![NACUBO logo] National Association of College and University Business Officers

Continuous Improvement

Becoming an efficient and effective university through Continuous Improvement

Tuesday, September 13th – 10:15am

Presented by:

Dr. Paul N. Friga, *UNC-CH and ABC Insights®*

Brian P. Fairhurst, *Florida State University*

Your hosts for this session

Dr. Paul N. Friga - *pnf@unc.edu*

- Clinical Associate Professor of Strategy, UNC Kenan-Flagler School of Business;
- Chief Strategy Officer and Co-Founder, ABC Insights (Benchmarking Consortium)
- Paul earned a B.S. degree in Management and Accounting from St. Francis University (served on Board of Trustees) and an MBA and Ph.D. from the UNC-Chapel Hill, Kenan-Flagler Business School

**Brian P. Fairhurst** - *bfairhurst@fsu.edu*

- Director of Continuous Improvement at Florida State University
- Brian has worked at Florida State University for over 15 years, serving as Associate Lab Director of a National Lab, Special Advisor to the Vice President of Research, and facilitator of initiatives designed to improve campus-wide efficiency and effectiveness.

Executive Summary
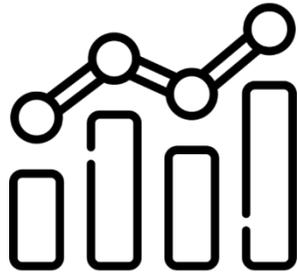
What is Continuous Improvement (CI)?

How does CI apply to universities?
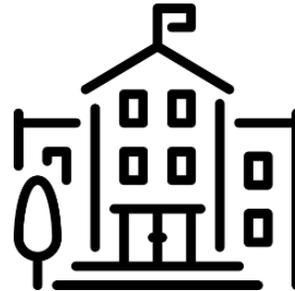
Case Study: Florida State University

What is Continuous Improvement?
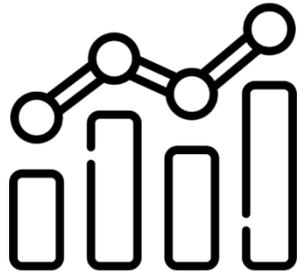
What is Continuous Improvement (CI)?	How does CI apply to universities?	Case Study: Florida State University

Lets hear from you

How would you define Continuous Improvement?

How effective is your university at Continuous Improvement?

Low, Moderate, High

Source: KaiNexus and Institute of Quality Assurance

ACADEMICBENCHMARKING CONSORTIUM

Continuous Improvement

CI for Universities

Florida State University

NACUBO

Continuous Improvement means getting better all the time

PDAC

Kaizen

Six Sigma

Lean

Agile

Continuous Improvement

*"Continuous improvement is a gradual never-ending change which is ... focused on increasing the **effectiveness and/or efficiency** of an organisation to fulfill its policy and objectives. It is not limited to quality initiatives. Improvement in business strategy, business results, customer, employee and supplier relationships can be subject to continual improvement. Put simply, it means 'getting better all the time."*

Institute of Quality Assurance

Continuous Improvement	CI for Universities	Florida State University

The principles of CI may seem obvious or intuitive

- Have Persistent Leadership
- Encourage Employee Ideas
- Let Data Guide the Way
- Implement Small Changes
- Measure the Impact

However, "success rate for Continuous Improvement efforts is less than *60 percent*"

-McKinsey

Source: McKinsey and KaiNexus

What leads to successful outcomes?

Consistent support and buy-in from leadership

Connecting data and metrics with high level goals

1980 Olympic Ice Hockey Team

Creating a culture of finding and improving errors

Clear and constant vision of perfection

Source: Deloitte

How does Continuous Improvement apply to universities?

What is Continuous Improvement (CI)?

How does CI apply to universities?

