Lean Bench at Work:

Bringing Process Improvement to ESR

Prachi Raheja and **Shawn Munro,** Lean Bench Managers

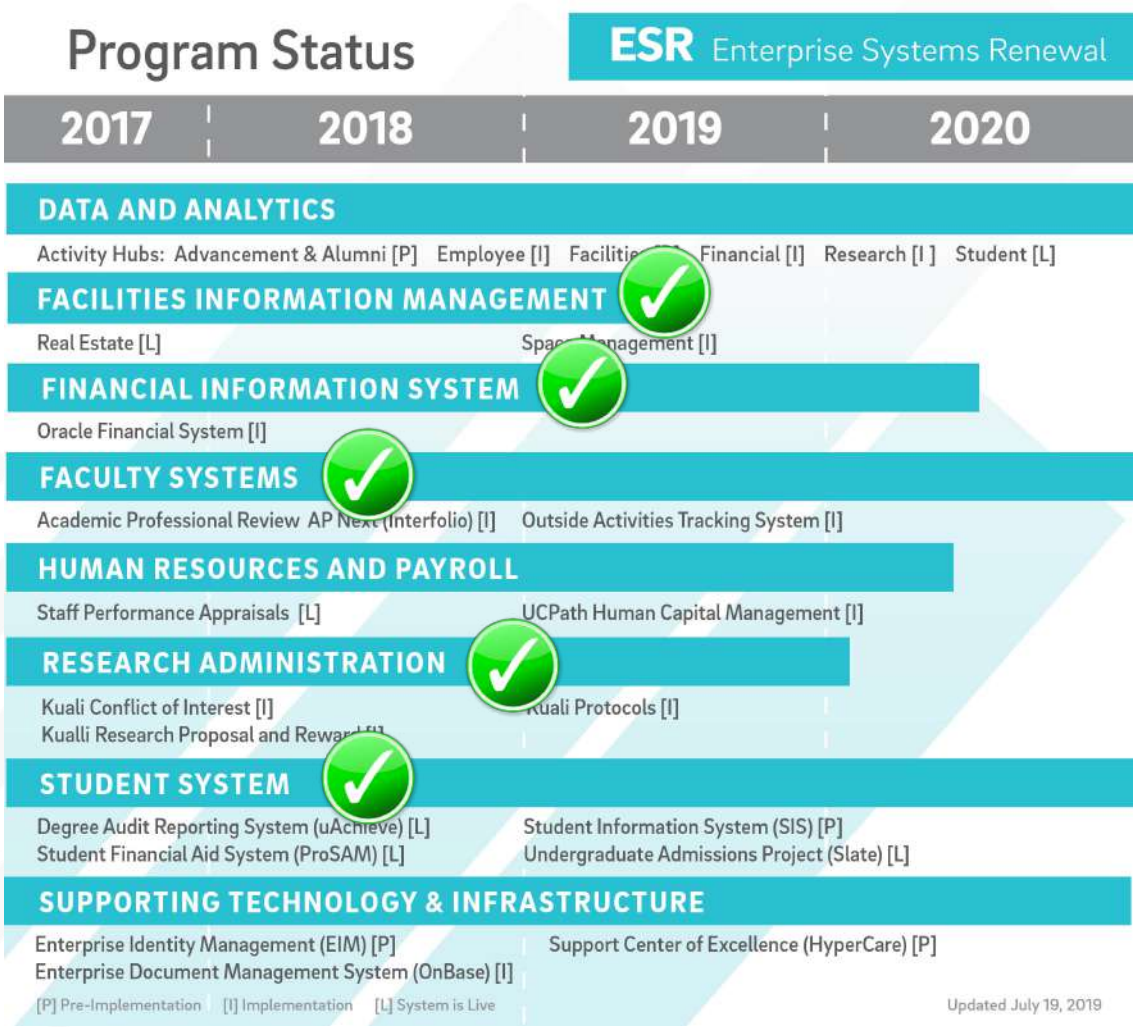
Powered by Process-palooza

UC San Diego

67 to 3...

ESR Projects

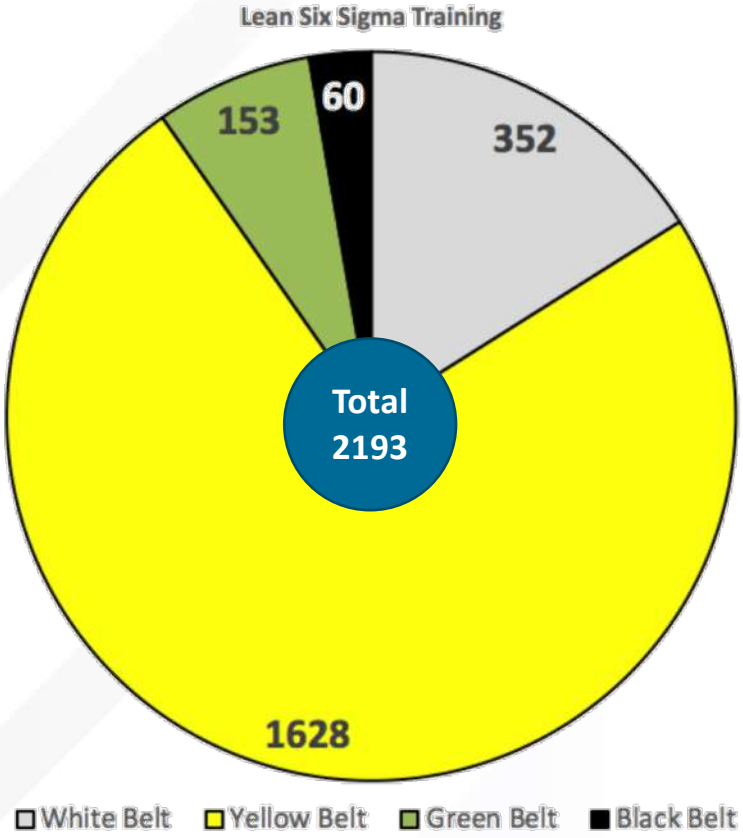
- The Enterprise Systems Renewal (ESR) program examines business systems used across campus.
- ESR projects address business process and technology needs in key areas including Finance, Academic Administration, Research Administration and Student Analytics.



Powered by Process-palooza

UC San Diego

University-wide adoption of Lean Six Sigma



Lean Bench Members

2019 Cohort

- Valeria Estrada, Biorepository and Tissue Technology Shared Resource
- Manisha Kanodia, IT Services, Academic Technology
- Adriana Long, Academic Resource Center - VCHS Central Services
- Michael Salas, Housing Dining Hospitality
- Ana Portlock, BFS, Integrated Procure to Pay Solutions (IPPS)
- Harrison Watts, IT Services, Research Information Services

OSI Partnership Team

- Traci Carpenter
- Lynette Essey
- Kristin Kielich
- Stephen Larkin
- Antonio Nava
- Allorah Pradenas
- Ricardo Santiago
- Bradley Sollenberger

26 staff from 13 depts

2018 Cohort

- Marina Bogdanova, Housing Dining Hospitality
- Stasi Chase, Policy & Records Administration
- Marisol Christinson, Electronic Research Administration Program
- Justin Clow, Information Technology Services
- Jennifer Leich, Office of Contract and Grants Administration
- Kenny Li, Information Technology Services
- Adriana Long, Academic Resource Center - VCHS Central Services
- Linda Luna, Integrated Procure-to-Pay Solutions
- Rosemarie Mirano-Del Mar, Program Management and Business Integration
- Michael Salas, Housing Dining Hospitality

Lean Bench on ESR Landscape

ESR Program Level Support

- Program management
- Enterprise Architecture
- Strategic Organizational Change Management
- Program Communications
- Expert sourcing facilitation
- Program Sponsorship
- Program Governance
- Business Process Improvement

Project Team

- Project Sponsorship
- Project Governance
- Project Escalation
- Business Process Lead
- Configuration Lead
- Subject Matter Experts
- Solution Architect
- Project Manager
- Change Lead
- Change Practitioner
- Change Champion

