SLOVENSKI STANDARD
SIST EN 16310:2013

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Inženirske storitve - Izrazi za opisovanje inženirskih storitev za stavbe, infrastrukturo in industrijske objekte

Engineering services - Terminology to describe engineering services for buildings, infrastructure and industrial facilities

Ingenieurdienstleistungen - Terminologie zur Beschreibung von Ingenieurdienstleistungen für Gebäude, Infrastruktur und Industrieanlagen

Services d'ingénierie - Terminologie destinée à décrire les services d'ingénierie pour les bâtiments, les infrastructures et les installations industrielles

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Foreword

This document (EN 16310:2013) has been prepared by Technical Committee CEN/TC 395 “Engineering consultancy services”, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by August 2013, and conflicting national standards shall be withdrawn at the latest by August 2013.

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Introduction

This European Standard contains a glossary of key words concerning engineering services, provided in the construction of buildings, infrastructure and industrial facilities. The glossary can contribute to the conditions for free competition and a level playing field for engineering service providers (including architects) in the European Community. It is intended to lower or remove the barriers that these providers are confronted with in cross border operations and co-operations due to different interpretations of relevant terms in different European countries. The terms that are incorporated in the glossary are in line with those developed by CEN/TC 395 for other industries.

Each construction project is managed through a series of stages and therefore staging is important for the management and assessment of engineering services. However, the standard stages in projects and related national plans of work of engineering service providers (including architects) differ from country to country and may also be subject to differences in legislation. For these reasons, it is not the intention of this standard to harmonise national plans of work. However, in cross border operations and co-operations it is important that all parties concerned have a common view on the actual staging and the engineering activities that take place within each stage. To facilitate this, some information about the stages in the life cycle of built assets is given in Annex A. This annex may offer a common reference framework onto which engineering service providers (including architects) can 'map' their project-specific scope of work in cross border projects, while the actual scope of work is to be specified in contracts.

1 Scope

This European Standard contains a glossary of terms, which can contribute to the conditions for free competition and a level playing field for engineering service providers (including architects) in Europe in the construction of buildings, infrastructure and industrial facilities.

The terminology in this European Standard aims at facilitating the cooperation between sectors and between countries in the field of engineering services. It is structured on the basis of "successive stages" of an operation of construction. It does not concern the description of the contents of the tasks to be performed, neither on their scheduling, nor on the actors concerned, which depend on the national context, the type, and of the importance of the work and its environment.

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 15643-3:2012: *Sustainability of construction works — Assessment of buildings — Part 3: Framework for the assessment of social performance*

3 Terms and definitions

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

3.1
assessment
appraisal
judgment
ongoing process of gathering, analyzing and reflecting on evidence to make informed and consistent judgments (about the quality of a service, process or product)

Note 1 to entry: A related term is: control.

3.2
brief
written document that states the client's requirements for a construction project

[SOURCE: ISO 6707-2:1993]

3.3
building
construction work that has the provision of shelter for its occupants or contents as one of its main purposes; usually partially or totally enclosed and designed to stand permanently in one place

[SOURCE: ISO 6707-1:2004]

Note 1 to entry: See Annex B.

3.4
client
person or organisation that requires a building to be provided, altered or extended and is responsible for initiating and approving the brief

[SOURCE: ISO 6707-1:2004]

Note 1 to entry: A related term is: customer, which is defined as an organisation or person that receives a product (see EN ISO 9000:2005).

3.5
construction contracting
specific form of procurement, where only the actual execution of the project on site is procured, including facilities and materials

Note 1 to entry: Related terms are: contractor prequalification/qualification, contractor surveys, calls for bids/tenders, technical bid tabulations, commercial bids tabulations, contractor selection, contract award.

3.6
contract
binding agreement

[SOURCE: EN ISO 9000:2005]

Note 1 to entry: No consensus in Europe exists about how and when a contract is legally binding, due to differences in legal requirements.

Note 2 to entry: A contract between an Engineering Service Provider (ESP) and a Client may include (references to) general conditions, project specific conditions, a specification of the ESP's scope of work in the project and financial arrangements.

