



What is this "Systems Engineering Book of Knowledge" (SEBoK) thing, anyway?

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Today's Topics

- SEBoK Overview
- How to use SEBoK
- 2025 Plans
- Q&A

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We want your input!

<https://www.menti.com/aln3ta58gzjh>

What has your level of engagement with SEBoK been to date?



What do you believe is the value of the SEBoK?

In a few words, how do you use the SEBoK?

new project new references
industry examples
support
current thinking on topic

It's a great survey on SE topics. It's my starting point when I am researching a new topic

I haven't used it yet, but am interested in industry examples

Buzz word is MBSE... I was gonna see if there a standard of what MBSE is defined in the SEBoK? I want to look for "standards" that are followed.



2024 SEBoK Use Summary

- **Total Page Views for 2024: 624,705**
- **Total Unique Visitors for 2024: 279,438**
- Total Page Views for 2012-2024: 8,633,185
- Total Unique Visitors for 2012-2024: 3,568,383
- **Total Visits for 2024: 406,666**
- Total Visits for 2012-2024: 4,304,211



SEBoK Vision

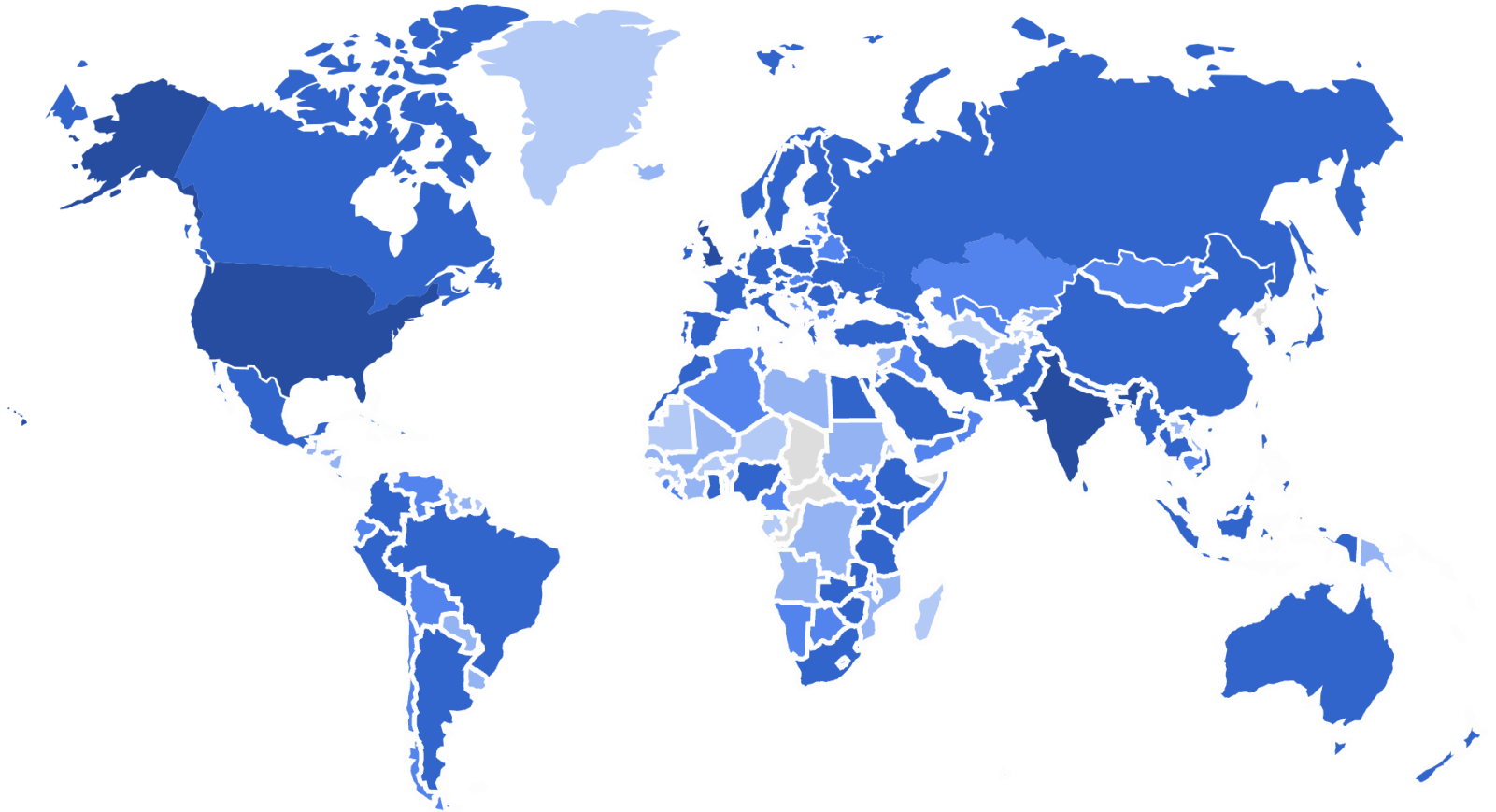
The SEBoK is **the** guide to the body of knowledge. It is intended to provide awareness, context, and resources on key topics relevant to systems engineering. This includes including references for different views when appropriate, such as in new and evolving areas. The SEBoK will be the global reference for systems engineering, providing current references and insights on theory, application, and practice.

