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Business Intelligence Competency Center
INFORMATION TECHNOLOGY

Business Intelligence Advisory Committee

September 4, 2019

Agenda

- **Introduction** – Andrea Pluckebaum
- **Survey Results Feedback from BIAC Breakout Groups**– Kelsie Newberry
- **OIRAE restructure, mission, updated name, & next year's goals**– Cherise Hall
- **Data Governance**– Sarah Bauer
- **Professional Development Subcommittee of BISPC Update**– David Robledo
- **BI Consultant Overview & On/Off Boarding Resources**– Zach Yater
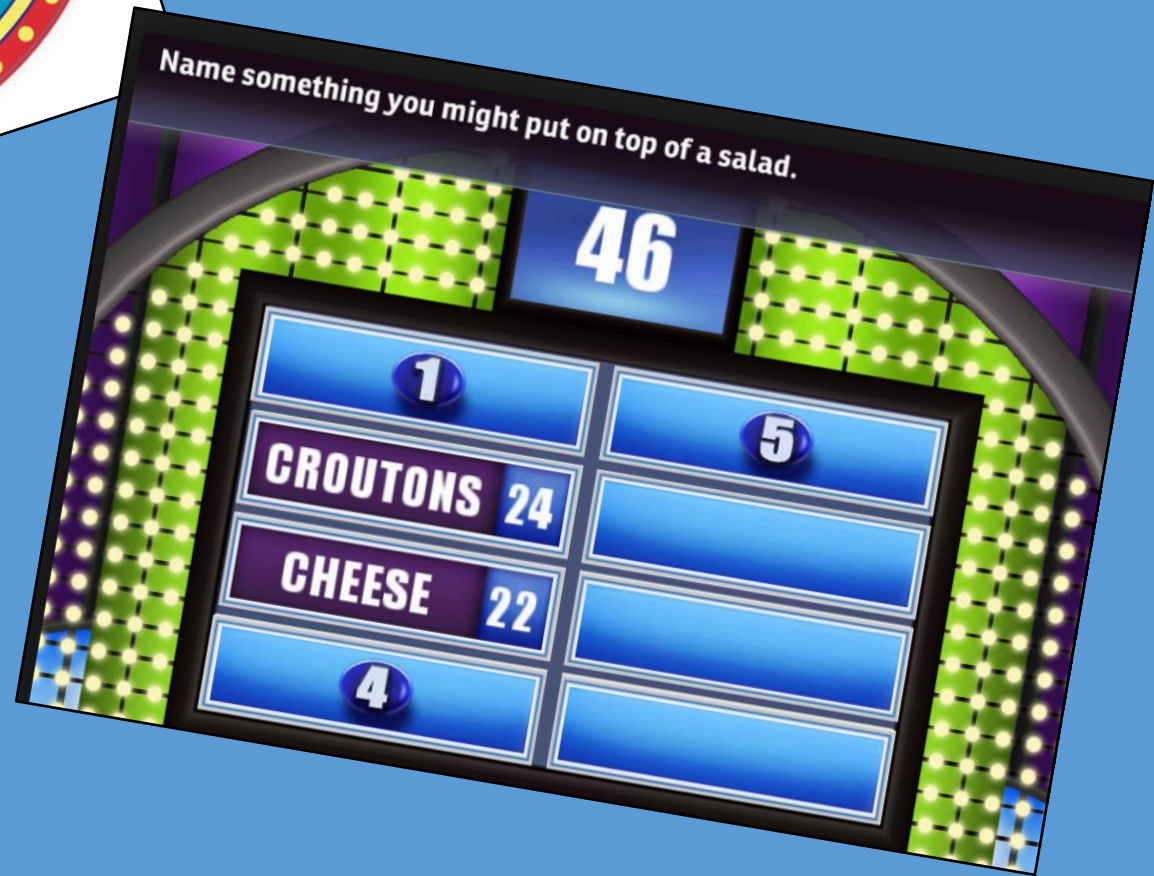- **BICC Director Update**– Rita Clifford

SURVEY RESULTS FEEDBACK FROM BIAC BREAKOUT GROUPS

Results from the January 31st Reporting Experience survey

Kelsie Newberry

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SURVEY SAYS

Name something you might put on top of a salad.

