EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# DRAFT
# prEN 15221-4

November 2018

ICS 03.080.10

Will supersede EN 15221-4:2011

English Version

# Facility Management - Part 4: Taxonomy, Classification and Structures in Facility Management

Facility management - Taxinomie, classification et structures en facility management

Facility Management - Teil 4: Taxonomie, Klassifikation und Strukturen im Facility Management

prEN 15221-4 - Preview only Copy via ILNAS e-Shop

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 348.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

**Warning** : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.

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

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

© 2018 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

# Contents

Page

European foreword ... 4
Introduction ... 5
1 Scope ... 7
2 Normative references ... 7
3 Terms and definitions ... 7
3.1 General taxonomy of Facility Management related terms and definitions ... 8
3.2 Financial and administrative terms and definitions ... 9
3.3 Definitions of main standardized facility products ... 11
4 Derivation of Facility Products and Relationship Model ... 12
4.1 General ... 12
4.2 The generic structures needed to describe a facility product ... 13
4.3 Facility Management relationship model ... 14
4.4 Processes ... 17
4.4.1 General ... 17
4.4.2 Facility Management Processes ... 17
4.4.3 Classification of facility products ... 17
4.5 The quality cycle in the FM relationship model ... 17
4.6 Client perspective and national customs ... 18
5 Description of the Standardized Facility Products ... 19
Annex A (informative) Graphic representation of the Facility Product Map ... 72
Annex B (informative) Additional comments to specific Facility Products ... 78
B.1 Reference to the concept of the FM model and interaction with organization ... 78
B.2 Product FM – Facility Management – Strategic Integration ... 79
B.3 Product 1000 Tactical Integration (Space and Infrastructure) and 2000 Tactical Integration (People and Organization) ... 80
B.3.1 General ... 80
B.3.2 Roles ... 80
B.3.3 Space and Infrastructure products - organisational role model ... 80
B.3.4 People and Organization products - organisational role model ... 81
B.4 Product 9100 Sustainability ... 82
B.5 Product 9200 Quality ... 82
B.6 Product 1100 Space ... 82
B.7 Product 1110 Building initial performance ... 84
B.8 Products 1120 Asset Replacement and Refurbishment and 1160 Maintenance and Operation ... 86
B.9 Product 1170 Utilities ... 87
Annex C (informative) Graphic Representation of FM Process Matrix ... 88

prEN 15221-4 - Preview only Copy via ILNAS e-Shop

**Annex D** (informative) **Structures** ..... **91**
**D.1 Description of facilities and activities** ..... **91**
**D.1.1 Facilities (e.g. space, equipment, consumables)** ..... **91**
**D.1.2 Facilities (e.g. space, equipment, consumables)** ..... **91**
**D.1.3 Activities** ..... **92**
**D.2 Physical structure – facility product structure** ..... **93**
**Annex E** (informative) **Cost and revenue considerations in Facility Management** ..... **94**
**E.1 Facility Management cycle** ..... **94**
**E.2 Model of FM as a cost centre providing facility products** ..... **95**
**E.3 Representation of Facility Management in accounting systems** ..... **96**
**E.4 From standardized facility products to 'individual' facility services** ..... **98**
**Bibliography** ..... **100**

prEN 15221-4 - Preview only Copy via ILNAS e-Shop

## European foreword

This document (prEN 15221-4:2018) has been prepared by Technical Committee CEN/TC 348 "Facility Management", the secretariat of which is held by NEN.

This document will supersede EN 15221-4:2011.

This European Standard is one of the series ISO 41000 and EN 15221 "*Facility Management*" which consists of the following parts:

1. *ISO 41011:2017* Facility Management - Vocabulary
2. *ISO 41012*:Facility Management – Guidance on strategic sourcing and the development of agreements
3. *ISO 41013* Facility Management – scope, key concepts and benefits
4. *EN 15221* Part 3: Guidance on quality in Facility Management
5. *EN 15221* Part 4: Taxonomy, Classification and Structures in Facility Management
6. *EN 15221* Part 5: Guidance on Facility Management processes
7. *EN 15221* Part 6: Area and Space measurement in Facility Management
8. *EN 15221* Part 7: Performance Benchmarking

NOTE With the addition of the ISO standards, Part 1 and Part 2 of *EN 15221* are withdrawn.

prEN 15221-4 - Preview only Copy via ILNAS e-Shop

## Introduction

In 2013 the initiative was taken to interest parties at ISO level for the FM suite of standards of Europe, the EN 15221 parts 1 to 7. This resulted in the re-development of the standards for vocabulary, sourcing and agreements.