Project Team

Project Team

Project Team

Project Team

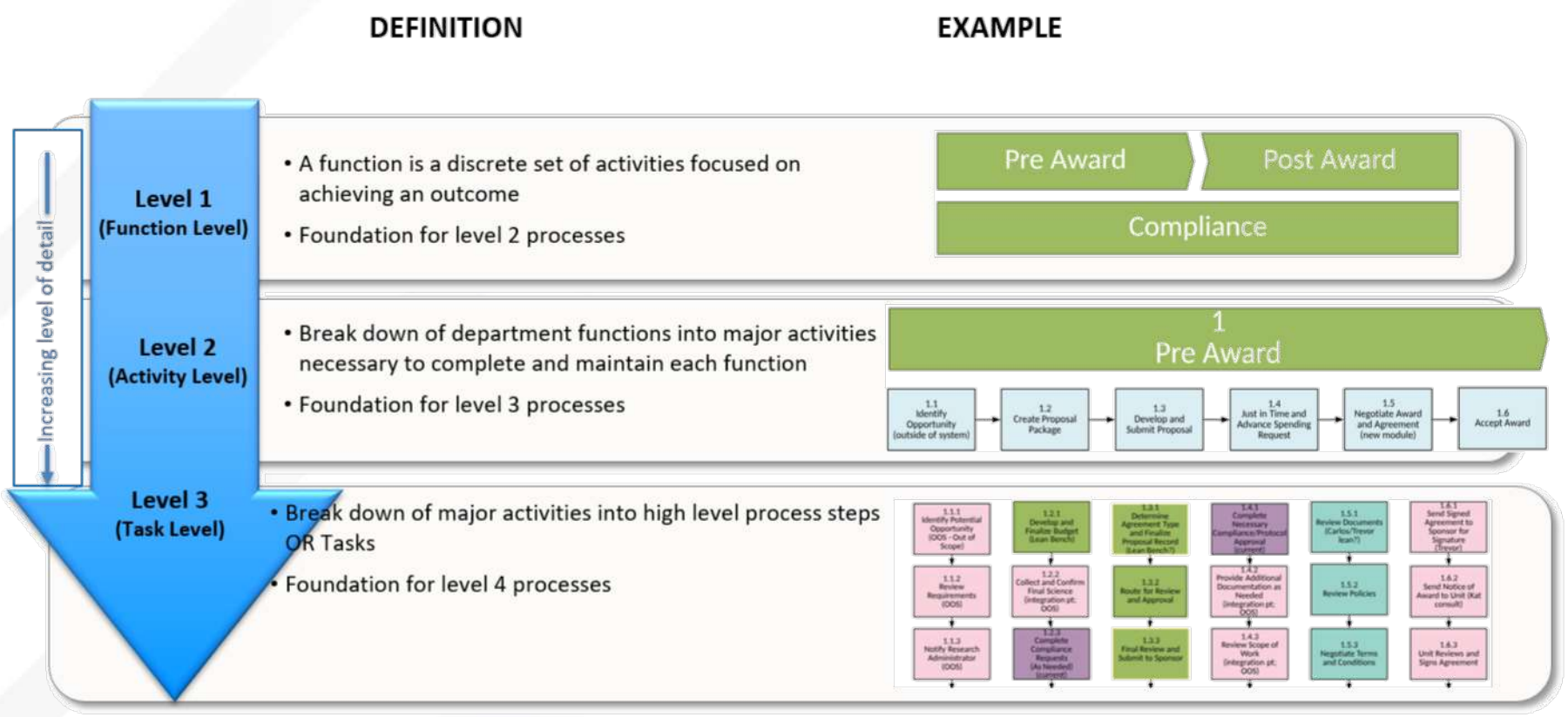
Powered by Process-palooza

UC San Diego

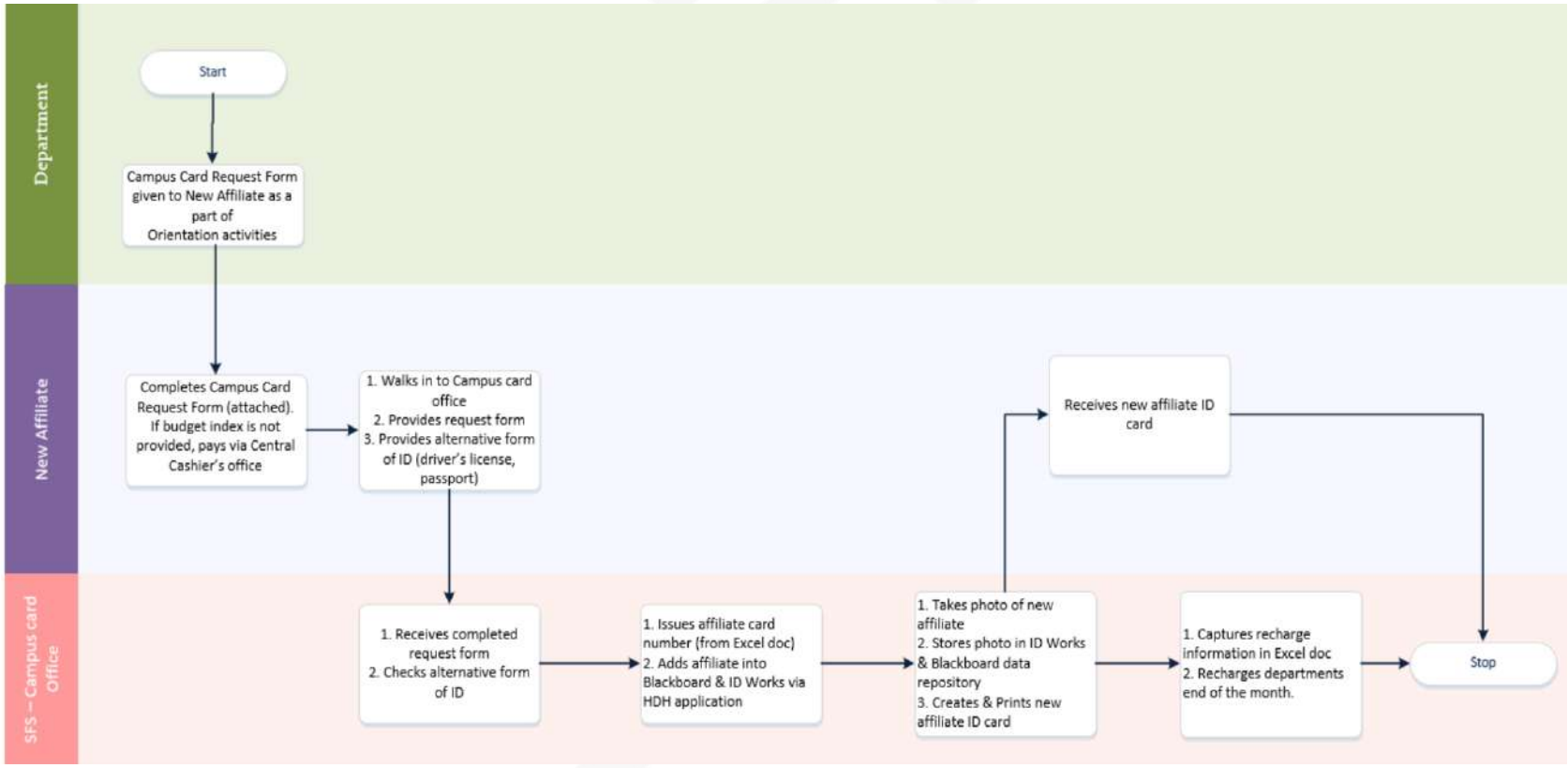
Lean Bench Standards - Pre-requisites

- Project scope
- Governance structure defined (part of OCM plan)
- Sponsorship model defined
- Escalation path identified
- Project roles & responsibilities assigned
- Project leads' understanding and buy-in of process improvement activities

Process Landscape



Current State Map



Powered by Process-palooza

UC San Diego

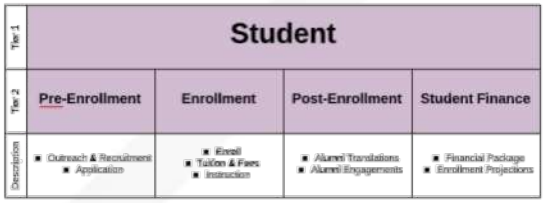
Lean Bench & ESR Process Improvement Efforts

Process Landscaped	# Processes Identified	# Prioritized for deep dive
Research	64	30
Academic Personnel	58	56
Space Management	18	11
Financial	252	8
Student	60	Prioritization due Nov 2019
OneCard*	24	24

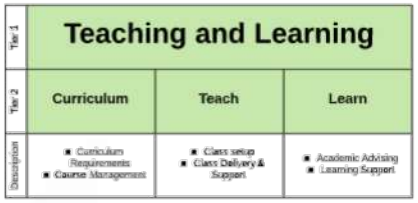
Process Landscape mapped out for **476+ processes**

Processes prioritized for deep dives **129+ processes**

University-wide Process Landscape snapshots

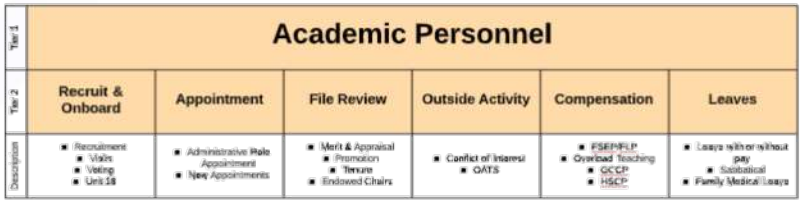


Tier 1	Student			
Tier 2	Pre-Enrollment	Enrollment	Post-Enrollment	Student Finance
Description	▪ Outreach & Recruitment ▪ Application	▪ Enroll ▪ Tuition & Fees ▪ Instruction	▪ Alumni Translations ▪ Alumni Engagements	▪ Financial Package ▪ Enrollment Projections



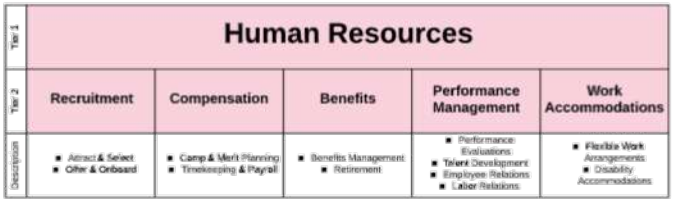
Tier 1	Teaching and Learning		
Tier 2	Curriculum	Teach	Learn
Description	▪ Curriculum Requirements ▪ Course Management	▪ Class setup ▪ Class Delivery & Support	▪ Academic Advising ▪ Learning Support

Tier 1	Research			
Tier 2	Pre-award	Post-award	Reporting	Compliance
Description	▪ Seek Funding ▪ Research Setup	▪ Execute Research ▪ Track Research Data	▪ Results Analysis ▪ Publish & Share	▪ Subjects ▪ Export Control ▪ COI

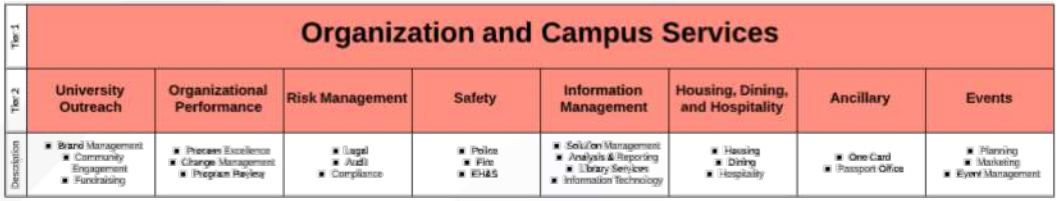


Tier 1	Academic Personnel					
Tier 2	Recruit & Onboard	Appointment	File Review	Outside Activity	Compensation	Leaves
Description	▪ Recruitment ▪ Visits ▪ Voting ▪ Unit 18	▪ Administrative Role Appointment ▪ New Appointments	▪ Merit & Appraisal ▪ Promotion ▪ Tenure ▪ Endowed Chairs	▪ Conflict of Interest ▪ OATS	▪ FSEMFLP ▪ Overload Teaching ▪ GCCP ▪ HSCP	▪ Leave with or without pay ▪ Sabbatical ▪ Family Medical Leave

Tier 1	Financial Management							
Tier 2	Budget & Planning	Procure to Pay	Accounts Receivable & Billing	Cash Management	Fixed Assets	Investments	Financial Management	Internal Control
Description	▪ Budget Creation ▪ Budget Review ▪ Resource Allocations	▪ Purchasing Goods or Services ▪ Travel Accounting	▪ AR Management ▪ Collections ▪ Customer Account Management	▪ Receive Payments ▪ Issue Receipts ▪ Bank Account Balancing	▪ Asset Acquisition ▪ Asset Tracking and retirements ▪ Asset Reporting	▪ Foundation Investment Management	▪ Project and Award Setup and Management ▪ Cost Reporting	▪ Risk Assessment ▪ Control Activities ▪ Monitoring



