



COMMISSION MEETING ON TRANSFORMATION

U.S. NUCLEAR REGULATORY COMMISSION

October 29, 2019

THE FUTURE IS NOW

NRC's TRANSFORMATION VISION & FOCUS AREAS

Innovate

Focus on our people

MODERN, RISK-
INFORMED REGULATOR

Accept Risk

Use technology

AGENDA

- **Greg Bowman**, Deputy Director, Division of Risk Assessment, Office of Nuclear Reactor Regulation
- **Jennifer Golder**, Deputy Director, Office of the Chief Human Capital Officer
- **John Lubinski**, Director, Office of Nuclear Material Safety and Safeguards
- **David Nelson**, Chief Information Officer
- **Maureen Wylie**, Chief Financial Officer
- **Amy D'Agostino**, Human Performance Analyst, Office of Nuclear Regulatory Research
- **Jonathan Greives**, Chief, Projects Branch 4, Division of Reactor Projects, Region I



ACHIEVING OUR TRANSFORMATION VISION

GREGORY BOWMAN, DEPUTY DIRECTOR

DIVISION OF RISK ASSESSMENT

OFFICE OF NUCLEAR REACTOR REGULATION



THE FUTURE IS NOW

What's a Jam?



Multi-day collaborative discussion in a virtual environment



Everyone can participate and see what's happening as it unfolds



Taps collective wisdom to uncover new insights



Supports culture change to be more receptive to new ideas; willing to speak up

JAM VIDEO

IMPRESSIONS FROM THE JAM

- “I've really never felt more connected as an agency!” – **Patrice Reid, OCHCO**
- “One thing I've learned is that this is an **AWESOME** way to engage with our staff.” – **Ho Nieh, NRR**
- “It seems to me that the #jamchat is evidence and affirmation that the answers are in the room (at all levels of the organization).” – **Doug Dodson, RIV**
- “The Jam has helped knock down organizational barriers and power differentials (senior leadership and staff) in a very powerful way.” – **Amanda Marshall, NSIR**



BECOMING A MODERN, RISK-INFORMED REGULATOR

FOCUS AREAS

Our People

Accepting Risk

Technology

Innovation



INITIATIVES





*“THE WORLD AS WE HAVE
CREATED IT IS A PROCESS
OF OUR THINKING. IT
CANNOT BE CHANGED
WITHOUT CHANGING OUR
THINKING.”*

ALBERT EINSTEIN



OUR PEOPLE

JENNIFER GOLDR, DEPUTY CHIEF HUMAN CAPITAL OFFICER

OFFICE OF THE CHIEF HUMAN CAPITAL OFFICER



THE FUTURE IS NOW

IMPRESSIONS FROM THE JAM

- “In my mind, engagement would include ways to motivate or foster an environment for staff to contribute more and garner interest.” – **Booma Venkataraman, NRR**
- “I can be stable with one Agency, but I can also bounce around and get experience in different fields – materials, inspection, enforcement, project management, licensing.” – **Justin Vazquez, RI**
- “We need to develop employees that want to be fungible, employees who have an interest in moving from one skill set to another many times throughout their careers.” – **Tammy Bloomer, RES**
- “Our recruitment techniques will be key and I think the new marketing campaign can be helpful.” – **Nanette Valliere, NRO**