The screenshot shows the INCOSE website's navigation menu and a dropdown menu. The main navigation includes: Engage with INCOSE, Certification, Events, Publications, Communities, Learn, and About Systems Engineering. The dropdown menu lists: SE Handbook V5, SE Vision 2035, BKCASE: SEBoK & GRCSE, INSIGHT, SE Journal, Members Newsletter, Content Library, Technical Product Catalog, and Copyrights. The main content area features the SEBoK logo (a book icon) and the text "SEBoK GUIDE TO THE SYSTEMS ENGINEERING BODY OF KNOWLEDGE". Below this is the text "Guide to the Systems Engineering Body of Knowledge (SEBoK)". To the right, there is a section for "Reference for Systems Engineering (GRCSE®)" with the text "Curriculum guidance for systems engineering master's program, GRCSE makes reference to sections of the SEBoK to".



Analytics (2024)

- Over 406k users
- Over 624k page views
- 208 countries
 - USA
 - India
 - UK
 - Australia
 - China
 - Germany
 - Canada
 - Philippines
 - Indonesia
 - France



Download the SEBoK had 8k views (thousands of downloads)

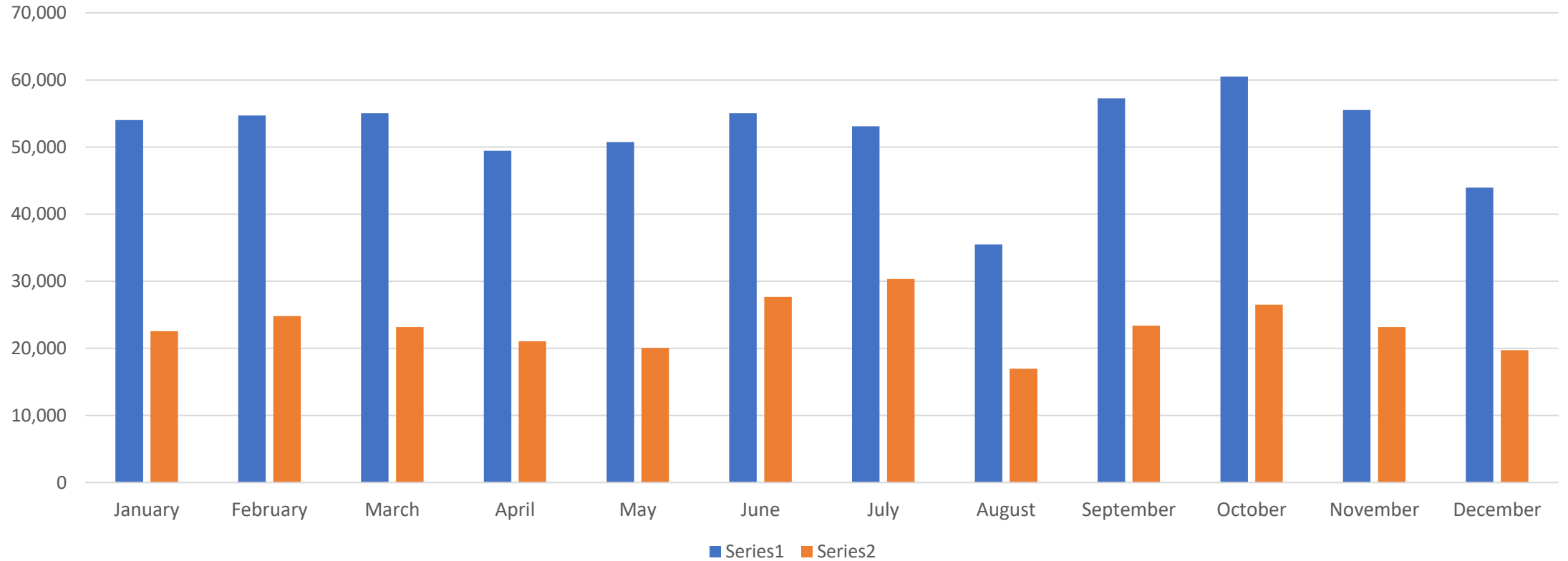
We've surpassed 8.6 million page views!



