IT STRATEGY BOARD

April 29, 2020

INFORMATION TECHNOLOGY

UNIVERSITY of WASHINGTON

AGENDA

- Call to Order
  - Welcome
  - Governance Board Update
    - IT Service Management Board Recommendations
- Novel Coronavirus (COVID-19)
  - Impact on Teaching & Learning
  - Impact on UW-IT
  - Next Steps
- Major Projects Update
  - UW Finance Transformation
  - Destination: One
- Advance World-Class Research Strategy
- IT Project Portfolio Executive Review
  - UW-IT Major Project Prioritization for COVID-19
- Wrap up

Governance Board Update

IT Governance Board Update

IT Service Investment Board (March 11)

> **Coronavirus Update:** A brief update on UW-IT's response, including securing an enterprise Zoom license and supporting the transition to remote instruction and work.

> **IT Service Management Board Recommendations for Services and Campus Consistency:** A presentation on the Board's final recommendations, focusing on the top seven, with three actionable in the near term and four requiring more exploration. Focus is on driving consistency across the UW and encouraging use of common tools and process to create efficiencies. Of the top three, the recommendation to adopt UW-wide use of Zoom is complete, while the other two – investing in enterprise Service Management (UW Connect) and promoting 25Live for space scheduling and management – are still under consideration.

> **UW Finance Transformation update:** Discussion focused on business process redesign and the HUBS, with process design workshops planned for this summer and clear direction on the HUB model expected by 9/30/20. Questions focused on design of the HUB model, involvement of units in decisions about shared services and level of customer service.

> **Technology Recharge Fee (TFR) update:** The Provost approved the Board's recommendation for a slight increase in TRF rates for FY 2021 to support increased funding for cybersecurity. For more information, see the TRF website.

IT Service Management Board (meets monthly)

> The Board presented its recommendations report to the Vice President for UW-IT and CIO (VP/CIO) in early March and to the IT Service Investment Board on March 11. The VP/CIO is considering next steps on the top recommendations.

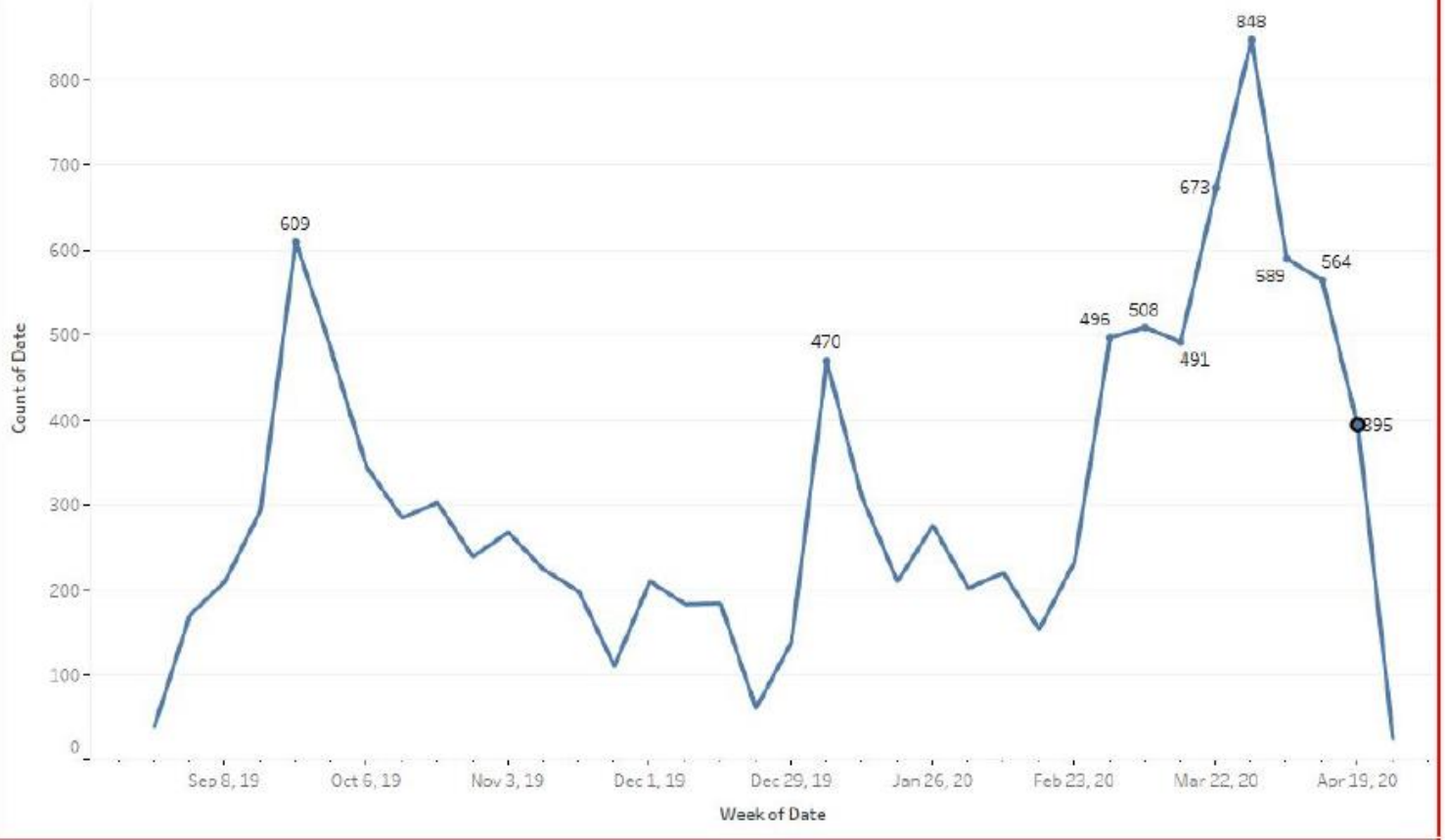
Novel Coronavirus (COVID-19)

