



2021
Annual **INCOSE**
international workshop
Virtual Event
January 29 - 31, 2021

Infrastructure

www.incose.org/IW2021

CHAIR

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CO-CHAIRS

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INCOSE WEB PAGE



<https://connect.incose.org/tb/infra>

INCOSE CONNECT ADDRESS



<http://www.incose.org/practice/techactivities/wg/infrastructure>

Charter Summary



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WG PURPOSE/MISSION

The Infrastructure Working Group Charter is to bring together designers, builders, and operators of economic and physical infrastructure systems to advance the application of systems engineering.

This Working Group aligns with the strategic aim of INCOSE to advance the application of systems engineering outside its core aerospace and defense domain.

WG GOAL(S)

- Lead the international outreach to public and private organizations involved in infrastructure delivery and operations.
- Develop products to capture systems engineering best practices tailored to the infrastructure domain.
- Share best practices within the Working Group and make a footprint to the Infrastructure domain at large by developing products.

Specific initiatives include:

- Webinars ? 3 scheduled for 2019 in collaboration with other Working Groups such as Automotive and Transportation Working Groups ? Short Term
- Products ? An MBSE application to an infrastructure project (currently under development) ? Short Term
- Products ? Continue the development of tri-fold series ? Short term
- Products ? A Guide to the Application of Systems Engineering in Large Infrastructure Projects (Version 2.0 under development) ? Mid Term
- Collaboration with an International Organization (NETLPiSE) to promote the INCOSE brand and joint products development ? Mid Term
- Develop a metamodel for infrastructure ? Long Term
- Bring Construction Companies into INCOSE ? Long Term

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WG SCOPE

This Working Group will address mostly physical infrastructure issues with a concentration on the construction of infrastructure facilities in the energy, transportation and, and communications domains. This includes public and commercial facilities and networks necessary for the economic and physical well being of society (e.g., power generation and distribution, waterways and ports, industrial plants, telecommunication networks, transportation facilities and systems, and mining). The Working Group will leverage international systems engineering best practices and produce documents to assist developers and builders of infrastructure systems. This Working Group will collaborate with other domain specific Working Groups such as the Transport Working Group, the Power and Energy Systems Working Group, the In-Service Working Group, and the Resilience Systems Working Group.

OUTCOMES (PRODUCTS/SERVICES)

- Product ? Modeling a Drawbridge: An MBSE Application to an Infrastructure Project
- Product ? Guide to the Application of Systems Engineering in Large Infrastructure Projects, Version 2.0
- Product ? NETLIPSE/INCOSE Memorandum of Understanding
- Product ? A Metamodel for Infrastructure
- Product ? Leaflets of Systems Engineering application in the Infrastructure domain



IW OUTCOMES

1. Collaborated with TWG, SCI, and CIPR
2. Reviewed and Updated Strategic Plan, including:
3. Organization Structure
4. Plans
5. Collaboration
6. Product development
7. Discussed Opportunities for collaboration with other Working Groups
8. Discussed strategies to progress the products under development including timeline

PLANNED ACTIVITIES AFTER IW

1. Host IWG Webinars and joint Webinars with other WGs
2. Collaborate with other Working Groups including AWG, TWG, Telecom, and CIPR
3. Outreach within INCOSE and other entities (government agencies, supplier organizations and professional organizations)

PLANNED WORK PRODUCTS AFTER IW

1. Develop a leaflet on Configuration Management; February 2021
2. Develop a leaflet on Asset Management; March 2021
3. Transfer Sharepoint IWG data to MS Teams environment; April 2021
4. Develop Outline of Version 2 of the Guide to the Application of Systems Engineering in Large Infrastructure Projects; May June 2021
5. Finalize MBSE Drawbridge Model (including Podcast and Video); July ? August 2021
6. Translate previous leaflets in French, Spanish, German and Dutch; September 2021