

The New Facility Maintenance Trend to Improve Efficiency



Presenting Today:



Joe Lonjin, CRL: Cohesive Solutions

Joe works with customers who use our Propel Performance Management solution to bridge the gap between strategic objectives and operational performance. Joe has a background in facility maintenance and management as he served in various Maximo analyst and support roles at Penn State University, where he gained maximum exposure to IBM Maximo Enterprise Asset Management Software and the business processes associated with it.



Bill Steudler: Penn State University

Bill Steudler is a maintenance engineer at Penn State University where he supports the areas of maintenance management of facility assets for the campus. He is an integral part of a team responsible for Enterprise Asset Management Strategy including use and support of their Maximo application and other related EAM systems. Bill is committed to driving performance results by aligning people, process, and objectives.



Ben Leskovansky: Penn State University

Ben Leskovansky is a Facilities Specialist within the Enterprise Asset Management group in Penn State University's Office of Physical Plant (OPP). Ben provides support for multiple business systems at OPP including Maximo and Propel, which support the overall mission of providing excellent facilities services for Penn State. Part of the vision statement for this team is to increase the efficiency of facility operation and maintenance through the use of proven technology and timely access to data and documents.



About our Organization



About Penn State University



- 24 Campuses
- 17,000 faculty and staff
- 100,000 students
- Hospital provides care to 1 million+ patients a year
- 500,000+ active alumni
- Average Building Age – 37 years

University Park (Main Campus)

- 21.1M GSF
- 35 miles of road
- 77 miles of sidewalk
- 17,000 trees
- 965 buildings
- 200+ acres of roof area
- 81,000 acres of building space
- Enrollment 46.8K (13.7K Housed)
- 1,708 restrooms
- 3,529 staircases
- 1,550 elevators
- 515 classrooms
- 2,503 laboratories
- 98 loading docks
- 119 greenhouses
- 14 museums



