



33rd Annual **INCOSE**
international symposium
hybrid event
Honolulu, HI, USA
July 15 - 20, 2023



Heidi Davidz, Richard Beasley, Randall Satterthwaite

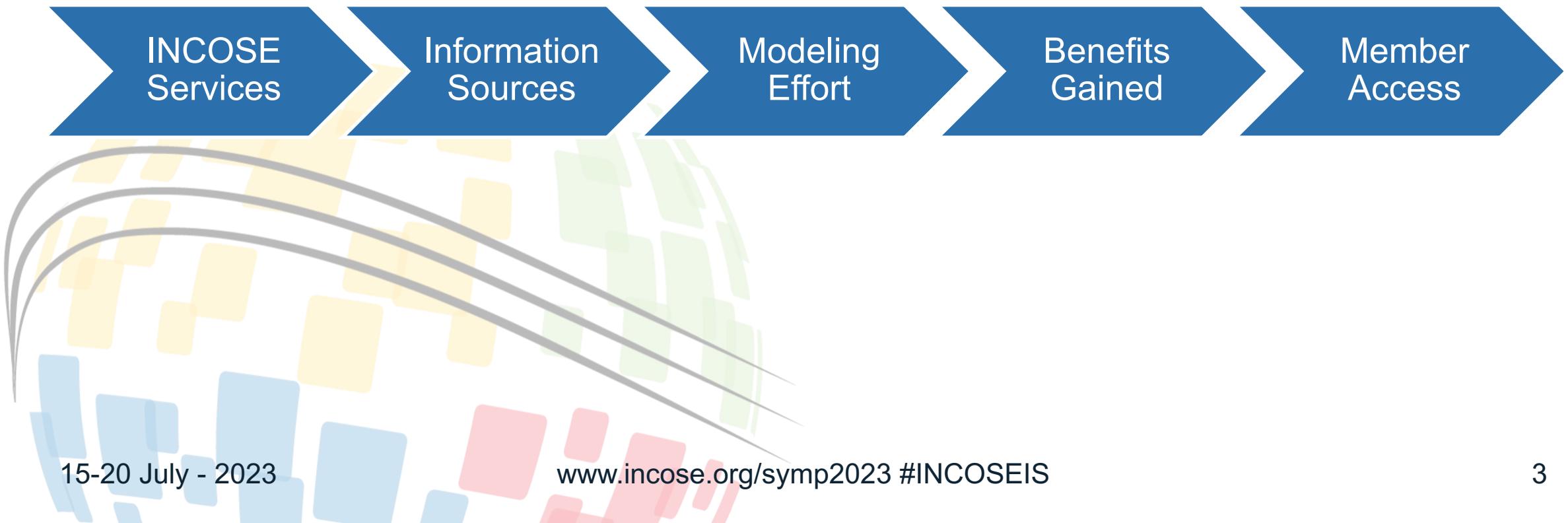
Utilizing the INCOSE Services Integration Model to Optimize Value Delivery

Executive Summary

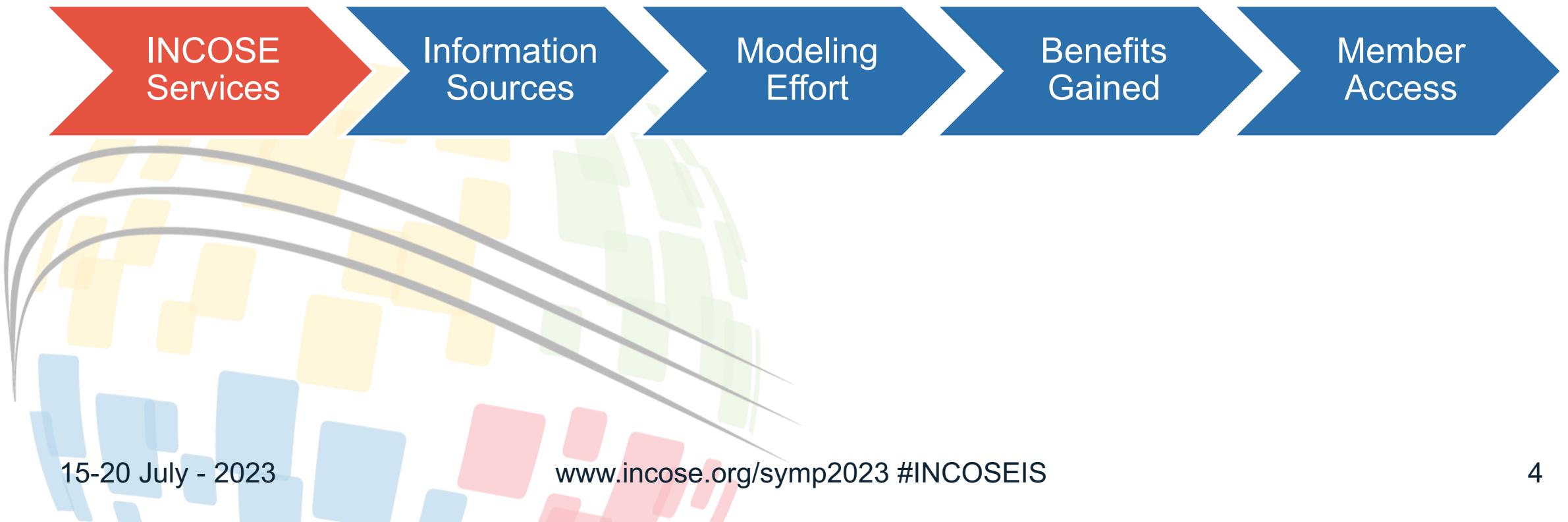
- Systems Engineering Vision 2035 calls for model-based discipline
- An INCOSE Services Integration Model is being used to optimize delivery of INCOSE services to members
- Purpose is to link strategy, stakeholder needs, technical operations, services operations, and member feedback to ensure timely, relevant value delivered to members
- An overview of the model and current efforts is given
- Access via the INCOSE SE Lab or the web is explained
- Scope is INCOSE Services, with potential for INCOSE-wide effort

