

## **Geographic information - Quality principles**

Geographic information - Quality principles

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 19113:2005 sisaldab Euroopa standardi EN ISO 19113:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 22.02.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 19113:2005 consists of the English text of the European standard EN ISO 19113:2005.</p> <p>This document is endorsed on 22.02.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p><b>Käsitlusala:</b></p> <p>This International Standard establishes the principles for describing the quality of geographic data and specifies components for reporting quality information. It also provides an approach to organizing information about data quality. This International Standard is applicable to data producers providing quality information to describe and assess how well a dataset meets its mapping of the universe of discourse as specified in the product specification, formal or implied, and to data users attempting to determine whether or not specific geographic data is of sufficient quality for their particular application. This International Standard should be considered by organizations involved in data acquisition and purchase, in such a way that it makes it possible to fulfil the intentions of the product specification. It can additionally be used for defining application schemas and describing quality requirements.</p>	<p><b>Scope:</b></p> <p>This International Standard establishes the principles for describing the quality of geographic data and specifies components for reporting quality information. It also provides an approach to organizing information about data quality. This International Standard is applicable to data producers providing quality information to describe and assess how well a dataset meets its mapping of the universe of discourse as specified in the product specification, formal or implied, and to data users attempting to determine whether or not specific geographic data is of sufficient quality for their particular application. This International Standard should be considered by organizations involved in data acquisition and purchase, in such a way that it makes it possible to fulfil the intentions of the product specification. It can additionally be used for defining application schemas and describing quality requirements.</p>
---	---

ICS 35.240.70

Võtmesõnad:

ICS 35.240.70

English version

## Geographic information - Quality principles (ISO 19113:2002)

Information géographique - Principes qualité  
(ISO 19113:2002)

Geoinformation - Qualitätsgrundsätze (ISO 19113:2002)

This European Standard was approved by CEN on 24 December 2004.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

## Contents

Page

Foreword .....	3
Introduction .....	4
1 Scope .....	5
2 Conformance .....	5
3 Normative references .....	5
4 Terms and definitions .....	6
5 Principles for describing the quality of geographic data .....	8
5.1 Components of data quality description .....	8
5.2 Data quality elements and data quality subelements .....	9
5.3 Data quality overview elements .....	11
6 Identifying the quality of geographic information .....	12
6.1 Identifying quantitative quality information .....	12
6.2 Identifying non-quantitative quality information .....	14
7 Reporting quality information .....	14
7.1 Reporting quantitative quality information .....	14
7.2 Reporting non-quantitative quality information .....	14
Annex A (normative) Abstract test suite .....	15
Annex B (informative) Data quality concepts and their use .....	18
Annex C (informative) Data quality elements, data quality subelements and data quality overview elements .....	23

## Foreword

The text of ISO 19113:2002 has been prepared by Technical Committee ISO/TC 211 „Geographic information/Geomatics“ of the International Organization for Standardization (ISO) and has been taken over as EN ISO 19113:2005 by Technical Committee CEN/TC 287 „Geographic Information“, 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 July 2005, and conflicting national standards shall be withdrawn at the latest by July 2005.

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

## Endorsement notice

The text of ISO 19113:2002 has been approved by CEN as EN ISO 19113:2005 without any modifications.

## Introduction

Geographic datasets are increasingly being shared, interchanged and used for purposes other than their producers' intended ones. Information about the quality of available geographic datasets is vital to the process of selecting a dataset in that the value of data is directly related to its quality. Data users confront situations requiring different levels of data quality. Extremely accurate data is required by some data users for certain needs and less accurate data are sufficient for other needs. Information about the quality of geographic data is becoming a decisive factor for its utilization as technological advances allow the collection and use of geographic datasets whose quality can exceed that which is needed and requested by data users.

The purpose of describing the quality of geographic data is to facilitate the selection of the geographic dataset best suited to application needs or requirements. Complete descriptions of the quality of a dataset will encourage the sharing, interchange and use of appropriate geographic datasets. A geographic dataset can be viewed as a commodity or product. Information on the quality of geographic data allows a data producer or vendor to validate how well a dataset meets the criteria set forth in its product specification and assists a data user in determining a product's ability to satisfy the requirements for their particular application.

The objective of this International Standard is to provide principles for describing the quality for geographic data and concepts for handling quality information for geographic data.

## 1 Scope

This International Standard establishes the principles for describing the quality of geographic data and specifies components for reporting quality information. It also provides an approach to organizing information about data quality.

This International Standard is applicable to data producers providing quality information to describe and assess how well a dataset meets its mapping of the universe of discourse as specified in the product specification, formal or implied, and to data users attempting to determine whether or not specific geographic data is of sufficient quality for their particular application. This International Standard should be considered by organizations involved in data acquisition and purchase, in such a way that it makes it possible to fulfil the intentions of the product specification. It can additionally be used for defining application schemas and describing quality requirements.

As well as being applicable to digital geographic data, the principles of this International Standard can be extended to identify, collect and report the quality information for a geographic dataset, its principles can be extended and used to identify, collect and report quality information for a dataset series or smaller groupings of data that are a subset of a dataset.

Although this International Standard is applicable to digital geographic data, its principles can be extended to many other forms of geographic data such as maps, charts and textual documents.

This International Standard does not attempt to define a minimum acceptable level of quality for geographic data.

## 2 Conformance

Any product claiming conformance with this International Standard shall pass all the requirements described in the abstract test suite presented in Annex A.

## 3 Normative references

The following referenced documents are indispensable for the application 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 19108:2002, *Geographic information — Temporal schema*

ISO 19109:—<sup>1)</sup>, *Geographic information — Rules for application schema*

ISO 19114:—<sup>1)</sup>, *Geographic information — Quality evaluation procedures*

ISO 19115:—<sup>1)</sup>, *Geographic information — Metadata*

---

1) To be published.