Case Study: Florida State University

Growth and efficiency are key challenges at universities today

Growth in revenue and enrollment

- - - - - - - - - -

Efficiencies and cost management
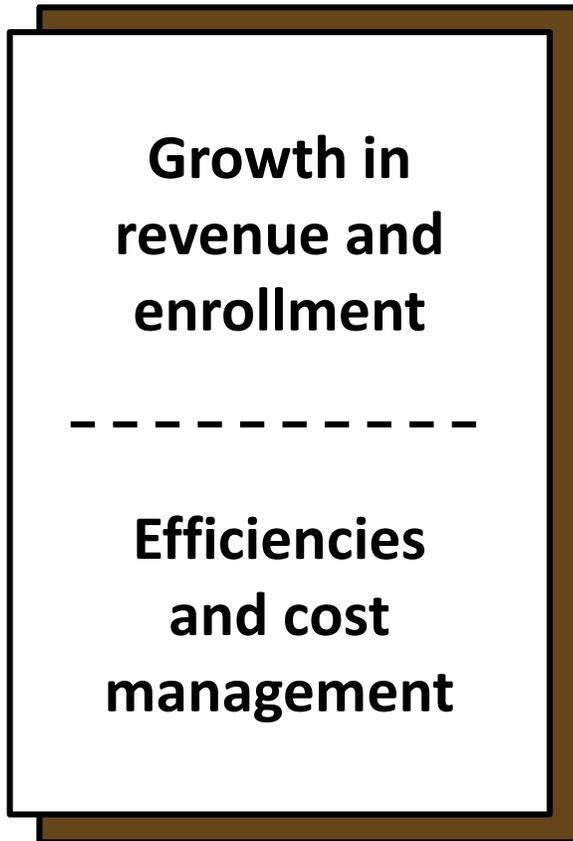
Top Institutional Challenges According to Academic Leaders

Challenge	%
Developing new sources of revenue	79%
Retaining students	69%
Competing for students	69%
Improving graduation rates	62%
Expanding academic program offerings	61%
Continuing or reducing cost	57%
Upgrading technology systems & processes	50%
Retaining faculty and staff	39%
Eliminating siloed/incompatible tech systems	29%
Other	4%

Source: Chronicle of Higher Education

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CI for Universities

Florida State University

Universities need help correctly using new data and processes

A 2017 survey of institutions found that **91 percent** of colleges report that they are investing in descriptive data and analytics in some way, and **89 percent** report that they are investing in predictive data and analytics in some way.

Only **40 percent** of college representatives agree that they "are able to implement the results of student success analytic studies effectively"

Source: Institute for College Access and Success

Benchmarking is key to process improvement

BUSINESS PROCESS IMPROVEMENT

THE BREAKTHROUGH STRATEGY FOR TOTAL QUALITY, PRODUCTIVITY, AND COMPETITIVENESS

H. JAMES HARRINGTON

Sponsored by the American Society for Quality Control
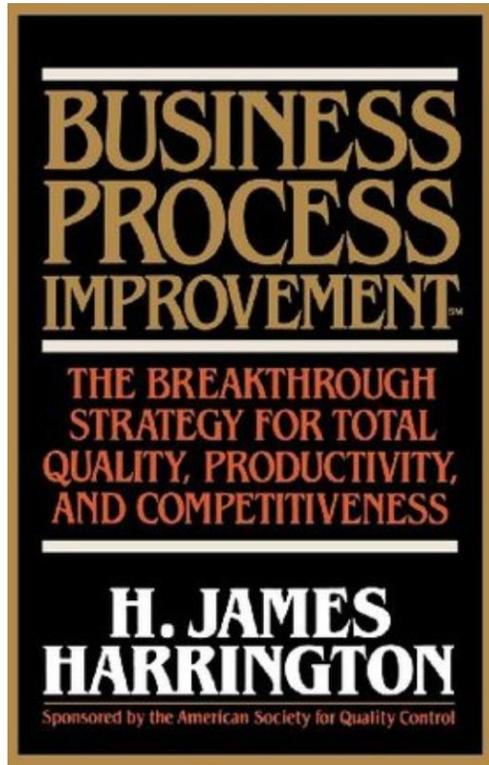
"…. If you can't measure something, you can't understand it.

