Build a business intelligence platform in six months

Geoff Edlund
Analytics Director
Open Universities Australia

Belinda Travis
Delivery Manager Southern Region
Focus Strategies & Solutions

Agenda

- Introduction to OUA and Focus

- The Need for a BI Platform

- The Platform

- The Process

- Model, Cube and Query Samples

- Dashboards

- BI Platform Benefits

- Speed of the Process

- Improvements

- Keys to Success

Introduction to OUA and Focus

- Open Universities Australia (OUA) is the national leader in online higher education

- We provide access to units and courses from 18 leading universities and higher education providers nationally

- Focus Strategies & Solutions are the IBM Cognos Partner of the Year 2008, 2009, 2010 – Australia
  - IBM Information Management Partner of the Year 2010

The need for a BI Platform

- OUA grew by over 20% per year - range and volume of data exceeded our available tools

- As the business grew, there was an increasing demand for reporting and analysis in areas such as Marketing, Product, and Operations

- Needed a system that would:
  - Allow for quick analysis using a data cube
  - Increase the speed of report development and production

Vendor Selection

- An initial review of the BI market found several key players, and this was eventually shortlisted to two

- Cognos was selected as the ideal tool, and Focus as the implementation partner for their experience in Higher Education and project management

Vendor Selection

- Why we chose Focus
  - Strong initial presentation to the selection panel and management
  - A good initial understanding of the student and enrolment data

- Key benefits of Cognos over other systems
  - The software is scalable, it can be incorporated with a set of IBM products that covers reporting, analysis, models, and financials

- How this gives us a competitive advantage
  - Improved reporting on customers, products and business channels

The Platform

- It took six months to build a BI Platform that included:

  - Relational SQL views

  - Metadata Model (Framework Manager)

  - PowerPlay Student Enrolments cube (Transformer)

  - Reports and Dashboards (Report Studio and Analysis Studio)

  - TM1 (financial modelling)

The Process

- SDLC (Standard System Development Lifecycle) used:

  - **Requirements** gathering - stakeholder interviews across the business, then a detailed Requirements Document was constructed

  - **Scoping** and prioritisation of work

  - **Stakeholder** buy-in and sign-off on Requirements Document

  - **SQL views** built based on key tables in the source system

  - **Hardware and software** installations

  - **Analysis phase** to determine best approach to the design

The Process

- **Metadata** Model and Cube design and build

- Metadata Model and Cube system test

- **Report and Dashboard** build

- **Testing** strategies, plans and scripts were developed

- **Report System Testing** was conducted

- **User Acceptance Testing** (UAT) was conducted
  - The team met regularly to resolve any issues
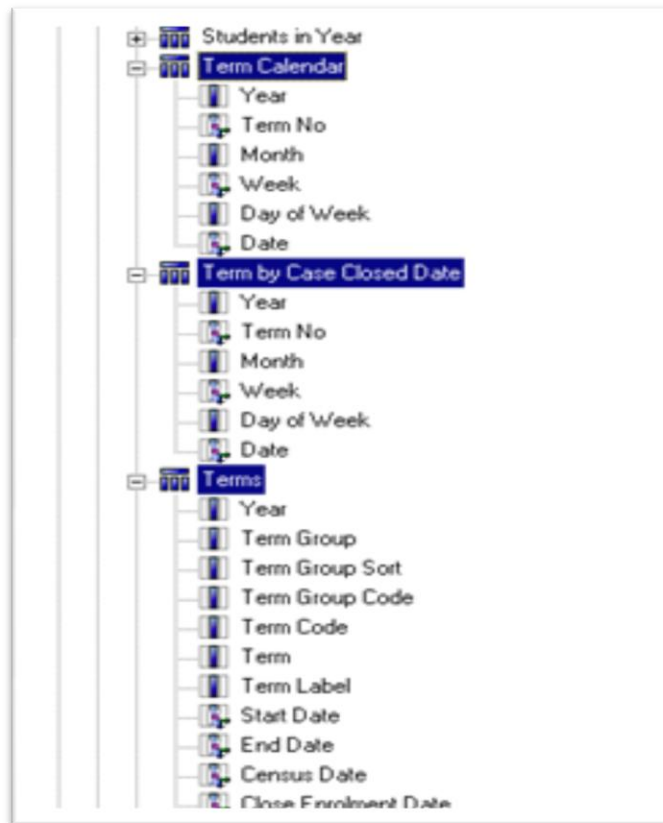
The Process

- After the resolution of any **issues**, the reports were deployed to production and then stabilised

- **"Go Live"** the week after deployment

- Users were **trained** on the new reports
  - And now some shots of the models…