Aaron Powell
Vice President, UW-IT and Chief Information Officer

Impact on Teaching & Learning

Erik Hofer
Associate Vice President for Academic Services, UW-IT

recent longitudinal sum - all tickets for LT



Technology Support Monthly Summary

Assignment Group Display Value																
Zoom Business Management	24	15	13	92	36	13	12	12	11	2	1	1	2	1	14	6
Learning Tech Classroom Response	64	15	34	64	20	20	11	14	40	33	17	9	81	18	26	21
Learning Tech Catalyst	48	34	69	39	62	72	30	29	35	38	25	61	38	36	59	34
Lecture Capture	117	108	68	145	77	52	150	50	111	172	102	74	150	55	240	203
Computer Vet	144	156	164	285	260	128	59	99	352	343	138	72	182	185	66	18
Web Conference Consulting	220	255	211	392	206	175	196	181	220	284	179	147	284	199	1,177	987
Learning Tech Canvas	708	347	509	612	330	409	312	252	662	590	382	323	611	319	999	738
Grand Total	1,325	930	1,068	1,629	991	869	770	637	1,431	1,462	844	687	1,348	813	2,581	2,007

January 2019 April 2019 July 2019 October 2019 January 2020 April 2020

Month of Sys Created On

Impact on UW-IT

Aaron Powell
Vice President, UW-IT and Chief Information Officer

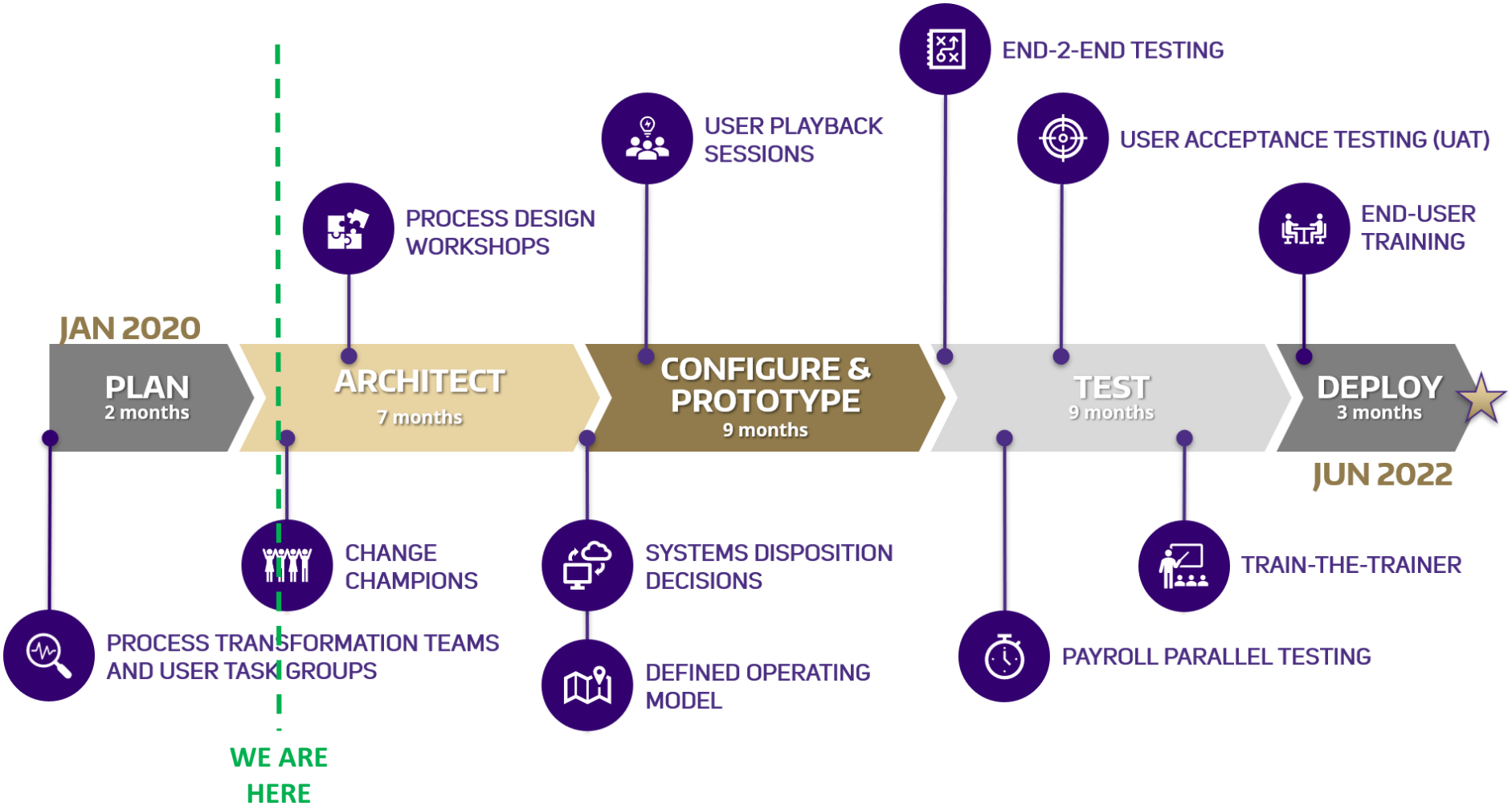
QUESTIONS

