



## VISION STATEMENT

*You make a difference! As a member of INCOSE, you want to make a difference, a difference for yourself, your employer and the society! Systems Engineering is much about making the best possible use of our resources and INCOSE should be your support to make this happen!*

There is a rapidly increasing recognition that doing the right things, whether they concern business or societal challenges, requires a systems approach (to understand the interconnections and dependencies). Systems Engineering plays a unique and vital role in firstly understanding the context and identifying the right problems or opportunities to address and then defining the right solutions and the lifecycle management thereof.

There are so many domains in need of a systems approach. At 30, INCOSE is more needed than ever! I believe we have a golden opportunity to make INCOSE the globally recognized organization that is “First in Mind, First in Choice” for all who want to get better at managing complexity to overcome challenges or explore new opportunities.

In my vision for INCOSE, we are an organisation where:

- We serve our members, and don't forget those that could be members. There is a large community that would benefit from our network and products. INCOSE will also benefit from the ideas and capacity new members bring.
- We have enhanced our outreach and footprint in selected industries to establish the critical mass of membership and exchange. We have established mutually effective collaborations with other organizations that share the same values and complement us.
- We learn effectively from each other, between academia, public and industry as well as between practitioners both within and between domains. We work hard on having good balance and mix to provide multiple perspectives in our working groups and leadership.
- We are agile without losing direction nor traceability. Our Future of SE (FuSE) initiative and SE Vision 2035 will help us setting the direction and we are able to respond to current issues and developments. We have the mechanism to know that we are working on the right things right now.
- We create leaders, both at work and within INCOSE. Being a Systems Engineer is much about leadership and our Institute of Technical Leadership is a fantastic means. In addition, we need to provide the leadership training and support to those that are willing to step up as Working Group leaders and other leadership roles within INCOSE.

With Stockholm as my hometown, I'm always following the Nobel Prize Awards and the fantastic achievements in the different scientific fields. In my vision, there is also one prize that brings it all together, a prize to “the persons/organizations that have conferred the greatest benefit to humankind in the field of systems engineering”. “And the prize goes to ....”

## BIOGRAPHY

**Tom Strandberg**, Syntell AB, [Tom.strandberg@syntell.se](mailto:Tom.strandberg@syntell.se)

Tom Strandberg is a Board Member of Syntell AB and its Principal Systems Engineering Consultant. He is also the Manger of Syntell Academy. Over the last 25 years Tom has successfully built the Systems Engineering business at Syntell and contributed to an active SE community in the Nordic countries. He has held leading positions within INCOSE and is dedicated to its mission.

Tom was introduced to “systems” already in 7<sup>th</sup> grade by his teacher in biology. Coupled with an interest in engineering brought him to university studies in systems engineering at Royal Institute of Technology (KTH) in Stockholm, Sweden. Eager to learn more he applied for a Fulbright Scholarship for studies in SE at Virginia Tech, USA under the guidance of SE pioneers Ben Blanchard and Wolt Fabrycky.

The professional career started at the Transport Research Institute in Stockholm, working on projects related to pan-European fleet management systems, lifecycle costing of intermodal terminals and truck platooning solutions.

An interest in applying SE in development aid brought Tom to the UN agency International Labour Office (ILO) in Geneva. For five years he worked on a program to enhance transportation systems beyond building roads in rural areas in Africa and Asia. Using a systems approach, an integrated rural accessibility planning methodology for local governments was developed that better identified the right problem and appropriate solutions from a PESTLE perspective. He was instrumental in the development of the global network International Forum for Rural Transport and Development.

Since 1995 Tom has worked for Syntell AB, a SME consulting company based in Stockholm. He has been active in building the company with a special focus on systems engineering services.

As a consultant he helps clients to develop their capability to lifecycle manage complex systems. Tom has had the benefit to work with many different international companies and authorities within aerospace and defense, automotive, Healthcare/medtech, transportation and process industry.

Tom is also a trainer in SE and the manager of Syntell Academy which provides training courses including the yearly Summer School Week on SE since 1999. He manages close collaboration with academic institutions in both training and research projects.

In 1998, Tom attended his first INCOSE International Symposium and he has since served several leadership positions. He was the Region III Director (EMEA) 2000-2001, founding member of INCOSE Sweden 2000 and its president 2002-2003 and later 2014-2015. He held a position as INCOSE Assistant Director for Industry Outreach 2014-2016.

Tom was active in the development of the ISO/IEEE/IEC 15288 Systems and Software Engineering standard and worked closely with its architect, Harold “Bud” Lawson. He passed the CSEP exam in 2008 and is currently working on his Expert Systems Engineering Professional (INCOSE ESEP) application.

As a summary, Tom likes to build things and relationships. Professionally, this means organizational competence and networks. Privately, the focus is on the family and friends, the country house, and the current sailing team.

## ELABORATED STORIES

### My INCOSE engagement

Since my first International Symposium in 1998, I have been inspired by the enthusiasm and dedication of the members of INCOSE to share knowledge and time to enhance our collective knowledge. As an "INCOSE freshman" I joined the Standards Committee, at the time chaired by James Martin, and got the chance to be involved in the development of ISO/IEC 15288. Together with Harold "Bud" Lawson, the architect for the standard, we got the Swedish Defence Materiel Administration (FMV) to adopt the standard even before its public release in 2002. I managed the team to produce a Swedish translation of the standard, released as a national standard in 2004.

In 2000 we were a small, but committed, group that established the Swedish Chapter. The inaugural seminar included presentations from the CTOs from Ericsson, Saab, ABB and FMV expressing the need for systems engineering *to meet and benefit from future challenges*.

At the same time I was elected as the Region III (EMEA) Director 2000-2001. The two years at the INCOSE Board of Directors provided very useful insight to the management of a volunteer organization. Something I brought to the local level as President for the Swedish Chapter 2002-2003 and later in 2014-2015. Having followed the Swedish Chapter closely for 20 years, I have experienced how important the leadership is for the well-being of a Chapter. The same goes for our working groups. 2014 through 2016 I was the Assistant Director for Industry Outreach working closely with Anne O'Neil and the leaders of the Automotive, Transportation, Health, and Infrastructure Working Groups to empower the WGs to reach out to practitioners and potential members in their domains.

I believe the events are key to the success of INCOSE. I got a good understanding of what efforts go into this after being part of the organizing committee for International Symposium in Utrecht 2008 and the EuSEC 2010 in Stockholm. At the local level, I have been part of organizing several national seminars.

