

SAP Innovation Awards 2023

Entry Pitch Deck

Beyond the Go-live: Penn State Trailblazes Through a Research-Intensive Focus

Penn State University

PUBLIC





Company Information

Company Name	Penn State University – SIMBA Business Intelligence	
Headquarters	State College, Pennsylvania	
Industry	Higher Education	No of Employees 34,604 (Penn State's Data Digest)
Web Site	https://www.psu.edu/ https://www.simba.psu.edu/	

The Pennsylvania State University (Penn State) was founded in 1855 and is consistently ranked among the top universities. Since the 1930s, Penn State has been Pennsylvania's largest source of baccalaureate degrees, awarding more than half a million total degrees. "SIMBA" is the name of Penn State's financial system and stands for the System for Integrated Management Budgeting and Accounting. SIMBA replaced the university's 30-year-old finance, procurement, and budgeting mainframe ("IBIS"), as well as other related applications. SIMBA originally went live in July 2020, coinciding with the COVID-19 pandemic.

As a multicampus, land-grant, and public research university, Penn State educates students from around the world and supports individuals and communities through integrated programs of teaching, research, and service. From preventing the [spread of malaria to developing sustainable farming](#) practices Penn State University is pushing the boundary of discovery and innovation through research enabling them to drive impact locally and globally.

The SIMBA Business Intelligence team is charged with managing Penn State's SAP financial reporting modules. Behind the scenes of the BI team, the Penn State Research Administration Task Force, is leading the digital transformation through SAP S/4HANA technologies that are supporting the visibility of data across the various research centers and administration.

Trailblazing Through a Research-Intensive Focus

Penn State University



Challenge

As of December 2020, our new SAP financial system was still in the stabilization phase and had not yet reached a fully steady state; one critical area that needed to be addressed was research administration. End-users were experiencing challenges with account setup, budget uploads, master data, and billing. SIMBA go-live also exposed business operations issues that needed to be addressed holistically, especially with respect to staffing needs. This task force was charged with addressing the issues, with a focus on what support is needed for a fully successful post-award research administration transition to SIMBA.

Solution

Our legacy financial system was a cash accounting system, whereas SIMBA is an accrual accounting system. However, based on many important factors, Penn State made the decision centrally to use cash accounting in Grants Management within the overall accrual accounting system. We now have reports that compare the accrual with the cash so that end users know where they stand, especially in relation to the grant closeout process.

We also enhanced our SAP S/4HANA Embedded Analytics reporting out of our live transactional system directly with SAP Concur, our travel and expense module. This integration enhancement functionality has been groundbreaking and includes back up details to support the close out process for the sponsor.

Outcome

Penn State reached a record [\\$1.034 billion in research expenditures](#) during fiscal year 2021-22, an overall 4.1% increase from the previous year. The SAP S/4HANA technologies continue to aid in the advancement of our land-grant mission.

The Penn State research program has been driving innovations in critical areas such as climate change and health disparities, and it has been having a transformative impact on fundamental discovery, creative works, scholarly endeavors, economic development, and national security.

The SAP S/4HANA Embedded Analytics architecture is supporting the major societal challenges and the imparting knowledge on our students so that they can do the same for generations to come.

\$1.034B

SAP supported research expenditures with broad, wide-ranging impact

>626M

SAP S/4HANA report executions that automate, connect, and simplify departmental expenses

25%

Faster and more meaningful analytics that allow for the efficient delivery of research requirements

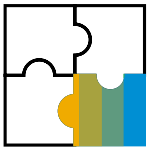


Thanks to the efficiency of SIMBA, our research administration offices no longer need to maintain their own spreadsheets and use more than one system to conduct most of their business. This **improved efficiency** is being realized quickly by our end users.



***Corry Bullock**, Penn State IT Enterprise Systems and Services Grants Management Lead, SIMBA, Penn State University*





Participating Partner Information

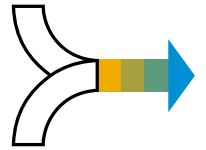
invenioLSI

For both the SIMBA July 2020 go live and this latest SAP Analytics project, [invenioLSI](#) had been instrumental in helping the Penn State Business Intelligence team to learn the new SAP reporting technology. This was an exceptionally talented group of SAP Solution Architects who had a detailed understanding of the SAP S/4HANA landscape.



