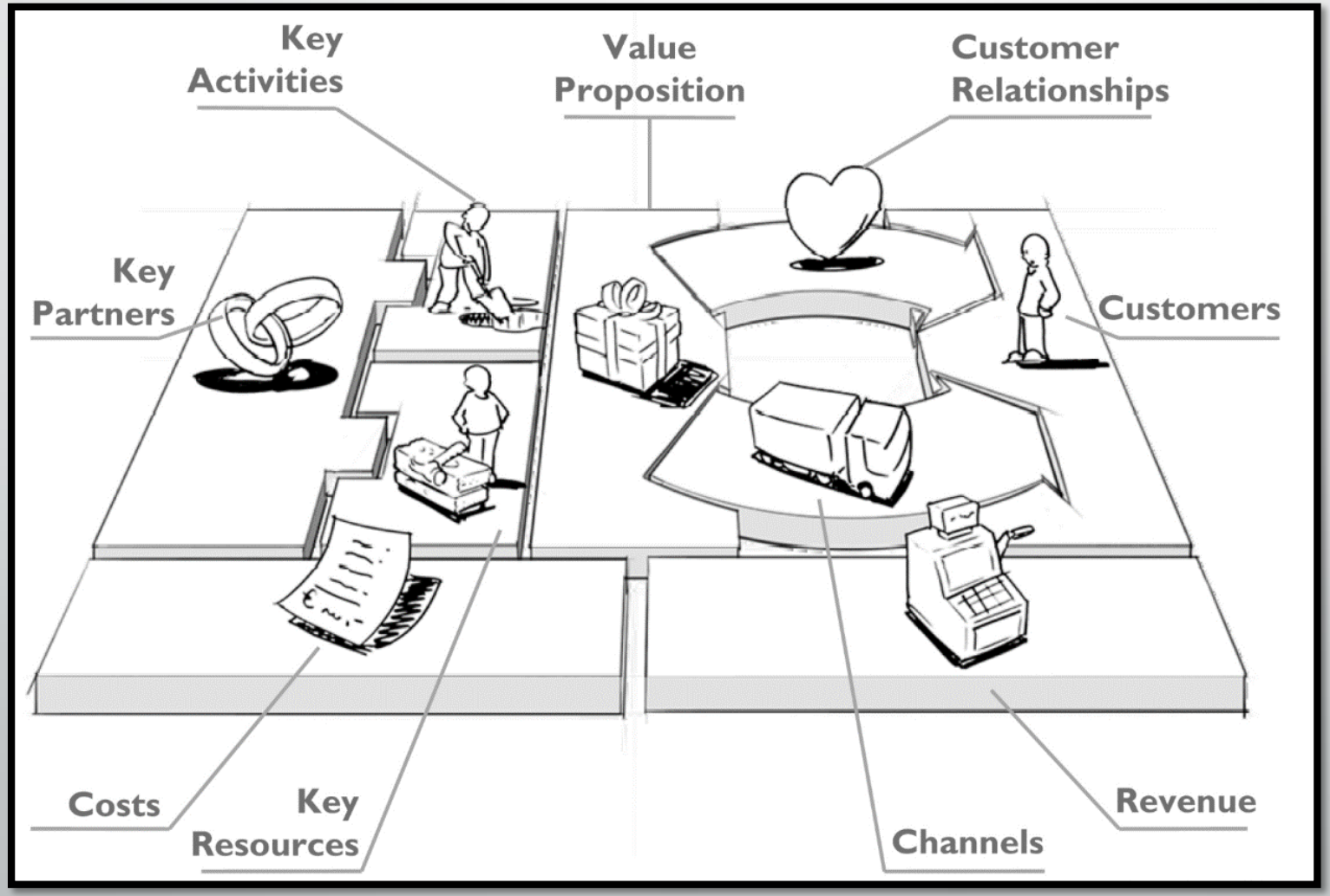
CO457 Business Modelling

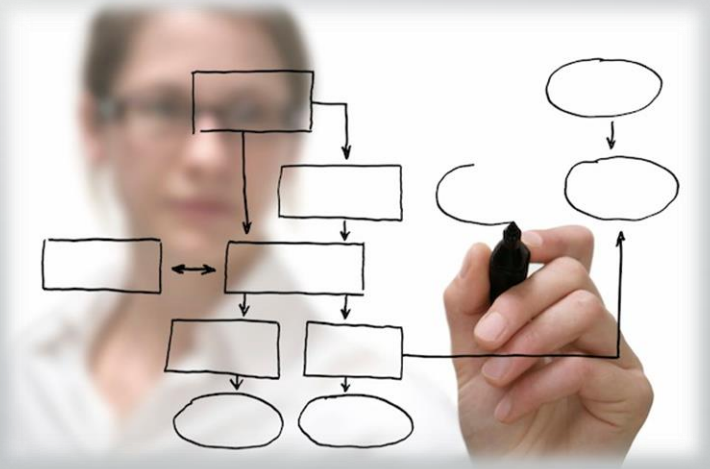
Week One

The Modelling Approach



Why Model the Business?

- To **redesign the business processes**
  - Business Process Reengineering (BPR)
  - Business Process Simplification (BPS)
  - Business Process improvement (BPI)
- To **reorganise the business** structure
  - Not a change in business work flow



Why Model the Business?

