

NDIA SE HSI Committee Quarterly Meeting

December 7, 2016

Agenda

- **Welcome and introductions**
- **Membership review**
- **2016 HSI Committee Plan**
- **Recent Meetings**
- **Joint HSI Working Group Status**
- **Recent activity**
- **Future directions**
- **NDIA Upcoming meetings**
- **Summary**
- **Wrap-up and actions**

Membership Update

- **43 member on the distribution**
 - 24 government
 - Navy, Air Force, Army, USMC, NASA, NPS, OSD
 - 19 industry
 - LMCO, NGC, Boeing, GD, Sandia, small business

HSI Committee Plan – 2016 Status



2016 Tasks Planned	Status	Accomplishments (deliverables, etc.) - Comments
Align with ESOH, M&S, SEEC and SoS for the SE Conference track	Complete	Conducted three HSI tracks on Thursday, October 27.
Identify HSI success stories with ROI metrics	In Progress	Coordinate with the Joint HSI Working Group to identify success stories. Identify a common approach and a format for the success stories.
Defining pre-Material Development Decision (MDD) HSI activities for early systems engineering	Complete	Defined pre-MDD activities and products in HSI Framework for USAF.
Get alignment and stakeholder buy-in for early acquisition and ensure HSI is captured properly	In Progress	<ol style="list-style-type: none"> 1. Completed peer review comments on HSI criteria for RFP developers and submitted to RROI website on 09 Nov. 2. Participated in SAE G-45/Government HSI Standard Committee meeting on 04 November. Next meeting scheduled for 10-11 Jan.
NDIA SE Division – HSI Committee meeting December, 2016		<div style="text-align: right;">4 Last update: 11/08/16</div>

2016 NDIA SE Division meetings (General Dynamics, Washington, DC)



- **Wednesday, April 20 and Wednesday, August 17, 2016**
 - Provided HSI Committee status for 2016
 - Participated in Top SE Issues in US Defense Industry discussion
- **Upcoming meetings:**
 - February, 2017
 - April, 2017
 - June, 2017
 - August, 2017

19th Annual Systems Engineering Division Conference (10/24/16 – 10/27/16)



- **190 presentations**
- **360 people in attendance**
- **Tuesday, October 25**
 - Keynote presentation by Mr. Steven Welby, Assistant Secretary of Defense for Research and Engineering (ASD(R&E))
 - Mentioned Human Machine Collaborative Decision Making and Assisted Human Operations as two of the five key areas for preserving technological superiority
 - Plenary Sessions:
 - SE Issues Panel
 - DoD Program Managers Panel
 - DoD Executive Panel
- **Thursday, October 27**
 - Three HSI paper sessions
 - Presentations available on DTIC:
<http://www.dtic.mil/ndia/2016systems/2016systems.html>

19th Annual Systems Engineering Division Conference: HSI Track



- **16 HSI-related abstracts approved**
- **9 placed into three HSI tracks on Thursday afternoon**
- **Seven presented in other committee tracks**
 - System Engineering Effectiveness (18749, 18841)
 - System of Systems Engineering (18674)
 - Environment Safety and Occupational Health (18848, 19080)
 - Architecture (18939)
 - Modeling and Simulation (18826)
- **Great way to "get the word out" about HSI to other audiences**

Joint HSI Working Group Status

Criteria for the Incorporation of Human Systems Integration into a Request for Proposal (RFP)

- **Intends to address misperception amongst RFP developers that Human Factors Engineering (HFE) and HSI are identical**
- **Criteria is a brief set of general guidelines RFP developers can follow to eliminate this misperception**
- **Completed internal peer review of document**
- **Submitted request for public release on 09 November 2016**
- **Next steps:**
 - Post approved document on NDIA HSI Committee webpage
 - <http://www.ndia.org/Divisions/Divisions/SystemsEngineering/Pages/HSISubcommittee-SE.aspx>

