

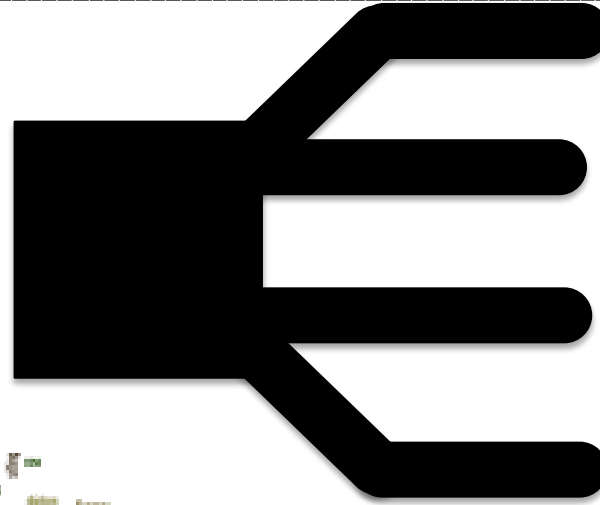
Hot Topics: The Changing Landscape of Research at Purdue

Mary Anne Sloan & Ken Sandel
November 4, 2015



CHANGING LANDSCAPE

External Forces



Budget

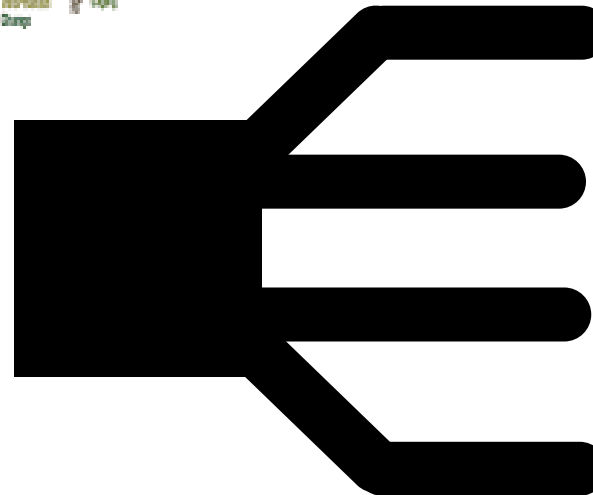
Funding

Competition

Need



Internal Drivers



Budget

Priorities

Mission

Leadership

Research Data Overview

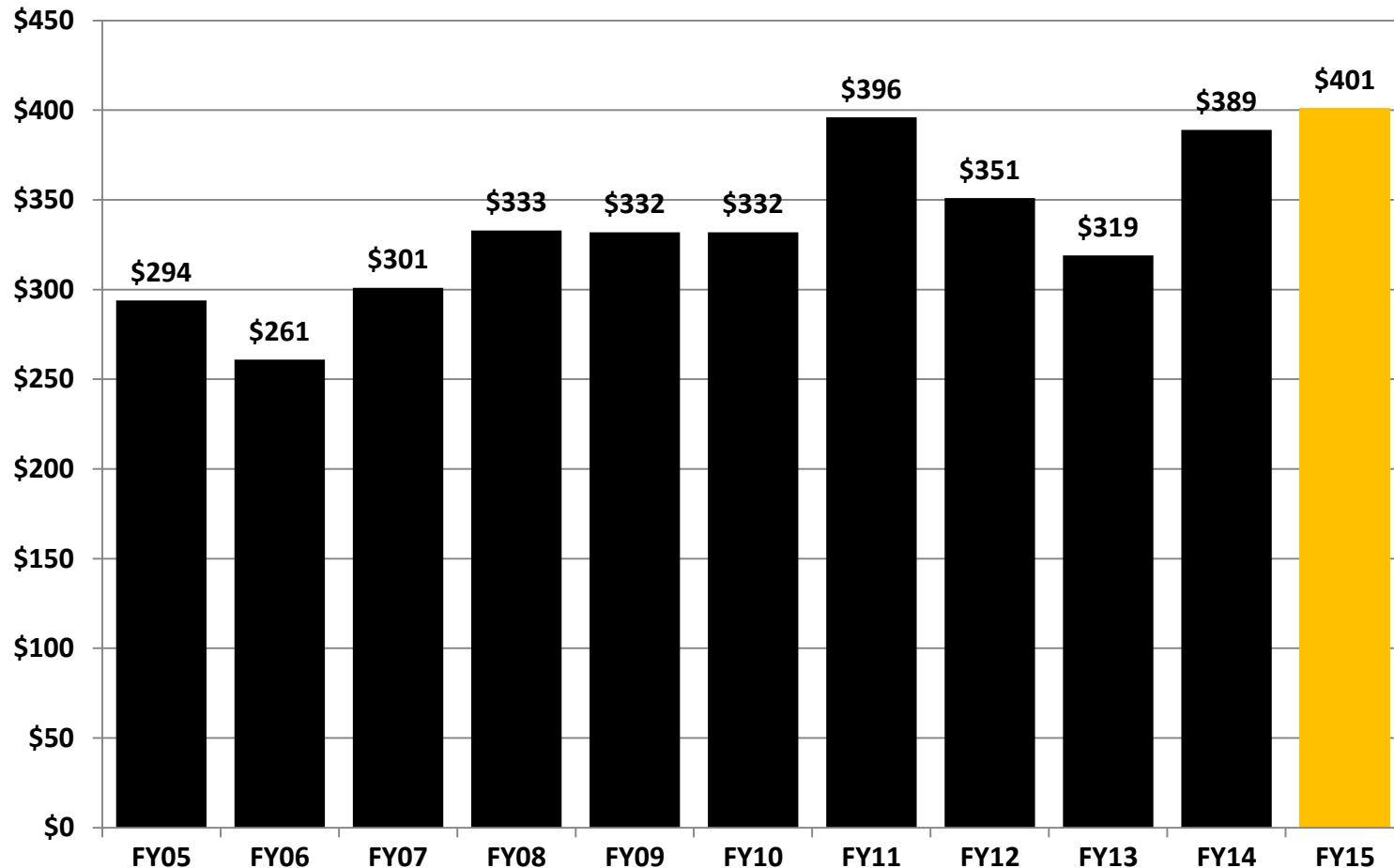
Hot Topics

Ken Sandel
Senior Director, SPS
November 4, 2015



SPONSORED RESEARCH AWARDS

Research awards **\$401M**: **↑3.1%** over FY14—*RECORD*



SPONSORED RESEARCH AWARDS

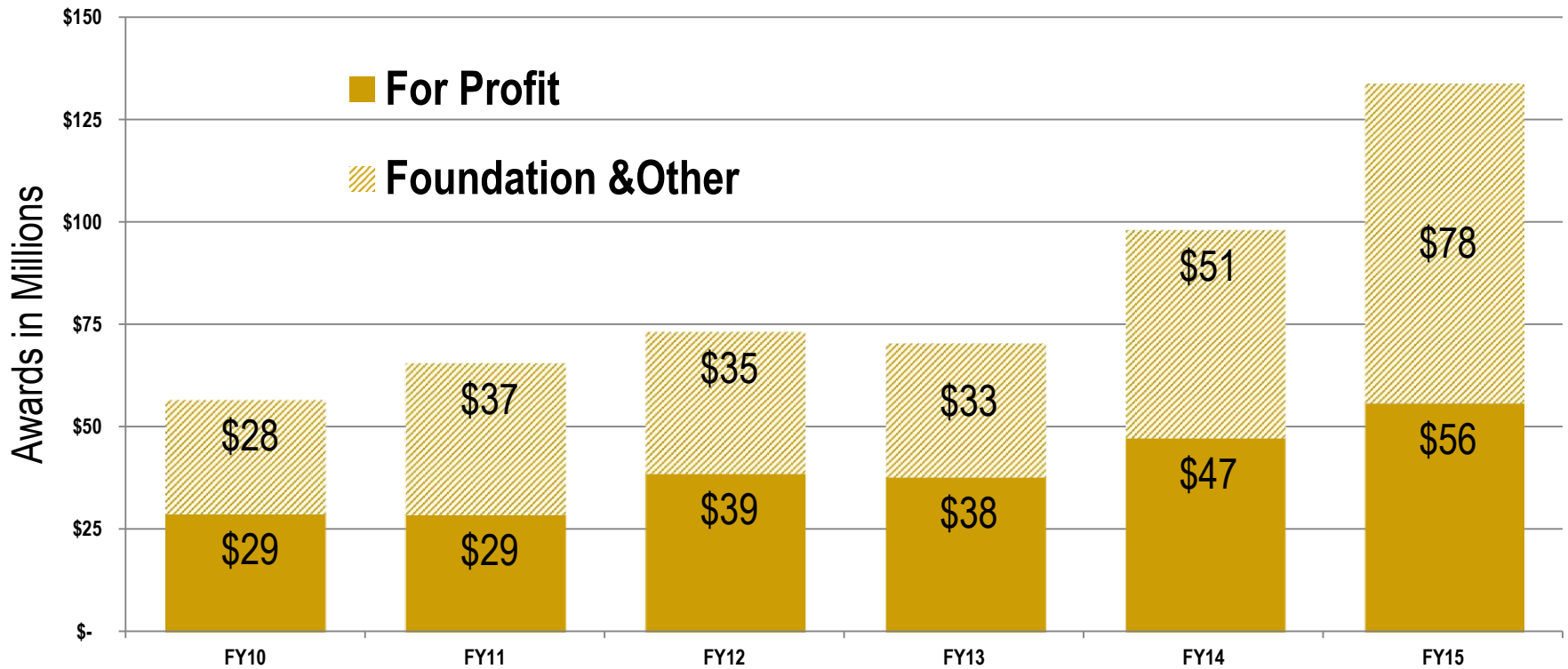
Federal Awards \$4.9M:  2% over FY09

Sponsor	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
NSF	66.1	108.4	98.3	89.2	81.4	82.3	68.2
DHHS	52.2	81.3	59.0	45.8	36.0	41.8	41.7
DOD	30.9	34.4	39.6	34.6	27.3	27.4	38.0
DOE	26.8	54.0	35.7	20.5	22.9	22.2	13.8
USDA	14.1	21.7	31.4	23.7	21.6	20.9	25.4
Other Federal	12.6	24.2	16.0	11.6	9.1	16.4	17.2
NASA	6.3	5.2	6.0	6.2	8.2	7.6	7.3
ED	6.3	6.4	9.1	4.7	3.7	3.0	6.4
DOT	5.7	4.9	3.2	4.7	4.1	1.5	5.8
AID	2.8	4.3	8.4	1.0	1.8	5.2	4.9
Total Federal	223.8	344.8	306.7	242.1	216.1	228.4	228.7
Industrial/Found	83.2	56.6	65.6	73.2	70.3	98.0	133.6
State/Local Govt	24.7	27.9	27.2	22.4	17.8	23.4	21.4