If you can't understand it, you can't control it.
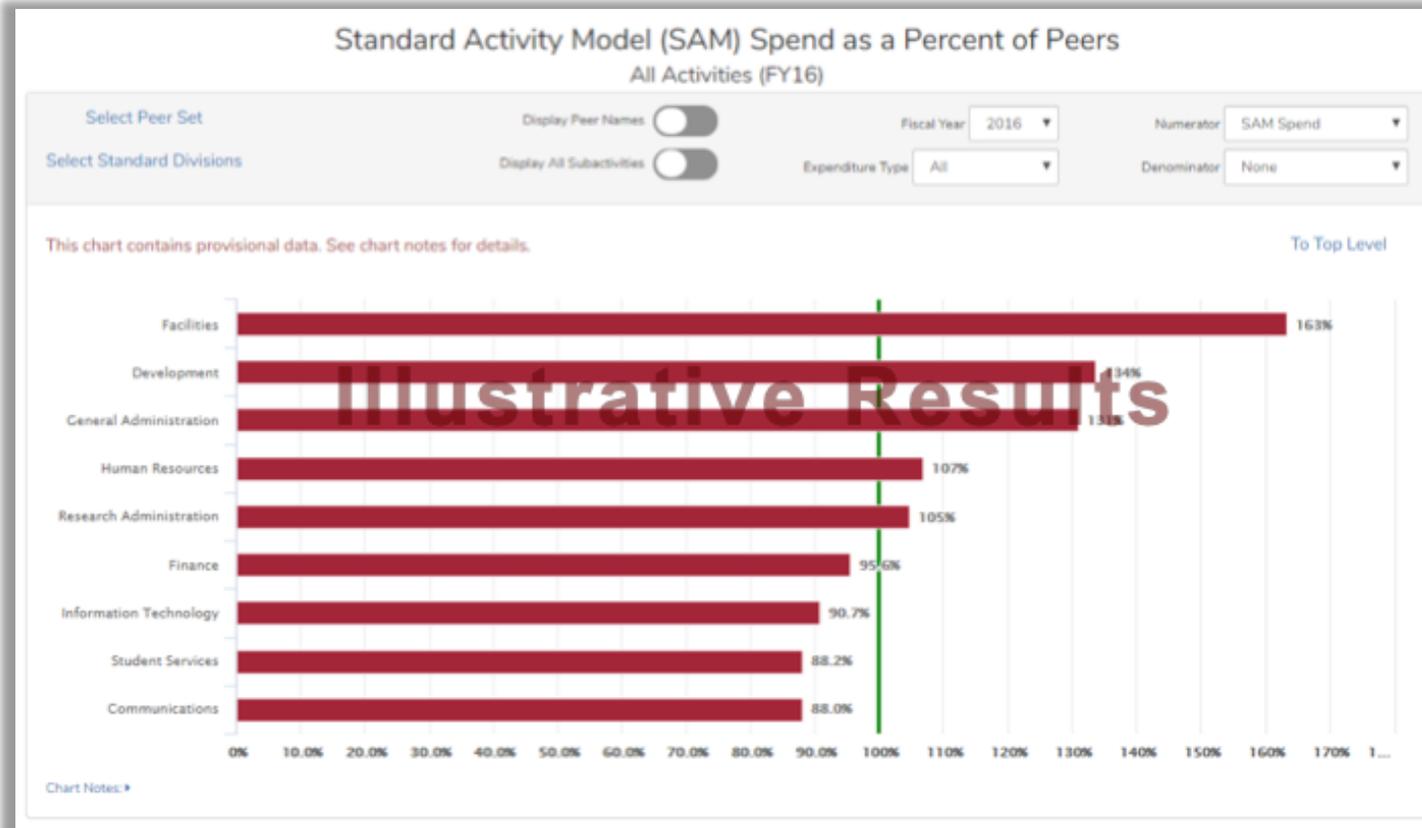
If you can't control it, you can't improve it."

We formed a University Consortium to share data

ABC Insights® Standard Activity Model (SAM)

Standard Activity Model (SAM) Spend as a Percent of Peers
All Activities (FY16)

Select Peer Set	Display Peer Names (toggle off) — Fiscal Year 2016 — Numerator SAM Spend
Select Standard Divisions	Display All Subactivities (toggle off) — Expenditure Type All — Denominator None

This chart contains provisional data. See chart notes for details.

To Top Level

Illustrative Results

Activity	Percent
Facilities	163%
Development	134%
General Administration	131%
Human Resources	107%
Research Administration	105%
Finance	95.6%
Information Technology	90.7%
Student Services	88.2%
Communications	88.0%

Chart Notes:

ABC Insights® Mission

To improve decision-making in higher education by providing reliable benchmarking data and insights

In the Chronicle of Higher Education

What Does It Mean to Be an Efficient University?

Top-Ranked Colleges Spend Their Money Differently From the Rest. Here's How.

Source: ABC Insights®

Many of the most efficient US universities use data for CI

(Blue = ABC Member)

