



Aston Business School

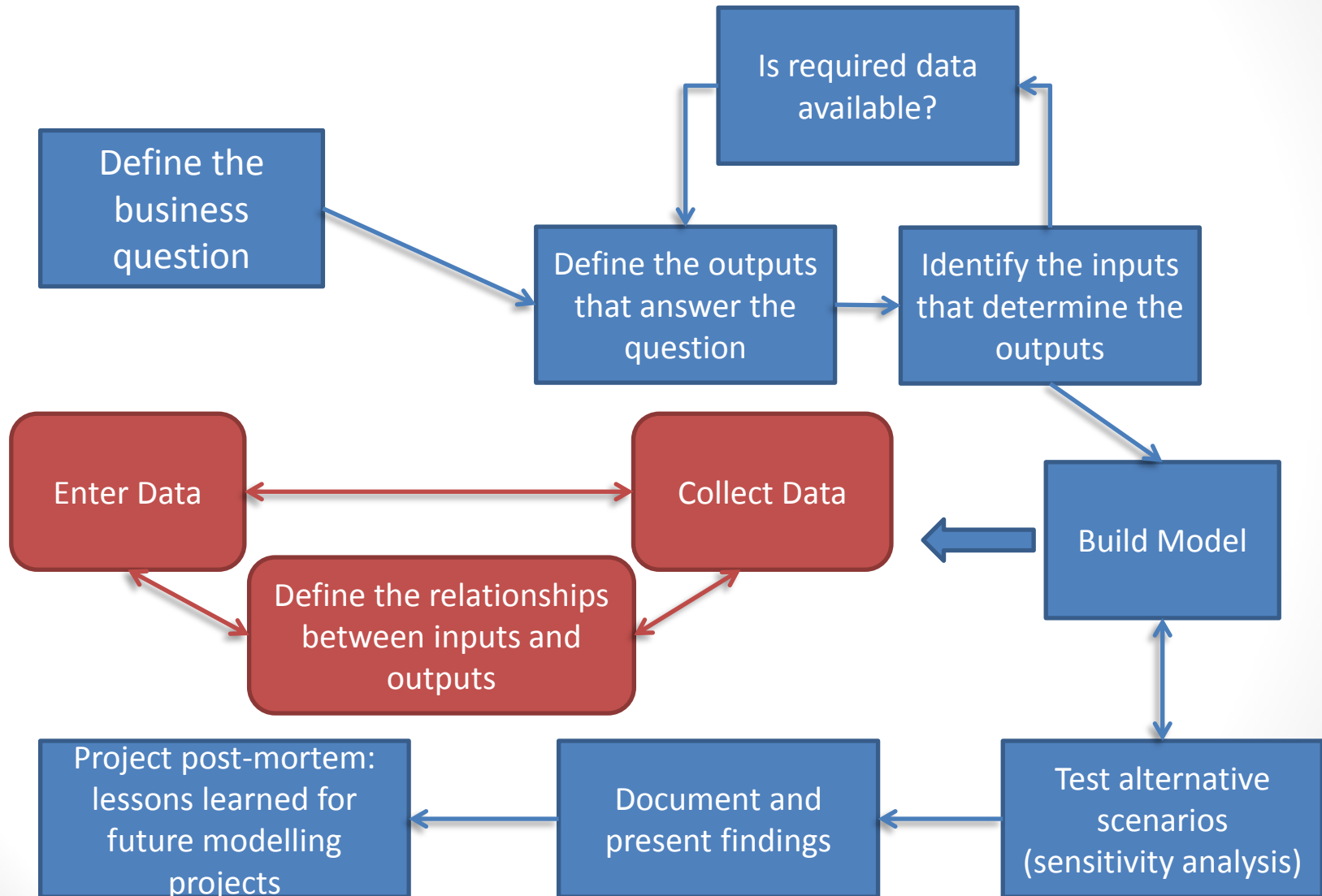
# **Best Practice in Modelling and Report Writing**

BN2255 – Business Analytics in  
Practice

# Topics of this presentation

- Design principles for Excel Models
- Tips for a writing a technical report

# The modelling process



# When modelling...

- Be neat!
  - label your work (clearly!)
  - try to separate your work in concise parts and devote a specific space (usually a spreadsheet) to each part
- Be consistent!
  - before you start, pick formatting rules and stick to them
  - likewise, decide on the structure of your model at the start and don't deviate
- Be smart!
  - design your model such that:
    - Processes are clear
    - Results can be easily replicated
  - leave an audit trail!

# Some tips...

- Don't be afraid to use multiple worksheets
  - Does the addition of a worksheet make the workbook easier to view and use?
    - If yes, add another worksheet
    - Sometimes however, too many worksheets break the flow of the process and can be annoying to users
    - When in doubt, add another worksheet!
- Model 'flow' is an elusive concepts but crucial to successful models
  - Like a good essay, a good model has a clear beginning (introduction), middle (main body) and end (conclusion)
    - Start with your input data, proceed with designing the core of the model (calculations), finish with clearly defined outputs
  - Keep inputs, calculations and outputs separate
  - Facilitates model flow

# More tips...

- Don't hide important values inside formulas!
  - an important value (input), eg a discount rate, should have its own cell and all calculations should reference that cell
    - Results in an interactive model
    - Facilitates flow
    - Can be easily audited
- Design with the user in mind
  - Can a user efficiently interact with the model?
  - Can the model be easily audited?
  - If you come back to the model after a few months, will you be able to quickly re-familiarise yourself with its workings?
- Document your work!
  - Label appropriately
  - Name important cells and/or ranges
  - Use comments when needed
  - Use text boxes for longer explanations

# Reporting your findings

- Reporting your findings is a crucial part of business analysis
  - Even the best of models is not very useful if you cannot communicate its findings to the management/client!
- Technical report
  - Actual report (eg Word document), or
  - Presentation
- Structure very similar to an essay
  - Introduction
    - What is being modelled, why and how?
  - Main body
    - Problem in more detail
    - Methods and approaches
    - Results
    - Discussion (can also be part of the conclusion)
  - Conclusion
    - Summary of the results and their implications
    - Further work

# Report writing tips...

- Different from essay in that you can (and should be) more technical
  - Assumes that the reader is somewhat familiar with the general topic
  - The level of familiarity is crucial! Need to identify the target audience before writing!
- Accessibility is key!
  - Key facts and figures should be clearly reported and accessible
  - Not everyone will read the full report
  - For a longer report (10+ pages), an executive summary is a must
- Be brief and to the point
  - ‘Senior’ people have limited time (and attention spans)!
  - but harder to write a short report rather than a long one
    - usually, a short report is a condensed version of a longer one!
- Make use of tables and graphs when possible
  - Don’t forget to label them properly!