

Meeting Name	Time Start	Time End	Meeting Listing	Meeting Description	Contact Name
Monday 25					
Handbook Editor Meeting	15:00	17:00	Closed	Coordination of handbook editor topics.	David Walden
Requirements Working Group - General Debrief of 2020	15:00	16:00	Open/Working session	The Requirements Working Group has been busy generating new products, holding meetings, authoring SE Handbook material, and supporting the INCLOSE community. This initial IW2021 session is to do a synopsis of the activities of the last year, and set the stage for the discussions on the new products that will occur throughout the IW.	Tami Katz
Configuration Management WG Planning Meeting	15:30	17:30	Open/Working session	This is a general Configuration Management Working Group meeting with the following purpose: review leadership roles and elect new people if needed; review open opportunities and check any volunteers; review charter and update as necessary; review achievements for 2020; review priorities for 2021; review work breakdown structure and adjust in line with priorities for 2021; kick-start activities for 2021 in terms of planning (regular meetings and frequency); any other business.	Adriana D'Souza, Paul Nelson, Dale Brown
Requirements Working Group - Introduction to the Needs and Requirements Lifecycle Manual	16:00	19:00	Open/Working session	An overview of the newest Requirements Working Group product; Product Lead Lou Wheatcraft will walk through the manual, giving an introduction to the research that resulted in new concepts, terminology, and recommended practice. Material is the foundational content for the corresponding guidelines that will be discussed later at the IW. Draft copies of the manual will be posted on the RWG site prior to IW2021.	Tami Katz, Lou Wheatcraft
SETDB v0.9 Review	16:30	19:00	Open/Working session	The SETDB WG CCB will be reviewing the SETDB v0.9 readiness for production release. JIRA issues will be reviewed for high priority and blocking issues.	John Nallon, Rene King, Stephane Lacrampe
SEHSE Part I (SE Found) Coord Meeting	17:30	18:30	Open/Working session	This is one of several planned IW21 coordination meetings focused on a specific part of the new SE Handbook Fifth Edition. The specific authors for this part and the SE Handbook editors are the intended participants. Primary focus: Handbook Part I (Systems Engineering Foundations) Coordination - Odile MORNAS is the editorial lead for this part. - Assignment of actions and any post-IW21 updates for sections in this part. - Determination of any specific topical meetings related to this part for the second week of IW21.	David Walden
SEHSE Part II (LC & Dim) Coord Meeting	19:00	20:00	Open/Working session	This is one of several planned IW21 coordination meetings focused on a specific part of the new SE Handbook Fifth Edition. The specific authors for this part and the SE Handbook editors are the intended participants. Primary focus: Handbook Part II (Life Cycles & Systems Engineering Dimensions) Coordination - Tom SHORTELL is the editorial lead for this part. - Assignment of actions and any post-IW21 updates for sections in this part. - Determination of any specific topical meetings related to this part for the second week of IW21.	David Walden
ASME-INCOSE PSD Standard Development	21:00	23:00	Open/Outreach session	Learn about the emerging ASME standard for developing energy, nuclear, oil and gas and petrochemical facilities. This standard will change how these facilities are developed by infusing systems engineering principles into the associated development processes. INCOSE and ASME recently entered into an agreement for joint development of the standard, training and associated certifications. Come see how you can become a recognized contributor.	Michael deLamare
Tuesday 26					
Systems Engineering Journal Editorial Board	14:00	16:00	Closed	Review the Journal Systems Engineering status and metrics for 2020, and plan activities for 2021.	Clifford Whitcomb, Rob Vingerhoeds
SEHSE Part IIIa (ILC Proc) Coord Meeting	15:00	16:30	Open/Working session	This is one of several planned IW21 coordination meetings focused on a specific part of the new SE Handbook Fifth Edition. The specific authors for this part and the SE Handbook editors are the intended participants. Primary focus: Handbook Part IIIa (System Life Cycle Processes) Coordination - Garry ROEDLER is the editorial lead for this part. - Assignment of actions and any post-IW21 updates for sections in this part. - Determination of any specific topical meetings related to this part for the second week of IW21.	David Walden
Requirements Working Group - Introduction to new Guideline to Verification and Validation	16:00	17:30	Open/Working session	An overview of the Verification and Validation Guideline; Product Lead Raymond Wolfgang will walk through the manual, giving an introduction to how it provides practical application of the concepts from the new Needs and Requirements Lifecycle Manual. Draft copies of the Guideline will be posted on the RWG site prior to IW2021.	Tami Katz
SEHSE Part IIb (QCs) Coord Meeting	17:00	18:00	Open/Working session	This is one of several planned IW21 coordination meetings focused on a specific part of the new SE Handbook Fifth Edition. The specific authors for this part and the SE Handbook editors are the intended participants. Primary focus: Handbook Part IIb (Quality Characteristics) Coordination - Garry ROEDLER & Dave WALDEN are the editorial leads for this part. - Assignment of actions and any post-IW21 updates for sections in this part. - Determination of any specific topical meetings related to this part for the second week of IW21.	David Walden
Requirements Working Group - Introduction to the Needs and Requirements Lifecycle Manual	17:30	18:30	Open/Working session	Follow-up meeting to discuss the content of the Needs and Requirements Lifecycle Manual with the RWG and INCOSE community. Draft copies of the manual will be posted on the RWG site prior to IW2021.	Tami Katz, Lou Wheatcraft
SETDB Operational Procedure Development	18:00	21:00	Open/Working session	Working session to focus resources on the development of the SETDB Operational Procedures. The procedures in development include: Access Management, Mapping Tool Categories to SE Processes, Tool Vendor Registration, Tool Information Management, Configuration Management, Stakeholder Communications and Lifecycle Management.	John Nallon, Rene King, Robert Halligan
SEHSE Part V (Pract SE) Coord Meeting	18:30	19:30	Open/Working session	This is one of several planned IW21 coordination meetings focused on a specific part of the new SE Handbook Fifth Edition. The specific authors for this part and the SE Handbook editors are the intended participants. Primary focus: Handbook Part V (Practicing Systems Engineering) Coordination - Bernardo DELICADO is the editorial lead for this part. - Assignment of actions and any post-IW21 updates for sections in this part. - Determination of any specific topical meetings related to this part for the second week of IW21.	David Walden
Wednesday 27					
Process Improvement Working Group General Meeting	01:30	02:30	Open/Working session	This is an organizational meeting for the Process Improvement Working Group. We will discuss our Technical Product and Meeting Schedules for 2021.	Jeffrey Brown
Requirements Working Group - Introduction to new Guideline to Needs and Requirements Development and Management	17:00	18:30	Open/Working session	An overview of Developing and Managing Needs and Requirements Guideline; Product Lead Kevin Orr will walk through the manual, giving an introduction to how it provides practical application of the concepts from the new Needs and Requirements Lifecycle Manual. Draft copies of the Guideline will be posted on the RWG site prior to IW2021.	Tami Katz
SETDB Operational Procedure Development	18:00	21:00	Open/Working session	Working session to focus resources on the development of the SETDB Operational Procedures. The procedures in development include: Access Management, Mapping Tool Categories to SE Processes, Tool Vendor Registration, Tool Information Management, Configuration Management, Stakeholder Communications and Lifecycle Management.	John Nallon, Rene King, Robert Halligan
Requirements Working Group - Discussion of all Projects	18:30	20:00	Open/Working session	Open discussion and feedback session for the Manual and Guides presented at the earlier sessions.	Tami Katz
ASME-INCOSE PSD Standard Development	21:00	23:00	Open/Working session	Come contribute to the emerging ASME standard for developing energy, nuclear, oil and gas and petrochemical facilities. This standard will change how these facilities are developed by infusing systems engineering principles into the associated development processes. INCOSE and ASME recently entered into an agreement for joint development of the standard, training and associated certifications. This session will work through specific sections of the standard to infuse SE principles.	Michael deLamare
Thursday 28					
SEHSE Part IV (X-Cut) Coord Meeting	14:00	15:00	Open/Working session	This is one of several planned IW21 coordination meetings focused on a specific part of the new SE Handbook Fifth Edition. The specific authors for this part and the SE Handbook editors are the intended participants. Primary focus: Handbook Part IV (Cross-Cutting Systems Engineering Concepts) Coordination - YIP Yew-Seng is the editorial lead for this part. - Assignment of actions and any post-IW21 updates for sections in this part. - Determination of any specific topical meetings related to this part for the second week of IW21.	David Walden
SEHSE Part VI (Case Studies) Coord Meeting	15:30	16:30	Open/Working session	This is one of several planned IW21 coordination meetings focused on a specific part of the new SE Handbook Fifth Edition. The specific authors for this part and the SE Handbook editors are the intended participants. Primary focus: Handbook Part VI (Case Studies) Coordination - Dave WALDEN is the editorial lead for this part. - Assignment of actions and any post-IW21 updates for sections in this part. - Determination of any specific topical meetings related to this part for the second week of IW21.	David Walden
Risk Management WG - IW2021 Meeting 1 of 6	16:00	18:00	Open/Outreach session	This is an open outreach and working meeting for existing WG members, potential new WG members, and members of other WGs interested in learning about or working with the Risk Management WG. We have scheduled six (6) two-hour meetings during the IW2021 at various times of the day so that colleagues from all time zones can attend join us at least once during normal waking hours. Our first meeting is on Thursday Jan 28 and our last is on Thursday Feb 4th. The two hour meetings include, but are not limited to, the following topics/agenda: 1 - Welcome and Introductions 2 - Risk Management WG Overview 3 - Update of Risk Management Content for the INCOSE SE Handbook 5th Ed. - Overview/Status, Input from Attendees, Discussion 4 - Risk Management Presentation from WG Member or Guest 5 - Open Discussion - Ideas, Needs, Expectations, etc. for the INCOSE Risk Management WG of the Future	Jack Stein, Paul Heining, Robert Parro
SaSIWG Working Meeting INSIGHT Articles	16:00	20:00	Open/Working session	Draft and review the System/Software articles for INSIGHT	Sarah Sheard
Where is your Roadmap for implementing MBSE Data Standards?	16:00	17:30	Open/Working session	MBSE data standards are being developed by a wide range of consortia and continue to evolve. What are the functions and capabilities of the different standards? What standards are released and available for use today? What are the roles of the different standard bodies, who is involved, and how does each company develop a strategy and roadmap? Come join the discussion and test your MBSE Data Standards knowledge.	Mark Williams, John Nallon
Handbook Editor & Domain WG Meeting #1	17:00	19:00	Open/Working session	This is the first of two planned IW21 meetings to discuss the handbook update implications for the INCOSE Domain WGs. Primary focus: Handbook Part VI (Application in Domains) Coordination - Dave WALDEN is the editorial lead for this part. - Discussion of: Which WGs are planning to do create an "application guide"? Common Format/Outlines (w/ Tailoring)? Consistent Size? Schedule? Relationship between SEH Editors and Domain WGs? - Assignment of actions for IW21 Meeting #2	David Walden
SOSWG Business Meeting	17:00	19:00	Open/Outreach session	Business Meeting that will review working group status, and discuss future plans.	Alan Harding, Judith Dahmann
Resilient Systems Working Group (RSWG) - Discuss SEBoK Update for Resilient Systems	18:00	22:00	Open/Working session	Open to all IW2021 attendees but anticipates regular RSWG attendees Discussion of SEBoK Repository: Dropbox Review current SEBoK content for Resilient Systems and recommend content additions, modifications, and deletions Recommend additions and deletions to referenced documents Author assignments based on above	Kenneth Cureton