Efficiency Rank	University (state)	U.S. News National Universities Rank	Overall Score	Financial Resource Rank	Spending per student for each point in U.S. News overall score
1	Miami University – Oxford (OH)	78 (tie)	55	226	$362
2	Florida State University	81 (tie)	54	211	$390.18
3	Brigham Young University – Provo (UT)	61 (tie)	174	174	$411.92
4	San Diego State University	140 (tie)	42	250	$413.62
5	Binghamton University – SUNY	87 (tie)	53	190	$436.49
6	University of Alabama	110 (tie)	48	211	$443.19
7	College of William and Mary (VA)	32 (tie)	70	111	$466.87
8	Clark University (MA)	81 (tie)	54	163	$481.80
9	University of Georgia	54 (tie)	62	121	$484.40
10	Arizona State University – Tempe	115 (tie)	47	197	$489.01
11	Texas Christian University	78 (tie)	55	158	$489.16
12	Indiana University – Bloomington	90 (tie)	52	163	$493.10
13	University of Texas – Dallas	145 (tie)	41	217	$494.94
14	DePaul University (IL)	120 (tie)	46	197	$497.35
15	Clemson University (SC)	67	59	129	$501.72
16	University of South Carolina	103 (tie)	49	179	$501.77
17	Auburn University (AL)	103 (tie)	49	174	$517.16
18	George Mason University (VA)	140 (tie)	42	202	$522.68
19	Villanova University (PA)	46 (tie)	64	103	$524.05
20	St. John Fisher College (NY)	145 (tie)	41	202	$528.42
21	Virginia Tech	69 (tie)	57	114	$546.37
22	Stevens Institute of Technology (NJ)	69 (tie)	57	114	$552.13
23	University of Missouri	120 (tie)	46	163	$556.18
24	University of Oregon	103 (tie)	49	147	$561.80
25	Duquesne University (PA)	120 (tie)	46	163	$565.05

Source: US News

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We evaluate administrative investment on a campus

ABC Human Capital Matrix (Draft)
For University Name
FY1x

Campus Customer Satisfaction (higher = greater satisfaction)

HIGH / LOW

| Streamline | Showcase |
| Reimagine | Invest |

- Information Technology
- Gen Admin
- Student Services
- Facilities
- Dev
- Comm
- Research Admin
- HR
- Finance

HIGH — **Administrative Labor Investment per Analysis Factor** (relative to peers) — LOW

Bubble size
Total Administrative Labor Investment
(cash compensation only)

Analysis Factor
- Communication: Total Headcount
- Development: Funds Raised
- Facilities: Square Feet Cleaned
- Finance: Total Employee Headcount
- General Admin: Total Headcount
- HR: Total Employee Headcount
- Information Technology: Total Headcount
- Research Admin: Total Research Expenses
- Student Services: Total Student Headcount

Source: ABC Insights®

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Popular solutions towards Continuous Improvement efforts

1. Make it easy for faculty, administration and staff to **suggest ideas for improvement**

2. Opportunities for improvement **are evaluated** and action plans developed

3. Ensure forward progress with **active alerts and notifications**

4. Create a repository of institutional knowledge and capture best practices

5. Simplify **assessing the impact** of implemented improvements

6. Broadcast success

7. **Give leaders insight** into the health of improvement culture across the entire institution

Source: KaiNexus

Case Study: Florida State University

What is Continuous Improvement (CI)?

How does CI apply to universities?

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Florida State University

- Main Campus: Tallahassee, FL
- Carnegie Classification Public R1
- Almost 42,000 Undergraduate and Graduate Students
- Over 6,700 Faculty and Staff
- $1.2 Billion Operating Expenses
- Designated a Preeminent University in Florida
- US News and World Report
  - #26 National Public Universities
  - #1-2 Most Efficient University
- Kiplinger's Personal Finance
  - # 3 Best Value Public – Out of State Students
- Insight into Diversity Magazine
  - Higher Education Excellence in Diversity (HEED) Award - 2014, 2015, 2016, 2017 ad 2018
- Fitch Ratings Incorporated
  - AA+ Rating – 4th in U.S.

Performance (Florida) - System and University Goals

State University System of Florida Strategic Goals

	EXCELLENCE	PRODUCTIVITY	STRATEGIC PRIORITIES
TEACHING & LEARNING	Strengthen Quality & Reputation of Academic Programs and Universities	Increase Degree Productivity and Program Efficiency	Increase the Number of Degrees Awarded within Programs of Strategic Emphasis
SCHOLARSHIP, RESEARCH, & INNOVATION	Strengthen Quality & Reputation of Scholarship, Research, and Innovation	Increase Research Activity and Attract More External Funding	Increase Commercialization Activity
COMMUNITY & BUSINESS ENGAGEMENT	Strengthen Quality & Recognition of Commitment to Community and Business Engagement	Increase Community and Business Engagement	Increase Community and Business Workforce

