

ISO/DTR 41019

ISO/TC 267/~~WG 1~~

Secretariat: BSI

Date: ~~2023-08-31 (v2.0)~~2024-01-15

Facility management's role in sustainability, resilience and adaptability

DTR stage

iTech Standards
(<https://standards.itih.ai>)
Document Preview

ISO/DTR 41019

<https://standards.itih.ai/catalog/standards/iso/3e81938a-2b51-4162-a392-28eb4ce4126d/iso-dtr-41019>

ISO/DTR 41019:(E)

© ISO 2024

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
E-mail: copyright@iso.org
Website: www.iso.org

Published in Switzerland

iTeh Standards
(<https://standards.itih.ai>)
Document Preview

[ISO/DTR 41019](#)

<https://standards.itih.ai/catalog/standards/iso/3e81938a-2b51-4162-a392-28eb4ce4126d/iso-dtr-41019>

© ISO 2024 – All rights reserved

Contents

Foreword	iv
Introduction.....	v
1 Scope	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Concepts, context and challenges.....	6
4.1 United Nations 2030 Agenda	6
4.2 CSR and ESG	7
4.3 Business and finance context.....	7
4.3.1 General.....	7
4.3.2 Business	10
4.3.3 Finance	11
4.4 Climate change, net zero emissions and the circular economy	12
4.4.1 Climate change	12
4.4.2 Net zero emissions.....	13
4.4.3 Circular economy	14
4.5 Sustainability, resilience and adaptability.....	15
4.5.1 General.....	15
4.5.2 Sustainability	16
4.5.3 Resilience.....	16
4.5.4 Adaptability	17
5 Sustainable Development Goals (SDGs)	18
6 Role of International Standards in supporting the SDGs.....	20
7 FM and SDGs in context.....	21
8 Role of the ISO 41000 family of standards	26
9 Towards sustainable FM	31
Annex A (informative) Alignment of the ISO 41000 family of standards with the UN SDGs	35
Annex B (informative) Towards sustainable FM via the ISO 41000 family of standards	38
B.1 Sustainable FM: A 10-step approach with the ISO 41000 family of standards.....	38
B.2 Demand organization preparation assessment.....	43
B.3 Examples of FM actions striving for sustainable development	46
B.4 Support for environmental, social and governance reporting.....	48
Annex C (informative) Related ISO committees	51
Bibliography	52

ISO/DTR 41019:(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~~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).

~~Attention is drawn~~ISO draws attention to the possibility that ~~some of the elements~~implementation of this document may ~~be involve~~ the ~~subject~~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. 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).~~

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 267, *Facility management*, ~~Working Group 1 for Concepts and Context~~ ISO/TC 267 works in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 348, *Facility Management*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

~~This Technical Report is a first edition, designated ISO/TR 41019:20XX.~~

~~A list of all parts in the ISO 41000 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.

Introduction

Facility management's (FM) contribution to sustainability, resilience and adaptability of ~~our~~the built environment is evolving fast and is endorsed by an increasing number of countries and organizations. Given this dynamic, FM has a key role to play in taking the bold and transformative steps which are urgently needed to shift the world onto the path for a more sustainable, resilient and adaptive future.

The United Nations (UN) Sustainable Development Goals (SDGs) provide a holistic global framework for addressing poverty, inequality, climate change, environmental degradation, peace and justice. The 17 SDGs were adopted by the UN's 193 member countries in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. The management of ~~our~~the built environment figures directly and substantially in achieving such aspirations.

This document is intended ~~as guidance~~for ~~use by~~ organizations, regardless of size, maturity or industry, that wish to work towards ~~a more "Sustainable~~sustainable FM". The SDGs provide a holistic global framework for addressing and reporting on a range of global challenges. Using this framework, this document provides contextual insight into ways that ~~Demand Organizations~~demand organizations, FM professionals and their organizations can contribute to achieving a more productive, sustainable and liveable built environment for all.

iTeh Standards (<https://standards.iteh.ai>) Document Preview

ISO/DTR 41019

<https://standards.iteh.ai/catalog/standards/iso/3e81938a-2b51-4162-a392-28eb4ce4126d/iso-dtr-41019>

Facility management's role in sustainability, resilience and adaptability

1 Scope

This ~~Technical Report is an informative~~ document ~~providing~~provides a ~~broader~~broad societal context for facility management (FM) ~~intended~~ to inspire organizations that wish to:

- ~~Establish~~establish and improve a sustainable integrated FM system;
- ~~Embrace~~embrace the wide-ranging and positive contribution that FM makes in managing the built environment;
- ~~Support~~support the United Nations (UN) Sustainable Development Goals (SDGs).