- For **strategic planning**
  - Model the business architecture
  - The **current "as-is"** architecture
  - The **future "to be"** architecture
- To scope a **business automation opportunity**
  - Described and justified in a business case
- To describe **user and system requirements for an IT system**

Business Analysis Body of Knowledge

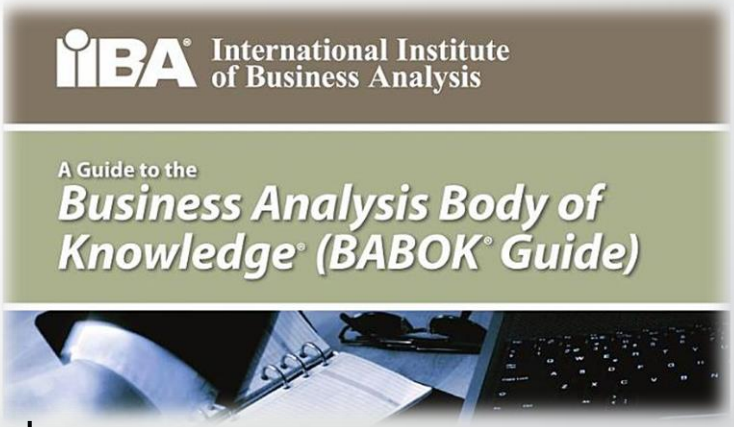
- A Guide to the **Business Analysis Body of Knowledge** (BABOK Guide) Developed by the IIBA http://www.iiba.org/babok-guide.aspx
- Providing business analysts with generally accepted **best practices in business analysis**
  - Proven, generally accepted, and widely applied
- Describing business analysis areas of knowledge
- The **Certified Business Analysis Professional (CBAP) credential exam** is based on the contents of the BABOK Guide

Business Analysis

- "Business analysis is the **set of tasks and techniques used to work as a liaison among stake holders in order to understand the structure, policies, and operations of an organisation**, and to recommend solutions that enable the organisation to achieve its goals."
- The responsibilities of a person with the job title of Business Analyst (BA) varies significantly between organisations

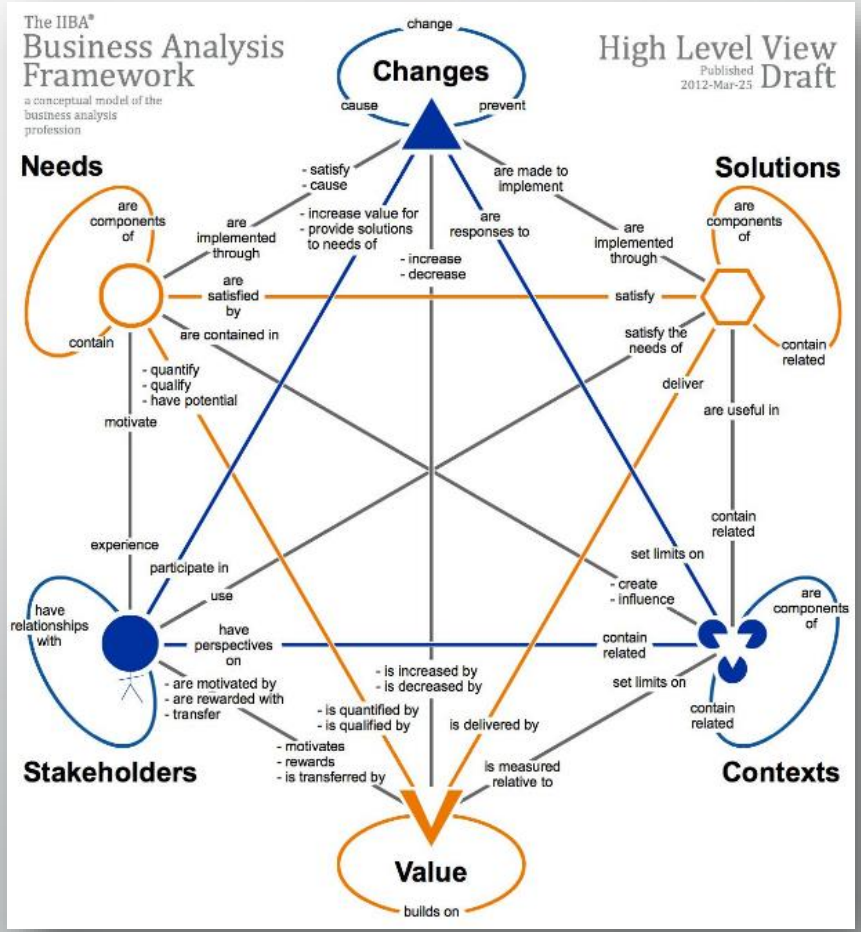
BABOK Modelling Techniques

- BABOK modelling techniques:
  - **Business rules analysis**
  - Data dictionary and glossary
  - Data modelling
  - **Functional decomposition**
  - **Interface analysis**
  - Metrics and key performance indicators
  - **Non-functional requirements analysis**