Optimize Delivery of INCOSE Services to Members

Agenda



Agenda



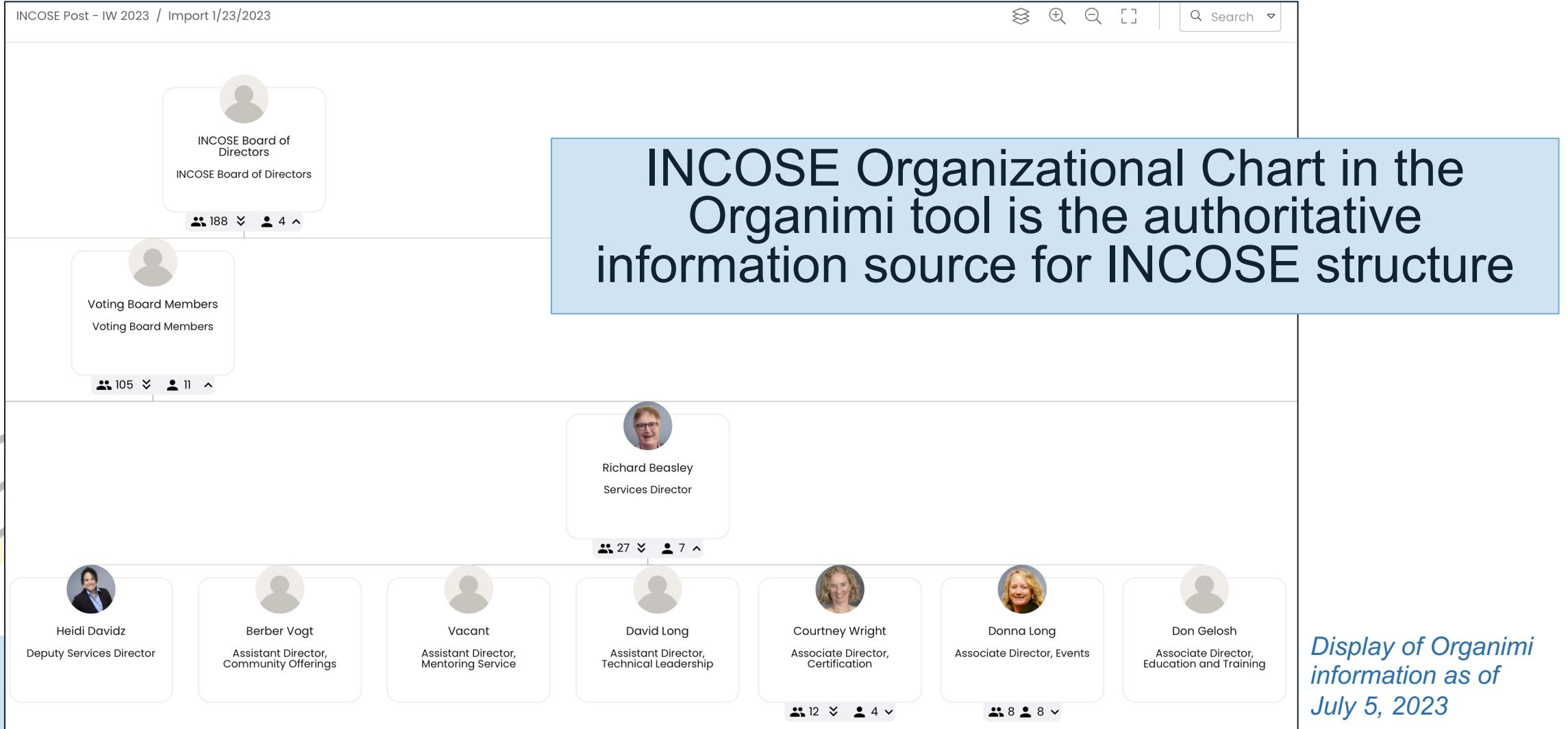
What are INCOSE Services?

- “INCOSE Services” is a newer organizational element
- Technical Operations produces content, and Services Operations distributes content
- Provide direct value to members
- Must strongly integrate across INCOSE

“Provide value through impactful services”

INCOSE Services Organization

INCOSE Post - IW 2023 / Import 1/23/2023



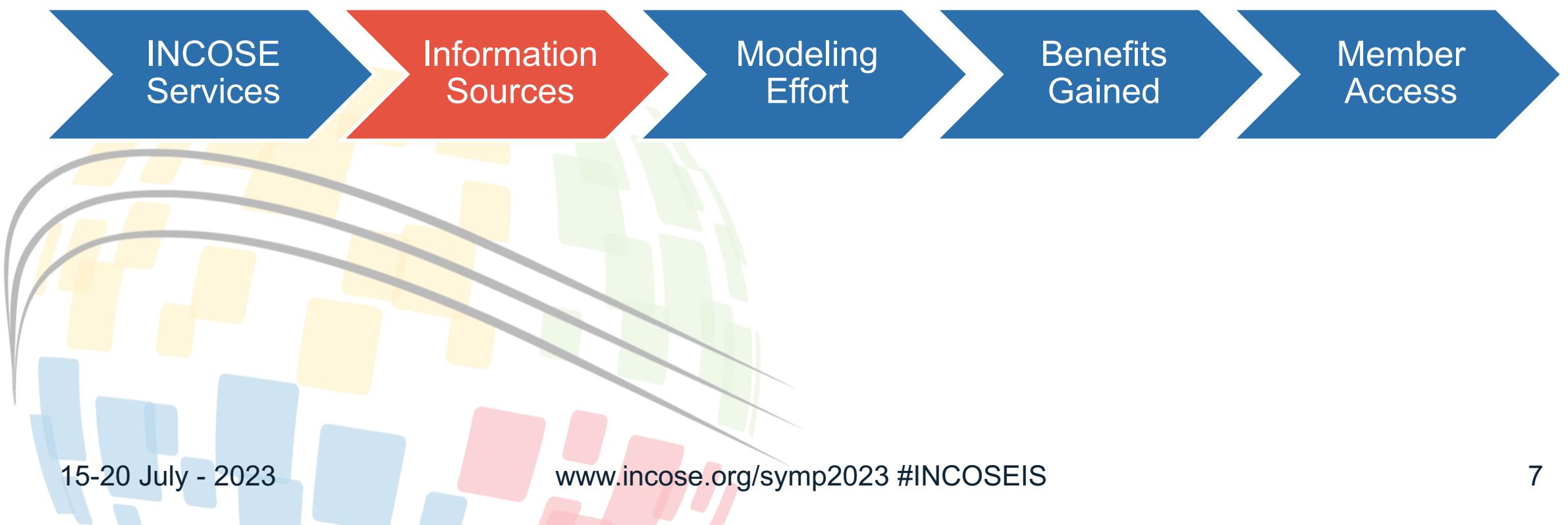
The image shows a screenshot of the Organimi tool interface displaying the INCOSE Services Organization. The chart is a hierarchical structure with the following levels:

- Root Node:** INCOSE Board of Directors (188 members, 4 children)
- Second Level:** Voting Board Members (105 members, 11 children)
- Third Level:** Richard Beasley (Services Director) (27 members, 7 children)
- Fourth Level:** Heidi Davidz (Deputy Services Director), Berber Vogt (Assistant Director, Community Offerings), Vacant (Assistant Director, Mentoring Service), David Long (Assistant Director, Technical Leadership), Courtney Wright (Associate Director, Certification), Donna Long (Associate Director, Events), and Don Gelosh (Associate Director, Education and Training) (12 members, 4 children)

INCOSE Organizational Chart in the Organimi tool is the authoritative information source for INCOSE structure

