



## FORM 1: PROPOSAL FOR A NEW FIELD OF TECHNICAL ACTIVITY

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<b>Proposer</b> SAC	<b>ISO/TS/P 304</b>

A proposal for a new field of technical activity shall be submitted to the ISO Central Secretariat, which will assign it a reference number and process the proposal in accordance with the [ISO/IEC Directives Part 1, Clause 1.5](#). The proposer may be a member body of ISO, a technical committee, subcommittee or project committee, the Technical Management Board or a General Assembly committee, the Secretary-General, a body responsible for managing a certification system operating under the auspices of ISO, or another international organization with national body membership. Guidelines for proposing and justifying a new field of technical activity are given in the [ISO/IEC Directives Part 1, Annex C](#).

### Proposal (to be completed by the proposer)

<b>Title of the proposed new committee (The title shall indicate clearly yet concisely the new field of technical activity which the proposal is intended to cover).</b>  Smart distribution in logistics
<b>Scope statement of the proposed new committee (The scope shall precisely define the limits of the field of activity. Scopes shall not repeat general aims and principles governing the work of the organization but shall indicate the specific area concerned).</b>  The scope of the proposed new technical committee is to standardize services, techniques application and management in the field of distribution in logistics, specifically including the process of distributing goods from manufacturer or distributor to regional hub, distribution center, and ultimately to businesses such as urban retailers, and to improve the quality, safety and efficiency of distribution operations, and to enhance the stability, flexibility and sustainability of distribution in logistics.  The scope will include, but is not limited to; — Development of general requirement, framework, metrics, guidance, performance indicator, evaluation for smart distribution in logistics, etc.; — Provision of service assurance for smart distribution in logistics (e.g. smart operation of distribution center, freight fleet management, education and training for operators, etc.) — Operation, service and synergy optimization of distribution in logistics (e.g. order processing, cargo consolidation, sorting, picking, storage, repackaging and protective handling, loading, unloading, capacity allocation, shipping, distribution, other customized services, etc.)  Excluded:

- ISO/TC 22 Road vehicles
- ISO/TC 34 Food products
- ISO/TC122 Packaging
- ISO/TC 204 Intelligent transport systems
- ISO/TC 268 Sustainable cities and communities
- ISO/TC 315 Cold chain logistics
- ISO/TC 321 Transaction assurance in E-commerce

- The proposer has checked whether the proposed scope of the new committee overlaps with the scope of any existing ISO committee**
- If an overlap or the potential for overlap is identified, the affected committee has been informed and consultation has taken place between proposer and committee on**
  - i. modification/restriction of the scope of the proposal to eliminate the overlap,**
  - ii. potential modification/restriction of the scope of the existing committee to eliminate the overlap.**
- If agreement with the existing committee has not been reached, arguments are presented in this proposal (under question 7) as to why it should be approved.**

**Proposed initial programme of work. (The proposed programme of work shall correspond to and clearly reflect the aims of the standardization activities and shall, therefore, show the relationship between the subject proposed. Each item on the programme of work shall be defined by both the subject aspect(s) to be standardized (for products, for example, the items would be the types of products, characteristics, other requirements, data to be supplied, test methods, etc.). Supplementary justification may be combined with particular items in the programme of work. The proposed programme of work shall also suggest priorities and target dates.)**

The proposed programme of work will focus on the general approach, service assurance, operations, service and collaborative optimization for smart distribution in logistics, including;

1. Basis

--Smart distribution in logistics - Terms and definitions

2. Method and assurance

--Smart distribution in logistics - Guidance for the operation framework

--Smart distribution in logistics - Evaluation of service

--Smart distribution in logistics - Framework of smart distribution center implementation

--Smart distribution in logistics - Management guidelines and protection of freight fleet and drivers

--Smart distribution in logistics - Management guidelines and protection of warehouse operators

3. Operation, service and collaborative optimization

--Smart distribution in logistics - Specification of sorting and picking

--Smart distribution in logistics - Technical specification of warehouse management

--Smart distribution in logistics - Specification of distribution processing

--Smart distribution in logistics - Specification of packaging

--Smart distribution in logistics - Transport capacity allocation

--Smart distribution in logistics - Guidance on order-based distribution route optimization

--Smart distribution in logistics - Guidance on cargo loading optimization

The proposer plans to hold the first TC meeting in March 2023 and submit proposals for new work items by the end of 2023, if the new TC is approved for establishment.

