

STN	Environmentálne manažérstvo Nákladové účtovníctvo materiálového toku Návod na praktické implementovanie v dodávateľskom reťazci (ISO 14052: 2017)	STN EN ISO 14052 83 9052
------------	--	--

Environmental management - Material flow cost accounting - Guidance for practical implementation in a supply chain (ISO 14052:2017)

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

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/19

Obsahuje: EN ISO 14052:2018, ISO 14052:2017

128137

EUROPEAN STANDARD

EN ISO 14052

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2018

ICS 13.020.10

English Version

**Environmental management - Material flow cost
accounting - Guidance for practical implementation in a
supply chain (ISO 14052:2017)**

Management environnemental - Comptabilité des flux
matières - Lignes directrices pour la mise en
application pratique dans une chaîne
d'approvisionnement (ISO 14052:2017)

Umweltmanagement - Materialflusskostenrechnung -
Leitfaden zur praktischen Anwendung innerhalb der
Lieferkette (ISO 14052:2017)

This European Standard was approved by CEN on 8 January 2018.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN ISO 14052:2018 (E)

Contents	Page
European foreword.....	3

European foreword

The text of ISO 14052:2017 has been prepared by Technical Committee ISO/TC 207 "Environmental management" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 14052:2018 by Technical Committee CEN/SS S26 "Environmental management" the secretariat of which is held by CCMC.

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 2019, and conflicting national standards shall be withdrawn at the latest by April 2019.

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

According to the CEN-CENELEC Internal Regulations, the national standards organizations 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 14052:2017 has been approved by CEN as EN ISO 14052:2018 without any modification.

INTERNATIONAL STANDARD

ISO
14052

First edition
2017-03

Environmental management — Material flow cost accounting — Guidance for practical implementation in a supply chain

*Management environnemental — Comptabilité des flux matières
— Lignes directrices pour la mise en application pratique dans une
chaîne d'approvisionnement*



Reference number
ISO 14052:2017(E)

© ISO 2017

ISO 14052:2017(E)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Material and energy efficiency in a supply chain	2
4.1 Roles of an initiating organization in a supply chain.....	2
4.2 Generation of material losses from the viewpoint of a supply chain.....	2
4.3 Cumulative material losses in a supply chain.....	3
5 Principles for successful application of MFCA in a supply chain	3
5.1 Commitment.....	3
5.2 Trust.....	3
5.3 Collaboration.....	3
5.4 Shared benefit.....	3
6 Information-sharing on MFCA analysis	4
6.1 General.....	4
6.2 Sharing of process-related information on material flow.....	4
6.3 Sharing of physical information on material flow.....	4
6.4 Sharing of quantified information on environmental impacts.....	4
6.5 Sharing of monetary information.....	4
7 Steps for the implementation of MFCA in a supply chain	4
7.1 General.....	4
7.2 Preliminary identification by the initiating organization of material losses caused by suppliers or customers.....	5
7.3 Identification and agreement on opportunities for collaboration.....	5
7.4 Selection of target for MFCA implementation.....	6
7.5 Agreement on scope of MFCA analysis.....	6
7.6 Establishment of joint MFCA team.....	6
7.7 Agreement on type of information-sharing.....	6
7.8 MFCA review and/or information-sharing.....	6
7.9 Identification of options for reduction in material and energy use.....	6
7.10 Agreement on action plan.....	6
7.11 Implementation of planned actions.....	7
7.12 Monitoring progress.....	7
7.13 Review of the results and amending the action plan.....	7
8 Further use of MFCA information in a supply chain	7
Annex A (informative) Case example: Supply-chain MFCA project related to the production of compressor piston parts for automobile air conditioners	8
Annex B (informative) Information-sharing for MFCA in the supply chain	12
Bibliography	13

ISO 14052:2017(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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 207, *Environmental management*.

Introduction

The aim of this document is to provide guidance for the practical application of material flow cost accounting (MFCA) in supply chains. MFCA is an environmental management accounting tool that assists organizations in creating a better understanding of their material and energy uses, the losses and the associated costs caused by material inefficiencies. The application of MFCA within an organization is explained in ISO 14051. Extending the scope of MFCA to multiple organizations in a supply chain will enable them to develop an integrated approach to more efficient use of materials and energy. This can result in various economic and environmental benefits for different organizations in the supply chain. These include reducing total material losses (main materials, energy and auxiliary materials) and thereby providing common opportunities to reduce costs, enhance environmental performance (e.g. GHG reduction and higher material/energy efficiency) and increase trust, collaboration, and fruitful business relationships. A trusted relationship between the different organizations in the supply chain and the increased common understanding of their own situation promotes collaboration. This can also be an incentive for long-term contracts through mutual MFCA-cooperation.

In order to achieve the benefits of an MFCA project extended to the supply chain for all organizations, it is a precondition that the collaborating organizations are committed to share information on processes and related material and energy flows to create a comprehensive understanding of the production system for the effective implementation of MFCA.

When applied in the supply chain, MFCA can improve existing supply chain management information sharing, communication mechanisms and management practices between suppliers and the purchasing department of organizations, which is the key connector between suppliers and customers. MFCA can complement existing environmental management and management accounting practices.

In addition, a thorough assessment of the material flows and energy use along all stages of the supply chain can also serve as a basis for comprehensive sustainability management. For example, MFCA information can be used for monitoring environmental indicators, or help in identifying and mitigating risks in the supply chain.

This document provides guidance on the following topics:

- the significance of integrating MFCA between organizations;
- a general approach for enhancing material and energy efficiency in the supply chain;
- steps for implementing MFCA in the supply chain.

Environmental management — Material flow cost accounting — Guidance for practical implementation in a supply chain

1 Scope

This document provides guidance for the practical implementation of material flow cost accounting (MFCA) in a supply chain. MFCA fundamentally traces the flows and stocks of materials within an organization, quantifies these material flows in physical units (e.g. mass, volume) and evaluates the costs associated with material flows and energy uses. MFCA is applicable to any organization that uses materials and energy, regardless of its products, services, size, structure, location, and existing management and accounting systems. In principle, MFCA can be applied as an environmental management accounting tool in the supply chain, both upstream and downstream, and can help to develop an integrated approach for improving material and energy efficiency in the supply chain.

This document is based on the principles and general framework for MFCA described in ISO 14051.

The MFCA framework presented in this document includes scenarios for improving material and energy efficiency in a supply chain, principles for successful application of MFCA in a supply chain, information sharing, and practical steps for the implementation of MFCA in a supply chain.

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 14050, *Environmental management — Vocabulary*

ISO 14051, *Environmental management — Material flow cost accounting — General framework*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN