

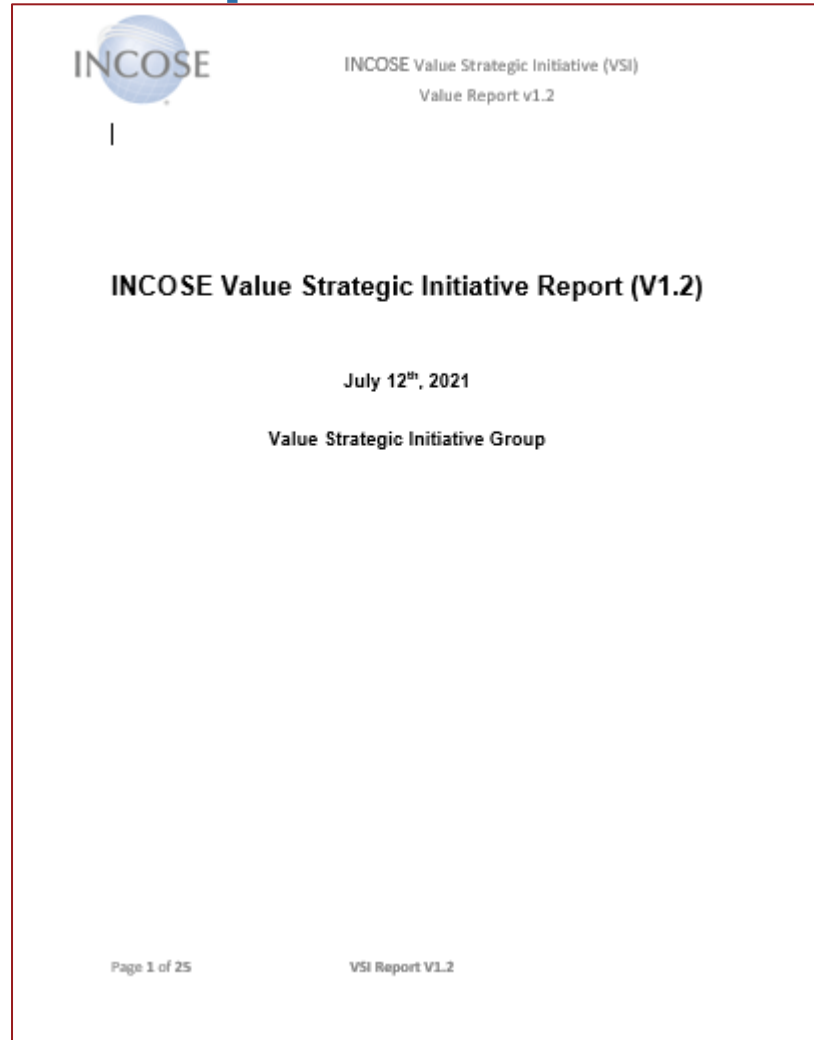


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Value Statements



VSI report



- This report presents a summary of the work to date including value statements, methodology and description of the taxonomy outlining what value statements are necessary and for what audience are they tailored.
- July 12, 2021 V1.2
- Download at:
INCOSE Connect ProgramsProject
ValueStrategicIntitiative
Deliverables