Model Shots
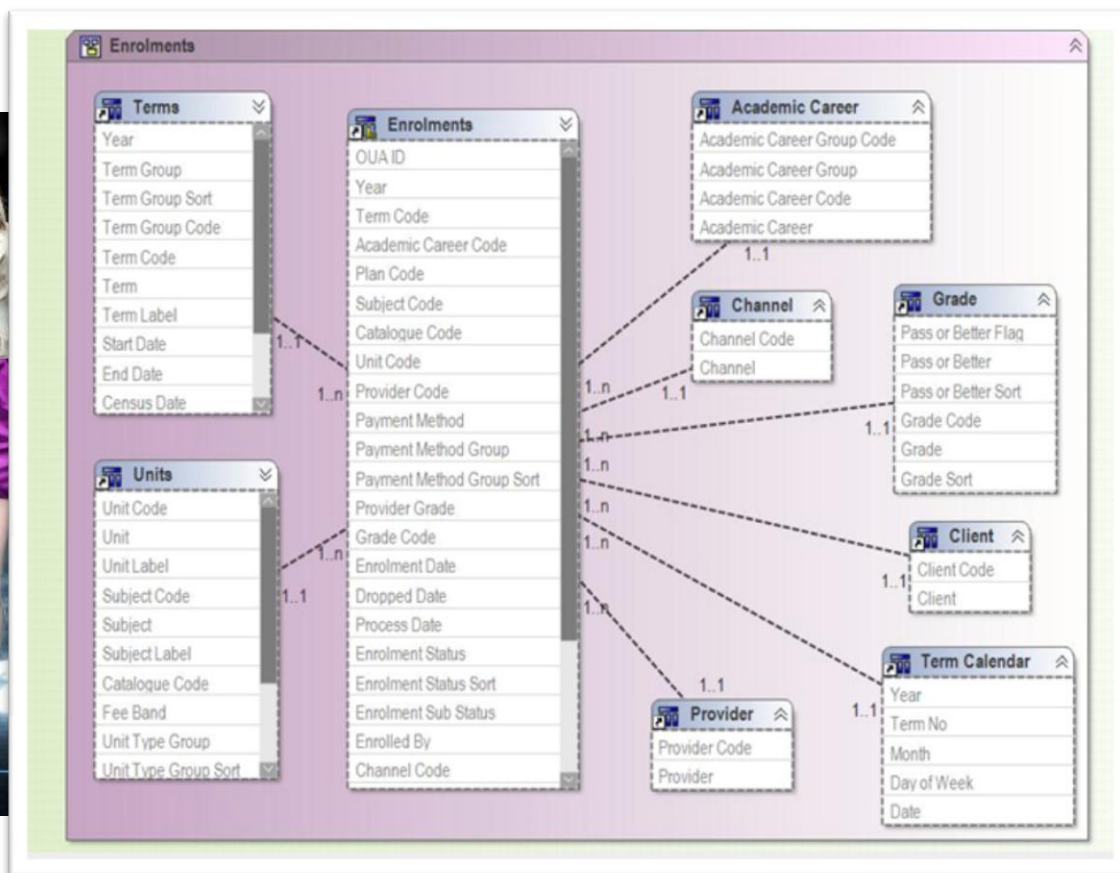
Framework Manager

- Allows use of multiple time dimensions

Cube Shots

- Example of the objects in the Student Enrolments Cube
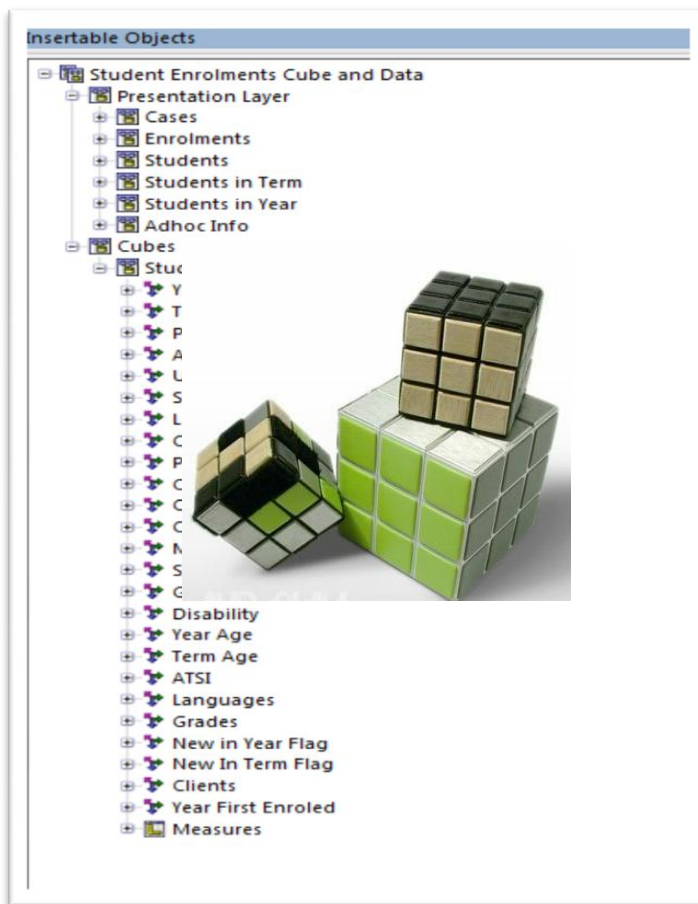
Reports Studio