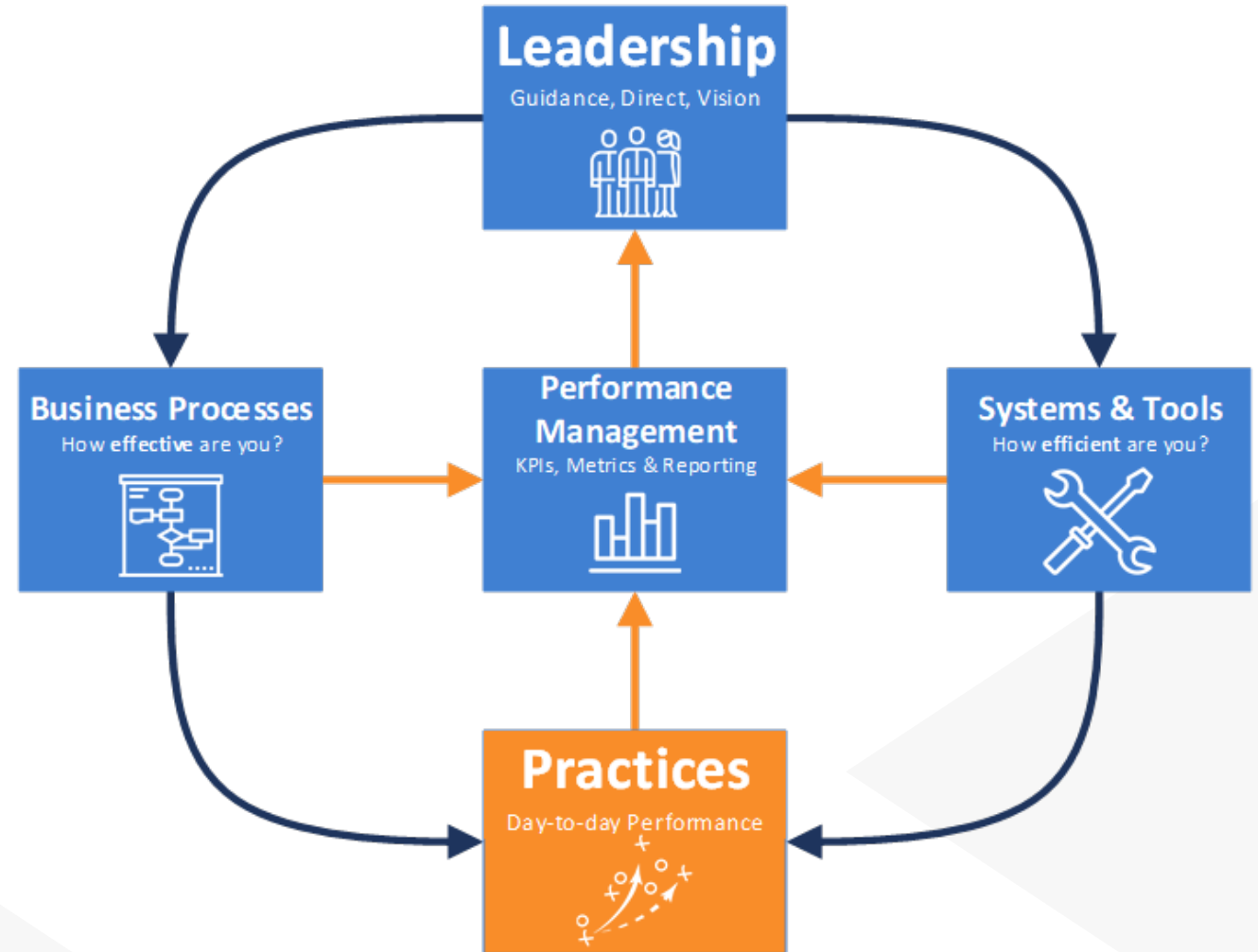


Transparent, Data Driven Decision Making - Strategically Aligned with Business Objectives & Performance Expectations

- Goal setting is an integral part of the performance management process.
- When employee goals are challenging, and when they are aligned with the organization's higher level goals, they provide greater meaning and purpose to the work and have been shown to foster employee engagement.
- Research suggests managers can also use goal setting in support of engagement when they minimize obstacles to performance, provide the resources necessary for employees to do their jobs, and engage their employees in the goal setting process.
 - Mone, E., London, M. (2018). Employee Engagement Through Effective Performance Management. New York: Routledge

Continuous Improvement & Change Requires Alignment

- Leadership – Must be actively involved
- Business Processes – Must support the objectives
- Systems & Tools – Updates & new features alone will not make you effective
- KPIs & Metrics – Does what gets measured really get done?
- Do expectations align with all of the above?
- Managing Performance is Dynamic



To Utilize your **Data** it must have **Quality** in order to provide you **Confidence**

Data Quality

- The most basic ability to analyze a set of data - can I measure it?
- Measures need to contain the right attributes provided by a trusted source
 - People
 - Systems
- You must define what Quality is for records in your systems, tools, or databases

Data Confidence

- An unambiguous measure of the credence that should be placed on performance results
 - How trustworthy is the data?
- What percent of data in a measure meets the quality definition?