Display of Organimi information as of July 5, 2023

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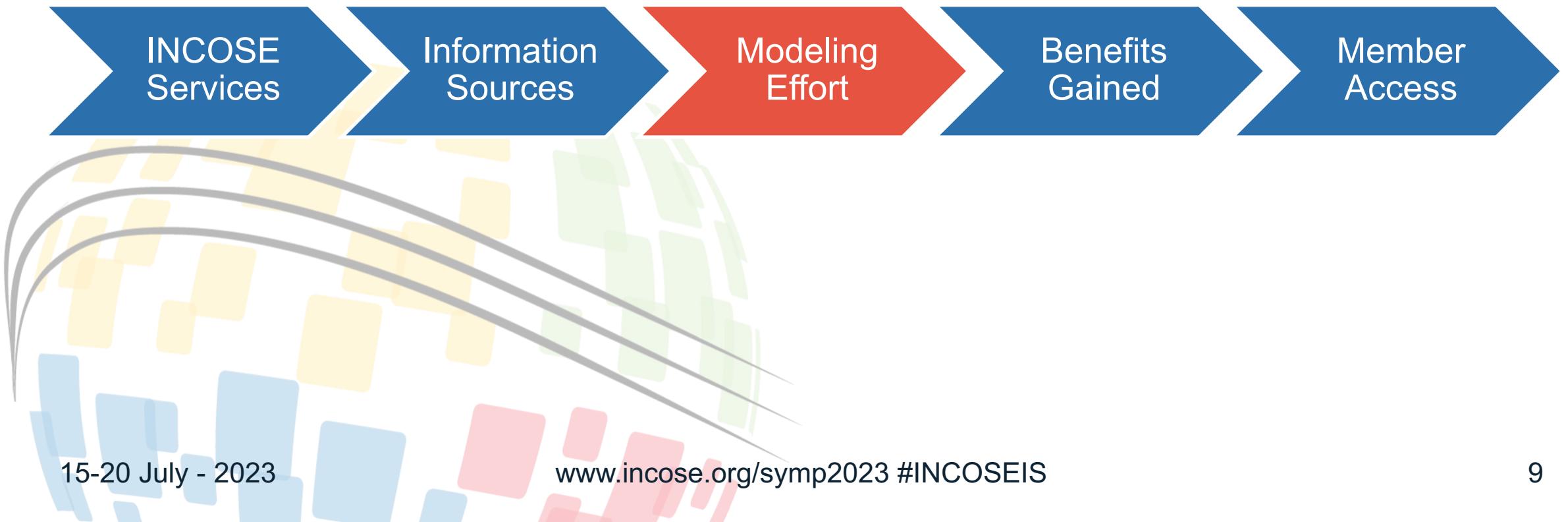
Information Sources

Two-Way
Communication

INCOSE Services
Integration Model
Optimize value delivery
to members



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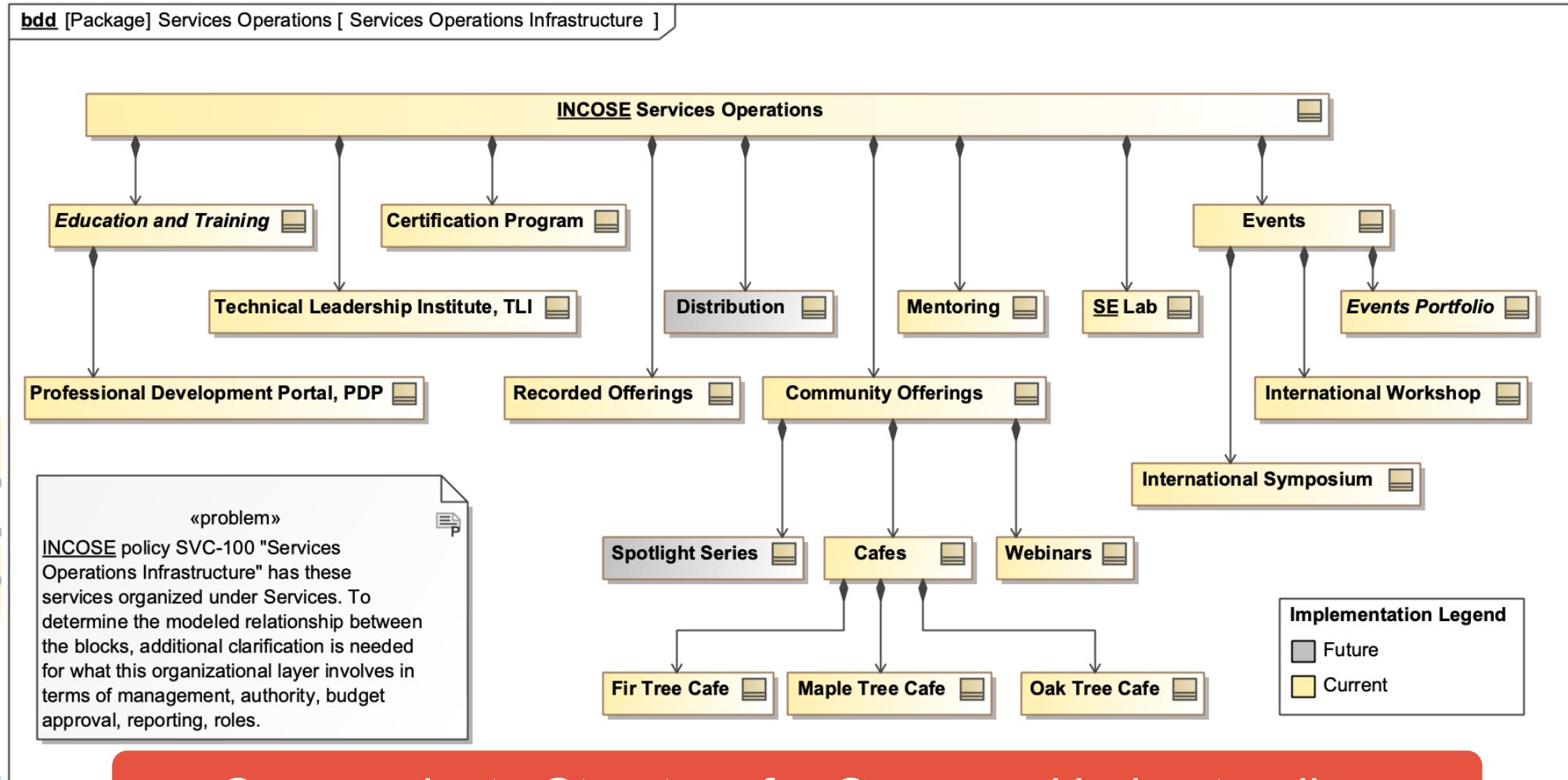
Why Model?

