

Members NEWSLETTER

Q3 / SEPTEMBER 2025



The International Council on Systems Engineering

Introduction

A Message from the INCOSE President	4
A Message from the Executive Director	6
Editor-in-Chief's Letter	9
Key Findings from the 2025 Member Survey	10
Technical Operations Mid-Year Progress	13
INCOSE Foundation - Networking for a Stronger Future	15
IS2025	
INCOSE's 35th Annual International Symposium	18
Dr. Dinesh Verma, INCOSE Fellow, Receives the Pioneer Award	20
Celebrating a Legacy of Servant Leadership: C. Robert (Bob) Kenley Receives the INCOSE Founder's Award	22
Jean-Claude Roussel: INCOSE Fellow	24
INCOSE Services Enhanced Symposium Program	26
Update from INCOSE Canada Chapter	28
WMA Chapter Engages at the INCOSE International Symposium	32
Digital, Bold & Systems Driven: Four Key Insights from INCOSE IS 2025	34
Colorado Participation at INCOSE IS2025	36
Digital Engineering Information Exchange Working Group (DEIX WG) at INCOSE IS 2025 – Ottawa	38
DAWG at IS2025: Advancing Decision Analysis Data Model Practice and Community Engagement	40
Configuration Management Working Group at International Symposium at Ottawa - Uniting People and Perspectives Toward Inspiring Horizons	42
SaSIWG Ottawa Workshop – January 27 & 29: From Mission Refinement to Actionable Workstreams with Renewed Momentum	48
The Systems Thinking Roundtable – IS2025	50
Collaboration, Innovation, and Community: My Experience at the INCOSE Symposium	51
#LeadLikeHer Workshop at INCOSE Symposium 2025: A Celebration of Authentic Leadership	54
EWLSE Reception at IS2025	55
Bridging the Gap: How Model-Based Systems Engineering and Simulation Drive Innovation	57

Sustainability at the International Symposium 2025	59
Chapter Updates	
Growing SE Community in Thailand: Q3 and E-SAN Meeting Insights	66
JCOSE Activities at IS 2025 and Beyond	69
INCOSE Latam – Quarterly Update	70
INCOSE Brasil Update	71
Colorado Front Range Chapter	73
INCOSE Auburn Student Division Charts Ambitious Course for 2025-2026	74
Upcoming Highlights in Systems Engineering from the GfSE – TdSE® 2025 & SysML v2 Extravaganza	75
SWISSED25 – STORIES EXPERIENCED	77
Institute for Systems Engineering (IfSE) Update	79
AFIS Annual Conference is Changing Scale: Calls for Contributions Open	82
INCOSE Welcomes New Middle East and North Africa Chapter	84
Working Groups and Initiatives Updates	
Collaborating to Capture Her Footprint	88
Requirements Working Group Update	90
Celebrating a Decade of Empowered Women Leaders	93
Services, Products & Publications	
THE INCOSE SE LAB: Rapid Growth in Lab Users With More Participating Tool Vendors and Tools	100
Updates from INCOSE's Technical Leadership Institute	102
INCOSE Mentoring Services Update	104
Community Updates and Interests	
Object Management Group Approves Final Adoption of the SysML V2 Specification.	108
Systems, Thinking, Legal Frameworks, and Generative AI: Applying an Engineering Systems Perspective	110
Events	
Join Us in Singapore for AOSEC 2025!	114
Join Us for the SE Practical: Real-World Applications for Beginners	116



A MESSAGE FROM THE INCOSE PRESIDENT

A particular highlight of this northern summer and southern winter was our 35th International Symposium in Ottawa, Canada. Once again, this event marked a major milestone in the annual calendar of the global systems engineering community. This newsletter rightly covers many perspectives and reports from the symposium.



I would like to take this opportunity to emphasize key messages from two of the keynote speakers.

Robert Thirsk, a retired Canadian astronaut who has flown on two spaceflights—aboard the shuttle Columbia and the International Space Station—took us on an exciting journey through a simulated shuttle

mission. His key message, drawing from ice hockey, was: “Skate to where the puck is going, not where it has been.” He used this analogy to promote situational awareness, which in space missions is strengthened by extensive simulations to prepare for the unexpected. This principle applies equally to global leadership in preparing for future crises. The COVID-19 pandemic showed us how unprepared the world was. This is a valuable systems thinking lesson and very much in alignment with our Systems Engineering Vision 2035.

Langdon Morris, an award-winning innovator, futurist, and internationally recognized strategy consultant, focused his keynote on the *AI Future*. His core statement was that *“within 18 months the AI revolution will have such a significant impact that the competitive dynamics of the marketplace will have fundamentally changed.”* When he

asked the audience whether they agreed, about half did. I share this view, and it illustrates one of the major challenges I see for INCOSE: we must be prepared for the accelerating pace of change—not only in AI but across all domains that affect systems engineering.

Just a week before the symposium, OMG officially approved the SysML v2 specification for final adoption. This marks an essential step toward our strategic ambition of evolving systems engineering into a fully model-based discipline. Over seven years, INCOSE provided leadership and key contributions to the development of this specification, collaborating closely with OMG to enable the transition and adoption of MBSE with SysML v2. Yet in the spirit of the speed of change, this milestone is not the end—it is the beginning. We must move faster to show how model-based approaches and digital engineering concepts can be effectively embedded across the entire systems engineering lifecycle, while guiding our community in adapting them to diverse business domains and models.

From a broader perspective, the technical program of this year’s symposium strongly reflected the prominence of modeling, digital engineering, and AI in the context of systems engineering. It is encouraging to see growing awareness and recognition of these critical topics across the community.

With the Systems Engineering Vision 2035 and our new strategic plan as the backdrop for INCOSE’s “situational awareness,” the Board has been working with great intent since the beginning of the year. Guided by 14 priority tactics, we are shaping the organization to meet the challenges of the future.

Looking ahead, the final quarter of this year will again be packed with regional and national events across our global community. I encourage you to prepare your participation and to invite your networks to join as well. Together, we will continue to advance the discipline of systems engineering and evolve it toward the future.

Ralf Hartmann



A MESSAGE FROM THE EXECUTIVE DIRECTOR

INCOSE is a unique organization. At our heart, we are a membership association. We will continue to provide value to you, individually and corporately, through what some could call 'normal association' services like access to technical products, high-quality events, and services like mentoring. We recognize that we must 'up our game' to provide you with added value that makes a difference in your career and has an impact on your company.



While the world is becoming increasingly transactional, associations focus on engagement, social networking, and developing skills over time. We asked you to provide feedback about what you value and what else INCOSE can do to add value to you. Rest assured, your input is heard, and our plans prioritize your needs and wants. Look for INCOSE to more intentionally develop services, such as training, and refocus and expand our technical product delivery to further meet your needs.

However, many of you noted that being part of INCOSE, beyond the tangible value you receive, is important to you because it supports and grows the discipline you practice and research. Unlike many associations, INCOSE does not 'lobby' governments for specific legislation or laws. We do, however, advocate for systems engineering each and every day. As the trusted authority in systems engineering, INCOSE is uniquely positioned to carry the torch for our discipline, both by raising awareness of our current practices and by illuminating the path forward.

By being part of INCOSE, you and your companies are ensuring that our discipline will continue to grow and be recognized. This increases your opportunities, and it lays the foundation for generations to come. SE is relatively young, compared to other engineering disciplines. And not unlike the early days of Mechanical Engineering or Chemical Engineering, where a small group of advocates taught the value of the practice, we are doing this now for SE.

One could argue it would be easier to be one of the more 'established' disciplines... but what is the fun in that? Each day I wake up and relish the opportunity we have at INCOSE to leave

an indelible mark on the world. I invite you to continue to join us on this journey, both as a member and as an advocate for SE. As always, thank you for your membership!

Steve Records

“As the trusted authority in systems engineering, INCOSE is uniquely positioned to carry the torch for our discipline, both by raising awareness of our current practices and by illuminating the path forward”

[Back To Table of Content](#)

Got an INCOSE story to tell?

We'd love to hear it!

Email us at marcom@incose.net



Q3 2025

www.incose.org [in](#) [X](#) [ig](#) [f](#)

EDITOR-IN-CHIEF'S LETTER

Welcome to the International Symposium issue of the INCOSE Members Newsletter! The incredible success of the event is a testament to the hard work and dedication of so many, and I hope you'll enjoy the articles that fill these pages.



If you missed the Symposium (and even if you didn't!), you'll be able to read a variety of perspectives about the event, ranging from Chapter meetups to Working Group sessions to awards recognitions to reception recaps.

For me, the most special elements of the Symposium are the connections forged in the "moments between"—the hallway conversations, the shared meals, and the new relationships that are formed.

On one of the days, I had lunch with two gentlemen who had first met at the 2018 International Symposium. What started as a casual conversation during a break between sessions turned into a long-lasting professional collaboration. They've since co-authored a paper, helped each other with numerous projects, and are already planning their next joint presentation to submit for the 2026 International Symposium in Yokohama. They remind me that the true magic of the International Symposium isn't just in the technical

sessions or presentations—it's in the way our community comes alive through these connections.

The energy in Ottawa was palpable, a unique buzz created by the collaboration, new knowledge, and networking. The only common complaint I heard was how difficult it was to choose which of the many outstanding panels, presentations, and workshops to attend!

I hope that as you read these articles, you feel the same sense of connection and inspiration I did. I hope you'll see a bit of yourself in these stories and be reminded of the value of this incredible community. And if you haven't attended an INCOSE event yet, let this be your inspiration to make the most of your membership and get involved.

All the best,

Kelly Henseler

KEY FINDINGS FROM THE 2025 MEMBER SURVEY

By Steve Records, INCOSE Executive Director

In June of 2025, INCOSE launched its 2nd full member survey. We had nearly 2,000 responses to our survey, including over 11% of our regular members. We also fielded this survey to non-members and had over 100 non-INCOSE member systems engineers provide their perspective on INCOSE. The survey data, along with the comparison and contrast to the 2023 data, highlight some interesting points for INCOSE to consider, both strategically for the future and immediately to impact our current members and offerings.

There are a number of positives to be gleaned from these data:

- The majority of our members would recommend INCOSE and intend to renew their membership.
- Almost 81% of our members believe the value INCOSE provides them is

equal to or more than the cost of the membership dues (this includes a 10% increase in 'more value' than we saw in 2023).

- The professional network of INCOSE and certification drive membership.
- Strategically, developing new impactful services, like training, and increasing publications, both technical papers and new research, are areas that would have the largest impact on member value.

There were also several interesting findings to highlight opportunities for INCOSE:

- Most non-members and past members indicate membership dues are too high. This is especially true for countries in the process of developing SE.

- While certification is valued, creating additional awareness and connection to industry and standards would increase the value more.
- The survey respondents were skewed on a number of demographics, showing INCOSE to be primarily:
 - Tenured (10+ years in SE)
 - Older (late 30s plus)
 - Mid to late career individual contributor
 - No formal SE education
 - Aerospace and defense oriented
 - Male

We know that we can do much better in attracting and retaining a younger, more diverse member.

- As a professional development association, INCOSE can do a better job at helping members progress their careers (beyond technical proficiency) in finding a new job, building personal skills beyond SE, and understanding/improving organizational effectiveness.

As we continue to analyze the results, you will begin to see your input incorporated into future planning and actions. Our mission is to be the trusted authority in systems engineering. As a membership-driven association, a primary way we can achieve this is through intentional focus on our members, your needs, and the value INCOSE can provide.

When we launched this survey, we also communicated some prizes to be awarded for participation. I am very pleased to announce the following winners:

Non-members who won a free year's membership:

- Stefan Hahn - Bertrandt
- Lilian Honorato - Embraer
- Venkata Siva Prasad Bhagavatula - Medtronic
- Aliasghar Bataleblu – Free University of Bozen-Bolzano
- Yukata Ayame – Nissan

Members also won several free conference registrations:

- Urban Nilsson – Free registration to EMEASEC 2026 Conference in Linköping
- Eun Suk Suk – Free registration to IS2026 in Yokohama
- Deneah Hardie – Free registration to IW2026 in Torrance, CA
- Birgitte Kaae - Free registration to IS2026 in Yokohama
- Michelle Dobard – Free registration to Western States Regional Conference 2025 in Seattle
- Alvaro Moroni - Free registration to IW2026 in Torrance, CA
- Vincent Souffrant – Free registration to EMEASEC 2026 Conference in Linköping
- Henry Wu – Free Registration to AOSEC 2025 in Singapore
- Carols Boas - Free registration to IW2026 in Torrance, CA
- David Hafele - Free registration to IW2026 in Torrance, CA
- Julie Ann Delda - Free Registration to AOSEC 2025 in Singapore
- Guilherme Pimentel – Free registration to the 2026 South American SE tour

All the winners will be contacted to confirm their information for the prizes.



[Back To Table of Content](#)

CATIA MBSE Solutions from Dassault Systèmes

are now ISO 26262 certified for
road vehicle functional safety



Q3 2025

www.incose.org    

TECHNICAL OPERATIONS MID-YEAR PROGRESS

By Tami Katz, INCOSE Technical Director

A key goal for 2025 was to improve the operations of the Tech Ops organization in multiple areas. In the last two newsletters I reported on how we have been addressing many of these goals, today I will give an overall assessment of our progress to date:

- For improving the infrastructure for Working Groups we have established and maintained a resource, the Technical Operations iNet page, <https://www.incose.org/inet/technical-operations>, which provides answers to Frequently Asked Questions, information on upcoming meetings, links to minutes from past meetings, and several resources for Working Group Leaders.
- For our effort on developing the FuSE Roadmap, the Vision and Roadmaps project team has been preparing a draft roadmap to share at the next INCOSE Board of Directors Meeting, with plans to roll out the FuSE Roadmap at IW2026. This will enable us to assess gaps against this plan for current and existing products, enabling us to identify new products for Working Groups or Project Teams to develop.
- With our Working Group and Project Team alignment with the INCOSE strategic objectives, this is now key criterion for all charter and product plan reviews.
- To improve the pace of our technical products in the pipeline, our volunteer leaders and INCOSE staff review the technical product tracking tool for status frequently, and we present the efforts to the Working Groups at every monthly meeting to raise awareness of all products in development. We are also working with INCOSE staff to obtain help with product coordination and identification of further support needed by the Working Groups.
- To improve our product review process, we have identified participation needed with our Technical Review Assistant Directors to ensure we receive support in the independent review of our completed technical products. We are implementing independent reviews to ensure documents and models all meet quality and content standards prior to publication.
- For the goal of enabling cohesive Working Group inputs to the SEBoK and SE Handbook we have tasked an Assistant Director to align the needs of the SEBoK editors with our working group leaders to ensure continued support to review and create SEBoK content, and this method will be in place when our SE Handbook Editorial team starts efforts on the next version of the Handbook.
- Our Standards Development

- volunteer leaders are supporting a task team established by the Board of Directors to investigate INCOSE’s role in the development and production of standards, and they are planning to provide a recommendation for the Q4 Board Meeting.
- In support of improving Working Group Alignment with the International Symposium Technical Program we have established Tech Ops representation in each IS technical program committee.

For the last objective I wanted to highlight our IS2025 Tech Ops track, which included details from many of our Working Groups to highlight their current

efforts and expected outcomes. Topics ranged from activities supporting FuSE (Future of Systems Engineering), AI (SE4AI, AI4SE), Dealing with Uncertainty, a panel discussing Complex and Adaptive Systems (pictured below), Sustainability, and SE for Infrastructure. I wanted to thank our working group volunteers for supporting this invited content, and encourage each working group to consider contributing content and papers to IS2026.



INCOSE FOUNDATION - NETWORKING FOR A STRONGER FUTURE

By Dorothy Benveniste

Collaboration fuels progress. Our IS2025 conversations with INCOSE leaders are opening doors for systems engineering students around the globe to help fuel systems engineering worldwide.

- [Dr. Quoc Do](#), INCOSE Director, Asia-Oceania Sector III Director, who is eager for support to prospective universities in Thailand with strong engineering programs that may be enhanced with systems engineering education. The emerging Thailand Chapter may provide a foundation for regional systems engineering professional development and networking, with the potential to build a regional systems engineering community.
- [Ricardo Valerdi](#), INCOSE Fellow and Professor, University of Arizona, has connections to a leading private university in Mexico with a strong

industrial engineering degree. Universities are interested in expanding the current systems engineering curriculum to train an immediately employable workforce for the local industrial base in the aerospace, automotive, and electronics sectors. Interest includes CAB memberships and plans to host a regional event for Latin American engineers together with the INCOSE [Latin America chapter](#) and faculty development programs aligned with the INCOSE Competency Framework

We invite INCOSE members to identify STEM programs or universities that need a bit of funding to help jumpstart systems engineering initiatives.

Got an idea? We want to hear from you! Please email us at Foundation@incose.net





Recap



INCOSE'S 35TH ANNUAL INTERNATIONAL SYMPOSIUM

From a systems-thinking journey through time to collaborative LEGO builds to a panel on how the ecological realm can inform systems design, INCOSE's 35th Annual International Symposium in Ottawa, Canada, was an unforgettable experience, uniting 668 in-person and 205 virtual attendees for a week of electrifying insights, groundbreaking keynotes, and magical connections.

In-Depth Tutorials and Business Meetings

The symposium kicked off with two days of intensive tutorials, covering a wide range of topics, including SE Fundamentals, Cybersecurity, SysML V2, and more. These sessions provided invaluable opportunities for attendees to deepen their knowledge and stay current with the latest trends in the field. Concurrently, a series of business meetings was held, enabling the organization to conduct crucial global business and strategic planning in person.

Insightful Keynotes and Engaging Activities

The official symposium opened with a compelling plenary session featuring keynote speaker Langdon Morris. He captivated the audience with his insights on the future of Systems Engineering in the age of AI, sparking meaningful conversations about how our discipline will evolve.

A highlight of the first day was the "Zero Defect Answers" gameshow, a fun and competitive event modeled after the popular show *Pointless*. Attendees bravely took to the stage to test their knowledge of niche INCOSE and Systems Engineering facts, providing both entertainment and a friendly challenge. Congratulations to Team Brazil for winning!

Tuesday's plenary featured Jon Reijneveld, Co-Founder and Chief Engineer at The Exploration Company (TEC), who shared a candid look at TEC's mission launches. His presentation emphasized a "back to fundamentals" approach to Systems Engineering, a powerful reminder of the importance of core principles. That evening, the Empowering Women Leaders in SE (EWLSE) Working Group Reception celebrated its 10th anniversary, a significant milestone for a group dedicated to supporting and promoting women in the field.

The awe-inspiring plenary on Wednesday featured renowned Canadian astronaut Dr. Robert Thirsk. He held the audience on the edge of their seats with a minute-by-minute account of a space shuttle abort landing—only to reveal at the end that it was all a detailed simulation in the safety of Houston's controlled lab. Dr. Thirsk's generosity in staying for hours afterward to sign autographs and take pictures reminded us all of how our work

contributes to the "awe" of human achievement.

The evening culminated in the spectacular Connect and Dine banquet. Attendees dressed in their finest and enjoyed a magnificent meal in the Trillium ballroom, with floor-to-ceiling windows offering a breathtaking view of Parliament Hill and the Ottawa River. The evening was a magical blend of networking, entertainment from a magician, and a grand finale of fireworks over the canal.

On the final day, the closing plenary featured keynote speaker Dr. William (Willy) Donaldson. He took us on a systems engineering journey, sharing the ancient, the merely old, and the current wisdom he had gained from his mentors. Dr. Donaldson's key message was that we can learn from past experiences and maximize our potential if we embrace the "socio and business alongside the engineering and technical." His closing thoughts left us all with a renewed sense of purpose.

We hope everyone left the symposium with new knowledge, valuable connections, and a reinvigorated passion for progress and learning. We're already looking forward to seeing you all in Yokohama, Japan, in 2026!

To see the full gallery of official Symposium photos, visit the photo gallery on the iNet [here](#).



DR. DINESH VERMA, INCOSE FELLOW, RECEIVES THE PIONEER AWARD

The 35th annual International Symposium celebrated a true visionary in the field of systems engineering, presenting the INCOSE Pioneer Award to Dr. Dinesh Verma, INCOSE Fellow. This prestigious award recognizes individuals who have made unique and outstanding contributions to society through the application of systems engineering. Dr. Verma's selection is a testament to his transformative leadership, particularly in establishing and growing the Systems Engineering Research Center (SERC) into a powerhouse for systems engineering research.

A National Resource for Systems Thinking

Under Dr. Verma's guidance as its Executive Director, the SERC has

become a critical resource for the U.S. Department of Defense (DoD). He was instrumental in its formation and has led its growth from a nascent idea to a thriving operation that leverages the expertise of over 20 collaborating universities. His tireless efforts in recruiting top-tier researchers have not only advanced the DoD's R&D goals but have also cemented the SERC's role as an unparalleled force for leadership and citizenship in the systems engineering community.

Dr. Verma's exceptional ability to foster collaboration is widely recognized. He is personally credited with forging a strong relationship between INCOSE and the SERC, beginning with the RT 1: Body of Knowledge and Graduate Reference Curriculum research project. This project led to the long-overdue update of the

Systems Engineering Body of Knowledge (SEBoK) and the establishment of the Graduate Reference Curriculum for Systems Engineering (GRCSE). Dr. Verma played a key role in negotiating the alliance between SERC, INCOSE, and IEEE to govern the SEBoK's evolution, ensuring it remains relevant for years to come.

Cultivating Future Innovators

Beyond his work with the SERC, Dr. Verma's influence is deeply felt in academia. As a Professor at the Stevens Institute of Technology and the founding Dean of the School of Systems and Enterprises, he created an innovative educational program that has become a model for universities worldwide. His personal research spans critical areas like conceptual system design, life cycle costing, and system architecture, and he holds three patents. He is also one of the founders of the Conference on Systems Engineering Research (CSER), which has provided an annual global forum for faculty and graduate student research since 2003, complementing the practice-focused papers at the INCOSE International Symposium.

His passion for education extends to workforce development. He recently led the startup of the Defense Civilian Training Center (DCTC), a talent development program that prepares students for DoD acquisition careers. Under his leadership, the program launched in a matter of months, engaging nearly 200 students with a unique curriculum that emphasizes systems thinking and problem-solving.

Dr. Verma's pioneering work has not only advanced the discipline through projects such as the SERC, CSER, and SEBoK, but has also contributed over \$200 million in research to the field. INCOSE is proud to honor a true pioneer whose collaborative spirit and visionary leadership have uniquely enhanced our profession and society.



"It is an honor to be recognized on behalf of the SERC team - 15 years ago, we set out to develop a national network for systems research and impact - with colleagues across two dozen of the top universities in the US - and it has been a remarkable journey. This award also made me think about my mentors within INCOSE over the years - Ben Blanchard, Wolt Fabrycky, Bill Rouse, Andy Sage, Brian Mar, Terry Bahill, Azad Madni, Bud Lawson, and John Boardman. I am very grateful for it."
– Dr. Dinesh Verma, INCOSE Fellow



CELEBRATING A LEGACY OF SERVANT LEADERSHIP: C. ROBERT (BOB) KENLEY RECEIVES THE INCOSE FOUNDER'S AWARD

During the 35th annual International Symposium's plenary, INCOSE presented its prestigious Founder's Award to C. Robert (Bob) Kenley, a distinguished Professor at Purdue University and a long-standing INCOSE member and Fellow. The Founder's Award is intended to recognize outstanding individual contributions to INCOSE, be they a single event or significant events over a sustained period of service. For nearly three decades, Bob Kenley has embodied this ideal, tirelessly promoting the discipline of systems engineering across academia, industry, and government.