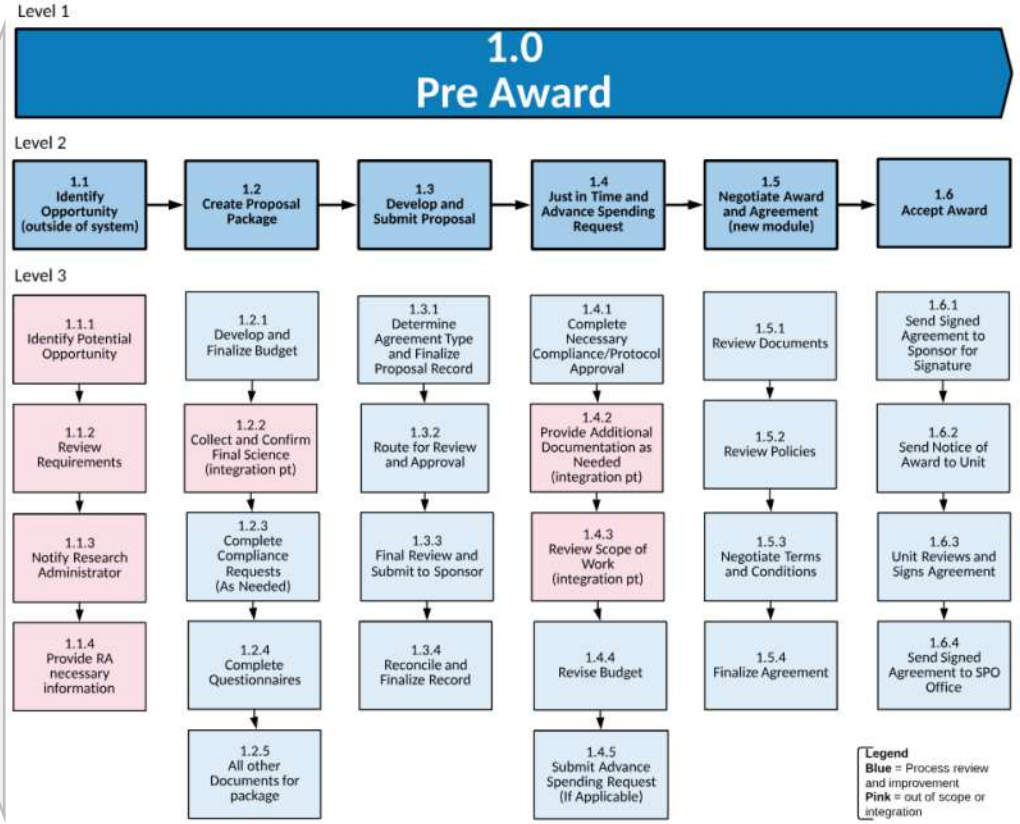
Tier 1	Human Resources				
Tier 2	Recruitment	Compensation	Benefits	Performance Management	Work Accommodations
Description	▪ Attract & Select ▪ Offer & Onboard	▪ Comp & Merit Planning ▪ Timekeeping & Payroll	▪ Benefits Management ▪ Retirement	▪ Performance Evaluations ▪ Talent Development ▪ Employee Relations ▪ Labor Relations	▪ Flexible Work Arrangements ▪ Disability Accommodations



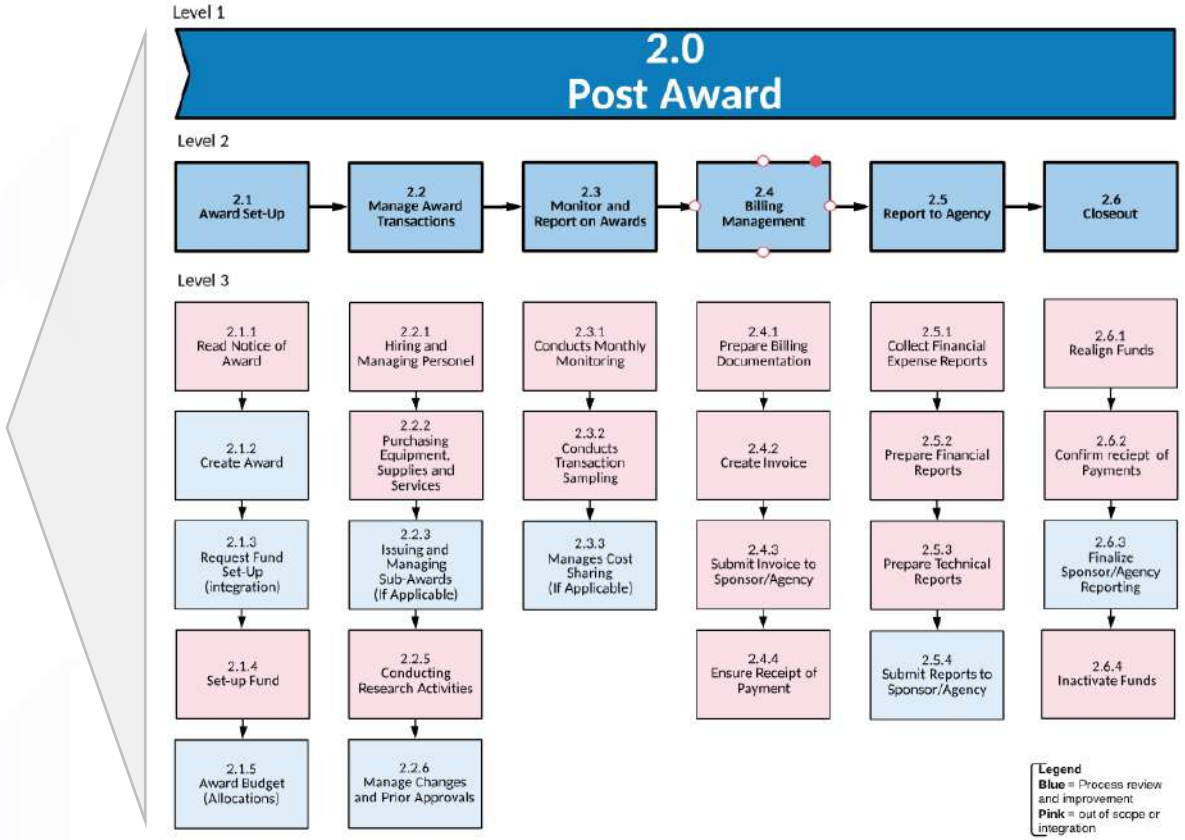
Tier 1	Organization and Campus Services							
Tier 2	University Outreach	Organizational Performance	Risk Management	Safety	Information Management	Housing, Dining, and Hospitality	Ancillary	Events
Description	▪ Brand Management ▪ Community Engagement ▪ Fundraising	▪ Process Excellence ▪ Change Management ▪ Program Review	▪ Legal ▪ Audit ▪ Compliance	▪ Police ▪ Fire ▪ EH&S	▪ Solution Management ▪ Analysis & Reporting ▪ Library Services ▪ Information Technology	▪ Housing ▪ Dining ▪ Hospitality	▪ One Card ▪ Passport Office	▪ Planning ▪ Marketing ▪ Event Management

Tier 1	Facilities Management and Capital Projects			
Tier 2	Space Management	Build	Operate and Maintain	Real Estate
Description	▪ Space Assignments ▪ Space Use Agreements ▪ Emergency Procedures	▪ New Construction ▪ Renovations	▪ Equipment ▪ Work Requests ▪ Signage	▪ Purchase ▪ Lease

