

**SS ISO 59004:2025**

**ISO 59004:2024, IDT**

(ICS 13.020.20; 01.040.13; 01.040.03; 03.100.01)

**SINGAPORE STANDARD**

# **Circular economy – Vocabulary, principles and guidance for implementation**



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## **National Foreword**

This Singapore Standard was prepared by the Working Group on Circular Economy set up by the Technical Committee on Circularity of Materials under the purview of the Environment and Resources Standards Committee.

This standard is an identical adoption of ISO 59004:2024, “Circular economy – Vocabulary, principles and guidance for implementation”, published by the International Organization for Standardization.

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3. *Compliance with a SS or TR does not exempt users from any legal obligations.*



# International Standard

**ISO 59004**

## **Circular economy — Vocabulary, principles and guidance for implementation**

*Économie circulaire — Vocabulaire, principes et  
recommandations pour la mise en œuvre*

**First edition  
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## 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 document 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](http://www.iso.org/directives)).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at [www.iso.org/patents](http://www.iso.org/patents). ISO shall not be held responsible for identifying any or all such patent rights.

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For an explanation of 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 [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 323, *Circular economy*.

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](http://www.iso.org/members.html).



Introduction

0.1 Background

The global economy is “linear” as it is mainly based on extraction, production, use and disposal. This linear economy leads to resource depletion, biodiversity loss, waste and harmful losses and releases, all of which collectively are causing serious damage to the capacity of the planet to continue to provide for the needs of future generations.<sup>[27]</sup> Moreover, several planetary boundaries have already been reached or exceeded.

There is an increased understanding that a transition towards an economy that is more circular, based on a circular use of resources, can contribute to meeting current and future human needs (welfare, housing, nutrition, healthcare, mobility, etc.). Transitioning towards a circular economy can also contribute to the creation and sharing of more value within society and interested parties, while natural resources are managed to be replenished and renewed and in a sustainable way, securing the quality and resilience of ecosystems.

Organizations recognize many potential reasons to engage in a circular economy (e.g. delivering more ambitious and sustainable solutions; improved relationships with interested parties; more effective and efficient ways to fulfil voluntary commitments or legal requirements; engaging in climate change mitigation or adaptation; managing resource scarcity risks, increasing resilience in the environmental, social and economic systems), while contributing to satisfying human needs.

The ISO 59000 family of standards (see [Figure 1](#)) is designed to harmonize the understanding of the circular economy and to support its implementation and measurement. It also considers organizations, such as government, industry and non-profit, in contributing to the achievement of the United Nations (UN) Agenda 2030 for Sustainable Development<sup>[28]</sup>.

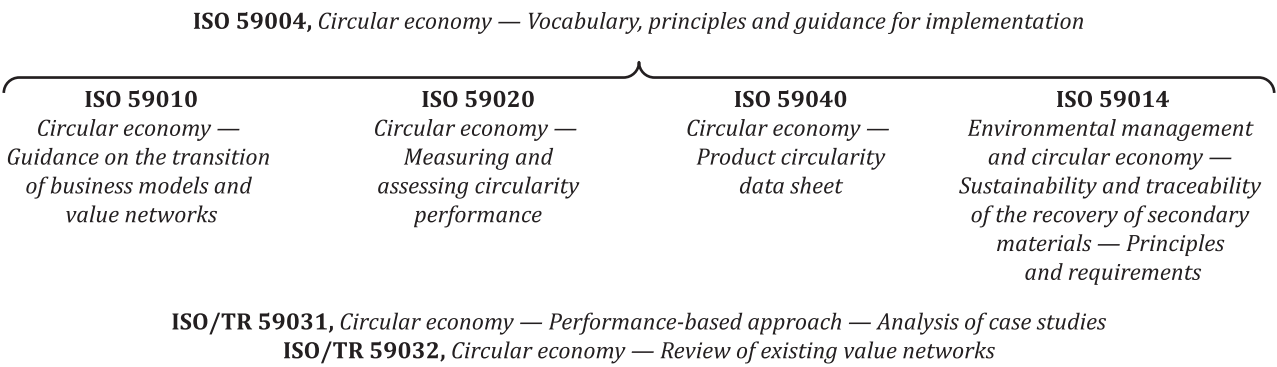


Figure 1 — ISO 59000 family of standards

0.2 Relationship between this document, ISO 59010 and ISO 59020

This document, ISO 59010 and ISO 59020 are interconnected, as shown in [Figure 2](#), and support organizations in implementing a transition towards a circular economy.

