

# Project Business Analysis

Prepared by Eng. Ahmed Hussein,  
MBA, PfMP®, PMP®, CMP APMG

PMG 461  
Bachelor of Project Management

## Lecture 10





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الجميع الذكية  
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# Delivering Requirements and Managing Changes

## Lecture 10

PMG 461

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## What we will cover

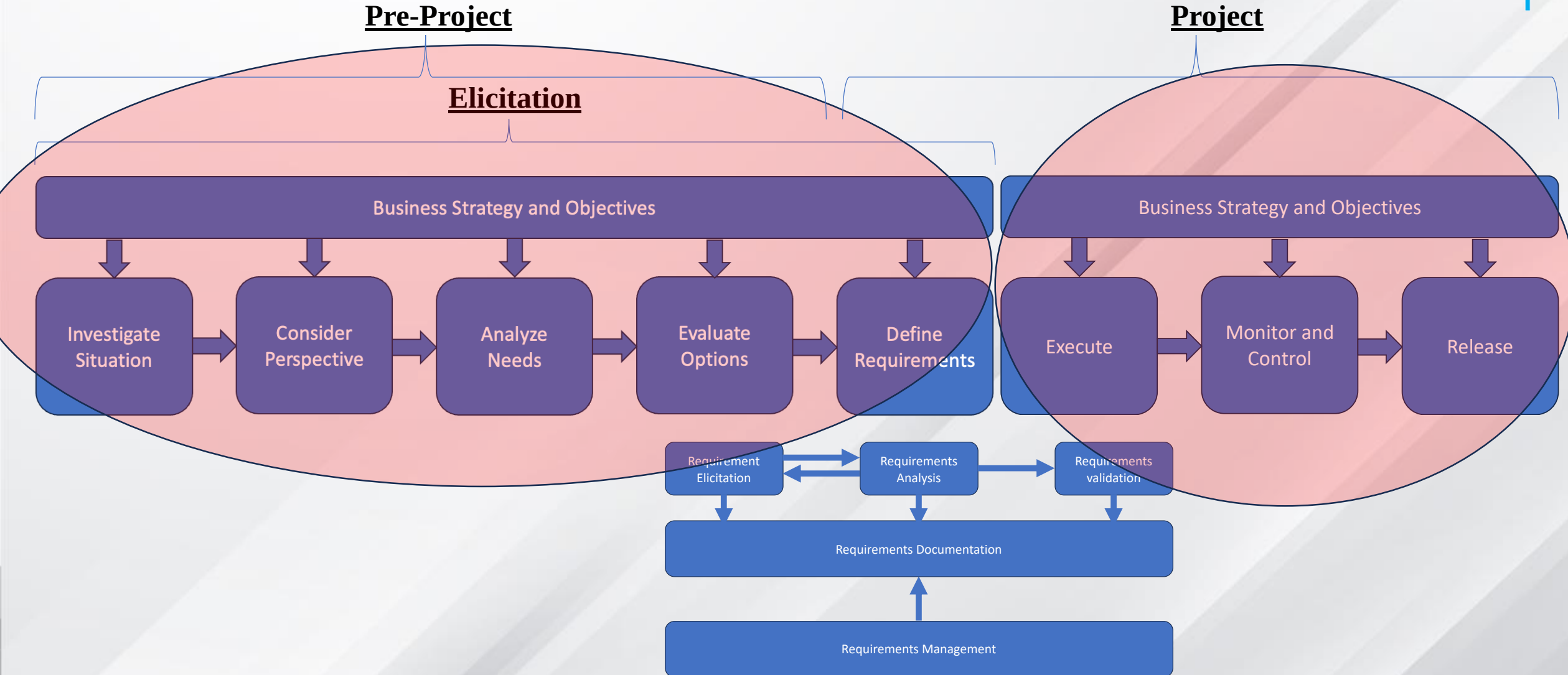
1. Delivering Requirements
2. Managing Changes to Requirements
3. Managing the Human Side of Change

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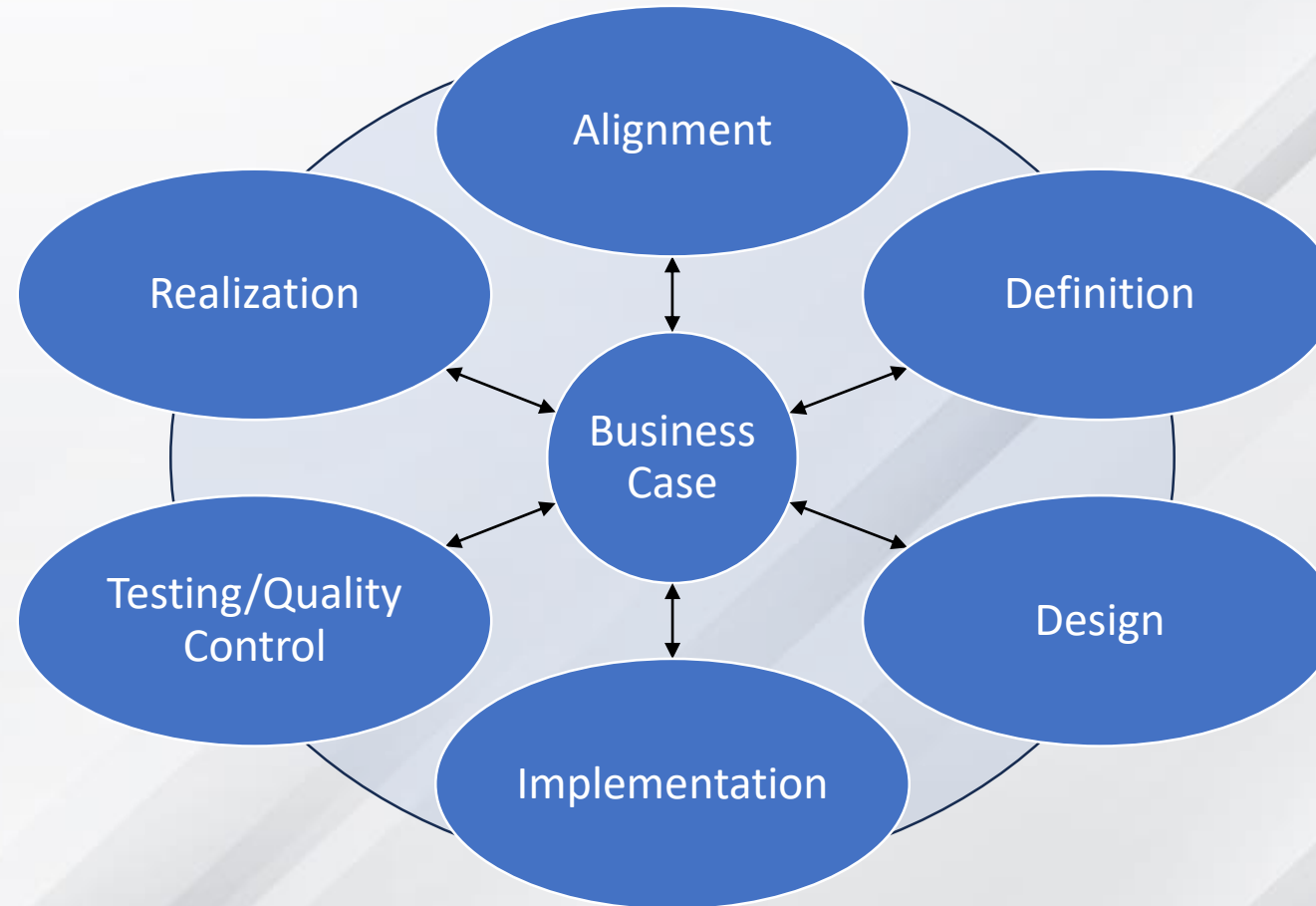
# Delivering Requirements