- SE Vision 2035 call
- Provide value and enable curiosity
- Integrate across INCOSE efforts
- Define ambiguous relationships
- Explicitly characterize relationships
- Map information flows and processes
- Clearly expose disconnects, gaps, opportunities

Value in Modeling Process, Not Just in Final Artifact

Services Operations Infrastructure

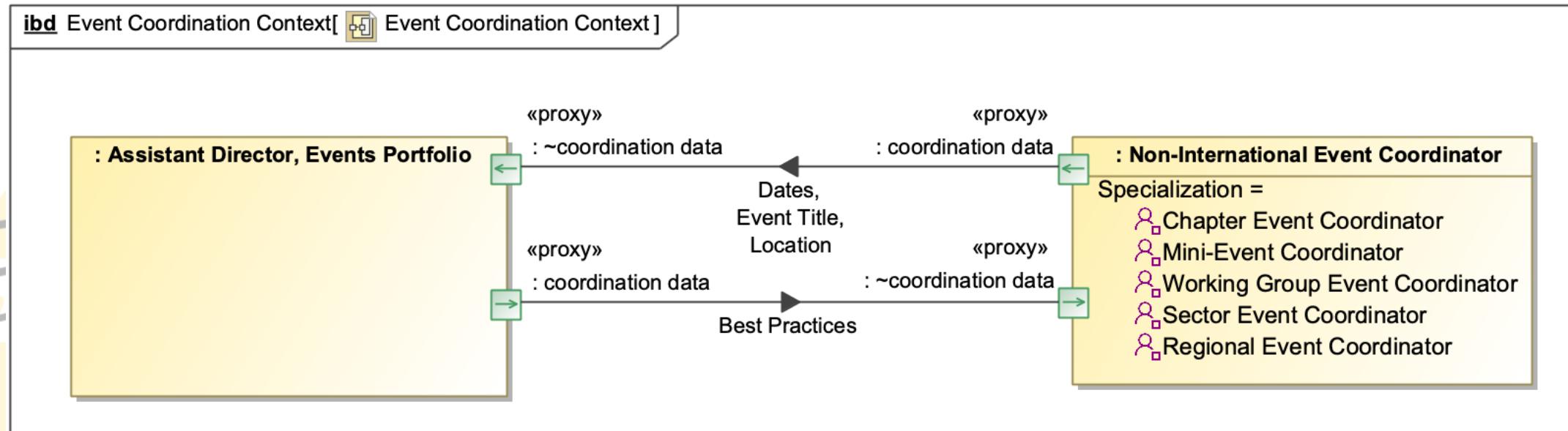
*Living models,
open for evolution
and update*