NDIA HSI Committee Liaison for SAE G-45 HSI Committee Meetings



- **DoD has selected the Society of Automotive Engineers' (SAE) G-45 Committee to develop a Human Systems Integration (HSI) Standard**
- **Purpose: To define best practices for Human Systems Integration requirements for affordable, responsive contractor HSI programs meeting Department of Defense needs for system development, modification, modernization and support programs**
- **Once released, this new standard will be applied to all future DoD contracts**
- **New HSI Standard Goal: Define minimum tasking requirements for affordable, responsive contractor HSI programs to optimize human-system performance, and minimize risk and customer ownership costs**

G-45 HSI Committee - Accomplishments



- **Identified SMEs in HSI management and individual domains to participate in HSI standard development.**
- **Solicited and obtained support necessary for SAE International SMEs to participate**
- **Collected documents from SAE, HSI Working Group, etc. as potential source documents for the HSI Standard**
- **Reviewed structure of HSI Standards outline and addressed comments**
- **Decide breadth and depth of HSI tasks and products**
- **Developed a standard content list for each HSI domain**
- **Defined categories for team assignments**
- **Identified potential Sub Group Leads and assigned writers to teams**

G-45 HSI Committee - Next Steps

- **Authoring teams to draft assigned sections**
- **Complete in-process survey of G-45 member expertise**
- **Identify differences between services in implementing and contracting HSI**
- **Review SOWs that cover HSI from recent projects**
- **Next meeting: January 10-11, 2017**

Future Directions for HSI Committee



- **Support OSD in the development of a list of existing HSI tools**
- **Assist DoD HSI Standards Working Group with reviewing HSI standards**
- **Success stories for the Joint HSI Working Group**

NDIA Upcoming Meetings 2016-2017



- **Human Systems Division Meeting - Springfield, Virginia**
 - March 7-8, 2017
- **SE Division meetings, Washington, DC**
- **20th SE Division Conference – Springfield, Virginia**
 - October 23-26, 2017
 - Abstracts due 26 May, 2017
- **SE Division Planning Committee Meeting**
 - December, 2017

Summary

- **Recent committee activity**
 - SE Division Conference
 - Completed work on HSI Criteria
 - SAE G-45 Liaison activity
- **Future activity**
 - Continue support of SAE G-45 HSI Standards development
 - Support NDIA meetings
- **Wrap-up and actions**

BACKUP

NDIA-SE HSI Committee Overview



- **HSI committee reports to the NDIA SE Division**
- **Draft OSD Charter in 2008, Committee in 2009**
- **NDIA venue provides an opportunity for both govt and contractors to share and align**
- **Concerned with HSI policy, processes, and tools that support our community of interest and how that informs and adds value to the SE community**
- **Chairs**
 - OSD – David Schulte, Andrew Monje
 - Industry – Drs. Matthew Risser, PSE and Patrick Fly, Boeing

Mission, Goals & Objectives

Mission:

- Develop a Government and Industry partnership to effectively integrate Human Systems Integration (HSI) in the DoD acquisition process to improve overall system performance and decrease total ownership lifecycle costs.