46

1 — CROUTONS 24
CHEESE 22
4
5

The feedback from the four breakout groups at the April 9th BI Advisory Committee meeting were insightful and specific. The following are the opinions, ideas, and recommendations for Purdue's reporting environment that resulted from those discussions.

Worksheet

PRIORITIZE SURVEY RESULTS

Reporting Experience Survey

4.9.19 | Group xxx

"Ease of Use" rated as most important & "Flexibility" followed as next most important.

What does "Ease of Use" mean to you?

What does "Flexibility" mean to you?

Recommendations for…	Ease of Use	Flexibility
How to improve the Cognos environment for consumers (running and finding reports).		
How to improve the Cognos environment for authors (building reports).		

Formatting Cognos Report Output

What can be done to help alleviate individuals from having to format their report output?

Ideas for how to assist individuals in…

Understanding the tools better.

Knowing where to find the data.

Understanding the data.

Additional Comments

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What does "Ease of Use" mean to you?

Answers

- Quick return of results
- Can be easily figured out
- Easy to find the data and reports you need
- Easy to know how to run a report
- **Able to find data, build accurate reports, and run for all people of various technical levels**
- Intuitive
- Findability
- Minimizing the amount of learning needed

Recommendations

- Clear labels – helpful explanatory text
- Clear definitions, descriptions, and documentation
- Links for helpful resources

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What does "Flexibility" mean to you?

Answers
- **Multiple prompts**
- Not overly formatted
- Can obtain specific data
- Multiple ways of achieving a goal
- User has options for viewing/downloading

Recommendations
- More reports that have multiple options to run for different requirements
- Provide options to view and compare data in different ways to fit different situations

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How to improve the Cognos environment for CONSUMERS (running and finding reports)

- Keyword search by report
- Better explanation of report nuances
- More reports having a "List of Student" option
- **Report trainings of the most used reports**
- Don't go beyond threshold of having too many prompts – some is good, but be careful of having too many
- Having better organized prompts
- Better descriptions and instructions of how to run reports
- Consistent prompts
- Data training
- Making report names more descriptive of what they provide
- Descriptions for prompts
- Putting an Excel pivot front on some reports

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Recommendations for the Cognos Environment

How to improve the Cognos environment for AUTHORS (building reports)

- Having reports linked to Cookbook
- Data and advanced trainings
- Better participation from users in gatherings like the user group – ask questions & bring issues
- Documentation of report version changes
- More performance tips shown
- Having more data in Boiler Insight
- **Open labs for authors to work together on building reports with subject matter experts**
- Simplified data sets

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Formatting Cognos Report Output

What can be done to help alleviate individuals from having to format their Cognos report output?

- **Ability for all reports to pull a list**
- Consistent (standard) formatting
- Formatted as printer friendly

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Ideas for how to assist individuals in...

Understanding the tools better

- More participation by users in the Cognos User Group
- **Provide short training videos (how-to)**
- Targeted trainings by area
- More advanced trainings with the subject matter experts

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Knowing where to find the data & understanding the data

- Better groupings of reports
- Ability to search easily for a specific field (documentation)
- Knowledge of who the subject matter experts are to reach out to for assistance
- **Targeted trainings by area**
- Cognos mentoring
- Have data training events with the data owners as the presenters
- Documentation to better explain the data sources and metadata

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Outcomes so far...

- These recommendations where shared with the business and student reporting areas

- Report optimization effort with IT and partners began and continues

- BICC held and continues to hold additional Cognos tool training sessions

- "How to Create a Cognos Schedule" video created

- FI Standard Report training labs began in August – very high enrollment

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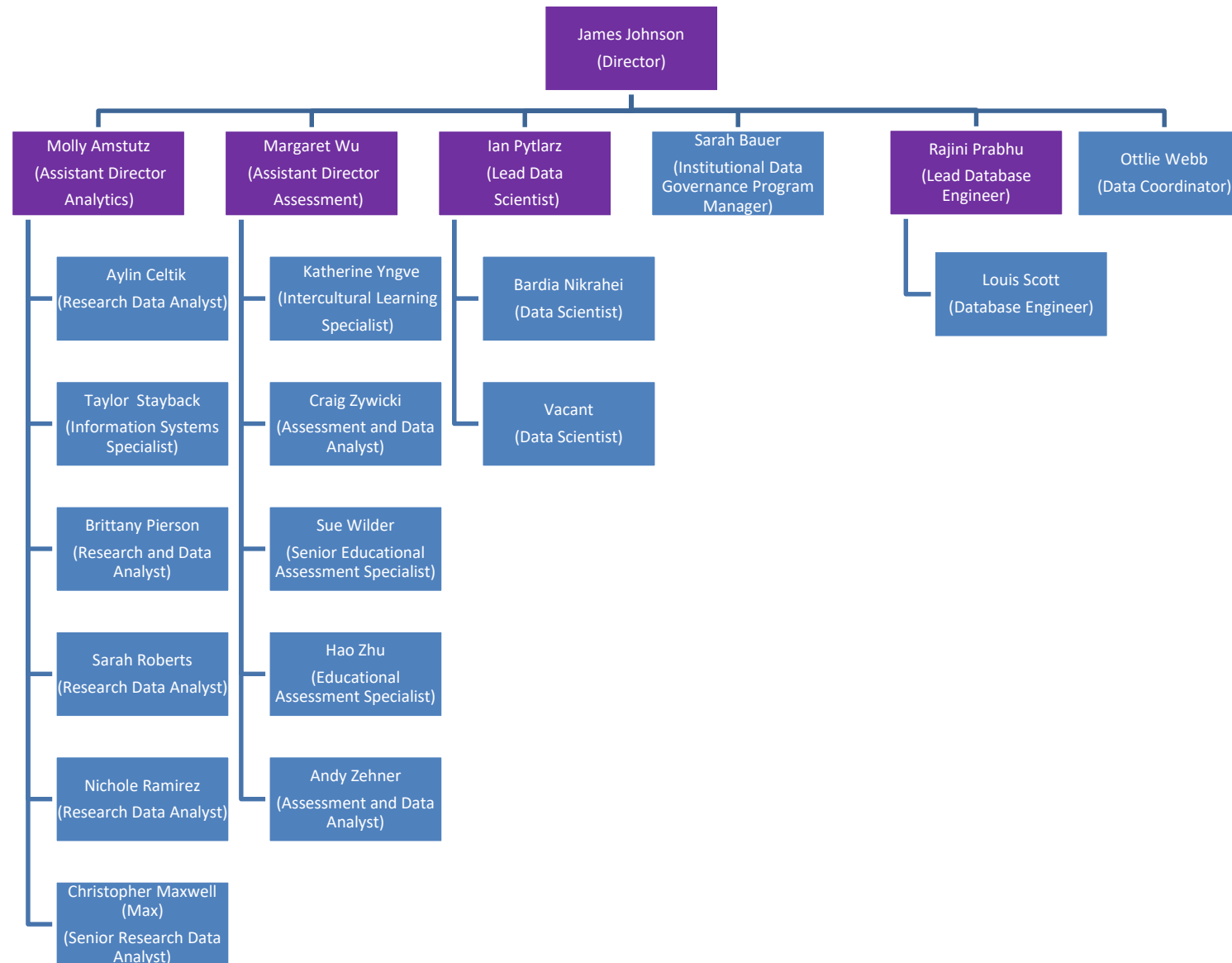
BI ADVISORY COMMITTEE

Cherise Hall
September 2019

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RESTRUCTURE

MISSION & VISION

MISSION:

Institutional Data Analytics + Assessment office performs research, statistical and predictive analysis, and reporting for campus leaders and decision makers in support of evidence-based planning, evaluation, and assessment. We participate in ensuring well-defined, quality data are available. As part of the Provost Office, we directly support the academic enterprise as well as the campus at-large.

VISION:

The Institutional Data Analytics + Assessment office will work with partners to transform institutional data into a rich body of strategic intelligence that is accessible, well-defined and useful to decision-makers at all levels of the organization. The office will promote a culture of assessment, providing the basis for continuous improvement throughout the institution.

- **Maximizing Student Potential**
  - John Gates and Frank Dooley
  - Multiple participants from IDA+A
  - Project has multiple stages
- **Enrollment and Course Projections**
  - Will collaborate with Registrar, EMAR, College Data Managers
- **Continue COACHE analysis with colleges and departments**
- **Analyze SERU data for Graduates and Undergraduates**
- **Analyze how Purdue compares in rankings to consider where we can make progress if appropriate**
- **Academic Analytics/Digital Measures**
- **Peer Benchmarking**
  - Use AAUDE dataset for benchmarking
  - Establish the metrics Purdue wants to track against Peers
- **Boiler Connect**
- **Core Curriculum and Assessment**
- **Accreditation – Higher Learning Commission**
- **Monthly Briefings**
  - Will be collaborative including Leadership, EMAR, Graduate School, College Data Managers, or other data owners as appropriate
  - When possible, a college briefing or data set will supplement the monthly briefing

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TACTICAL

- **Workzone Project Management**
- **Data Governance**
  - Work with other data leaders to finalize data cookbook
  - Align numbers in data digest and other resources so data is credible
  - Grad School Project

- **IDAP –** Determine strategic vision for Greenplum and how it can be better utilized within IDA+A

- **Collaboration**
  - EMAR
  - College data managers
  - Grad School
  - BICC
  - CFO
- **Training**
  - Assist with University Data Training

NEXT STEPS

- Communication of new name and mission to broader campus

- Update website and services offered

- Build partnerships

Data Governance

BI-Advisory
September 4, 2019

We are a data community
We ALL do 'data governance'

Data as an institutional asset

Data governance as part of priority initiatives

Data Cookbook

Communication with the Data Community

http://www.purdue.edu/oirae/DataGovernance.html

Data (Institutional) Quality – Data IQ Task Force

- Chair, Cherise Hall – IDA+A
- Sarah Bauer – IDA+A
- Richard Frisbie - Education
- Steve Lipps – Enrollment Management
- Kevin Maurer – Student Life
- Jamie Mohler – Graduate School
- David Robledo – Engineering
- Kathy Thomason - Comptroller
- Stephanie Willis – Research
- Tonya Yoder – Financial Planning & Analysis

DATA GOVERNANCE

Graduate Student Reporting
Data Governance Project

Graduate Student Reporting

Goals

- o Accurate, trusted graduate student data
- o Data well-defined and understood
- o Identify pain points, implement - SOLUTIONS

Analysis of pain points

Processes

Data access

Inter-related sources

Graduate Student Reporting
Data Governance

Roadmap – Projects in Process
- New grad student reporting fields
  - Time (and credits) in degree level
  - Degree and award category combined
  - Milestones
  - Thesis/non-thesis
- Interdisciplinary
- Online
- Fellowships (Cognos 11 to support Fellowship office)
- Improving loads from Grad School database into Banner
- Comparison of Grad School Dashboards used for 5-year reviews with Data Digest (improved) dashboards
- Education re: official v operational reporting

DATA GOVERNANCE

Graduate Student Reporting
Data Governance

Executive Sponsors
- o Linda Mason
- o Jamie Mohler
- o Cherise Hall

Graduate School
- o Don Brier
- o Jeff Bridgham
- o Karis Waibel (recent move to Krannert)

IDA+A
- o Sarah Bauer

College Data Manager
- o Andrea Pluckebaum, Krannert

DATA GOVERNANCE

Purdue Data Cookbook

Data Cookbook News

o New Grad definitions – Slate, Interdisciplinary, Fellowship

o Imported Cognos metadata for 190 <u>Student</u> standard reports. Will no longer update metadata in Cognos

o Cookbook part of the Student Reporting Governance approval process of standard reports

o **Portal Pop up in:**

      Cognos   **Tableau**

datacookbook.
Click for supporting documentation

Desktop   Additional Information

HELP ❓   datacookbook.
Click for supporting documentation

Ongoing Data Cookbook Progress

Data Digest dashboard Specs

Drafts of definitions
- o Finance, Human Resources
- o Enterprise Asset Management (EAM)
- o Research
- o Distance
- o Transact (formerly Blackboard Transact)

New <u>versions</u> of definitions even better - means they are being used, being refined

Enterprise repository of institutional knowledge
- o Anyone with a Purdue career account can use, add comments
- o Great resource for new and current staff

Functional Data Owners

- Admissions – Steve Lipps
- Alumni/UDO – Greg Kapp
- Finance – Master Data Management, Stacy Umlauf
- Financial Aid – Steve Lipps
- Graduate School – Don Brier, subject owners within Grad School
- Human Resources – Master Data Management, HR
- Instructional Activity – Cherise Hall
- Purdue Online – Chris Martin
- Physical Facilities – Enterprise Asset Management, EAM
- Research – Stephanie Willis
- Student – Steve Lipps
- Student Life – Kevin Maurer
- Transact – Loribeth Hettinger

datacookbook by the Numbers

- 700+ user accounts
- 250+ approved definitions, many more in the queue
  - Many have been revised, so more complete
  - Graduate student nuances have been added, part of workflow

- Specs (report/dashboard)
  - Student template, part of Student Reporting Governance approval process
  - Data Digest dashboard specs
  - Focus is on more specs (which means more definitions)

College Perspective

Kendal Kosta-Mikel, College of Science Data Manager

Create an Account (Purdue career account)

https://purdue.datacookbook.com

Or Google 'Purdue Data Cookbook'

Data Governance / Data Cookbook

Create a Data Cookbook account:

https://purdue.datacookbook.com

Also available under OneCampus

Or Google 'Purdue Data Cookbook'

Feedback or questions:

datagovernance@purdue.edu

sarah@purdue.edu

BISPC PROFESSIONAL DEVELOPMENT SUB-COMMITTEE

BIAC Update and Next Steps

9-4-2019

PROFESSIONAL DEVELOPMENT, SUB-COMMITTEE MEMBERS & METHODOLOGY

- Co-chairs: Paula Kayser (BICC), David Robledo (Engineering)
- Members: Eileen Chen (FP&A), Kendal Kosta-Mikel (Science), Steve Lipps (EMAR), Sarah Roberts (OIRAE), Abby Snodgrass (Agriculture/FP*A), Zach Yater (BICC).
- Broad representation of data community & of career level (early, mid, senior)
- Job Family consultation with Nicole Weibel (HR)

Charge: Recommend a list of best practices, tools and standards that can be used to guide Purdue's data community members and their managers to maximize the **recruitment**, **retention** and **professional development** of our data community members.

WHO ARE WE SERVING?

- What is this **"data community?"**
  - This was a bit difficult to define, but HCM helps us narrow it down.
  - HCM Job Subfamily = "**Assessment and Analytics**" or are members of the **BI Governance** (Advisory & Strategic Priorities), additional work needed to narrow this down…perhaps Enterprise Data Community
  - Highly **decentralized**
- Why worry about their **managers**?
  - Only about one-half of these data-professionals report to other data people → are large portion may have management unfamiliar with the intricacies of Purdue's data systems and processes…impacting hiring, training, professional development, etc.

"Data Community" Headcount

PWL: 182

| Provost: 98 | Treasurer: 67 | Research & Partnerships 10 | HR: 3 | Ethics and Compliance + Legal: 3 | Sports: 1 |

Colleges: 40
~12 Data Mgrs.

Engineering: 9
Agriculture: 8
Education: 5
Polytechnic: 4
HHS: 3
Libraries: 2
Management: 2
Science: 2
Pharmacy: 2
Liberal Arts: 1
Vet. Med: 1
Honors: 1

EMAR: 21

OIRAE: 19

Student Life: 7

Grad School: 6

Engagement & CCO: 5

Finance: 30

ITaP 18

SPS: 8

Physical Facilities: 5

Discovery Park: 5

ISS/IP: 4

OCGP: 1

Data Community   182
A&A Job Sub Family: 111
BI Advisory Committee: 71

- *Does not reflect POL reorg*
- *Excludes open positions*
- *Excludes staff paid through PRF*
- *Excludes student staff*