Tie to Value Stream and Progress to Date

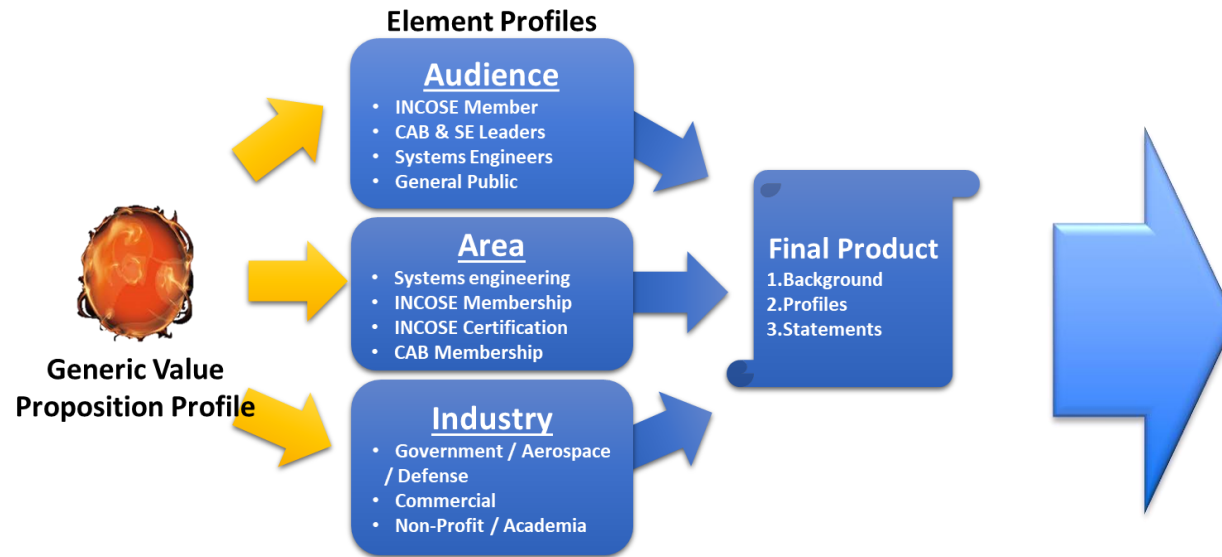
Value Stream	Value Statement Dependency
Product	<ul style="list-style-type: none"> Why should I utilize / depend on INCOSE generated materials? What materials are available from INCOSE and how do I access them? What information is available in the website and how do I navigate it?
Event	<ul style="list-style-type: none"> What does my organization gain from sponsoring employee participation? How can my organization further its goals with sponsorship / participation?
Certification	<ul style="list-style-type: none"> Why should I become certified and maintain / upgrade my certification? How does a certified workforce improve my organizational goals?
Membership	<ul style="list-style-type: none"> Why should I join INCOSE and/or maintain my membership Why should organization join INCOSE and how will it benefit bottom line
Training	<ul style="list-style-type: none"> What training is available for my organization? How do I evaluate my capabilities and identify required training gaps?

Initiative Goal	Results Achieved
Develop a process to distill the core characteristics of a value statement, define the needs of the community, develop value statements tailored from this set	Approach developed in 2019 Initial report released IS20
Develop value statement products that are tailored to specific needs and users	Initial set IS20 (version 0.1 of report). Final v1.2 IS21
Maintain those value statement products to keep up with changing needs and technology	Ongoing and future
Maintain communication within and outside INCOSE on these products to (1) promote INCOSE products, membership and certification, (2) promote systems engineering as a whole	VSI Chair serves as INCOSE's Value Strategic Champion and is tasked with coordinating these activities with INCOSE leadership
Maintain developed products, overcome miss conceptions regarding systems engineering, evolve with the state of the art and needs of the community	In progress

**Value is at the core of all INCOSE efforts -
without value there is no membership
without membership there is no INCOSE.**

VSI Development Process

Taxonomy Identifies Tailoring Needs



Core Characteristics are Target Independent

Process and initial statement activities completed Jan 2021. Next phase is deployment and maintenance

		Audience				
		Individual Member	Organizational Member	SE Leadership / Community	Non-SE community / General Public	
Value Statements	Individual Membership	X	X	X	Same as Ind.	3
	Organizational Membership		Common			1
	INCOSE Certification	Common across Audience				1
						5

				Industry			
				Government / Infrastructure / Aerospace / Defense	Commercial	Non-Profit / Research	
Systems Engineering				Common Across Audiences But Tailored to 3 Industry Categories			3
							3

Value Statements are Audience Dependent



Price will
double in 5
years

It will
make
you look
cool

V10 can perform at
12,000 rpm and has
about 1000 HP



Value Statements

Audience: Individual / Area: Individual Membership

Value of Individual Membership to individual

INCOSE membership provides education and training, professional networking, reference materials, and a place to share ideas. This is done at international and local chapter sponsored events, webinars, meetings and publications.

- Entry level members gain access to career guidance, learning and reference materials, networking and involvement opportunities;
- Mid-career members gain a platform to exchange ideas and enhance professional networks, and gain certification;
- Senior level members participate in the various working groups and can provide guidance and mentorship to the entire community.

- Comments:
 - It is important to recognize the age and career stage of the individual to the value of membership
 -

Value Statements

Audience: Organization Leadership / Area: Individual & Organizational Membership

Value of Individual Membership to SE leadership

SE leadership will find that enterprise employees participating in SE activities are better prepared as contributing team members. Employees assigned to work primarily in Systems Engineering have resources and opportunities for personal professional development and the solving of problems associated with their work in Systems Engineering.