This document provides a non-exhaustive contextual introduction to relevant concepts, initiatives and terms that are in common use.

It is acknowledged that the practice of FM internationally is dynamic and diverse, hence this document provides generic ~~guidance~~information based on current experience without setting out any specific requirements, recommendations or permissions. Organizations are encouraged to make their own enquiries as to the extent this document is applicable to their circumstances.

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/DIS 41011:2023, Facility management — Vocabulary~~

~~There are no normative references in this document.~~

~~ISO 41012:2017, Facility management — Guidance on strategic sourcing and the development of agreements~~

~~ISO 41013:2017, Facility management — Scope, key concepts and benefits~~

~~ISO 41014:2020, Facility management — Development of facility management strategy~~

~~ISO 41015:2023, Facility management — Influencing behaviors for improved facility outcomes~~

~~ISO/DTR 41016:2023, Facility management — Overview of available technologies~~

~~ISO/DIS 41017:2023, Facility management — Guidance on emergency preparedness and management of an epidemic~~

~~ISO 41018:2022, Facility management — Development of a facility management policy~~

103 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain ~~terminological~~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

climate

statistical description of weather in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands or millions of years

Note 1 to entry: The classical period for averaging these variables is 30 years, as defined by the World Meteorological Organization.

Note 2 to entry: The relevant quantities are most often near-surface variables such as temperature, precipitation and wind.

[SOURCE: ISO 14090:2019, 3.4]

3.2

climate change

change in *climate* (3.1~~(3.1.1)~~) that persists for an extended period, typically decades or longer

Note 1 to entry: Change in climate can be identified (e.g. by using statistical tests) by changes in the mean ~~and/or~~ the variability of its properties, or both.

Note 2 to entry: Climate change might be due to natural processes, internal to the climate system, or external forcings such as modulations of the solar cycles, volcanic eruptions, and persistent anthropogenic changes in the composition of the atmosphere or in land use.

[SOURCE: ISO 14090:2019, 3.5, modified — Note 1 to entry has been modified.]

3.3

adaptation

climate change adaptation

~~adaptation~~ process of adjustment to actual or expected *climate* (3.1) and its effects

Note 1 to entry: In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities.

Note 2 to entry: In some natural systems, human intervention can facilitate adjustment to expected climate and its effects.

[SOURCE: ISO 14090:2019, 3.1, modified — ~~The “to climate change” deleted from the~~ preferred term ~~“adaptation” has been added.~~]

3.4

circular economy

economy that is restorative and regenerative by design, and which aims to keep products ~~(3.5.12)~~, components and materials at their highest utility and value at all times, distinguishing between technical and biological cycles

ISO/DTR 41019:(E)

[SOURCE: ISO/DIS 41011:2023, —1, 3.6.3; also refer ISO/DIS 59004:2023, 3.1.1]

3.5 CO₂e carbon dioxide equivalent CO₂ equivalent

unit for comparing the radiative forcing of a *greenhouse gas* (3.7 (ISO 14064-1:2006, 3.1)) to that of carbon dioxide

Note 1 to entry: Mass of a greenhouse gas is converted into CO₂e using *global warming potentials* (ISO 14050:2009, 9:2020, 3.4).

Note 2 to entry: The shortened term,]

[SOURCE: ISO 14050:2020, 3.9.3, modified — CO₂e, is used as becomes the primary preferred term in this document. Note 1 to entry added.]

[SOURCE: ISO 14050:2009, 9.3.5 and ISO 21930:2017, 3.3.7]

10.1

3.6 demand organization

entity which has a need and the authority to incur costs to have requirements met

Note 1 to entry: This is typically an authorized representative within a functional unit of an organization.