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RECOMMENDATION AREAS

Manager Focused

Recruitment

Offboarding

Networking / Community Building

Onboarding

Individual Professional Focused

Recognition

Skill Building
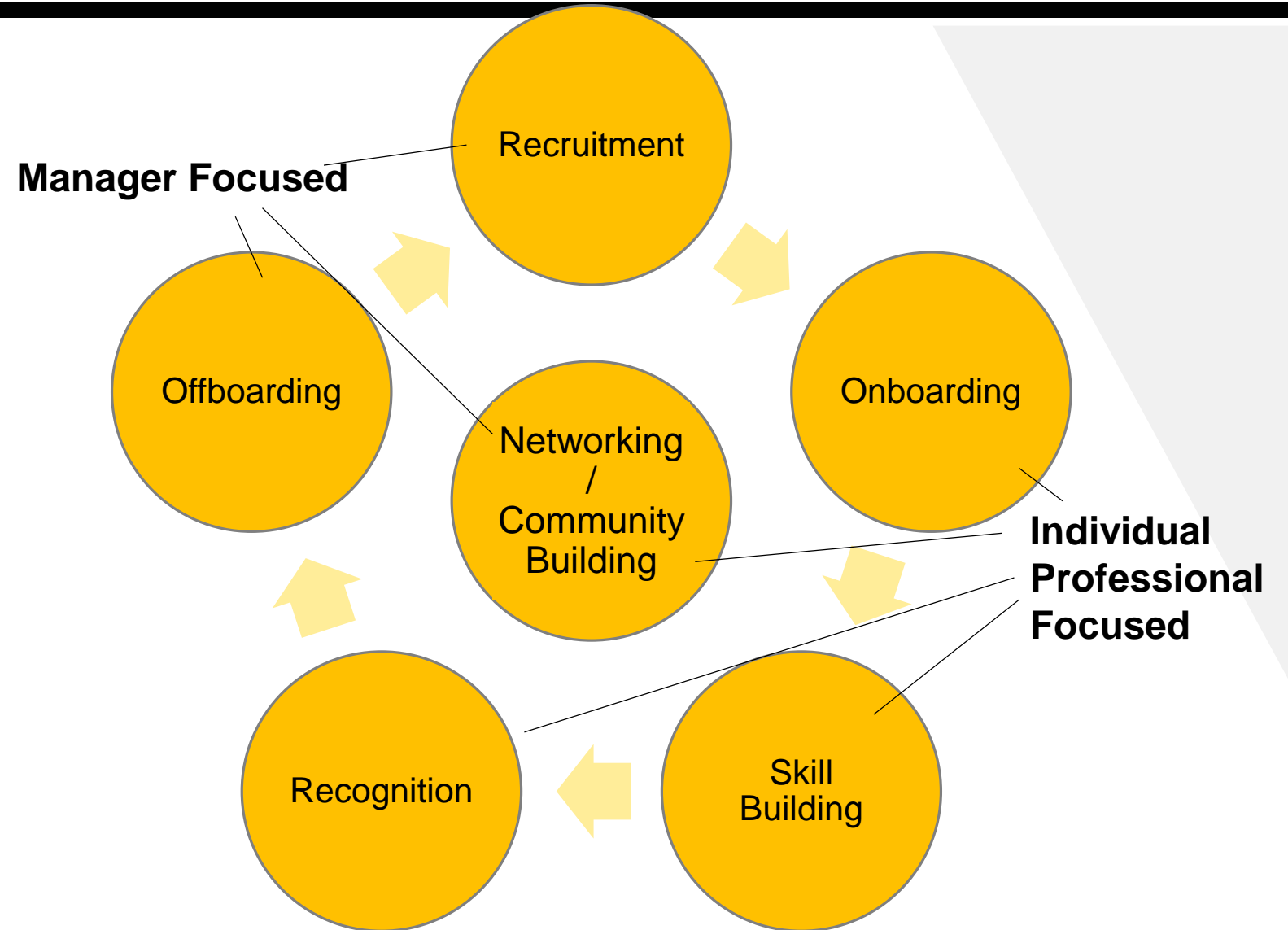
RECRUITMENT

- Cataloging **skills assessment tools** and best practices
  - What's out there
  - How/when to use them
- **Advertising new/open positions**, best practices
- **Connecting** non-technical managers with data professional managers
  - To discuss any of the above
  - Sanity check on position level setting
  - Internal recruitment & candidate awareness