TALENT MANAGEMENT

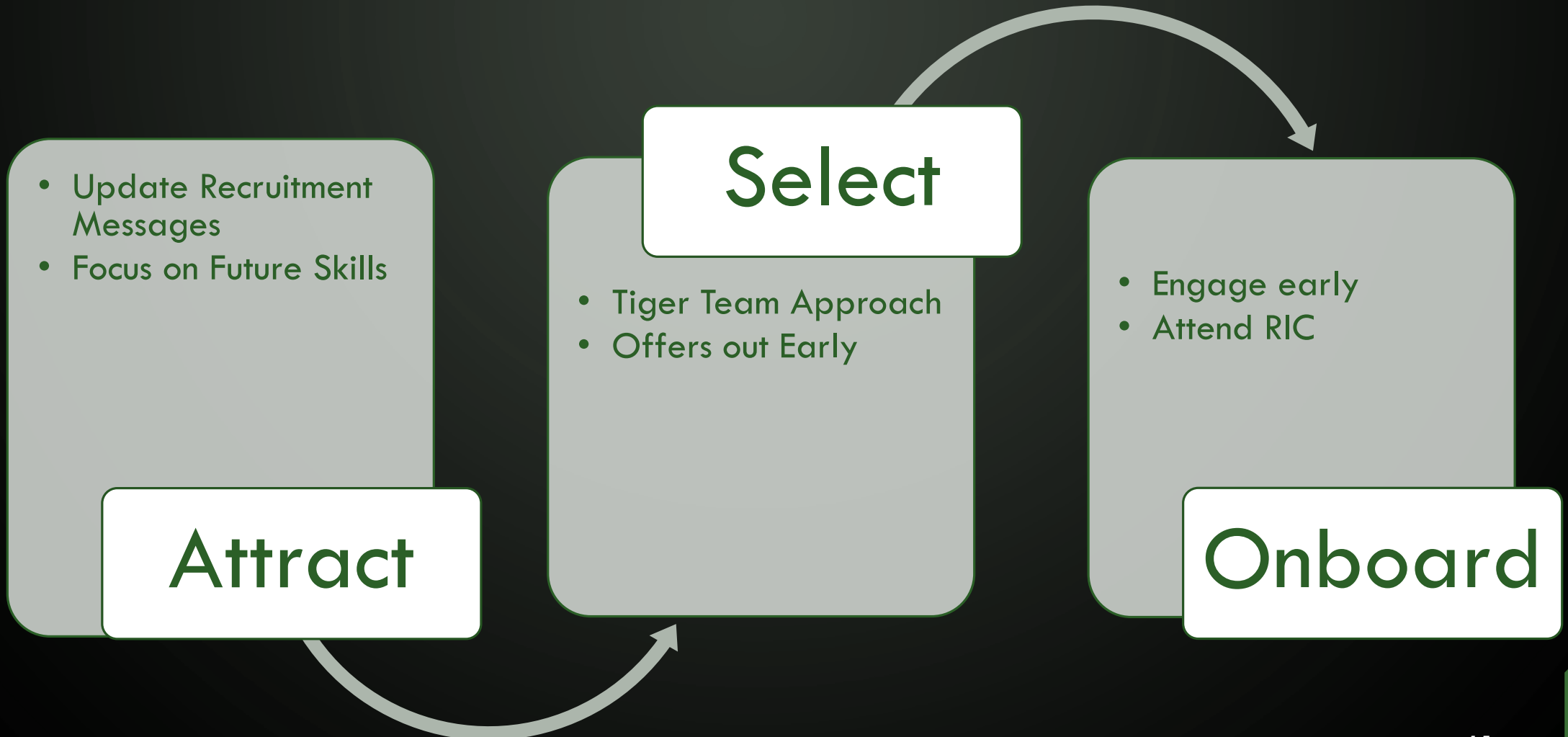


SKILLS MARKETPLACE



- Enhancing workforce agility by connecting staff with projects
- Beneficial to staff for expanding skillsets
- Utilizes existing OPM platform

INNOVATIONS IN RECRUITING



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ACCEPTING RISK IN DECISION-MAKING

JOHN LUBINSKI, DIRECTOR

OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

A decorative graphic at the bottom right of the slide, featuring a colorful, multi-colored wave or ribbon shape in shades of blue, green, yellow, orange, and pink, with the text 'THE FUTURE IS NOW' overlaid in white.

THE FUTURE IS NOW

IMPRESSIONS FROM THE JAM

- “Most decisions involve a mix of technical, policy, resource, and other considerations, and all decisions need to fit within a legal framework.” – **Susan Vrahoretis, OGC**
- “Should the question not be so much “how to risk-inform?” (since I think we already do that for the most part) as “how far should we increase our risk tolerance? or how to weigh risk tolerance vs #1 on the risk triplet” (which I think we may say we do accept the risk, but when something doesn’t work out like we want, we are not able to accept the risk).” – **Michelle Burgess, NMSS**
- “There’s a ton of risk-informed material out there...Maybe we’re doing too much – can we use baby steps and put together one underlying agency definition which can work across the board for all offices?” – **Jeff Circle, NRR**





OUR CURRENT STATE

- Variability in understanding risk and using risk tools
- Different tolerances for accepting risk
- Inconsistency across and within Offices and programs
- Disparity with technical, legal, and corporate decision-making



OUR DESIRED STATE

- Aligned with being a modern, risk-informed regulator
- Shared understanding of risk and acceptance of risk
- Consistently applied to technical, legal, and corporate decisions



HOW WILL WE GET THERE?

- Develop common language for risk and acceptance
- Connect current initiatives to the vision of being a modern, risk-informed regulator
- Identify and communicate tools and guidance
- Establish meaningful metrics for accepting risk

BEST PRACTICE: EXTERNAL PERSPECTIVE ON RISK FROM COSO



Figure: Focus on Decision-Making

Source: Committee of Sponsoring Organizations of the Treadway Commission (COSO)

BEST PRACTICE: RISK TRIPLET



Defense in Depth



Safety Margin



Small Risk Increase

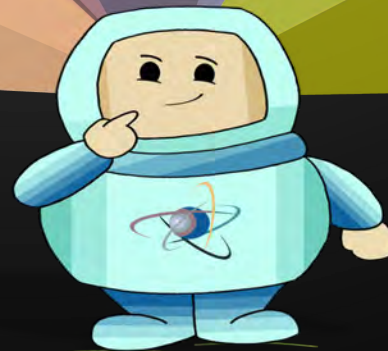


Meets Regulation

**What can go wrong?
How likely?
What are the
consequences?**



**Performance
Monitoring**



WHAT DOES “ACCEPTING” RISK MEAN?

- Accepting that we use risk insights in decision-making, including radiological risk, enterprise risk, litigative risk, etc.
- Accepting appropriate levels of risk in the decisions we make
- Accepting risk personally in adapting our behaviors around decision-making

ACCEPTING RISK IN RULEMAKING

- Evaluating and implementing process changes that are risk-informed:
 - Determine if a regulatory basis is needed
 - Streamlining the concurrence process
 - Rigorously applying regulatory analysis to all regulatory products

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TECHNOLOGY

DAVID NELSON, CHIEF INFORMATION OFFICER

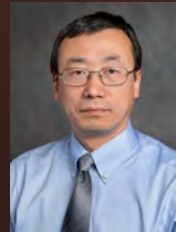
OFFICE OF THE CHIEF INFORMATION OFFICER

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THE FUTURE IS NOW

JAM QUOTES / PICTURES

- “We need to develop staff in technology competency and motivate the staff to seek IT solutions for any of their repetitive work.” – **Jinsuo Nie, RES**



- How can we better utilize the data/information/IT systems we have to simplify/get access to the information needed to make good decisions? – **Andrea Kock, NMSS**

