



University of Nottingham: Student Planning

Simpson Associates: **CASE STUDY**
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The University of Nottingham deploys a student planning application using IBM Cognos 8 Planning, Business Intelligence and Simpson Associates.

Background

Nottingham is one of the UK's leading universities and its distinctive research mission is well known internationally. It excels in knowledge transfer, has a long history of excellence in teaching and its international strategy sets it apart in ambition, depth and achievement.

There are approximately 35,000 students on campuses in Nottingham, China and Malaysia.

The Planning & Management Information Division (PMID) support the University's planning process through the provision of policy advice and management information. This includes student statistics, HESA and HESES statistical returns, the calculation of student number, load and income forecasts, the conduct of surveys and the gathering and analysing of market intelligence.

The Problem

Each year, the PMID provides the schools within the University with a forecast of their student numbers and associated income for the next four years. The calculation needs to account for:

- The type of student (e.g. FT/PT, Home/International, Undergraduate/Postgraduate, Research, etc.);
- Students leaving part way through a course (retention);
- The stage of the course (i.e. 1st year, 2nd year, etc.);
- Direct entries from the University campuses in China and Malaysia and students on a year out;
- Fees varying by student type and year of course;
- Income allocations based on the modules students take and the budget unit that owns the course.

There are many exceptions to the rules for these combinations.

“Taking into account all of the variables and exceptions, results in a complicated process with complex calculations.”

Neil Davidson, PMID Planning Team Leader

The previous spreadsheet based system was becoming increasingly difficult and time consuming to manage. There are approximately 1,000 courses, 70 budget units and 30 different student types.

Because of the limitations of spreadsheets, the figures were aggregated at various stages, so the final calculations were not transparent and the PMID spent a great deal of time answering queries from budget units about their forecast numbers. In particular the numbers were not broken down to course level or stage of course. This meant that the PMID had to extrapolate the summary figures to course level; a time consuming exercise.

Also, an average fee calculation had to be used for international students as the spreadsheet model could not cope with the required level of complexity. An incorrect calculation could affect what the budget unit was allowed to spend, i.e. on new appointments, etc.

The PMID was familiar with the Cognos Business Intelligence product; some Cognos reports were already used within the University. Also, the PMID was aware that Cognos Planning was being increasingly used within the Higher Education sector. The next step was to decide whether to implement the solution themselves or to engage a Cognos Partner. The latter approach was chosen.

“We met with a number of other IBM Cognos service partners, before choosing Simpson Associates to support us in the Student Planning project. For us, the appeal of Simpson Associates lay with a combination of factors.

They demonstrated an initial insight into our specific needs, had a flexibility of methods and approach from the outset in both commercial and project terms, and they were committed to knowledge transfer as a key aim of the project.

Finally, the breadth of their experience across planning, forecasting, business intelligence, and data warehousing meant we had continuity of services from one solution partner, throughout the lifecycle of the project.”

Dr. Tom Loya

Director of Planning & Management Information

The Approach

Simpson Associates was engaged to design and manage the application delivery. The approach was based on the PRINCE2 methodology. A SharePoint web portal was used to ensure that all involved in the project had access to project specifications, logs and management reports.

Most of the actual application development was completed by the PMID staff under the guidance of Simpson Associates’ consultants. This enabled a rapid knowledge transfer during which time the PMID increased its skills base and became confident that it could maintain and further develop the application in the future. This level of application ownership was a key requirement of the engagement.

The solution was broken down into two components: a student numbers calculation and an income calculation. The models used Cognos Planning’s multi dimensional modelling capabilities to hold assumptions at a general and school level and a specific set of course rules by stage and student type. These were applied to the existing student population and the school targets to produce the four year plans.

The models are administered and run through a series of menu driven screens, with options to calculate only specific student types and/or years. When key assumptions are changed this enables only those affected parts of the model to be recalculated, which speeds up the process.

The plans are then imported into a Business Intelligence framework and reports are produced to show the summary and detail information for the schools to access using their existing reporting environment.

The PMID income forecasts are then passed seamlessly to the University’s Financial Reporting Department, which is conducting a joint Cognos Planning implementation project (also with Simpson Associates) covering the wider University budgeting system.

The Benefits

The four year plan is now produced in much more detail in less time. Summary level data can be broken down further with income streams and numbers now available at stage of course level. The calculation for international students is now done correctly, meaning courses have a more accurate allocation of income rather than the previous average.

After the initial set up of the assumptions, the four year plan is now produced in three to four hours, almost all of which is system calculation time, freeing up valuable resources. Amending a target and running it through the model used to be a very laborious process taking two days. Revisions to assumptions can now be processed in as little as 20 minutes.

The PMID now have a robust planning model with which they can change assumptions and compare different scenarios with confidence in the figures. Budget units are now more self sufficient and can access detail not previously available. This has freed up time in the PMID enabling more detailed analysis of income streams, which can help to drive future planning cycles.

The PMID are currently planning further developments to enhance the validation and exception checking as well as extensions to the current reporting suite.

Support from Simpson Associates

Simpson Associates are specialists in defining, building and implementing information management solutions. With more than 250 clients, the Company specialises in all aspects of information management solution delivery.

Our solutions provide better business understanding and improved business management performance. We have established and long standing partner relationships with Microsoft, IBM and Cognos, an IBM Company and our considerable skills and experience enable close-working relationships with clients both in the UK and abroad.

Contact us

Should you have any questions or require any further information, the team at Simpson Associates will be happy to help you with your request.

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