Communicate Structure for Common Understanding

Analyze Flow

- Understand the flow of information
- Communicate processes

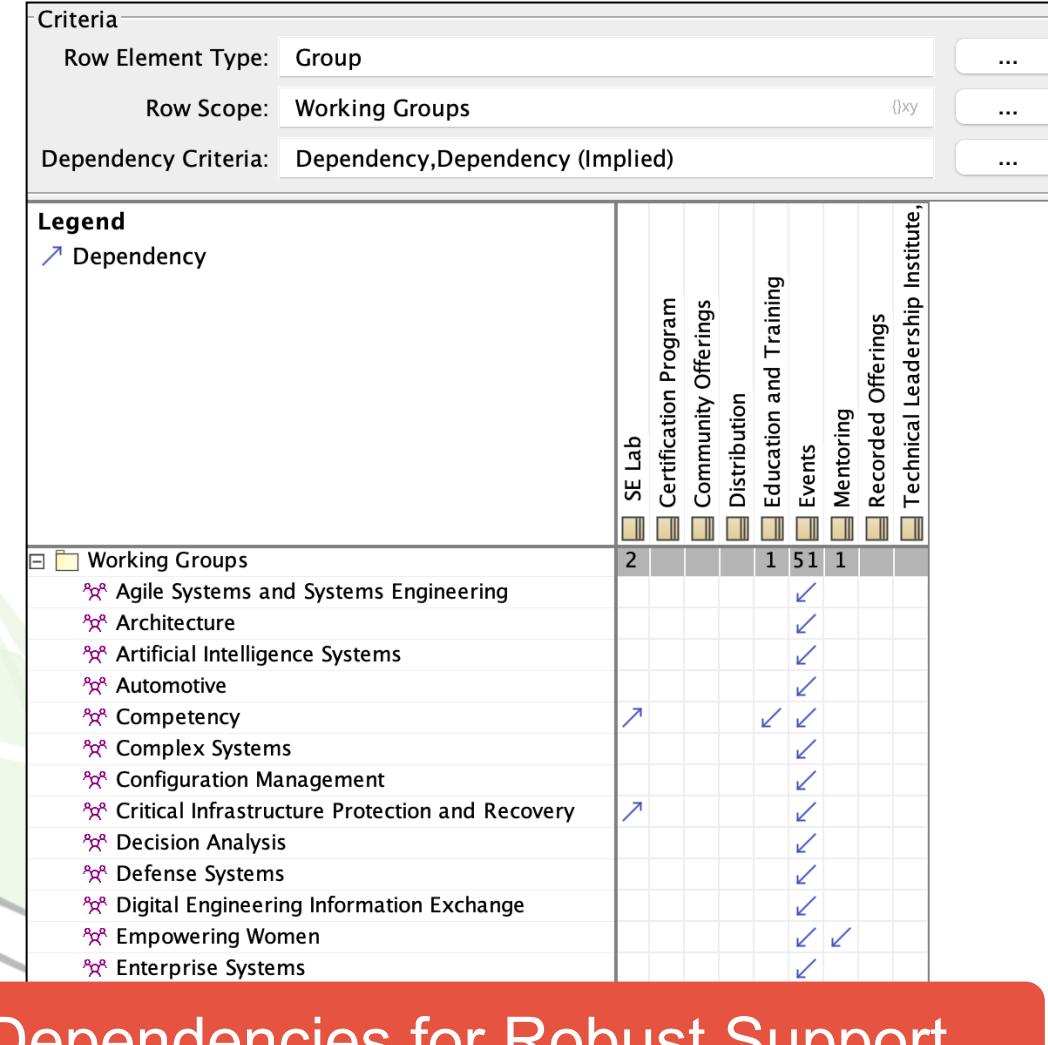


Analyze to Optimize Flow for Value Delivery

Understand Dependencies

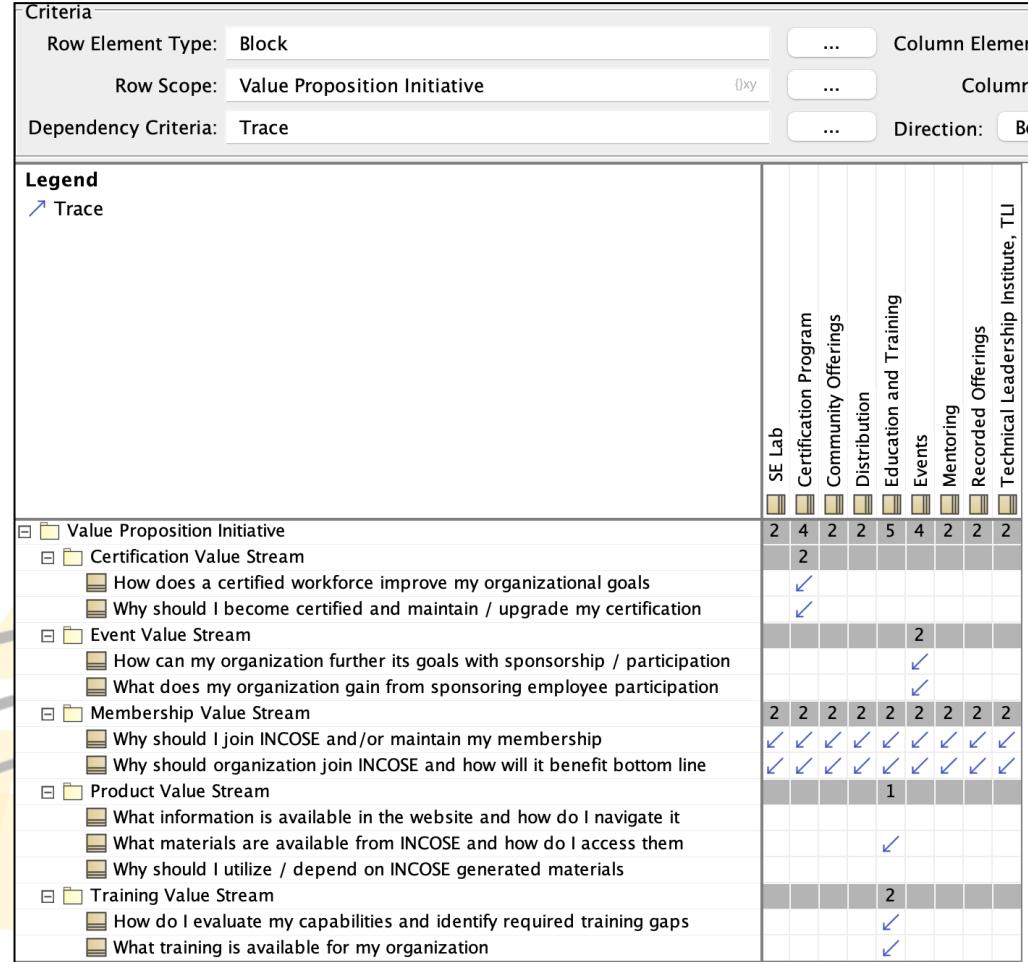
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- Examining the dependencies between INCOSE Services and Working Groups (WG) aids planning and delivery
- Provides visibility to ensure specific WG needs are understood and met



Map Working Group Dependencies for Robust Support

Value Proposition Initiative Link

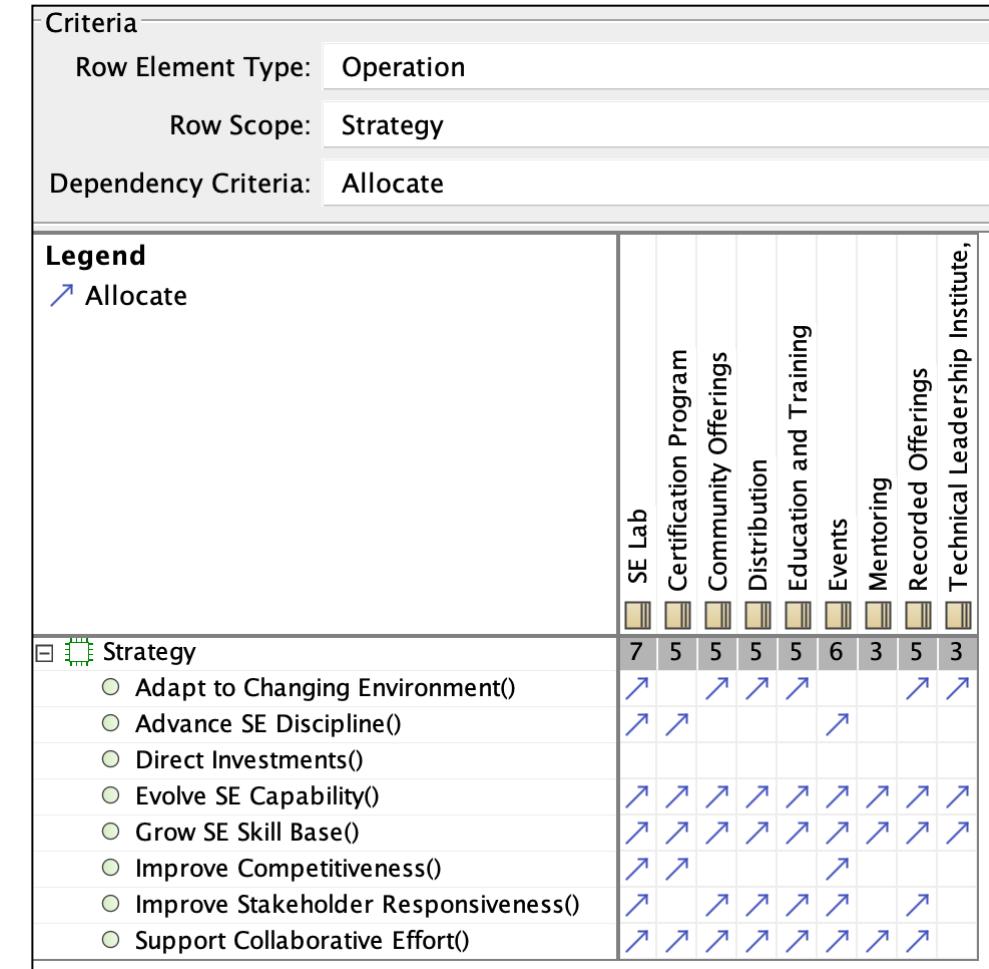


- INCOSE Value Proposition Initiative (VPI) examined value propositions for systems engineering, corporate and individual INCOSE members
- VPI questions could be used to develop requirements for INCOSE Services
- In interim, INCOSE Services traced to VPI to examine coverage

Understand Linkage between Services and Value

SE Vision 2035

- Use of SE Lab enables linking to other INCOSE model-based artifacts
- The Services Integration Model uses an SE Vision 2035 model
- Ensure the INCOSE Services support the SE Vision 2035
- Assess portfolio coverage
- With FuSE, ensure vision is being realized