- Using the top count function to rank enrolments by country
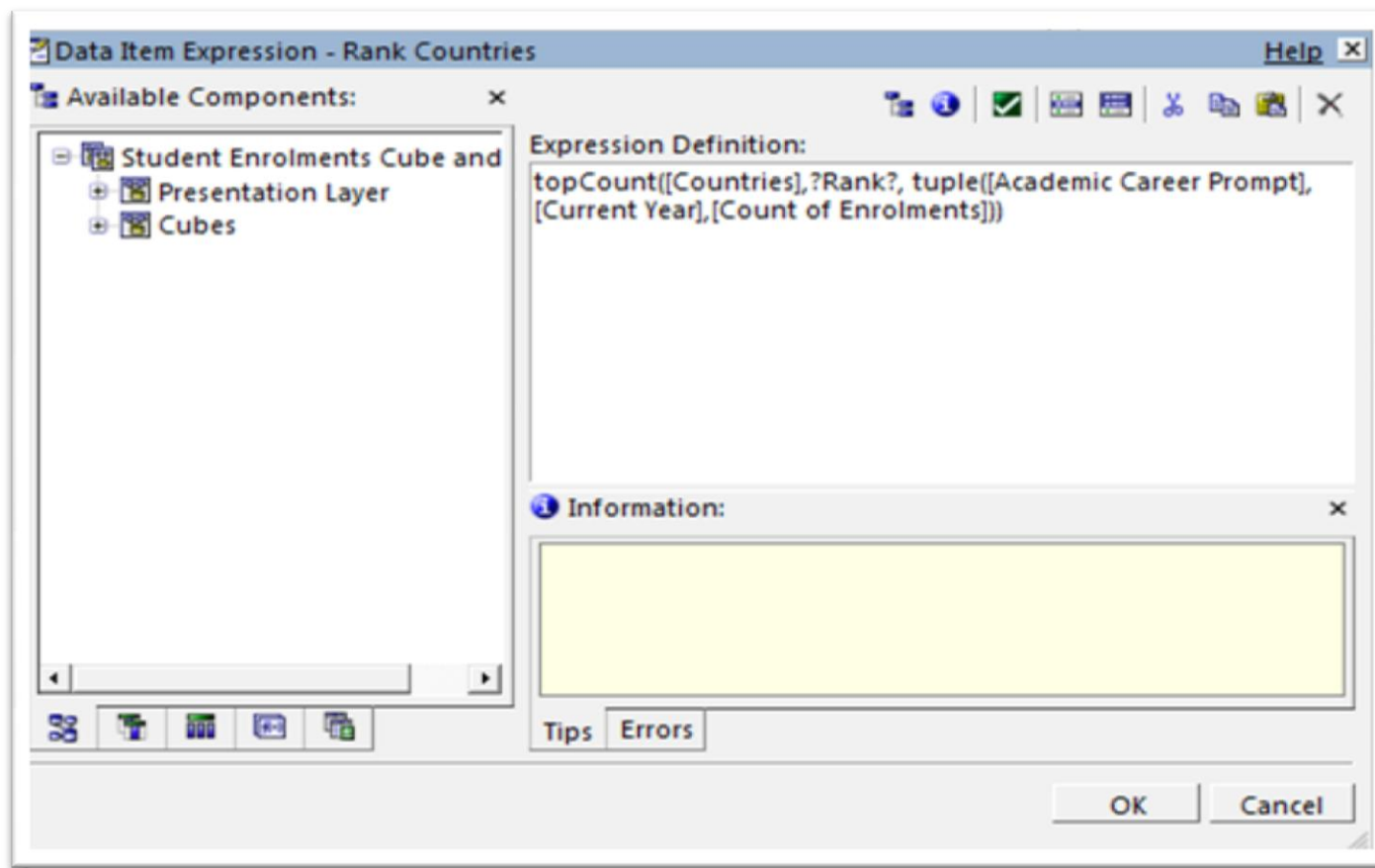
Reports-Dynamic Prompting

- The dynamic prompting supported by the Cognos BI platform

Executive Team Questions

- Is online education more popular with women or men?