ON BOARDING

- **Connect new hires and their managers to resources** that already exist in the environment
  - "Push" to new hires and their managers   *[requires new triggers]*
  - Periodically review content for comprehensiveness
- Create a **mentoring program**
  - Would require partnership & buy-in from multiple departments
  - HR has some train-the-trainer workshops available
- Encourage **creation of orientation** materials
  - Grassroots vs. Centrally Managed
  - Raise awareness of user groups & opportunities for community involvement
- Pilot a **job rotation** program
  - Would require partnership & buy-in from multiple departments

SKILL BUILDING

^Top Recommendation

- Assess availability of **data training** (student, financial, HR, others?)
  - Mentoring and documentation are necessary to complement data training, but should not be substitutes
    - We have an over reliance on word-of-mouth knowledge sharing
  - Collect and assess greatest data training needs
    - With an eye towards ongoing upkeep
    - integration with any future Orientation efforts
  - Prioritization and Resourcing will need addressed
- Build and maintain a **list of professional conferences**
  - Done!
  - Maintained by BICC, with input from BIAC

RECOGNITION

- Build a **data community focused recognition system** to highlight and appreciate top work from campus
  - Will need funding
  - Group to review (presumably managers/senior professionals)
    - Determine categories, frequency, nomination & review process
  - Create team challenges to address community-wide issues

OFF BOARDING

- **Push** relevant systems and process **information to managers**
  - Digital ownership
  - Best practices for recruiting new talent
  - Descriptive statistics for other Assessment & Analyses positions?
  - **Build upon BICC work** in this space (digital ownership)
  - Work with HR on **defining triggers**

NETWORKING & COMMUNITY INVOLVEMENT

- Each of the 5 outer categories have a some aspect that **hinges on networking & community involvement**

- **Manager** – focused

- **Data Professional** – focused

- Incredible value in **involving community members** in initiatives like this:
  - Networking
  - Diversity of thought
  - Cultivating the next batch of senior professionals and leaders

Best Practice!

BISPC REACTION TO RECOMMENDATIONS

- Reviewed in June, generally positive
  - Focus on data training
- Detailed Follow-up in August to build plan for moving us forward
  - Verbal commitment for resources from Rita and Cherise
- Encouraging of grass-root efforts