# In Previous Lectures



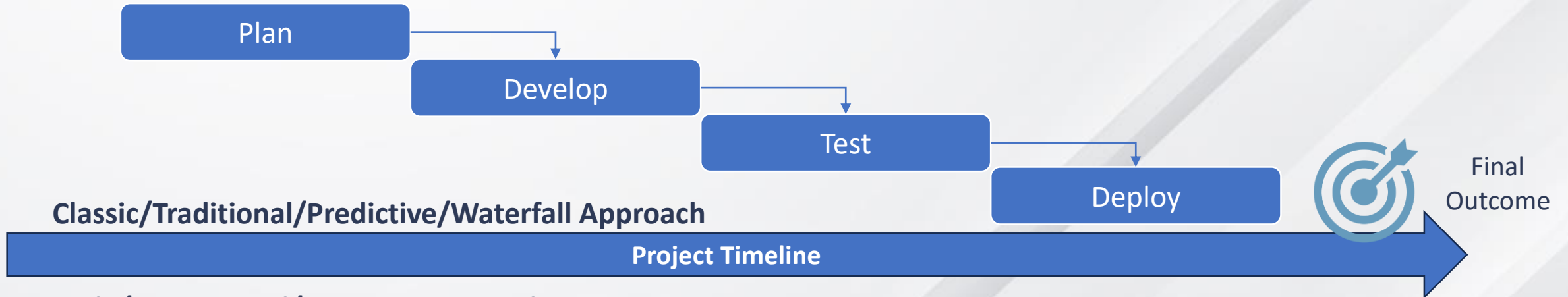
# Business Change Lifecycle for Delivering Projects



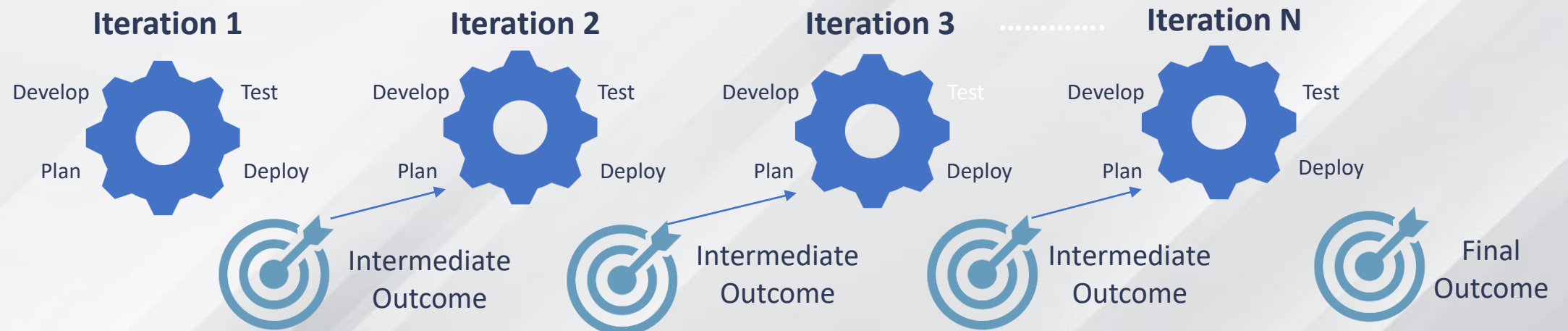
# Agile vs. Traditional Lifecycle

Traditional: Requirements Engineering is performed at the beginning of the project

Agile : Requirements Engineering is done throughout the project



## Agile/Incremental/Iterative Approach



# Agile vs. Traditional Lifecycle

|                        | Waterfall                                                         | Agile                                               |
|------------------------|-------------------------------------------------------------------|-----------------------------------------------------|
| <b>Requirements</b>    | Fixed                                                             | Dynamic                                             |
| <b># of Deliveries</b> | Single delivery                                                   | Frequent small deliveries                           |
| <b>Activities</b>      | Performed once for the entire project                             | Repeated until correct                              |
| <b>Goal</b>            | Manage cost                                                       | Customer value via frequent deliveries and feedback |
| <b>Change</b>          | Constrained as much as possible                                   | Incorporated in real-time delivery                  |
| <b>Stakeholders</b>    | Involved at specific milestones                                   | Continuously involved                               |
| <b>Risks and Costs</b> | Controlled by detailed planning or mostly knowable considerations | Controlled as requirements and constraints emerge   |

