

IAC Pre-SPARC Meeting

Pat Burns, VP for IT

Nov. 2, 2015

Outline

1. Review budget projections for FY 2017
2. Base budget requests
 - a. ACNS – HPC support
 - b. IS – Workflow staffing position
3. One-time budget requests
 - a. ACNS – main data center electrical distribution
 - b. IS – Replacement for eThORITY
4. Q&A

1. Budget Projections for FY 2017

- 2% for rescission (likely 1.5%)
- 2% for new budget requests (likely 0.25%)

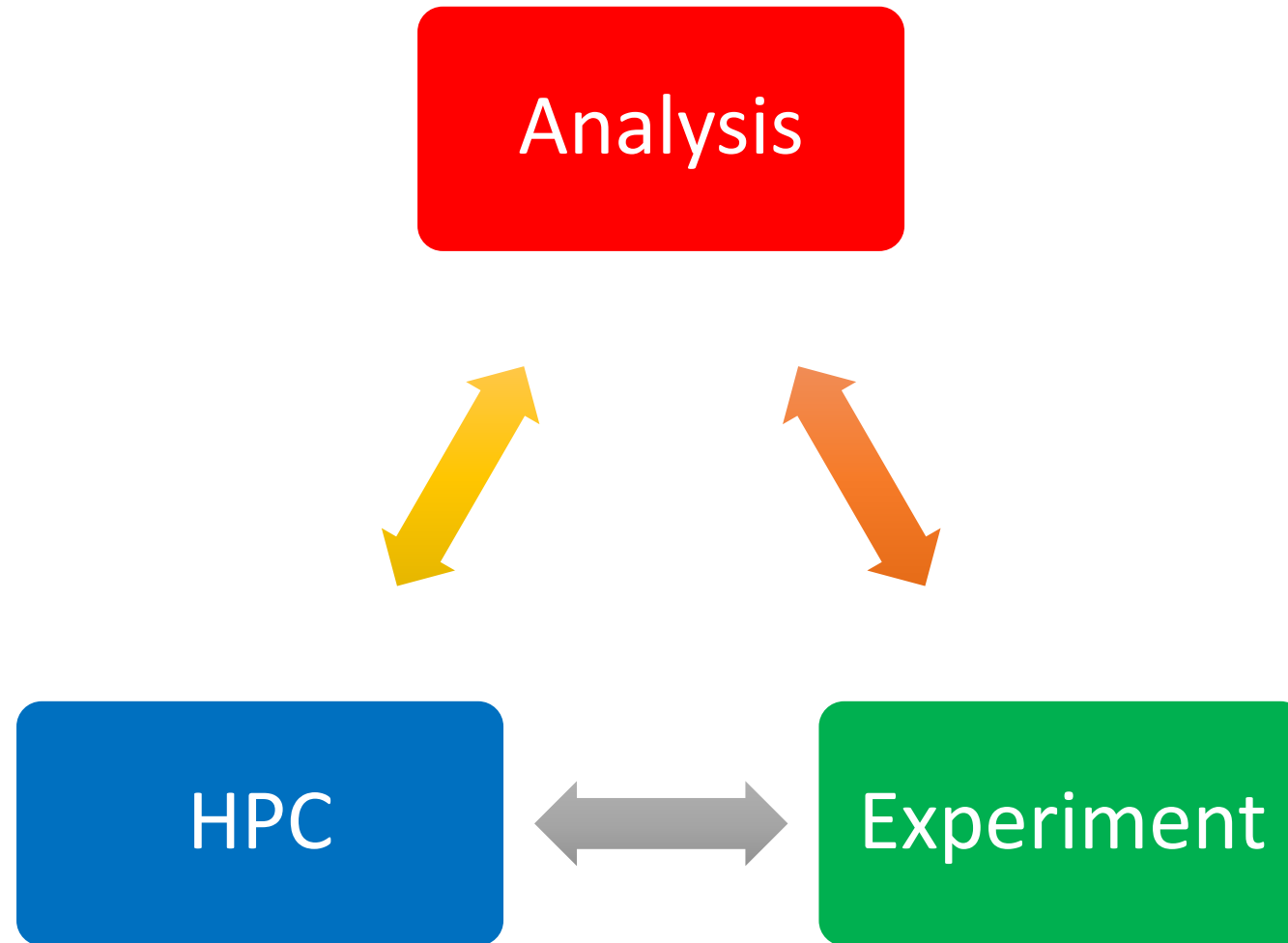
2. Base Budget Requests for FY 2017

a. ACNS Base Budget Request – HPC Support