[SOURCE: ISO/DIS 41011:2023, —, 3.3.1.4]

3.7 greenhouse gas GHG

gaseous constituent of the atmosphere, both natural and anthropogenic (resulting from or caused by human activity), that absorbs and emits radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere, and clouds

Note 1 to entry: For a list of GHGs, see refer to the latest Intergovernmental Panel on Climate Change (IPCC) *Assessment Report assessment report*.

Note 2 to entry: Water ~~vapor~~ vapour and ozone are anthropogenic as well as natural GHGs, but they are not included as recognized GHGs due to difficulties, in most cases, in isolating the human-induced component of global warming attributable to their presence in the atmosphere.

[SOURCE: ISO 41011:2023, —, 3.10.1; also refer ISO 14064-1:2018,]

3.1.1, modified — “(resulting from or caused by human activity)” added in the definition.] greenhouse gas emission GHG emission

release of a *GHG* (3.7 *greenhouse gas* (3.10.1)) into the atmosphere

[SOURCE: ISO 14064-1:2018, 3.1.5; also refer ISO 14066:2011, 3.2.1, modified — Note 1 to entry deleted.]

¹ Under preparation.

ISO/DTR 41019:(E)

3.9

facility management

FM

facilities management

FM

organizational function which integrates people, place and process within the built environment with the purpose of improving the quality of life of people and the productivity of the core business

[SOURCE: ISO/DIS 41011:2023, —, 3.1.1, modified — Note 1 to entry deleted.]

3.10

stakeholder

interested party

~~stakeholder~~ person or organization that can affect, be affected by, or perceive itself to be affected by a decision or an activity

[SOURCE: ISO/DIS 41011:2023, —, 3.3.5]

3.11

life cycle

consecutive and interlinked stages related to a product, from raw material acquisition or generation from natural resources to end-of-life treatment-

[SOURCE: ISO 14067:2018, 3.1.4.2, modified — Notes to entry have been removed deleted.]

3.12

sustainability

state of the global system ~~(3.5.15)~~, including environmental, social and economic aspects, in which the needs ~~(3.1.8)~~ 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 triple bottom line, also known as the three dimensions of sustainability.

Note 2 to entry: Sustainability is the goal of *sustainable development* (3.13).

[SOURCE: ISO/DIS 41011:2023, —, 3.7.21, 10.4]

3.13

sustainable development

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

Note 1 to entry: Derived from the Brundtland Report^[53].

[SOURCE: ISO/DIS 41011:2023, —, 3.7.22, also refer ISO Guide 82:2019, 3.1]

3.14

social responsibility

responsibility of an organization for the impacts of its decisions and activities on society and the environment, through transparent and ethical ~~behavior~~ behaviour that:

— — contributes to *sustainable development* (3.13 ~~(3.7.22)~~), including the health and the welfare of society;

ISO/DTR 41019:(E)

- ~~—~~ takes into account the expectations of *stakeholders* (3.10) ~~interested parties (3.3.5);~~
- ~~—~~ is in compliance with applicable law and consistent with international norms of ~~behavior;~~
~~and behaviour;~~
- ~~—~~ is integrated throughout the organization and practised in its relationships.

Note 1 to entry: Activities include products ~~(3.5.12),~~ services ~~(3.5.14)~~ and processes ~~(3.5.13).~~

Note 2 to entry: Relationships refer to an ~~organization's~~ organization's activities within its sphere of influence.

[SOURCE: ISO/DIS 41011:2023, —, 3.3.8; also refer ISO 26000:2010, 2.18 and ISO 37000:2021, 3.2.12, modified — “stakeholders” replaced “interested parties”.]

3.15 resilience

~~1:~~ adaptive capacity in a complex and changing environment

[SOURCE: ISO/DIS 41011:2023, —, 3.7.17]

~~2:~~ ability to absorb and adapt in a changing environment

Note 1 to entry: In the context of urban resilience the ability to absorb and adapt to a changing environment is determined by the collective capacity to anticipate, prepare and respond to threats and opportunities by each individual component of an urban system.