Page Views & Unique Visitors: 2024

Series 1: Page Views
Series 2: Unique Visitors

2024



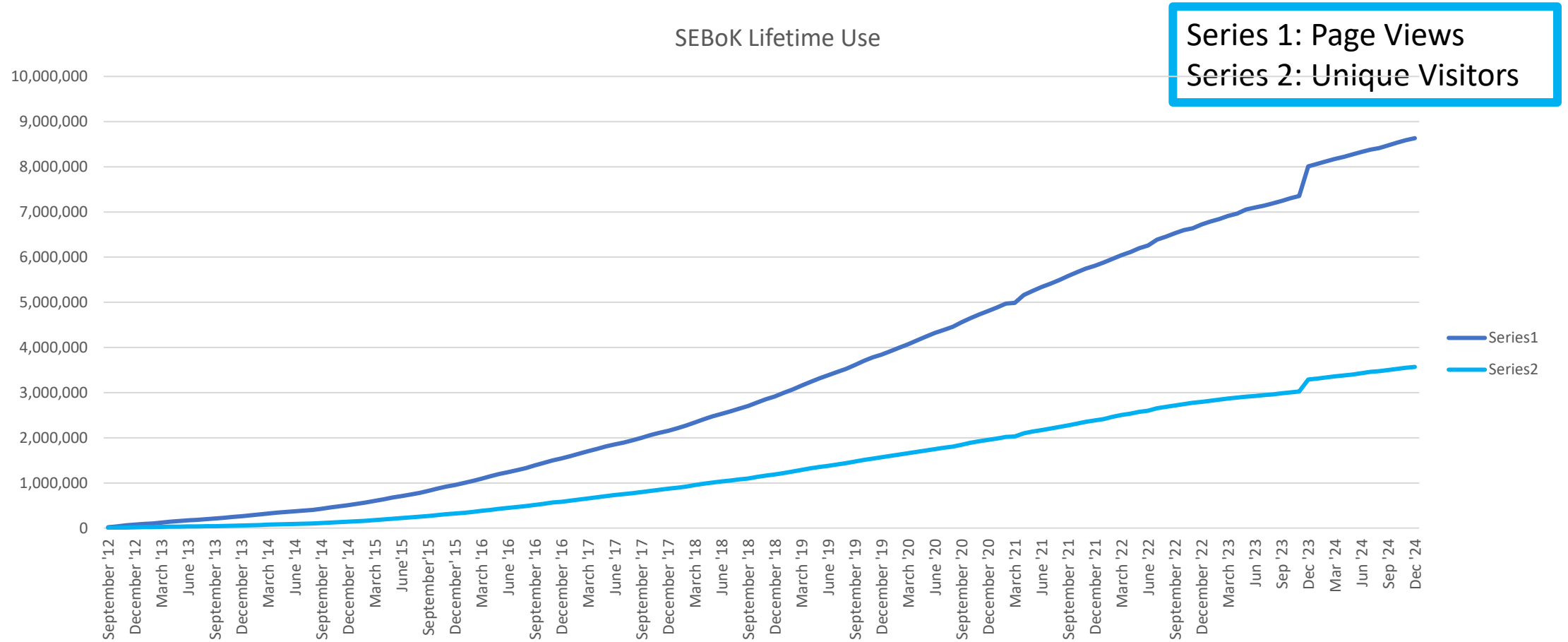


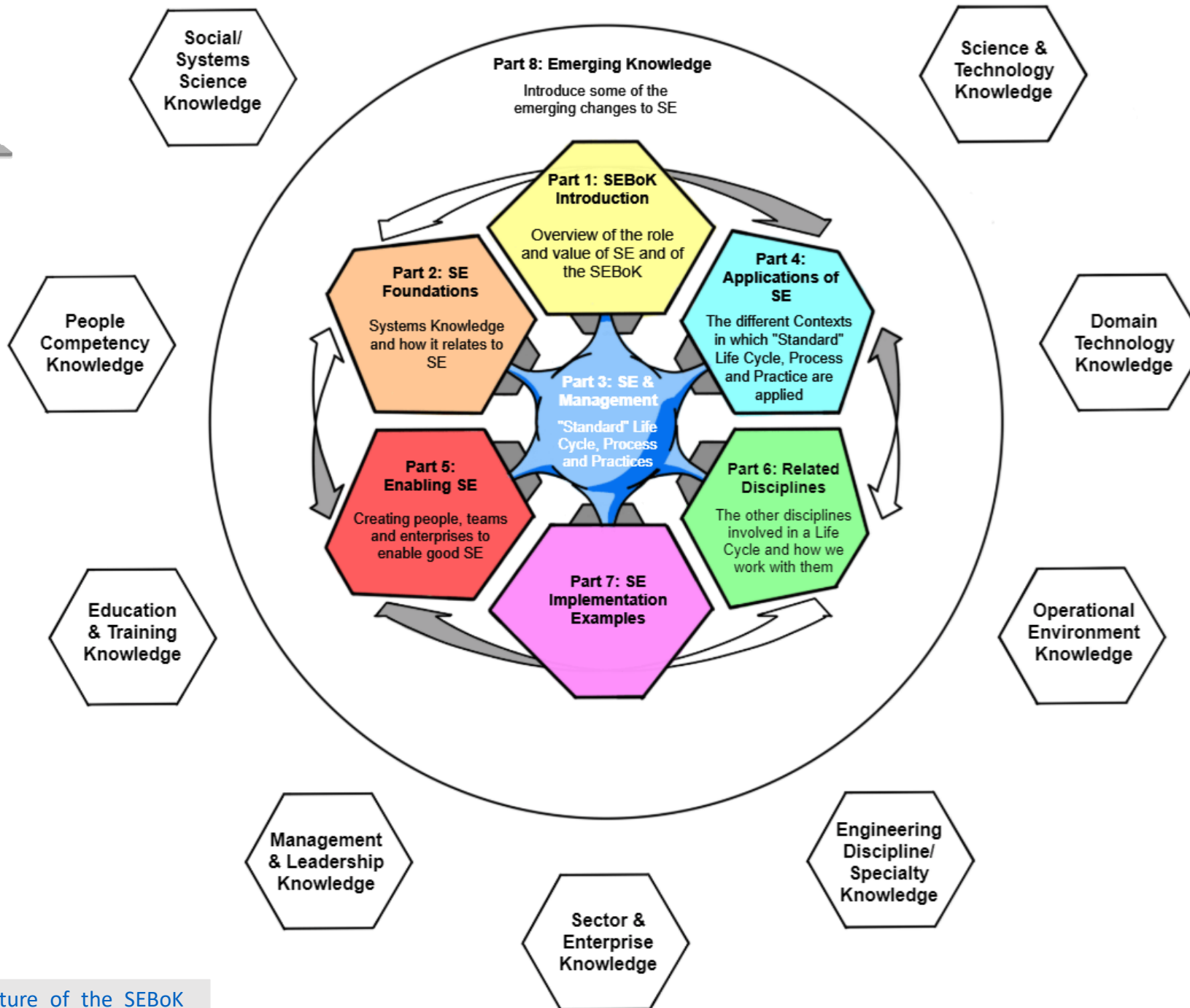
Top Pages (2024)

