ISO FORM 1
ISO TS/P 338

PROPOSAL FOR A NEW FIELD OF TECHNICAL ACTIVITY

PROPOSER:

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DATE OF CIRCULATION:

2026-07-10

CLOSING DATE FOR VOTING:

2026-10-02

A proposal for a new field of technical activity shall be submitted to the Office of the CEO (to 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)

Clusters

SCOPE

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

Standardization in the field of cluster governance, including principles, governance structures, diagnostic methods, coordination mechanisms, performance assessment, and implementation tools to improve cluster functioning and productivity.

Excluded:

– Work on innovation management, including innovation ecosystems, covered by ISO/TC 279;
– Work on quality management system standards, covered by ISO/TC 176.

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)

The discussion on the proposed new technical field of clusters is organized as follows:

1. Overview of the Concept of Clusters

1.1 Theoretical Concept

The concept of clusters has been extensively studied and applied globally. In economic theory, Porter (1998) defines clusters as “geographic concentrations of interconnected companies and institutions in a particular field, linked by commonalities and complementarities”. This proposal adapted the **United Nations Industrial Development Organization (UNIDO),** in *the UNIDO Approach to Cluster Development*, defines clusters as “geographical concentrations of inter-connected enterprises and associated institutions that face common challenges and opportunities”.

This definition thus highlights two essential features:

1)Clusters consist of a critical mass of enterprises located in geographical proximity to each other; 2) and Enterprises in a cluster share a number of common features.

Besides enterprises, clusters also include support institutions, such as: business associations; business development service (BDS) providers; financial service providers; public authorities such as local, regional and national governments and regulatory agencies; training agencies such as vocational schools, universities (UNIDO. 2013).

2. Rationale for developing Clusters and Clusters Governance

2.1 Economic and innovation benefits

Clusters play a key role in economic growth by improving productivity, enabling collective efficiency and fostering innovation, and supporting business formation. Existing research highlights their contribution to regional and global economic development (Porter, 1998; Delgado et al., 2014).

a) Enhancing productivity

Clusters increase productivity by providing firms with better access to specialized suppliers, skilled labor, and shared infrastructure. The proximity of firms enhances operational efficiency and encourages knowledge exchange, thereby strengthening industry competitiveness (Porter, 1998).

b) Enabling collective efficiency

Clusters enable enterprises, especially SMEs, to overcome the limitations of operating in isolation. By reducing the transaction and coordination costs that often hinder cooperation, clusters make it possible for firms and support institutions to engage in joint actions such as shared procurement, service provision, skills development and quality upgrading. These collective efforts generate "collective efficiency," which has been widely recognized as a key driver of improved economic performance. Additionally, clusters drive innovation by enabling knowledge spillovers and collaboration among firms and institutions. The high concentration of enterprises accelerates idea exchange and investment in research and development, fostering technological advancements (Delgado et al., 2014).

c) Supporting Business Formation

Clusters support entrepreneurship by reducing entry barriers and providing access to financial resources, skilled talent, and industry networks. Research suggests that strong clusters are closely linked to the emergence of new industries, while knowledge spillovers from neighboring clusters further enhance business development (Delgado et al., 2014; Feldman & Audretsch, 1999).

However, clusters do not always automatically generate competitiveness or inclusive growth. Their contribution to broader value chains,whether local (e.g., handicrafts, terroir-based food products) or global (e.g., automotive, apparel, varies widely, and in some cases clusters may not emerge as an organizing principle of production at all. Where clusters do play a significant role in value chains, targeted governance interventions could enhance value chain performance and strengthen regional competitiveness. **For example,** in many developing and emerging economies, cluster performance remains sluggish. Enterprises in stagnating clusters often operate with outdated technologies. Shortages in infrastructure, skills, and essential business services limit their ability to upgrade product quality or capture new market opportunities. These bottlenecks directly hinder firms' capacity to meet international standards of quality, safety, and efficiency that are increasingly required for integration into global value chains.