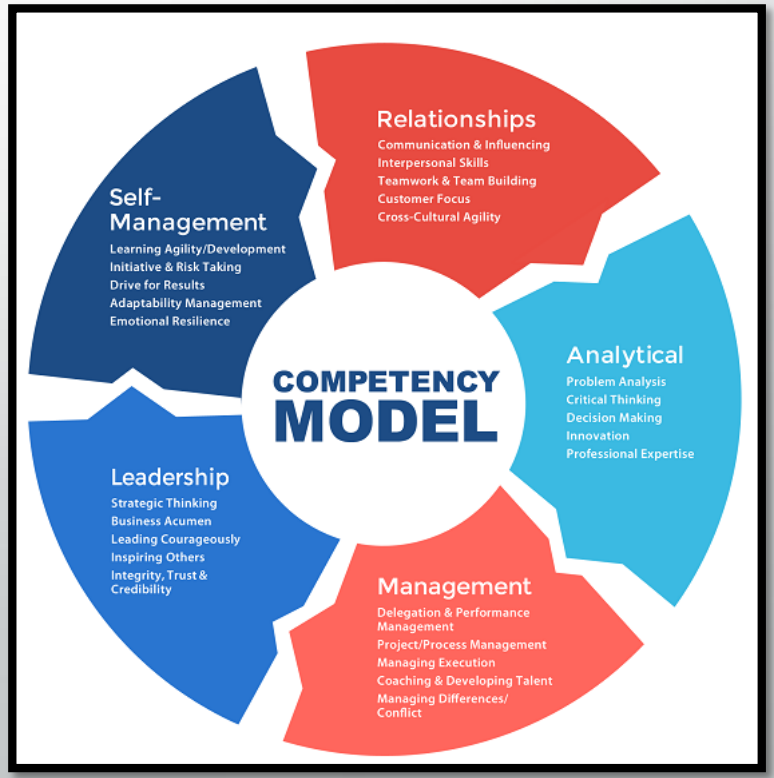
BABOK Modelling Techniques

- BABOK modelling techniques:
  - Organisation modelling
  - **Process modelling**
  - Requirements workshops
  - **Scenarios and use cases**
  - Scope modelling
  - **State diagrams**
  - SWOT analysis



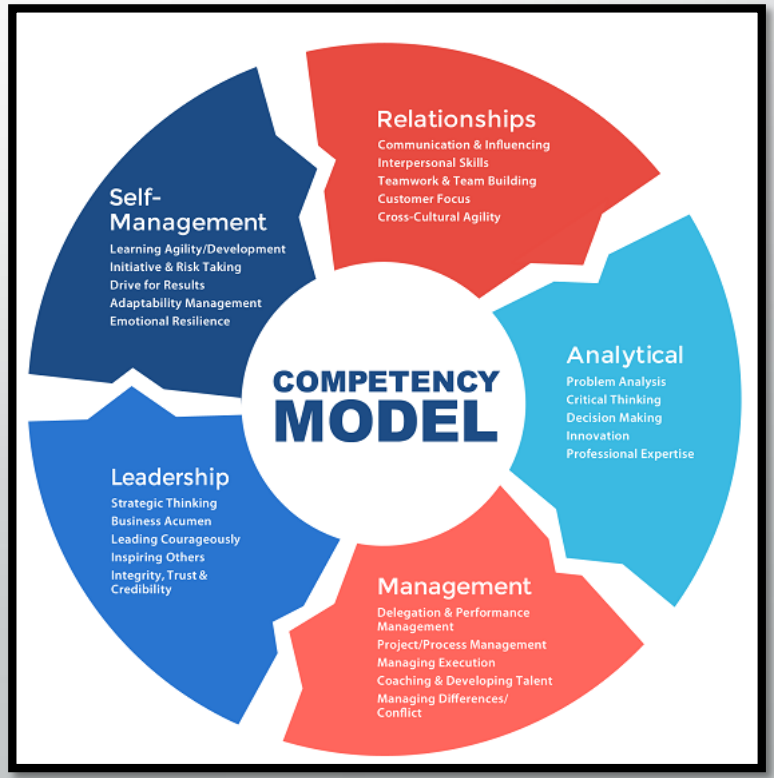
BABOK Underlying Competencies

- Underlying competencies
  - Skills, knowledge, and personal characteristics
  - **Analytical thinking and problem solving**
  - Behavioural characteristics
  - **Business knowledge**



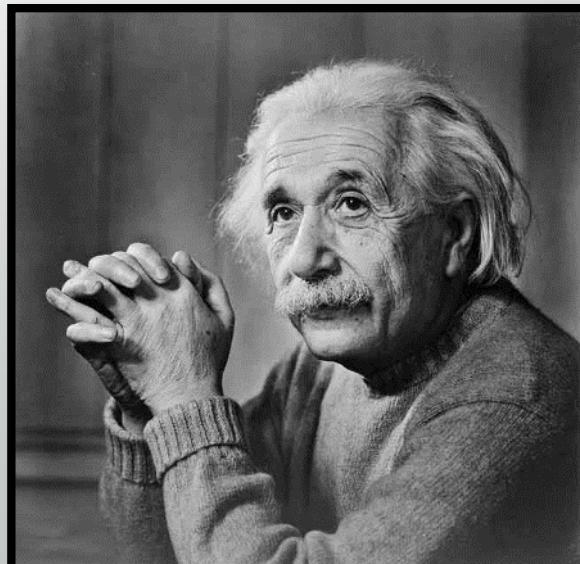
BABOK Underlying Competencies

- Underlying competencies
  - **Communication skills**
    - Presentation/speaking skills
    - Writing skills
    - Drawing skills
  - Interaction skills
    - Facilitation skills
  - Software applications
    - Tool usage