A Champion for the Next Generation of Systems Engineers

Bob's impact is perhaps most profoundly felt in his role as an educator and mentor. As a Professor of Engineering Practice in the School of Industrial Engineering at Purdue, he was integral to developing the university's systems engineering curriculum, particularly in Model-Based Systems Engineering (MBSE). His work was key to establishing the INCOSE Academic Equivalency at Purdue, providing students with a direct path to professional recognition.

Beyond the classroom, Bob is the dedicated faculty advisor for PurSysT (Purdue Systems Thinkers), the student

division of INCOSE at Purdue. He is passionate about engaging students from all backgrounds, including non-STEM majors, in the principles of systems engineering. His unique, experience-based approach to teaching, honed over 25 years of professional work in space systems, provides students with invaluable real-world insights. As one Purdue article noted, his pragmatic and holistic approach to systems thinking is often credited with the success of his students' projects.



A Pillar of INCOSE

Bob's commitment to INCOSE is both long-standing and wide-ranging. An active member since 1995, he has held numerous leadership positions, ranging from local chapter to international levels. He has served as the Editor of *INSIGHT* magazine (2006-2014), INCOSE Secretary (2007-2011), and Chair of the Ways and Means Committee (1999-2007). Currently, he serves as the VP for Chapter Outreach for the INCOSE Crossroads of America Chapter and as the Chair of the INCOSE Fellows Committee.

His nomination for the Founder's Award was supported by several letters of support from a diverse group of INCOSE Fellows, Past Presidents, and university colleagues, a testament to the respect and admiration he has earned throughout the community.

Thank you, Bob, for your decades of exceptional and continuous support, and for your servant leadership that has inspired our future systems engineers.



"I joined INCOSE because I saw that my bosses at work were joining, and I quickly decided that I should contribute to help this collection of experts establish a community that advances the state of the art and practice in the field. The bonus was a collection of kindred spirits from around the globe – the efforts of those who wrote letters of support was a very touching addition to friendships that have been a reward of their own." – Bob Kenley

Find your next career move at the

INCOSE Career Center

Visit careers.incose.org

Corporate Sponsor



JEAN-CLAUDE ROUSSEL: INCOSE FELLOW

At the recent 35th annual International Symposium, INCOSE celebrated the induction of Jean-Claude Roussel as a new INCOSE Fellow. This prestigious honor recognizes individuals who have made significant, long-lasting contributions to the practice and principles of systems engineering. Roussel was recognized for “advancement of the application of systems engineering methodology within his company and across the aerospace industry.” Roussel’s career is a testament to this, defined by his unwavering passion for the field and his dedication to advancing systems engineering methodology.

Advancing the Field Through Collaboration and Education

For over two decades, Roussel has been a powerful force in the systems engineering community, consistently demonstrating a commitment to clarity, accuracy, and education. He has a remarkable talent for making complex, nuanced topics in systems engineering and project management accessible to a broader audience. This dedication to sharing knowledge has been a hallmark of his career.

He has been a driving force behind key collaborative projects that have shaped the global systems engineering landscape. His work as a co-author on both INCOSE Systems Engineering Handbook V4 and V5 has helped define best practices and guide professionals around the world. He also served as the

project leader for the ongoing French translation of the V5 Handbook, a crucial effort to make this vital resource accessible to the French-speaking population globally.

At Airbus, Roussel was a key figure in creating and deploying the company’s policy for systems engineering and served as a Systems Engineering Senior Expert. In this capacity, he actively engaged in external projects, including the BKCASE project and co-authoring the SEBoK.

A passionate educator, Roussel has taught systems engineering in universities and companies for decades. He has helped countless students and engineers develop a strong foundation in SE and prepare for their INCOSE certification exams, cementing his role as a mentor and guide for the next generation of systems professionals.

Through his leadership, his work on defining seminal documents, and his tireless efforts to educate, Jean-Claude Roussel embodies the spirit of an INCOSE Fellow. His contributions have not only advanced systems engineering as a discipline but have also strengthened the global community of practitioners who rely on it.

A Global Champion of Systems Engineering

Above and beyond his fellows-worthy advancements in the field, Roussel’s influence extends to leadership positions with INCOSE.



His global impact is especially evident through his influential leadership roles. One example is his role as INCOSE’s Technical Director from 2011 to 2012, during which he worked to invigorate working groups, ensuring they had clear objectives and even facilitated the creation of new ones, such as the Product Line Engineering Working Group. This period also saw the signing of the first Memorandum of Understanding between INCOSE and PMI, a significant step in aligning two crucial professional organizations.

Later, as Director of the EMEA Sector from 2014 to 2018, Roussel played a key role in its growth. He championed the creation of new chapters, including those in Poland and Denmark, and instituted the first-ever EMEA Workshop in Paris in 2015, which has become a recurring event. This dedication to fostering new and emerging chapters earned him the Outstanding Service Award in 2018.



"I have been very delighted and proud of my nomination as INCOSE Fellow announced during the IS 2025 at Ottawa, it would have been better to be present, but unfortunately, this was not possible at this time for personal reasons. This nomination means a lot for me; this is a consecration of my deep involvement in Systems Engineering and INCOSE since 25 years."

– Jean-Claude Roussel

[Back To Table of Content](#)

INCOSE SERVICES ENHANCED SYMPOSIUM PROGRAM

By Heidi L. Davidz, INCOSE Services Director

During the 2025 INCOSE International Symposium, the Services Committee enhanced program offerings. The Certification team offered two opportunities to take the Systems Engineering Professional (SEP) knowledge exam. An Academic Equivalency Roundtable Discussion was held to provide additional information on the academic equivalency process. Information on Certification can be found on the webpage, <https://www.incose.org/certification>.

The Technical Leadership Institute (TLI) held both technical and social engagements. In the topical engagement with plenary speaker Langdon Morris, participants were the first to use his new workbook, “AI Impact and Strategy Workbook.” In addition, participants received copies of his books, “The AI Nation” and “The AI Future.” The second topical engagement was with plenary speaker Robert Thirsk

who described “Expeditionary Behavior.” He described how astronauts prepare for long-duration spaceflight and how these principles can help one be more effective on a team. Additional information on TLI can be found on the webpage, <https://www.incose.org/tli>.

The Education and Training team provided updates in three sessions. At the Board of Directors meeting, a brief update on the training task force was presented. During the Corporate Advisory Board (CAB) meeting, the team provided information on the training task force and an upskilling architecture that is in work. A more detailed brief on the training task force was presented at an open session. Updates for the Professional Development Portal (PDP) were discussed. Additional information on the PDP can be found at, <https://www.incose.org/pdp>.

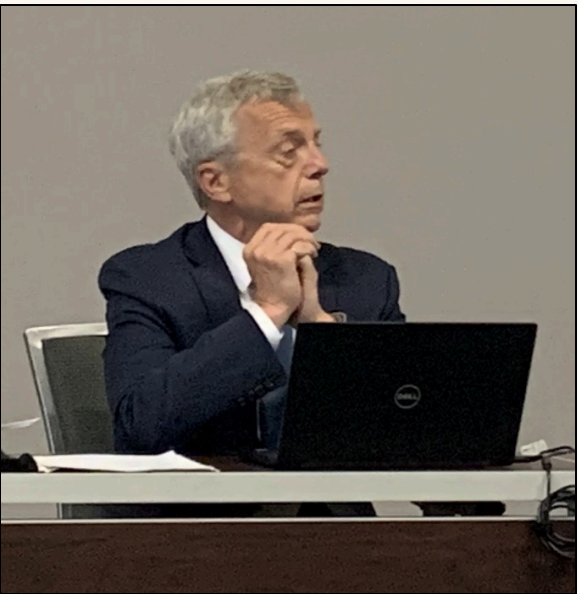


Figure 2: Robert Thirsk Sharing Lessons from Expeditionary Behavior

Multiple SE Laboratory vendors were in attendance, and participation included sponsoring the event, aiding tutorials,

and hosting dinners. See the SE Lab article for a detailed update on the latest activity. If you or your working group would like to utilize these tools, reference the website at, <https://www.incose.org/selab>.

Conversations on the Mentoring Program and Systems Engineering Tools Database were also held. More information on Services can be found at, <https://www.incose.org/communities/services-committee>. If you have questions on individual offerings or if you would like to get involved and contribute, please do reach out. We encourage you to fully utilize the benefits included in INCOSE membership.

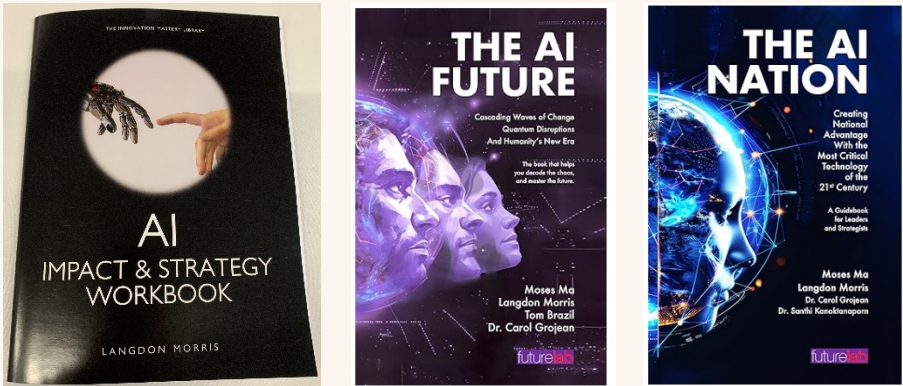


Figure 1: TLI Engagement Distributed Langdon Morris Books for Participants

**INNOSLATE**
DEVELOPED BY 

Webinar

Cybersecurity in Systems Engineering:
Protecting Your Digital Projects

TUESDAY, OCTOBER 21ST | 11:00 AM ET

REGISTER 

UPDATE FROM INCOSE CANADA CHAPTER

INCOSE IS2025 Highlights

The INCOSE International Symposium 2025 in Ottawa brought together global systems engineering professionals for six vibrant days of learning and networking. With 160+ presentations, workshops, and tutorials, attendees had rich opportunities to grow and connect. INCOSE Canada members actively contributed to the event's success, from presenting to participating in engaging activities—including a lively gameshow!

Platinum Chapter Award: We're thrilled to announce that INCOSE Canada received the prestigious Platinum Award, recognizing our chapter's dedication to advancing systems engineering in Canada. A heartfelt thank you to our board members for their passion and commitment!



Ivan Rodrigues (left) served as the emcee for the symposium, bringing his expertise and engaging presence to the stage. His dynamic hosting

helped create a memorable and energizing experience for all attendees. **Stéphane Lacrampe** led a hands-on tutorial introducing SysML V2, the next-gen modeling language from OMG. Using a flashlight system example, attendees explored key innovations like KerML, dual syntax, and extensibility. The session used SysON, an open-source web-based modeling tool, to make SysML V2 approachable for newcomers.

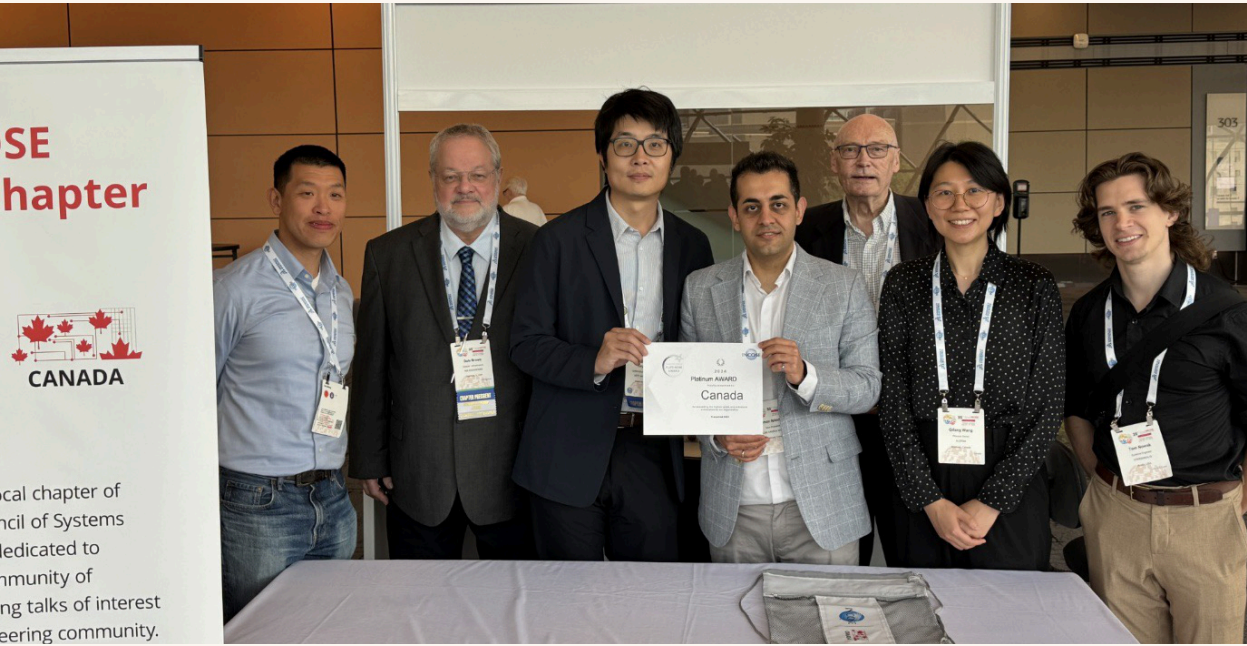


Spotlight: QiFang Wang

Representing the INCOSE Canada Chapter, Qifang Wang joined the Empowering Women Leaders in Systems

Engineering (EWLSE) working group during the 35th Annual INCOSE International Symposium in Ottawa. Her participation highlights INCOSE Canada's commitment to advancing diversity and leadership in systems engineering.

EWLSE's mission is to foster an inclusive environment where women and men are equitably represented as leaders in the field. Learn more at incose.org/ewlse



INCOSE President Elect, Michael Watson pictured above at the IS INCOSE Canada Booth



Transportation Infrastructure Workshop – July 2025

Hosted in Ottawa, ON, the inaugural Transportation Infrastructure Workshop brought together systems engineering professionals and thought leaders from across the transportation sector. With strong support from sponsors Mott MacDonald, Jama Software, and Parsons Corporation, and partners including APTA SLE, UNICO Engineering, Obeo, and TRACCS, the event was a powerful call to action.

Participants identified four key focus areas for immediate progress:

- Integration and Interface Management
- Requirements and Standards
- Competency and Education
- Design Review and Quality Assurance

Thank you to all who contributed—this is just the beginning of a vital conversation for the future of transportation infrastructure.

Over 20 attendees signed up to join task forces dedicated to tackling these critical focus areas. Interested in getting involved? We'd love to have you—reach out to join the momentum!

SEP Study Groups



The INCOSE Canada Chapter is pleased to announce another SEP Certification Study Group starting on September 4, 2025. The survey results of the latest SEP Certification Study Group show that:

- 83% recommend it to a friend or colleague
- 100% believed the Study Group achieved its objectives and met their expectations

If you're interested in learning more and joining the next SEP Certification Study Group, please visit:
<https://lnkd.in/dVKU99qe>

Reimbursement and Award (\$70 + \$30)
In alignment with the Canada Chapter's Strategic and Operational Plans, we offer reimbursement of the SEP Certification Study Group fee (\$70), along with a \$30 award for participating members.

Spaces are limited, so early registration is encouraged!

INCOSE CANADA STUDENT COMPETITION

Make an Impact with Your Idea!

Are you a Canadian engineering student working on a team project? Then the INCOSE Canada Chapter Student Competition may be right for you!

Our competition is an opportunity to compete for up to **\$3,000** in prizes, while also benefiting from mentorship and networking opportunities with systems engineers.

Applications close October 1st 2025!

FREE DOWNLOAD

CHECK OUT IN FOCUS

YOUR MONTHLY INCOSE
INSIDER'S GUIDE

DOWNLOAD HERE

WMA CHAPTER ENGAGES AT THE INCOSE INTERNATIONAL SYMPOSIUM

The Washington Metro Area (WMA) Chapter was pleased to attend this year’s INCOSE International Symposium, where we had the opportunity to connect with fellow systems engineers from around the globe. The event provided an excellent forum for professional exchange, collaboration, and inspiration.

One of the highlights of our participation was dining with the Americas Sector Director and fellow INCOSE chapter leaders. This gathering allowed us to share experiences, celebrate what’s working well across our chapters, and

collaboratively brainstorm ways to enhance areas needing improvement. These peer-to-peer engagements continue to foster a strong and united systems engineering community.

The symposium offered a diverse array of timely and thought-provoking sessions, with a significant focus on Artificial Intelligence (AI). As one presenter aptly noted, we are now firmly in the “AI Decade, 2023– 2032.” Among the standout presentations was Langdon Morris’s compelling talk, “AI and the Future of Systems Engineering.” Morris eloquently explored the intersection of AI and systems

engineering, and how these evolving technologies are reshaping our profession and the broader world. A respected thought leader in this field, Morris is the author of two popular books: *The AI Nation* and *The AI Future*.

Several sessions also resonated with a key WMA initiative: advocating for the creation of a dedicated federal job series for systems engineers. Talks such as “Why Systems Engineering Skills are Critical for Successful Leadership of Large Complex Projects” and “Systems Engineering Roles for a New Era” underscored the strategic value systems engineers bring to complex, high-impact projects— particularly in the public sector.

We invite INCOSE members who are interested in supporting this important effort to join our campaign. To get involved, please contact WMA Past President Gary Thomas (gary.thomas@incose.net), WMA President Dr. Lowanda Studevent (lowanda.studevent@incose.net), or Director-at-Large Bill Scheible (bill.scheible@incose.net). Together, we can help bring greater recognition and opportunity to the systems engineering profession.



Left to Right: Paul DeMarco, Communications Chair; Dr. Lowanda Studevent, President; Kathleen Flynn, Event Coordinator; Bill Scheible, Director-at-Large.



Your next giant leap is online Earn your Master's in Systems Engineering

Purdue University's online Master of Science in Systems Engineering offers a flexible, interdisciplinary curriculum for professionals looking to advance their expertise in complex system design, analysis and optimization. Developed with Purdue's Systems Collaboratory, this program emphasizes leadership, technical communication and cross-disciplinary problem-solving, allowing students to tailor their learning experience to career goals while gaining cutting-edge knowledge applicable to aerospace, manufacturing and defense industries.

- Control Systems
- Engineering Economic Analysis
- Game Theory
- Human Factors
- Machine Learning
- Multidisciplinary Design Optimization
- Practical Systems Thinking
- Project Management
- Reliability Based Design

LEARN MORE



[Back To Table of Content](#)

DIGITAL, BOLD & SYSTEMS DRIVEN: FOUR KEY INSIGHTS FROM INCOSE IS 2025

By Carla Sayan, Ph.D., CSEP, Carla.Sayan@incose.net

INCOSE IS 2025 in Ottawa delivered a clear message: systems engineering is at an inflection point. As a CAB delegate and TLI member, I witnessed four transformative insights emerged: AI adoption timelines have compressed from a comfortable decade-long journey to an 18-month sprint, SysML v2 [1] is moving rapidly from standard to practice, technical leadership emerges as the measurable differentiator between success and failure, and community infrastructure models prove essential for sustainable transformation. Together, these form an interconnected system of change that's reshaping how we work.

Langdon Morris keynote redefined the timeline of change with stark clarity: "AI will reshape established structures and organizations in 18 months, not 10 years." This isn't distant speculation but reality. Morris noted that professionals with PhDs are already deep into AI adoption, using these tools to accelerate research and development. Morris projected rapid acceleration: agent networks by 2026, agentic robotics in 2027-2028 and AGI potentially operational by 2030. For systems engineers, the message resonates clearly, the AI Decade is here and will redefine how we practice systems engineering. Organizations that hesitate risk becoming obsolete before they recognize the shift has occurred.

Equally transformative, OMG's final adoption of SysML v2, built on KerML (Kernel Modeling Language) instead of UML, removes the graphics-only paradigm that constrained the SE practice for two decades. The textual notation isn't just convenient, it's transformative. Two engineers can resolve a merge conflict in their system model using standard Git commands, capabilities not possibly with v1. A DoD sponsored project presented at IS2025 [2] showcased a SysML v1 to v2 conversion approach now being adopted by several vendors to guide transformation roadmaps. With standards ratified and vendors investing heavily in community training and tooling, SysML v2 is advancing from specification to practice. Early adopters anticipate fundamental shifts in collaboration. In the V2 tool track, participants emphasized that test and software engineers will contribute to system models, noting that textual notation will break down the wall between systems, test, and software engineering.

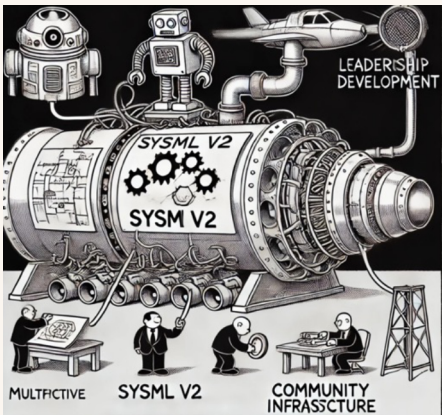
The INCOSE Technical Leadership Institute (TLI) [3] sessions drew strong crowds and for good reasons. John Maxwell's quote echoed through the presentations "Leadership is a verb, not a title". Although often assumed, holding a position does not make a leader. Since 2015, TLI has shown that cultivating technical leadership yields measurable benefits for individuals and organizations. At IS 2025, two TLI engagements

underscored this: Langdon Morris [4] examined AI's disruptive trajectory and its implications for systems leaders, while retired astronaut Dr. Robert Thirsk [5] emphasized resilience, empathy, and responsibility as qualities that define leadership in high-consequence environments.

NASA's Hopes and Fears of Digital Engineering presentation [6] revealed another dimension of emotions behind resistance to digital transformation. Group therapy-style sessions with engineers challenged assumptions about change management and reminded us to stand up for our champions the early adopters who shoulder the burden of testing new ground and absorbing skepticism. Supporting them is essential to lasting adoption.

North Texas receipt of the Platinum Circle Award for partnering with local CAB members to sponsor a free SEP Certification Preparation Course and Paper Exam underscored a critical systems engineering leadership principle: sustainable transformation is driven by community infrastructure models, not individual effort. The North Texas Model reframed certification as a shared asset by absorbing costs, mobilizing volunteers and coordinating logistics.

INCOSE IS 2025 demonstrated that AI adoption, SysML v2, leadership development, and community infrastructure models are multiplicative forces, a principle the North Texas Chapter is putting into practice by showing that sustained relevance in the digital era depends on integrating these forces into coherent practice.



