

## Build a business intelligence platform in six months

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# 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

**Cognos.**  
software

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# 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



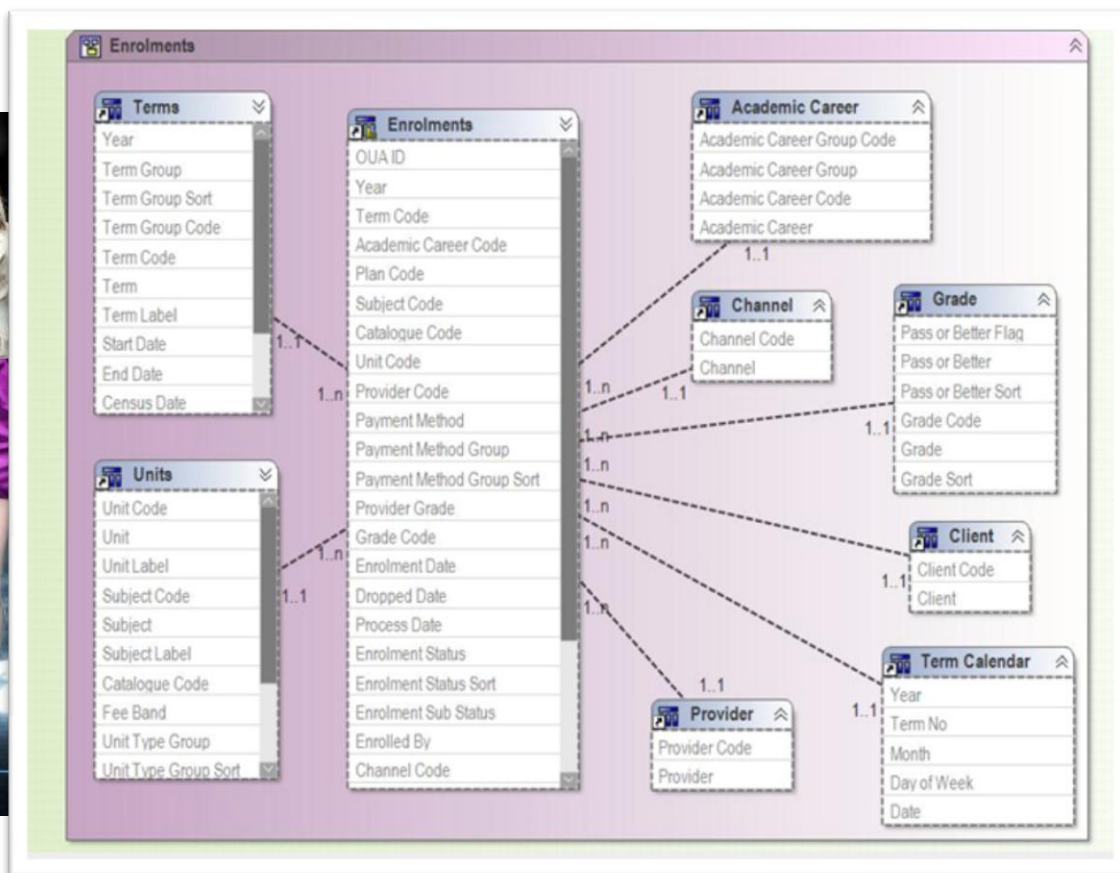
# The Process

- **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

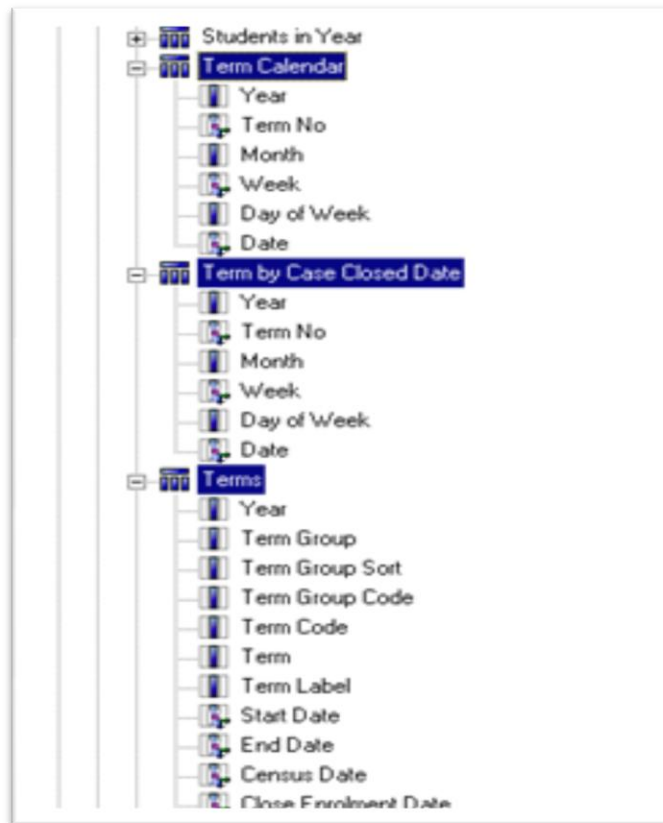
- After the resolution of any **issues**, the reports were deployed to production and then stabilised
- **“Go Live”** the week after deployment
- Users were **trained** on the new reports
  - And now some shots of the models...

