



## PROPOSAL FOR A NEW FIELD OF TECHNICAL ACTIVITY

**PROPOSER:**

INSO

**DATE OF CIRCULATION:**

2026-07-09

**CLOSING DATE FOR VOTING:**

2026-10-01

A proposal for a new field of technical activity shall be submitted to the Office of the CEO (to [tmb@iso.org](mailto:tmb@iso.org)), which will process the proposal in accordance with [ISO/IEC Directives, Part 1, Clause 1.5](#).

Furthermore, a proposal will be considered as complete if every information field is complete and follows the guidelines for proposing and justifying a new field of activity given in the [ISO/IEC Directives, Part 1, Annex C](#).

### TITLE

(Please see the [ISO/IEC Directives, Part 1, Annex C, Clause C.4.2](#))

Construction Management

### SCOPE

(Please see the [ISO/IEC Directives, Part 1, Annex C, Clause C.4.3](#))

Standardization in the field of construction management, with particular emphasis on the execution phase of built environment projects, including:

- planning, coordination, and control of construction execution processes and site-based activities;
- management of resources required for construction execution, including workforce, equipment, materials, and information flows, strictly from an organizational and managerial perspective;
- operational management practices for on-site delivery, including performance measurement and monitoring;
- coordination of execution-phase activities with relevant design outputs, quality, safety, environmental, and lifecycle considerations, without addressing design development, design governance, or technical specification activities;
- management practices supporting health, safety, and environmental (HSE) performance during construction execution;
- practical application of digital tools and information technologies to support construction execution management processes, without defining information models, data structures, interoperability protocols, or digital technical specifications.

The work of this committee is limited to management frameworks and execution-phase coordination practices. It does not address the technical performance, design, specification, or safety requirements of products, materials, machinery, electrotechnical systems, or digital infrastructure. On-site assembly, installation, and coordination of prefabricated components are included in this scope. Off-site manufacturing and factory production processes for prefabricated building systems remain outside the scope of this committee and are the responsibility of ISO/TC 59/SC 19 (Prefabricated Building).

The deliverables of this committee are intended as voluntary management guidance and shall not establish regulatory, legal, professional qualification, certification, or technical product requirements.

#### Excluded:

- technical design standards for buildings and civil engineering works (e.g., ISO/TC 59, ISO/TC 98);

- manufacturing and factory production processes for prefabricated building systems (ISO/TC 59/SC 19).
- material-specific technical execution standards for concrete, steel, aluminium, timber, and other construction materials (ISO/TC 71, ISO/TC 167, ISO/TC 165, ISO/TC 74, ISO/TC 17, etc.);
- standards for construction machinery, equipment, and related technical requirements (ISO/TC 195);
- generic management system standards, including quality, environmental, and occupational health and safety management systems (ISO/TC 176, ISO/TC 207, ISO/TC 283);
- project, programme, and portfolio management standards addressing project governance, lifecycle frameworks, terminology, and generic project management concepts (ISO/TC 258);
- information modelling standards, data schemas, digital interoperability frameworks, semantic models, and electrotechnical documentation standards.

Coordination with relevant ISO and IEC technical committees will be maintained through appropriate liaison mechanisms to ensure clarity of boundaries and to prevent duplication of technical work.

**PURPOSE AND JUSTIFICATION** (Please use the field immediately below or attach an annex.)

(Please see the [ISO/IEC Directives, Part 1, Annex C, Clause C.4.13](#))

This Technical Committee aims to establish a unified international framework for Construction Management, with a particular focus on the execution phase of built environment projects. In this context, and for the purposes of this proposal, construction management refers to the management of execution processes and site-based coordination, and does not include the performance of construction works or technical execution activities. In this proposal, the term “execution phase” refers to the period covering site mobilization, construction activities, coordination, and control up to handover. The proposed work is strictly limited to construction execution management practices and does not intend to develop technical product standards, electrotechnical requirements, machinery specifications, or digital system architectures. Its objective is to provide management-oriented frameworks that support effective coordination during the execution phase of construction projects.

The construction sector is one of the largest and most influential components of the global economy. According to the World Bank (2023), construction accounts for approximately 13% of global GDP and employs more than 220 million people worldwide. Despite its scale and strategic importance, the sector continues to experience persistent performance and productivity challenges. Research by the McKinsey Global Institute (2017) indicates that construction projects, on average, face cost overruns of 20–25% and schedule delays of 40–60%. Similarly, the World Economic Forum (2016) reports that construction productivity has increased by only about 1% per year over the past two decades, compared to 3.6% in the manufacturing sector.

These challenges are not confined to small or medium-sized projects. A comprehensive global meta-analysis by Flyvbjerg (2022), covering megaprojects with budgets exceeding USD 1 billion, found that approximately 85% of such projects fail to meet cost or schedule targets. In this analysis, weaknesses in execution-phase management were consistently identified as a primary contributing factor. Taken together, these findings point to systemic deficiencies in how construction execution is managed, particularly across organizational, contractual, and disciplinary boundaries.

While generic management system standards such as ISO 9001 and ISO 14001 are widely adopted within construction organizations and provide an essential foundation for quality and environmental management, experience from large and complex construction projects reveals a persistent gap between organizational-level management system requirements and their consistent, integrated application at the construction site level. Construction projects typically function as temporary, multi-organizational production systems involving numerous contractors, subcontractors, and suppliers. In such environments, management system requirements are often implemented in parallel within individual organizations, rather than translated into a coherent, site-based execution framework shared across the project. This gap in translation and integration—rather than the absence of generic management system standards—has been shown to contribute to execution-phase inefficiencies, interface failures, and inconsistent project outcomes. These inefficiencies persist despite the widespread adoption of ISO 9001 and ISO 14001, indicating that the core challenge lies in their coordinated application during construction execution.

