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Software and systems engineering — Agile development — Agile adoption considerations

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives or www.iec.ch/members_experts/refdocs).

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This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*.

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Introduction

Agile development is a development approach based on iterative development, frequent inspection and adaptation, and incremental deliveries in which requirements and solutions evolve through collaboration in cross-functional teams and through continuous stakeholder feedback (see ISO/IEC/IEEE 26515:2018).

Many organizations recognize the benefits of moving to an agile approach to systems and software development. However, for some organizations the move can be taken too early; before the organization is ready for it. This document provides insight into appropriate considerations when adopting an agile approach to software and systems development. In this document, the focus of these considerations is the agile readiness factors that can be considered before making such a move. Using this information to increase organizational and team readiness can make the difference between a successful move to agile and a failure that prevents the organization from deriving the benefits of an agile approach for several years. This document is primarily intended to be used by those managers responsible for deciding on whether a move to agile can be made and those managers who are tasked with preparing an organization for making such a move. The agile readiness factors considered in the document can be applied at the organizational level and to projects or teams within organizations.

As a Technical Report, this document contains data of a different kind from that normally published as an International Standard or Technical Specification, such as data on the “state of the art”.

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Software and systems engineering — Agile development — Agile adoption considerations

1 Scope

This document provides an overview of agile readiness factors that are likely to determine whether an organization, project, product or team is ready to start the transition to using an agile approach to their system and software development and maintenance activities.

This document provides a general approach that is applicable to all agile methodologies and does not cover specific agile methodologies, such as Scrum, SAFe and eXtreme Programming (XP).

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
agile development
development approach based on *iterative development* (3.10), frequent inspection and adaptation, and incremental deliveries in which requirements and solutions evolve through collaboration in cross-functional teams and through continuous *stakeholder* (3.16) feedback

Note 1 to entry: Any use of the word “agile” in this document refers to methodology.

[SOURCE: ISO/IEC/IEEE 26515:2018, 3.1, modified — The reference to an external annex has been removed.]

3.2
agile maturity
extent to which an organization, department, project or team consistently applies agile values and principles that contribute to the achievement of its business needs

3.3
agile team
small cross-functional group of people who collaborate on the development of a product, within an agile methodology

Note 1 to entry: A common agile team size is 3 to 10 people.

3.4
agile team lead
individual responsible for ensuring an *agile team* (3.3) adheres to the organization’s agile principles, practices, values and processes

Note 1 to entry: The agile team lead is a facilitator rather than a manager.

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