

Baselining Workshop

FuSE Program



Workshop objectives



Identify important next steps to ensure the successful program setup and management are understood based on the specific needs of FuSE



Agenda





Check-in (miro)

Sheep-o-meter: how are you feeling today





Agenda



30'

Program description

Approval of FuSE vision & mission statement



PM topics

Upcoming FuSE workshops --Proposal for stream teams

180'

Status quo analysis

Assessment of status quo of PM activities for FuSE based on the 3DSE reference model



IW

Update on FuSE @ IW 23 concept and stream description



FuSe Program Introduction Presentation

Find the presentation in FuSE Teams files

Slides to be updated based on your feedback

Agenda



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FuSe Stream Teams





Stream team members Photo documentation





Stream team members

Work on the <u>miro board</u> (PW: FuSE-Program) to identify new potenti and to tra

Program) to i Itential team m D track your ac	dentify nembers ctions.		The F with a	uSE prog additional	ram is o central te	rganized eams	in 4 strea	ms
KEY		Honor Lind Barclay Lisa Brown Hoverman?		FuSE Com &	Program Lead "FuSE Initiative"		Use Program Discover office	Executive Team Miller, Ralf Hartmann, Dermott → David Long, fman → Olivier Dessoude essoude → Erika Palmer
Group, representative to be identified	If you identified a group of ppl, but not yet a specific representative, use a grey sticky note.	Name Name Name		Paul Schreinemakers	Oli de Weck	3DSE Chris Hoffman	Tom Strandberg	
Default	Use a yellow sticky for any new name recommendation for the stream team.			FuSE Stream Lead "SE Vision & Roadmaps"	FuSE Stream Lead "SE Foundations"	FuSE Stream Lead "SE Methodology" "S	FuSE Stream Lead E Application Extensions"	
Appointed / confirmed	If the respective person accepted to be part of the core team (~5 per stream) change the sticky to green.			FuSE Stream Working Team	FuSE Stream Working Team	FuSE Stream Working Team	FuSE Stream Working Team	
Contacted	A person that is already contacted, to be part of the core team, is identified with a orange sticky.			tbd	bavid Bill Rousseau Schindel Amodio	tbd Tom Heidi Ryan McDermot Davidz Noguchi	Erika Jennifer Mike Palmer Russell Watson	د دارد ه
Declined	If the person declined to be part of the core team or is not suitable, it is shown with a red sticky.			Name Name Name Name Name Name	Nicole Hutchison Art Pyster Jewen Reichter Nicklewargs Diresh Vermah Jon Wade Alejandro Salado Additions from Oli 2 Name Name	Frank Salvatore John Nalion Robert Nilsson Duncan Anne Wouter Kemp O'Neal Uebbran Jeannine Drew Tina Stivity Stovall Srivastav	Alan Cecilia Tim Harding Haskins Welkions Eric Sandy Aleksandra Burgers Friedenthal Scalco Charlotte Mo Susan Dunford Mansouri Ronning	Reps from Asia-Oceania
Not core team	People that might fit to the stream, but is not part of the core team is identified with blue.			aut + ansert famoline (beinn		JC Roussell Repion IL III III III IIII IIII Immediate Repion IL IIII IIII IIII Immediate Repion IL IIII IIII Immediate Repion IL Immediate Repion IL Immedia	Containen Domane	



FuSE Workshop Overview

The deliverables are mainly* created in dedicated workshops:







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The 3DSE Reference Model assesses the status quo of program management at FuSE



To consider:

- Consider the particularities of the INCOSE organization
- Focus on FuSE ramp-up phase and getting started.
- Does this also reflect our success factors?