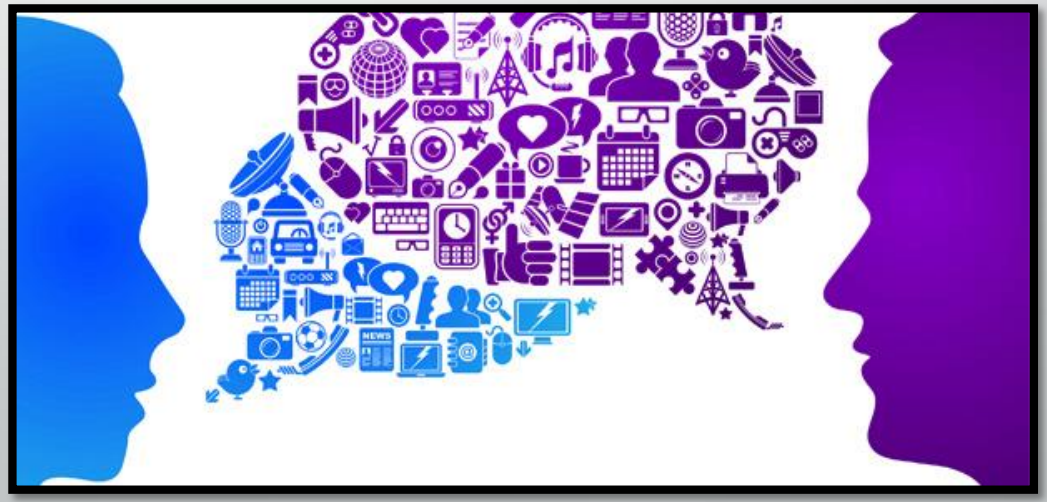
Modelling Requires Communication Skills

- Model = **Diagram (optional), Text (mandatory), and Numbers (optional)**
- Diagram for visual communication
  - Usually one diagram per model
- ***"If I can't picture it, I can't understand it."***
  Albert Einstein



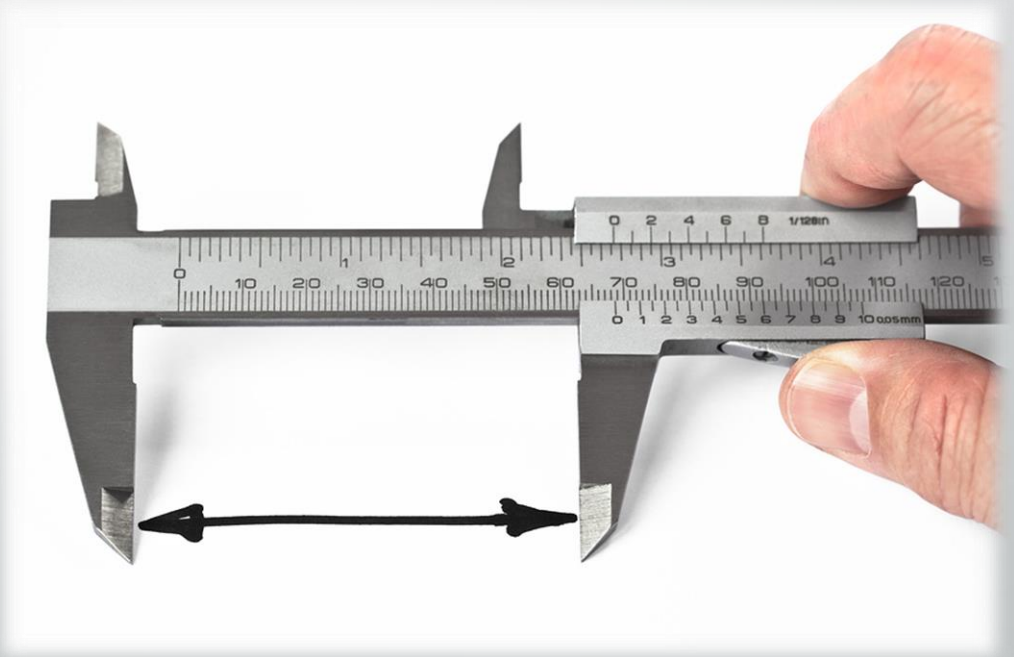
Modelling Requires Communication Skills

- Text for written/verbal communication
  - Many pages of **documentation**
  - More details in the text than on the diagram
  - Structure the text with **headings, bullets, numbers, tables, and matrices**
  - Use a question mark (?) to highlight assumptions and unknowns



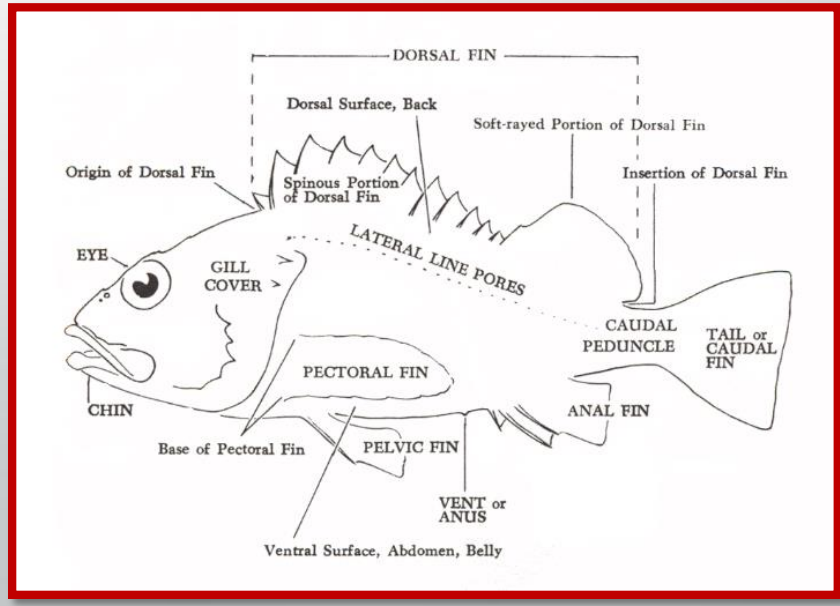
Modelling Requires Communication Skills

- Numbers and units for communicating measurable quantities
  - Project **justification**
  - Key Performance Indicators (KPIs)
  - **Testing**