Page	# Views
SEBoK (home page)	68,166
Types of Systems	16,145
INCOSE Systems Engineering Handbook	10,042
Types of Models	9,689
Logical Architecture	9,293
Download SEBoK PDF	7,959
System Reliability, Availability, and Maintainability	7,861
Stakeholder Needs Definition	7,837
System Verification	5,825



SEBoK Lifetime Use

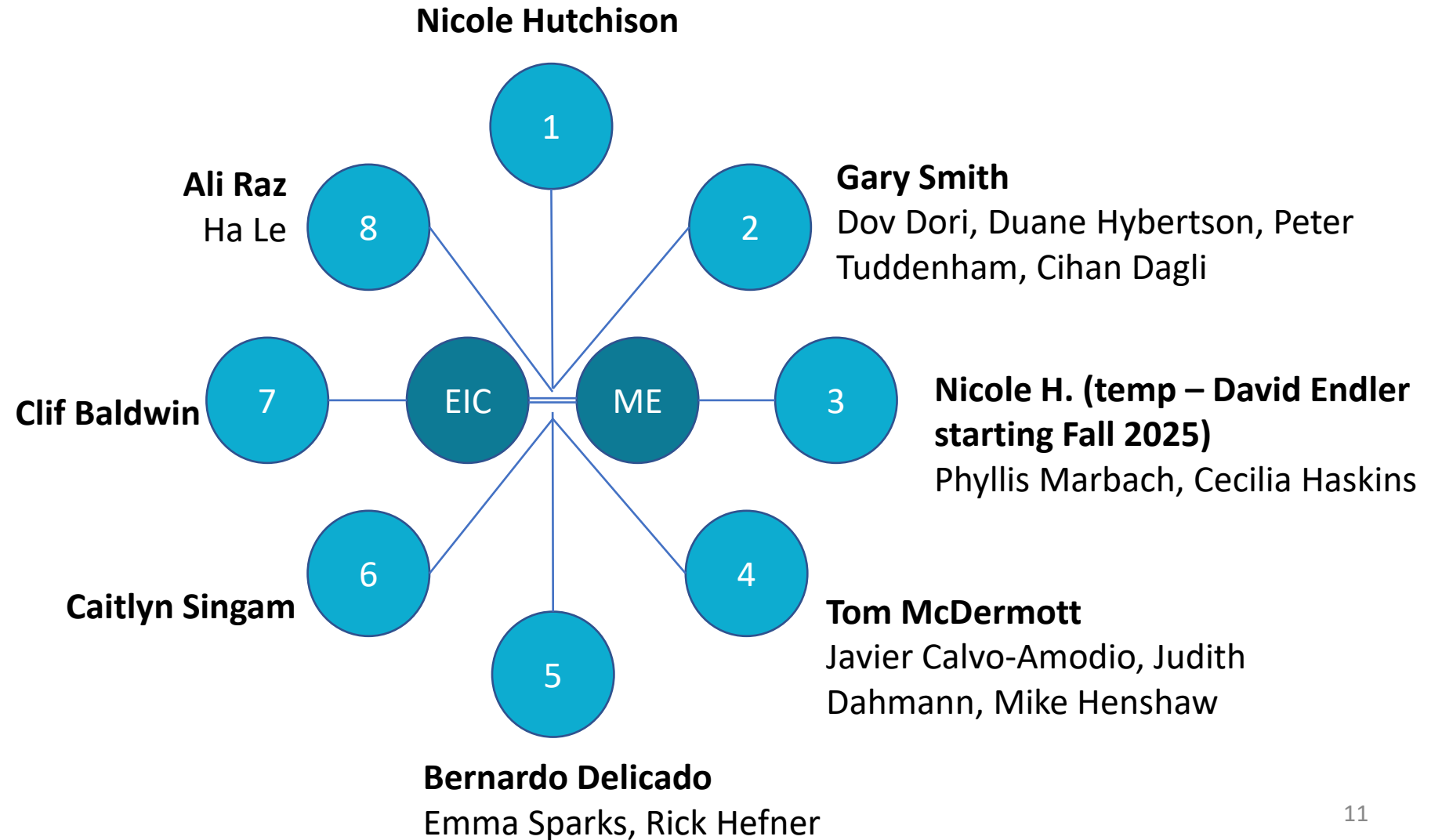
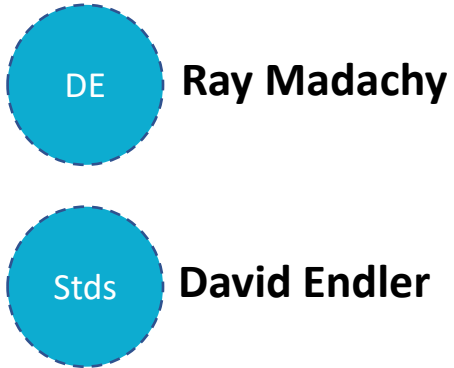