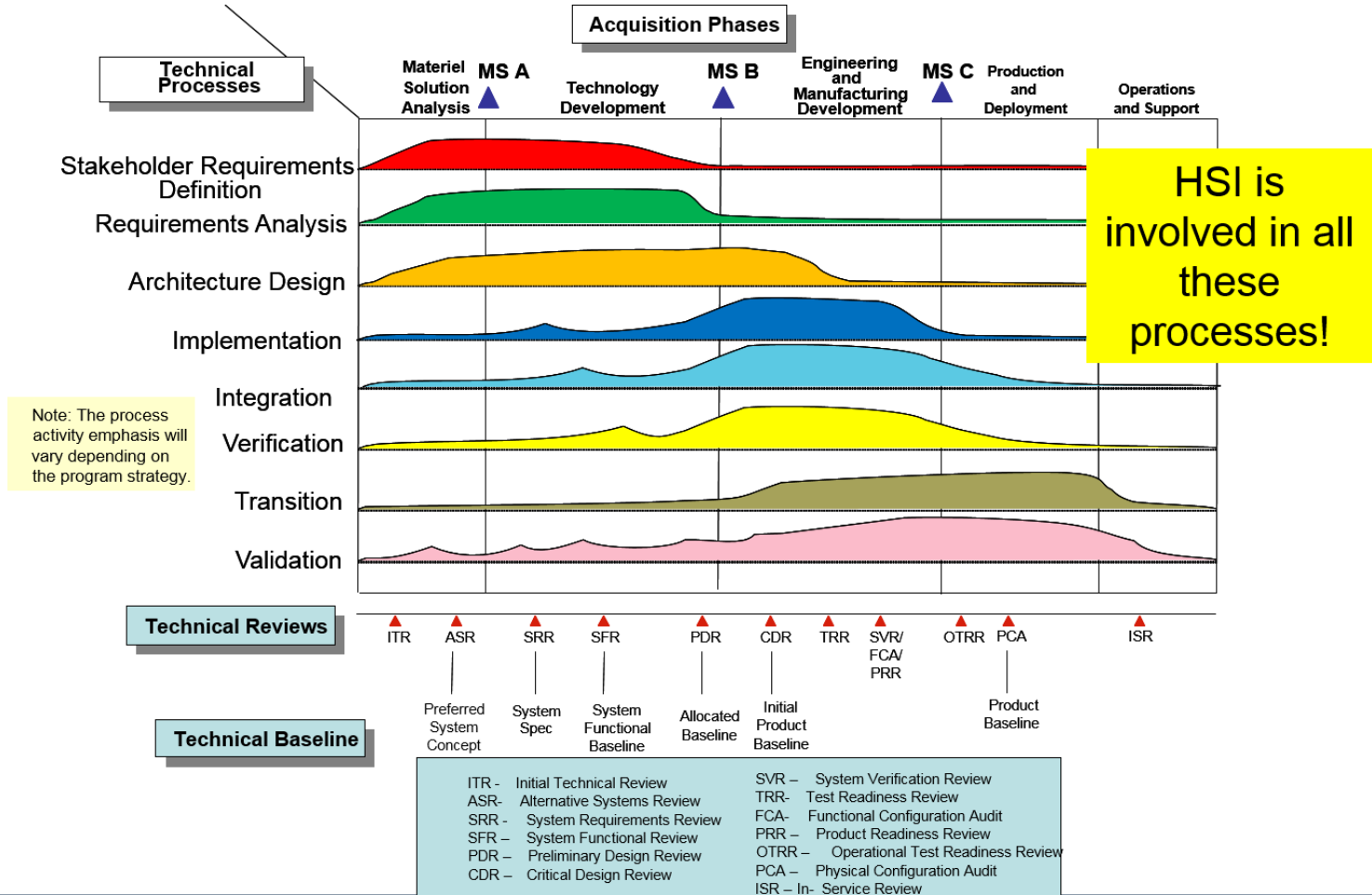
Strategic Goals

- Through partnership and collaboration to:
 - Establish and promote a common understanding of HSI
 - Advocate for the continued integration of HSI in acquisition efforts
 - Establish a means to share HSI knowledge, methods and best practices
 - Address common HSI gap areas
 - Standardize on use of language-coordinate with others

