



Be riskSMART **Innovate** Focus on Our People
modern, risk-informed
regulator Use Technology

TRANSFORMATION AT THE NRC

Margie Doane
Executive Director for Operations



AGENDA

Amy D'Agostino, Human Performance Analyst,
Office of Nuclear Regulatory Research

Patrice Reid, Organizational Development
Psychologist, Office of the Chief Human Capital
Officer

Nader Mamish, Director, Office of International
Programs

Jonathan Greives, Branch Chief, Region I

Reed Anzalone, Nuclear Engineer, Office of
Nuclear Reactor Regulation



Process Simplification

Agency Desired Culture

Signposts & Markers

Be riskSMART

Career Enhancement Employee Journey

Innovate NRC 2.0

Technology Adoption

INNOVATE

FOCUS ON OUR PEOPLE

MODERN, RISK-INFORMED

BE RISKS

REGULATOR

USE TECHNOLOGY



ORGANIZATIONAL HEALTH

- Alignment
- Execution
- Renewal



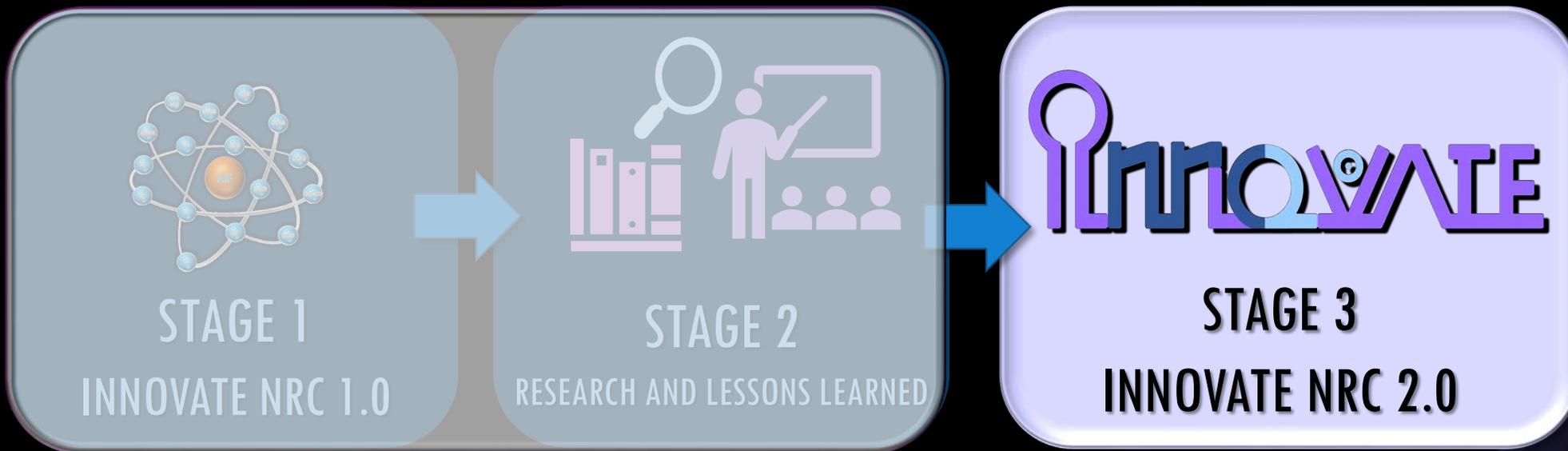
InnovateNRC 2.0 Initiative

PROGRAMMATIC ASPECTS AND RECENT SUCCESSES OF THE INNOVATE NRC 2.0 PROGRAM

Amy D'Agostino, Ph.D.

Human Performance Analyst,

Office of Nuclear Regulatory Research



Innovation Platform

Integrated
Community



Rewards &
Recognition



New Tools

INNOVATION-A-THON

**323 Success
Stories**

**Audible
version of
NRC
Information
Digest**

**ADAMS
Quickview
Application**

**Single Federal
Register
Notice for 4
Exemptions**

3

CHALLENGES

Agile Teams

Licensee Information
Consolidation

Early Alignment for
Commission Papers



Peter Lien, RES/DSA



**Nicholas Hansing,
NRR/DEX**



**Janet Staub,
RIV/DRMA**

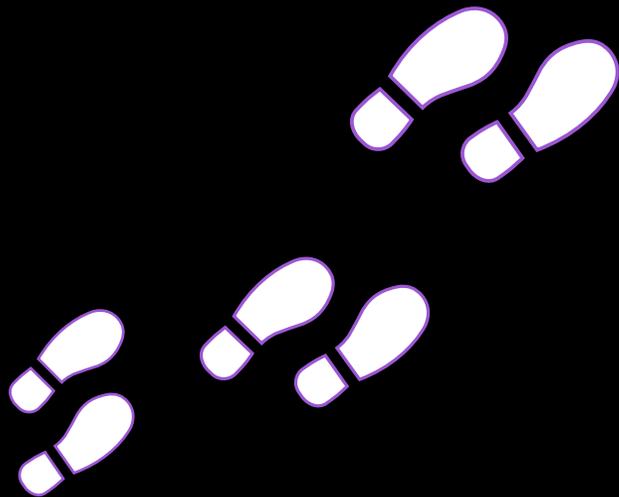
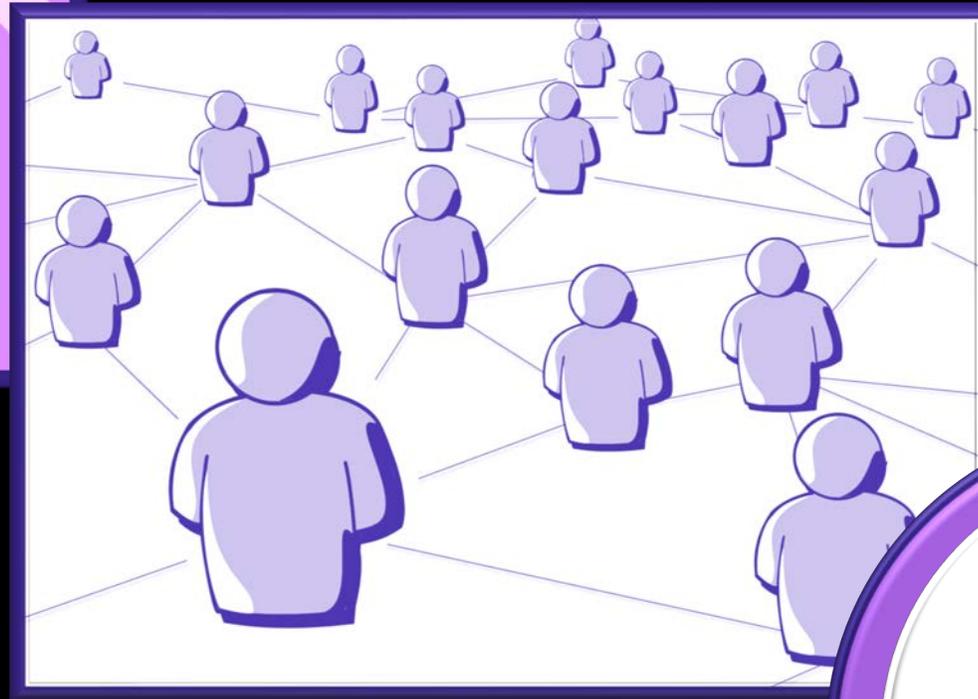


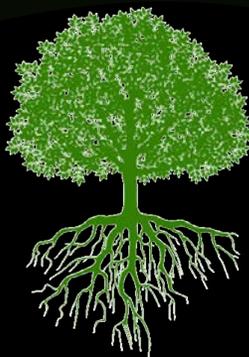
Joe Gillespie, OGC



Isaac AnchondoLopez, RIV/DRS

NEXT STEPS





Agency Desired Culture Initiative

CREATING A CULTURE THAT ENABLES THE AGENCY TO ACHIEVE ITS TRANSFORMATION VISION

OVERVIEW OF THE RESULTS AND IMPLEMENTATION PLAN

Patrice Reid, Ph.D.