**Indication(s) of the preferred type or types of deliverable(s) to be produced under the proposal (This may be combined with the "Proposed initial programme of work" if more convenient).**

The preferred types of deliverables of the proposed TC is the ISO International Standards, and ISO standards development project plans in the near-term;

- Smart distribution in logistics - Terminology/Vocabulary
- Smart distribution in logistics - Framework of smart distribution center implementation
- Smart distribution in logistics - Guidance for the operation framework
- Smart distribution in logistics - Technical specification of warehouse management

**A listing of relevant existing documents at the international, regional and national levels. (Any known relevant document (such as standards and regulations) shall be listed, regardless of their source and should be accompanied by an indication of their significance.)**

ISO 23354:2020 Business requirements for end-to-end visibility of logistics flow  
ISO/CD 23355 Visibility data interchange between logistics information service providers  
EN 14943:2005 - Transport services – Logistics  
EN 13876:2002 - Transport - Logistics and Services  
JIS Z 0111: 2006 Glossary of terms for physical distribution  
GB/T 18354-2001 Logistics terminology

*Trade Logistics in the Global Economy - The Logistics Performance Index and Its Indicators*,  
The World Bank

*Transportation & Logistics 2030 (T&L 2030)*, PWC

*Operations management of smart logistics: A literature review and future research*, Bo Feng & Qiwen Ye, 2021

*Field study to identify requirements for smart logistics of European, US and Asian SMEs*,  
Patrick Dallasega, Manuel Woschank, Sakgasem Ramingwong, Korrakot Yaibuathet  
Tippayawong & Nilubon Chonsawat, 2019

*The organizational collaboration framework of smart logistics ecological chain: a multi-case study in China*, Weihua Liu, Yanjie Liang, Shuang Wei & Peng Wu, 2020

**A statement from the proposer as to how the proposed work may relate to or impact on existing work, especially existing ISO and IEC deliverables. (The proposer should explain how the work differs from apparently similar work, or explain how duplication and conflict will be minimized. If seemingly similar or related work is already in the scope of other committees of the organization or in other organizations, the proposed scope shall distinguish between the proposed work and the other work. The proposer shall indicate whether his or her proposal could be dealt with by widening the scope of an existing committee or by establishing a new committee.)**

Although there are existing ISO TCs such as Road Vehicles, Pallets, Cold Chain Logistics and others related to distribution in logistics, the proposed TC is significantly different from the existing ISO TCs.

The scope of ISO/TC22 is focusing on the standardization concerning compatibility, interchangeability and safety. and the scope of TC122 is the standardization in the field of packaging with regard to terminology and definitions, characteristics, performance requirements and tests, and utilization of related technologies on packaging. The proposed TC standardizes will reference the deliverables on road vehicles and packaging standardized by TC22 and TC122, but will not develop redundant items in the scope of TC22 and TC122.

The scope of ISO/TC154 is the international standardization and registration of business, and administration processes and supporting data used for information interchange between and within individual organizations and support for standardization activities in the field of industrial data. And the scope of ISO/TC204 is the standardization of information, communication and control systems in the field of urban and rural surface transportation. Whilst the proposed TC will focus on the operations, services and management processes of distribution in logistics, and does not work on data and information per se, nor technical standards for data identification and capture. We will use the deliverables of their standardization work.