Current Editorial Board

Student Editors Support
EIC/ME and other editors
and authors as needed



Authors are engaged based
on subject matter expertise.



EIC/Part 1



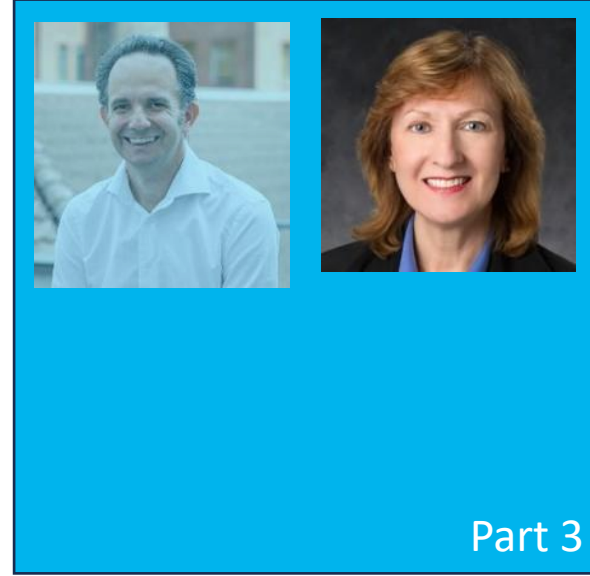
Managing Editor



Student Editor



Part 2



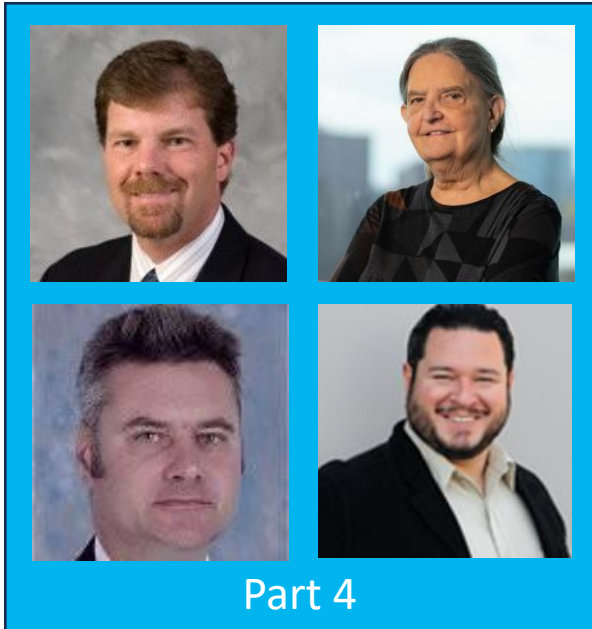
Part 3



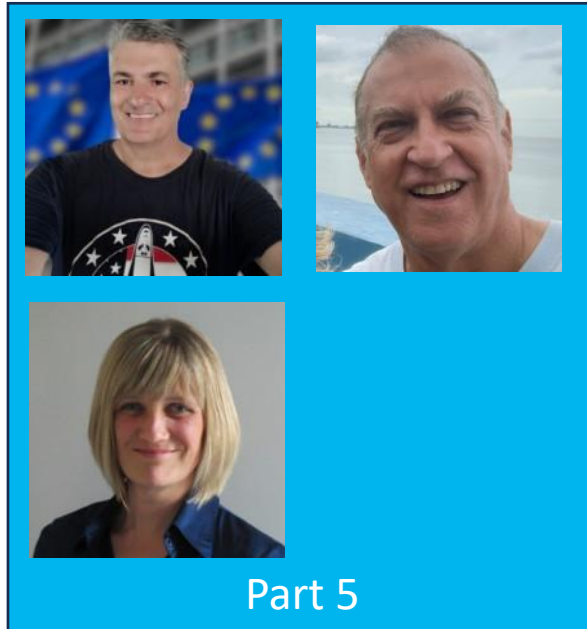
DE/MBSE



Standards



Part 4



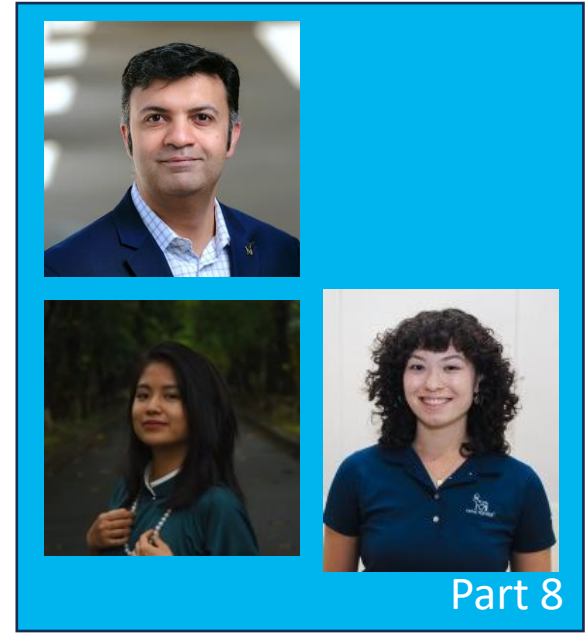
Part 5



Part 6



Part 7



Part 8

How to use SEBoK

Search & Table of Contents

Some Use-Cases

FAQ





Search & Table of Contents

Read View source View history PDF Export

Systems

Caution: This search is CASE Sensitive!

And still very powerful with type-ahead.

- Systems Analysis Approach
- Systems Approach (glossary)
- Systems Approach Applied to Engineered Systems
- Systems Approaches
- Systems Biology
- Systems Biology (glossary)
- Systems Concept (glossary)
- Systems Development (glossary)
- Systems Engineer (glossary)
- Systems Engineering

containing...
Systems

THE INNOVATION UNIVERSITY

Quicklinks

- Main Page
- Editor's Corner
- Governance and Editorial Boards
- SEBoK Sponsors
- Acknowledgements and Release History
- FAQs

Outline

- 1 Table of Contents
- 2 Part 1: SEBoK Introduction
 - 3 Introduction to the SEBoK
 - 4 Introduction to Systems Engineering
 - SEBoK Users and Uses
 - Guidance for Systems Engineering Novices
 - Guidance for Systems Engineers
 - Guidance for Engineers
 - Guidance for Systems Engineering Customers
 - Guidance for Educators and Researchers
 - Guidance for General Managers
 - Part 2: Foundations of Systems Engineering

Welcome to SEBoK v. 2.9

The SEBoK provides a guide to the [key knowledge sources and references](#) is a living product, accepting community input continuously, with regular literature.

Systems engineering is an interdisciplinary approach and means to problem discovery and formulation, solution definition and realization, and to the management of multiple interventions in commercial or public enterprise [overview of systems engineering](#), place it in [historical context](#), and discuss

What's New?

A few things to look forward to in the latest update:

- [Governance and Editorial Boards](#) changes including a new Editor-in-
- A new article on [Reverse Engineering a UAV Prototype using Agile](#)
- A new article on [System Security](#) that replaces the one found in SE
- A new article on the [An Overview of the SWEBOK Guide](#) that replaces
- An updated article on [Loss Driven Systems Engineering, A Framework](#)
- An updated article on [System Resilience](#)
- A transition from the use cases originally published in SEBoK v. 1.0 to
