

## CASE STUDY

# PSU GRADUATES TO THE NEXT LEVEL WITH IBM COGNOS TM1

PERFORMANCE MANAGEMENT



### UNIFIED DATA

Data from different departments and other sources can now function together



### AUTOMATION

Data entry, processing, and reporting is automated for greater speed and reliability



### WEB-BASED

Remote accessibility, reduced cost of ownership, and more extensive integration



## A Leader in Higher Education

Portland State University (PSU), located on a 50-acre campus in downtown Portland, is a nationally acclaimed leader in sustainability and community-based learning. It is recognized throughout the world for programs like urban planning, social work and environmental studies. The University's position in the heart of Oregon's economic and cultural center enables PSU students and faculty to apply scholarly theory to the real-world problems of business and community organizations.

PSU has eight separate schools, 3,500 staff members, and offers more than 220 undergraduate, masters and doctoral degree options. It also offers graduate certificates and continuing education programs. PSU is Oregon's largest and most diverse university, with some 29,000 students who come from all over North America and almost 1,700 international students.

## The Inefficiencies of Excel, in a Demanding Industry

As a state-funded higher education institute, the efficient planning and management of all revenue sources and operational expenses is paramount to PSU. With public pressure to increase services while limiting funding, the efficient planning and use of these funds is fundamental to PSU's success and reputation as a leading higher education institute.

Furthermore, having an efficient and accurate enrollment planning process is also paramount. Foremost, student enrollment is the university's primary revenue driver. It also allows PSU to more effectively plan its upcoming operations and services, and to ensure the proper quality and capacity of educational services.

The finance team was leveraging Microsoft Excel to manage these key financial processes, and with Excel came all the usual challenges. Gathering and consolidating the required data from 50 separate departments/academic offices, among eight separate schools, was challenging. This was a manual and fragmented process that was inefficient, burdensome and fraught with potential errors. PSU needed a modern, robust and flexible planning and performance management system to meet the intense demands of the higher education industry.



## Automate, then Evolve the Solution

The goal of the original TM1 implementation was simply to move from a spreadsheet-based planning model to a tool that would:

- ▶ Automate the manual process of downloading, inputting, reviewing and approving annual budgets (for a large number of organizational units)
- ▶ Allow for easy management of multiple budget versions
- ▶ Improve upon timeliness and accuracy
- ▶ Automate integration of Ellucian Banner (EB) data via its Operational Data Store (ODS)
- ▶ Leverage its existing Cognos Business Intelligence environment

However, as its understanding of TM1's potential increased and through various phases of project discovery, PSU has evolved its expectation to use TM1 as a multi-purpose performance management solution:

- ▶ Structured planning by Index/FOAPAL
- ▶ Multi-year financial forecasting
- ▶ Fiscal year reporting and analysis
- ▶ Strategic enrollment management
- ▶ Employee and position analytics
- ▶ Fines and fee approval process

These PSU TM1 solutions will build the framework for a fully automated and integrated web-based performance management solution

## Evolution of TM1 as PSU's Performance Management Solution

The scope of the initial deployment of TM1 at PSU was focused on automating the overall budget process, modeling and integrating the Student Fee Committee (SFC) forecasting process, and configuring integration with Ellucian Banner via ODS to address its immediate objectives. PSU engaged Prolifics for this initiative because of our vast TM1 experience and its value-added TM1 Accelerator solution, which jump-starts TM1 projects and facilitates smooth integration with source systems.

The budgeting solution includes a web-based, workflow-driven application that automates the collection and aggregation of all revenue and operating and personnel expenses budget data from its 30+ fiscal officers across its 400+ organizational units. The Prolifics TM1 Accelerator is leveraged to integrate EB "FOAPAL" (Funds, Org, Account, Program, etc.) structures and other dimensions into the solution, automating source system integration and ensuring data integrity. The SFC solution automates the SFC revenue, operating expenses and salary expenses forecasting process. This includes allocation of student fees to organization units and integration into the overall budget model structure.

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*Previous to TM1, no PSU system could provide tuition revenue data attributable to a particular Academic Unit or department. PSU now has this extra granularity providing more insight than previously possible.*

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Once the foundation of the budget application was in place, Phase 2 focused on modeling the tuition revenue planning processes. This included key driver modeling such as tuition fees, student head count and credit hours. The existing Excel-based models were manually intensive, disconnected and inconsistent across the various academic units, and not always using the same source historical data. This made the process inefficient, and limited the accuracy and analytic capabilities around this data.

