The International Council on Systems Engineering

“SE VISION 2035”
Welcome Center Event (2022 April)

Presented By New Member Engagement Team (NMET) (nme@incose.net)
About New Member Welcome Center

• The Welcome Center is a social and virtual forum for INCOSE New Members

• Welcome Center cafes aim to onboard, orient and communicate with new members in their initial INCOSE journey

• Welcome Center New Member Yammer community is an online platform that can be used dynamically by members to connect and engage with other Members and locate INCOSE information

New Member Guides

• Senior/Experienced INCOSE members connect and engage with new members via Welcome Center Café events, online collaboration (Yammer) and informal communication avenues (email, MS Teams chat etc.)

New Member Welcome Center Café Event

<table>
<thead>
<tr>
<th>Event Date and Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, April 25, 12:30pm Japan Time (Sunday, April 24, 11:30 pm US ET)</td>
<td>Japan Time</td>
</tr>
<tr>
<td>Thursday, April 28, 4:00pm London Time (8:00 am US Pacific)</td>
<td>London Time</td>
</tr>
</tbody>
</table>
Purpose and Agenda

Agenda

• Welcome/Introduction (5 minutes)
• Overview of SE Vision 2035 (30 minutes)
  o Dr. Barclay Brown
  o Dr. Shakila Khan
• Open Discussion/Breakout Session (15 minutes)
• INCOSE Overview (5 minutes)
• Welcome Center Café event Closeout (5 minutes)
SE Vision 2035 Overview
SE Vision 2035 Purpose

To inspire and guide the strategic direction of systems engineering across diverse stakeholder communicates including but not limited to the following:

- Engineering Leaders and Practitioners
- Researchers
- Educators
- Students
- Other professional organizations
- Technology/Tools Vendors

- Desire to align systems engineering initiatives, address future system engineering challenges, broaden the base of systems engineering practitioners and promote systems engineering research
Who Was Involved in Creating It?

Core Team – members represented from diverse backgrounds, domains and competencies

Support Team
Subject Matter Experts

- Guy Andre Boy
- Paul Clements
- Hans Peter de Koning
- Rick Dove
- David Endler
- Lisa Hoverman
- Robert Karban

- Charles Kreuger
- Tom McDermott
- Paul Pearce
- Troy Peterson
- Art Pyster
- Bill Schindel

The INCOSE Board of Directors sponsored the Systems Engineering Vision Project Team to develop this Vision. The team included:

Christopher Davey
Ford Motor Company

Sanford Friedenthal
(Lead)
SAF Consulting

Sky Matthews
IBM

David Nichols
NASA/Jet Propulsion Laboratory
California Institute of Technology

Paul Nielsen
Carnegie Mellon University
Software Engineering Institute

Emma Sparks
Cranfield University

Heinz Stoewer
(CTO)
Space Associates and Delft University of Technology

Christopher Oster
Lutron Electronics

Taylor Riethle
Graphic Designer

INCOSE
Why Does It Matter?

• In a changing and highly interconnected global environment with increasing pace of technological growth the nature of systems and solutions across a diverse set of domains requires evolution

• Solutions-oriented systems
• Adaptability and Evolution
• Complexity and Risk
Where Do I Find It?

• INCOSE site: https://www.incose.org/about-systems-engineering/se-vision-2035
• On the Web: https://violin-strawberry-9kms.squarespace.com/
• Print version from INCOSE
Main Sections of Vision 2035

• PDF version ~ 76 pages
• Executive summary ~ 12 pages
• 4 main chapters
Let’s View The SE Vision 2035!

Open this link to view the web version: incose.org/sevision

<table>
<thead>
<tr>
<th>Chapter One</th>
<th>Chapter Three</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Global Context For Systems Engineering</td>
<td>The Future State of Systems Engineering</td>
</tr>
<tr>
<td>Human &amp; Societal Needs</td>
<td>Overview &amp; Introduction</td>
</tr>
<tr>
<td>Global Megatrends</td>
<td>Impacts of The Digital Transformation</td>
</tr>
<tr>
<td>Technology Trends</td>
<td>Model-Based Practices</td>
</tr>
<tr>
<td>Stakeholder Expectations</td>
<td>Theoretical Foundations</td>
</tr>
<tr>
<td>The Enterprise Environment</td>
<td>Systems Engineering Applied to Major Societal Challenges</td>
</tr>
<tr>
<td>Chapter 1 Summary</td>
<td>Building the Systems Engineering Workforce of the Future</td>
</tr>
<tr>
<td></td>
<td>A Day In The Life of a Systems Engineer in 2035</td>
</tr>
<tr>
<td></td>
<td>Chapter 3 Summary</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter Two</th>
<th>Chapter Four</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Current State of Systems Engineering</td>
<td>Realizing The Vision</td>
</tr>
<tr>
<td>Historical Perspectives</td>
<td>The Path Forward</td>
</tr>
<tr>
<td>Roles &amp; Competencies</td>
<td>Collaboration</td>
</tr>
<tr>
<td>Practices</td>
<td>Changing The Engineering Ecosystem</td>
</tr>
<tr>
<td>Industry Adoption</td>
<td>Systems Engineering Challenges</td>
</tr>
<tr>
<td>Foundations</td>
<td>Specific Recommendations (to Systems Engineering Community)</td>
</tr>
<tr>
<td>Education &amp; Training</td>
<td>Top Level Roadmap</td>
</tr>
<tr>
<td>Challenges</td>
<td></td>
</tr>
<tr>
<td>Chapter 2 Summary</td>
<td></td>
</tr>
</tbody>
</table>
Guide Breakout Session or Main Group Discussion

Discuss the topic presented today or ask about other inquiries
Welcome Center Poll

We want YOUR Feedback on today’s Welcome Center event (e.g., chat poll)
1. What did you like about this Welcome Center event today?
2. What can be improved for future Welcome Center events?
3. How else do you want to be supported to become more involved within INCOSE?