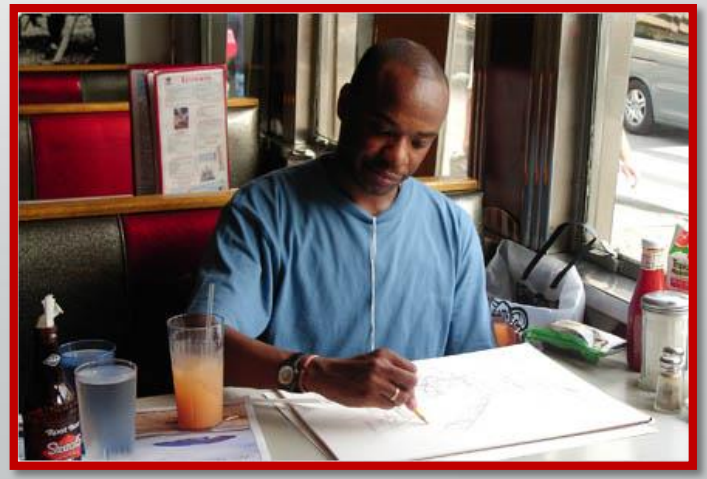
Business Modelling

- The art of Business Modelling lies in being able to effectively articulate **a picture of the business, either 'as is' or 'as it might be'**
- In order to be successful a Business Analyst must be able to present their work using **visual aids, as well as verbal presentations**
- It is beneficial to be able to **communicate in words and diagrams** with equal proficiency



Business Modelling

- **The audience that reviews your models will tend to gravitate toward the words or diagrams in the model**, whichever they find more natural
- You, therefore, need to be able to use both writing and drawing skills to express yourself
- Note that there are readers with equal verbal and visual skills that will be **checking the consistency between the model's diagrams and text**



The Business Modelling Project Scenario

- Bev and Bob operate a thriving restaurant
- You have just been hired as a new business analyst at BAs Unlimited
- BAs Unlimited has a contract with Bev and Bob to document the restaurant's business processes for:
  - **ISO 9001 certification (International Organization for Standardization)**
  - **Training new employees**
- You realise this is an ideal opportunity to improve your business modelling skills

The Business Modelling Project Scenario

- You can see the similarity to your previous organisation
  - All the same **financial, employment, sales, and marketing issues apply**
  - The dining room is involved in **customer service while also selling a product**
  - The kitchen is like a **production facility**
  - The restaurant uses **IT systems**

Business Modelling Tools

- Software applications that allow business analysts to:
  - Draw **professional-looking diagrams**
  - Add **textual descriptions**
  - Include numeric information
  - **Model and simulate business processes**
  - Design business interfaces (forms and reports)
  - Make modifications rapidly
  - Capture the complexity and **levels of detail**
  - Share models
  - Produce documents containing business models

Select the Tools to Use

- Tools vary in sophistication and cost
- General-purpose **computer-aided software engineering (CASE) tools**:
  - Enterprise Architect from Sparx Systems
  - Visio 2010 from Microsoft
  - Visual Paradigm for UML Community Edition from Visual Paradigm

Select the Tools to Use

- **Business Process Management Modelling (BPM) and simulation tools**:
  - Appian BPM Suite from Appian http://www.appian.com
  - ARIS from Software AG http://www.softwareag.com
  - IBM Business Process Manager
  - Business Studio from TIBCO Software
  - ProVision from OpenText
  - WebSphere Business Modeller from IBM

Who Is Involved in Business Modelling?

- Stakeholders are involved in modelling the business
  - People or organisations
    - **Involved in the project**
    - Whose interests may be **affected by the project**
    - Who **may have an influence** on the project
    - **Internal and external** to the business
    - Stakeholder roles
  - Business analysts
  - Participants
  - Audience