Walking Through the SETDB System	18:00	20:00	Open/Outreach session	The SETDB Project Leaders will introduce the SETDB functionality including the Website landing page, Home page, Tool, Tool Vendor and Taxonomy browsing and searching. This will be a live session with interactive questions and answers. Stakeholders, users and tool vendors are encouraged to attend.	Robert Halligan, John Nallon, Stephane Lacrampe, Rene King

Risk Management WG - IW2021 Meeting 2 of 6	21:00	23:00	Open/Outreach session	This is an open outreach and working meeting for existing WG members, potential new WG members, and members of other WGs interested in learning about or working with the Risk Management WG. We have scheduled six (6) two-hour meetings during the IW2021 at various times of the day so that colleagues from all time zones can attend join us at least once during normal waking hours. Our first meeting is on Thursday Jan 28 and our last is on Thursday Feb 4th. The two hour meetings include, but are not limited to, the following topics/agenda: 1 - Welcome and Introductions 2 - Risk Management WG Overview 3 - Update of Risk Management Content for the INCOSE SE Handbook 5th Ed. - Overview/Status, Input from Attendees, Discussion 4 - What's new in (FDIS) ISO/IEC/IEEE 16085:2021 "Systems and software engineering — Life cycle processes — Risk management" 5 - Risk Management Presentation from WG Member or Guest 6 - Open Discussion - Ideas, Needs, Expectations, etc. for the INCOSE Risk Management WG of the Future	Jack Stein
Friday 29					
Telecommunications Working Group Meeting	00:00	03:00	Open/Working session	Planning session - reviewing recent activities of the Telecommunications Working Group, and planning future work. All welcome to contribute ideas on how systems engineering can improve practice in telecommunications. The Telecommunications Working Group aims to enable telecommunications systems stakeholders and providers to better support their users: Critical and emergency services personnel; Federal and municipal governments, utilities and transportation agencies; Enterprise and consumer users of commercial telecommunications services; and the broader public. The WG intends to be a forum for telecommunications practitioners to discuss problems and challenges; A forum for systems engineers who are interested in telecommunications applications; INCOSE's lead forum to advance the application of systems engineering for telecommunications. The purpose of the WG is to improve delivery of telecommunications solutions by enhancing the systems engineering body of knowledge for telecommunications applications.	Dan Spencer, John Risson, Susan Ronning
Break	09:30	10:00	Open		FALSE
Use Cases for Guide to ISO/IEC 42020	09:30	11:30	Open/Working session	This workshop is part of our effort to prepare a Guide to ISO/IEC/IEEE 42020 Architecture Processes. The ArchWG has been heavily involved in the development of the ISO/IEC/IEEE 42020 series of standards of which consist of ISO/IEC/IEEE 42010 Architecture Description, ISO/IEC/IEEE 42020 Architecture processes, and ISO/IEC/IEEE 42030 Architecture description. The Guide to ISO/IEC/IEEE 42020 is a planned ArchWG product that will integrate the series of standards with guidance to produce and end-to-end architecting effort. The workshop will gather use case scenarios and requirements for the Guide. ArchWG also plans a session prior to IW'21 for those not already familiar with the specifications of the three standards in the 42020 series.	Richard Martin, Anand Kumar
We chose MBSE: What's next?	10:00	12:00	Open/Working session	The purpose of this workshop is to introduce MBSE pitfalls and explain how to avoid them in an interacting way, featuring presentation of MagicGrid framework. The framework consists of viewpoints and aspects organized in a grid view, where each cell is an artifact or a set of artifacts to deliver in the modeling process. It is the basis to understand MBSE lifecycle. Along the way workshop features four practical assignments, such as identifying major challenges in adopting MBSE, categorizing and tracing requirements, understanding different levels of abstraction.	Aurelijus Morkevicius
DA working group -	12:00	13:30	Open/Working session	Decision Analysis and Model Based Systems Engineering Purpose: Discuss the use of MBSE to support trade-off analysis decisions. Outcomes: - Understand the current capabilities of MBSE to support trade-off analysis to make systems decisions. - Identify opportunities for MBSE to directly support trade-off analyses for system decisions. Structure: Presentations: MBSE Requirements to Support Trade-Off Analyses, Dr. Gregory S. Parnell, 20 minutes Group Discussion: Frank Salvatore, Facilitator, 50 mins Summary and Next Steps, Dr. Gregory S. Parnell, 20 minutes	Frank Salvatore
INCOSE Café	12:00	13:00			FALSE
Social Systems Working Group Introductory Session	12:00	13:00	Open/Working session	Come learn about the Social Systems Working Group! We will discuss what we have planned for 2021, and we welcome input from attendees. This is a session for those who are interesting in joining the SocWG or for those who just want to learn more about the group.	Erika Palmer
Digital Engineering Body of Knowledge	13:00	15:00	Open/Working session	The Digital Engineering Body of Knowledge (DEBoK) is being worked on by the Department of Defense and we are planning a workshop to explain our goals and provide an overview of the effort and engage participants in a workshop to help define user roles that would produce/consume content of the DEBoK and to help us identify the types of information to include in the DEBoK and the organization of information within the list of user roles. Finally we are looking to identify gaps and further refine the requirements for the DEBoK. Day 1 Jan 29, 2021 Agenda - 1300 - 1315 Welcome & Introductions - 1315 – 1330 DEBOK Overview - Provide context and describe the DEBOK - Review the Breakout Group Process - 1330 - 1500 Breakout Sessions - Breakout Group 1: DEBOK User Roles and Pathways/Structure - Breakout Group 2: DEBOK Functions/Requirements	Frank Salvatore, Brandon Quash, Jeff Nartatez, Phil Zimmerman
Level Up your LinkedIn and Grow Your Network	13:00	15:00	Open/Outreach session	Global networking has taken a new avatar! And what better platform than LinkedIn for systems-minded professionals to connect with over 760 million users with more than 260 million monthly active users. Of those LinkedIn users who are engaging with the platform monthly, 40% access it on a daily basis. LinkedIn is often misconstrued as only a "job search" platform; however, LinkedIn can also be leveraged to create and grow your network and increase your visibility to your network and beyond by sharing your expertise. In this workshop, we will review how to level up your LinkedIn profile, the art and science of writing a post on LinkedIn, and hacks to keep in mind. Attendees will complete and share a writing exercise as part of the workshop. Goals of the workshop: Build your visibility as a thought leader. Network with like-minded professionals. Workshop Agenda: Profile optimization. Build content strategy. Writing exercise - includes peer feedback. Hacks to keep in mind. Workshop Prerequisites: Participants need to have an active LinkedIn account to participate in the workshop. The LinkedIn profile should be reasonably up to date.	Alice Squires, Stueti Gupta, Erika Palmer
Sustainability	13:00	15:00	Open/Outreach session	This workshop invites you to think about how Systems Engineering can efficiently help to design more sustainable and responsible systems. We will base our work on the ISO15288 engineering processes and the technical reviews across project life cycle, as defined in the IEEE Standard for Technical Reviews and Audits on Defense Programs. Agenda: 13:00 - 13:10 : Session startup. 13:10 - 13:40 : Review of the current framework for sustainable activities : European and international agreements and regulations on carbon emissions and biodiversity, SRI, benefit corporations, etc... 13:40 - 14:45 : Work in groups : Identification of relevant sustainability examples, methods and tools per industrial sector. Study of one or several processes from the ISO15288, and technical reviews, to propose evolutions, suggestions or indicators to take better into account sustainability challenges. Reporting to the other groups. 14:45 - 15:00 : Conclusion	David Desjardins, Irénée Froissart
DEIXWG	13:30	15:30	Open/Working session	Technical Assessments of Challenge Submissions and look at the changes need to the concept model.	Frank Salvatore
General Automotive Working Group (AWG) meeting	14:00	15:30	Open/Working session	General meeting (2020 status, 2021 plan, ...)	ALAIN DAURON, Gary RUSHTON
PM-SE Integration Working Group	14:00	15:30	Open/Outreach session	Overview of the PM-SE Integration Working Group and description of initiatives. Intended audience is current WG members and new interested volunteers.	Tina Srivastava, Jean-Claude Roussel, John Lomax
SBSE Technical Products Development	14:00	15:30	Open/Working session	SBSE is working on Phase 2 Deployment Packages (DPs) and completing marketing materials.	Angela Robinson, Rüdiger Kaffenberger
Break	15:00	15:30	Open		FALSE
Opening Plenary	15:30	17:30	Open		FALSE
Academic breakout : Quiz evaluation and improvement for a better PM-SE understanding	17:30	19:30	Open/Working session	The session will be divided in three parts : First, an on-line quiz of 20 questions on PMBoK and SE Handbook common topics. Around 45mn. Participation will be anonymous. People could use any pseudo to enter the game ! Second part will consist of quiz correction, questions' improvement or new questions' proposal. Around 45mn. Third part : further work to be planned	Veron Jean-Francois
Configuration Management WG Interactive Workshop	17:30	19:30	Open/Working session	In the two hours we will do a final review of the following sections of the 5th Edition of the INCOSE Handbook: configuration management process (including CM for MBSE) information management process (including data as master) traceability (new section!)	Adriana D'Souza, Paul Nelson, Dale Nelson
Grand Challenges Planning Session	17:30	19:30	Open/Working session	The Grand Challenges Planning Session is a follow up to the IS2020 strategy session: "Building the INCOSE Grand Challenges Program." This session will present outcomes in order build upon them and make a plan for 2021.	Erika Palmer
Knowledge Management Introduction	17:30	19:30	Open/Working session	This session aims at introducing the WG area of Knowledge Management (KM) and set the stage for work 2021. We "restarted" in 2020 and this session aims at describing where we come from and what our objectives are. We will refine our way of working based on lessons learned from last year and decide on how to move forward with our way of organising the work, over the net, and how we commit to work packages to be able to work 2021. We will also refine our charters, and clarify WG objectives in 2021. This session is Chaired by Jean and Robert. New ideas are welcomed please mail Jean and Robert two weeks before session in that case.	Robert Nilsson
Opening: MBSE Initiative Update	17:30	18:00	Open		Mark Sampson
Risk Management WG - IW2021 Meeting 3 of 6	17:30	19:30	Open/Outreach session	This is an open outreach and working meeting for existing WG members, potential new WG members, and members of other WGs interested in learning about or working with the Risk Management WG. We have scheduled six (6) two-hour meetings during the IW2021 at various times of the day so that colleagues from all time zones can attend join us at least once during normal waking hours. Our first meeting is on Thursday Jan 28 and our last is on Thursday Feb 4th. The two hour meetings include, but are not limited to, the following topics/agenda: 1 - Welcome and Introductions 2 - Risk Management WG Overview 3 - Update of Risk Management Content for the INCOSE SE Handbook 5th Ed. - Overview/Status, Input from Attendees, Discussion 4 - What's new in (FDIS) ISO/IEC/IEEE 16085:2021 "Systems and software engineering — Life cycle processes — Risk management" 5 - Risk Management Presentation from WG Member or Guest 6 - Open Discussion - Ideas, Needs, Expectations, etc. for the INCOSE Risk Management WG of the Future	Jack Stein, Paul Heinger, Robert Parro

SE in Early Stage R&D	17:30	19:00	Open/Working session	1. Objectives of the working group session - why are we here, what are we trying to accomplish? 2. Review working group accomplishments 3. Summary of framework concept development 4. Brainstorm concepts/perspectives for SE for R&D frameworks, related activities 5. Brainstorm vision of where we want to be in 1 year - deliverables expectations 6. Identify participants' interest in owning/helping/reviewing activities	Ann Hodges, Mike DiMario
Systems Science Working Group Day 1	17:30	18:30	Open/Working session	Overview of Systems Science Working Group SSWG Purpose, goals, and how to contribute to the group and advancement of systems engineering through the use/development of systems science.	Javier Calvo, Swami Natarajan, James Martin, Anh Tong John Juhasz
Critical Infrastructure Protection & Recovery	18:00	20:00	Open/Outreach session	Infrastructure Resilience and Future Government Strategies & Systems Perspectives..?	
