TECHNICAL SPECIFICATION

MS ISO/TS 14033:2012

First edition
2013-06-22

Environmental management — Quantitative environmental information – Guidelines and examples

ICS 13.020.10

Mauritius Standards Bureau
Moka

Gr 16

National foreword

This technical report is identical with the International technical report **ISO/TS 14033:2012**, *Environmental management – Quantitative environmental information – Guidelines and examples.* It was adopted by the Mauritius Standards Bureau in 2013 on the recommendation of the **Environmental Management Standards Committee** and approved by the **Standards Council** on 29 May 2013. It was notified in the Government Gazette on **22 June 2013***.

*** General Notice No. 1550 of 2013**

Mauritius Standards Bureau
Villa Road
Moka
Mauritius

Telephone *+ (230) 433 3648*
Fax *+ (230) 433 5051/ 433 5150*
E-mail *msb@intnet.mu*
Website *http;//msb.intnet.mu*

Contents

Page

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of document:

— an ISO Publicly Available Specification (ISO/PAS) represents an agreement between technical experts in an ISO working group and is accepted for publication if it is approved by more than 50 % of the members of the parent committee casting a vote;

— an ISO Technical Specification (ISO/TS) represents an agreement between the members of a technical committee and is accepted for publication if it is approved by 2/3 of the members of the committee casting a vote.

An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

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

ISO/TS 14033 was prepared by Technical Committee ISO/TC 207, *Environmental management*, Subcommittee SC 4, *Environmental performance evaluation*.

Introduction

This Technical Specification provides guidelines for the acquisition and provision of quantitative environmental information to support the use of the International Standards on environmental management produced by ISO/TC 207. The purpose of this Technical Specification is to help break down the complexity of environmental data handling into manageable and understandable elements, in order to assist the process of gathering and processing quantitative environmental information. This Technical Specification is intended for use by people who work with environmental reporting, e.g. engineers and technical staff.

The structure of this Technical Specification and of the guidelines adheres to the general principle of continual improvement and therefore follows an iterative approach. The guidelines are structured in a Plan, Do, Check, Act (PDCA) cycle, (see Figure 1). In this Technical Specification, PDCA is intended to implement and improve the handling of quantitative environmental information.

This Technical Specification addresses the general issues of data quality by providing clear guidelines on how to acquire and provide quantitative environmental information in a structured way. Data quality is an intended and implicit result from the guidelines provided by this Technical Specification, but it is not specifically addressed throughout the text.

The guidelines range from planning, defining and acquiring quantitative data, to performing mathematical processing. They can be used to review the work that results in environmental quantitative information for an application as part of a method or tool, such as life cycle assessment or environmental performance indicators. The guidelines do not include specific methods or tools, but they address how to acquire and provide quantitative data for such applications.

The guidelines are developed with an understanding that many applications of quantitative environmental information are intended for different types of assessments within organizations. The quality of the results of such assessments greatly depends on the underlying quantitative information. Any type of intended application and related assessment is dependent on first identifying the expectations linked to the results generated using the quantitative environmental information, before establishing statistical and numerical design criteria to be used for data collection.

The guidelines are also developed with the understanding that many applications of environmental information are intended for quantitative comparisons, such as levelling and benchmarking, controlling continual improvement (comparing with the previous year), quantitative identification of priority areas, numerical appraisal and comparison of risks, decisions about design, investment or procurement. This Technical Specification supports quantitative comparisons by highlighting aspects of the planning of the acquisition and provision that are particularly relevant to achieving comparable quantitative results.

This Technical Specification provides guidelines for acquiring and providing a broad variety of quantitative environmental information and data. When an organization applies this Technical Specification for various purposes within its environmental management system, or for specific tools, purposes or applications, maximum benefit is gained by following the principles described in Clause 5.

Environmental management — Quantitative environmental information — Guidelines and examples

1 Scope

This Technical Specification supports the application of standards and reports on environmental management. It provides guidelines on how to acquire quantitative environmental information and data and implement methodology. It gives guidelines to organizations on general principles, policy, strategy and activities necessary to obtain quantitative environmental information for internal and/or external purposes. Such purposes can be, for example, to establish inventory routines and support decision making related to environmental policies and strategies, aimed in particular at comparing quantitative environmental information. The information is related to organizations, activities, facilities, technologies or products.

This Technical Specification addresses issues related to defining, collecting, processing, interpreting and presenting quantitative environmental information. It provides guidelines on how to establish accuracy, verifiability and reliability for the intended use. It utilizes proven and well-established approaches for the preparation of information adapted to the specific needs of environmental management. It is applicable to all organizations, regardless of their size, type, location, structure, activities, products, level of development and whether or not they have an environmental management system in place.

This Technical Specification supplements the contents of other International Standards on environmental management.

NOTE Annex A provides illustrative guidelines, examples of how to apply the guidelines and case studies with examples.

2 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 14050, *Environmental management — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 14050 and the following apply.

3.1
activity data
quantitative measure of an activity that results in an environmental impact

3.2
basic data
data acquired from a data acquisition process

NOTE Basic data consist of one or several values and units, depending on the nature of the item that the basic data represent. Some basic data can be dimensionless and have no units, e.g. an index or ratio.