

Announcing the 12th Annual Cohort of the INCOSE Technical Leadership Institute

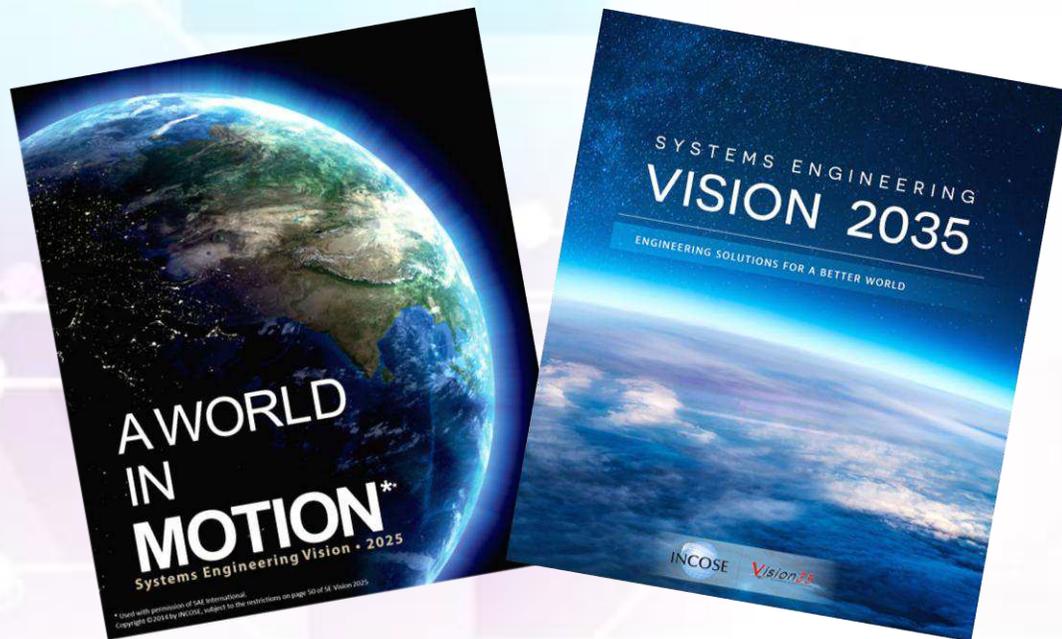
*A global learning network of active INCOSE members
seeking to improve their leadership skills
in an open, collaborative environment*

January 2026

Coaches David Long, Suja Joseph-Malherbe, Rob Schwenke, and Donna Long

The Foundations of the INCOSE Technical Leadership Institute (TLI)

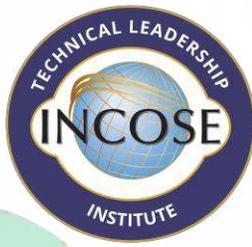
Developing systems leaders equipped to address today's product, enterprise, and societal complexity



TLI Vision

- **Individual members** become more capable leaders and join an international network of systems engineering leaders
- **Sponsoring organizations** obtain non-proprietary, tuition-free technical leadership development for future SE leaders
- **INCOSE** has a growing pool of leaders to draw on and an enhanced international reputation for SE leadership

A Vibrant Global Footprint – 177 Leaders in 21 Countries



Q1

Q2

Q3

Q4

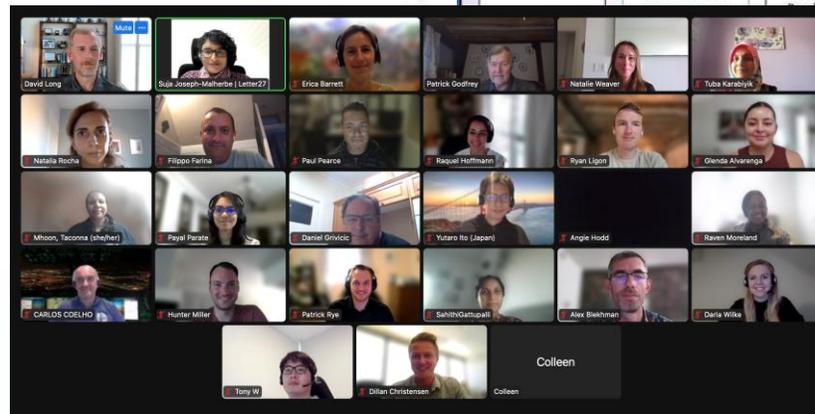
Q5

Q6

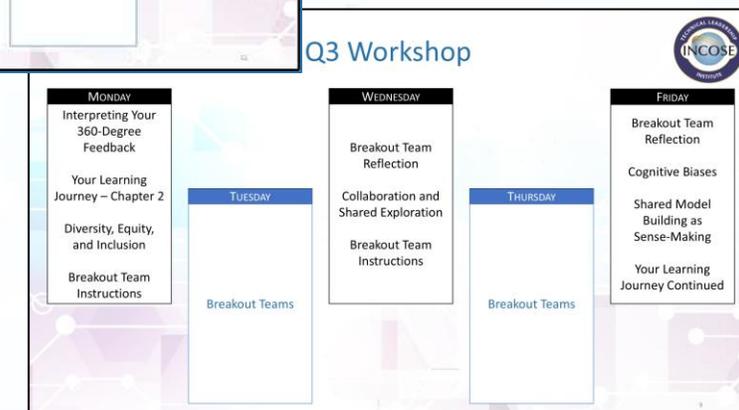
Q7

Q8

Undertaking a Journey of Exploration and Discovery Rather than a Program of Instruction



