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Standards

Irish Standard
I.S. EN 16646:2014

Maintenance - Maintenance within physical asset management

I.S. EN 16646:2014

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EN 16646

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English Version

Maintenance - Maintenance within physical asset management

Maintenance - Maintenance dans le cadre de la gestion des
actifs physiques

Instandhaltung - Instandhaltung im Rahmen des
Anlagenmanagements

This European Standard was approved by CEN on 8 November 2014.

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.

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Foreword

This document (EN 16646:2014) 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of an identical text or by endorsement, at the latest by June 2015 and conflicting national standards shall be withdrawn at the latest by June 2015.

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EN 16646:2014 (E)**Introduction**

Why do we need 'physical asset management' today more than before? There are some very good reasons to develop 'physical asset management' in all its aspects. There are also good reasons to clarify interrelationship between physical asset management processes and maintenance processes. Some of the reasons why physical asset management and maintenance as a part of physical asset management has become a more essential part of the organizations' activities during the last decades are for example:

- globalization and increasing competition;
- growing financial, safety and environmental risks;
- radical change in business strategy – long term vs. short term;
- attitudes towards physical assets have changed – nowadays it is more common that the length of the ownership is not the same as the length of the whole item life;
- growth of capital intensity in some areas of industry;
- growing turbulence in the market;
- pressure for higher profitability and return on assets;
- aging of asset systems;
- increased pressure to improve added value of maintenance;
- more complicated and uncertain decision environment;
- increased requirements from the safety and environmental point of view;
- 'silo' behaviour which keeps maintenance and other life cycle processes separated.

In addition to the above mentioned trends in the market behaviour and technological development, there are many benefits which can be achieved with physical asset management activities:

- economically more efficient and effective use of capital: "turnover of capital";
- more profitable business: "return on assets";
- more sustainable use of capital;
- more accurate long term life cycle decisions;
- direction to maintenance strategies and operations;
- integrated investment and maintenance planning;
- influence of maintenance function on asset creation development (design and engineering);
- integrated approach for production function (assets, operation and maintenance);
- improved position for the maintenance function among the other company functions;
- improved assessment of performance and control;

— enhanced reputation.

Further and maybe even greater benefits are now being found through improved credibility in the eyes of customers, regulators and other stakeholders. Physical asset management also results in much greater engagement and motivation of the workforce, and in more sustainable, continual improvement business processes. Physical asset management builds up the required link between maintenance management and organizational strategic plan and gives direction to maintenance activities.

EN 16646:2014 (E)**1 Scope**

This European Standard introduces physical asset management as a framework for maintenance activities. It also introduces the relationship between organizational strategic plan and maintenance management system and describes the interrelations between maintenance process and all the other physical asset management processes. It addresses the role and importance of maintenance within physical asset management system during the whole life cycle of an item.

This European Standard can be applied to production organizations of all sizes. However, if specific standards exist for a particular application or field of industry, those documents should also be considered.

This European Standard consists of guidance and recommendations and is not intended to be used for certification, regulatory, or contractual use.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 13306, *Maintenance - Maintenance terminology*

ISO 55000, *Asset management — Overview, principles and terminology*

ISO 55001, *Asset management — Management systems — Requirements*

ISO 55002, *Asset management — Management systems — Guidelines for the application of ISO 55001*

EN 60300-3-3, *Dependability management - Part 3-3: Application guide - Life cycle costing (IEC 60300-3-3)*

3 Terms, definitions and abbreviations**3.1 Terms and definitions**

For the purposes of this document, the terms and definitions given in EN 13306, ISO 55000, EN 60300-3-3 and the following apply.

3.1.1**asset solution**

the result of concept definition

3.1.2**business environment**

all the external factors within the market, technology and community influencing on the decision making of the organization

3.1.3**creation of physical asset**

acquisition process, which can include concept definition, design, manufacturing, installation, commissioning

3.1.4**key success factor**

attribute required for an organization to ensure the success of an organization

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