[SOURCE: ISO 22300:2021, 3.1.206]

~~3:~~ the capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure while also maintaining the capacity for adaptation, learning and transformation

[SOURCE 2: Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2022: Impacts, Adaptation and Vulnerability*, Geneva, Switzerland: IPCC, February 2022]

ISO/DTR 41019

<https://standards.iteh.ai/catalog/standards/iso/3e81938a-2b51-4162-a392-28eb4ce4126d/iso-dtr-41019>

17.4 Concepts, Context and Challenges

17.4.1 United Nations 2030 Agenda

In 2015, the United Nations (UN) set an ambitious 15-year plan to address some of the most pressing issues faced by the world. All 193 Member States adopted “Transforming our world: the 2030 Agenda for Sustainable Development” (81) (also referred to as the “2030 Agenda”) as a plan for achieving a better future for all.

The 2030 Agenda has at its heart the 17 Sustainable Development Goals (SDGs) and 169 targets. This agenda is a plan of action laying out a path to end extreme poverty, fight inequality and injustice, and protect our planet.

The SDGs provide an integrated and indivisible balance of the three dimensions of sustainable development: the economic, social and environmental, and are of critical importance to humanity. The SDGs focus areas are: People, Planet, Prosperity, Peace, and Partnership.

As an extract from the preamble of the UN General Assembly Resolution 70/1, adopted on 25 September 2015, these are described as:

- “People: We are determined to end poverty and hunger, in all their forms and dimensions, and to ensure that all human beings can fulfil their potential in dignity and equality and in a healthy environment.
- Planet: We are determined to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations.
- Prosperity: We are determined to ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature.
- Peace: We are determined to foster peaceful, just and inclusive societies which are free from fear and violence. There can be no sustainable development without peace and no peace without sustainable development.
- Partnership: We are determined to mobilise the means required to implement this Agenda through a revitalised Global Partnership for Sustainable Development, based on a spirit of strengthened global solidarity, focused in particular on the needs of the poorest and most vulnerable and with the participation of all countries, all stakeholders and all people.”

Fulfilling these ambitions will require unprecedented effort by all sectors of society and business.

The UN “The Sustainable Development Goals Report 2021” (78) sets out that the global community is at a critical moment in its pursuit of the SDGs. Reporting that progress in key areas had either stalled or reversed. In the wake of the global COVID-19 pandemic, the human and economic toll has been unprecedented, and recovery efforts so far have been uneven, inequitable and insufficiently geared towards achieving sustainable development. Decades of development gains have been threatened, further delaying the urgent transition to a greener, more inclusive economies, and throwing progress on the SDGs even further off track. Under the UN’s UN Agenda 2030, the world could have been better prepared to face this crisis – with stronger health systems, expanded social protection coverage, the resilience that comes from more equal societies, and a healthier natural environment.

A recommitment by governments, cities, businesses, and industries to ensure that the recovery reduces greenhouse gas (GHG) emissions, conserves natural resources, creates better jobs, advances gender equality, and tackles growing poverty and inequalities is a further imperative.

17.24.2 CSR and ESG

With its origins in the 1950s, and coined as a term in the 1970s, ~~Corporate Social Responsibility~~ ~~corporate social responsibility~~ (CSR) concept is a self-regulating business model that helps an organization to be socially accountable to itself, its stakeholders, and the community. CSR evolved through the 1980s and 1990s, and by 2000 had become an essential strategy for many organizations. Through the practise of CSR, also sometimes referred to as "corporate citizenship," organizations were able to demonstrate accountability for their impacts on society, including economic, social, and environmental issues. ~~CSR could be ad hoc, causing inconsistency of in organizational preferences over content and purpose, cascade to FM as changing priorities.~~

By the 2000s, the ~~Environmental, Social,~~ ~~environmental, social~~ and ~~Governance~~ ~~governance~~ (ESG) framework terminology emerged, taking the holistic view that sustainability extends beyond just environmental issues.

Overall, ESG criteria are considered more specific and actionable than CSR initiatives, leading to a growth in the alignment of ESG data with the ~~United Nations (UN) Sustainable Development Goals (SDGs)~~ since 2015.

In effect, CSR was the precursor to the ESG principles.