Ensure Vision is Realized with Tangible Deliveries

Configuration Management

- Version control in Teamwork Cloud
- Released version available on Collaborator
- RACI with Services Director final approval
 - R (Responsible): Modeling Team
 - A (Accountable): Services Director
 - C (Consulted): Services Team
 - I (Informed): Board of Directors

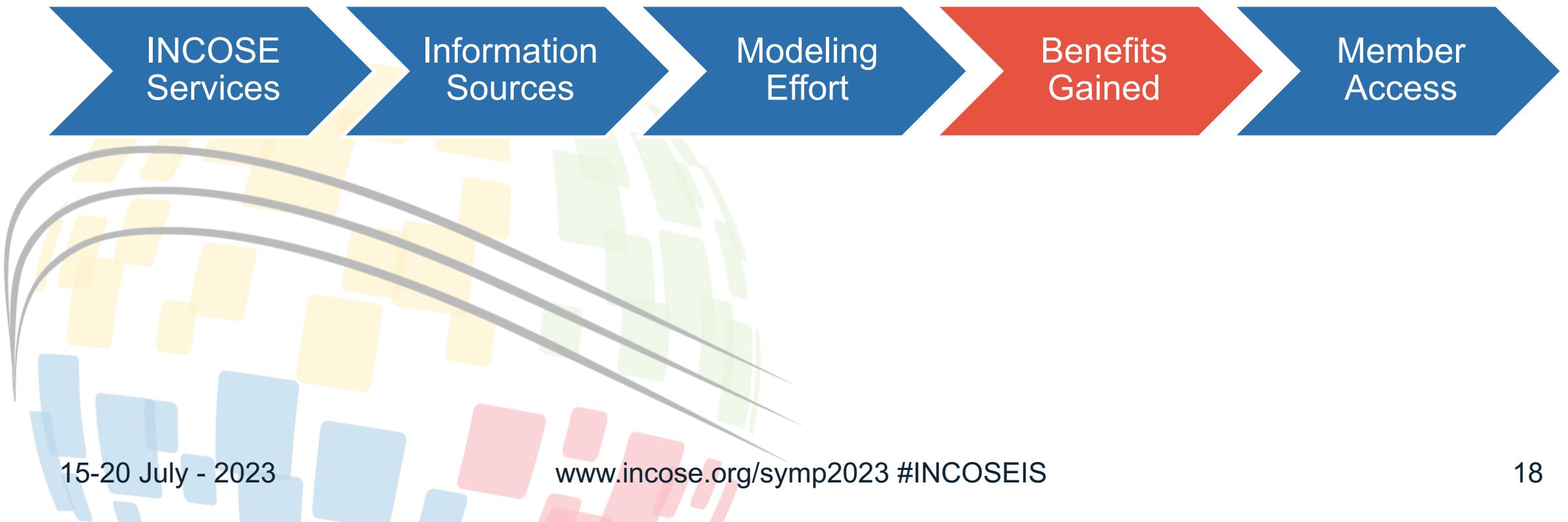
Manage Configuration through INCOSE Evolution

Backlog Managed in Model

Criteria					
Element Type:		Scope (optional):		Filter:	
#	Owner	Id	Name	Documentation	
1	2-In Work	2026	Add FuSE project usage – need access granted	INCOSE Model	
2	2-In Work	2043	Generic lifecycle of a Service as a state machine – We have ideas of generic lifecycle of a service to start to model (like TPP for Te	Generic Service	
3	1-Backlog	2060	Add membership data (numbers, locations, sectors, trends) from Membership team	Context for Service	
4	1-Backlog	2061	Add revenue information and link to products/services	Context for Service	
5	1-Backlog	2062	Add information about member engagement with various Services	Context for Service	
6	1-Backlog	2065	Add <u>measures of performance</u> and goals for those measures	Requirements for Service	
7	1-Backlog	2027	Add navigation details	Model Management	
8	1-Backlog	2029	Add that only <u>UK</u> people can see <u>UK</u> events	Specific Service	
9	1-Backlog	2030	Add <u>UK</u> and MOA relationships to certification	Specific Service	
10	1-Backlog	2031	Map PDP taxonomy to working groups – see Kirk's table	Context for Service	
11	1-Backlog	2033	Add professional development flow and map in what <u>INCOSE</u> does	Specific Service	
12	1-Backlog	2034	Add email information from Richard Beasley on publication elements	Specific Service	
13	1-Backlog	2035	Submit new Services procedure with Services model content to PMC for approval	Generic Service	
14	1-Backlog	2036	Resolve whether PDP Content Processing Volunteers should work for PM or Curator	Specific Service	
15	1-Backlog	2037	Berber is working on procedures for the Community offerings, add to model when ready	Specific Service	
16	1-Backlog	2039	For Certification and Handbook needs, add handbook development analogy to SW development – mainline and branches, need to	Specific Service	
17	1-Backlog	2042	Richard is running an IW 2023 session looking at what Services can do for WGs and vice-versa. That can allow us to map the serv	Context for Service	
18	1-Backlog	2044	Add <u>activity</u> diagram for IS papers – call for papers, paper from submitted, to accepted, to final submission, to presented, to RO	Specific Service	
19	1-Backlog	2045	Based on the work flows / procedures, Richard thinks we can get a model of which directors / areas of <u>INCOSE</u> (services and wide	Context for Service	
20	1-Backlog				