Federal Research Funding

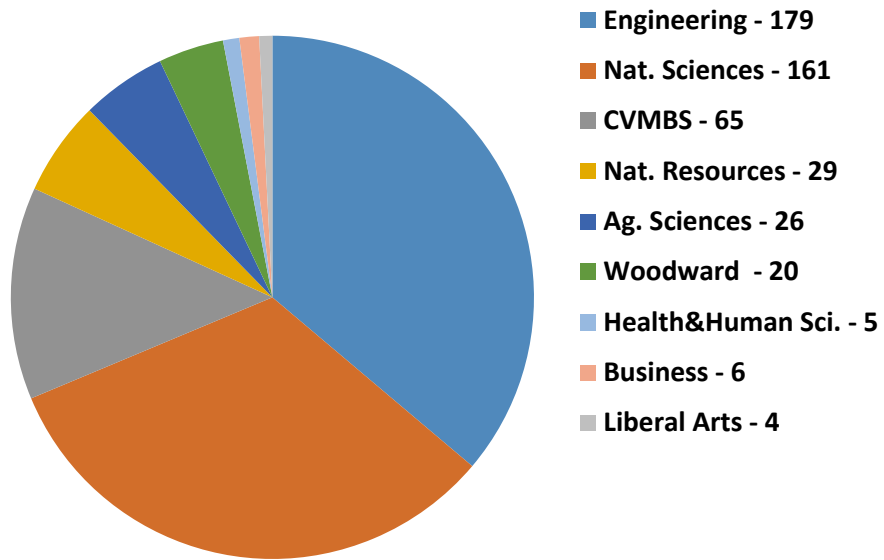


Ways of Conducting Research

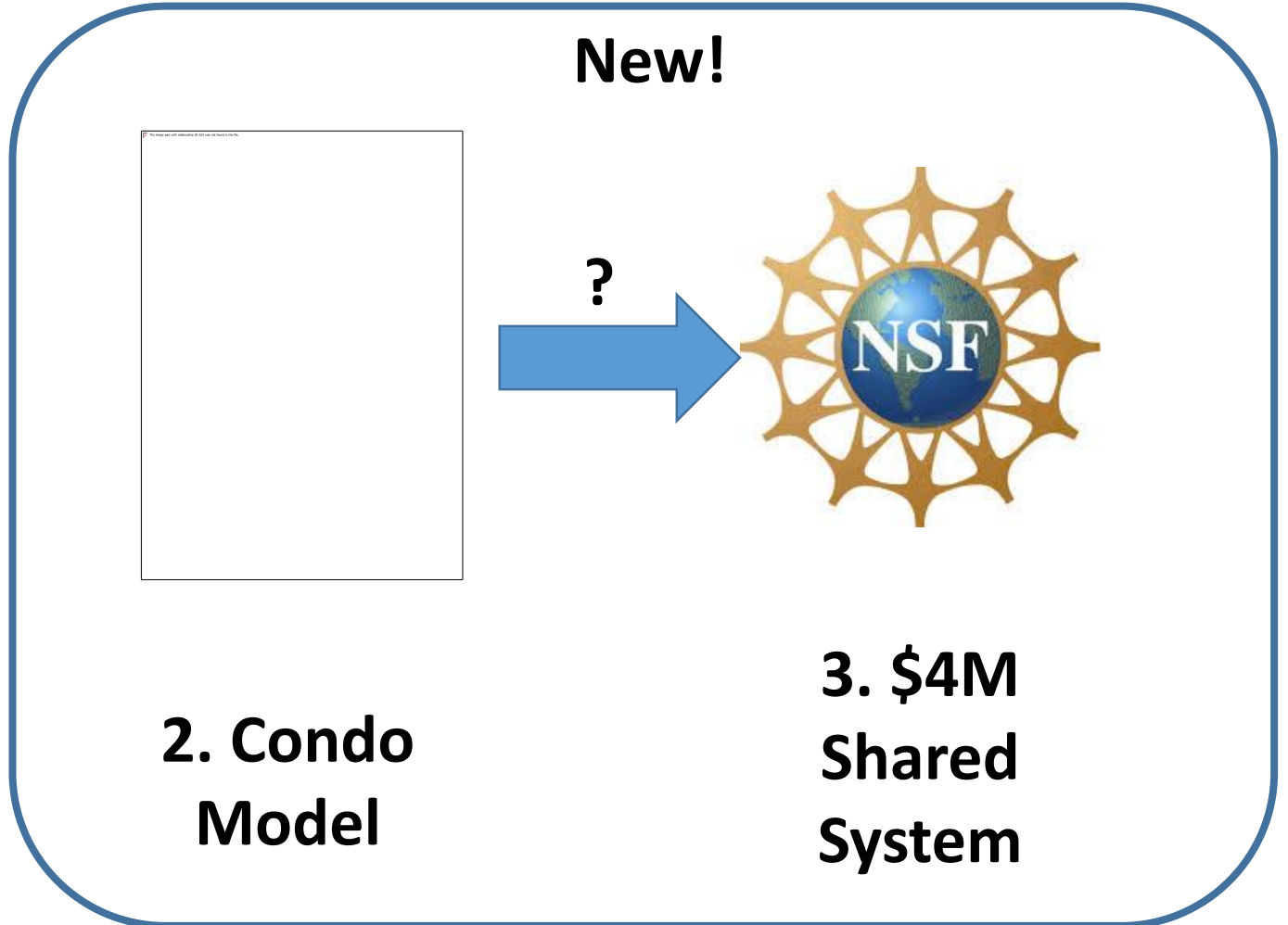


Our HPC Environment

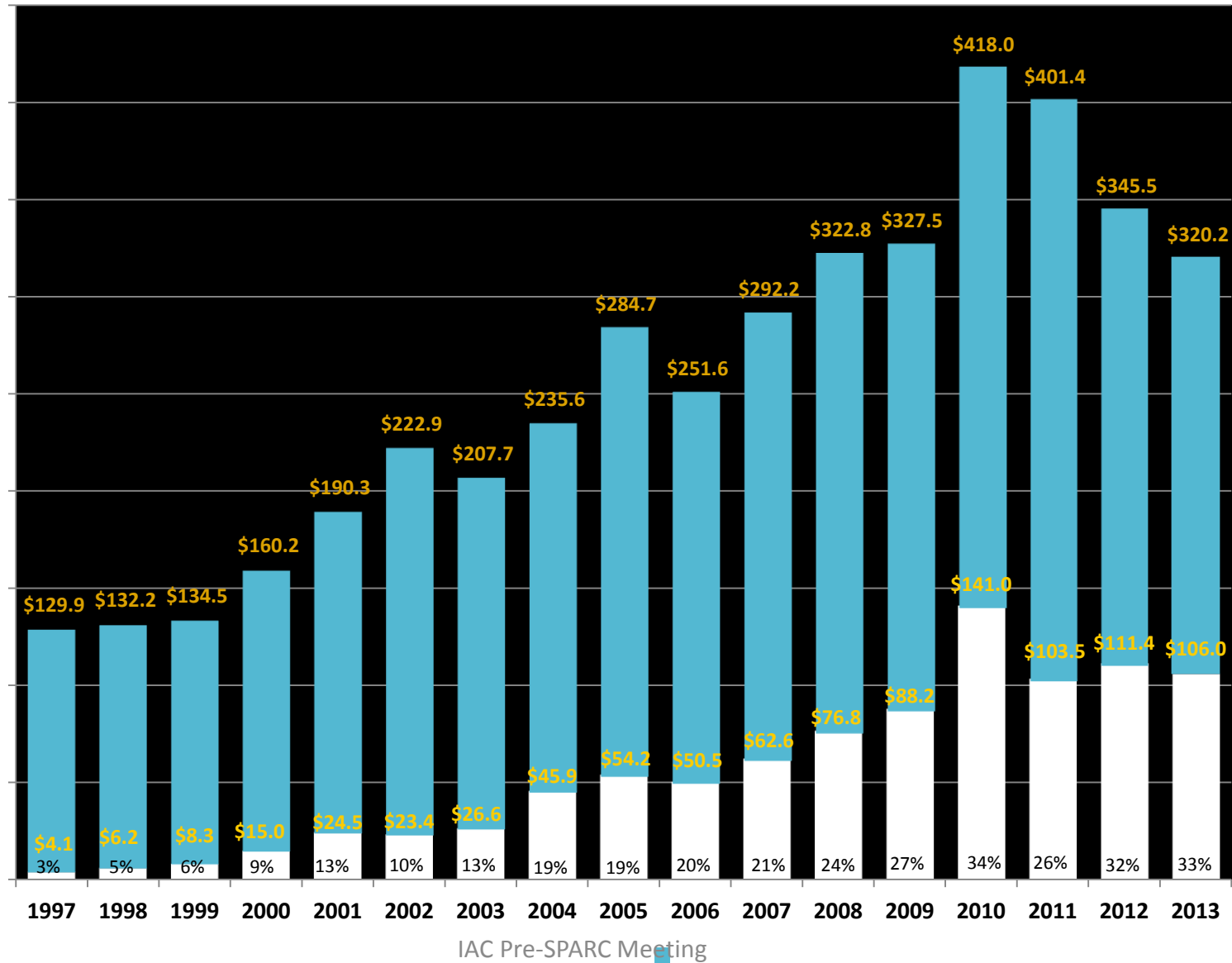
Central HPC Usage by College
Nov. 2013: 495 Total Users