Effective cluster governance helps address these bottlenecks. It provides a structured approach to diagnosing constraints, coordinating actions among firms and support institutions, facilitating collective efficiency, and enabling SMEs to overcome the isolation that typically limits their growth potential. (UNIDO, *What are clusters and networks?* webpage)

2.2 Global Practices and International Trends

Governments around the world have placed great emphasis on clusters as strategic mechanisms to enhance regional economic vitality and industrial competitiveness. Based on differing industrial characteristics and development stages, countries have adopted diverse governance models to support cluster development.

In the **United States**, federal and state governments have launched initiatives such as the Regional Tech Hubs and the Energy Program for Innovation Clusters (EPIC) to support clusters in high technology and clean energy sectors. Regional clusters such as Silicon Valley have become global symbols of technological innovation. The U.S. also employs data platforms such as the Cluster Mapping Project to support cross-regional policy-making and participates in the World Economic Forum's "Transitioning Industrial Clusters Initiative" to promote cross-border decarbonization collaboration.

The **European Union** has supported the formation of more than 1,200 cluster organizations across key sectors such as digital technologies, green energy, and life sciences. Through mechanisms including the European Cluster Collaboration Platform (ECCP), ClusterXchange, and the EREK network, the EU has developed transnational cluster cooperation frameworks. Complementary tools such as the Cluster Excellence Label and the Smart Specialisation Partnerships enhance interoperability and capacity-building among clusters.

In **Japan**, the government promotes programs such as the Knowledge Cluster Initiative and Regional Innovation Strategy under the *Act on the formation and revitalization of regional industrial clusters through the promotion of business location*. Eighteen cross-sectoral clusters have been established, focusing on manufacturing, life sciences, and advanced materials.

South Korea has developed over 900 clusters under the Industrial Complex Cluster Development Act, covering more than 60% of national manufacturing output. Through the Industrial Complex Cluster Program, the government promotes collaboration among universities, enterprises, and research institutions. Recent efforts focus on high-end industries such as semiconductors and biopharmaceuticals, fostering both international cooperation and localized innovation.

In **China**, clusters serve as a key component of national strategies for strengthening manufacturing. The Ministry of Industry and Information Technology has established a dedicated institution to oversee cluster development, promoting the identification, capacity assessment, and pilot implementation of key clusters.

In **Latin America**, countries such as **Chile** focus on resource-based sectors like copper, hydrogen, and forestry, advancing green transition efforts in collaboration with the EU and multilateral institutions. **Colombia** has developed the Red Cluster framework to integrate industries such as coffee and bio-trade, establishing globally relevant and sustainable supply chains.

Across **Africa**, cluster development is embedded in national industrial strategies, often supported by international organizations. Countries promote industrial parks, agro-clusters, and quality training programs. The **WACOMP project in West Africa** integrates cluster development with quality infrastructure (QI), emphasizing coordination between clusters, standardization, and conformity assessment mechanisms.

In **ASEAN**, member states have adopted cluster-based development strategies—such as Malaysia in electronics, Thailand in automotive, and Indonesia in palm oil—within the broader ASEAN Economic Community framework. These efforts promote cross-border mutual recognition and collaborative regional clusters. Several countries are experimenting with performance indicators and governance frameworks, laying the groundwork for pre-standardization activities.

Although many governments position clusters as strategic policy tools, policy initiatives alone do not always lead to effective cluster development. International experience shows that cluster performance depends not only on funding or designation, but also on the availability of practical governance methods that help stakeholders identify priorities, coordinate actions, and make efficient use of public and private resources.

Policy makers themselves increasingly rely on technical guidance to inform cluster-related decisions. For example, the TCI Network's Cluster Policy Roadmap (TCI, 2021) is a guide on how to build the best cluster policy framework with experiences and learnings from across the world. These trends suggest both the necessity and feasibility of coordinated international standardization work in the field of cluster governance, to support more consistent and effective implementation across countries.