Organizational Development Psychologist,
Office of the Chief Human Capital Officer

FOSTERING OUR DESIRED CULTURE



- Create a positive working environment
- Encourage new ideas for organizational improvement
- Enhance adaptability and receptivity to change

EXAMINING THE NRC HOLISTICALLY



CLIMATE refers to attitudes and feelings about the work environment.

CULTURE reflects deeper beliefs, assumptions, and norms.

Both climate and culture tell our story.

ASSESSING NRC CULTURE



We should strengthen norms for
Constructive thinking and behavior styles.

🎯 Practice more Constructive behaviors.



We should minimize excessive use of
Defensive thinking and behavior styles.

🎯 Practice less Defensive behaviors.

CLIMATE SURVEYS SHOW COMMON THEMES

2019 Federal Employee Viewpoint Survey

Upward Trends

- Reward Innovation
- Opportunity to Improve Skills
- Pay Satisfaction

Emerging Risks

- Workforce Motivation
- Employee Engagement
- Quality of Hire

2020 OIG Safety Culture & Climate Survey

Upward Trends

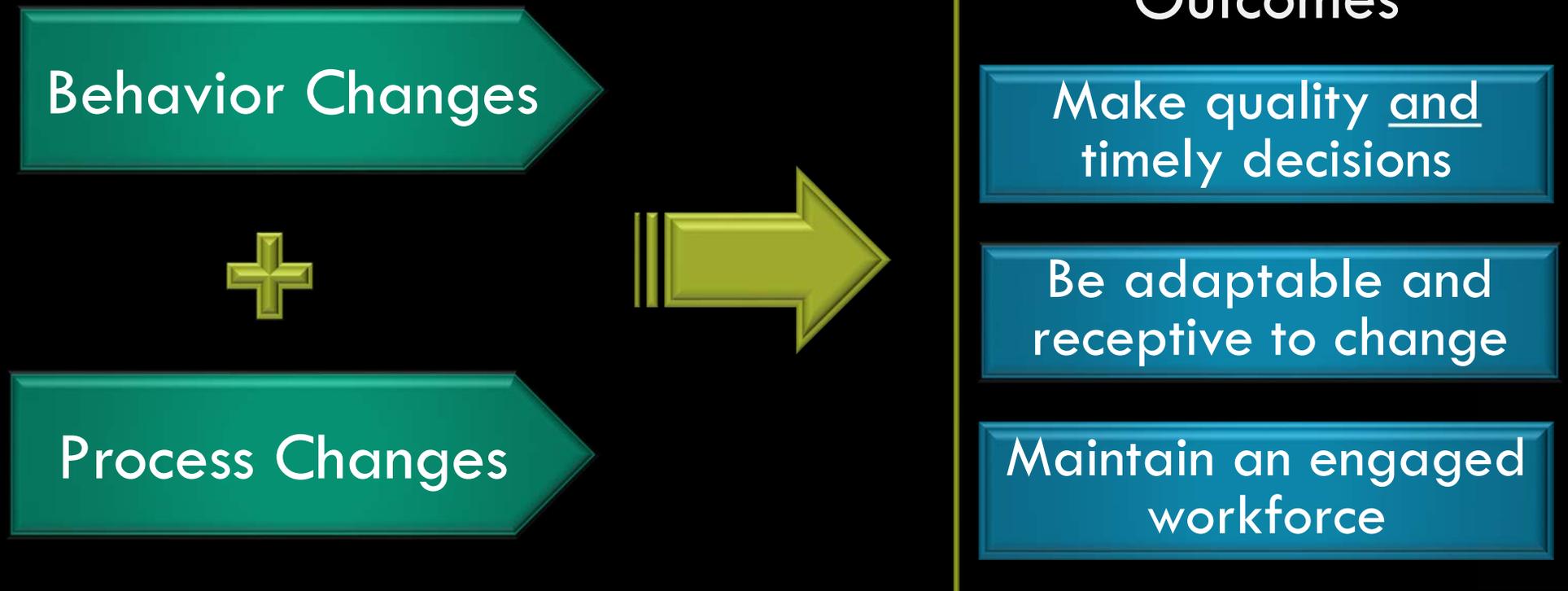
- Individual Work Experience

Emerging Risks

- Human Capital – attraction and retention of talent
- Management – clear sense of direction; decisions consistent with mission
- NRC Objectives & Strategic Plans – understanding of the mission, goals, and objectives of the NRC as a whole

AGENCY CULTURE IMPROVEMENT STRATEGY

The agency strategy includes behavior changes and process changes to shift toward our ideal culture and achieve our desired outcomes.



CULTURE SHIFTS



Behavior Changes

+

Process Changes



...Coaching and Empowering...



...Sharing different viewpoints...



...Seeking innovative approaches...



...Showing mutual support...



...Bringing our whole selves to work...



Accountability



Communication



Recognition



Employee Development



Management of goals & priorities

MEASURING PROGRESS



Agency
performance
indicators



Critical
behaviors



Milestones



Employee
surveys

SUCCESS = reducing the gap between our current
and ideal culture

SUSTAINING CHANGE

Senior Management

Team Check-ins

Facilitate forums for leaders to reflect on how they are role-modeling constructive behaviors.



Transformation

Initiative Teams

Provide support and alignment for success.



Two-way Dialogues

Facilitate discussions and share improvement updates with management and staff.



Champions & Change Agents

Empower staff to create touch-points and share feedback.



Share Success Stories

Promote progress in offices/regions to facilitate shared learning.

OUR TEAM



(From L-R): Patrice Reid (OCHCO); Anthony de Jesus (OCIO); Candace Spore (NRR); Gladys Figueroa-Toledo (OE); Haimanot Yilma (OIP); Stephanie Morrow (RES); and Melana Singletary (RII).



Executive Sponsors (From L-R): Vonna Ordaz (SBCR); Scott Flanders (OCIO); and David Pelton (RIII).