Recruitment

Offboarding

Onboarding

Networking/ Community Building
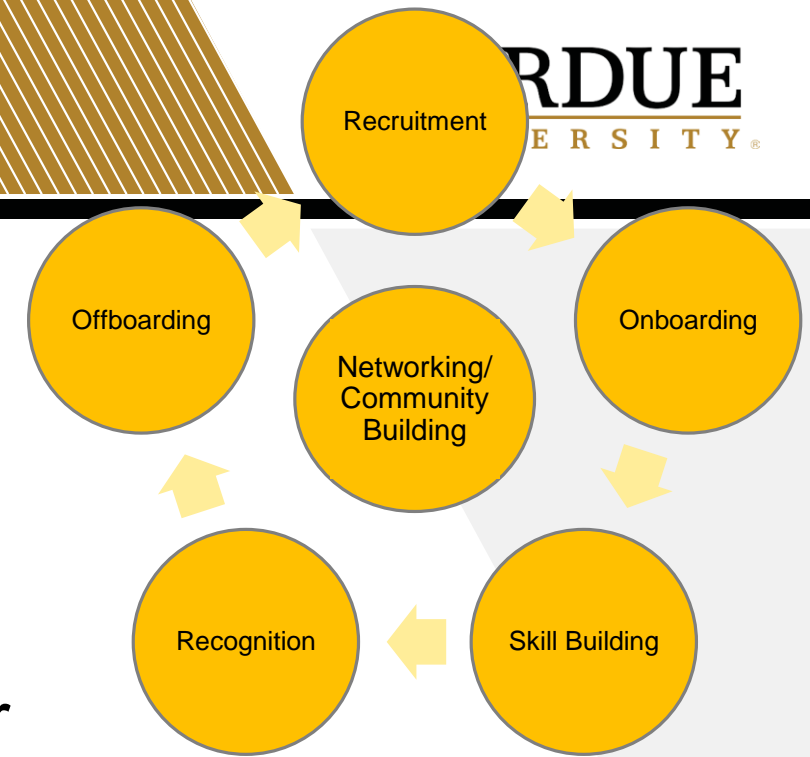
Recognition
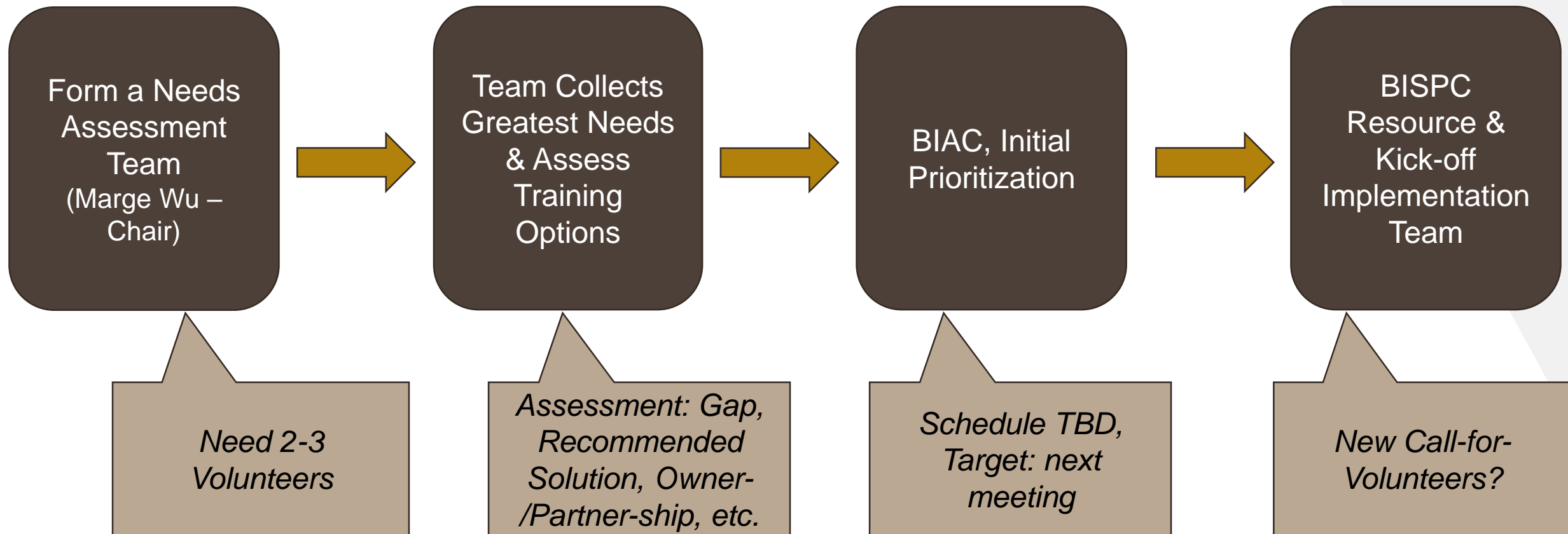
Skill Building

SUMMARY

- Professional Development Sub-Committee identified and recommended opportunities in 6 categories: **Recruitment**, **Onboarding**, **Skill Building**, **Recognition**, **Offboarding** and **Networking**.
  - Top Recommendation: **Data Training** → Moving Forward with Collection and Assessment of Needs, Prioritization & Resourcing
  - BISPC will continue to keep and address other recommendations yet encourages grass-roots efforts by the community
- *Special Thanks to: Eileen, Kendal, Steve, Sarah, Abby & Zach.*

Questions? Feedback?

BI CONSULTANT OVERVIEW

TECHNICAL SKILL
ENGAGEMENT
INSIGHTS

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Goals

Improve Infrastructure

Cognos

Usage Statistics

Testing Methodology

Database Modifications

Develop Community

User Groups / Advisory Committees

Communication

Grow Skills

Onboarding

Training

Resources

Goals

Content Expert

Cognos

Tableau

Engagement

Purdue Community

Outside Purdue

Evangelize

Bring outside knowledge in

ONBOARDING

https://www.purdue.edu/bicc/community/

Community

BICC DIRECTOR UPDATE

Rita Clifford

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purdue.edu/BICC