Manage Backlog to Focus on Highest Impact Analysis

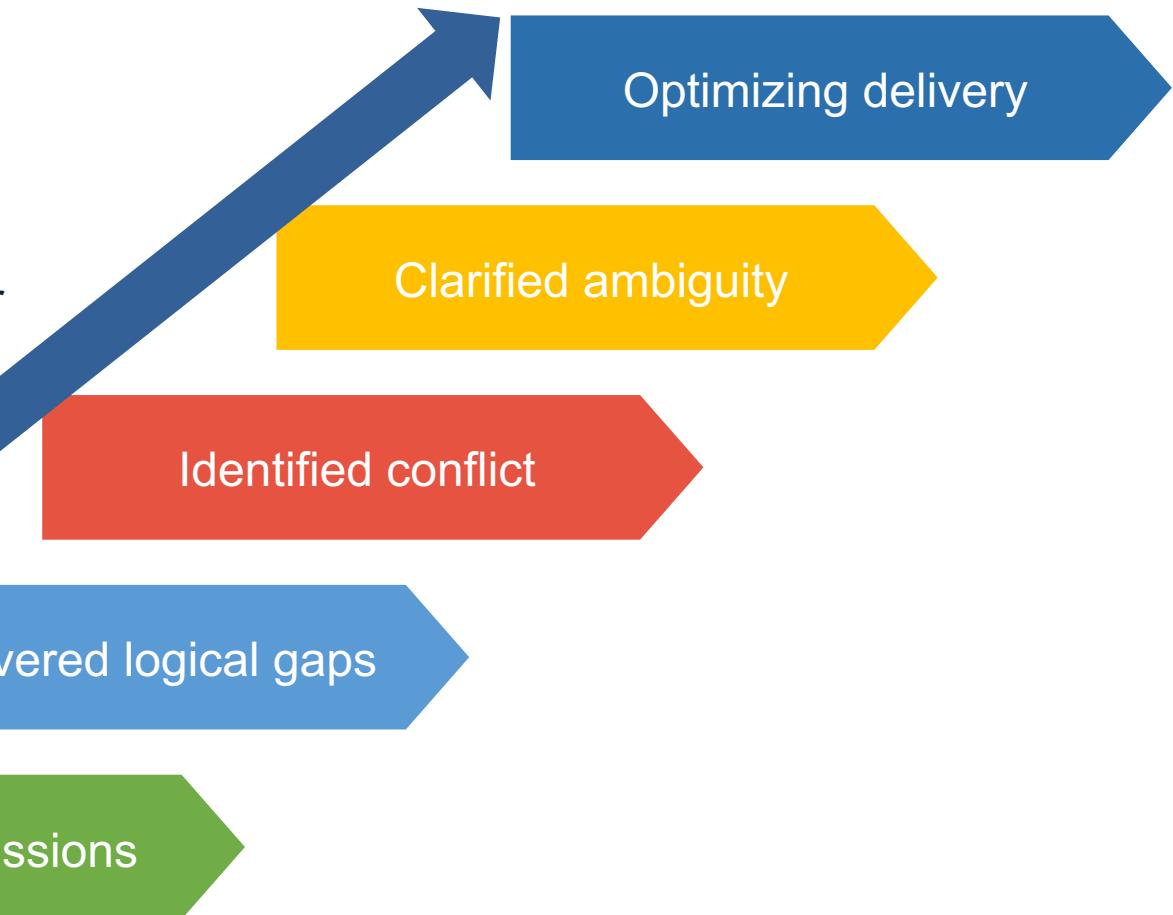
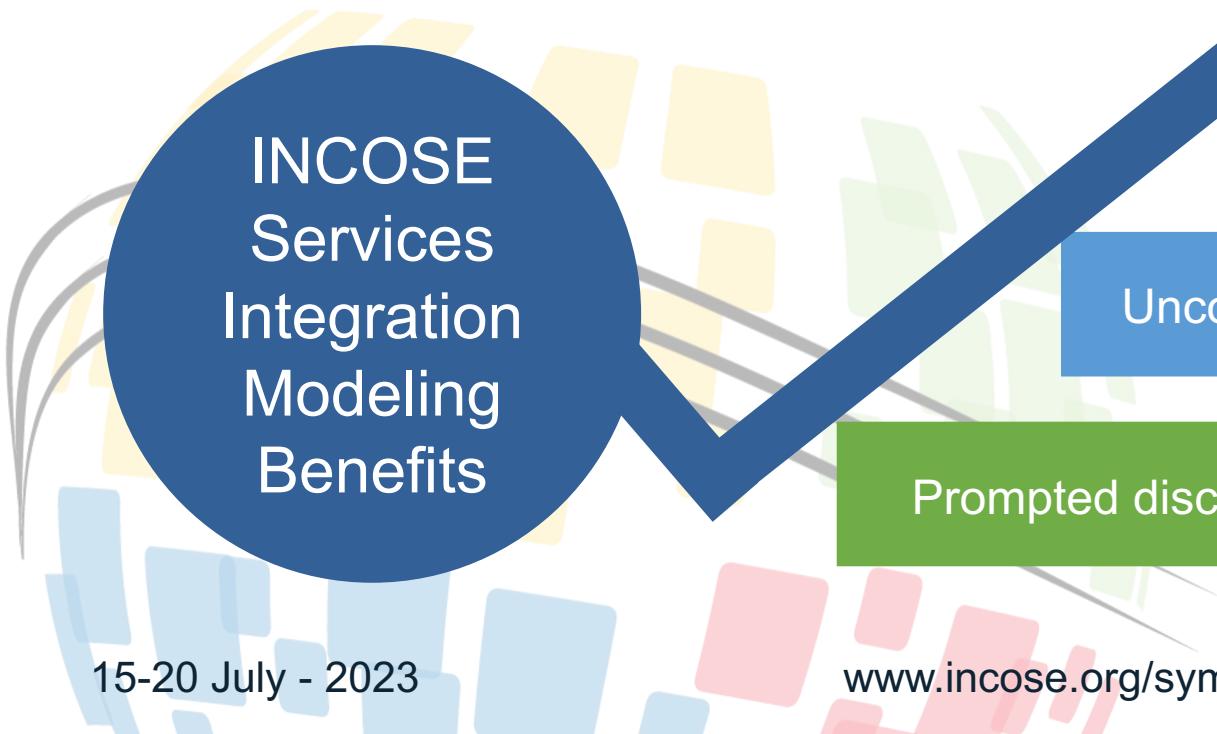
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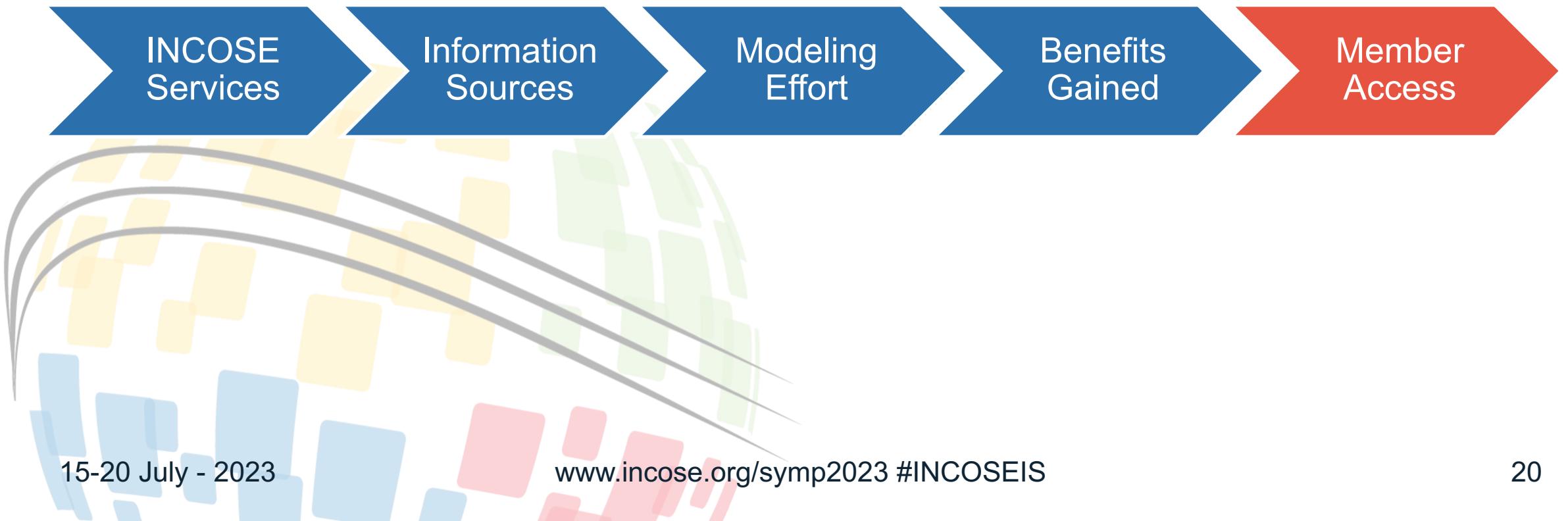
Benefit Gained

“There is tremendous value in the INCOSE Services integration modeling effort. Modeling helps us see a holistic view of what we are trying to do in Services. As findings are uncovered, useful discussion and questions result.”