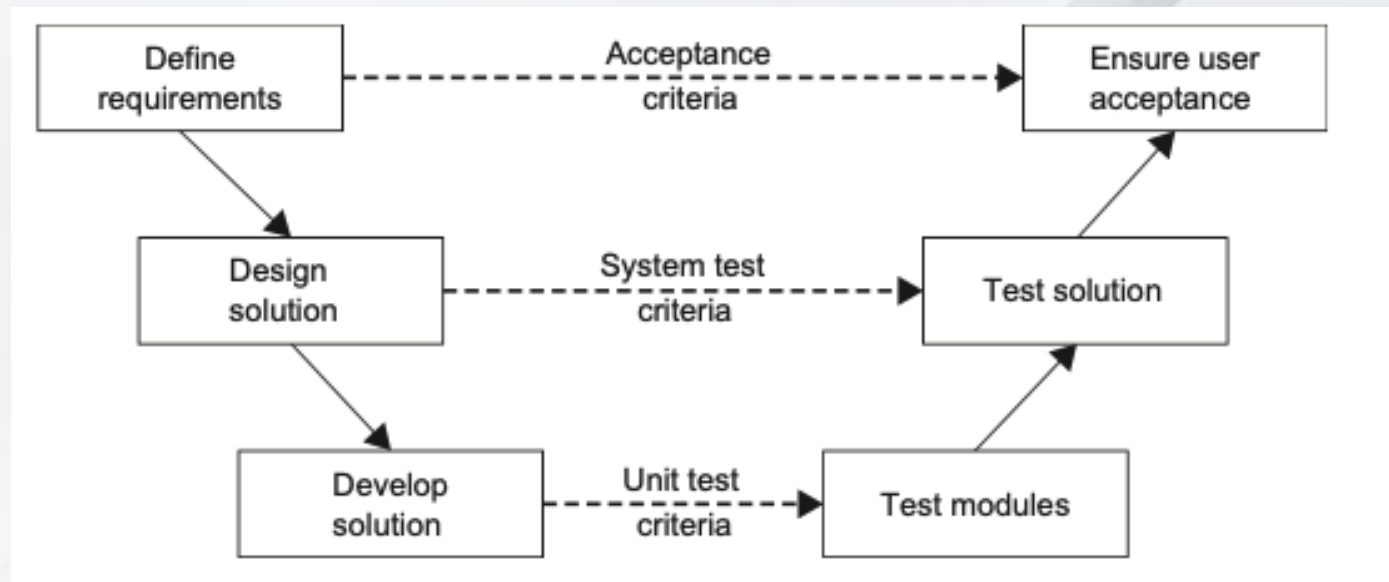
# Other Lifecycles

Adaptive  
Halfway between  
traditional and agile

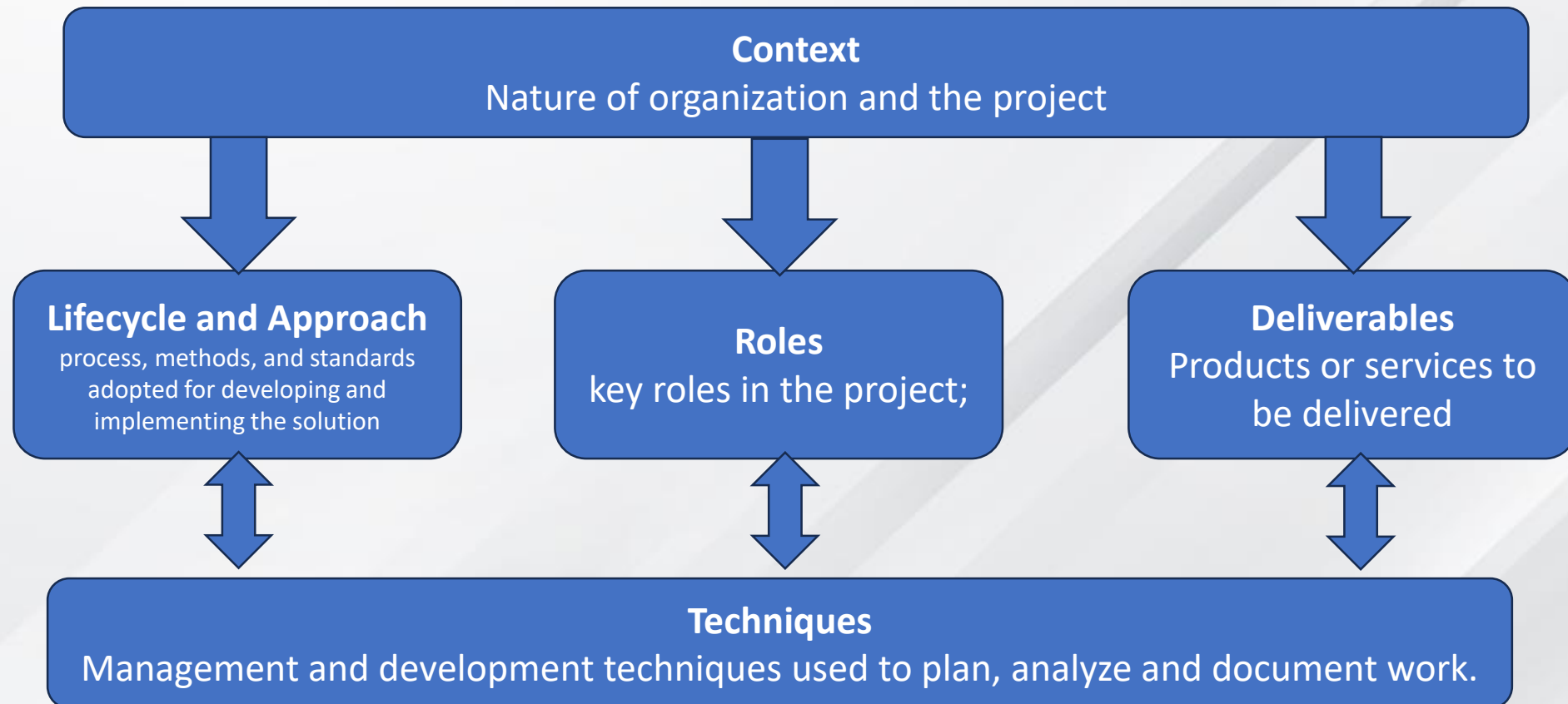
Hybrid  
Mixing Traditional  
and Agile

V-Lifecycle

V-Lifecycle



# Factors Impacting the Lifecycle



# Business Analyst Role in Delivering Requirements

## •Facilitating Communication

- Act as a liaison between stakeholders, including business users, developers, and project managers, to ensure clear communication of requirements throughout the implementation process.

## •Stakeholder Engagement

- Maintain ongoing communication and collaboration with stakeholders to address concerns, resolve issues, and ensure satisfaction with the delivered solution.

## •Requirement Traceability

- Establish traceability between business requirements, system specifications, and test cases to ensure that all requirements are adequately addressed in the final solution.

## •Acceptance Testing/Quality Control

- Collaborate with stakeholders to define acceptance criteria and participate in acceptance testing to verify that the implemented solution meets business requirements and quality standards.

## •Requirement Verification

- Verify requirements with stakeholders through reviews, walkthroughs, and demonstrations to ensure accuracy, completeness, and alignment with expectations.

## •Requirement Engineering for New Requirements

- New or modified requirements elicitation, prioritization, documentation, and validations

## •Change Management

- Manage changes to requirements throughout the implementation process, assessing their impact on scope, schedule, and budget, and obtaining stakeholder approval as needed.

## •Continuous Improvement:

- Identify opportunities for improvements and enhancements based on lessons learned, aiming to optimize future projects and deliver greater value to the organization.