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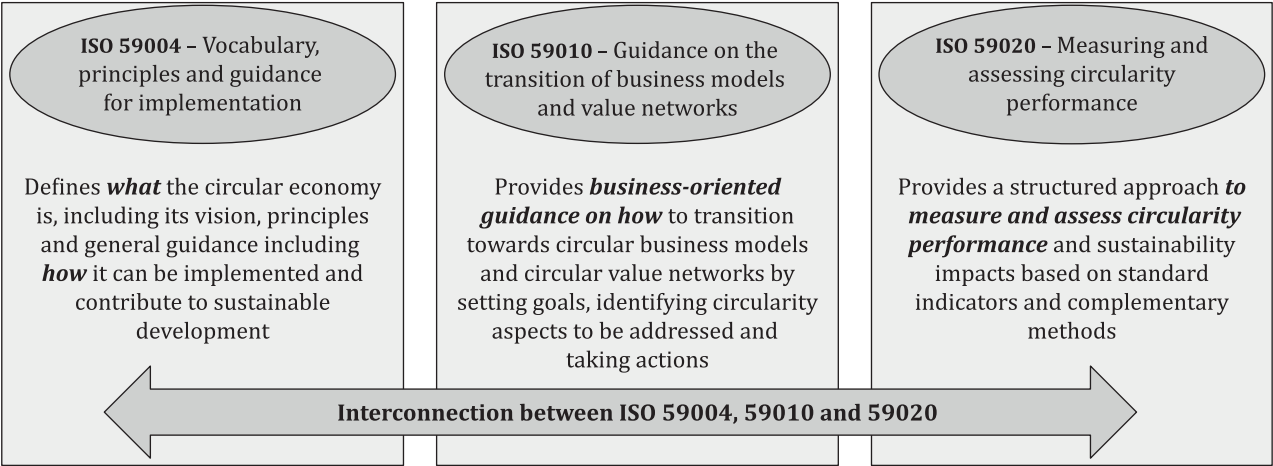


Figure 2 — Relationship between this document, ISO 59010 and ISO 59020

0.3 Purpose and the outline of this document

This document gives guidance for any kind of organization. It describes the main terms and definitions (see [Clause 3](#)), a circular economy vision (see [Clause 4](#)), the circular economy principles (see [Clause 5](#)), provides practical guidance on actions that contribute to a circular economy (see [Clause 6](#)) and guidance to implement a circular economy in any kind of organization (see [Clause 7](#)).



# Circular economy — Vocabulary, principles and guidance for implementation

## 1 Scope

This document defines key terms, establishes a vision and principles for a circular economy, and gives guidance, including possible actions, for an organization to implement.

It is applicable to organizations seeking to understand and commit or contribute to a circular economy while contributing to sustainable development. These organizations can be either private or public, acting individually or collectively, regardless of type or size, and located in any jurisdiction, or position within a specific value chain or value network.

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

### 3.1 Terms related to a circular economy

#### 3.1.1

##### **circular economy**

*economic system (3.1.2) that uses a systemic approach to maintain a circular flow of resources (3.1.6), by recovering, retaining or adding to their value (3.1.7), while contributing to sustainable development (3.1.11)*

Note 1 to entry: *Resources (3.1.5)* can be considered concerning both stocks and flows.

Note 2 to entry: The inflow of *virgin resources (3.3.2)* is kept as low as possible, and the circular flow of resources is kept as closed as possible to minimize *waste (3.3.6)*, *losses (3.3.7)* and *releases (3.3.8)* from the economic system.

#### 3.1.2

##### **economic system**

*system (3.1.22) by which a society organizes and allocates resources (3.1.5)*

Note 1 to entry: The economic system can vary depending upon the geographic region or governmental jurisdiction.

Note 2 to entry: This can include the regulation of resources and the production, use and disposal of these resources.

#### 3.1.3

##### **social system**

*system (3.1.22) by which human beings are expected to undertake different types of tasks in order to achieve common goals within a society*