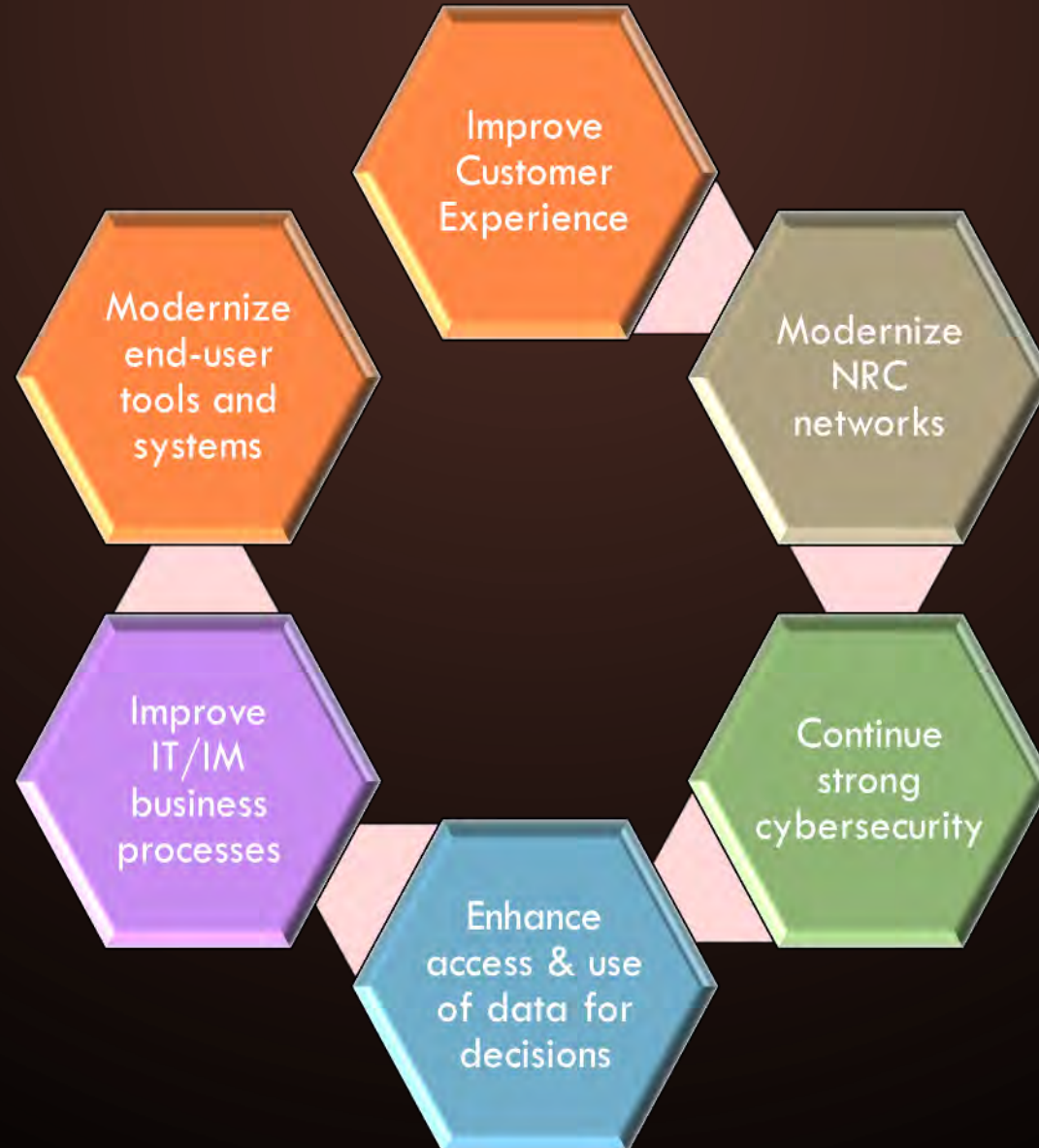


TRANSFORMATION INITIATIVE

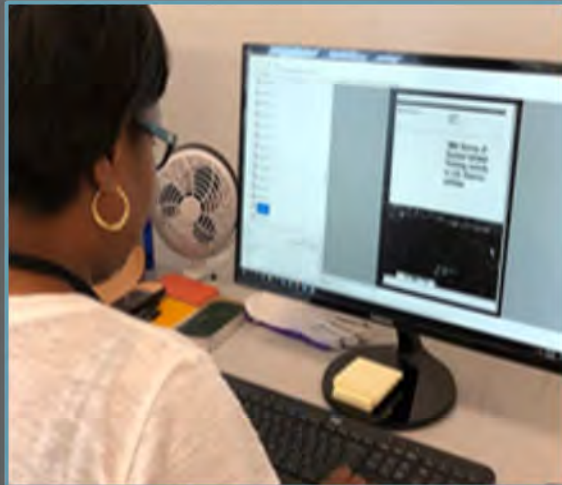
- How is NRC using technology to work smarter?
- How is NRC leveraging data analytics to improve decision-making?
- How is NRC building capacity and identifying opportunities for technology to enable process simplification?



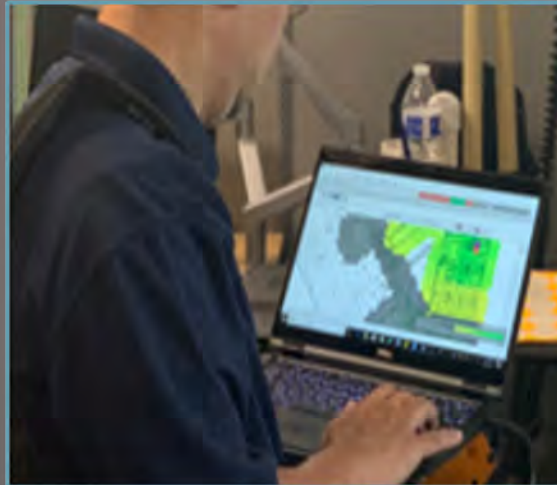
IT MODERNIZATION TO SUPPORT TRANSFORMATION



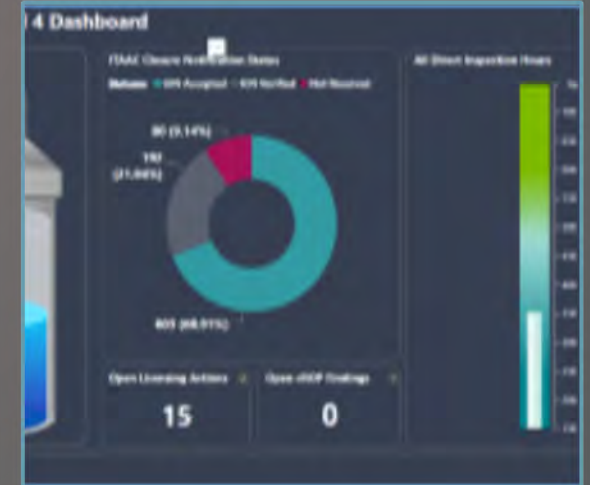
ONGOING TRANSFORMATIONAL ACTIVITIES



Access information:
Digitization



Modernize Mobility: *Wi-Fi*



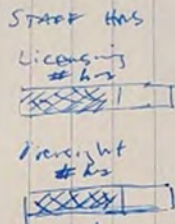
Leverage Data:
To Support Decision Making