Quarterly Cohort Workshops



Q1

Q2

Q3

Q4

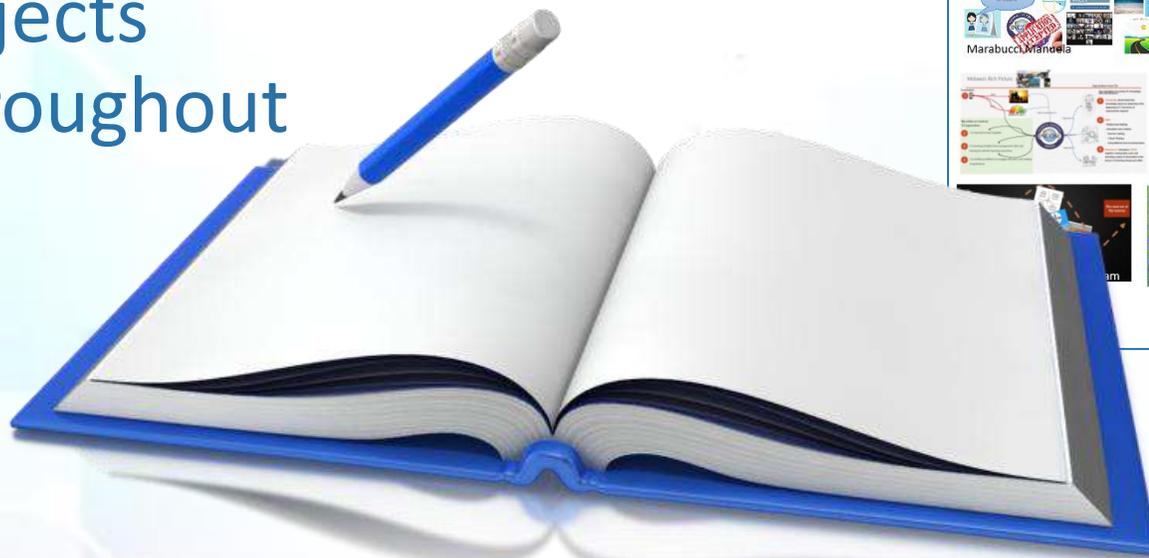
Q5

Q6

Q7

Q8

Advancing Member Stories through Quarterly Projects Reflecting Throughout



Individual Projects

 SOCIETY

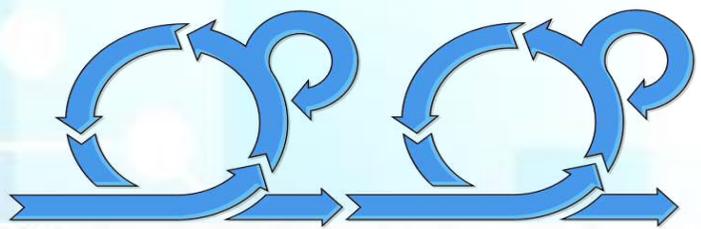
 ENTERPRISE

 TEAM

 OTHER

 SELF

Embracing Collaborative Projects as Living Learning Labs



PROBE
→ SENSE
→ RESPOND

Personal Journeys

Leadership Journey

My Learning Journey Chapter 1 (Part 1)

LEARNING JOURNEY

All team members reflected and documented their leadership journeys

Key Characteristics

Personal Journeys to Key Characteristics

Team took key concepts from personal journeys and listed them for affinity analysis

Shared Leadership Characteristics Model

Model of Technical Leadership Characteristics & Behaviours

- Created leadership characteristics shared model from affinity analysis
- Next needed to determine the "type" of each characteristic

Shared Leadership Development Model

Shared Leadership Development Model

Red = Personal
Purple = External
Black = Owner Influencing Category
Green = Influencing Category to Target

This is another 2 of the model, the one influence the quality based upon our understanding



Collaborative Projects

SOCIETY

ENTERPRISE

TEAM

OTHER

SELF

Q1

Q2

Q3

Q4

Q5

Q6

Q7

Q8

Continuing upon a Through-Life Learning Journey Leveraging a Global Network

- Two-year initial component of the experience is **ever-evolving**
- **Adapt** based upon what each multi-domain, multi-organization, multinational cohort brings
- Create a shared journey where we are “**learning together**”
- Develop **experiential learning** fed by individual efforts and cohort synthesis



SOCIETY

ENTERPRISE

TEAM

OTHER

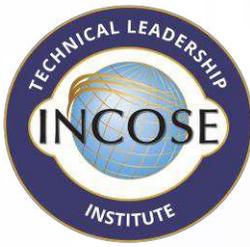
SELF

What Constitutes “Success”?

- Technical leadership development is a complex endeavor
 - Every individual’s journey is different
 - STARTING POINT • NEEDS • DESIRES • PERSONAL CONTEXT • ENVIRONMENT
- Coaches assess where each participant begins, guide them in clarifying their desired journey, and help them progress as far as they can
 - Self-awareness and growth
 - Communicating effectively
 - Fostering collaboration
 - Enabling others
 - Leading through influence
 - Operating within complexity and uncertainty
 - Leveraging diverse viewpoints and skills
 - Thinking holistically and strategically
 - Building effective teams
 - Owning their learning journey

Coaches assess and encourage engagement, contributions, and constructive approaches. Coaches do not grade, compare, or evaluate participants.





Erik Wilkinson

Chief Systems Engineer
BAE Space & Mission Systems

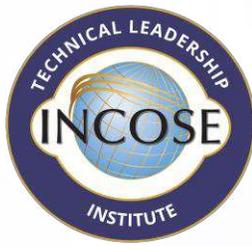
Several Ball Aerospace team members have participated in the TLI cohorts. These participants have been able to take lessons learned through the TLI and quickly apply the skills into a real-world setting, which benefits our customers, leadership and fellow team members.

I share TLI's belief that leadership, like engineering skills, must be crafted and honed. I personally applied for TLI because I am convinced that even after a successful 30-year career in the US Air Force leading the development of the weapon systems of tomorrow, I still have much to learn about leadership – and much to share with my fellow cohort members. I have especially enjoyed the opportunity to share ideas and experiences from those in other industry sectors and other countries so that we can mutually develop more diverse, robust, and inclusive leadership skills.



