

Bio-based products - Sustainability criteria

## EESTI STANDARDI EESSÕNA

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English Version

## Bio-based products - Sustainability criteria

Produits biosourcés - Critères de durabilité

Biobasierte Produkte - Nachhaltigkeitskriterien

This European Standard was approved by CEN on 15 January 2016.

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## European foreword

This document (EN 16751:2016) has been prepared by Technical Committee CEN/TC 411 “Bio-based products”, 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of an identical text or by endorsement, at the latest by October 2016, and conflicting national standards shall be withdrawn at the latest by October 2016.

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

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Introduction

Bio-based products from forestry and agriculture have a long history of application, such as paper, board and various chemicals and materials. The last decades have seen the emergence of new bio-based products in the market. Some of the reasons for this increased interest lie in the bio-based products' benefits in relation to the depletion of fossil resources and climate change. Bio-based products may also provide additional product functionalities. This has triggered a wave of innovation with the development of knowledge and technologies allowing new transformation processes and product development.

Acknowledging the need for common standards for bio-based products, the European Commission issued mandate M/492<sup>1)</sup>, resulting in a series of standards developed by CEN/TC 411, with a focus on bio-based products other than food, feed and biomass for energy applications.

The standards of CEN/TC 411 "Bio-based products" provide a common basis on the following aspects:

- Common terminology;
- Bio-based content determination;
- Life Cycle Assessment (LCA);
- Sustainability aspects;
- Declaration tools.

It is important to understand what the term bio-based product covers and how it is being used. The term 'bio-based' means 'derived from biomass'. Bio-based products (bottles, insulation materials, wood and wood products, paper, solvents, chemical intermediates, composite materials, et cetera) are products which are wholly or partly derived from biomass. It is essential to characterize the amount of biomass contained in the product by for instance its bio-based content or bio-based carbon content.

The bio-based content of a product does not provide information on its environmental impact or sustainability, which may be assessed through LCA and sustainability criteria. In addition, transparent and unambiguous communication within bio-based value chains is facilitated by a harmonized framework for certification and declaration.

This European Standard has been developed with the aim to identify sustainability aspects applicable to all bio-based products, covering all three pillars of sustainability (environmental, social and economic). Though the scope of CEN/TC 411 excludes food, feed and energy, sustainability of biomass and bio-based products should follow the same principles irrespective of their use. All LCA-related topics are covered by EN 16760 *Bio-based products - Life Cycle Assessment*.

The concept of Sustainable Development expresses the shared concerns about the state and sustainability of environmental, economic and social dimensions of today and tomorrow's world. The journey towards sustainability finds sustainable production and consumption at its very heart. It also relates to the social responsibility of organizations and the objective to improve social and environmental performances along with sustained economic profitability – all in the perspective to contribute notably to greater human well-being.

The criteria of this European Standard can either be directly used by an operator or can be used in proprietary schemes and standards which cover sustainability aspects.

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<sup>1)</sup> A Mandate is a standardization task embedded in European trade laws. M/492 Mandate is addressed to the European Standardization bodies, CEN, CENELEC and ETSI, for the development of horizontal European Standards for bio-based products.

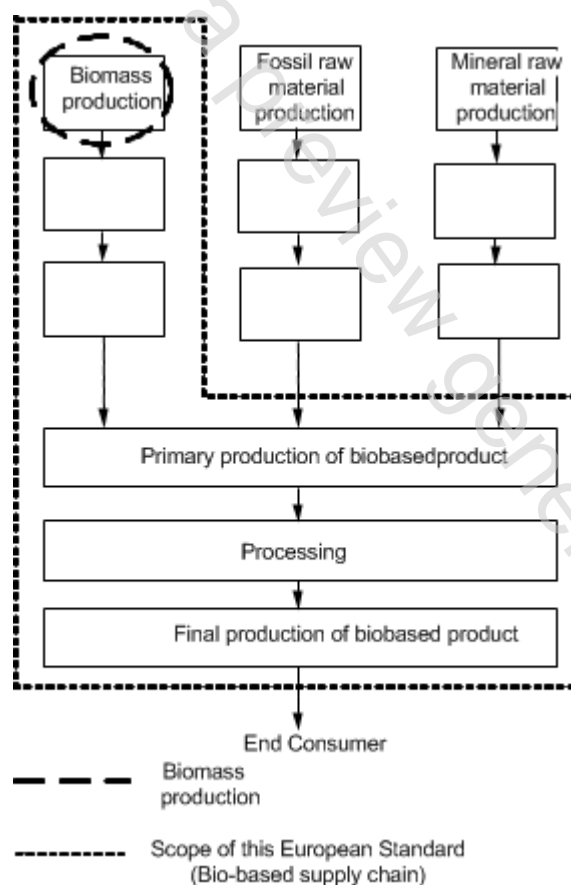
By defining a common framework, this European Standard will allow the provision of information on sustainability aspects for the following uses:

- for an economic operator to communicate along the supply chain on the sustainability aspects of the biomass used as input to the bio-based product;
- for an economic operator to assess and manage sustainability aspects of its operation, and to report in a consistent manner along the supply chain;
- for economic operators in a supply chain (see Figure 1 below) to exchange and share information on the sustainability aspects of the processes and bio-based products with a common framework and understanding (B2B communication); and
- for a programme operator to develop certification schemes to assess the sustainability of the biomass used as input to the bio-based products or of the bio-based part of the bio-based product.

**NOTE** This European Standard refers to the bio-based part of products only. Without the use of relevant product standards it is not possible to make a claim for the whole product.

The way indicators are addressed will differ according to the use.

Figure 1 illustrates the scope of this European Standard.



**Figure 1 — Illustration of the scope of this European Standard**



## 1 Scope

This European Standard sets horizontal sustainability criteria applicable to the bio-based part of all bio-based products, excluding food, feed and energy, covering all three pillars of sustainability; environmental, social and economic aspects. If the product is partly bio-based, this European Standard can only be used for the bio-based part since it does not address non-bio-based (fossil, mineral) parts of a product.

This European Standard can be used for two applications; either to provide sustainability information about the biomass production only or to provide sustainability information in the supply chain for the bio-based part of the bio-based product.

This European Standard sets a framework to provide information on management of sustainability aspects.

This European Standard cannot be used to make claims that operations or products are sustainable since it does not establish thresholds or limits.

This European Standard can however be used for business-to-business (B2B) communication or for developing product specific standards and certification schemes.

## 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.

EN 16575 *Bio-based products - Vocabulary*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 16575 and the following apply.

### 3.1

#### **activity under direct control**

activity conducted by or subcontracted by the economic operator

### 3.2

#### **biodiversity**

#### **biological diversity**

variability among living organisms from all sources, including, inter alia, terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems

[SOURCE: Convention on Biological Diversity (CBD), United Nations (1992)]

### 3.3

#### **chain-of-custody**

system by which a connection is made between information or claims concerning raw materials or intermediate products and claims concerning final products, including all the stages from the raw material production up until the release of the final product for consumption

[SOURCE: EN 16214-1:2012, 2.16]