References

- [1] "Object Management Group Approves Final Adoption of the SysML V2 Specification | Object Management Group," OMG. Accessed: Aug. 17, 2025. [Online]. Available: <https://www.omg.org/news/releases/pr2025/07-21-25.htm>
- [2] F. Salvatore and S. Friedenthal, "SysML v1 to SysML v2 Model Conversion Approach," Ottawa, Jul. 2025. Accessed: Aug. 17, 2025. [Online]. Available: <https://www.incose.org/symp2025/event-schedule-in-person>
- [3] "Technical Leadership Institute (TLI)." Accessed: Aug. 17, 2025. [Online]. Available: <https://www.incose.org/Learn/tli/>
- [4] L. Morris, "AI and the Future of Systems Engineering," in *INCOSE IS*, Ottawa, Jul. 2025. Accessed: Aug. 17, 2025. [Online]. Available: <https://www.incose.org/symp2025/event-schedule-in-person>
- [5] R. Thirsk, "Preparation for Spaceflight (Canadian Space Agency)," Jul. 30, 2025, *Ottawa*. Accessed: Aug. 17, 2025. [Online]. Available: <https://www.incose.org/symp2025/event-schedule-in-person>
- [6] T. Grondin, N. Noyes, and J. Kinney, "NASA's Hopes and Fears of Digital Engineering," Jul. 31, 2025, *INCOSE IS*, Ottawa. Accessed: Aug. 17, 2025. [Online]. Available: <https://www.incose.org/symp2025/event-schedule-in-person>

COLORADO PARTICIPATION AT INCOSE IS2025

The INCOSE International Symposium (IS2025), held July 27–August 1 in Ottawa, Canada, brought together systems engineers, researchers, and students from around the world to share knowledge, explore innovation, and strengthen the global community. This year’s program featured keynote addresses on the role of artificial intelligence, the importance of preparation, and innovation in the space sector. The Colorado Front Range (CFR) Chapter and Colorado State University (CSU) were well represented, contributing to both technical sessions and community-building activities.

Leadership and Technical Engagement

CFR members played an active role in plenary sessions and technical tracks. A highlight was the hybrid presentation “*Methodology for Evaluating a Digital Architecture in Terms of Systems Engineering Lifecycle Using Variables in the Context of a Digital Twin Testbed*” under the Digital Twin track, as well as “*Systems Thinking*” presented in the SE Fundamentals track. Both sessions were well received, generating thoughtful questions, extensive



feedback, and significant follow-up interest.

Many CFR members also attended sessions on topics such as SysML V2, augmented human intelligence for systems engineering, and multi-level modeling. Beyond the technical program, the Colorado State University dinner provided a valuable opportunity for students and professionals to connect, fostering intergenerational collaboration and strengthening the pipeline of future systems engineers.

Building Connections

Throughout the week, CFR and CSU members engaged with colleagues, explored vendor exhibits, and contributed to the global dialogue on the future of systems engineering. Chapter photos were taken during the event and

are pending release by the symposium organizers, symbolizing Colorado’s strong presence at IS2025.

Conclusion

The combined participation of the Colorado Front Range Chapter and Colorado State University at IS2025 demonstrated the depth and vitality of Colorado’s systems engineering community. Through technical presentations, leadership contributions, and community engagement, members advanced both the practice and the profession. The symposium not only provided new knowledge and valuable connections but also reaffirmed Colorado’s commitment to shaping the future of systems engineering within INCOSE and beyond.

DIGITAL ENGINEERING INFORMATION EXCHANGE WORKING GROUP (DEIX WG) AT INCOSE IS 2025 – OTTAWA

By Celia Tseng, DEIX WG Deputy Chair

The DEIX WG held an engaging and productive series of sessions during INCOSE IS 2025 in Ottawa, advancing our mission to define and standardize digital engineering (DE) terminology, guidance, and practical application.

The WG meeting on July 20 began with DE Ontology, where we reviewed the latest draft and discussed key modeling decisions. The group explored relationships between “Digital Objects”, “Digital Artifacts” and the idea of a new “Digital Information Artifact” superclass. We also discussed Digital Viewpoint Model (DVM), expanding data sources, and the reviewer process. Collaboration opportunities with other WGs, including

the OMG MBE Acquisition DE WG, were also noted.

The open session followed with an overview of DEIX activities, before the DE Guide working session. Here, participants split into four teams to address different guide sections, each capturing practical considerations for applying DE to a system of interest—ranging from implementation insights and process adaptations to lifecycle phase impacts, risks, limitations, and lessons learned. Outputs were shared and discussed, with several new volunteers recruited as authors and editors for post-conference work.



On July 21, the WG presented the paper “Towards a Digital Engineering Ontology to Support Information Exchange”. The paper outlined how inconsistent DE terminology hinders standardization and interoperability, and how the DEIX WG is addressing this through a structured ontology development process—consolidating terminology from

standards, practitioner input, and use cases to support the DE Primer, DE Guide, and DVM. Using Noy’s ontology development method, the team has scoped domains, created use cases, and classified terms, with the presentation drawing strong interest and positive feedback on the benefits of a unified vocabulary for accelerating model-based engineering adoption and improving cross-domain interoperability.

Overall, the Ottawa sessions strengthened DEIX WG’s role as a central forum for shaping digital engineering. With strong momentum coming out of IS 2025, we look forward to delivering the next iteration of the DE Ontology, advancing the DE Guide, and continuing to engage with the broader systems engineering community.



Nominations are open for:

- FELLOWS AWARD
- OUTSTANDING SERVICE AWARD

All award nomination packages should be sent electronically to awards@incose.net.

DAWG AT IS2025: ADVANCING DECISION ANALYSIS DATA MODEL PRACTICE AND COMMUNITY ENGAGEMENT

By Jared Smith, Working Group Co-Chair

The Decision Analysis Working Group (DAWG) was proud to showcase its momentum and innovation at the INCOSE 2025 International Symposium, engaging the SE community through impactful presentations, lively working session, and a collaborative outlook for the year ahead.

Presentation Highlights

The DAWG delivered two well-attended and highly discussed presentations. The first, “Enhancing the Future of Decision-Making – INCOSE DADM v1.0 Implementation,” spotlighted the successful first release of the Decision Analysis Data Model (DADM). Community reception was positive, particularly regarding the DADM’s potential for standardizing and elevating the quality of decision processes across organizations. We introduced the decision process assessment framework, a practical standard for organizations to assess and align their own practices with DADM principles. Another topic of the session was our ongoing case study of a fully rendered Uncrewed Aerial System (UAS) scenario. This effort brings realism to DADM with tangible example artifacts, underpinned by actual data, designed to

serve future implementors as templates for their own projects.

The second presentation, “Transforming Decision-Making with AI and the DADM Framework,” examined how the integration of large language model (LLM) agents with the DADM can revolutionize decision-making. Presenters laid out the theoretical groundwork, focusing on the essential role of ontologies to structure and relate decision data. Further discussion addressed the need for executable, repeatable processes, enabling rapid, scalable, and auditable data-driven decisions. Participants explored emerging opportunities and challenges involved in data-centric and AI-assisted decision making at enterprise scale, including transparency, traceability, and ensuring decision quality as system complexity grows.

Working Group Collaboration and Looking Ahead

Beyond the formal presentations, the DAWG hosted an engaged in-person working session. Members and new participants collaborated to brainstorm and prioritize projects for the upcoming year. The group surfaced key topics including:

- Support development of AI-assisted decision analysis (AI4SE) and AI Auditability (SE4AI) use cases and projects.
- Test and refine assessment tool to rate the effectiveness of an organization’s decision-making approach(s).
- Develop additional domain-specific case studies, processes, and draft implementations to give practitioners a head start on making complex decisions.
- Transform SysML v1 model into SysML v2 pilot artifacts.
- Update existing publications and publish new papers exploring the emerging challenges of managing digital decisions at scale.
- And much more

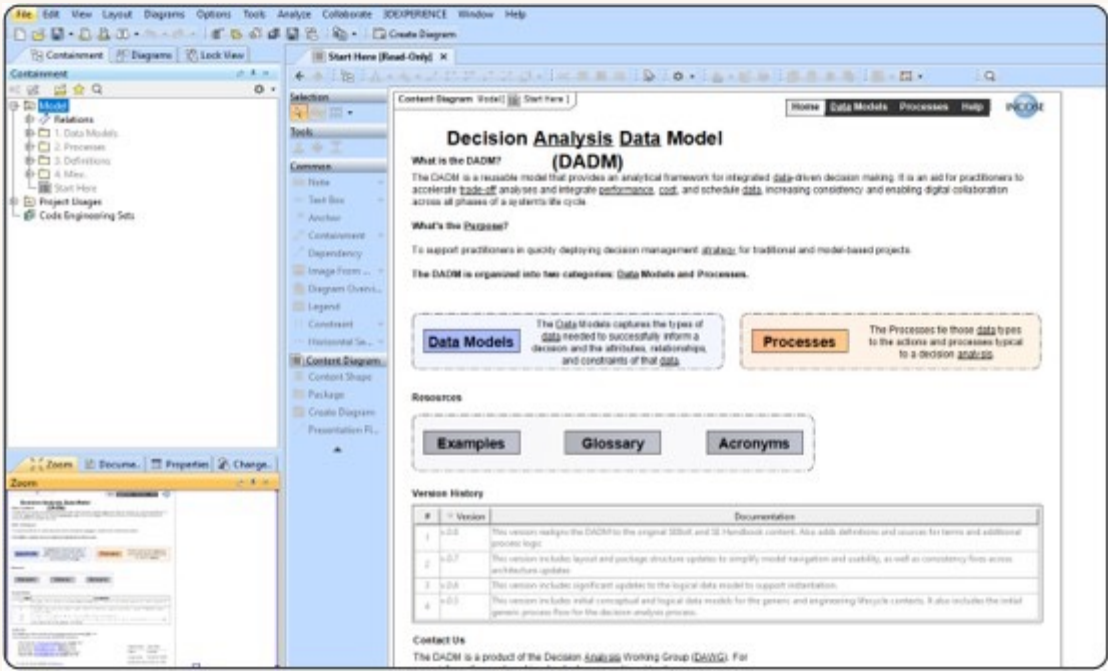
passionate about advancing the state-of-the-practice in decision analysis. Whether your interests lie in publishing collaborative research, gaining hands-on experience applying SysML v2, executing complex decision analyses alongside expert practitioners, or pioneering the application of AI in decision contexts, DAWG offers a unique platform for you. Together, we can influence emerging industry standards and shape how complex, high-stakes decisions are made well into the future.

If you are interested in participating, contributing, or want to learn more, please contact the DAWG leadership or join our next working meeting. Let’s connect and build the future of decision-making together.

Join the DAWG: Shaping the Future of Decision-Making

We issue a call to all members of the INCOSE community, especially those

<https://www.incose.org/inet/working-groups/decision-analysis>

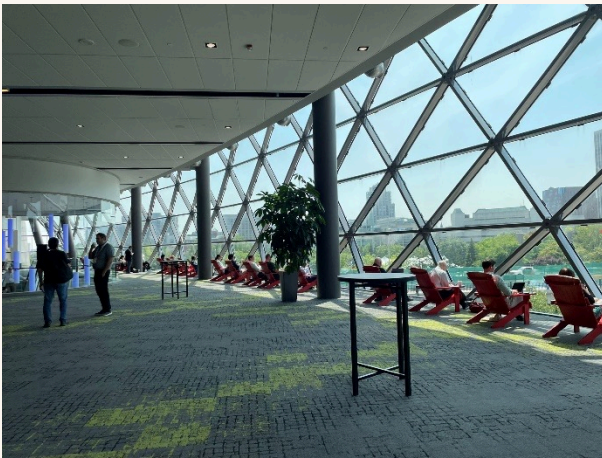
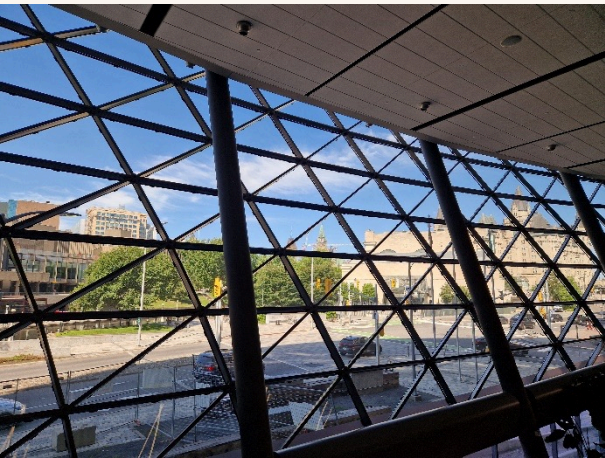


CONFIGURATION MANAGEMENT WORKING GROUP AT INTERNATIONAL SYMPOSIUM AT OTTAWA - UNITING PEOPLE AND PERSPECTIVES TOWARD INSPIRING HORIZONS

By Sandrine Gonthier

The Rogers meeting center closed its doors at Ottawa at the end of July, and we're still feeling grateful and energized by everything that took place at IS2025. The Configuration Management WorkingGroup (CM WG) was happy to

play an active role in this year's major event. The Working Group held an open hybrid session on Sunday morning—perhaps a bit early for those of us still battling



jetlag! Nevertheless, it was a pleasure to welcome new participants at this early meeting. All CM WG leadership representatives were able to join, either in person or remotely.

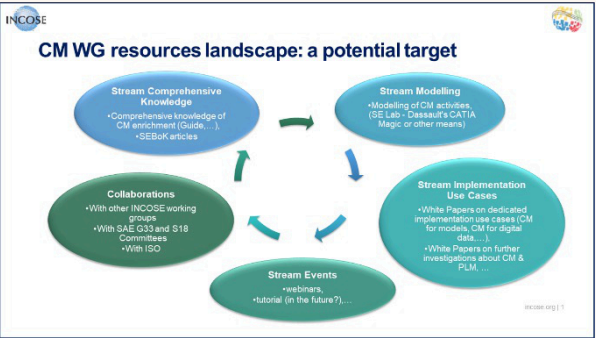
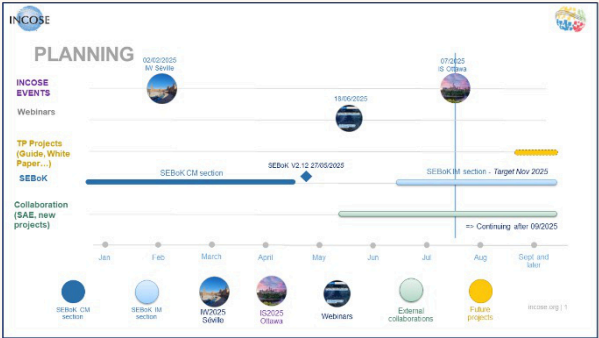
After presenting the achievements from the first semester and outlining new activities in preparation, we opened the floor for discussion. This led to some very interesting ideas and even inspired us to take on a new challenge proposed by Andy Pickard, which quickly evolved into one project that would be beneficial

to the development of our knowledge and training resources.

As expected, topics related to AI, models, and their impact on our practices were also a major part of the brainstorming session.

As observed by one of our co-chairs, Aryes Lahiry, "Presentations (especially slides) on CM WG are more interactive in comparison to the same for previous years".

It was truly encouraging to see interest from chapters, working groups, and tool representatives in learning about the WG activities, confirming the need to develop a CM culture, and expecting CM to adapt to new ways of working aligned with INCOSE objectives. It was also very positive to have our projects affirmed as relevant by the attendees.



If you'd like to explore our approach further, the slides from the meeting are available here: [INCOSE IS2025 CM WG meeting 2025-07-27 with notes.pdf](#). (accessible to INCOSE members only).

Along the IS, there were several presentations related to CM, among which 2 of them involved some CM WG members as authors and presenters:

- **Configuration Management as a driver for sustainability** (Paper #233)
Presenters: Sandrine Gonthier (INCOSE) & Adriana D'Souza (Airbus), co-author: Haydn Jones (Airbus)

This presentation was hosted by the session 7.3.2: Sociotechnical, Environmental, and Cultural Systems Analysis, chaired by Guillaume Belloncle and Adam Williams.

A very attentive and diverse audience followed the presenters as they explored how

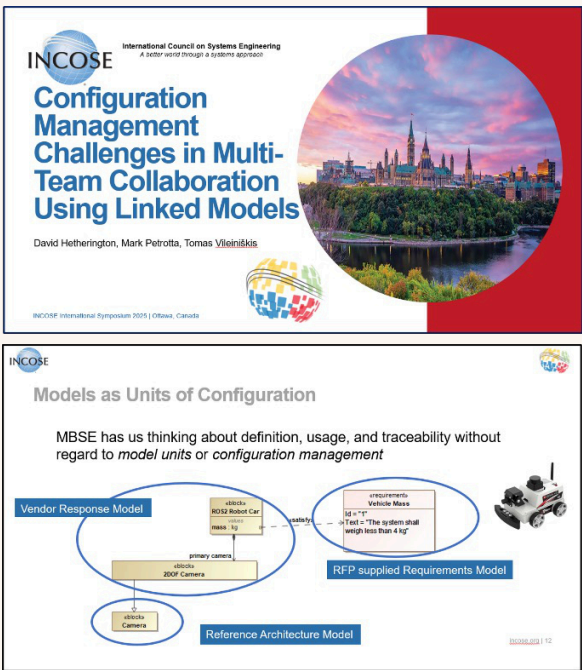


Configuration Management can be a surprising ally in enhancing sustainable change. The presentation included a nod to the maple emblem of IS2025 host country.

The Q&A session that followed, led by the chairs, sparked some really inspiring conversations and hopefully will lead to future collaborations

- **Configuration Management Challenges in Multi-Team Collaboration Using Linked Models** (Presentation #311)
Presenters: David Hetherington (System Strategy, Inc), Mark Petrotta (System Strategy, Inc), Tomas Vileiniškis (Dassault Systèmes)

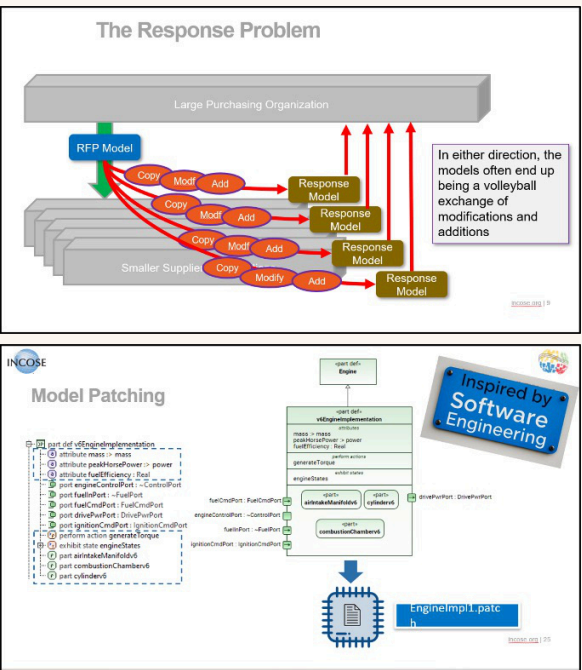
This presentation was hosted by the session 9.5.3: MBSE Adoption Challenges and Configuration chaired by Ken Ptack.
It addressed some of the practical challenges in exchanging sets of linked models between different



organizations, often within a supply chain. It is usually difficult or impossible to host all of the different players in a single CM system. As different players modify the sets of linked models, it is very easy for the overall set of links to become quite tangled. The presentation offered examples of specific problems as well as thoughts on a path forward for tool suppliers to help customers manage this complexity.

Several other presentations focused on Configuration Management, sharing different approaches to implementing CM across entire systems and throughout the full range of tools supporting the system lifecycle.

Throughout the event, it was reassuring to see other presenters emphasize the importance of addressing Configuration



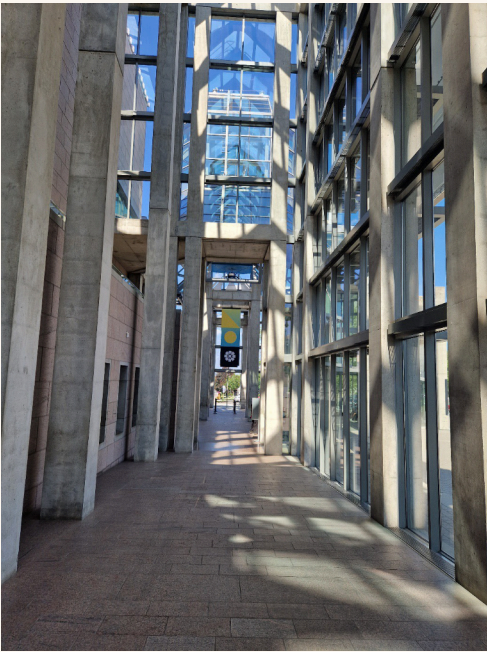
Management as well, which led Adriana D'Souza, our EMEA co-chair, to express: "Great to hear reiterated at the IS2025 by keynote speakers and presentations alike of the importance of Configuration Management in Systems Engineering". David Hetherington also highlights: "We were pleased to have active participation from the major modeling tool suppliers this year. We are beginning to talk seriously with these tool suppliers about what sort of guidance we should provide to the community about managing the configuration of complex federations of models".

The Working Group returns from the event energized by fresh ideas, enriched with valuable feedback, and inspired by new connections and a strong desire to foster collaboration. In conclusion, there was an unexpected and meaningful alignment between the

event and the inspiring motto of the National Gallery: “Everything is connected.” The event offered an excellent opportunity for the Configuration Management Working Group to unite its members (both virtually and in person), welcome new participants and contacts, validate our progress and upcoming projects, and lay the groundwork for future collaboration with other working groups, chapters, and tool providers.

It was truly a chance to connect people, vision, and perspectives, take into account different viewpoints, and bridge past achievements with inspiring future horizons.

To stay informed and to find our contacts, please visit our webpage on INCOSE website: [Configuration Management](#).



*National Gallery of Canada – Ankosé –
Everything is connected*



International Council on Systems Engineering

www.incose.org

INCOSE Promotion & Merchandise Products

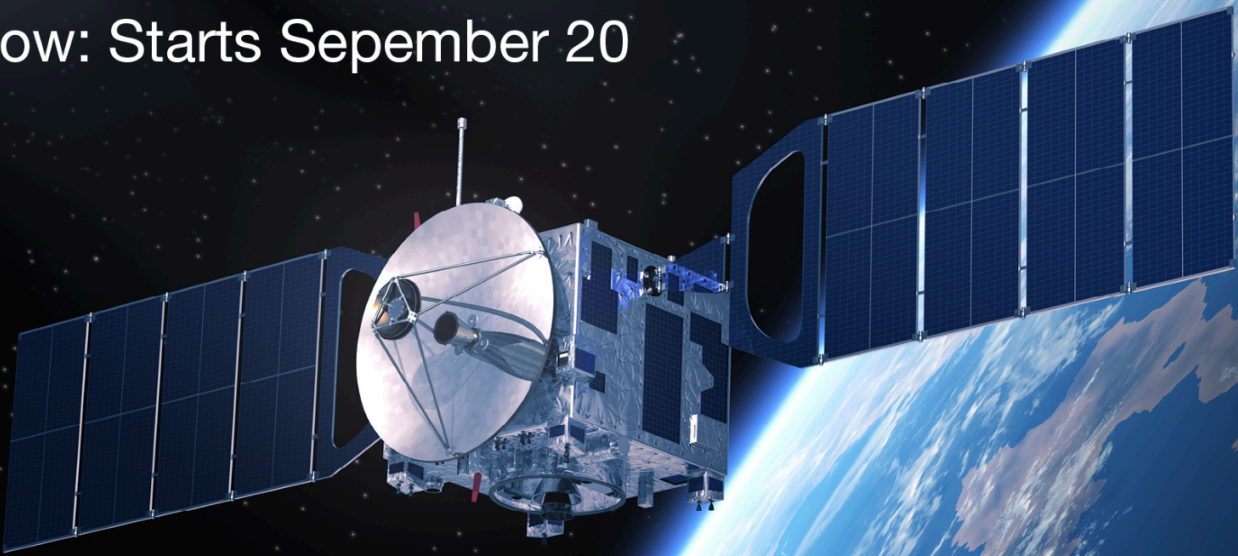


Scan QR code to visit www.incose.org/swag

An online store for ordering *INCOSE branded promotional goods and merchandise* for your Chapter, conferences, meetings, and more.