PRF/Purdue	9.0	7.2	12.9	13.7	10.9	23.7	13.7
Foreign Government	1.5	1.5	7.2	2.2	5.0	16.3	3.7
Total Purdue System-wide	342.2	438.0	419.6	353.6	320.1	389.7	401.1

SPONSORED RESEARCH AWARDS

Industry/Foundations Awards \$134M: ↑36% over FY14

FY10-FY15



AWARDS BY AGENCY

FY14 awards system-wide: \$389 million

5%	USDA, \$21 M
6%	DOE, \$22 M
6%	State/Local Govts, \$23 M
6%	PRF/PU, \$24 M
7%	DoD, \$27 M
11%	DHHS (NIH), \$42 M
13%	Other Fed<\$10M & Foreign Govts., \$50M
21%	NSF, \$82M
25%	Industrials & Fdns, \$98M

FY15 Awards System-wide: \$401 million

3%	PRF/PU, \$14 M
3%	DOE, \$14 M
5%	State/Local Govts, \$21 M
6%	USDA, \$25 M
9%	DoD, \$38 M
10%	DHHS (NIH), \$42 M
11%	Other Fed<\$41M & Foreign Govts., \$4M
17%	NSF, \$68M
33%	Industrials & Fdns, \$134M

THROUGH SEPTEMBER – FY 2016

Awards \$32M: ↑28% over FY15 (through September)

Fiscal Period	2016	2015	Percent Change
1	\$38,938,879	\$29,431,186	32%
2	\$51,172,258	\$41,706,625	23%
3	\$56,146,771	\$43,494,740	29%
4	\$0	\$30,228,072	
5	\$0	\$13,677,223	
6	\$0	\$76,826,964	
7	\$0	\$22,717,054	
8	\$0	\$22,099,882	
9	\$0	\$32,941,651	
10	\$0	\$27,411,827	
11	\$0	\$24,474,107	
12	\$0	\$36,133,374	
Grand Total	\$146,257,909	\$401,142,704	
FYTD	\$146,257,909	\$114,632,550	28%

