Enabling Teams

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This knowledge area focuses on enabling a team to perform SE. Once that is done using the techniques described here, the knowledge found in Part 3, Systems Engineering and Management, about how to perform SE can be applied. Part 5, Enabling Systems Engineering, to which this knowledge area belongs, explores how systems engineering (SE) is enabled at three levels of organization: the business or enterprise, the team, and the individual.

For the sake of brevity, the term "business" is used to mean "business or enterprise" throughout most of this knowledge area. For a nuanced explanation of what distinguishes a business from an enterprise, see Enabling Systems Engineering.

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Topics

Each part of the SEBoK is composed of knowledge areas (KAs). Each KA groups topics together around a theme

related to the overall subject of the part. This KA contains the following topics:

- Team Capability
- Team Dynamics
- Technical Leadership in Systems Engineering

Overview

Products, enterprise systems, and services are developed, delivered, and sustained with the contributions of systems engineers, who also coordinate the technical aspects of the multiple projects that comprise a program. These activities require certain individuals to work in a cooperative manner to achieve shared objectives based on a common vision—that is, as teams. Not every group of individuals working together is a team. To perform SE activities efficiently and effectively, the capabilities of and dynamics within the team must be specifically attuned to SE.

Although individuals sometimes perform SE activities, it is more usual to find project teams performing SE activities while providing specialty engineering capabilities (see Systems Engineering and Specialty Engineering). Not all who perform SE activities are labeled "systems engineers." Thus, electrical, mechanical, and software engineers, service providers, or enterprise architects in IT organizations may lead or be members of teams that perform SE tasks. Those individuals are referred to as systems engineers in this knowledge area, regardless of their job titles within their organizations.

This knowledge area is concerned with methods, tools, and techniques for enabling project teams to perform SE activities. Its first topic, Team Capability, answers the questions:

- How do businesses determine value added by SE activities performed by project teams?
- How does an organization determine the efficiency and effectiveness of SE activities performed by project teams?

Its other topic, Team Dynamics, answers the question:

- How are group dynamics crucial to enabling systems engineers to perform work and achieve goals?

Topics from elsewhere in the SEBoK that cover related questions include Relationships between Systems Engineering and Project Management and The Influence of Project Structure and Governance on Systems Engineering and Project Management Relationships, which answer the question:

- What do managers need to know about managing systems engineers and project teams that perform SE activities?

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Additional References

None.

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