Technical Report

ISO/IEC TR 33023

First edition
2024-10

Information technology — Process assessment — Application of ISO/IEC TS 33073 processes to the ISO/IEC 33020 process capability measurement scale

Technologies de l'information — Évaluation du processus — Application des processus ISO/IEC TS 33073 à l'échelle de la mesure de la capacité de processus de l'ISO/IEC 33020

Reference number
ISO/IEC TR 33023:2024(en)

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives or www.iec.ch/members_experts/refdocs).

ISO and IEC draw attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO and IEC take no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO and IEC had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents and https://patents.iec.ch. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html. In the IEC, see www.iec.ch/understanding-standards.

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html and www.iec.ch/national-committees.

Introduction

This document provides a mapping of the ISO/IEC TS 33073 processes to the ISO/IEC 33020 process attributes with the intent of demonstrating support for the levels 1 to 3 of the ISO/IEC 33020 process capability measurement framework.

This document is primarily addressed to developers of process assessment models for the process quality characteristic of process capability. It is also addressed to the lead assessor and other stakeholders, such as the sponsor of the assessment, who need to be assured that the requirements of the ISO/IEC 33020 process measurement framework have been met.

Within this document:

— Clause 4 provides a summary description of the relationship between the ISO/IEC 33020 process attribute outcomes and the ISO/IEC TS 33073 processes.

— Annex A extends the summary mapping in Clause 4 by providing details of the relationship between the ISO/IEC 33020 process attribute outcomes and the ISO/IEC TS 33073 process outcomes. Links to the information items listed in Annex C are identified. These details are provided for validating by inspection the relationships between the ISO/IEC 33020 process attribute outcomes and the ISO/IEC TS 33073 process outcomes.

— Annex B focuses on the relationships between the generic practices associated with ISO/IEC 33020 and the ISO/IEC TS 33073 base practice descriptions. These model elements are linked via the information item characteristics listed in Annex C.

— Annex C provides a listing of the applicable information items and their characteristics.

— Annex D provides an overview of the key concerns arising from the application of ISO/IEC/IEEE 24774 when attempting to demonstrate objective relationships between process model elements.

Information technology — Process assessment — Application of ISO/IEC TS 33073 processes to the ISO/IEC 33020 process capability measurement scale

1 Scope

This document provides a specification for associating the processes of ISO/IEC TS 33073 with the process attribute outcomes of ISO/IEC 33020 with the intent of demonstrating support for levels 1 to 3 of the process capability measurement scale defined in ISO/IEC 33020.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 33001, *Information technology – Process Assessment – Concepts and vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 33001 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Content of the process capability measurement framework

4.1 General

In ISO/IEC 33020:2019, Clause 5 the relationship between process attributes and process capability levels is described.

Process capability is defined in ISO/IEC 33020:2019 Clause 5 on a six-point ordinal scale that enables process capability to be assessed from the bottom of the scale, 'incomplete', through to the top end of the scale, 'innovating'. The scale represents increasing capability of an implemented process, from failing to achieve the process purpose through to continually improving and able to respond to process change.

The relationship between the process capability levels and the process attributes is show in Table 1. In addition, a summary view is presented of the relationship of the process attributes to the processes associated with ISO/IEC TS 33073.

The process ORG-03 supplier management from ISO/IEC TS 33073:2017 do not appear in the list in Table 1. The outcomes of this process do not have any discernible relationship to the process attribute outcomes of ISO/IEC 33020.

The name of the process ORG-01 (asset management) has been renamed in this document as customer property management in order to bring it in line with the intent of ISO 9001:2015, 8.5.3 (property belonging to customers or external providers).

A knowledge management process (COM-12) has been added to the ISO/IEC TS 33073 common processes list. This process has been added to support the intent of ISO 9001:2015, 7.1.6 (organizational knowledge). In order to support the intent of ISO/IEC 33020:2019 PA 3.1 and 3.2, COM-12 is supported in this document as COM-12A (Knowledge Management: Establish) and as COM-12B (Knowledge Management: Maintain).

Table 1 — Relationship between the ISO/IEC 33020 process capability levels and process attributes, and the ISO/IEC TS 33073 processes

Process capability level	ISO/IEC 33020:2019 process attribute outcomes	Reference	ISO/IEC TS 33073:2017 processes
1	5.2.3.2 PA 1.1 Process performance process attribute	-	The processes in this group are typically identified in the assessment scope. Certain processes in ISO/IEC TS 33073, namely, ORG-01, and members of the TEC process group, are likely candidates.
2	5.2.4.2 PA 2.1 Performance management process attribute	COM-01	Communication management
		COM-11	Risk management
		TEC-05.1	Product/service planning
		TEC-05.2	Product/service control
2	5.2.4.3 PA 2.2 Documented information management process attribute	COM-02	Documentation management
		TEC-01	Configuration management
3	5.2.5.2 PA 3.1 Process definition process attribute	COM-03.1	Human resource management: Determine competencies
		COM-08	Operational planning
		COM-10.1	Performance evaluation: Establish
		COM-12.1	Knowledge management: Establish
		TOP-01	Leadership
3	5.2.5.3 PA 3.2 Process deployment process attribute	COM-03.2	Human resource management: Provide competencies
		COM-06	Management review
		COM-09	Operational implementation and control
		COM-12.2	Knowledge management: Maintain
		ORG-02	Measurement resource management
3	5.2.5.4 PA 3.3 Process assurance process attribute	COM-04	Improvement
		COM-05	Internal audit
		COM-07	Non-conformity management
		COM-10.2	Performance evaluation: Perform
		TEC-02	Process changes

4.2 Relationships between model elements

The rationale for the selection of the ISO/IEC TS 33073 processes and their associations with the ISO/IEC 33020 process attribute outcomes can be found in Annexes A and B.

Annex A elaborates the summary mapping in Clause 4 by providing extended details of the relationship between the ISO/IEC 33020 process attribute outcomes and the ISO/IEC TS 33073 process outcomes. Links to the information items described in Annex C are provided in a summary format. The level of detail provides the basis for validating by inspection the relationships between the ISO/IEC 33020 process attribute outcomes and the ISO/IEC TS 33073 process outcomes.

Annex B focuses on the relationships between the ISO/IEC 33020 generic practices and the ISO/IEC TS 33073 base practice descriptions. These model elements are linked via the information item characteristics, as listed in Annex C.

Annex A
(informative)

Associations between the ISO/IEC 33020 process attribute outcomes, ISO/IEC TS 33073 process outcomes and information items

A.1 General

This annex describes the relationships between the ISO/IEC 33020 process attribute outcomes and the ISO/IEC TS 33073 process outcomes. The model outcomes are linked by applicable information item characteristics, as described in Annex D.

A.2 Associations between the ISO/IEC 33020 process attribute outcomes, ISO/IEC TS 33073 processes and information items

Information item characteristics provide the link between the ISO/IEC 33020 process attribute outcomes and the ISO/IEC TS 33073 process outcomes. Each linked information item in Table A.1 is indicated by its reference label and name, and the reference number of the characteristic.

Table A.1 provides the basis for a detailed validation by inspection of the associations between the ISO/IEC 33020 process attribute outcomes and ISO/IEC TS 33073 process outcomes in accordance with ISO/IEC/IEEE 24774:2021, Annex B model mapping considerations.

Table A.1 — Associations between the ISO/IEC 33020 process attribute outcomes, ISO/IEC TS 33073 process outcomes and information item characteristics