CSR provides a qualitative assessment of an organization's effects on its stakeholders and society. ~~While~~ ESG, measures an organization's impact on the environment and society, using quantitative measurement methods with the aim of delivering long-term stakeholder value. Concurrently, stakeholders and society are requiring that organizations become more transparent about their performance and reporting.

There is evidence of growing acceptance of ESG principles and the positive correlation with total shareholder return (TSR), as a measure of financial performance in terms of capital growth and dividends. There is also a trend toward more active regulation with increasingly granular requirements.

Despite the diversity of approaches to assessing ESG performance (~~see Clause B.3 refer Annex B.3~~), the push has been for more accurate and robust disclosure. The implications of technologies, such as digital twins and data analytics, ~~will~~ further blur the lines between physical and digital environments, along with challenging traditional concepts of connectivity, service level agreement, responsiveness, supply chains, carbon footprints, etc.

While the challenge remains that ESG has no uniform reporting standards, ESG principles, and making them quantifiable, meaningful and understandable across industries and sectors, are fundamental to achieving sustainability, resilience and adaptability.

17.34.3 Business and ~~Finance Context~~ ~~finance context~~

4.3.1 General

Global challenges and the rapidly changing complexity of society inform the development of mitigation plans. Increasingly FM is being required to be proactive in enhancing the ~~Demand Organization's~~ ~~demand organization's~~ sustainability, resilience and adaptability capability to contribute to the quality of life of end users and the wider community.

The SDGs provide an overarching framework that can inform FM's contribution to a more sustainable, resilient and adaptive built environment. The SDGs can be used by organizations to directly inform their strategic goals, which in turn inform FM strategies, policies and operations.

In addition, the use of performance reporting frameworks, such as those observing the ESG principles, can be designed to support improved organizational outcomes in terms of efficiency, productivity, liveability, affordability, resilience and adaptability.

The prominence of the SDGs and ESG principles and influence on the demand organization's FM strategies, policies and operations, as shown in Figure 1

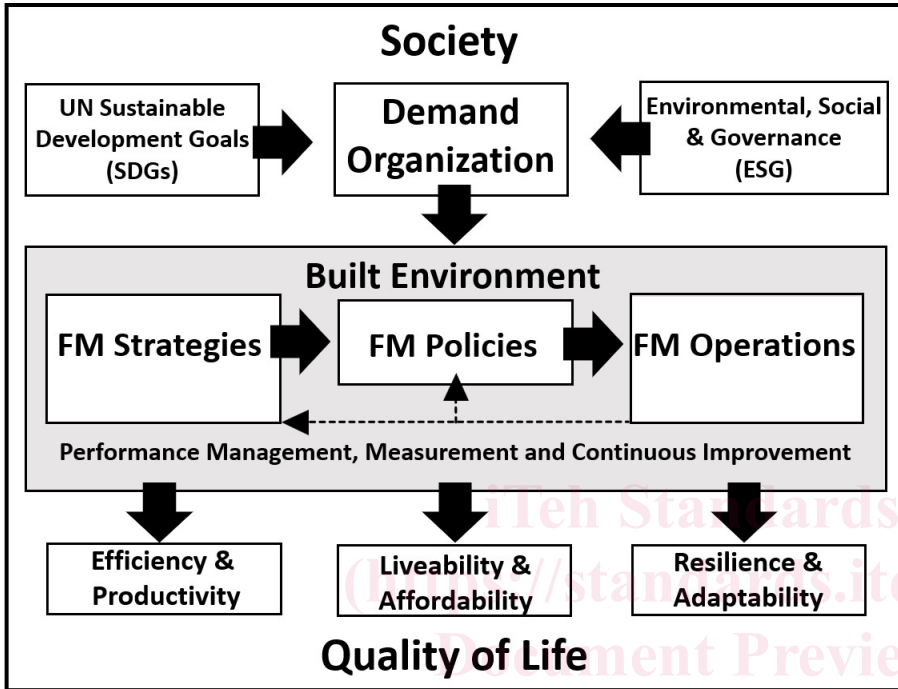


Figure 1, are crucial to achieving sustainable outcomes and addressing contemporary performance metrics.