Although several ISO technical committees address important aspects of the built environment, no existing ISO framework directly focuses on the integrated management of execution and operational delivery at the construction site level. In particular:

- ISO/TC 258 (Project, Programme and Portfolio Management) provides overarching governance frameworks, but does not address the day-to-day coordination, control, and operational decision-making required during construction execution.
- ISO/TC 59 (Buildings and Civil Engineering Works) concentrates on terminology (including reference to ISO 6707), design, and technical requirements, without covering the management of on-site construction delivery.
- ISO/TC 176 (Quality Management) and ISO/TC 207 (Environmental Management) offer generic, cross-sector frameworks, but do not provide construction-specific guidance on how these principles should be integrated and applied coherently within dynamic, site-based execution environments.

In addition to the ISO technical committees listed above, the proposers recognize that certain construction-related activities interface with electrotechnical systems and digital infrastructure. These domains remain under the responsibility of relevant IEC technical committees and ISO/IEC joint structures. The proposed TC will limit its work strictly to management frameworks and execution-phase coordination practices and will not undertake technical standardization in those areas.

This fragmentation has resulted in inconsistent performance measurement, elevated delivery risk, and limited international comparability of construction outcomes. The absence of a harmonized, site-oriented execution management framework weakens project delivery performance, increases costs, and constrains effective cross-border collaboration in the construction sector.

The proposed Technical Committee seeks to address this long-standing gap by establishing a unified international framework for execution-phase construction management, with a particular focus on the execution phase of built environment projects. Its work will concentrate on the planning, coordination, and control of resources and processes required for effective on-site delivery, addressing the operational realities of construction environments that are inherently high-risk, dynamic, and multi-organizational.

In doing so, the committee will provide practical guidance on performance measurement, coordination of execution activities, and the integration of quality, safety, environmental, and lifecycle considerations during construction execution. References to digital tools, performance indicators, and emerging technologies—such as BIM, IoT, and digital twins—are intended as enabling mechanisms to support effective execution management, rather than as standalone technical deliverables.

Given the cross-cutting nature of construction execution management, which interfaces simultaneously with project governance, design, quality, safety, environmental management, and digital information management, the establishment of a standalone Technical Committee is considered the most appropriate structure to ensure balanced representation, effective liaison management, and clear boundaries within the ISO system. All standards developed by the proposed committee will be positioned as sector-specific applications consistent with ISO/TC 258 project, programme, and portfolio management frameworks. The committee will not redefine core project management concepts, terminology, lifecycle models, or governance structures, but will instead complement them by addressing execution-phase practices specific to construction delivery.

The proposed standards are intended to be scalable and applicable across diverse national and organizational contexts, including developing economies and small and medium-sized enterprises (SMEs), without imposing excessive organizational, procedural, or technological complexity. The use of digital tools referenced in the proposed standards will remain technology-neutral and scalable, allowing implementation in low-resource environments. By bridging the principles of quality management, the frameworks of project management, and the practical realities of construction execution, the proposed Technical Committee will provide the missing

operational link between high-level governance and on-site delivery—contributing to reduced risk, improved performance, and greater global efficiency in the built environment sector.

All statistical evidence and references cited in this section are compiled in [Annex 1](#) (Statistical Evidence and References) to ensure completeness and traceability.

**PROPOSED INITIAL PROGRAMME OF WORK** (Please use the field immediately below or attach an annex)

Please see the [ISO/IEC Directives, Part 1, Annex C.4.4 and C-4.5](#))

For each item, the initial work programme shall define the deliverable type and target dates. The initial work programme shall also assign priorities to the different items.

The proposed Technical Committee will adopt a phased approach to ensure early, practical outcomes while building the foundation for future, more comprehensive voluntary guidance documents and good practice recommendations and standards. The initial three-year programme focuses on operational feasibility and complementarity with existing ISO work.

Phase 1 – Foundational Deliverables (Years 1–2)

1. Vocabulary and Conceptual Framework for Construction Management: Establish a shared terminology and conceptual basis clarifying the relationship and distinction between Construction Management and Project Management, aligned with ISO/TC 258 and ISO/TC 59.
2. Key Performance Indicators (KPIs) for Construction Execution: Define harmonized performance metrics for cost, time, quality, safety, and environmental outcomes to enable global benchmarking.

Phase 2 – Applied Voluntary Guidance (Years 2–3)

3. Develop guidance on the managerial application of digital tools (such as BIM-enabled coordination platforms) to support site-level execution processes, without defining technical architectures or digital system specifications, with a focus on accessibility for SMEs.
4. Health, Safety, and Environmental (HSE) Practices: Provide site-specific guidance that complements ISO 45001 and ISO 14001, addressing temporary works, subcontractor management, and emergency response.

Future Work (Post–3 Years, Subject to Demand and Consensus)

Potential topics may include lifecycle interface management, contract and claims management (in liaison with ISO/TC 258), competence frameworks for construction managers, and—depending on proven need—a sector-specific guidance aligned with existing ISO management system standards, subject to demonstrated market need and consensus.

This phased and modular strategy ensures early deliverables with tangible value, minimizes overlap with existing ISO standards, and positions the TC for scalable development based on stakeholder demand and demonstrated feasibility.