A team of five invenioLSI SAP Solution Architects partnered with the SIMBA teams to address the collective findings and recommendations of the Penn State Research Administration Task Force. The Penn State department task force worked closely with the SIMBA and invenioLSI teams to deliver additional enhancements around the areas of Labor Distribution, SAP Concur Travel and Expenses, Sponsor Invoice Details and Closeout, and myFunds research reporting.

Challenges and Objectives 1 of 2



Global Challenges

Supported with SAP S/4HANA!

- Penn State's **record-breaking research expenditures** has broad, wide-ranging impact
- At this link below, Penn State's Senior Vice President for Research, Dr. Lora Weiss, summarizes how **Penn State research is helping** to conquer complex societal issues.

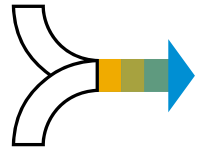
https://youtu.be/_9ylc4ainew

Business Challenges

There was a lot of apprehension surrounding the introduction of the new system. We started our training and had to interact with our colleagues and partners virtually. Remote work was new for the higher education industry and required a major culture shift, which not everyone was open to at first. There was a lot of anxiety related to the software itself too. We broke up a long and comfortable relationship between our users and the mainframe. It was very customized and now it's a true accounting system.

- Understand changes **as they happen**, so we can **quickly react** to any situation.
- Bring our transactions and analytics together into **a single platform** and single source of truth without the need to access other tools or jump between screens.

Challenges and Objectives 2 of 2



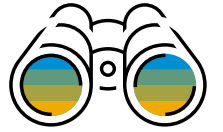
Project Objectives

Accurate and accessible reporting is a key component of Financial Compliance, and it was determined that some various Penn State business needs had not been fully addressed. A few examples of our project objectives include the review, monitoring, and approval of routing validations to assist with the authorization of labor distributions more efficiently. The reporting out of SIMBA needed to include more detailed information from our travel and expense module. Furthermore, the support for the efficient delivery of sponsor requirements for the submission of backup documentation. And the implementation of a module to assist PAGs/Directors with more effective closeout around sponsor invoices, sponsor classes, and related expenditures.

Why SAP

SAP provides many tools for our toolbox and puts a strong focus on the business process. Reports should never be defined independently; instead, reports should be a part of a specific work stream. We continue to turn on more functionality based on each identified use case.

- Programs such as the [SAP Enterprise Support Value Maps](#) that leads us through the knowledge, skills, and services needed to support our production system.
- [SAP Enterprise Support Advisory Council](#) to understand the latest innovations and get further hands-on expert SAP analytics guidance.
- [SAP Next Generation Student Program](#). This is a global community for students, universities, schools, and educational partners, who are passionate about innovation and technology.
- The SAP [leadership, culture, history, and values](#).



Project or Use Case Details

As of July 2020, we had successfully transitioned Penn State from a 30-year-old Mainframe to a hybrid transactional/analytical SAP processing model that has broken down barriers and delivered a solid foundation for real-time reporting. Though, what we delivered was only a foundation, a starting point, and a very small part of our available landscape. **The time had come to now further "un-pack" more of the power of SAP** that was just sitting and waiting for us to "turn on". One of the key requirements delivered from the Penn State Research Administration Task Force was for the enhancement of our SAP Embedded Analytics reporting out of our live transactional system directly with our travel and expense system. The key factor that drove our decision to deliver this additional functionality was from twenty-two Penn State departments that joined and provided justification on why these requests should be prioritized. To solidify our direction, we organized reporting drop-in hours, focus groups, and multiple end-user surveys. Our business-users were incredibly engaged and truly **understood the power of what we had purchased**. The core request was to **use our SAP tools to its' full extent** and activate this additional functionality.

Process Before

- Match amounts in SIMBA to SAP Concur, then add details to reports manually.
- Search SAP Concur to see what matches up with the IO and investigate to see what the charges are
- Go into Cardholder details to get receipts
- Obtain PERNR Number from Text Field in SIMBA then search SAP Concur
- It takes a lot of investigative work in SAP Concur to determine charge details in SIMBA

Process After

- "Turn On" the standard SAP Concur Connector to further integrate the two modules.
- Activation of the SAP Concur Receipts (PDFs, Images) to be viewable right from the SAP S/4HANA reports.
- Enhance the SAP Concur integration with additional elements.
- Activate the additional "drill-to" functionality directly to the travel and expense details. (Eliminating the jumping between the two systems)
- Implement additional SAP S/4HANA Embedded Analytics modules specific to SAP Concur Travel and Expense data.