Major Projects Update

UW Finance Transformation

Brian McCartan
Vice President for Finance, UW Finance & Administration

IMPLEMENTATION TIMELINE



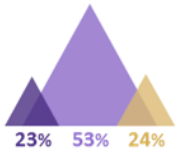
FINANCE TRANSFORMATION
UNIVERSITY of WASHINGTON

12

UWFT – Monthly Status Report – March 2020

Minimal 1 | Minor 2 | Moderate 3 | Significant 4 | Severe 5

DELIVERABLE COMPLETION

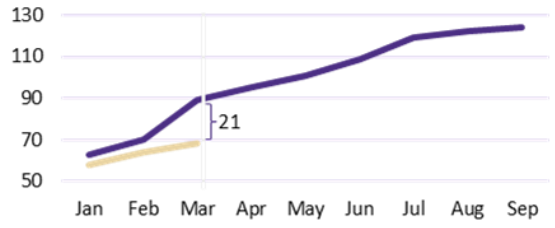


	Count*	%	Δ Month
Complete:	16	23%	+ 11%
In Progress:	37	53%	+ 13%
Not Started:	17	24%	- 24%

*reflects Plan + Architect deliverables only

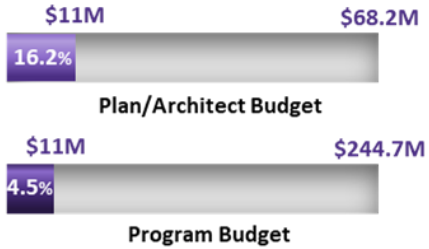
Architect Stage Exit Criteria		
Configuration Workbooks	18%	+/- 0%
Business Process Workbooks	40%	+/- 0%
Configuration Tenant	0%	+/- 0%
Conversion Process	26%	+/- 0%
Reporting Strategy	0%	+/- 0%
HRP Remediation Catalog	17%	+/- 0%
Local vs. Shared Activities	7%	+/- 0%

STAFFING FORECAST



Core Team Resourcing | 76% Filled

BUDGET ACTUALS SPEND-TO-DATE



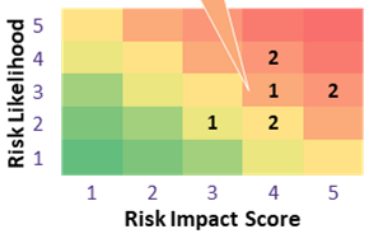
Budget to Actuals

COLLABORATION PARTNERS

	Research	Medicine	UWIT	Finance
Overall Status	Yellow	Red	Red	Yellow
Schedule Creation v2	20%	25%	5%	5%
Risks	0	0	1	7
Issues	0	3	2	0