**RELATION OF THE PROPOSAL TO EXISTING INTERNATIONAL STANDARDS AND ON-GOING STANDARDIZATION WORK**

- ☒ The proposer has checked whether the proposed scope of the new committee overlaps with the scope of any existing ISO or IEC committee or JTC1 sub-committee
- ☐ If an overlap or the potential for overlap is identified, the affected committee has been informed and an agreement has been reached between proposer and committee on
- i. modification/restriction of the scope of the proposal to avoid overlapping,
  - ii. potential modification/restriction of the scope of the existing committee to avoid overlapping.
- ☐ If agreement with the existing committee has not been reached, please explain why the proposal should be approved.

A comprehensive investigation of the ISO landscape of technical committees establishes that although there are significant numbers of standards relevant to the construction industry, there is no one single ISO Technical

Committee for Construction Management that focuses on the execution phase of construction as a unique professional discipline.

The related committees below cover constructs related to, but not in complete manner to, construction management, as outlined below:

- ISO/TC 258 (Project, Programme and Portfolio Management): Provide useful constructs associated to overall project governance, but do not cover the unique operational, site and technical elements specific to construction management;
- ISO/TC 59 (Buildings and Civil Engineering Works): Focus predominantly on terminology, design, and general building requirements and do not cover sufficient coverage of the management of executing the construction process;
- ISO/TC 176 (Quality Management), ISO/TC 207 (Environmental Management) and ISO/TC 292 (Security and Resilience): Provide usefully aligned frameworks related to quality, environment, and safety but lack specific provisions related to incorporating construction delivery integration;
- The ISO 19650 series (Information Management including BIM) cover relevant subjects associated to digital integration but does not cover the complete universe of construction management activities;
- The other committees, ISO/TC 205 (Building Environment Design), ISO/TC 98 (Bases for design of Structures) and ISO/TC 195 (Building Construction Machinery) cover specific technical or machinery topics and are not focused on operational management.

Currently, there is not an integrated, construction-phase-oriented framework that encompasses the diversity of construction management practices from site work, contract administration, and mobilization, to controlling time/schedule and cost in real time.

The Technical Committee will be established to complement and coordinate and will begin to fill this void, which has been missing for some time without duplication, and all while harmonizing with, and leveraging the synergistic efforts with existing committees. The committee will establish liaison arrangements, as appropriate, with ISO/TC 59, ISO/TC 258, and relevant material-specific committees, strictly to ensure coherence and avoid duplication, without encroaching on their respective mandates. Where interfaces with electrotechnical or digital technical standardization exist, coordination will be ensured through appropriate mechanisms without extending the scope of the proposed TC into those domains. The proposed TC will not develop information management standards or modify existing ISO 19650 series documents, which remain under ISO/TC 59/SC 13.

In particular, the proposed TC will establish formal liaisons with the following IEC technical committees and ISO/IEC joint structures, as identified by the SPCG, to ensure clear boundaries and prevent duplication in areas intersecting with construction execution:

- IEC/TC 3 (Documentation, graphical symbols and representations of technical information)
- IEC/TC 23 (Electrical accessories)
- IEC/TC 34 (Lighting)
- IEC/TC 36 (Insulators and IEC/TC 48 Electrical connectors and mechanical structures for electrical and electronic equipment)
- IEC/TC 44 (Safety of machinery - Electrotechnical aspects)
- IEC/TC 64 (Electrical installations and protection against electric shock)
- IEC/TC 65 (Industrial-process measurement, control and automation)
- IEC/TC 82 (Solar photovoltaic energy systems)
- IEC/TC 116 (Safety of motor-operated electric tools)
- IEC/TC 121 (Switchgear and controlgear)
- IEC SyC Smart Energy
- IEC SyC Smart Cities (Systems Committee on Smart Cities)
- ISO/IEC JTC 4 (Smart and sustainable cities and communities)
- ITU-T SG5 - Environment, climate action, circular economy and electromagnetic fields
- ITU-T SG 20 (Internet of Things, digital twins and smart sustainable cities and communities)

These liaisons will focus solely on boundary clarification and alignment of management practices with underlying electrotechnical and digital infrastructure standards, without extending the scope of this TC into those technical domains.

The initial programme of work will take a phased and practical approach to provide early deliverables like a standardized terminology (Vocabulary), key performance indicators (KPIs), digital integration practices (e.g. application of BIM-enabled coordination) during construction execution, health and safety, and lifecycle interface management, while providing for management system standardization to move towards produced future pieces based on interpretive consensus after a significant need in the marketplace.

The phased response aligns with some of the directives of ISO, respects possible feasibility of each work piece versus ambition, and builds willingness to support the work by demonstrating tangible outputs early within the duration.

Moreover, the committee will maintain continued periodic liaison and active engagement with the appropriate ISO committee(s) such as ISO TC 258, TC 59, TC 176, etc. in order to promote synergy, avoid duplication and to leverage existing standards to the standards that we will be producing.

This initiative is in direct response to a significant market need expressed by various stakeholders in the industry as well as global trends toward digitalization, sustainability, and resilience in relation to public and private infrastructure.

To ensure the proposed new technical committee does not duplicate the work of existing ISO committees, an extensive gap analysis was conducted.

The gap analysis results are documented in [Annex 2](#) (Gap Analysis with Existing ISO TCs), and a thorough mapping and organized overview of ISO committees and standards that are related are included in [Annex 3](#) (Mapping of Related TCs and Standards). This analysis demonstrates that while there are multiple committees addressing different aspects of quality, environment, design, or project governance, none of them directly address integrated operational management (organizational maturity) of construction execution. The proposed TC therefore identifies a clearly defined gap while complementing pre-existing work and its committees.

The committee's products will result in a more consistently adopted worldwide application of construction management best practices and thus improved project delivery time, safety, and environmental performance globally.