AI-Assisted MBSE Workshop

Enroll Now: Starts September 20



ctme.caltech.edu/ai4mbse 3 Days Live Online



SASIWG OTTAWA WORKSHOP – JANUARY 27 & 29: FROM MISSION REFINEMENT TO ACTIONABLE WORKSTREAMS WITH RENEWED MOMENTUM

By Deepaa Ganesh, INCOSE Chair Systems and Software
Interface WG (SaSIWG)

SaSIWG members met in Ottawa on January 27 and 29 at the INCOSE International Workshop to refine their mission and set a results-driven agenda. With participants from multiple industries, both in-person and online, the sessions focused on real-world integration challenges and launching workstreams to bridge the gap between systems and software engineering.

Introductions quickly revealed a shared goal: strengthening collaboration between systems engineering and software development. Participants, representing diverse industries, aligned on priorities such as mentorship, onboarding for newcomers, and cross-industry knowledge sharing.

“Mentorship isn’t just nice to have — it’s how we keep hard-earned knowledge from walking out the door.”

This emphasis on mentorship supports SaSIWG’s vision of a sustainable community that actively shares expertise across roles and domains.

Members reaffirmed the relevance of the existing mission but agreed to

expand it to include systems, software, and data-related functions, noting that many organizations lack formal titles for such roles while still carrying out essential work. They emphasized the production of lightweight, user-friendly outputs to encourage adoption and agreed to rationalize not eliminate process differences between the disciplines.

Participants emphasized framing improvements as responses to specific challenges, rather than as abstract process changes.

“If we frame solutions around real pain points, we stand a better chance of getting management buy-in.”

Suggestions included onboarding materials for those moving into systems roles, quick-reference guides on interface responsibilities, and conversation templates to strengthen team dialogue. They also proposed interactive training tools and case studies, such as the “Fire Sky” scenario, along with new interface stories to be developed and shared. SaSIWG welcomes additional scenarios from

members and collaborators to broaden the range of practical examples.

Key workstream priorities emerged: lightweight guidance and templates, interface stories, ontology and vocabulary development, metrics for interface quality, alignment with IEEE standards, and integration with related working group projects. A new workstream will address DevOps—systems engineering alignment, focusing on CI/CD environments and bridging legacy systems with modern architectures.

SaSIWG invites other INCOSE working groups to join its activities, encouraging cross-group collaboration to address shared challenges. The Automotive Working Group has already expressed interest in partnering on relevant initiatives.

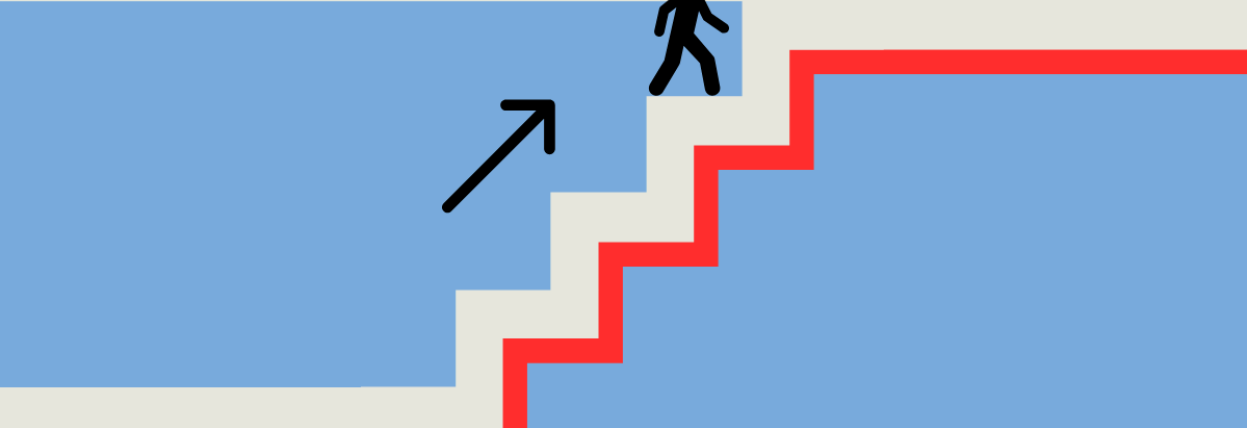
Next steps include submitting additional challenges and ideas to the SaSIWG mailing list, volunteering for workstreams via the Workstream Survey, and finalizing the revised mission, goals, and scope to reflect expanded inclusivity.

The Ottawa meetings ended with strong engagement, practical problem-solving, and a renewed commitment to creating resources engineers can apply directly in their work. SaSIWG leaves with a sharper focus, a broader set of workstream ideas, and clear momentum toward delivering actionable, real-world outputs that strengthen the interface between systems and software disciplines. SaSIWG thanks all members, contributors, and collaborating working groups whose insights, scenarios, and ideas continue to shape our shared progress.

CHECK OUT THE INCOSE

CAREER COMPASS

AND TAKE THE NEXT STEP IN YOUR CAREER!



THE SYSTEMS THINKING ROUNDTABLE – IS2025

By Cecilia Haskins, ESEP

Jumpstart your day! This is the mantra that motivates many attendees of the INCOSE workshops and symposia to get up a little bit earlier to participate in the Systems Thinking Roundtable (STRT). This event has been actively supported by the Systems Thinking working group since 2016 and is the brainchild of Dr. Susan Gabriele, recently deceased, who has left the roundtable as a valuable legacy of her research.

Participants meet daily before the start of each event (IW or IS) to reflect on a topic selected by the moderator. Each person receives an equal amount of time to share their thoughts, or whatever else is on their mind, or pass. Since 2021, the STRT has been held as a hybrid session and is open to all attendees.

In Ottawa, the STRT attracted 10-20 participants, both in person and virtually (for a total of 20-30 participants). Each person is thereby allotted 90 seconds for the first round, and occasionally an additional 30 seconds for a second round. The topics generated the customary fun and profound reflections on the following topics:

Day 1, 28. July – We are seeing that AI and other black-box models are taking over decision-making. What are some of the unintended consequences that you are starting to see? And how might

systems thinking help? (This topic was selected to dovetail with the keynote speaker who followed in the program.)

Day 2, 29. July – How might we promote applying ST/SE to problems in the energy sector (or other sectors where ST/SE adoption is emerging)?

Day 3, 30. July – How can we break the vicious cycle of Misapplied SE processes -> Cultural resistance in an organization -> Limited investment in SE skills and tools? (inspired by a Richard Beasley presentation the prior day) (read -> as 'leading to')

Day 4, 31. July - How can we operationalize SE Knowledge? What does it look like? How will we know if it has been done?

The current INCOSE points of contact regarding the STRT are Cecilia Haskins, Chris Browne and Jawahar Bhalla (JB). Our thanks to Sandrine Gonthier for facilitating the concurrent in-person sessions in Ottawa.

COLLABORATION, INNOVATION, AND COMMUNITY: MY EXPERIENCE AT THE INCOSE SYMPOSIUM

By Dr. Julia Taylor, Past-President, San Diego Chapter of INCOSE

The INCOSE International Symposium, held in Ottawa, Canada, this year, was an amazing experience, complete with tutorials & presentations that were cutting-edge and helped all types of Systems Engineers prepare for the future. It also had numerous opportunities for networking and meeting fellow Systems Engineers from around the globe.

It was held in the beautiful Rogers Centre, located near Parliament Hill and government buildings of exquisite architecture, which are very sacred to Canada. The neighborhood featured a combination of long-standing traditional structures and very modern skyscrapers. It's a bustling city with lots of tourists and activities. One night, fireworks were going off as the sun was setting.

Probably the biggest highlight for me was having the opportunity to lead a special Joint Working Group Session involving various working groups. This event was hosted by the Systems Adaptability Working Group, led by Dr. Haifeng Zhu.

This collaboration of a number of working groups has already produced some great results. For example, Dr. Ken Cureton, from the Resilience



Dr. Julia Taylor leading Joint Working Group Session at IS2025

Working Group & Dr. Haifeng Zhn, from the Systems Adaptability Working Group, reported their results in a separate presentation at IS2025. In addition, there are many other Working Group collaborations in progress.

The advantages of such collaborative efforts include leveraging synergies to reduce the workload required by each individual working group, identifying new areas to enhance the effectiveness of each working group, and even creating new materials together to further Systems Engineering and help INCOSE take the lead in providing Systems Engineering principles.

We had both virtual and in-person participants for our Joint Working Group sessions. I was very happy that we did identify some new potential areas for collaboration, as well as some new individuals who expressed interest in

[Back To Table of Content](#)

them. Finally, I invited some new people to join the sessions. This is important because we want to continually refresh our thinking and our approaches so that we can do high-quality work together.

In general, I found that the tutorials were great because they offered a more hands-on opportunity for learning new material. Many new areas such as AI, Digital-Engineering, and Model Based Engineering are changing previous approaches and the best way to learn about these is to do a tutorial.



Tutorial: Beyond Traditional Engineering: Transformative Approaches for a Changing World: Participating in Exercise is Rebecca James, Dr. Julia Taylor, Davy Masson & Perri Nejib

The presentations offered glimpses into a wide variety of new ideas, studies, and use cases regarding the application of AI, Model-Based Systems Engineering, and examples of Systems Engineering being applied to new industries. Since the presentations were held on multiple tracks running at the same time, it wasn't possible to attend all of them. I was a track hopper, going to whichever talks seemed most appealing. However, I wish I could have heard all of them. The talks I did hear were all rather high quality and well done. Therefore, I don't think you could have gone wrong regardless of your selections.



Tutorial: Approaches & Concepts to Facilitate Digital Transformation in Systems Engineering: Picture here is Dr. Julia Taylor & Jeffrey Banks-- partners for the tutorial

The receptions and networking events were spectacular. The food was very tasty and nicely presented. Plus, you could get it in a timely manner, which makes a difference. The arrangement of the rooms was such that networking was encouraged. This made it a lot easier to meet new people and strike up a conversation. I met people from around the globe. This made the overall experience a lot more fun and enriching. I was also able to say hello to many people I had only known through email or Zoom meetings, which was a lot of fun. Then, seeing people I know pretty well in person was kind of like a family reunion — which was great.

All of these experiences warm the heart and help to create a nice atmosphere for Systems Thinkers and Systems Engineers. Much of what we do these days-- that is effective-- is done through collaboration and teamwork. Therefore, these gatherings play a big part in furthering the discipline of Systems Engineering.

The Exhibit Hall was more dramatic and packed than I've ever seen it. The vendors offer tools and services that contribute a lot to Systems Engineering



Networking Dinner: Renee Steinwand, Head of America's Sector's, Dr. Julia Taylor, & Kelly Henseler, INCOSE Marketing Manager; Renee just informed me that my chapter received the Platinum Recognition for 2024, when I served as Chapter President

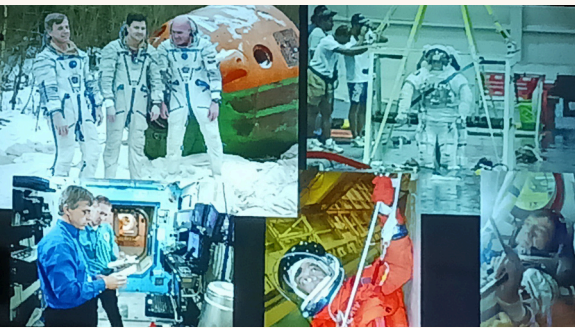


Networking Dinner: Phillippe Kalenda from Vienna, Austria, Dr. Julia Taylor, from San Diego, & Luca Boggero from Hamburg, Germany

and the sophistication of the industry. It's amazing to me how the capabilities they offer are constantly being expanded.

The Keynotes were also insightful. I had the good fortune to have lunch at the table sitting next to Dr. Robert Thirsk, a record-holding Astronaut from Canada, after he did his wonderful Keynote Address. He mentioned a number of amazing things. He told me that he spent 6 months at the space station. That's so incredible. I asked him about Scuba Diving, since I do Scuba myself. He said that part of their preparation for going into outer space was to live in an underwater habitat for some period of

time, at least a month (I think), he said. They went down about 60 feet in scuba gear & stayed down there in a shelter in order to simulate living in outer space. Everything that they did in outer space, they prepared for by practicing it over and over until it became second nature. It was very fun meeting this gentleman in person.



Keynote Presenter: Dr. Robert Thirsk and Dr. Julia Taylor

Overall, the IS 2025 was an excellent event!

#LEADLIKEHER WORKSHOP AT INCOSE SYMPOSIUM 2025: A CELEBRATION OF AUTHENTIC LEADERSHIP

By Stueti Gupta, INCOSE Secretary

The LeadLikeHer workshop, hosted by the Empowering Women Leaders in Systems Engineering (EWLSE) technical working group at the INCOSE Symposium 2025, was a transformative experience to explore the essence of authentic leadership. This session was sponsored by Caltech Center for Technology and Management Education (Caltech CTME).

Participants explored key dimensions of leadership through:

- Discovering Your Essence: Crafting a personal brand rooted in authenticity.
- Amplifying Your Presence: Communicating with clarity and impact.
- Nurturing Excellence: Building diverse networks that fuel growth.

The session featured immersive experiences, and insightful case studies, creating a rich learning environment.

The session was masterfully facilitated by Rajan Kalia and Shruti Dhupia of Salto Dee Fe. With their deep expertise and engaging facilitation style, they created a space where participants felt seen, heard, and inspired. Their ability to spark meaningful conversations and

draw out authentic reflections made the workshop not just informative, but truly transformative.

LeadLikeHer is a global initiative designed to support women leaders in discovering their true essence, embodying unshakable confidence, and building ecosystems that reflect their values. With over 400 leaders reached across regions, the program goes beyond skills—it’s about mindset, real stories, and authenticity.

“True leadership isn’t about titles or power — it’s about showing up as your full self, building trust, and leaving a ripple through every connection you make.”

Thank you to all who joined the LeadLikeHer session. Your openness, energy, and perspectives made it a truly meaningful experience.

“Caltech CTME was proud to sponsor the #LeadLikeHer workshop at IS2025. This partnership with the Empowering Women Leaders in Systems Engineering (EWLSE) working group underscores our dedication to fostering a diverse community of future leaders and providing them with the tools and insights needed to excel in their fields.” - Rick Hefner, Executive Director, CTME

EWLSE RECEPTION AT IS2025

By Stueti Gupta, INCOSE Secretary

Honouring Legacy, Celebrating Progress

The EWLSE (Empowering Women Leaders in Systems Engineering) community came together in full force at the INCOSE International Symposium 2025 to celebrate a major milestone — 10 years of EWLSE! The reception was a vibrant mix of reflection, connection, and forward-looking energy, honouring a decade of leadership, advocacy, and transformation in systems engineering. Alice Squires, Founder of EWLSE, hosted the reception.



The evening opened with a tribute to Anne O’Neil, a cherished member of the INCOSE and EWLSE communities,



whose recent passing left a profound void. Anne’s legacy as a mentor, leader, and advocate for systems engineering excellence was honoured with quiet reflection and shared memories. Her contributions continue to shape the path forward for many in our field.

Following the tribute, the reception celebrated 10 years of EWLSE — a milestone that reflects the growth of a vibrant, global network of women and



men in systems engineering. Attendees were invited to say a few



words, recognizing the collective achievements of the community.

One of the most appreciated aspects of the evening was the networking time. Participants valued the opportunity to connect with peers, mentors, and new collaborators in an open and welcoming environment. The conversations sparked during the reception are sure to continue well beyond the event.

Alice Squires issued a call for authors and reviewers for the next edition of LTMYS (Letters to My Younger Self). This powerful initiative invites members to write reflective letters that share lessons, insights, and encouragement with their younger selves—offering wisdom and inspiration to others in the community.

Upcoming Opportunities to further engage with EWLSE group were also highlighted

- SWE Conference WE25 in New Orleans (October 23–25) – Visit the

INCOSE booth and connect with fellow engineers and allies.

- IW2026 / IS2026 – Submit proposals for workshops, panels, and papers. Collaboration within working groups is encouraged.

Volunteer with EWLSE

EWLSE is seeking new volunteer leaders to help shape future initiatives. If you're interested in contributing, organizing, or mentoring, reach out to Stueti.Gupta@incose.net.

BRIDGING THE GAP: HOW MODEL-BASED SYSTEMS ENGINEERING AND SIMULATION DRIVE INNOVATION

By Phyllis Marbach, INCOSE Tech Ops AD Transformational

The Systems Modeling & Simulation Working Group (SMS WG) is a collaboration between [NAFEMS](#) (The International Association for the Engineering Modelling, Analysis and Simulation Community) and [INCOSE](#) (the International Council on Systems Engineering). The mission of the Systems Modeling & Simulation Working Group is to develop a vendor-neutral, end-user driven consortium that not only promotes the advancement of the technology and practices associated with integration of engineering simulation and systems engineering but also acts as the advisory body to drive strategic direction for technology development and international standards in the space of complex systems engineering and system simulation.

The SMS WG sponsored a panel discussion during the International Symposium that explored the opportunities and challenges associated with connecting architectural models, e.g., developed in SysML or Capella, with system-level simulations typically represented in proprietary tools, and supported by standards such as Modelica, FMI, SSP, SysPhs. As industries increasingly demand robust systems that perform predictably under complex conditions, the push to bridge

architectural and simulation models is stronger than ever. However, despite advancements such as in standards like SysMLv2, SSP, FMI, or vendor-specific point-to-point solutions, a cohesive and general link between architectural modeling and system simulation remains a challenge. Key challenges include tool implementation, methodology, model fidelity levels, parameter consistency, validation workflows, interdisciplinary communication, propagation of model elements such as state machines, model transformation, and collaboration/model exchange across organizational boundaries. This panel engaged experts from Ansys/Synopsys, Mathworks, Siemens, and Dassault Systemes and the NAFEMS-INCOSE SMSWG as well as attendees in a critical discussion on how to best achieve a seamless transition from architectural specifications to verification of the system by simulations, addressing both the technological and organizational obstacles along the way.

Panel members Alexander Busch, Ph.D., CSEP, with Ansys/Synopsys, spoke about “Empowering Systems Engineers: Bridging MBSE and Simulation for Enhanced Analysis”; Saulius Pavalkis, Ph.D., ESEP, with

[Back To Table of Content](#)



Dassault Systemes, spoke about “MBSE with SysML and Standard Multidisciplinary Co-simulation for Rapid Prototyping, Verification & Validation”; Mike Nicolai, Ph.D., with Siemens spoke about “Digital Engineering with Co-Simulation Across the Engineering Cycle, Leveraging Open Standards”; Rebecca (Becky) Petteys, with Mathworks spoke about “Simulation is hard (But worth it!)”; and Phyllis Marbach with NAFEMS-INCOSE SMS WG moderated and described the SMS WG.

The panelists shared many points, including the need for developing models that are reuseable, utilize a Model Identification Card (MIC) as a

way to capture how and why a model should be reused, and that models are developed according to interface standards such as FMI and SSP, all of which will enable integration between system models and simulations. Simulations are a way to analyze, verify and validate the product solution as development progresses from Requirements, into Architecture and Design. Simulations connected to architectural models reduce human error and increase the turnover time by ensuring digital continuity. Trade studies can be performed, and decisions can be reached faster using simulations integrated with system models.

SUSTAINABILITY AT THE INTERNATIONAL SYMPOSIUM 2025

By Hamza Bassam, Working Group Co-Chair

This year’s International Symposium marked a milestone for our community: the official launch of the **Sustainability Working Group (WG)**. It was inspiring to see sustainability firmly on the agenda of the systems engineering community, and we are excited to share some highlights with you.

1. Working Group Launch

The key event for us was the kickoff session, held by Alain during the TechOps track. He opened with two powerful points: sustainable development is one of humanity’s most urgent challenges, and a systems approach is essential to addressing it. After short video messages from the three co-chairs—Hamza Bassam, Alan Harding, and Amaury Soubeyran—Alain outlined how the WG will operate and shared our first achievements. These include the launch of the “SustainableTogether” initiative, the organization of a panel at the IEEE International Systems of Systems Conference (June 2025), and the start of a monthly webinar series, already with two successful sessions completed. The session closed with a discussion of future projects, receiving excellent questions and strong interest from symposium participants.

2. Overall Symposium Perspective

As expected in a community of engineers, the symposium often leaned toward technological solutionism. For example, Large Language Models (LLMs) and generative AI were prominent topics, but their significant environmental footprint was hardly addressed—despite being part of the bigger “System of Interest.” One of our WG’s roles will be to bring this perspective consistently into the conversation.

3. Sustainability-Related Content

We also attended and replayed several sessions with direct relevance to sustainability:

- **Paper #233 – Configuration Management as a Driver for Sustainability**
Showed how configuration management extends system lifecycles and minimizes waste. Potential next step: a liaison between the Configuration Management WG (chaired by Sandrine, also a member of our WG) and the Sustainability WG, especially relevant for unattended Systems of Systems.
- **Paper #251 – Comparative LCA of Battery-Electric vs. Biodiesel Buses in Hawaii**



Let's hear from the co-chairs ...

Hamza Bassam (Germany)



Alan Harding (UK)



Amaury Soubeyran (France)



A thorough life cycle assessment comparing GHG emissions, energy use, and operational impacts in Hawaii's context. Results could inspire policy and procurement decisions. We see clear synergies with our SustainableTogether project.

• **Paper #180 – Early-Stage Digital Engineering for Decarbonization Projects**

Demonstrated how digital engineering reduces risk, accelerates exploration of alternatives, and supports infrastructure planning for low-carbon energy systems. Again, strong potential links to SustainableTogether.

• **Panel #385 – Think Like an Ecosystem**

Explored how ecological principles (biomimicry, circularity, socio-ecological feedback loops) can inspire systems engineering practices. Potential collaborators include Rae Lewark and Allison

Lyle (Studio SE Ltd), and Matthew Hause (SSI).

