



# SLOVENSKI STANDARD

## SIST EN 15221-7:2014

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### Upravljanje objektov in storitev - 7. del: Smernice za učinke primerjalne analize

Facility Management - Part 7: Guidelines for Performance Benchmarking

Facility Management - Teil 7: Leitlinien für das Leistungs-Benchmarking

Facilities management - Partie 7: Étalonnage comparatif de performance

Ta slovenski standard je istoveten z: **EN 15221-7:2012**

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#### **ICS:**

03.080.99	Druge storitve	Other services
91.040.01	Stavbe na splošno	Buildings in general

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EUROPEAN STANDARD

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English Version

## Facility Management - Part 7: Guidelines for Performance Benchmarking

Facilities management - Partie 7: Étalonnage comparatif de performance

Facility Management - Teil 7: Leitlinien für das Leistungs-Benchmarking

This European Standard was approved by CEN on 4 August 2012.

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## EN 15221-7:2012 (E)

## Foreword

This document (EN 15221-7:2012) has been prepared by Technical Committee CEN/TC 348 "Facility Management", the secretariat of which is held by NEN.

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of an identical text or by endorsement, at the latest by April 2013, and conflicting national standards shall be withdrawn at the latest by April 2013.

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

The present standard is divided into the following parts:

- *Part 1: Terms and definitions;*
- *Part 2: Guidance on how to prepare Facility Management agreements;*
- *Part 3: Guidance on quality in Facility Management;*
- *Part 4: Taxonomy, Classification and Structures in Facility Management;*
- *Part 5: Guidance on Facility Management processes;*
- *Part 6: Area and Space Measurement in Facility Management;*
- *Part 7: Guidelines for Performance Benchmarking (the present document).*

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Introduction

Effective delivery of Facility Management support is a critical component in the working of most organisations. It impacts on the organisations' own ability to deliver consistent products and services, supports the core business and can be a component in achieving competitive advantage. However, effectiveness and efficiency in Facility Management have been notoriously difficult to assess because there have been no common methodology and no standard data collection methods. This standard on Performance Benchmarking, along with others in the EN 15221 series, is a major step forward in addressing those gaps.

Benchmarking is part of a process which aims to establish the scope for, and benefits of, potential improvements in an organisation through systematic comparison of its performance with that of one or more other organisations. It is a tool in common use across industries worldwide, but has often been misused and misunderstood within Facility Management.

Benchmarking is often associated with the term 'best practice'. Comparison with the best company or process within an industry is one of the most intelligent ways to improve one's own performance. Best practice can refer to adequate outcomes at the lowest cost, but this is not always the case. It can also refer to the best possible outcome, or the speediest process, or the one with the least environmental impact. What is common to all these is that no judgement on where one's organisation stands can be made without a valid comparison.

Before starting an FM Benchmarking operation, it is highly recommended to clearly position it regarding to the four main aspects presented just below and then use the content of this standard to prepare and perform the benchmarking operation.

This standard takes as a starting point the idea that Benchmarking can take very different forms depending on four aspects:

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- a) **The perspective of the initiator performing the benchmarking process:**
    - 1) customer or consumer of FM services;
    - 2) internal or provider of FM services;
  - b) **The objectives of the benchmarking process** set by the initiator. These objectives are usually linked. They might include the following broad categories of objectives, which are set out in more detail in the standard:
    - 1) find new ideas;
    - 2) get data to prepare a main decision or to resolve disputes;
    - 3) to reduce costs while maintaining a similar service level received or provided;
    - 4) improve the service level received or provided while maintaining similar costs;
    - 5) improve the use of resources;
  - c) **The point in time** at which the organisation is considering performing an FM benchmarking operation;
  - d) **The benchmarking sample** used for comparison, mostly:
    - 1) Similar sector of primary activities, where comparisons are easier;
    - 2) Other sectors of primary activities where the interest is mainly to find possible improvements.

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Financial comparisons can be an appropriate basis for a benchmarking process as quantitative data are often more easy to reach and more easy to relate to than qualitative data. Historically most benchmarking in Facility Management has focused on this kind of “hard” data. However, what one can learn from quantitative data may be limited. This standard therefore tries to establish Performance Benchmarking as a data comparison method to support development and learning processes through some types of qualitative knowledge sharing.