Florida State University Strategic Goals

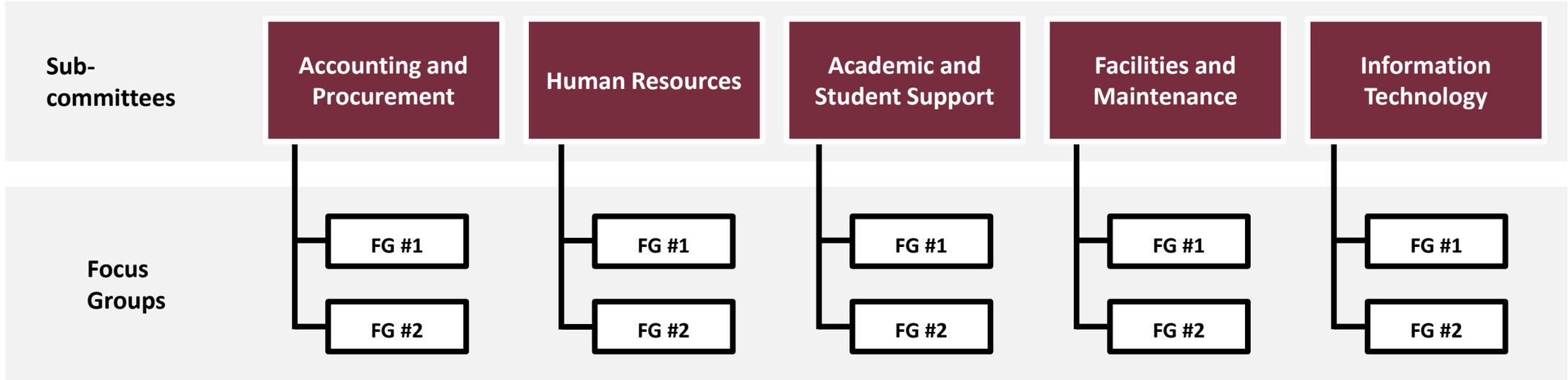| |
|---|
| Deepening our Distinctive Commitment to Continuous Innovation |
| Amplifying Excellence Across Our Academic and Research Programs |
| Realizing the Full Potential of Diversity and Inclusion |
| Ensuring Student Success on Campus and Beyond |
| Investing Strategically in Our Institution and Reputation |

Source: State Univ. System of Florida

Efficiency and Effectiveness Committee to Continuous Improvement

PAST

Efficiency and Effectiveness Committees

TRANSITION

Implement Continuous Improvement Principles

PRESENT

Continuous Improvement
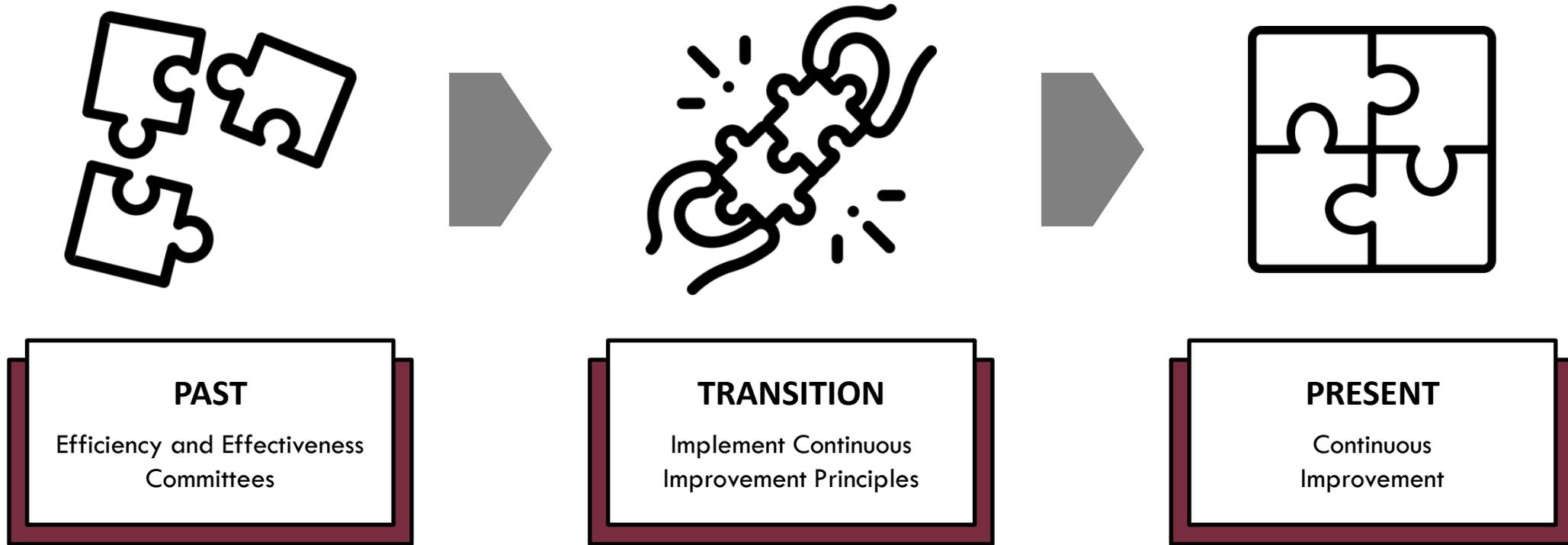
ABC Insights® allows transparent conversation about improvement opportunities

