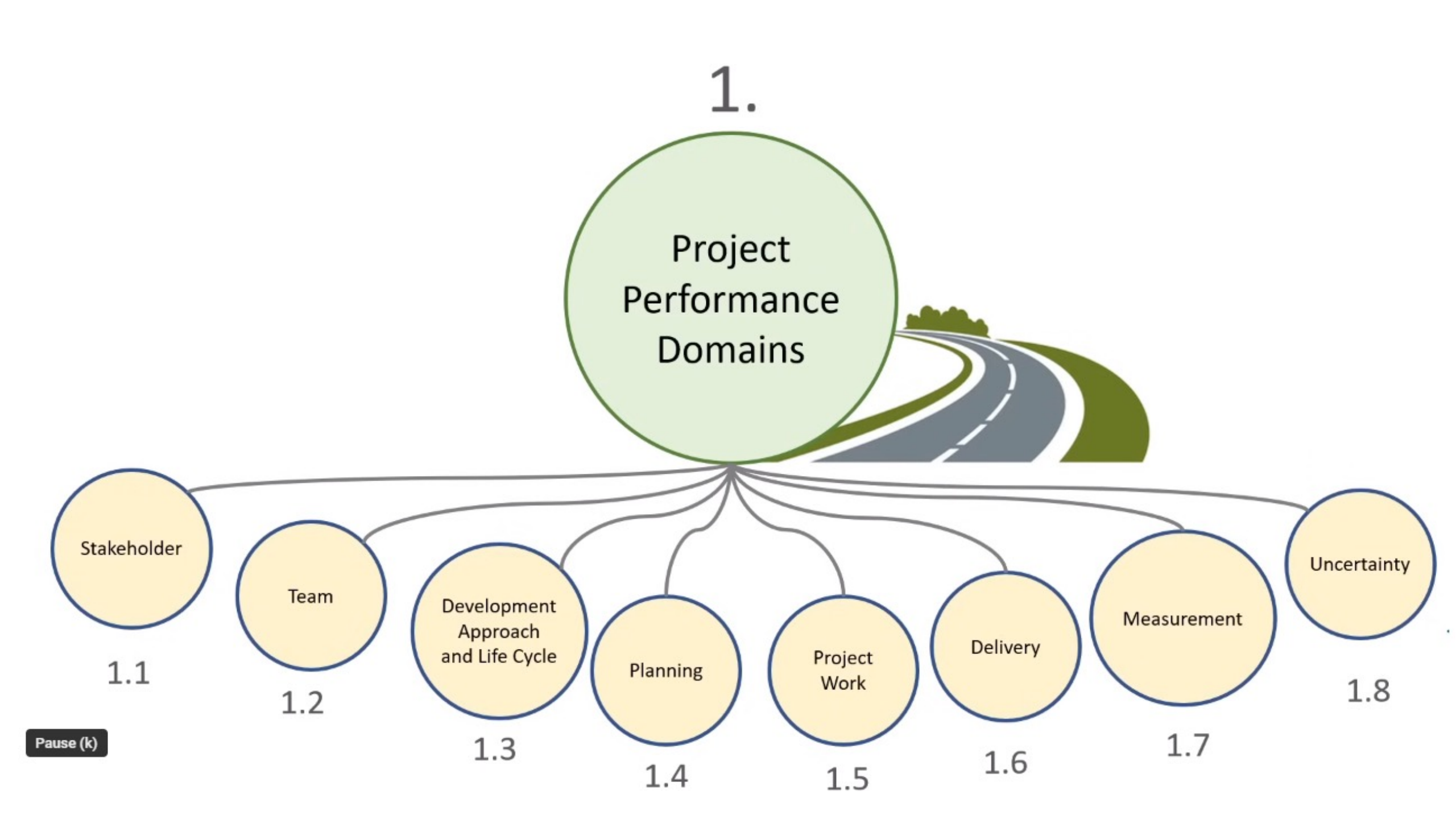
These are covered in "The Standard for Project Management"

A guide to Project Management Body of Knowledge

1. Project Performance Domains

2. Tailoring

3. Models, Methods and Artifacts


1.
Project Performance Domains
Stakeholder
1.1
Team
1.2
Development Approach and Life Cycle
1.3
Planning
1.4
Project Work
1.5
Delivery
1.6
Measurement
1.7
Uncertainty
1.8
Pause (k)

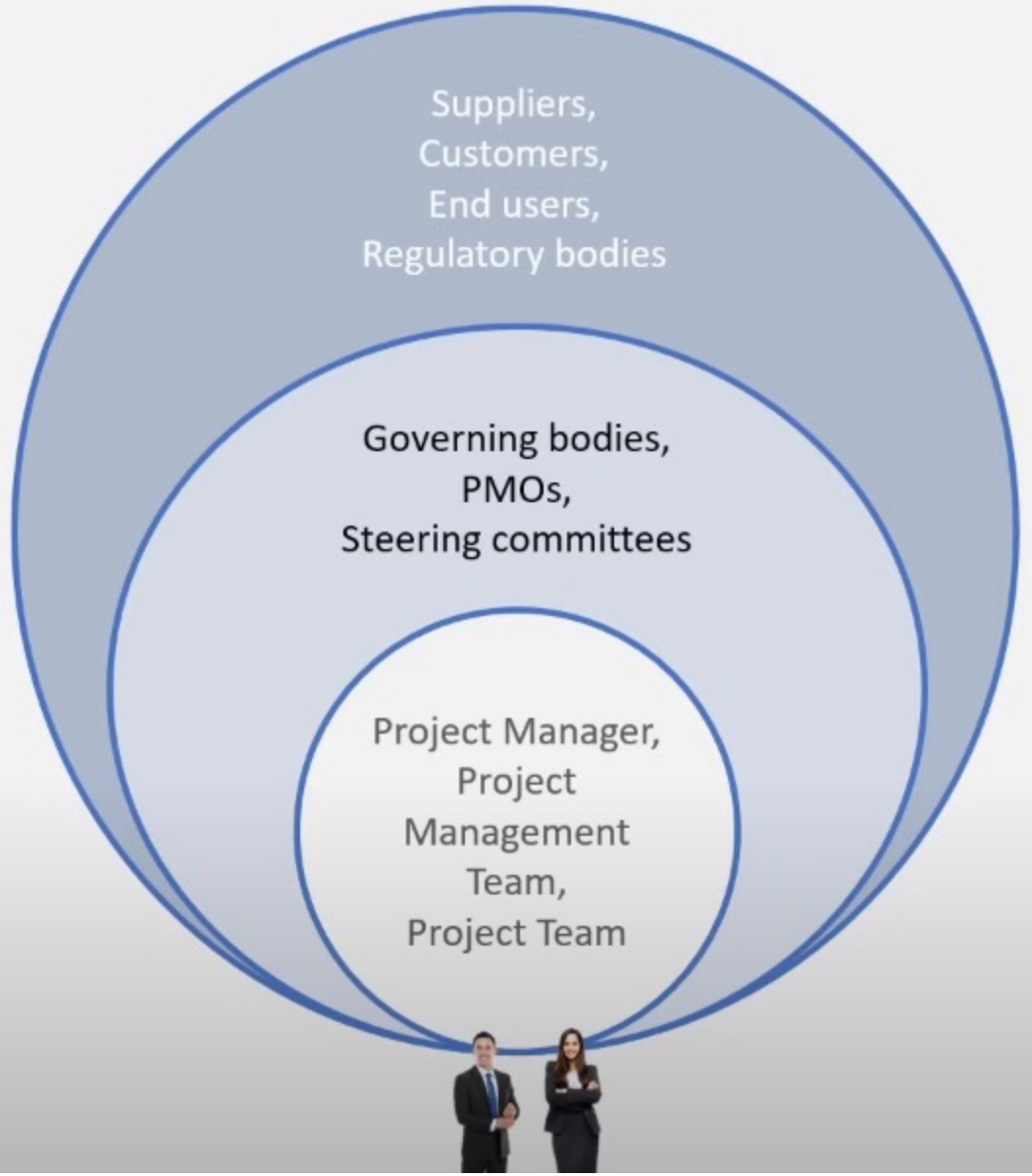
1.1 Stakeholder Performance

Outcomes

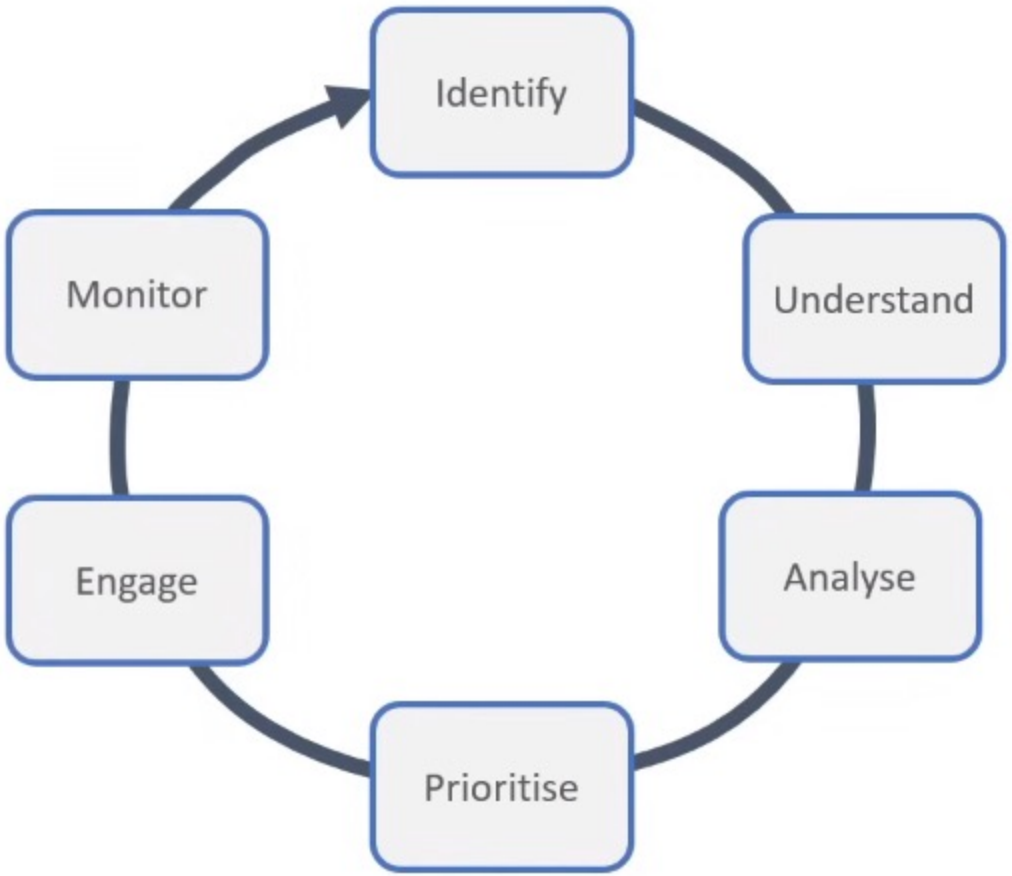
- Productive working relationship with stakeholders
- Stakeholder agreement with project objectives
- Stakeholder beneficiaries to be supportive and satisfied

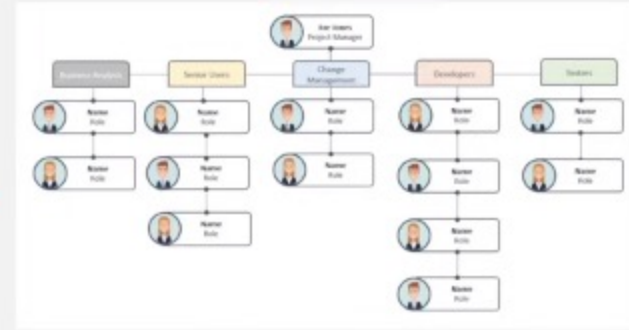
Key Terms

- Stakeholder: Anyone affected (or perceived to be affected) by any part of your project.

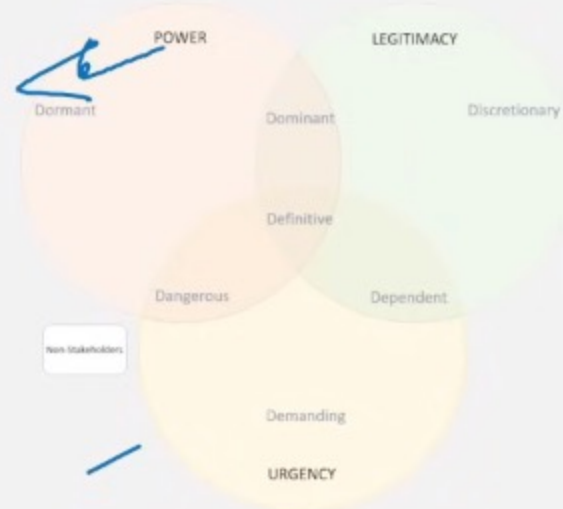


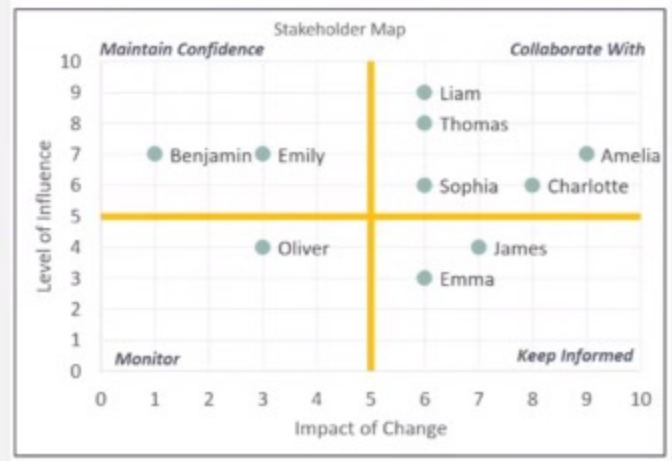
1.1 Stakeholder Engagement





	Stakeholders	Unaware	Resistant	Neutral	Supporting	Leading
Team 1	Billy	C		D		
	Michael		C		D	
	Anne			C		D
	Jane		C			
	Jimmy			D		
	Sharon			C	D	
	Emily	C			D	
	Rose		C	D		

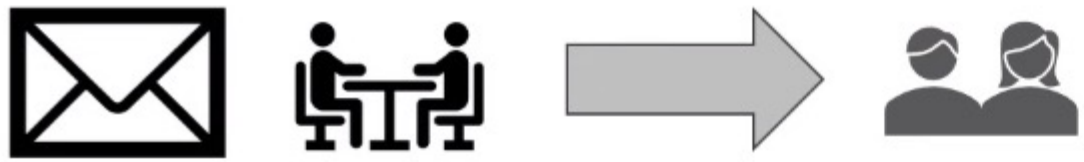




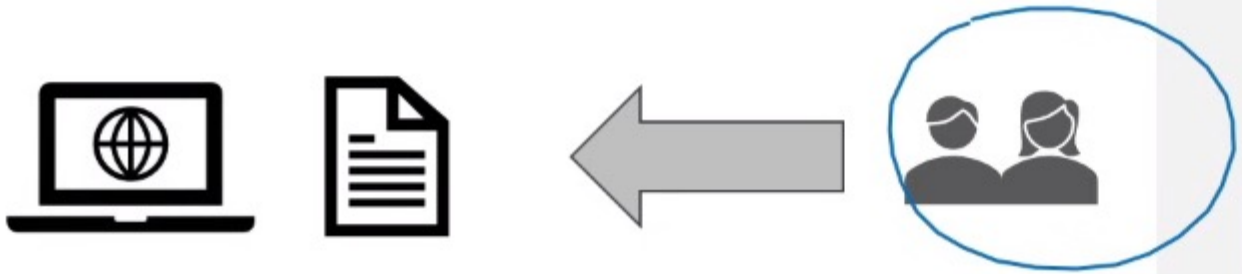
1.1 Stakeholder Engagement

You might use:

- Push communication

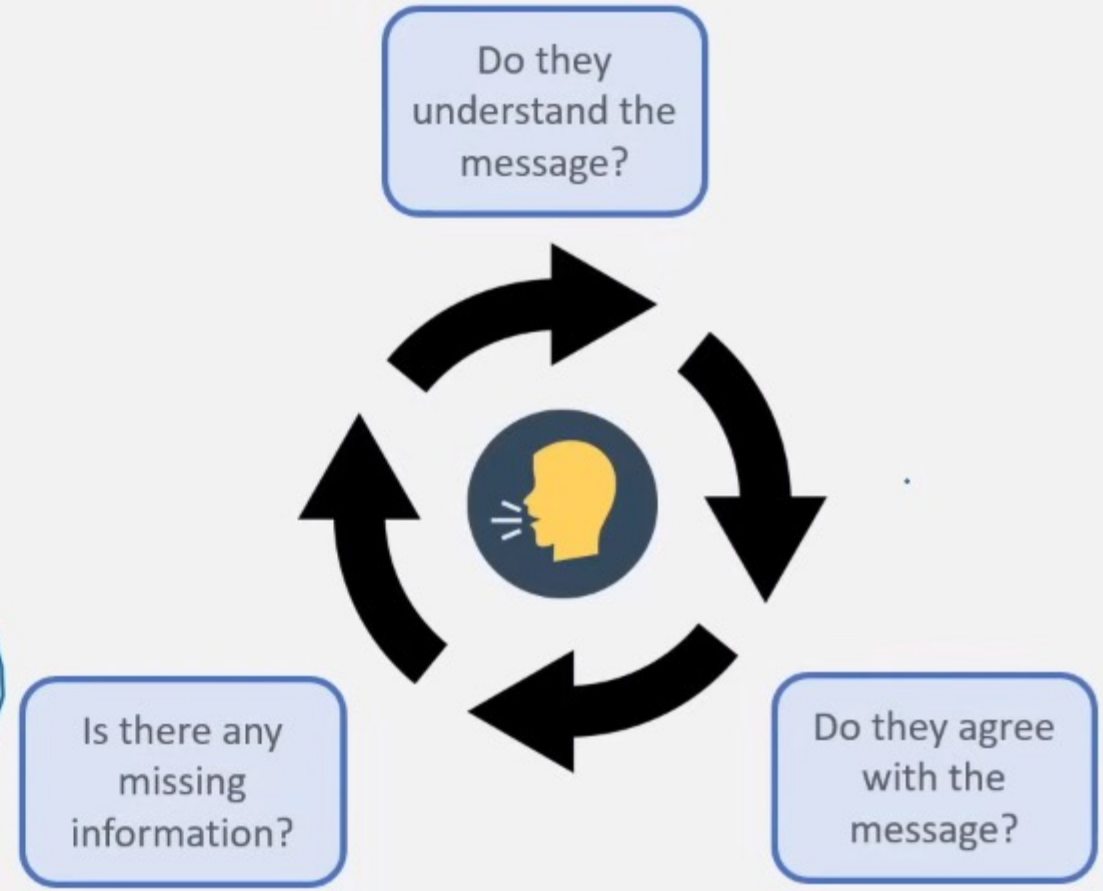


- Pull communication



Used in meetings, phone calls, brainstorming, product demos

Use quick feedback loops



1.2 Team Performance

Outcomes:

- Shared ownership
- High performing team
- Leadership displayed by all members

Key Terms

- Project Manager
- Project Management Team
- Project Team

Project Team Management & Leadership

Management:

- Meeting objectives
- Having effective processes
- Monitoring the work

Leadership:

- Influencing
- Motivating
- Listening
- Enabling people

Project Team Management & Leadership

Centralised Leadership:

- Accountability is on one person
  - i.e. the Project Manager

Use a Project Charter for approval & clarity of roles & scope

Distributed Leadership:

- Shared among the team
- Self organising
- With a facilitator focusing on growth
- Autonomy
- Servant leadership

1.2 Team Performance

Project Team Management & Leadership

Servant Leaders:

- Obstacle removal
- Diversion shield
- Development opportunities for the team

Team development:

- Vision and objectives
- Roles and responsibilities
- Team operations
- Guidance and growth

Project Team Culture

The Project Manager must establish a safe, respectful environment for open communication.

Use: Transparency, Integrity, Respect, Positive discourse, Support, Courage, Celebrating success.

High-performing Project Teams

Factors associated with high performing teams:

- Open communication
- Shared understanding
- Shared ownership
- Trust
- Collaboration
- Adaptability
- Resilience
- Empowerment
- Recognition

1.2 Team Performance

Leadership Skills

Establishing a vision

Developed collaboratively with stakeholders, a vision answers:

What is the project purpose?
What are the project benefits?
What defines success?

1.2 Team Performance

Leadership Skills

Establishing a vision

- Be aware of personal bias
- Research & analyse data

Critical thinking

Use Deductive reasoning
(A generalised statement with a specific example)

And Inductive reasoning
(A specific example leading to a general statement)

1.2 Team Performance

Leadership Skills

Establishing a vision

Critical thinking

Motivation

Intrinsic Motivation
- (Belief in the work, achievement, self-direction, relatedness, personal growth)

Extrinsic Motivation
- (i.e. money or bonus)

1.2 Team Performance

Leadership Skills

Interpersonal skills

Emotional intelligence is:
1. Self awareness
2. Self management
3. Social awareness
4. Social skill

Decision making

Conflict management

1. Keep communication respectful
2. Focus on the issue not the person
3. Focus on the present not the past
4. Search for alternatives together

Tailoring Leadership Styles

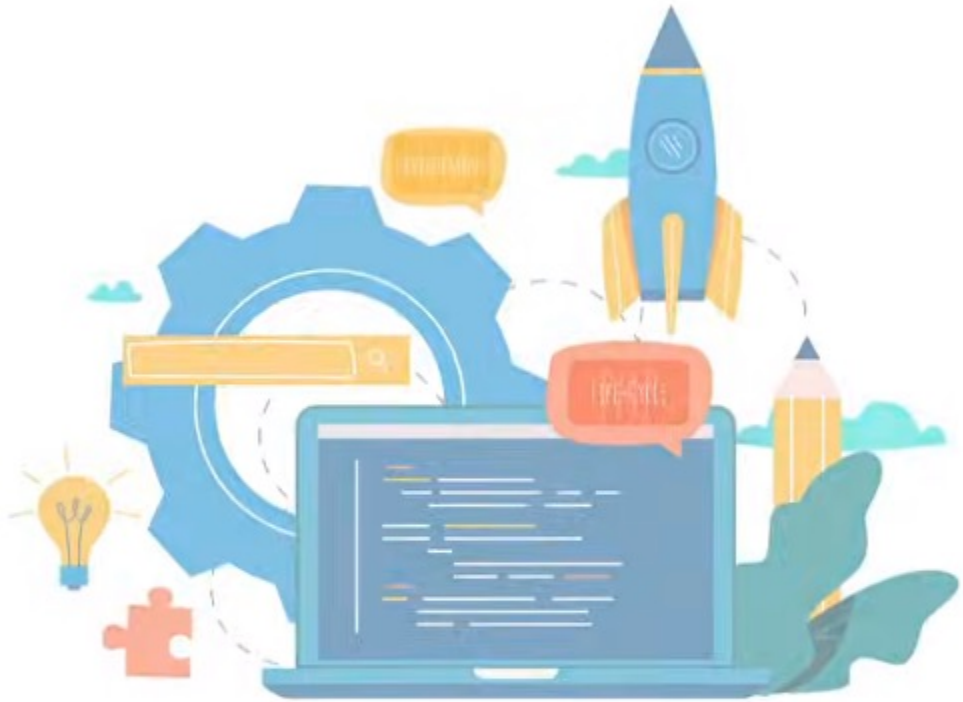
Things that impact tailoring:

- Experience with the type of project
- Maturity of the project team members
- Organisational governance structures
- Distributed teams (use online collaborative tools, boards, messaging, video)

1.3 Development Approach and Life Cycle

Outcomes:

- Development approach that is consistent with deliverables
- Project life cycle that connects the delivery of value with all stakeholders from beginning to end



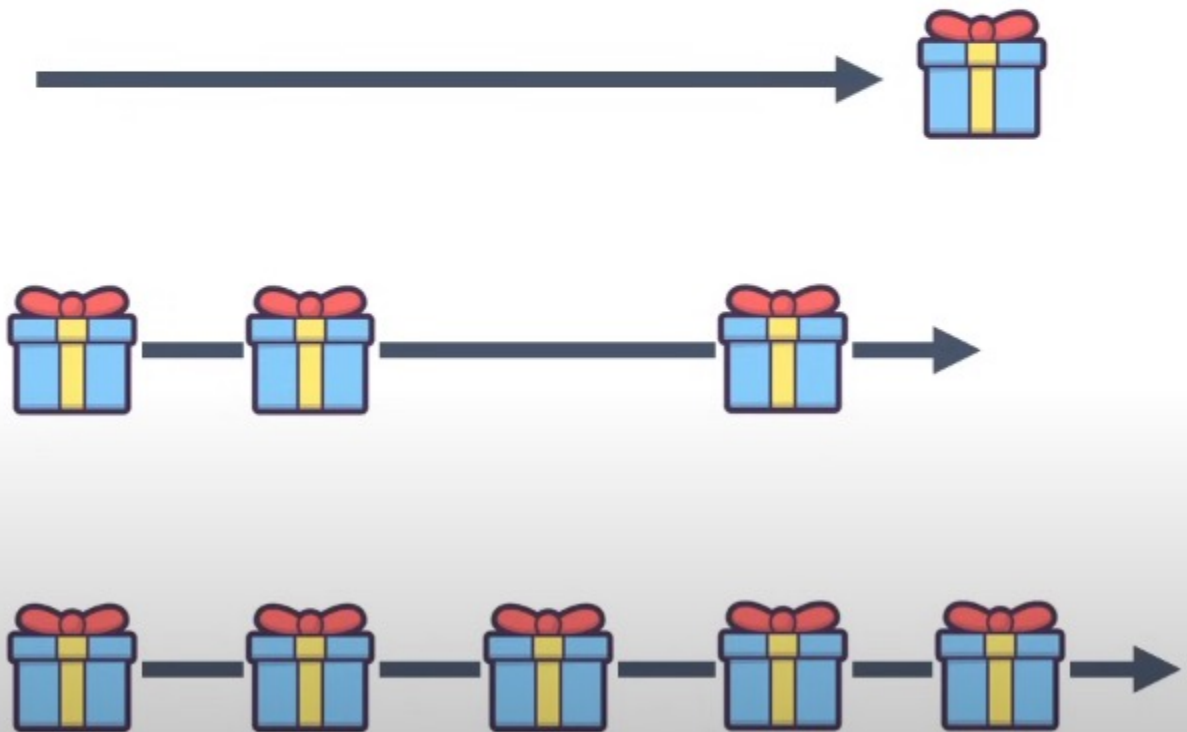
Key Terms

- Deliverable (product/feature)
- Development approach (used to create product)
- Cadence (rhythm)
- Project Phase (related activities that complete a deliverable)
- Project lifecycle (Series of phases from start to end)

Delivery Cadence

…Is the timing and frequency of project deliverables.

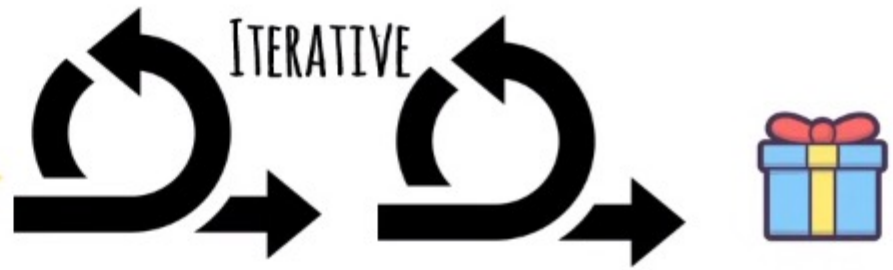
- Single delivery
- Multiple deliveries
- Periodic deliveries (multiple deliveries on a fixed schedule), similar to continuous delivery (DevOps)



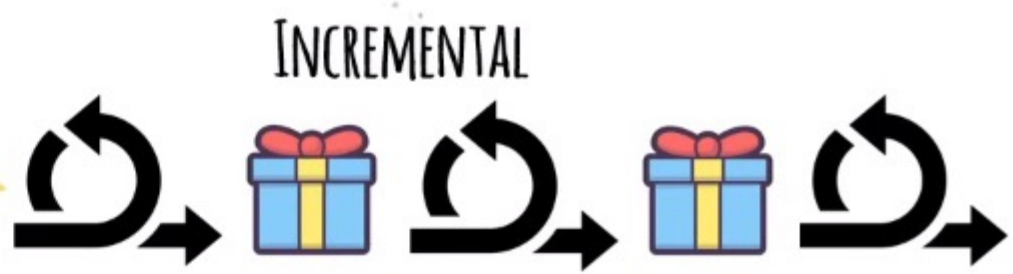
1.3 Development Approach and Life Cycle

Development approaches

Predictive: (Waterfall) When work is easily defined, scope is collected at the start of the project, there's a large investment, or high risk. Use frequent reviews and change control.



Adaptive: Considered Agile - combination of Incremental and Iterative, with shorter iterations



Considerations for selecting a development approach

Product

Project

Organisation

- What is the degree of innovation needed?
- Certainty of requirements
  - Adaptive is useful if scope is not well understood
- Scope stability
- Ease of change
- Delivery options
  - Can it be delivered in increments?
- Risk
- Safety requirements
- Regulations

Considerations for selecting a development approach

Product

Project

Organisation

- Stakeholders
  - Is there a Product Owner available?
- Schedule constraints
- Funding availability

Considerations for selecting a development approach

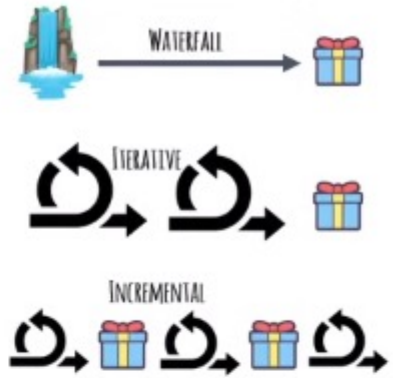
Product

Project

Organisation

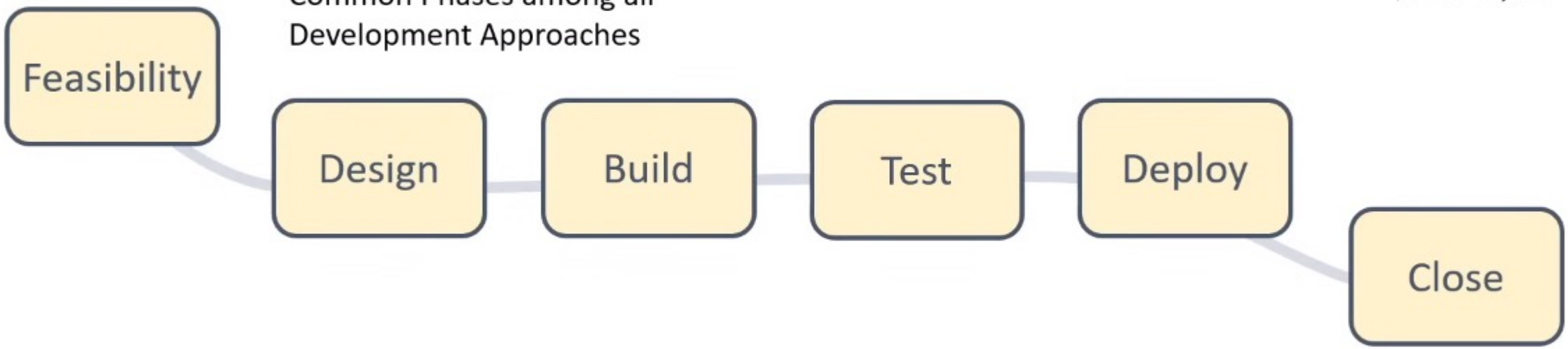
- Org structure (flat or bureaucratic?)
- Culture
- Organisational capability
- Project team size and location