Signposts and Markers Initiative

USING DATA AND KEY INDICATORS TO INFORM THE AGENCY'S STRATEGIC DECISIONMAKING

Nader Mamish,

Director,

Office of International Programs

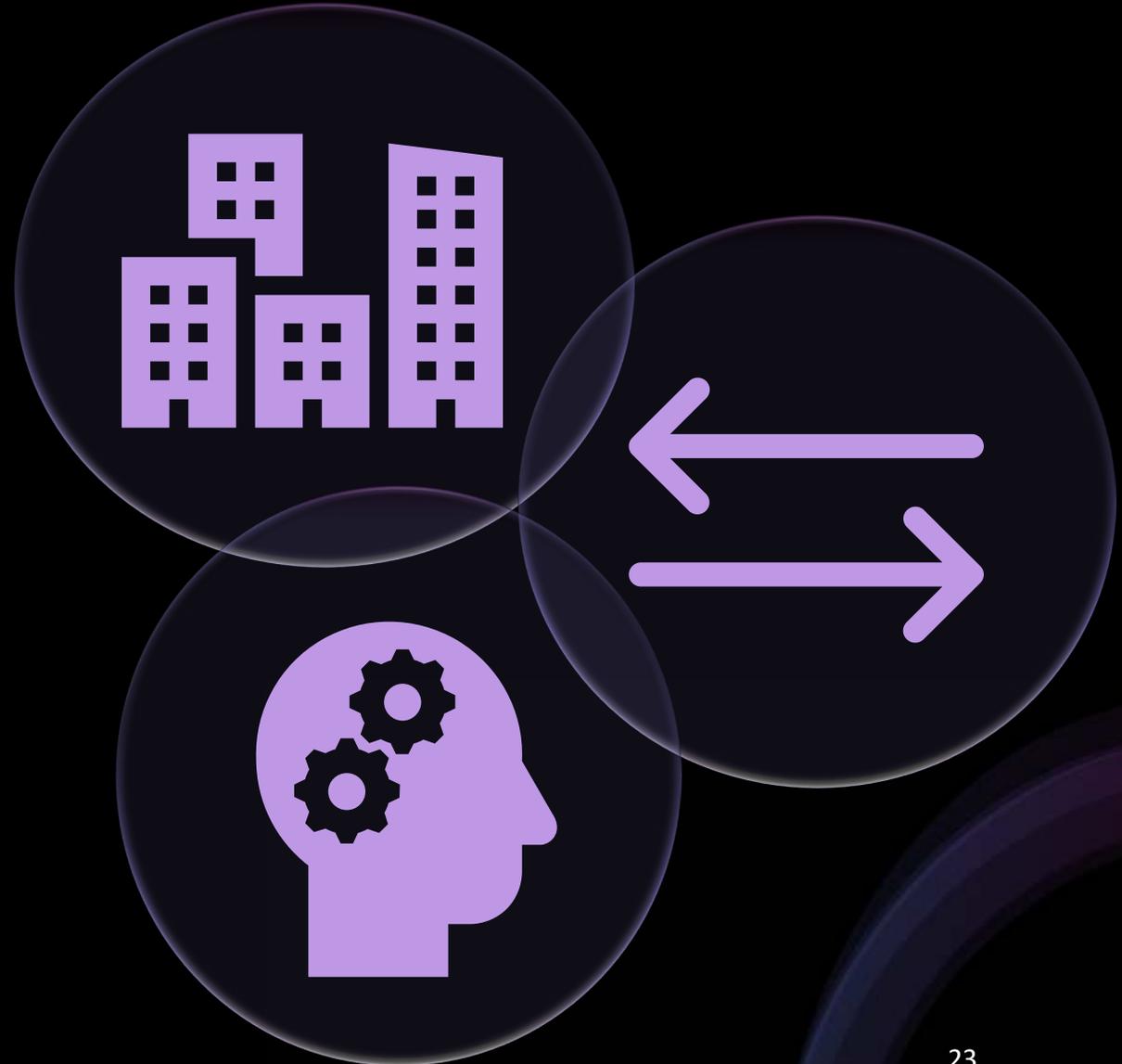
WHAT'S THE OBJECTIVE?

Enable the agency to proactively address change



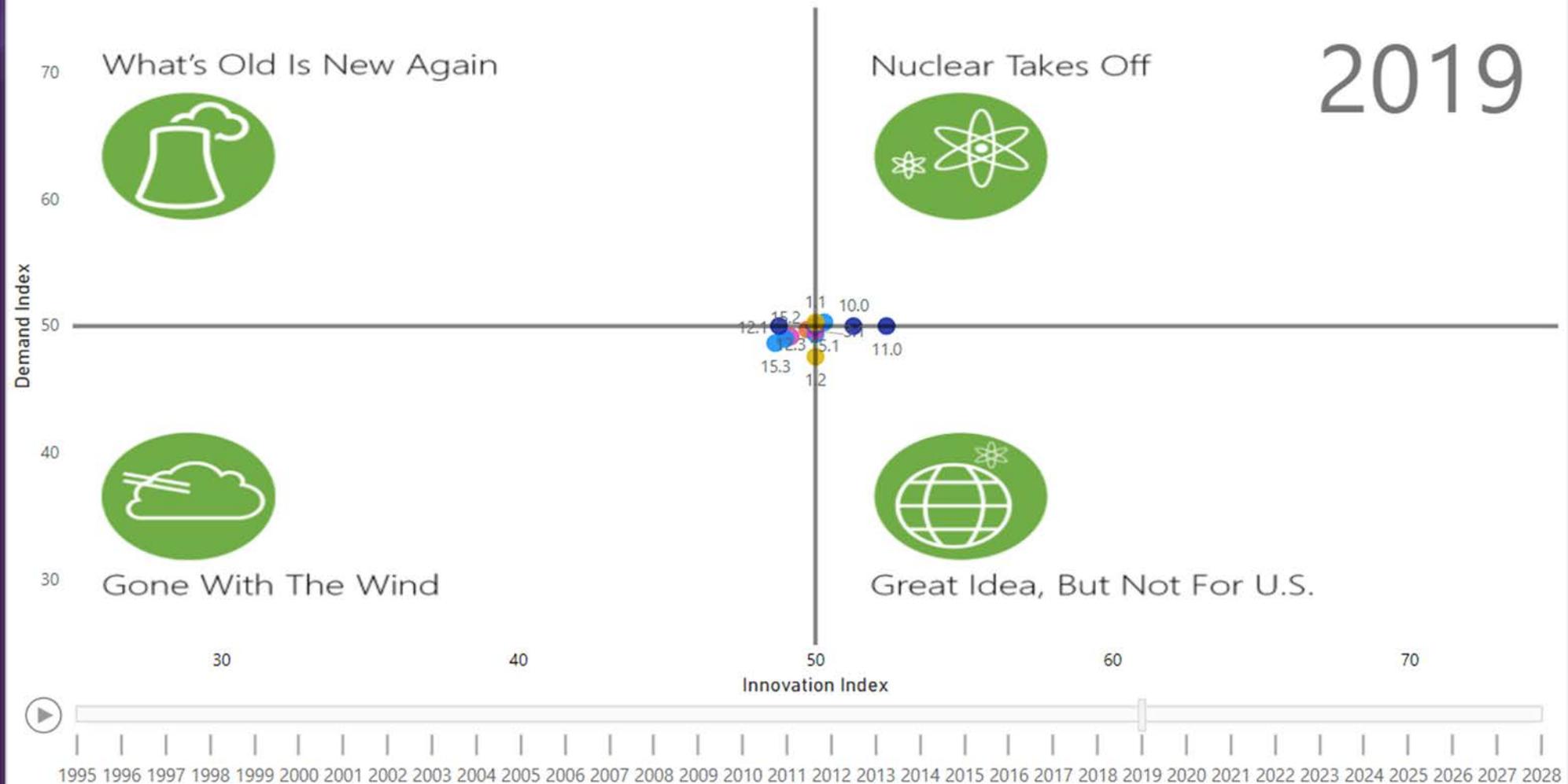
WHY ARE WE DOING THIS?