☐ Have proposals on this subject been submitted into an existing committee and rejected? If so, what were the reasons for rejection?

Negative.

## **LISTING OF RELEVANT DOCUMENTS (SUCH AS STANDARDS AND REGULATIONS) AT INTERNATIONAL, REGIONAL AND NATIONAL LEVEL**

(Please see the [ISO/IEC Directives, Part 1, Annex C, Clause C.4.6](#))

The existing landscape of international, regional, and national standards presents a diverse range of documents relevant to construction and its management. Key international standards include:

- ISO 21500: Provides high-level guidance on project management applicable across industries but does not specifically address the operational nuances of construction execution.
- ISO 9001: Establishes requirements for quality management systems broadly applicable to various sectors but lacks tailored provisions for construction-specific workflows and site-level management.
- ISO 19650 series: Addresses information management using Building Information Modelling (BIM), essential for digital integration in construction, yet does not fully encompass operational management at construction sites.
- ISO 14001 and ISO 45001: Provide frameworks for environmental management and occupational health and safety, respectively, forming foundational elements for sustainable and safe construction operations but requiring supplemental guidance focused on construction site realities.
- ISO 55000 series: Offer asset and lifecycle management principles pertinent to the operational phase but insufficiently cover construction execution phases.
- ISO 44001: Collaborative business relationship management systems
- ISO 50001: Energy management systems

- ISO 22263: Organization of information about construction works – Framework for management of project information
- ISO 55000 series: Asset management
- ISO 28000: Supply chain security management systems

The proposed TC will not undertake standardization of electrotechnical components, electrical installations, digital system architectures, or information modelling schemas. Where interfaces exist, coordination with relevant IEC technical committees and ISO/IEC joint structures will be ensured solely for boundary clarification.

At both the regional and national levels, there are many standards and regulations that cover construction safety, contract administration, worker competency, and other related topics. However, these standards and regulations are often fragmented, vary widely from region to region, and typically lack international harmonization, resulting in both confusion and added difficulty to projects that are being completed globally.

The proposed Technical Committee on Construction Management exists to address those shortcomings by developing standards and guidance specific to the construction sector. The proposed committee will complement existing documentations and, at the same time, address gaps that may include but are not exclusive to, real-time operational control, coordination across complex interfaces, and the integration of digital processes at the level of execution, and in turn also enhance alignment and harmonization on an international scale.

A Mapping and detailed analysis will be provided as an [Annex 3](#) which will illustrate the similarities and differences between this proposed committee in relation to the existing standard. It will provide clarity to committee stakeholders and de-risk duplication in work.

This will support a consistent approach to using good management practices in construction that both maximize quality and safety of outcome and associated sustainability and productivity in the context of all the construction sector(s) globally.

#### **LISTING OF RELEVANT COUNTRIES WHERE THE SUBJECT OF THE PROPOSAL IS IMPORTANT TO THEIR NATIONAL COMMERCIAL INTERESTS**

(Please see the [ISO/IEC Directives, Part 1, Annex C, Clause C.4.8](#))

The construction sector is a major engine of the global economy, projected to exceed USD 15 trillion by 2030. However, challenges in execution-phase performance remain widespread and differ across regions, highlighting the need for harmonized international standards.

- China, the world's largest market, continues to face coordination and productivity challenges in its vast infrastructure programs.
- In the United States, large-scale renewal initiatives experience recurring cost escalations and fragmented practices among states.
- India's rapid urbanization and megaprojects often encounter execution delays and inconsistent site management.
- Across Europe, sustainable construction ambitions are hindered by varying safety, digital, and environmental practices.
- The Persian Gulf countries and other emerging economies face similar issues of cost overruns and site coordination inefficiencies.

These examples reveal that both developed and developing markets suffer from systemic inefficiencies during the execution phase of construction projects. A unified set of international standards would help enhance predictability, safety, sustainability, and cross-border competitiveness across the global built environment.

(All supporting data and market evidence are summarized in [Annex 4](#), with references from the World Bank, OECD, and related benchmarking studies.)

#### **LISTING OF RELEVANT EXTERNAL INTERNATIONAL ORGANIZATIONS OR INTERNAL PARTIES (OTHER THAN ISO AND/OR IEC COMMITTEES) TO BE ENGAGED AS LIASONS IN THIS WORK**

(Please see the [ISO/IEC Directives, Part 1, Clause C.4.9](#))

The planned Technical Committee on Construction Management will work closely with a range of external international organizations and internal parties to make sure that the standards created take

into consideration global best practices and all stakeholder needs of the construction ecosystem. Organizations that we have identified to liaise with include:

- International Federation of Consulting Engineers (FIDIC): For expertise on construction contracts and project delivery models.
- International Construction Project Management Association (ICPMA): To integrate project management perspectives specific to construction.
- Construction Management Association of America (CMAA): For practical insights and industry alignment in construction management practices.
- World Federation of Engineering Organizations (WFEO): Representing global engineering interests and innovation.
- International Labour Organization (ILO): To address workforce safety, competency, and labor standards in construction.
- Global Infrastructure Hub: Bringing expertise in infrastructure delivery and international cooperation.
- Building SMART International: For guidance on BIM standards and digital integration.
- International Contractors Association and International Council for Research and Innovation in Building and Construction (CIB): For contractor perspectives and research-based insights.
- Major national construction management and civil engineering societies: For regional expertise and professional development.
- Project Management Institute (PMI) and International Project Management Association (IPMA): To align construction management standards with global project management frameworks.