- Principle	♀ Element	Description Best Practices (Examples / Tools / Metho	Artifiacts ds)	4 Selection	G Unimpor for Fus "We don't it"	tant Mediocre: Æ: "Maybe yes, need maybe not"	Important for FuSE: "Key area"	Rational	not available	partly available	largly available	completely available	Benchmark	Rational	Where to adress / next steps	Potential
	1.1 Vision & target picture	A shared vision and target picture serves as a compass and Vision statement, north star, ensures that the involved parties understand the value of the program and pull in the same direction.	role of program Vision / mission statement, success factors				×					×				No need f
	1.2 Program frame & initialization	The frame sets the organizational foundation of the program. It Business case and potential a reflects on the relevance of the topic and describes the setup of program setup, program cha the program within but also its integration into the organization	nalysis, program definition, Program charter ter, TPP				×			×						Major pai point
	1.3 Infrastructure	[Digital) Infrastructure and tool landscape that is capable to Teams channel, document for support coherene and consistency of orgrams antifacts and collaboration tools ensure efficient collaboration of the team. This also includes the establishment of standards within the FuSE program.	der, templates, Program handbook (part of), working environment				×			x				Infrastructure is there but not yet decided / described on how to use it. Also collaborate with ppl outside of incose is not defined.		Major pai point
2 - Pi	rogram Planning & Alignment															
	2.1 Program planning	A clear picture on how to reach the product vision and deliver on Roadmap, program plan, wo program tragets. Especially the near future is detailed regarding milestone plan, deliverability main solutions and deliverables (OKRs)	k breakdown structure, Work breakdown structure, mid-/long-term roadmap map, Objective Key Results short-/mid-term program plan, OKRs, resource planni	o, ing			×			×						Major pai point
	2.2 Synchronization	Ensure the regular alignment and synchronization of program Regular alignments, status up	dates, synchro plan, Synchronization plan				×			×				Work in progress		Major pai
3 - Pi	rogram Monitoring & Control	streams to work towards one shared north star. townhalls														point
	3.1 Program management	The program relies on well proven program management PMO, Risk management, qua methods and tools and has support from a professional PMO backlog	ity assurance, program Risk matrix, risk measures / mitigation plan				×	Members are volunteerig, we have a open loop control system of the working groups			x			Set-up phase		Low hangi fruit
	3.2 Steering & control	Monitoring and steering the program implementation. Including PDCA, Iterative approach, Ag the setup of standardized reporting mechanisms. An iterative approach provides the flexibility needed to respond to change. KPIs. LoPs, balance score carr	le development, change KPI dashboard, status reports validation, status reports,				×		×							Major pai point
	3.3 Living documentation	To ensure sustainable program results, it is key to have comprehensive and accessible documentation of the program and its artifacts as well as an anchoring of the content within NCOSE.	eliverability report, artifact Program handbook, documentation plan orring in organizations, d				x	e.g., update of the vision		x						Major pai point
4 - W	/orking Model															
	4.1 Collaboration	Efficient integration of the program within existing working structures in the organization as well as definition of as eta guidelines to ensure respectful collaboration of the team, Estabilisment of a meeting landscape for regular exchange and reporting as well as working sessions.	, commitment, power Program handbook (part of), meeting landscape eting landscape incl. tst, frequency (SteerCo's, our Fixes,				×			x						Major pai point
	4.2 Roles & responsibilities	The program is based on people therefore the program success is Resource management, capa determined by the program team and its capabilities alongside a responsibilities, leadership strong leadership and management commitment.	ities, role descriptions, Role description				x			x				existing, but no standardized reports within incose. Typically included in the wg charter		Major pai point
5 - P	rogram Governance															
	5.1 Decision making	Clearly defined decision competencies and cascades. Decision paths, decision right justification documents, Stee	, eccalation paths, design Documented decisions Co's				x	Decision points are "fluid"; here is also steering (e.g. pushing of high priority topics) included	×					What decision does this FuSE gorup is accountable of?> providing priorities; within Q4 Board Meeting in 2023 we have clear recommondation and priorities for year 2024		Major pai point
	5.2 Incentive mechanisms	The program has an underlying incentive mechanism which yolion, flieibility, acknowledg promotes individual actions towards the overarching FuSE quick wins, team spirit, Jow h program target. The program success and failure is noticed by the individuum.	ement, recognizability, "Motivation plan" anging fruits, status nition				x		×							Major pai point
6 - P	6.1 Stakeholder management	t Knowing and understanding the main audience for the FuSE Stakeholder analysis stakeho	lder man Stakeholder man stakeholder profile / persons				-				-			Needs to be formalized		Major pai
	Stakenolder mallagemen	program communication	surchard map, surchard profile / persona				×			×				inclusive be rormanized		point
	6.2 Communication	Stakeholder oriented communication of program status and kyr results. The communication orcept his the expectations and expectation management, ay desired outcomes as well as suitable communication instruments feedback wouther, 'User-orie well defined. This also includes recipient friendly documentation or project results.	nication instruments, Communication plan, communication measures proval statements, teted documentation, a storage, templates, one-				x	it is a two way approach. We also have to be listening. Impedanz, empathy, eco systems		x				Needs to be formalized, visibility is missing		Major pai point
7 - P	rogram Outreach	Non-ten and a destand on PAPP second second for a result of the second sec	takadan menintakan di Tanankan menintakan di Kabulatan di Kabulatan di Kabulatan di Kabulatan di Kabulatan di K													
	/.1 Target groups	knowing and underständing HuSt target groups for expanding Stakeholder, stakeholder ma FuSE activities and broaden the INCOSE network organization overview	, interrace map, initiative / Target group map				×		×							Major pai point
	7.2 Involvement	Create a FuSE program market place to inform target groups and Liaison model, communication	n, publication, Involvement plan, outreach plan, outreach measures				x	two way	×						-	Major pa
8 - C	ulture	roster involvement and collaboration involvement, sponsorships, n	arket place											 		point
	8.1 Organizational health	Having a mature and open culture with a balanced power Open culture, fault culture, n distribution. Communication, playing rule Identification and monocomment of consistent and available. Table Total Construction of the Constr	spect, awareness, Charter, health framework , trust				x	to is finding the cisht second			x					Low hangi fruit
	management	competencies and skills within FuSE	Quanitation plan, skin matrix			×		to develop them				×				action
					0	1	17		5	9	2	2	0			