- Our external environment is changing in such a way that directly affects us.
- Effectively preparing for the future is contingent upon our awareness of where we may be heading.



FOUR FUTURES SCENARIOS

Innovation Index, Demand Index and Title by Indicator, Key Area and Fiscal Year



HOW ARE WE GETTING THERE?

1

Identify key
indicators

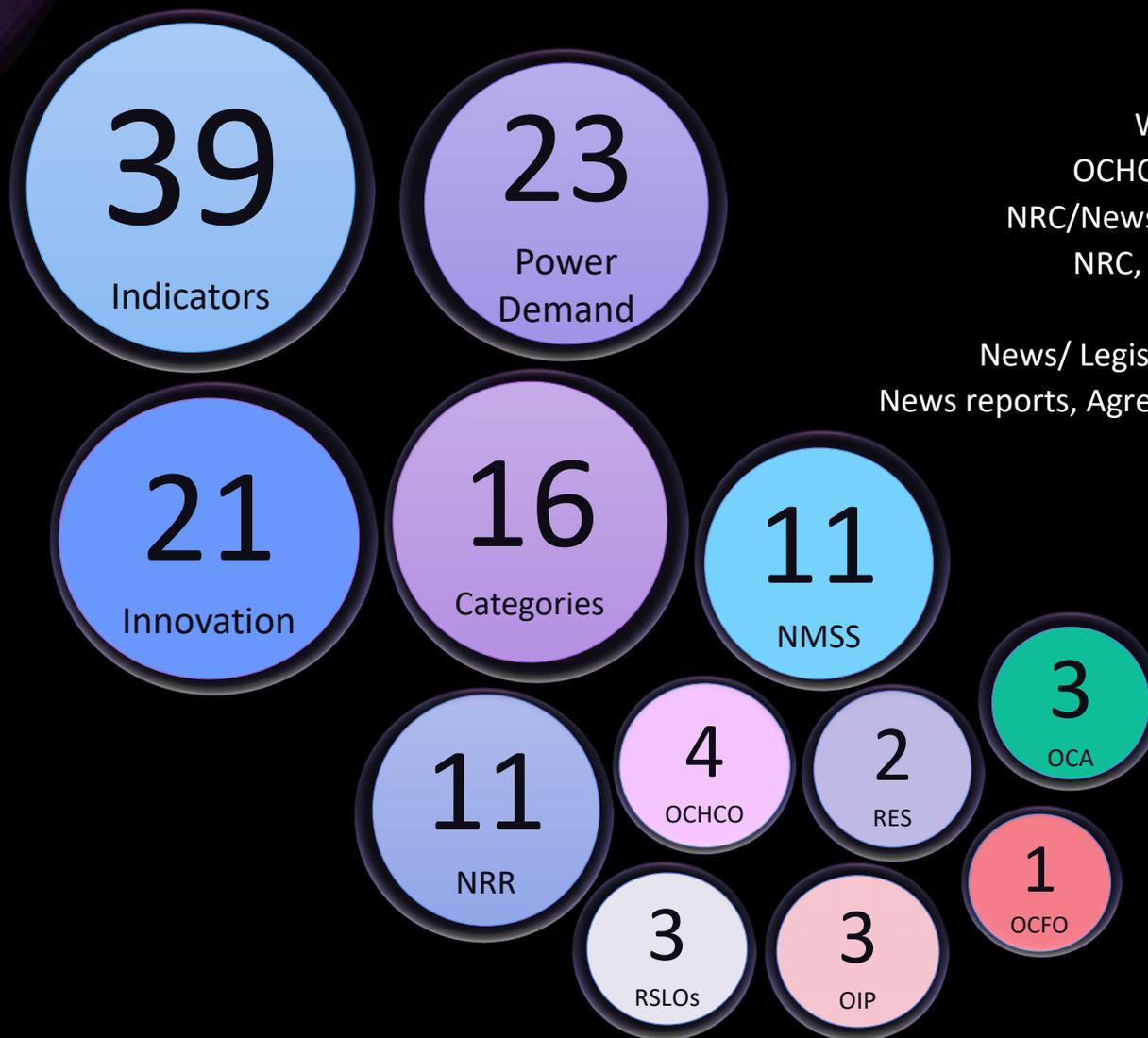
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Develop
dashboard

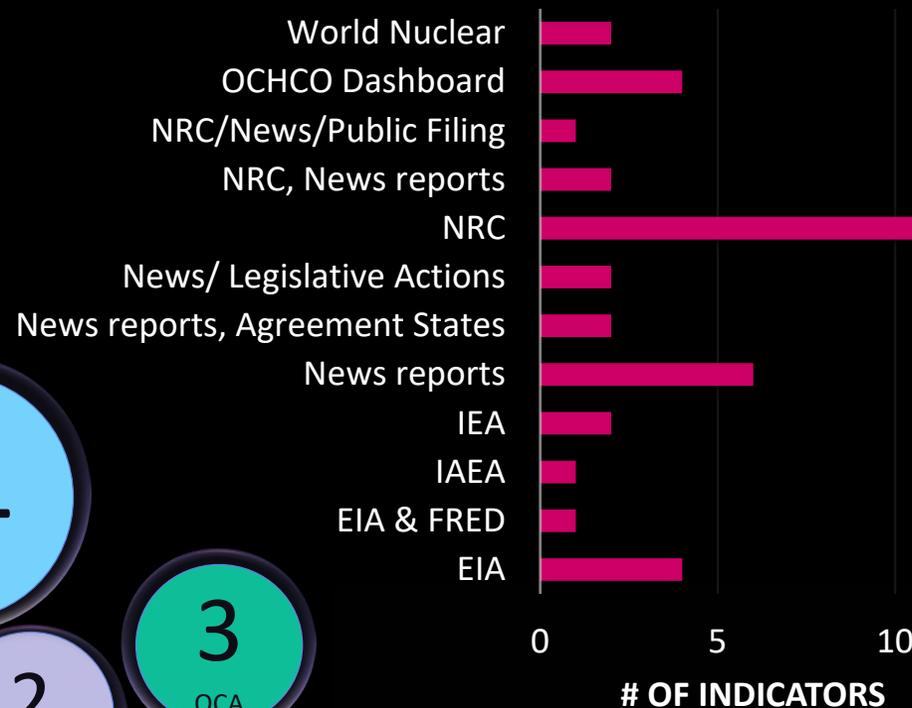
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Integrate
indicators
in decision
making