FROM CONCEPT TO REALITY

VOGTLE 3



75%
act still hrs



click for details

ITAAG STATUS



click for details

ICN	UIN	LAR	STATUS

Color of next sig. FIN

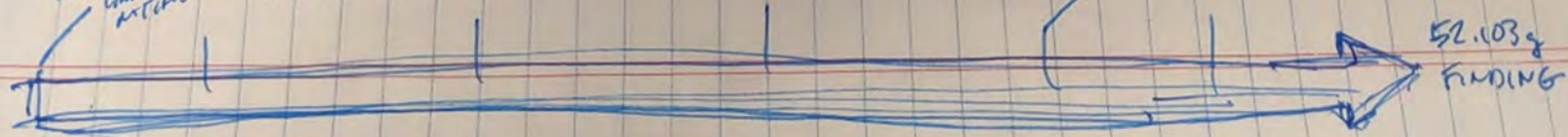
click for detail

CROP

Design	Prevent Follow-up
Construct installation	Inspect testing
Security	potential ASm

All ITAAG COMPLETE verification ... etc.

From CM MEMO



52.103g FINDING

103g m. (estimation) of est. dates

FUTURE TRANSFORMATIONAL EFFORTS

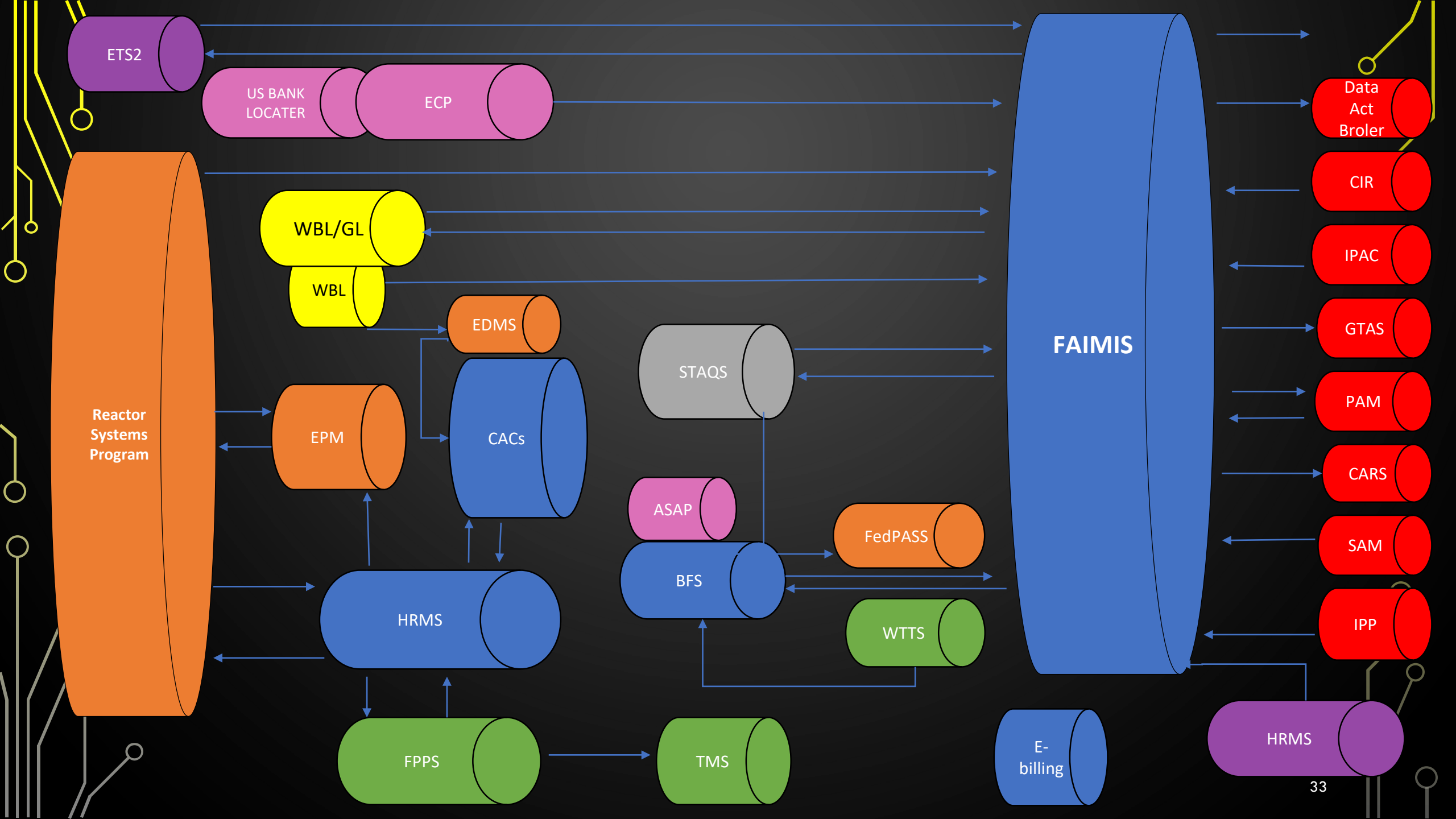




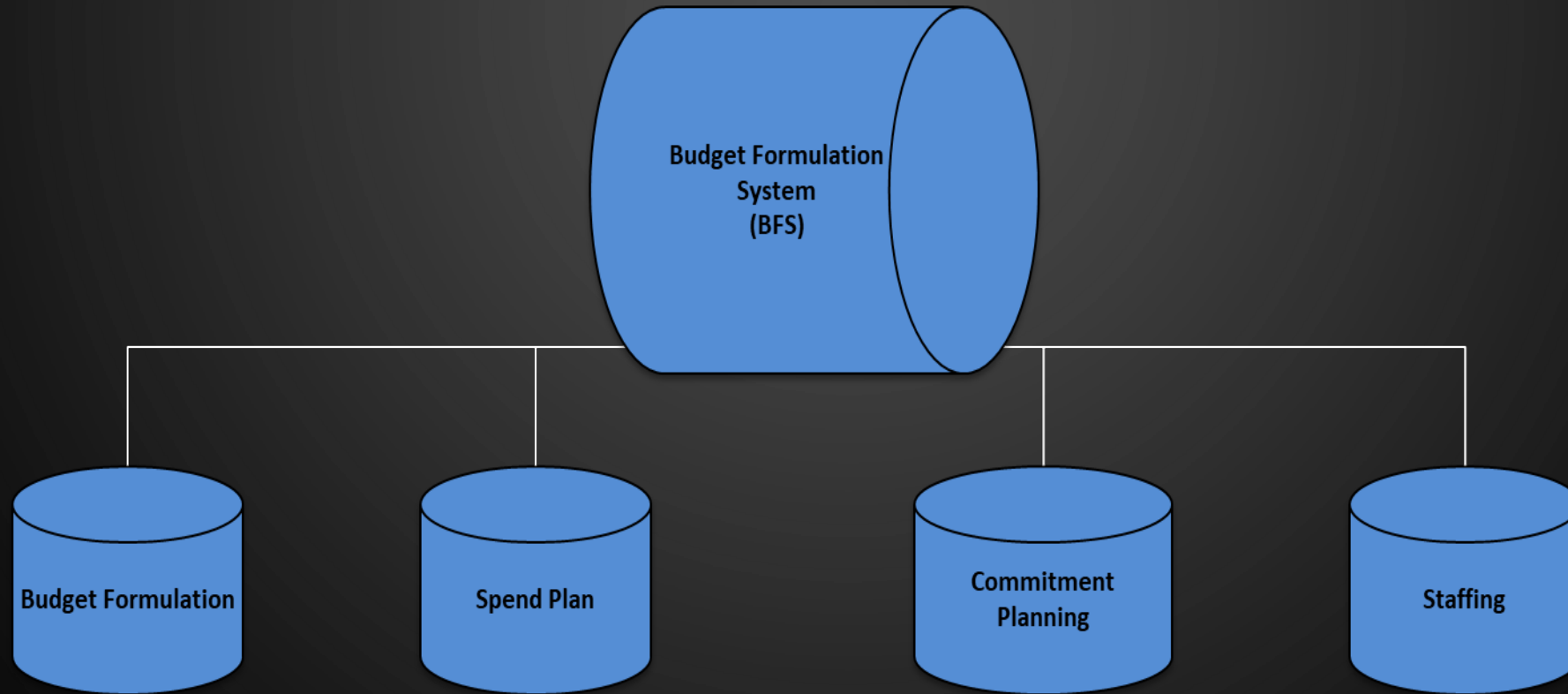
SYSTEMS AND DATA DRIVE EFFICIENCY AND INNOVATION

MAUREEN E. WYLIE, CHIEF FINANCIAL OFFICER

OFFICE OF THE CHIEF FINANCIAL OFFICER



USING INNOVATION TO BUILD NEW SYSTEMS...