4. Cultural and Policy Perspectives

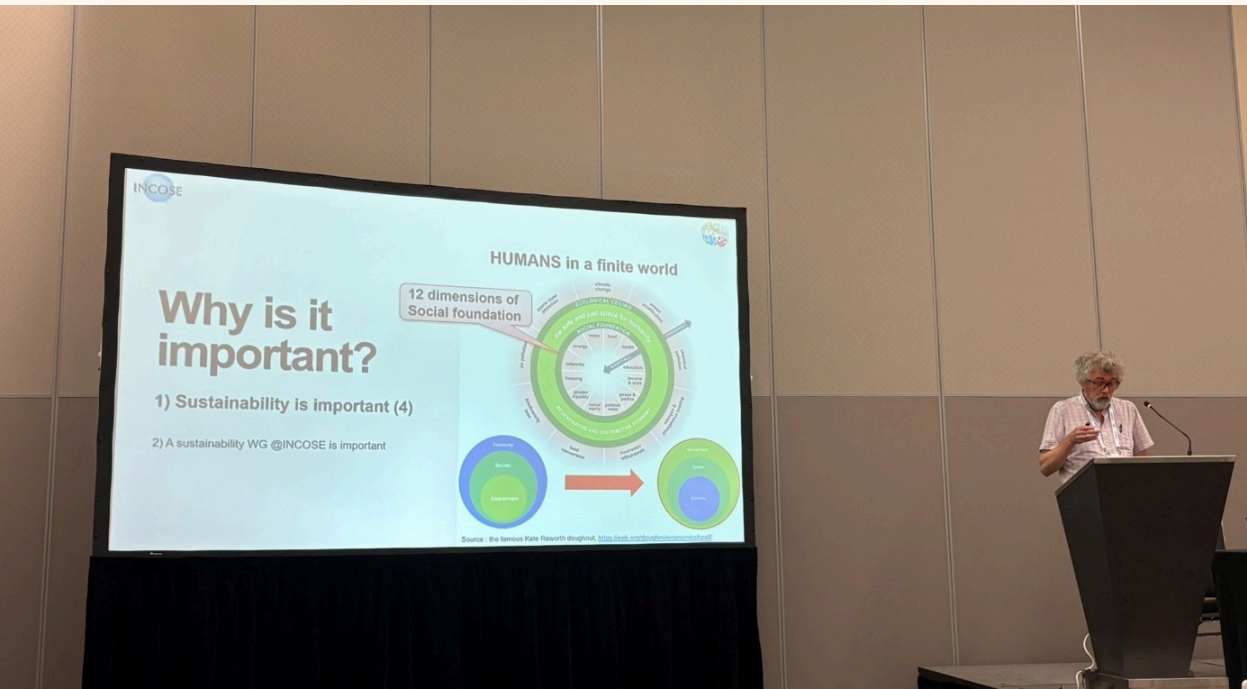
Finally, two contributions highlighted the cultural and policy dimensions of sustainability in systems engineering:

• **Presentation #374 – SE, S and T: A Sociotechnical Analysis of U.S. Policymaking**

Analyzed how technical, social, and governance aspects interact in policymaking. A promising bridge between anthropology and systems engineering for sustainability policy, with potential collaboration with Shelley.

• **Paper #324 – Analyzing SE Vision 2035 Through a Cultural Lens**

Critiqued the INCOSE SE Vision 2035 as being primarily “Western” in outlook, proposing culturally adaptive strategies that also touch on sustainability. This may open valuable discussions with the



new MENA chapter.

In summary, the Symposium reinforced that sustainability is not a side topic—it is becoming central to the future of systems engineering. Our WG is off to a strong start, and we look forward to building on these insights,

connecting with new partners, and ensuring sustainability remains at the heart of INCOSE's work.



EMPOWER YOURSELF
THROUGH CERTIFICATION





SAVE THE DATE INTERNATIONAL SYMPOSIUM



13 -18 | JUNE | 2026

Yokohama, Japan



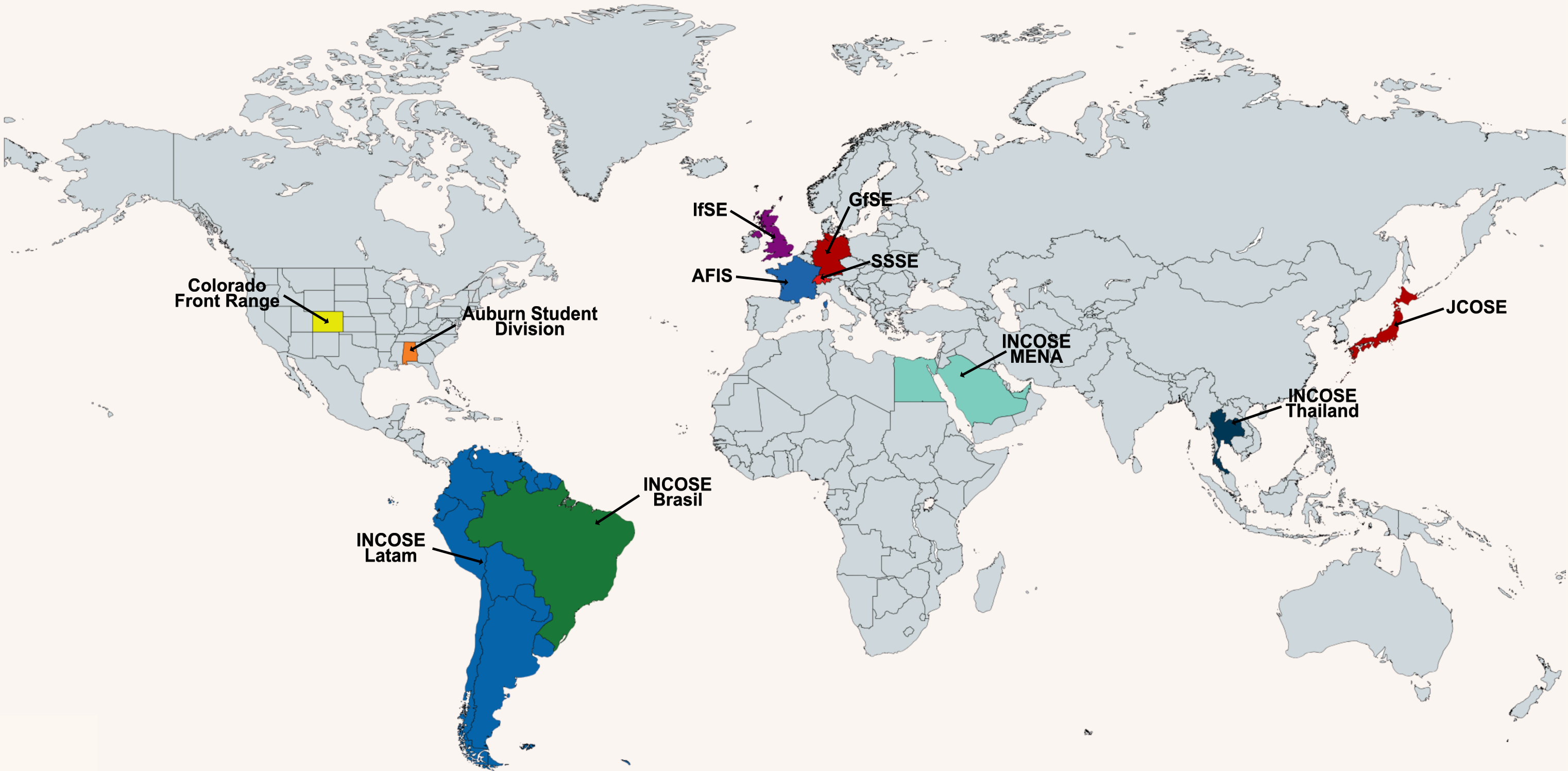
SAVE THE DATE
FOR THE INCOSE

INTERNATIONAL WORKSHOP 2026

31 JAN - 3 FEB 2026,
TORRANCE, CA, USA

Chapter Updates

Click on the chapter name to go straight to their update



GROWING SE COMMUNITY IN THAILAND: Q3 AND E-SAN MEETING INSIGHTS

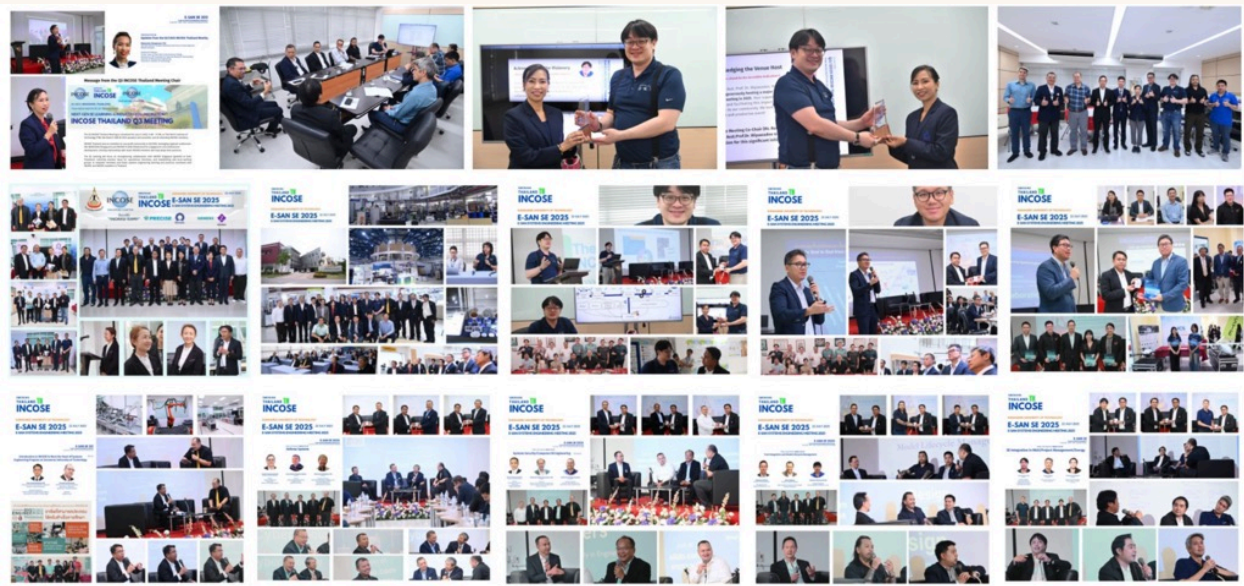
The landscape of SE in Thailand is experiencing significant growth, evidenced by two pivotal events held in July 2025: the Q3 INCOSE Thailand Meeting and the inaugural E-SAN Systems Engineering Meeting. These gatherings brought together a diverse group of academics, industry professionals, and government representatives, underscoring a collective commitment to fostering SE capabilities across the nation.

2025/Q3 INCOSE Thailand Meeting

Held on July 21, 2025, at the Thai-Nichi Institute of Technology (TNI), the Q3 INCOSE Thailand Meeting served as a strategic forum for advancing SE within the country. Chaired by Wipawadee Wongsuwan of TNI, with Robert Ong of the INCOSE Singapore Chapter as co-chair and Vorachet Jaroensawas of NORASI Team as meeting secretary, the meeting benefited from the support of Quoc Do, INCOSE Asia-Oceania Sector Director, who highlighted Thailand's growing importance and gave a

message for the official meeting report.

The roundtable discussions yielded several key insights and proposals. Robert Ong emphasized the benefits of clearly defined lifecycles for modeling and simulation workflows, while Nasis Chimplee of Dassault Systèmes suggested regulatory compliance as a strong use case for MBSE. Vorachet Jaroensawas advocated for chapter activities to align with the latest white papers from key agencies. Strategic areas for development were also identified. Captain Nanata Tantadsakul of the Defence Technology Institute proposed building "Smart Buyer" and "Smart User" capabilities for acquisition processes. Pongsatorn Sukhum of Infowave Thailand suggested an "interest group" model for improved participation. Supod Kaewkorn shared how SE can benefit startups. Thammarat Duangthip of GC Maintenance and Engineering highlighted SE's potential in EPC-based projects and offered



collaboration with the PMI Chapter. Clairry Chow and Sapha Pansanga of Siemens Thailand suggested focusing on complex industries and regulatory requirements. Tapakorn Rattanavarinchai of Precise System & Project described verification and validation challenges in large grid systems. Wipawadee Wongsuwan sought INCOSE's support to integrate SE principles into TNI's academic programs, and Paisarn Muneesawang of Mahidol University emphasized SE's application in Simulation and Optimization, particularly with AI.

E-SAN Systems Engineering Meeting 2025

The E-SAN SE 2025 event, held on July 22, 2025, at Suranaree University of Technology (SUT), marked a significant step in extending SE outreach to Northeast Thailand. This collaborative initiative involved the emerging INCOSE Thailand Chapter,

SUT, and the INCOSE Singapore Chapter, aiming to strengthen SUT's SE program and establish it as a regional hub. Organizers included Nara Samattapapong from SUT, Robert Ong, and Vorachet Jaroensawas.

The conference featured keynote addresses by Robert Ong and Clairry Chow (Siemens Digital Industries Software), alongside updates from Wipawadee Wongsuwan on the Q3 INCOSE Thailand Meeting. Panel discussions provided in-depth exploration of various SE facets:

- Defense Systems: Captain Nanata Tantadsakul, Group Captain Chettapat Kraikhaw, and Chattrakul Sombattheera.
- Systems Security/Computer/AI Engineering: Paisarn Muneesawang, Kridtanatach Rattanaphumpakdee, and Flg.Off. Atawat Methawongphinit.
- Tool Integration and Model Lifecycle Management: Pongsatorn



[Back To Table of Content](#)

Sukhum, Nasis Chimplee, and Tapakorn Rattanavarinchai.

- SE Integration in R&D/Project Management/Energy: Supod Kaewkorn, Sapha Pansanga, and Suwatchai Sirimuangmul.

The event also recognized generous sponsors, including Gold Sponsors NORASI Team, Precise System and Project, Omnix, and Silver Sponsors Siemens and Zyntelligent. Attendees had the unique opportunity to visit the Synchrotron Light Research Institute and explore sponsor booths. The E-SAN SE 2025 was widely regarded as a significant step forward, fostering discussions and significantly advancing systems engineering in Northeast Thailand.

These recent meetings demonstrate a clear momentum in developing and applying Systems Engineering principles across Thailand, from strategic national initiatives to regional outreach and academic integration.



CONNECT



LEARN



LEAD



PROSPER

JOIN INCOSE TODAY!

[Back To Table of Content](#)

JCOSE ACTIVITIES AT IS 2025 AND BEYOND

By Midori Daida

Sector III – Asia-Oceania Sector Meeting at IS 2025

On July 29, 2025, the Asia-Oceania Sector Meeting took place at IS 2025, hosted by Sector Director Dr. Quoc Do. Leaders from across the region—who usually meet online—met in person to exchange updates and build relationships. The INCOSE Japan Chapter, JCOSE, reviewed its activities in the first half of 2025 and outlined plans for the rest of the year. The in-person setting improved collaboration and clarified a shared direction for the months ahead, including preparations for the Asia-Oceania Systems Engineering Conference in October.

5th JCOSE Online Seminar

JCOSE is organizing the 5th JCOSE Online Seminar on August 23, 2025, under the theme “Latest Information on IS 2025.” Presenters who attended IS 2025 will share sessions of interest and key takeaways. The goal is to provide participants with useful, actionable insights. The seminar will bring highlights from the symposium to a wider audience, including those who could not attend, and encourage interest in future INCOSE events.

UAF 1-Day Tutorial

Earlier in the season, on June 16, 2025, JCOSE supported the UAF 1-Day Tutorial at Keio University’s Hiyoshi Campus. The tutorial was led by Dr. James Martin, an INCOSE

Fellow, Enterprise Architect, and Principal Systems Engineer at The Aerospace Corporation. The day offered a focused look at the Unified Architecture Framework and enterprise architecture practices. Participants came from defense, automotive, maritime, heavy industry, and academia. They valued the chance to learn directly from Dr. Martin in a full-day, in-person setting. A networking reception afterward enabled further discussion and new connections.



Towards IS 2026

These activities show JCOSE’s steady commitment to collaboration, knowledge sharing, and professional growth within INCOSE. IS 2026 will be held in Yokohama, Japan, and many participants at IS 2025 expressed enthusiasm to meet again there next year. JCOSE will continue to support and energize Japan’s systems engineering community as preparations move forward.

INCOSE LATAM – QUARTERLY UPDATE

We’d like to share a brief update on some of the main activities and progress at INCOSE Latam over the past few months.

Together with INCOSE Spain, we are finalizing the review of the **Spanish translation of the INCOSE Systems Engineering Handbook, Version 5**. This work aims to make systems engineering knowledge more accessible for Spanish-speaking professionals, and we expect to share more details on its release soon.

This quarter also marked the delivery of our **19th webinar**, continuing our regular series on systems engineering topics relevant to the region. On this occasion, the focus was on **applications in medicine and nuclear engineering** — two areas

where systems thinking is increasingly important.

INCOSE Latam was also present at the **INCOSE International Symposium 2025 in Ottawa**, represented by our president, **Adrián Unger**. With the support of INCOSE Americas, we were able to take part in several in-person meetings with the **INCOSE Foundation, INCOSE Americas, INCOSE Brazil**, and **INCOSE staff**. These conversations helped us explore ways to expand collaboration and strengthen INCOSE’s presence and impact in Latin America.

Thank you to everyone who has contributed to these efforts. We’ll be sharing more updates soon.

The INCOSE Latam team

Find your next career move at the

INCOSE Career Center

Visit careers.incose.org

Corporate Sponsor



INCOSE BRASIL UPDATE

By Bruno Soares do Livramento, Director of Communications of INCOSE Brasil

First Brazilian to Achieve INCOSE ESEP Certification

INCOSE Brasil is proud to announce that Natalia Rocha has become the first Brazilian to achieve the Expert Systems Engineering Professional (ESEP) certification, the highest level of professional recognition granted by INCOSE. Fewer than 400 professionals worldwide currently hold this certification, making this accomplishment even more significant.

Beyond being a personal milestone, Natalia’s achievement represents an important collective advancement for the Brazilian systems engineering community. It also strengthens the visibility and representation of women in technical leadership roles, inspiring professionals across the country to pursue excellence in systems engineering.

First In-Person SEP Exam in Brazil

On June 28, 2025, INCOSE Brasil hosted the first in-person Systems Engineering Professional (SEP) certification exam in Brazil. The test was held in São José dos Campos (São Paulo) and attracted great interest, with all 20 available seats filled.



This milestone provided Brazilian candidates with unique conditions, including reduced costs and additional time for non-native English speakers. By offering the exam locally, INCOSE Brasil reinforces its commitment to expanding access to INCOSE certifications and supporting students and professionals in their pursuit of international recognition in systems engineering.

Brazilian Participation in the 35th INCOSE International Symposium

Brazil had a strong presence at the 35th INCOSE International Symposium (IS 2025), held in Ottawa, Canada. Brazilian researchers and professionals contributed with papers and presentations on key topics such as Product Line Engineering, security modeling with SysML4Sec, integrated

product development management, sustainability in transit systems, and safety analysis in fuel-cell propulsion systems.

Contributors included Davi Henrique de Sousa Pinto and Daniel Pereira, Carlos Eduardo Coelho and José Renato de Araujo Costa, Fábio Guimarães da Silva (President of INCOSE Brasil), and Jean Fernando Machado. In addition to technical contributions, Brazil also participated in global leadership forums, with the INCOSE Brasil president joining the chapter leaders' meeting, and the Federal University of Minas Gerais (UFMG) being recognized as a global member of the INCOSE Foundation.

Brazilian participation was also marked by collaboration and

engagement, culminating in the Brazilian team winning the INCOSE Gameshow. These achievements highlight the growing role of Brazil in the international systems engineering community and strengthen knowledge exchange with peers worldwide.

COLORADO FRONT RANGE CHAPTER

By Andrew Robinson, Secretary, Colorado Front Range

The Colorado Front Range Chapter recently hosted a summer picnic that brought together Systems Engineers, friends, and family from across the state for a relaxing and enjoyable afternoon. Held at Prairie Sky Park in Lone Tree, Colorado, the event provided the perfect setting for food, conversation, and camaraderie. With blue skies overhead and the backdrop of the Front Range in view, attendees gathered to reconnect with colleagues and make new acquaintances in a casual, outdoor environment.

More than 20 participants, including several spouses, significant others, friends, and a four-legged companion, came out to share the fun. Guests enjoyed a spread of tasty food, ranging from fresh sandwiches to side dishes and desserts brought by members. The atmosphere was lighthearted, with conversations ranging from professional insights on current projects to lighthearted stories and personal updates. For many, it was a welcome chance to put faces to names, meet newer members of the Colorado Front Range Chapter, and strengthen connections outside of the typical professional setting.

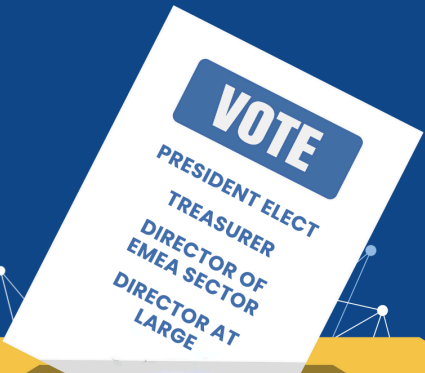


The event also highlighted the diversity of experience within the chapter, with attendees representing a variety of industries and career stages—from students and early-career engineers to seasoned professionals. This mix provided a unique opportunity for networking and mentorship in a laid-back environment, all while enjoying the best of summer in Colorado.

The chapter looks forward to making the picnic an annual tradition, offering members and their families a chance to relax, recharge, and strengthen the bonds that make our Systems Engineering community thrive.

INCOSE 2025 ELECTIONS

The INCOSE 2025 elections opened on 1 September 2025 and will close on 21 September (Midnight PST).



Check your email for your ballot

INCOSE AUBURN STUDENT DIVISION CHARTS AMBITIOUS COURSE FOR 2025-2026

The INCOSE Auburn Student Division is charting an ambitious course for the 2025–2026 academic year. With strong backing from the Huntsville Regional Chapter of INCOSE (INCOSE-HRC) and faculty support from Dr. Edward Huang and Dr. Christian Zamuela, the student organization is focused on expanding awareness of systems engineering career paths at Auburn University while also building technical skills and interest among its members.

Following the executive team's recent participation at the MBSE and SMD Symposiums in Huntsville, the INCOSE Auburn Student Division is launching campus-wide initiatives to raise systems engineering awareness across Auburn's engineering community. This fall on The Plains, the chapter aims to introduce more students, especially underclassmen, to SE as a viable and exciting career path. Plans include tabling at Auburn University involvement fairs, visiting first and second year engineering classes to present on the role of systems engineers, and hosting a mix of technical meet-and-greets with industry partners such as Leidos, SAIC, and Intuitive Research and Technology, as well as informal social events for members.

This year, we're focused on making systems engineering accessible to

students early in their academic journey," said Andrew Dillard, Vice President of the INCOSE Auburn Student Division. "We're not only preparing our current members for careers in SE, but we're also introducing the discipline to students who may not have even considered it yet. Our biggest goal is outreach and recruitment.

With monthly meetings, technical workshops, and a spring capstone collaboration already on the calendar, the INCOSE Auburn Student Division is positioned for one of its most impactful years yet. New students are being encouraged to attend the first kickoff social event scheduled for August 25th 2025 where the team will unveil more details about fall semester events and opportunities to get involved.

Up-to-date information on the INCOSE Auburn Student Division is available on both LinkedIn (INCOSE Auburn University) and Instagram (@INCOSEAuburn

UPCOMING HIGHLIGHTS IN SYSTEMS ENGINEERING FROM THE GFSE – TDSE® 2025 & SYSML V2 EXTRAVAGANZA

TdSE® 2025 – Systems Engineering at its Best in Salzburg

From 29-31 October 2025, the Tag des Systems Engineering (TdSE®) will once again bring together systems engineering professionals, researchers, and industry leaders – this year in the beautiful city of Salzburg, Austria.

The full program is now available at tdse.org, and tickets can already be purchased online. This is the perfect time to secure your spot and benefit from the full selection of tutorials and Tool Vendor Projects.

Program highlights include:

- A Keynote presentation by Andreas Hille and Christian Zingel from PALFINGER about Systems engineering as a key element in PALFINGER's digital and organizational transformation into an integrated solution provider.
- A panel discussion on *Systematic Reuse with Product Line Engineering in the Age of MBSE 2.0 and AI* – moderated by leading experts in the field.
- The interactive World Café, hosted by our sponsors, providing space for lively discussion and networking on key SE topics.

SYSTEMS ENGINEERING LABORATORY

Where INCOSE members can use real, full versions of systems engineering tools for non-commercial INCOSE purposes, learning, and projects, at no cost!