Col (ret) Tim West

US Air Force
Research Laboratory
TLI Cohort 7



Nomination Process

Candidates must be ***endorsed by an inducted TLI member or INCOSE leader*** (an international Board Member, Director, Associate or Assistant Director, Chapter President, or member of the Corporate Advisory Board) and submit a package that includes

- **Endorsement letter*** from an inducted TLI member or an INCOSE leader reflecting their thoughtful assessment that the candidate is well-matched to the Institute and the TLI is well-matched to the candidate
- **Letter of recommendation and support*** from the candidate's home organization, including acknowledgement of the commitments of the initial two-year experience
- **Personal statement** describing the expected benefits to the candidate, his or her organization, and INCOSE
- **Resume** describing positions held and specific systems engineering accomplishments

Packages for Cohort 12 are due **31 March 2026**

*The endorsement letter or organization letter of recommendation and support must describe a specific instance in which the candidate has demonstrated one of the six identified TLI leadership behaviors

Nomination Criteria

Nominees should have at least 3 years of professional experience (5+ preferred) in order to have the experiential basis to benefit from the cohort-based exploration and learning

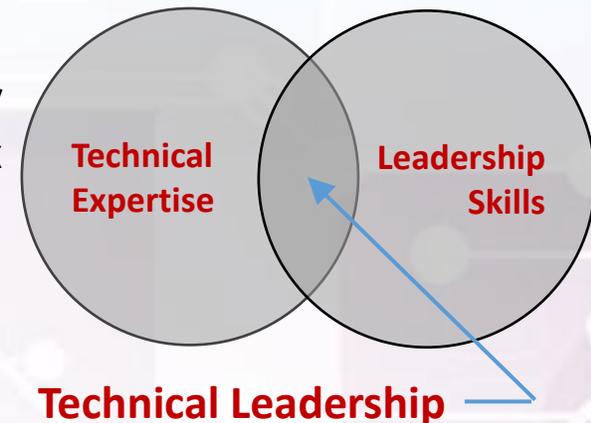
Nominees should be chosen based on

- Proven aptitude in both systems engineering and technical leadership
- Comfort working in an uncertain world and ability to tackle wicked, messy problems
- Demonstrated interest in and commitment to enhancing personal technical leadership
- Potential for assuming positions of greater leadership in the future

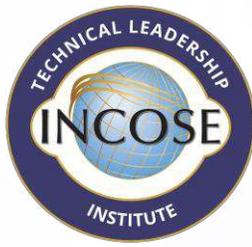
The endorsement letter or organizational letter of recommendation and support must describe a *specific instance* in which the candidate has demonstrated one or more of the following behaviors*

- Held the vision
- Thought strategically
- Fostered collaboration
- Communicated effectively
- Enabled others to be successful
- Demonstrated emotional intelligence

*Behaviors are more fully described the Appendix



The clear framing of this specific instance is a key component of the package and is weighted accordingly during the evaluation process

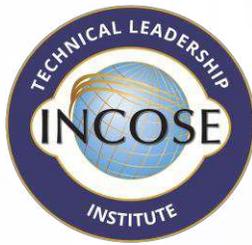


Nomination Process

- Chapter Presidents are asked to limit themselves to endorsing **no more than 4 candidates** for a given cohort to help maintain global diversity of the cohort
- Candidates are required to assemble an application package that includes
 - **Endorsement letter from an inducted TLI member or an INCOSE leader** reflecting their thoughtful assessment that the candidate is well-matched to the Institute and the TLI is well-matched to the candidate
 - **Letter of recommendation and support** from the candidate's home organization clearly **acknowledging the commitments of the initial two-year experience**
 - **The endorsement letter or organization letter of recommendation and support** must describe a **specific instance** in which the candidate has demonstrated one of the six identified leadership behaviors
 - **Personal statement** describing the **expected benefits** to the candidate, his or her organization, and INCOSE
 - **Resume** describing positions held and specific systems engineering accomplishments
- The evaluation team considers all aspects of the nomination with particular weight given to the personal statement and the description of the specific instance where leadership behaviors were demonstrated

Candidates should submit completed application packages by email to nominations@incose.net no later than **31 March**

Candidates will receive an acknowledgement of their submission within 2 business days. If they do not, they should follow up with nominations@incose.net and david.long@incose.net to ensure their package has been received.



The TLI Coaches would be happy to speak at an upcoming event or otherwise answer any questions you or your members might have

For more information, visit

www.incose.org/events-education/technical-leadership-institute/

or contact david.long@incose.net

An information package will also be provided:

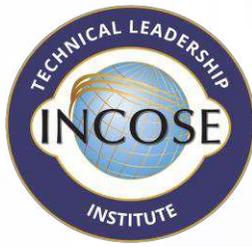
Presentation Slides

Instructions for Candidates

What Benefits Can I Expect?

Frequently Asked Questions

Frequently Asked Questions



What differentiates the Technical Leadership Institute from other leadership programs?

- Two-year structured component of the experience is **ever-evolving**
- **Adapt** based upon what each multi-domain, multi-organization, multinational cohort brings
- Create a shared journey where we are **“learning together”**
- Apply **probe-sense-respond** to learn in the complex endeavor of technical leadership
- Develop **experiential learning** stimulated by curriculum fed by individual efforts and cohort synthesis
- **Complements** but does not replace, MBA programs, corporate leadership development, or management training

REPRESENTATIVE KICKOFF WORKSHOP 17-21 JUNE 2024 (15 HOURS)

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
TLI Introduction and Workshop Kickoff Self-Aware Leader Leading through Influence Breakout Team Instructions	Breakout Teams	Breakout Team Reflection Complexity and Uncertainty Storytelling and Active Listening Breakout Team Instructions	Breakout Teams	Breakout Team Reflection Shared Model Building

REPRESENTATIVE Q3 WORKSHOP 13-17 JANUARY 2025 (15 HOURS)

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Interpreting Your 360-Degree Feedback Your Learning Journey – Chapter 2 Understanding Cognitive Biases	Breakout Teams	Breakout Team Reflection Diversity, Equity, and Inclusion Shared Model Building as Sense-Making Breakout Team Instructions	Breakout Teams	Breakout Team Reflection Collaboration and Shared Exploration Your Learning Journey Continued