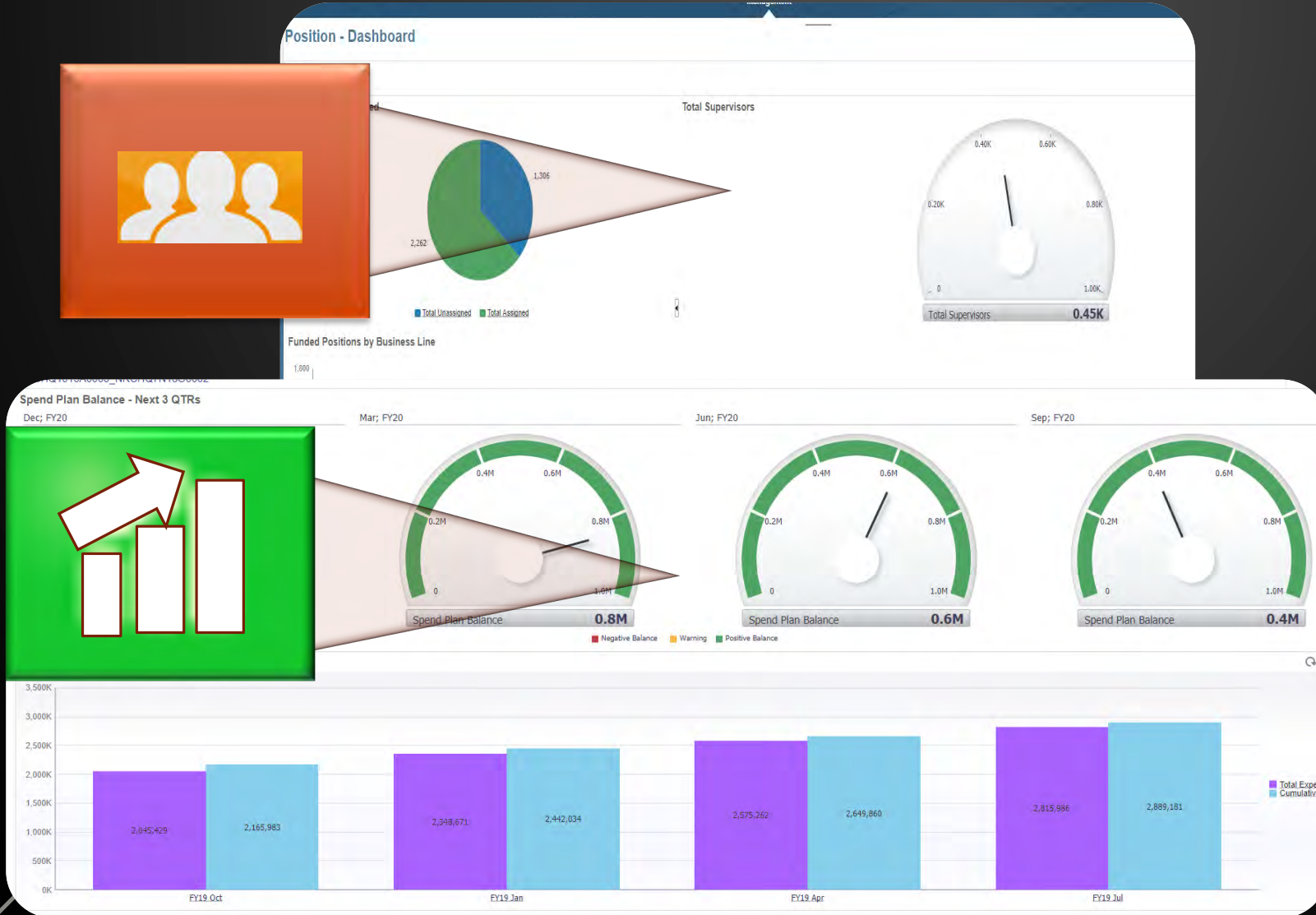
Notable Changes

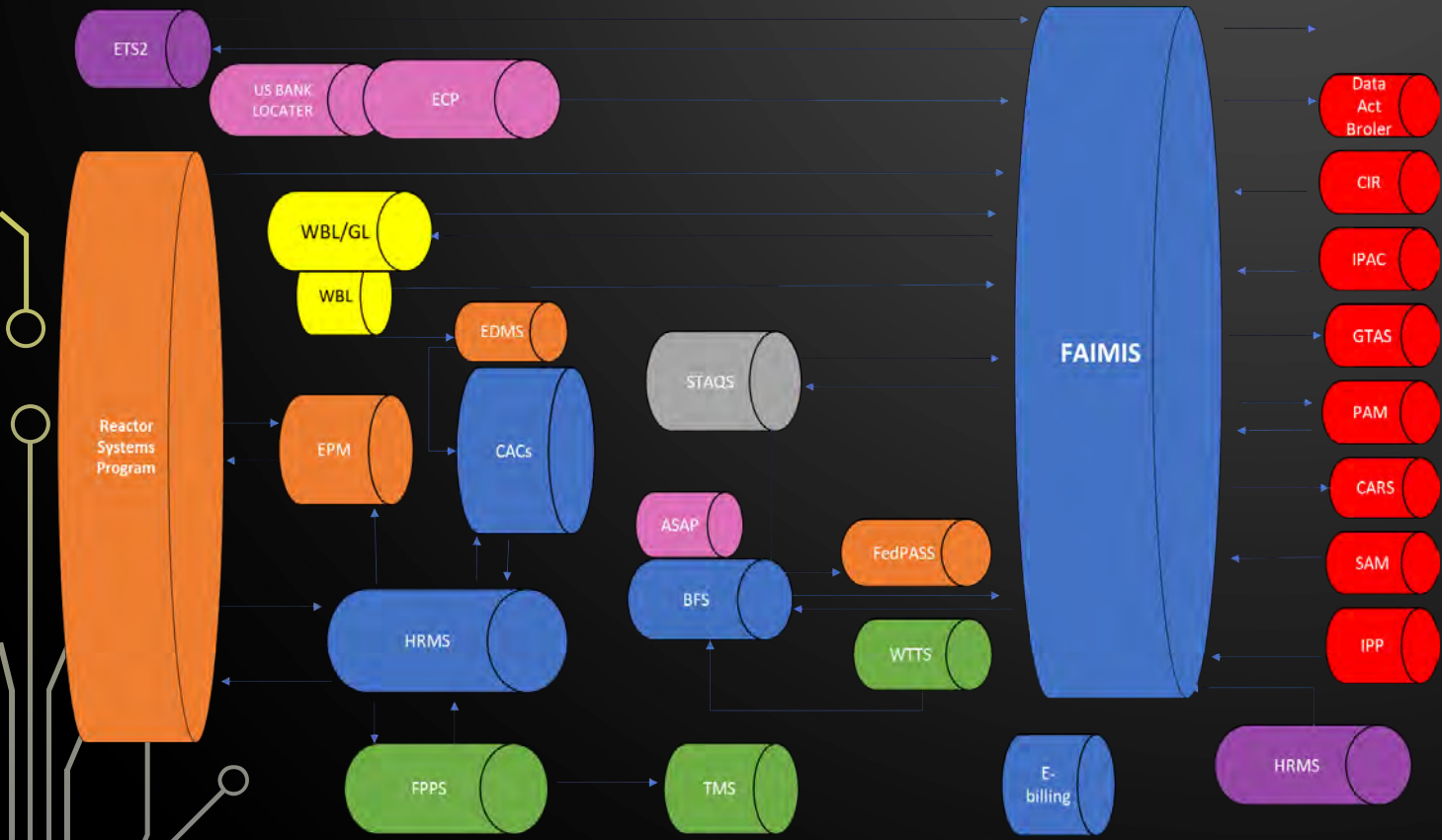