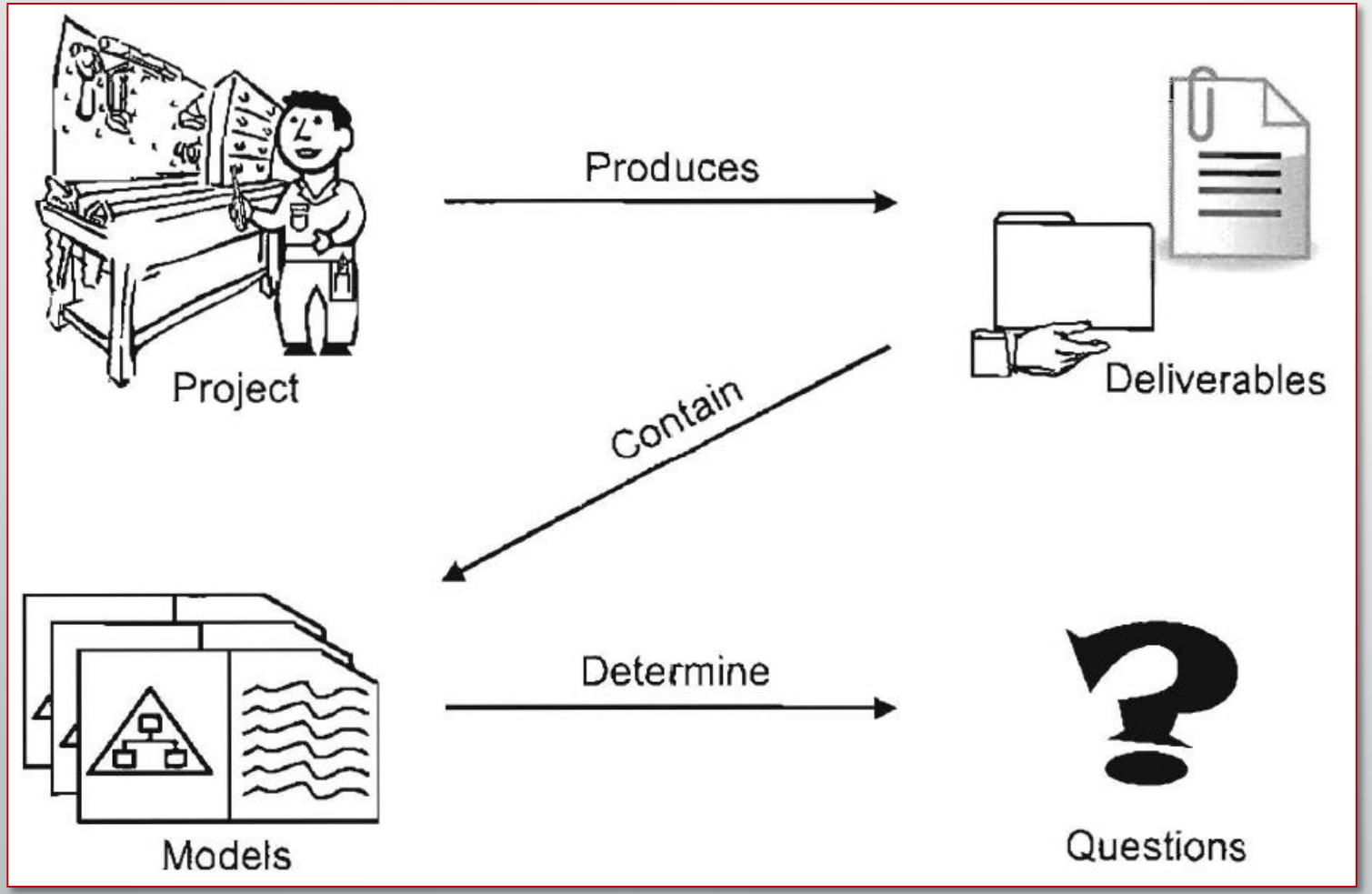
Activity: The Stakeholder List

- When starting any project the first thing that you have to know is; who are the Project Stakeholders?
  - Read through the case study and **make a list of all of the Stakeholders**

Who Is Involved in Business Modelling?

- Business analysts:
  - Model the requirements
- Participants:
  - A representative subset of stakeholders
  - The sources of requirements
- Audience:
  - Read the requirements and deploy the solutions specified in the models

Where Does a Business Analyst Start?

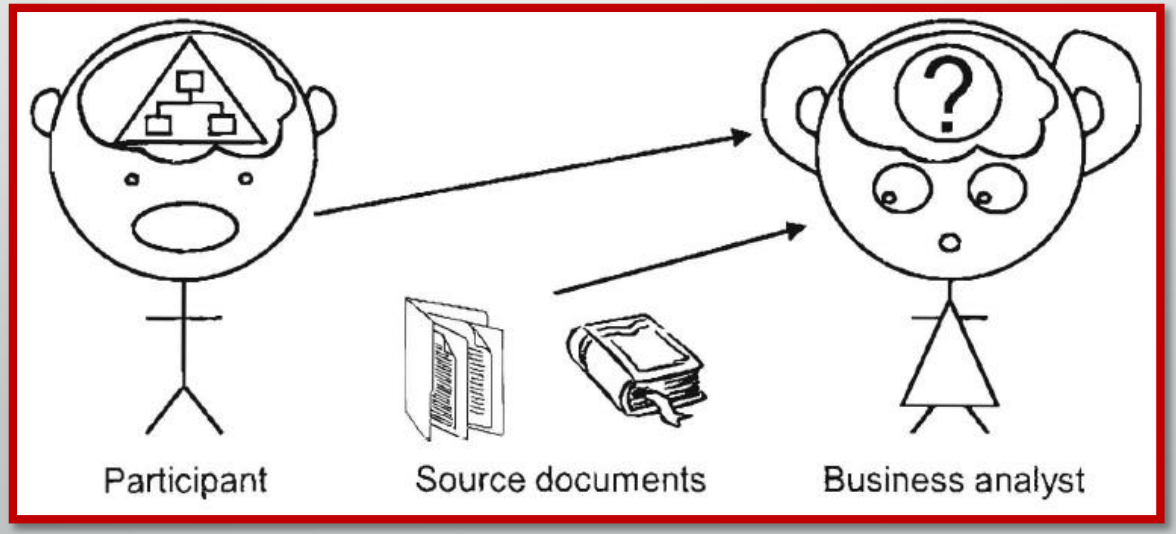


Where Does a Business Analyst Start?

1. Determine the type of project
2. Identify its deliverables and the models they contain
3. For each model, determine what you need to know to produce it
4. Profile stakeholders and identify knowledgeable participants
5. Determine the questions to ask based on what you need to know
6. Elicitation: ask those questions
7. Analysis: understand the answers
8. Documentation: add the answers to the model
9. Communication: present the model
10. Validation: obtain feedback and iterate at step 5

