Global Business Services

External Review of Nodal Program PMO Control System

Executive Discussion

Electric Reliability Council of Texas, Inc. (ERCOT)
Board of Directors Meeting
February 19, 2008

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Observations and Recommendations

- Controls in place are generally functioning as expected
- Certain control activities should be enhanced
- Recommended control enhancements can reduce risk of schedule delays and quality degradation

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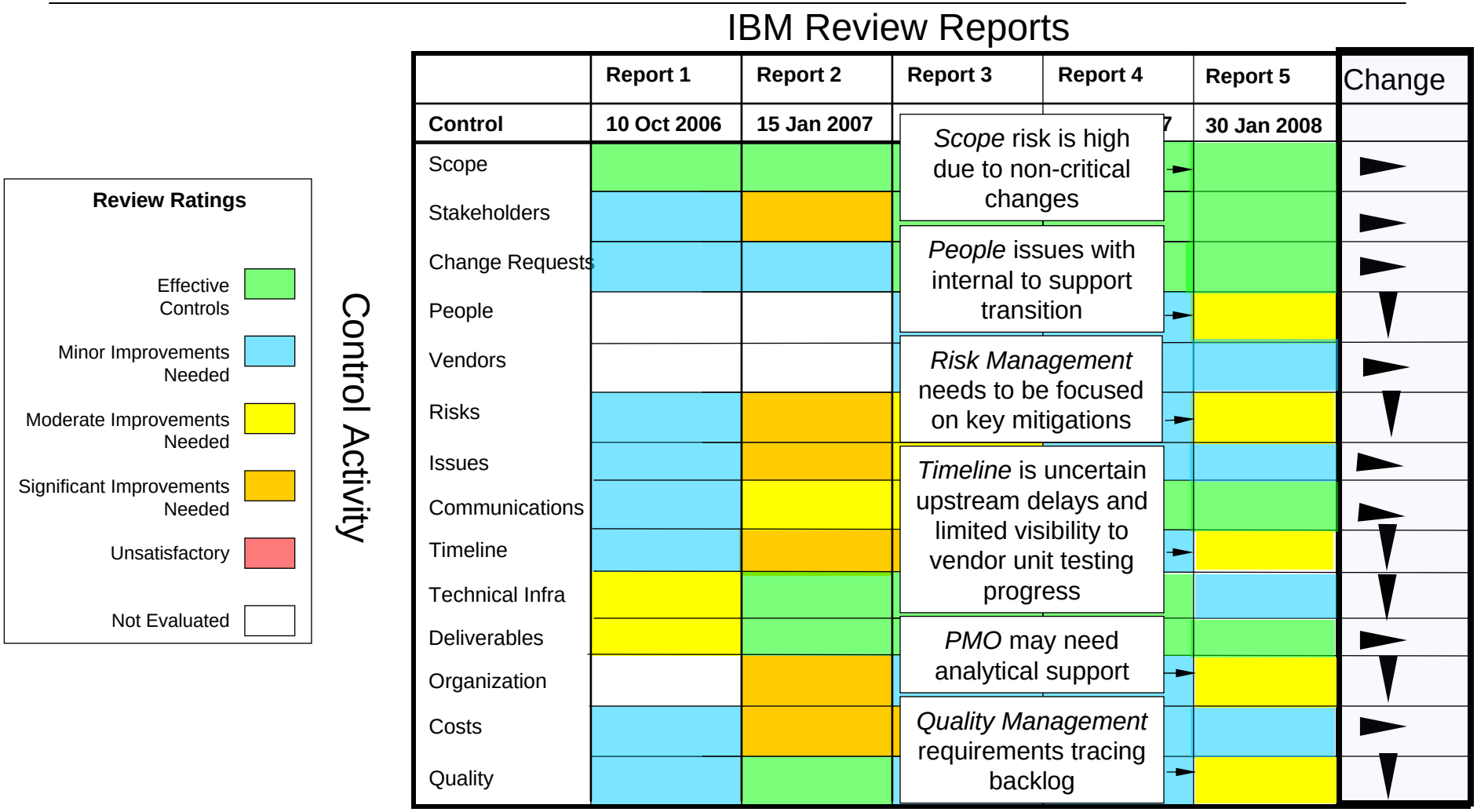
Certain PMO Control Areas Require More Focus