Benefits and Outcomes 1 of 2



Business or Social

- **Support our educational programs** that are enriched by the talent, knowledge, diversity, creativity, and teaching and research acumen of our faculty, students, and staff. *(Provided 3 paid student internships, supported 4 IST class modules with over 75 student participants, partnered on 1 SAP student workshop)*
- **Provide the foundation** to break down the silos between the Penn State departments and adopt cross-functional business processes. *(> 24 Open Office Hours, > 50 Focus Group Sessions)*
- **Data driven decision support** for —Access to Education, Our Students, Advancing Inclusion, Equity, and Diversity, Enhancing Global Engagement, Driving Economic Development, and Ensuring a Sustainable Future—connect to, empower, and sustain our values as an institution. *(> 73,000 Full Time Students, > 14,000 Part Time Students)*

IT*

Leadership is critical and our team has an **incredibly strong leadership, governance, and support team**. As well as excellent partner offices that work to strengthen the Penn State Business processes. Some of our key challenges are with the distributed nature of our university. We have twenty-four campuses across Pennsylvania and with remote work, we now have staff and faculty across the country. With SAP we have been able to:

- Employ SAP Analytics to understand **what** is happening across our university **and why**.
- **Provide huge improvements** over our mainframe legacy systems with capabilities of aggregating massive amounts of data.
- Provide **instant** insights on our live SAP financial database **without data redundancy or latencies**.
- **Assist with the strive for excellence** for all Penn State endeavors as individuals, an institution, and a leader in higher education.

Benefits and Outcomes 2 of 2



People Related – Personal Perspective

Our key challenges have been around the ongoing training of > 5,000 employees. 100% of the initial training was conducted virtually (for the first time in the University history).

Change management and communications have been especially important for us as our transition off our mainframe also included our student and human resources systems. Additionally, there is the new remote work setup and the global pandemic.

The additional and enhanced analytics modules have assisted us:

- To further the enablement of **integrated systems** and **integrated data** with a quick turnaround.
- To engage in **collaborative** activities with partners worldwide
- To act **responsibly**, and we are **accountable** for our decisions, actions, and their consequences.
- To see and create **new knowledge** and understanding, and foster **creativity** and **innovation**, for the benefit of our communities, society, and the environment.