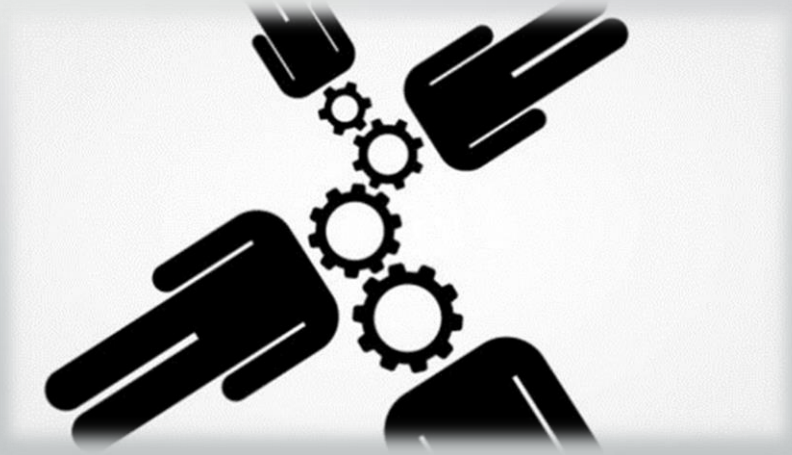
The Modelling Approach

- Elicitation
  - Gather requirements
    - Identify and question participants
    - Using **interviews, surveys, workshops, prototypes**
    - **Observe the business**
    - Find and read source documents



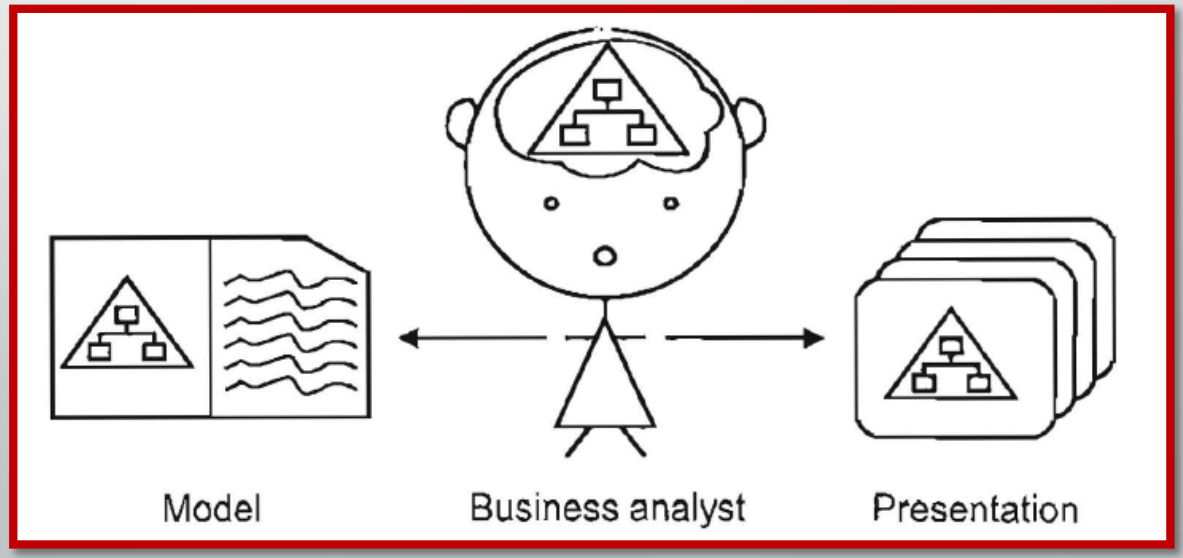
Activity: Employee Descriptions

- Now that you have some understanding of who the Stakeholders are in the project, let's establish who does what in Bev and Bob's Restaurant in more detail.
  - Read through the case study and write down a short description for each employee that describes **what they do and when they do it.**
  - Then create a table showing brief **employee descriptions** for everyone involved in the case study project.



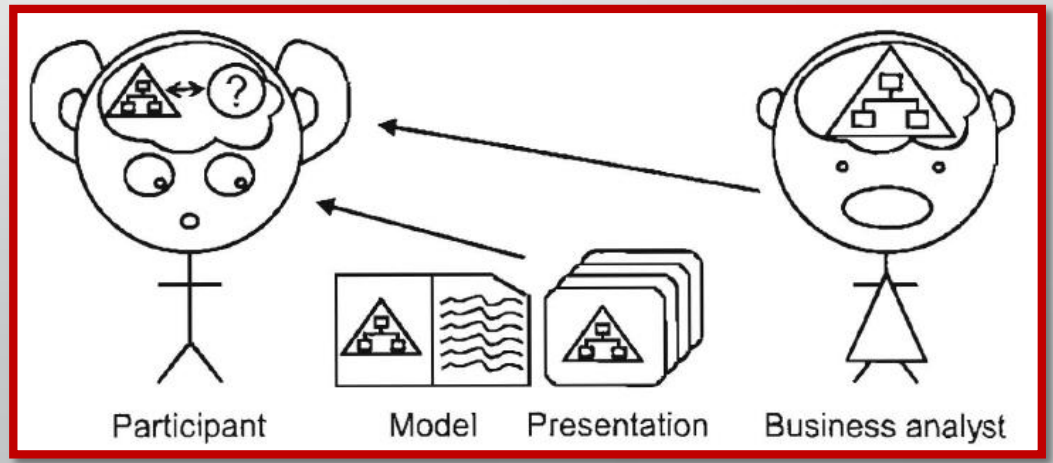
The Modelling Approach

- Analysis and Documentation
  - Understand the information
  - **Model your understanding**
    - Draw diagrams
    - Write descriptions
  - Produce a **document and/or presentation**



The Modelling Approach

- **Communication and Validation**
  - Deliver the document or presentation
  - Participants review the model
  - Read the documentation
  - Attend the presentation
  - **Validate the model against their knowledge**
  - Provide feedback or sign-off