Value of Organizational Membership to organization and leadership

As a critical element of INCOSE's leadership, the Corporate Advisory Board (CAB) member organizations receive complementary associate membership for their employees providing them access to training, standards, resource materials. CAB organizations are key decision makers with the ability to influence INCOSE's products and services for their particular needs

- Comments:
 - Organizational leadership (technical and upper management) makes final decisions regarding employee and organization participation through funding

Value Statements

Audience: Individual and Organization / Area: Certification

Value of Certification

Certified workforce increases efficiencies through common understanding and approach, increasing business and mission opportunities through community acceptance and recognition. INCOSE is the premier systems engineering worldwide organization that can support systems engineers across 35 different nations and through the world wide web.

- Comments:
 - Organizational leadership (technical and upper management) puts value on certified SE workforce based on return on investment and ability to create differential capability
 - Certification growth is dependent on perception of value to stakeholder (PMP Certification growth is tied to call for PMP certified PMs in job adds and RFI/RFPs)

Value Statements

Audience: General Public / Area: INCOSE

Value of INCOSE to general public

- 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 is designed to connect SE professionals with educational, networking, and career-advancement opportunities in the interest of developing the global community of systems engineers and systems approaches to problems. We are also focused on producing state-of-the-art work products that support and enhance this discipline's visibility in the world.
- With over 17000 members, 70 local chapters in over 35 countries, and almost 3500 INCOSE Systems Engineering Certified Professionals INCOSE is the premier provider of material, training, career development mentorship, undergraduate and graduate scholarship and sponsorship of STEM events, research and development,

- Why should anyone go to INCOSE for SE information?
 - If there are breaking news, where do you go? CNN? FOX?...
- Need to organize web portal to be competitive and professional
 - Easy to find information
 - Want to come back and look for more
- Need to capture audience

Value Statements

Audience: Gov/Infra/Aero/Defense / Area: Systems Engineering

Value of Systems Engineering to Gov/Infra/Aero/Defense Industry

- Systems Engineering provides a tailorable, systematic approach to all phases of a project, from mission analysis to disposition.
- Systems Engineering can accommodate different approaches including agile and traditional waterfall, and facilitate commonality and open architectures to ensure lower acquisition, maintenance and upgrade costs.
- By confirming correct and complete requirements and requirements allocation, the resulting design has fewer and less significant changes resulting in improved overall cost and schedule performance.

- Basis formed by existing studies on value of systems engineering
- Gov as consumer of this products
 - Drives R&D
 - Drives large scale efforts
 - Drives requirements and implementation of SE

Value Statements

Audience: Commercial/Non-Profit/R&D / Area: Systems Engineering

Value of Systems Engineering to Commercial Industry

Companies and other enterprises in commercial industry will benefit from the internal practice of professional Systems Engineering by having enhanced their capability for the development of innovative products and services for distribution in both mature and immature markets, in a more efficient and competitive manner

Value of Systems Engineering to Non-Profit / Research Industry

- A non-profit enterprise will benefit from the internal practice of professional Systems Engineering by having enhanced their capability for the development of innovative client services in a more efficient and competitive manner.
- An enterprise engaged in basic or applied research will benefit from the internal practice of professional Systems Engineering by having enhanced its capabilities for discovery and invention that supports technology development in a more effective manner.

- Basis formed by existing studies on value of systems engineering
- Non-gov led efforts driven by market forces and private investments

Activities to Increase Value

value subject	value audience	activities to increase value	measure of increased value	goals in 2021
Individual Membership	Entry Level Individual Member	<ul style="list-style-type: none"> Organized easy to navigate website Easy to navigate material download / store On demand short instructional videos On demand updated courseware on SE topics and tools Global hyperlinked schedule of activities and seminars Access to mentoring and Q&A with peers and senior members 	<ul style="list-style-type: none"> Entry level member retention Associate to full member conversion Website and library/store download track On demand video utilization Inter website channel communication traffic 	<ul style="list-style-type: none"> Involve VPI team in Website UX upgrade evaluations Involve VPI team in PDP MVP evaluation Reorganization/redesign of INCOSE store Develop mentoring strategy
Individual Membership	Mid-career Individual Member	<ul style="list-style-type: none"> Entry level + Certification training online Access to on demand reference material and documentation templates Access to working group reports and workings Posted workgroup participation needs 	<ul style="list-style-type: none"> Mid-career member retention Workgroup participation / activities / pubs IS Paper / publication increase IW/IS participation 	<ul style="list-style-type: none"> Support targeted working group initiatives: AI, STEM, visualization, policy
Individual Membership	Senior Individual Member	<ul style="list-style-type: none"> Mid-career+ Mentorship opportunities / channels INCOSE leadership opportunities INCOSE senior level recognition Future of SE development 	<ul style="list-style-type: none"> Increase in mentorship increase in leadership participation 	<ul style="list-style-type: none"> Develop mentoring strategy