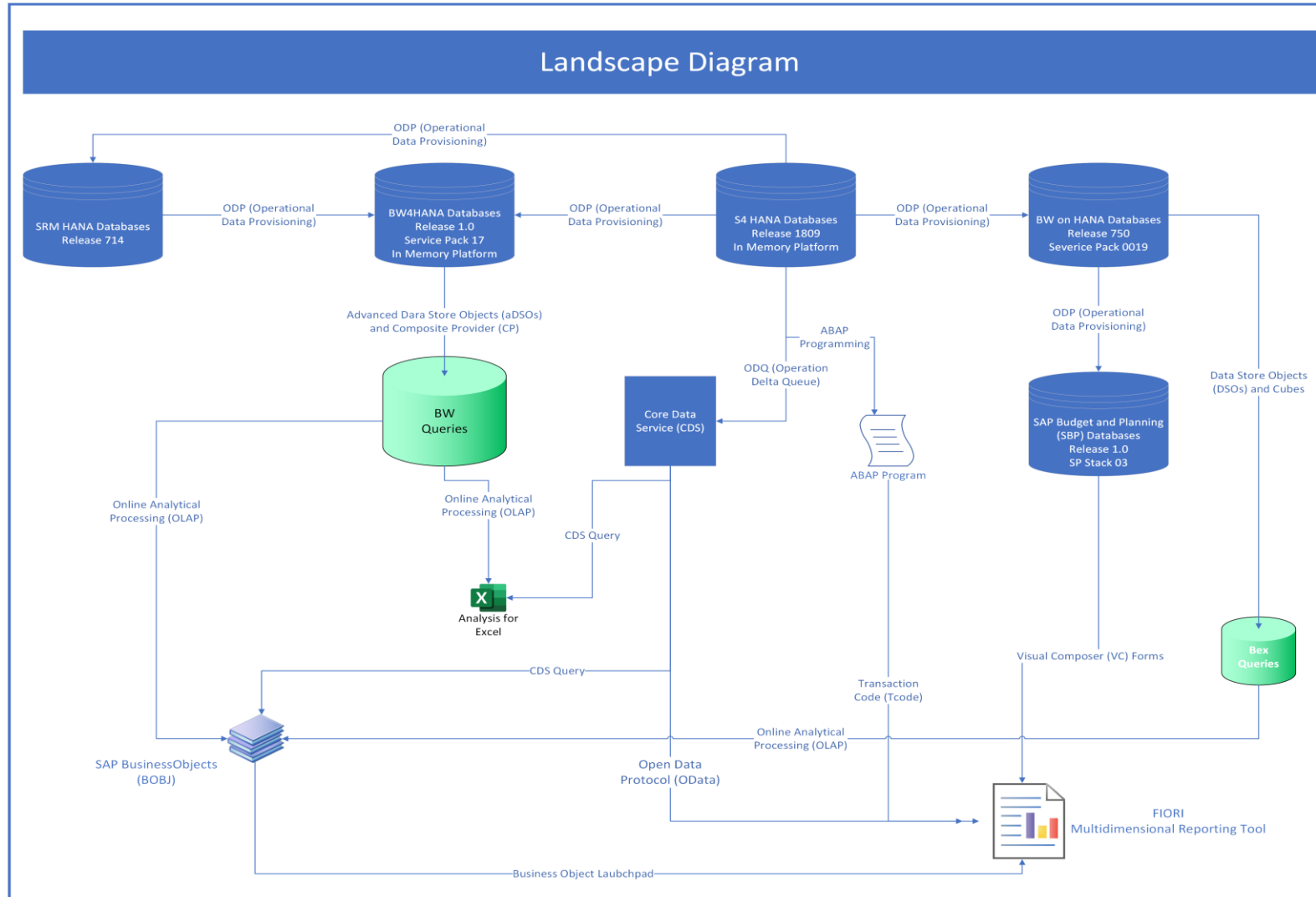


We broke up a long and comfortable relationship between our users and the mainframe. It was very customized and now it's a **true accounting system.**



Corry Bullock, *Penn State IT Enterprise Systems and Services Grants Management Lead, SIMBA, Penn State University*

Architecture



Deployed into Cloud infrastructure in Microsoft Azure, using the infrastructure as a service model ("IaaS")

- SAP Budget and Planning
- SAP BusinessObjects
- SAP BW on HANA
- SAP BW/4HANA
- SAP Concur
- SAP EnableNow
- SAP S/4HANA
- SAP Solution Manager
- SAP Solution Manager - Test Suite w/ TTA
- SAP Supplier Relationship Management

SAP Functional Areas

- AM - Fixed Assets
- AP - Accounts Payable
- AR - Accounts Receivable
- ARL - Applied Research Lab
- CR - Concur
- FICO - Finance/Controlling
- FM - Funds Management
- GM - Grants Management
- HCM - Human Resources
- LD/EC - Labor Distribution / Effort Certification
- SRM - Supplier Relationship Management
- TRCM - Treasury/Cash Management

Deployment Details 1 of 4



Deployment status Live

Number of end users 5,000 Core SAP S4HANA users

Date SAP S/4HANA Original Go-Live (July 2020)
SAP Analytics Modules Live (April 2022)

Transaction Volume Over 807M Total Embedded Analytics Executions, 5,479 Distinct Users, 90 Primary SAP CDS Analytical Views, 81 Business Areas, 24 branch campuses, total 2022-23 operating expense budget to \$8.6 billion ([Penn State's Data Digest](#))

SAP® technologies used:

	SAP product	Deployment status <small>LIVE / POC</small>	Contribution to project
1	SAP S/4HANA	Live July 2020	Not only do we meet the needs of accounting for research expenditures, but we have also been able to collect Grants Management Post Award master data points that are non-financial.
2	SAP Analytics	Live July 2020, April 2022 , <i>February 2023</i>	Along with research expenditure reports, we have non-financial reports that the University utilizes to capture research administration master data at a summary level.
3	SAP Fiori	Live July 2020	The Fiori interface is like nothing the University has ever used before. It is very user-friendly, intuitive, and allowed for end-users to identify the action needed to complete their task.
4	SAP BW/4HANA	Live July 2020	Some end-users prefer the look and feel of this interface which allows them to conduct their business in a way they feel most comfortable.
5	SAP Concur	Live July 2020	Since July 2020, SAP Concur is now integrated with SIMBA. Researchers can see details of transactions from Concur whereas they could not do so before July 2020.