Human Systems Integration Evolution in the Digital Society	18:00	21:00	Open/Working session	A few invited speakers will spark your interest by providing several noticeable experiences on HSI, mainly coming from the successful workshop virtually held in October 2020 (Ami Harel, INCOSE Israel), IEEE HSI Technical Committee (Holly Handley, Old Dominion University, USA), NASA (Cynthia Null, NASA Ames), and IEA (Michelle Robertson, IEA Representative). In the light of these three experiences, we will discuss current development of HSI in other places. It should be noticed that HSI WG 2020 Workshop was reported in the article published in 2020 INCOSE Newsletter Q4. We will discuss and brainstorm on the implications for HSI in the near and middle-term future.	Guy Andre Boy
INCOSE Ambassadors and Relationship Managers	18:00	20:00	Open/Working session	Meet to discuss roles, responsibilities, accountabilities, and authorities (R2A2s) of INCOS Ambassadors and Relationship Managers. Differentiate between these two roles and update INCOS Outreach policies accordingly. Meet with current INCOS membership acting in these roles and solicit input.	Mitchell Kerman, Valkand Jhaveri
ISO MBSE Draft Standard Review	18:00	21:00	Closed	Collate, review, and disposition review team comments on the draft International Organization for Standards Model Bases Systems and Software Engineering Standard	Robert Malone
MBSE Keynote Speaker: Culture Change Panel	18:00	19:00	Open		Dr. Willy Donaldson, Oli De Weck, David Long, Tom McDermott, Mark Sampson
Product Line Engineering Working Group General Meeting	18:00	19:00	Open/Working session	Join us for the PLE WG's General Meeting to connect with PLE experts, find out what we're working on, and learn how you can get involved. We'll start with a review of our current projects, then open the floor to new members and new ideas. Want to learn more about PLE? Have questions for practicing PLE experts? Want to exchange ideas and how to apply PLE? Have an idea on how to inspire and guide practicing Systems Engineers? The PLE WG General Meeting is the place to get these answers or find the collaborators to help you realize your ideas.	Drew Stovall, Rowland Darbin
Smart Cities -Definition and Metrics, Final Product Prep	18:00	20:00	Open/Working session	Over the past year, we have evolved a Smart Cities definition, metrics, and reference model. In this working session, we will review the product and prepare for submission to INCOS Tech Ops for review and approval.	Jennifer Russell, Marcel van de Ven
Systems Thinking RoundTable (STRT)	18:00	19:00	Open/Working session	OUR TOPIC: Systems Thinking in Uncertain Times. OUR FORMAT is a reflective practice during which each participant is given equal time to comment on a selected topic or trend impacting our discipline. We begin by listening to the suggested topics and short guidelines for five minutes. We then spend the remaining 50 minutes listening to, and offering an individual comment. The time is divided equally among all present (e.g., 27 people = 2 minutes each). Each day, a different topic will be suggested by a different volunteering facilitator in attendance. Folk wisdom and compelling research indicate that participants experience surprising benefits from this activity after just a few sessions. Experience with this format has resulted in the following theory. Just as we break the sound barrier when we travel faster than the speed of sound, we break the communication barrier when we hear 30 authentic viewpoints in 60 minutes. Used regularly, benefits accrue at compound interest.	Sue Gabriele
The Systematic Innovation Toolbox + Biologically Inspired Design	18:00	19:30	Open/Outreach session	Systematic innovation toolbox, current trends/research in biologically inspired design, and practical suggestions for implementing BID in industry. Dr Jonathon Weaver (University of Detroit Mercy) and Dr. Jacquelyn Nagel (James Madison University). Tiny tools for natural systems design. Curt McNamara, MCAD	Curt McNamara
Complex Systems Working Group - CSWG Kickoff and Complexity Primer updates	19:00	21:00	Open/Working session	The Kick off session provides a review of the Complex Systems Working Group (CSWG) activities and the CSWG agenda for the INCOS IW 2021. Updates to 'A Complexity Primer for Systems Engineers' to incorporate complex systems characteristics and a definition of complex systems will be reviewed.	Michael Watson
Cyber-Physical System (CPS) Workforce Questionnaire	19:00	19:30	Open/Outreach session	Outreach for input providing an operations-scaling contribution to Cyber SYSE addressing knowledge gap of IT/OT workforce and convergence challenges. System engineers are tasked with the design, development, implementation, and management of complex, large-scale, resilient systems. ♦ Cyber resiliency is the ability to prepare for, respond to, and recover from cyber incidents. ♦ Cyber resiliency is widely understood in the IT context, but not in the OT context. ♦ The IT and OT workforce needs to be better understood. ♦ What are the related knowledge, skills and attributes (KSAs) and new required KSAs? ♦ What related training and certification is held? ♦ Do OT personnel understand cybersecurity principles and practices? ♦ How can IT personnel support Cyber-Physical System (CPS) and Control System (CS) needs? ♦ How may this research be scaled?	Aleksandra Scalco
INCOSE Café	19:00	21:00			FALSE
Quality Management - SEQM - General	19:00	20:30	Open/Working session	Welcome and introductions Relevance of QM, QA and QC to SE QM Training opportunity / WG scholarship Focus Presentations/Teach-backs (10 min each) Discussion: Impacts of QM on SE Projects Discussion	William Scheible , Barclay Brown
Systems Engineering Heuristics and Systems Engineering Principles Bridging Team Report	19:00	21:00	Open/Working session	The Principles and Heuristics Bridging Team will report on the activities and approach in defining the relationships of the Systems Engineering Heuristics with the Systems Engineering Principles and System Sciences Principles.	Michael Watson, Dorothy McKinney, Javier Calvo-Amodio
Understanding Information Lifecycles, Digital Threads and Value Stream Mapping	19:00	20:00	Open/Outreach session	Present concepts of applying Information Lifecycle analysis to Digital Threads and Value Streams for further discussion.	Ian phillips
Opening: Inspire MBSE Lightning Talks	19:10	19:30	Open		FALSE
Reconciling the past with future	19:30	19:50	Open		Juan Navas
Schema, Metamodels, & Ontologies, Oh My!	19:50	20:10	Open		David Long
Agile Systems and SE WG General Meeting	20:00	22:00	Open/Working session	This meeting will start with a brief overview of the working group, then overview the INCOS Future of Engineering (FuSE) initiative, then present the nine concepts in the FuSE Agility topic with interactive discussion and a poll on importance of the concepts, then a mini workshop on deeper aspects of the top two concepts in the poll.	Rick Dove
Enterprise Systems Working Group (ESWG) General Meeting	20:00	23:00	Open/Outreach session	Review progress since IW2020 Identify collaborative opportunities with other WGs Develop SMART goals for 2021	Kevin Nortrup, Tom McDermott Curt McNamara
Patterns in business and design	20:00	21:30	Open/Outreach session	Patterns in Nature - 3D Design Application + Enhanced User Experience (Elise Hounslow, toy industrial designer) + Wild Resilience: Learnings from Islands (Giselle Carr, Stardust Life-Centered Design)	
PDP content elicitation and discussion	20:00	21:30	Open/Working session	Purpose is to a) discuss / introduce PDP content taxonomy and state of material found b) ask attendees to recommend material they use themselves (especially in the gaps), c) discuss creation / adaptation of potential content to be more useful as Professional development material	Richard Beasley
Resilient Systems Working Group (RSWG) - General Discussion / Business Meeting	20:00	22:00	Open/Working session	Introduction to RSWG, Charter, Scope, Objectives, Activities, and Products	Kenneth Cureton
MBSE Transformation: The Cobbler's Kids Need New Shoes	20:10	20:30	Open	Discussion of IW2021 general events related to Resilient Systems	Bob Sherman
INCOSE Model-Based Capabilities Matrix - Evolution	20:30	22:30	Open/Working session	10 minutes Welcome, Agenda and Logistics 15 minutes Matrix and User's Guide Overview, Peek at the candidate US Air Force Metrics Program 30 minutes candidate best practices, lessons learned and pro tips 45 minutes Working Group Real Time Comments on the Matrix and User's Guide - content changes, format changes 20 minutes Recommended Actions Items	Albert Hohelb, Michael Russell
Resilient Hospital Reference Model	20:30	20:50			Howard Lykins
Treadstone+1: SAIC Public Validation Rules	20:50	21:10	Open		Michael Vinarcik
Certification Breakout Discussions	21:00	22:30	Open/Outreach session	I'd like to have 90 minutes total time and 4 breakout rooms, each with a SME moderator / host. We'd alternate between 10 minutes of host presentation to the full group and 15-20 minutes of discussion within the breakouts. The three topics covered would be: 1. Which certification level is right for you? (breakouts: probably ASEP but maybe CSEP, probably CSEP but maybe ASEP, probably CSEP but maybe ESEP, and probably ESEP but maybe CSEP) Main presentation would describe what INCOS certification is and the high level requirements for each 2. How do I fill out the application form or prepare for the exam? (breakouts: experience documentation for CSEPs and ESEPs from defense / aerospace, experience documentation for CSEPs and ESEPs from other domains, preparing for the knowledge exam for ASEPs and CSEPs from defense / aerospace, preparing for the knowledge exam for ASEPs and CSEPs from other domains) Main presentation would show the application form and how experience is documented, and also describe exam format. 3. What about references, interview, leadership for ESEPs and academic equivalencies? (breakouts: identifying and working with your references for CSEP or ESEP, preparing for the ESEP interview, ESEP leadership documentation, academic equivalencies) Main presentation would describe the requirements for these things, including transition between cert levels and general equivalency options. Participants would choose to attend this session because they wanted to know more about INCOS Certification. Most would want information presented to them, not yet having specific questions in mind. Many will identify questions during the session and will appreciate getting them immediately answered verbally or in written chat. General questions they will have: Should I get certified? How do I get certified? Will my experience / degree be enough for a particular certification level? How do I prepare for the exam? {	Courtney Wright

Critical Infrastructure Protection & Recovery	21:00	23:00	Open/Outreach session	Meeting seeks interaction between cognizant individuals/ thought leaders/ systems engineers in diverse working groups to help organize a systematic approach to protecting our infrastructures from a spectrum of threat scenarios, including Cyber, Electro-magnetic, and physical attacks. Mitigation of risk to populations and infrastructure assets is a key objective.	John Juhasz
Fellows Selection Committee	21:00	23:00	Closed	The Fellows Selection Committee and Fellows meet to discuss nomination packages and vote on candidates for INCOSE Fellow Award	Gregory Parnell
Training Working Group	21:00	22:00	Open/Outreach session	Promote the Training Working Group to attendees and recruit training module presenters.	Gabriela Coe, John Clark
Opening:Inspire MBSE Lightning Talks Grab-an-go MBSE for smallsats	21:30 21:50	21:50 22:10	Open Open		FALSE Samantha Infeld, Taekyoo Won Jose Fernandez, Juan Martinez
Modeling the Mission Dimension	22:10	22:30	Open		Dr. Hazim El Mounayri
Integrated MBSE in Engineering Education SE Inspire MBSE Lightning Speaker Interaction/Q&A	22:30 22:50	22:50 23:50	Open Open		Juan Navas, David Long, Bob Sherman, Howard Lykins, Michael Vinarcik, Samantha Infeld, Taekyoo Won, Jose Fernandez, Juan Martinez, Dr. Hazim El Mounayri
