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Soil quality - Guidance on the establishment and maintenance of monitoring programmes (ISO 16133:2018)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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English Version

**Soil quality - Guidance on the establishment and
maintenance of monitoring programmes (ISO
16133:2018)**

Qualité du sol - Lignes directrices pour l'établissement
et l'entretien de programmes de surveillance (ISO
16133:2018)

Bodenbeschaffenheit - Leitfaden zur Einrichtung und
zum Betrieb von Beobachtungsprogrammen (ISO
16133:2018)

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EN ISO 16133:2018 (E)

Contents	Page
European foreword.....	3

European foreword

This document (EN ISO 16133:2018) has been prepared by Technical Committee ISO/TC 190 "Soil quality" in collaboration with Technical Committee CEN/TC 345 "Characterization of soils" 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of an identical text or by endorsement, at the latest by June 2019, and conflicting national standards shall be withdrawn at the latest by June 2019.

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Endorsement notice

The text of ISO 16133:2018 has been approved by CEN as EN ISO 16133:2018 without any modification.

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Soil quality — Guidance on the establishment and maintenance of monitoring programmes

*Qualité du sol — Lignes directrices pour l'établissement et l'entretien
de programmes de surveillance*



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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Monitoring objectives	2
4.1 General.....	2
4.2 Examples of monitoring purposes.....	2
5 Monitoring programme	3
5.1 General considerations.....	3
5.2 Elements of a monitoring programme.....	4
5.2.1 Status of the monitoring sites.....	4
5.2.2 Changes at the monitoring sites.....	4
5.2.3 Interpretation of status and changes.....	4
5.2.4 Statistical sampling design.....	4
5.2.5 Selection of sites in space.....	5
5.2.6 Resampling in time.....	5
5.3 Sampling and measurement.....	6
5.3.1 General.....	6
5.3.2 Site design and identification.....	6
5.3.3 Soil and site description.....	6
5.3.4 Sampling.....	6
5.3.5 Field and laboratory measurements.....	6
5.3.6 Specimen banking.....	6
5.3.7 Time interval between samplings.....	7
6 Data quality and quantity	7
Bibliography	9

ISO 16133:2018(E)**Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 190, *Soil quality*, Subcommittee SC 7, *Impact assessment*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

This second edition cancels and replaces the first edition (ISO 16133:2004), which has been technically revised. The main changes compared to the previous edition are as follows:

- [Clause 2](#) has been updated;
- [Clause 3](#) has been updated, definitions that were not used in the document have been deleted;
- new subclauses have been introduced regarding sampling designs ([5.2.4](#)), sampling in space ([5.2.5](#)) and in time ([5.2.6](#));
- all examples of monitoring programmes described in Annex A have been deleted as part were outdated.

Introduction

Monitoring is the process of repetitive observation, for defined purposes, of one or more components of the environment according to pre-arranged schedules in space and time using comparable methods for environmental sensing and data collection[14][15]. Monitoring schemes are used all over the world for a large number of purposes. Soil monitoring, particularly, is a long-term undertaking. The quality and the utility of the information from the monitoring is to a large degree determined by the choice of monitoring sites and by their maintenance over the years, and by appropriate quality control at all stages of the process.

Monitoring associated with industrial (contaminated) sites can involve many specific considerations, including legal requirements. The guidance in this document is not designed or intended to cover such situations.

Soil quality — Guidance on the establishment and maintenance of monitoring programmes

1 Scope

This document gives general guidance on the selection of procedures for the establishment and maintenance of programmes for long-term monitoring of soil quality. It takes into account the large number of objectives for soil-monitoring programmes.

This document is intended to help provide a basis for dialogue between parties which might be involved in a monitoring scheme.

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 15903, *Soil quality — Format for recording soil and site information*

ISO 18400 (all parts), *Soil quality — Sampling*

ISO 25177, *Soil quality — Field soil description*

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