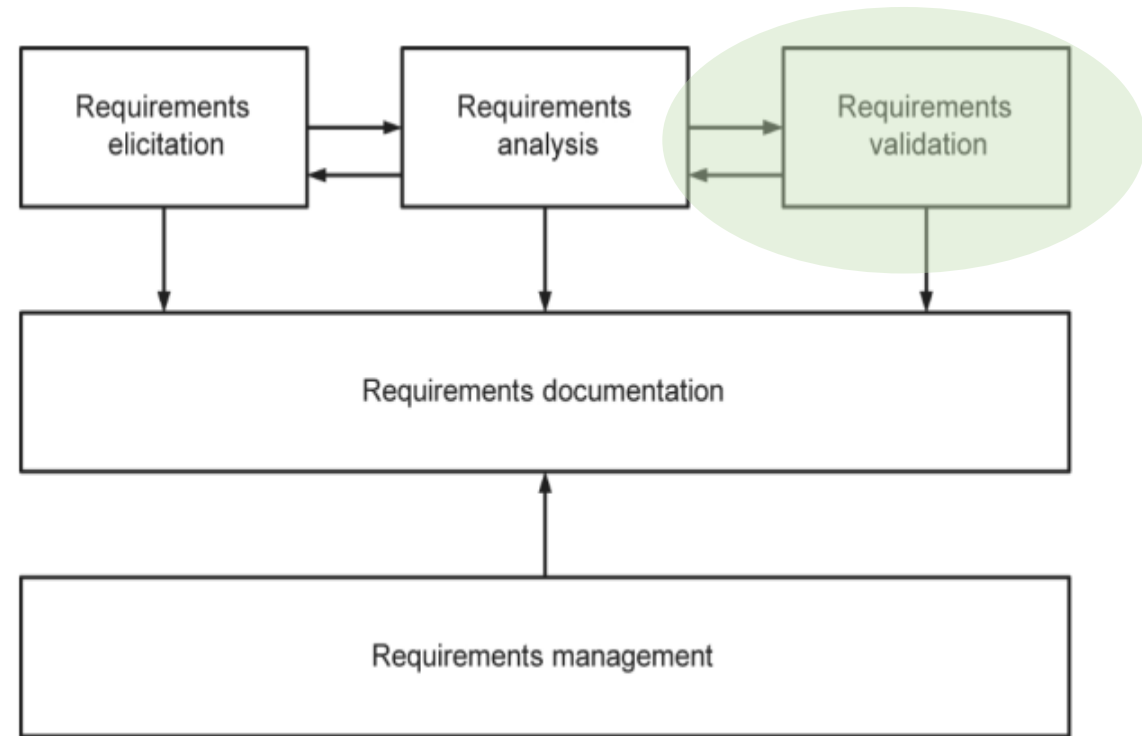# Chapter 12
Validating and Managing Requirements

BCS Foundation Certificate in Business Analysis

Courseware

The requirements engineering framework

Requirements validation
This stage is concerned with reviewing requirements in order to assure that they are defined at the required level of quality.

Business Analysis (4th Edition) Figure 10.1

Requirements validation (formal)

- Once the analysts have completed the analysis activity and have deemed the BRD to be complete and correct, the business and project representatives need to **confirm that the document provides an accurate statement of the requirements.**

- A review group is formed that is responsible for checking the requirements within the BRD and confirming their suitability. The BRD is issued for review once the reviewers have been identified.

Requirements validation (formal)

- **The business sponsor**, who reviews the BRD to ensure that the requirements are all in alignment with the business objectives and do not concern areas that are outside the scope of the project.
- **The business owners** of the individual requirements, or their representatives, who review the requirements to ensure that they express the business needs clearly and correctly, without ambiguity. It is the business representatives' responsibility – and their last opportunity – to be satisfied with the requirements before accepting them.
- **The SME**, who reviews the requirements to ensure that they reflect correct business practice.
- **The solution architect**, who reviews the requirements to ensure that they provide a firm basis for developing and delivering the solution within the architectural context for the organisation.
- **The developers**, who review the requirements to ensure that they are technically feasible.
- **The testers**, who review the requirements to ensure that they are testable.
- **Project office representatives**, who ensure that the requirements are compliant with business standards and policies, and that correct quality review procedures have been followed.

Requirements validation (formal)

Review outcomes

There are three possible outcomes to a review:

1. The BRD needs **significant rework** and should be reviewed again once this rework has been carried out.

2. The BRD requires **some amendment** and, once any changes have been completed, can be signed off by the review chairperson. This is typically the business sponsor.

3. The BRD is **confirmed as a satisfactory** statement of the business requirements. Once the document has been agreed, it is signed off and the requirements are baselined.

Once a BRD has been signed off, any subsequent changes are **subject to formal change and version control**.

Requirements validation (Agile)

- **When initiating the project**: the outline solution is determined and the backlog is established.

