STN	Nanotechnológie. Usmernenie k zodpovednému vývoju nanotechnológií.	STN P CEN/TS 16937
		60 3006

Nanotechnologies - Guidance for the responsible development of nanotechnologies

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. 10/16

Táto predbežná STN je určená na overenie. Pripomienky zasielajte ÚNMS SR najneskôr do 30. 4. 2018.

Obsahuje: CEN/TS 16937:2016

123652

Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, 2016 Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

TECHNICAL SPECIFICATION SPÉCIFICATION TECHNIQUE TECHNISCHE SPEZIFIKATION

CEN/TS 16937

May 2016

ICS 07.030

English Version

Nanotechnologies - Guidance for the responsible development of nanotechnologies

Nanotechnologies - Guide pour le développement responsable des nanotechnologies Nanotechnologien - Leitfaden zur verantwortungsvollen Entwicklung von Nanotechnologien

This Technical Specification (CEN/TS) was approved by CEN on 22 March 2016 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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, 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: Avenue Marnix 17, B-1000 Brussels

© 2016 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. CEN/TS 16937:2016 E

Contents

Europ	ean foreword	3
Introduction		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	Methodology	8
4.1	General	8
4.2	Board Accountability	8
4.3	Stakeholder Involvement	8
4.4	Worker Health and Safety	8
4.5	Benefits to and Risks for Public Health, Safety and the Environment	9
4.6	Wider Social and Ethical implications and impacts	. 11
4.7	Engagement with Business Partners	. 11
4.8	Transparency and Disclosure	. 11
Biblio	graphy	. 12

European foreword

This document (CEN/TS 16937:2016) has been prepared by Technical Committee CEN/TC 352 "Nanotechnologies", the secretariat of which is held by AFNOR.

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 announce this Technical Specification: 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Nanotechnology-related development brings novel functionalities to materials, and new applications. They have been accompanied by a societal demand to assess their effects, given the lack of (reliable) information related to this novel area. While assessing risks, benefits, lack of (reliable) information, or ambiguity, is not specific to this field, the question of responsible development, including societal and ethical aspects, is often raised in the context of nanotechnologies. As the technology matures, lack of (reliable) information should be reduced and the risks associated with the use of such technology should be minimised. Ambiguity may arise in presence of contradictory scientific results and diversity of opinions, and should as far as possible be reduced over time. Making appropriate decisions regarding policy, strategy, human health and the environment, safety or communication in nanotechnology is therefore a task that most small, medium and large organisations involved in this field face today.

It is therefore clear that making the right decisions in an open, transparent and balanced manner is critical for industry to continue to develop nanotechnologies responsibly.

Organisations working in the nanotechnology area should ensure to develop and implement an appropriate set of norms with the same approach for all products or services of the organization.

To ensure the responsible development of nanotechnologies, this Technical Specification (TS) provides a guidance to communication and interaction with relevant stakeholders. It describes the process that an organization or group of organisations may choose to follow to ensure accountability, transparency, safety (for workers, consumers, and for the environment) and clear communication.

The approach proposes to compare benefits and risks of nanotechnology activities, and seeks to encourage the implementation of preventive or corrective actions before commercialisation (such as design modification).

This Technical Specification can be used by organisations working in nanotechnology supply chains, academia, policy makers and non-governmental organisations (NGOs). This Technical Specification may also be used by the organisations providing services to the industry such as consulting, finance or insurance companies.

This Technical Specification provides guidance that does not supersede or substitute for any applicable legal requirements.

1 Scope

This Technical Specification provides a guidance for the responsible development of nanotechnologies taking into account:

- Board Accountability;
- Stakeholder Involvement;
- Worker Health and Safety;
- Benefits to and Risks for Public Health, Safety and the Environment;
- Wider Social and Ethical Implications and Impacts;
- Engagement with Business Partners;
- Transparency and Disclosure.

NOTE 1 This Technical Specification contributes to social responsibility as defined in ISO 26000:2010.

NOTE 2 Nanotechnology activities include industrial production, R&D, services, and marketing of products.

This Technical Specification neither covers labelling and advertising aspects nor is it intended for certification purposes, nor does it imply any legally binding agreements.

This Technical Specification intends to cover nanotechnology activities involving manufactured nanomaterials, and where relevant incidental nanomaterials.

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.

CEN ISO/TS 80004-1:2015, Nanotechnologies – Vocabulary – Part 1: Core terms (ISO/TS 80004-1:2015)

koniec náhľadu – text ďalej pokračuje v platenej verzii STN