Quality Management - SEQM - General	23:00	23:59	Open/Working session	Allow Australian and Pacific members to join. Training opportunities. Specific work on Primer and discussion on other major efforts for the year. Other WG's invited to stop by and meet ended at 00:30	William Scheible , Barclay Brown
Systems Science Working Group Day 1	23:00	23:59	Open/Working session	New Definitions of SE and System A study was conducted by the INCOSE Fellows to determine a more comprehensive definition of Systems Engineering to address the 21st century challenges. This also entailed defining "System" within the context of this more modern form of SE. This presentation will describe the approach we took, the results in terms of 7 worldviews regarding the concept of system, and the recommendation new definition of SE and System that has been adopted by INCOSE.	Javier Calvo, Swami Natarajan, James Martin, Anh Tong
MBSE Workshop Wrap up & Look ahead	23:50	23:59			Mark Sampson, Troy Peterson
Saturday 30					
Quality Management - SEQM - General	00:00	00:30	Open/Working session	Allow Australian and Pacific members to join. Training opportunities. Specific work on Primer and discussion on other major efforts for the year. Other WG's invited to stop by and meet	William Scheible , Barclay Brown
Systems Science Working Group Day 1	00:00	01:00	Open/Working session	New Definitions of SE and System A study was conducted by the INCOSE Fellows to determine a more comprehensive definition of Systems Engineering to address the 21st century challenges. This also entailed defining "System" within the context of this more modern form of SE. This presentation will describe the approach we took, the results in terms of 7 worldviews regarding the concept of system, and the recommendation new definition of SE and System that has been adopted by INCOSE.	Javier Calvo, Swami Natarajan, James Martin, Anh Tong
Telecommunications Working Group Meeting	00:00	03:00	Open/Working session	Planning session - reviewing recent activities of the Telecommunications Working Group, and planning future work. All welcome to contribute ideas on how systems engineering can improve practice in telecommunications.The Telecommunications Working Group aims to enable telecommunications systems stakeholders and providers to better support their users:Critical and emergency services personnel;Federal and municipal governments, utilities and transportation agencies;Enterprise and consumer users of commercial telecommunications services; andThe broader public.The WG intends to be a forum for telecommunications practitioners to discuss problems and challenges;A forum for systems engineers who are interested in telecommunications applications;INCOSE's lead forum to advance the application of systems engineering for telecommunications.The purpose of the WG is to improve delivery of telecommunications solutions by enhancing the systems engineering body of knowledge for telecommunications applications.	Dan Spencer, John Risson, Susan Ronning
Use Cases for Guide to ISO/IEC 42020	01:00	03:00	Open/Working session	This workshop is part of our effort to prepare a Guide to ISO/IEC/IEEE 42020 Architecture Processes. The ArchWG has been heavily involved in the development of the ISO/IEC/IEEE 420X0 series of standards of which consist of ISO/IEC/IEEE 42010 Architecture Description, ISO/IEC/IEEE 42020 Architecture processes, and ISO/IEC/IEEE 42030 Architecture description. The Guide to ISO/IEC/IEEE 42020 is a planned ArchWG product that will integrate the series of standards with guidance to produce and end-to-end architecting effort. The workshop will gather use case scenarios and requirements for the Guide. ArchWG also plans a session prior to IW'21 for those not already familiar with the specifications of the three standards in the 420X0 series.	Richard Martin, Anand Kumar
Systems Science Working Group Day 2	03:00	05:00	Open/Working session	SSWG A Review of the State of Systems Science: Definitions and Content (Lynn Rasmussen)Ironically, systems science is known to lack a unifying system, and yet principles and tools of systems science are well-represented in scientific journals. This paper and presentation provides a brief overview of the state of the science: its definitions, content, and pervasiveness in the science literature. It will draw from four sources: 1. Wikipedia, definitions and also categorization of the theories and fields listed. 2. An overview of systems concepts and tools from research from December 2020 issues of Nature and Science . 3. A comparison of outlines of content from textbooks and online curricula published within the last five years. 4. A comparison of the projects within the Systems Science Working Group. Findings reveal a pragmatic application of necessary tools and concepts required to meet the requirements of the complex questions demanded today but a lack of unity around what systems science should consist of and what is required for a basic education in systems science. All supports Gary Smith's SEBoK initiative to define systems concepts (or principles, patterns, or processes) as the basis for a fundamental, unifying systems science for Systems Engineering.	Javier Calvo, Swami Natarajan, James Martin, Anh Tong
Human Systems Integration Evolution in the Digital Society	09:00	12:00	Open/Working session	The second session will be devoted to more experiences on HSI & safety (Jean-Jacques Speyer, Brussels University, Belgium), HSI & automation/autonomy (Peter Moertl, Karl-Franzens-University, Graz, Austria), and HSI & artificial intelligence (Gopal Jani, India). These experiences will add crucial components of HSI for the development of the SE Handbook HSI chapter and HSI WG guideline document work-in-progress – this will provide attendance a chance to participate in the construction of INCOSE HSI content, useful for training – the current HSI WG writing team will be there to answer questions.	Guy Andre Boy
Break	09:30	10:00	Open		FALSE
Capture SE concepts through knowledge modeling	10:00	12:00	Open/Working session	We want to capture a model of Systems Engineering main concepts.The objective is to get feedback from other WG on a project idea.	Robert Nilsson, Jean Duprez
Complex Systems Working Group - Complexity Definition Work	10:00	12:00	Open/Working session	The CSWG has been working to define more succinctly the terms complexity and complex systems. This session will review and discuss the work done by the CSWG on these definitions.	Michael Watson
DEIXWG	10:00	12:00	Open/Working session	Brainstorming plans to revisit creation of Digital Views and corresponding information relationships.	Frank Salvatore
Systems Thinking 101	10:00	12:00	Open/Working session	Broaden the knowledge in the understanding and application of systems thinking. This is applicable across working groups and members of INCOSE. The proposed workshop outline / agenda is as follows:Joining and Housekeeping Welcome and Introductions Motivation for Systems Thinking ("WHY") Breakout Session 1 - What is Systems Thinking Group Feedback Summary - first 3 volunteers Presentation on "WHAT IS" Systems Thinking Breakout Session 2 - How do we understand a System Group Feedback Summary - first 3 volunteers Presentation on "HOW does one Understand a System" Discussion & Q&A on the "WHY", "WHAT" and "HOW" Exercise - Apply ST - Identify System of Interest, Stakeholders/Boundaries Discussion & Q&A on Applying ST Closing	Jawahar Bhalla, Kerry Lunney
DA working group -	12:00	13:30	Open/Working session	Decision Analysis and Set-Based Design Purpose: Discuss the potential for the use of decision analysis in quantitative Set-Based Design Outcomes: - Understand the potential for quantitative SBD - Understand the use of quantitative SBD in industry and government Structure: Presentations: Quantitative Set-Based Design - Dr. Eric Specking, 10 min - LTC Nick Shallcross, 10 min - Dr. Cliff Whitcomb, 10 min Group Discussion: Frank Salvatore, Facilitator, 40 mins Summary and Next Steps, Dr. Gregory S. Parnell, 20 minutes	Frank Salvatore
INCOSE Café	12:00	13:00			FALSE
Complex Systems Working Group - Complexity Heuristics	13:00	15:00	Open/Working session	Heuristics born from experience is a starting point to define fundamentals contained in principles. An open discussion from INCOSE members work on complex systems will be engaged as we explore potential heuristics of complex systems.	Michael Watson
Knowledge Management & Ontology primer	13:00	15:00	Open/Working session	This session focuses on the work with a primer for KM. Jean D. leading the work will chair the session and taking us through the plan for TPP as well as intended plan for further work. We have refined our ideas over the year and now we need to decide how to move forward, do a detailed action plan and also spend time on revising the work so far and improving the primer itself.	Robert Nilsson

Smart Cities - Case Study - City of Ulaanbaatar: Product creation	13:00	15:00	Open/Working session	The SCI developed Smart City definition, reference model and metrics were applied to the City of Ulaanbaatar, Capitol of Mongolia. The application of the model demonstrated its potential and is in progress for collaboration with the City. This session will include a review of the application of the model to the City of Ulaanbaatar and a working session to document a case study of the application.	Jennifer Russell, Marcel van de Ven
Social Systems Primer Workshop	13:00	15:00	Open/Working session	If there are topics you would like to see covered in the Social Systems Primer, this is your last chance to get them included! Please also attend if you want to help write it. In this session the outline for the Social Systems Primer will be presented and discussed. We will focus on the following questions: (1) Have we included everything we should, (2) Have we have a clear understanding as to why each topic is important to tackle? Erika Palmer and Charlotte Dunford (Social System Primer Editors) would like to ensure that at the end of the session that not only do we have a final outline, but we also have need statements to supplement each topic. We wish to recruit social scientists, unfamiliar with engineering, as authors and wish to give them clarity as to the need they are fulfilling and why it is important. We will focus on recruiting authors in Spring 2021.	Erika Palmer
Using Microsoft Teams for Real Time Technical Collaboration	13:00	14:00	Open/Working session	Meet, chat, call, and collaborate in one convenient place across INCOSE. Learn how to collaborate with groups of people in your working groups, task teams and project teams in INCOSE. Understand real time chat, multi-user simultaneous document editing, automatic version history, and in-document discussions. Microsoft Teams, part of the Microsoft 365 platform (formerly Office 365), is used by over 115 million people every day and we're using it across INCOSE. We'll introduce Teams and show you how to use it right away to collaborate during the IW, using your computer or mobile. A recap will also be shared in the following 30 minute Town-Hall session, titled the same.	Barclay Brown, Molly Kovaka
We chose MBSE: What's next?	13:00	15:00	Open/Working session	The purpose of this workshop is to introduce MBSE pitfalls and explain how to avoid them in an interacting way, featuring presentation of MagicGrid framework. The framework consists of viewpoints and aspects organized in a grid view, where each cell is an artifact or a set of artifacts to deliver in the modeling process. It is the basis to understand MBSE lifecycle. Along the way workshop features four practical assignments, such as identifying major challenges in adopting MBSE, categorizing and tracing requirements, understanding different levels of abstraction.	Aurelijus Morkevicius
An Update on the INCOSE SE Handbook Fifth Edition	14:00	15:00	Open/Working session	INCOSE is in the process of updating the SE Handbook to the Fifth Edition with a targeted release at IS2023. This session will give an update on the current plan, present the updated handbook outline, and provide the current status of Working Group and Subject Matter Expert inputs. The session will provide information on the future plans, including how INCOSE members can get engaged with handbook reviews. It will also include time for questions & answers amongst the INCOSE Community.Facilitator(s)Handbook Editorial Team - Dave Walden, Tom Shortell, Garry Roedler, Bernardo Delicado, Odile Mornas, Yip Yew Seng	David Walden, Bernardo Delicado