**1. Cray
XE6**



PURDUE - AWARDS TO HIGH-PERFORMANCE COMPUTING USERS



Nov. 2, 2015

Quotes from Purdue

“IT completely took care of the purchasing, the negotiation with vendors, the installation. They maintain the cluster so my graduate students can be doing what they, and I, want them to be doing, which is research.”

— Ashlie Martini

associate professor of mechanical engineering

“In a time when you really need it, you can get what you paid for and more, when available. And when you don’t need it, you share with others so they can benefit from the community investment.”

— Gerhard Klimeck

professor of electrical and computer engineering
and Reilly Director of the Center for Predictive Materials and Devices

More From Purdue

“High-performance computing is critical for the modeling that we do as part of the National Nanotechnology Initiative. Without Purdue’s Community Clusters we would be severely handicapped. They provide ready, ample and cost-effective computing power without the burdens that come with operating a high-performance computing system yourself. All we have to think about is our research.”

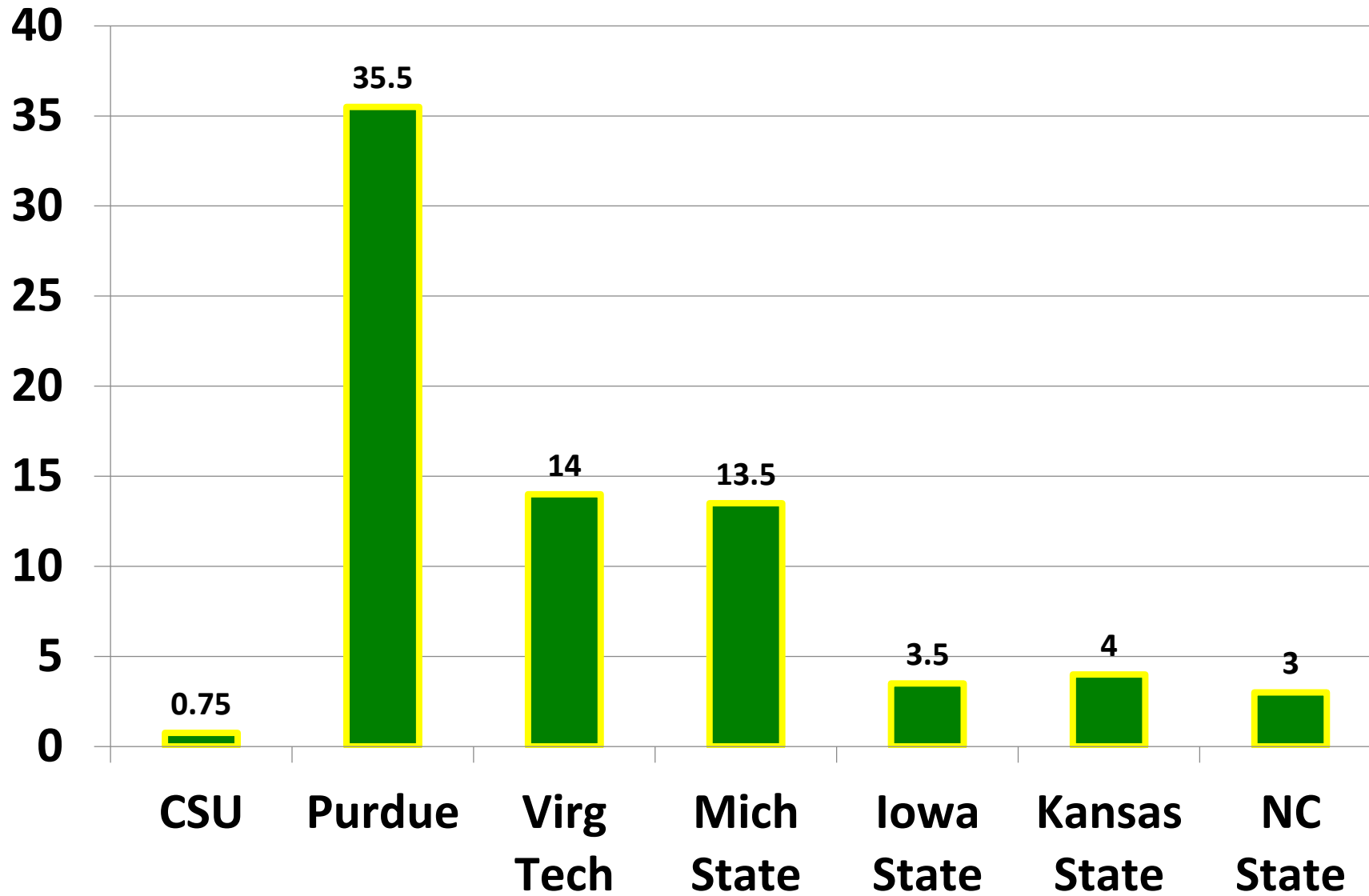
— Mark Lundstrom

Don and Carol Scifres Distinguished Professor of
Electrical and Computer Engineering and member of
National Academy of Engineering