Whether you are looking to expand your knowledge, exchange ideas with peers, or discover the latest developments in SE tools and methodologies – TdSE® 2025 is the place to be.

All details and tickets: www.tdse.org

SysML v2 Extravaganza 2025 – Call for Presentations Open!

Mark your calendars! On **16 October 2025**, the **SysML v2 Extravaganza** will take place in Hamburg – a full day dedicated to exploring the future with SysML v2.

We invite **practitioners, researchers, and tool vendors** to share their insights, use cases, and practical experiences with SysML v2. Whether you have implemented the standard in a project, explored its integration with MBSE tools, or conducted research on its benefits and challenges – your contribution can inspire and guide the community.

Key details:

-  ZAL Hamburg, Germany
-  16 October 2025
-  **Submission deadline:** 31 August 2025
-  **Send your proposal to:** office@gfse.org

This event offers a unique opportunity to engage directly with experts, exchange knowledge, and influence how SysML v2 will shape the future of systems engineering. Don't miss your chance to be part of this exciting journey!

More information will be announced soon!

SWISSED25 – STORIES EXPERIENCED

The Swiss Systems Engineering Day (SWISSED) is here, 15 September 2025, we welcome our community once again to Zürich's beautiful Lake Side venue on the shores of Lake Zurich. Organised by the Swiss Society of Systems Engineering (SSSE), the Swiss Chapter of INCOSE, this 12th edition continues our tradition of sharing knowledge, fostering learning, and connecting Systems Engineering professionals from Switzerland and beyond.

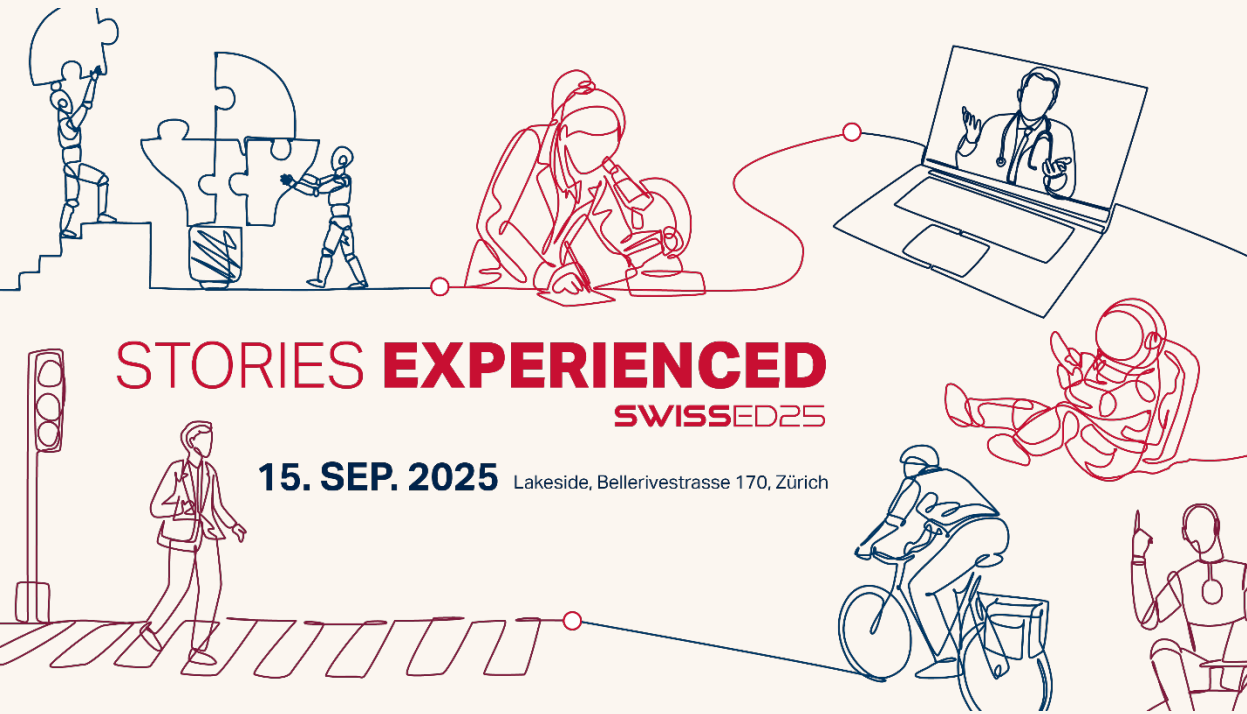
This year's theme, "**SE: Stories Experienced**", brings together first-class presenters from different fields and backgrounds. Our programme is shaped around real-world experiences and practical insights, giving

participants the opportunity to explore the many ways Systems Engineering impacts diverse industries and research domains.

Three keynotes, three perspectives

We are honoured to host three distinguished keynote speakers:

- **Prof. Michael C. Jackson**, a leading figure in Critical Systems Thinking, presenting his vision for *Systems Engineering 2035 – Turning Fiction into Fact*.
- **Lucio Tirone**, integration lead for the SKA-Low radio telescope in Western Australia, speaking on *MBSE-assisted Integration and Verification* of one of the world's largest scientific instruments.



- **Mike Lamont**, CERN’s Director for Accelerators and Technology, reflecting on *Systems Engineering at the Energy Frontier*.

More than a conference

Alongside the keynote sessions, SWISSED25 features parallel presentations from practitioners and academics, sharing best practices, lessons learned, and innovative approaches. In the morning, we also host the INCOSE Systems Engineering Professional (SEP) certification exam, offering attendees the chance to combine their participation with professional qualification.

A setting made for inspiration

The venue provides a scenic backdrop, with its views over the water creating an atmosphere well-suited for open discussion, new ideas, and meaningful connections. With an international audience and strong partner support, SWISSED25 continues to be a meeting place where Systems Engineering knowledge is both shared and experienced.

We celebrate another chapter in our community’s story – bringing together people, perspectives, and experiences that shape the future of our discipline.



INSTITUTE FOR SYSTEMS ENGINEERING (IFSE) UPDATE

Annual Systems Engineering Conference

Registration for the 2025 Annual Systems Engineering Conference (ASEC) is now open.

Don’t miss the opportunity to join the largest Systems Engineering Conference in the UK, attracting a wide range of industry professionals, international presenters and practitioners, which provides a distinguished platform for networking, learning and sharing ideas.

This year ASEC will be taking place on 25-26 November 2025 at the Ashford International Hotel, in Kent, UK. The theme for the conference is ‘*Broadening our Horizons*’ within which we intend to

explore the following sub-themes:

- **Enabling Sustainability**
- **The impact of AI on Systems Engineering**
- **Enhancing Collaboration**
- **Managing Stakeholder Expectations**

Don’t miss out on this incredible opportunity to engage with the largest Systems Engineering Community in the UK; register now!

INCOSE members are entitled to the IfSE member rate. To secure this rate please email events@ifse.org.uk prior to booking and you will receive a booking code to apply the member rate discount.



ASEC 2025

IfSE Annual Systems Engineering Conference 2025

Register Now

Broadening Our Horizons
25-26 Nov 25
Ashford International Hotel, Kent, UK

Register here:
www.asec2025.org.uk

INCOSE members are entitled to the IfSE member rate

Email events@ifse.org.uk to secure the discount rate

#ASEC2025UK

IfSE



INCOSE UK has officially transitioned to The Institute for Systems Engineering (IfSE).

The transition has been carefully planned to ensure continuity for members and industry partners. All existing memberships, services, and resources remain intact, with updated branding, membership options and a renewed focus on innovation and relevance in the modern engineering world.

IfSE will continue to act as the UK Chapter of INCOSE, the International Council on Systems Engineering.

Andrew Pemberton, IfSE President, commented:

"This is more than just a name change. It's a statement of intent. The Institute for Systems Engineering is committed to championing the role of Systems Engineering in addressing the interconnected challenges facing industry, government, and society. We are proud to build on the strong foundations laid by INCOSE UK and look forward to an exciting future as The Institute for Systems Engineering (IfSE)."

This long-awaited milestone reinforces our position as *the professional home for systems engineers in the UK* and our standing as a licensed Professional Engineering institute for the Engineering Council.

IfSE will continue to offer professional development, events, publications, and

networking, supporting individuals and organisations that apply systems approaches in their work.

The IfSE website can be accessed at www.ifse.org.uk.

New Publications Coming Soon

We are delighted to announce new publications coming soon to the IfSE Online Store.

These include:

Practical Systems Engineering Journal



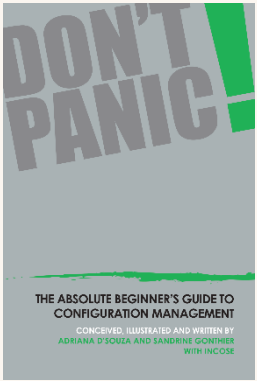
This is the first issue of the Practical Systems Engineering Journal. The journal will be published annual and will contain between three and six papers up to 30 pages long. The theme for the inaugural issue is 'Agile in Systems Engineering' with the Guest editor being Stuart Jobbins. Stuart has over forty years of experience in Systems Engineering, is a former INCOSE UK Council Member, and is author of the 'Don't Panic! The Absolute Beginner's Guide to Systems Engineering'. We believe that he is an ideal choice for our inaugural edition of the Journal.

As we publish our first issue, we are also announcing the theme for our second issue; 'Model-Based Systems Engineering'. If you have something

interesting to say associated with the world of MBSE, then why not consider writing a paper for our Journal?

For more information on how to submit an abstract for Practical Systems Engineering Journal, Issue 2, please visit the [IfSE Website](http://www.ifse.org.uk).

Don't Panic! The Absolute Beginner's Guide to Configuration Management by Adriana D'Souza and Sandrine Gonthier



Configuration Management is often seen as a complex topic, difficult to understand, and not necessarily engaging to a wide audience despite its correlation with many other disciplines, particularly with Systems Engineering and all other engineering qualities.

This 'Don't Panic! Guide' aims to describe in a simple and straightforward way the purpose and the key objectives that make up the very essence of Configuration Management. It provides keys to address Configuration Management calmly, dispelling the perception of its complexity and unattractiveness and sharing its added value.

These publications will be soon available for purchase on the [IfSE Online Store](http://www.ifse.org.uk).

JOIN A LOCAL CHAPTER

Local chapters play an essential role in the achievement of INCOSE's goals and objectives!

incose.org/chapters

AFIS ANNUAL CONFERENCE IS CHANGING SCALE: CALLS FOR CONTRIBUTIONS OPEN

“Where Experts, Ideas, and Opportunities Converge”

Those who attended the AFIS annual conference (“congrès” in French) in January 2025 in Paris appreciated the high quality of the presentations and the warm, fruitful exchanges during the three days.

The next AFIS annual conference (already the 29th!) will be held on January 13, 14, and 15, 2026, at the iconic La Cité in Toulouse. Two major innovations will make it a must-attend event for systems engineering:

- The second day (January 15) will host the first IEEE international workshop organized in France, dedicated to systems engineering research (see more details below),
- The three days will benefit from the exceptional setting of La Cité, its conference spaces, and more than 1,000 m² for posters, sponsor stands, and all the discussions they will generate.

Other key highlights will mark this edition, including the 20th anniversary of the RobAFIS student competition, the Thesis Prize, as well as a rich program featuring keynotes and conferences.

The event will bring together professionals, researchers, and industry leaders to address the major challenges in systems engineering: innovation,

complexity, sustainability, and digital transformation. More than just a conference, it is a space to create real opportunities for exchange and networking, notably during the Gala Dinner, to meet renowned exhibitors recognized in the engineering field for their value propositions. Attendees will also have the chance to take the INCOSE ASEP/CSEP certification exam and showcase their expertise and know-how. Whether you're an expert or new to the field, this event is a unique opportunity to share knowledge and enhance your practices to help shape the Systems Engineering of tomorrow - together.

We look forward to welcoming many of you to Toulouse for three days of inspiration, collaboration, and innovation!

Key Moments of the 29th Annual AFIS Conference

📢 CONFERENCES

Highlighting the latest advancements in Systems Engineering through keynotes, roundtables, projects, and research work. Do you have a topic or a product to present? Submit here: <https://bit.ly/4lm2TYC>

📢 ROBAFIS

Showcase your school by participating in the 20th edition of the autonomous

robot design competition and try to win the RobAFIS Award!

📢 THESIS AWARD

Convinced your research work will have strong industrial impact? Apply for the Thesis Award! Submit here: <https://bit.ly/4osuNF8>

📢 AFIS-IEEE WORKSHOP

An international workshop dedicated to research in Systems Engineering. An event recognized by AFIS, IEEE International, and the IEEE Systems Council.

Submit here: <https://ieee-serw.sciencesconf.org/>

📢 SEP EXAM

Showcase your expertise by taking the INCOSE certification exam for ASEP and CSEP levels. Register here: <https://bit.ly/47kwnmg>

📢 NETWORKING & GALA DINNER

Spaces to connect and grow within a rich, inclusive, and intergenerational professional community. Get your ticket: <https://bit.ly/4frGwj7>

About the 2026 International Workshop on Systems Engineering Research

The 2026 International Workshop on Systems Engineering Research is an international one-day workshop on systems engineering, financially sponsored by the INCOSE French Chapter AFIS, with technical co-sponsorship from IEEE International, the IEEE Systems Council, the IEEE France Section, the IEEE France Section Systems, Man, and Cybernetics Society Chapter, the French Society for Automation, Industrial Engineering and Productics (SAGIP) French Society for Automation, Industrial Engineering and Productics (SAGIP), and the S.mart Scientific Interest Group.

The workshop will be held in Toulouse, France, at La Cité, 55 avenue Louis Breguet, on January 14, 2026, jointly with the INCOSE French Chapter AFIS annual congress. Learn more here : <https://ieee-serw.sciencesconf.org/>

For further information, <https://www.afis.fr/congres-2026/>, or contact: incoserelation@afis.fr


[Back To Table of Content](#)

INCOSE WELCOMES NEW MIDDLE EAST AND NORTH AFRICA CHAPTER

INCOSE is delighted to announce the official chartering of its new chapter for the Middle East and North Africa (MENA) region, MENACOSE. This marks a significant step in expanding INCOSE’s global presence and fulfilling its mission to advance the systems engineering discipline worldwide.

Shaping the Future of Systems Engineering in the MENA Region

With its charter, INCOSE MENA (MENACOSE) is poised to become a central hub for systems engineering professionals, academics, and institutions across the MENA region. The chapter’s primary goal is to establish a robust ecosystem that drives

innovation, excellence, and regional transformation through the application of systems engineering principles. By bringing together a diverse community of experts, MENACOSE will work to elevate the practice of systems engineering and support its rapid growth in the region.

A Step Forward for the Global Systems Community

INCOSE Executive Director Steve Records expressed his enthusiasm for the new chapter, stating, “INCOSE’s vision to unite and advance the systems community has taken another step with the establishment of our MENA chapter. Systems engineering is growing rapidly



in the region, and as the trusted authority in systems engineering, INCOSE will help promote the discipline while developing the skills and competencies of our members and our represented companies.”

MENACOSE President Maged Elaasar highlighted the tangible impact the chapter is expected to have. He shared his perspective: “With the launch of the MENACOSE, we are uniting systems thinkers across the region to address our most pressing challenges and create a lasting impact on industries, governments, and societies.” This shared commitment is poised to drive innovation and create a lasting positive change. This new chapter reinforces INCOSE’s commitment to providing a platform for

knowledge sharing, collaboration, and professional development on a global scale. Everyone at INCOSE extends a warm welcome to MENACOSE and looks forward to their valuable contributions to the global systems community.

Learn More and Get Involved

To follow the journey of MENACOSE and stay informed about their activities and events, visit their [website](#) and follow them on [LinkedIn](#). We encourage all members with interests in the MENA region to connect with this exciting new chapter.



Image: Board of Directors of INCOSE MENA (MENACOSE)



PREVIOUS SECTION:
CHAPTER UPDATES



CONTINUE TO
WORKING GROUPS &
INITIATIVES UPDATES

COLLABORATING TO CAPTURE HER FOOTPRINT

By Federica Robinson-Bryant, PhD

From the intricate interplay of software and hardware to the holistic design of complex infrastructures, systems engineering lies at the heart of modern innovation. As we navigate increasingly interconnected challenges, the diverse perspectives and talents of our entire community are paramount. This article shines a light on the growing – yet still underrepresented – footprint of women in engineering, with a specific nod to the vital contributions they make within systems engineering. Drawing insights from an ongoing collaboration with the WFEO Women in Engineering (WiE) committee analyzing global data collection practices, we underscore the urgent need for international collaboration and a commitment to Diversity, Equity, and Inclusion (DEI) to truly understand and amplify the impact of women in our field.

While anecdotal evidence and individual success stories inspire, a clear and unified picture of women's participation in engineering, including our own systems engineering discipline, remains elusive. Global data reveals that women constitute, on average, only 20-30% of the broader engineering workforce. While specific figures for women in systems engineering are often interwoven within broader engineering statistics, the underrepresentation is a shared concern across STEM fields. This lack of precise, globally harmonized data underscores a

fundamental challenge. Without consistent metrics and comprehensive collection methodologies across different countries and regions, we are limited in our ability to accurately assess progress, identify systemic barriers, and implement targeted solutions.

In recognition of International Women in Engineering Day 2025, Dr. Robinson-Bryant served as a speaker in a WFEO webinar to showcase the diverse global approaches to women in engineering data collection. An upcoming white paper, "Harmonizing data collection on women in engineers across countries: a proposal for standardized metrics and methodologies", will offer a deeper look into the topic. Some regions boast centralized systems tracking licensed professionals, while others rely on distributed agency surveys and institutional reporting. This patchwork of data, while valuable in its own context, often employs varying definitions of "engineer" and focuses primarily on quantitative metrics like enrollment, graduation, and employment rates. What often remains uncaptured are the crucial qualitative aspects: the lived experiences, the impact of workplace culture, the prevalence of bias, and the factors influencing retention and advancement.

For the systems engineering community, embracing DEI is not merely a matter of social justice; it is a strategic imperative.

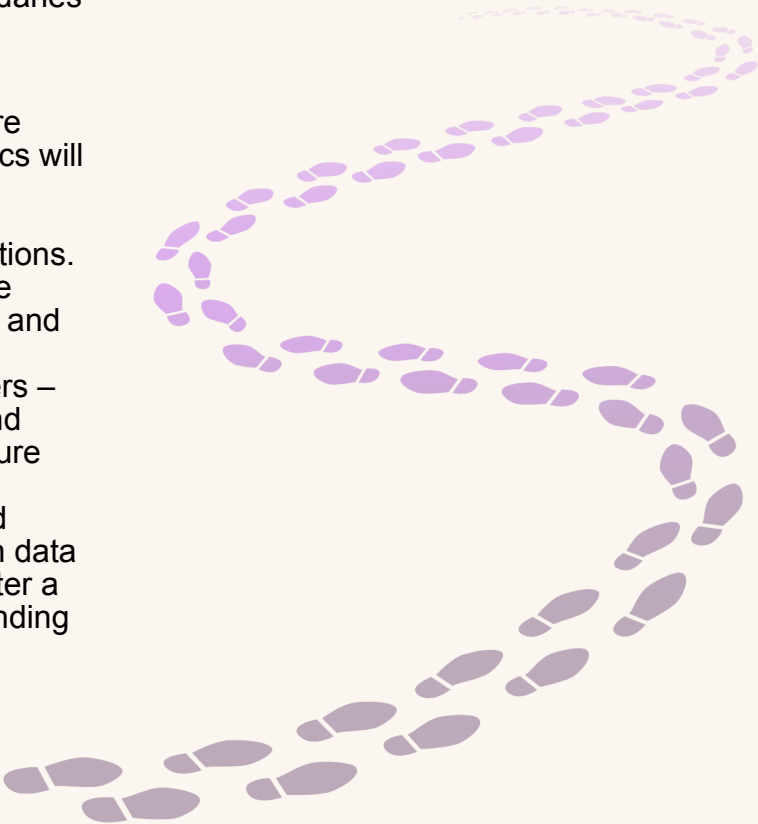
Systems are inherently complex, requiring a multitude of viewpoints to ensure robustness, anticipate unintended consequences, and truly serve the needs of diverse stakeholders. The unique perspectives and problem-solving approaches that women bring to the table are invaluable in navigating this complexity. Their contributions span the entire systems lifecycle, from requirements elicitation and design to verification, validation, and sustainment. Recognizing and amplifying their voices strengthens our ability to engineer more effective, ethical, and human-centered systems.

However, moving beyond simply counting numbers requires a deeper understanding of the cultural and systemic factors that shape women's experiences in engineering. This is where a global collaborative effort, deeply rooted in DEI principles, becomes essential. We must work together across international boundaries to:

- Harmonize data collection methodologies- Striving for more consistent definitions and metrics will allow for meaningful global comparisons and a clearer understanding of regional variations.
- Incorporate qualitative data- We need to move beyond statistics and actively seek to understand the experiences of women engineers – their challenges, successes, and perspectives on workplace culture and inclusion.
- Promote data transparency and sharing- Increased openness in data collection and reporting will foster a more comprehensive understanding of the global landscape.
- Address cultural and structural

barriers- Recognizing and dismantling the systemic biases that hinder women's progress in engineering is crucial for creating truly equitable and inclusive environments.

INCOSE, as a global organization, has a vital role to play in this effort. By fostering dialogue, sharing best practices, and advocating for more inclusive data collection, we can contribute to a more accurate and nuanced understanding of women's footprint in systems engineering and the broader engineering landscape. Let us commit to "measuring what we treasure" – not just numbers, but the talent, perspectives, and contributions that women bring to our field, driving innovation and shaping a more equitable and technologically advanced future for all.





REQUIREMENTS WORKING GROUP UPDATE

By Lou Wheatcraft, RWG Chair

The Requirements Working Group (RWG) has had a highly active year to date. Our followers on Viva Engage has increased to over 2,650 with an active series of discussions on various topics. Our activities include keeping both the public-facing RWG website and the internal iNet website current, conducting monthly meetings, collaborating with other WGs, responding to requests for presentations, continuing work on several new projects, updating several existing products, and conducting sessions at IW2025 and IS2025.

At IS2025, the RWG had a hybrid session led by cochairs Kevin Orr and Jeff Williams. Chair Lou Wheatcraft and cochair Sarah Vazquez attended and presented virtually. The session was well attended both in person and virtually. Many of the attendees were first time IS attendees and were new members interested in learning more about and joining the RWG.