Sponsor	2016	2015	% Change
Federal	\$110,404,246	\$85,388,564	29%
Corp./Foundation	\$22,206,329	\$19,515,556	14%
State/Local	\$5,761,634	\$3,619,592	59%
PU/PRF	\$7,414,662	\$5,548,294	34%
Foreign	\$471,038	\$560,545	-16%
FYTD	\$146,257,909	\$114,632,550	28%

THROUGH OCTOBER – FY 2016

Awards \$41M:  28% over FY15 (through October)

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1	\$38,938,879	\$29,431,186	32%
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7	\$0	\$22,717,054	
8	\$0	\$22,099,882	
9	\$0	\$32,941,651	
10	\$0	\$27,411,827	
11	\$0	\$24,474,107	
12	\$0	\$36,133,374	
Grand Total	\$185,858,390	\$401,142,704	
FYTD	\$185,858,390	\$144,860,622	28%

Office of Corporate & Global Partnerships

Hot Topics

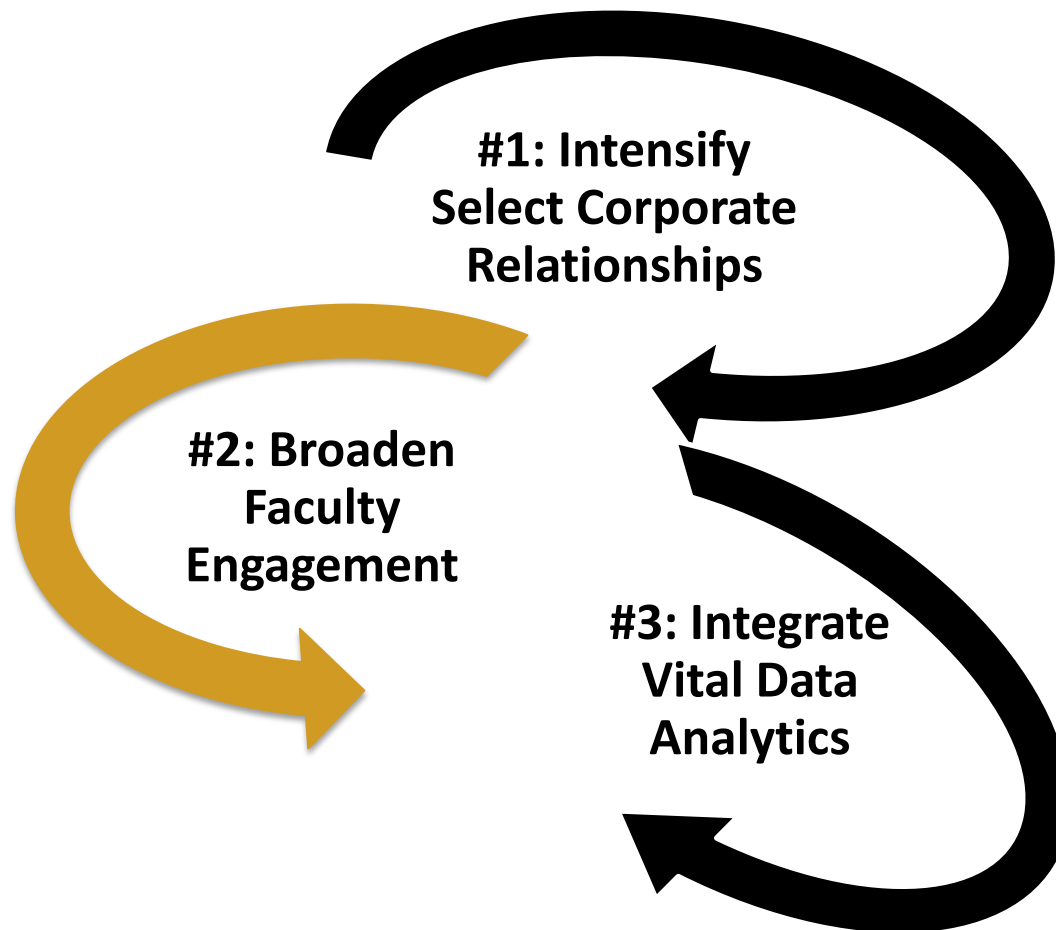
Mary Anne Sloan
Managing Director
Corporate Partnerships, OCGP