3.7
control
management process in which the actual performance is compared with planned performance, the difference between the two is measured, causes contributing to the difference are identified and corrections are made to eliminate or minimise the difference to an acceptable level

Note 1 to entry: Related terms are: assessment, verification and validation.

Note 2 to entry: In addition to corrections, corrective actions may be taken to eliminate the cause of a detected nonconformity or other undesirable situation.

3.8
cost
amount of money necessary for the attainment of a goal

Note 1 to entry: Related terms are: project budget, target budget, cost in use, life cycle cost.

3.9
cost in use
cost of running/operating a facility or product

3.10
engineering
intellectual activities necessary to define, design, produce, sustain and recycle a product, a process or a built asset

3.11
engineering services
intellectual tasks provided during one or all stages of the life cycle of a product, a process or a built asset by specialised professionals

3.12
environmental aspect
aspect of construction works, part of works, processes or services related to their life cycle that can cause change to the environment

[SOURCE: ISO 21931-1:2010]

EXAMPLE Use of energy and mass flow, production and segregation of wastes, water use, land use, emissions to air (examples added to the definition of environmental aspect in ISO 15392).

3.13
environmental impact
any change to the environment whether adverse or beneficial, wholly or partially resulting from environmental aspects

[SOURCE: EN 15643-3:2012]

Note 1 to entry: Related terms are: durability, sustainability.

3.14
functioning
working of an asset, equipment or product

Note 1 to entry: A related term is: performance.

3.15
client approval
decision by the client to continue, change or terminate the project, on the basis of an assessment of (sub) stage results

3.16
handover
step at which possession of the construction works is surrendered to the client upon completion with or without reservation

[SOURCE: EN 15643-4]

Note 1 to entry: A related term is: signing off (a contract).

3.17
industrial facility
any fixed equipment and/or facility which is used in connection with, or as part of, any process or system for industrial production or output

Note 1 to entry: See Annex A.

3.18
infrastructure
built facilities that are required in order to serve a community's developmental and operational needs, including e.g. roads, railroads, water ways, water and sewer systems, energy networks and data networks

Note 1 to entry: See Annex B.

3.19
life cycle
all consecutive and interlinked stages in the life of the object under consideration

[SOURCE: ISO 15392:2008]

Note 1 to entry: The definition in EN ISO 14040 is: "consecutive and interlinked stages of a product system, from raw material acquisition or generation from natural resources to final disposal'.

Note 2 to entry: Annex A shows an example of a life cycle with respective stages and sub-stages.

3.20
life cycle cost
LCC
cost of a building or part of works throughout its life cycle, while fulfilling technical requirements an functional requirements

[SOURCE: EN 15643-4:2012]

3.21
maintenance
combination of all technical and associated administrative actions during the service life to retain a building or an assembled system (part of works) in a state in which it can fulfil its technical and functional requirements

Note 1 to entry: Maintenance includes cleaning, servicing, repainting, repairing, replacing parts of the construction works where needed, etc. (see CPD Guidance Paper F).

Note 2 to entry: Adapted from the definition in ISO 15686-1 and ISO 6707-1 according to the CPD Guidance Paper F.

3.22
maintenance support
services in relation to maintaining the facility according to predetermined objectives

3.23
operation support
services in relation to running the facility in an optimum and safe way, including the monitoring and management of the expected performance

3.24
performance
expression relating the magnitude of a particular aspect of the object of consideration relative to specified requirements, objectives and/or targets

Note 1 to entry: Adapted from the definition in ISO 6707-1 according to the draft recommendation of ISO/TC59/AHG Terminology.

3.25
performance testing
evaluation of the compliance of an asset, equipment or product with specified performance requirements

3.26
process
set of interrelated activities which transforms inputs into outputs

[SOURCE: EN ISO 9000:2005]

3.27
procurement
process which creates, manages and fulfils contracts relating to the provision of goods, services and engineering and construction works or disposals, or any combination thereof

[SOURCE: ISO 10845-1:2010]

Note 1 to entry: Related terms are: procurement services, purchase planning, supplier research and selection, value analysis, price negotiations, supplier prequalification, supplier qualification, supplier surveys, calls for bids/tenders, technical bid tabulations, commercial bid tabulations, supplier selection, contract award.