3. Standardization for better governance

Over the past decade, several organizations have developed practical guides and toolkits to support cluster development and governance. Examples include:

- **GIZ (2021)** — *Cluster Development Guide: A Practitioners' Guide for Cluster Policy, Strategy and Implementation*.
- **TCI Network's *Evaluating Clusters for Learning* (2022)** provides guidance for policymakers and practitioners on developing evaluation frameworks for cluster programmes. It encourages discussion on why, how and when to evaluate cluster activities, supports the design of coherent evaluation strategies at both policy and initiative levels, and outlines methods that can be used within such strategies.
- **TCI Network's *Cluster Policy Roadmap* (2021)** offers a structured guide for building effective cluster policy frameworks, drawing on international experiences and lessons learned across different regions.
- **UNIDO's Cluster Development Approach** — a widely recognized methodology structured around: participatory cluster selection, appointment of a Cluster Development Agent (CDA), diagnostic studies, vision building and action planning, implementation through local, and monitoring and evaluation.

These publications demonstrate a clear demand for structured methods in cluster governance. International standards could enhance the visibility, consistency and transferability of such methods, making them easier to disseminate, adapt and apply across jurisdictions, ultimately contributing to stronger cluster performance and better development outcomes.

Unlike policy frameworks, which remain the responsibility of governments, **standards would focus on the practical governance methods used by cluster managers and similar actors**, such as industry associations, cluster organizations, development agencies and regional support institutions.

3.2 Filling Gaps and serve as a good complement to ISO standards system

Based on ISO/CS initial assessment and proposer response, the relationship between the proposed work and three related technical committees is summarized as follows.

- **ISO/TC 268 (Sustainable Cities and Communities)**
- **ISO/TC 279 (Innovation Management)**
- **ISO/TC 324 (Sharing Economy)**

- **ISO/TC 268:** Clusters can fall within the broad notion of "communities" under ISO 37100. However, ISO/TC 268 and JTC 4 focus on smart and sustainable development goals, whereas the proposed work focuses on cluster governance methods—such as diagnosis, coordination and performance improvement.
- **ISO/TC 279** focuses on innovation management, including innovation management systems within organizations and innovation ecosystem management. For innovation-oriented clusters whose primary objectives are technological breakthroughs and knowledge-based collaboration, the standards developed by ISO/TC 279 may provide important references. However, not all clusters take innovation as their primary objective. Many clusters, particularly in developing countries, first serve functions such as industrial agglomeration, supply chain coordination, SME capability enhancement and regional development. Therefore, this proposal aims to address the governance of clusters as a regional and sectoral form of economic organization,
- **ISO/TC 324** ISO/TC 324 focuses on platforms and the exchange of assets, services, and access between platform operators, providers and users, including models that may operate regionally such as ride-sharing or shared manufacturing. These activities may occasionally appear within cluster contexts, but TC 324 addresses the transactional and platform-based mechanisms of sharing, rather than the governance of territorially defined industrial clusters. The proposed work will therefore take into account the relevant elements developed in ISO/TC 324 while avoiding overlap by restricting its focus to cluster governance methods.

The proposed new committee on "Cluster" will not duplicate existing efforts but will instead complement them by focusing on the standardization of clusters as structured, territorially defined development systems.

3.3 Contributions to ISO strategies and the SDGs

a) Supporting ISO Strategy 2030: Standardization in clusters provides relevant standards for countries and regions seeking a common approach to enhance their clusters. This aligns with ISO's mission in "Strategy 2030": "ISO standards used everywhere, meeting global needs, all voice heard."

b) **Contributing to the Sustainable Development Goals (SDGs)**: According to UNIDO, its approach to cluster development contributes to achieving the SDGs in various ways (UNIDO, 2020). Standardizing clusters serves as a powerful mechanism for advancing multiple SDGs, such as fostering economic growth, innovation, social equity, and environmental sustainability through collaborative and structured approaches.