Personal Journeys

Key Characteristics

Shared Model

Why did you choose this experiment?	What was the experiment trying to achieve?	What were some of the experiment details?	What were the Results?	Did it still feel safe after the experiment (Yes/No/Other - Details)?	What will you do following this? (Continue, Stop, Other?)
Marabucco Mendes	Andrew Murrell	Hill suggesting my own solution at the start of a problem and solicit Team Feedback before presenting ideas.	I felt I had less control, however the team was more empowered on ownership. Tasks did begin to slip.	Other, did not receive a baseline solution, conclusion ongoing.	Continue to monitor the outcomes, I schedule the next review and add additional team steering to discuss.
Alexander Chang	Sara's purpose team members around a schedule and overall goal of the effort.	Team took key concepts from personal journeys and used them for affinity analysis.	I do not. Not anyone is familiar with the tool but have used it at 40%. Some have gone back to using print and for training. Some have completely changed the task of managing the virtual value. The tool is easy to use, has an additional approach and personally provided team additional support with respect to priority needs.	Other, did not receive a baseline solution, conclusion ongoing.	Continue. The situation is ongoing and a solid effort to improve performance. Some team members are still working on the task. I will be working on the task. I will be working on the task.
PJ Parra-John	Small change needed to improve team engagement and better meeting with the team.	The experiment was to test the effectiveness of the tool in a virtual environment. The tool is easy to use, has an additional approach and personally provided team additional support with respect to priority needs.	On time with acceptable quality submission and clear improvement in displayed confidence throughout the process.	Yes, Experiment was conducted with no issues. The team was engaged and participated in the tool of learning and testing.	Continue. Find other opportunities for the tool. Share the tool with other teams. Share the tool with other teams.

Technical Leadership of Virtual and Remotely Distributed Teams

Cherish (Telangana Army Observatory) [chris@incose.org](#)

Mark McJohn (The Aerospace Corporation) [mjohn@incose.org](#)

Elena Gallego (Thales Group) [elena.gallego@thales.com](#)

Sean McCoy (Tetra Technologies, Inc.) [smccoy@tetra.com](#)

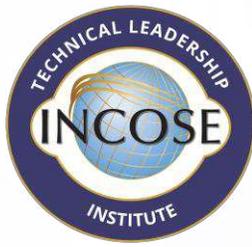
W. Patrick Kim (Lockheed Martin Space) [wpkim@lms.com](#)

Allen Wright (Tetra Corporation) [awright@tetra.com](#)

Tommy Conroy (Mentor Graphics, Inc.) [tommy.conroy@mentor.com](#)

Lee Zilber (BAE Systems Inc.) [lee.zilber@bae.com](#)

More Contributions —→ More Benefits!



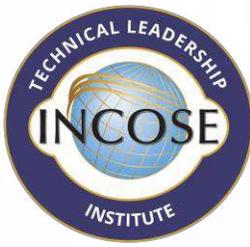
How much will participation in the INCOSE Technical Leadership Institute cost?

There are **no required costs** for participation in the Technical Leadership Institute

- The Institute charges **no tuition** with coaches donating their time and workshop materials provided free of charge
- All Cohort 12 workshops will be delivered virtually, so **no travel costs** will be required
- Additional collaboration utilizes remote collaboration tools at **no cost** to the participants

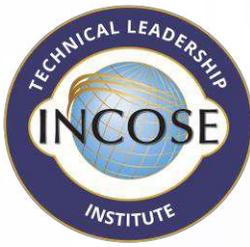
Participants are **encouraged** to participate in at least one IS or IW during the initial two-year experience to meet with their TLI colleagues and broaden their connections across INCOSE

- Participation in IS/IW requires normal member registration fees and travel and living costs to the venue when participating in person



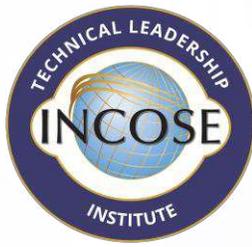
How much time is required for participation in the Technical Leadership Institute?

- Participants are required to participate in approximately **40 hours of scheduled online activities in year one** and **20 hours in year two**
- Participants are also expected to invest additional time working on **individual and team projects** throughout the initial two-year experience
 - Time spent on projects is scheduled at the discretion of the participants
 - The more time and energy participants invest in projects, the more benefit they derive
 - Actual time invested varies from a few hours per week to several hours per month
- Participants are encouraged to participate in **one IS or IW** during the initial two-year experience
- Time investment in the TLI beyond the initial two-year experience is at the discretion of the individual as they participate in topical engagements and projects based upon their interests and objectives
- Participants are expected to put what they learn into practice full time, in their jobs, in their professional activities, and in their private lives. **Leadership is best learned through practice!**



What should participants in the INCOSE Technical Leadership Institute expect to learn?

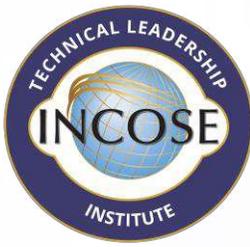
- Topics covered during workshops include becoming a self-aware leader, leading in the presence of complexity and uncertainty, visioning, leading through influence, leveraging and being a mentor, seeking and responding to feedback, understanding cognitive biases, intercultural communications, storytelling, active listening, etc.
- While modules such as these are addressed, the Technical Leadership Institute is **not a training program**. Participants primarily learn through a series of experiences designed to stretch them as leaders and encourage exploration, observation, and reflection in the process.
- Throughout the initial two-year experience, participants are provided with opportunities to discuss their observations and learning not only with coaches but also with others in their own cohort and in other cohorts. Learning from this global network of emerging leaders is perhaps the greatest benefit of participation and has given rise to the Institute tagline **Learning Together**.



What contributions have members of the Technical Leadership Institute made to date?