Term Report
For 2010

Student Count

Gender	SP3 (percentage)
Total	100
Female	66
Male	34
Not Specified	0

Executive Team Questions

- What's the most popular subject to study online?

EDP120	Introduction to Teaching
ECO11	Microeconomics 1
EDP125	Development and Education
EDP135	Introduction to Curriculum
CCJ15	An Introduction to Crime
ACG11	Accounting for Business
SSK12	Introduction to University Learning
EDE101	Effective Communication:

TM1 Financial Modeling

- Initially designed to provide a consistent price modelling structure for future development of financial reports

- Upgraded to provide efficient, consistent modelling of subject and band level profitability
  - Using either a top down allocation or a set of built up processes

- OUA fees and costs can be directly correlated to the modelled data - minimal inputs provide a working model for forecasting OUA's contribution margin

Dashboards
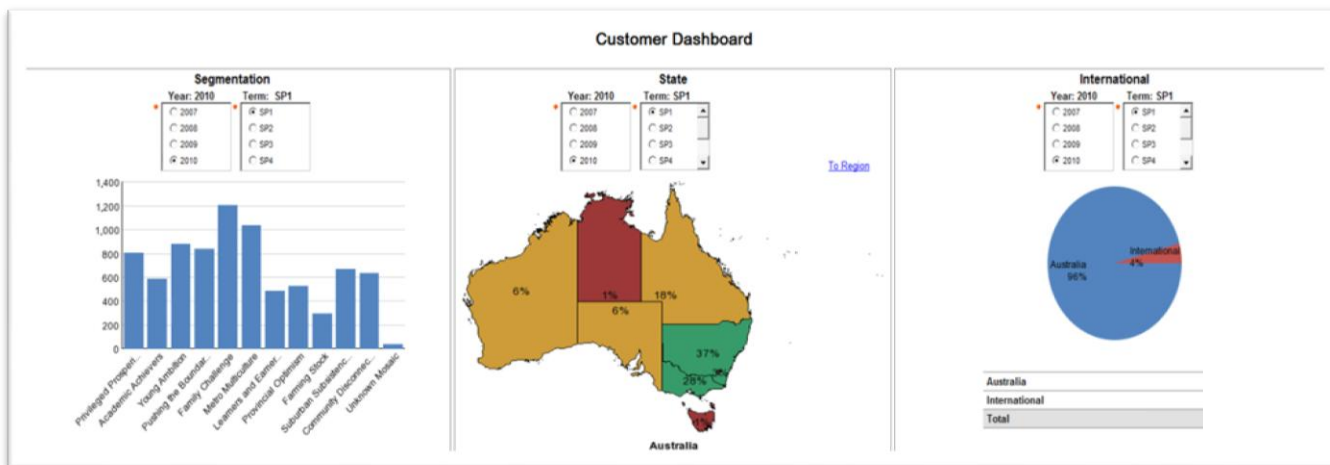
Benefits of the New BI Platform

- Provides reporting to support **decision-making** across the business
    - **Faster** reporting and business efficiency
    - Can answer queries 'on the spot'

- **Live data** available for the call centre instead of just a daily snapshot

- **Customised** reporting for people/departments
    - **High level and 'drill-down'** detailed reports

- Users can **self-manage** the system after implementation

Speed of the Process

- Implementing a new Platform including data cubes and a wide range of reports would usually take up to a year – this took six months:

    – Followed our milestones / attained sign-off

    – Strict with project scope

    – Released reports gradually to get feedback and learn

    – Trained developers internally as we went

    – Trained users

    – Business SMEs who were part of the requirements gathering were part of UAT

    – Focus available for post-implementation support

Speed of Process

- Strong and consistent communication and Project Management was vital:

  - Buy-in from Senior Management
  - We had a plan (weekly WIP)
  - Status reports
  - Tracked risks and issues
  - Focus developers on-site
  - Shadowing and knowledge transfer

Future Improvements

- More in-depth documentation

- Tight timelines

- Training internal staff

Next Steps

- Next steps: re-invest each year as build on success

- Stage 2 underway
    - Integrating SPSS for statistical modeling in to the platform and
    - Developing further TM1 financial models
    - Surveys
    - Research
    - Website data
    - External data

Questions

www.open.edu.au

Thank You