The result consists of the parts:

- ISO 41011 Facility Management – Vocabulary
- ISO 41012 Facility Management – Guidance on strategic sourcing and the development of agreements.
- ISO/TR 41013 Facility Management – Scope. Key concepts and benefits.

These standards also build on widely accepted management principles, in particular value chain (Porter, M E, (1985), "Competitive Advantage: creating and sustaining superior performance", Free Press, New York) and quality control (PDCA. Deming, W E (1986), "Out of the Crisis", MIT, Cambridge). Reference to ISO 10014:2006, *Quality management – Guidelines for realizing financial and economic benefits*.

The principles of the Deming cycle (PDCA) underpin all of the standards but are applied to a different extent and depth in each. In fact, there are different types of PDCA cycles depending of the term (e.g. long term, short-term).

These standards align to EN ISO 9000 family of standards for Quality Management Systems and apply specific guidance on the concepts and use of a process-based approach to management systems to the field of Facility Management.

The term "facility services" is used as a generic description in the standards. The term "standardized facility products" refers to the "standardized facility services" defined and described in EN 15221-4, *Facility Management — Part 4: Taxonomy, Classification and Structures in Facility Management*.

Countries can decide to substitute the term "product' into "service", when they consider that it is important for a good acceptance and use of the standards in their own country.

The aim of all the standards is to provide guidance to Facility Management (FM) organizations on the development and improvement of their FM processes to support the primary activities. This will support organizational development, innovation and improvement and will form a foundation for the further professional development of FM and its advancement in Europe. Therefore, generic examples are provided in the standard to assist organizations.

These standards lay the foundation of the work that has to be done further more in developing Facility Management, for example, benchmark standards EN 15221-7.

In the European Standard ISO 41011 Facility Management is defined as the integration of processes that support the primary business of an organization. Facility Management (FM) according to this definition envisages a business model that encourages an organization to optimize its support services. The key focus is to improve the effectiveness of the primary activities of an organization by streamlining the service provision and interaction of the parties.

Accessibility to the resources necessary to facilitate knowledge development, innovation and business improvement are important in a global market where leading edge practices are maintaining or improving competitive advantage as key objectives of a successful business or governmental organization. Taxonomy provides a framework within which knowledge is able to be identified and categorized for ease of access by practitioners.

prEN 15221-4 - Preview only Copy via ILNAS e-Shop

Based on various definitions, the most evident conclusion is that taxonomy is a classification system for improved information management, which contributes to improving the capability of users to sustain and improve the operations of their business. The key concept relates to how the use of taxonomy will improve the operations of the business. In this regard, the structure of taxonomy should be closely aligned to business processes so that the user's access to information is intuitively driven.

EN 15221-4 provides a taxonomy with a relationship model which integrates the FM-model, the process matrix, the product/service structure and a classification system. These are essential contributions to the removal of barriers to harmonization and cross border trade.

This standard uses the term product in accordance with EN ISO 9000 which defines a product as the result of a process. In the context of FM, a product is a result of a process and the respective activities / facilities.

The standardized (classified) facility products are a well-defined (commodified) and hierarchically organized set of facility services. They have been selected from the countless number of individual (customised) facility services to provide a basis for standardization in the field of process definition, cost allocation, standardized tendering etc. They have been selected from a client perspective and attempt to integrate different European customs and practices.

prEN 15221-4 - Preview only Copy via ILNAS e-Shop

# 1 Scope

FM covers and integrates a very broad scope of processes, products / services, activities and facilities. The approach of this standard is to consider the added value provided to the primary activities by adopting a product perspective as recognized by the primary processes or core business in the organization. This standard therefore introduces the concept of standardized (classified) facility products.

The scope of this standard is to provide taxonomy for FM which includes:

— relevant interrelationships of elements and their structures in FM;

— definitions of terms and contents to standardize facility products which provide a basis for cross border trade, data management, cost allocation and benchmarking;

— a high level classification and hierarchical coding structure for the standardized facility products;

— expanding the basic FM model given in ISO 41011 by adding a time scale in the form of the quality cycle called PDCA (Plan, Do, Check, Act);

— a linkage to existing cost and facilities structures;

— alignment with the primary activities requirements.

Additional benefits from this standard are:

— Introducing a client rather than a specifically asset oriented view;

— Harmonization of different existing national structures (e.g. building cost codes) on an upper level relevant for the organization and its primary activities.

# 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.

ISO 41011, *Facility Management – Vocabulary*

ISO/TR 41013, *Facility Management – Scope, key concepts and benefits*

EN 13306, *Maintenance - Maintenance terminology*

# 3 Terms and definitions

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

prEN 15221-4 - Preview only Copy via ILNAS e-Shop