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Efficiency and Effectiveness Committee

Sub-committees	Accounting and Procurement	Human Resources	Academic and Student Support	Facilities and Maintenance	Information Technology

Focus Groups

	FG #1	FG #1	FG #1	FG #1	FG #1
	FG #2	FG #2	FG #2	FG #2	FG #2

- **270 participants**
- **283 potential projects**
- **More than 60% require ERP/IT resources**

- **Purchase Order Functionality**
- **Payment Automation**
- **Fleet Management**
- **Expand Online Surplus Sales**
- **Electronic Routing System**
- **Automate Property Disposition Forms**
- **Electronic Accounting Documentation**

Roadmap for Integrating FSU EEC Activities with Functional Units

EEC

- Collect success stories and ideas for further improvement
- Establish formal process to collect ideas for both incremental and transformational projects via Subcommittees, Focus groups, undergraduate and graduate student groups, standing committees, department meetings and various surveys

- EEC Steering Committee will organize potential projects based on organizational unit(s)
- Refer potential project(s) to functional unit or units and request feedback

- Evaluate completed projects, including lessons learned for soliciting additional projects
- Publish status report of projects that were previously referred to functional units

Identify Potential Projects → **Plan Project** → **Execute Project** → **Complete Project** → **Report**

Functional Units

- Review, disposition and prioritize potential projects

- Refine project scope and gather requirements
- Identify required skillsets and resources
- Draft project milestones and schedule
- Refine project cost estimate/budget and confirm funding approval
- Secure and coordinate resources
- Measure progress and performance and manage project budget/cost
- Provide status report of projects to EEC

- Confirm project acceptance/signoff with sponsors and stakeholders

Lessons Learned from Efficiency and Effectiveness Committee

- Efficiency efforts focused on obtaining the best value for the university whether it is through sustainable cost reductions or through cost avoidance

- Recommendations provided did not necessarily contain projected cost savings, but rather presented improved operational efficiencies and services

- Sharing of successes with university stakeholders promotes alignment of more business-like structures and procedures that support the work of academic colleagues

Transition to Continuous Improvement

- Introduce within FSU **organizational improvement methodologies** that are commonly used by leading organizations worldwide and which support FSU's strategy, commitments and goals

- Guide the implementation of campus-wide efforts to **build continuous improvement (CI) into our organizational culture and day-to-day business practice**s with the goal of making services simpler, faster, better quality, and available when administrators, faculty, staff and students need them

- **Create a network of data/analytics experts** to identify CI opportunities and sustain the effort over time. and **provide CI leadership within their offices and workspaces**

- Establish longer term benchmarks and milestones for program implementation.

Benchmarking analysis answers key cost management questions

FSU is USNWR one of the most efficient universities. How can we further improve?

- Are we able to access benchmark data in a standardized, meaningful way that is trended over time and comparable to relevant peers?

- In what areas am I spending more than my peers? Am I overinvested?

- In what areas am I spending less than my peers? Am I underinvested?

- Am I comparatively invested well in key priority areas?

- Based on peer comparison, where might there be opportunities for continuous improvement?

Insert slides from IT case study that is currently being developed by Scott Brees

Successes

Annual Efficiency Savings Since July 2014

FSU Efficiency Savings ($ Million)

Total Cost Avoidance/Savings > $235 Million Since July 2014

Chart data:
- July 2015: New Savings $9.36, Recurring Savings $0.00
- July 2016: New Savings $32.75, Recurring Savings $3.52
- July 2017: New Savings $41.23, Recurring Savings $32.08
- July 2018: New Savings $45.32, Recurring Savings $71.37