- **When maintaining the backlog**: work items are refined until they are deemed 'ready' to progress into development.

# Requirements validation (Agile)

Once a backlog has been established, the items held in the backlog are subject to ongoing refinement to ensure they are fit for further development; at this point they are said to be in a 'ready' state. The refinement process involves various activities, including:

- Ensuring individual requirements align with any models developed to represent a solution.

- Producing initial, possibly low fidelity, prototypes of requirements; this helps stakeholders to identify any missing or incorrect features.

- Developing and discussing scenarios for use cases or user stories, particularly where they are complex or compound.

- Building models such as swimlane or activity diagrams to represent workflow for a particular task.

- Defining acceptance criteria for requirements and confirmations for user stories.

The requirements engineering framework

Requirements management:
This stage is concerned with
managing changes to the
defined requirements and
ensuring the desired level of
traceability is achieved.
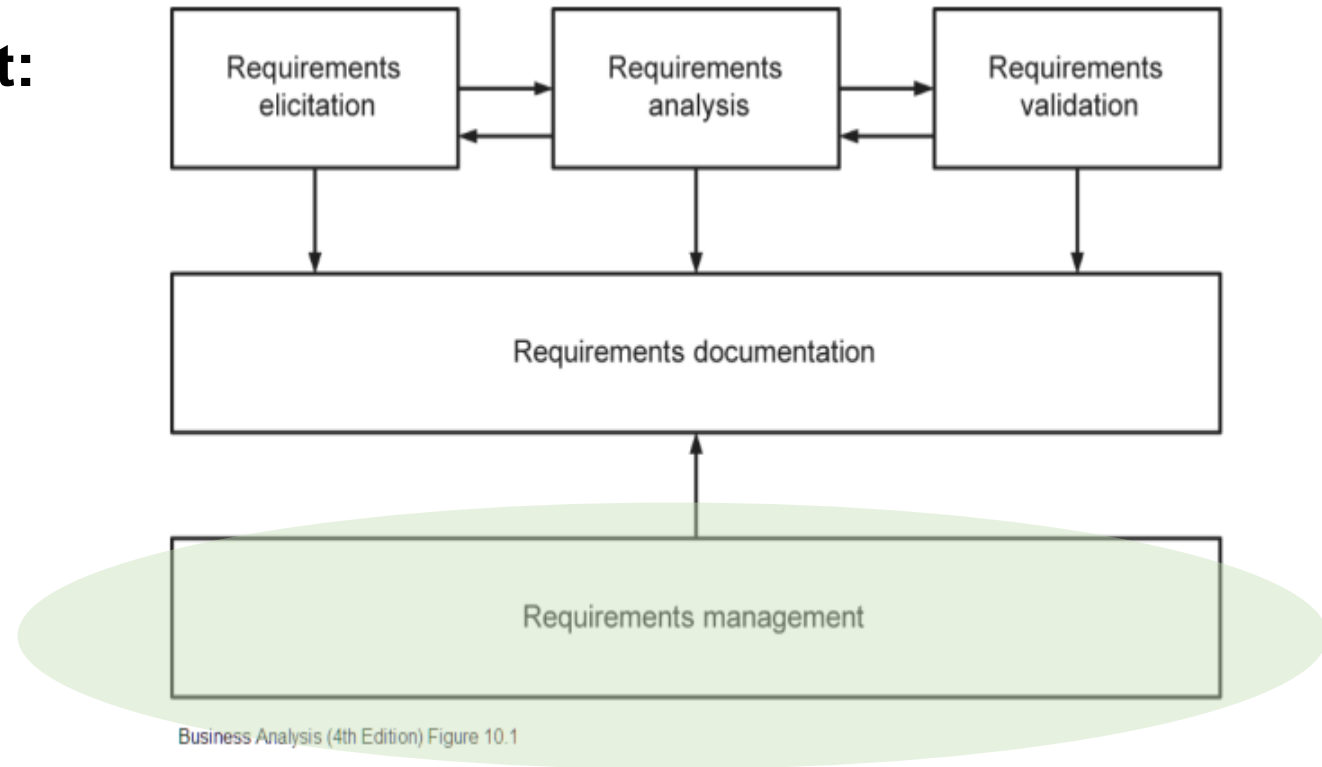
Business Analysis (4th Edition) Figure 10.1

Requirements management (traceability)

The traceability of the requirements is a critical quality characteristic. It is concerned with the origin and ownership of a requirement, and the eventual outcome achieved.

There are two forms of traceability: horizontal and vertical.