In addition to the above, the committee will actively coordinate with relevant IEC technical committees as part of its liaison programme. The initial focus will be on the committees identified by the SPCG (IEC/TC 3, TC 23, TC 34, TC 36, TC 48, TC 44, TC 64, TC 65, TC 82, TC 116, TC 121, SyC Smart Energy, SyC Smart Cities, ITU-T SG5, ISO/IEC JTC 4 and ITU-T SG 20) to ensure that construction execution management guidance aligns with, and does not duplicate, electrotechnical and digital technical standards.

Preliminary consultation and calls for interest have been sought with several of these organizations to enable collaboration and ensure their viewpoints will be incorporated throughout the technical committee's work. This multi-stakeholder liaison approach will ensure a comprehensive, robust, and practice-based internationally agreed set of standards that support the evolving needs of the global construction industry.

## IDENTIFICATION AND DESCRIPTION OF RELEVANT AFFECTED STAKEHOLDER CATEGORIES

(Please see [ISO Connect](#))

The suggested TC involves a wide range of stakeholders whose active participation is vital to ensure broad global uptake and relevance, including: large and small to medium sized enterprises in the industry, regulators and government departments, clients and consumers, workers representatives, academia and research organizations, insurers and financiers, and NGO groups related to sustainability and safety. Each stakeholder category directly influences construction delivery approaches and their engagement will result in balanced, practical and international outcomes. More details of the stakeholder categories, examples and proposed benefits can be found in [Annex 5](#) (Stakeholder Map).

|                                        | Benefits/Impacts/Examples                                                                                                                                      |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Industry and commerce – large industry | Construction management professionals: Project managers, construction managers, site supervisors, and field engineers who will benefit from unified frameworks |
| Industry and commerce – SMEs           | Construction firms and contractors: Both large enterprises and SMEs, who require standardized processes for site management, safety, quality, and cost control |

|                                         |                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Government</b>                       | Government agencies and regulators: Responsible for public infrastructure delivery, procurement, and oversight, seeking to ensure transparency, efficiency, and compliance                                                                                                                      |
| <b>Consumers</b>                        | Clients and asset owners: Public and private sector organizations commissioning construction projects, who will benefit from improved risk management, cost predictability, and project outcomes                                                                                                |
| <b>Labour</b>                           | Workforce and labor organisations: Construction workers and their representatives, with a focus on safety, competency, and fair working conditions                                                                                                                                              |
| <b>Academic and research bodies</b>     | Technology providers and consultants : Companies delivering digital tools (e.g., BIM), management systems, and advisory services.<br>Academia and training institutions : Universités and professional bodies involved in education and certification of construction management professionals. |
| <b>Standards application businesses</b> | Insurance and finance institutions: Entities providing project insurance, bonding, and financing, who require reliable standards for Risk assessment.                                                                                                                                           |
| <b>Non-governmental organizations</b>   | Civil society and environmental organizations: Groups concerned with sustainability, safety, and community impact of construction activities.                                                                                                                                                   |
| <b>Other (please specify)</b>           | -                                                                                                                                                                                                                                                                                               |

## EXPRESSION OF LEADERSHIP COMMITMENT FROM THE PROPOSER

(Please see the [ISO/IEC Directives, Part 1, Annex C, Clause C.4.12](#))

INSO is willing to assume the secretariat if the proposal is approved. Details regarding the institutional capabilities and international standardization experience relevant to the proposed Secretariat role are presented in [Annex 6](#).

☒ The proposer confirms that this proposal has been drafted in compliance with iso/iec directives, part 1, annex c

## SIGNATURE OF THE PROPOSER

INSO

## COMMENTS OF THE ISO CENTRAL OFFICE (IF ANY)

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## **Annex 1 – Statistical Evidence and References**

| SOURCE                                                                  | KEY FINDINGS                                                                                     | TYPE OF EVIDENCE                   | FULL REFERENCE                                                                                                                                                                                       |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>WORLD BANK (2023) – INFRASTRUCTURE SECTOR REPORT</b>                 | Construction accounts for ~13% of global GDP and employs >220 million workers worldwide          | Global GDP & employment statistics | World Bank (2023). <i>Infrastructure Sector Overview</i> . Washington, DC: World Bank Group. <a href="https://www.worldbank.org">https://www.worldbank.org</a>                                       |
| <b>MCKINSEY GLOBAL INSTITUTE (2017) – REINVENTING CONSTRUCTION</b>      | Average cost overruns: 20–25%; Time/schedule delays: 40–60% across projects                      | Cross-sector benchmarking study    | McKinsey Global Institute (2017). <i>Reinventing Construction: A Route to Higher Productivity</i> . McKinsey & Company.                                                                              |
| <b>WORLD ECONOMIC FORUM (2016) – SHAPING THE FUTURE OF CONSTRUCTION</b> | Construction productivity grew by only 1% annually over 20 years vs. 3.6% in manufacturing       | Comparative productivity analysis  | World Economic Forum (2016). <i>Shaping the Future of Construction: A Breakthrough in Mindset and Technology</i> . Geneva: WEF.                                                                      |
| <b>FLYVBJERG, B. (2022) – OXFORD REVIEW OF ECONOMIC POLICY</b>          | >85% of megaprojects exceed cost or time/schedule; execution-phase mismanagement is a key factor | Peer-reviewed academic study       | Flyvbjerg, B. (2022). <i>How common and how large are cost overruns in transport infrastructure projects?</i> . <i>Oxford Review of Economic Policy</i> , 38(4), 675–695. DOI: 10.1093/oxrep/grac021 |

### **Notes:**

- The above references consolidate the statistical claims presented in the *Purpose and Justification* section.
- Each source is from a **globally recognized body (World Bank, WEF, McKinsey)** or a **peer-reviewed academic journal (Oxford University Press)**, ensuring reliability and credibility.