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
5.2.3.2	**PA 1.1 Process performance process attribute** 1) the process achieves its defined process outcomes.	ORG-01	**Customer property management** 1) Items requiring customer property management are identified.	07-1 Product asset 1)
		ORG-01	**Customer property management** 2) Customer property status is known.	08-46 Product asset communication record 1)
		ORG-01	**Customer property management** 3) Changes to customer supplied product under management is controlled.	08-46 Product asset communication record 1)
		ORG-01	**Customer property management** 4) The integrity of customer supplied product is assured.	07-1 Product asset 2)
		TEC-03	**Product/ service changes** 1) Product/ service change requests are identified and classified.	11-13 Product/service design change request 1)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
		TEC-03	**Product/ service changes** 2) Product/ service change requests are assessed using defined criteria.	08-54 Product/service design change evaluation result 1)
		TEC-04	**Product/ service design** 1) Design for each product/ service component is developed in accordance with defined requirements.	03-47 Product/service design 1)
		TEC-04	**Product/ service design** 2) External and internal interfaces for each product/ service component are defined.	03-47 Product/service design 2)
		TEC-06	**Product/ service quarantine** 1) Product/ service that does not conform to requirements is identified.	08-38 Nonconformity: Documentation 1)
		TEC-06	**Product/ service quarantine** 2) Nonconforming product/ service is placed under quarantine.	11-10 Nonconforming product quarantine request 1)
		TEC-06	**Product/ service quarantine** 3) Alternative approaches are identified regarding disposition of the nonconforming product/ service.	08-28 Nonconforming output disposition record 1)
		TEC-06	**Product/ service quarantine** 4) Agreed actions are taken regarding disposition of nonconforming product/ service.	08-32 Nonconforming product disposition evaluation result 1), 2)
		TEC-06	**Product/ service quarantine** 5) Product/ service that has been corrected is re-verified to demonstrate conformity to requirements.	08-35 Nonconforming product re-verification record 1)
		TEC-06	**Product/ service quarantine** 7) Product / service is released from quarantine when authorised.	08-33 Nonconforming product quarantine release authorisation 1)
		TEC-07	**Product/ service requirements** 1) The required characteristics and context of use of products/ services are identified.	12-23 Product/service requirements 5)
		TEC-07	**Product/ service requirements** 2) The constraints for a product/ service solution are defined.	12-23 Product/service requirements 8), 9), 10)
		TEC-07	**Product/ service requirements** 3) The requirements for the product/ service are defined.	12-23 Product/service requirements 1), 2), 3), 4), 6), 7), 11), 12)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
		TEC-07	**Product/ service requirements** 4) The requirements for validating the product/ service are defined.	08-66 Product/service requirements review record 1)
		TEC-08	**Product/ service review** 1) Criteria for the review of product/ service is identified.	08-59 Product/service performance review record 3)
		TEC-08	**Product/ service review** 3) Required review activities are performed.	08-59 Product/service performance review record 1) 08-66 Product/service requirements review record 1)
		TEC-08	**Product/ service review** 4) Action items are identified.	08-59 Product/service performance review record 2) 08-66 Product/service requirements review record 2)
		TEC-09	**Product/ service supply** 2) Product/ service request(s) are evaluated in terms of mandated product/ service delivery criteria.	03-39 Management system strategy: supplier capability 1) 08-66 Product/service requirements review record 1)
		TEC-09	**Product/ service supply** 3) A response to a customer's product/ service request is produced.	08-65 Product/service requirements communication record 1)
		TEC-09	**Product/ service supply** 6) Conformity to applicable stated and implied customer and supplier requirements by internal processes and/or product/ service provided is verified.	03-50 Product/service objectives 2) 08-63 Product/service release approval record: Conformity 1)
		TEC-10	**Product/ service validation** 3) Required validation activities are performed.	08-72 Product/ service validation record 1)
		TEC-11	**Product/ service verification** 3) Required verification activities are performed.	08-75 Product/ service verification record 1), 2)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
5.2.4.2	**PA 2.1 Performance management process attribute** 1) results to be achieved are determined and communicated;	TEC-05.1	**Product/service planning** 1) The objectives for the scope of the work associated with the development of the product/service are defined.	03-50 Product/service objectives 1) 04-06 Product/service lifecycle model: Establish 1), 2)
5.2.4.2	**PA 2.1 Performance management process attribute** 2) risks that can affect performance of the process are determined and addressed;	COM-11	**Risk management** 1) Criteria for the assessment of risks and the acceptable level of risk are identified.	03-57 Risk and opportunity identification criteria 1)
		COM-11	**Risk management** 2) Risks are identified.	08-79 Risks and opportunities: identification 1)
		COM-11	**Risk management** 6) Selected risks are treated.	08-78 Risk treatment action log 1)
		TEC-05.1	**Product/service planning** 6) Plans for the development of the product/service are developed.	04-08 Risk management planning 1) 04-09 Risk management planning: risk treatment effectiveness evaluation 1) 04-10 Risk management planning: risk treatment implementation 1) 04-11 Risk management planning: risk treatment options 1)
5.2.4.2	**PA 2.1 Performance management process attribute** 3) performance of the process is planned, monitored, measured, evaluated and adjusted (as needed);	TEC-05.1	**Product/service planning** 1) The objectives for the scope of the work associated with the development of the product/service are defined.	04-06 Product/service lifecycle model: Establish 13), 15)
		TEC-05.1	**Product/service planning** 2) The feasibility of achieving the objectives of the product/service development with available resources and constraints are evaluated.	08-57 Product/service feasibility review record 1)
		TEC-05.1	**Product/service planning** 3) The tasks and resources necessary to complete the product/service development are sized and estimated.	03-49 Product/service lifecycle model: Planning 4), 5), 6) 04-06 Product/service lifecycle model: Establish 6), 7), 8)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
		TEC-05.1	**Product/service planning** 5) Interfaces between customer and relevant interested parties are identified.	04-06 Product/service lifecycle model: Establish 14)
		TEC-05.1	**Product/service planning** 6) Plans for the development of the product/service are developed.	03-46 Product/service delivery: Planning 1), 2), 3) 04-06 Product/service lifecycle model: Establish 5)
		TEC-05.2	**Product/service control** 5) Deviations in product/service performance from plans are investigated and analysed.	08-60 Product/service provision change evaluation record 2) 09-08 Product/service planning performance evaluation report 1)
		TEC-05.2	**Product/service control** 7) Corrective action is defined and directed, when product/service achievement is not meeting targets.	08-58 Product/service implementation record 1), 2), 3) 08-60 Product/service provision change evaluation record 1)
		TEC-05.2	**Product/service control** 8) Product/service replanning is initiated, as necessary.	08-64 Product/service release record 1)
		TEC-05.2	**Product/service control** 9) Product/service action to progress (or not) from one scheduled milestone or event to the next is authorized.	08-64 Product/service release record 1)
		TEC-05.2	**Product/service control** 10) Product/service objectives are achieved.	08-64 Product/service release record 1)
5.2.4.2	**PA 2.1 Performance management process attribute** 4) responsibilities and authorities for performing the process are determined, assigned and communicated;	TEC-05.1	**Product/service planning** 4) The responsibilities and authorities needed at each stage of product/service development are identified.	04-06 Product/service lifecycle model: Establish 9)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
5.2.4.2	**PA 2.1 Performance management process attribute** 5) resources necessary for performing the process are determined, provided and maintained (as needed);	TEC-05.1	**Product/service planning** 3) The tasks and resources necessary to complete the product/service development are sized and estimated.	03-49 Product/service lifecycle model: Planning 1), 2), 3) 04-06 Product/service lifecycle model: Establish 10) 12-25 Product/service resource requirements 1)
		TEC-05.2	**Product/service control** 1) Performance measures or assessment results are available.	03-48 Product/service lifecycle model: Control 1)
		TEC-05.2	**Product/service control** 3) Adequacy of resources is assessed.	03-48 Product/service lifecycle model: Control 2)
		TEC-05.2	**Product/service control** 4) Progress reviews are performed.	03-48 Product/service lifecycle model: Control 1)
5.2.4.2	**PA 2.1 Performance management process attribute** 6) person(s) performing the process are competent on the basis of appropriate education, training, or experience;	TEC-05.1	**Product/service planning** 4) The responsibilities and authorities needed at each stage of product/service development are identified.	08-51 Product/service competencies: Provision: Planning 1)
		TEC-05.2	**Product/service control** 2) Adequacy of roles, responsibilities, accountabilities, and authorities is assessed.	08-50 Product/service competencies: Provision: Control 1)