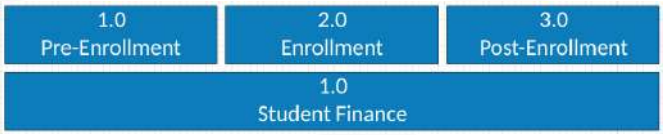
Research Administration



Research Administration



Student Administration

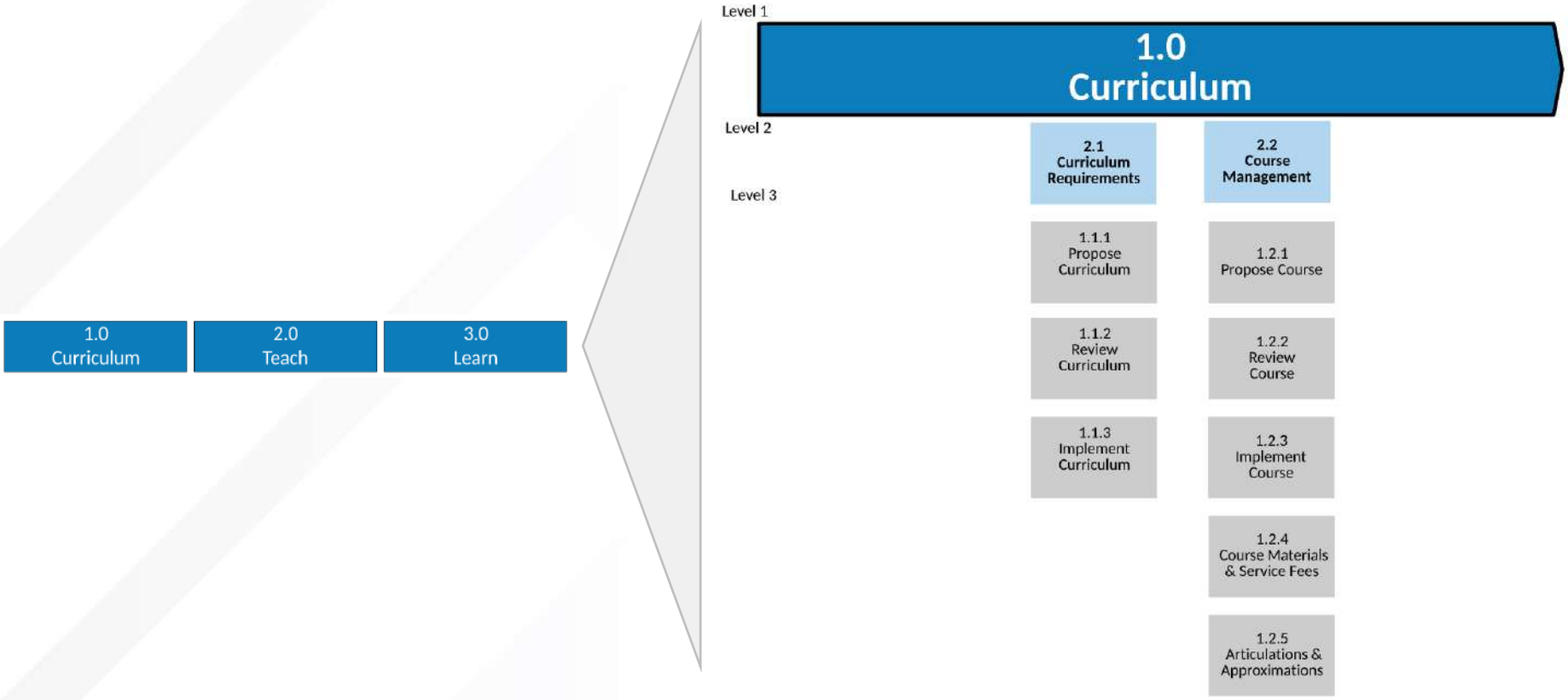


Level 1

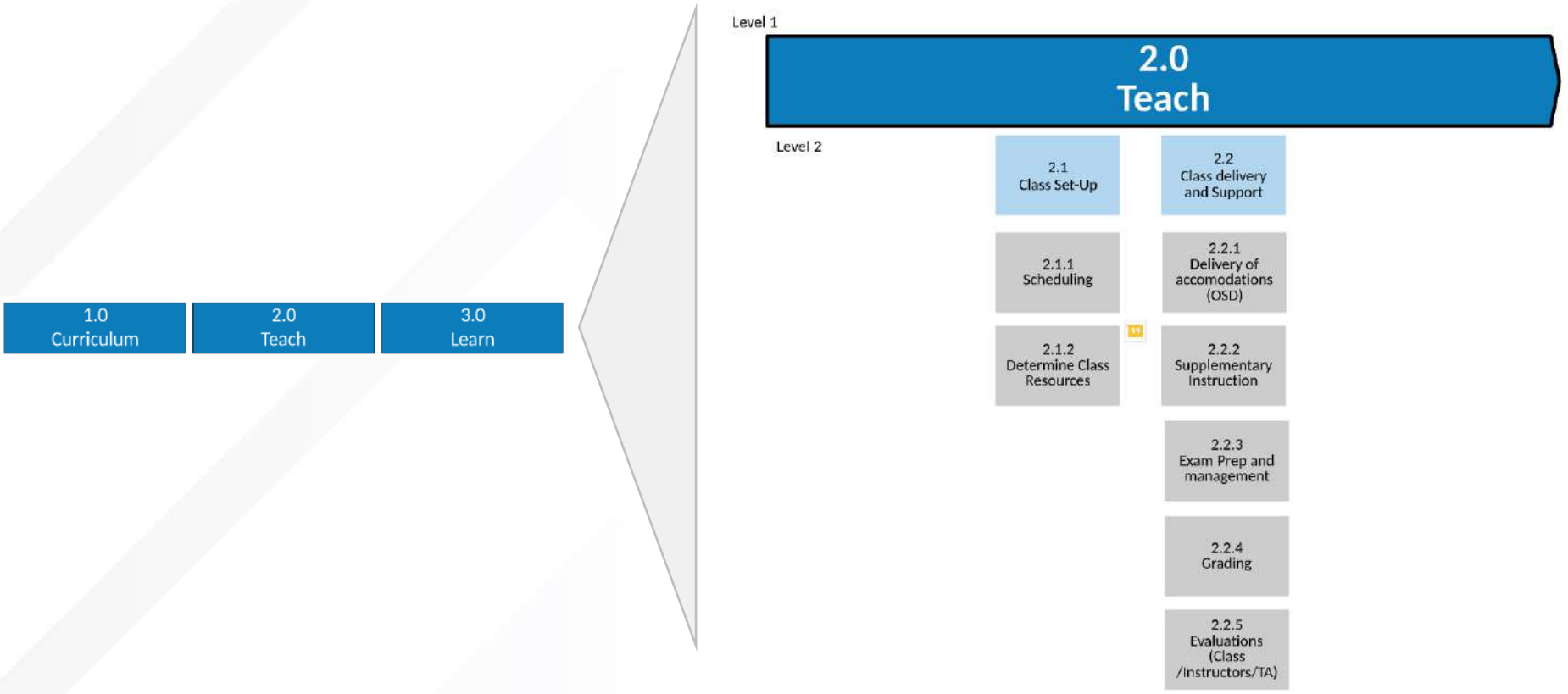
1.0 Pre-Enrollment

Level 2				
1.1 Outreach and Recruitment	**1.2 Application**	**1.3 Review and Selection**	**1.4 Decision Notification**	**1.5 Student Onboarding**
Level 3				
Collection of prospective student data	Pre-application	Prep for review - hire temp / 3rd party, train, set criteria	Release Decision	tbd
Hosting and attending promotion events	Receive application	Application Evaluation	Yield activity	tbd
Targeted marketing efforts using prospective student data	Application design and updates	Data Evaluation and Cohort Evaluation	Application desision update in	tbd
	Establishing application cycle timelines/plan	Final Selection and Waitlist		tbd
	Applicant support			tbd