- Built a Technical Leadership Model and presented it at IS 2016
- Conducted a technical leadership model “World Café” discussion at IS 2016
- Conducted a panel discussion on Leadership and Management at IS 2017
- Conducted a workshop on Intercultural Communications at IW 2018
- Presented a paper entitled “Experiments in Leading through Influence: Reflections from a Group of Emerging Technical Leaders” at IS 2020
- Presented a paper entitled “Technical Leadership of Virtual and Remotely Distributed Teams” at IS 2021
- Presented a paper entitled “Collaborative Systems Thinking Culture: A Path to Success for Complex Projects” at IS 2022
- Presented posters entitled “A Systems View of Career Development for Systems Engineering Leadership” and “Future Trends Influencing Technical Leaders and Technical Leadership” at IS 2023
- Presented poster entitled “Leading in Uncertainty: A Framework to Improve Performance” at IS 2023
- Created proficiency level descriptions for the Professional Category in the INCOSE Competency Framework
- Developed a sustainable model for the Technical Leadership Institute
- **Assumed leadership positions on the INCOSE Board of Directors; at technical, sector, and chapter levels; and within their organizations**

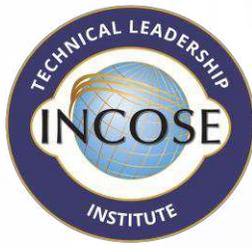
Appendix: Systems Engineering Technical Leadership Model



Requirement regarding Demonstration of Leadership Behavior(s)

The **endorsement letter** or **organization letter of recommendation and support** must describe a *specific instance* in which the candidate has demonstrated one or more of the following:

- Held the vision
- Thought strategically
- Fostered collaboration
- Communicated effectively
- Enabled others to be successful
- Demonstrated emotional intelligence

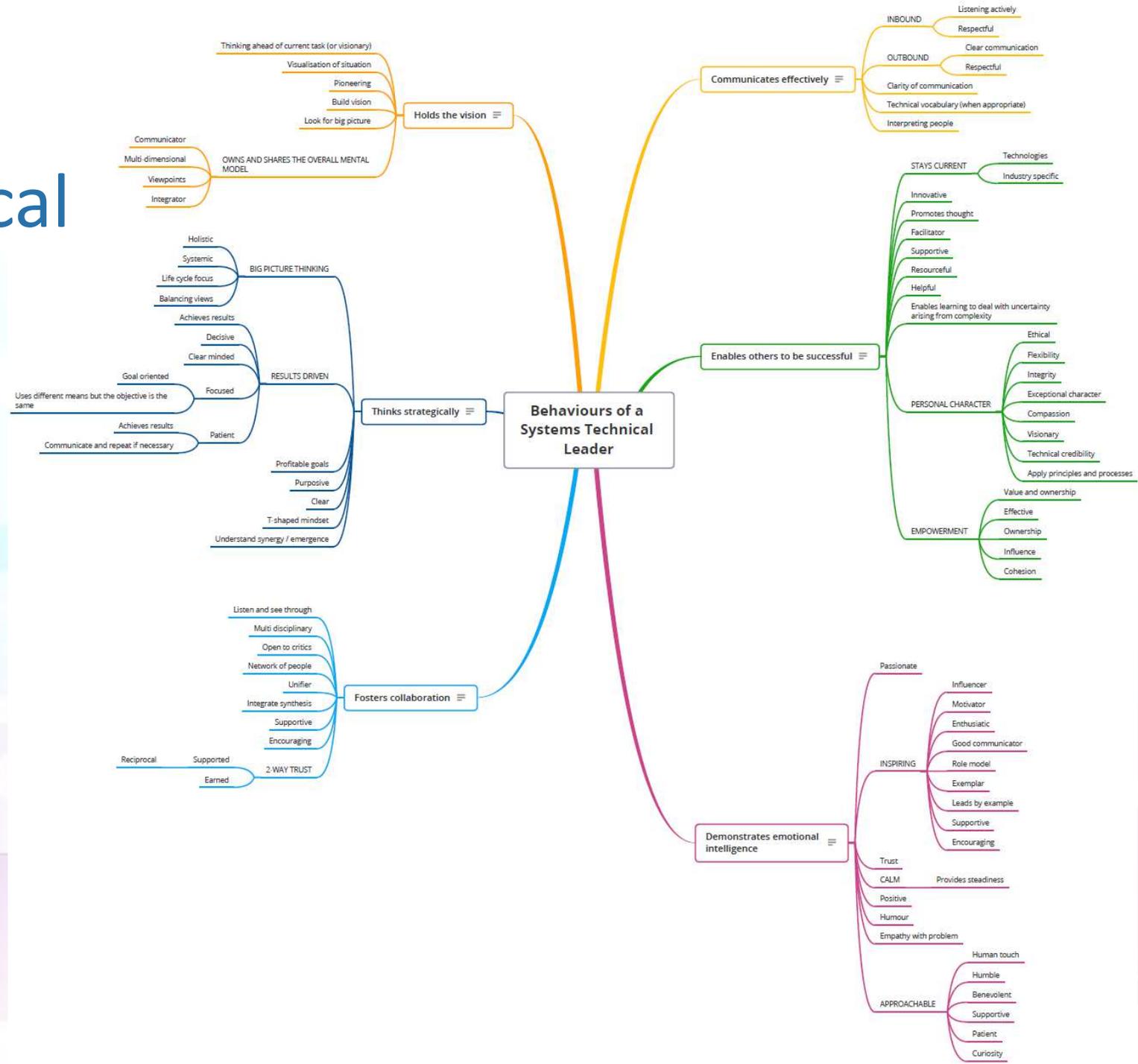
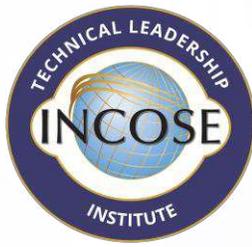