1.3 Development Approach and Life Cycle

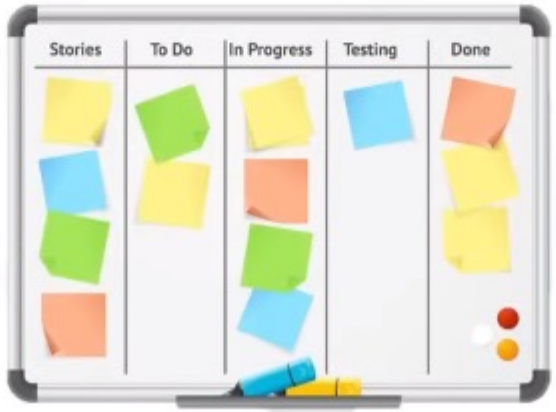


Life cycle and Phase definitions

Common Phases among all Development Approaches



Kanban / flow based has no phase:
It is a Pull approach



Aligning of Delivery Cadence, Development and Life cycle

Cadence

Rhythm and meetings
Single or multiple deliveries

Development approach

- Predictive
- Hybrid
- Adaptive
  - Iterative & Incremental

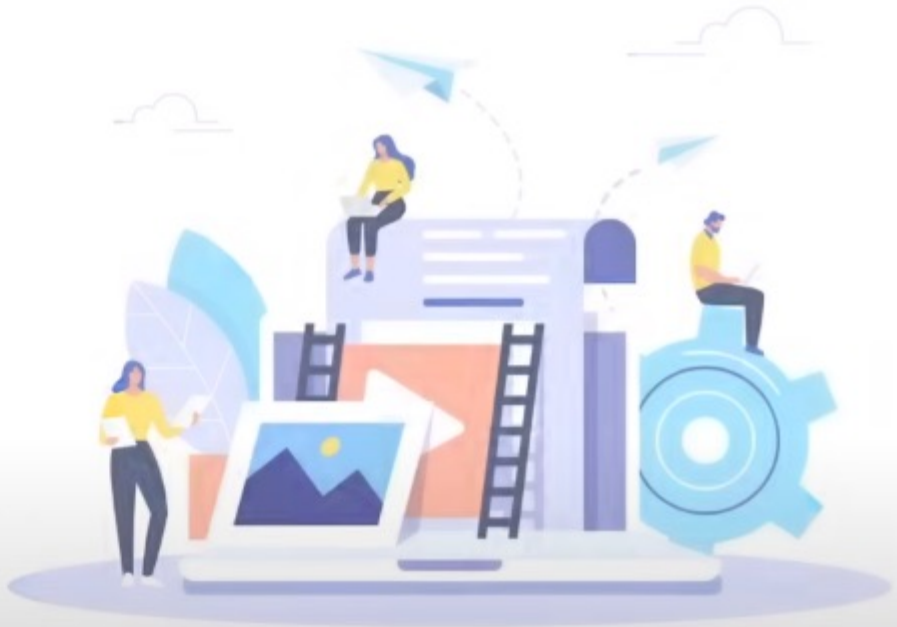
Lifecycle

- Design
- Build
- Test
- Deploy
- Close

1.4 Planning

Outcomes:

- The project progresses in an organised, deliberate manner
- Evolving information is used to produce the deliverables as needed.
- The process for adapting your plan is based on emerging needs or conditions.



Key Terms

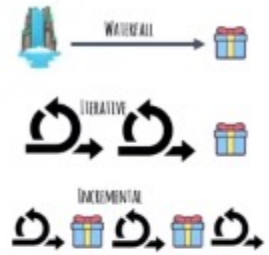
- Estimate
- Accuracy (how correct is it – did it hit the target?)
- Precision (exactness – is it all in same place, repeatable?)
- Schedule Crashing
- Schedule Fast tracking
- Budget

1.4 Planning

Planning variables

What determines how much planning is done?

Development Style → Predictive (up front planning) / Adaptive (rolling wave planning)



Project deliverables → Construction (planning needed) vs Software (more flexible)

Organisational requirements → Governance, Policies, processes and culture may need different planning artefacts.

Market Conditions → i.e. speed to market

Legal or regulatory restrictions

1.4 Planning

Planning variables

Delivery

Planning begins with understanding the business case, stakeholder requirements and the product and project scope.

Product Scope

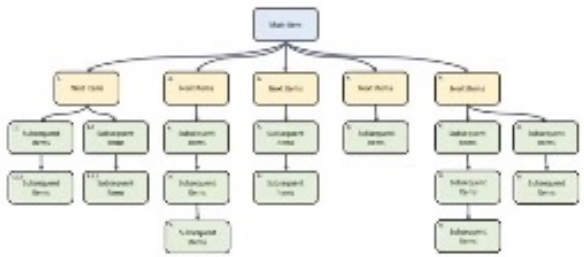
is

The features in the product

Project Scope

is

The work performed to deliver those features

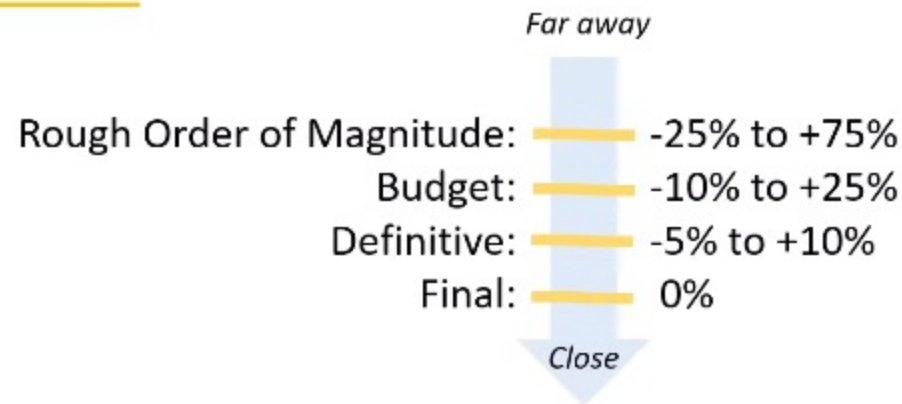


Use a WBS to break down the work

Planning variables - Estimating

Types of Estimates

- Adjust estimates for uncertainty
- Projects are uncertain - use simulation and build in reserves



Accuracy

How **correct** is it - did it hit the target?

Precision

Is it **repeatable**?

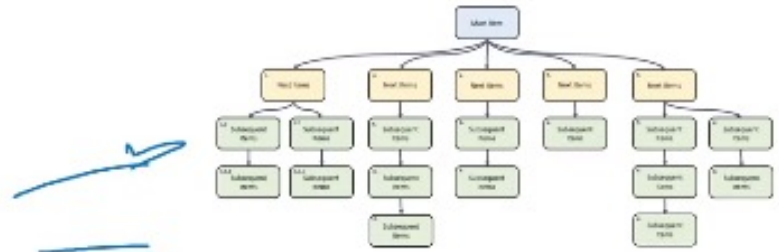
Planning variables - Estimating

Other Estimating Terms

Confidence	increases with experience – get more experience
Deterministic estimating	is a number or point
Probabilistic estimating	is a range of options with probabilities for each
Absolute estimates	is a number
Relative estimates	is a comparison to other estimates
Flow based estimates	uses cycle time and throughput (time to complete) (number completed)

1.4 Planning

Creating your Schedule



1. Decompose project scope into specific activities
2. Sequence related activities
3. Estimate effort, duration, people and resources required to complete them
4. Allocate people based on availability
5. Adjust the sequence, estimates and resources until schedule is agreed

1.4 Planning

Managing your Schedule

Schedule Crashing

Throw money and resources at it

Fast Tracking

Perform items in parallel (at the same time)

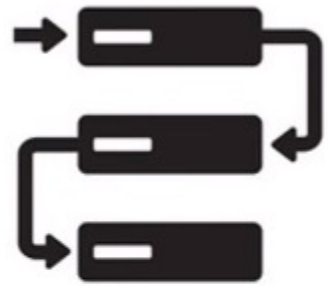
Leads - time we can bring an item forward

Lags - time we must delay an item

Managing your Schedule

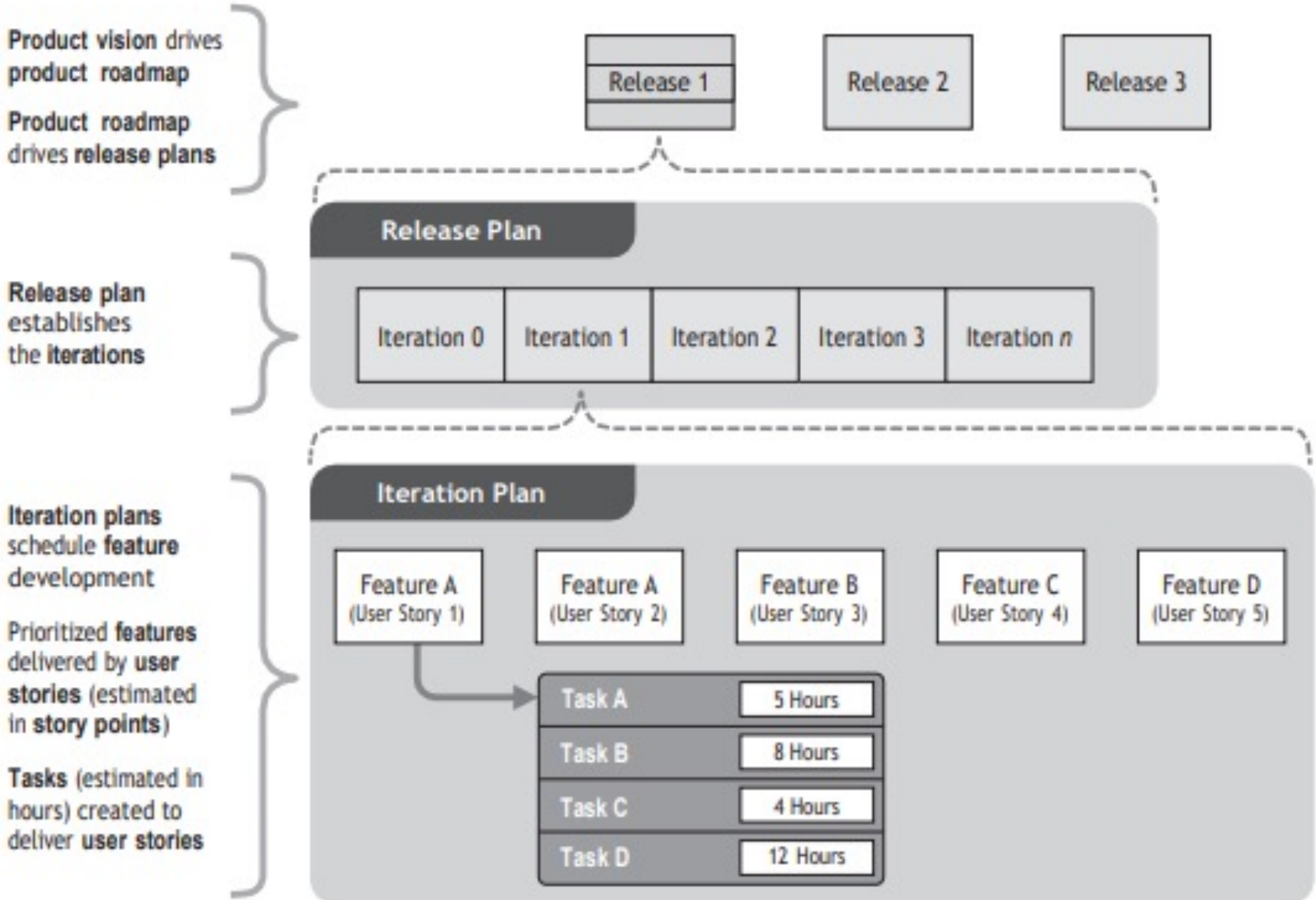
Dependencies include:

Mandatory	can't be modified
Discretionary	can be modified
External	impacted by non-project activities
Internal	impacted by project activities



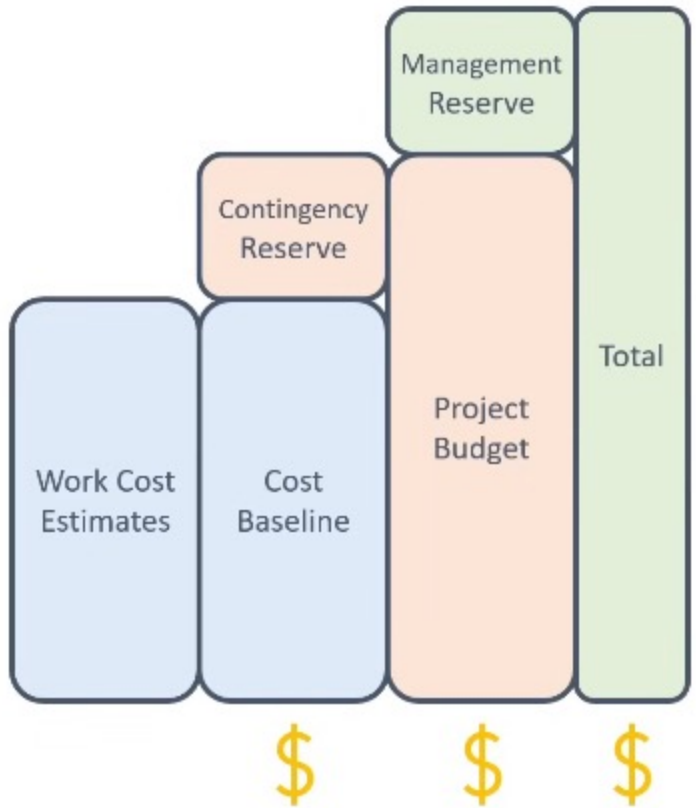
Rolling wave planning

Far away:	High level idea
Near term:	Detailed plan


Product vision drives product roadmap
Product roadmap drives release plans
Release 1
Release 2
Release 3
Release Plan
Release plan establishes the iterations
Iteration 0
Iteration 1
Iteration 2
Iteration 3
Iteration n
Iteration Plan
Iteration plans schedule feature development
Feature A (User Story 1)
Feature A (User Story 2)
Feature B (User Story 3)
Feature C (User Story 4)
Feature D (User Story 5)
Prioritized features delivered by user stories (estimated in story points)
Tasks (estimated in hours) created to deliver user stories
Task A
5 Hours
Task B
8 Hours
Task C
4 Hours
Task D
12 Hours

Budget

1. Estimates are applied to the project work to create the Cost Baseline.
2. A Contingency Reserve for unknown risks is added to the Cost Baseline to create the Project Budget.
3. A Management Reserve for unexpected activities is added to the Project Budget.



Project team composition and structure

We might have a choice between people:

Internal to our organisation

External to our organisation

Consider the:

Cost of the people

Expertise of the people

Location of the people (do we want co-located?)

1.4 Planning

Communication

Good communication helps us engage with our stakeholders effectively.

Consider:

Who needs this information?

What information do they need?

Why do we need to share this information?

How do we provide this information?

When and how often do we share?

1.4 Planning

Physical resources

Anything that is not a person.

Planning includes:

- Estimating for resources,
- Knowing the Supply chain & logistics
- Resource management

Consider the:

- Lead time for delivery
- Movement or transport, and;
- Storage of materials.

Think strategically about when to order materials so you are not waiting in your project.

1.4 Planning

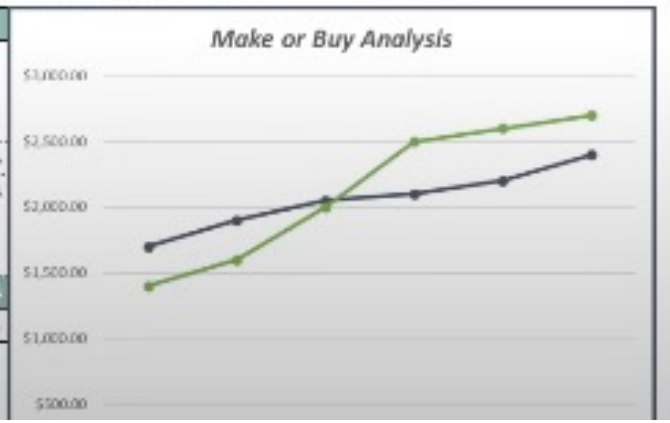
Procurement

Make or Buy Analysis

The Most Cost-Effective Option is: **Make**

	Initial Costs	Ongoing Costs				TOTAL
Cost to Make	Initial	Year 1	Year 2	Year 3	Year 4	Year 5	
e.g. Project costs	$ 1,500.00						$ 1,500.00
e.g. People costs	$ 200.00	$ 100.00					$ 300.00
e.g. System costs		$ 50.00					$ 50.00
e.g. Ongoing costs			$ 100.00				$ 100.00
e.g. Maintenance		$ 50.00	$ 50.00	$ 50.00	$ 100.00	$ 200.00	$ 450.00
							$ -
							$ -
TOTAL	$ 1,700.00	$ 200.00	$ 150.00	$ 50.00	$ 100.00	$ 200.00	$ 2,400.00

Cost to Buy	Initial	Year 1	Year 2	
e.g. Initial contract	$ 1,000.00			
e.g. System cost	$ 200.00			
e.g. Other Costs	$ 200.00			
e.g. Ongoing fees		$ 100.00	$ 100.00	$
e.g. Ongoing maintenance		$ 100.00	$ 100.00	$
TOTAL	$ 1,400.00	$ 200.00	$ 200.00	$



Once the scope is known, conduct **Make or Buy analysis**

What can be made in-house versus bought?

What is the **upfront cost and ongoing cost** of making versus buying?

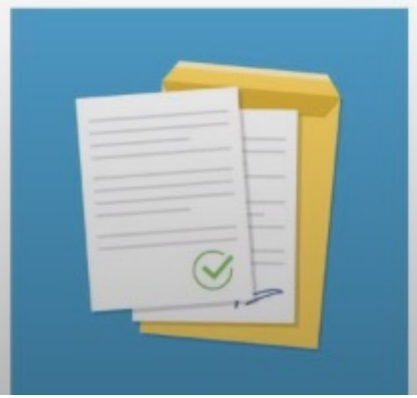
1.4 Planning

Changes

Prepare a process for adapting your plan throughout the project.

This might include:

A Change control process
Reprioritising a backlog
Re-baselining project artefacts or outcomes



Change might occur due to:

Environment changes (organisation)
Customer requests
Gaining a deeper understanding of product scope

Alignment

Planning **activities** and **artifacts** need to remain integrated throughout the project.

For example:

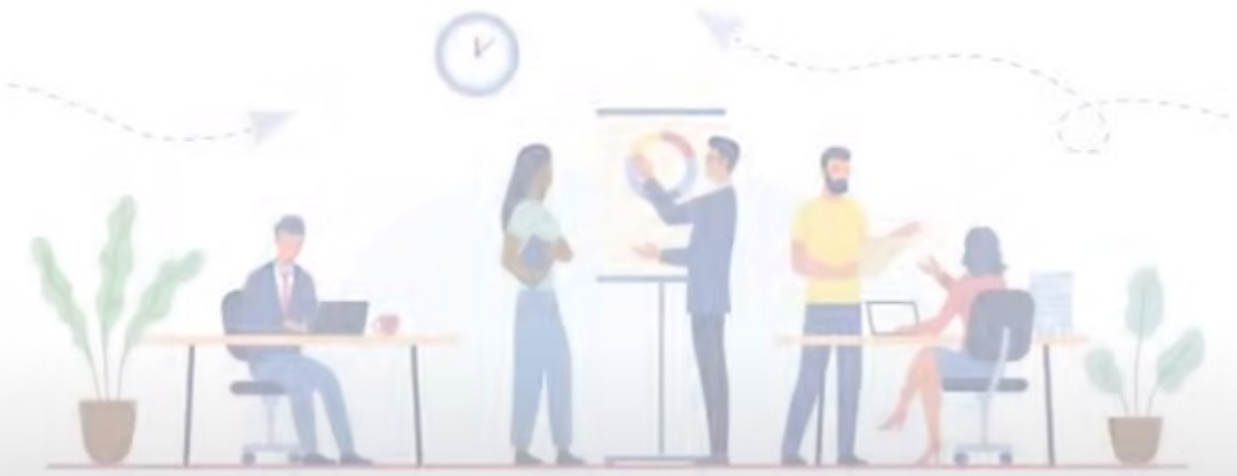
Requirements need to align with Scope plans
Scope plans need to align with Schedule and Cost Management plans
Quality and testing plans need to align with Scope management plans
Logistics plans might align with Resource plans.

The project management plan (or similar document) integrates them all.

1.5 Project Work

Outcomes:

- Efficient and effective project performance
- Appropriate project processes
- Appropriate communication with stakeholders
- Efficient management of physical resources and procurements
- Improved capability due to continuous learning and process improvement.



Key Terms

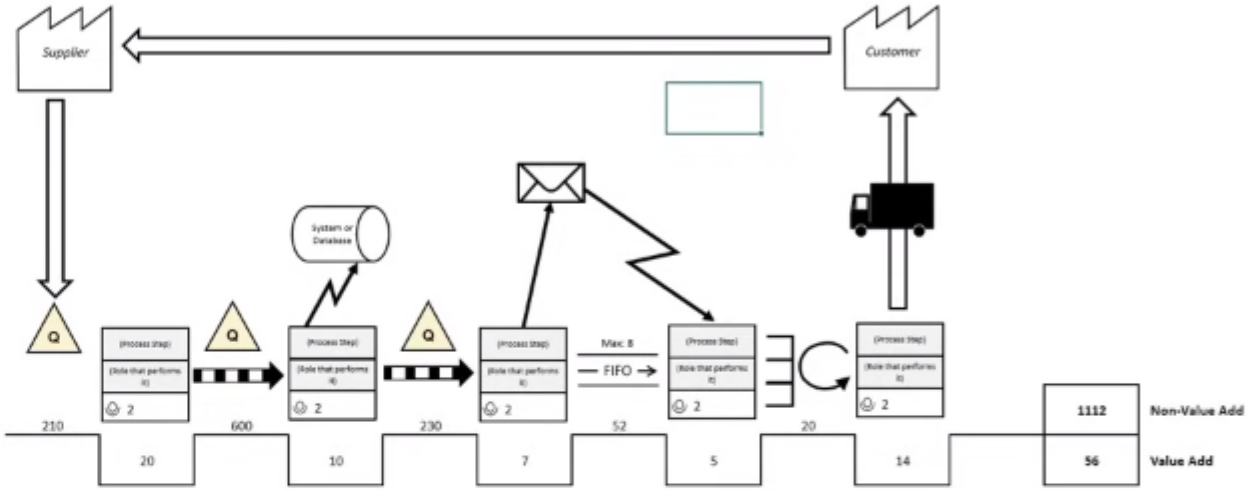
- Bid documents (proposals from sellers)
- Bidder conference
- Explicit knowledge (can be codified)
- Tacit knowledge (personal knowledge i.e. beliefs, experience)

1.5 Project Work

Project Processes

Periodically review the Project Process,
Make sure it still fits,
Tailor it to suit.

Use Lean Production methods
Retrospectives or lessons learned
Where is the next best funding spent?



1.5 Project Work

Balancing competing constraints

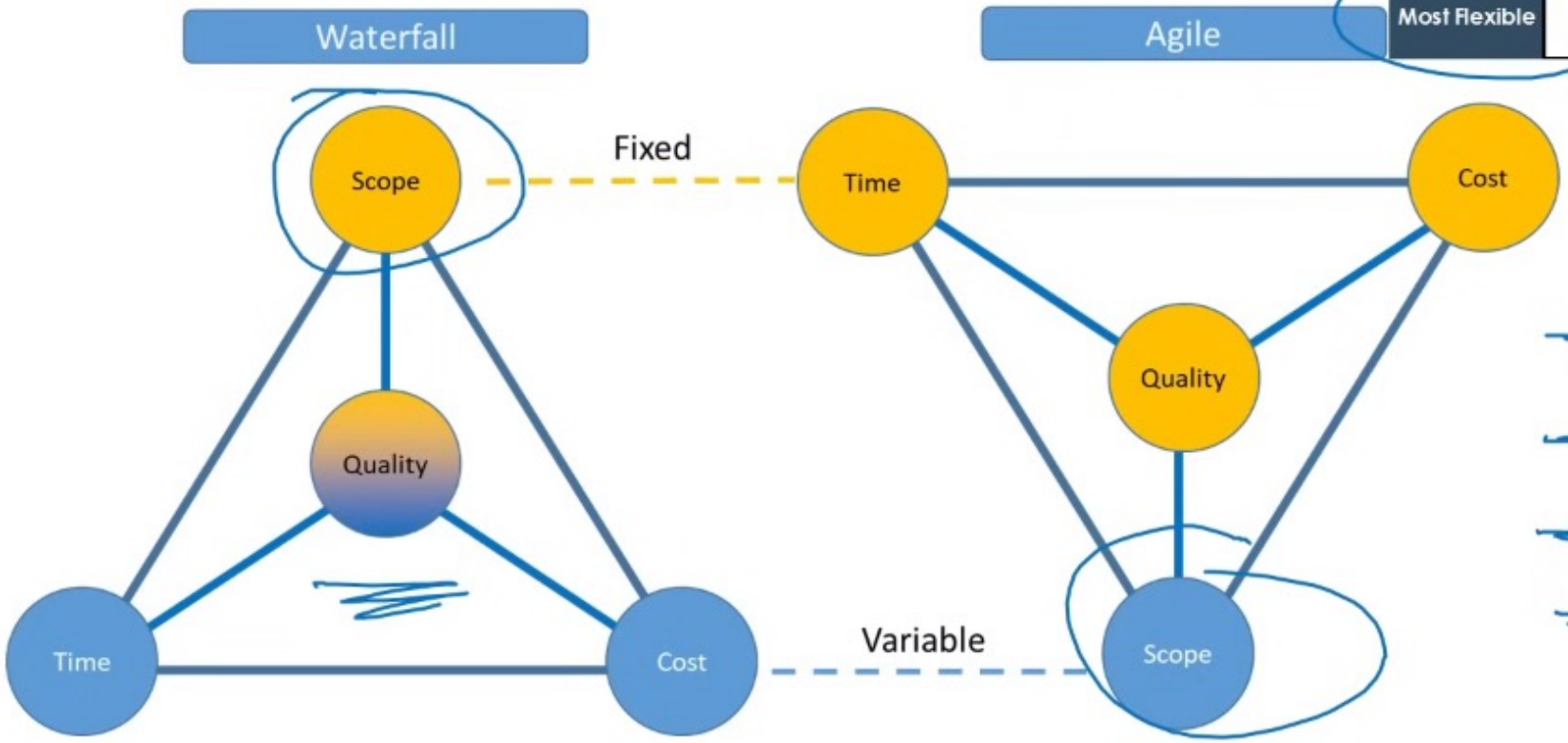
Is ongoing.

It can be with Product Owner or within the project.

Trade-Off Sliders

Place one "X" in each row

	Value	Cost	Time	Scope	Quality
Most Fixed	X				
			X		
		X			
				X	
Most Flexible					X



Constraints are:

- Scope
- Quality
- Cost
- Time

Maintaining Project Team Focus

This is the Project Manager's responsibility, and includes:

Short and long term projections of progress towards goals

Balancing the workload amongst the team

Assessing if team members are satisfied with their work

1.5 Project Work

Project communications and engagement

Communications include: Formal, Informal, Verbal, Written.

They are: Collected in meetings, conversations, or pulled from repositories.

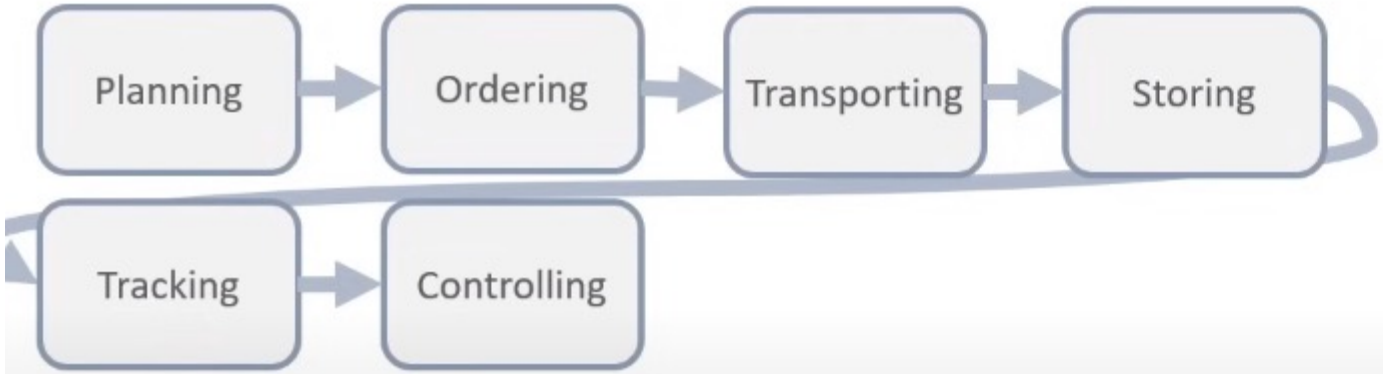
Distributed as per the Communications Plan.

Abundant ad-hoc requests indicate insufficient communication.

Managing physical resources

Resources include materials and supplies from third parties.

Resource process:



Large amounts require a logistics system, documented in company policies.

Eliminate wait time and reduce handling (the Lean Wastes)

D efects or rework
O ver-production
W aiting
N on effective use of time and talent
T ransport
I nventory
M otion
E xcessive processing

1.5 Project Work

Working with procurements

Procurements involve contracts,
for things like material, equipment, labour or services.

Project managers won't usually write a contract themselves, but will work with contracting officers in the organisation, with rigorous policies in place.

A Project Manager might work with technical experts and the contracting officers to develop things like:

Request for proposal (RFP)
Statement of work (SOW)
Terms and conditions etc.

1.5 Project Work

Working with procurements

The bidding process might include documents such as:

- Request for Information (to gather information from the market)
- Request for proposal (where scope is complex)
- Request for quote (where price is the main factor)

Choosing a vendor (source selection) is often based on:

- Price
- Delivery
- Experience

Once a vendor is selected, update the project plan with vendor details, dates, costs, quality requirements
The Vendor is now a project **Stakeholder.**

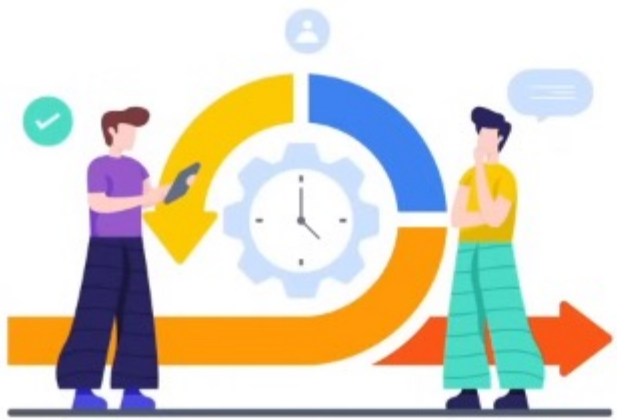
Monitoring new work and changes

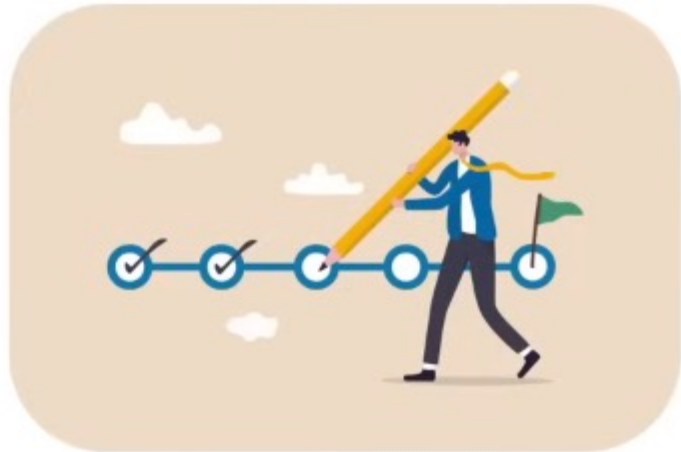
Scope may evolve and change over the life of a project.

For **Adaptive** Projects:

Project Manager works with the **Product Owner** to prioritise the scope in the Product Backlog.

Low priority items may not get done (in favour of high priority items).





For **Predictive** projects:

A Change Request is raised which goes through the change control board for approval, noting any impact to Cost, Quality, Scope or Schedule.

Once approved, the change is added to project documents and communicated to stakeholders.