November 4, 2015

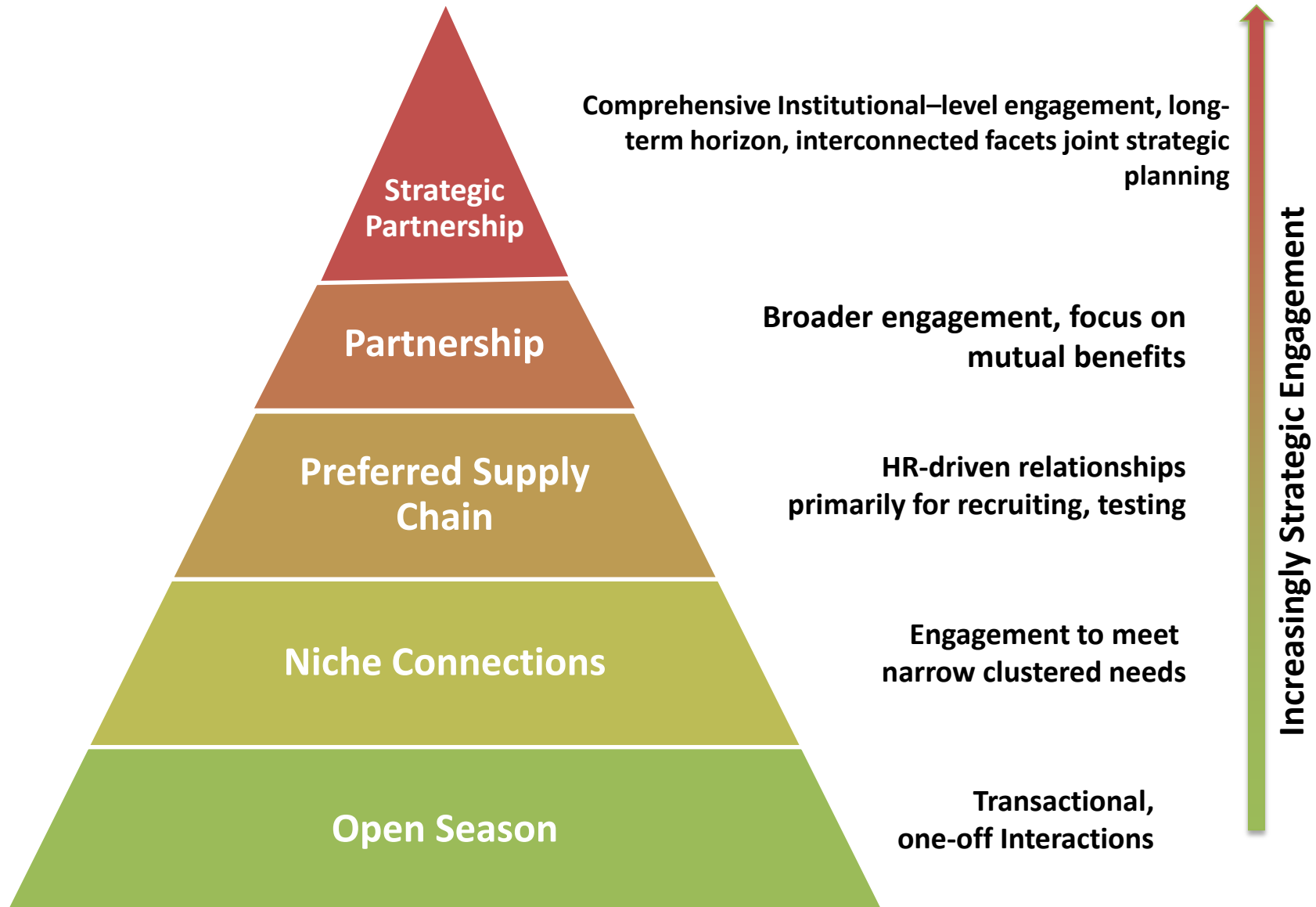


MISSION & STRATEGIES

Mission: Increase *Impact, Scale, & Sustainability* of Corporate Partnerships



#1: INTENSIFY SELECT CORPORATE RELATIONSHIPS



#1: INTENSIFY SELECT CORPORATE RELATIONSHIPS

Presidential Partners

This program is to cultivate corporate and global partners who have both a broad and deep relationship throughout the **University**. Our goal is to intensify these relationships and identify additional synergies by providing:

Customized Virtual
Access

Exclusive On-
Site Access

Enhanced
Responsiveness



#2 BROADEN FACULTY ENGAGEMENT

We will broaden faculty participation and relationship building opportunities with corporations.



- Help early-career and mid-career faculty collaborate more effectively with corporations.
- Strengthen linkages between corporations and Purdue's strongest multi-disciplinary research teams.

#2 BROADEN FACULTY ENGAGEMENT

OCGP works closely with Corporations and Faculty to Address their Many Shared Goals and Challenges:

Research Goals

- Long-term relationships (and/or Master Agreements) streamline research.
- Multi-disciplinary approaches are highly valued.

Recruitment and Communication

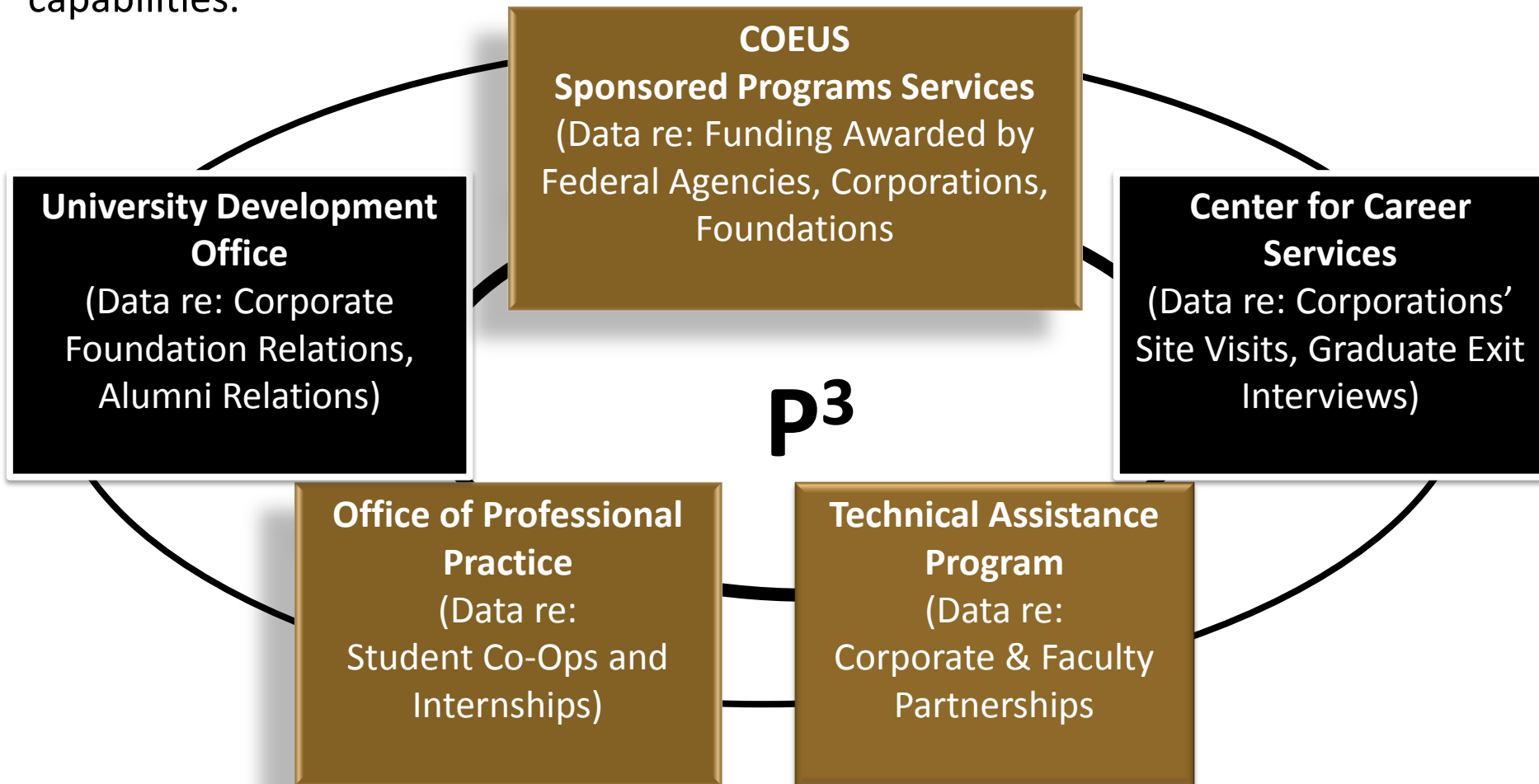
- Student internship / employment opportunities a priority.
- Improved methods for communicating is a priority.

