MBSE Benchmarking Study

An industry collaboration on the value and effectiveness of MBSE across the life cycle

Study Plan
NDIA Systems Engineering Division meeting
August 8, 2019
# MBSE Benchmarking Project Planning

## Objective
- **Assess value and effectiveness** of MBSE adoption for improving business outcomes (gov’t, industry) – benefits vs. traditional methods. Develop a profile of MBSE use and meeting expectations across the life cycle.
- Where are we as organizations, and as an industry? Building models, or using models? Applying what we learn.
- Enable adopters to conduct a qualitative or quantitative assessment of their progress against MBSE best practices and guidance on developing an improvement roadmap

## Method(s) (Ideas - TBD)
- Need an incentive and value exchange for participants
- Align with **INCOSE MBSE maturity matrix** – orgs can self-assess and establish benchmarks/roadmap (may need to abstract the details a little bit)
- Interactive feedback at CAB meeting (voting devices, cell phones?)
- MBSE survey: qualitative/quantitative information **characterizing MBSE practices, capability, value, benefits**.
- Probe alignment and integration with other adopter initiatives (e.g., PLM, DevOps, cross-discipline)
- Collect and share existing assets on MBSE benefits/value from community, in any form; anecdotal

## Organizational Involvement
- Participation call through industry associations: INCOSE (lead), NDIA, IEEE, AIA, ...
- Government sponsorship and support: DoD (OUSD R&E), FFRDCs (SERC, MITRE, Aerospace)
- Core team with organizational reps (volunteers to “do the work” as needed)
- Survey administration (distribution, collection, analysis): DoD SERC (Stevens Institute).
  “Honest broker” to protect organization proprietary data.

## Schedule (notional)
- Survey: definition (Stevens: Sep-Oct); instrumentation (Nov-Dec); distribution and feedback (Dec-Jan); analysis (Feb-Mar) - **SERC funding from DoD for DE Metrics study is through 3/31/2020.**

## Leadership / Coordination
- INCOSE: Laura Hart (TBD); Troy Peterson; Garry Roedler
- NDIA: M&S Committee (Chris Schreiber); SE Division (Geoff Draper; Garry Roedler)
- IEEE: Bob Rassa
- SERC: Tom McDermott, Nicole Hutchinson