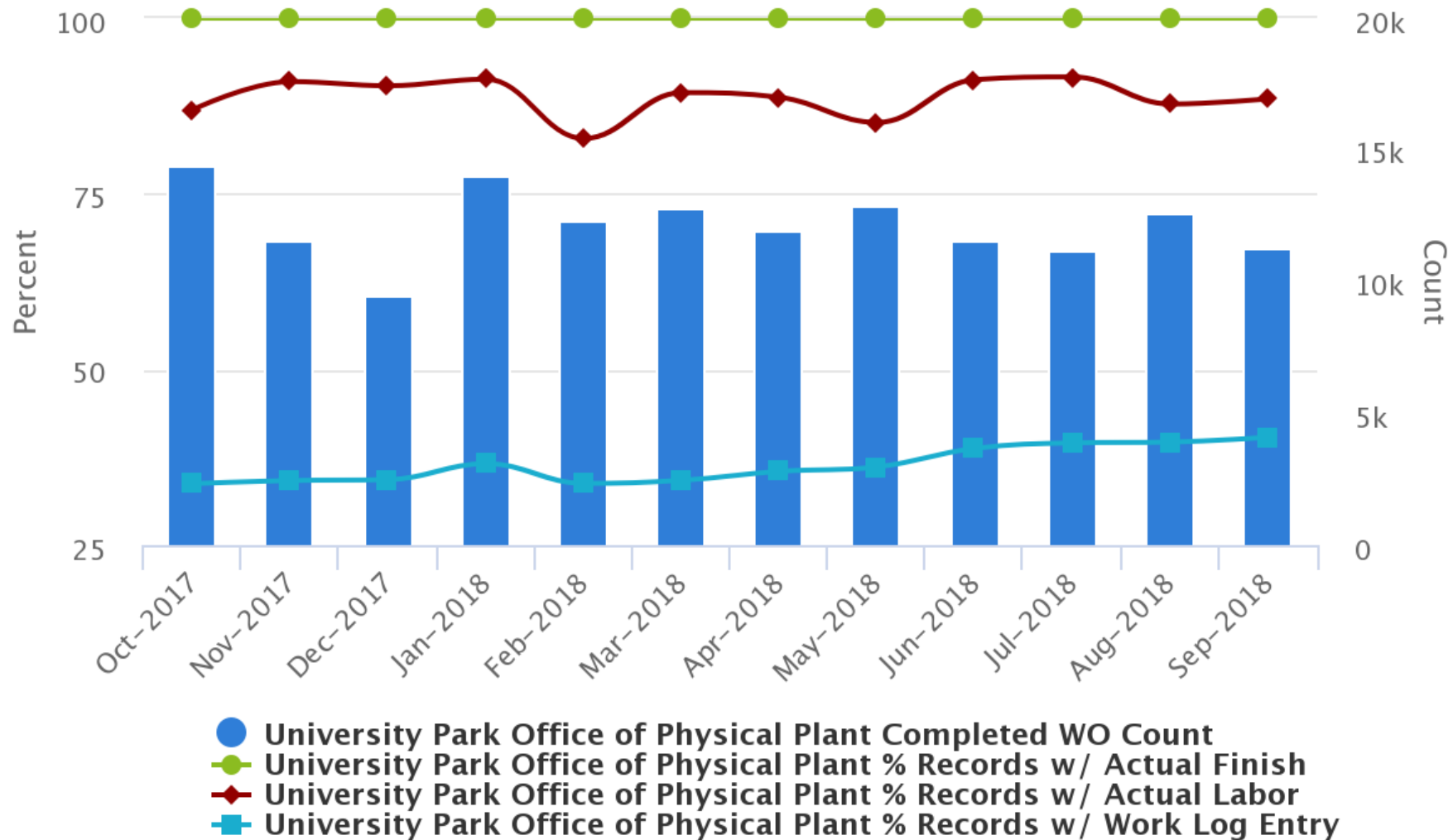


Poll Question

Are you using an electronic system to monitor performance or metrics other than your EAM system (CMMS)?



Data Confidence – WO Data Accuracy – Closure Detail

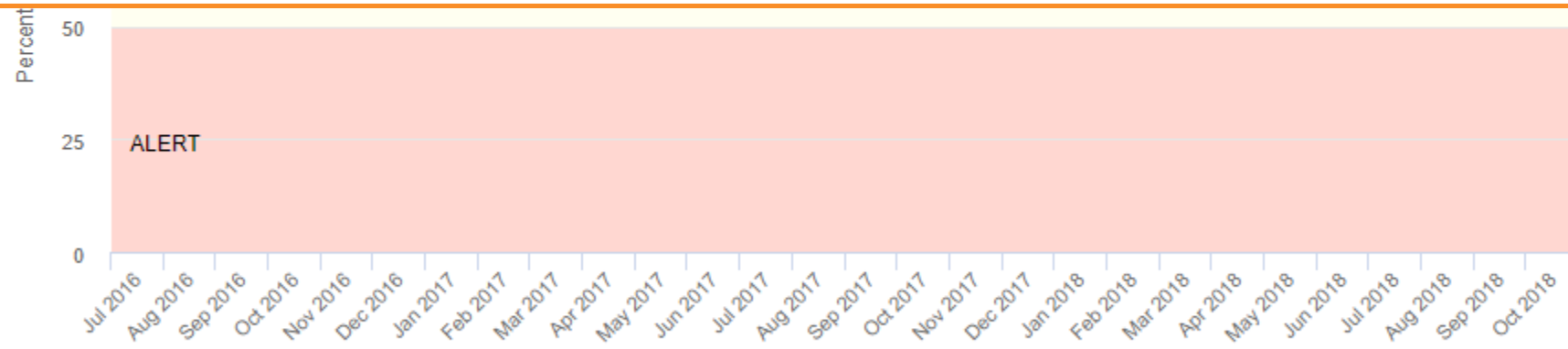


- **Quality –**
Completed WO's must have: Actual Finish, Actual Labor, Work Log Entry
- **Confidence –**
The percentage of the total number of Completed WO's contain those values

Clear & Consistent Terminology Supports Transparency

Planned-to-Unplanned Ratio (by WO%) - KPI: The leading practice benchmark for planned-to-unplanned work ratio is 80/20. This KPI shows planned work as a % of all work by WO count. "Planned Work" is where the WO is identified as NONEMERGING. "All Work" includes types MP, SVC, PM, EV, KEY, CM, PDM. (Historical integrity beyond June 2015 is ignored due to the implementation of a new business process.).