5.2.4.2	**PA 2.1 Performance management process attribute** 7) interfaces between the involved parties are managed to ensure both effective communication and the level of control expected.	COM-01	**Communication management** 1) Information content is defined in terms of identified communication requirements.	12-02 Communication requirements 1)
		COM-01	**Communication management** 2) Parties to communicate with are identified.	12-02 Communication requirements 3)
		COM-01	**Communication management** 3) The party responsible for the communication is identified.	12-02 Communication requirements 5)
		COM-01	**Communication management** 4) Events that require communication actions are identified.	12-02 Communication requirements 2)
		COM-01	**Communication management** 5) The channel for the communication is selected.	12-02 Communication requirements 4)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
		COM-01	**Communication management** 6) Information products are communicated to relevant interested parties.	08-03 Audit result communication record 1) 08-30 Nonconforming product customer communication record 1) 08-65 Product/service requirements communication record 2) 08-76 QMS Communication records 1), 2), 3)
		TEC-05.1	**Product/service planning** 5) Interfaces between customer and relevant interested parties are identified.	04-06 Product/service lifecycle model: Establish 11), 12) 12-04 Customer - interested parties interface considerations 1)
5.2.4.3	**PA 2.2 Documented information management process attribute** 1) requirements for the documented information of the process are determined;	COM-02	**Documentation management** 4) Documented information is current, complete and valid.	12-09 Information management requirements: preservation 2), 3)
5.2.4.3	**PA 2.2 Documented information management process attribute** 2) requirements for control of the documented information are determined;	COM-02	**Documentation management** 2) The forms of documented information representation are defined.	12-05 Documentation management requirements 1), 2), 3)
		COM-02	**Documentation management** 4) Documented information is current, complete and valid.	12-09 Information management requirements: preservation 1)
		TEC-01	**Configuration management** 1) Items requiring configuration management are identified.	03-51 Product/service taxonomy 1), 2)
		TEC-01	**Configuration management** 3) Changes to items under configuration management are controlled.	12-03 Configuration management requirements 1)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
5.2.4.3	**PA 2.2 Documented information management process attribute** 3) documented information is appropriately identified, and controlled according to requirements;	COM-02	**Documentation management** 1) Documented information to be documented is identified.	05-3 Quality policy: Documentation 1) 08-18 MS Implementation log: Documentation 1), 2) 08-25 Management review: Documentation 1) 08-39 Organizational competencies: Documentation 1)
		COM-02	**Documentation management** 2) The forms of documented information representation are defined.	03-02 Information item identification: External origin 1)
		COM-02	**Documentation management** 4) Documented information is current, complete and valid.	12-10 Information management requirements: status 1)
		COM-02	**Documentation management** 6) Documented information is available to relevant interested parties.	05-2 Quality policy: Availability 1) 12-07 Information management requirements 1), 2)
		TEC-01	**Configuration management** 2) The status of configuration items and modifications is known.	09-06 Product/service configuration status report 1)
5.2.4.3	**PA 2.2 Documented information management process attribute** 4) documented information is reviewed and approved for suitability and adequacy in accordance with planned arrangements and adjusted as necessary to meet requirements;	COM-02	**Documentation management** 5) Documented information is released according to defined criteria.	08-17 Information item approval record 1) 08-62 Product/service release approval record: Authorisation 1), 2)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
5.2.4.3	**PA 2.2 Documented information management process attribute** 5) documented information is determined, maintained and retained to the extent necessary to have confidence that the process has been performed as planned and to demonstrate the conformity of products and/or services to their requirements.	COM-02	**Documentation management** 1) Documented information to be documented is identified.	02-8 Process change implementation log: Documentation 1) 03-14 Management system (MS) scope: Documentation 1) 03-52 Product/service taxonomy: Documentation 1) 08-12 Corrective action: Documentation 1) 08-31 Nonconforming product customer communication record: Documentation 1) 08-43 Process change approval: Documentation 1)
		COM-02	**Documentation management** 3) The documented information content status is known.	03-14 Management system (MS) scope: Documentation 2) 08-67 Product/service requirements status record 1)
		COM-02	**Documentation management** 4) Documented information is current, complete and valid.	05-4 Quality policy: Maintenance 1), 2) 08-69 Product/service review: Documentation 1) 11-14 Product/service requirements change request 1)
		COM-02	**Documentation management** 7) Documented information is archived, or disposed of, as required.	12-08 Information management requirements: disposition 1)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
5.2.5.2	**PA 3.1 Process definition process attribute** 1) a standard process, including appropriate tailoring guidelines, is established and maintained that describes the fundamental elements that must be incorporated into a defined process;	COM-08	**Operational planning** 1) Process requirements are identified.	05-5 Quality policy: Requirements 2), 3), 4), 5) 12-01 Communication process requirements 1) 12-11 Infrastructure requirements 1) 12-14 Management system change evaluation criteria 1) 12-18 Process requirements: Environment 1)
		COM-08	**Operational planning** 7) Methods for monitoring the effectiveness and suitability of the process are determined.	03-18 Management system strategy: Establish the management system 5)
		COM-08	**Operational planning** 8) Plans for the deployment of the process are developed.	03-03 MS Measurement information gathering events 1), 2) 03-42 Organizational planning schedule 1) 04-03 Audit programme plan 1) 04-05 Management review schedule 1), 2) 04-07 Product/service review schedule 1) 08-80 Risks and opportunities: planning 1)
		COM-10.1	**Performance evaluation: Establish** 1) Performance monitoring and measurement needs are defined.	03-08 MS Measurement methods: Determination: Measurement 1)
		COM-10.1	**Performance evaluation: Establish** 2) Performance measures, derived from the performance measurement needs, are identified.	03-08 MS Measurement methods: Determination: Measurement 2) 03-40 Organizational measures 1)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
		COM-10.1	**Performance evaluation: Establish** 3) Performance measurement methods, supportive of the performance measures, are identified.	03-08 MS Measurement methods: Determination: Measurement 3)
		TOP-01	**Leadership** 1) The context of the organization, including the expectations of its relevant interested parties, are understood and analyzed.	03-11 MS Relevant Interested parties 1) 03-29 Management system strategy: external and internal issues 1) 12-12 MS Relevant Interested parties MS expectations 1)
		TOP-01	**Leadership** 2) The scope of management system activities is defined, taking the context of the organization into consideration.	03-13 Management system (MS) scope 1), 2), 3), 4), 5)
		TOP-01	**Leadership** 3) The management system policy and objectives are defined.	03-33 Management system strategy: management commitment 3), 4) 03-53 Quality objectives: Documentation 1), 2) 03-54 Quality objectives: Establish 1) 03-55 Quality objectives: Requirements 1), 2), 3), 4), 5), 6)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
		TOP-01	**Leadership** 4) The management system and operational process strategy is determined.	03-08 MS Measurement methods: Determination: Measurement 1), 2), 3) 03-09 MS Measurement methods: Determination: Quality assurance 1), 2), 3) 03-10 MS Measurement methods: Determination: Quality management 1), 2), 3) 03-15 Management system strategy: Determine the processes: Quality assurance 1) 03-16 Management system strategy: Determine the processes: Quality management 1) 03-17 Management system strategy: Documentation 1), 2) 03-18 Management system strategy: Establish the management system 1), 2) 03-30 Management system strategy: improvement 1), 2) 03-36 Management system strategy: process environment 1), 2), 3), 4), 5), 6), 7), 8), 9)
		TOP-01	**Leadership** 5) Commitment and leadership with respect to the management system is demonstrated.	03-33 Management system strategy: management commitment 1), 2), 5), 6), 7), 8), 9), 10), 11)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
5.2.5.2	**PA 3.1 Process definition process attribute** 2) the required inputs and the expected outputs for the standard process are determined;	COM-08	**Operational planning** 2) Process input and output products are determined.	03-18 Management system strategy: Establish the management system 3)
		TOP-01	**Leadership** 4) The management system and operational process strategy is determined.	03-37 Management system strategy: product preservation 1)
5.2.5.2	**PA 3.1 Process definition process attribute** 3) sequence and interaction of the standard process with other processes is determined;	COM-08	**Operational planning** 4) The sequence and interaction of the process with other processes is determined.	03-18 Management system strategy: Establish the management system 4)