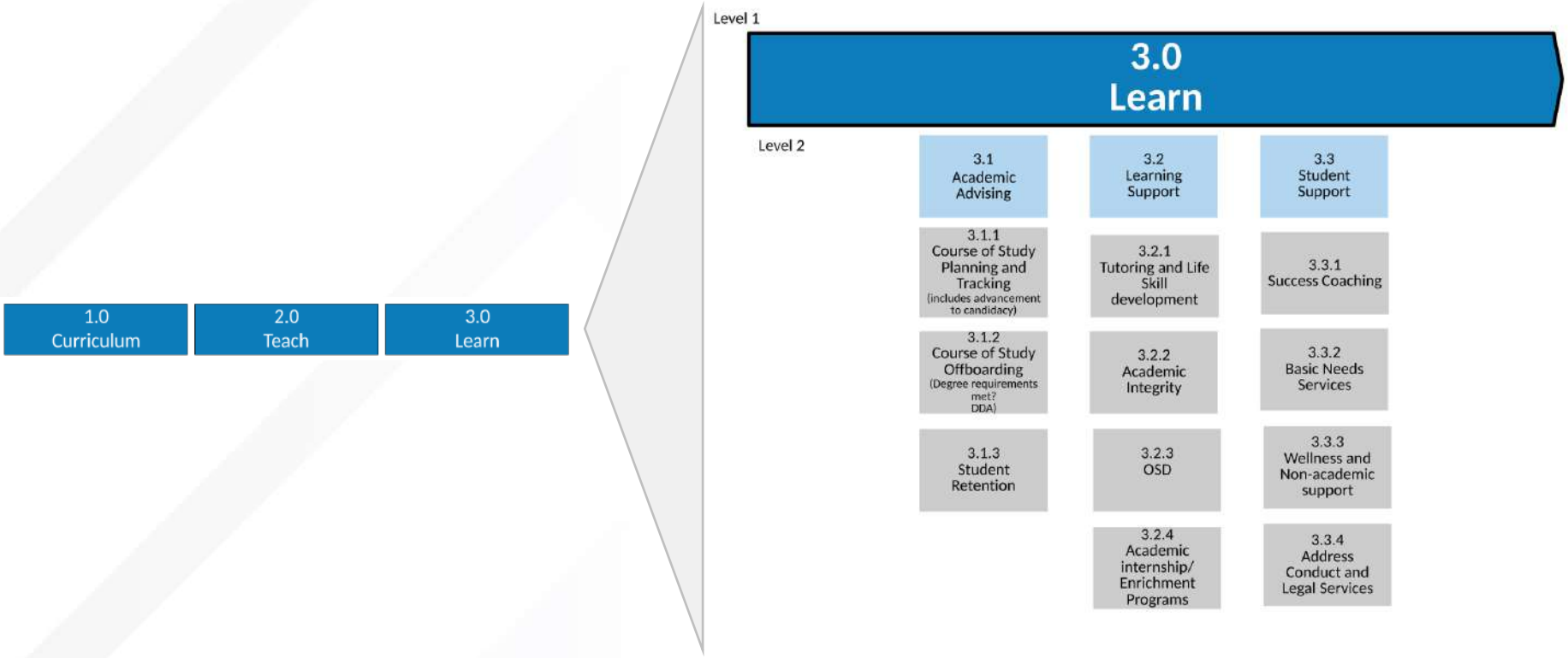
Teaching and Learning



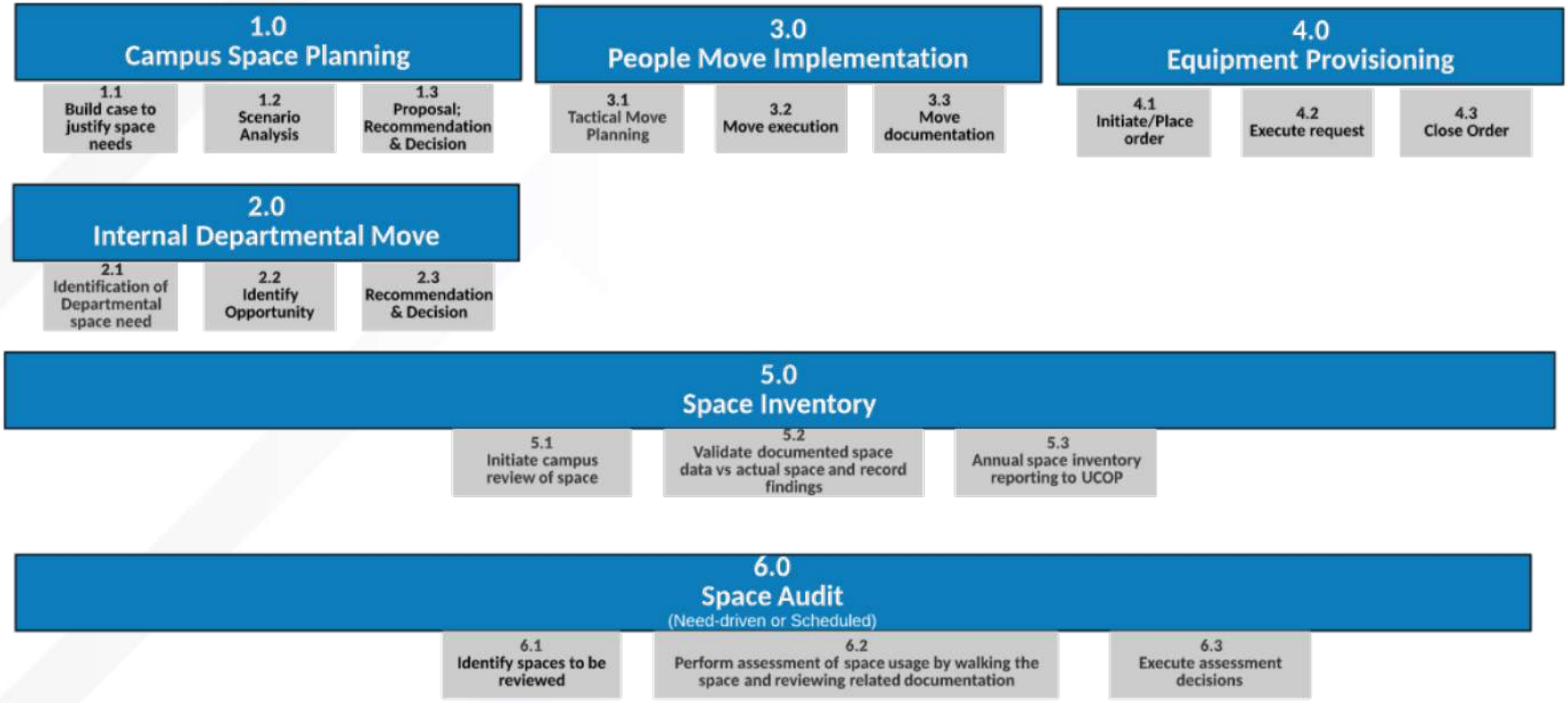
Teaching and Learning



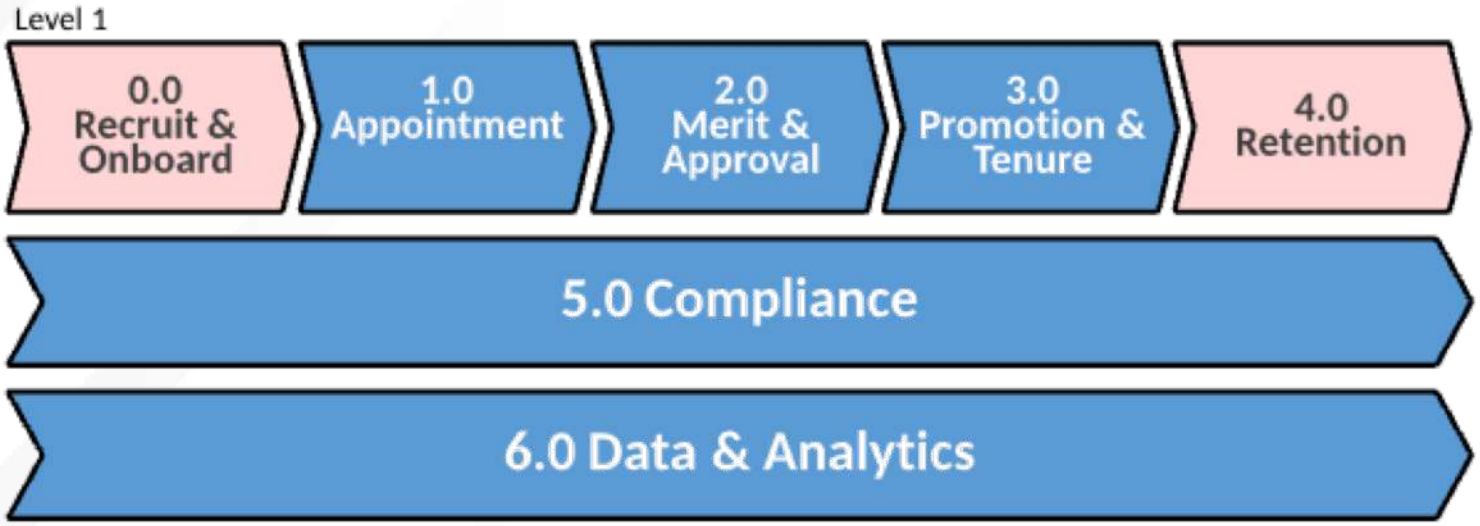
Teaching and Learning



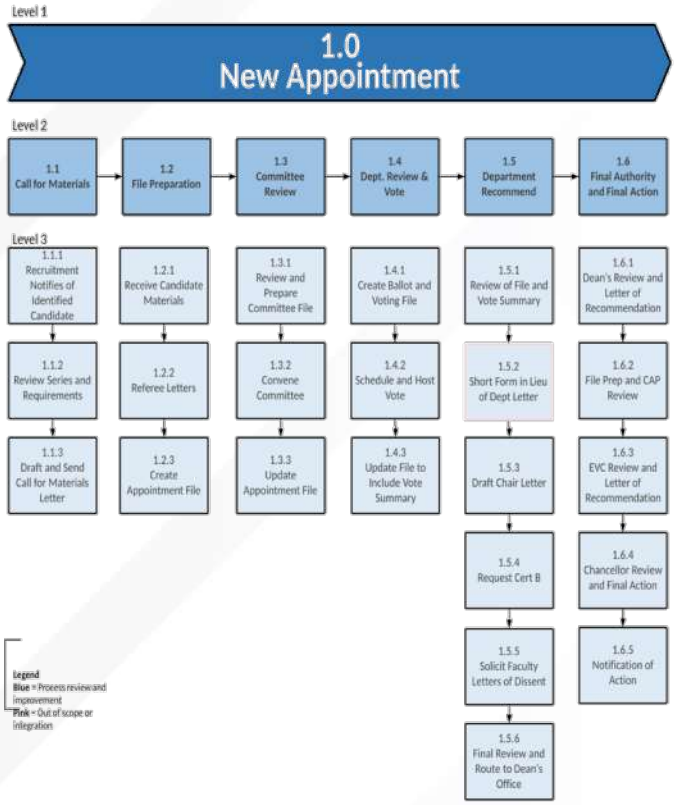
Space Management

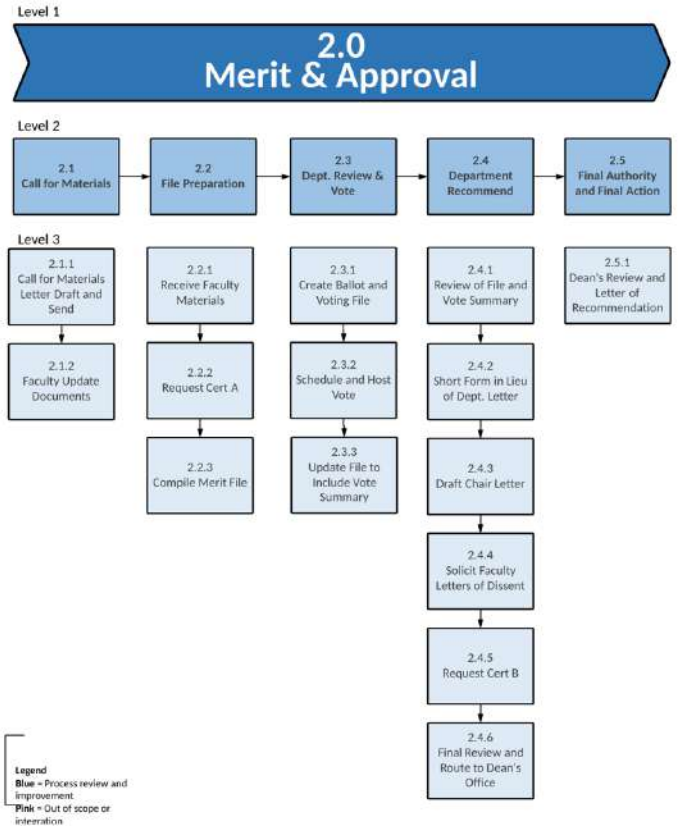


Academic Personnel

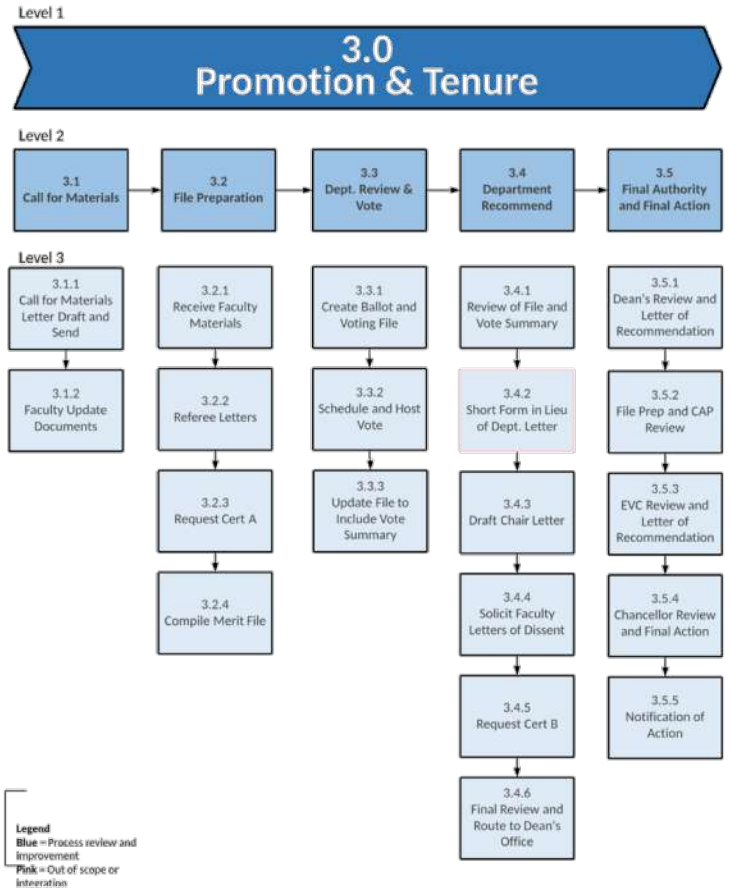


Academic Personnel

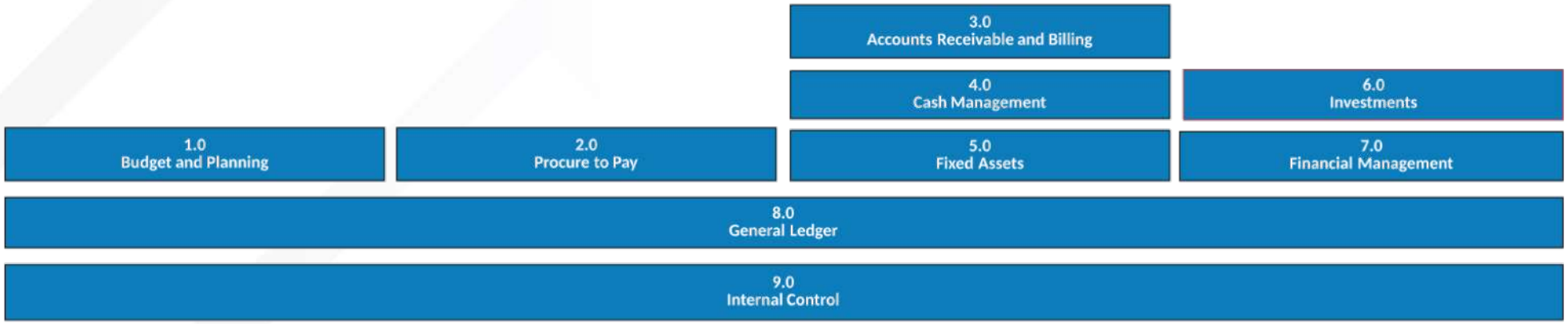




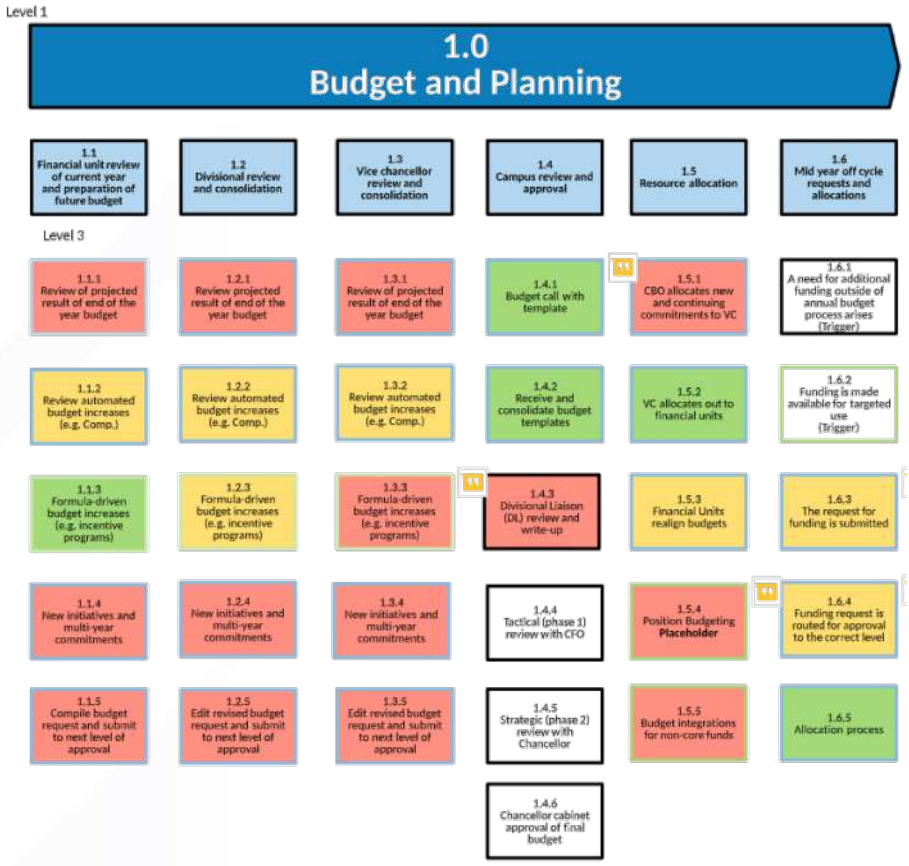
Academic Personnel



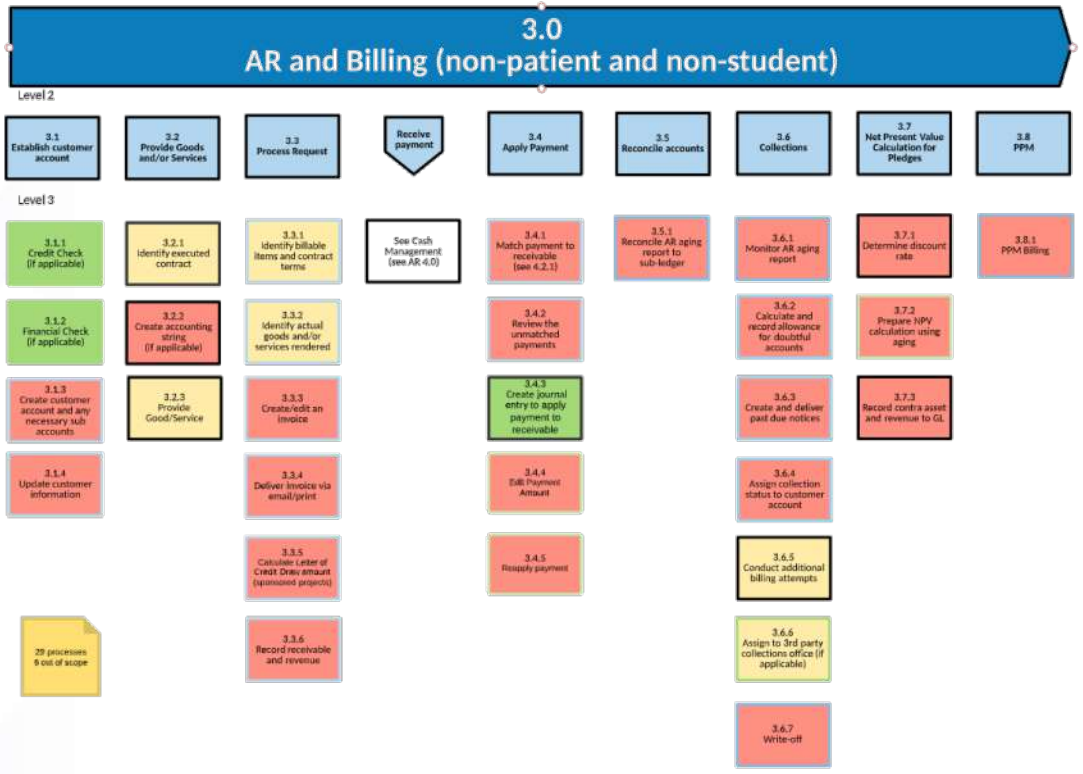
Financial Management



Financial Management