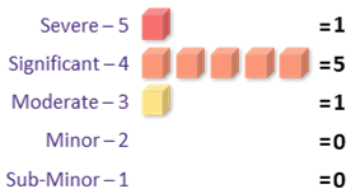
RISKS

8 COUNT | 4.1 AVG. | 6 CLOSED



ISSUES

7 COUNT | 4.0 AVG | 4 CLOSED



DECISIONS

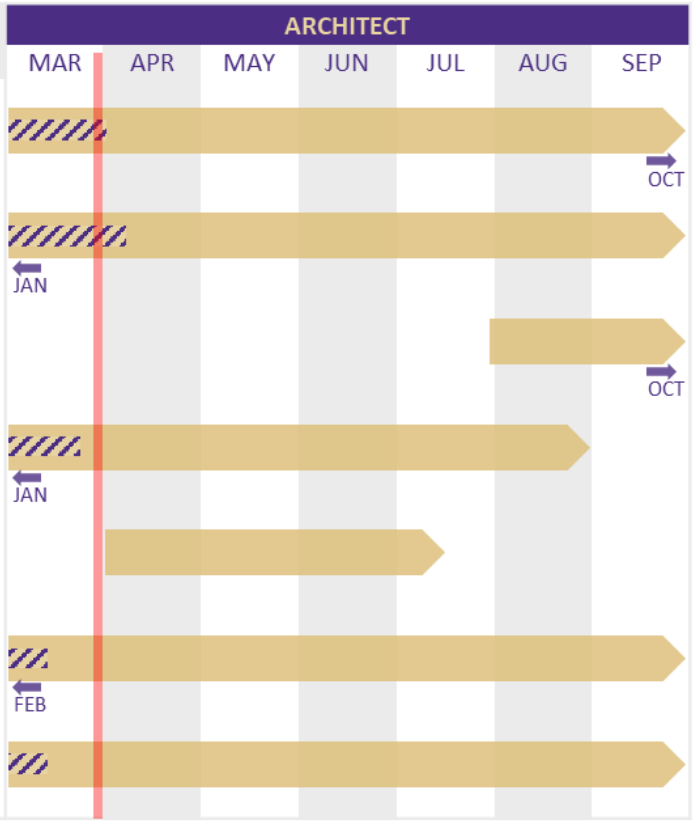
14 COUNT | 3.3 AVG | 4 CLOSED

PLAN		ARCHITECT							CONFIGURE AND PROTOTYPE		
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

UWFT SCHEDULE STATUS – MARCH 2020

ARCHITECT STAGE – EXIT CRITERIA

Exit Criteria	% Complete	% Elapsed*
Configuration Workbooks	18%	14%
Business Process Workbooks	40%	33%
Configuration Tenant	0%	0%
Conversion Process	26%	38%
Reporting Strategy	0%	0%
HRP Remediation Catalog	17%	25%
Local vs. Shared Activities	7%	14%



Baseline Duration % Complete *(Time Elapsed)/(Deliverable Duration) = % Elapsed

KEY DELIVERABLES COMPLETED - MARCH

- Foundation Tenant
- Communication Strategy
- Communication Plan
- Integration Approach
- Project Schedule / Workplan
- Knowledge Transfer Strategy
- Conversion Approach (4/3)
- Testing Strategy (4/3)

KEY SCHEDULE STATUS COMMENTS

- Business Process and Configuration Workbooks will be significantly informed by the Process Design Workshops
- Conversion priorities are those things needed for the Configuration Tenant. Extracts have been requested from source systems and data mapping sessions planned / scheduled
- Date for the Reporting Strategy is being evaluated and will be adjusted to slightly later date in the Architect Stage; this will be reflected on the April Monthly Report

UWFT IS ACHIEVING DELIVERABLES

Bluecrane March QA report:

- *"Even though the Program experienced changes to their work activities as a result of the pandemic,* ***the Program is continuing to meet its commitments****, working collaboratively with external partners, and adjusting to the "new normal" that we are all now experiencing*

- ***"More specifically, in March, the Program made significant strides in reducing its risks in three key areas****: preparing a more detailed schedule, developing a path forward for addressing technical readiness, and sharing more information on business process design"*

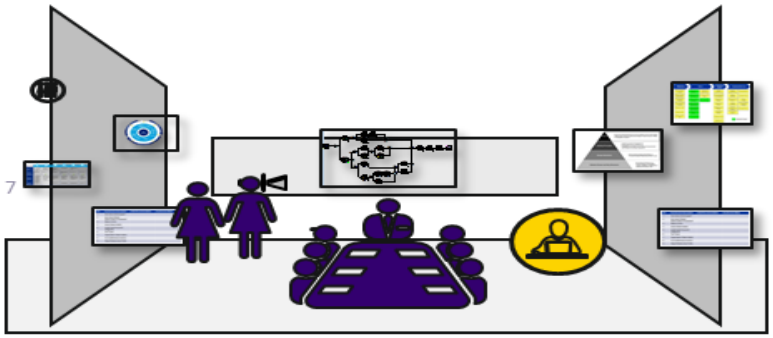
OUR JOURNEY – PLAN AND ARCHITECT STAGES

Preparing for phasing and conducting End-to-End Process Design Workshops

January 2020

Prioritize End-to-End Process Inventory

- ✓ Evaluate processes
- ✓ Identify core vs. strategic
- ✓ Align on prioritized processes for Process Design Workshops