Use of Time & Resources

- It is a priority for corporations and faculty that time and resources are used wisely.
- Coordinating the business and academic calendar is a challenge.

#3 INTEGRATE VITAL DATA ANALYTICS

We are integrating Purdue's extensive network of business intelligence into one dashboard - known as **Purdue Partners Platform (P³)** - to enhance Purdue's predictive analytics, agility, responsiveness and other business intelligence capabilities.



#3 INTEGRATE VITAL DATA ANALYTICS

P³ will enable Purdue faculty, administrators and staff to engage with corporate and global partners after reviewing information they never had ready access to before.

They can review diagrams that answer questions such as:

Over the past five years, has this company been steadily hiring from the same programs they have been investing in research?

What is the geographic distribution of our alumni and how does that compare to the location of our key corporate partners?

How many different initiatives on campus is the company involved and with which colleges/schools?



#3 INTEGRATE VITAL DATA ANALYTICS

***P*³ is only the first of many Internet-based projects planned by OCGP.**

We are working toward streamlining communication several different ways:

A password-protected “Portal” for each Presidential Partner.

It will be tailored to showcase that specific corporation’s priorities with Purdue’s research, education and engagement strengths.

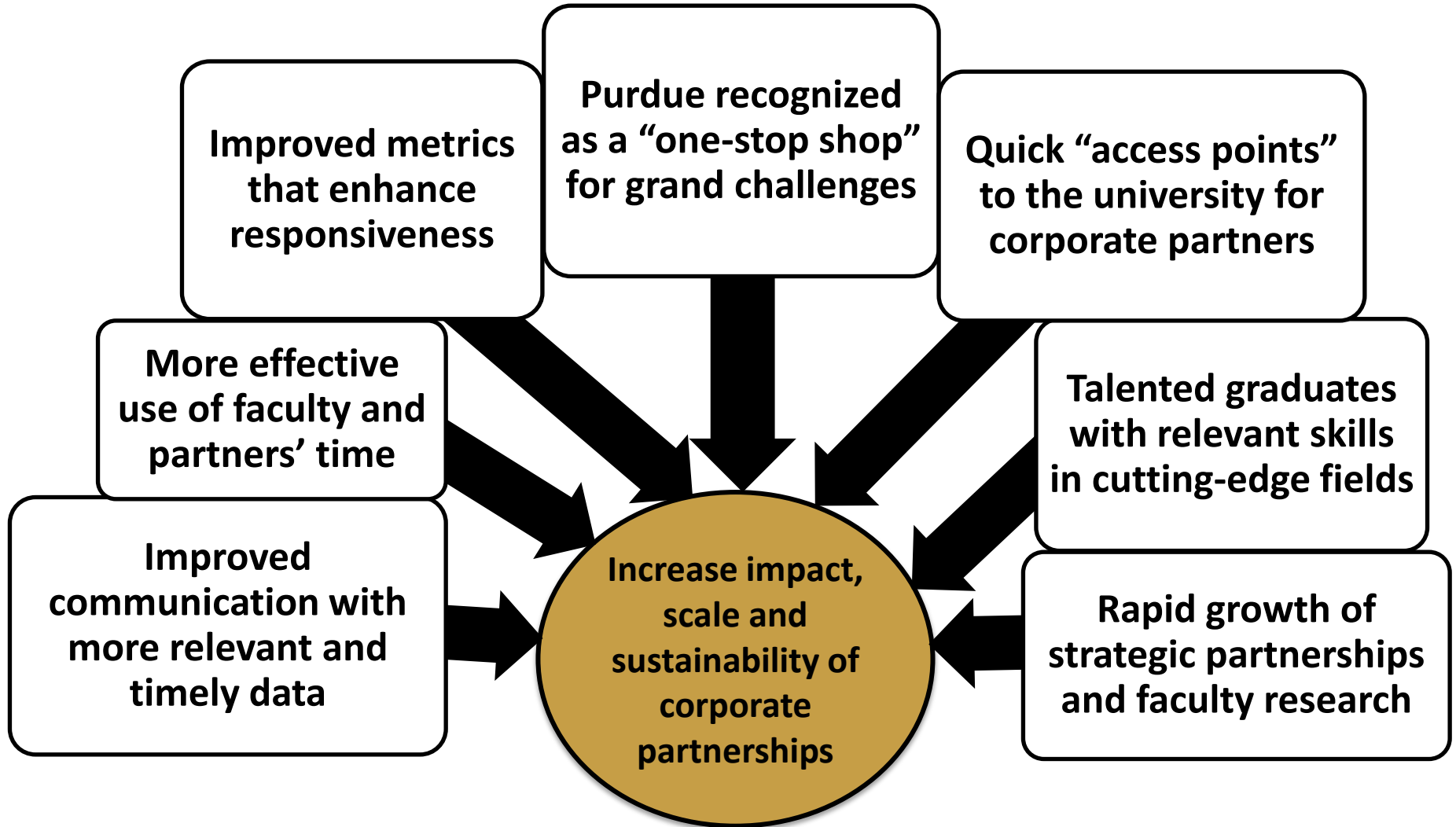
A password-protected “Portal” for Faculty, staff and administrators.

A summary of Presidential Partner’s research focus areas, prior giving to Purdue and other related engagements to help inform future partnerships.

An online database with a searchable database of keyword-faculty expertise.

It is vital that corporations be able to find Purdue collaborators as needed. OCGP is working toward building this continually updated resource.

DESIRED OUTCOMES



THANK YOU!