- **Improving productivity and enabling inclusive economic growth(SDG 8)**
- **Fostering innovation and sustainable industrial development (SDG 9)**
- **Promoting skills development and gender equity through institutional support (SDG 4 & 5)**
- **Integrating marginalized populations and reducing structural inequalities (SDG 1 & 10)**
- **Encouraging sustainable use of natural and cultural resources (SDG 15)**

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 work programme consists of two parts: (1) foundational standards to build common understanding, and (2) standardization initiatives aligned with the three typical phases of cluster development — **Initiation, Establishment, and Operationalisation.** These phases reflect the progressive nature of cluster evolution, from early-stage formation to long-term upgrading and global integration.

1. Foundational Standards

- ***Clusters — Vocabulary (IS)***
- ***Clusters — Classification framework (IS)***
  Proposes to provide a multi-dimensional, tag-based framework for classifying clusters by sector, development stage, geographic scale, and strategic focus, supporting statistical comparability and international benchmarking.

2. Standardization initiatives aligned with the four typical phases of cluster development

(a) Initiation Phase

- ***Clusters — Guidelines for initiating cluster development projects (PAS, to be converted to IS)***
  Proposes to develop practical guidance for launching cluster initiatives, covering feasibility assessment, goal-setting, stakeholder mobilization, and early-stage planning.
- ***Clusters — Mapping guidelines for emerging cluster potential (PAS)***
  Proposes to provide a recommended methodology for identifying potential clusters, including recommended indicators and optional analytical techniques such as location quotient analysis and value chain mapping. It will not involve data collection or prescribe specific policy actions.
- ***Clusters — Stakeholder mapping and engagement guide (TR)***
  Proposes to compile best practices and case studies on identifying, categorizing, and engaging key stakeholders
- ***Clusters — Needs assessment and opportunity identification guidelines (TS preferred)***
  Proposes to define a structured approach to evaluate the potential clusters identified through mapping exercises, assess their development needs, and prioritize opportunities for intervention.

(b) Establishment Phase

- ***Clusters — Governance guidelines — Organizational structures (TS)***
  Proposes to develop guidance on organizational and institutional structures for cluster governance, including roles, responsibilities, and coordination mechanisms among key stakeholders.
- ***Clusters — Guidelines for operationalizing cluster strategy (TS preferred)***
  Proposes to define practical approaches for translating cluster development strategies into actionable plans, including resource allocation, prioritization of initiatives, and coordination mechanisms to ensure effective implementation.
  (Positioned in the Establishment Phase to ensure that clusters have a robust organizational and planning basis before moving into full-scale operations.)

(c) Operationalization Phase

- ***Clusters — Guidelines for operational performance and service delivery (TS)***
  Proposes to provide a recommended framework for planning and delivering cluster support services, including common service types (e.g. training, innovation facilitation, market access), delivery mechanisms (physical hubs, digital platforms), and key performance considerations to ensure efficiency and impact.
- ***Clusters — Guidelines for diagnostic assessment***
  Provides guidance for conducting diagnostic assessments of clusters, including understanding the socio-economic and institutional environment, identifying key constraints and opportunities, and determining potential leverage points for intervention.
- ***Clusters — Monitoring and evaluation framework (TS)***
  Proposes to define a set of recommended indicators and methodologies for assessing cluster performance, covering economic, innovation, and collaboration dimensions, with a view to possible future conversion to an IS as global consensus matures.
- ***Clusters — Internationalization and benchmarking guide (TR)***
  Proposes to compile international good practices on cluster internationalization (cross-border partnerships, joint R&D, trade promotion) and benchmarking approaches.

The work of the new TC will be carried out in the following order:

The foundational standards (Vocabulary and Classification) are targeted for completion within 36 months to establish a common language and classification framework. Subsequent deliverables across the Initiation, Establishment, Operationalization, and Transformation phases may be developed in parallel, allowing already-functioning clusters to benefit from governance and operational guidelines within 2 years after the publication of foundational standards.

