



2014-2018 Strategic Plan

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1.0 Overview

The International Council on Systems Engineering (INCOSE) is a not-for-profit membership organization founded to develop and disseminate the interdisciplinary principles and practices that enable the realization of successful systems. INCOSE chartered the Colorado Front Range (CFR) Chapter in the early 1990s to serve INCOSE members and advance the systems engineering (SE) profession. Colorado has a strong engineering history highlighted by advanced research and development in aerospace, technology, medicine, energy, and natural resources. Advances and successful project implementation in these areas require investment in Systems Engineering; the INCOSE CFR Chapter aims to provide top notch resources to Systems Engineers, maximizing individual and organizational return on investment.

2.0 Purpose

This strategic plan is a capstone document designed to formalize the INCOSE CFR Chapter mission, vision, goals and objectives with a five-year perspective. It is derived from INCOSE strategic mandates and the CFR Chapter Bylaws. It is implemented through an annual Operating Plan developed by the Executive Committee. The Operating Plan is further supported by standing plans to promote continuity of Chapter operations for communications, membership, and technical programs.

3.0 Mission

3.1 INCOSE Mission: Share, promote, and advance the best of systems engineering from across the globe for the benefit of humanity and the planet.

3.2 CFR Chapter Mission: Share, promote, and advance the best of systems engineering from across the globe for the benefit of Colorado industry, academia, government, and its residents.

4.0 Vision

4.1 INCOSE Vision: The world's authority on Systems Engineering.

4.2 CFR Chapter Vision: The foremost experts in Colorado for applying Systems Engineering perspectives and practices.

5.0 Values

5.1 INCOSE Values

- Systems Thinking – thinking and acting to apply systems approaches to address complex challenges and thus to realize successful sustainable solutions.
- Pioneering and Innovation – taking opportunities ourselves or with partners to evolve systems approaches to meet future challenges.
- Learning and Development – life-long learning with a changing world through education and continuing professional development, covering both technical and leadership competencies.

- Respect, Diversity, Collaboration – building and maintaining respectful relationships internally and externally in order to enable effective collaboration across the diverse community.
- Individuals – the importance of people, their intellect and influencing skill, to support complex decisions and to deliver enduring change.
- Volunteerism – volunteers and staff working together to achieve our objectives and to deliver benefit to our members, individuals and society.

5.2 CFR Chapter Values

- Connect – We are the forum of choice for systems engineers to meet and share best practices
- Grow – Our technical programs increase the professional expertise and value of our members
- Inspire – We spark innovative systems engineering applications at our workplaces and communities

6.0 Goals

6.1 INCOSE Goals

- Provide a focal point for dissemination of systems engineering knowledge
- Promote international collaboration in systems engineering practice, education, and research
- Assure the establishment of competitive, scaleable professional standards in the practice of systems engineering.
- Improve the professional status of all persons engaged in the practice of systems engineering
- Encourage governmental and industrial support for research and educational programs that will improve the systems engineering process and its practice

6.2 CFR Chapter Goals

6.2.1 Serve our Chapter Members

- Provide opportunities for members to improve their professional capabilities.
- Provide opportunities for members to connect and interact with other persons in the Systems Engineering and related communities.
- Provide members with systems engineering (SE)-relevant presentations during the program year.
- Provide members with a communications channel for the exchange of the SE knowledge base.

6.2.2 Represent and Promote the Systems Engineering Profession

- Support the establishment, evaluation, and usage of Systems Engineering related standards and practices in our local workplaces.
- Grow partnerships with related professional organizations in Colorado

- Encourage members to submit papers on SE topics to professional journals and conferences, and to participate as panel members in SE-related seminars.
- Contribute to the establishment of professional standards for integrity in the practice of SE.

6.2.3 Support INCOSE Goals

- Maintain an active relationship with INCOSE at the regional and international levels
- Encourage membership participation on the INCOSE Technical Committees, Working Groups, and Interest Groups.
- Encourage membership participation at the annual INCOSE Symposium and the annual International Workshop.

7.0 Objectives

7.1 INCOSE 5-Year Objectives

- INCOSE will double its individual and corporate membership
- INCOSE will collaborate with TBP professional societies to yield jointly developed products and services with significant benefits to all collaborators.
- Universities will adopt INCOSE recommendations on how to integrate systems engineering and systems thinking into the education of all engineering students and Systems engineering graduate programs will implement GRCSE recommendations.
- INCOSE will publish the most impactful information on systems engineering in the world and hold the most impactful forums on SE.
- Half of the largest TBP companies in the world in the ground transportation, biomedical and healthcare, power and energy, and finance business sectors will seek to raise the systems engineering competency of their workforce, in part by employing INCOSE products and services.
- INCOSE will accelerate the transformation of systems engineering to a model based discipline

7.2 CFR Chapter 5-Year Objectives

7.2.1 To Serve our Chapter Members We Will:

- Conduct at least six monthly chapter meetings per program year with topics relevant to the systems engineering community of practice
- Conduct, or jointly conduct, at least one annual SE-related tutorial, workshop, seminar, or conference
- Keep them informed of Chapter activities and professional opportunities through direct email announcements and by maintaining our Chapter website with current information
- Publish a quarterly newsletter
- Conduct internal technical activities such as participation in the INCOSE Model-Based Systems Engineering Initiative through, for example, Challenge Team formation.
- Provide networking opportunities at our chapter meetings

- Hold an annual social networking meeting
- Conduct an annual membership survey to elicit input for chapter activities and direction
- Retain 90% of current members and grow new membership by 5% annually
- Resource Area Directors to represent members in the primary Colorado Springs, Denver, and Boulder metropolitan areas
- Provide a voice on the CFR Executive Committee (EXCOM) to represent members outside the primary metropolitan areas
- Establish a capability for web-based Chapter event participation for members outside of the three primary metropolitan areas

7.2.2 To Represent and Promote the Systems Engineering Profession We Will:

- Conduct at least two annual joint meetings with other local technical societies and organizations
- Maintain ambassadors to other local technical societies and organizations
- Sponsor and support INCOSE student divisions at the Air Force Academy, Colorado Technical University, and University of Colorado Boulder
- Open all chapter meetings and tutorials to non-members
- Financially sponsor National Engineers Week
- Financially sponsor local robotics competitions (such as FIRST LEGO League)
- Present systems engineering topics to at least one local academic institution annually
- Provide chapter meeting opportunities for members to dry run presentations to be made at conferences, seminars, etc.
- Conduct an SE-related panel discussion every other year.

7.2.3 To Support INCOSE Goals We Will:

- Designate and fund (within certain financial constraints for outside USA meetings) an official chapter representative to attend chapters meetings, or related meetings, at the annual INCOSE International Workshop and INCOSE International Symposium, and to report back to the CFR EXCOM
- Encourage and recognize membership participation in INCOSE Technical Committees, Working Groups, Interest Groups and standards-related committees
- Participate in the annual INCOSE Chapter Awards Program
- Participate in Americas Sector monthly teleconferences

8.0 Chapter Stakeholder Network

8.1 Education and Non-Profit Institutions

- Colorado Technical University
- United States Air Force Academy
- University of Colorado Boulder
- Colorado School of Mines

8.2 Other Professional Organizations

- American Institute of Aeronautics and Astronautics (AIAA)
- American Society for Quality (ASQ)
- Association of Information Technology Professionals (AITP)
- Project Management Institute (PMI) Pike's Peak Regional Chapter and Mile Hi Chapter
- Society of Women Engineers (SWE)
- Information Systems Security Association (ISSA)