Feb/Mar 2020

Prioritize Policies for Harmonization

- ✓ Inventory policies and owners
- ❑ Review and prioritize policies

March 2020

Shared Services Deployment Approach POV

- ❑ Provost & president review guiding principles
- ❑ Agree on POV of how target shared services should be deployed (i.e. which processes should go before, concurrent with, and after Workday)

April – Sept 2020

End-to End Process Design Workshops

- ❑ Conduct workshops for each end-to-end process area
- ❑ Capture key decisions made and action outputs/next steps

September 2020 Shared Services Final Decision

DEFINING OUR GUIDING PRINCIPLES…

	DRAFT SHARED SERVICES DEPLOYMENT PRINCIPLES
1	**Shared services should enable process standardization.**
2	**Avoid re-work.**
3	**Minimize Workday go-live risk.**
4	**Establish foundation to achieve efficiency target.**
5	**Shared services should not be opt-in** *(We should avoid having 'opt-in' shared services, as doing so will result in inconsistent processes across the organization and complex Workday configuration)*
6	**Hubs stood-up by the time Workday is live** *(All Regional hubs will be stood-up and operating by the time Workday is live)*
7	**Build on existing shared services efforts.**
8	**Local Unit Knowledge.**

A LOOK AT PEERS: OSU/WSU DELAYING 6 MONTHS

Both institutions are at very different, near-end stage points in the project lifecycle than UWFT:

- **OSU** – ***They were very close to go-live, when attention should be on end user involvement for go-live readiness, training and testing*** – activities best completed in-person. In addition, it is particularly risky to introduce new software into aspects of their operations (hospital supply chain) that can ill afford glitches in the midst of this global pandemic. They have extended the launch of Workday to January 2021.

- **WSU** – ***They were also close to go-live, but after trending yellow for months and falling behind in their testing schedule in January and February***, their project go-live has been delayed in order to allow more time to ensure institution-wide readiness, not in response to COVID-19. They have extended the launch of Workday to January 2021.

QUESTIONS

Destination: One

Eric Neil
Interim Chief Information Officer, UW Medicine

Destination: One - Update

- D1 Go-live date
  - Red
  - COVID19
- Lessons learned
  - Decision making
  - Cohesion – staff, consultants, vendors
- Adjustments made

QUESTIONS

Advance World-Class Research Strategy

Supporting the UW research community, with large-scale computing capabilities

Erik Lundberg
Assistant Vice President, Research Computing & Strategy, UW-IT

Jim Pfaendtner
Professor and Chair, Chemical Engineering

Andrew Connolly
Professor, Astronomy

UW-IT Strategy 2020

Good technology, well-delivered, for a better University

Enhance the student experience

Advance world-class research

Enable academic administration

Modernize UW business administration

Support the workforce

Build technology foundations

Manage enterprise risk

Four takeaways from today's discussion…

- *We are doing great work as a collaboration across campus*
- Coordinated commercial partnerships
- Growth – data center capacity and priority is a looming issue
- We are balancing and striving to coordinate the support across the breadth of UW's research base – big efforts, as well as 'long-tail'

A shared strategy, in partnership

UW-IT – eScience – Hyak

- Provide an **integrated approach** to scientific computing, offering guidance to the most appropriate technologies
- Provide **assistance to researchers** with their large-scale computing needs across the entire research life cycle
- Provide **centralized and coordinated delivery** of research computing services to optimize use of University resources
- We are focused on the **large-scale platforms and skills**, not necessarily the more 'routine' research applications (e.g., survey tools)

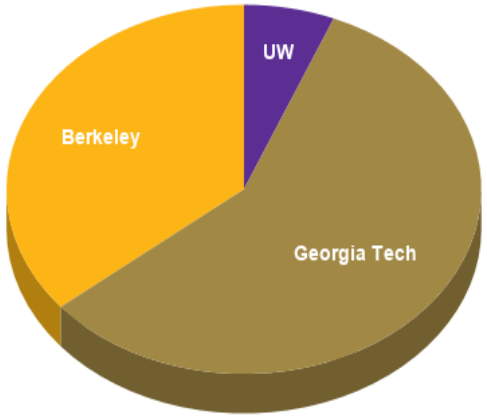
Ultimately, we are striving to create strategic advantage in attracting top faculty and grad students, and advancing scientific discovery.

Leverage and Funding

> Because we have a shared strategy between UW-IT, eScience and Hyak Governance Board, we have huge leverage from our $2.5M annual central funding.

> But our funding levels* are well below others...