Legend: ■ Recurring Savings ■ New Savings
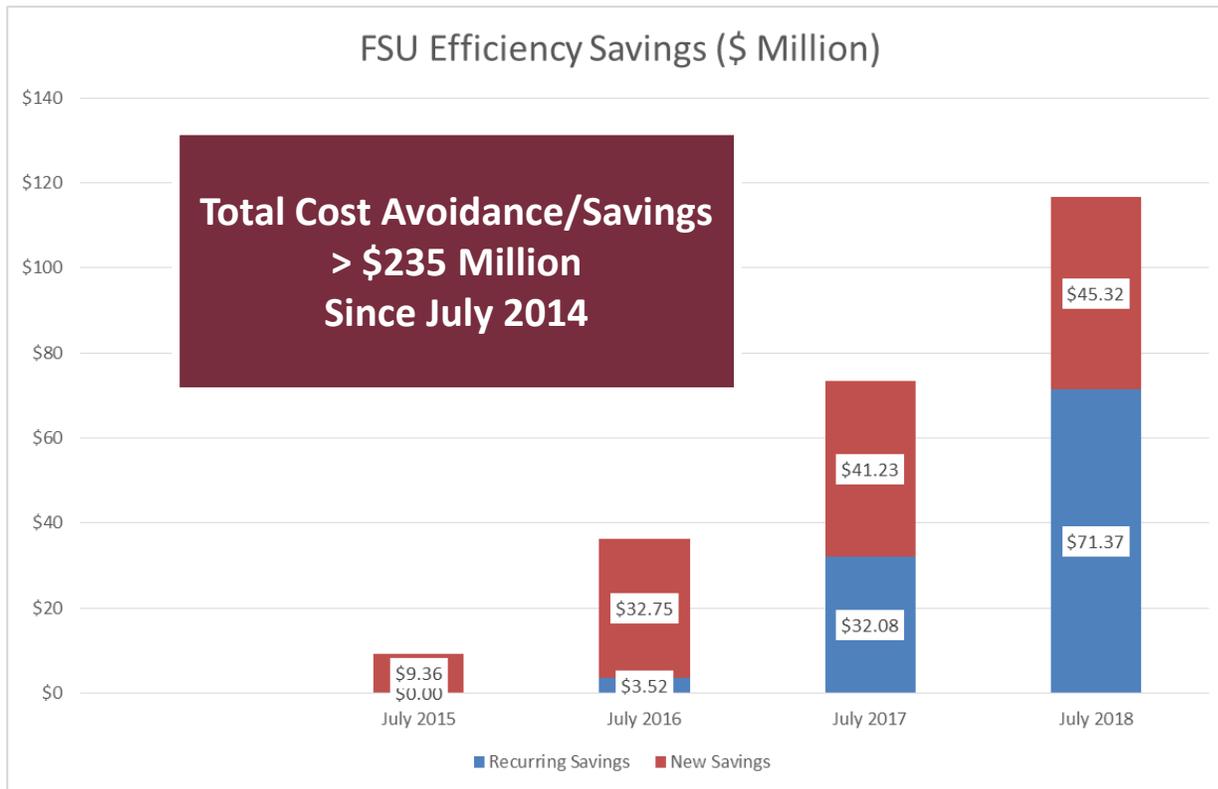
July 2018 Efficiency Savings

New Savings of $45.32 Million

Highlights

Procurement Savings – Cooperatives/Consortiums	$17.6M
Procurement Savings – Other Savings	$7.8M
FSU Take 15 Initiative	$7.4M
Procurement Savings – Shared Initiatives	$5.1M
Shared Services Energy Management Program	$2.3M
Bookstore Contract	$1.2M
Enterprise Software Licensing Agreements	$1.1M

FSU received nine of the twelve 2019 Prudential Productivity Awards that were distributed to universities in the State University System

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Successes/Lessons learned ......

- For the seventh consecutive year, Florida State University is among the most efficient of the nation's highest ranked universities, according to U.S. News and World Report
- Drivers for efficiency and value for money are about more than just cost cutting. Florida State University is responding to a more competitive environment, with the needs of a diverse student community paramount, and investing any savings into areas that benefit academic programs for students
- Florida State has taken significant steps to become a university known for low tuition, high quality education and the most efficient operations. The cost per degree in the FL state university system has decreased from $15,110 to $9,450 in the most recent 5 years and Kiplinger's Personal Finance has ranked FSU #3 as a Best Value Public University for Out-of-State Students
- While Florida State continues to be one of the nation's most efficient universities, the university also has risen in national academic rankings in recent years. Florida State University jumped to No. 26 among national public universities in the most recent U.S. News & World Report rankings. FSU has soared 17 spots among public universities since placing No. 43 in 2016
- FSU boasts the best four-year graduation rate in State of Florida University System (SUS) at 71.5%. The state university system average is 49.4%. FSU continues to outperform its predicted graduation rate by *U.S. News*, which is based on the university's resources and student profile. The university ranks No. 17 among publics when comparing the actual graduation rate against the predicted rate. University data also shows we have erased graduation rate disparities between all categories of under-represented students and traditional students. In addition, there is no disparity among all FSU students in attaining a first to second year retention rate of 94 percent, making FSU the highest-ranked public university to achieve this status.