RELATION OF THE PROPOSAL TO EXISTING INERNATIONAL 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.

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

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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)

1. **Organization for Economic Cooperation and Development (OECD)**
   Clusters, Innovation and Entrepreneurship (2009)
2. **United Nations Industrial Development Organization**
   UNIDO approach to cluster development (2013)
3. **Brazil Federal Government**
   "Policy for Supporting the Development of Local Productive Arrangements", Chapter 1, Introduction.
4. **Chinese National Standards (GB)**
   - Guideline for brand cultivation—Industrial cluster GB/T 39064-2020
5. **Chinese Group Standards**
   - Framework guidelines for foundry industrial cluster (park) T/CFA 031009-1-2016
   - Framework guidelines for clean industrial cluster T/CASME 001—2017
   - Modern logistics industrial cluster service specification T/TZZL 7—2019
   - Guide for promotion agency construction on advanced manufacturing cluster T/CSCMA 0001—2020
   - Construction machinery industrial cluster supplier evaluation rules T/CSCMA 0002—2021
   - Technical specifications for the construction of digital transformation platform for characteristic industrial clusters in Guangzhou T/GZBZ 17—2022
   - Eco-access specification for digital transformation platform of Guangzhou characteristic industrial clusters
   - T/GZBZ 18—2022
   - Technical Guidelines for the Comprehensive Treatment of Volatile Organic Compounds in Industrial Parks (Industrial Clusters) - One Park (Cluster), One Strategy T/WHAEPI 009—2023
   - Specification of regional industrial cluster brand construction services T/STIC 120080—2023
   - Public service platforms of electronic information advanced manufacturing cluster in Chengdu Chongqing region-General management specification T/CDEIIEA 8—2024
   - Public service platforms of electronic information advanced manufacturing cluster in Chengdu Chongqing region-Network platform function specification T/CDEIIEA 9—2024
   - Public service platforms of electronic information advanced manufacturing cluster in Chengdu Chongqing region-Service provide party evaluation index system T/CDEIIEA 10—2024
6. **Germany Federal Government Report**
   "The new High-Tech Strategy，Innovations for Germany"(2014), Section 2，Networking and transfer mentioned "In the framework of the High-Tech Strategy, over the past few years numerous cooperative efforts, clusters and networks have been established in which numerous partners from the areas of science, industry and society collaborate."
7. **Japanese Government Act No. 40**
   "Act on the formation and revitalization of regional industrial clusters through the promotion of business location"，(2007) Chapter I General Provisions (the purpose) Article 1 .
8. **The United States Federal Government Act**
   "America COMPETES Reauthorization Act of 2010"，(2010)Section 27 **Regional Innovation Program**, mentioned "(a) ESTABLISHMENT.—The Secretary shall establish a regional innovation program to encourage and **support the development of regional innovation strategies, including regional innovation clusters and science and research parks.**"
9. **TCI Network**
   TCI Network's Evaluating Clusters for Learning (2022)
   TCI Network's Cluster Policy Roadmap(2021)
10. **Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).** Cluster Development Guide: A practitioners' guide for cluster policy, strategy and implementation. (2021)

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)

Clusters play a key role in economic growth by improving productivity, fostering innovation, and supporting business formation, benefiting all countries.
Countries that have had preliminary communication and are interested in participating in related fields includes Brazil and Russia, where preliminary outreach with experts and foundry industry associations has indicated initial interest in this work.
Countries that have advantages or needs in the management of clusters and potential interest in new technology fields: The United States, Japan, German, Brazil, Chile, Colombia, Indonesia, Malaysia, Thailand, Vietnam, South Korea. These countries generally attach importance to cluster development and have established experience and research in this area.