INDICATOR ANALYTICS



Data Sources



DASHBOARD LIVE DEMO

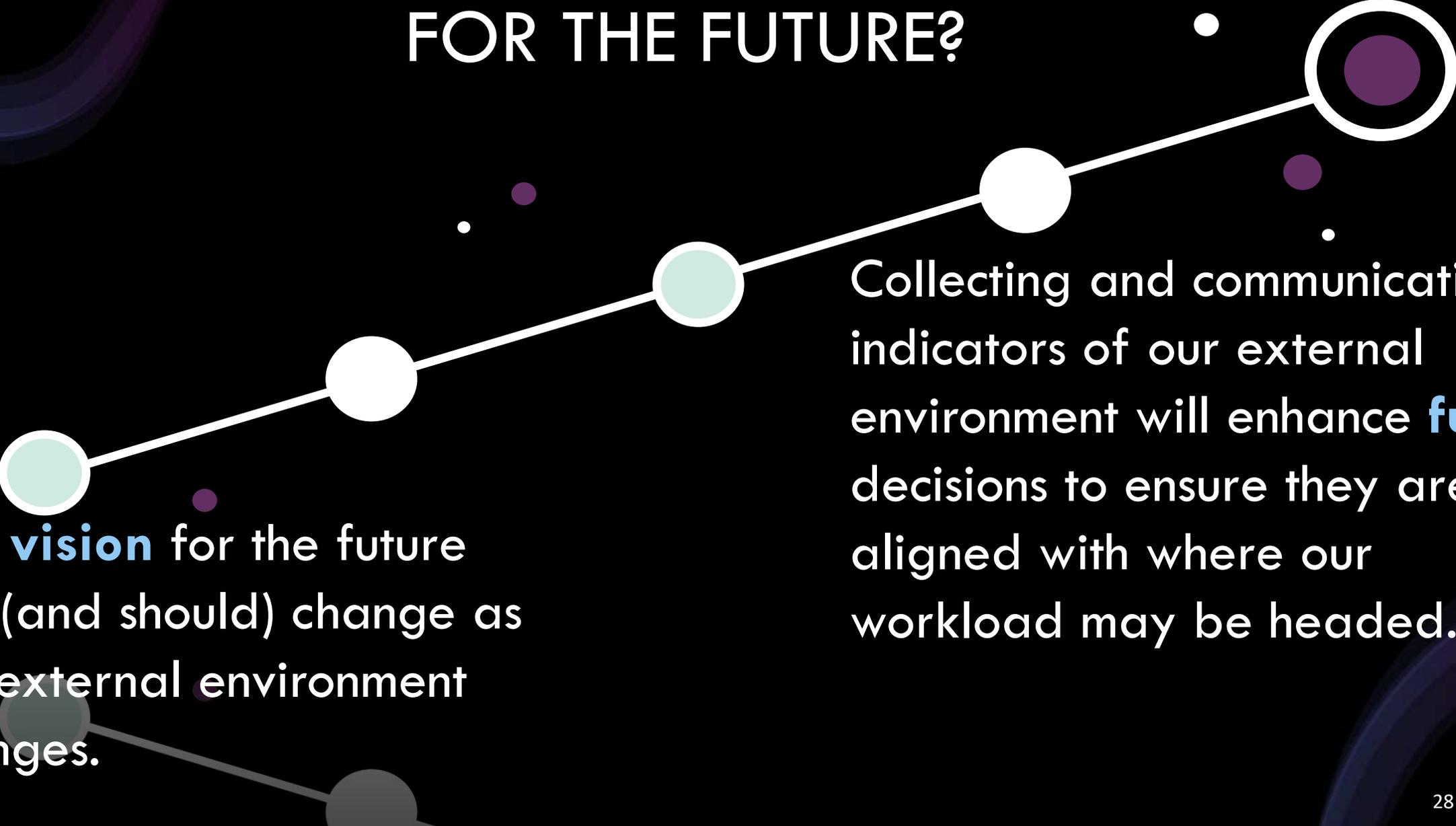
Jonathan Greives,

Branch Chief,

Region I



HOW DOES THIS GET US TO OUR VISION FOR THE FUTURE?



Our **vision** for the future can (and should) change as our external environment changes.

Collecting and communicating indicators of our external environment will enhance **future** decisions to ensure they are aligned with where our workload may be headed.

OUR TEAM



(From L-R): Nader Mamish (OIP); Mohamed Shams (NRR); Jonathan Greives (Region I); Susan Vrahoretis (OGC); Jen Holzman (OIP)



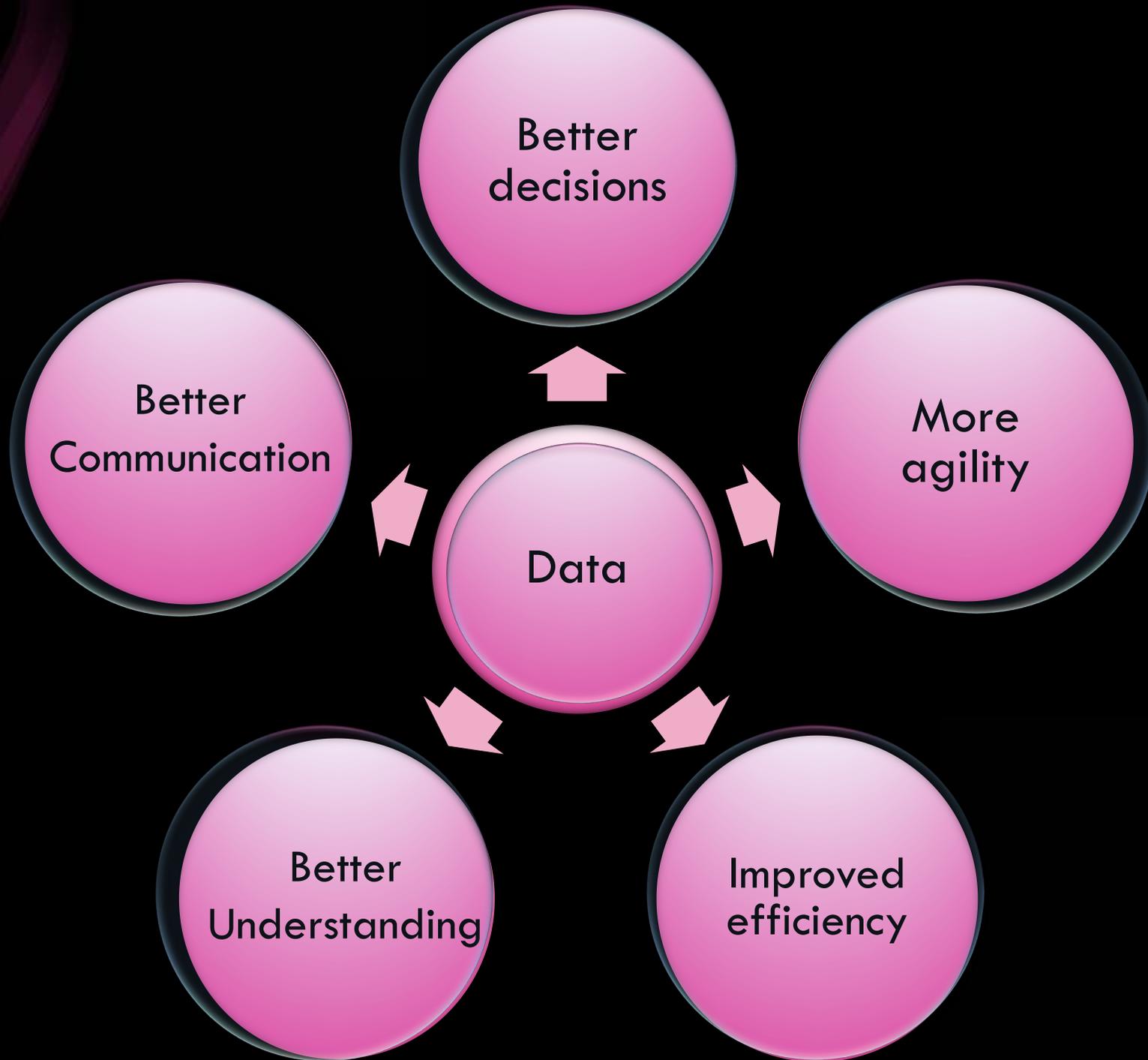
(From L-R): Steve Ruffin (OEDO); Alexa Sieracki (NMSS); Jason Paige (NRR); Carly Nelson-Wilson (OCFO)