Note 2 to entry: 'Procurement services' are distinguished from 'Procurement', as these services may be provided by an engineering service provider, though the scope of the ECF does not include the actual signing of the contract (this is the sole responsibility of the client) and the supply of their object.

3.28
project
unique process, consisting of a set of coordinated and controlled activities with start and finish dates, undertaken to achieve an objective conforming to specific requirements, including the constraints of time, cost and resources

[SOURCE: EN ISO 9000:2005]

3.29
project budget
assessment of the cost of a project

3.30
project documentation
set of documents used to define the extent and nature of a built asset or a product

3.31
project management
professional service that applies (application) methods, tools, techniques and competences to the overall planning, co-ordination and control of a project life cycle, from inception to completion, aimed at meeting a client's requirements in order to produce a functionally an financially viable project that will be completed on time within authorised cost and to the required quality standards

Note 1 to entry: This definition enhances an existing definition of project management in ISO 10007.

Note 2 to entry: Direct sources for this definition are:

- ISO/TC 236 - Project Management - ISO 21500;
- Code of Practice for Project Management for Construction and Development: 4th Edition (1996), issued by CIOB Chartered Institute of Building / International Construction Project Management Association;
- Capstone CM Body of Knowledge, CMAA Construction Project Management Association of America.

3.32
quality
degree to which a set of inherent characteristics fulfils requirements

[SOURCE: EN ISO 9000:2005]

Note 1 to entry: For example for buildings, the quality of the built asset corresponds with the capacity of meeting user's needs as defined at the outset (see definition of building given in 3.3).

3.33
risk
effect of uncertainty on objectives

[SOURCE: ISO Guide 73]

Note 1 to entry: An effect is a deviation from the expected - positive and/or negative.

Note 2 to entry: Objectives can have different aspects (such as financial, health and safety, and environmental goals) and can apply at different levels (such as strategic, organisation-wide, project, product and process).

Note 3 to entry: Risk is often characterised by reference to potential events and consequences, or a combination of these.

Note 4 to entry: Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated likelihood of occurrence.

Note 5 to entry: Uncertainty is the state, even partial, of deficiency of information related to, understanding or knowledge of, an event, its consequence, or likelihood.

3.34
stage
phase
period within the life cycle of an entity that relates to the state of its initiation, design, construction, operation or dismantling/recycling

3.35
statutory approval
official license to build, to be issued by the local authorities, after these authorities have determined compliancy of the design with the applicable regulatory requirements

Note 1 to entry: A related term is: building permit.

Note 2 to entry: In some EU countries, the application of a building permit is a (sub) stage in its own right.

3.36
supervision
monitoring that the asset is constructed on site in compliance with the project documentation and regulatory requirements

Note 1 to entry: Related terms are: control, monitoring.

3.37
target budget
established boundaries for the funding required for a defined scope of works

3.38
time
(estimated) time involved with a set of activities

Note 1 to entry: Related terms are: schedule, overall schedule, milestones, detailed schedule.

Note 2 to entry: The legal rules for regulating the computation of time limits and periods differ among EU countries. In order to ensure legal certainty and to avoid misunderstandings (e.g. periods expressed in working days or calendar days), it is advisable for parties to refer to a general rule for the computation of time. One example of such a common standard is Article I.-1:110 of the Draft Common Frame of Reference for European Private Law (DCFR).

3.39
validation
confirmation, through the provision of objective evidence, that the requirements for a specific intended use or application have been fulfilled

[SOURCE: EN ISO 9000:2005]

Note 1 to entry: The term “validated” is used to designate the corresponding status.

Note 2 to entry: The use conditions for validation can be real or simulated.

Note 3 to entry: Related terms are: fit for purpose, control, verification.

Note 4 to entry: Validation may be described as ‘to check if the right thing is built’.