See also attached PDF for the Reference Model

Status & importance portfolio of program management at FuSE within INCOSE



1.2	Program frame & initialization
1.3	Infrastructure
2.1	Program planning
2.2	Synchronization
3.2	Steering & control
3.3	Living documentation
4.1	Collaboration
4.2	Roles & responsibilities
5.1	Decision making
5.2	Incentive mechanisms
6.1	Stakeholder management
6.2	Communication
7.1	Target groups
7.2	Involvement



Program management Organizational health

Vision & target picture
 Competency & skill management



Investment and breakdown of major pain pointers Photo documentation



Stakeholder matrix Who / What / When / with What communicate to the stakeholder - Message communication measures Strategy on events and stakeholders to target Listening plan Cear guidance on how others' may document their argugement with Full: FUSE Roadmap Establish Make it desireable align on coverage meetings and to be part of the channels FUGE Readmap and vision globe How to engage with other organisations WBS Program Management Reporting / Antifacts 01th mgmt, dashbards, 10%5...3 KPIs 3DSE planning Deploy internal Deploy external configure (Teams) How to use It? infrastructure to common/methods are common Infrastructure Decision making governance strategy for decisior making (Hot topic reporting) Living documentation Start using our TEMIS Is there a naming Add mataritis like Isom with experision conversion for files. White papers to the relationships to our entfants, etc. that we entire history materials MMI an experision file files.

Specific measures for invested major pain points



backlog



Agenda





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30'

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180'

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30'

IW

Update on FuSE @ IW 23 concept and stream description



IW 2023 Concept



Agreed agenda for FuSE @ IW 2023

	SAT	SUN	MON	TUE
08:00			FuSE Working Sessions (in person only) - 4 rooms	
08:30		FuSE Working Sessions (in person only) - 4 F rooms		Wrap-up FuSE
09:00				(in person only)
09:30	Break			
10:00	EuSE Kick-off	Break		
10:30				
11:00				Wrap-up FuSE
11:30				
12:00			ach	
12:30				
13:00				
13:30				
14:00	FuSE Interactive Working Session (in person			
14:30	only) – 4 rooms		Break	
15:00	Break			
15:30				
16:00	FuSE Interactive Working Session (in person			
16:30	only) – 4 rooms			

It is anticipated to have 4 rooms for each session (1 room for every stream) and be able to form groups within these sessions / rooms. \rightarrow 4 rooms with each space for ~4 groups Additional room for the FuSE team to pre and post process working sessions / Team internal meetings on SUN / MON afternoon