- Minor updates to articles throughout the SEBoK

SEBoK Organization

The SEBoK is a **guide** to the broad scope of SE-related knowledge. The core of this is tested and proven knowledge that has been developed through practice, documented,



Some Use Cases

Stewards

INCOSE | IEEE SYSTEMS SOCIETY | STEVENS INSTITUTE OF TECHNOLOGY

Quicklinks

- Main Page
- Editor's Corner
- Governance and Editorial Boards
- SEBoK Sponsors
- Acknowledgements and Release History
- FAQs

Outline

- 1** Table of Contents
- Part 1: SEBoK Introduction
- Part 2: Foundations of Systems Engineering
- Part 3: SE and Management
- Part 4: Applications of Systems Engineering
- Part 5: Enabling Systems Engineering
- Part 6: Related Disciplines
- Part 7: SE Implementation Examples
- Part 8: Emerging Knowledge

Sponsors

MISSOURI S&T

SEBoK Table of Contents

Special:SpecialPages > SEBoK Table of Contents

Page Read

Contents [hide]

- Part 1: SEBoK Introduction
- Part 2: Foundations of Systems Engineering
- Part 3: Systems Engineering and Management
- Part 4: Applications of Systems Engineering
- Part 5: Enabling Systems Engineering
- Part 6: Related Disciplines
- Part 7: Systems Engineering Implementation Examples
- Part 8: Emerging Knowledge

Part 1: SEBoK Introduction

- Introduction to the SEBoK
 - Scope of the SEBoK
 - Structure of the SEBoK
- Introduction to Systems Engineering
 - Systems Engineering Overview
 - Fundamentals for Digital Engineering
 - Economic Value of Systems Engineering
 - A Brief History of Systems Engineering
 - Systems Engineering: Historic and Future Challenges
 - Systems Engineering and Other Disciplines
 - Fundamentals for Future Systems Engineering
- 2** SEBoK Users and Uses
 - Guidance for Systems Engineering Novices
 - Guidance for Systems Engineers
 - Guidance for Engineers
 - Guidance for Systems Engineering Customers
 - Guidance for Educators and Researchers
 - Guidance for General Managers

Part 2: Foundations of Systems Engineering

- Knowledge Area: Systems Engineering Fundamentals
 - Introduction to Systems Engineering Fundamentals

Navigating the SEBoK

The SEBoK may be searched in the same way as a traditional wiki. In addition, navigation links have been added to each page. Please use these links if you would like to navigate the SEBoK sequentially through the table of contents. These links look like: < Previous Article | Parent Article | Next Article >

- Previous* - The "Previous" link will take you back one article in the table of contents.
- Next* - The "Next" link will take you forward one article in the table of contents.
- Parent* - The "Parent" link takes you up one level in the table of contents.)