- *Berkeley funding is $5.6M (3.0B budget)*
- *Georgia Tech spends 11x on HPC alone ($6M, 2.0B budget)*



**funding as percent of annual institutional budget*

Recent Research Highlights…

Broad engagement *produces significant research results*

> HPC outcomes

- UW HPC supports a flagship DOE center on campus related to materials synthesis
- Nature, 2019 (D. Baker research group),
- JACS, 2020 (D. Baker + J. Pfaendtner groups)

Recent Research Highlights…

Broad engagement ***produces significant research results***

> eScience outcomes

- Cloud computing consult: impacts hundreds of researchers & students across UW
- Nat'l Alzheimers Coord Center, Gerner immunology → cloud
- Protein design, genome-protein-cell linkages (pubs in Science, Nature)
- Large dataset management: Astronomy, oceanography, oncology
- Office hours consultation, the Data Science Incubator and DSSG programs, provide over **1,246** hours of service to **110** unique individuals from **70** different units, departments, groups, colleges, etc. across campus in 2019.
- eScience liaison is a big factor in securing extramural funding (2018/2019 > $35M)

Student Research and Education Highlights

We *support the research, education and training* needs of students

- Student Projects supported by Hyak and Cloud through RCC and STF
  - Machine learning in home health / 3D image reconstruction / product design
  - reana for jet physics on cloud
  - Flow characteristics in continuous supercritical carbon dioxide synthesis reactor mixing
  - Cultural dimension discovery across US states
  - Bus ridership prediction
  - *Cocobot:* A chatbot serving caregivers for children with chronic conditions

Student Research and Education Highlights

We *support the research, education and training* needs of students

- Developments in graduate and undergraduate curriculum
  - **Six undergraduate** units and **15 graduate** units now have options, with more on the way.
  - JupyterLab - from eScience/UW-IT work to provide tools for researchers - is now available for class use through UW-IT. Initial rollout for specific courses (Astronomy, MechE, CEE, …) with plans to grow and develop based on feedback.
  - Informal education is provided through bootcamps, hackweeks, and tutorials with additional education opportunities for students, postdocs, faculty and staff.

Use cases across campus…

- Biomedical researchers have unique requirements
  - Researchers often need to work with confidential and regulated data.
  - Solution: Create an adaptable secure environment, to run on all three major public clouds, and aligned with UW's risk appetite. Requires staff to build and maintain infrastructure, assess risk, and assist researchers with Security Plans.
  - ➢ *Goal: accelerate medical professionals and all researchers who have compliance obligations*

Use cases across campus…

- Growing demand for machine learning compute capabilities
  - Machine learning is used in broad domains of research, and is now being taught across campus: College of Arts & Sciences (applied math, astron, physics), College of Engineering (civil eng, computer science and eng), College of the Environment, Evans School, and Foster School.
  - Commodity GPUs cost effective, but data centers require commercial CPUs (more expensive).
  - Solution: Make commodity GPUs available through Hyak for research and education.
  - ➢ *Goal: accelerate adoption of ML/DL in research and education*

Strategic Investments we're working on now

- Expanding ability to handle **regulated data** (e.g., HIPAA initially, CUI)
- **Adding machine learning** capabilities in partnership with CSE (commodity class GPU nodes as an option to regular HPC nodes)
- Add **cloud-bursting** capabilities to Hyak
- **Simplifying cloud access** to research community (similar to CloudBank, but available to all)

Challenges we face

> The research data center users are going to collide at some point

> The demands on research computing are expanding well beyond the traditional domains (driven by AI/ML) - we need to coordinate the expansion, leverage the community, and expand to meet the need

> Data storage and management are challenges that needs a holistic response

Discussion Points

1. Commercial partnerships and philanthropy
2. On-campus partnerships
3. How do we scale to meet the needs in a balanced way

Discussion – 1. Corporate and Foundation Relations

- Current engagement with commercial companies (NVIDIA, cloud providers, Intel) is often undertaken at individual faculty level or for specific projects. We want to build a more strategic engagement approach to...
  - formalize the commercial engagement approach with cloud providers, hardware vendors, ML researchers
  - coordinate purchases to buy the right/best solutions
  - create a public/private partnership in the space
  - partner with UW Corporate Foundation Relations to do this
- Is there any reason NOT to pursue this?

Discussion – 2. On Campus Partnerships

a. How best to engage with the IRB?

b. Who else on campus should we be partnering more deeply with?

c. Could the Strategy Board help with encouraging other potential customers? e.g, IHME

Discussion – 3. How do we scale to meet the needs?

