TECHNICAL REPORT

ISO/TR 24217-2

First edition
2021-04

Fine bubble technology – Guideline for indicating benefits —

Part 2: Assignment of Sustainable Development Goals (SDGs) to applications of fine bubble technologies

Technologie des fines bulles — Lignes directrices relatives à l'indication des bénéfices —

Partie 2: Attribution des objectifs de développement durable (ODD) aux applications des technologies des fines bulles

Reference number
ISO/TR 24217-2:2021(E)

© ISO 2021



COPYRIGHT PROTECTED DOCUMENT

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, 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
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword ... **iv**

Introduction ... **v**

1 Scope ... **1**

2 Normative references ... **1**

3 Terms and definitions ... **1**

4 Actors contributing to the SDGs through fine bubble technologies ... **2**
4.1 Partners ... 2
4.2 Stakeholders ... 2

5 Identifying a key element of the SDGs specifically applicable to fine bubble technologies ... **2**

6 Assignment of SDGs to applications of fine bubble technologies ... **4**
6.1 General ... 4
6.2 Applications of fine bubble technologies ... 5
6.3 General principles and measurement technologies of fine bubble technologies ... 5

7 Review and revision of documents on applications of fine bubble technologies ... **5**

Annex A (informative) **Example of relationships between various fine bubble technologies applications and SDGs** ... **6**

Annex B (informative) **Objective evidence to describe the approach and its evaluation parameters** ... **7**

Annex C (informative) **Examples of approaches to the SDGs and comparison data as the evaluation parameter** ... **8**

Bibliography ... **12**

© ISO 2021 – All rights reserved

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 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.

This document was prepared by Technical Committee ISO/TC 281, *Fine bubble technology*.

A list of all parts in the ISO 24217 series can be found on the ISO website.

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.

© ISO 2021 – All rights reserved

Introduction

In 2015, the United Nations set an ambitious 15-year plan to address some of the most pressing issues for the world. The Sustainable Development Goals (SDGs), known as Global Goals, are a global address to action to eradicate poverty, protect the planet and ensure that all the world people enjoy peace and prosperity. These 17 goals build on the successes of the Millennium Development Goals with additional areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among other priorities. The goals are interconnected – often the key to the success in individual initiatives for issues which are associated more commonly with each other. As SDGs get spread, there appears a trend that SDGs' investments are brought about, just as environment, social and governance (ESG) bonds are creating ESG investments. It is predicted that the world investors would evaluate and judge whether they are promoting SDGs and would become targets for investments or not. For example, in March 2017, the World Bank issued sustainable development target-linked credits for the first time. These credits are to fund for projects that meet the goals of the SDGs, such as eradicating poverty, reducing environmental impacts, correcting gender disparities, and improving public health. Capturing this trend is key.

Since the SDGs can be applied in various fields, they are also applicable to fine bubble technology, which has the following two main features. First, fine bubble technology has a feature that involves simple components such as water and air. Further, most of fine bubble generating systems are compact and movable. Second, it is applicable and effective in many fields such as water purification, cleaning, agriculture applications, fishery applications and environmental recovery. Due to these two features, it can be applied relatively easily to water purification and cleaning in developing countries. Moreover, since fine bubble technology has eco-friendly cleaning and food production technologies, it can be said that it is effective as a common technology worldwide.

Although it is considered possible to link fine bubble technology with such features to the SDGs, the association between fine bubble technology and the SDGs is currently insufficient. For this reason, guidelines are necessary, which link SDGs and fine bubble technology.

This document provides a path for fine bubble suppliers to contribute to SDGs. Furthermore, showing banks and investors what successfully contributes to the SDGs can help them to leverage sufficient investments and to avoid improper investments.

© ISO 2021 – All rights reserved

Fine bubble technology – Guideline for indicating benefits —

Part 2:
Assignment of Sustainable Development Goals (SDGs) to applications of fine bubble technologies

1 Scope

This document provides guidelines for suppliers to show in which part of the Sustainable Development Goals fine bubble technologies can contribute to users.

This document also provides guidelines for document writers to assess the contribution of their documents related to fine bubble technology to the Sustainable Development Goals.

It also enables users to understand the benefits of using fine bubble technologies.

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 20480-1, *Fine bubble technology — General principles for usage and measurement of fine bubbles — Part 1: Terminology*

ISO 20480-2, *Fine bubble technology — General principles for usage and measurement of fine bubbles — Part 2: Categorization of the attributes of fine bubbles*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 20480-1 and ISO 20480-2 and the following apply.

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
sustainability
state of the global goal system, including environmental, social and economic aspects, in which the needs of the present are met without compromising the ability of future generations to meet their own needs

Note 1 to entry: The environmental, social and economic aspects interact, are interdependent and are often referred to as the three dimensions of sustainability.

Note 2 to entry: Sustainability is the goal of *sustainable development* (3.2).

[SOURCE: ISO GUIDE 82, 3.1]

© ISO 2021 – All rights reserved

3.2
sustainable development
development that meets the present needs of environmental, social and economic aspects without compromising the ability of future generations to meet their own needs

Note 1 to entry: Derived from the Brundtland Report[1].

3.3
stakeholder
individual or group that has an interest in any decision or activity of an organization

[SOURCE: ISO 26000:2010, 2.20]

4 Actors contributing to the SDGs through fine bubble technologies

4.1 Partners

When partners consider a certain element of the SDGs within the given system, related systems and subsystems can also be considered, because they are all interconnected and interdependent.

For example, an aspect that seems to be primarily related to the environmental dimension of sustainability is also thought to have an impact within a social or economic dimension of sustainability, e.g. water purification using fine bubble technologies has an environmental impact, as well as a social and an economic impact on people and communities working for the factory. The potential for these multiple impacts to occur is always considered when drafting provisions relating to any element of the SDGs.

4.2 Stakeholders

Stakeholders consider how application of a standard would have an impact on their approach, in light of the SDGs. Like other types of impact, the impact on stakeholders can be either beneficial or adverse.

Different groups of stakeholders can be affected by issues of SDGs, either individually or collectively, and any group that can potentially be affected by the use or application of a standard can be taken into account by standards developers. In addition to consumers, customers, workers, organizations in the supply chain and communities, this also includes future generations and the wider general public, especially when coping with broader issues of the SDGs, such as climate change.

Particular attention can be paid to potentially vulnerable stakeholders, such as children or persons with special needs, because the impact on them is thought to be both greater and more difficult to identify than that on other stakeholder interests.

5 Identifying a key element of the SDGs specifically applicable to fine bubble technologies

Regarding the approaches outlined in Clause 4, suppliers can identify the key elements of SDGs that are considered relevant and critical to the subject area. Many sources of information on SDGs can be useful in this process. These sources include material data sheets, studies on risks or trends, legal requirements, product declarations, sustainability reports, impact assessment reports, published peer-reviewed scientific studies and the results of stakeholder consultations.

Table 1 shows examples of key elements of SDGs specifically applicable to fine bubble technologies.

© ISO 2021 – All rights reserved