



BSI Standards Publication

Maintenance - Maintenance Key Performance Indicators

National foreword

This British Standard is the UK implementation of EN 15341:2019. It supersedes BS EN 15341:2007, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee DS/1, Dependability.

A list of organizations represented on this committee can be obtained on request to its secretary.

BSI, as a member of CEN, is obliged to publish EN 15341:2019 as a British Standard. However, attention is drawn to the fact that during the development of this European Standard, the UK committee voted against its approval.

The committee voted against the standard at the final stage. It draws users' attention to the following.

A significant number of technical errors in the standard were identified by the international community that could not be corrected before publication.

The introductory clauses of the standard provide only a very generalized presentation of issues surrounding the definition and delivery of maintenance requirements within the structure of a maintenance function. Many factors are listed as requiring 'consideration', but no guidance is given concerning of what such considerations should consist and how this may affect the application or derivation of performance indicators. The number of indicators presented is so large that they cannot be considered as truly 'key' in the organizational management sense. The exact meaning of many of the factors used to derive the indicators is often vague and open to misunderstanding or cannot be explicitly calculated, making them of little or no value.

The major failure of the standard is that it gives no indication of what should be done with any of the indicators listed or what may be expected of them. For example, having derived an indicator, it is not clear whether an organization should strive to make it larger or smaller. Some values are a simple statement of fact and will not normally change (e.g. redundancy). The lack of guidance concerning application of indicators and the potential for misunderstanding the indicators themselves result in this standard being considered by the committee to be of little practical value.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Date

Text affected

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NORME EUROPÉENNE

EUROPÄISCHE NORM

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Supersedes [EN 15341:2007](#)

English Version

Maintenance - Maintenance Key Performance Indicators

Maintenance - Indicateurs de performance clés pour la
maintenanceInstandhaltung - Wesentliche Leistungskennzahlen für
die Instandhaltung

This European Standard was approved by CEN on 14 July 2019.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 15341:2019) has been prepared by Technical Committee CEN/TC 319 “Maintenance”, the secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2020, and conflicting national standards shall be withdrawn at the latest by February 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes [EN 15341:2007](#).

The main technical changes compared to the previous [EN 15341:2007](#) are the following:

- the standard was fully revised;
- the vision on all the Maintenance Components was enlarged, structuring the standard in a more complete way maintaining the economical, technical, organizational KPI of the previous edition.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Maintenance Key Performance Indicators (KPI) of the Maintenance Function apply to all the physical assets either industrial, infrastructures or civil buildings or transportation systems, etc.

These indicators should be used to:

- a) measure the status;
- b) compare (internal and external benchmarks);
- c) diagnose (analysis of strengths and weaknesses);
- d) identify objectives and define targets to be reached;
- e) plan improvement actions;
- f) regular measurement of changes over time.

Maintenance of software alone is not covered in this document. However, maintenance of items and systems containing software is considered.

1 Scope

This document lists Key Performance Indicators (KPIs) of the Maintenance Function and gives guidelines to define a set of suitable indicators, to appraise and to improve effectiveness, efficiency and sustainability in the maintenance of the existing physical assets either industrial, infrastructures, facilities, civil buildings or transportation systems, etc. in the framework of the external and internal influencing factors.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 13306:2017, *Maintenance — Maintenance terminology*

[EN 15628:2014](#), *Maintenance — Qualification of maintenance personnel*

IEC 60050-192:2015, *International Electrotechnical Vocabulary (IEV) — Part 192: Dependability*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13306:2017 and in IEC 60050-192:2015, and the following apply.

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

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

asset

<physical> item that has potential or actual value for the organization

[SOURCE: EN 13306:2017, 3.2]

3.2

main area

fundamental part of a management discipline, which represents the more important knowledge and competence to achieve and maintain an excellent status within existing influencing factors

3.3

indicator

quantitative or qualitative measure of a characteristic or a set of characteristics of a phenomenon or performance of activities, according to defined criteria or a given formula or questionnaire

Note 1 to entry: The indicator is a tool for development and implementation of a strategy for monitoring progress towards the goals outlined in the strategy.