- Data science options are spreading across campus
  - New opportunities for collaboration and engagement: Statistical Consulting, Biostatistics Consulting Services, Center for Statistics and the Social Sciences, ITHS Research Services
  - Support of this growth will require investments in personnel, hardware and space
- AI/ML is becoming integrated across many domains of research
  - Hyak provides a cost effective introduction to small and medium scale ML capabilities but will reach space limits in the near future.
  - Training users in appropriate methodologies will require expansion of educational component
- As research relies on software and infrastructure, software engineers who support research platforms could become an important (shared?) component of our program
- With limited resources we need to balance the use of funds and investments

Four takeaways from today's discussion…

- *We are doing great work as a collaboration across campus*
  - *and seek to expand by working more closely with other groups*
- Coordinated commercial partnerships
- Growth – data center capacity and priority is a looming issue
- We are balancing and striving to coordinate the support across the breadth of UW's research base – big efforts, as well as 'long-tail'

QUESTIONS

UW Project Portfolio - Executive Summary

Erik Lundberg
Assistant Vice President, Research Computing & Strategy, UW-IT

UW Enterprise IT Projects

Project Portfolio Executive Summary - Mar 31, 2020

Project	Sponsor	Oversight Level *	Overall Risk & Project Health *	Budget Rating	Schedule Rating	Scope Rating	Resource Rating	Issues Rating	Actual Cost	Budget
UW Finance Transformation Implementation	Mark Richards	3 - OCIO	(A)						$35,236,000	$269,247,000
Destination: One	Tim Dellit	3 - UW	(B)						$70,415,000	$159,500,000
Advancement CRM Replacement	Julie Brown Dan Peterson	3 - OCIO	(C)						$1,385,000	$4,000,000
Clinical Trials Management System	John Slattery	2 - UW							$9,546,000	$15,704,000
Northwest Hospital HR & Labor Integration	Nicki McCraw	2 - UW	Final						$10,991,000	$14,974,000
UWM Data Analytics Warehouse	Adam Wilcox	2 - UW	new						$1,015,000	$5,172,000
LQI Leases	Susan Camber	2 - UW	new						$212,000	$540,000
F&A Space	Sue Camber	2 - UW	(D)						$50,000	$246,000
Transportation System Improvement Project	John Chapman	1 - UW							$3,144,000	$3,371,000
Finance E-Commerce/Touchnet	Brian McCartan	1 - UW							$306,000	$1,000,000
Audit/Complaince of Unstructured Network Data	Xiao-Ping Chen	1 - UW							$57,000	$60,000
11 projects									$132.4M	$473.8M

Notes:

(A) FT Implementation started Stage 2 in January; this resets the prior ratings from Stage 1. Note that total Budget and Actual Cost includes both stages to show total investment approved by Board of Regents and State OCIO.

(B) D:1 leadership determined that a three month extension for go-live date is necessary, which will ensure enough time for robust testing.

(C) Advancement leadership approved a plan to rebaseline the project, with 2021 go live extended by four months.

(D) F&A determined that InVision solution available through UW Facilities Services will provided the needed functionality through a planned InVision enhancement; that collaborative work will be reflected in June report.

(over for Program Operations impacts)

Improvement over previous quarter

Setback from previous quarter

Program Operations	Executive Leadership	Major Projects Interdependencies Assessment		Note: ISC and UW-IT resources are tracked within the major projects' budgets
Integrated Service Center	Ann Anderson	UW Enterprise		• Number one priority is COVID-19. Significant effort has gone into updating Workday for new state/federal leave and tax provisions. • For the quarter starting April 1 thru June 30 we are implementing a new approach for Workday changes with both HR partners (AHR and UW-HR) contributing input to a shared priority list and planning the prioritized work against resource capacity. The quarterly priorities and timing are transparent to our shared customers. This is consistent with what was reviewed with partners and customers at the most recent HCM Workday Governance meeting. COVID-19 caused a temporary reprioritization. • Neighborhood Clinics Project launched, a revised resource approach has been proposed given resource constraints with multiple projects. We are on track for the initial phase given we have resource assistance from Huron (brings the knowledge and experience of NWH project, which had a successful go live on January 1st). • We have several key technical openings due to people moving to FT roles and are working on plans to address. We are approaching a higher volume time of the academic year for the ISC and Unit administrators. • Working with UWFT on an engagement model focusing upon HCM remediation. • Do have concerns about resources looking forward as multiple projects ramp up.
UW-IT	Aaron Powell	UW Enterprise		• UW-IT focused on COVID-19 response and maintaining essential university operations, impacts projects. Current Major Projects UW-IT is engaged in: UWFT, Advancement CRM, UW Neighborhood Clinic integration to UW Medicine, D:1. • UW-IT staffing up new Program (ITF) to handle UW-IT's work on UWFT, reporting directly to the CIO. Hiring has slowed down due to COVID-19. UWFT schedule not yet integrated with IT partners, making the feasibility of the planned UWFT schedule unknown. Some concern around key UW-IT and campus staff joining UWFT and how this may impact ability to maintain current financial systems. There is potential for risks to become critical in next few months. • Advancement CRM schedule re-baselined and UW-IT deliverables and timelines defined. Risk is that scope continues to shift. COVID-19 impacts likely in some but not all areas of UW-IT work on this project. • UW Neighborhood Clinic Project just beginning, impact to UW-IT expected to be fairly minimal, due to re-use of solution developed for NWH Project.