ISO/TC268/SC2 Sustainable Cities and Communities - Sustainable Mobility and Transportation considers organizational issues, infrastructures and services in the mobility and transportation options for cities and communities is the organizational issues, infrastructure and services in mobility and transportation options within cities and communities. Whilst the proposed TC covers long-distance distribution, cross-regional distribution, logistics and distribution supply towards cities and communities, but does not focus on distribution inside cities and communities.

The scope of ISO/TC315 is the standardization in the field of cold chain logistics. For distribution in logistics, the majority of goods do not require cold chain logistics. The proposed TC will work on logistics distribution excluding cold chain scenarios. and the focus will be effective integration of techniques application, management processes and services to achieve optimal outcomes. The scope of the proposed TC has already excluded the scope of TC 315.

The scope of ISO/TC321 is the standardization in the field of “transaction assurance in e-commerce related upstream/downstream processes”, including assurance of e-commerce delivery to the final consumer, which involves delivery mainly based on e-commerce transaction customer orders and the corresponding activities. In the proposed TC, the distribution is commissioned by the demand-side, rather than orders placed through e-commerce transaction activities. And the proposed TC does not involve delivery to the final consumers.

In summary, the existing ISO/TCs cannot cover the scope of the proposed TC, and cannot be achieved by widening the scope of the existing TC, therefore, it is necessary and appropriate to establish a new ISO/TC.

**A listing of relevant countries where the subject of the proposal is important to their national commercial interests.**

France, United States, United Kingdom, Germany, Japan, China, Korea, Singapore, Netherlands, Switzerland, Norway, Australia, Indonesia, Malaysia, India.

**A listing of relevant external international organizations or internal parties (other ISO and/or IEC committees) to be engaged as liaisons in the development of the deliverable(s). (In order to avoid conflict with, or duplication of efforts of, other bodies, it is important to indicate all points of possible conflict or overlap. The result of any communication with other interested bodies shall also be included.)**

External international organizations: Asia Pacific Logistics Federation, International Federation of Purchasing and Supply Management, etc.  
Internal parties: ISO/TC22, ISO/TC122, ISO/TC 204, ISO/TC268, ISO/TC315, ISO/TC321

**A simple and concise statement identifying and describing relevant affected stakeholder categories (including small and medium sized enterprises) and how they will each benefit from or be impacted by the proposed deliverable(s).**

The main stakeholders of smart distribution in logistics include: logistics distribution service providers, small and medium-sized logistics distribution enterprises, logistics distribution service consignors, equipment and technology providers, cargo consignees, logistics distribution practitioners, and relevant government departments.

1. Logistics distribution service providers: by the application of smart logistics distribution standards, they can optimize service process, improve operation and service efficiency, and guarantee service quality and service level.
2. Small and medium-sized logistics distribution enterprises: by sharing the smart logistics distribution platform, logistics infrastructure, etc., they can get access to the supporting services required for business operation, share the scale benefits, better meet market demand, reduce operating costs, and enhance customers' confidence in the safety and reliability of products.
3. Logistics distribution service consignors: they can obtain professional logistics distribution services, reduce logistics costs and improve operational efficiency.
4. Equipment and technology providers: they can promote its technology application, upgrade and innovation to better expand the market.
5. Cargo consignees: ensure stable production and supply through efficient and reliable smart distribution in logistics.
6. Logistics distribution services practitioners: through the implementation of standards, operational risks can be reduced for practitioners. It helps to improve occupational health and safety.
7. Related government departments: the standardization work can help to improve the supervision of the logistics industry and improve the accuracy of decision-making.

**An expression of commitment from the proposer to provide the committee secretariat if the proposal succeeds.**

If the proposal is approved, SAC is willing to undertake the work of the secretariat of the new TC and is committed to providing all resources to successfully run the secretariat.

