

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

## **Social Systems**

www.incose.org/IW2021

#### **CHAIR**

Erika Palmer (Ruralis)

### **CO-CHAIR**

Randy Anway (New Tapestry)

### **INCOSE WEB PAGE**



https://connect.incose.org/WorkingGroups/SocialSystems

### **INCOSE CONNECT ADDRESS**



https://connect.incose.org/WorkingGroups/SocialSystems

# **Charter Summary**





### WG PURPOSE/MISSION

Evaluate evolving changes to systems engineering processes and practices and develop measures to integrate social and socio-technical systems understanding at theoretical, applicative and technical levels, in collaboration through outreach initiatives with the social sciences and interested stakeholder groups.

### WG GOAL(S)

- 1. Regularly assess relationships between systems engineering and social sciences
- 2. Identify and support communities of practice at the intersections
- 3. Share common challenges, best practices and productive approaches
- 4. Enhance understanding of interactions between systems engineering and social systems, and respective drivers of change
- 5. Develop work products for and monitor changes in systems engineering processes and practices
- 6. Grow in participation and effectiveness

# **Charter Summary**





### **WG SCOPE**

While the relationship between systems engineering and social science is an area not currently covered in systems engineering standards, handbooks and textbooks, connections between social systems and systems engineering are deep. Through joint work with applicable social science disciplines - such as anthropology, economics, geography, history, law, politics, psychology and sociology - SocWG seeks to 1) normalize the linkage of social science and systems engineering 2) apply sociological principles in the integration of teams and communities that are engineering systems and 3) improve integration of systems engineering with the social scientific evaluation of social and socio-technical systems. We aim to develop useful products that foster the understanding and application of social systems? relevance in systems engineering practice and the development of products for the implementation of social systems engineering in systems engineering processes. In addition, we aim to highlight, demonstrate and develop methods for how systems engineering can be applied in the understanding of social systems.

### **OUTCOMES (PRODUCTS/SERVICES)**

The outcomes of the SocWG include:

- 1. Develop working relationships with other working groups
- 2. Social systems primer for systems engineering
- 3. Guidelines for ethical Practice/best practices
- 4. Review and develop contributions to:
- 5. Tools Database
- 6. SEBoK
- 7. SE Handbook
- 8. SO standards, such as 15288 (TBD)
- 9. IS papers and Systems Engineering journal papers

## **IW Outcomes**





### IW OUTCOMES

- Feedback on the outline and a path forward for developing the the Social Systems Primer
- Introduction and feedback for development of the SDG Cluster
- Social System WG member recruitment, recruitment of authors and reviewers for the Social Systems Primer and recruitment of SDG Cluster members
- New initiative leads ideas for developing projects in the SDG Cluster
- Outreach to outside professional organizations and inreach to other INCOSE WGs

#### PLANNED ACTIVITIES AFTER IW

- Social Systems Primer outline finalization and matching authors to primer sections
- Development of the SDG Cluster with piloting Task Teams through the "Hive Journey"
- Foster self-organization of SDG Cluster roles and tasks
- Developing collaborations with INCOSE WGs and with outside professional organizations

### PLANNED WORK PRODUCTS AFTER IW

- Joint Issue of INSIGHT on the Social Dimensions of Systems Engineering (August 2021)
- INCOSE IS2022 papers on social systems and sustainability topics (November 2021)
- The SDG Cluster (Summer 2021)
- The Social System Primer (development in 2021, product in 2022)