# Model Shots



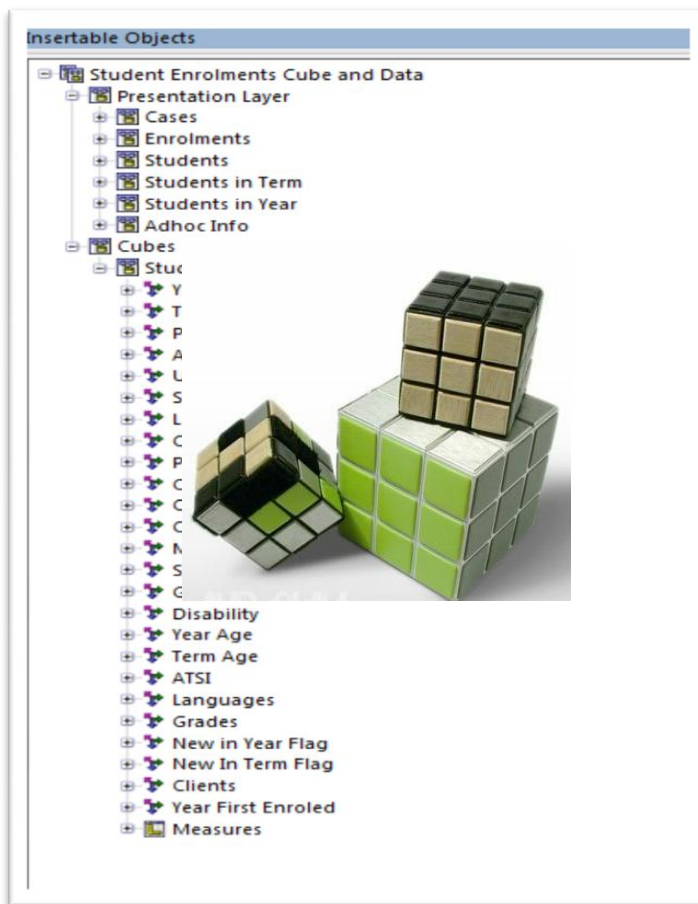
# Framework Manager

- Allows use of multiple time dimensions



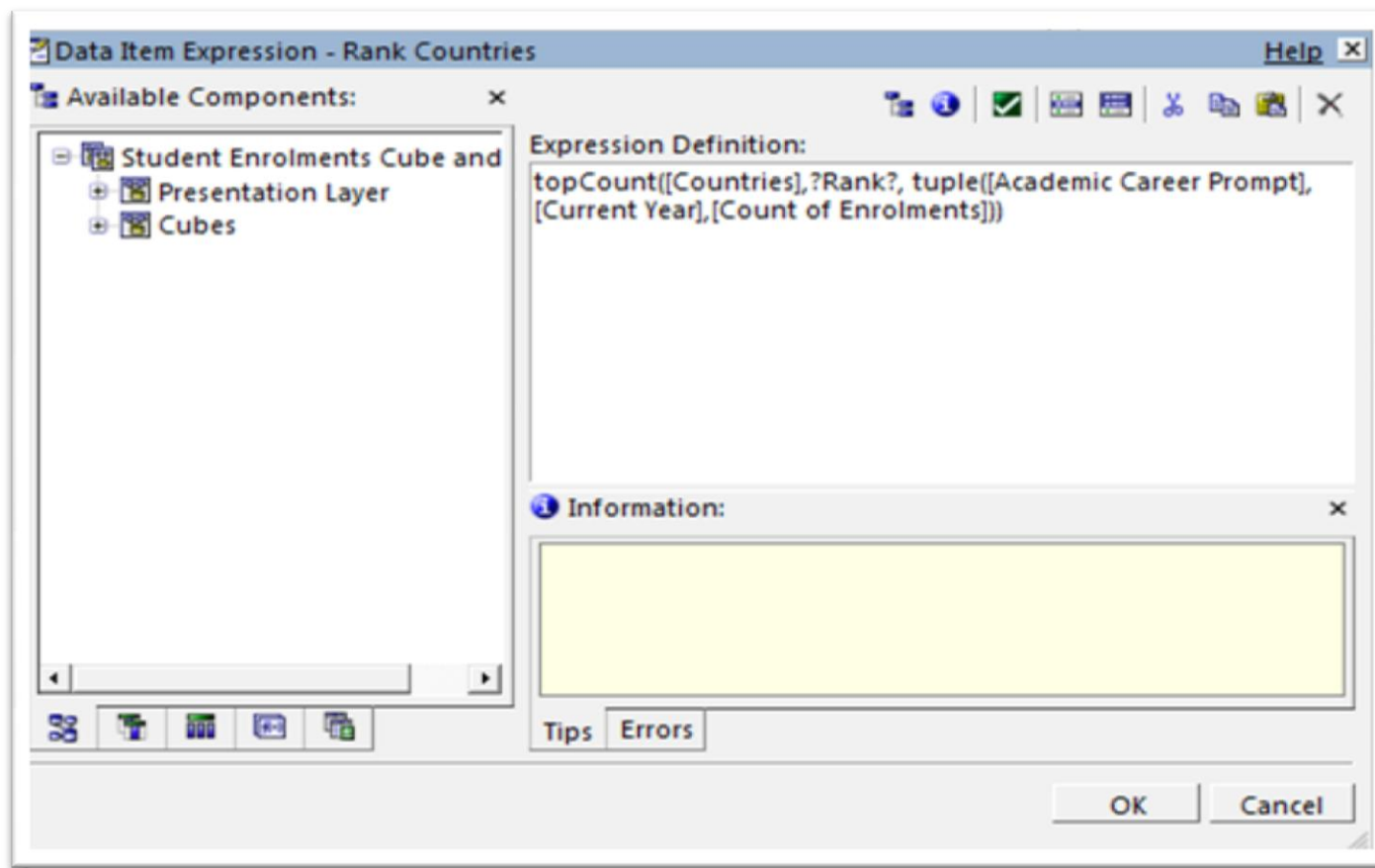
# Cube Shots

- 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



Ranked Unit Growth Enrolment by County or Citizenship  
For 2010

Top 10 Countries Ranked by Undergraduate

	Undergraduate	Postgraduate	Vocational Education, Training	Non Award - Preparatory	Non Award	Total Academic Careers
United Kingdom	389	49	4	1	1	444
United States	267	47	1	0	0	315
China	225	37	0	1	1	264
Hong Kong	212	10	2	0	2	226
Singapore	167	27	0	0	1	195
Japan	164	46	0	1	0	211
Canada	149	21	0	0	3	173
United Arab Emirates	144	18	2	1	2	167
Thailand	133	14	2	0	1	150
New Zealand	119	19	0	1	2	141
<b>Total</b>	<b>1,969</b>	<b>288</b>	<b>11</b>	<b>5</b>	<b>13</b>	<b>2,286</b>