## **Annex 2 – Gap Analysis with Existing ISO Technical Committees**

| EXISTING ISO COMMITTEE                                                     | CURRENT SCOPE                                                                                                                                       | OVERLAP WITH PROPOSED TC                                    | GAP / MISSING COVERAGE (UNIQUE SCOPE OF PROPOSED TC)                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ISO/TC 258 – PROJECT, PROGRAMME AND PORTFOLIO MANAGEMENT                   | Development of methodologies and frameworks for project/programme governance, applicable across all industries (IT, manufacturing, services, etc.). | Partial: Both address project-related processes.            | TC 258 provides high-level governance frameworks but <b>does not cover real-time execution-phase management on construction sites</b> (e.g., logistics, subcontractor coordination, site safety). Proposed TC focuses on <b>site-level, sector-specific practices</b> . |
| ISO/TC 59 – BUILDINGS AND CIVIL ENGINEERING WORKS (AND SC 18 CONSTRUCTION) | Terminology, design principles, and technical requirements for buildings and civil works.                                                           | Partial: Both deal with construction industry.              | TC 59 addresses <b>“what to build”</b> (design, terminology, technical specs). Proposed TC addresses <b>“how to manage building it on site”</b> (planning, control, resources, performance measurement).                                                                |
| ISO/TC 176 – QUALITY MANAGEMENT AND QUALITY ASSURANCE                      | Development of generic quality management system standards (e.g., ISO 9001).                                                                        | Partial: Quality principles may be applied in construction. | TC 176 does not define <b>sector-specific quality</b> does not <b>define sector-specific quality coordination practices within construction execution environments</b> . Proposed TC contextualizes quality management in <b>construction delivery phase</b> .          |
| ISO/TC 207 – ENVIRONMENTAL MANAGEMENT                                      | Standards for environmental management systems (e.g., ISO 14001).                                                                                   | Partial: Construction is a high-impact sector.              | TC 207 addresses general EMS frameworks but does not provide <b>site-level, construction-specific guidance</b> (e.g., waste management at construction sites, temporary environmental controls).                                                                        |
| ISO/TC 292 – SECURITY AND RESILIENCE                                       | Standards for resilience, emergency management, community safety.                                                                                   | Minimal: Some relevance in safety and resilience.           | TC 292 focuses on organizational and societal resilience. Proposed TC focuses on <b>daily operational safety and resilience within construction execution</b> (e.g., temporary structures, workforce safety coordination).                                              |
| ISO/TC 205 – BUILDING ENVIRONMENT DESIGN                                   | Building services and indoor environment performance.                                                                                               | Very limited.                                               | TC 205 is about design of HVAC, lighting, and other building services. No overlap with construction site management.                                                                                                                                                    |
| ISO/TC 98 – BASES FOR DESIGN OF STRUCTURES                                 | Structural design principles and load considerations.                                                                                               | None.                                                       | TC 98 addresses engineering design calculations, not execution-phase management.                                                                                                                                                                                        |

| EXISTING ISO COMMITTEE                                                 | CURRENT SCOPE                                                    | OVERLAP WITH PROPOSED TC                       | GAP / MISSING COVERAGE<br>(UNIQUE SCOPE OF PROPOSED TC)                                                                                                                                                                  |
|------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ISO/TC 195 – BUILDING CONSTRUCTION MACHINERY                           | Machinery and equipment for construction (e.g., cranes, mixers). | Very limited.                                  | TC 195 covers equipment standards, not their <b>management, coordination, or integration at site level</b> .                                                                                                             |
| ISO 19650 SERIES – INFORMATION MANAGEMENT WITH BIM (UNDER TC 59/SC 13) | Information management using BIM across the lifecycle.           | Partial: BIM relevant to digital construction. | ISO 19650 focuses on information management frameworks across the lifecycle. The proposed TC addresses <b>managerial coordination practices during execution, without redefining information management structures</b> . |

### **Annex 3 – Mapping of Related ISO Technical Committees and Standards**

This mapping is provided for information purposes only and does not imply overlap or shared responsibility. The proposed TC remains limited to execution-phase construction management, as defined in the scope.

| COMMITTEE / STANDARD                                                             | PRIMARY SCOPE                                                                                  | COVERAGE RELATED TO CONSTRUCTION EXECUTION                                 | IDENTIFIED GAP / COMPLEMENTARITY                                                                                          |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>ISO/TC 258 – PROJECT, PROGRAMME AND PORTFOLIO MANAGEMENT</b>                  | Provides generic methodologies for project, programme, and portfolio governance across sectors | High-level frameworks, governance models, applicable to all industries     | Does not address real-time operational issues in construction (site logistics, subcontractor coordination, HSE practices) |
| <b>ISO/TC 59 – BUILDINGS AND CIVIL ENGINEERING WORKS (SC 13, SC 18, ETC.)</b>    | Terminology, design standards, general building requirements                                   | Focus on design, specifications, and building performance                  | No dedicated standards for on-site execution management or resource coordination                                          |
| <b>ISO/TC 176 – QUALITY MANAGEMENT AND QUALITY ASSURANCE</b>                     | Generic management system standards (e.g., ISO 9001)                                           | Provides broad quality management frameworks                               | Lacks sector-specific practices for construction execution and site delivery                                              |
| <b>ISO 10006 – QUALITY MANAGEMENT IN PROJECTS</b>                                | Guidelines for quality management in project processes                                         | Provides project-based quality principles, partly relevant to construction | Focuses on generic project processes, not the operational and site-based management unique to construction execution      |
| <b>ISO/TC 207 – ENVIRONMENTAL MANAGEMENT</b>                                     | Environmental management systems (ISO 14001)                                                   | Guidance for sustainability and environmental control                      | Does not address operational integration with construction execution processes                                            |
| <b>ISO/TC 167 – STEEL AND ALUMINIUM STRUCTURES</b>                               | Standards for design and execution of steel and aluminium structures                           | Covers both design and execution of steel/aluminium structures             | Does not address sector-wide management practices for construction execution                                              |
| <b>ISO/TC 71/SC 3 – CONCRETE PRODUCTION AND EXECUTION OF CONCRETE STRUCTURES</b> | Standards for production and execution of concrete structures                                  | Covers both design and execution of concrete structures                    | Does not address sector-wide management practices for construction execution                                              |
| <b>ISO/TC 195 – BUILDING CONSTRUCTION MACHINERY AND EQUIPMENT</b>                | Technical safety and performance requirements for machinery                                    | Covers safety and performance of construction machinery                    | Does not address sector-wide management practices for construction execution                                              |
| <b>ISO/TC 98 – BASES FOR DESIGN OF STRUCTURES</b>                                | Standards for the bases of design of structures                                                | Covers structural design principles                                        | Does not address sector-wide management practices for construction execution                                              |