USING DATA ANALYTICS TO IMPROVE THE NUCLEAR REACTOR SAFETY PROGRAM

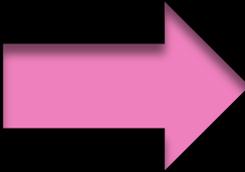
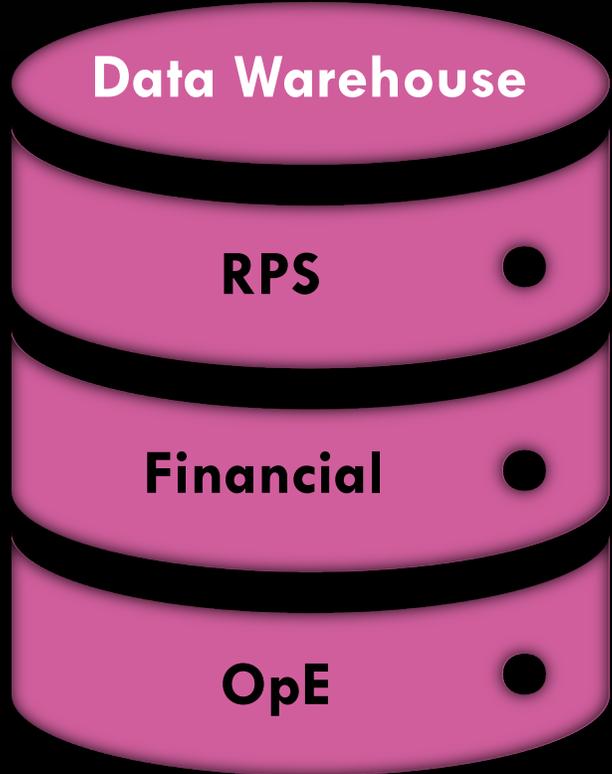
Reed Anzalone

Nuclear Engineer,

Office of Nuclear Reactor Regulation



THE NRC HAS MADE GREAT PROGRESS IN DATA ANALYTICS AND VISUALIZATION SINCE THE FUTURES JAM



DATA IS A TOP PRIORITY FOR THE REACTOR SAFETY PROGRAM

- Developing tools to:
 - Monitor and manage new and operating reactor licensing performance and workload
 - Help with budget analysis
 - Assess reactor oversight data
- EMBARK Venture Studio is spearheading and coordinating the development of these tools

MISSION ANALYTICS PORTAL

- MAP is not a single dashboard, but a growing collection of data analytics tools
- First phase focused on licensing workload management, with some tools to demonstrate accountability in resource execution
- MAP is supported by the data warehouse

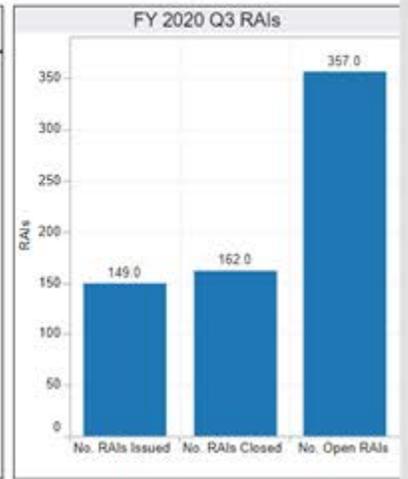


Pd. 1 Start
4/1/2020

Pd. 1 End
6/30/2020

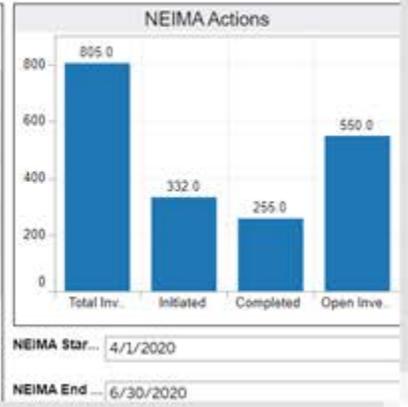
RAI Start Date
4/1/2020

RAI End Date
6/30/2020



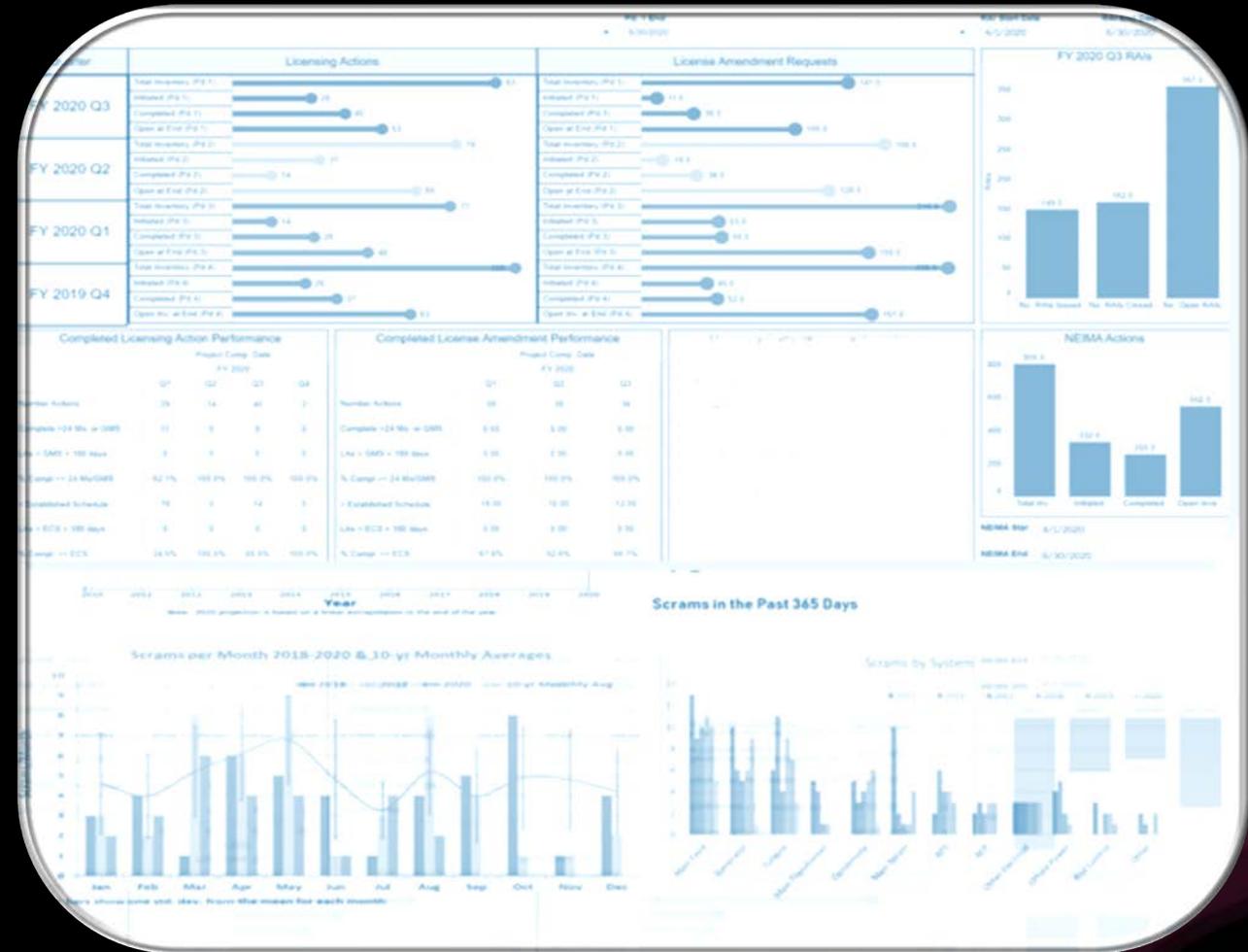
	Project Comp. Date			
	Q1	Q2	Q3	Q4
Number Actions	29	14	40	2
Complete >24 Mo. or GMS	11	0	0	0
LAs > GMS + 180 days	0	0	0	0
% Compl <= 24 Mo/GMS	62.1%	100.0%	100.0%	100.0%
> Established Schedule	19	0	14	0
LAs > ECS + 180 days	0	0	0	0
% Compl <= ECS	34.5%	100.0%	65.0%	100.0%