This standard seeks to simplify a notoriously complex process. Until now, benchmarking projects have often been confused, over-ambitious, and lacking in effective data analysis. By establishing a coherent and comprehensive process for benchmarking, along with useable and logical comparators, and by clarifying the many pitfalls in the comparison process, this standard provides practising facility managers with a range of key indicators to identify areas in which there might be a need to improve the performance of their own team, their supply chain, or the entire organisation in which they work. It is this coherent approach within the EN 15221 series which supports the basis of the Benchmarking standard.

It is hoped that this platform will, in a short time, lead to a demand for more commonality in reporting of a range of comparators – financial, quality, and so on – which will make the work of facility managers more easy, and more easily understood by the organisation for which they work.

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## 1 Scope

This European Standard gives guidelines for performance benchmarking and contains clear terms and definitions as well as methods for benchmarking facility management products and services as well as facility management organisations and operations.

This European Standard establishes a common basis for benchmarking facility management costs, floor areas and environmental impacts as well as service quality, satisfaction and productivity.

This European Standard is applicable to Facility Management as defined in EN 15221-1 and detailed in EN 15221-4.

## 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 15221-1:2006, *Facility Management — Part 1: Terms and definitions*

EN 15221-4:2011, *Facility Management — Part 4: Taxonomy, Classification and Structures in Facility Management*

EN 15221-6:2011, *Facility Management — Part 6: Area and Space Measurement in Facility Management*

## 3 Terms, definitions and abbreviations

### 3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 15221-1:2006, EN 15221-4:2011 and EN 15221-6:2011 and the following apply.

#### 3.1.1

##### **benchmarking**

process of comparing strategies, processes, performances and/or other entities against practices of the same nature, under the same circumstances and with similar measures

Note 1 to entry: Typically the purpose of benchmarking is to improve strategies, processes, performances and/or other entities, but may also be used for different purposes such as accountability.

Note 2 to entry: Measures can be quantitative or qualitative; comparators can be internal, competitors or cross-sector; domain can be local, national or international; frequency can be one-off, periodic or continuous.

Note 3 to entry: It should be recognised that it might also be beneficial to compare entities to practices of a different nature, under different circumstances and/or with dissimilar measures.

Note 4 to entry: This definition differs from EN 15221-1:2006.

#### 3.1.2

##### **entity**

concrete or abstract thing that exists, did exist, or might exist, including associations among these things

#### 3.1.3

##### **benchmark**

reference point or metric against which a strategy, process, performance and/or other entity can be measured

**EN 15221-7:2012 (E)****3.1.4****reference point**

measure of extremes, central tendency or dispersion

**3.1.5****measure of extremes**

measure that provides an indication of the extreme score in a data set

Note 1 to entry: Typical measures of extremes are: minimum – the smallest number of the sample, and maximum – the largest number of the sample.

**3.1.6****measure of central tendency**

measure that provides an indication of the typical score in a data set

Note 1 to entry: Typical measures of central tendency are: mean – the average of all scores in the sample (calculated from scores), median – the score that lies in the middle of the sample (calculated from ranks), and mode – the most frequently occurring score (calculated from frequencies).

**3.1.7****measure of dispersion**

measure that provides an indication of the typical bandwidths in a data set

Note 1 to entry: A typical measure of dispersion is: quartiles – any of the three values which divide the sorted data set into four equal parts, so that each part represents one fourth of the sampled population: first quartile (or lower quartile) cuts off lowest 25 % of data (25<sup>th</sup> percentile), second quartile (or median) cuts data in half (50<sup>th</sup> percentile), and third quartile (or upper quartile) cuts off highest 25 % of data (75<sup>th</sup> percentile).

**3.1.8****outlier**

extreme score in a data set, having a disproportionate influence on determining reference points

**3.1.9****unit of measurement**

definite magnitude of a physical quantity, defined and adopted by convention and/or by law, that is used as a standard for measurement of the same physical quantity

Note 1 to entry: Typical units of measurement within facility management are workstation, FTE and NFA.

**3.1.10****workstation**

physical station - including a desk and a chair - that is specifically designed or suitable for work-related activities, such as reading, writing, telephoning and PC work, which meets legal requirements and that is adequate for permanent use

**3.1.11****FTE**

Full Time Equivalent that can be determined by dividing the total number of hours worked by the number of regular working hours in a working week (e.g. working 32 hours when a regular working week consists of 40 hours equals 0,8 FTE)

**3.1.12****NFA**

Net Floor Area as defined in EN 15221-6

**3.2 Abbreviations**

FTE Full Time Equivalent

NFA Net Floor Area

BREEAM Building Research Establishment Environmental Assessment Method

## 4 Benchmarking types

### 4.1 General

There are multiple aspects which affect the scope of a benchmarking exercise and impact on the selection of data. Figure 1 shows a categorisation of the major aspects classified into five main types. The purpose of this classification is to assist facility managers in understanding the different character of each element and therefore to provide a guide to selecting the most appropriate type and methodology for the benchmarking exercise when planning the process set out later in this standard.