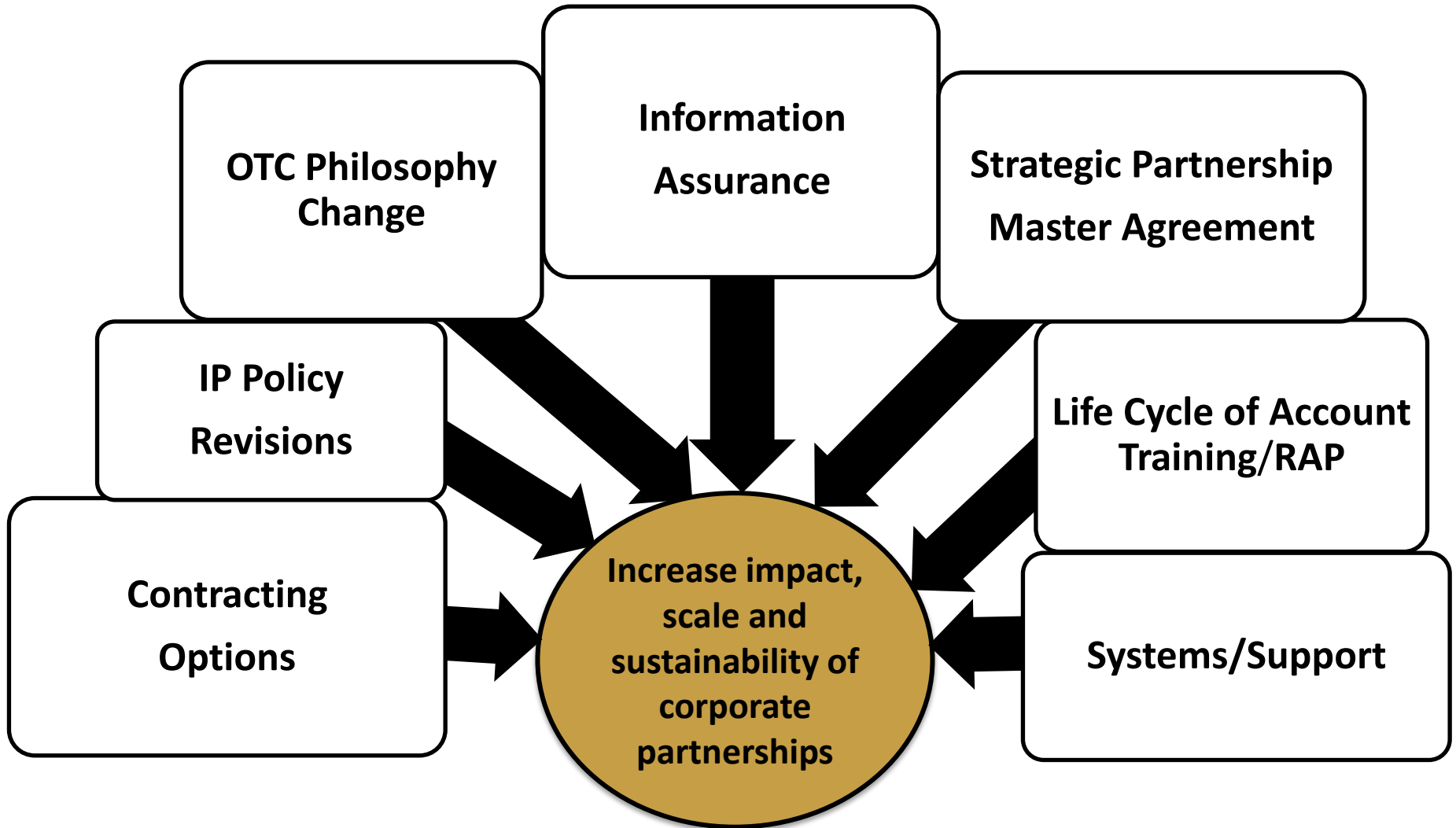
PURDUE
UNIVERSITY



Enhanced Responsiveness



ENHANCED RESPONSIVENESS



Contracting Options

Hot Topics

[http://www.purdue.edu/business/sps/
contractmgmt/appliedresearch.html](http://www.purdue.edu/business/sps/contractmgmt/appliedresearch.html)



PURDUE - LEADER IN NEW CONTRACT MODELS

1 of 8 universities

featured in 2014 edition of

***“New Models for
University-Industry
Collaborations” by
University-Industry
Demonstration
Partnership”***

“ . . . some schools are starting to develop new approaches aimed at making it easier to provide sponsor access to (or outright assignment of) foreground intellectual property rights concurrent with the negotiation of sponsored research agreements . . . ”



University Industry
Demonstration Partnership

CONTRACTING MODELS

Traditional

1. Basic Research - Early stage research - to explore solutions in a broad technical area
 - Purdue owns Project IP
 - Sponsor receives non-exclusive royalty-free (NERF) license to w/first option to a royalty bearing exclusive license
2. Testing - Expertise, labs and equipment to provide feedback with sponsor-identified protocol
 - Sponsor owns project-generated data
 - Any other IP outside scope

CONTRACTING MODELS

Applied Research - Sponsor seeking to identify solutions on proprietary issues, explore viability and solve practical challenges

2. Existing Technology

- Sponsor pays an IP Fee of 5%
- Purdue owns Project IP
- Sponsor gets 5-year royalty-free exclusive license, retained license by Purdue research/education

3. Work for Hire

- Sponsor pays an IP Fee of 10%
- Sponsor owns Project IP

Success

- **After 2 years - 22 option 2 & 3 - \$5.8M**
 - 2 Option 2H
 - 20 Option 3 (5H)
 - 5 Option 3H
- **Deviations**
 - Negotiate a majority of the time
 - Faculty led vs Industry driven

FACULTY RESOURCES / CONTACTS

SPS Contracting

Contract consulting
— Decision-making guidance
— IP terms explained

Approval process assistance

- Laurie Kuhl
Phone: 765-494-1059
Email: lkuhl@purdue.edu
- Ken L. Sandel
Phone: 765-494-1063
Email: sandel@purdue.edu

Industry Research & Outreach

Industry

- Connections
- Areas of interest
- Leaders
- E. Daniel Hirleman
Phone: 765-494-9095
Email: dhirleman@purdue.edu

Faculty Advisory Committee

- Jan Allebach, Hewlett-Packard Distinguished Professor, ECE
Phone: 765-494-3535
Email: jan.p.allebach.1@purdue.edu
- Peter Dunn, Professor, Entomology
Phone: 765 494-4609
Email: pedunn@purdue.edu
- Jessica Huber, Professor, Speech, Language and Hearing Sciences
Phone: 765-494-3796
Email: jhuber@purdue.edu
- Mike Ladisch, Distinguished Professor, Agricultural and Biological Engineering/LORRE
Phone: 765-494-7022
Email: ladisch@purdue.edu
- Alyssa Panitch, Leslie A Geddes Professor, Biomedical Engineering
Phone: 765-496-1313
Email: apanitch@purdue.edu
- Rex Reklaitis, Burton and Kathryn Gedge Distinguished Professor, Chemical Eng
Phone: 765-494-9662
Email: greklait@purdue.edu
- Riyi Shi, Professor, Basic Medical Sciences
Phone: 765-496-3018
Email: riyi@purdue.edu