# Roles in Execution based on Lifecycle

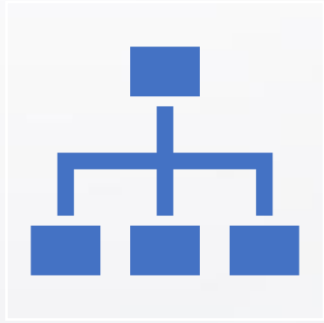
## Traditional

- Project Manager
- Business Analyst
- Architect/Designer
- Developer/Team Member
- Tester /Quality Control

## Agile

- Product Owner: Business representative
- Team Leader/Agile Coach/Project Manager
- Team Member: team is 5-9 people, cross-functional or T-Shaped

# Testing/Quality Control



## Based upon

Use Case Scenarios (Traditional)

User Stories in (Agile)



## Role of Business Analyst

Develop Use case scenarios or user stories

Detail Acceptance criteria

Participate in testing

Facilitate testing between stakeholders (or end users) and technical teams

# Verification of Requirements

- Performed after Testing results and involves Stakeholders to confirm requirement is met
- Business analyst with technical team, might do a demo, walkthrough or test.
- Uses Requirements Traceability Matrix as bases, and verification results are recorded in it.

| Requirement Information   |                                |                                                | Relationship Traceability                                              |                                                                   |                                                                                  |                                                                                                        |
|---------------------------|--------------------------------|------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| ID                        | Requirement                    | Source                                         | Business Objective                                                     | Deliverable                                                       | Verification                                                                     | Validation                                                                                             |
| Unique ID for requirement | Description of the requirement | Name Of person who identified the requirements | List the business objective that is met by fulfilling the requirement. | Identify the deliverable that is associated with the requirement. | Describe the metric that is used to measure the satisfaction of the requirement. | Describe the technique that will be used to validate that the requirement meets the stakeholder needs. |
|                           |                                |                                                |                                                                        |                                                                   |                                                                                  |                                                                                                        |
|                           |                                |                                                |                                                                        |                                                                   |                                                                                  |                                                                                                        |

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# Managing Changes to Requirements



# Requirements Changes in Execution?

Why?

Unforeseen Needs

Shifting priorities

Evolving stakeholder expectations

What?

New  
Requirements

Modify  
Requirements

Remove  
Requirement

# How to Handle Requirement Changes?

Assessing the impact of modifications

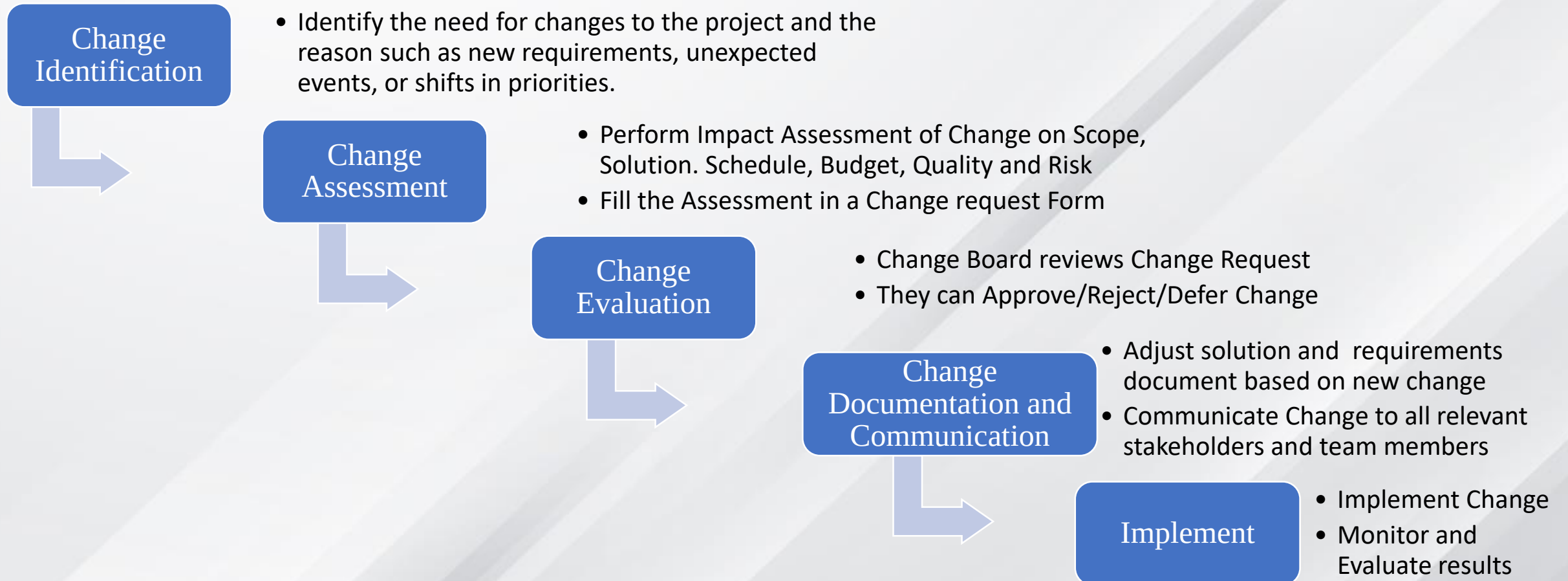
Obtaining appropriate approvals

Implementing adjustments

Minimizing disruption

“any change with the potential to affect the main project baselines—scope, cost, schedule, and quality—necessitates careful analysis through a change management process”.

# Change Management Process



# Change Request Form

- A change request is a formal document submitted to project sponsor or relevant stakeholders to request modifications in the project.
- Change requests include rationale for the change, impact on project objectives, potential risks, required resources, and any supporting documentation.
- Change requests are subject to review and approval or rejection.