The “1:10” industry rule says that every dollar spent doing proactive work saves ten dollars on the bottom line. – *Doc Palmer, PE, MBA, CMRP*



University Park Office of Physical Plant

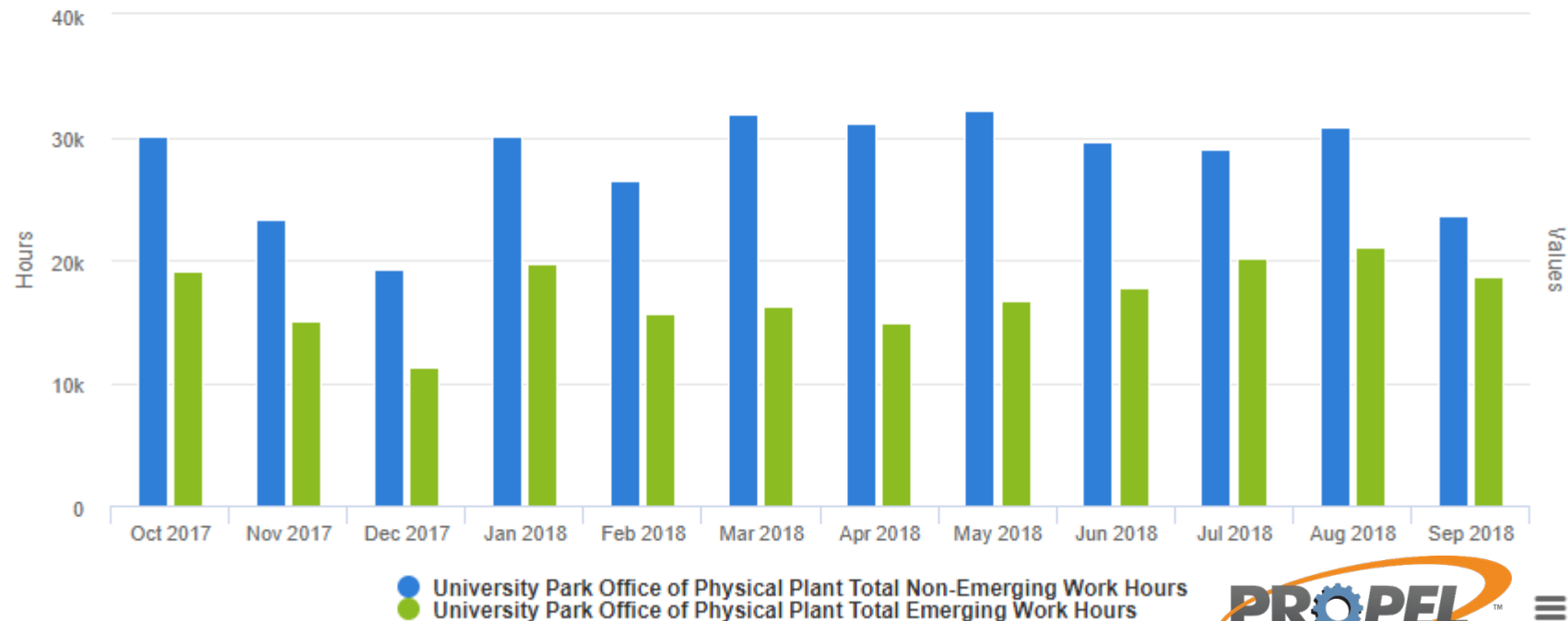
KPI: Planned-to-Unplanned Ratio (by WO%) - KPI



