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PEOPLE'S REPUBLIC OF CHINA**

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**Science and technology resource link and
aggregation-Principles and methods**

科技资源关联及聚合 原则与方法

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Table of Contents

Preface... III Introduction... IV 1 Scope	1
2 Normative references	1
3 Terms, definitions and abbreviations	1
3.1 Terms and Definitions	1
3.2 Abbreviations	2
4 Overall Framework	2
5 Principles of association and aggregation of scientific and technological resources	3
5.1 Principle of Integrity	3
5.2 Reliability Principle	3
5.3 Principle of unity	3
5.4 Normalization Principle	3
6 Common metadata element preprocessing method	3
6.1 Metadata Element Mapping	3
6.2 Standard Entity Name	4
6.3 Standard Terminology	4
6.4 Unified Format	4
6.5 Unified measurement units	4
7 Methods of associating and aggregating scientific and technological resources	4
7.1 Relationship between scientific and technological resources	4
7.2 Aggregation of scientific and technological resources	7
Appendix A (Informative) Examples of Association and Aggregation of Scientific and Technological Resources	9
References	13

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting is required.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

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Introduction

Scientific and technological resources are a general term for various resources generated along with scientific and technological activities, and are a collection of elements of scientific and technological innovation.

Large but loose and isolated, lacking effective communication, coordination and configuration management, leading to the emergence of "scientific and technological resource islands" and failing to give full play to the role of science and technology.

As scientific and technological activities become more and more complex, the demand for scientific and technological resources and the gap between scientific and technological resource sharing services are becoming more and more. The gap is getting bigger and bigger, requiring collaborative services from scientific and technological resources of different types and sources.

The implementation of this document will help achieve the goal of sharing the same or similar scientific and technological resources and better meet users' needs for scientific and technological resources.

Principles and methods of scientific and technological resource association and aggregation

1 Scope

This document establishes the overall framework and principles for linking and aggregating scientific and technological resources based on metadata, and describes the pre-processing of scientific and technological resource metadata.

Management methods, processes and methods for linking scientific and technological resources, and methods for establishing scientific and technological resource aggregation based on the association.

This document applies to the organization and management of scientific and technological resources, as well as the association and aggregation of scientific and technological resources at the explicit and implicit levels.

2 Normative references

GB/T 7408.1-2023

GB/T 30523-2023

GB/T 31075-2014

3.1 Terms and Definitions

The terms and definitions defined in GB/T 31075-2014 and the following apply to this document.

3.1.1 Science and technology resources

A general term for material and information elements in scientific and technological activities.

Note. Scientific and technological resources include the tools, conditions and objects required for scientific and technological innovation, such as scientific research instruments and facilities, scientific data, biological germplasm and experimental materials.

[Source. GB/T 30523-2023, 3.1]

3.1.2 metadata

Data that defines and describes other data.

[Source. GB/T 30523-2023, 3.2]

3.1.3 metadata element

The basic unit of metadata.

[Source. GB/T 30523-2023, 3.4]

3.1.4 shared metadata element

Metadata elements that have the same meaning among metadata of different scientific and technological resources.

3.1.5 metadata element mapping

Under a unified standard or specification (framework), the corresponding relationship is established between metadata elements with the same meaning in different scientific and technological resources. process.