* Oversight Level Key
1. Overseen by UW management and staff. Requires OCIO approval and reporting if over delegated authority.
2. OCIO approval required and regular project reporting. Quality Assurance (QA) reporting required, maybe internal or external. OCIO may recommend project to be full Technology Services Board (TSB) oversight.
3. High severity and/or high risk, subject to full TSB oversight, which includes TSB approval, written reports to the TSB, periodic status reports to the TSB by the agency director and staff, and submission of other reports as directed by the TSB. External QA reporting required.

* Project Health Key	
	Project is on time, on budget, and within defined scope, with minimal issues. **Overall Risk Rating of 5-10 is Green**
	Changes to scope, budget, or resources have placed project at some risk. Project has the potential for delays, cost or scope changes. **Overall Risk Rating of 11-17 is Yellow**
	Major changes to scope, budget or resources have placed project at critical risk. One or more of the following must change in order to proceed: project schedule, resources, budget, scope. **Overall Risk Rating of 18-25 is Red**

Completed Projects - Mar 31, 2020					
Project	**Sponsor**	**Oversight Level***	**Go Live Date**	**Project Completion Date**	**Total Project Cost ($K)**
Finance Transformation Readiness	Mark Richards	3 - OCIO	n/a	transitioned to UW FT	absorbed into UW FT Budget
Pharmacy Inventory Management System	Shabir Somani	2 - UW	Final: Sep, 2019	Dec, 2019	$14,619,000
HFS Point of Sale	Pam Schreiber	2 - UW	Final: Nov, 2019	Nov, 2019	$755,000
ICA Group Sales	Erik Jones	1 - UW	Final: Oct, 2019	Dec, 2019	no costs - level of staff effort only

UW-IT Major Project Prioritization for COVID-19

UW-IT Project Portfolio - March 2020

Project Name	Service Category	'COVID' priority	Critical Constraint	Sponsor
Upgrade Mainframe Databases to Latest Version	Infra	High	Schedule	Greer
Routing to the Edge (R2E)	Infra	High	Schedule	Greer
Westin Power and Infrastructure Modernization	Infra	High	Schedule	Greer
UW Medicine Identity and Access Management Replacement	Infra	High	Scope	Greer
Enable MFA for O365 and Azure AD	Infra	Med	Scope	Greer
Treasury Application Development and Implementation	Infra	Med	Scope	Greer
Implement InTune and AutoPilot for New Computer Imaging	Infra	High	Schedule	Greer
OAuth for API Access	Infra	tbd		Greer
Upgrade Mailman to Version 3	Collab	Low	Scope	Hofer
SharePoint 2010 Retirement	Collab	High	Scope	Hofer
Develop UW-IT Billing System (DUBS)	IT Mgt	High	Schedule	Greer
UW Connect Basic Ticketing Service	IT Mgt	Med	Scope	Greer
MSLM2: Microsoft Licensing - Premium Services & Recharge	IT Mgt	Med	Schedule	Woody
IT Connect User Experience Enhancements	IT Mgt	Low	Scope	Brown

UW-IT Project Portfolio - March 2020

Project Name	Service Category	'COVID' priority	Critical Constraint	Sponsor
Selection Tool for Enrollment (Phase 1 - MVP)	T&L	High	Schedule	Hofer
Canvas LMS Authorization Policy Transition and Data Retention - Implementation	T&L	Low	Scope	Hofer
Pronouns for Instructors and Advisors	T&L	Med	Scope	Hofer
Program: Predictive Analytics & Apps to Support Student Success	T&L	Low		Hofer
Program: Retention Task Force Analytics	T&L	Low		Hofer
Build Hyak Gen 3	Research	High	Schedule	Lundberg
FAM2 - Budgeting & Packaging Aid (Phase 1)	Info Sys	High	Schedule	Hofer
Undergrad Admissions Modernization	Info Sys	High		Hofer
EDM Oracle WebCenter Replacement - Part 2 (OWR-2)	Info Sys	Med	Scope	Canfield-Budde
UW Advancement CRM	Info Sys	Med	Schedule	Canfield-Budde
Legacy HRP System Shutdown and Data Archiving - Implementation	Info Sys	Med	Scope	Canfield-Budde
Migrate UW Fixed Assets Management System (OASIS) to a Supported Platform	Info Sys	High	Schedule	Canfield-Budde
Rebuild Existing MyChem Application with Modern Technology	Info Sys	tbd		Canfield-Budde

QUESTIONS AND DISCUSSION

INFORMATION TECHNOLOGY

UNIVERSITY *of* WASHINGTON