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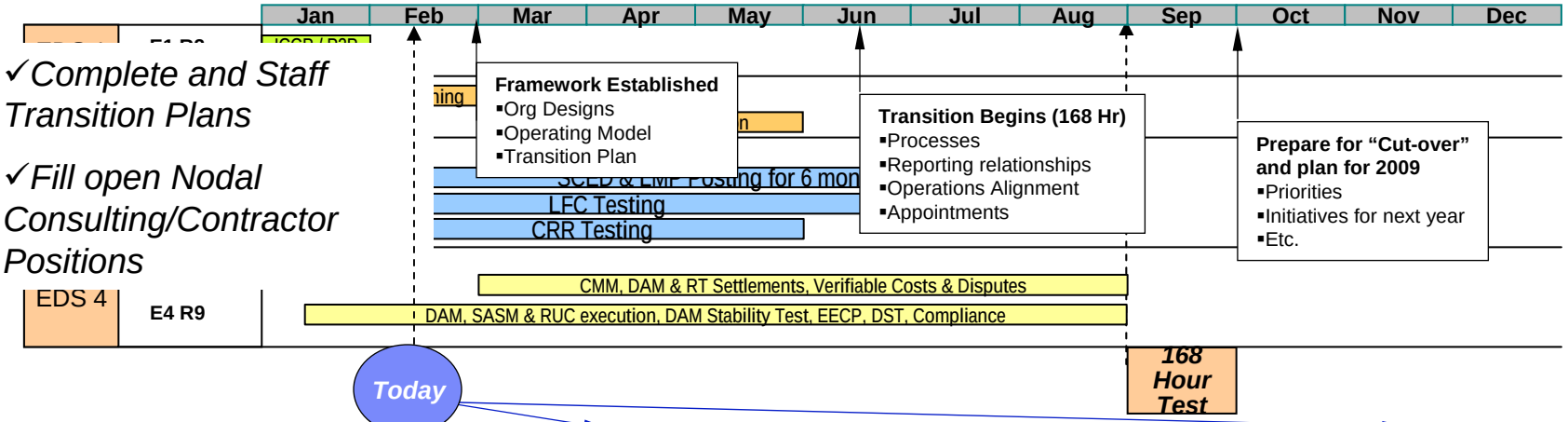
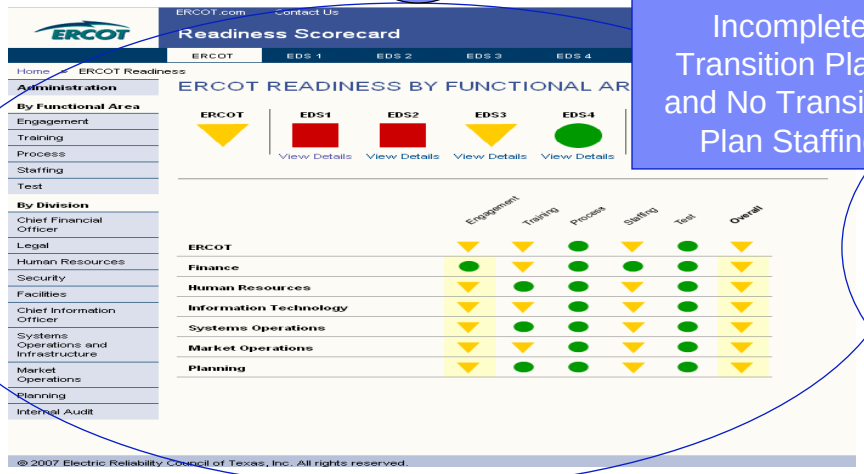
Resource and Deployment