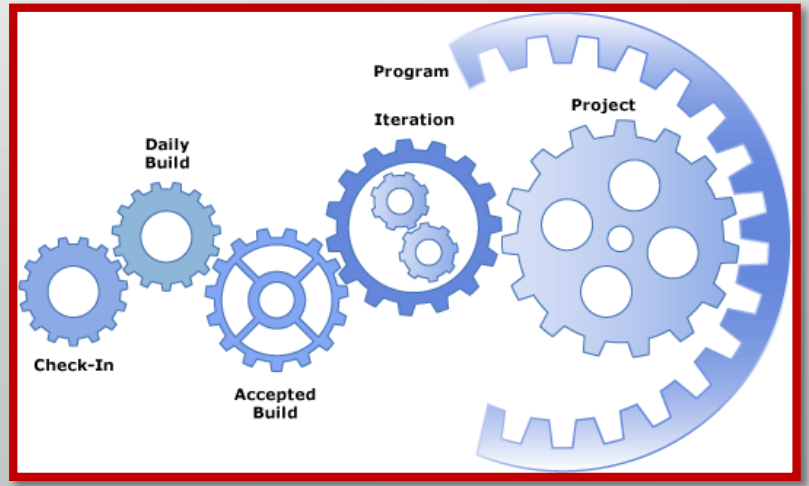


The Modelling Approach

- **Iteration is a best practice**
  - Based on the fact that for anything complicated
    - **You cannot get it right the first time**
    - It is rare that you get it right the second time
  - Each iteration ends with a review of the model

The Modelling Approach

- The rule of thumb says that each **iteration corrects approximately 60 percent of the mistakes or missing items in the previous version**
  - First iteration-60 percent correct
  - Second iteration-85 percent correct (approximately)
  - **Third iteration-95 percent correct (approximately)**
  - Three iterations are usually good enough to go to the next stage of the project



BA Projects, Deliverables, and Models

- Know your projects types, deliverables, and models
- Strategic planning projects produce:
  - **A strategic business plan** that contains:
    - An enterprise architecture
    - **"As is" and "to be" models**

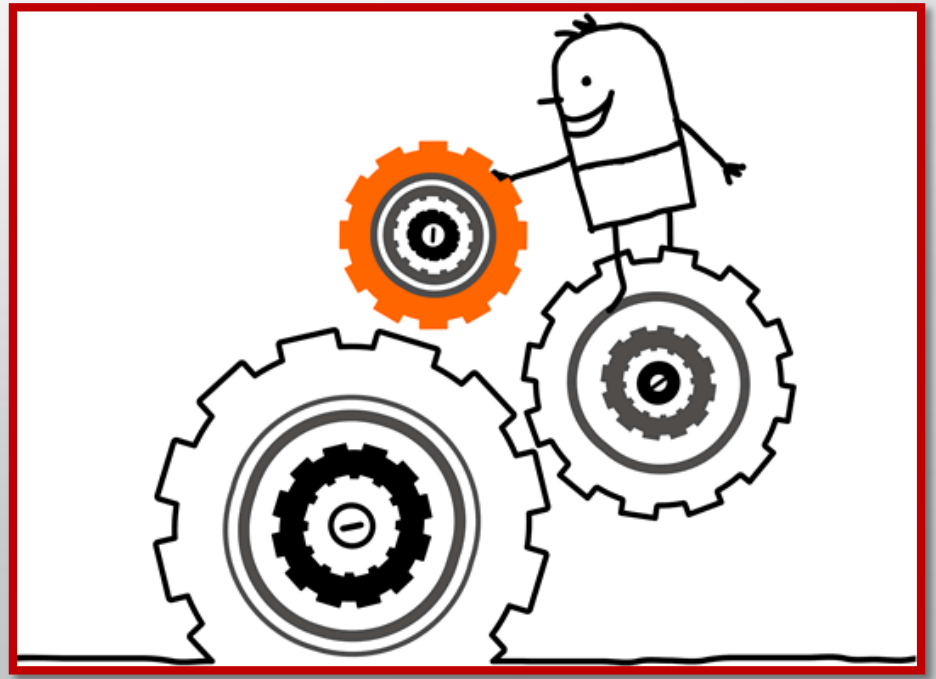
BA Projects, Deliverables, and Models

- Projects to identify business opportunities produce:
  - **Business cases that justify projects and contain business requirements**
  - Project charters and project plans contain business requirements
- Business Process Improvement and automation projects produce:
  - Stakeholder and solution/system requirements

What Is a Business Model?

A Business Is a System

- A business is:
  - A system
  - **A System is 'An organized set of elements functioning as a unit'**
- Models can describe both:
  - Business systems
  - Software systems



A Business Is a Multidimensional System

- A business is **a complex system**
  - **Involving people, equipment, and buildings**
  - **Organised** into departments
  - Performing functions in sequence and/or in parallel
  - Processing goods, money, and/or information
  - Dealing with external parties
    - Supplying and/or receiving
    - Goods, money, and/or information
  - Constrained by internal and/or external laws or rules

Activity: Inventory List

- Because a business is a complex system we have to break it down into its constituent parts
- Read through the case study and then create a table clearly showing an inventory list of appropriate equipment used within the bar; dining area; kitchen and back office

CW1 Task 1: Employee Table for the Restaurant

- Create an employee table that documents the following information:
  - The employees name
  - Their job title
  - A detailed description of their role
  - The number of hours of they work per week
  - Activities they are involved with on a day to day basis
  - Length of service
  - Code of conduct

CW1 Task 1: Employee Table for the Restaurant

- Create an employee table that documents the following information:
  - Training requirements
  - Transferable skills
  - Salary
  - The restaurant department they primarily associated with
  - The restaurant departments they have interactions with
  - Who is their line manager
  - Equipment that they use on a daily basis
  - Equipment description