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Systems and software engineering — Life cycle management —

Part 10: Guidelines for systems engineering agility

Ingénierie des systèmes et du logiciel — Gestion du cycle de vie —

Partie 10: Lignes directrices relatives à l'agilité de l'ingénierie des systèmes

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Contents

Page

Foreword

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Introduction

Systems engineering agility is a strategy-based method for designing, building, sustaining, and evolving purpose-fulfilling creations when knowledge is uncertain and operational environments are dynamic. Strategies are abstractions for what needs to be accomplished and why, without constraints or directions on how to achieve them. Thus, systems engineering agility is a what, not a how; a strategic intent, not a tactical method. That is, agility provides strategic direction rather than prescribing detailed methods. There are many different methods that can be adopted, adapted, or crafted to suit project contexts and organizational cultures, but all share the same goals and strategies.

This document specifies strategic aspects supporting systems engineering agility. It includes guidelines for the application of the strategic aspects as well as relevant examples. Individually and collectively, the aspects can improve capability to deal with uncertain knowledge and dynamic environments. These strategic aspects can complement life cycle models such as those described in ISO/IEC/IEEE 24748-1 and ISO/IEC/IEEE 15288, enhancing responsiveness without prescribing specific process sequences.

Systems and software engineering — Life cycle management —

Part 10: Guidelines for systems engineering agility

1 Scope

This document:

— specifies strategic aspects supporting systems engineering agility;

— provides guidelines for their selection and application.

This document is applicable to:

— those who use or plan to use ISO/IEC/IEEE 15288 on projects dealing with human-made systems and services related to those systems and products;

— those who are responsible for the technical management of projects concerned with the engineering of systems;

— those responsible for executing ISO/IEC/IEEE 15288 system life cycle processes at a project level;

— organizations and individuals who are seeking to improve their capability to deal with uncertain knowledge and dynamic environments.

2 Normative references

There are no normative references in this document.

Bibliography

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