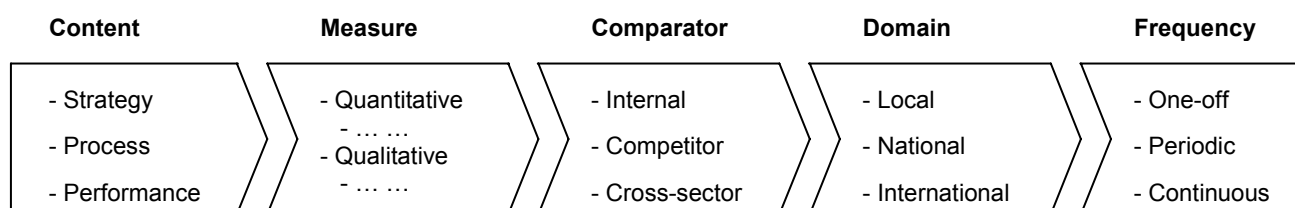


Figure 1 — Classification of benchmarking types

Depending on the purpose of a benchmarking exercise, the scope (i.e. content, measure, comparator, domain and frequency) will differ. A non-exhaustive list of purposes and their typical scope is provided in Table 1.

Table 1 — Typical benchmarking purposes

purpose	content			measure						comparator			domain			frequency		
	strategy	process	performance	finance	space	environment	service quality	satisfaction	productivity	internal	competitor	cross-sector	local	national	international	one-off	periodic	continuous
Identification of improvement options	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Resource-allocation decisions	✓			✓			✓				✓	✓		✓	✓	✓		
Prioritisation of problem areas		✓	✓	✓	✓	✓	✓	✓	✓	✓			✓			✓		
Verification legal compliance		✓			✓	✓				✓	✓		✓	✓		✓	✓	
Identification of best practices	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓		
Budget review and planning	✓			✓	✓	✓				✓	✓		✓	✓		✓	✓	✓
Alignment with corporate objectives	✓			✓	✓	✓				✓	✓	✓	✓	✓	✓	✓	✓	
Improvement of process effectiveness		✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	
Assessment of property performance			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
- Assessment of cost effectiveness			✓	✓						✓	✓	✓	✓	✓	✓	✓	✓	✓
- Evaluation of floor space usage			✓		✓					✓	✓		✓	✓		✓	✓	
- Appraisal of environmental impacts			✓			✓				✓	✓		✓	✓		✓	✓	
- Assessment of service quality shortfalls			✓				✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
- Evaluation of end-user satisfaction			✓					✓		✓	✓		✓	✓		✓	✓	
- Appraisal of individual productivity			✓						✓	✓	✓		✓	✓		✓	✓	

**EN 15221-7:2012 (E)****4.2 Benchmarking content****4.2.1 General**

The content of benchmarking may be: strategic, process, or performance.

**4.2.2 Strategic benchmarking**

Strategic benchmarking involves the assessment of strategic rather than operational matters. Typically focussing on the effectiveness of resource usage in the light of corporate objectives, strategic benchmarking can be used to establish a baseline for organisational review and to inform strategic decision-making.

Strategic benchmarking may be used for:

- alignment with corporate objectives;
- resource allocation decisions;
- budget review and planning.

**4.2.3 Process benchmarking**

Process benchmarking pertains to discrete work processes and/or operating systems. Typically focussing on establishing ways of improving processes within a delivery system, process benchmarking can be used to improve service delivery, reduce corporate risk, streamline processes and systems, etc.

Process benchmarking may be used for:

- Improvement of process effectiveness;
- verification of legal compliance;
- prioritisation of problem areas.

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**4.2.4 Performance benchmarking**

Performance benchmarking concerns quantitative or qualitative inputs (such as costs, square metreage and energy usage) and outputs (such as service quality, end-user satisfaction and productivity); or a combination of inputs and outputs which are understood to be correlated.

Performance benchmarking may be used for:

- a) assessment of property performance;
- b) assessment of cost effectiveness;
- c) evaluation of floor space usage;
- d) appraisal of environmental impacts;
- e) assessment of service quality shortfalls;
- f) evaluation of end-user satisfaction;
- g) appraisal of individual productivity.