Successes/Lessons learned …… 2

- FSU's Procurement Services office was recognized for the fourth year in a row by the National Procurement Institute's Achievement of Excellence in Procurement Award. Ongoing improvements to FSU's electronic procurement system are providing end users with a "One Stop Shopping" experience and further enhancing strategic purchasing activities and spend analytics
- Scientific Equipment Application Team. Reduced costs associated with duplicate science equipment purchases and leverage existing technologies to meet an emerging need, the Scientific Equipment application was created by an interdisciplinary team to promote the shared tracking and use of equipment across the University community
- Executed an innovative new dining services 10 year contract that merges residential, retail, concessions, and catering and includes unique components such as locally sourced menu options, internships and scholarships for students, funding for sustainability initiatives, and highlights celebrity chef and FSU alumnus Art Smith as our campus Culinary Ambassador.
- New Coke pouring rights agreement, including a 38% increase in annual contributions, student internships, and a campus speaker series.
- Implemented new onboarding software that eliminates paper and transforms the recruitment process for applicants and hiring managers
- New 10-year Bookstore Contract that provides a new location; improves affordability for students through reduced course material costs; increases annual commissions to the University; and provides student scholarships and internships
- FSU Auxiliary Accounting Team. The FSU Controller's office developed new processes for auxiliary activity within Florida State University's enterprise-level accounting system. Before implementing this project, departments that charged customers for goods or services used external systems to record this activity, resulting in inefficiencies and a lack of transparency. The new process allows auxiliary departments to record these transactions directly into Florida State's official system of record, reducing the need for external systems and centralizing invoicing, payment processing, and collections efforts for enhanced effectiveness
- Continued to hone budgeting system and policies as we strive toward greater transparency and efficiency for campus users. The system was recognized by the Southern Association of College and University Business Officers as an outstanding business practice. The Hyperion Budget System provides greater transparency when booking and tracking budgets along with managing salary rates and positions

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# Successes/Lessons learned 3

- FSU's Procurement Services office was recognized for the fourth year in a row by the National Procurement Institute's Achievement of Excellence in Procurement Award. Ongoing improvements to FSU's electronic procurement system are providing end users with a "One Stop Shopping" experience and further enhancing strategic purchasing activities and spend analytics
- College of Arts & Sciences "College Check" portal. On-line reporting tool designed to help COAS students stay on academic track and facilitate degree advancement for timely graduation. Provides mechanism for students to plan courses more efficiently, saving both time and money. Provides reporting system for students and advisors to compare Student Central Data to university, college, and department requirements to verify completion; identifies deficiencies and provides course information for unmet requirements. This is a recurring project that is continually updated as requirements are changed.
- FSU Admissions and IT Team. As part of an effort to increase the enrollment of under-served students, development of a new electronic process, *Soup to Nuts*, which has resulted in dramatically reduced processing time and more informed and timely admission decisions
- Developed the Faculty Project Planner (FPP) as a tool for managing complex research and creative projects over time for an individual faculty member or a faculty member with collaborators. The FPP is also a tool for mentoring beginning faculty members completing multiple complex projects and for mentoring students completing theses and dissertations. Prior to this tool being created, this was a manual process that had no standardization across campus
- Lean Work Order Communications Team. Faced with more than 36,000 annual work orders, a Facilities Lean Team was formed to better understand their respective roles, streamline a complex process and improve customer service. The outcome was a reduction in the average number of days to complete work orders by more than 70 percent and electronic communications through the work order website and emails were significantly improved

Continuous Improvement Lessons Learned from Other Institutions

- Universities have evolved to use more business-like structures and procedures to support the work of academic colleagues

- The Network for Change and Continuous Innovation (NCCI) is higher education's network for change leadership

- Focus of NCCI is on continuous improvement – process improvement, administrative excellence and innovation

- Common use of formal tools such as Lean, Kaizen, Six Sigma and Baldrige

- Sharing of best practices in academic and administrative processes from dozens of universities, associations and businesses

DELETE

Executive Summary

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Continuous Improvement
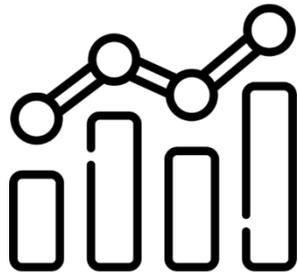
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APPENDIX