5.2.5.2	**PA 3.1 Process definition process attribute** 4) roles, competences, responsibilities and authorities for performing the standard process are determined;	COM-03.1	**Human resource management: Determine competencies** 1) The competencies required by the organization to produce products and services are identified.	12-16 Organizational competence: Requirements 1)
		COM-08	**Operational planning** 5) The required competencies and roles for performing the process are identified.	03-44 Organizational roles and responsibilities 1) 12-16 Organizational competence: Requirements 1) 12-17 Organizational roles and responsibilities 1), 2), 3), 4), 5)
5.2.5.2	**PA 3.1 Process definition process attribute** 5) resources for performing the standard process are determined;	COM-08	**Operational planning** 6) The required resources for performing the process are identified.	03-43 Organizational resource needs 1) 12-13 MS Resource requirements 1), 2), 3), 4)
5.2.5.2	**PA 3.1 Process definition process attribute** 6) knowledge necessary for the operation of the standard process is determined [and maintained].	COM-12.1	**Knowledge management: Establish** 1) A taxonomy for the application of knowledge assets is identified.	03-31 Management system strategy: knowledge: establish 1)
		COM-12.1	**Knowledge management: Establish** 2) The organizational knowledge, skills, and knowledge assets are developed or acquired.	03-31 Management system strategy: knowledge: establish 2)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
5.2.5.3	**PA 3.2 Process deployment process attribute** 1) a defined process is deployed based upon an appropriately tailored standard process;	COM-06	**Management review** 1) The objectives of the review are established.	03-12 Management review: Objectives 1), 2)
		COM-06	**Management review** 2) The status and performance of an activity or process are assessed in terms of the established objectives.	08-26 Management review: Implementation 1)
		COM-06	**Management review** 3) Risks, problems and opportunities for improvement are identified.	08-26 Management review: Implementation 2), 3)
		COM-09	**Operational implementation and control** 3) Actions required to achieve the management system objectives are implemented.	08-19 MS Implementation log: Implement 1), 2) 08-20 MS Implementation log: Provide 1), 2), 3) 08-21 MS Implementation: Maintain 1)
		ORG-02	**Measurement resource management** 2) Measurement resources for performing tests and calibrations is acquired.	08-20 MS Implementation log: Provide 3)
5.2.5.3	**PA 3.2 Process deployment process attribute** 2) required roles, responsibilities and authorities necessary for performing the defined process are assigned and communicated;	COM-09	**Operational implementation and control** 1) The required roles, responsibilities and authorities are allocated.	03-21 Management system strategy: Responsibilities: Quality management 1), 2) 03-38 Management system strategy: roles and responsibilities 1), 2) 08-81 Roles and responsibilities assignment record 1)
5.2.5.3	**PA 3.2 Process deployment process attribute** 3) required person(s) necessary for performing the defined process are competent on the basis of defined education, training and experience;	COM-03.2	**Human resource management: Provide competencies** 1) Identified competency gaps are filled through training or recruitment.	12-15 Organizational competence: Provision 2) 12-22 Product/service competence: Provision 2)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
		COM-03.2	**Human resource management: Provide competencies** 2) Understanding of roles and activities in achieving organizational objectives in product and service provision is demonstrated by each person.	08-40 Organizational competencies: Evaluation record 1) 12-15 Organizational competence: Provision 1) 12-22 Product/service competence: Provision 1)
		COM-09	**Operational implementation and control** 3) Actions required to achieve the management system objectives are implemented.	12-15 Organizational competence: Provision 1), 2) 12-22 Product/service competence: Provision 1), 2)
		COM-09	**Operational implementation and control** 4) Suitability and effectiveness of the actions taken to achieve the management system objectives are reviewed.	08-41 Organizational training effectiveness evaluation result 1) 08-70 Product/service training effectiveness evaluation result 1)
5.2.5.3	**PA 3.2 Process deployment process attribute** 4) required resources necessary for performing the defined process are made available, monitored and measured;	COM-09	**Operational implementation and control** 2) The required resources are allocated and applied.	02-5 Measuring equipment asset list 1) 02-6 Measuring equipment maintenance log 1) 08-23 MS Resources provision record 1), 2), 3)
		ORG-02	**Measurement resource management** 3) Measurement resource items are identified.	02-4 Measurement resource calibration log 1)
		ORG-02	**Measurement resource management** 4) The calibration status of measurement resource items is confirmed at appropriate intervals.	02-4 Measurement resource calibration log 2), 3), 4)
		ORG-02	**Measurement resource management** 5) Measurement resources are maintained in accordance with defined requirements.	02-6 Measuring equipment maintenance log 1)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
		ORG-02	**Measurement resource management** 6) Mal-performing measurement resources are segregated and controlled in order to avoid unintended use.	02-4 Measurement resource calibration log 5)
5.2.5.3	**PA 3.2 Process deployment process attribute** 5) knowledge necessary for the operation of the standard process is [determined and] maintained.	COM-12.2	**Knowledge management: Maintain** 1) The organizational knowledge, skills, and knowledge assets are available.	03-32 Management system strategy: knowledge: maintain 1) 03-45 Process knowledge status record 1)
5.2.5.3	**PA 3.2 Process deployment process attribute** 6) documented information is available to ensure that the defined process achieves its intended results.	COM-06	**Management review** 3) Risks, problems and opportunities for improvement are identified.	11-06 Management review: Outputs 1)
		COM-09	**Operational implementation and control** 4) Suitability and effectiveness of the actions taken to achieve the management system objectives are reviewed.	08-21 MS Implementation: Maintain 2) 08-22 MS Implementation: Monitor and review 1), 2), 3)
		COM-09	**Operational implementation and control** 5) Deviations from planned arrangements are corrected when targets are not achieved.	11-12 Process change request 1)
5.2.5.4	**PA 3.3 Process assurance process attribute** 1) appropriate data and information are collected and analysed from monitoring and measurement of the process to evaluate the effectiveness and risks of the process, and to identify needs and opportunities for improvement;	COM-04	**Improvement** 1) Opportunities for improvement are identified.	03-22 Management system strategy: Risks and opportunities 1) 11-01 Improvement opportunities: Correction and prevention 1) 11-02 Improvement opportunities: Identification 1), 3) 11-03 Improvement opportunities: Performance and effectiveness 1) 11-04 Improvement opportunities: Products and services 1)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
		COM-04	**Improvement** 2) Opportunities for improvement are evaluated against defined criteria.	11-02 Improvement opportunities: Identification 2)
		COM-10.2	**Performance evaluation: Perform** 1) Data is collected using the identified performance measurement methods.	03-04 MS Measurement information: Monitoring 1)
		TEC-02	**Process changes** 1) Process change requests are classified.	08-44 Process change request review record 1)
5.2.5.4	**PA 3.3 Process assurance process attribute** 3) conformity of the defined process (and associated activities, outputs and documented information) is objectively assured;	COM-05	**Internal audit** 1) The scope and purpose of each audit is defined.	04-02 Audit plan 1)
		COM-05	**Internal audit** 2) The objectivity and impartiality of the conduct of audits and selection of auditors are assured.	08-05 Auditor list 1)
		COM-05	**Internal audit** 3) Conformity of selected services, products and processes with requirements, plans and agreements is determined.	08-01 Audit (MS) log 1) 08-04 Audit results 1), 2)
		COM-07	**Non-conformity management** 1) Non-conformities are identified.	08-02 Audit corrective action record 1) 08-37 Nonconformity record 1), 2)
		COM-10.2	**Performance evaluation: Perform** 1) Data is collected using the identified performance measurement methods.	02-3 MS Performance measurement: Gather 1)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
		COM-10.2	**Performance evaluation: Perform** 2) The collected performance data is analyzed.	02-1 MS Performance measurement: Analysis 1) 09-01 Customer satisfaction evaluation report 1) 09-03 Management system conformity evaluation report 1) 09-04 Process capability assessment report 1) 09-07 Product/ service conformity evaluation report 1)
5.2.5.4	**PA 3.3 Process assurance process attribute** 4) action is taken on any nonconformity, based on its nature and effect, and tracked to closure;	COM-07	**Non-conformity management** 2) Non-conformities are resolved and closed.	08-36 Nonconformity disposition record 1) 11-07 Nonconforming product corrective action request 1)
		COM-07	**Non-conformity management** 3) The cause(s) of selected non-conformities is determined.	08-08 Corrective action cause analysis record 1)
		COM-07	**Non-conformity management** 4) The need for action to eliminate the causes of non-conformities is evaluated.	08-11 Corrective action record 1)
		COM-07	**Non-conformity management** 5) A selected action proposal is implemented.	08-07 Correction action log 1) 08-09 Corrective action change proposal approval record 1), 2)
		TEC-02	**Process changes** 2) Process change requests are assessed using defined criteria.	08-42 Process change approval record 1)