**Purpose and justification for the proposal. (The purpose and justification for the creation of a new technical committee shall be made clear and the need for standardization in this field shall be justified. Clause C.4.13.3 of Annex C of the ISO/IEC Directives, Part 1 contains a menu of suggestions or ideas for possible documentation to support and purpose and justification of proposals. Proposers should consider these suggestions, but they are not limited to them, nor are they required to comply strictly with them. What is most important is that proposers develop and provide purpose and justification information that is most relevant to their proposals and that makes a substantial business case for the market relevance and the need for their proposals. Thorough, well-developed and robust purpose and justification documentation will lead to more informed consideration of proposals and ultimately their possible success in the ISO IEC system.)**

Technological innovation drives market prosperity and economic development. Distribution in logistics is playing an increasingly important role in economic life and is receiving high attention and active participation from various stakeholders. According to Statista report, in

2020, the global logistics market was worth almost 8.6 trillion U.S. dollars. Logistics costs as a proportion of GDP should not be ignored. According to World Bank, on average logistics costs make up some 13 percent of GDP. In the most efficient countries, such as the United States and the Netherlands, those costs are around 8 percent, whereas in the least efficient countries they can be as high as 25 percent.

There are also challenges for distribution in current logistics: such as inefficient operation, difficult to match logistics supply and demand, poor controllability of long-distance distribution process, unstable service quality, loopholes in safety management, health and occupational risks of practitioners, and related air and noise pollution.

In recent years, with the improvement of science and technology, modern technology is being widely used in the field of distribution in logistics, which can better solve the various existing problems, and more countries are taking the smartness and standardization of distribution in logistics as the future direction.

The output of related standards of the proposed Smart Distribution in Logistics TC can help to solve the above-mentioned problems, realize real-time, controllable and visual management of distribution service in logistics; optimize logistics process, achieve upstream-downstream synergy, improve the accuracy of decision making; improve distribution efficiency, guarantee distribution reliability, improve safety and quality, and promote sustainable development of distribution in logistics.

The vision of Smart Distribution in Logistics TC is highly compatible with the United Nations 2030 Sustainable Development Goals (SDGs) as follow.

**Goal 1: No Poverty.**

Smart distribution in logistics helps activate the flow of goods in rural and remote areas, which in turn leads to the development of rural and remote areas and contributes to poverty elimination.

**Goal 3: Good Health and Well-being**

Smart distribution in logistics can promote safe operations and prevent occupational risks for employees. Truck drivers and warehouse operators will have more standardized and optimized work processes, cleaner and safer working environments, and better income and welfare protection.

**Goal 8: Decent Work and Economic Growth**

Smart distribution in logistics can create a large number of jobs and business opportunities and promote economic growth.

**Goal 9: Industry, Innovation and Infrastructure**

Smart distribution in logistics can apply modern technology to the logistics industry, which will improve logistics infrastructure, promote continuous innovation in distribution models in logistics, and facilitate the upgrading and development of the industry.

**Goal 12: Responsible production and consumption**

Smart distribution logistics can optimize distribution processes, improve resource utilization and service quality, achieve responsible production and distribution, and promote sustainable social-economic development.

**Goal 17: Partnership for the Goals**

Smart distribution in logistics connects upstream and downstream of the supply chain, collaborates with supply chain operations, and cooperates with stakeholders such as suppliers, technical equipment parties, practitioners, customers, and relevant government departments to form comprehensive partnerships that are conducive to the achievement of each party's goals.

**Signature of the proposer**

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*Further information to assist with understanding the requirements for the items above can be found in the Directives, Part 1, Annex C.*

**Appendix of Form 1 - supplement to the relationship with the PC proposal "guidelines for overseas warehouse services in cross border trade"**

The "overseas warehouse services" of the PC proposal "guidelines for overseas warehouse services in cross border trade" in the proposal stage, is indeed a specific trade scenario of the distribution in logistics, however, it is not a necessary component of the logistics distribution activities, nor a prioritized area of work within the new TC proposal. The both proposers have fully communicated with each other and agreed that if the PC project is approved, they do not exclude the possibility of including the PC project into the work plan of the new proposed TC or cooperation in the future.