NDIA Software Committee Report

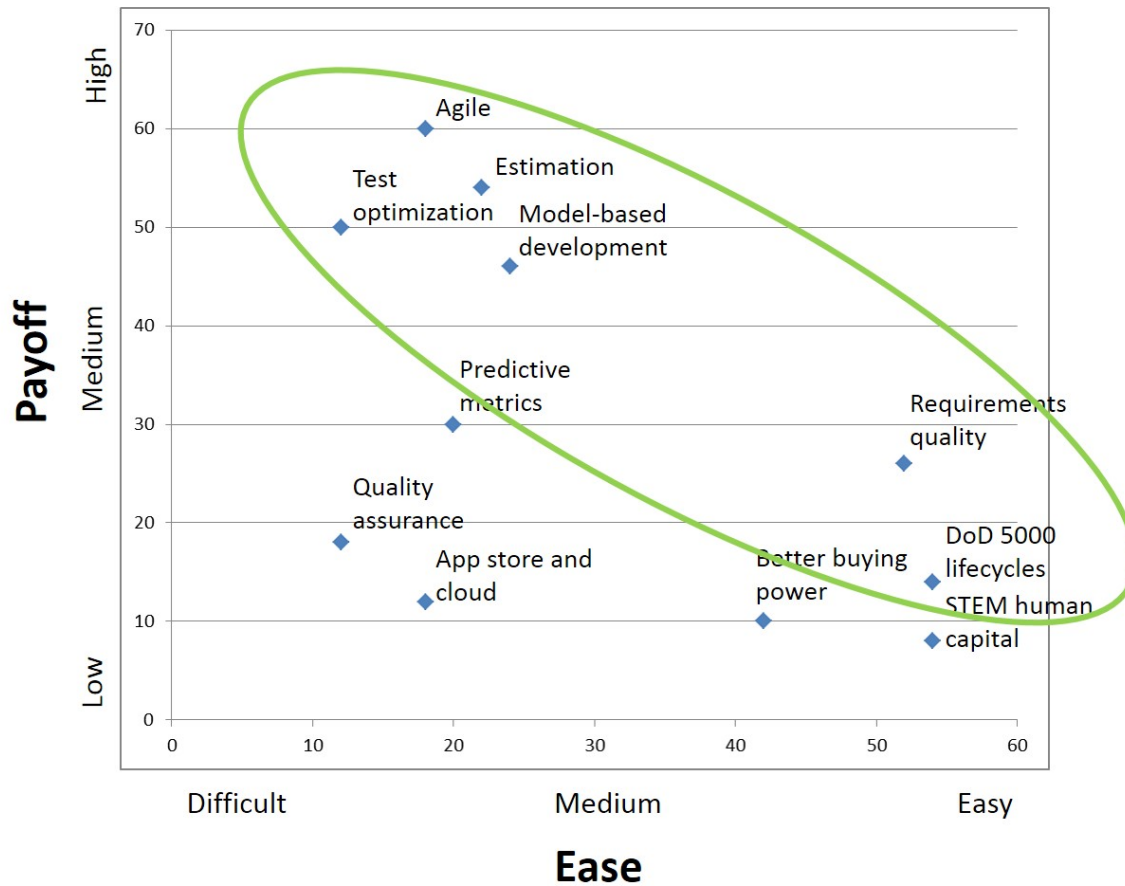**NDIA Systems Engineering Division
Software Committee
16 March 2015**

DASD/SE Task – Opportunities to Improve DoD SW Engineering Practice

- **Tom Hurt, DASD/SE requested the NDIA SED Software Committee to provide an industry perspective regarding opportunities for "DASD(SE) to improve the practice of software engineering"**
- **The Committee held several virtual meetings and identified eleven areas for consideration**
- **These areas were then ranked in terms of Payoff and Ease of Implementation**
- **Detailed recommendations were developed for six (plus one) opportunities for improvement**
- **Committee members include:**
  - Paul Croll, PR Croll LLC (Chair); JoAn Ferguson, General Dynamics; Gary Hafen, Lockheed Martin (retired); Cheryl McIntyre, Lockheed Martin; Cynthia Molin, Raytheon; Ken Nidiffer (Co-Chair), SEI; Shawn Rahmani, Boeing; Rick Selby, Northrop Grumman; Tim Walden, Lockheed Martin

Recommendations for Software Initiatives Ranking

Recommendations for Software Initiatives Considered

- **From the initial identification and ranking exercise**
  - Agile/Incremental Software Development
  - Improved Software Estimation and Integration with EVM and Technical Metrics
  - Test Optimization
  - Model Based System Development
  - Requirements Quality (Systems and Software)
  - DoD 5000 Lifecycles: Incorporation of High-Impact Software Enabling Technologies
- **One More Recommendation at DASD/SE request**
  - Software Assurance in Acquisition, Development, and Sustainment
- **Recommendations developed for each using a common reporting template**

Title: Issue/Problem Statement

Background
- How did we get here?
- Where are we now?]

Desired State: [Where would we like to be?]
- Bottom Line Up Front

Path to Closure: [How do we get there]

Metric [How do we know we have arrived?]

Potential Contribution: [What can OSD/DASD(SE) accomplish to make a difference?]

> **Reporting Template**

Next Steps

- **Brief draft slides to DASD/SE**
  - Kristen Baldwin
  - Rob Gold
  - Tom Hurt
- **Incorporate comments and produce final package for formal transmission by the NDIA to DASD/SE**
- **Based on DASD/SE priorities, jointly identify tasks in which the Software Committee and the NDIA Systems Engineering Division can play a continuing role**
  - Development of guidance (e.g. extensions to the DAG, model RFP language, handbooks)
  - Workshops/Summits bringing together key industry and Government stakeholders to address best practices, roadblocks to success, and lessons learned
  - Studies to validate high-impact enabling software technologies

Questions?

**Paul R. Croll
Chair, NDIA SED Software Committee
pcroll@computer.org**