Activities to Increase Value

value subject	value audience	activities to increase value	measure of increased value	goals in 2021
Individual Membership	SE Organization / Leadership	<ul style="list-style-type: none"> • these are individual and CAB activities 	<ul style="list-style-type: none"> • Same as individual and CAB MOP 	
Organizational Membership	Common	<ul style="list-style-type: none"> • Facilitate CAB activities • Perform study of value to CAB based on participation and activities 	<ul style="list-style-type: none"> • CAB participation • CAB agreement increase • CAB associate member retention • CAB corporation participation 	<ul style="list-style-type: none"> • participate in/use value statements in annual IMPACT brochure
INCOSE Certification	Common	<ul style="list-style-type: none"> • Work with acquirer organizations to increase demand for certified workforce in acquisition process • Work with universities to provide certification to graduating Sees • Work with other organizations such as PMP to exchange credentials and share ability to get certified 	<ul style="list-style-type: none"> • Certification increase • Certification retention 	<ul style="list-style-type: none"> • measure impact of academic equivalencies, on-line exams • “my PDP” evolution

Activities to Increase Value

value subject	value audience	activities to increase value	measure of increased value	goals in 2021
Systems Engineering	Gov/Infra/Aero/Defense Industry	<ul style="list-style-type: none"> • Ongoing work to establish value 	<ul style="list-style-type: none"> • Increase in SE across industry • Increase in demand for SE and DE across customer base 	<ul style="list-style-type: none"> • “SE meets DE” initiative (AstD Future)
Systems Engineering	Commercial Industry	<ul style="list-style-type: none"> • Expand ongoing DoD centric studies to commercial industry to establish value 	<ul style="list-style-type: none"> • Increase in SE and DE in commercial industry 	<ul style="list-style-type: none"> • “SE meets DE” initiative (AstD Future) • potential for communities of practice
Systems Engineering	Non-Profit / Research Industry	<ul style="list-style-type: none"> • Increase studies for tailoring of SE to small and R&D industrial base • CAB sponsorship / mentoring of small organizations • CAB study of small / R&D organization SE/DE utilization 	<ul style="list-style-type: none"> • Increase in related WG/CAB/publications 	<ul style="list-style-type: none"> • INCOSE initiative to engage/connect the global research network

Use example

From the inaugural STEM initiative meeting

- Value Proposition to INCOSE: introduce systems engineering practices to young and general audiences with the goal of: growing awareness of SE, introducing SE to general audience and potential candidates, grow INCOSE membership
- Value Proposition to Educators: gain knowledge on growing area along with materials for education, training, etc
- Value proposition for Students: learn about SE and become introduced to INCOSEs products and general membership

Summary

- Value Proposition Initiative has completed identified milestones through Jan 2021
- Next phase of implementation and maintenance requires INCOSE central leadership
- Ongoing activities to increase value presented and efforts ongoing

Background Slides

Taxonomy Definition

	Audience	Profile Characteristics
Internal	Individual Member	<ul style="list-style-type: none"> • Entry level members looking to learn and grow career goals and objectives; are media savvy and look for content that is valuable, well organized, and easy to navigate. • Mid-level members busy in their career looking for networking opportunities and ideas, supporting material and venues to publish their results. • Senior level members full of experience looking to actively participate in activities and working groups, networking and giving back
	Organizational Member	<ul style="list-style-type: none"> • Looking for employee training, solutions to complex emerging problems, authoritative source of reference material, ability to drive products and services and add value to their organization.
External	Systems Engineering Leadership and overall community	<ul style="list-style-type: none"> • Senior organization leaders making decisions about systems engineering, staffing training, employee participation in INCOSE • Not directly associated with INCOSE
	General Public	<ul style="list-style-type: none"> • Individuals and organization interested in systems engineering discipline and career paths • Definition and value of systems engineering, introduction material on well-organized intuitive website, INCOSE events, efforts, education and learning opportunities, INCOSE public reach, STEM, scholarship information