Table A.1 *(continued)*

ISO/IEC 33020:2019 process attribute outcomes	Description	ISO/IEC TS 33073:2017 processes	Description	ISO/IEC TS 33073:2017 information items
5.2.5.4	**PA 3.3 Process assurance process attribute** 5) the standard process is continually improved based on identified needs and opportunities.	COM-04	**Improvement** 2) Opportunities for improvement are evaluated against defined criteria.	09-02 Improvement opportunity evaluation report 1)
		COM-04	**Improvement** 3) Improvements are prioritised.	09-02 Improvement opportunity evaluation report 1)
		COM-04	**Improvement** 4) Improvements are implemented.	08-15 Improvement opportunity implementation log 1)
		COM-07	**Non-conformity management** 6) The effectiveness of changes to eliminate the non-conformities is confirmed.	08-10 Corrective action change proposal verification record 1)
		TEC-02	**Process changes** 3) Process changes are implemented, as appropriate.	02-7 Process change implementation log 1)

A.3 Generic information items – exceptions list

There are no exceptions in the mapping between process attribute outcomes and the selected process outcomes.

Annex B
(informative)

Associations between the ISO/IEC 33020 generic practices, ISO/IEC TS 33073 base practices and information item characteristics

B.1 General

This Clause presents a detailed perspective of the relationship between the ISO/IEC 33020 generic practices, the ISO/IEC TS 33073 base practices, and the information item characteristics. See Table B.1.