Intellectual Property Policy

Hot Topics

<https://www.purdue.edu/research/research-compliance/intellectual-property.php>

POLICY CHANGES

- Defined roles in administration of policy:
 - Senior IP Officer
 - Campus IP Officers
- Incorporate new options for industrial contracting
- Incorporate additional Supporting Organizations for technology commercialization
- Clarify requirements for Assignment of Purdue Intellectual Property (*Stanford v. Roche*)
- Commitment to timely decision on investment in commercialization or reconveyance by Supporting Organization (6 Months)

IP POLICY BASICS

- Intellectual Property arises in any part in the course of employment or enrollment at the University, or in the course of a work-for-hire relationship or visiting scholar relationship with the University
- IP:
 - An Invention
 - A Copyrightable Work
 - A Trademark and any associated registration
 - Research Data
 - Tangible Research Property
 - A trade secret
- Not IP:
 - Instructional Copyrightable Works and Scholarly Copyrightable Works
 - Student IP (for credit, without compensation)
 - Funded under a Works for hire
 - Exempted by contract
 - Outside activity
- Individuals who create Purdue Intellectual Property must periodically (including prior to departing the University for sabbatical, leave of absence, termination of employment, or graduation) execute a general assignment of title in favor of the University for all Purdue Intellectual Property. In most instances the assignee will be Purdue Research Foundation.
- Net Proceeds from licensing/commercialization of University Intellectual Property (1/3rd PI, 1/3rd Department, 1/3rd Trask Fund)

IP OFFICERS

Officers	Contact	Telephone	Email/Web Address
Senior IP Officer	Dan Hirleman	765-494-9095	dhirleman@purdue.edu
Campus IP Officers	Calumet & North Central: Niaz Latif	219-989-3251	nlatif@purdue.edu
	Fort Wayne: Sean Ryan	260-399-1662	ryans@ipfw.edu
	West Lafayette: Dan Hirleman	765-494-9095	dhirleman@purdue.edu

Protection of Confidential and Proprietary Information

Web site: Under development



INFORMATION ASSURANCE

CONFIDENTIAL INFORMATION

Key Evaluation Points

- Identification of what is confidential
 - Best Practice
 - clear marking requirement
 - Export Control jurisdiction, if applicable
- Identification of the purpose or reason it is being shared and what it will be used for
 - Best Practice
 - Limit Use to only the purpose
- Determination of who will have access
 - Best Practice
 - Limit to those who truly have a need to know
 - Inventory and Tracking
 - Make sure all with access understand the requirements

IP PROTECTION INITIATIVE

GOALS

- Provide Institutional Framework that works efficiently with existing export control compliance processes
- Complement effective lab-based controls in place
- Allow faculty new to industry engagements to ramp quickly
- Position Purdue as the strategic partner of choice for industry

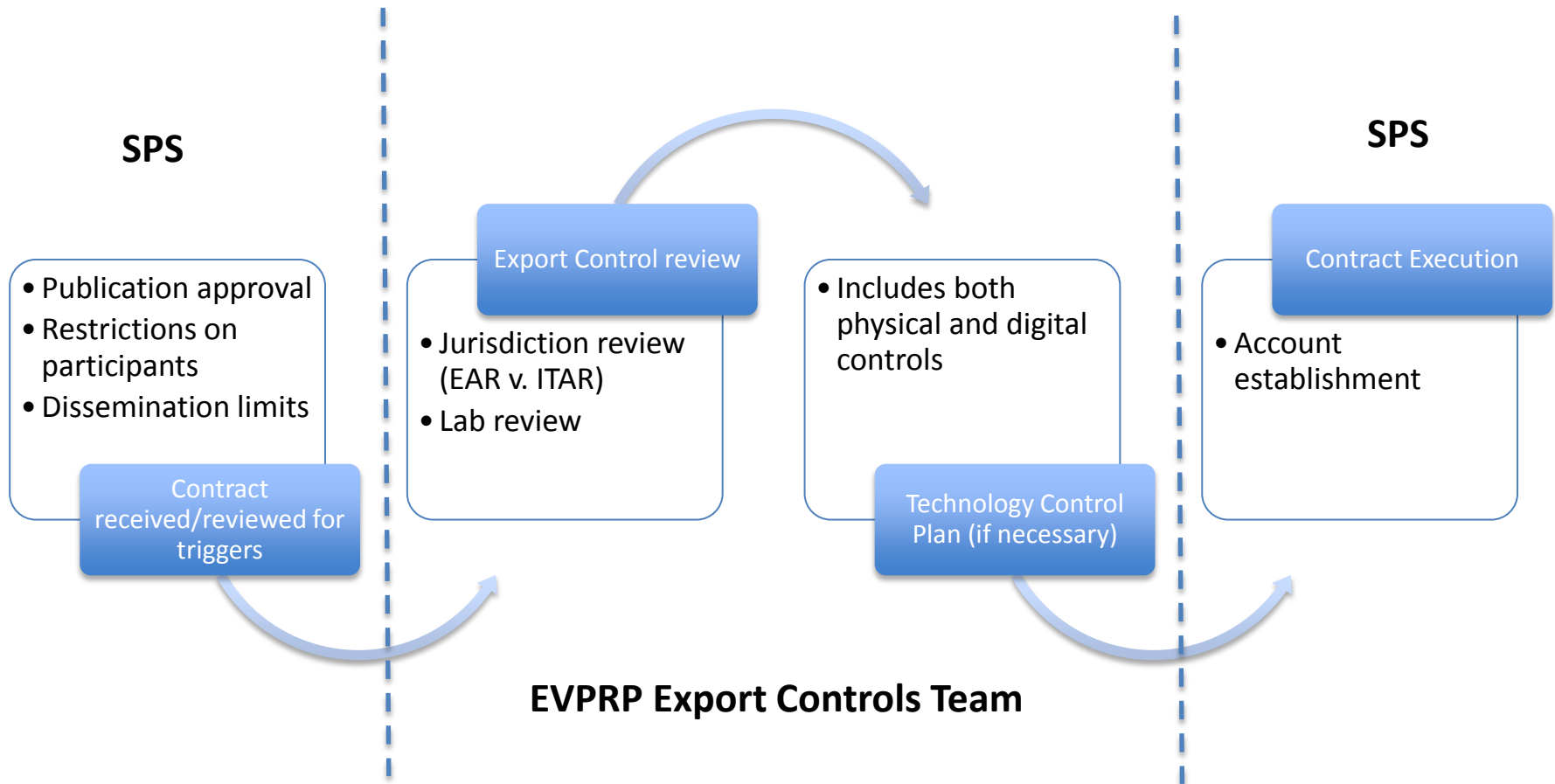
INFORMATION PROTECTION INITIATIVE

PROPOSED PROCESS (PILOT PHASE)