Industry Element	Profile Characteristics
Government / Infrastructure / Aerospace / Defense	<ul style="list-style-type: none"> • Large, long term investments • Safety driven • Societal / citizen driven • Complex integration / high technology levels / automation • Country GDP and security driven • Educated and up to date workforce / contractors
Commercial	<ul style="list-style-type: none"> • Societal / Market driven / Return on investment • Safety and competition driven / Revolutionary products • Environmental and federal regulatory driven • High technology levels / Automation / Fast time to market • Educated and up to date workforce / contractors
Non-profit and Academia	<ul style="list-style-type: none"> • Mission statement driven • Driven by research and/or service • Education / literature provider

Individual Member Audience Taxonomy Key Points

Audience	Individual Membership Statement Key Points	Organizational Membership Statement Key Points	INCOSE Certification Statement Key Points
Individual Member	<ul style="list-style-type: none"> • INCOSE members receive education and training, networking possibilities, reference materials, and a place to share ideas • Local chapter participation and activities. National events, webinars, meetings. INCOSE publications, website • Why should I join INCOSE and/or maintain my membership 	Not applicable to individual member	<ul style="list-style-type: none"> • INCOSE certification numbers have leveled off and industry does not see the value for certification without customers requiring it like they might do with PMP • INCOSE's certification structure provides a variety of individual participation. • Why should I maintain and upgrade my certification • Why should I become certified

Organizational Member Audience Taxonomy Key Points

Audience	Individual Membership Statement Key Points	Organizational Membership Statement Key Points	INCOSE Certification Statement Key Points
Organizational Member	Not applicable to individual member	<ul style="list-style-type: none"> CAB organizations receive membership for their employees, participation in CAB decision making and ability to drive INCOSE's products and services for their particular needs CAB corporations drive individual and associate membership as well as systems engineering needs through the CAB. They also sponsor events, studies and research opportunities CAB organizations want their employees to have access training, materials, and meeting opportunities, local chapter participation, national events, webinars, meetings, INCOSE publications, website, certification preparation, and local chapter participation Why should my organization join INCOSE and how will it benefit my mission purpose 	<ul style="list-style-type: none"> INCOSE provides organizations with an agreement to sponsor their own certification process

Systems Engineering Leadership / Community Audience Taxonomy Key Points

Audience	Individual Membership Statement Key Points	Organizational Membership Statement Key Points	INCOSE Certification Statement Key Points
Systems Engineering Leadership and overall community	<ul style="list-style-type: none"> • Certified employees require individual membership 	<ul style="list-style-type: none"> • Why should my organization join INCOSE and how will it benefit my mission statement? • Why should my non-profit or academic organization join INCOSE and how will it benefit my mission • What is INCOSE and what does it provide? 	<ul style="list-style-type: none"> • Certified workforce increases efficiencies through common understanding and approach • Certified workforce provide increased business / mission opportunities through community acceptance and recognition • Why should I sponsor employees to participate or become certified?

Systems Engineering Taxonomy Key Points

Audience	Government / Infrastructure / Aerospace / Defense	Commercial	Non-Profit / Research
General Public	<ul style="list-style-type: none"> Strong systems engineering implementation DoD has identified most program failures as lack of SE implementation Software development has received much attention within SE spectrum due to many failures Commonality and open architecture as well as low total ownership cost are key factors in this space Infrastructure / large construction not as developed in SE implementation 	<ul style="list-style-type: none"> Non-uniform or traditional systems engineering implementation Return on investment not as clear Need to cooperate with tool developers to ensure next generation applications meet needs 	<ul style="list-style-type: none"> Systems engineering research Need strong ties to ensure next generation of SEs meets complexity and short time to market demands Cooperation required to drive systems engineering approaches

Some common key points related to systems engineering across all industries are:

- Systems Engineering is misunderstood as a discipline that requires heavy process at the expense of results
- Benefits of systems engineering tailored to specific industries (my project) and its effect on ability to deliver the right product on time and on budget are not well understood
- INCOSE needs to provide well organized, authoritative, easy to access information to drive systems engineering



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