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Comprehensive performance evaluation specification for information project

信息化项目综合绩效评估规范

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1 Scope

The document lays down the evaluation system and the evaluation process for the comprehensive performance of an information project.

It applies to the various organizations that build and use information projects and to third party evaluation bodies, guiding them in setting the performance targets of the construction of an information project and giving them the criteria for evaluating its comprehensive performance.

2 Normative references

The documents referred to are GB/Z 20986-2007, Information security technology - Guidelines for the category and classification of information security incidents, and GB/T 22239-2019, Information security technology - Baseline for classified protection of cybersecurity.

Dated references apply in the dated version only; undated references apply in their latest version, amendments included.

3 Terms and definitions

3.1 Information project: a construction project based on computer technology and communication technology as its key elements, made up of one entity, or of a group of interconnected and cooperating entities, that carries out the collection, processing, storage, analysis and application of information.

3.2 Comprehensive performance: the output of an information project and the results of that output.

3.3 Information system: the man and machine system built by an information project, made up of computer hardware, network and communication equipment, computer software, information resources, information users and rules, whose purpose is to handle information flows.

3.4 Construction quality: the level of management and of technology of an information project during its construction period.

3.5 Operation and maintenance level: the level of capability in managing the IT software and hardware operating environment and the IT business system as a whole, by means of the relevant methods, means, techniques, rules, processes and documents.

3.6 Application effect: the degree to which the information system meets the needs of the users during use, and the results it produces for the stakeholders of the project.

3.7 Economic benefit: the financial profitability, the debt servicing capability and the survival capability of an information project once it has been put into use, together with its non-financial benefits.

3.8 Social benefit: the effects or the influence that an information project brings to the stakeholders of the project, once it has been put into use, in matters of environment, society, governance, health, education and safety.

3.9 Function point: a unit for measuring the functional size of software. The source given is GB/T 36964-2018, 3.12.

3.10 Incident: any event that is not part of the standard operation of a service and that causes, or may cause, an interruption of the service or a fall in the quality of the service. The source given is GB/T 24405.1-2009, 2.7.

4.1 Basic composition

The evaluation system for the comprehensive performance of an information project has two levels of indicators. There are four first-level indicators: the construction quality

indicator, the operation and maintenance level indicator, the application effect indicator, and the economic and social benefit indicator. The framework of the system is shown in Figure 1.

The second-level indicators of the system are of two kinds, basic indicators and auxiliary indicators. The basic indicators are the indicators that an evaluation carried out with this document has to include and that may not be dropped during the evaluation. The auxiliary indicators are one indicator, a group of indicators or a class of indicators produced by a defined procedure for the evaluation of the comprehensive performance of a particular project, according to the aim of the evaluation, the features of the project or the requirements of the evaluation, and they are optional. The basic and auxiliary indicators laid down in the document shall meet the requirements of Annex A.

The evaluation system reaches its final score by a weighted sum of the indicators at each level, as shown in formula (1). The formula gives the score i-CORE as the sum of four products: the weight of the first-level construction quality indicator multiplied by the sum over its eight second-level indicators of the weight of each multiplied by its score; the weight of the first-level operation and maintenance level indicator multiplied by the corresponding sum over its eight second-level indicators; the weight of the first-level application effect indicator multiplied by the corresponding sum over its four second-level indicators; and the weight of the first-level economic and social benefit indicator multiplied by the corresponding sum over its two second-level indicators. A note states that the rate of change of the project investment, the rate of change of the investment per unit of production capacity, the rate of change of the net present value and the debt service coverage ratio are not counted in the overall result of the evaluation.

Figure 1 shows the four first-level indicators under the heading of the system and, under each of them, its second-level indicators, drawn in solid boxes for the basic indicators and in dashed boxes for the auxiliary indicators.

4.2 Construction quality

4.2.1 The standardization of project management mainly evaluates how far the management of the whole construction cycle of the information project follows the rules, initiation, planning, execution, monitoring and closing included.

4.2.2 The rate of technical innovation mainly evaluates the proportion of technical innovation in the basic software and hardware and in the application software during the construction of the information project, that is the proportion of technical innovation in the basic hardware, in the basic software and in the application software.

4.2.3 The degree of business support mainly evaluates how far the information project supports the business and the management, which includes the coverage of the business, the depth of application of the system and the degree of digitalization. Here the depth of