	Project Comp. Date		
	Q1	Q2	Q3
Number Actions	59	36	36
Complete >24 Mo. or GMS	0.00	0.00	0.00
LAs > GMS + 180 days	0.00	0.00	0.00
% Compl <= 24 Mo/GMS	100.0%	100.0%	100.0%
> Established Schedule	19.00	18.00	12.00
LAs > ECS + 180 days	0.00	0.00	0.00
% Compl <= ECS	67.8%	52.6%	66.7%



OPERATING EXPERIENCE DASHBOARDS

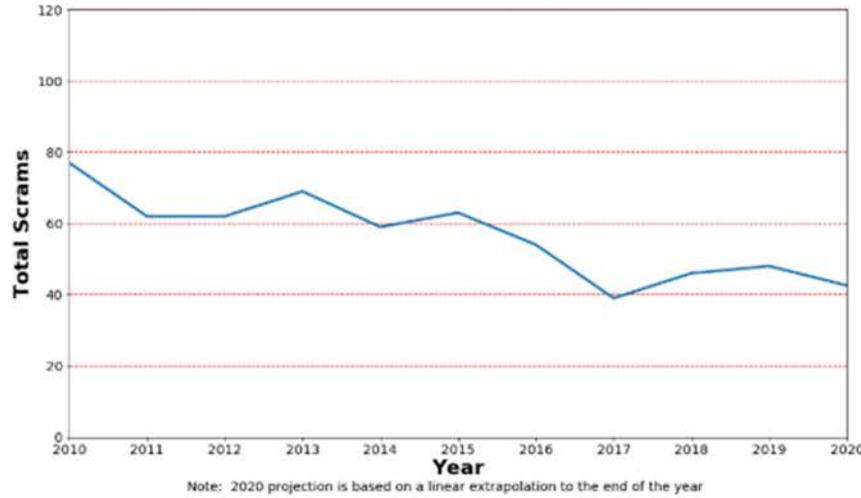
- One-stop access to tools that allow trending and searching of operating experience data
- Consolidates several disparate operating experience data sources, including findings, scram data, generic communications, and data from INPO's IRIS database
- Future plans include incorporation of risk information and a broader array of information sources



OpE Scrams Dashboard

This dashboard summarizes the current status of scrams as of August 10, 2020 . Last Scram: Grand Gulf, 8/8/2020 (EN 54824) [Print/Save](#)

Scrams - 10 Year Look



26

Scrams this Year

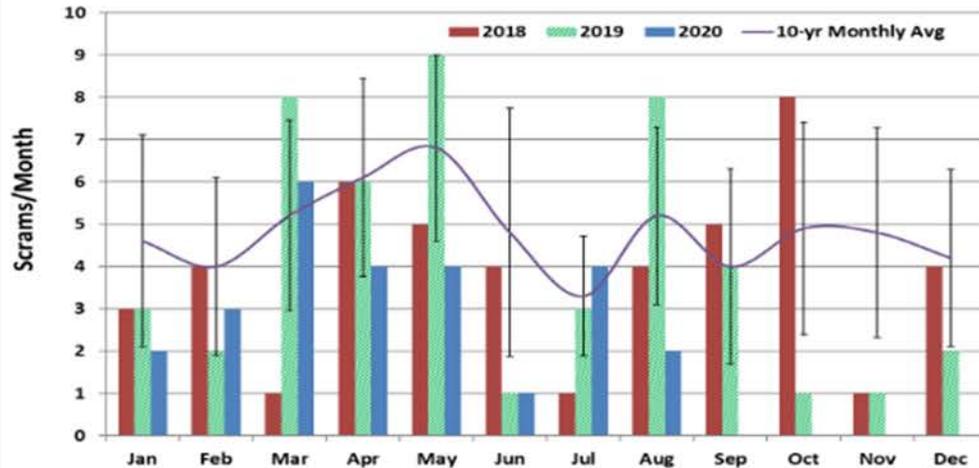
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Scrams Predicted This Year (Linear Extrapolation)

