

Agenda

Theme	Title	Speaker
Intro	Welcome and Introduction	Simon Smith, INCOSE TWG co-chair
SE value	Optimizing Value Using Systems Engineering	David Springstead MARTA
Federal Perspective	Managing Rule 940 Implementation: expectations and reality	Jesse Glazer FHWA Los Angeles
State perspective	Caltrans' experience with Rule 940	Alan Benson Caltrans
Break	Coffee and snacks	
Local Perspective	SANDAG's experience with Rule 940	Peter Thompson SANDAG
Academic Perspective	Lean SE and Program Management	Prof. Bo Oppenheim Loyola Marymount University
Transit Perspective	NYCT's experience without Rule 940	Vinny Cavataio, NYCT Apologies: Bill Gleckler, NYCT
Wrap Up	Benefits and challenges - and how the TWG can help	Jean Souza, Jennifer Russell INCOSE TWG
Break	Lunch	

Realized benefits of SE

- Stakeholder involvement ~ fewer disputes
- Project transparency
- Repeatable process
- Better product
- Saves time and money
- Improves verification and integration

Benefits - Process

	FHWA	Caltrans	SANDAG	NYCT	MARTA
Have one	X	X	X	X	X
Can be fine tuned		X			
Repeatable	X	X	X		X
Improves project delivery				X	X
Provides standard terminology	X	X			X

Benefits – Stakeholder involvement

	FHWA	Caltrans	SANDAG	NYCT	MARTA
Stakeholders have input		X		X	X
Stakeholder engagement throughout life cycle				X	X

Benefits – Various

	FHWA	Caltrans	SANDAG	NYCT	MARTA
Transparency		X			X
Fewer contract disputes	X				
Reduced “vendor lock in” risk		X			
Efficient oversight by FHWA and Caltrans	X				
Better outcomes for schedule, budget and product	X				X
Verification and System integration though testing and traceability				X	X

Challenges

- Develop and retain management support
- Train others to use SE process and tools
- Insufficient time spent reviewing SE products
- Limited verification and NO validation
- Lack of industry maturity
- Convincing senior management about SE, particularly increased up-front effort

Challenges – Buy In

	FHWA	Caltrans	SANDAG	NYCT	MARTA
Organizational change		X	X	X	X
Communicating SE [up]	X	X		X	X
Communicating SE [down]	X	X			X
SE Value Evidence				X	X
Creating SE Culture				X	X

Challenges – Implementation

	FHWA	Caltrans	SANDAG	NYCT	MARTA
Lack of trained SEs	X	X		X	X
Lack of project oversight (to ensure correct implementation)	X				
Inadequate verification	X				
No validation	X				
SE not required for full life cycle				X	
Poor document reviews	X		X		X

Challenges – Maturity

	FHWA	Caltrans	SANDAG	NYCT	MARTA
SE hard to learn	X				
Lack of SEs in public sector	X	X			X
SE in Transportation domain is immature				X	X
Little tailoring ability			X		
SE implemented after risk triggered			X		

How INCOSE and TWG can help

TWG

- *Explain* – SE 101 guides
- *Share* – Case Studies, Sample SE Docs?
- *Network* – LinkedIn site, TWG meetings

INCOSE

- *Learn* – ASEP and CSEP

How the TWG can help

Going forward...

- Promoting CSEP certification ~ elevate to PE recognition

PDH Certificates

Contact Jennifer Russell

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Use for INCOSE CSEP
continuing education or
professional development
requirements



25th anniversary
annual INCOSE
international workshop
Los Angeles, CA
January 24 - 27, 2015



INCOSE
2015
ANNIVERSARY

INCOSE Transportation Working Group
Professional Development Hours Certificate
This certificate awards 3.5 professional development hours to:

For attendance at
ITS easy as 1-2-SE
Applying Systems Engineering to ITS projects
January 27, 2014

I hereby certify that on the above mentioned date I did attend the event listed above, thereby earning the professional development hours listed.

Signed (attendee)

Simon Smith, INCOSE Transportation Working Group Co-Chair



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TRANSPORTATION