- Information gathered up front
 - Industrial Projects – through the Pre Award Proposal Worksheet
 - For NDAs – through an intake form
- Risk Analysis
 - Low Risk – Prime Recipient provided best practices for securing confidential/proprietary information
 - High Risk – project-based measures
 - Discussion between Primary Recipient and Research Information Assurance
- Annual training required for those granted access to third party confidential information – webinar format and certificate

INFORMATION ASSURANCE PROCESS

EXPORT CONTROL COMPLIANCE PROCESS

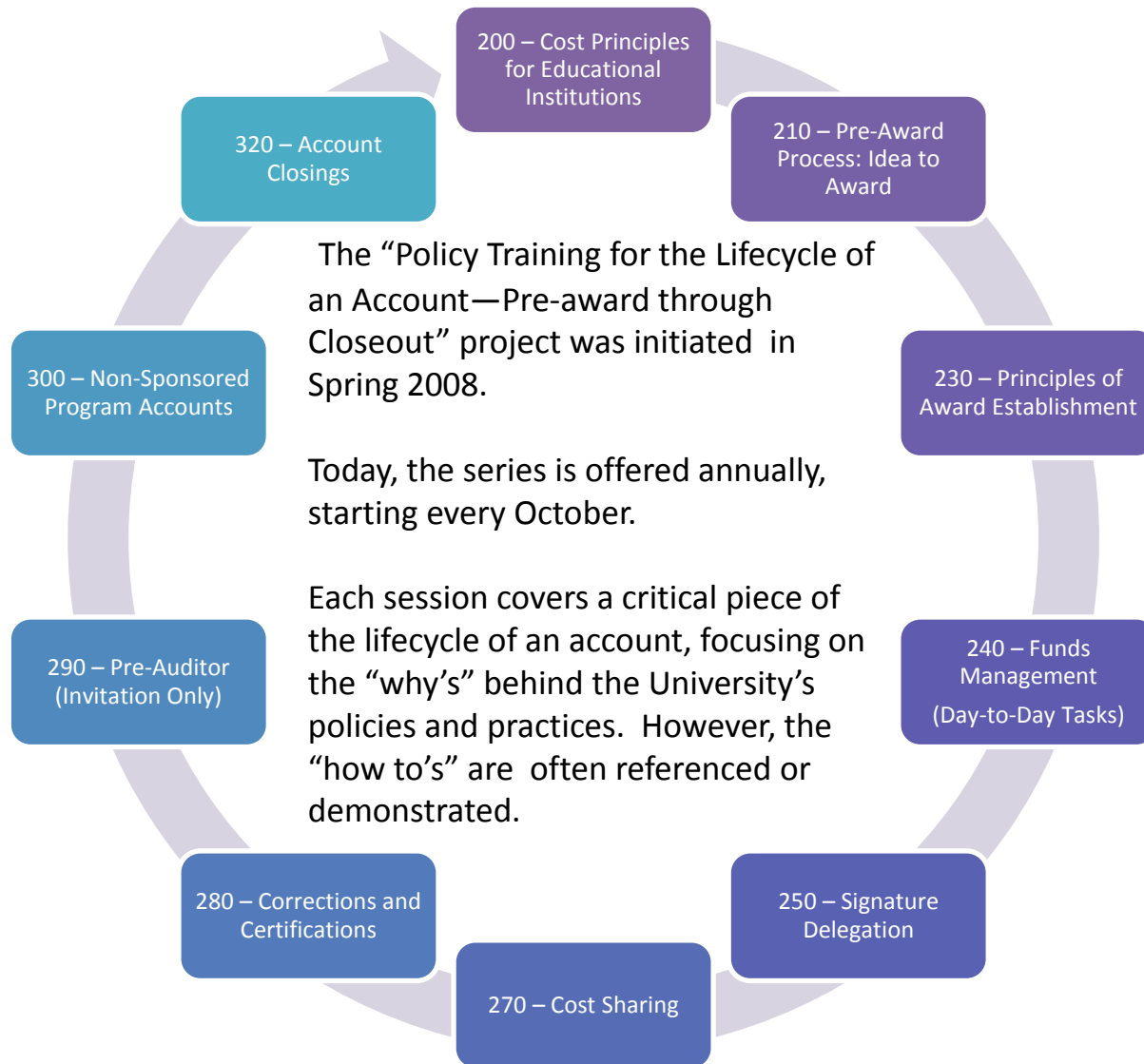




Support/ Training

Web site: Under development

LIFE CYCLE OF AN ACCOUNT SERIES





Discussion

Hot Topics

Mary Anne Sloan & Ken Sandel
November 4, 2015

BREAKOUT SESSIONS

“Research Administration Professional’s Evolving Mission” 10:20 – 11:05 and 11:15 – 12:00

Discuss: This is a follow-up to the general session where research professionals can explore how the changing landscape of research at Purdue will impact them. This session will allow research administrators to openly discuss the changing environment, risks, opportunities, business needs, and how to be successful supporting Purdue's research enterprise.

Room: STEW 202

“Auditors – What are they looking for?” 10:20 – 11:05 and 11:15 – 12:00

Discuss: This session will introduce attendees to audit results at Purdue and other Universities. The session will share results of internal reviews, external assessments, and discuss how the University prepares for and responds to an audit. This session will also give attendees an insight into the current NSF audit and review potential impact of audits on PIs, Departments, and the University.

Room: STEW 218

“What’s New? – The Purdue Foundry” 10:20 – 11:05 and 11:15 – 12:00

Discuss: The Foundry is Purdue's new hub for innovators and entrepreneurs. This session will introduce attendees to the Foundry, discuss their integrated approach to support entrepreneurs, and move Purdue innovations from the university to the market.

Room: STEW 206