Detailed concept for FuSE Kick-off Session

Alternatives	Presentation
Objective / Outcome	Set the stage on the future of systems engineering (keynote) and generate awareness on the FuSE program; share status quo, motivate community to be part of FuSE Working Sessions
Method	Presentation (with interactive parts)
Content / Agenda	 Keynote from Oli de Weck (30 min) Introduction of FuSE (30 min)
Facilitators	FuSE Lead and Stream Leads
Material	Presentation, Mentimeter
Participants	Open; hybrid
Infrastructure	Plenary + virtual meeting
Pro	-
Promotion	-



Key assumptions:

• Hybrid plenary session

Detailed concept for FuSE Interactive Working

Alternatives	World Café
Objective / Outcome	Shape and discuss key topics of FuSE stream
Method	World Café
Content / Agenda	Present topic (~ 5 min) Discuss topic (~10 min) Switch
Facilitators	12-16 facilitators (1 moderator for every café; 3-4 cafés for every streams)
Material	Poster, pens
Participants	TBC ~80 (~20 for each stream); onsite only
Infrastructure	4 rooms (that can be split in 4 individual rooms)
Pro	Close interaction and detailed feedback on key questions.
Promotion	There are some cross-roads on the way towards the Vision 2035. Get involved and discuss key questions with us to take the right directions.



Key assumptions:

- Onsite only working sessions
- 4 large rooms available for FuSE, if not, a different concept (e.g., live survey) needs to be adapted
- Up to 16 facilitators available for this time slot
- Relevant topics (e.g., smart cities, MBSE, AI, digital transformation, ...) yet to be specified



Detailed concept for FuSE Working Sessions

Alternatives	Open space / World café	BAT BUN MON 06:00
Objective / Outcome	Elaborate key content for the FuSE Streams	1020 FAGE Koloff Anno
Method	Open space	1460 Full Interdit anothing Material (Anore) Brain 1430 Brain Brain 1630 Brain Brain 1630 Brain Brain
Content / Agenda	Presentation of predefined topics (~ 20min) Split up and work on topics (~ 90 min) Present key takeaways (~10 min)	14:52 It is a second to base 4 more than the second of the one of the second of the se
Facilitators	12-16 facilitators (1 moderator for every space; 3-4 spaces for every streams)	Key assumptions:
Material	Poster, pens, post-its	Onsite only working sessions
Participants	TBC ~80 (~20 for each stream); onsite only	this time slot
Infrastructure	4 rooms (that can be split in 4 individual rooms)	 Relevant topics (e.g., smart cities, MBSE, AI, digital
Pro	Intensive work on specific topics with a selected group of ppl	transformation,) yet to be
Promotion	Help us reach the INCOSE SE Vision 2035. Roll-up your sleeves and work with us on key questions to shape the future of Systems Engineering	 specified Follow-up virtual events for broader community are anticipated after IW

Detailed concept for Wrap-up FuSE Session (for participants)



Alternatives	"Hot seat for 7 min"	00 00 00 00 00
Objective / Outcome	Share stream results with FuSE team and derive next steps and synchroniz	ation points
Method	-	14 14 16 18 16 16
Content / Agenda	Presentation of results within each stream (40 min) Identification of synchronization points and next steps (20 min)	1 14 17 14 14 14 14 14 14 14 14 14 14 14 14 14
Facilitators	4 (1 per stream)	
Material	Documentation of working sessions	
Participants	FuSE participants; onsite only	
Infrastructure	Room with projector	
Pro	-	ision on relevant set
Promotion	-	of participants to be finalized

Key assumptions:

Break FuSE Kick-of

 FuSE participants of IW working sessions



Detailed concept for Wrap-up FuSE Session

Alternatives	Presentation
Objective / Outcome	Share key takeaways from workshop and next steps, invite to get involved.
Method	Presentation
Content / Agenda	 Optional Recap (e.g., Stats / Fact Sheet on FuSE @ IW) (tbd – 5 min) Key takeaways and next steps (Bill –15 min) Involve yourself (Mentimeter) and how to get involved (tbd – 10 min)
Facilitators	FuSE Lead and Stream Leads
Material	Presentation, Mentimeter
Participants	Open; hybrid
Infrastructure	Plenary + virtual meeting
Pro	-
Promotion	-



t is anticipated to have 4 rooms for each session (1 room for every stream) and be able to form groups within these sessions / roor I rooms with each space for ~4 groups