Learning throughout the project

Have a Knowledge Management process, to
capture lessons learned through a retrospective or review, for other projects to use.

Explicit Knowledge

Is a process and can be taught.

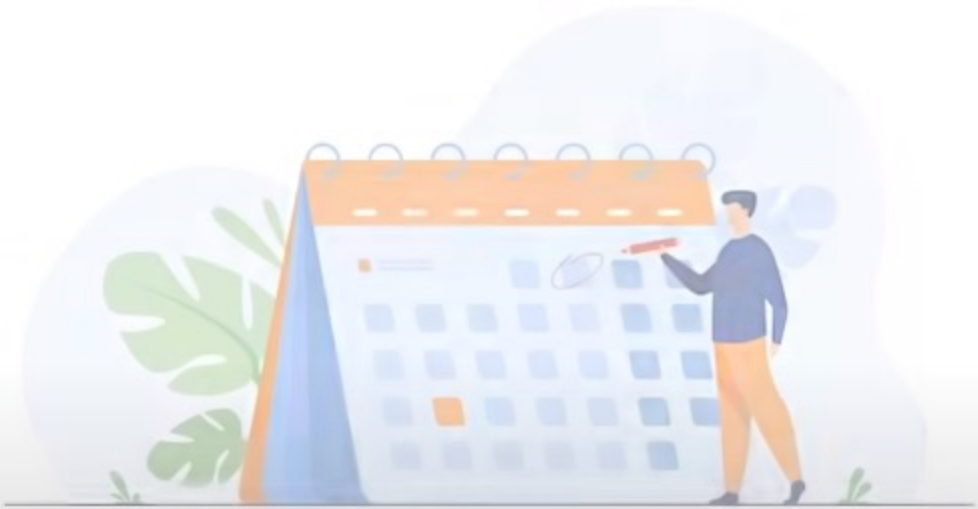
Tacit knowledge

Includes beliefs and experience.

1.6 Delivery

Outcomes:

- Projects contribute to business objectives and strategy
- Projects realise the outcomes they intended
- Benefits are realised in the intended timeframe
- The project team is clear on requirements
- Stakeholders accept and are happy with the deliverables



Key Terms

- Requirement (the capability needed in a product/feature)
- Work breakdown structure (WBS)
- Definition of Done
- Quality
- Cost of Quality

1.6 Delivery

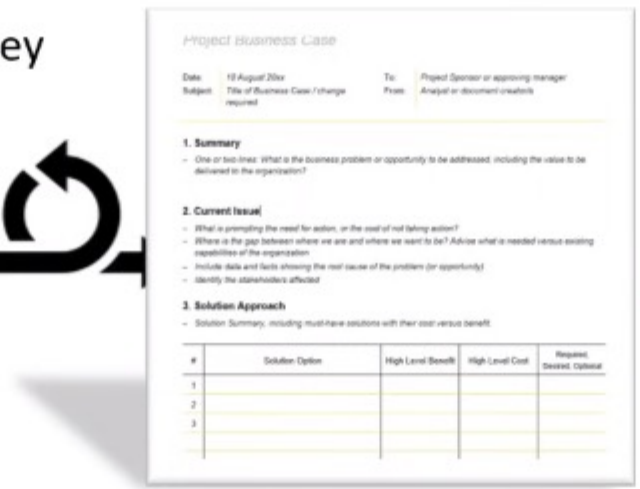
Delivery of Value

How do you need to deliver value?

Adaptive

(Incremental and Iterative)

Delivers value along the journey



Predictive

Delivers value all in one go

Value remains long after the project is finished.

Value is defined and monitored with a Business Case, and then in baselined documents within the project.

1.6 Delivery

Deliverables

Deliverable:

an increment of value – a feature, a product

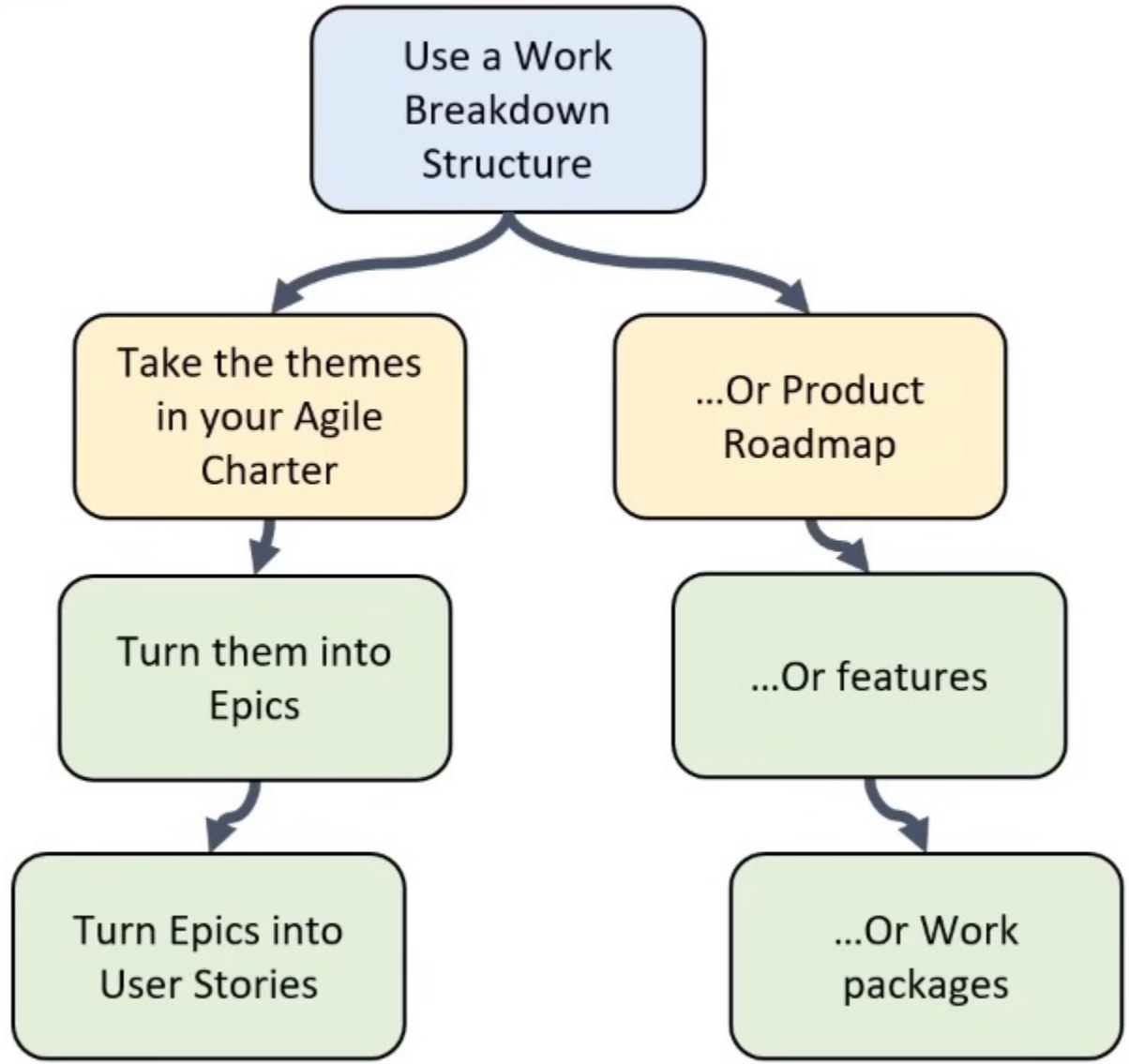
- Requirements elicitation
  - "To draw out."
  - Document them as:
    - Clear
    - Concise
    - Verifiable
    - Consistent
    - Complete
    - Traceable
- Requirements
  - The condition or capability that needs to be met to satisfy a customer need.
- Managing Requirements
  - Ineffective requirements equal:
    - Rework
    - Scope creep
    - Customer dissatisfaction
    - Budget overruns
    - Schedule delay
    - Project failure.
  - Often one person accountable.
  - Use backlogs or a traceability matrix.
- Evolving and Discovering Requirements
  - Can use:
    - Prototypes,
    - mock ups,
    - storyboards.

Deliverables

How do we define completion of deliverables?

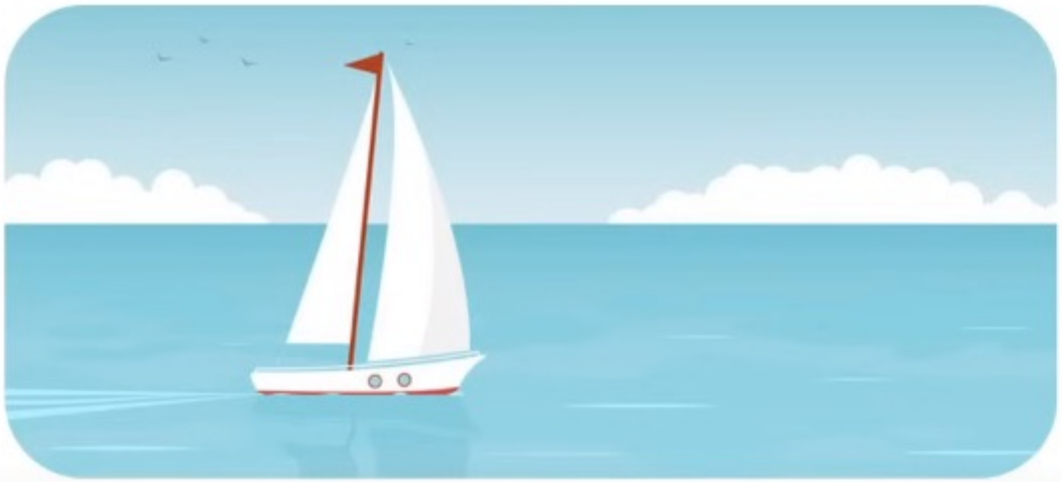
- Acceptance criteria
- Technical performance measures
- Definition of Ready
- Definition of Done

Scope decomposition



1.6 Delivery

Deliverables



Moving targets of completion:

Projects operating in uncertainty or changing markets may impact deliverables.

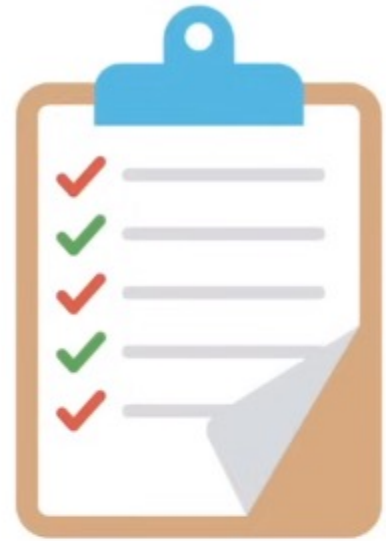
This is known as "done drift".

1.6 Delivery

Quality

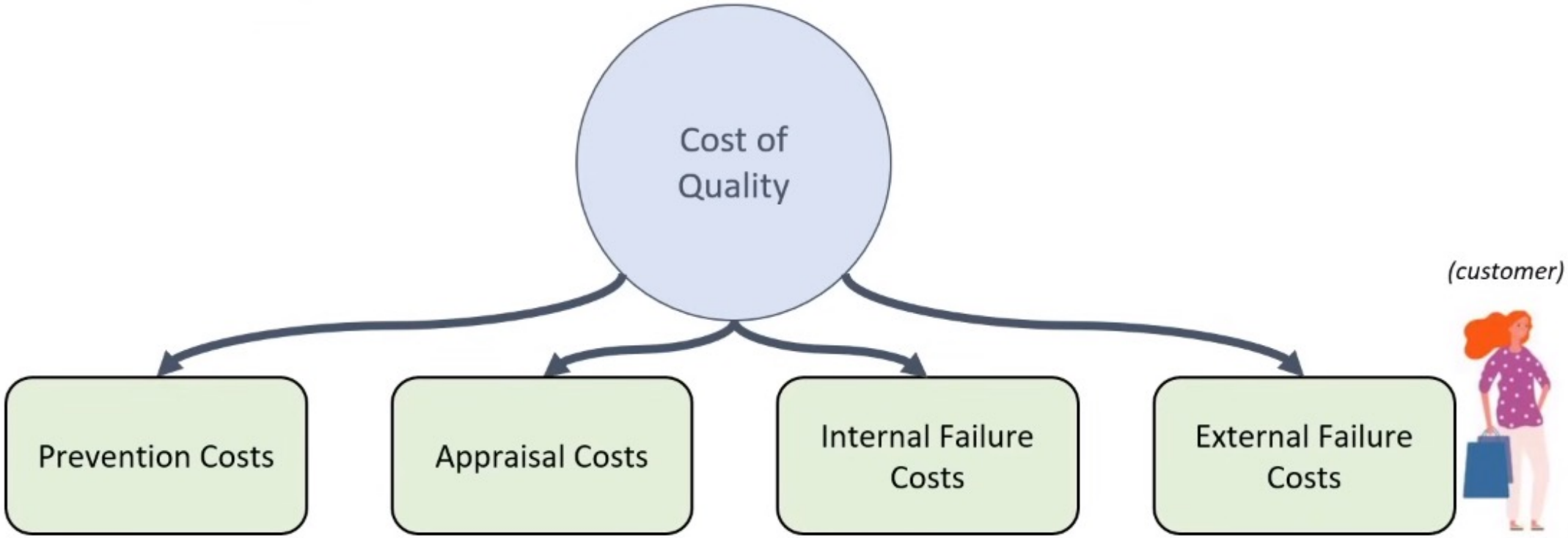
Quality requirements are reflected in:

completion criteria,
definition of done,
statement of work and;
requirements documentation.



Those who receive the benefit, bear the cost of bad quality

Quality



The Cost of Change is higher towards the end of the project.

To counter this, teams **build in quality**.

Suboptimal outcomes

There is always the chance a project does not meet its outcomes.

- Uncertain environment or market
- Changing market
- Competitor gets there first

Effective project management can help, but there is always risk.

1.7 Measurement

Outcomes:

- Reliable understanding of the status of the project
- Actionable data for decision making
- Timely actions to keep project on track
- Achieving targets and generating business value due to correct decisions

Key Terms

- Metric
- Baseline (approved version)
- Dashboard (charts or graphs)

1.7 Measurement

Establishing effective measures

Key Performance Indicators (KPIs)
Objectives & Key Results (OKRs)

Leading indicators

- Items in backlog
- Size of a project
- Lack of processes

Lagging indicators

- Deliverables completed
- Schedule or cost variance
- Resources consumed

Effective metrics are SMART

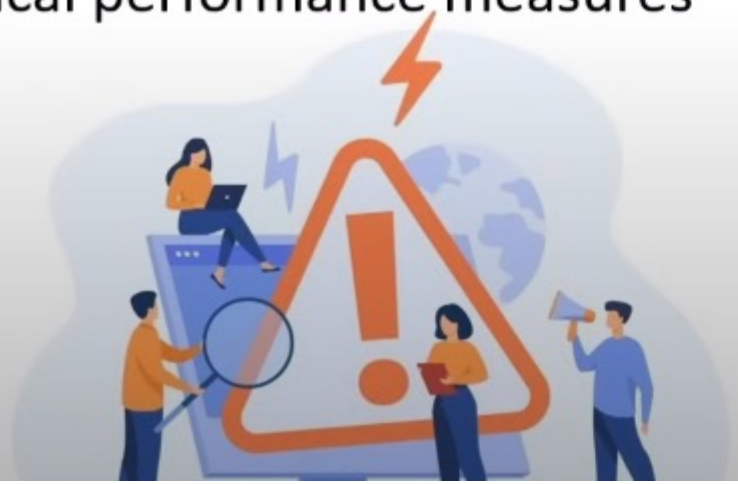
Specific
Measurable
Achievable
Relevant
Timely

1.7 Measurement

What to measure

Deliverable metrics *(product or feature)*

- Errors or defects
- Measures of performance;
  - Efficiency
  - Reliability
- Technical performance measures



Delivery metrics

- Work in progress
- Lead time
- Cycle time
- Queue size (i.e. backlog)
- Batch size (i.e. sprint velocity)

1.7 Measurement

What to measure

Baselined performance vs Actual

- Start and finish dates
- Effort and duration
- Schedule variance
- Schedule performance index
- Feature completion rates
- Actual cost to planned cost
- Cost variance
- Cost performance index.