Current HPC Staffing at CSU

1. Manager of HPC Systems – Rick Casey – 0.5 FTE
 - a. Management
 - b. User support
 - c. Application support
 - d. Woodward/ANSYS support
2. System administration – Dan Hamp – 0.25 FTE
3. Research Computing Committee recommendation: add 4 FTE

HPC Staff



Budget Proposal – Add HPC Staffing: \$88,702

1. Base budget request: \$88,702
 - a. Elevate Rick Casey from half time to full time
 - b. Add 2 half-time student hourly graduate students
 - c. Salaries and benefits
2. Cost share from ACNS/Libraries – elevate Dan Hamp from 0.25 FTE to 0.5 FTE in support of HPC

b. IS Base Budget Request: Kualif Workflow Developer

IS Budget Proposal – Kualu Workflow Staff: \$95,433

1. Base budget request: \$95,433
 - a. One full time equivalent to program new workflow applications, as prioritized by the ACAAdA
 - b. Perceived as the biggest benefit to the campus

3. 1X Budget Requests

Summary

1. ACNS – upgrade power distribution in main data center to accommodate
 - a. Additional systems from units/colleges
 - b. Deployment of condo model
 - c. Request: \$42,110 (ACNS to contribute \$25,000)
2. IS – replace eThORITY on top of Oracle
 - a. ODS – refresh data dictionary: \$0
 - b. ODS – simplify, reduce redundancy: \$0
 - c. Replace eThORITY (study in process): up to \$450,000!!!

4. Q&A

