

The Transportation Working Group invites You to the



26th annual **INCOSE**
international symposium

Edinburgh, UK
July 18 - 21, 2016

Saturday, July 16 and Sunday, July 17

All Day Systems Engineering Tutorials throughout weekend; topics include:
Architecting SoS; Building SE Business Case; Integrating Agile Development;
Systems Resilience Fundamentals; SE Trade-Off Analyses

Corporate Advisory Board Meetings (*CAB representatives only*)

Sunday Join TWG members for evening drinks and networking

1600-1830 *Thomsons Bar - 182-184 Haymarket Terrace, Edinburgh EH3 8EB*



Monday, July 18

1330-1445 Selling Systems Engineering by Searching for the Sweet Spot (*Richard Beasley and Anne O'Neil*)

1530-1655 **Transportation Roundtable Part 1: Unravelling complexity: how transportation is tackling systems issues in multi-project, multi-contract deliveries**
(*Meg Downing – Highways England, Derek Price – Network Rail Infrastructure Projects,*
Nick Facchina – Sydney Trains, Andrew Hunter – Thales)

Tuesday, July 19

0800-0930 **Keynote: Energy as a System**
Prof John Loughhead, Chief Scientific Advisor, Department of Energy and Climate Change, UK

1000-1210 **Transportation Panel : Verification and Validation Applications and Limitations in Civil Infrastructure Projects - The Case of US and European High Speed Rail Projects**
(*Alain Kouassi, Oliver Hoehne, Nita Rabadia - HS2, Marco Ferrogalini - Bombardier and Matthew Hause*)

1330-1410 **Case Study: A Model Based Systems Engineering (MBSE) Framework for Characterising Transportation Systems Over the Full Life Cycle**
(*William Scott, Gary Arabian - TfNSW, Richard Fullalove - TfNSW and Peter Campbell*)

1415-1455 **Developing and implementing systems engineering and project management processes at CSIT - a small Canadian company in public transportation** (*Claude Laporte, Nicolas Tremblay, Jamil Menaceur and Denis Poliquin*)

or **A framework for integrating reliability and systems engineering: proof-of-concept experiences** (*Hossein Neizan Hosseini and Torgeir Welo*)

or **Panel: Developing Junior SEs - a global comparison of different approaches in different sectors** (*Duncan Kemp; Clive Roberts, Charles Critchett, Meaghan O'Neil Dale Brown*)



1530-1610 **UK Railway System Performance – Gaining Insight Through Systematic Analysis and Modelling** (*Bradley Hyland, Amir Toossi, Nigel Best, Amy Bradford: Network Rail*)

or **Impact of System Integration on Reliability and Maintainability** (*James Armstrong*)

1615-1655 **Infrastructure/Train Borne Measurements in support of Railway System Performance Modelling** (*Lloyd Barson, Amir Toossi, Wilson Fung: Network Rail*)

Evening Transportation Working Group Dinner - Join us for networking with colleagues over dinner at A Room in the West End. **RSVP required to Sue Fursey, Sue.Fursey@hs2.org.uk**

Transportation Program Highlights



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Wednesday, July 20

- 0800-0930 **Keynote: Smart Cities**
Julie Alexander, Director for Urban Development, Siemens
- 1045-1125 **The future of systems integration within civil infrastructure: A review and directions for research** (*Jennifer Whyte*)
- 1330-1455 **Panel: Systems integration in civil infrastructure** (*Jennifer Whyte*)
- 1530-1730 **Transportation Roundtable Part 2: Introducing and utilizing Systems Engineering in transportation agencies and major programs**
(Paul Thomas - London Underground, Melissa Jovic - Transport for New South Wales, David Traub-Warner - IBI Group / Tel Aviv Red Line Underground Stations Design Project)
- Evening **INCOSE Conference Banquet**
- Panel: Making SE happen in your organization: the Learning Journey** (*Tim Ferris; Richard Beasley, Alice Squires, Hillary Sillitto, Andy Bourne (TfL LUL), Anne O'Neil*)

Thursday, July 21

- 1000-1210 **TWG Working Session**
Join your TWG colleagues for a working session to contribute to IS2017 preparation and advance working group objectives.



Friday, July 22

INCOSE Technical tour – Forth Replacement Crossing.
The Forth Replacement Crossing is Scotland's biggest transport infrastructure project in a generation and is on track to be completed in 2016. This major project is delivering a new modern road bridge, upgrading the road infrastructure on both sides of the Firth of Forth, and represents a true systems response to the problems posed by the deterioration of the old road bridge and greater demands for travel capacity.
Please check the symposium website (www.incose.org/symp2016) for additional registration details: space limited.

Anticipated Participating Organizations



For more information contact Transportation Working Group Co-chairs:
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