Resources

- Planed versus actual resource use and cost

1.7 Measurement

What to measure

Business value

- Cost to Benefit ratio
- Planned v actual benefits delivery
- Return on investment (ROI)
- Net present value (NPV)

Stakeholders

- Net Promoter Score (NPS)
- Mood chart
- Morale
- Turnover

1.7 Measurement

What to measure

Forecasts

- Estimate to complete (ETC)
- Estimate at completion (EAC)
- Variance at completion (VAC)
- To Complete Performance Index (TCPI)
- Regression analysis
- Throughput analysis

1.7 Measurement

Presenting information

Use:

- Dashboards
- Information radiators
- Visual controls

Visible backlog
Burndown charts
Risks

Task boards
Burn charts
Other charts

1.7 Measurement

Measurement pitfalls

- Hawthorne effect → What we measure influences behaviour
- Vanity metrics
- Demoralisation → If it's not achievable
- Misusing the metrics
- Confirmation bias
- Correlation versus causation

1.7 Measurement

Growing and improving

The intent of displaying data is to learn and improve.

Only report information that will allow the team to:

- Learn
- Facilitate a decision
- Help avoid an issue
- Prevent performance breakdown

1.8 Uncertainty

Outcomes:

- Awareness of the environment (PESTLE)
- Proactively exploring uncertainty
- Awareness of the interdependence of multiple variables on the project
- Ability to anticipate threats and opportunities and understand their consequence
- Project delivery with little impact from unforeseen events

1.8 Uncertainty

General Uncertainty

Options for responding to uncertainty:

- Gather information
- Prepare for multiple outcomes
- Use set based design and prototyping
- Build resilience into the process
  - Respond or change quickly

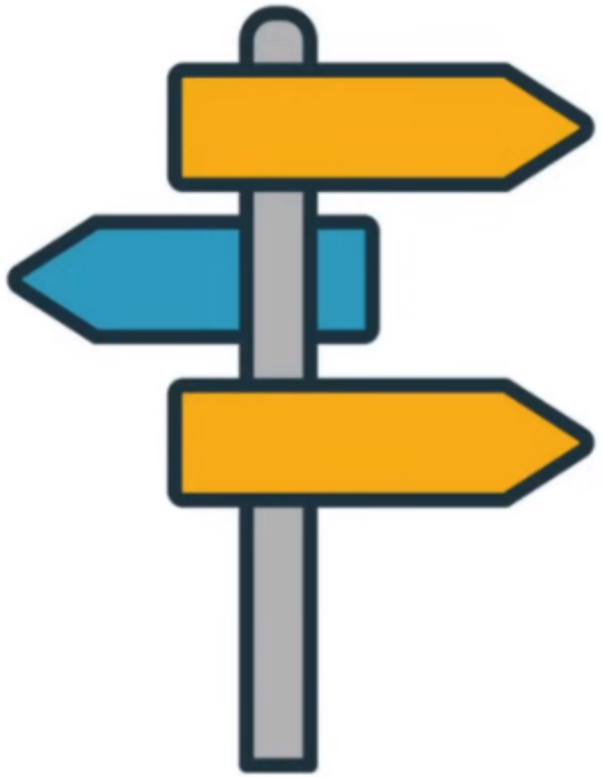
1.8 Uncertainty

Ambiguity

Conceptual ambiguity (lack of understanding)
Situational ambiguity (more than one outcome possible)

Use:

- Progressive elaboration
- Experiments
- Prototypes



1.8 Uncertainty

Complexity

A characteristic that makes something difficult to manage, with many interconnected influences.

Approaches:

Systems-based
- Decoupling (disconnecting parts to reduce variables)
- Simulation (multiple scenarios, Monte Carlo)

Reframing
- Diversity (view from different perspectives)
- Balance (lagging and leading data)

Process-based
- Iterate/add features incrementally
- Engage with stakeholders
- Error proof or fail safe

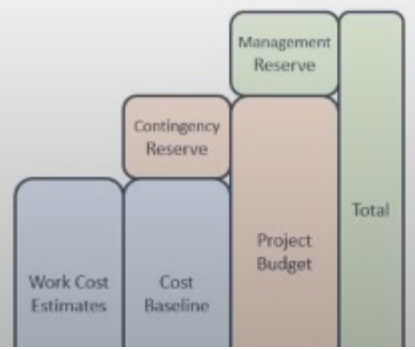
1.8 Uncertainty

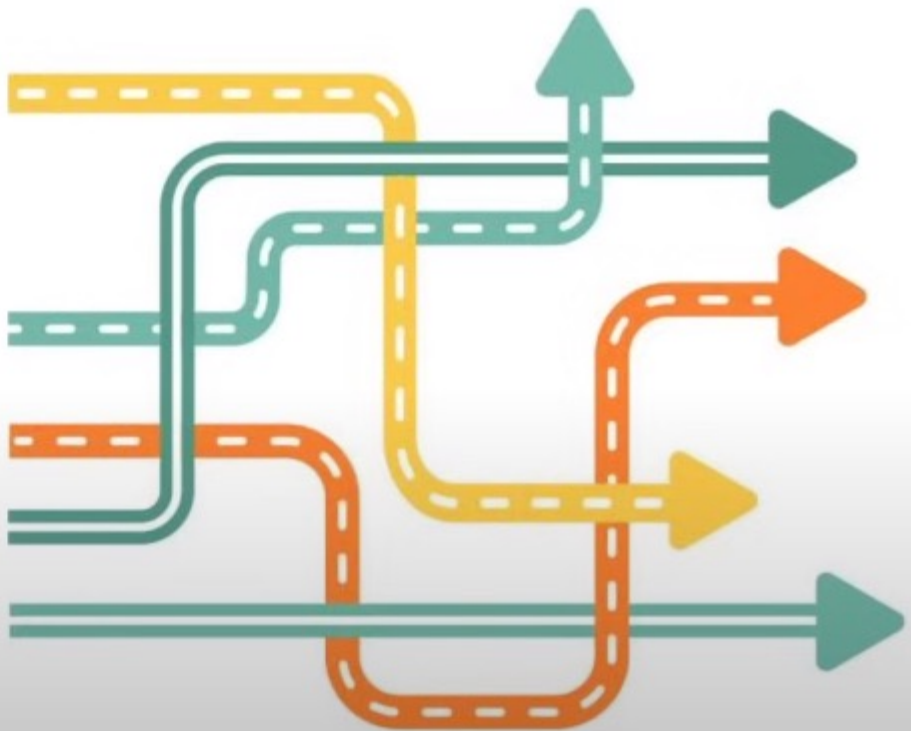
Volatility

Subject to rapid and unpredictable change.

Use:

- Alternatives analysis
- Reserves
  - Contingency reserve
  - Management reserve



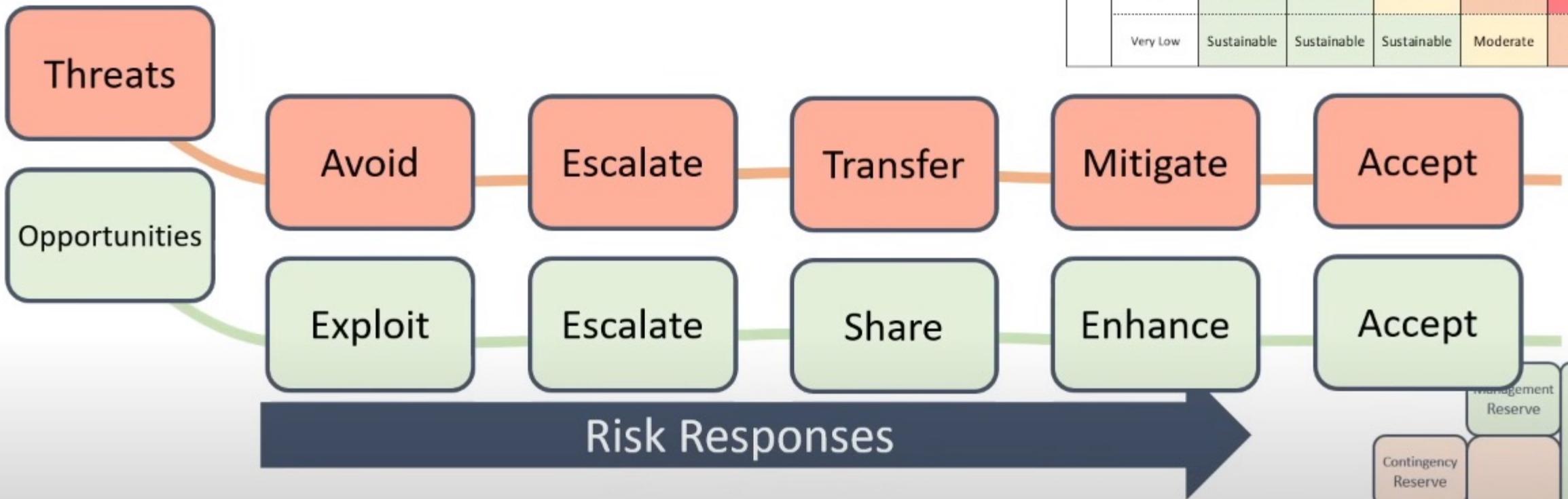


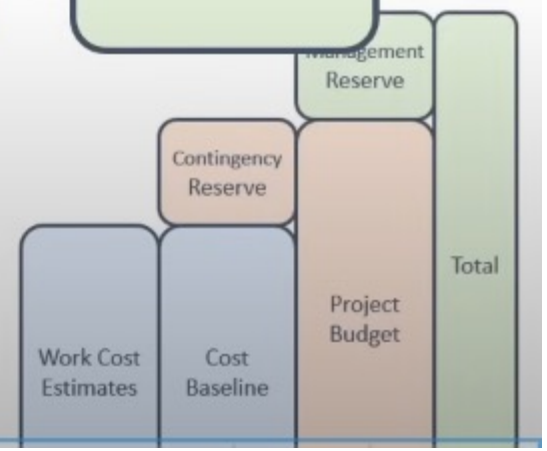
1.8 Uncertainty

Risk

Capture risk with its Probability and Impact

Probability \ Impact:	Very Low	Low	Medium	High	Very High
Very High	Moderate	Severe	Severe	Critical	Critical
High	Sustainable	Moderate	Severe	Critical	Critical
Medium	Sustainable	Moderate	Moderate	Severe	Critical
Low	Sustainable	Sustainable	Moderate	Severe	Critical
Very Low	Sustainable	Sustainable	Sustainable	Moderate	Severe





Use Management and Contingency reserves

Have a regular risk review

2. Tailoring

- Why Tailor? — 2.2
- What to Tailor — 2.3
- The Tailoring Process — 2.4
- Tailoring the Performance Domains — 2.5

2.1 Tailoring

Overview

Deliberately adapting the project management approach, governance or process to suit the environment.

Why Tailor?

Tailoring should reflect the:

Size
Duration
Complexity of the project,
be adapted to the industry and
Project management maturity of the organisation

Pause (k)

For example, a project team with less experience could use an “out of the box” method.

2.3 What to Tailor

Life cycle and Development approach selection

You can use a combination of

Predictive
Hybrid
Iterative
Incremental
Adaptive/Agile

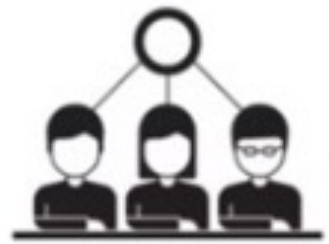
development approaches.

2.3 What to Tailor

Processes

Decide which portions of the Development approach should be:

- Added
- Modified
- Removed
- Blended
- Aligned *(consistent definition of same thing i.e. Risk)*



2.3 What to Tailor

Engagement

People

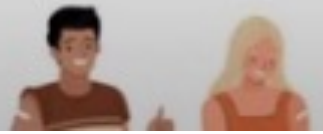
- Decide who to use in particular areas
- What is their experience?

Empowerment

- Can you give more empowerment and flexibility?
- In other situations, more supervision and direction may be needed

Integration

- How to create a diverse project team, including external members



2.3 What to Tailor

Tools

What software or equipment should we use?

Factor in cost, organisational preferences and existing items.

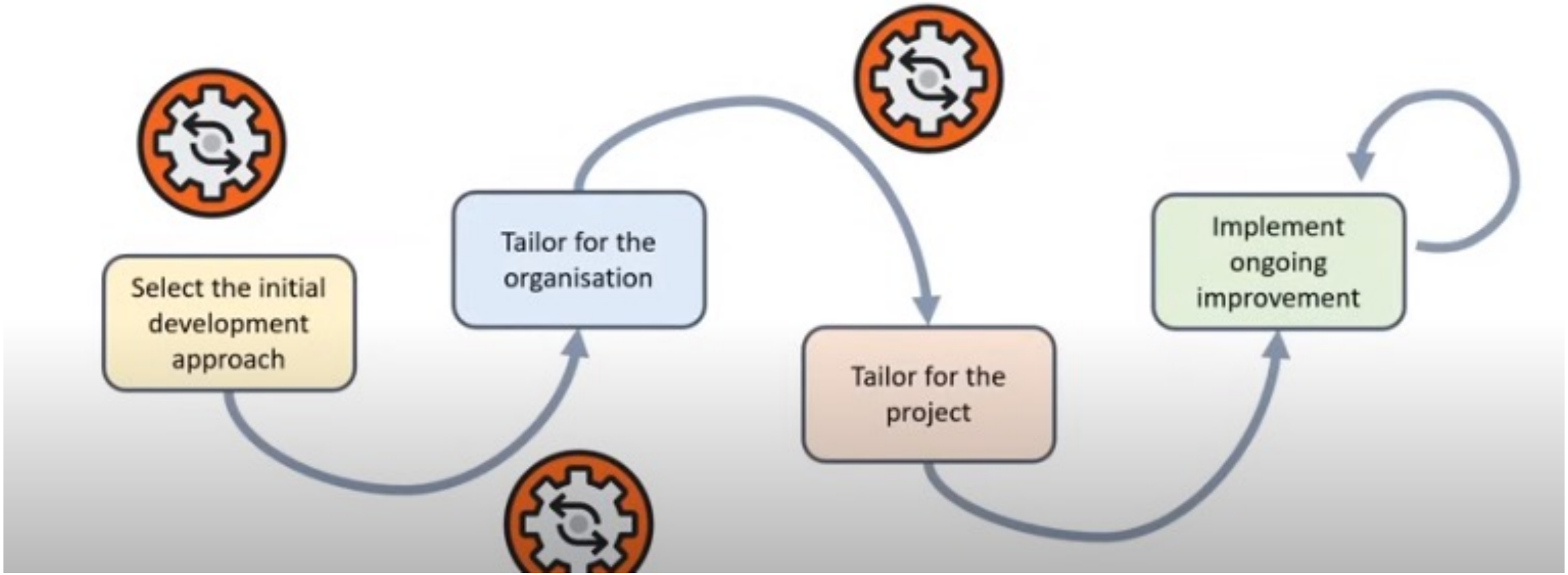
2.3 What to Tailor

Methods and Artefacts

Tailor the documents, artefacts, and methods so they are appropriate for the **project** and the **organisation**.

2.4 The Tailoring Process

Overview



2.4 The Tailoring Process

Tailor for the organisation

The **organisation** might have a project methodology, management or development approach in place, and established governance processes.

There may be contract terms you need to meet (if under contract).