Automotive Supplier Model Sharing	14:00	15:00	Open/Working session	Model demonstration Lessons Learned	David Heatherington
Outreach to young Systems Engineers	14:00	14:30	Open/Outreach session	The Dutch INCOSE chapter (INCOSE-NL) works together with an active group of young Systems Engineers who share knowledge and motivations, learn from each other during separately organized inspiring and social events, interactive workshops, network events, company visits and project visits.The group 'JongINCOSE' (in English: Young INCOSE), would like to take the opportunity to pitch themselves in a 15 min presentation in which they will explain how they are organized and how they work in the Netherlands and how they work together with INCOSE-NL. This might be an interesting pitch for those chapters that also like to reach out to young Systems Engineering professionals. The main message is how to create a win-win opportunity between young SE professionals and INCOSE.So, it won't be a meeting, but a short pitch presentation. If chapters have interest in this matter, JongINCOSE can easily be contacted via e-mail.	Ger Schoeber
Break	15:00	15:30	Open		FALSE
Town Hall: Systems Engineering Handbook version 5	15:30	16:00	Open		Bernardo Delicado, Dave Walden
Town Hall: INCOSE Collaboration Tools (MS Teams, O365)	16:00	16:30	Open		Barclay Brown
Competency Working Group Open Session	16:30	17:30	Open/Outreach session	Open session to inform new members of current activity and goals, and answer questions they may have.	Lori Zipes, Cliff Whitcomb
PDP content elicitation and discussion	16:30	18:00	Open/Working session	Purpose is to a) discuss / introduce PDP content taxonomy and state of material found b) ask attendees to recommend material they use themselves (especially in the gaps), c) discuss creation / adaptation of potential content to be more useful as Professional development material	Richard Beasley
PjBS Initiative & SEH V5 update for PM-SE int WG	16:30	18:30	Open/Working session	1) To present the last status of the Project Breakdown Structures initiative of the PM-SE Integration WG2) To present the updates proposed for the SEH V5 from the PM-SE Integration WG	Jean-Claude Roussel, Tina Srivastava
Resilient Systems Working Group (RSWG) - Loss-Driven Systems Engineering (LDSE) Discussion	16:30	18:00	Open/Working session	Discussion of next steps for LDSE INCOSE Insight Issue Feedback SEbok Additions for LDSE Proposed IS2021 Activities for LDSE Call for LDSE Papers Decide to create a "Special Initiative for LDSE" or use RSWG as an Incubator for LDSE?	Kenneth Cureton
Sustainable Development Goal (SDG) Cluster Project Session	16:30	17:30	Open/Working session	Interested in sustainable development? Have a project idea or want to join up with others working on this topic? Come learn about and help develop the Sustainable Development Cluster Project in the Social Systems Working Group!	Erika Palmer
SysML v2 Update	16:30	17:30	Open		Sandy Friedenthal
Model Based Knowledge Management	17:00	19:00	Open/Working session	This session is exploring one of the central aspects of knowledge management. A small group consisting of Swami, Jean and Robert have through a WG project initiated work on a concept for how Knowledge Management can be executed in a model based fashion called Model Based Knowledge Management (MBKM). The concept spans from theoretical aspects to the physical implementation in tools and is constructed on scientific principles. The ultimate objective is to organize knowledge in model form, and link these knowledge models to system models. This session will be chaired by Robert starting with a presentation of the concept bridging into future work and discussions of improvements.	Robert Nilsson
Model Portfolio Management Guide - INCOSE Adoption?	17:00	19:00	Open/Working session	20 minutes Welcome, introductions and logistics20 minutes Overview of the TIMLM 30 minutes Overview of the Aerospace MPM Guide document30 minutes Review of Candidate INCOSE Technical Procedure Plan20 minutes Next Steps	Albert Hoheb, Misak Zetilyan, John Nailon
Systems Engineering Principles and Heuristics - Building Bridges	17:00	19:00	Open	This session will report the work of the Bridge Team, established to explore the relationships between SE Principles and Heuristics. Their talk will be entitled 'Towards a Framework for Understanding SE Principles and Heuristics'. This will be followed by an open, facilitated discussion on the questions raised, surrounding such issues as elegance, trust and their contribution to the wider SE knowledge base. There will be a brief recap of the Principles and Heuristics efforts, and an opportunity to sign up as Beta Users of the INCOSE online Heuristics Resource.	Michael Watson, Dorothy McKinney, Javier Calvo-Amodio
Time with the Presidents	17:00	18:00	Open		Kerry Lunney, Marilee Wheaton
Automotive WG working with other domain specific reference architectures	17:30	19:00	Open/Working session	Introduction (focus of the session, background, objectives, expectations of attendees...) What is a Domain Specific Reference Architecture Illustration of some Domain Specific Reference Architectures : SGAM (smart grid) ARAM (automotive) ARC-IT (intelligent transportation) Open discussion (practitioners feedback as far as possible) Process for cross Domain architectures (B. Brankovic, Salzburg university) Open discussion (pain points acknowledged by practitioners, opened questions...) Wrap-up and potential next steps	Andreas HEIN, Yann CHAZAL
Critical Infrastructure Protection & Recovery	18:00	20:00	Open/Working session	Meeting goal is to 1) address CIPR Admin tasks & challenges 2) manage logistics of CIPR / ATI integration to a single working group & 3) plan program content and outreach strategies for 2021	John Juhasz
Enterprise Architecture Process and Guide for Using UAF	18:00	20:00	Open/Working session	The Unified Architecture Framework (UAF) from the OMG provides a Domain Metamodel and a Profile that enables modeling of an Enterprise Architecture. INCOSE is helping them create an EA Guide for UAF to help people in applying the EA modeling views and concepts provided by the UAF standard. The UAF modeling approach is built upon and use SysML modeling notation, but provides special concepts applicable to EA modeling efforts. This session will provide an overview of UAF and the EA approach, describe the intended contents of the EA Guide, and will solicit feedback on the EA modeling process contained therein, as well as review the outline of the Guide itself. Session Leaders: James Martin and Matthew Hause	Richard Martin, James Martin, Matthew Hause
Opening: Transformation Initiative Update	18:00	18:20	Open		Troy Peterson
PLE WG Business Meeting	18:00	19:00	Open/Working session	PLE WG's leadership will handle a few administrative items	Drew Stovall, Rowland Darbin
Systems Thinking RoundTable (STRT)	18:00	19:00	Open/Working session	OUR TOPIC: Systems Thinking in Uncertain Times. OUR FORMAT is a reflective practice during which each participant is given equal time to comment on a selected topic or trend impacting our discipline. We begin by listening to the suggested topics and short guidelines for five minutes. We then spend the remaining 50 minutes listening to, and offering an individual comment. The time is divided equally among all present (e.g., 27 people = 2 minutes each). Each day, a different topic will be suggested by a different volunteering facilitator in attendance. Folk wisdom and compelling research indicate that participants experience surprising benefits from this activity after just a few sessions. Experience with this format has resulted in the following theory: Just as we break the sound barrier when we travel faster than the speed of sound, we break the communication barrier when we hear 30 authentic viewpoints in 60 minutes. Used regularly, benefits accrue at compound interest.	Sue Gabriele
Working Group Round Robin... [Select Working Group Overviews]	18:20	19:20	Open		FALSE
Resilient Systems Working Group (RSWG) - RSWG Inputs to Vision 2035	18:30	19:00	Open/Working session	Review and discuss RSWG Inputs that were proposed for Vision 2035	Kenneth Cureton
Complex Systems Working Group - Managing Complexity	19:00	21:00	Open/Working session	Managing complexity is currently a nebulous topic, one that has been difficult to identify approaches and methodologies which can be applied in practice. This session will explore methodology and approaches in managing complexity in systems engineering. The session will seek to frame future activities and participants in Managing Complexity.	Michael Watson

NSWG/SocWG Joint Session	19:00	21:00	Open/Working session	This session will focus on modeling social-economic-ecological systems, with an emphasis on social systems and world models. Presenters include Ivan Taylor, Policy Dynamics Inc. (Canada); Paul McGoey, INCOSE Enchantment Chapter (USA); Victoria Hailey, Community Resilience Group (Canada); Dana Polojärvi, Maine Maritime Academy (USA). A portion of the session will be devoted to discussion on the potential for joint projects.	Randall Anway
Resilient Hospitals Systems Engineering Project	19:00	21:00	Open/Outreach session	The goal of this meeting will be to: Describe the Resilient Hospitals project+ Discuss what we have accomplished to date+ Discuss what comes next+ Discuss technical and other issues we are facing.	Howard Lykins
Resilient Systems Working Group (RSWG) - RSWG Video	19:00	19:30	Open/Working session	Review and recommend additions, changes, and deletions to the RSWG Team Video presented at IW2021	Kenneth Cureton
Systems Engineering Education Ecosystem (SEEE)	19:00	21:00	Open/Outreach session	The mission of Systems Engineering Education Ecosystem (SEEE) program is to create a collaborative ecosystem in which systems engineering educators can interact with SE employer partners and students to define, create and exchange curricular and pedagogical resources to enhance educational impact. The goals for this workshop are to: inform INCOSE members about the SEEE program; receive feedback on the program and the current website portal; prototype a list of member support for the program. The meeting agenda is: Overview of SEEE - 10 minutes; Description of SEEE Portal Use Cases - 10 minutes; Description of Competencies and Structure - 10 minutes; Breakout sessions (employers, academia, student/practitioner) - 60 minutes; Discussion - 30 minutes; We look forward to your participation!	Jon Wade, Chian Dagli
Walking Through the SETDB System	19:00	20:30	Open/Working session	The SETDB Project Leaders will introduce the SETDB functionality including the Website landing page, Home page, Tool, Tool Vendor and Taxonomy browsing and searching. This will be a live session with interactive questions and answers. Stakeholders, users and tool vendors are encouraged to attend.	Robert Halligan, John Nallon, Stephane Lacrampe, Rene King
DoD OSD DE Update	19:20	19:40	Open		Phil Zimmerman
PLE WG Work session	19:30	21:00	Open/Working session	During this session, we will draft an updated Wikipedia article for Product Line Engineering. This will be a collaborative work session where authors will pull from primary sources and formulate a cohesive article that can be submitted to Wikipedia.	Drew Stovall, Rowland Darbin
SERC/INCOSE DE Survey	19:40	20:00	Open		Tom McDermont
Analyst MBSE Update	20:00	20:20	Open		Don Tolle
Enterprise Systems Working Group (ESWG) Interactive Workshop	20:00	22:00	Open/Working session	First-level project-planning for collaborations and other action-items from previous session	Kevin Nortrup, Tom McDermott
INCOSE Café	20:00	21:00			FALSE