SE Technical Leadership Model

Ref: Godfrey, Building a Technical Leadership Model, Invited Paper, IS 2016

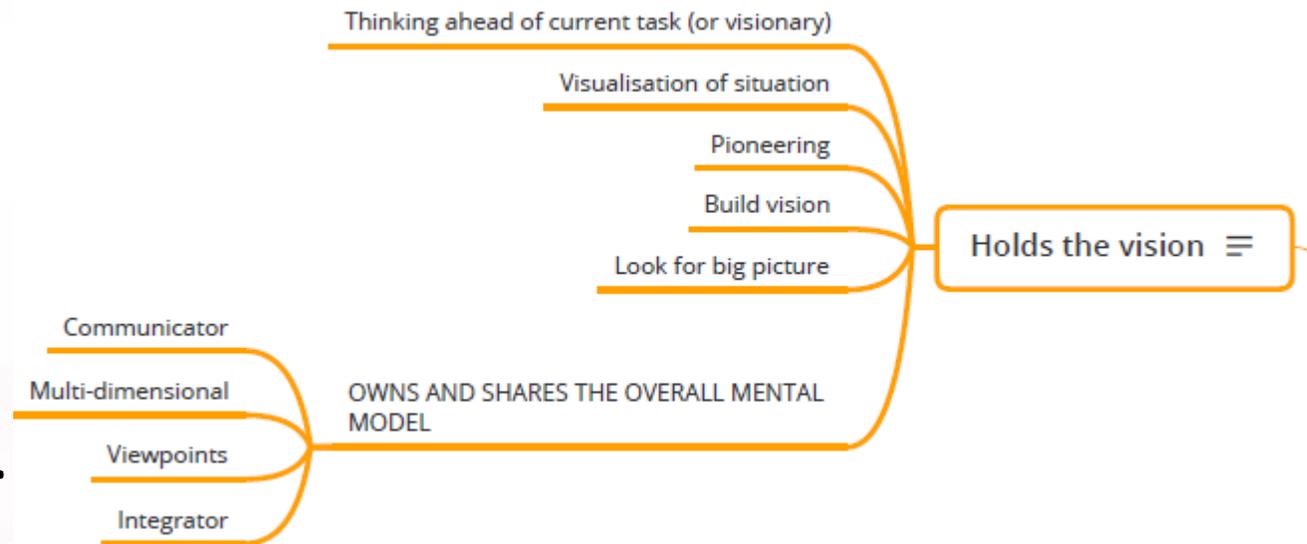
- **What:** A shared INCOSE leadership model
- **Who:** Developed as a collaborative learning initiative by the first cohort of the INCOSE Institute
- **Why:** Provides a cohort definition of systems technical leadership in their engineering environment
- **How:** “Being a systems technical leader” is defined by six interdependent branches of a mind map
 - Each branch is elaborated in the following slides

Behaviors of a Systems Technical Leader



Holding the Vision

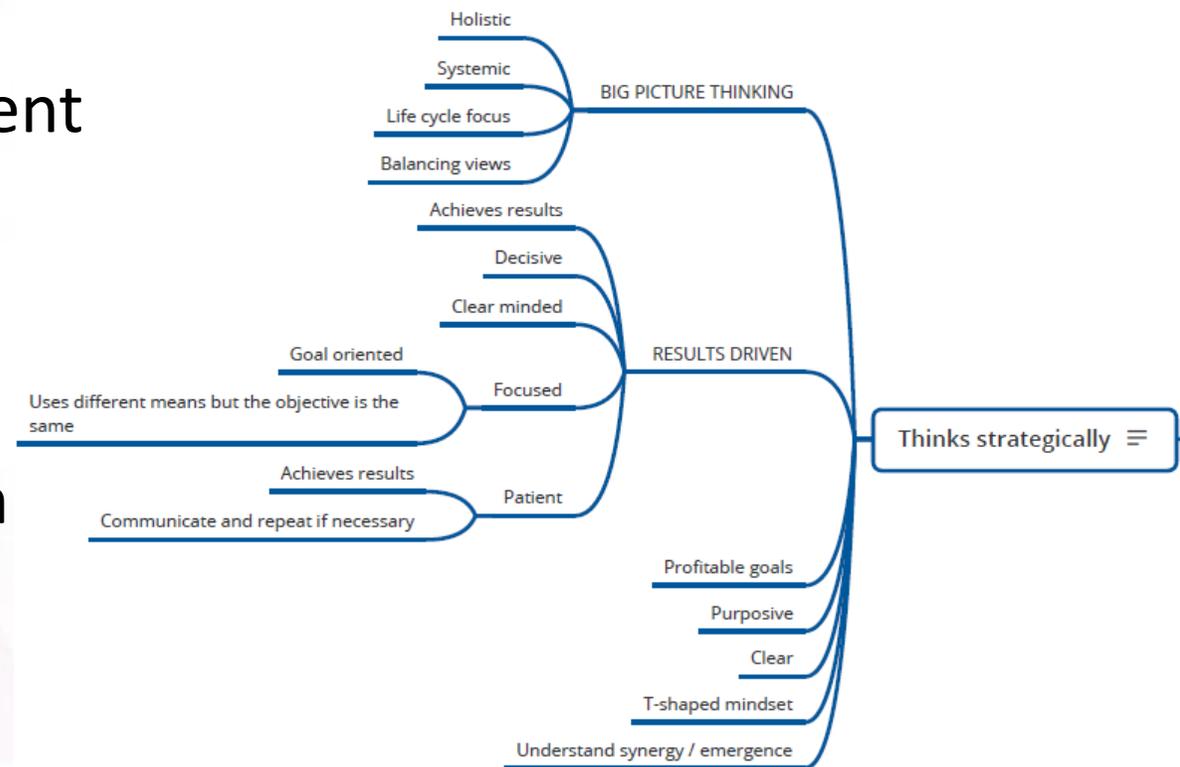
A vision is an aspirational statement that defines who we are and where we want to go. It provides an impelling purpose that energizes people to do more than they thought they could or would. To accomplish this, however, a vision must be more than just a statement posted on the wall. It must be the start of a continual and ongoing conversation that we, as systems engineers, are well positioned to support, reinforce and encourage.