Table B.1 — Associations between the ISO/IEC 33020 generic practices, ISO/IEC TS 33073 base practices and associated information item characteristics

ISO/IEC 33020:2019Annex B generic practices	Description	ISO/IEC TS 33073:2017 base practices	Description	ISO/IEC TS 33073:2017 information items
B3.1 PA.1.1.GP1	**Achieve the process outcomes** 2) Relevant information items to evidence achievement of the process outcomes are identified.	COM-01.BP6	**Communicate information products** 1) Communicate information products to relevant interested parties.	08-03 Audit result communication record 1)
		COM-02.BP1	**Identify documented information to be managed** 1) Identify documented information of internal and external origin necessary for the operation of the quality management system.	03-28 Management system strategy: documentation 1)
		COM-07.BP1	**Identify non-conformities** 1) Non-conformities are identified. These might arise during development and/ or production of the product/service, or from post-production activities e.g. feedback from customers.	08-02 Audit corrective action record 1)
		ORG-01.BP1	**Identify Items** 1) Identify Items requiring asset management.	07-1 Product asset 1)
		ORG-01.BP4	**Assure asset integrity** 1) Assure the integrity of assets.	07-1 Product asset 2)
		TEC-03.BP1	**Identify product/service change requests** 1) Identify and classify product/service change requests.	11-13 Product/service design change request 1)
		TEC-03.BP2	**Assess product/service change requests** 1) Assess product/service change requests using defined criteria.	08-54 Product/service design change evaluation result 1)
		TEC-03.BP3	**Implement product/service changes** 1) Implement product/service changes, as appropriate.	08-55 Product/service design change log 1)
		TEC-04.BP1	**Design each product/service component** 1) Develop the design for each product/ service component in accordance with defined requirements.	03-47 Product/service design 1)
		TEC-04.BP2	**Define external and internal interfaces** 1) Define the external and internal interfaces for each product/ service component.	03-47 Product/service design 2)
		TEC-06.BP1	**Identify non-conforming product/ services** 1) Identify product/service that does not conform to requirements.	08-38 Nonconformity: Documentation 1)

Table B.1 *(continued)*

ISO/IEC 33020:2019Annex B generic practices	Description	ISO/IEC TS 33073:2017 base practices	Description	ISO/IEC TS 33073:2017 information items
		TEC-06.BP2	**Quarantine nonconforming product/ services** 1) Place under quarantine nonconforming product/services.	11-10 Nonconforming product quarantine request 1)
		TEC-06.BP4	**Take agreed actions** 1) Take agreed actions regarding disposition of nonconforming product/ service.	08-32 Nonconforming product disposition evaluation result 1)
		TEC-06.BP5	**Re-verify corrected product/service** 1) Re-verify product/service that has been corrected to demonstrate conformity to requirements.	08-35 Nonconforming product re-verification record 1)
		TEC-07.BP1	**Identify product/service characteristics** 1) Identify the required characteristics and context of use of products/services.	08-66 Product/service requirements review record 1)
		TEC-07.BP2	**Identify solution constraints** 1) Identify the constraints for a product / service solution.	08-66 Product/service requirements review record 1)
		TEC-07.BP3	**Define requirements** 1) Define the requirements for the product/ service.	08-66 Product/service requirements review record 5)
		TEC-09.BP2	**Evaluate product/service request(s)** 1) Evaluate product/service request(s) in terms of mandated product/ service delivery criteria.	03-39 Management system strategy: supplier capability 1)
		TEC-09.BP3	**Produce a response to a request** 1) Produce a response to a customer's product/ service request.	08-65 Product/service requirements communication record 1)
		TEC-09.BP5	**Provide product/service** 1) Provide the product/service to the customer in accordance with the agreed requirements.	08-64 Product/service release record 1)
		TEC-09.BP6	**Verify conformity to requirements** 1) Verify conformity to applicable stated and implied customer and supplier requirements by internal processes and/or product provided.	03-50 Product/service objectives 2)
		TEC-10.BP3	**Perform validation activities** 1) Perform required validation activities.	08-72 Product/service validation record 1)
		TEC-11.BP3	**Perform verification** 1) Perform required verification activities.	08-75 Product/service verification record 1)
B4.1 PA.2.1.GP1	**Determine results to be achieved for the performance of the process** 1) Results to be achieved are determined.	COM-08.BP1	**Identify process requirements** 1) Identify process requirements. These might arise from requirements associated with the quality management system, from realising the quality objectives, the operational and/or product/service requirements.	03-50 Product/service objectives 1)
		TEC-05.BP1	**Define objectives** 1) Define the objectives for the scope of the work associated with the development of the product/service.	03-41 Organizational planning objectives 1)
B4.1 PA.2.1.GP1	**Determine results to be achieved for the performance of the process** 2) Process performance goals are defined.	COM-08.BP1	**Identify process requirements** 1) Identify process requirements. These might arise from requirements associated with the quality management system, from realising the quality objectives, the operational and/or product/service requirements.	03-50 Product/service objectives 1)
B4.1 PA.2.1.GP1	**Determine results to be achieved for the performance of the process** 3) Assumptions and constraints are considered when identifying the performance goals.	TEC-05.BP2	**Evaluate feasibility** 1) Evaluate the feasibility of achieving the objectives of the product/ service development with available resources and constraints.	08-59 Product/service performance review record 1)

Table B.1 *(continued)*

ISO/IEC 33020:2019 Annex B generic practices	Description	ISO/IEC TS 33073:2017 base practices	Description	ISO/IEC TS 33073:2017 information items
B4.1 PA.2.1.GP2	**Determine and address risks relevant to the performance of the process** 1) Risks that can affect performance of the process are identified and evaluated for effect and severity.	COM-11.BP2	**Identify risks** 1) Identify risks and opportunities. The following may be considered for identifying such uncertainties: - Potential occurrence of set of circumstances and their consequences. - Set of circumstances and their consequences which may potentially not occur. - Potential consequences, which may affect objectives but where such consequences do not appear to be linked to specific risk source, type or sequence of events. - Changes in the internal or external environment leading to a state consisting of factors previously unknown to the organization. These are sometimes also referred to as "known unknowns". - Changes in the internal or external environment leading to a state where knowledge of the organization about its environment may become invalidated or irrelevant. - Gradual changes in the internal or external environment which individually may not have any effect on objectives but their repetitive occurrences overtime may result in significant changes to one or more factors resulting in a single or chain of events and consequences.	08-79 Risks and opportunities: identification 1)
B4.1 PA.2.1.GP2	**Determine and address risks relevant to the performance of the process** 2) Actions to mitigate the risks are planned and performed.	COM-11.BP6	**Treat risks** 1) Treat selected risks. Risk treatment involves selecting one or more options for responding to risks, and implementing those options. Risk treatment involves a cyclical process of: - formulating and selecting risk treatment; - implementing risk treatment; - deciding whether residual risk levels are acceptable; - if not acceptable, generating further risk treatment; - assessing the effectiveness of that treatment; and - potential evolution over time.	08-78 Risk treatment action log 1)
		COM-11.BP7	**Identify opportunities** 1) One of the options for treating risk involve taking or increasing the risk in order to pursue an opportunity.	08-78 Risk treatment action log 1)
B4.1 PA.2.1.GP3	**Plan the performance of the process to achieve the determined results.** 1) Plan(s) for the performance of the process are developed.	COM-08.BP7	**Determine the methods for monitoring the effectiveness and suitability of the process** 1) Determine the methods for monitoring the effectiveness and suitability of the process.	03-49 Product/service lifecycle model: Planning 2)
		COM-10.BP2	**Determine appropriate performance measures** 1) Determine appropriate performance measures that support the performance measurement needs.	03-40 Organizational measures 1)