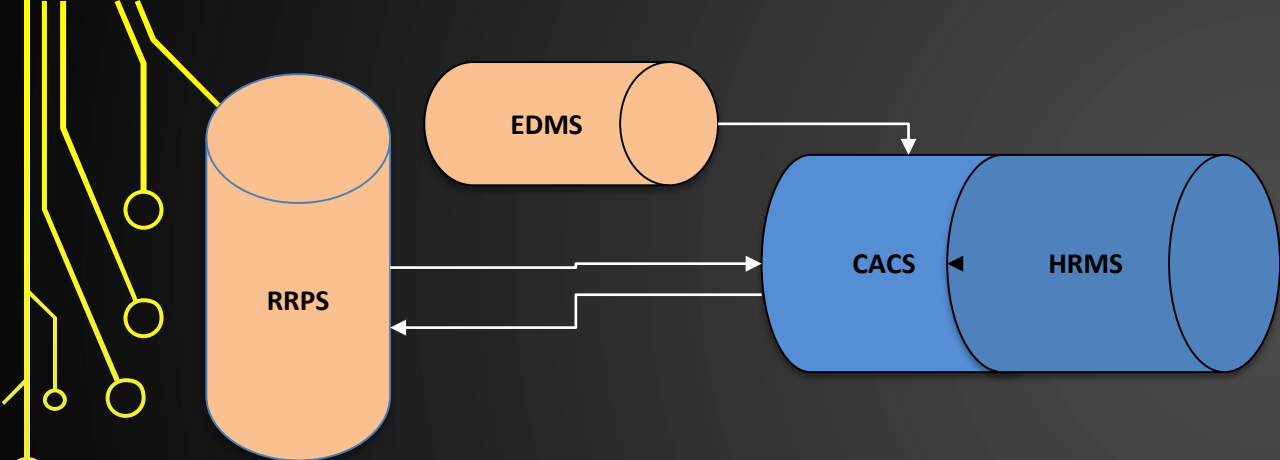
- Full life-cycle financial management
- Oracle based – Best in Class