Typical milestones for transition are rapidly approaching; readiness is lagging

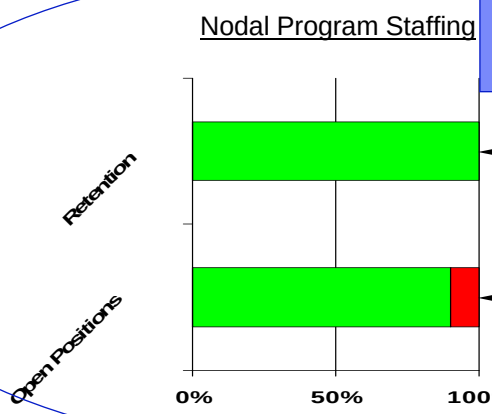
✓*Complete and Staff Transition Plans*

✓*Fill open Nodal Consulting/Contractor Positions*





Incomplete Transition Plans and No Transition Plan Staffing



Turnover typically increases in the later phases

No staff turn-over last four (4) months

Down from 10% open to less than 5% vacancy

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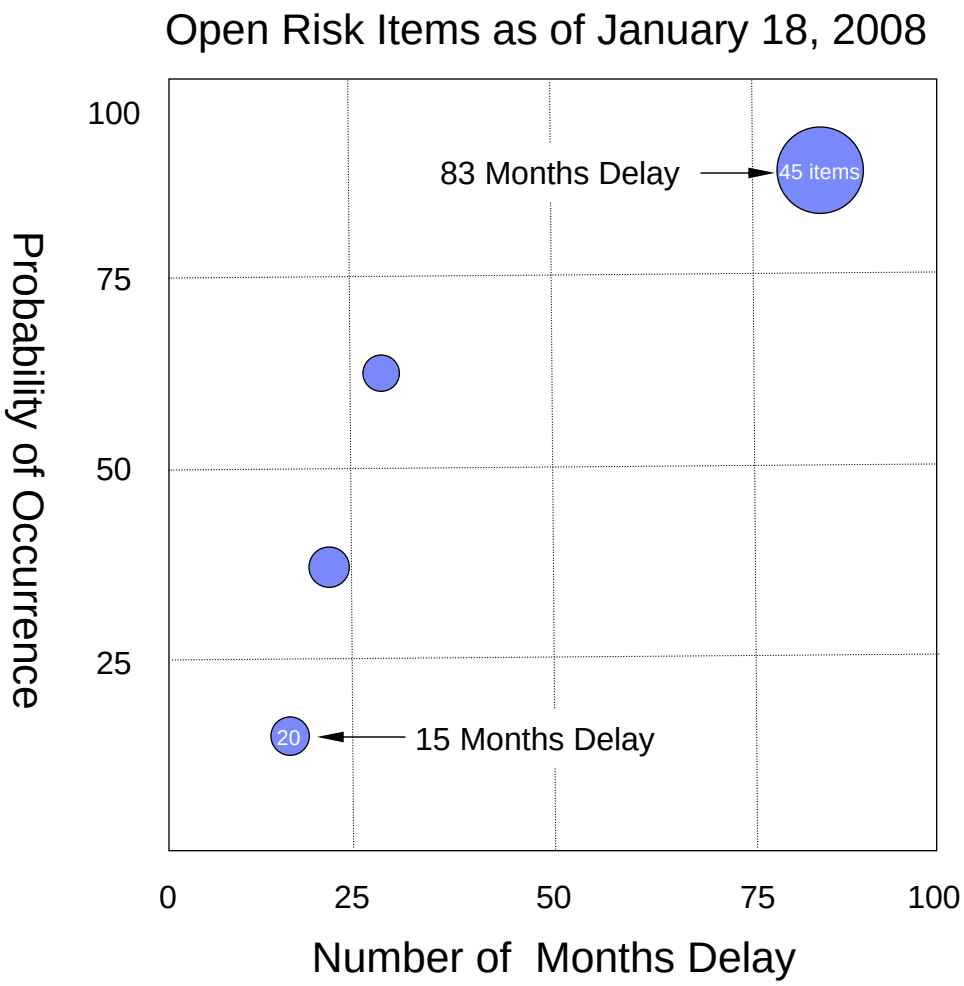
Risk Management

- Over 100 items are in the file with identified high impact on the time line
- Most risk items are controllable to some degree
- Large number have mitigating actions defined
- Some risk plans need more development
- Some duplication likely exists
- ✓ ***Update the plan, focus on highest risk/controllable items and align with senior management as appropriate***