Attributes of a TLI Leader from Cohort 1 shared model

Thinking Strategically

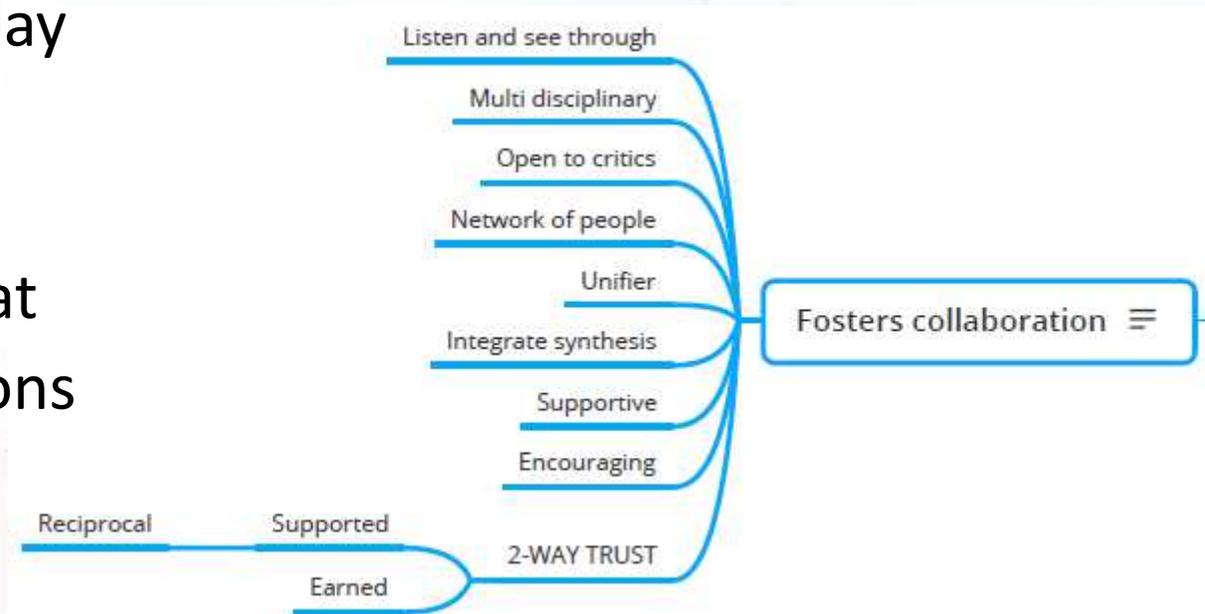
Strategic thinking is long term, rather than short-term, tactical thinking. It must be continuous and ongoing, not a one-time, up-front event. We formulate a hypothesis before taking action, treat the action as an experiment to test the hypothesis, and based on the results we observe, we continue along the path we started or formulate a new hypothesis and begin the testing anew. This is the scientific method applied to everything we do.



Attributes of a TLI Leader from Cohort 1 shared model

Fostering Collaboration

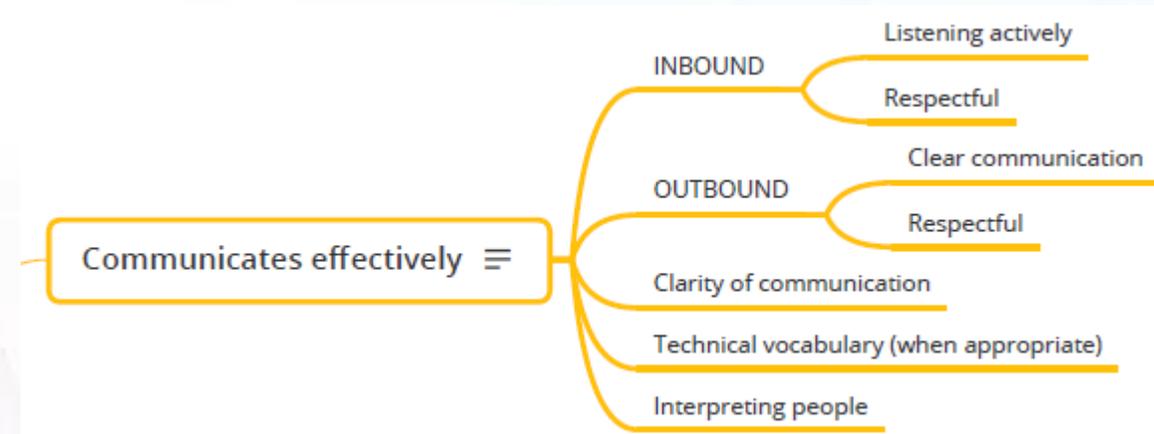
Complex problems cannot be resolved by individuals working alone; their resolution requires the efforts of many. Individual contributions must be woven together into a collective enterprise for which success means success of the whole, not of the individual parts. This enterprise represents a vast social network and systems engineers play a vital role in building, maintaining and strengthening these networks. Our goal should be to foster not just tradeoffs that compromise between competing positions but collaboration that allows new ideas to emerge through creative conflict and experimentation.