BFS – SPEND PLAN AND STAFFING DASHBOARDS

Dashboards:

- Easy access to data
- Improved visibility
- Information at a Glance
- Reduced administrative





Notable Changes


- Interfaced systems integrates work-planning, staff assignments and time charging (Improved Internal Controls)
- Standardized data structure
- Creates, administers CACs and EPIDS
- Create and update work assignments
- Associate CACs to EPIDs and Dockets
- Labor Hour Reporting

IMPLEMENT STANDARDIZED DATA ELEMENTS AND AUTHORITATIVE DATA SOURCES...

IMPROVED INVOICES

- Defined billing period
- Umbrella code for each licensing action
- NRC employee and contractor performing work
- Total charges

LISTEN TO STAKEHOLDERS AND INCREASE TRANSPARENCY...



Part 170 Invoice Period: 12/25/2016 – 03/26/2017

Vendor: F
S
F

Remit To: Office of the Chief Financial Officer
U.S. Nuclear Regulatory Commission
PO Box 979051
ST. Louis, MO 63197

Docket	Part 170 Invoice Number	Invoice Date	Invoice Due Date	Invoice Amount
05000XXX	LFB 17-L-...	May 22, 2017	June 22, 2017	\$75,217.50

For questions, contact (301) 415-7554 or by email at fees.resource@nrc.gov. For NRC debt collection procedures, including interest and penalty provisions, see 31 U.S.C. 3717.4, CFR101-105, AND 10 CFR 15. Additional terms and conditions are attached.
Make checks payable to The U.S. Nuclear Regulatory Commission. Interest will accrue from the invoice date at an annual rate of 1%. Interest will be waived if payment is received by the due date. Please reference the invoice number on the remittance.
Legend: CAC = Cost Activity Code; EPID = Enterprize Project Identification Code; PM/SRI = Project Manager/Senior Resident Inspector.

EPID #: I-2017-001-0003 **EPID Name: Q1 Baseline Inspection**

CAC #: 000840 CAC Name: FB-OR-IP-711121M-COMPONENT DESIGN BASES INSPECTION

NRC Staff Name	Pay Period End Date	Hourly Rate	Hours	Hourly Cost
	Jan 15, 2017	\$259	16.5	4,273.50
	Jan 15, 2017	\$259	30.0	7,770.00
	Jan 15, 2017	\$259	16.5	4,273.50
	Jan 15, 2017	\$259	30.0	7,770.00
	Jan 15, 2017	\$259	16.5	4,273.50
	Jan 15, 2017	\$259	30.0	7,770.00

Contractor	Pay Period End Date	Contract Cost
	Jan 15, 2017	5,000.00
	Jan 15, 2017	5,000.00
	Jan 15, 2017	5,000.00

CAC Total: 139.5 \$ 51,130.50

Hi Admin


Fairfax Nuclear Energy
As of July 30, 2019

 **\$1,180,467.09**
Amount Due

 **1**
Past Due Invoices

 **1**
Current Invoices

 **1**
Disputed Invoices


 **8**
Unread Messages

Outstanding Invoices

Excel

Export

<input type="checkbox"/>	Invoice Number	Invoice Date	Docket Number	Docket Name	Type	Due Date	Status	Amount Due	Action
<input type="checkbox"/>	19-9996	07/10/2019	05000000	Fairfax Nuclear Energy 2	171	08/10/2019	Current	\$1,159,000.00	Pay Invoice
<input type="checkbox"/>	19-9997	07/22/2019	05000001	Fairfax Nuclear Energy	170	08/22/2019	Past Due	\$18,367.09	Pay Invoice

 You have **1** current invoice and **1** past due invoice.

