



2021
Annual **INCOSE**
international workshop
Virtual Event
January 29 - 31, 2021

SE in Early Stage Research & Development

www.incose.org/IW2021

CHAIR

Ann Hodges (Sandia National Laboratories)

CO-CHAIRS

Michael DiMario (Astrum Systems)
Heidi Hahn
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INCOSE WEB PAGE



<https://connect.incose.org/WorkingGroups/ESRD/SitePages/Home.aspx>

INCOSE CONNECT ADDRESS



<https://www.incose.org/incose-member-resources/working-groups/transformational/se-in-early-stage-research-development>

Charter Summary



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WG PURPOSE/MISSION

The purpose of the Systems Engineering in Early Stage Research and Development (ESR&D) Working Group (WG) is to provide an open forum for the development, application, and dissemination of systems engineering principles, best practices, and solutions to scaling systems engineering applications to ESR&D projects so that the level of systems engineering effort is commensurate with risk and that the anticipated ESR&D outcomes are achieved.

WG GOAL(S)

This WG will provide a forum for soliciting, enhancing, and communicating systems engineering principles and activities that are most relevant and create the greatest value for ESR&D projects. This working group will engage other INCOSE working groups and external organizations sharing similar interests and goals. This WG will provide knowledge, guidelines, and frameworks for the application of systems engineering in ESR&D.

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WG SCOPE

The ESR&D WG will promote and apply systems engineering principles with emphasis on policy, analysis, and concepts useful to scientists, researchers, systems engineers, and leadership of these groups for the lower TRLs (1-4) and provide strategies, standards, and concepts for better approaches. It will promote and perform activities supporting the stated goals.

OUTCOMES (PRODUCTS/SERVICES)

Expected work profile for 2021 defining deliverables, products, and schedule.
Identify contributors and work volunteers.
Define long term road map.

IW Outcomes



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IW OUTCOMES

- Reviewed working group charter/scope/goals
- Reviewed products and initial framework development
- Brainstormed additional framework concepts/perspectives
- Brainstormed future vision

PLANNED ACTIVITIES AFTER IW

- Schedule periodic (e.g., monthly) working group meetings
- Analyze results from IW2021 - concepts, framework ideas

PLANNED WORK PRODUCTS AFTER IW

- IS2021 panel on SE in Early Stage R&D (if accepted)
- Develop principles and considerations for SE in Early Stage R&D
- Define problem set to be addressed
- Define longer term roadmap
- Contribute to SE Handbook 5th edition, Section VI Application of Systems Engineering - considerations and principles for SE in Early Stage R&D