Contact Us @ nme@incose.net
Vision, Mission & Goals

- **Vision**
  - A better world through a systems approach.

- **Mission**
  - To address complex societal and technical challenges by enabling, promoting, and advancing Systems Engineering (SE) and systems approaches.

- **Goals**
  - Be a focal point for dissemination of systems engineering knowledge
  - Promote international collaboration
  - Assure the establishment of professional standards in systems engineering
  - Improve the professional status of all Systems Engineers
  - Encourage governmental and industrial support for System Engineering

- Visit [https://www.incose.org/about-incose](https://www.incose.org/about-incose) to view the vision, mission and goals
**Why INCOSE?**

**Certification**
Become a certified to advance your recognition in SE

**Working Groups**
Join a working group to help lead, guide and advance technical knowledge

**Chapter Involvement**
Become involved in your local chapter STEM programs to support the upcoming generation of SE’s

**Leadership**
Grow, advance and leave an impact by becoming an INCOSE volunteer

**Professional Development**
Increase technical knowledge through INCOSE webinars, publications, papers and your chapter tutorials

**Professional Networking**
Connect and engage with your SE peers various INCOSE, sector and chapter events to expand your professional network

**Professional Prominence**
Advance visibility and impact by becoming involved in developing, publishing, and presenting on SE topics

**Improve your knowledge and skills**

**Create friendships**

**Share technical knowledge and ideas with the community and across professional organizations**

[Incose.org/career](http://Incose.org/career)
INCOSE Products

- Technical Publications/Products
  - SE Journal,
  - INSIGHT Magazine
  - INCOSE Newsletter
  - Members have access to free soft copy downloads: www.incose.org/pubs
  - NEW! Member discount code for all Wiley publications www.incose.org/wiley
- SE Body of Knowledge (SEBOK)
  - https://www.sebokwiki.org
- Periodicals
  - www.incose.org/periodicals
- Proceedings/Papers
  - www.incose.org/papers
- INCOSE Store
  - Purchase and order INCOSE products via connect.incose.org/store
Working Groups

• Working Groups (WGs) are the resource practitioners need.

• Participants discuss, collaborate, share in person, and online across more than 60 WGs in INCOSE with a wide diversity of interests.

• INCOSE WG members create products, present panels, develop and review standards.

• View the INCOSE Working Groups - www.incose.org/workinggroups
Working Group Members

- Bring value to other INCOSE stakeholders in your interest area
- Build expertise and contacts
- Help develop and review international standards
- Create products to advance the state, art and practice of Systems Engineering.

**How to Join a Working Group** (found on the working group page)

- Membership in Working Groups is open to any INCOSE member. To join a group:
  - [http://profile.incose.org](http://profile.incose.org)
  - Scroll to the bottom left section titled "My Committees and Working Groups"
  - Click the link for "Browse / Join a Working Group"
  - Find the desired Working Group and click on View to see roster; the Join option is at the bottom of the page
  - Additionally, email the Working Group leaders by clicking on their name(s) from the Working Groups page and sending them an email expressing your interest!
At the heart of INCOSE is the ability to connect people.

Whether you are interested in increasing your circle of influence, or in working on an issue, INCOSE Chapters and Working Groups offer unparalleled points of connection.

Search for an INCOSE chapter - www.incose.org/chapters
New Member Yammer Community

• New Yammer community will be created
• This is a community for YOU, INCOSE New Members to network and discuss topics of interest
• [www.yammer.com](http://www.yammer.com) and login with your @incose.buzz account when assigned
The INCOSE website IS the way to access the latest information and resources.

Visit www.incose.org to log into your INCOSE account, access your profile, assign your INCOSE chapter, access publications and so much more!

Use your login ID and password to access the intranet.

To collaborate with working groups and teams go through the Portal.

Purchase and download INCOSE publications.

Locate New Member information.

Locate New Member information.
Corporate Advisory Board

- The INCOSE Corporate Advisory Board (CAB) is the voice of the industry to the INCOSE leadership, leading to the development of systems engineering products and input to standards to meet their needs.
- Learn more about the CAB and access application forms at [www.incose.org/cab](http://www.incose.org/cab)
- Why should a company join the INCOSE CAB?
  - CAB membership allows your organization to guide the direction of the discipline.
  - Employees can gain access to the state-of-the-art products.
  - Align with peers and fellow industry leaders, grow your global footprint, and learn about how other industry leaders are applying systems engineering to solve business problems.
  - Gain better access to talent – find and hire competent, certified Systems Engineers through your INCOSE connection.
INCOSE Events

- INCOSE conferences, events and news information is located at www.incose.org/events

- At this site, you will find a listing of upcoming informational sessions, a link to the annual International Working Group (IW) and the International Symposium (IS) conferences.
New Member Welcome Center

Many Resources for New Members

• Recordings and presentations from past New Member Café Events
• About INCOSE Overview
• Ways to engage in INCOSE
• Learning and Development
• Publications
• Growing your Career

www.incose.org/newmember