Billing History

4 Total
1 Current
1 Past Due
1 In Dispute
1 Paid
0 Cancelled
0 Write-Off

Date Range

Excel

Export

<input type="checkbox"/>	Invoice Number	Invoice Date	Docket Number	Docket Name	Type	Due Date	Status	Amount	Action
<input type="checkbox"/>	19-9997	07/22/2019	05000001	Fairfax Nuclear Energy	170	08/22/2019	Past Due	\$18,367.09	Pay Invoice
<input type="checkbox"/>	19-9996	07/10/2019	05000000	Fairfax Nuclear Energy 2	171	08/10/2019	Current	\$1,159,000.00	Pay Invoice
<input type="checkbox"/>	19-9999	06/04/2019	05000001	Fairfax Nuclear Energy	171	07/04/2019	In Dispute	\$8,600.00	Pay Invoice
<input type="checkbox"/>	19-9998	06/04/2018	05000001	Fairfax Nuclear Energy	171	07/04/2018	Paid	\$8,600.00	

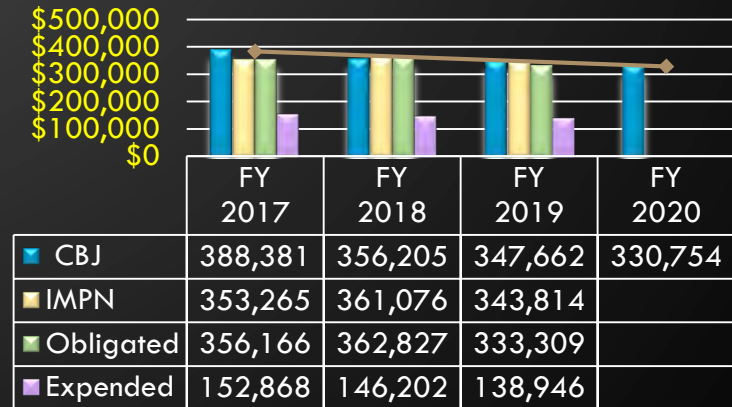
MAKE INNOVATIVE CHANGES...

Future Innovations Coming Soon

- Tableau
- Robotic Process Automation
- Fee Billing Engine Enhancements
- FAIMIS Acquisition Module

AGENCY CONTRACT SUPPORT AND TRAVEL EXECUTION

Agency Contract Support & Travel (CST)
Budget vs. Execution (\$K)
FY 2017 - FY 2019



INNOVATION

AMY D'AGOSTINO, HUMAN PERFORMANCE ANALYST

OFFICE OF NUCLEAR REGULATORY RESEARCH

THE FUTURE IS NOW

JAM QUOTE

- “I think we need to spend more energy, attention and resources on sharing success stories of transformation and innovation and lessons learned for risk taking at NRC. I also think we need to spend more energy, attention, and resources on rewarding breakthroughs.” – **Ben Ficks, OCFO**



HOW WE WORK IS AS IMPORTANT AS WHAT WE DO



HOW DOES INNOVATION SUPPORT THE VISION?



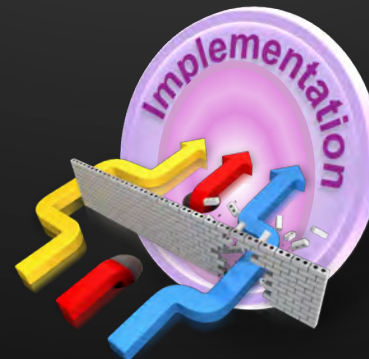
NEW
APPROACHES



REWARD &
RECOGNIZE INNOVATION



TECHNOLOGY
BUILT FOR
INNOVATION



CLEAR PATHS TO
IMPLEMENTATION

Engagement Report

Engagement Gage 72 unique visitors this month

Manage Community

- Settings
- Security
- Integration
- Reports
- Dashboard
- User Report
- Status Report
- Email Report
- IdeaCloud™
- Data Management

Reports: IdeaCloud™


Current Community: <http://www.ideacloud.com/Proview>

IdeaCloud™

Word cloud containing terms: Moderator, link, image, comment, users, status, comments, community, moderators, allow, topusc, number, user, email, profile, change, feature, new, list, report, way, add, file, vote, already, one, page, image, helpful, like, see, make, profile, new, specific, option, method, great, admin, helpful, image, comment, users, status, comments, community, moderators, allow, topusc, number, user, email, profile, change, feature, new, list, report, way, add, file, vote, already, one, page, image, helpful, like, see, make, profile, new, specific, option, method.

WELCOME CHALLENGES FAQs HOW TO SUCCESSES

Welcome to



View Challenges Submit Ideas View Successes

IdeaScale
where ideas come to life


Success Gallery

Knowledge Transfer Training



Our Problem
Our Improvement
What we Accomplished
What We Learned

Electronic Concurrence



IdeaScale
where ideas come to life

Innovate NRC
Knowledge Transfer Training Integration Challenge

WELCOME IDEAS

Submit New Idea

Search Ideas

Knowledge Transfer Training Integration Challenge

How can we develop a more integrated approach to share lessons across all regions?

Campaign Details ★ Subscribe to Campaign

Action Of The Day (+)

Campaign Activity (-)

- 0 Ideas Posted
- 0 Comments
- 0 Votes



VIDEO

ACRONYMS

- ASAP Automated Standard Application for Payments
- BFS Budget Formulation System
- CAC Cost Activity Code
- CACs Cost Activity Code System
- CARS Central Accounting Reporting System
- CBJ Congressional Budget Justification
- CIR Central Information Repository
- DAB Data Act Broker
- E-billing Electronic Billing
- ECP Electronic Check Processing
- EDMS Electronic Data Management System
- EOY End of Year

ACRONYMS

- EPID Enterprise Project Identifier
- EPM Enterprise Project Management
- ETS2 E-Gov Travel Service 2
- FAIMIS Financial Accounting and Integrated Management Information System
- FPPS Federal Personnel and Payroll System
- FTE Full Time Equivalent
- FY Fiscal Year
- GTAS Governmentwide Treasury Account Symbol
- HRMS Human Resources Management System
- IPAC Intra-Governmental Payment and Collection
- IPP Invoice Processing Platform
- IT/IM Information Technology and Information Management

ACRONYMS

- OPM Office of Personnel Management
- PAM Payment Automation Manager
- RIC Regulatory Information Conference
- RRPS Replacement Reactor Program System
- SAM Shared Accounting Module
- STAQS Strategic Acquisition System
- TMS Talent Management System
- WBL/GL Web Based Licensing/General Licensing
- WTTS Workforce Tracking and Transformation System