| Change Request                                 |                                    |                                   |                                       |
|------------------------------------------------|------------------------------------|-----------------------------------|---------------------------------------|
| <b>Requestor:</b>                              |                                    |                                   |                                       |
| <b>Category:</b>                               | <input type="checkbox"/> Scope     | <input type="checkbox"/> Quality  | <input type="checkbox"/> Requirements |
|                                                | <input type="checkbox"/> Cost      | <input type="checkbox"/> Schedule | <input type="checkbox"/> Documents    |
| <b>Detailed Description of Proposed Change</b> |                                    |                                   |                                       |
|                                                |                                    |                                   |                                       |
| <b>Justification for Proposed Change</b>       |                                    |                                   |                                       |
|                                                |                                    |                                   |                                       |
| <b>Impacts of Change</b>                       |                                    |                                   |                                       |
| <b>Scope</b>                                   | <input type="checkbox"/> Increase  | <input type="checkbox"/> Decrease | <input type="checkbox"/> Modify       |
| <b>Description:</b>                            |                                    |                                   |                                       |
|                                                |                                    |                                   |                                       |
| <b>Quality</b>                                 | <input type="checkbox"/> Increase  | <input type="checkbox"/> Decrease | <input type="checkbox"/> Modify       |
| <b>Description:</b>                            |                                    |                                   |                                       |
|                                                |                                    |                                   |                                       |
| <b>Requirements</b>                            | <input type="checkbox"/> Increase  | <input type="checkbox"/> Decrease | <input type="checkbox"/> Modify       |
| <b>Description:</b>                            |                                    |                                   |                                       |
|                                                |                                    |                                   |                                       |
| <b>Cost</b>                                    | <input type="checkbox"/> Increase  | <input type="checkbox"/> Decrease | <input type="checkbox"/> Modify       |
| <b>Description:</b>                            |                                    |                                   |                                       |
|                                                |                                    |                                   |                                       |
| <b>Schedule</b>                                | <input type="checkbox"/> Increase  | <input type="checkbox"/> Decrease | <input type="checkbox"/> Modify       |
| <b>Description:</b>                            |                                    |                                   |                                       |
|                                                |                                    |                                   |                                       |
| <b>Stakeholder Impact</b>                      | <input type="checkbox"/> High Risk | <input type="checkbox"/> Low Risk | <input type="checkbox"/> Medium Risk  |
| <b>Description:</b>                            |                                    |                                   |                                       |
|                                                |                                    |                                   |                                       |



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It enables project stakeholders to monitor the status of change requests.

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# Managing the Human Side of Change

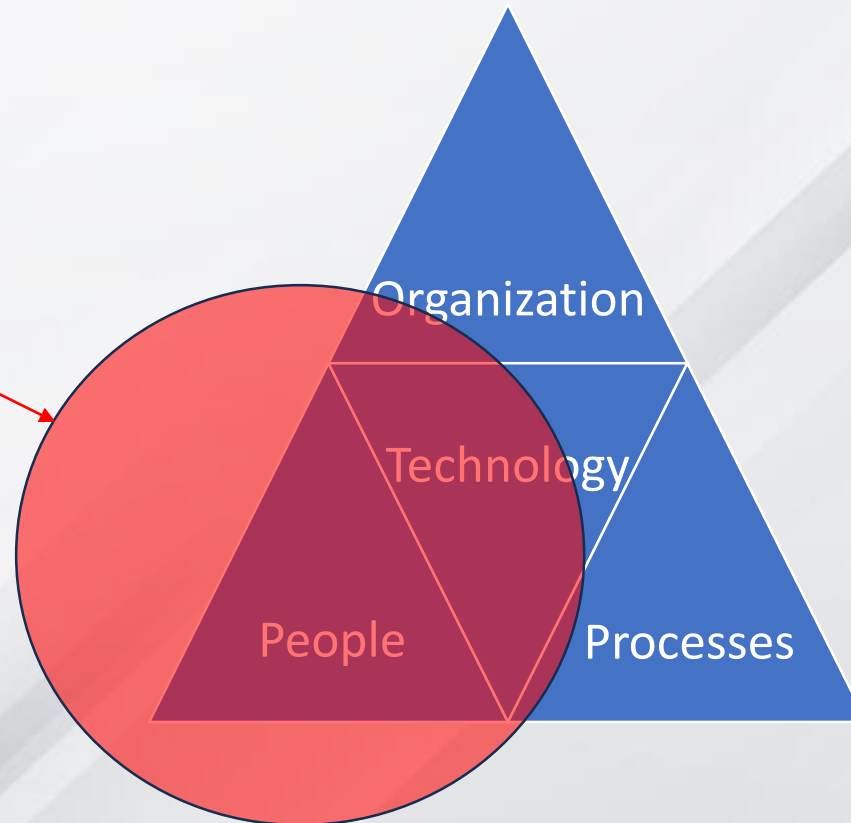


# The four views of a Business System

- Business System A set of business components working together in order to achieve a defined purpose. The components of a system include people, IT systems, processes and equipment.

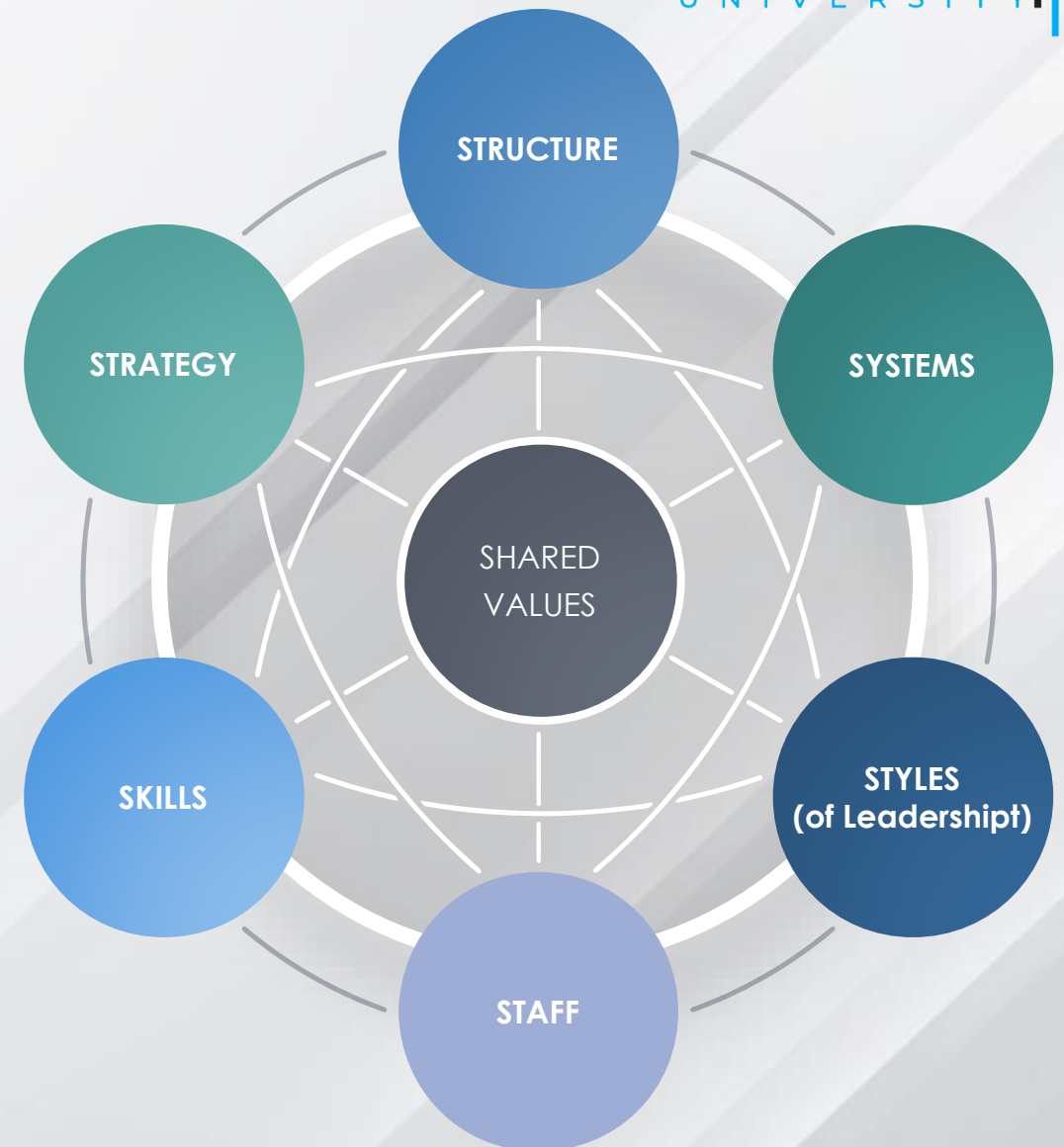
Change Management:

- Training
- Communication
- Support

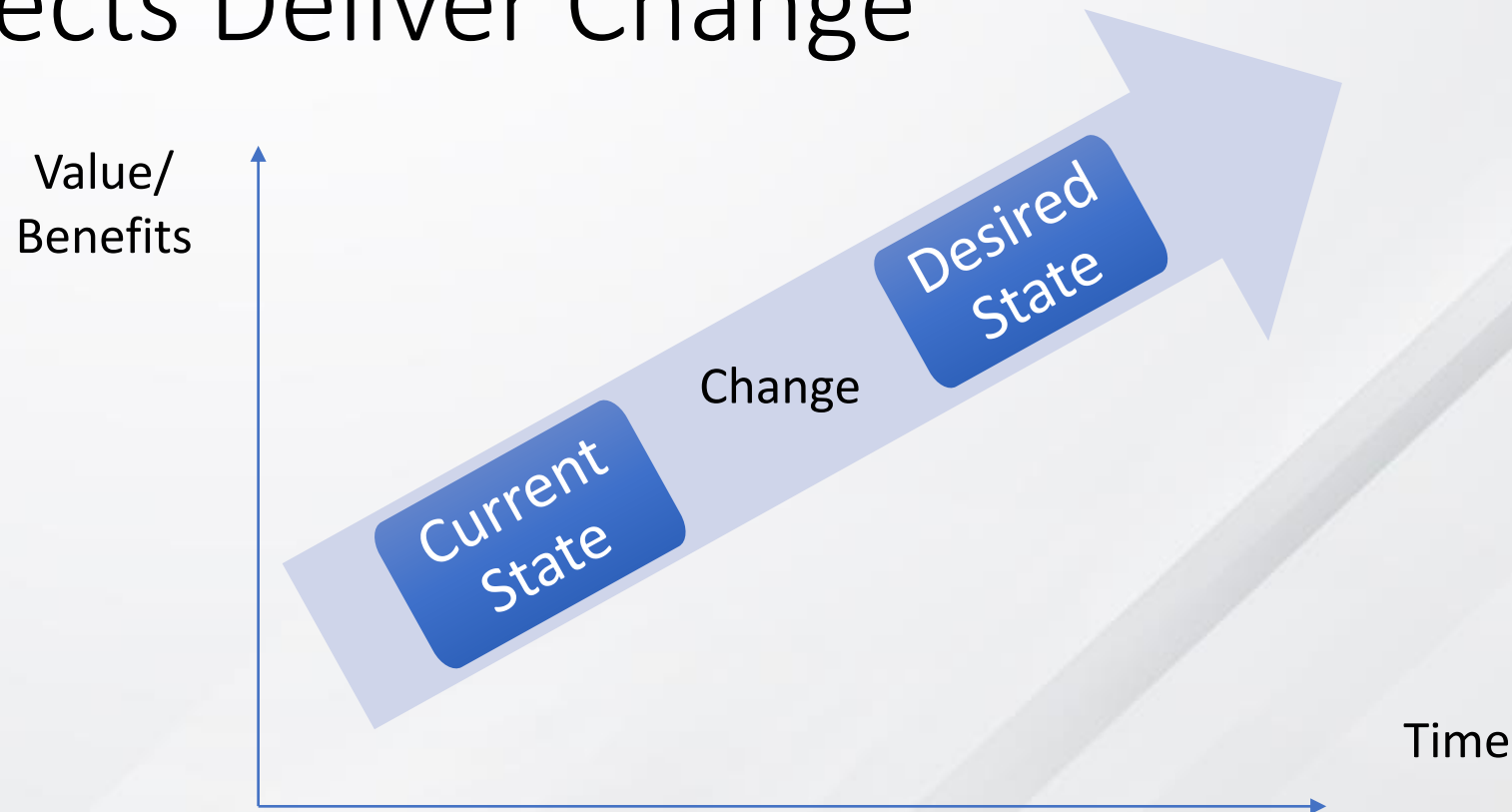


# Mckinsey 7s Framework

- Organization is made up of 7 interacting elements.
- These components might need to change to fill the gap between current and future state.
- Analyze the 7 components and determine changes needed to fill the gap.
- **Hard Elements:** Strategy, Structure, and Systems
- **Soft Elements:** Shared Values, Skills, Style, Staff



# Projects Deliver Change



**Change is the transition from a current state to a future desired state to achieve required business value/benefits..**

# What is Change Management?

“A structured approach for transitioning individuals, groups, and organizations from a current state to a future state with intended business results.”



Change management is a discipline that guides how we prepare, equip and support individuals to successfully adopt change in order to drive organizational success and outcomes.