Risk Management WG - IW2021 Meeting 4 of 6	20:00	22:00	Open/Outreach session	This is an open outreach and working meeting for existing WG members, potential new WG members, and members of other WGs interested in learning about or working with the Risk Management WG. We have scheduled six (6) two-hour meetings during the IW2021 at various times of the day so that colleagues from all time zones can attend join us at least once during normal waking hours. Our first meeting is on Thursday Jan 28 and our last is on Thursday Feb 4th. The two hour meetings include, but are not limited to, the following topics/agenda: 1 - Welcome and Introductions 2 - Risk Management WG Overview 3 - Update of Risk Management Content for the INCOSE SE Handbook 5th Ed. - Overview/Status, Input from Attendees, Discussion 4 - What's new in (FDis) ISO/IEC/IEEE 16085:2021 "Systems and software engineering — Life cycle processes — Risk management" 5 - Risk Management Presentation from WG Member or Guest 6 - Open Discussion - Ideas, Needs, Expectations, etc. for the INCOSE Risk Management WG of the Future	Jack Stein, Paul Heiningner, Robert Parro
System Security Engineering WG General Meeting	20:00	22:00	Open/Working session	This meeting will start with a brief overview of the working group, then overview the INCOSE Future of Engineering (FuSE) initiative, then present the eleven foundation concepts in the FuSE Security topic with interactive discussion and a poll on importance of the concepts, then a mini workshop on deeper aspects of the top two concepts in the poll.	Rick Dove
Systems Science Working Group Day 2	20:00	22:00	Open/Working session	SSWG Human Agency and Systems Engineering: A systems science transdisciplinary journey (Sue Gabriele) In spite of amazing advances in technology, today's large social systems are experiencing social decline. A human systems paradigm can inform and be informed by a clarification of the hard facts of our soft social systems. Our evidence and examples will draw from general systems theory and relevant disciplines, including engineering, education, management, and psychology. Our journey begins at the undesired outcomes in large organizations as unit of analysis. We find flawed practices and conflicting theories, then arrive at the individual system member as root cause. Updated theory is that agency of organization behavior is not in leaders, nor employees, but both. Each system member learns and performs according to their own willingness and ability, resulting in infinite variability. This variability clusters into three root drivers in human behavior: the CAP domains-- the Cognitive (mental ability), Affective (willingness/ motives/drives), and Psychomotor (physical ability). A new PROVIDE/PICKUP relationship is clarified. The updated leader's role, neither command-control nor laissez-faire, is to PROVIDE input, resources and tasks; the learner/ employee role is PICKUP of input, each at their own rate. Cognitive, affective and psychomotor pickup is the necessary first step in the process of mastery, performance and creation in each individual. In large social systems, important input is beyond the PICKUP range of individuals. Informed by control systems engineering, user-designed ideal-based automated social control/support systems are proposed. They can resolve the "Tragedy of the Commons" effect, allowing organizations and system members to flourish. A rationale for the Systems Thinking RoundTable is clarified throughout.	Javier Calvo, Swami Natarajan, James Martin, Anh Tong
TWG Working Session	20:00	22:00	Open/Working session	Introductions Organization Overview & Call for volunteers New Member Impressions Overview of activities at and since IW2020 Co-chair Reports Products: Standards, Newsletter, Case Studies Events: IW, IS, Webinars Services: Website, LinkedIn, survey/census Membership: Outreach, Contacts Working Group Communications 5 Plans for 2021 (see each item above) 6 APTA & INCOSE Collaboration & MOU	Dale Brown, Karl King
MBX Challenge	20:20	20:40	Open		Russel Peak
MBSSE Standard Update	20:40	21:00	Open		Bob Malone
Financial Services Systems Working Group	21:00	22:00	Open/Working session	Initial meeting of new working group, Financial Services Systems Working Group	William Scheible, Gina Guillaume-Joseph, Bradford Leigh
OPM ISO 19450 Update	21:00	21:20	Open		Dov Dori
MBSE Tools Database Update	21:20	21:40	Open		John Nallon
Spatial Thinking and Natural Systems	21:30	23:00	Open/Outreach session	Panel on spatial skills and engineering. Includes David Uttal, co-chair at SILC, and Roberta Golinkoff, of U Del.	Curt McNamara, Alex Wolf
CubeSat Reference Model	22:00	22:20	Open		David Kaslow
NAFEMS/INCOSE Systems Modeling and Simulation WG	22:20	22:40	Open		Peter Coleman
Production & Logistics Challenge	22:40	23:00	Open		Tim Sprock, Leon F. McGinnis
OSLC	23:00	23:30	Open		Bill Chown
MBSE Initiative / Transformation Wrap Up	23:30	23:59	Open		Troy Peterson, Mark Sampson
Sunday 31					
MBSE Virtual Reception	00:00	01:00	Open		FALSE
Systems Science Working Group Day 2	00:00	02:00	Open/Working session	SSWG Rethinking Systems Design and Engineering (George Mobus - ISSS President Elect) There is a rich body of systems science knowledge even if there may not be a widely accepted general theory of systems. There is a definition of systemness that employs a number of general principles and a set of aspects, which are applicable to all complex adaptive and evolvable systems (CAES). This presentation argues for the universality of these aspects, giving examples, and suggests an approach to systems engineering that explicitly entails knowledge of each of these aspects in the way that traditional engineering entails knowledge from the natural sciences. A model of a revised design and engineering process/organization is provided showing how aspect experts can be utilized in the design and engineering of CAESs. The education of aspect experts in a graduate engineering curriculum is also presented as a necessary step to incorporating systems science in the SE activity.	Javier Calvo, Swami Natarajan, James Martin, Anh Tong
Break	09:30	10:00	Open		FALSE
DEIXWG	10:00	12:00	Open/Working session	Select some data item descriptions and revise them.	Frank Salvatore
PDP content elicitation and discussion	10:30	12:00	Open/Working session	Purpose is to a) discuss / introduce PDP content taxonomy and state of material found b) ask attendees to recommend material they use themselves (especially in the gaps), c) discuss creation / adaptation of potential content to be more useful as Professional development material	Richard Beasley
Human Systems Integration Evolution in the Digital Society	12:00	15:00	Open/Working session	This session will challenge the topic, "people in our growing digital world", which is currently planned to be the general topic of the upcoming HSI2021 conference in November. A few speakers will entertain the session and trigger discussions. Three topics will be proposed: UK MOD contribution to Human Factors Integration (Michael Boardman, MOD), HSI & resilience (Grace Kennedy, Willongong University, Australia), HSI & the 4th Industrial Revolution as a Discipline and as a Practice (Avigdor Zorneshaan, Technion, Israel); the need for investing in advanced HSI research/innovation and mechanisms (How & What), such as international projects and company-driven projects (Guy André Boy, INCOSE HSI WG Chair, France). In addition to these topics, we also think about discussing about the need for Lifelong Learning (LLL) for HSI engineers and practitioners – a short introduction will open this discussion and the preparation of HSI challenges for a Hackathon to be conducted during HSI2021 conference.	Guy Andre Boy
INCOSE Café	12:00	13:00			FALSE
Applying the Systems Engineering Competency Assessment Guide	13:00	14:00	Open/Working session	This 60 minute session is a partner to the following Town Hall 30 minute overview, and intends to highlight portions of this upcoming INCOSE product by demonstrating how the guide would be used during this session. The Systems Engineering Competency Assessment Guide (ISECAG) is the companion guide to the INCOSE Systems Engineering Competency Framework (ISECF). The ISECAG provides elements for determining an individual's competence as demonstrated by assessing attainment of ISECF competencies. The Competency Working Group developed a Competency Assessment Guide that will allow organizations to map from the competencies into an ability to assess competency development and attainment of the competencies by individuals. This goal is being accomplished through a team of CWG members as volunteers filling out sections of the guide, subsequent peer review of the initial drafts by the CWG team, and later by additional SMEs. Many of the team were members who developed the INCOSE Systems Engineering Competency Framework.	Lori Zipes, Cliff Whitcomb, Ian Presland

Digital Engineering Body of Knowledge	13:00	15:00	Open/Working session	<p>The Digital Engineering Body of Knowledge (DEBoK) is being worked on by the Department of Defense and we are planning a workshop to explain our goals and provide an overview of the effort and engage participants in a workshop to help define user roles that would produce/consume content of the DEBoK and to help us identify the types of information to include in the DEBoK and the organization of information within the list of user roles. Finally we are looking to identify gaps and further refine the requirements for the DEBoK.</p> <p>Day 2 Jan 31, 2021 Agenda. trying to move to a later time.</p> <ul style="list-style-type: none"> - 1300 - 1310 Welcome & Introductions - 1310 – 1320 Summarize Previous Day Activities - Summarize Previous Day's Activities - Overview of Breakout Group Process - 1320 - 1420 Breakout Sessions (Use results from Day 1) - Breakout Group 1: DEBOK User Roles and Pathways/Structure - Breakout Group 2: DEBOK Functions/Requirements - 1420-1500 Wrap-Up 	Frank Salvatore, Brandon Quash , Jeff Nartatez, Phil Zimmerman
Handbook Editor Meeting	13:00	15:00	Closed	Coordination of handbook editor topics.	David Walden
Smart Cities - View Point integration	13:00	15:00	Open/Working session	The SCI developed model features the human at the center, rather than the technology. In this session, we will collaborate to review the SCI model and prepare a View Point integration that illustrates how the SCI model can work with other existing Smart Cities models that commonly focus on the technology. The session is intended to kick-off a supporting product to the SCI Definition that highlights to synchronicity and distinctions between the INCOSE model and those of other entities. Specific evaluation will include the Deloitte Smart Cities model.	Jennifer Russell, Marcel van de Ven
Systems Engineering Process Mapping to SETDB Tool Categories Live Demonstration	13:00	15:00	Open/Working session	The SETDB Project Team will demonstrate the Systems Engineering Tools Database Tool Category Explorer features. They will provide a quick overview and do a live walk through the SETDB Taxonomy Browser and the category mapping to the processes defined in the INCOSE SEH and the PPI Process Elements. Questions and suggestions are encouraged.	John Nallon, Rene King, Robert Halligan