### Customer Profile

- ▶ Nationally acclaimed school in downtown Portland
- ▶ Over 3,500 staff members, 29,000 students
- ▶ Over 220 degree and educational program offerings across eight schools

### Key Challenges

- ▶ Limited public funding creates constant pressure on expense management
- ▶ Challenges with accurate student enrollment planning
- ▶ Existing Excel templates were fragmented, inconsistent and manually intensive
- ▶ Difficult to consolidate data from various academic and administrative offices
- ▶ Data integrity

### Objectives

- ▶ Structure and automate the university-wide budgeting process
- ▶ Automate data integration with Ellucian Banner
- ▶ Overall process optimization and automation
- ▶ Standardize and integrate planning sub-modules

### Results

- ▶ Integrated web-based, workflow-managed planning solution
- ▶ Significantly shortened budget and forecast cycles
- ▶ Automated integration of Ellucian Banner structures and data
- ▶ A low-maintenance and efficient solution with minimal burden on Finance
- ▶ Better data, better analytics!



*“Prolifics was able to take a budgeting system which was inadequately designed and turned it into a fully functional system which is user friendly, much easier to maintain, and incorporates ‘best practices.’ PSU was so impressed with Phase 1 of the project that we re-engaged Prolifics for our second phase, which totally integrates the enrollment planning process here at PSU into the overall budgeting process.”*

*Robert Naranjo  
Business System Analyst/  
Programmer  
Portland State University*

As part of this initiative, several processes were modeled in TM1 in order improve the planning and forecasting of this key data:

- ▶ **Student Enrollment Model.** This TM1 model calculates trends based on historical Head Count (HC) and Student Credit Hours (SCH) data to automatically forecast student flow data. Doing so takes into account drop-out and graduation rates, setting the base for the course model. This model provides additional analytic abilities, for example, identifying high drop-out rate areas so the school can take action.
- ▶ **Course Enrollment Model.** A standard course planning TM1 model has been enforced across all Academic Units (AU), allowing each AU to forecast HC and SCH by course number, instruction method (traditional, hybrid, online), and by campus type. The solution automatically generates course fee revenues based on the course fee tables, which will eventually drive out the course fine/fees annual proposal and approval process.
- ▶ **Tuition Model.** This TM1 model provides a more automated and accurate tuition revenue process leveraging more granular HC, SCH, and rate data, historical student-course profiles and tuition exemption data to calculate forecasted tuition down to the course level. The model includes differential tuition revenue planning and analysis capabilities for cross-program tuition, a new capability for each AU. Previous to TM1, no PSU system could provide tuition revenue data attributable to a particular AU or department. PSU now has this extra granularity providing more insight than previously possible.
- ▶ **Out-years Model.** This TM1 model leverages HC, SCH and tuition revenue data from the enrollment planning models for the current forecast year. This facilitates out-year (2-5) forecasting for revenue and expense by adjusting multiple drivers.
- ▶ **RCAT Tool.** The Excel version of the Revenue and Cost Attribution Tool (RCAT) was replaced by TM1. This tool takes education and general revenue and expenses and attributes it to individual AUs. This, combined with the more granular tuition revenue data, provides more accurate AU financial performance analysis than was previously possible.

*~67% Efficiency gain for RCAT planning*

Overall, with Prolific’s help, the implementation of TM1 has vastly improved PSU’s performance management capabilities. “Prolifics was able to take a budgeting system which was inadequately designed and turned it into a fully functional system which is user friendly, much easier to maintain, and incorporates ‘best practices.’ PSU was so impressed with Phase 1 of the project that we reengaged Prolifics for our second phase which totally integrates the enrollment planning process here at PSU into the overall budgeting process,” says Robert Naranjo, a business system analyst/programmer at PSU.

With TM1, key sub-models around enrollment planning will now drive student fee revenue and, in-turn, drive the PSU operating budget. This integration will allow for real-time impact analysis as key drivers such as student head count, residency rates, and drop-out and graduation rates can be manipulated to see the impact on revenue. Models across the university are more consistent and accurate, and data integration with EB structures is automated and centralized. Therefore, not only does PSU reap the efficiencies of not having multiple resources manually integrate data, but also has the assurance that source data is accurate and controlled. Cycle time to complete budgets and forecast is also significantly reduced, with a 67% efficiency gain in some planning models such as the RCAT.

“As PSU began planning for our flavor of Performance-Based Budgeting, we realized we needed the ability to focus on analysis of information rather than just trying to wrestle Excel spreadsheets. TM1 has allowed us, both centrally and within each budgetary unit, to focus on what the data tells us rather than just collecting it. It allows us to actually make data driven decisions rather than just driving data,” says Alan Finn, Associate Vice President Budget and Finance at PSU.

Moving forward, PSU now has more analytic capabilities on its data than ever possible before. As PSU continues to leverage TM1 with Prolific’s assistance, these capabilities will only get better. They shall also further position PSU as a leading higher education institute for performance management.