| COMMITTEE / STANDARD                            | PRIMARY SCOPE                             | COVERAGE RELATED TO CONSTRUCTION EXECUTION  | IDENTIFIED GAP / COMPLEMENTARITY                                             |
|-------------------------------------------------|-------------------------------------------|---------------------------------------------|------------------------------------------------------------------------------|
| <b>ISO/TC 205 – BUILDING ENVIRONMENT DESIGN</b> | Standards for building environment design | Covers design of building environments      | Does not address sector-wide management practices for construction execution |
| <b>ISO/TC 301 – ENERGY MANAGEMENT</b>           | Standards for energy management           | Covers energy management in various sectors | Does not address sector-wide management practices for construction execution |
| <b>ISO/TC 147 – WATER QUALITY</b>               | Standards for water quality               | Covers water quality in various sectors     | Does not address sector-wide management practices for construction execution |
| <b>ISO/TC 190 – RELIABILITY</b>                 | Standards for reliability                 | Covers reliability in various sectors       | Does not address sector-wide management practices for construction execution |

## **Annex 4 – Key Countries. Construction Market Value, and Relevance to Proposed Construction**

| COUNTRY                           | CONSTRUCTION<br>MARKET VALUE<br>(USD) | KEY<br>DRIVERS                  | FLAGSHIP PROJECTS                                                        | TYPICAL<br>EXECUTION<br>CHALLENGES                                                              | RELEVANCE TO TC                                                                  | SOURCE/REFERENCE                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------|---------------------------------------|---------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CHINA                             | \$2,500 B                             | Urbanization,<br>Infrastructure | Beijing Daxing Airport, Belt<br>& Road                                   | Cost overruns,<br>coordination<br>inefficiencies                                                | Improve site<br>management, quality,<br>digital integration                      | McKinsey, World Bank,<br>OECD                                                                                                                                                                                                                                                                                                                                                                              |
| USA                               | \$1,200 B                             | Infrastructure,<br>Smart Cities | LA Metro Expansion,<br>Hudson Yards                                      | Fragmented regulation,<br>inflation risks                                                       | Risk reduction, safety,<br>productivity                                          | WEF, ENR, OECD                                                                                                                                                                                                                                                                                                                                                                                             |
| INDIA                             | \$800 B                               | Urban growth,<br>Mega projects  | Delhi-Mumbai Corridor,<br>Smart Cities                                   | Delays, land<br>acquisition issues                                                              | Standardized<br>execution, workforce<br>coordination                             | OECD, ADB                                                                                                                                                                                                                                                                                                                                                                                                  |
| GERMANY                           | \$400 B                               | Sustainable<br>construction     | Stuttgart 21 Rail, Autobahn<br>upgrades                                  | Planning delays,<br>digitalization gaps                                                         | Sustainability<br>alignment, HSE<br>practices                                    | McKinsey, World Bank                                                                                                                                                                                                                                                                                                                                                                                       |
| THE PERSIAN<br>GULF<br>COUNTRIES* | ≈ \$150–180 B<br>(2024–2025 est.)     | Large-scale<br>infrastructure   | Riyadh Metro, NEOM,<br>Dubai Expo 2020, Doha<br>Infrastructure Expansion | Contract enforcement,<br>performance metrics,<br>coordination of multi-<br>national contractors | Need for harmonized<br>construction execution<br>standards and KPI<br>frameworks | <ul style="list-style-type: none"> <li>▪ <i>Mordor Intelligence (2025)</i> – “GCC Construction Market Size and Share”</li> <li>▪ <i>IMARC Group (2024)</i> – “GCC Construction Market: Industry Trends, Share, Size, Growth, and Forecast 2024–2032”</li> <li>▪ <i>MEED / Arab News (2023)</i> – “GCC projects market stands at a combined value of US\$ 3.1 trillion” (pipeline value context)</li> </ul> |

\* **Notes:** According to multiple international market analyses (Mordor Intelligence, IMARC Group, and MEED), the annual construction market value across the GCC region is estimated between USD 150–180 billion, with a total active project pipeline exceeding USD 3 trillion.