Systems Science Working Group Day 3	13:00	15:00	Open/Working session	SSWG A generative understanding of systems (Swami Natarajan)One theme focuses on understanding the formative dynamics of systems in terms of generative processes, with particular focus on origins. Bill Schindel's work sets out the family of phenomena involved: single-loop systems phenomenon, double-loop value selection phenomenon and triple-loop models trust phenomenon, each based on successive levels of fundamental ontological commitments as identified by George Mobus. Complementary to this is the work of Tyler Volk, Mobus, Hillary and Len Troncale on combogenetic emergence and associated evolutionary phenomena as the fundamental generative drivers of systems epigenesis. The second theme focuses on the generative dynamics of systems knowledge, including schemas theory and Ken Lloyd's 3 model worlds and 6 interstitial languages, systemology, Helene Finidori's work on language patterns, Len Troncale's work on isomorphies as the generative root of domain patterns, and my work on knowledge formation and abstractions. We need to extend this work to reflect on the formative dynamics involved in machine learning. The third theme focuses on a generative understanding of the systems life cycle and functioning, which builds on insights from the above themes. The result is a conceptual model of compositionality reasoning, and a generative understanding of the relationship between knowledge, systems and engineering. This understanding provides the basis for tooling that supports the systems understanding, modelling and engineering life cycle. The fourth theme relates to the formation and evolution of worldviews and intents, and how these generate the behaviour of people and human activity systems. Together, these themes are working out the systems science foundations of systems engineering: the nature of systems, the nature of systems knowledge, and how they relate to systems understanding, modelling and engineering. The fourth theme, when it matures, will enable us to evolve towards complex systems engineering. The goal of the session is to share this understanding at the big picture level, obtain feedback from the community to evolve the perspective, and debate how we can progress, mature and synthesize these lines of work into an SSWG work product(s) on the nature of systems and knowledge, and how they provide the foundation for current and future systems engineering.	Javier Calvo, Swami Natarajan, James Martin, Anh Tong
A Preview of the Systems Engineering Vision 2035	14:00	15:00	Open/Working session	This session provides participants a preview of the SE Vision 2035 that will include a presentation followed by Q&A and recap during the Town Hall 30 min segment. The SE Vision is intended to inspire and guide the direction of systems engineering across the broad stakeholder community. The SE Vision 2035 is an update to the SE Vision 2025 that was issued in 2014. The vision is currently in progress with a planned review that begins following the International Workshop. The presentation will summarize the content of each of the 4 chapters which address the Global Context for Systems Engineering, the Current and Future State of Systems Engineering, and a chapter on Realizing the Vision. The presentation will also highlight how participants can provide their feedback as part of the upcoming review process.	Sandy Friedenthal, Paul Schreinemakers, Garry Roedler, Heinz Stoewer
AI and Ethics	14:00	15:00	Open/Working session	This is a joint session between the AI WG, Complex Systems WG and the Social Systems WG. We will have a short presentation on the basics of AI & Ethics and then open it up for discussion.	Erika Palmer
Using Agile SE Decision Guidance Methods in A University CubeSAT Environment	14:00	15:00	Open/Outreach session	The objectives of this session include: Raising awareness of the methodology usage experience by a university based CubeSat project (HYP50) team. Discuss how the assessment methodology improves situational awareness and provides a way to measure Agile response capability. Solicit additional interested users in the INCOSE community. Then end with a short discussion on how best to integrate with INCOSE FUSE initiative and related agile SE principles.	Ron Lyeils
Town Hall: Systems Engineering Vision 2035	15:00	15:30	Open		Sandy Friedenthal
Town Hall: Applying the Competency Assessment Guide	15:30	16:00	Open		Lori Zipes, Cliff Whitcomb, Ian Presland
Working Group Market Place	16:00	17:00	Open	Analytic Enablers	FALSE
Working Group Market Place	16:00	17:00	Open	Application Domain	FALSE
Working Group Market Place	16:00	17:00	Open	Process Enablers	FALSE
Working Group Market Place	16:00	17:00	Open	Transformational Enablers	FALSE
Working Group Market Place	16:00	17:00	Open	Other Groups & Initiatives	FALSE
Strategic Technical Planning (STP) PM-SE Working Group Initiative	16:30	18:30	Open/Working session	<p>Strategic Technical Planning (STP) Initiative is an Initiative within the PM-SE Integration Working Group. The main problem statements are strategic in nature:</p> <ul style="list-style-type: none"> - The Contractor-Supplier 'acquisition game', leading to an unsatisfactory outcome for both sides - The 'surprise' of the contract award, expected to be delivered by Program Management and Systems Engineering, when the 'seeds of failure have already been sown'. - 'Unproductive Tension' caused by Program Managers and Systems Engineers silos. - Inability of system engineers to articulate Earned Value. - The subsequent effects of weak planning. - Addressing Technical Maturity across the Life-cycle. <p>The Initiative's approach is to:</p> <ul style="list-style-type: none"> - Understand and define the Strategic approach that addresses the above issues and Technical Maturity requirements across the lifecycle. - Recognize the importance of the Technical Management Process and its coupling with Program Management. - Act as a home for proposed related concepts and solutions and concepts for further exploration. 	John Lomax
Break	17:00	17:30	Open		FALSE
Closing address	17:30	18:00	Open		FALSE
AI-SE Primer Workshop	18:00	19:30	Open/Outreach session	This meeting will introduce INCOSE community to the under development INCOSE AI-SE Primer led by the AI-WG. AI-SE primer is intended for the practicing Systems Engineers who would like get to know AI and the potential is offers for SE discipline. The agenda for the meeting is as follows: Introduction to AI-SE Primer and FuSE (10mins) Brief introduction to AI-WG FuSEAI-SE Primer What is Artificial Intelligence (20 mins) Definitions of AI Historical Origins and SE roots Foundation of AI AI Applications Q&A Artificial Intelligence for Engineered System (20mins) AI in Today's and Legacy Systems 3.2 Digital Engineering Transformation 3.3 AI-Enabled Operational Concepts and Capabilities of Future Systems 3.4 Systems Engineering Challenges for AI-Enabled Systems 3.5 AI-Enabled Systems Engineering Process Models Q&A Engineering Artificial Intelligence by Systems Engineering (15 mins) Issues faced in current development of AI Ethics of AI Q&A Artificial Intelligence and Future of Systems Engineering (10mins) Roadmap of AI in Systems Engineering Q&A Open Discussion (15 mins)	Ali Raz, Barclay Brown
Comparison of PMBOK and the SE Handbook	18:00	19:00	Open/Working session	Review of work done in the last year PM - SE Glossary PMBOK - SE Handbook Comparisons Solicitation of next steps	Mark Kaufman
IVV WG Discussions and Product Development	18:00	20:00	Open/Working session	Review of current work updating integration standards and the SE Handbook and upcoming work on the V&V Guide (led by Requirements WG) and Integration Guide. Discussion of integration issues and concepts that should be addressed in these or other documents.	James Armstrong
Practical Knowledge Modelling Session	18:00	21:00	Open/Working session	This session is chaired by Robert and technically supported by Bill where we explore the possibilities of the MBKM-concept set-up. This is a working session aiming at providing insight to the Knowledge Management area by hands on practise. To enable this work a special meeting order will be introduced initially enabling structured questions and comments.	Robert Nilsson
Resilient Systems Working Group (RSWG) - Brainstorming of RSWG activities	18:00	20:00	Open/Working session	<p>Potential for Resilience Primer</p> <p>Potential for LSDE Primer</p> <p>Achieving Resilience via Agility</p> <p>Taxonomy for Adversities</p> <p>Harmonization / Outreach of Resilience Concepts with the Broader Community (other INCOSE Groups, AIAA, IEEE, ISO/IEC, Publications, etc.)</p>	Kenneth Cureton
SBSE Technical Products Development	18:00	19:30	Open/Working session	SBSE completes work for review on Phase 2 Deployment Packages (DPs) and marketing materials.	Angela Robinson , Ken Ptack
Social Systems WG Wrap-Up Session	18:00	19:00	Open/Working session	We would like to gather everyone together to hear what they learned from other WG sessions and discuss the outcomes of the SocWG sessions. This will include finalizing plans for 2021.	Erika Palmer
Systems Thinking RoundTable (STRT)	18:00	19:00	Open/Working session	<p>OUR TOPIC: Systems Thinking in Uncertain Times</p> <p>OUR FORMAT is a reflective practice during which each participant is given equal time to comment on a selected topic or trend impacting our discipline. We begin by listening to the suggested topics and short guidelines for five minutes. We then spend the remaining 50 minutes listening to, and offering an individual comment. The time is divided equally among all present (e.g., 27 people = 2 minutes each). Each day, a different topic will be suggested by a different volunteering facilitator in attendance. Folk wisdom and compelling research indicate that participants experience surprising benefits from this activity after just a few sessions. Experience with this format has resulted in the following theory: Just as we break the sound barrier when we travel faster than the speed of sound, we break the communication barrier when we hear 30 authentic viewpoints in 60 minutes. Used regularly, benefits accrue at compound interest.</p>	Sue Gabriele

SE in Early Stage R&D	18:30	20:00	Open/Working session	1. Objectives of the working group session - why are we here, what are we trying to accomplish? 2. Review working group accomplishments 3. Summary of framework concept development 4. Brainstorm concepts/perspectives for SE for R&D frameworks, related activities 5. Brainstorm vision of where we want to be in 1 year - deliverables expectations 6. Identify participants' interest in owning/helping/reviewing activities	Ann Hodges, Mike DiMario
Emergence: Theory, examples and modeling	19:00	20:30	Open/Working session	This session will focus on emergence in complex social-economic-ecological systems, highlighting important considerations for modeling with Systems Dynamics model examples. Presenters include Ivan Taylor, Policy Dynamics Inc. (Canada) and Dana Polojärvi, Maine Maritime Academy (USA).	Randall Anway, Curt McNamara
Lean Startup Method/Agile for Initial Project Planning Interactive Workshop	19:00	21:00	Open/Outreach session	This Interactive Workshop will provide attendees with knowledge and practice in using a facilitated hybrid approach for Initial Project Planning (IPP). The facilitated approach, borrowing best practices from the Lean Startup Method (LSM), as well as Agile Systems Engineering, Software Engineering, and Project Management, brings together project decision makers in one or more collaborative "IPP Meetup" sessions. The primary outcome of these IPP Meetup sessions is a set of consensus Project Focus Mechanisms including:— Project Title and Purpose Statements, — Project Vision (in the form of a Project Vision Board Extended (PVBE)), — Project Stakeholder Groups List (aka Personas List), — Example Stakeholder Group Details (aka Example Persona Templates), — Project Target Groups (i.e., Persona List and Details 'binned' into a smaller list of Common Target Groups), and— Initial Set of System-Level Capabilities. This interactive workshop will show attendees how any project (e.g., develop new or updated product or service, conduct feasibility study, make operational or strategic decisions, etc.) can use this hybrid "Meetup, Clean Up, and Post Up" IPP approach, to develop a consensus set of Project Focus Mechanisms, that the project can use to efficiently and effectively focus development throughout the project development life cycle.	Howard Lykins, Mike Pafford
SysML v2 Demo and Discussion	19:00	21:00	Open/Outreach session	The SysML v2 Submission Team (SST) is nearing the completion of its work on the Systems Modeling Language (SysML), Version 2. To support the creation of the new SysML v2 specification, the SST has also been developing a pilot implementation for the language, including a prototype repository using the proposed standard service APIs. This session will present a demonstration of the latest release of the pilot implementation and provide an opportunity for an interactive discussion on the capabilities, goals and status of the new standard.	Edwin Seidewitz, Manas Bajaj
