



2019 LARGE FACILITIES WORKSHOP

APRIL 2-4 | TEXAS ADVANCED COMPUTING CENTER

Information Section

Topic:	Enterprise Risk Management of Large Facility Projects
Speaker(s) Name, Title:	Stephen Urwin
Session Description:	
Session Time Slot:	April 4 9:10
Purpose and Desired Outcome:	Provide insights on DOE's approach to risk and engage dialogue with in NSF space.

Notetaking Section

Scribe Name	
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Disclaimer: *These are raw notes that were captured by the assigned scribe during this session at the 2019 Large Facilities Workshop. This is one individual's interpretation of what took place during the session, and its content does not necessarily represent the viewpoint of the National Science Foundation.*

Notes and Key Points:

- DOE has developed processes to help manage risk
- Presentation Outlined Slide
 - Quantification of risks takes resources
 - Subject matter expertise is necessary
 - Etc.
- Concept Risk management is straightforward
- A lot of methods (qualitative and quantitative available). Best to go quantitative if possible. Early phase projects it's typically difficult to quantify. More quantitative and the more valid/transparent you can be. Can only get at the complexity through quantitative models.
- Risks are episodic, typically dominant contingency
- Some risks like systems (congressional) – handled through enabling assumptions and don't try to put into analysis)
- Starting point, Looking at risk, "if it were to occur, would the task occur or change, introduce more tasks"
- Facilitators (or elicitors) have normative understanding of risks. SMEs are being asked for input to the models.
- Scales are going to be different and need to be tuned for the risk assessment objectives, and different types. Epistemic
- Risk register (COTS)
- Risks helps with setting expectations
- Hone into the ones that are important (what risks matter)
- Mitigations – sometimes you don't have to worry about risks that occur in outyears. "handing" action (will it be funded and if not, you'll have to live with risk; if funded, what are the chances it will work), incorporate into Monte Carlo
- Conceptually risk and risk handling should be the same.

Best Practices:

- Quantitative approaches and communication are really important (convey to stakeholders in a meaningful way)
- Commercial partners can be helpful (Saffran software) both stakeholders benefit.

Actionable Recommendations (Action Owner Name & Organization):

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Decisions:

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Session Summary