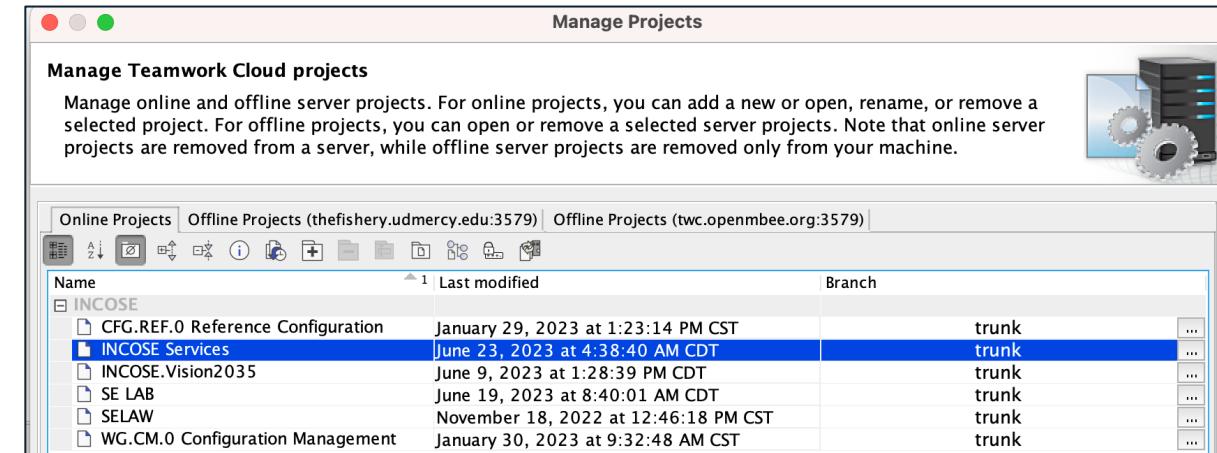
- Richard Beasley, INCOSE Services Director



Agenda



Member Access



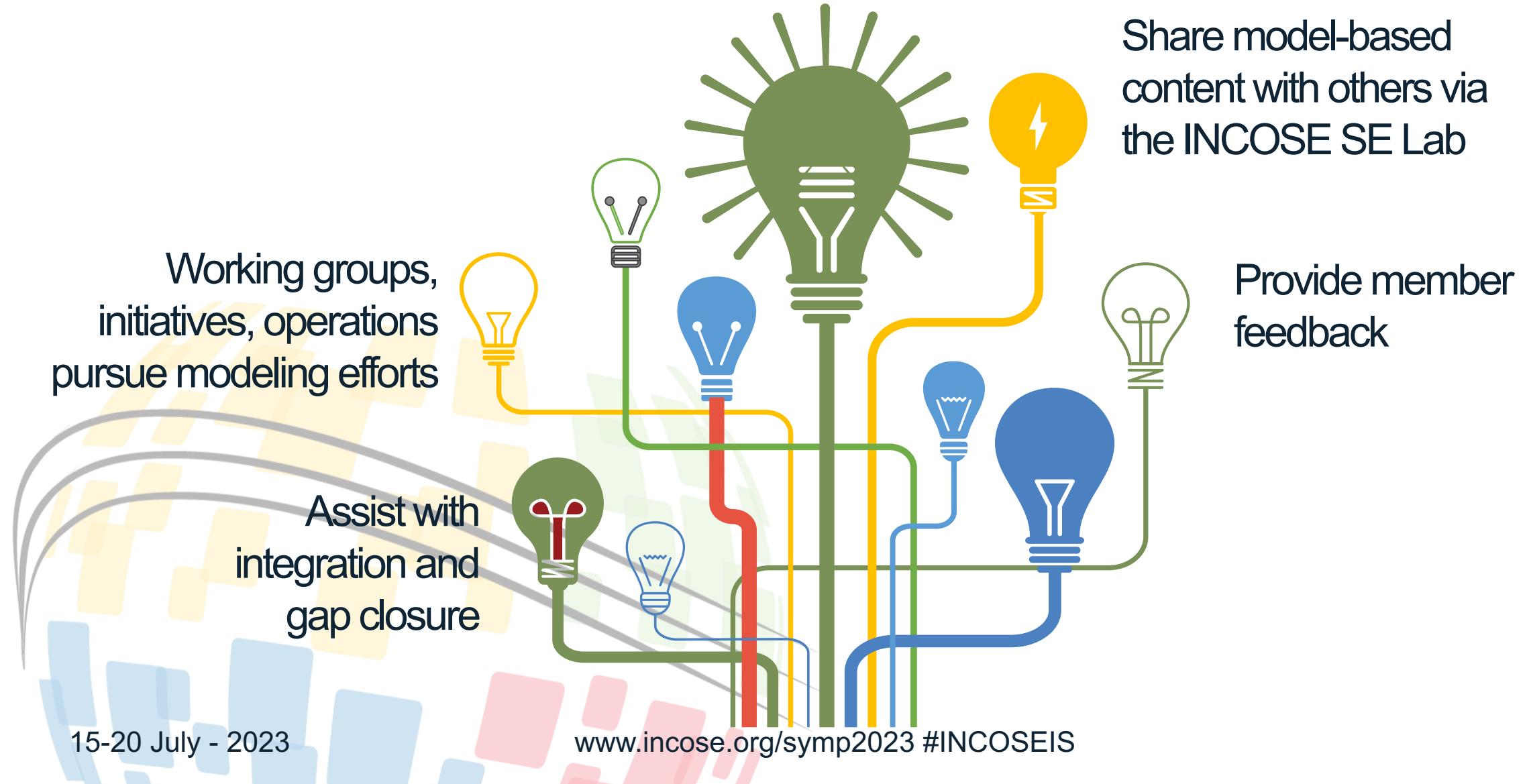
Request SE Lab
access

Accessible through
web interface

Follow web-based
instructions

Contact authors for any
feedback or questions

How You Can Contribute



Summary

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