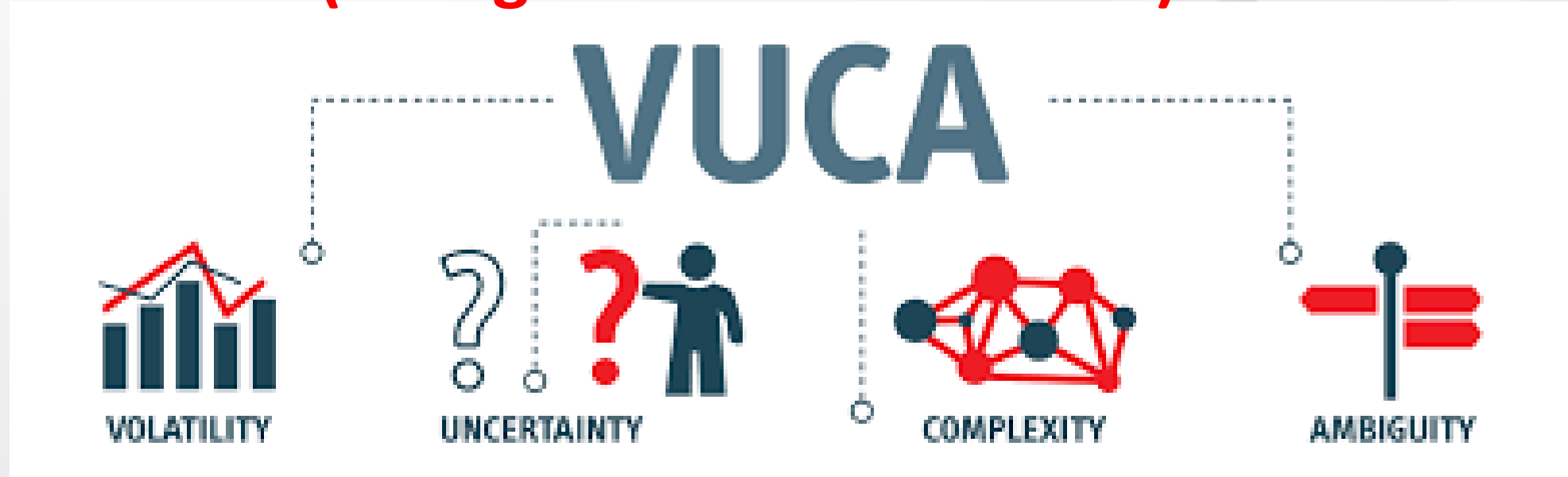
Change Management makes sure that Change is Embraced, Adopted and used by the people impacted by the change

Many projects fail because of People's Resistance to Change  
Project Management + Change Management = **SUCCESS**



# Why do Organizations Embark on new Projects to Change?

**Business Environment is Changing at a Rapid Pace  
(changes in PESTLE Factors)**

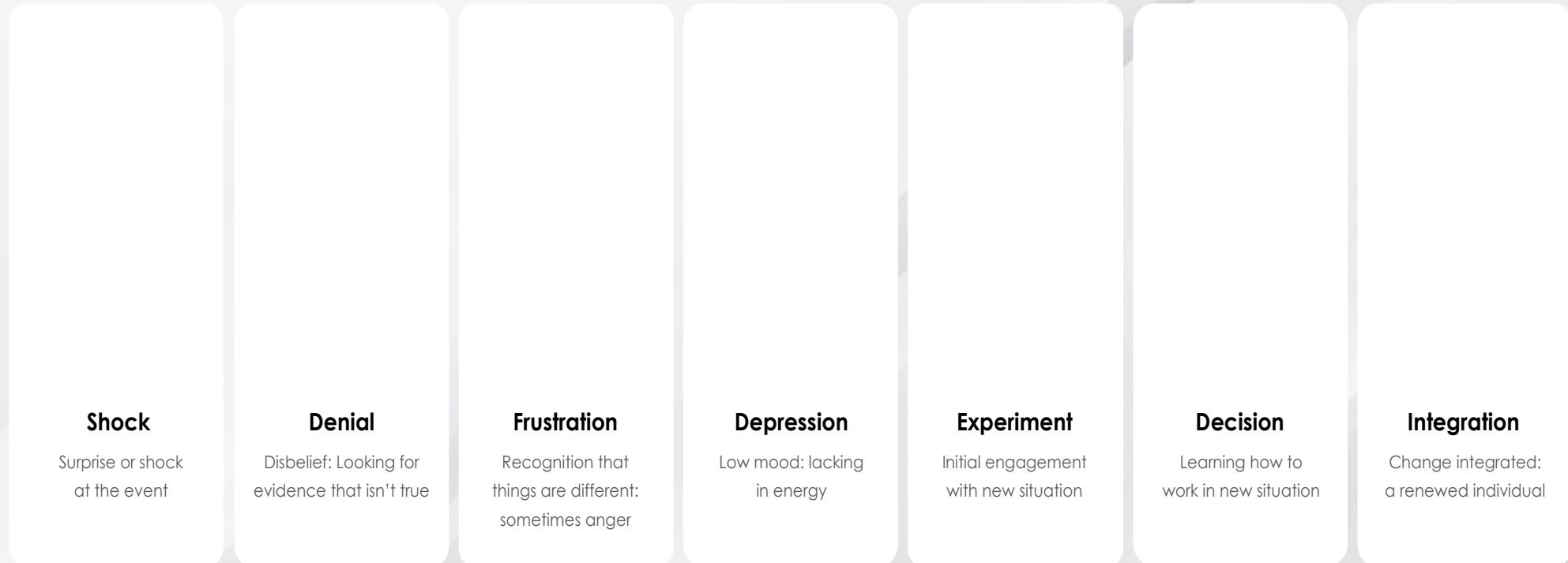


**Organizations need to change to align to changing environment and stay relevant and competitive.**

# How Change is Perceived in Individuals (The Change Curve)

- The Change Curve (Kubler-Ross Negative Change Curve)
- The Change Curve helps you understand the phases people pass by during Change.
- The intensity and duration of each phase differs according to the personality type and his perceived impact of the change.
- We should provide support to people through the different stages to help them move faster to integration

MORAL & COMPETENCE



# Kotter's 8 Steps to Lead Change



# The 5 Pillars of Change Management

## Change Management Pillars

### Sponsor Roadmap

- What do we need from executive sponsors(s)?
- When? With whom? How?

### Stakeholder Engagement

- Who are the stakeholders?
- What are the needs/requirements?
- How can we engage them in the project?

### Communication

- What messages we need to deliver? To whom?
- When? How? How often?

### Training and Coaching

- Who needs training or coaching?
- On what? How? And when?

### Resistance Management

- Who will resist? How? Why? and
- How can we overcome this resistance?

# “Stages of Concern”

Getting people to accept the change  
requires time and effort

Stage 6: Refocus/Refine

“How can we implement improvements?”

Stage 5: Collaboration

“How can I help others with the change?”

Stage 4: Consequences

“What are the benefits for the business?”

“What will the overall impact of the change be?”

Stage 3: Management

“How will this change be accomplished?”

Stage 2: Personal

“How will the change affect me and my job?”

“How will I be evaluated?”