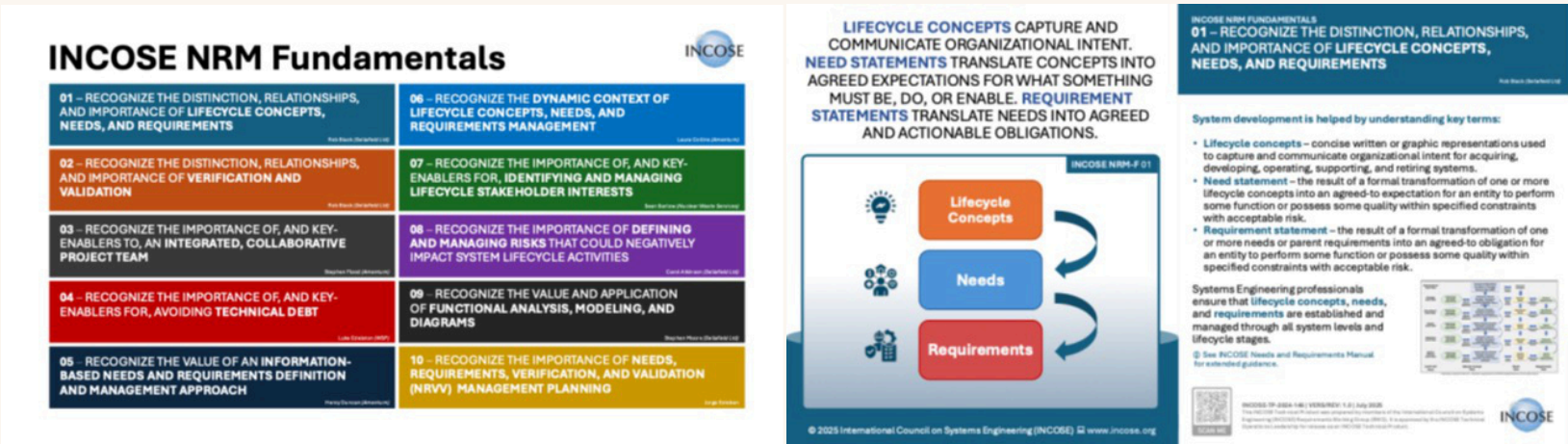
During this session, an overview of the RWG was presented, discussing its purpose, online presence, presentations on the INCOSE RWG YouTube Channel, Viva Engage community, products, outreach activities, and how to join both the RWG and other WGs of interest.

Project leads provided an overview and status update on the various activities

and projects underway. Cochair Jeff Williams provided a status update for his team’s progress in developing the Guide to Model-based Needs and Requirements (GtMBNR) and its accompanying model. This model aims to implement the concepts and activities outlined in the NRM from the perspective of language-based models. The model is being developed using tools available in the INCOSE SE Lab. Once registered with the SE Lab for the necessary tools to view the model, INCOSE members can contact Jeff for access to the model. Overview presentations about this project are available on the RWG iNet site.

Chair, Lou Wheatcraft gave an update on a project lead by Robert Black, UK, “Needs and Requirements Manual (NRM) Fundamentals Flip Cards”. The project is nearing completion with some last-minute formatting before being submitted for approval and placement in the INCOSE Store. The final product will include a PDF of a PowerPoint file with introductory material and 10 flip cards shown in the following figure.

An example card is shown hereafter:



Cochair Kevin Orr provided an update of the ongoing AI for Requirements Engineering (AI4RE) project, which is a collaboration between the AI Systems WG and INCOSE. The project, which has been active over the 9 months. It is divided into 3 workstreams, each holding regular virtual meetings. Workstream 1 developed a survey to better assess AI awareness and perception in terms of requirements development, identification of use cases that AI would be most effective, limitations, real-world experience, and future expectations. The initial distribution was to TechOps and Working Groups. They are doing a preliminary analysis of the result. They recently sent the survey out to INCOSE CAB associates who may distribute to their company staff as allowed, also in the future will sent out the survey to all INCOSE members. The results will be organized and provided to the other workstreams in support of their work.

Cochair Sarah Vazquez presented a proposal to create a series of micro-learning training videos that will effectively summarize the key concepts

covered in the RWG products. Given the time and effort to develop such materials, Sarah is asking for volunteers that would like to be part of this project to help her and CoChair Katarzyna Kot develop these materials. Katarzyna is also working with the PDP to link requirements related materials on the RWG iNet site to the PDP sections dealing with requirements.

Cochair Kevin Orr continues to lead the planning and managing of the RWG monthly meetings. Our plan to scheduling these meetings at two different times has proven to be a significant success in accommodating our members’ varying schedules. A comprehensive list of past and upcoming meetings is available on our iNet site, along with copies of slides and presentations as they become available. We announce sessions via email to our membership, as well as on the Viva Engage community site, and the RWG public-facing web page. Below is a listing of presentations given over the last 8 months and the presentation planned for August.



- **December 2024:** “Open Discussion: AI in RE, what is your industry/company doing?” moderated by Sarah Vazquez
- **January 2025:** "INCOSE Guide to Security Needs and Requirements" by Beth Wilson
- **March 2025:** “INCOSE IW2025 RWG” Recap by Lou Wheatcraft
- **April 2025:** “STC OOSEM Update – ISON” by Adam Skrzpczak, Lead Chief – MBSE at Strategic Technology Consulting (STC)
- **May 2025:** “Using AI for Requirement Development and Validation of Safety Requirements” by Akshay Chalana and Oscar Avatare co-founders of Saphira AI
- **June 2025:** “Chief Trace: A Real-Time Traceability Engine for PM-SE Integration in Regulated Systems” by Achinth Murali
- **August 2025:** “Intelligent MBSE - AI assisted Requirements Generation” by Katie Fisher, Strategic Technology Consulting (STC)

- **October 2025:** “Requirements management framework adopted by the British railway (at Network Rail) including lessons learnt and challenges in adoption.” By Magdalena Krusinowska.

Slots for September, November, and December are open, so if any readers have a specific topic of interest, they would like to learn more about it or have a topic they would like to inform others about at one of our monthly meetings, please inform the RWG leadership at requirements-leaders@incose.net.

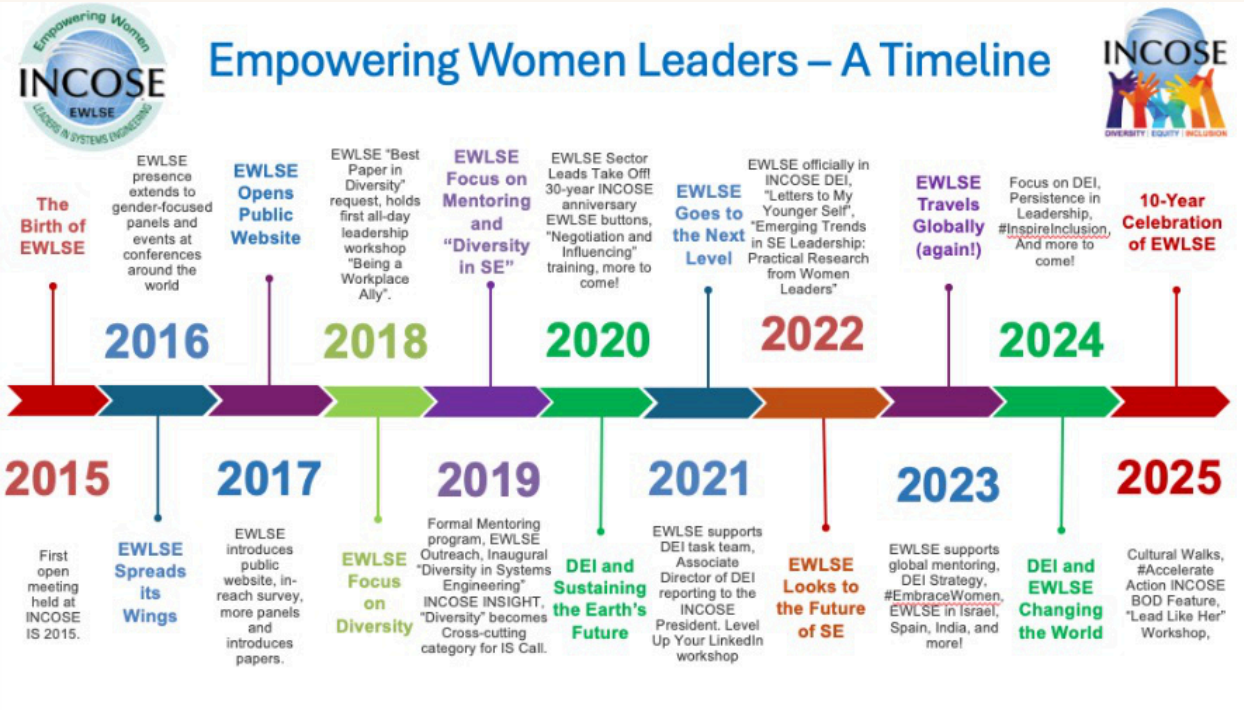
CELEBRATING A DECADE OF EMPOWERED WOMEN LEADERS

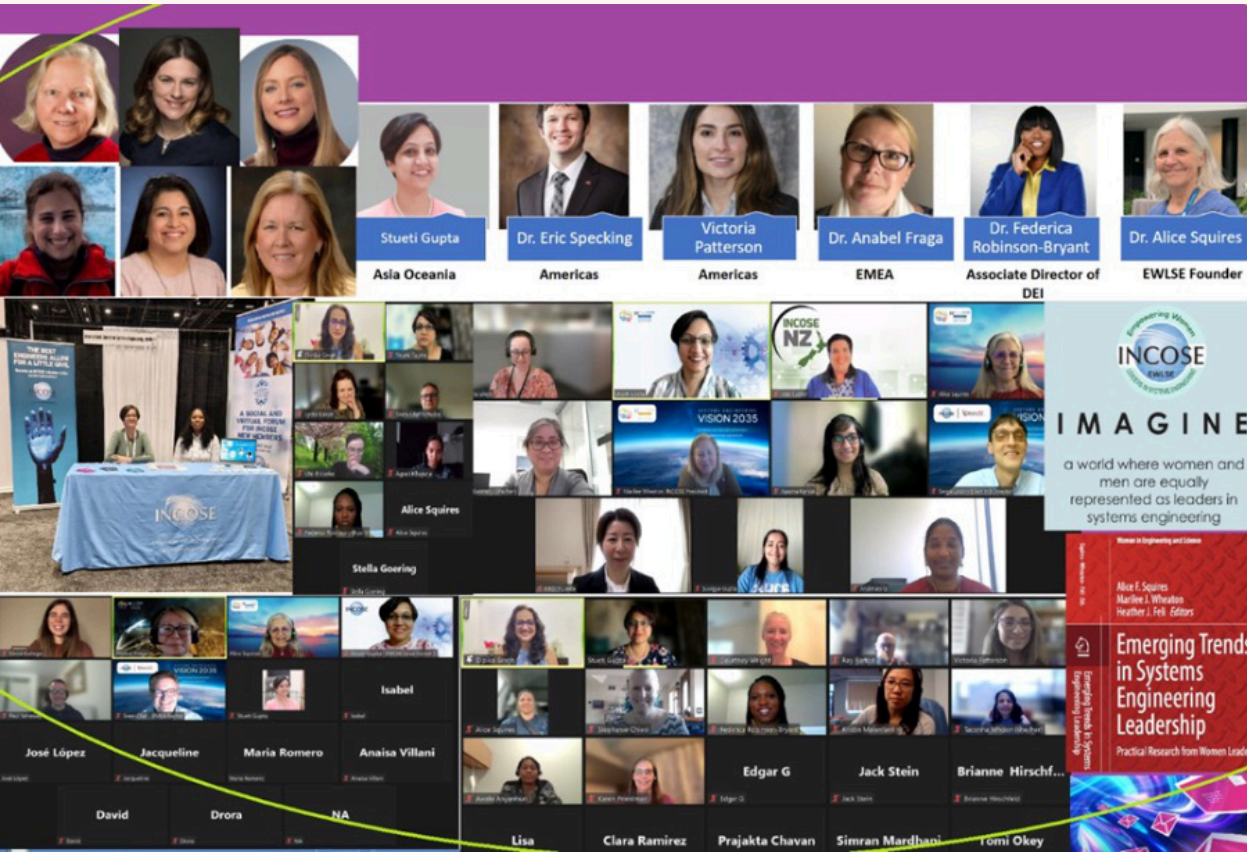
By Alice Squires, INCOSE Treasurer and Stueti Gupta, INCOSE Secretary

“Blue hair”, “Making a difference”, “Everyone in the room”: these are examples of what empowered the over 50 men and women that attended the first Empowering Women Leaders in Systems Engineering (EWLSE) meeting in the summer of 2015 at the INCOSE IS. The goals of this newly formed group were to create a systems engineering environment welcoming to all, promote the demonstrated value of women as systems engineers and leaders, enable increased participation and retention of women in systems engineering leadership, and engage women at all levels of education around the world. These goals have remained steadfast

over the last decade in support of EWLSE’s vision to champion a world where women and are men equitably represented as leaders in systems engineering.

Insights and lessons learned from EWLSE’s webinars, workshops, tutorials, panels, and celebrations have been shared through INCOSE quarterly newsletter articles over the past ten years. EWLSE has also sponsored technical papers, an INCOSE Insight magazine themed edition, and publications such as the “Letters to My Younger Self: How Systems Engineering Has Changed My Life” and “Emerging Trends in Systems Engineering:





Practical Research from Women Leaders”. Here we share a sample of messages of impact of EWLSE’s work over the past decade. Each message has a story to tell, and there are many more women and men empowered just knowing that EWLSE is there for guidance, support, and celebrations of all that we are and all that we can become.

"When I think of EWLSE, I'm reminded of a pivotal moment—after a long day in a workshop where Alice and I were the only women, we sat down for a coffee chat. I asked her a simple question: 'Does INCOSE have anything for women?' She said no, and added, 'Maybe we should do something about it.' So we did. And today, I'm incredibly proud of what we've built and how far

we've come." Shamsnaz Virani Bhada

"EWLSE has given me purpose, a way to let the world see that technical expertise, great leadership, and more, exist all around us, but sometimes need our support to be valued and to be heard." Alice Squires

"EWLSE has been invaluable to my personal and professional journey. Curiosity transcended into networking. Networking morphed into mentorship. Mentorship blossomed into friendships. And friendship yielded a sense of community. Being surrounded by women [and men] that not only emulate the beauty of femineity, intellect and KSAs, has fostered my own passion to have a hand in advocating for women, children, families and communities in

engineering and beyond." Federica Robinson-Bryant

"EWLSE has turned inclusion into lasting impact — guiding and motivating systems engineers to lead with confidence, innovate with purpose, and carry forward into a more diverse and dynamic future." Ramakrishnan Raman

"EWLSE WG has empowered me to believe in myself and to do so with grace." Victoria Patterson

"When I think about EWLSE I think about connections. I think about people advocating and helping each other. We all want to make a difference but have a lot of work to do." Eric Specking

"EWLSE is a community dedicated to improving the lives of others through a Systems Engineering approach. We are a family of engineers committed to advancing knowledge through diversity and inclusion, which empowers us all in our journey to build a better world. I found in EWLSE a family and a community built on trust and empowerment. It's a place where we can all grow together, embracing our diversity to include everyone in our efforts to create a better world, keeping in mind the systems engineering values." Anabel Fraga

"I really appreciate knowing that EWLSE is here for me." Terri Chan

"EWLSE continues to be a steadfast, reliable resource to encourage women in systems engineering. The leaders are committed to providing valuable programming, such as the 'Lead Like Her' session at the recent INCOSE IS25. The part of the session where

author Margaret Andrews shared information from her book 'Manage Yourself to Lead Others' was particularly useful and a conference highlight. I am thankful to INCOSE and to EWLSE leadership for their commitment to this work." Heidi Davidz

"A community openly celebrating successes reminded me it's been too long since I did the same, and it felt great! Making time for this matters." Carla Sayan

"As a new member of INCOSE, I am excited to be part of a global community that champions Systems Engineering—not just as a technical discipline, but as a way of thinking. Systems Engineering is, at its core, Ecosystem Engineering: the integration of systems within systems, working in harmony toward a shared purpose. This collaborative spirit is reflected in the diverse voices within INCOSE, especially the growing presence of women from around the world. In a field historically dominated by men, our participation is not about gender—it's about expertise, perspective, and attitude. We come together as engineers, united by a common goal: solving complex challenges through thoughtful design and innovation. To me, this is the true essence of empowerment. It is not about labels—it is about impact. Our work speaks for itself, and our contributions shape the future of engineering. That is the celebration: when collaboration transcends boundaries and diversity becomes our strength. Let's continue to build systems that reflect the best of all of us." Dipali Kuchekar

“EWLSE members have provided support and encouragement for my daughters (as well as myself and my wife!) as our girls were gaining their engineering degrees and searching for full-time professional jobs. The coaching and mentoring were most helpful. Introducing my kiddos to this awesome, supportive, and impactful group of professionals was a ‘no-brainer!’” Christopher Hoffman

“EWLSE extended both my professional and personal network of very talented women. Led to opportunities to work together that would not have been possible previously. Provided strength and encouragement, touched with friendly female banter. Serves as a great listening platform to suggest possibilities.” Kerry Lunney

“EWLSE has strengthened my connection to INCOSE and the broader systems engineering community by fostering meaningful connections with diverse systems engineers, encouraging collaborative research and publications, and building a strong, supportive sense of community. It’s a powerful example of how empowering women leaders elevates the entire discipline.” Heather Feli

“EWLSE empowered me by opening the door to self-awareness - guiding me to embrace change with confidence, lead with intention and nurture my child with values that matter. My journey to deepen self-awareness continues as a part of TLI Cohort 10.” Payal Parate

“For me, EWLSE is a reminder that systems engineering is not just about solving complex problems, it is about building resilient, inclusive systems where everyone thrives. As we celebrate this milestone, I am filled with gratitude for the friendships, the growth, and the shared vision that EWLSE has nurtured. EWLSE is where empowerment meets engineering, ten years of lifting each other up, breaking perceptions, and building a future where every voice matters.” Stueti Gupta

Membership in EWLSE is open to all INCOSE members, simply add the working group to your INCOSE profile under “Join a Working Group” and you should start receiving emails about upcoming community events. Please feel free to contact EWLSE leadership through ewlse-leaders@incose.net.



**LEVERAGE YOURSELF
WITH INCOSE!**
[INCOSE.ORG/JOIN](https://incose.org/join)

[Back To Table of Content](#)

What would **YOU** tell your younger self?



SCAN FOR VOL1



STAY TUNED FOR VOL2



PREVIOUS SECTION:
WORKING GROUPS &
INITITIVES UPDATES



CONTINUE TO
SERVICES, PRODUCTS
& PUBLICATIONS

THE INCOSE SE LAB: RAPID GROWTH IN LAB USERS WITH MORE PARTICIPATING TOOL VENDORS AND TOOLS

By Craig Leger

The INCOSE Systems Engineering Laboratory (SE Lab) is one of the fastest-growing services in INCOSE, with over 650 INCOSE members who have used the lab in the past two years. The lab provides INCOSE members with access to a rich collection of industry-leading systems engineering tools. Our vision remains clear: to create a computing environment where members can freely explore and use full versions of these tools for individual learning, for professional development, and for non-commercial, collaborative INCOSE projects. This initiative benefits both our members, who gain valuable

hands-on experience, and our participating tool providers, who gain exposure to their products.

The INCOSE SE Lab works in partnership with 16 tool vendors to offer 34 tools. This diverse selection ensures members can find the right tools to meet their specific needs.

The INCOSE SE Lab Demo Day Webinar Series is a great opportunity to learn about the tools in the lab. The lab usually hosts two webinars each month. There have been sixteen (16) webinars between November 2024 and August 15, 2025, with average attendance

around 100 participants, and as high as 325+ webinar participants.

- Future webinars are announced on the INCOSE Events page: <https://www.incose.org/events/>.
- Video recordings and presentation materials from each webinar are available in the INCOSE Professional Development Portal (PDP): <https://www.incose.org/learn/incose-pdp>

We extend a warm welcome to our newest vendors and tools:

- **Dalus** is a modern Model-Based Systems Engineering tool that enables engineering teams to model system architecture, simulate performance, and manage requirements on an AI-driven collaborative platform based on the SysMLv2 standard.

Vendor **Change Vision** has added **SysMLv2 Editor for Visual Studio**

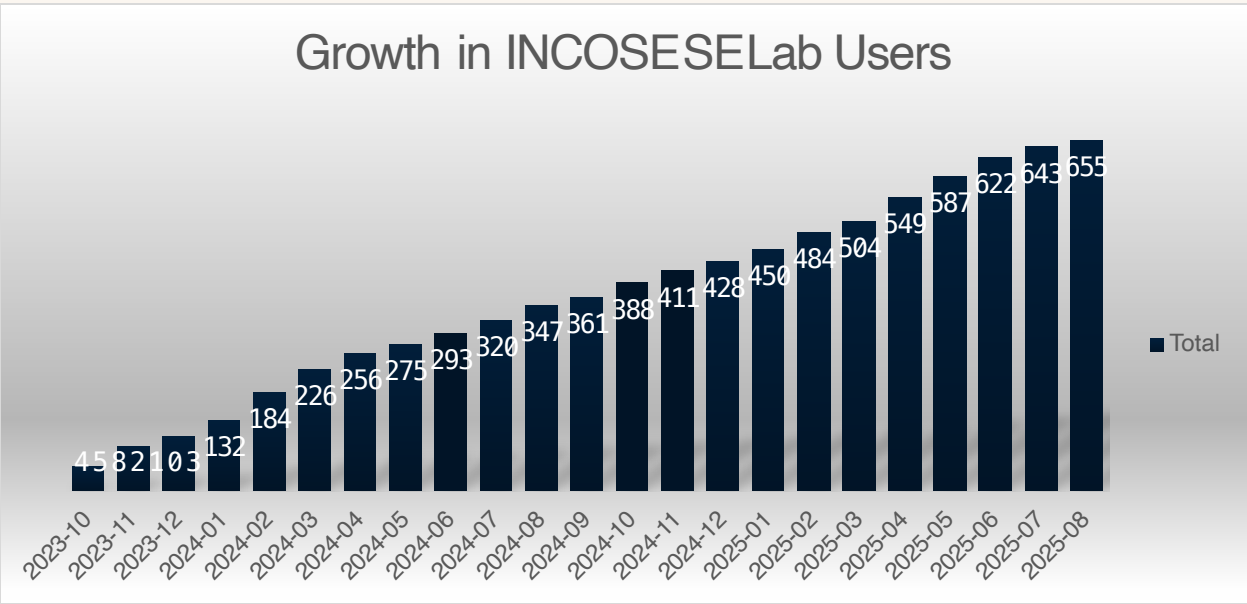
Code to the two other **Change Vision** tools already available in the lab.

- **SysMLv2 Editor for Visual Studio Code** is a lightweight extension developed by Change Vision, Inc., designed for engineers and developers working with SysMLv2. It enables fast, syntax-aware model editing, with key productivity features such as real-time validation, symbol navigation, and optional diagram visualization.

- **Change Vision** contributed **Astah SysML** and **Astah System Safety** to the SE Lab in May earlier this year.

The SE Lab is looking for volunteers to advance activities in several new directions.

To volunteer, email selab@incose.net and express your interest.



Modelers	Members with MBSE experience that can assist working groups and other teams in collaborative modeling projects
Model reviewers	Members that can organize and conduct model reviews or participate as reviewers in SE Lab model reviews
Tool vendor support	Members that can work with our current tool vendors and with potential tool vendors to support communication and satisfaction with tool vendors as SE Lab stakeholders
Member support	Members that can support other INCOSE members, working groups, and project teams in getting access to lab tools and providing information and resources for SE Lab use

UPDATES FROM INCOSE’S TECHNICAL LEADERSHIP INSTITUTE

By Suja Joseph-Malherbe, TLI Coach, suja.joseph-malherbe@incose.net and Donna Long, TLI Coach, Donna.Long@incose.net

Cohort 9

Join us in celebrating with Cohort 9 now that they have completed their initial 2-year experience and are full members of the Institute. Over the past two years they have worked on understanding their leadership style, learning about different aspects of leadership, and adapting their style when working in a team. Along the way they participated in eight quarterly workshops, engaged in

collaborative assignments which gave practical experience on some of the issues that working on a global team may encounter, and written a paper. We look forward to engaging with them and see how they continue their learning journeys and enrich the Institute.