Financial Management

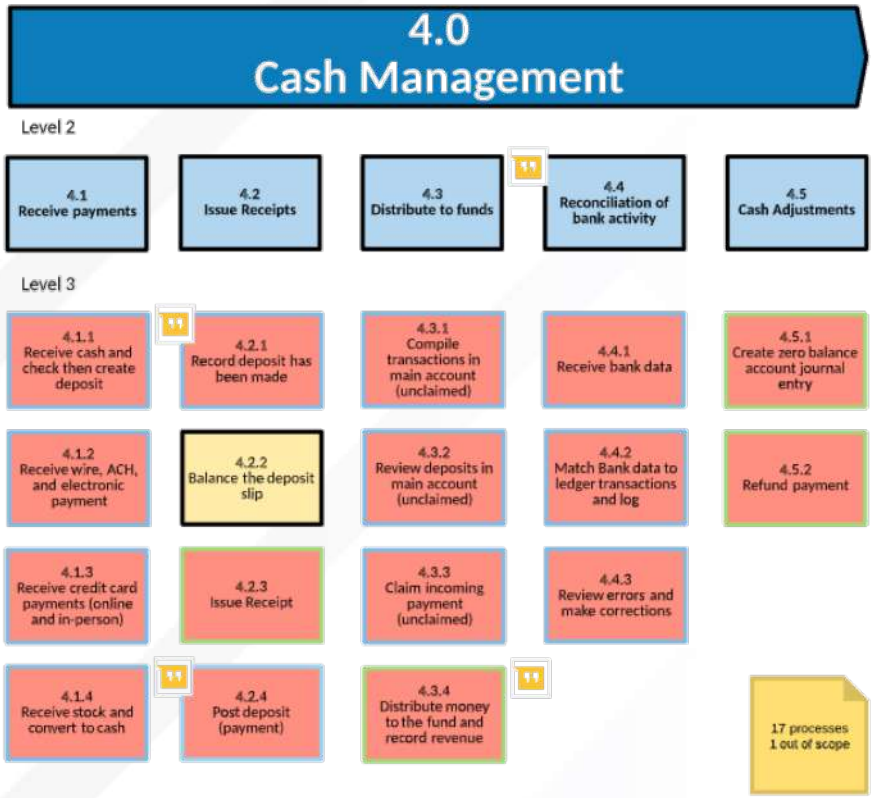


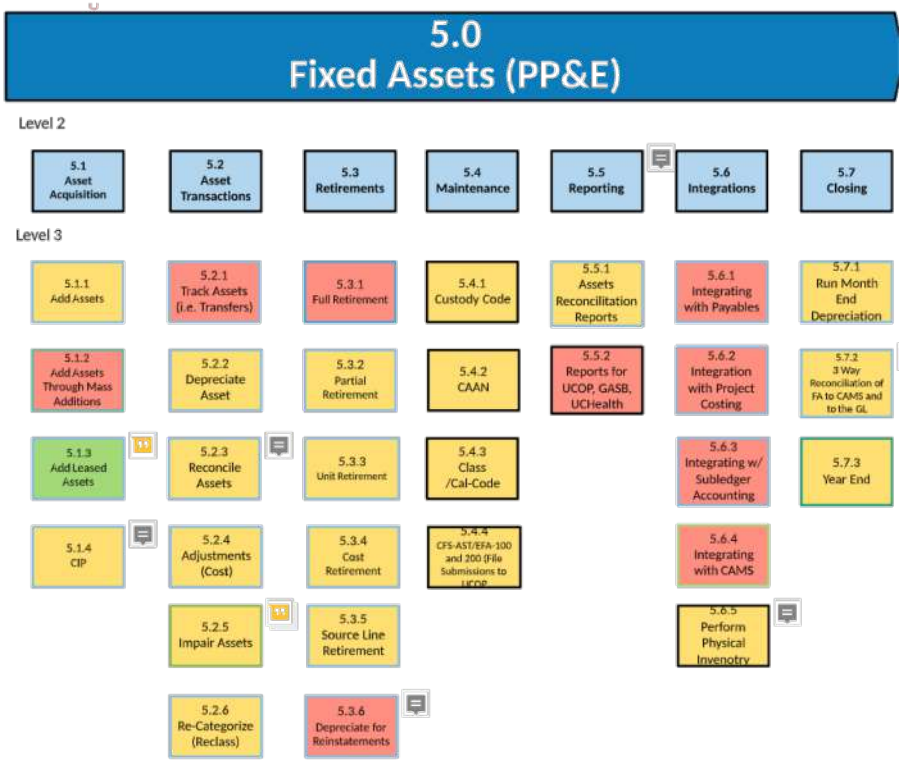
ESR Enterprise Systems Renewal

Powered by Process Palooza

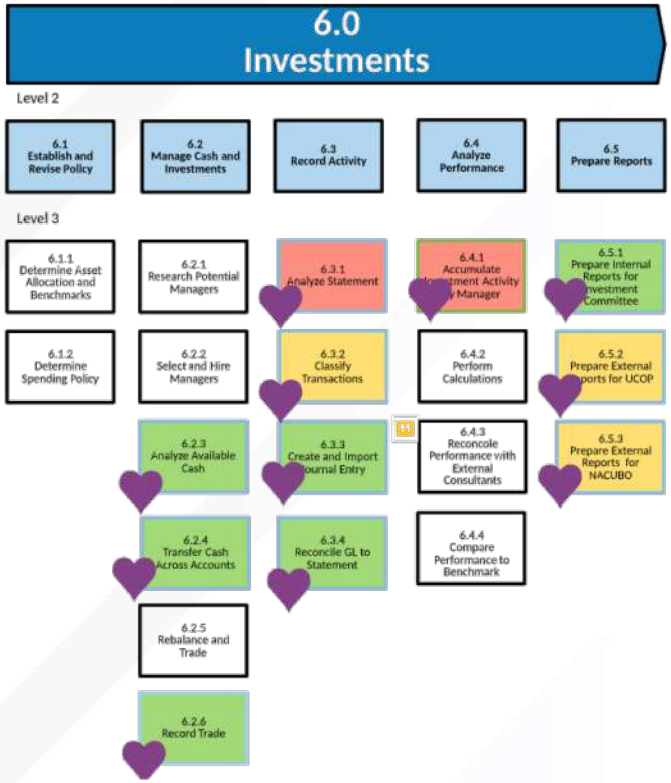
UC San Diego

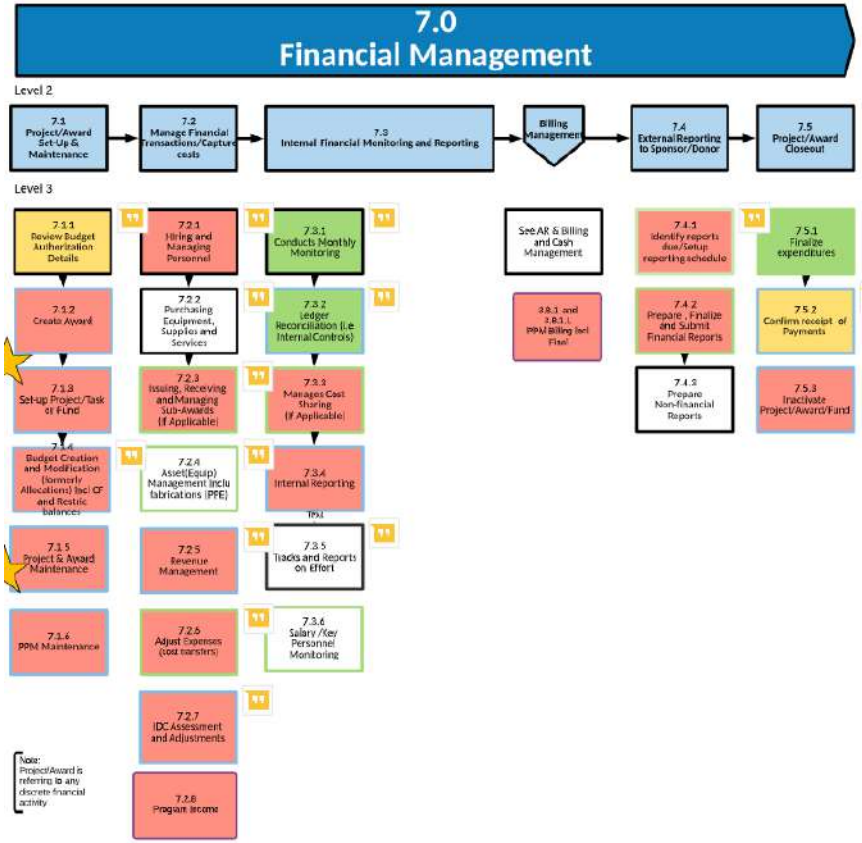
Financial Management



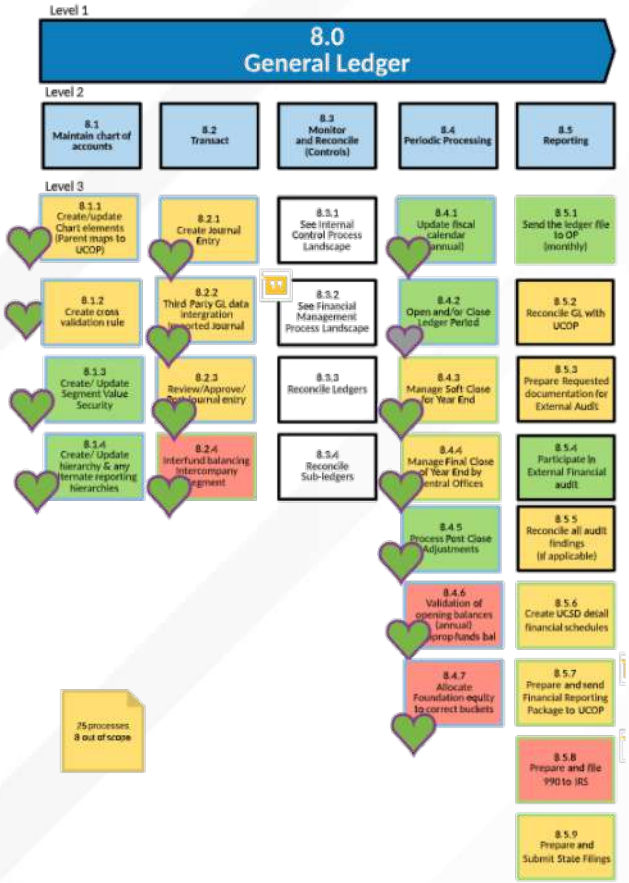


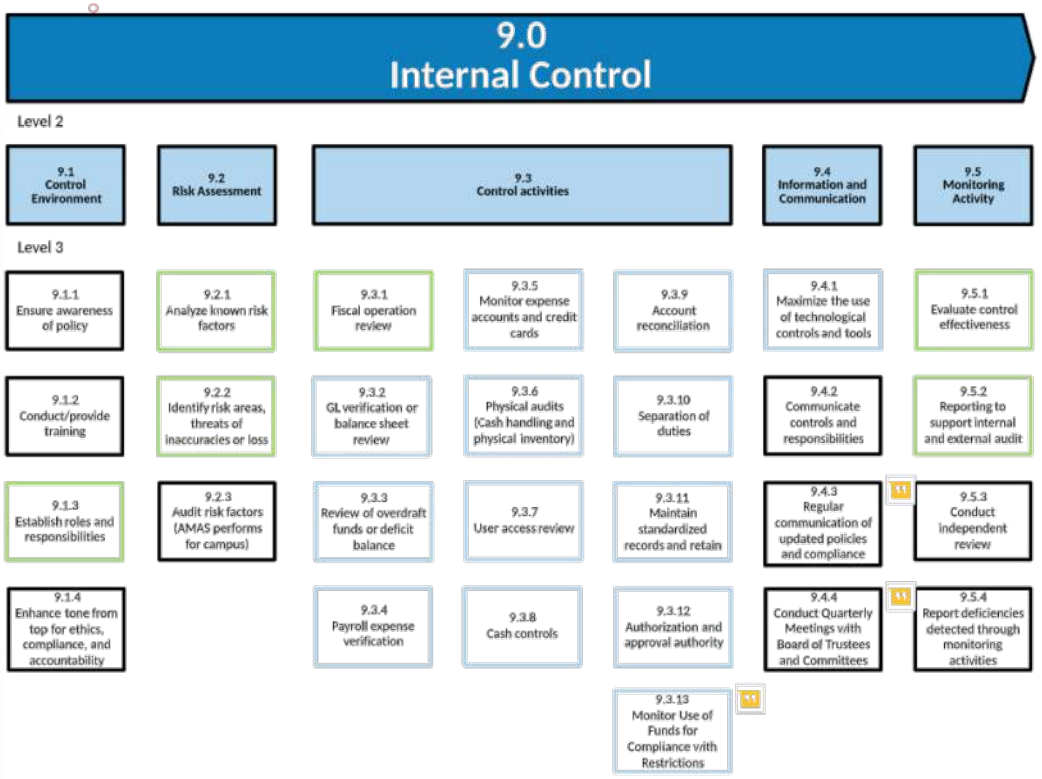
Financial Management



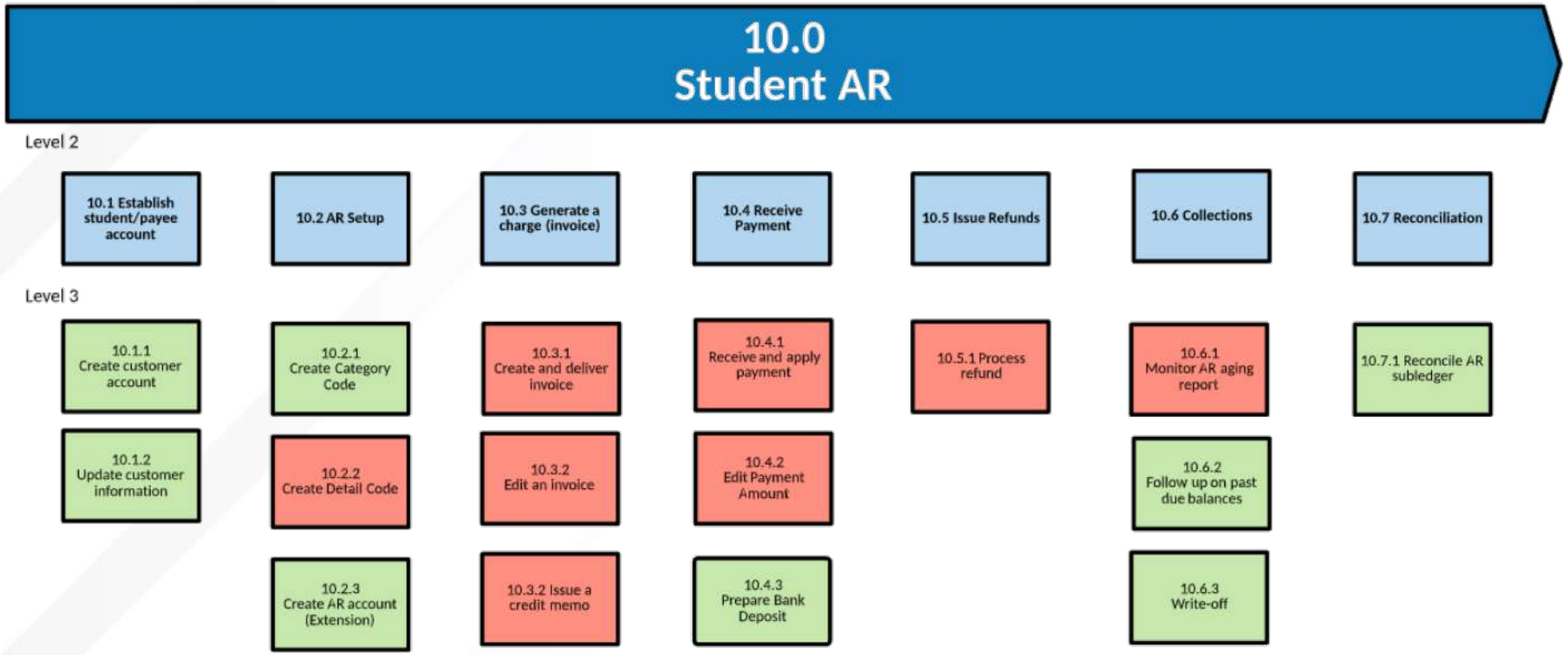


Financial Management





Financial Management



Academic Personnel Efficiencies Impacts

Quantitative Impacts

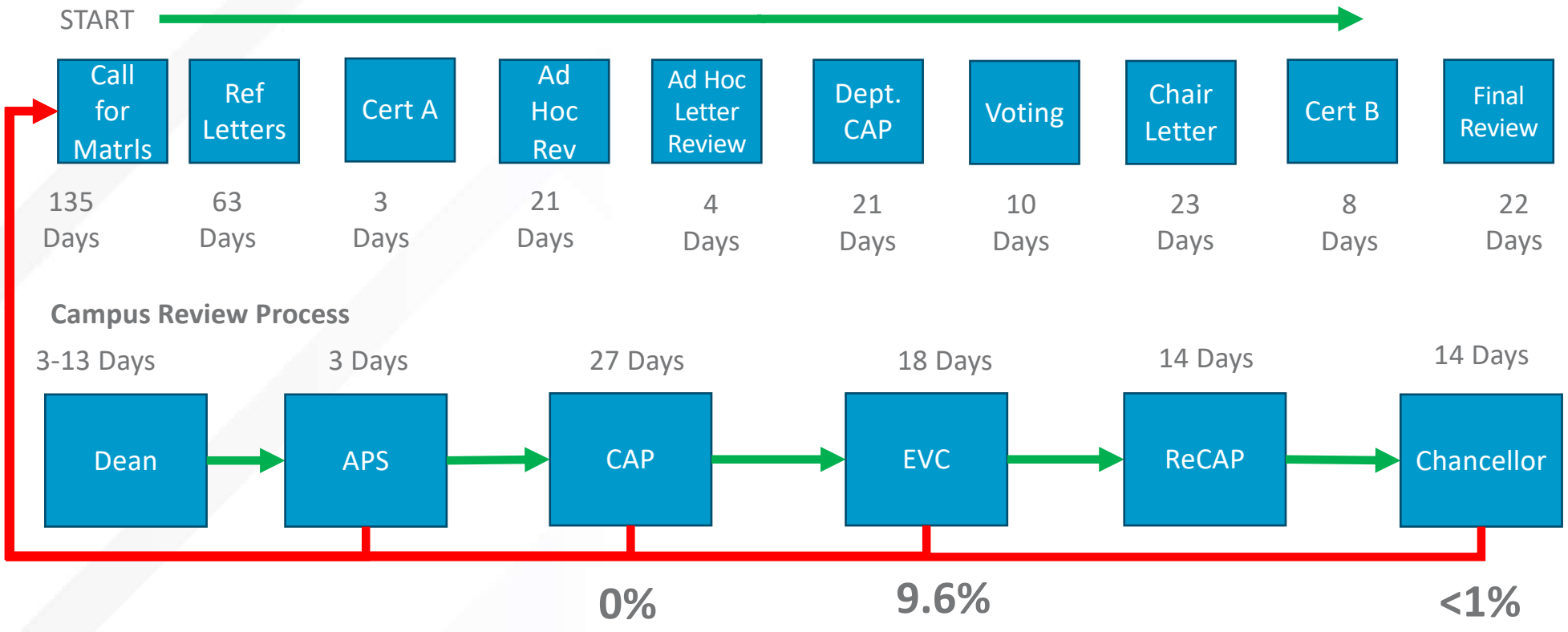
- Interfolio suite reduces overall file preparation time from 24 work hours to 2.5 work hours per file
  - **Savings of~$1.25mm annually**
- Reduces faculty time spent updating their biobib from 10 hrs on average per file review period to 20-30 mins per quarter (5.5 hrs saved)
  - **Savings of ~$361k annually**
- Interfolio eliminates time to create appointment cases by pulling files from AP Recruit (5 hrs saved per case file)
  - **Savings of ~$12k annually**
- Interfolio suite reduces AP dept level file preparation workload (40 mins/file saved)
  - **Savings of ~$38k annually**