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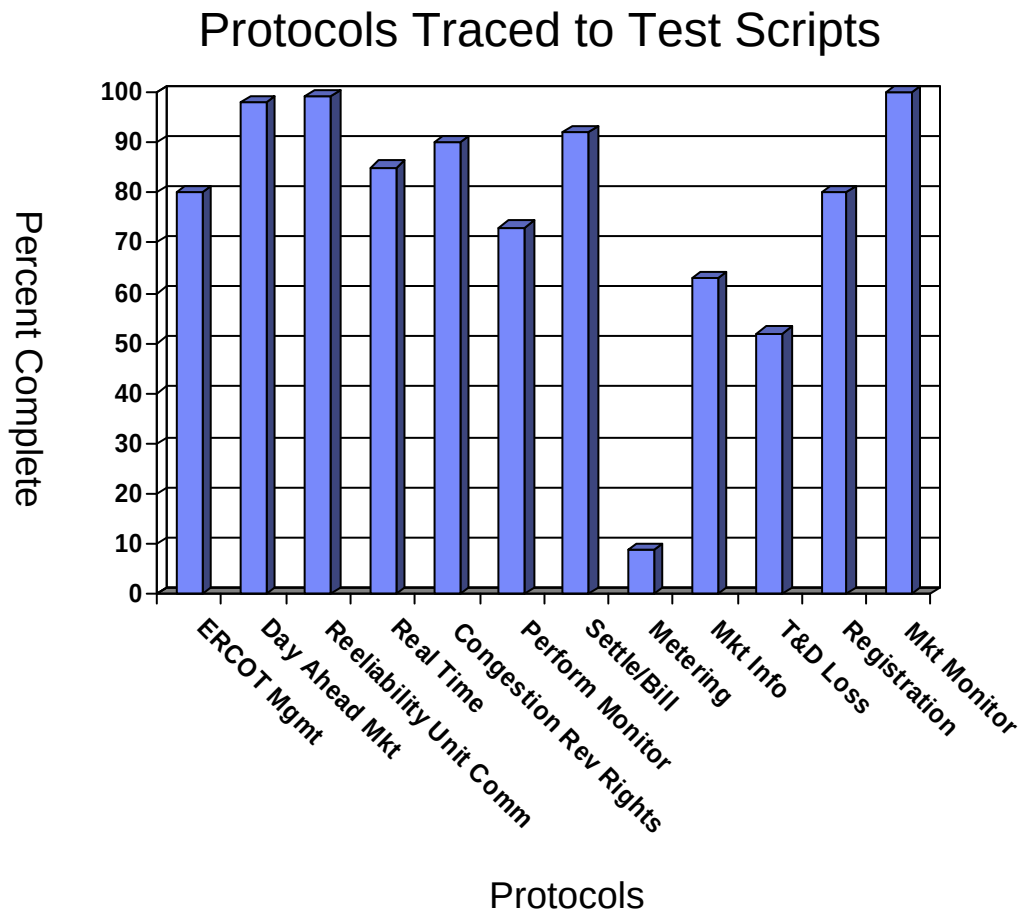
Quality Management

- Quality Review: documentation quality, software quality and requirements traceability.
- Reviews internal and external
- Adherence to Nodal Protocols and requirements within the software developed involves tracing of key requirements.
- Nodal Protocols are traced to test scripts, ending with successfully completed test scripts.
- Uses a software requirements tracking tool – Requisite Professional (ReqPro) and a test repository - Quality Center.
- Tracing Protocols is lagging.

✓ ***The Nodal Program team needs to complete this critical testing documentation.***



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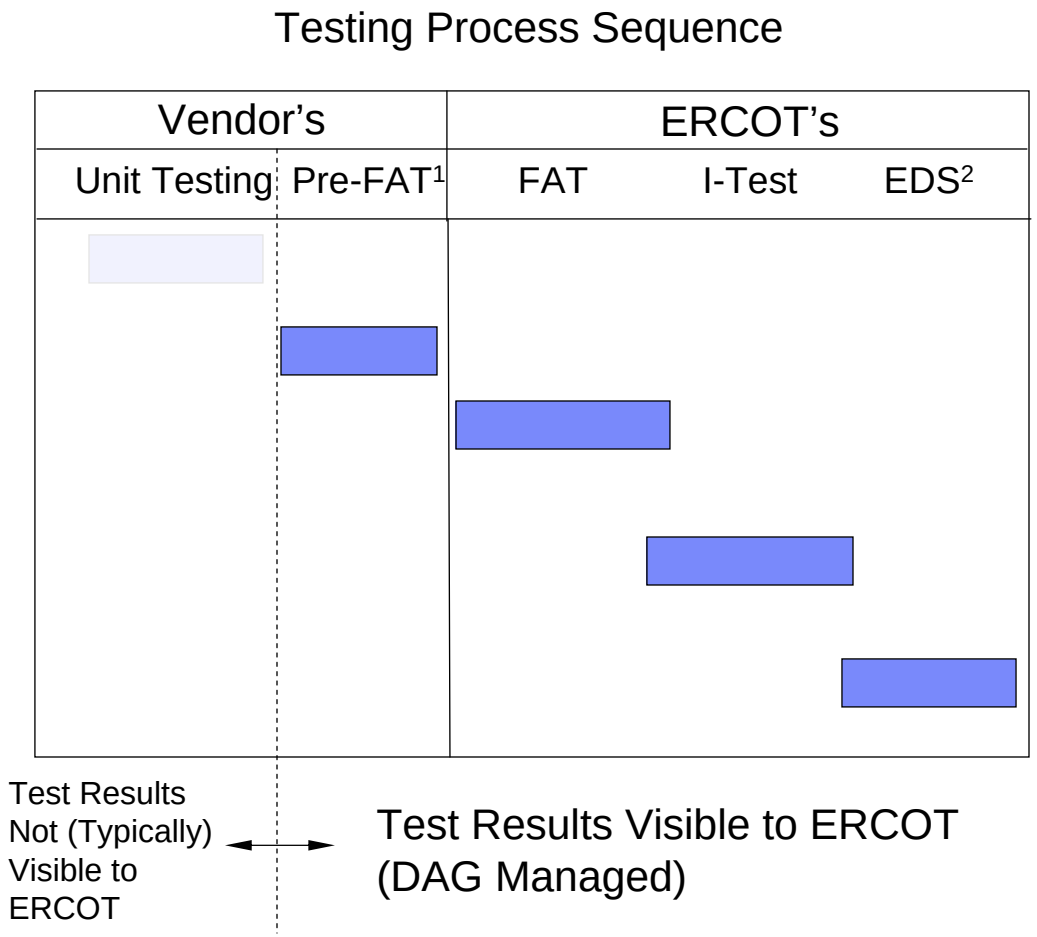
Timeline

