



25th anniversary
annual INCOSE
international workshop
Los Angeles, CA
January 24 - 27, 2015

Outbrief: MBSE Workshop Breakout Session

Modeling Agile Systems and
Agile Systems Modeling
Jan 24, 2015

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Breakout Session Outbrief:

Modeling Agile Systems and Agile Systems Modeling

- Agile Systems problem statement and history of thought:
 - Systems engineering in situations of high dynamic change to environment and situation over delivery and life cycles, high uncertainty, pro-active opportunity, and the agile systems principles for addressing these situations.
- Workshop included discussion of:
 - Principles of Agile Systems
 - Intro to Agile Systems Life Cycle Pattern (a configurable MBSE model)
- Joint by: Agile Systems WG and Patterns Challenge Team
- 40 attendees, good engagement
- Examples of situations demanding agility: commercial, military, and health threat responses, pro-active technology initiatives, and current examples needing increased agility
- Intended use in the INCOSE Agile Systems Engineering Life Cycle Model (ASELCM) Project
- Discussion of how we will apply the ASELCM Pattern.
- Invitation for ASELCM Project hosts to follow

Impact on Practice; Current State; Actions

- Impact: Improves ability to respond in an agile fashion to dynamic changes in environment situation, high uncertainty, and opportunities.
- Impact: Requires new ways of thinking about the underlying compatibility of:
 - ISO 15288 Process Areas
 - Agile Performance, Risk Management, and Learning Cycles
 - Representation of Learning using MBSE Models (Patterns)
- Current applications and state:
 - Indicated by the INCOSE Board of Directors as a top 5 strategic priorities issue.
 - INCOSE is sponsoring the Agile Systems Engineering Life Cycle Model (ASELCM) Project, to study current applications and state across the U.S. and Europe, during 2015-16.
 - Initial draft of high level parts of the ASELCM Pattern available and reviewed during this workshop http://www.omgwiki.org/MBSE/doku.php?id=mbse:incose_mbse_iw_2015:breakout_out_session_agile_modeling
 - Workshop participants indicated consensus with the scope of this model.
- Key actions to move this area forward:
 - Currently scheduling participating companies and institutions as hosts for ASELCM workshops www.parshift.com/ASELCM/Home.html
 - Currently building out the ASELCM Pattern.
- Other findings:
 - During the Agile Systems WG meeting at IW2015, there was input from membership that the learning part of the ASELCM Pattern will be of critical importance.