Page **3** Read

Guidance for Systems Engineering Novices

About the SEBoK > FAQs > SEBoK Sponsors > Guide to the Systems Engineering Body of Knowledge (SEBoK) > Guidance for Systems Engineering Novices

Some users of the Systems Engineering Body of Knowledge (SEBoK) may be new to the field. This article provides

Contents [hide]

- Learn the Basic Terms
- Get an Overview
- Learn About Systems
- Learn How the Systems Approach Is Applied to Engineered Systems
- Explore the Methods of Systems Engineering
- Explore the Applications of Systems Engineering
- Read Case Studies
- For Later Reading
- References
 - 9.1 Works Cited
 - 9.2 Primary References
 - 9.3 Additional References

Learn the Basic Terms

As discussed in the [Introduction to the SEBoK](#), there are four key terms that you should first understand when learning about systems engineering:

- A **system** is "a collection of elements that are interconnected and interdependent such that the system as a whole exhibits properties that are not exhibited by the individual elements around them." Open systems are systems that interact with their environment and respond. While there are many definitions of a system, the SEBoK uses the following definition: *An engineered system which includes a combination of technical and human or natural elements. (Created for SEBoK)*
- An **engineered system** is an open system of technical or **sociotechnical** elements that exhibits emergent properties created by and for people; has a purpose with multiple views; has a boundary and an external environment; and is part of a system-of-interest hierarchy.
- Systems engineering** is "an interdisciplinary approach and means to enable the realization of successful (engineered) systems; concurrently understanding stakeholder needs; exploring opportunities; documenting requirements; and synthesizing solutions."

4 [Sociotechnical System \(glossary\)](#)



Frequently Asked Questions

The screenshot shows the SEBoK website's FAQ page. The header includes the SEBoK logo and the text "GUIDE TO THE SYSTEMS ENGINEERING BODY OF KNOWLEDGE". A search bar and navigation links are visible. The main content area is titled "FAQs" and contains a list of nine frequently asked questions. A "Contents" section is also present, listing the questions with expandable/collapsible icons. The left sidebar contains navigation links for "Stewards", "Quicklinks", and "Outline".

Contents [hide]

- 1 How does SEBoK benefit our company?
- 2 How do I review the SEBoK?
- 3 Can I edit SEBoK content in the wiki?
- 4 How can my company sponsor the SEBoK?
- 5 Some Bodies of Knowledge number their knowledge areas, chapters, and topics. Have you thought about doing this for SEBoK?
- 6 What is the relationship between the SEBoK and INCOSE's *SE Handbook*?
- 7 Does SEBoK contain DoD standards and other DoD related materials?
- 8 How do you pronounce "SEBoK"?
- 9 How do I cite the SEBoK in conference papers or journal articles?

How does SEBoK benefit our company?

Our authors and core members hope SEBoK will serve as a good reference for practitioners in any company. For example, you may tell a beginning engineer to reference X topic in the SEBoK for more information; or, you may ask a senior engineer to look up primary references provided for a specific topic so they will explore different approaches for the topic of interest.

How do I review the SEBoK?

https://sebokwiki.org/wiki/SEBoK_Sponsors

The screenshot shows the SEBoK website's Sponsors page. The header includes the SEBoK logo and the text "GUIDE TO THE SYSTEMS ENGINEERING BODY OF KNOWLEDGE". A search bar and navigation links are visible. The main content area is titled "SEBoK Sponsors" and contains a list of sponsors, including "Global Sponsors", "Corporate Partners", and "Academic Partners". A video player for "Six Myths of Systems Engineering" is also visible.

SEBoK Sponsors

Sponsors provide critical funding that supports the infrastructure around the SEBoK. These organizations have demonstrated their commitment to systems engineering through their support of the SEBoK and we are very grateful for their support.

Global Sponsors

Corporate Partners

Coming soon!

Academic Partners

Coltech, ICA, MISSOURI, and others.

What is the relationship between the SEBoK and INCOSE's *SE Handbook*?

The SEBoK is not designed to replace the *Handbook*, but the two are iteratively evolving. We have team members who work on both products and help us align and coevolve over time.

- The *SE Handbook* ... is to provide specific recommendations on approaches for systems engineering.
- The purpose of the SEBoK is to provide guidance on the broad and diverse literature around systems engineering. The SEBoK may provide multiple perspectives and approaches without identifying any as "right" or "wrong".