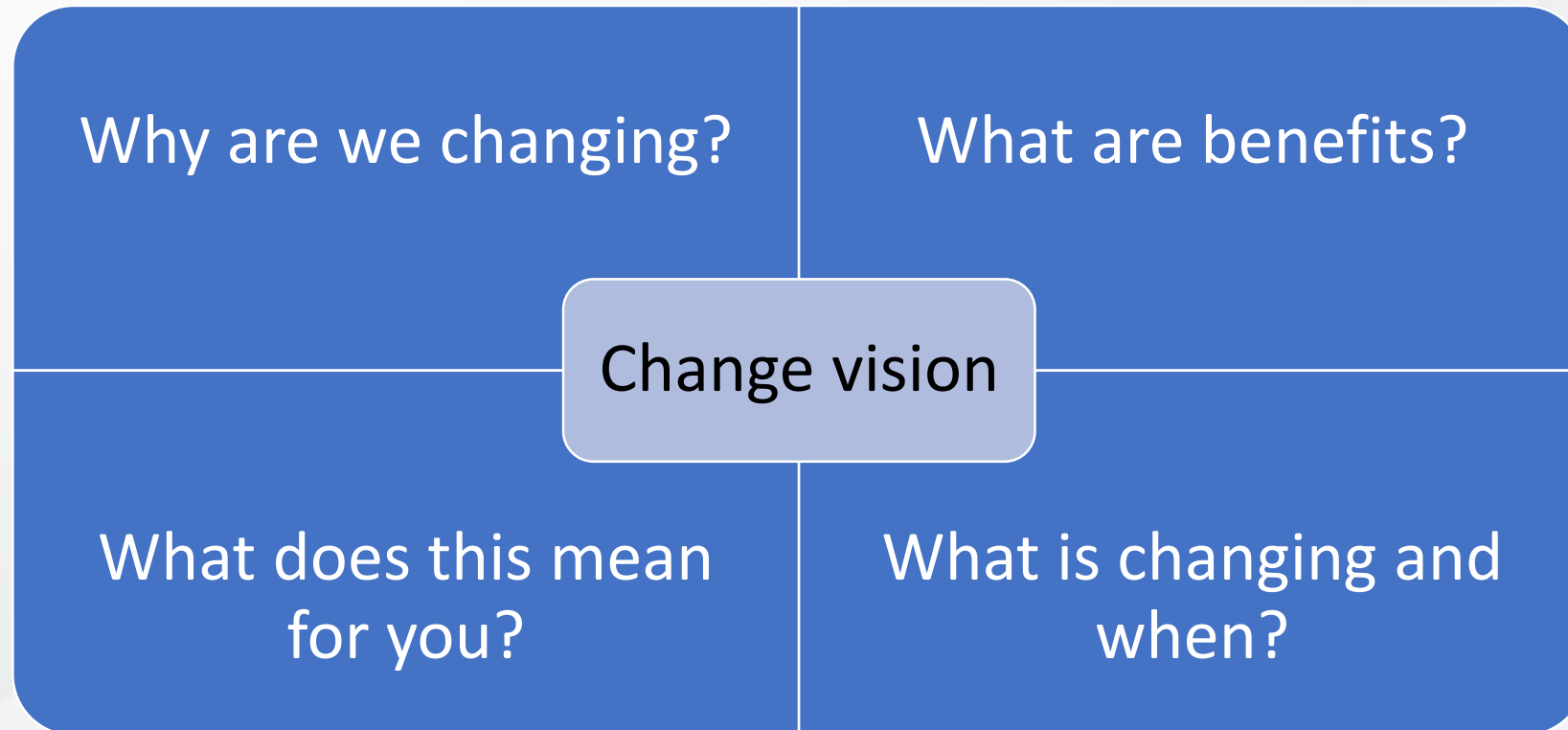
Stage 1: Information

“How does it work?”

Stage 0: Awareness

“What is it?”

# Tailor Messages for needs of each stakeholder



# Guidelines for Overcoming Resistance to Change

## •Awareness and Education

- Educate and inform individuals about the necessity and positive impact of change.

## •Effective Communication

- Clearly articulate the vision and goals of change. Respect individuals' opinions and concerns, foster dialogue and build understanding.

## •Highlight Personal Benefits

- Emphasize how change can personally benefit individuals and improve their lives.

## •Provide Support and Training

- Offer appropriate support and training to equip individuals with necessary skills and resources to adapt successfully.

## •Engagement of Individuals

- Involve individuals in decision-making and change planning processes to increase their readiness to accept and work towards change.

## •Motivation and Reward

- Use motivation and rewards to incentivize individuals to accept and adapt to change.

## •Planning and Organization

- Develop a clear and organized plan for implementing change, outlining required steps and tasks to minimize confusion and resistance.

## •Adaptation Skills Training

- Provide training on skills such as creative thinking, problem-solving, and strategic analysis to enhance individuals' ability to adapt to change.

## •Patience and Flexibility

- Be patient and flexible to navigate challenges and difficulties that may arise during the change process.

## •Demonstration of Positive Role Models

- Leaders and influential individuals should exemplify positive attitudes towards change, inspiring others to accept and work towards it.

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10

## Key Points

Business Analyst role is involved throughout execution in various activities as facilitating communication, stakeholders engagement, requirements traceability and verifications, and requirements change management

The role and activities for the business analyst differs between Traditional and Agile Lifecycles.

Requirements Traceability Matrix is the main document used to monitor and control requirements.

Requirements Changes that leads to changes in scope, schedule, cost or quality need to a follow a formal change request process.

Business analyst participate and contribute to managing the human side of the project through continuous communication with stakeholders.

Key principles we need to follow in change management as understanding the change curve, following Kotter's 8 step model, communicating effectively , and applying techniques to overcomes resistance.

## For Discussion Panel:

- Watch the video [“Who Moved My Cheese”](#)
- Reading, Chapters 12 “Delivering the Requirements” and 14 “Implementing Business Change” from textbook “Business Analysis” by James Cadle, Malcolm Eva, Keith Hindle, Debra Paul, 2nd edition



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10

**For Discussion Panel and  
Next Lecture**

# This is only the Beginning of the Journey NOT the End!

Business Analysis a dynamic and growing discipline that is continuously adapting and evolving in response to changing project management requirements. The Business Analysis role is expanding offering great career prospects for practitioners.

Keep Learning, applying and Growing your Knowledge!

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10

## Main Business Analysis Organizations and Certifications



The PMI Guide to Business Analysis

PMI Professional in Business Analysis  
(PMI-PBA)®



A Guide to the Business Analysis Body  
of Knowledge by IIBA

Certified Business Analysis Professional  
(CBAP®)



# Thank You