Qualitative Impacts

- Improved quality of faculty biobibs
  - Complete Files
  - File Order
  - Independence of External Referees
  - Broken Links
  - Paywall
  - Poor quality has a time and effort cost
- Eliminate double data entry and chance of human error input
- Improved faculty satisfaction by increasing file status visibility
- Improved quality of Dean to chancellor review files
- Reduction of shadow/support systems

Approximately $1.66mm in soft savings annually

Dept. AP File Process (Generalized)

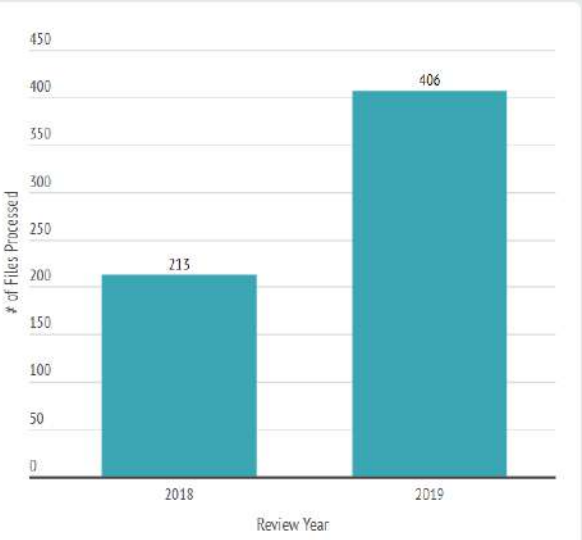


APOL Review: Files Processed

Graphical display of the number of review files processed in APOL Review per review year

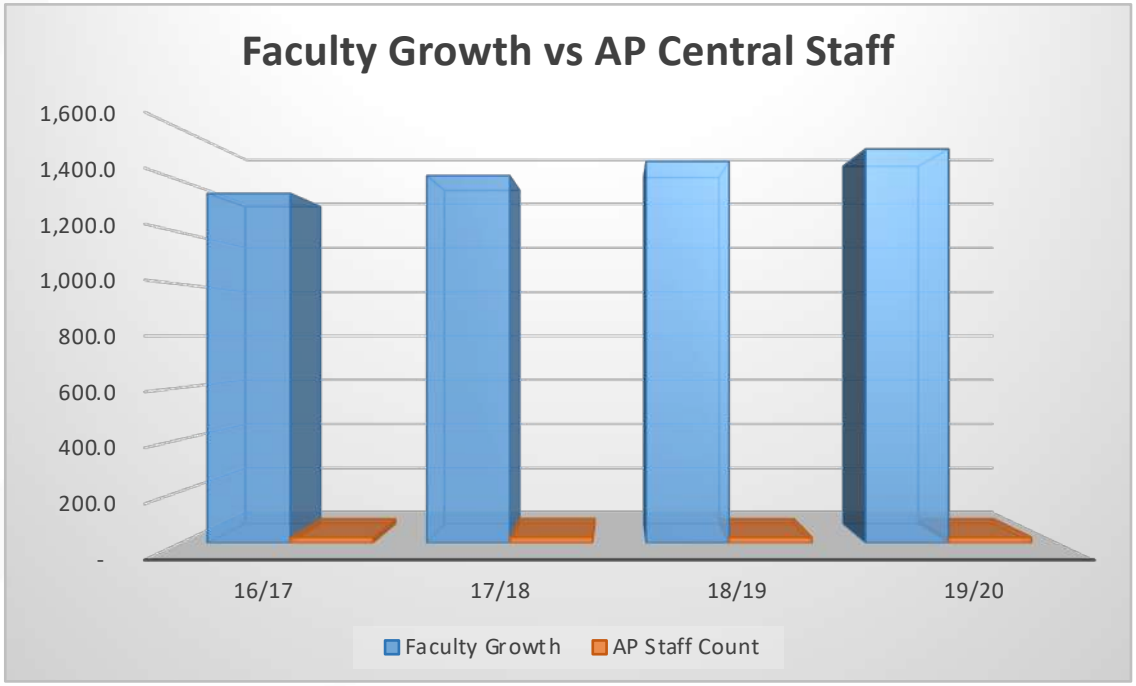
Interfolio: Files Processed

Graphical display of the number of review files processed in Interfolio since implementation as of 1-22-2019



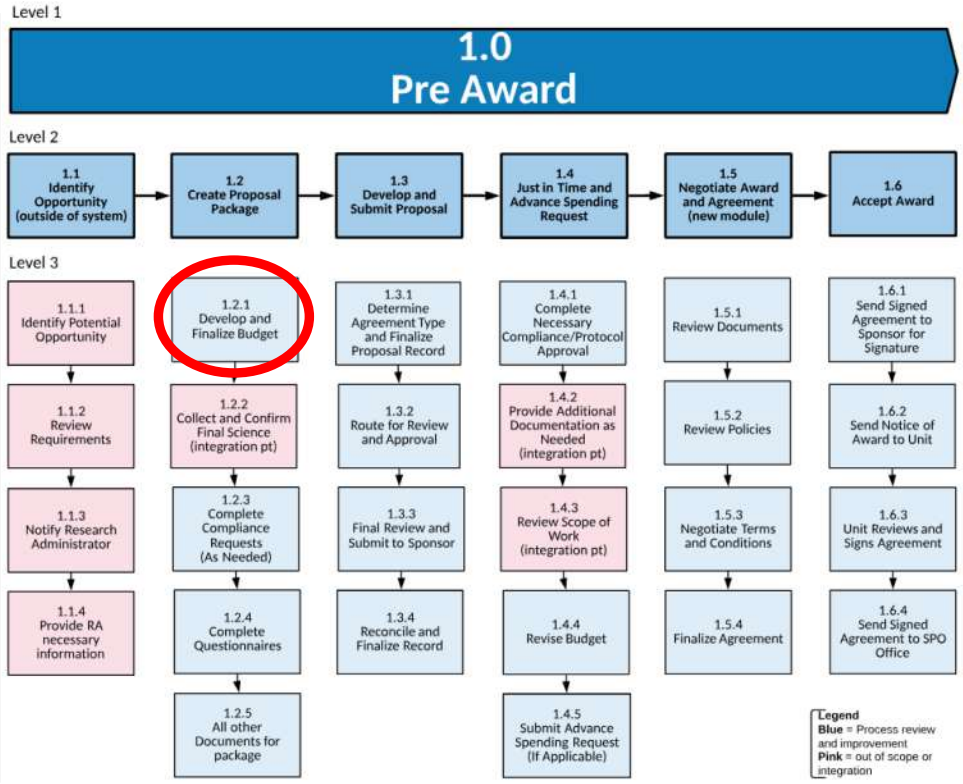
Key takeaway: We are processing more files in pilot year 2 (406) than we did in the most successful year of APOL Review (304)

Central Academic Personnel Staffing



Key takeaway: Efficiencies are translating to capability to absorb more files with central staffing levels remaining flat

Research Administration



Proposal Budget Development & Submission Process

Current State

Large amounts of budget template variations across campus.

Proposal Budget Development & Submission Process

Current State

One default budget template that will support all of campus.

Future State

Powered by Process Palooza

Future State Benefits

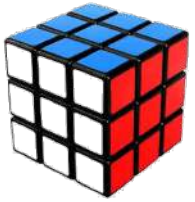
System to System Submissions

Standardization of Non-System to System Submissions

Budget Data Availability

Centralized Managed Accuracy

Downstream Process Impacts



Proposal Budget Development & Submission Process

Process Description

The budget development process is a pre-award function of Research Administration. A detailed budget must be created by the Research Administrator (RA) as part of the proposal package to be submitted to the sponsor for consideration.

Current State

351 budget preparers with the potential to have their own budget template

Proposed Future State

One centrally managed budget template for UCSD using Kuali Budgeting module

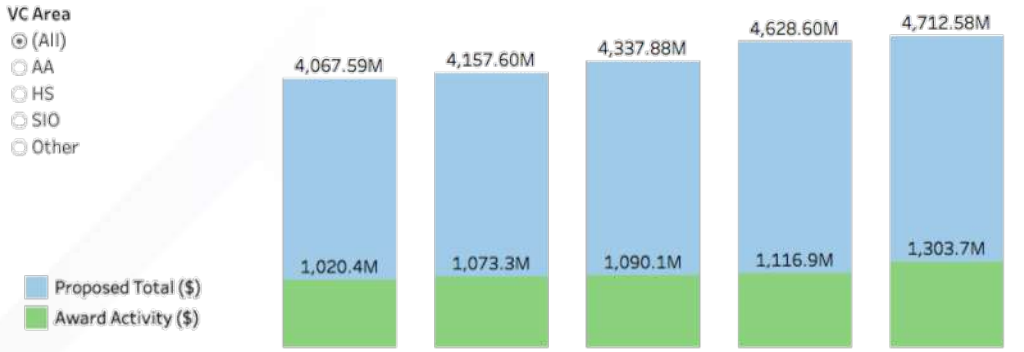
Projected Impacts & Benefits

System-to-System Submissions	47% of UCSD's proposal budgets can be submitted via system-to-system eliminating manual data entry. This leads to 2,440 redeployable person-hours per year (calculation based on 4,881 proposals in 2018 and about 1 hour manual translation per proposal)
Standardization of Non-System-to-System Submissions	Standardized campus budget template for remaining 50% of budgets allows for campus collaboration and uniform training across departments
Centralized Managed Accuracy	Centralized management of rate updates and calculations allows for formula accuracy and eliminates manual updates. Potential for university to increase IDC recovery by reducing IDC calculation errors
Budget Data Availability	Budget details stored centrally and easily accessible for reporting, analytics, decision making, and future projects potentially leads to increased proposal submissions
Downstream Process Impacts	Seamless integration to downstream data and tools, i.e. Kuali Budget module will automate allocations in the future Financial management system

Increasing Efficiency to meet Growth Expectancy

UC San Diego 5-Year Trends Report

Interact with the featured chart below for proposal and award activity by fiscal year. Filter by VC area.



	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Proposals (#)	4,742	4,414	4,720	4,881	5,019
Proposed Total ($)	4,067.59M	4,157.60M	4,337.88M	4,628.60M	4,712.58M
Award Activity (#)	4,635	4,481	4,871	4,752	4,480
Award Activity ($)	1,020.37M	1,073.33M	1,090.15M	1,116.95M	1,303.68M
Award Direct Cost ($)	783.20M	829.22M	834.46M	851.37M	1,000.53M
Award Indirect Cost ($)	237.17M	244.10M	255.69M	265.58M	303.15M

LeanBench.ucsd.edu

Join the bench of experts!

Powered by Process-palooza

UC San Diego