## 4.3 Benchmarking measure

### 4.3.1 General

The measure of benchmarking may be: quantitative, qualitative, or a combination of both.

### 4.3.2 Quantitative benchmarking

Quantitative benchmarking concerns entities that can be distinguished as tangible. Data is measured objectively and typically captured by common processes through routine systems (such as data collection templates and management information systems).

Quantitative benchmarking may be used for:

- assessment of financial expenditure (such as operating costs or capital costs);
- assessment of floor space usage (such as space per FTE or linear metres storage);
- assessment of environmental impacts (such as energy consumption or waste production).

### 4.3.3 Qualitative benchmarking

Qualitative benchmarking concerns entities that can be distinguished as intangible. Data is described subjectively and typically captured by specific processes through routine systems (such as focus groups and employee surveys).

Qualitative benchmarking may be used for:

- assessment of service quality (such as reliability or responsiveness);
- assessment of satisfaction (such as end-user or customer satisfaction);
- assessment of productivity (such as repeat business or employee retention).

NOTE For benchmarking purposes qualitative data is best captured or transformed into quantitative scores (1 = very poor / strongly disagree / very unimportant, 2 = poor / disagree / unimportant, 3 = fair / neutral / average, 4 = good / agree / important, 5 = very good / strongly agree / very important).

### 4.3.4 Combination benchmarking

Combination benchmarking concerns two or more entities that can be distinguished as tangible and/or intangible. Subsequently, interrelations and/or trade-offs between two or more entities can be assessed.

Combination benchmarking may be used for:

- assessment of satisfaction in relation to space usage;
- assessment of service quality in relation to financial expenditure;
- assessment of productivity in relation to environmental impacts.

## 4.4 Benchmarking comparator

### 4.4.1 General

The comparator of benchmarking may be: internal, competitor, or cross-sector.

**EN 15221-7:2012 (E)****4.4.2 Internal benchmarking**

Internal benchmarking pertains to comparison against internal practices and is typically used to evaluate performance between business units within an organisation.

Internal benchmarking may be used for:

- identification of best practices (internal);
- assessment of (re)location decisions;
- assessment of supplier performance.

**4.4.3 Competitor benchmarking (sector benchmarking)**

Competitor benchmarking pertains to comparison against competitor practices and is typically used to evaluate performance against peers within a market sector.

Competitor benchmarking may be used for:

- identification of competitive advantages;
- assessment of financial expenditure;
- assessment of service quality.

NOTE Competitor benchmarking also pertains to comparison against non-competitor practices within market sectors such as government organisations, non-profit organisations and philanthropies.

**4.4.4 Cross-sector benchmarking**

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Cross-sector benchmarking pertains to comparison against industry practices and is typically used to evaluate performance against organisations from other market sectors.

Cross-sector benchmarking may be used for:

- identification of best practices (external);
- assessment of environmental impacts;
- assessment of productivity.

**4.5 Benchmarking domain****4.5.1 General**

The domain of benchmarking may be: local, national, or international.

**4.5.2 Local benchmarking**

Local benchmarking involves comparison at a local level and may be used for:

- assessment of local performance variations;
- verification of cost rates.

#### 4.5.3 National benchmarking

National benchmarking involves comparison at a national level and may be used for:

- assessment of regional performance variations;
- verification of labour rates.

#### 4.5.4 International benchmarking

International benchmarking involves comparison at an international level and may be used for:

- assessment of national performance variations;
- verification of productivity rates.

### 4.6 Benchmarking frequency

#### 4.6.1 General

The frequency of benchmarking may be: one-off, periodical, or continuous.

#### 4.6.2 One-off benchmarking

One-off benchmarking pertains to exploring a status at one moment in time and is typically a response to a threat or an opportunity.

One-off benchmarking may be used for:

- identification of best practice examples;
- identification of improvement options.

#### 4.6.3 Periodic benchmarking

Periodic benchmarking pertains to verifying a status at set intervals and is typically a routine process, often undertaken annually to assess improvement against previous performance.

Periodic benchmarking may be used for:

- evaluation of performance against others;
- evaluation against previous performance.

#### 4.6.4 Continuous benchmarking

Continuous benchmarking is based on continuous measurement of data and is typically used to assess trends and developments.

Continuous benchmarking may be used for:

- monitoring energy performance;
- assessment of causes and effects.