Challenge Employees to Support Objectives

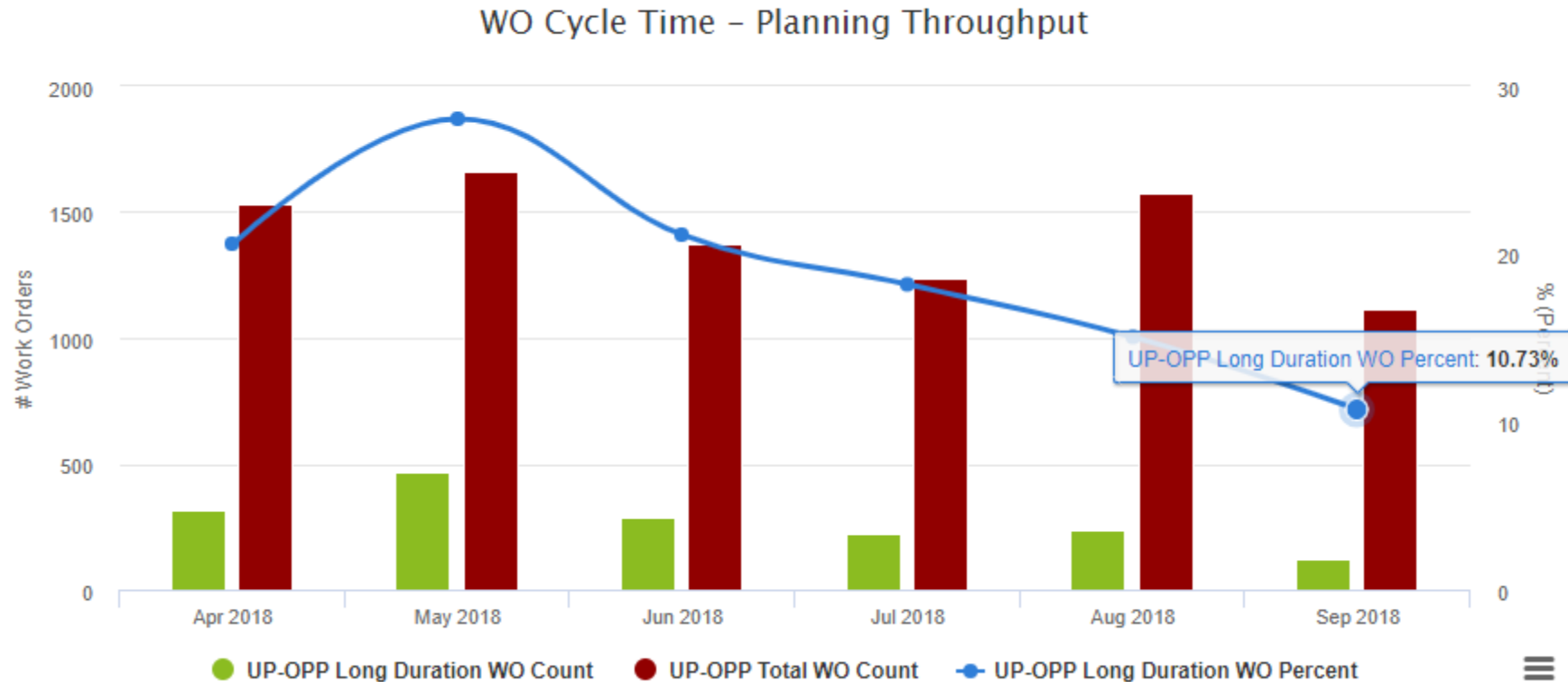
Maintenance Mix Labor Hours Proactive vs. Reactive: MAINTENANCE MIX LABOR HOURS PROACTIVE vs REACTIVE is a lagging indicator of percentage of all regular labor hours (excludes premium hours) by timecard transaction (entered) date charged on the execution of NONEMERGING work order types: PM, PdM, CM, SVC, MP, KEY, TS. NONEMERGING work is presumed to have followed the defined OPP business workflow process of Work Reception >> Planning >> Scheduling >> Execution. EMERGING work is either dispatched directly to a technician or workgroup with no or minimal planning by either Work Reception Center or Planning & Estimating. The dispatch decision is directly related to the urgency of the work and not necessarily the importance NOTE: the metric excludes FT, EV, JOB (JOB will be included once billing solution is complete post Maximo 7.6 implementation).

Maintenance Mix Labor Hours Proactive vs. Reactive



Realize Efficiency through Engagement

WO Cycle Time - Planning Throughput: PLANNING THROUGHPUT displays (1) WO count that were (or are) in planning (WPLAN, PLANNING, REPLAN) for 14 days or more, (2) WO count that were (or are) in planning (WPLAN, PLANNING, REPLAN), (3) WO percentage in planning (WPLAN, PLANNING, REPLAN) for 14 days or more. Exclude Work Types = 1JOB / FT / TS





Poll Question

What percentage of your organization do you feel understands goals & expectations as they relate to mission objectives?



Goals must be Visible & Understood to Achieve them

- Near Term Initiatives

- Implement Business Process Improvements to increase the amount of Planned and Scheduled Work
- Asset On-boarding with Criticality Assessment



- Long Range Plan

- Data Driven Decision Making
- Capital Plan Coordination with Maintenance Strategy
- Building Turnover – Transition from Construction to Operation



Questions?



PennState
Physical Plant



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Thank You!

Learn More About:

- [Performance Management](#)
- [Propel](#)
- [Cohesive Solutions](#)



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Meet us in person at these events:

- SMRP Annual Conference - Orlando, FL October 22-24
- IMC - Bonita Springs, FL December 10-14