Deployment Details 1 of 4



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	SAP product	Deployment status <small>LIVE / POC</small>	Contribution to project
1	SAP BusinessObjects	Live July 2020	Some end-users prefer the look and feel of this interface which allows them to conduct their business in a way they feel most comfortable.
2	SAP Solution Manager	Live July 2020	Utilized solution manager for the application lifecycle management
3	SAP Solution Manager - Test Suite w/ TTA	<i>March 2023</i>	Utilized solution manager for test automation.
4	SAP Supplier Relationship Management	Live July 2020	Since October 2020, we have been exploring the use of Ariba through the Strategic Procurement Transformation Project at Penn State. This new module will continue to help with integrating transactional details in our Grants and Contracts. https://purchasing.psu.edu/strategic-procurement-transformation-spt-project
6	SAP EnableNow	<i>February 2023</i>	This “just in time” capability is going to help our end-users that do not utilize the system on a daily basis or are new to SIMBA.

Deployment Details 3 of 4



Solution/App details developed on SAP BTP

The following [SAP Business Technology \(BTP\) Solutions](#) are part of the project:

	Technology	SAP BTP Solution (list Cloud Products only)	Contribution to project
1	Application Development and Automation	SAP BTP Cockpit SAP BTP, ABAP environment SAP Fiori SAP Launchpad	We are offering a variety to our end-users to fit each use-case.
2	Extended Planning and Analysis		
3	Data and Analytics		
4	Integration		
5	Artificial Intelligence		

Listed on SAP Store NO

Monetized (sold to your customers) NO

Co-innovation with SAP NO

Number of customers using the solution/app 5,000 Core SAP S4HANA users (Fiori, BTP)

Deployment Details 4 of 4

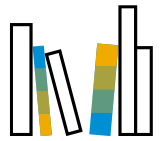


The following offerings from SAP Services and Support and other packages were utilized during the implementation or deployment phase:

- SAP MaxAttention™
- SAP ActiveAttention™
- SAP Business Journeys
- Embedded Launch Activities
- Learning Success
- Other: Value Maps, SAP Student Next-Gen Program
- SAP Preferred Success
- SAP Preferred Care, on-premise
- SAP Enterprise Support
- Project Success
- RISE with SAP
- Managed Business Services
- Cloud Application Services
- Activation and Optimization Services
- Partner Success

Contribution to the project

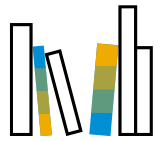
Penn State has been part of the SAP Next-Gen, University Student Alliance program for nearly 20 years. Penn State's Applied Research Laboratory and SIMBA (System for Integrated Management Budgeting and Accounting) have been teaming up to ensure that opportunities for students are available to explore what their passions are and to realize the impact that they can make. This includes partnering with Penn State faculty on class projects, workshops, internships, student groups, and job opportunities. This is real world business experience for students as well as benefits for the SIMBA team and Penn State Financial end-users.



The Penn State SIMBA Business Intelligence SAP Journey

- ❑ Produced in 1989, [this video depicts the transition to Integrated Business Information Systems \(IBIS\) Mainframe at The Pennsylvania State University](#). – Penn State Financial System.
- ❑ April 19, 2017 - [Penn State to begin financial system transformation](#)
- ❑ January 4, 2018 - [Penn State announces name of new financial system](#)
- ❑ May 3, 2018 - [Committee recommends budget and partner for financial system implementation](#)
- ❑ June 5, 2018 - [SIMBA celebrates official launch of project](#)
- ❑ July 18, 2019 - [University-wide SIMBA project is on time and on budget](#)
- ❑ July 18, 2019 - [SIMBA Session to offer project updates during live webinar July 19](#)
- ❑ February 17, 2020 - [SIMBA team recognized for excellence](#)
- ❑ June 8, 2020 - [SIMBA training begins](#)
- ❑ July 6, 2020 - [SIMBA launches, heralding improved operations for Penn State](#)
- ❑ November 18, 2020 - [The state of SIMBA: A look at what's next](#)
- ❑ February 12, 2021 - [Building SIMBA to last](#)
- ❑ January 19, 2022 - [Latest NSF rankings show breadth and depth of Penn State research](#)
- ❑ November 8, 2022 - [Penn State's \\$1.034B in research expenditures has broad, wide-ranging impact](#)

Additional Information



The Penn State SIMBA Business Intelligence SAP Journey