- Critical Path (milestone plan) managed the Delivery Assurance Group.
- Project teams typically maintain separate work plans – not with enough detail.
- Vendors maintain separate plans.
- Supplemented by on personal commitments.
- Transition from phases supported with Quality Gate reviews
- Observable (verifiable) information is not always available.

✓ ***Provide greater progress visibility and intermediate milestones for vendors. Support schedule stability for FAT starts.***



[1] Factory Acceptance Testing; [2] Early Delivery Software (Testing)

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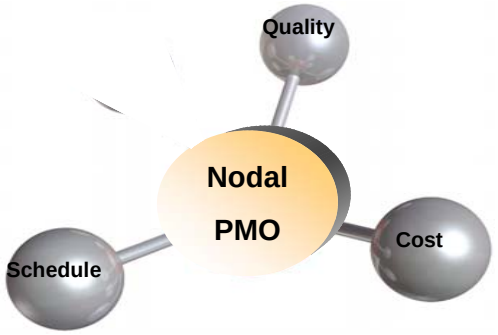
PMO

- The PMO organization has experienced high turnover with reassignment staff to other Nodal Program Roles.
- Resources redeployed to support other areas when critical needs have been expressed.
- Support for PMO occurs primarily on a crisis management approach.
- The Delivery Assurance Group (DAG) is providing analytical and management support for critical path.
- This limits the effectiveness of the control system and could have reduced the degree of “fire-fighting”.

✓ **Assess PMO Analytical support needs in addition to DAG and “Testing Tsar” Provide more stability for this organization for requisite roles.**



Nodal Program Charter requires the PMO to deliver:

- An effective control framework
- An operational quality assurance process
- The Readiness Scorecard
- Regular and ad-hoc status reports to all governance bodies

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Summary of Observations and Recommendations

Issue	Impact	Recommendation
Resource Planning and Deployment	▪ERCOT support/readiness ▪ Availability of contractors/vendor resources when transition occurs	▪ Engage executive team to address ERCOT resources to support issues ▪ Expedite process to fill open contractor positions for Nodal
Risk Management	▪ Absence of viable mitigation plans ▪ Delay in reaction time with schedule impact	▪ Prioritize to top risks for action using probability and schedule impact and resolve realized risks. ▪ Assign ERCOT integration related risks to ERCOT executives outside the Nodal Team
Quality Reviews	▪Completeness not confirmed with Protocols ▪Requirements tracing for future compliance and control	▪ Clean-up backlog of tracing (testing documentation) for software already released to FAT ▪ Place this work on a higher priority
Timeline	▪ Absence of Pre-FAT visibility of vendor progress ▪ Lagging measures	▪ Consider capturing data on vendor testing prior to FAT ▪ Evaluate other information that are leading indicators of progress
PMO	▪ Turnover of resources ▪ Potential lag in report ▪ Fire Fighting Mode	▪ Assess PMO analytical support needs in addition to DAG and “Testing Tsar” ▪ Provide more stability for requisite roles of this organization

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