TLI at IS 2025

Although the Institute is mainly a virtual experience, it is enriched by in-person



Top Row: Garima Bhatia, Thomas Manley, Will Barnum, Dean Norfleet, Raul Zamorano, Robin Mikola, Nathan King, Julia Eng, Terry Fitzgerald, Hanish Mehta.

Bottom Row: Sharad Rayguru, Tyler Thomas, Yukimi Mizuno, Alberto Gonzalez Fernandez, Jennifer Giang, Natlie Gustafson, Stephanie Lord, Evelyn Honore-Livermore, Amy Moy, Julie Tomlinson.

gatherings at events such as the International Symposium. 35 TLI members attended the Symposium in Ottawa and took advantage of the scheduled social and topical engagements as well as gathered informally throughout the event to engage. We all left the IS knowing other TLI members a bit better and more engaged with the TLI network.

We were fortunate to have two separate engagements with IS keynote speakers – Langdon Morris and Robert Thirsk. Langdon facilitated an AI workshop based on his research challenging each participant to assess their organization’s AI usage and steps that can be taken to increase the effectiveness of using AI in their organization. Robert built upon his time as an astronaut to convey lessons learned on self-management, teamwork, and leadership to increase productivity. Both of these engagements were well received by the 20 TLI members who attended.



Langdon Morris and the TLI

The Evolving Coaches Team

In the Q2 Member Newsletter, we announced the newest members of the coaching team, Donna Long (Cohort 8) and Robert Schwenke (Cohort 8).

We are launching our next global search for additional members to join the



Robert Thirsk and the TLI

coaching team. A series of dialogs will be held between each candidate and current coaches, to seek alignment between individual and collective expectations as well as alignment with the ethos of the Institute. Thus, a good fit will emerge that will serve and advance the Institute.

The following are important facets that will guide this endeavour:

- Consider the team composition through a portfolio lens. That is, look at the team as a whole for essential characteristics necessary to successfully deliver value to the Cohort(s) and the inducted members of the Institute.
- Individuals who have demonstrated the leadership and coaching qualities we seek and also recognise that they themselves are on a continuing leadership learning journey.
- The experiential understanding of the initial two-year experience is vital to the teams’ ability to create the environment for others on their learning journey. As such, majority of the coaching team will be the Institute’s inducted members. AND to address the echo chamber effect, include at least one voice outside of the Institute.

Our intent is to announce the continued evolution of the team by the end of the year, so stay tuned for updates.

INCOSE MENTORING SERVICES UPDATE

Meet INCOSE's new Assistant Director for Mentoring Services, Marouane Grirate. Marouane agreed to accept the leadership of INCOSE's Mentoring Service because he is passionate about supporting the professional growth of systems engineers, wants to contribute to the community by sharing experience, and believes in the value of mentorship to foster skills development and collaboration within the field. Marouane volunteered to support the Mentoring Service in January 2025 and has been a significant contributor to the service since the first day he volunteered.

Marouane's interest in systems engineering started when he joined Lear Corporation Morocco as a system engineer. His passion continued even more working for Segula. After joining INCOSE, the world of systems engineering began to fascinate him even more, as he has had the opportunity to meet systems engineers from around the world. Marouane's work experience and education include being a Safety Engineer at Lear Corporation, Implementation engineer at Anoire Electrique and requirement management engineer at Segula Morocco Africa. His education includes a Master's degree in Electrical and Electronical Engineering at Hassan II University in Casablanca and PM certification from PMI. Marouane decided to start spreading SE knowledges and promote the image of INCOSE in Morocco in order to support



industry development in the region.

Current Status of INCOSE's Mentoring Service: The Mentoring Service is in its third year of operation (following a year of pilot operation). We currently have 28 INCOSE mentors open to accepting new mentees and have had over 100 mentees participate in the program to date. Only full INCOSE members may participate (CAB company employees or non-members are not eligible). The link to volunteer to be a mentor or to request mentoring is: <https://www.incose.org/inet/discover-community-initiatives/mentoring-program>

Future Plans: In the fourth quarter of 2025 the Mentoring Service will transition from its current "home grown" SmartSheet-based implementation to Higher Logic mentoring software. We will update the INCOSE community once we know specifics about this change.

[Back To Table of Content](#)

Join The CAB!

- The INCOSE Corporate Advisory Board (CAB) is the "**Voice of the Customer**" to the INCOSE leadership.
- The CAB provides **strategic guidance** to INCOSE's technical leadership team; leading to the development of Systems Engineering products and standards to meet their needs.

Need more information? Visit [incose.org/cab](https://www.incose.org/cab)



PREVIOUS SECTION:
SERVICES, PRODUCTS
& PUBLICATIONS



CONTINUE TO
COMMUNITY UPDATES
& INTERESTS

OBJECT MANAGEMENT GROUP APPROVES FINAL ADOPTION OF THE SYSML V2 SPECIFICATION.

The international technology standards organization [Object Management Group®](#) (OMG®) announced on July 21, 2025 that it approved the [Systems Modeling Language \(SysML\) version 2.0 specification](#) for final adoption along with the Kernel Modeling Language (KerML) specification version 1.0 that provides the semantic and syntactic foundation for SysML v2, and the Systems Modeling Application Programming Interface (API) and Services specification version 1.0 that enables SysML v2 models to interoperate with other models and tools.

"The effort to bring SysML v2 is the cumulative work of many OMG

members over the last seven years. The result is a full-blown major release of the most widely used systems engineering standard," said Bill Hoffman, Chairman and CEO of OMG.

The specifications enable next-generation systems modeling with improved precision, expressiveness, consistency, usability, interoperability, and extensibility over SysML version 1. SysML v2 enables the modeling of increasingly complex systems as part of the evolving practice of model-based systems engineering. "This is an essential contribution to our strategic ambition to evolve systems engineering to a fully model-based discipline," said



INCOSE President Ralf Hartmann announcing SysML v2 adoption at opening plenary of INCOSE IS in Ottawa on July 21

Ralf Hartmann, president of the International Council on Systems Engineering (INCOSE). Hartmann reiterated this at the INCOSE International Symposium in Ottawa in the opening plenary.

The OMG Systems Modeling Community (SMC) is a vibrant community of users, tool vendors, and academia collaborating with INCOSE to develop practices to facilitate the transition from current practice to model-based systems engineering (MBSE) with SysML v2. "To take advantage of the rich features of the language and API, organizations are encouraged to develop a transition strategy and plan to adopt these technologies and leverage these practices," said Chris Scheiber, Chief Engineer at Lockheed Martin.

"SysML v2 includes concepts for modeling systems with deeply nested hierarchies of structure, behavior, requirements, and cross-cutting relationships. It also enables systems engineers to specify analysis and verification cases to ensure the systems of interest satisfy their requirements," said Sanford Friedenthal, Co-Chair of the Systems Modeling Community (SMC).

SysML v2 provides complementary textual and graphical representations of the underlying model, facilitating improved system understanding. A standard API and associated set of services to navigate, query, and update the model enables interoperability with other tools and software applications throughout the life cycle of system development. "The SMC is also developing a gold standard reference implementation and conformance test suite to evaluate tool conformance to the specifications," said Ed Seidewitz, Co-Chair of the Systems Modeling Community.

The tool vendors listed in Table 1 provided statements of support for SysML v2 as part of the OMG adoption announcement. Note that other vendors are supporting SysML v2 but are not listed in the OMG announcement.

There were several SysML v2 vendors exhibits along with SysML v2 tutorials and presentations at the INCOSE International Symposium in Ottawa on July 28 – 31.

Refer to the [SysML v2](#) website at <https://www.omg.org/sysml/sysmlv2/> for additional information. The full OMG announcement can be found at <https://www.omg.org/news/releases/pr2025/07-21-25.htm>.

Table 1. SysML v2 Tool Vendors listed in OMG announcement dated June 21, 2025

- Ansys
- Celedon Solutions
- Dassault Systèmes
- Ellidiss Technologies
- IBM
- Intercax
- MathWorks
- Mgnite Inc
- Obeo
- PTC
- Qualtech Systems, Inc. (QSI)
- Sensmetry
- Siemens
- SodiusWillert
- SysGit
- Tom Sawyer Software
- Violet Labs

SYSTEMS, THINKING, LEGAL FRAMEWORKS, AND GENERATIVE AI: APPLYING AN ENGINEERING SYSTEMS PERSPECTIVE

By Rishi Ganesh, University of Surrey, UK, INCOSE Chesapeake Chapter, Systems Engineering and Lawmaking WG, Artificial Intelligence WG

The legal field could be described as a complex socio-technical system that exists within a broader environment of political, economic, and cultural forces. Understanding how the evolution and functions of laws require not only legal analysis but also systems thinking. At the “Systems Thinking” INCOSE 2025 tutorial, David Long outlined principles for understanding complex systems and distinguishing between the discipline of systems engineering and the broader engineering systems lifecycle. While his examples were drawn from engineering practice overall, the concepts can be directly applied to the legal domain.

A key insight from systems thinking is that context matters – the same solution yields different outcomes in different environments. For example, a privacy regulation will have different impacts across jurisdictions with advanced digital infrastructure in comparison to those with limited connectivity. Understanding these variations requires defining what exactly the system and the environment entail overall.

Effectiveness also depends on managing interfaces and feedback loops

between the system and its environment. In legal systems, these interfaces include courts, markets, public opinions, politics, technology, and cultural norms. Change in one can cascade through the others, producing second- and third-order effects.

Generative AI (GenAI) can enhance systems thinking in the legal domain by:

- 1. Mapping dependencies between laws and societal subsystems
- 2. Classifying legislation by functional category and systemic role
- 3. Generating scenario simulations to anticipate downstream impacts of legal changes

Systems thinking also highlights the importance of multilingual communication – conveying insights in the language of each stakeholder group. For AI-assisted legal modelling, this means outputs must be reframed for policymakers (decision consequences), communities (plain-language impact summaries), and technologists (operational parameters). GenAI can assist by tailoring messages to each audience.

Empathy is another essential competency. Technical expertise without understanding people’s needs and constraints risks failure in validation. In lawmaking, this requires modelling the lived experiences of those affected by legislation. In AI applications, it demands human-centered design to ensure outputs are understandable, trustworthy, and context-sensitive.

Ultimately, the purpose is not to create sophisticated models for their own sake, but to enable better governance – laws that are fair, effective, and context-appropriate. By combining systems thinking with domain-specific legal knowledge and GenAI’s analytical reach, legal risk modelling can evolve from static rule interpretation to dynamic, context-aware decision support, supporting “successful realization” – not just drafting laws, but ensuring they work effectively within the real-world systems they aim to improve.

“A key insight from systems thinking is that context matters – the same solution yields different outcomes in different environments”





PREVIOUS SECTION:
SERVICES, PRODUCTS
& PUBLICATIONS



CONTINUE TO
EVENTS

JOIN US IN SINGAPORE FOR AOSEC 2025!

The Asia-Oceania Systems Engineering Conference (AOSEC) 2025 is the premier event for systems engineering practitioners in the Asia-Oceania region, and you're invited to join us in Singapore from 27 to 29 October 2025. This conference is a unique opportunity to connect with fellow professionals, exchange ideas, and share insights on the state of the art in systems engineering.

The conference will be held at the Orchard Hotel, with tutorials and INCOSE business meetings on October 26, followed by three full days of conference sessions.

Navigating VUCA with Systems Engineering

This year's theme, "Systems Engineering—Navigating Volatility, Uncertainty, Complexity, and Ambiguity (VUCA)," is more relevant than ever. Our world is constantly changing, and systems engineering provides the framework to tackle these challenges head-on. The conference will feature daily keynote sessions from leading international speakers, including INCOSE President-Elect Dr. Mike Watson from the USA, Prof. Stephen Cook from Australia, and distinguished leaders from Japan, India, and Korea. These keynotes will be followed by three parallel streams of presentations across eight technical tracks.

Technical Tracks

The AOSEC 2025 program is designed

to provide comprehensive insights into the diverse applications of systems engineering. Here's a glimpse into the key technical tracks:

- **AI4SE & SE4AI:** Discover how artificial intelligence can enhance systems engineering practices (AI4SE) and how systems engineering principles can be applied to create more robust and reliable AI-based systems (SE4AI).
- **Digital Engineering/MBSE:** Explore the latest advancements in Model-Based Systems Engineering (MBSE) and Digital Engineering (DE), and learn how these practices promote digital continuity and agile approaches in managing complex, software-defined systems.
- **Energy and Sustainability:** Understand how systems engineering supports the design and optimization of complex, interconnected energy systems, from renewable sources to smart grids and nuclear energy.
- **System of Systems:** Delve into the fascinating world of Systems of Systems (SoS), which are large-scale systems composed of independent, yet interacting, constituent systems.
- **Defence, Aerospace, and Homeland Security:** Learn about the application of systems engineering in safeguarding nations through advanced defence and aerospace operations, with a focus on mission assurance, cybersecurity,

- and resilient architectures.
- **Transport/Automotive:** Explore how systems engineering drives innovation and resilience in modern transportation, from advanced automotive development to smart mobility solutions.
- **SE for Healthcare and Medical:** See how systems engineering principles are being applied to improve healthcare delivery, medical technologies, and patient outcomes in response to evolving societal challenges.
- **SE Fundamentals:** This track features invited presentations from eminent systems engineers, covering foundational areas of the systems lifecycle, from requirements engineering to verification and validation.

Networking and Social Events

Beyond the technical sessions, AOSEC 2025 offers numerous opportunities for networking and fun! Connect with colleagues from INCOSE national chapters across Australia, China, India, Japan, Korea, New Zealand, and

Singapore, as well as emerging chapters in Thailand, Mongolia, Vietnam, and Taiwan.

Social events include a tour of the iconic Marina Barrage, a Welcome Reception, and the official conference dinner—all designed to foster a spirit of collaboration and community.

Sponsorship Opportunities

Want to showcase your company to a global audience of systems engineering professionals? There's still time to become a sponsor for AOSEC 2025! We have a variety of sponsorship packages designed to fit every budget, giving you the chance to increase your visibility and connect with industry leaders.

Don't miss this chance to be part of the premier systems engineering event in the Asia-Oceania region. We look forward to welcoming you to AOSEC 2025 and seeing you there!

Registration is now open for both attendees and sponsors. Visit the [official conference website](#) to secure your spot and find more details.

REGISTER NOW FOR

AOSEC2025

CONNECT WITH THE VIBRANT ASIA-OCEANIA SYSTEMS ENGINEERING COMMUNITY!

 27-29 OCT 2025

 ORCHARD HOTEL SINGAPORE



JOIN US FOR THE SE PRACTICAL: REAL-WORLD APPLICATIONS FOR BEGINNERS

Don't miss the upcoming Systems Engineering (SE) Practical, a pilot initiative designed to make SE more accessible and less intimidating. This event is perfect for anyone new to the field or those simply interested in a pragmatic, easy-to-understand approach to engineering. Unlike traditional training, this program focuses on hands-on, intuitive applications and complements existing INCOSE training with a more practical perspective.

The event will be held on 6th and 7th of October 2025, offering two sessions so you can choose the day that best fits your schedule. The goal is to provide actionable takeaways and real-world solutions to everyday challenges, sharing proven methods and diverse experiences from various industries and countries.

What to Expect

The program features experienced presenters who are well-known for their work in systems engineering. The day is structured to provide a comprehensive yet approachable look at key SE topics. Here's a preview of highlights from the agenda:

- **The Common Language for Systems:** Kick off the day with a session presented by Henrik Balslev, focusing on the ISO/IEC 81346 standard. This topic will help you understand the common language used in systems, which is crucial for

- effective communication and collaboration.
- **Working with Requirements:** Farah Deeba will lead a session on managing requirements, with a specific focus on the offshore wind industry. This will offer a practical look at how requirements are handled in a real-world, high-stakes environment.
- **Pragmatic Decision Making:** Mike Johnson will discuss pragmatic decision-making, a topic that is highly relevant to any engineering discipline. You'll learn how to make sound, practical choices that lead to successful outcomes.
- **Value-Based Application of SE:** Matthew Wylie will lead a discussion on tailoring SE to specific needs. This session will emphasize applying systems engineering principles in a way that adds value to your projects.
- **From Rocket Science to Common Sense:** Stephanie Chiesi will share a "shortcut to systems thinking," making the complex world of systems approachable and easy to understand.

Who Should Attend?

This event is not just for specialists. The goal is to lower the barrier to entry for systems engineering by making it accessible to a broader audience. Whether you're a recent graduate, a project manager, or an engineer from another discipline, you'll find value in the practical insights and real-life examples shared by the presenters. The agenda is packed with content that will help you

understand how SE principles can be applied in your day-to-day work, regardless of your industry.

Register Today!

The Systems Engineering Practical event is a unique opportunity to learn from experts and gain a deeper understanding of SE in a way that is both approachable and highly relevant.

Choose the date that works for you and get ready to transform your understanding of systems engineering.

For more information and to register, visit the event links below. We look forward to seeing you there!

[6 October 2025 Session Registration](#)

[7 October 2025 Session Registration](#)



The banner features the INCOSE logo at the top right. The main title 'SE PRACTICAL' is in large yellow letters. Below it, a subtitle reads 'Learn practical, real-world systems engineering and make this powerful discipline accessible to you.' The banner includes three circular images: 'Systems Engineering in Daily Life' showing a person with a house, car, and shopping cart; an offshore oil rig; and two engineers working on a blueprint. A yellow box at the bottom right contains the dates and times: '6 OCTOBER, 06:00-10:00 (UTC)' and '7 OCTOBER, 14:00-18:00 (UTC)', along with the text 'ATTEND ANYWHERE!' and a globe icon. A large blue button at the bottom left says 'REGISTER' with a right arrow.

INCOSE Members Newsletter

Publication of the International Council on Systems Engineering

Editor: Kelly Henseler, newsletter@incose.net

Member Services: INCOSE Administrative Office
info@incose.net
+1 858 541-1725
On the Web: www.incose.org
Article Submission: newsletter@incose.net

Publication Schedule: The INCOSE Member Newsletter is published four times per year. Article and advertisement submission deadlines are as follows:

- Q1 2025 Newsletter: 15 February 2025
- Q2 2025 Newsletter: 15 May 2025
- Q3 2025 Newsletter: 15 August 2025
- Q4 2025 Newsletter: 15 November 2025

For further information on submissions and issue themes, visit the INCOSE MarCom website: www.incose.org/marcom

© 2025 Copyright Notice.
Unless otherwise noted, the entire contents are copyrighted by INCOSE and may not be reproduced in whole or in part without written permission by INCOSE. Permission is given for use of up to three paragraphs as long as full credit is provided. The opinions expressed in the INCOSE Member e-Newsletter are those of the authors and advertisers and do not necessarily reflect the positions of the editorial staff or the International Council on Systems Engineering.

Who are we?
INCOSE is a 26,500+ member organization of systems engineers and others interested in systems engineering. Its mission is to share, promote, and advance the best of systems engineering from across the globe for the benefit of humanity and the planet. INCOSE charts chapters worldwide, includes a corporate advisory board, and is led by elected officers and directors. All views expressed in this Newsletter are the writers' own and do not reflect the views of INCOSE.

Graphic Designer: Anthony Abi Badra

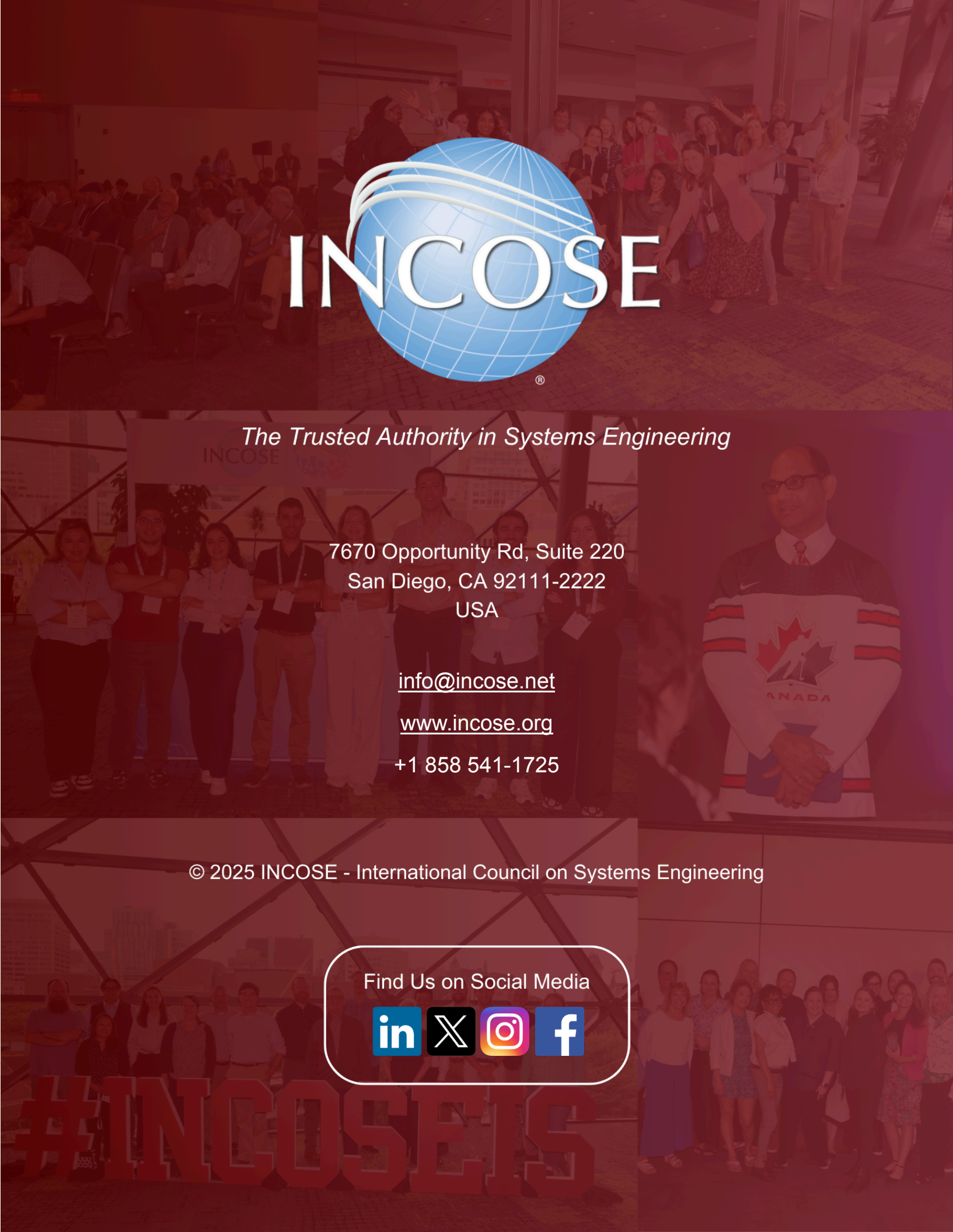
Do you want to advertise in the next issue of the Members Newsletter?

With 26,500+ Members and CAB Associates in 73 Countries, this is a great opportunity to expand your organization's visibility.

Contact advertise@incose.net to find out more.



[Back To Table of Content](#)



The Trusted Authority in Systems Engineering

7670 Opportunity Rd, Suite 220
San Diego, CA 92111-2222
USA

info@incose.net
www.incose.org
+1 858 541-1725

© 2025 INCOSE - International Council on Systems Engineering

Find Us on Social Media