2.4 The Tailoring Process

Tailor for the project

You will need to consider:

Product or deliverable

- Compliance/criticality
- Type of product
- Industry or market
- Technology involved
- Timeframe
- Stability of requirements
- Security
- Incremental delivery

Project team

Culture

Organisational culture

2.4 The Tailoring Process

Tailor for the project

You will need to consider:

Product or deliverable

Project team

Culture

Organisational culture

- Team size
- Team geography
- Organisational distribution
- Project team experience
- Access to customer

2.4 The Tailoring Process

Tailor for the project

You will need to consider:

Product or deliverable

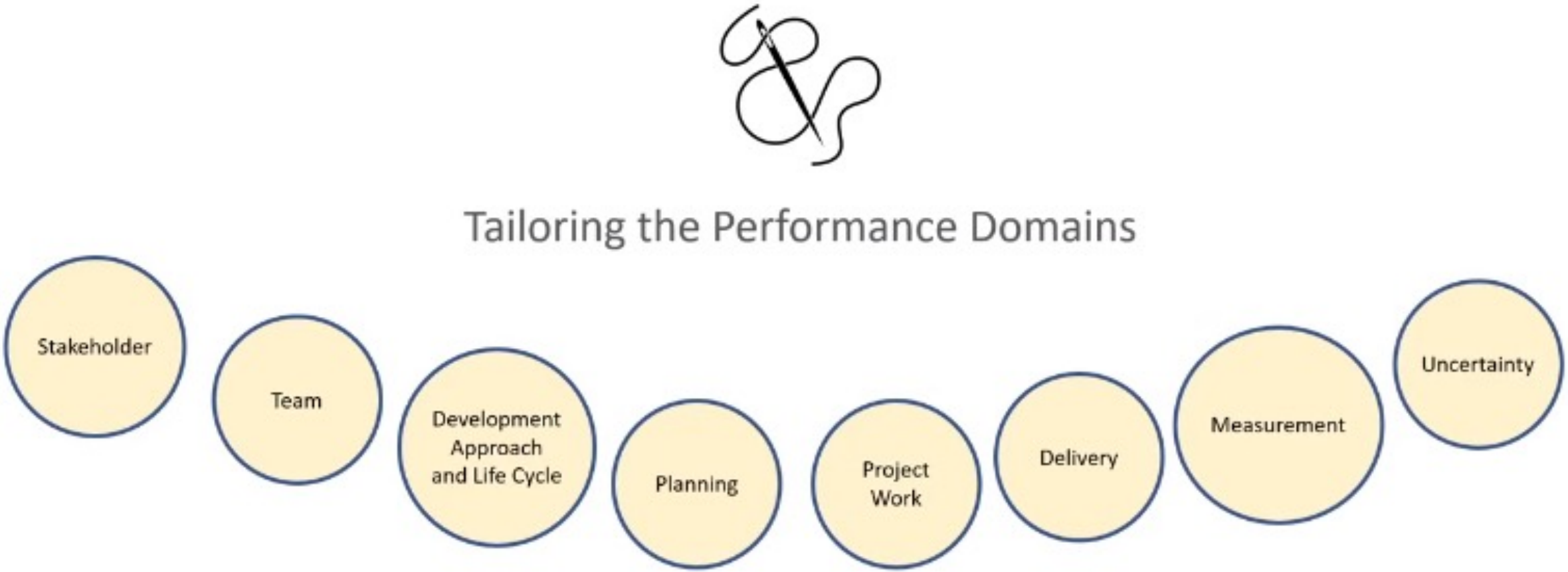
Project team

Culture

- Sufficient buy-in
- Trust
- Empowerment

Organisational culture

2.5 Tailoring the Performance Domains



2.5 Tailoring the Performance Domains

Stakeholders

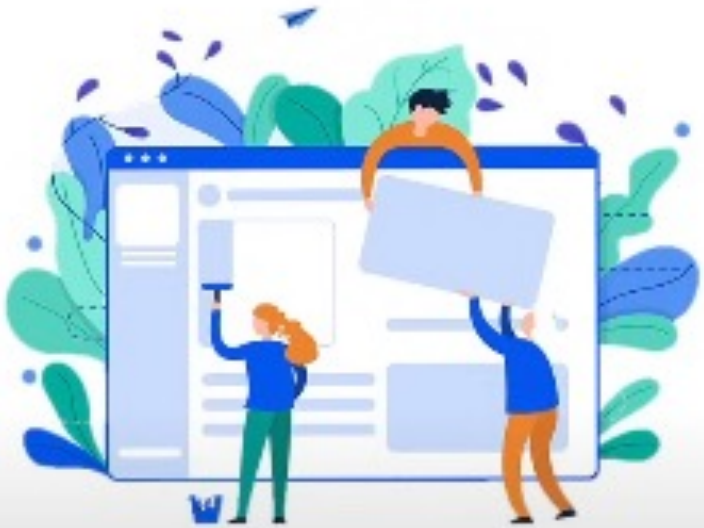
- Is there a collaborative environment?
- Are stakeholders internal or external?
- Is technology available for communicating?
- Are diverse languages spoken (or even jargon)?
- How many stakeholders?
  - More networks = more complexity

2.5 Tailoring the Performance Domains

Project Team

- Is the team co-located or dispersed?
- Are there diverse viewpoints and cultures?
- Internal or contractors?
- Is there an established project team culture?
- Existing tools or new tools?
- Does the team need training?

Development approach and lifecycle

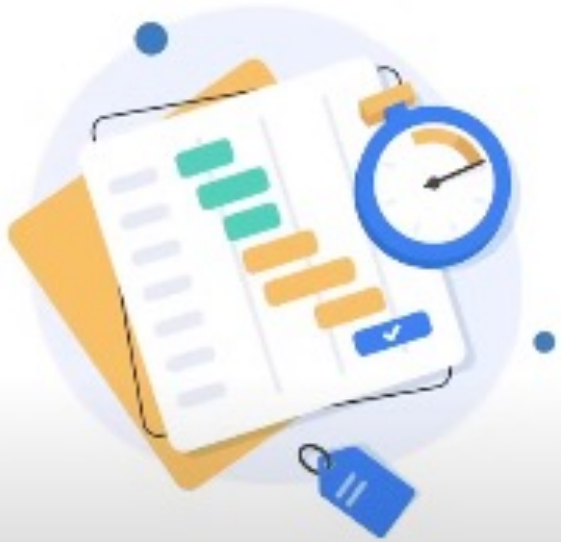


- Which development approach is appropriate for the product, service or result?
  - Based on speed, quality, scope needs.
- Are there formal or informal audit and governance policies, procedures in place?

2.5 Tailoring the Performance Domains

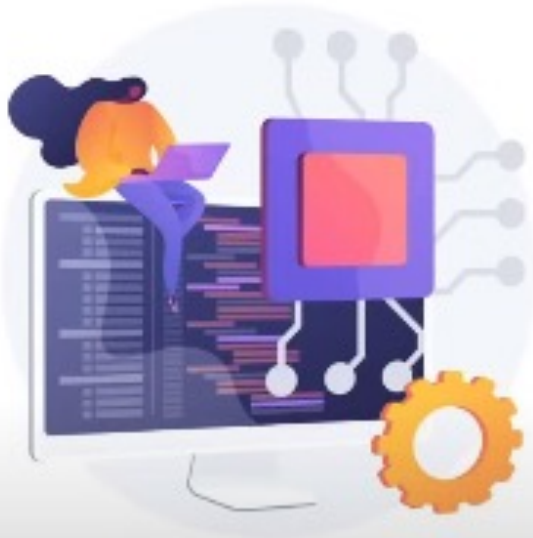
Planning

- Do any internal and external environmental factors impact planning?
- Do resources and their productivity affect durations?
- Are there formal or informal policies for cost estimating and budgeting?
- How does the organisation estimate cost with adaptive approaches?
- What if we have multiple procurements?
- Are there laws and regulations affecting contracting?



2.5 Tailoring the Performance Domains

Project work



- Management processes based on culture, complexity?
- How will knowledge be used to foster collaboration?
- What information will be collected and how will it be managed?
- How will we handle lessons learned?
- Is there a formal knowledge management repository?

2.5 Tailoring the Performance Domains

Delivery

- Are there formal or informal requirements management systems?
- Are there formal or informal validation and control related policies?
- What Quality policies, tools, techniques, templates exist in the organisation?
- Any specific industry standards?
- Are there unstable requirements - how will we manage them?

2.5 Tailoring the Performance Domains

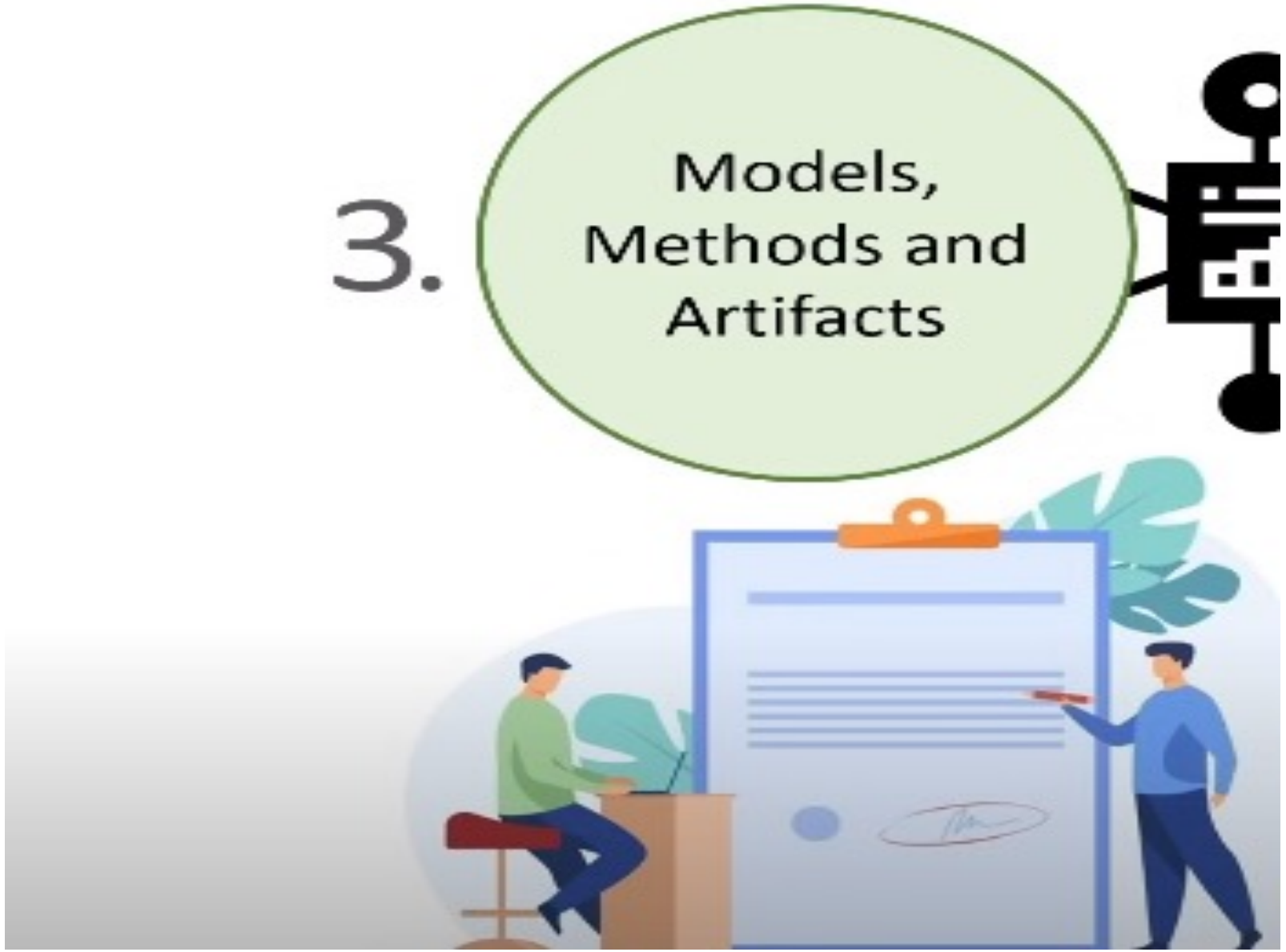
Uncertainty

- What is the risk appetite?
- How are threats and opportunities identified and addressed?
- How will complexity, uncertainty impact the project?
- Does project size impact risk approach?
- How strategically important is the project?

2.5 Tailoring the Performance Domains

Measurement

- How is value measured?
- Can we measure financial and non-financial value?
- How will the project enable data capture and report benefits to the organisation?
- What are project status reporting requirements?


3.
Models,
Methods and
Artifacts

3.1 Commonly Used Models

Situational Leadership

Ken Blanchard's situational leadership II → Measures competence and commitment

OSCAR coaching Model →

- Outcome
- Situation
- Choices / Consequences
- Actions
- Review

3.1 Commonly Used Models

Communication

Cross Cultural Communication

The message is influenced by the sender and receiver's current:

- Knowledge
- Experience
- Language
- Thinking and
- Communication style

Effectiveness of Communication Channels

Gulf of Execution and Evaluation

3.1 Commonly Used Models

Communication

Cross Cultural Communication

Effectiveness of Communication Channels

Gulf of Execution and Evaluation

From Alistair Cockburn;
*Measured by **richness** and **effectiveness**.*

Richness means we're able to handle
multiple information cues simultaneously,
Get rapid feedback,
It is personal, and
Uses natural language.

(i.e. speaking face to face)

3.1 Commonly Used Models

Communication

Cross Cultural Communication

Effectiveness of Communication Channels

Gulf of Execution and Evaluation

From Donald Norman;

Gulf of execution – Does it match what we expect it to do?

Evaluation – Does it support the user to discover how to interact with it?

3.1 Commonly Used Models

Motivation

Herzberg's Theory of Motivation

Hygiene factors:
- Salary
- Policies
- Physical environment

Motivational Factors
- Achievement
- Growth

Intrinsic versus Extrinsic motivation

Theory of needs

3.1 Commonly Used Models

Motivation

Herzberg's Theory of Motivation

Intrinsic versus Extrinsic motivation

Theory of needs

Theory X, Y, Z

Intrinsic – internal motivation
- Autonomy
- Mastery
- Purpose

Extrinsic – external motivation
- Money
- Bonuses
- Status

3.1 Commonly Used Models

Motivation

Herzberg's Theory of Motivation

Intrinsic versus Extrinsic motivation

Theory of needs

From David McClellan, people are driven by:

- Achievement
- Power
- Affiliation

3.1 Commonly Used Models

Motivation

Herzberg's Theory of Motivation

Intrinsic versus Extrinsic motivation

Theory of needs

Theory X, Y, Z

From Douglas McGregor

X: Driven only by income, not ambitious, needs micro management

Y: Intrinsically motivated to do good work - manage as more of a coach

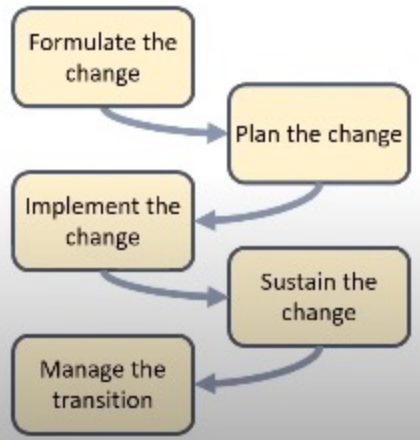
Z: Motivated by a higher calling, a job for life.

