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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 41866.2-2022

**Systems and software engineering - Information technology
project performance benchmarking framework - Part 2:
Requirements for benchmarking**

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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 of Standardization Documents" drafted.

This document is the second part of GB/T 41866 "System and Software Engineering Information Technology Project Performance Benchmarking Measurement Framework".

GB/T 41866 has released the following parts.

- Part 1. Concepts and Definitions;
- Part 2. Benchmark measurement requirements;
- Part 3. Report preparation;
- Part 4. Data collection and maintenance.

This document is modified to adopt ISO /IEC 29155-2:2013 "Systems and Software Engineering Information Technology Project Performance Benchmarking Measurement Framework No.

Part 2. Benchmark Metric Requirements."

The technical differences between this document and ISO /IEC 29155-2:2013 and their reasons are as follows.

- Replaced ISO /IEC 29155-1 (see Chapter 3) with the normatively cited GB/T 41866.1 to adapt to our country's technology

condition;

- Added "Improvement Result Identification" and "Improvement Result Status Record" to the task name of the task group "Improvement" (see 5.4.5 in

Table 5) to make the activity more complete.

The following editorial changes have been made to this document.

--- Refer to Figure 1 in ISO /IEC 29155-1:2017, and update Figure 1 in the introduction;

--- Deleted MRa330 (see ISO /IEC 29155-2:2013, 5.4.6, Table 6), because MRa330 and MRa370 in the original text

The content is repeated, and the serial number has been adjusted;

--- Modify the numbering of items h)~p) in Appendix A to dashes to be consistent with GB/T 41866.3 and GB/T 41866.4.

Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

Benchmark measurement refers to the activity of evaluating the characteristics of the object by comparing each "object of interest" with each other or with a benchmark.

In GB/T 41866, the "object of interest" refers to the performance of the IT project, while the characteristic refers to an aspect of the IT project, for example, productivity.

Benchmarking is one of the fastest growing technologies in the field of IT project management. Generation and Development of IT Project Performance Benchmarking Instances

For a variety of reasons, the most common of which are.

- a) the need to compare the productivity of projects in similar industries;
- b) need to compare different project types and technical productivity;
- c) the need to find the most effective goals when improving the IT development process;
- d) the need to compare productivity between different suppliers;
- e) the need to improve project management maturity;
- f) The need to improve project estimation capabilities.

The relevant experimental literature on the implementation of IT project performance benchmarking measures shows that the failure rate of benchmarking measures is relatively high, and the statistical data also proves that

up to this point. The failure of benchmarking measurement is mainly due to the inconsistency between the selection of measurement objectives and the selection of business objectives, as well as the inconsistency between project level and project group

Misunderstanding of the relationship between co-management levels. When measurements and results are inconsistent, teams still spend unnecessary effort collecting project data,

This will reduce the incentive to continue benchmarking and institutionalize it.

As shown in Figure 1, GB/T 41866 intends to include the following parts.

--- Part 1. Concepts and Definitions. Provides an overarching framework model for benchmarking IT project performance. It includes successful identification,

The necessary activities and components required to define, select, apply, and improve benchmarking measures also provide an overview of IT project performance benchmarking measures.

Terms and Definitions.

--- Part 2. Benchmark measurement requirements. Describes what is required to conduct and/or support an organization's successful completion of benchmarking activities

Task.

--- Part 3. Report preparation. Provides general requirements and guidelines for the report preparation process and typical report content.

--- Part 4. Data collection and maintenance. Provides activities for collecting IT project data for entering and maintaining a benchmark metrics data warehouse

General requirements and guidelines for movement.

This document specifies the necessary activities and tasks required to successfully identify, define, select, apply, and improve IT project performance benchmarks. aimed at

Provides guidance for organizations preparing to introduce and implement benchmarking techniques to evaluate the performance of IT projects. Help the organization establish a well-defined process

to perform benchmark measurements. This process includes not only the activities and tasks of data selection and comparison in IT project performance benchmarking measures, but also data

Activities and tasks of data collection, benchmarking data warehouse management, and providing benchmarking tools.

Figure 1 Overview of the IT Project Performance Benchmarking Framework

Systems and Software Engineering Information Technology Project Performance

Benchmarking Measurement Framework Part 2. Benchmarking Measurement Requirements

1 Scope

This document specifies the general requirements for the "Information Technology (IT)

Project Performance Benchmarking Measurement Framework" process.

--- process requirements for activities within the benchmarking metrics framework (e.g., implementing, maintaining a data warehouse, submitting data);

--- The tasks necessary to successfully perform activities and equip components for activities, both of which are defined in GB/T 41866.1.

This document is applicable to all stakeholders of IT project performance benchmarking (e.g. benchmarking users, benchmarking suppliers, benchmarking

Metrics service providers and IT project teams) conduct IT project performance benchmarking metrics usage.

NOTE. The following is an example of how to use this document.

- benchmarking procedures implemented by system and software suppliers to estimate and/or evaluate the performance of IT projects;

--- Evaluation of the performance of the supplier's IT project by the system and software acquirer (or a third-party agent);

---The collection and analysis of IT project data and the provision of benchmarks by the benchmark measurement provider;

--- Various services are implemented by benchmark measurement service providers (for example, benchmark measurement tools and methods are provided, or instances are implemented by benchmark measurement users).

This document does not prescribe how to organize benchmarking activities. Document name, format, or explicit content generated by the benchmarking activity process

The provisions of this document are not within the scope of this document.

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations

documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

GB/T 41866.1 System and Software Engineering Information Technology Project Performance Benchmarking Measurement Framework Part 1. Concepts and Definitions

(GB/T 41866.1-2022, ISO /IEC 29155-1.2017, IDT)