Attributes of a TLI Leader from Cohort 1 shared model

Communicating Effectively

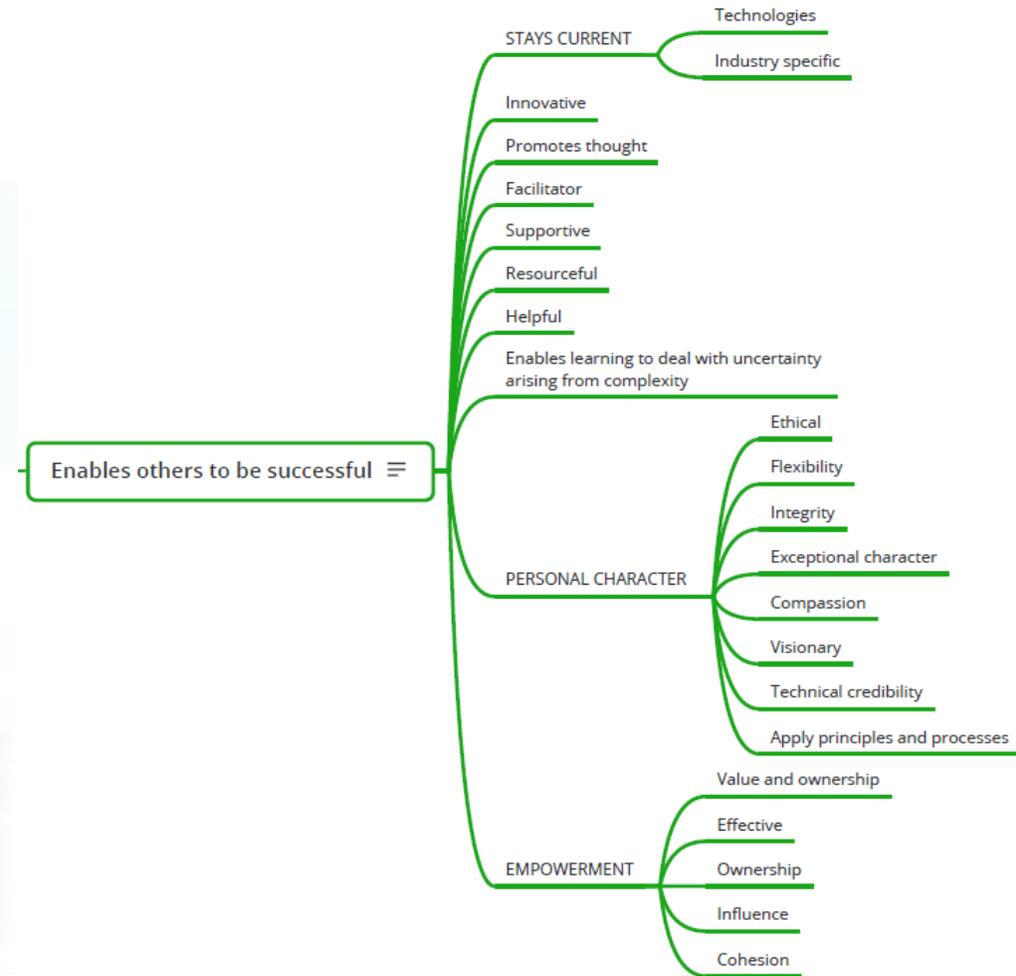
Often when people seek to improve their communication skills, they begin tweaking their “transmitters.” But effective communication is not just about speaking it is also about listening. We need to improve our “receivers.” Good listening requires attention to the content being spoken and the emotion with which it is communicated. We have to learn the language of those we seek to influence and speak to them in words they understand.



Attributes of a TLI Leader from Cohort 1 shared model

Enabling Others to Be Successful

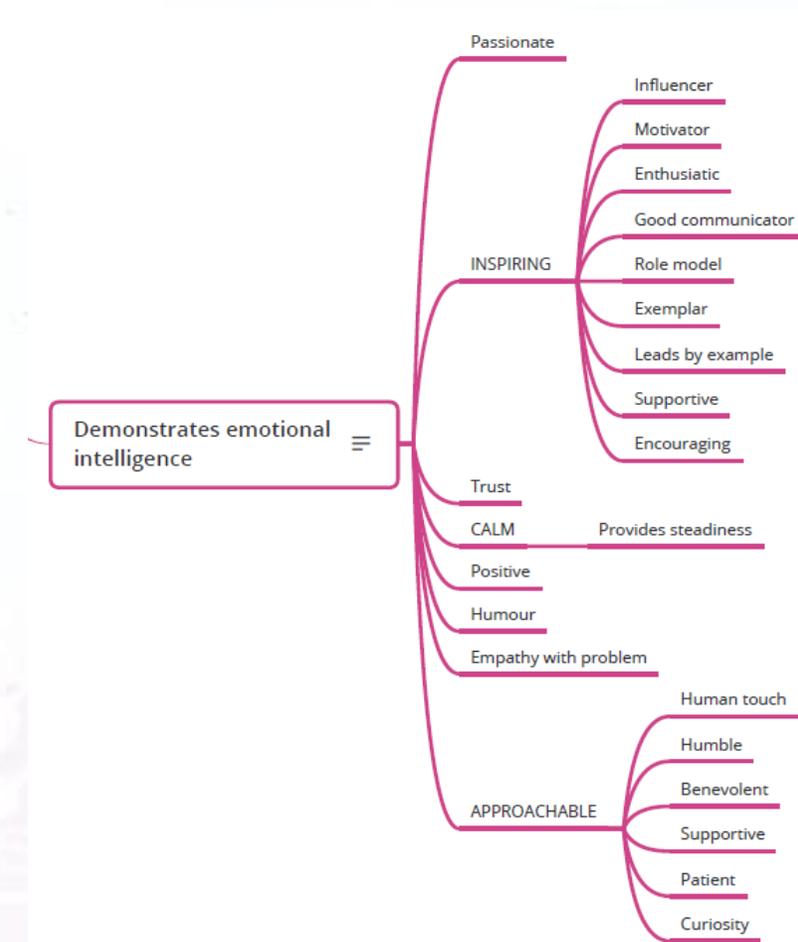
Since systems engineers must lead through influence, the results we seek to achieve will necessarily be accomplished by others. Our role is to influence, guide, encourage and support those who are in a position to produce those results. This requires a sense of humility and a deep respect those we seek to lead. We must trust in their abilities, and in their capacity to learn through discovery not lecture. Our success will derive from their success and their acknowledgement that we contributed to it.



Attributes of a TLI Leader from Cohort 1 shared model

Demonstrating Emotional Intelligence

In order to lead, we must first understand ourselves, the differences between ourselves and others. Unless we recognize and understand these differences, we risk talking past others or causing them to reject our input. We must continually seek feedback to decrease our blind spots and be willing to reveal things that help others know us better. While the former can make us uncomfortable, and the latter more vulnerable, the payoff will be more than worth the effort.



Attributes of a TLI Leader
from Cohort 1 shared model