



# University of Bristol Business Intelligence Financial Measures

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# Agenda

- Our aims
- Our approach to the project
- Our experience and issues encountered
- Next steps
- Conclusions



# What did we set out to achieve

- Improve decision making
- Eliminate use (and development) of local systems and reduce duplication and reconciliation
- Ability to enquire and analyse centrally held data
- Provide one source of data so “single version of the truth”
- Enable scenario modelling
- Increase transparency and efficiency in the budget setting model



# Improving decision making

- Timely reporting
- Meaningful reports
- Actionable reports
- Appropriately targeted (i.e. sent to the right person to look at!)
- Enhancement of skills



# Eliminate use of local systems

- Departments previously used stand alone systems to manage their data eg hyperdata, excel, access, or ledger books
  - Huge duplication of input effort
  - Huge amounts of reconciliation
  - Huge amounts of “below the radar” processing and analysis, and local interpretation of coding structure.
- Combination of university wide procurement solution and reporting tool will eliminate **need**



# 🌟 Ability to enquire centrally held data

- Central finance system was perceived as “black box” and often “incorrect” due to the processing “lag”.
- The solution needed to allow departments to view their own data in as close to real time as possible/practical, whilst still ensuring data integrity and security within the source system.
- Further eliminate need for local systems



# Single source of data

- Less maintenance
- Less training
- Removal of reconciliation effort
- Ensure colleagues come to meetings armed with exactly the same data (not approximately the same)



# Improve the budget setting process

- Reduce the current multiple spreadsheet approach via BPC
- Improve version control
- Improve transparency and audit trail
- Enable forecasting and scenario modelling



 And,

- If possible, implement a generic solution that can be extended across all business areas



# How did we approach it

- Wide ranging review of user requirements (be wary of skew towards particular user groups)
- Developed a detailed statement of system requirements & underwent a tender process for both software & implementation support
  - Site visits & references were key
  - Process takes a long time
  - As much about the consultancy as the software
- Selected Blueprint to implement Business Objects
- Business case was approved



# Getting us up to speed!

- Training in datawarehousing
  - What does it mean?
  - How do you go about it?
  - What should we look out for?
  - How might you go about managing issues with source data?
  - Etc
- Extremely beneficial



# Blueprint approach - the analysis

- Review of UOB work to date
- Senior Stakeholder Interviews (across the business)
  - What are your key business questions?
  - What do you “want” to know about?
- The aim was to try to get people to think creatively and **not be** constrained by what they get now.



# Datawarehouse Design

- Detailed design discussions were held with systems managers and key data users
- Output was a detailed map of the data dimensions and the overall solution.
  - Very complex, and very technical.
  - Needs to be walked through and agreed by those close to the data/source systems
- Note, did not design the report outputs at this stage



# The development

- Undertaken in partnership
- Iterative
- Uncovered significant issues that needed addressing urgently:
  - Security model
  - Coding structure – in particular the organisation hierarchy
- Progress was constrained by resource availability in the business
- Testing of the warehouse is a big task and was key
- Standard suite of reports were written with the business



# The implementation

- Training developed and delivered by internal training division
  - Balance between functionality and content
- Licence allocation challenges
- Slow roll out
  - Context of organisational change
  - Extends UAT
- Already seeing some benefits, particularly around accessibility of data.



# Issues encountered

- The initial design phase was fast and driven by the implementation partner.
- Insufficient time/resource was given to developing our thinking. As a result the tendency was to resort to the status quo or to make decisions on the fly. Opportunities were missed or expensive reiteration was required
- Initially attempted to deliver both financial and student reporting in one go but as an organisation we did not have the capacity.
- Assumptions were made on both sides regarding aspects of the specification (eg regarding access security and differences between how we handle research budgets and university budgets)
- Change of Finance Director led to change of vision...



# Issues encountered

## Coding structure

- Our organisation hierarchy needed some significant changes to maximise the usefulness of the reporting tool
  - All source systems needed to be brought in line; they **MUST** use identical versions of the hierarchy and interpret the codes in **EXACTLY** the same way
  - We also had problems with holding data at multiple and inconsistent levels both within and across systems. This limits the ability to cascade and roll up data, and therefore to drill down and enquire data effectively.
- Opportunity to review the nominal coding and refine.
  - The existing codes were inconsistently interpreted and there were too many
  - Needed to look carefully at what data would be provided from other systems e.g. commodity codes, salary coding etc.
- Culturally difficult for business areas to let go of control of data integrity but necessary if you are going to achieve one truth and elimination duplication.



# Next steps – refined approach

- Determine an updated route map for developing the datawarehouse and writing reports.
- Deliver in blocks sequentially.
- Review in detail state of source system before starting. Make changes first (where practical!).
- Spend a lot of time on the design, challenge the status quo, and look for simplicity
- Free up resource in the business to undertake the design.



# Conclusions

- Only the business really understands the business
- Do not rush (expensive when you get it wrong!)
- Design the full solution before you start
- Identify and agree the resource requirements – MORE than you think.
- Ensure you have the appropriate experience and skills to deliver. Implementation partners can be very effective but ensure a good knowledge transfer
- Get your source systems in order; bad data in = bad data out.