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)

- **UNIDO, (the supportive letter from UNIDO on this new TC attached as annex)**
- **APEC SME Innovation Center,**
- **TCI NETWORK**
- **BRICS Foundry Association,**
- **ISO/TC 268 (Sustainable Cities and Communities),**
- **ISO/TC 279 (Innovation Management),**
- **ISO/TC 324 (Sharing Economy)**
- **European Secretariat for Cluster Analysis (ESCA)**
- **European Cluster Collaboration Platform (ECCP)**
- **Economic Commission for Latin America and the Caribbean (ECLAC)**

IDENTIFICATION AND DESCRIPTION OF RELEVANT AFFECTED STAKEHOLDER CATEGORIES
(Please see ISO Connect)

	Benefits/Impacts/Examples
Industry and commerce – large industry	-**Resource sharing and cost reduction:** Through geographic concentration, clusters enable large firms to share specialized infrastructure, supply chain resources and public services, thereby significantly reducing production and transaction costs. -**Knowledge spillover and technological innovation:** clusters provide an environment for knowledge flow and technological spillover for large enterprises. **-International Competitiveness and Market Penetration:** Clusters enhance the global competitiveness of large enterprises by improving regional brand effect and industrial concentration. **Examples**: Apple, China CRRC Group

Industry and commerce – SMEs	SMEs form the backbone of most clusters, representing the majority of participating firms and generating a large share of local employment. Clusters lower entry barriers for SMEs by providing shared infrastructure and facilitating access to skilled labor and specialized suppliers. They create opportunities for SMEs to collaborate with large enterprises, benefit from knowledge spillovers, and integrate into global value chains. Public service platforms within clusters also support SME growth by offering financing channels, training programs, and international marketing opportunities, thus enhancing competitiveness and resilience. **Example:** Tirupur in India hosts an agglomeration of more than 7,000 SMEs exporting over USD 650 million of cotton hosiery annually, accounting for over 80 % of India's exports in this segment. source: Development Clusters Networks SMEs -UNIDO
Government	-**Driving economic growth:** Clusters established through standardization are more attractive to external investors, helping the government to attract large multinational enterprises, creating more jobs and driving the development of local small and medium-sized enterprises (SMEs), which in turn drives economic growth and strengthens the comprehensive national power. -**Provides a basis for the government to formulate policies:** The introduction of new cluster standards can also serve as technical references for legislation and public procurement, promoting competition under standardized rules. **For example**, according to official statistics and government reports, Shenzhen's nominal GDP grew from approximately RMB 270 million in 1980 to RMB 3.46 trillion in 2023, driven largely by its manufacturing and high-tech industry clusters.
Consumers	-**Quality improvement and standardization guarantee:** Cluster standards ensure higher product quality through stricter quality control systems. -**Price advantage and cost reduction:** Consumers also benefit from lower prices enabled by economies of scale. **For example,** Yiwu's small commodity cluster supplies affordable goods to millions of buyers worldwide

Labour	Clusters are often dominated by SMEs, which tend to have more labour-intensive production profiles. As UNIDO notes, many SME clusters in developing countries are concentrated in sectors such as garments, footwear, metal products, furniture, and food processing, and thus generate significant employment opportunities. These clusters often attract unskilled or marginal workers, including women, migrants, and those from poorer communities. By creating a large number of entry-level jobs and opportunities for skill upgrading, clusters can have a strong pro-poor impact and contribute to poverty reduction.. Source :UNIDO *INDUSTRIAL CLUSTERS* *AND POVERTY REDUCTION Towards a methodology for poverty and social impact assessment of cluster development initiatives* **For example,** the Tirupur garment cluster in India has created jobs for tens of thousands of migrant and female workers. Source: Worker welfare in export zones: Lessons from a garment cluster in South India (Tiruppur)
Academic and research bodies	**-Enhancing Research Funding and Collaboration :** Standardized clusters attract research funding and foster collaboration between academia and industry. -**Accelerating Technology Commercialization and Knowledge Transfer：** Research institutions collaborate with enterprises for pilot testing, validation, and scaling, ensuring faster market adoption. **Examples:** MIT, Harvard, and Boston Life Sciences Corridor.
Standards application businesses	-**Expanding Market Demand and Business Opportunities：** Cluster govnernance encourages enterprises to adhere to unified standards, increasing demand for certification, testing, and evaluation. Certification bodies can expand their customer base, with business volume growing alongside the cluster's expansion. -**Enhancing Certification and Testing Efficiency：** Cluster enterprises adopt similar standards, facilitating large-scale certification and testing. Standards application bodies can integrate resources, reduce costs, shorten audit cycles, and enhance competitiveness. Examples: UL(Underwriters Laboratories), SGS(Société Générale de Surveillance), JQA(Japan Quality Assurance Organization)