Use the SEBoK	Annual Impact Statement	✓	✓	✓
		\$5,000/year	\$3,000/year	\$1,000/year

Plans for 2025

Release schedule

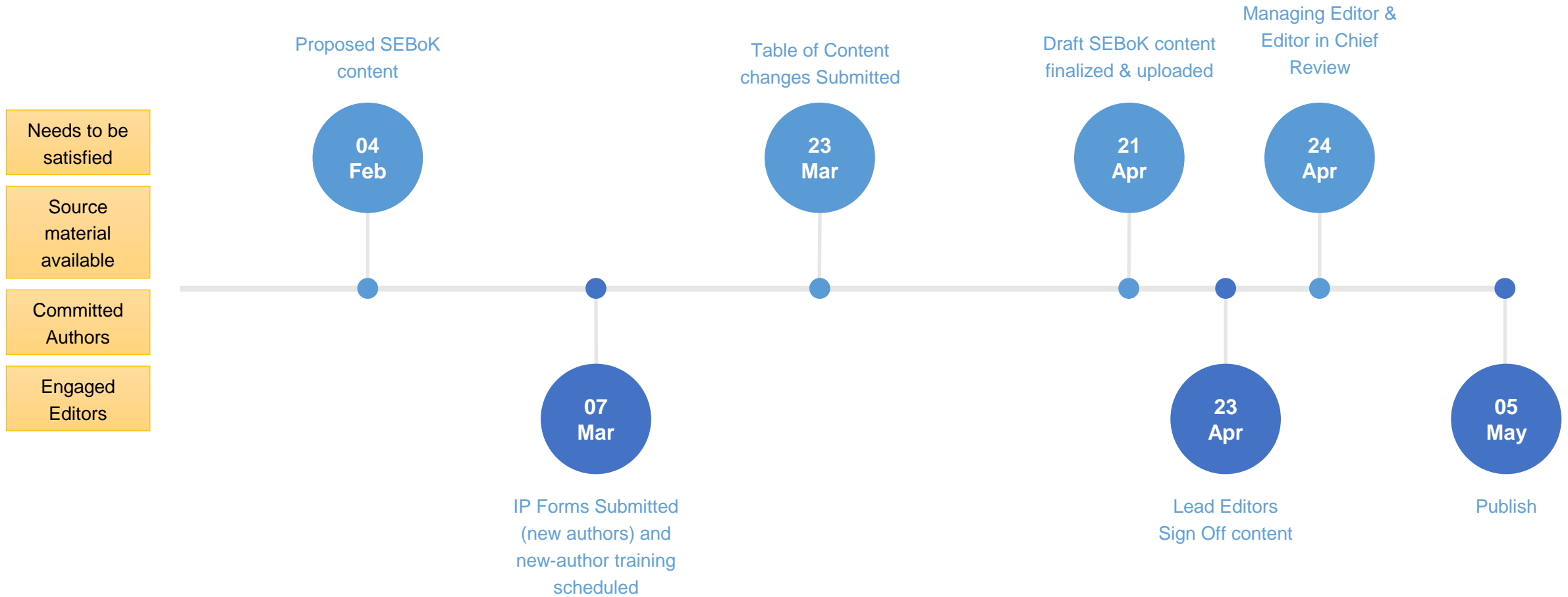
Content updates for next version

Questions, actions you will take, and feedback



2025 Release Timeline

Milestones for v 2.12 release (5 May 2025). Next release is in mid-November.





SEBoK v 2.12 - Updates

(Send proposals to sebok@incose.net)

Part	Part / Knowledge Area / Article	Proposed changes for v 2.12	Future changes
3	Configuration Management	Updates from Sandrine Gonthier and Adriana DeSouza (CMWG)	
3	Information Management	Updates from Sandrine Gonthier and Adriana DeSouza (CMWG)	
4	Mission Engineering	Update from Rhys Kissell triggered by Ali Raz paper? Maybe in Part 8?	
5	Part 5: Enabling Systems Engineering	Rename: "Building Systems Engineering Capability"	Terminology harmonization within Part 5, review figures.
5	Knowledge Area: Enabling Businesses and Enterprises	Rename: "KA: Systems Engineering Organizations"	Avoid overlapping with Part 4, improve cross-links.
5	Knowledge Area: Enabling Teams	Rename: "KA: Systems Engineering Teams"	
5	Knowledge Area: Enabling Individuals	Rename: "KA: Systems Engineering Practitioners/Systems Engineers"	
5	Roles and Competencies	Update to more fully address roles, add Helix, update NASA	
5	Assessing Individuals	Rename to "Assessing Competencies", add INCOSE SE Competency Framework	
5	Developing Individuals	Update and add some Helix career path insights for "Growing Systems Engineers"	
5	Ethical Behavior	Rename to "SE Ethics and Professional Conduct", update article.	
6	System Security	Updates from Mark Winstead	
7	Part 7: Systems Engineering Implementation Examples	Updates or additions from Mukul Marwah and Clif Baldwin?	
8	Artificial Intelligence	Figure 1 is missing.	
8	Systems Engineering guide to Large Language Models	New article	

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We want your input!



<https://www.menti.com/aln3ta58gzjh>

If you could change one thing about the SEBoK, what would it be?

Don't know yet - haven't used it

A chatGPT type navigation, with prompt engineering

In your opinion, what is the most important topic in systems engineering?

2 responses

graded approach
risks in ai use

Thank you!

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