Systems Engineering Principles, Heuristics, and System Science Principles Coordination of Systems Engineering Handbook Sections	19:00	21:00	Open/Working session	The Systems Sciences Working Group, Systems Engineering Heuristics Team, and Systems Engineering Principles Action Team will discuss coordination of drafted sections for the Systems Engineering Handbook update. Discussion will include references between the sections and description of the relationship between the different Principles and Heuristics as part of the Systems Engineering Handbook update.	Michael Watson, Dorothy McKinney, Michael Watson
Emergence - NSWG/CSWG joint session	21:00	22:30	Open/Working session	Participatory workshop on emergence from natural and complex systems perspectives. There will be breakout sessions to explore the topic and the group will decide what sort of product should be generated.	Curt McNamara, Randy Anway, Michael Watson
Fellows Committee Meeting INCOSE Café	21:00	23:00	Closed	Fellows Committee business meeting	Gregory Parnell FALSE
Monday 1					
SysML v2 Demo and Discussion	15:00	17:00	Open/Outreach session	The SysML v2 Submission Team (SST) is nearing the completion of its work on the Systems Modeling Language (SysML), Version 2. To support the creation of the new SysML v2 specification, the SST has also been developing a pilot implementation for the language, including a prototype repository using the proposed standard service APIs. This session will present a demonstration of the latest release of the pilot implementation and provide an opportunity for an interactive discussion on the capabilities, goals and status of the new standard. (This is a repeat of the Sunday session.)	Edwin Seidewitz, Manas Bajaj
Establishing SETDB Tool Vendor Accounts	17:00	18:30	Open/Outreach session	SE Tool Vendor Briefing: After a brief introduction to the SE Tools Database the SETDB Team will execute a Use Case depicting a tool vendor requesting a Vendor Account to obtain login credentials. Once logged in, we will review the features to use to enter your company and product information and capture your product data for publication. Open to any interested SE Tool Vendor.	John Nallon, Stephane Lacrampe, Rene King
INCOSE-NAFEMS Systems Modeling & Simulation Community Meeting	17:00	20:00	Open/Outreach session	Remind on INCOSE-NAFEMS collaboration + summary SMS WG activities from 2020 and plans for 2021 + mix of topical related presentations + opportunities for Q&A with audience. Further details to be provided in January. Join by meeting number Meeting number (access code): 127 188 9081 Meeting password: MkaaU93jq	Peter Coleman, Frank Popielas
SOS and Complexity Joint Working Session	17:00	19:00	Open/Outreach session	Working meeting on the Systems-of-Systems and Complexity project, which was initiated at IW 2020. The objective of the project is to investigate the application of the complexity taxonomy and approaches to address SOS complexity, with the intent of developing some practical approaches for SOS. This session will provide an introduction to the project, describe work done to date, and introduce the method and two SoS case studies for the workshop scheduled for Tuesday 2nd February at 1700-1900 CET. Ideally, people will attend both the Monday and Tuesday sessions, but you are welcome to attend either session if that is all you can manage. Please email alandharding@gmail.com or jdahmann@mitre.org if you plan to attend so we have an idea of numbers.	Alan Harding, Judith Dahmann
Standards Development Department	17:00	18:00	Open/Working session	Verify participation schedule and participants for 2021, discuss new opportunities and extent of commitments in subsequent years, review process for liaison interaction with SDO	Richard Martin, Ken Kepchar
MBX/Digital Ecosystems & OpenMBEE workshop	18:00	23:00	Open/Working session	9:00-9:05am PDT: Introduction/Workshop Start – Brittany Friedland 9:05- 10:00am PDT: OpenMBEE Community as Industry Driver– Enrique Krajmalnik 10:00-10:30am PDT: OpenMBEE Intro – Chris Delp/Robert Karban 10:30-11:40 am PDT: OpenMBEE Update - MMS 4 Update – Ward Schweitzer / Ivan Gomes - MCF- Chaz Galey - NumFocus Inclusion – Chris Delp 11:40-12:30 PDT: Lunch 12:30-1pm PDT: Ford's OpenMBEE Pilot Project Overview– Ahsan Qamar 1:00-2:00pm PDT: Open Discussion on SysML V2 - All - SysML V2 Formulation Working Group – Chris Delp - SysML V2 and Stakeholder Review – Sandy Friedenthal - User Research – John Carr - SysML V1a SysML V2 Transition – Ron Williamson	Brittany Friedland, Chris Delp
Handbook Editor and Author/WG Coordination Meeting	19:00	20:00	Closed	Placeholder for any needed coordination meetings between the SE Handbook editors and specific authors or sections. Purpose will be to resolve any potential issues or conflicts within or amongst sections. Specific authors will be contacted for specific sections as needed.	David Walden
Tuesday 2					
Handbook Editor & Domain WG Meeting #2	16:00	18:00	Open/Working session	This is the second of two planned IW21 meetings to discuss the handbook update implications for the INCOSE Domain WGs. Primary focus: Resolution of Actions from W21 Meeting #1 related to Which WGs are planning to do create an "application guide?" Common Format/Outlines (w/ Tailoring)? Consistent Size? Schedule? Relationship between SEH Editors and Domain WGs? Assignment of actions going forward	David Walden
SOS and Complexity Joint Working Session	17:00	19:00	Open/Working session	The aim of this workshop is to make progress on the joint project between SOSWG and Complex Systems WG that seeks to investigate the application of the complexity taxonomy and approaches to address SoS complexity, with the intent of developing some practical approaches for SOS. After a brief introduction, attendees will be split into breakout groups to discuss how the complexity taxonomy applies to two examples of SoS (Smart Highway SoS, a Defense SoS). We will then reconvene to share insights before concluding the workshop. This workshop follows a session on Monday 1st February at 1700-1900 CET that provides an introduction to the project, the complexity taxonomy, and the two SoS we will discuss. Ideally, people will attend both the Monday and Tuesday sessions, but you are welcome to attend either session if that is all you can manage. Please email alandharding@gmail.com or jdahmann@mitre.org if you plan to attend so we have an idea of numbers.	Alan Harding, Judith Dahmann
Handbook Editor and Author/WG Coordination Meeting	18:30	19:30	Closed	Placeholder for any needed coordination meetings between the SE Handbook editors and specific authors or sections. Purpose will be to resolve any potential issues or conflicts within or amongst sections. Specific authors will be contacted for specific sections as needed.	David Walden
Wednesday 3					
Handbook Editor and Author/WG Coordination Meeting	16:00	17:00	Closed	Placeholder for any needed coordination meetings between the SE Handbook editors and specific authors or sections. Purpose will be to resolve any potential issues or conflicts within or amongst sections. Specific authors will be contacted for specific sections as needed.	David Walden
SOSWG Working session	17:00	19:00	Open/Outreach session	Meeting to address upcoming SOS contributions to SE Standards, the INCOSE SE Vision 2035, the INCOSE SE Handbook 5th Edition, and the SE Body of Knowledge (SEBoK)	Alan Harding, Judith Dahmann
Thursday 4					
Risk Management WG - IW2021 Meeting 5 of 6	01:00	03:00	Open/Outreach session	This is an open outreach and working meeting for existing WG members, potential new WG members, and members of other WGs interested in learning about or working with the Risk Management WG. We have scheduled six (6) two-hour meetings during the IW2021 at various times of the day so that colleagues from all time zones can attend join us at least once during normal waking hours. Our first meeting is on Thursday Jan 28 and our last is on Thursday Feb 4th. The two hour meetings include, but are not limited to, the following topics/agenda: 1 - Welcome and Introductions 2 - Risk Management WG Overview 3 - Update of Risk Management Content for the INCOSE SE Handbook 5th Ed. - Overview/Status, Input from Attendees, Discussion 4 - What's new in (FDIS) ISO/IEC/IEEE 16085:2021 "Systems and software engineering — Life cycle processes — Risk management" 5 - Risk Management Presentation from WG Member or Guest 6 - Open Discussion - Ideas, Needs, Expectations, etc. for the INCOSE Risk Management WG of the Future	Jack Stein, Paul Heinger, Robert Parro
Handbook Translations Coordination Meeting Asia-Oceania	12:00	13:00	Open/Working session	One of two coordination meetings between the SE Handbook editors and future handbook translation teams. Purpose will be to discuss preliminary translation plans and to identify potential issues or concerns. Bernardo DELICADO & Odile MORNAS (EMEA & SA) & YIP Yew-Seng (Asia-Oceania) are the editorial leads for this topic. As of this time, we are aware of the following potential translations of the future Fifth Edition: EMEA/French -> AFIS (French Chapter) and Tunisian Chapter/German -> GISE (German Chapter) and Swiss Chapter/Italian -> Italian Chapter/Russian -> Russian Chapter/Spanish -> AIS (Spain Chapter) and Colombia & Mexico Chapters/Asia-Oceania/Chinese -> Chinese Chapter and Taiwan Chapter/Japanese -> JCISE (Japan Chapter)/Korean -> KCISE (Korean Chapter). People involved with any of the above translations are invited to attend. Any others contemplating future translations of the SE Handbook are also welcome to attend.	David Walden
Handbook Editor and Author/WG Coordination Meeting	16:00	17:00	Closed	Placeholder for any needed coordination meetings between the SE Handbook editors and specific authors or sections. Purpose will be to resolve any potential issues or conflicts within or amongst sections. Specific authors will be contacted for specific sections as needed.	David Walden

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SOSWG Business Meeting	17:00	18:00	Open/Working session	Session to review the results of SOSWG activities during IW 2021, and to plan activities at future events including IEEE SOSE 2021, IS2021, IEEE SYSCON.	Alan Harding, Judith Dahmann
Handbook Translations Coordination Meeting EMEA	18:00	19:00	Open/Working session	One of two coordination meetings between the SE Handbook editors and future handbook translation teams. Purpose will be discuss preliminary translation plans and to identify potential issues or concerns. Bernardo DELICADO & Odile MORNAS (EMEA & SA) & YIP Yew-Seng (Asia-Oceania) are the editorial leads for this topic.As of this time, we are aware of the following potential translations of the future Fifth Edition:EMEAFrench -> AFIS (French Chapter) and Tunisian ChapterGerman -> GISE (German Chapter) and Swiss ChapterItalian -> Italian ChapterRussian -> Russian ChapterSpanish -> AEIS (Spain Chapter) and Colombia & Mexico ChaptersAsia-OceaniaChinese -> Chinese Chapter and Taiwan ChapterJapanese -> JCOSE (Japan Chapter)Korean -> KCOSE (Korean Chapter)People involved with any of the above translations are invited to attend. Any others contemplating future translations of the SE Handbook are also welcome to attend.	David Walden
Friday 6					
INCOSSE/NDIA SSE & Cybersecurity Definitions Workshop	15:00	17:00	Open/Working session	This is an interactive workshop to align and harmonize terms related to systems security engineering. We will explore authoritative definitions and discuss the potential evolution of terms. Starting with existing definitions, we will resonate on a consistent way to clarify the terms, their context, and their relationships. The output of this workshop will be the basis of a future SSE WG technical product. Initial terms to be considered include systems security engineering, cyber, cybersecurity, resiliency, cyber resiliency, and cyber survivability. Initial definitions will be provided from NIST, SEBoK, INCOSSE, DoD, and CNSS. Participants are welcome to bring definitions from other sources to the workshop.	Holly Dunlap, Jimmie McEver
Handbook Editor Meeting	16:00	18:00	Closed	Coordination of handbook editor topics.	David Walden