## **Annex 5 – Stakeholder Map for the Proposed TC on Construction Management**

| <b>STAKEHOLDER CATEGORY</b>                      | <b>EXAMPLES OF ACTORS</b>                                                                        | <b>INTERESTS &amp; EXPECTED BENEFITS</b>                                                                                                      |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>INDUSTRY AND COMMERCE – LARGE ENTERPRISES</b> | Major construction companies, international contractors, engineering & procurement firms (EPCs)  | Harmonized standards for site execution, improved performance benchmarking, reduced contractual disputes, enhanced cross-border collaboration |
| <b>INDUSTRY AND COMMERCE – SMES</b>              | Local contractors, specialty subcontractors, SMEs in construction supply chain                   | Access to practical, affordable, and internationally recognized standards; improved competitiveness and efficiency in global projects         |
| <b>GOVERNMENT &amp; REGULATORS</b>               | Ministries of infrastructure, public works departments, regulatory bodies, municipal authorities | Transparent procurement, improved compliance, enhanced safety and quality outcomes in public projects                                         |
| <b>CLIENTS &amp; CONSUMERS (ASSET OWNERS)</b>    | Public agencies, private investors, developers, infrastructure owners                            | More predictable cost, time/schedule, and quality performance; reduced project risks and improved return on investment                        |
| <b>LABOUR &amp; WORKFORCE REPRESENTATIVES</b>    | Construction workers, trade unions, professional associations                                    | Improved safety, competency recognition, fair working conditions, and structured career development                                           |
| <b>ACADEMIA &amp; RESEARCH BODIES</b>            | Universities, professional training institutions, construction research centers                  | Frameworks for curriculum development, alignment with global best practices, opportunities for applied research                               |
| <b>TECHNOLOGY PROVIDERS &amp; CONSULTANTS</b>    | BIM/digital tool providers, IT firms, management consultancies                                   | Guidance for integrating digital technologies at site level, ensuring interoperability and adoption in SMEs                                   |
| <b>INSURANCE &amp; FINANCE INSTITUTIONS</b>      | Project insurers, lenders, investment banks                                                      | Reliable benchmarks for risk assessment, contract enforceability, and financial predictability                                                |
| <b>NGOS &amp; CIVIL SOCIETY</b>                  | Sustainability organizations, community advocacy groups, safety and environmental NGOs           | Improved sustainability, community impact mitigation, and assurance of responsible construction practices                                     |
| <b>STANDARDS APPLICATION BUSINESSES</b>          | Certification bodies, auditors, training & accreditation providers                               | Expanded scope of services, new certification schemes, and harmonized global recognition                                                      |

## **Annex 6 – Institutional Capacity and International Experience Supporting Secretariat Responsibilities**

The Institute of Standards and Industrial Research of Iran (INSO), by leveraging the capacity of its stakeholders and available resources—including, among others, the Iran Quality Management Society, which is actively engaged in these areas—can play an effective and proactive role in taking over the Secretariat. Some of the activities of this organization include:

### **1. Introduction and History**

- **Established:** 1997, as an independent entity within the Iran Chamber of Commerce.
- **Founding Goal:** Promote quality management and standardization in Iran following early ISO 9000 and ISO 14000 certifications by domestic organizations.
- **Founding Figures:** Invited by late Mir Ahmad Sadat, former head of the National Standards Organization of Iran, to pioneer quality initiatives nationally.
- **URL:** <https://iranqms.com/>

### **2. Key Achievements**

- **Membership:** Over 400 organizations, including leading production and service companies.
- **Training:** Nearly 1,000 quality management system assessors trained.
- **Recognition:** Selected as top-ranked A1 organization by the Iran Chamber of Commerce.

#### **Major Initiatives:**

- Conducted **international conferences, seminars, roundtables**, and training for tens of thousands of managers.
- Published **~100 specialized books** on quality management, including Juran's Handbook (5 volumes).
- Produced "**Quality and Management**" journal for over 20 years.
- Designed national models for **quality transformation** and advised multiple government agencies on quality strategy implementation.
- Developed sector-specific quality improvement projects, e.g., automotive supply chain.

### **3. International Participation**

- Continuous involvement in **ISO/TC 176** since 1994.
- Key contribution to **ISO 9000/9004 series development**.
- Active representation in international standardization and ISO board-related activities.

### **4. Models and Tools Developed**

#### **4.1 Sustainable Success Assessment Model (SSAM)**

- Launched: November 2023.

- Based on ISO 9004:2018, focuses on **organizational sustainable success**.
- Covers planning, implementation, evaluation, and continuous improvement.
- Emphasizes customer focus, stakeholder engagement, and organizational identity.

#### 4.2 Quality Managers' Knowledge and Skills Assessment Model (PQM)

- Designed to assess **competence of quality managers and specialists**.
- Addresses gaps in selection, training, and evaluation of managers.
- Includes **written tests, self-declaration forms, and interviews**.
- Certification levels: basic, intermediate, professional.

#### 5. Education, Training, and Research

- **Quality Management Academy:** Provides in-person and virtual courses.
- **Virtual Training System:** Developed for members and wider audiences, especially post-COVID.
- **Specialized Working Groups:** Automotive, construction, food, AI, innovation, IP, etc.
- **Research Center:** Supports research in quality management and standardization.
- **Publications:** Over 50 books, journals, and articles; national and international reach.

#### 6. Governance and Secretariat Capacity

- Executive and scientific committees oversee models and assessments.
- Full operational and financial responsibility managed by IQMS Secretariat.
- Demonstrated ability to **organize large-scale projects, conferences, awards, and national initiatives** without external financial burden.

#### 7. Call for Cooperation

- IQMS invites **organizations, professionals, and academic institutions** to participate in development and training programs.
- Online registration and information: [www.IranPQM.com](http://www.IranPQM.com), [www.ssamodel.com](http://www.ssamodel.com)