Selec

Ranked Unit Growth Enrolment by County or Citizenship  
Tuesday, 14 September 2010 12:36 PM

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# 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

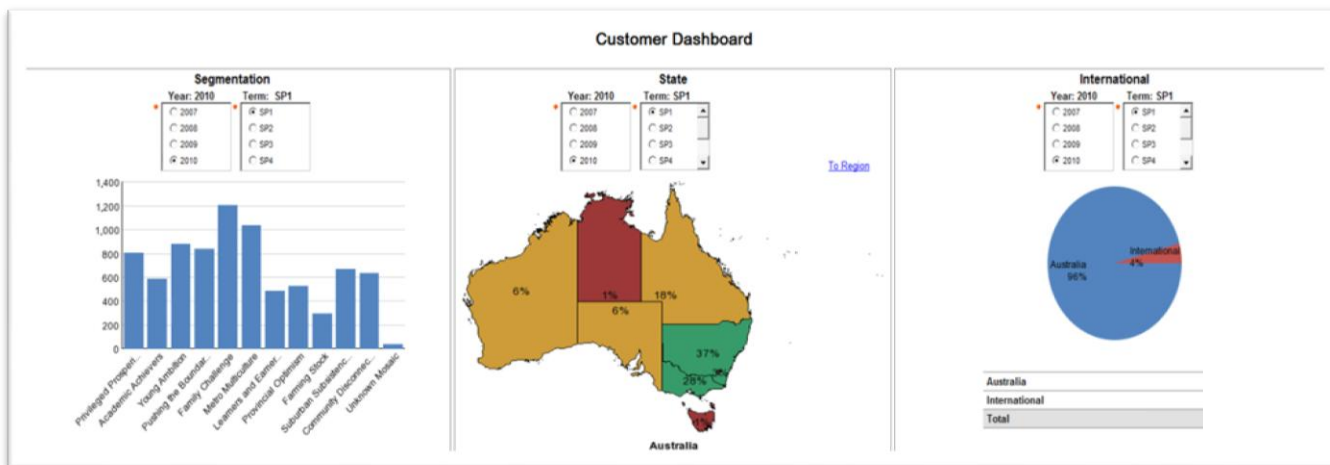
- What's the most popular subject to study online?

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

# 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](http://www.open.edu.au)

The screenshot shows the Open Universities Australia website homepage. At the top left is the logo "Open Universities AUSTRALIA". To the right are links for "Skip to main content", "Sign in", and "Register". Below this is a search bar with the placeholder text "Search: Enter a keyword". A navigation menu includes "Home", "Future students", "Courses & units", "Student admin & support", "About us", and "My OUA". The main banner features a woman looking out a window with the text "Open your mind. Study online at your own pace with courses provided by Australia's leading universities." and a "View OUA courses" button. Below the banner is a "Find a course or unit" search bar. The "Browse courses" section lists categories like Preparatory, Arts, Business, Education, Health, IT, Law & justice, and Science. A featured "Preparatory courses" section includes an image of a man pointing at a document and the text "Take advantage and get a head start through these targeted preparatory courses." with a "Preparatory courses" button. On the right, there are sections for "Take a new step" with an "Enrol online now" button, "Call a Student Advisor" with contact numbers for Australia and international calls, and "Contact us online" with an "Enquire online" button. At the bottom right, there is a "Student admin & support" section with a "Key dates" link.



# Open Universities

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Thank You

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