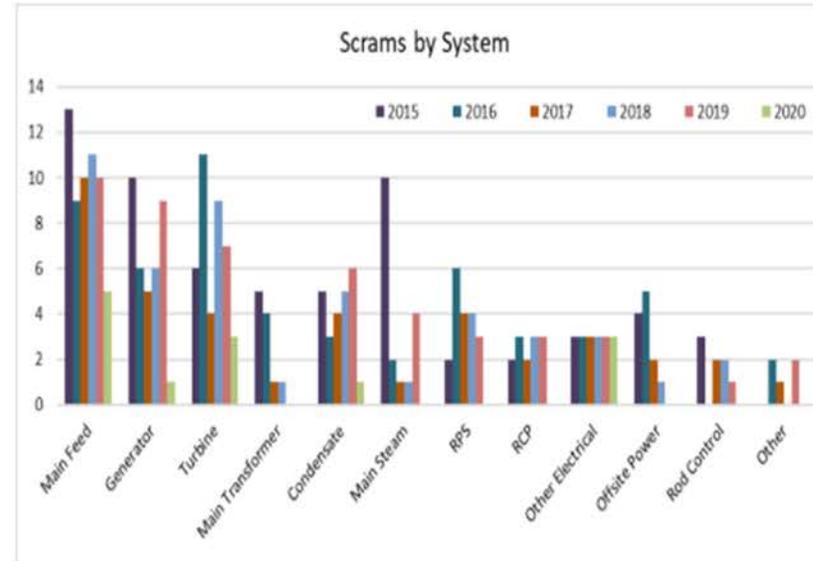
40

Scrams in the Past 365 Days

Scrams per Month 2018-2020 & 10-yr Monthly Averages

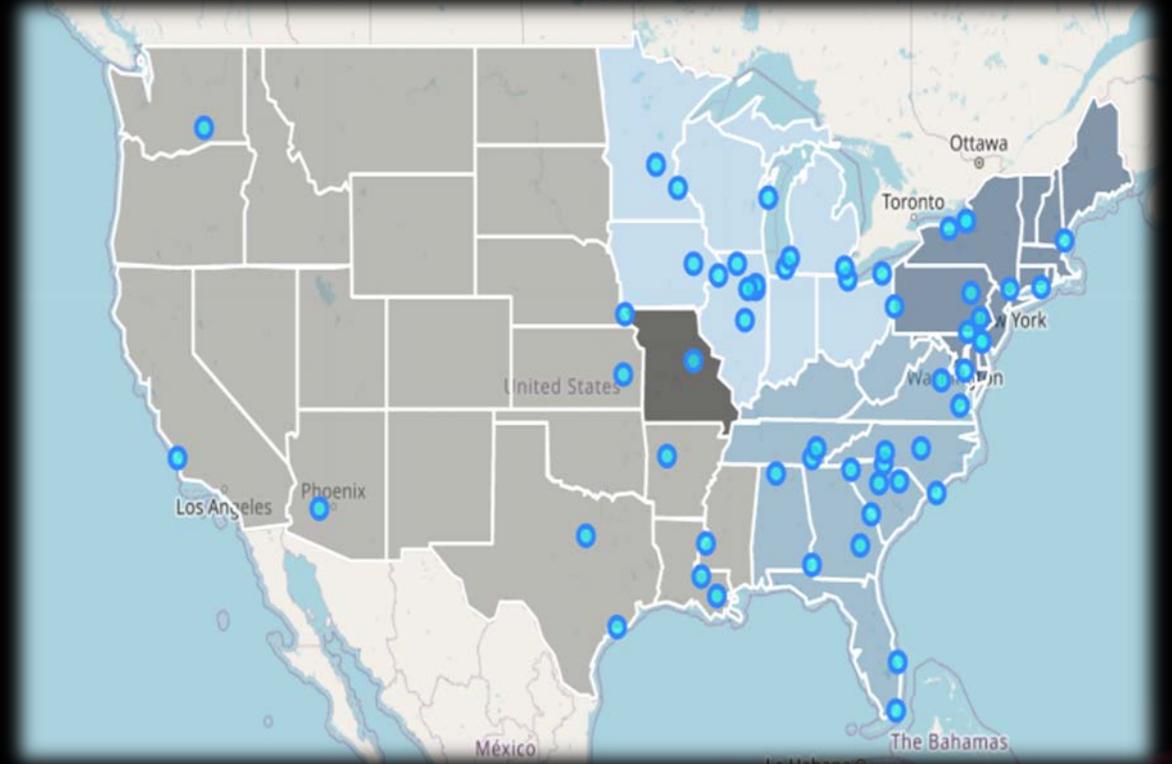


Scrams by System

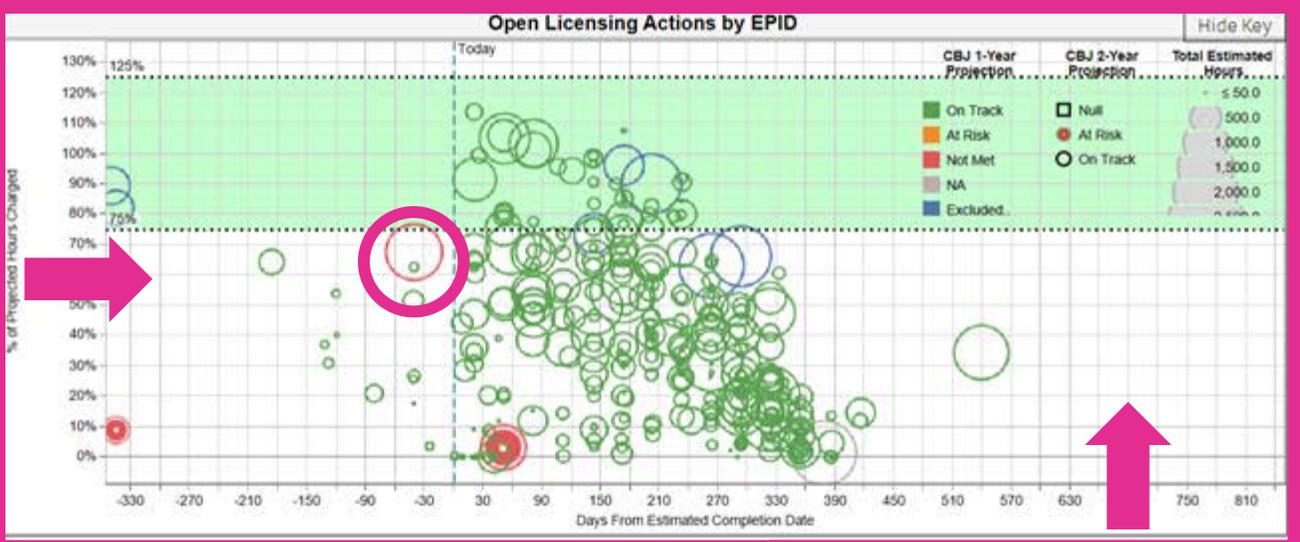
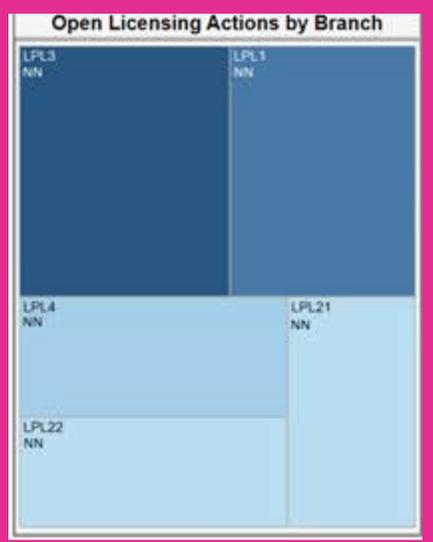


OPERATION RANGO

- Started with the goal of democratizing the reactor oversight process data on the public website to make it more accessible to the public and the staff
- Provides a snapshot of the current fleet status and ability to trend and compare over time
- Developed by NRC staff
- [Live Demo](#)



BACKUP SLIDE



Open Licensing Actions - Detail

Project Id	EPID Title	Branch	Original Est. Comp. Date	Project Age (mo.)	Project Age at Closure (mo.)	Days from Estimated Completion	Manager's Level of Effort	Reviewer's Level of Effort	Total Estimated Hours	Total Hours Charged	% of Estimated Hours Used
LPL21	LICENSE AMENDMENT REQUEST 1	Site A Unit 1		24	24	-346	60	690	660	283	43%
		Site A Unit 2	LPL21	24	24	-346	60	690	660	299	39%
LPL21	LICENSE AMENDMENT REQUEST 2	Site B Unit 1		24	24	-351	150	430	740	332	45%
		Site B Unit 2	LPL21	24	24	-351	150	430	740	390	49%
LPL3	EXEMPTION REQUEST 1	Site C Unit 1		22	33	51	150	480	1,500		
		Site C Unit 2	LPL3	22	33	51	150	480	1,500		
LPL1	EXEMPTION REQUEST 2	Site D Unit 1		24	35	-346	150	420	570	0	9%
LPL22	LICENSE AMENDMENT REQUEST 3	Site E Unit 1		14	15	143	300	530	840	619	74%
LPL1	LICENSE AMENDMENT REQUEST 4	Site F Unit 2		14	15	-41	150	1,276	1,600	1,083	68%
LPL22	FLEET LICENSE AMENDMENT REQUEST 1	Site G Unit 1		12	12	21	100	80	200	5	3%
		Site G Unit 2	LPL22	12	12	21	100	80	200	7	4%
		Site H Unit 1	LPL22	12	12	21	100	80	200	5	2%