3.1 Commonly Used Models

Change

Managing change in organisations

From Project Management Institute (PMI)



ADKAR

8 Steps to Change

Virginia Satir Change Model

Transition Model

3.1 Commonly Used Models

Change

Managing change in organisations

ADKAR

- Awareness
- Desire
- Knowledge
- Ability
- Reinforcement

8 Steps to Change

Virginia Satir Change Model

Transition Model

3.1 Commonly Used Models

Change

Managing change in organisations

ADKAR

8 Steps to Change

Virginia Satir Change Model

Transition Model

From John Kotter

1) Create urgency
2) Form a powerful coalition
3) Create a vision for change
4) Communicate the vision
5) Remove obstacles
6) Create short term wins
7) Build on the change
8) Anchor the changes in corporate culture

3.1 Commonly Used Models

Change

Managing change in organisations

ADKAR

8 Steps to Change

Virginia Satir Change Model

Transition Model

1) Late status quo (Business as usual)
2) The foreign element (shift in status quo)
3) Chaos
4) The transforming idea
5) Practice and integration
6) The new status quo

3.1 Commonly Used Models

Change

Managing change in organisations

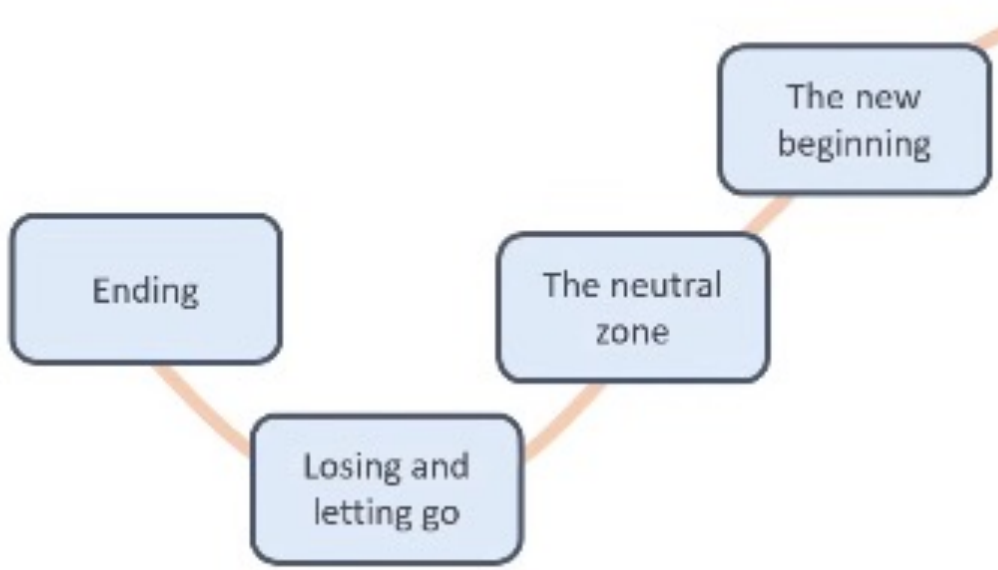
ADKAR

8 Steps to Change

Virginia Satir Change Model

Transition Model

From William Bridges



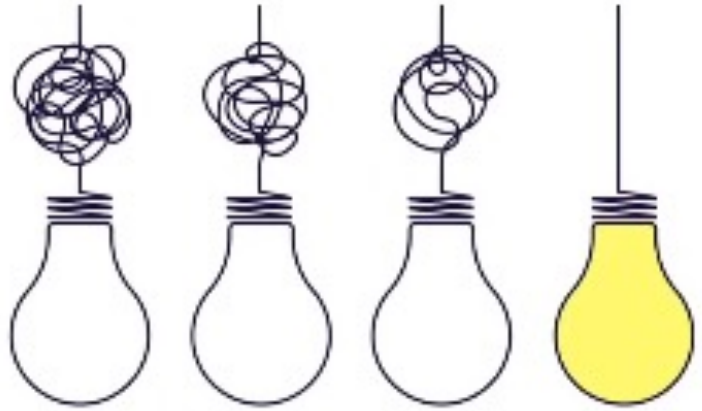
3.1 Commonly Used Models

Complexity

Cynefin Framework

Stacey Matrix

From Dave Snowden



If an **obvious** cause-effect relationship exists:
- Use best practices to make a decision

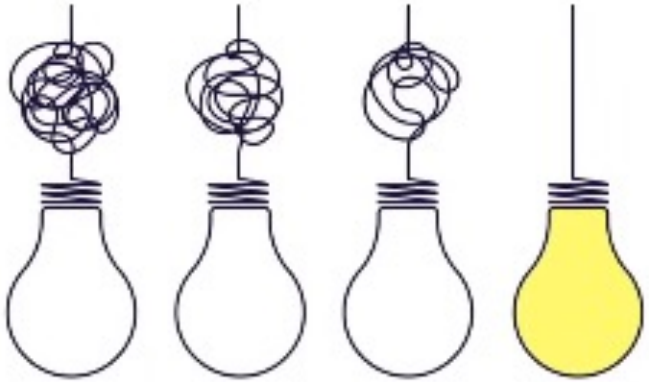
If **Complicated** relationships or known unknowns exist:
- Assess the facts and use good practices

If **Complex** relationships or unknown unknowns exist:
- Probe the environment (iterate forward)

If **Chaotic** environments exist:
- Stabilise the situation and take steps to reduce to "Complex"

3.1 Commonly Used Models

Complexity



Cynefin Framework

Stacey Matrix

From Ralph Stacey

Measures by the uncertainty of the deliverable and the technology to create it, by how:

- Simple
- Complicated
- Complex
- Chaotic

3.1 Commonly Used Models

Project Team Development

Tuckman's Ladder → *From John Tuckman*

- Forming
- Storming
- Norming
- Performing
- Adjourning

Drexler/Sibbet Team Performance Model

3.1 Commonly Used Models

Project Team Development

Tuckman's Ladder

Drexler/Sibbet Team Performance Model

- Orientation (Why)
- Trust building (Who)
- Goal clarification (What)
- Commitment (How)
- Implementation (Plans)
- High performance
- Renewal

3.1 Commonly Used Models

Other

Conflict Model

Negotiation

Planning Sweet Spot

Process Groups

Salience model

- Confronting/Problem Solving
- Collaborating
- Compromising
- Smoothing/Accommodating
- Forcing
- Withdrawal/Avoiding

3.1 Commonly Used Models

Other

Conflict Model

Negotiation

Planning Sweet Spot

Process Groups

Salience model

- Win / win
- Win / lose or lose/win
- Lose / lose

Win/win needs Character (Maturity), Trust, and Approach, where each looks at the other's point of view.

3.1 Commonly Used Models

Other

Conflict Model

Negotiation

Planning Sweet Spot

Process Groups

Salience model

From Barry Boehm

The planning sweet spot is between planning up-front to reduce risk, and the time to market benefits.

3.1 Commonly Used Models

Other

Conflict Model

Negotiation

Planning Sweet Spot

Process Groups

1) Initiating
2) Planning
3) Executing
4) Monitoring and Controlling
5) Closing

Salience model

3.1 Commonly Used Models

Other

Conflict Model

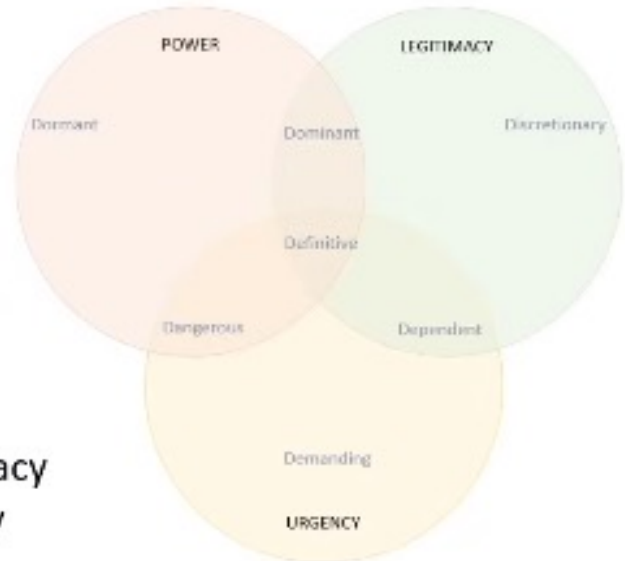
Negotiation

Planning Sweet Spot

Process Groups

Salience model

- Power
- Legitimacy
- Urgency



3.3 Commonly Used Methods

Data gathering and analysis

- Alternatives analysis
- Assumption and constraint analysis
- Benchmarking
- Business justification analysis
- Return on investment (ROI)
- Net Present Value
- Cost benefit analysis
- Check sheet
- Cost of Quality
- Decision tree analysis
- Earned value analysis
- Expected monetary value (EMV)
- Forecasting
- Influence diagram

- Lifecycle assessment
- Make or buy analysis
- Probability and impact matrix
- Process analysis
- Regression analysis
- Reserve analysis
- Root cause analysis
- Sensitivity analysis
- Simulations
- Stakeholder analysis
- SWOT analysis
- Trend analysis
- Value stream mapping
- Variance analysis
- What-if scenario analysis

3.3 Commonly Used Methods

Estimating

- Affinity grouping
- Analogous estimating
- Function point metric
- Multi point estimating
- Parametric estimating
- Relative estimating
- Single point estimating
- Story point estimating
- Wideband Delphi

Relative, Fibonacci:
1, 2, 3, 5, 8, 13, 21

Multiple rounds: starts broad, becomes accurate.

3.3 Commonly Used Methods

Meetings and Events

- Kick-off meeting
- Iteration planning
- Backlog refinement
- Daily stand-ups
- Iteration review
- Retrospectives

Agile / Adaptive

- Change control board
- Bidder conferences
- Lessons learned → Similar to a Retrospective
- Planning meetings
- Project closeouts
- Project review → At the end of a phase
- Release planning
- Risk reviews
- Status meeting
- Steering committee

3.3 Commonly Used Methods

Other

- Impact mapping
- Modelling
- Net Promoter Score

"On a scale of 1 to 10
How likely would you be to recommend us to a friend?"

Commonly Used Artifacts

An artifact is a template, document or project deliverable.

3.6 Commonly Used Artifacts

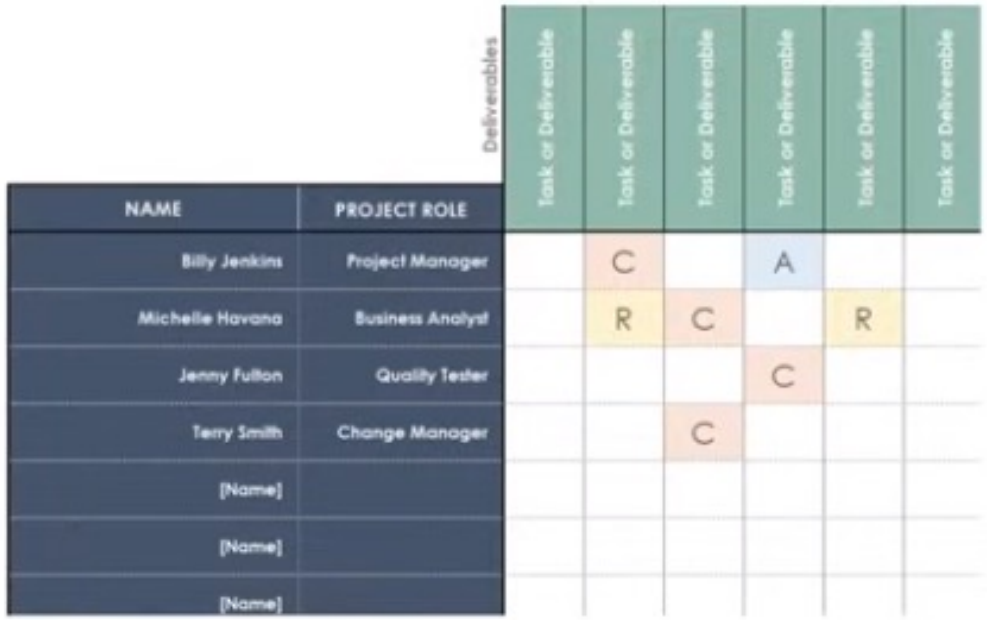
Strategy

- Business case
- Business model canvas
- Project brief
- Project charter
- Project vision statement
- Roadmap

3.6 Commonly Used Artifacts

Logs and Registrars

- Assumption log
- Backlog
- Risk adjusted backlog
- Change log
- Issue Log
- Lessons learned register
- Risk register
- Stakeholder register



NAME	PROJECT ROLE	Deliverables: Task or Deliverable	Task or Deliverable	Task or Deliverable	Task or Deliverable	Task or Deliverable	Task or Deliverable
Billy Jenkins	Project Manager		C		A		
Michelle Havana	Business Analyst		R	C		R	
Jenny Fulton	Quality Tester				C		
Terry Smith	Change Manager			C			
[Name]							
[Name]							
[Name]							

3.6 Commonly Used Artifacts

Plans

- **Change** Control Plan
- **Communications** management plan
- **Cost** management Plan
- **Iteration** plan
- **Procurement** management plan
- **Project** Management plan
- **Quality** Management Plan
- **Release** Plan
- **Requirements** Management plan
- **Resource** Management Plan
- **Risk** Management Plan
- **Scope** Management plan
- **Schedule** Management plan
- **Stakeholder** engagement plan

How

Describes each "How to",
The process you will use,
The boundaries

3.6 Commonly Used Artifacts

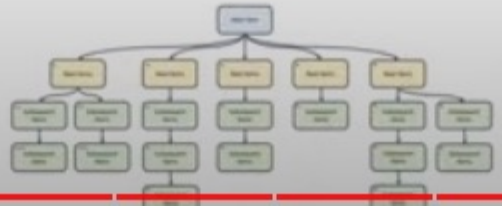
Baselines

The original estimate for:

- Budget
- Milestone schedule
- Performance measurement baseline
- Project schedule
- Scope baseline

- Scope
- Schedule
- Cost

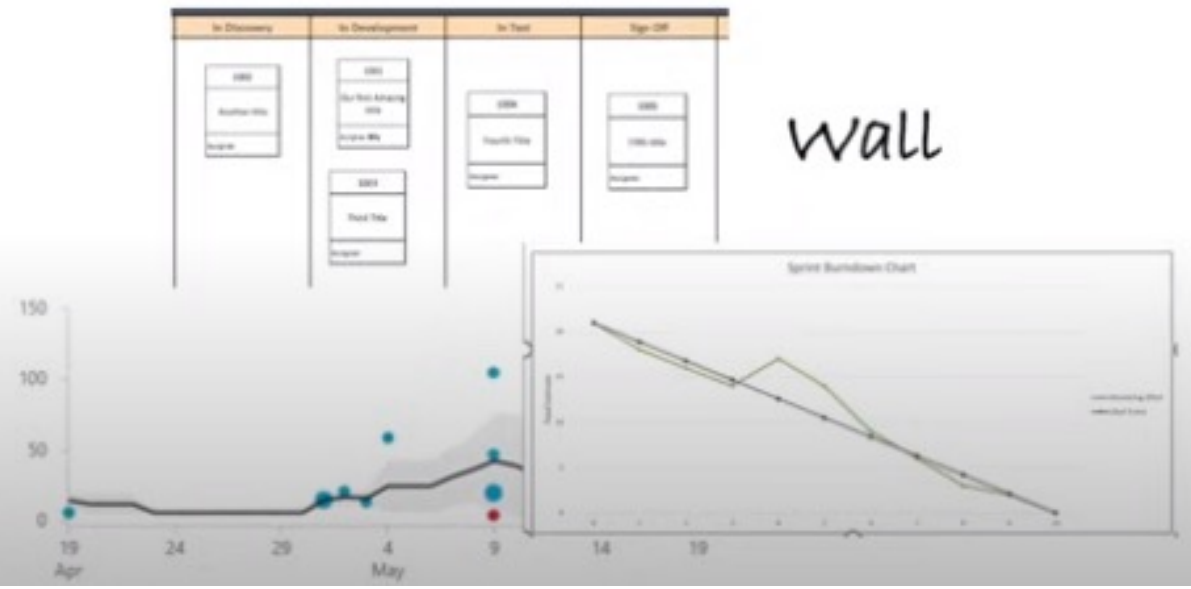
- Scope statement
- Work Breakdown Structure
- WBS dictionary



3.6 Commonly Used Artifacts

Visual Data and Information

- Affinity diagram
- Burnup/Burndown chart
- Cause and Effect Diagram
- Cumulative Flow Diagram (CFD)
- Cycle time chart
- Dashboards
- Flowchart
- Gantt Chart
- Histogram
- **Information radiator**
- Lead time chart
- Prioritisation matrix



3.6 Commonly Used Artifacts

Visual Data and Information

Actor
System Actions
.
.
.
Goal

- Requirements Traceability Matrix
- Resource Assignment Matrix
- Scatter diagram
- S-curve
- Stakeholder Engagement Assessment Matrix
- Story map
- Throughput chart
- Use case
- Value stream map
- Velocity chart

3.6 Commonly Used Artifacts

Agreements and Contracts

- Fixed price contracts
- Cost reimbursable contracts
  - CPAF - Cost Plus Award Fee
  - CPFF - Cost Plus Fixed Fee
  - CPIF - Cost Plus Incentive Fee
- Time & Materials contracts
- Indefinite delivery indefinite quantity (IDIQ)
- Other agreements

Indefinite quantity of goods
Within upper and lower limits
Within a fixed timeframe

MOU – Memorandum of Understanding
MOA – Memorandum of Agreement
SLA – Service Level Agreement
BOA – Basic Ordering Agreement

3.6 Commonly Used Artifacts

Other

- Activity list
- Bid documents
- Metrics
- Project (resource) calendar
- Requirements documentation
- Project team calendar
- User story

RFI – Request for Information
RFQ – Request for Quote
RFP – Request for Proposal

END