Horizontal traceability concerns tracing the requirement from inception to delivery. There are two forms of horizontal traceability: **'backwards from'** and **'forwards to'** traceability.
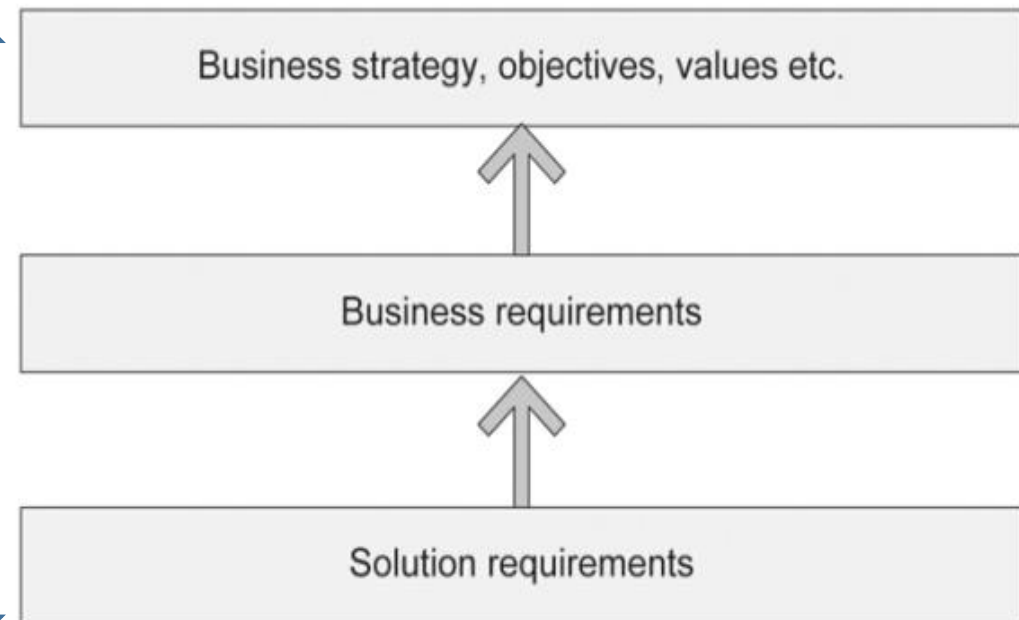
Vertical traceability concerns tracing a requirement up or down the requirements hierarchy, answering questions about alignment with general or technical requirements and, ultimately, business values, policies, strategy and objectives

Requirements management (traceability)

Solution development lifecycle

Forwards to traceability

Requirements → Features

Backwards from traceability
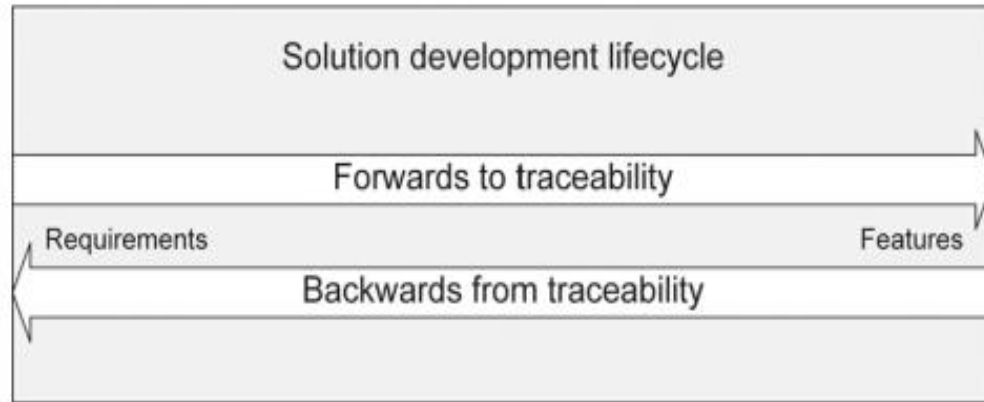
Business Analysis (4th Edition) Figure 12.1

Business strategy, objectives, values etc.

Business requirements
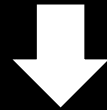
Solution requirements

Business Analysis (4th Edition) Figure 12.2

Requirements management (change control)

- Changes occur frequently on projects. This may be because of external factors such as legal or regulatory changes or competitive forces, or may result from internal changes, such as strategies, policies or people.

- Requirements management encompasses change control, which involves defining and implementing a process to manage changes. This process is invoked where a change arises that causes a configuration items to be updated and a new version to be created.

1) Documenting the proposed change: Each change is documented as a 'change request', stating who raised the change, a description of the change and a justification for requesting it.

4) Deciding on the change: Each change request, and the associated impact assessment, is reviewed by the designated approval authority. If the change is approved for implementation, the configuration item is released by the configuration librarian so that the change can be applied and the new version created

2) Analysing the proposed change: Each change request is analysed to consider the impact of the change and the time and costs associated with making the change.
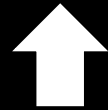
3) Consulting the stakeholders: Each change request is sent to representative stakeholders to consider the impact of the proposed change, including the effort to make the change and the corresponding cost.