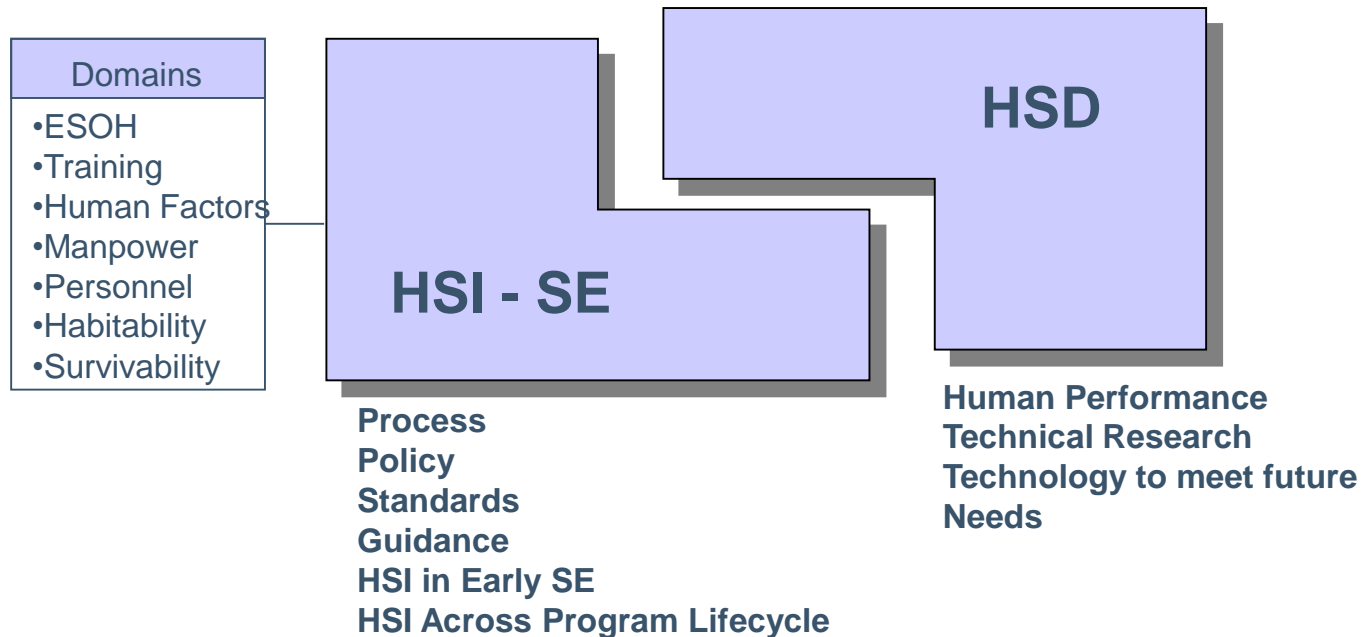
Objectives

- Grow our HSI community of practice to share knowledge, methods & tools, and collaborate with other committees and industry/academia groups
- Implement HSI uniformly, per DoDI5000.02, for best value HSI design & development solutions
- Leverage the best of HSI best practices and technology use from government, industry and academia to close gap areas and position HSI for the future

Technical Processes and Activity



Synergy with NDIA HSD



- **We are Complementary Groups Advocating for HSI**
- **NDIA SE- HSI & NDIA HSD to collaborate and support each others meetings & work products**

Standing HSI Activities

- **Quarterly teleconferences**
- **Track at annual SE Division Conference**
- **Bi-monthly SE Division meetings**
- **Align with**
 - Other SE Committees (e.g., ESOH)
 - NDIA Divisions (e.g., NDIA Human Systems Division)
 - Related groups (e.g., Joint HSI Working Group)

NDIA SE Committees

- **Architecture**
- **Automatic Test**
- **Capability Maturity Model Integration (CMMI) Project**
- **Education & Training**
- **Enterprise Health Management**
- **Environment, Safety, and Occupational Health (ESOH)**
- **Government Liaison**
- **Human Systems Integration**
- **Joint Committee for Systems Engineering and Manufacturing**
- **Life Cycle Support**
- **Mission Analysis**
- **Modeling & Simulation**
- **Software Experts Panel**
- **Steering Committee and Industry Affiliations & Liaisons**
- **Systems Security Engineering**
- **Systems Engineering Effectiveness**
- **Systems of Systems Engineering**
- **<http://www.ndia.org/Divisions/Divisions/SystemsEngineering/Pages/default.aspx>**