Key assumptions:

• Hybrid plenary session



Stream Description / Promotion



Stream description for Social Media

FuSE Plenary and Keynote	Systems Engineering	Systems Engineering	Systems Engineering	Systems Engineering
	Vision and Roadmaps	Foundations	Methodology	Application Extensions
The Co-theme of IW 2023 is the Future of Systems Engineering Initiative to realize the SE Vision 2035. Dr. Oli de Weck (MIT) will keynote on the foundations of systems engineering both from the scientific literature and industrial practice.	The Systems Engineering Vision and Roadmaps stream continuously refines, evolves, and complements the SE Vision 2035. Furthermore, we create an integrated set of roadmaps. The IW 2023 goal is to frame the structural relationships and value models to support the roadmaps creation.	The SE Foundations stream has its basis in both theory and industrial practice. The IW 2023 goal is to assess the adequacy of the foundations and identify gaps to determine future directions.	The SE Methodology stream guides the advancement of practices, methods, and tools for engineering systems to be fit for purpose. The IW 2023 goal is to assess the adequacy of the baseline of current INCOSE technical products, ongoing FuSE projects, and identify gaps.	The SE Application Extensions stream integrates social sciences and soft systems into systems engineering practice to address grand challenges. The IW 2023 goal is to frame the value model to justify systems engineering having a role at the policy table for these challenges.



Teams Files until 10. Nov 2022 Lunchtime CET

Stream description eNote

FuSE Plenary and Keynote	Systems Engineering Vision and Roadmaps	Systems Engineering Foundations	Systems Engineering Methodology	Systems Engineering Application Extensions
The Co-theme of IW 2023 is the Future of Systems Engineering Initiative to realize the SE Vision 2035. The four streams will be introduced: Vision & Roadmaps, Foundations, Methodologies, and Application Extensions. Dr. Oli de Weck (MIT) will keynote on the foundations of systems engineering both from the scientific literature and industrial practice. The FuSE sessions at the IW will be outlined.	The Systems Engineering Vision and Roadmaps stream continuously refines, evolves, and complements the SE Vision 2035. Furthermore, we create an integrated set of roadmaps across the four FuSE streams. The streams are interrelated and concurrently guide and influence each other. The IW 2023 goal is to frame the structural relationships and value models to support the roadmaps creation.	The SE Foundations stream has its basis in both theory and industrial practice. The IW 2023 goal is to assess the adequacy of the foundations and identify gaps to determine future directions. Special consideration will be given to the theoretical foundation of the SE as a discipline on one hand and the practical application foundations using principles and heuristics on the other hand.	The SE Methodology stream guides the advancement of practices, methods, and tools for engineering systems to be fit for purpose at the scale, interrelatedness, complexity, non-determinism, and emerging technology innovations such as AI and agility. The IW 2023 goal is to assess adequacy of current INCOSE technical products, ongoing FuSE projects in this stream, and identify gaps.	The SE Application Extensions stream integrates social sciences, soft systems, as well as initiatives such as Smart Cities to address grand challenges to meet human and societal needs as stated in the United Nations Sustainable Development Goals. The IW 2023 goal is to frame the value model to justify systems engineering's role at the policy table for these grand challenges.
				Update the stream descriptions directly



Next steps & to-dos

FuSe Program Introduction Presentation

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- Detailed concept for Wrap-up FuSE Session C unu unu Lail parts a



• Update the FuSE introduction slide deck based in your feedback (3DSE)

• Identify and recruit core team members for FuSE (Stream Leads, Bill, Honor)

• Specify participants for FuSE working sessions and wrap-up at IW 2023 (Bill & 3DSE)

• Derive action items and plan implementation of program management pain points (Bill & 3DSE)

- Finalize stream description for IW 2023 (Stream Leads)





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