Non-governmental organizations	Participation in cluster standardization efforts allows NGOs to advance their missions more effectively by promoting social and environmental responsibility within industrial ecosystems. It provides them with increased visibility and legitimacy, strengthens their role as advocates for worker welfare and sustainability, and enables closer collaboration with governments, enterprises, and international organizations. NGOs can also benefit from capacity-building opportunities, improved access to data and decision-making processes, and a platform to scale up pilot initiatives and best practices. Source: ICVA — Review of NGO Leadership Roles in Clusters **For example** : in Kyrgyzstan an agricultural NGO reported that participation in clusters encouraged them to become "more sophisticated and more organized," and to place greater emphasis on transparency and accountability toward both government and beneficiaries. Source : Serventy, M. (2013, January 11). National NGOs and the cluster approach: The "authority of format." Humanitarian Practice Network.
Other (please specify)	Click or tap here to enter text.

EXPRESSION OF LEADERSHIP COMMITMENT FROM THE PROPOSER

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

SAC confirms that it is prepared to undertake the secretariat work for the proposed new technical committee on clusters and will provide all the necessary resources to support its activities.

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

SIGNATURE OF THE PROPOSER

SAC

COMMENTS OF THE ISO CENTRAL OFFICE (IF ANY)

Click or tap here to enter text.

Reference:

- Barrientos, S., & Smith, S. (2007). Do workers benefit from ethical trade? Assessing codes of labour practice in global production systems. *Third World Quarterly, 28*(4), 713–729. https://doi.org/10.1080/01436590701336580
- Delgado, M., Porter, M. E., & Stern, S. (2014). Clusters, convergence, and economic performance. *Research Policy, 43*(10), 1785–1799.
- ICVA. (2015). *Review of NGO leadership roles in clusters.* International Council of Voluntary Agencies. https://www.icvanetwork.org/resource/review-ngo-leadership-roles-clusters/
- Marshall, A. (1890). *Principles of Economics.* London: Macmillan.
- OECD. (2009). *Clusters, innovation and entrepreneurship.* Local Economic and Employment Development (LEED). OECD Publishing.
- Porter, M. E. (1998). Clusters and the new economics of competition. *Harvard Business Review, 76*(6), 77–90.
- Schmitz, H. (1995). Collective efficiency: Growth path for small-scale industry. *The Journal of Development Studies, 31*(4), 529–566.
- Serventy, M. (2013, January 11). National NGOs and the cluster approach: The "authority of format." *Humanitarian Practice Network.*
- UNIDO. (n.d.). *Clusters and networks development.* United Nations Industrial Development Organization. Retrieved September 2025
- UNIDO. (2008). *Industrial clusters and poverty reduction: Towards a methodology for poverty and social impact assessment of cluster development initiatives.* United Nations Industrial Development Organization.
- UNIDO. (2013). *The UNIDO approach to cluster development: Key principles and project experiences for inclusive growth.* United Nations Industrial Development Organization.
- World Bank. (2009). *Clusters for competitiveness: A practical guide and policy implications for developing cluster initiatives.* The World Bank.
- Worker welfare in export zones: Lessons from a garment cluster in South India (Tiruppur). (2013). *Policy Briefing 3.* Institute of Development Studies