Table B.1 *(continued)*

ISO/IEC 33020:2019 Annex B generic practices	Description	ISO/IEC TS 33073:2017 base practices	Description	ISO/IEC TS 33073:2017 information items
B4.1 PA.2.1.GP3	**Plan the performance of the process to achieve the determined results.** 3) Schedule and milestones are defined and aligned with the approach to performing the process.	COM-08.BP8	**Plan the deployment of the process** 1) Plan the processes will be deployed in order to achieve the quality objectives. Planning includes, but is not limited to: i) the nature, duration and complexity of the design and development activities; ii) the required process stages, including applicable design and development reviews; iii) the required design and development verification and validation activities; iv) the responsibilities and authorities involved in the design and development process; v) the internal and external resource needs for the design and development of products and services; vi) the need to control interfaces between persons involved in the design and development process; vii) the need for involvement of customers and users in the design and development process; viii) the requirements for subsequent provision of products and services; ix) the level of control expected for the design and development process by customers and other relevant interested parties.	03-03 MS Measurement information gathering events 1)
B4.1 PA.2.1.GP5	**Assign competent people with the relevant responsibilities and authorities for performing the process** 1) Responsibilities and authorities to perform the process are determined, assigned and communicated.	COM-08.BP5	**Identify the required competencies and roles for performing the process** 1) Identify the required competencies and roles for performing the process. These include: i) ensuring that the quality management system conforms to the management system requirements; ii) ensuring that the processes are delivering their intended outputs; iii) reporting on the performance of the quality management system and on opportunities for improvement, in particular to top management; iv) ensuring the promotion of customer focus throughout the organization; v) ensuring that the integrity of the quality management system is maintained when changes to the quality management system are planned and implemented; vi) who will be responsible for meeting quality system objectives; and vii) the appointment of competent persons, including any required qualification.	03-38 Management system strategy: roles and responsibilities 1)
		TEC-05.BP4	**Identify responsibilities and authorities** 1) Identify the responsibilities and authorities needed at each stage of product/service development.	03-44 Organizational roles and responsibilities 1)
B4.1 PA.2.1.GP5	**Assign competent people with the relevant responsibilities and authorities for performing the process** 2) Required competencies are identified based on the responsibilities.	COM-08.BP5	**Identify the required competencies and roles for performing the process** 1) Identify the required competencies and roles for performing the process. These include: i) ensuring that the quality management system conforms to the management system requirements; ii) ensuring that the processes are delivering their intended outputs; iii) reporting on the performance of the quality management system and on opportunities for improvement, in particular to top management; iv) ensuring the promotion of customer focus throughout the organization; v) ensuring that the integrity of the quality management system is maintained when changes to the quality management system are planned and implemented; vi) who will be responsible for meeting quality system objectives; and vii) the appointment of competent persons, including any required qualification.	03-38 Management system strategy: roles and responsibilities 1)

Table B.1 *(continued)*

ISO/IEC 33020:2019 Annex B generic practices	Description	ISO/IEC TS 33073:2017 base practices	Description	ISO/IEC TS 33073:2017 information items
B4.1 PA.2.1.GP5	**Assign competent people with the relevant responsibilities and authorities for performing the process** 3) Competencies for management and execution of the process are ensured by training or work-based learning.	COM-08.BP5	**Identify the required competencies and roles for performing the process** 1) Identify the required competencies and roles for performing the process. These include: i) ensuring that the quality management system conforms to the management system requirements; ii) ensuring that the processes are delivering their intended outputs; iii) reporting on the performance of the quality management system and on opportunities for improvement, in particular to top management; iv) ensuring the promotion of customer focus throughout the organization; v) ensuring that the integrity of the quality management system is maintained when changes to the quality management system are planned and implemented; vi) who will be responsible for meeting quality system objectives; and vii) the appointment of competent persons, including any required qualification.	03-38 Management system strategy: roles and responsibilities 1)
B4.1 PA.2.1.GP5	**Assign competent people with the relevant responsibilities and authorities for performing the process** 4) Person(s) performing the process are considered competent on the basis of appropriate education, training, or experience.	COM-03.BP2	**Fill competency gaps** 1) Fill identified competency gaps through training or recruitment.	12-15 Organizational competence: Provision 1)
		COM-03.BP3	**Demonstrate awareness of understanding of role** 1) Each individual demonstrates their understanding of their role and activities in achieving organizational objectives.	08-41 Organizational training effectiveness evaluation result 1)
B4.1 PA.2.1.GP5	**Assign competent people with the relevant responsibilities and authorities for performing the process** 5) Necessary competencies are acquired externally when needed.	COM-09.BP4	**Review process activities** 1) Review process activities.	08-58 Product/service implementation record 2)
B4.1 PA.2.1.GP6	**Allocate and maintain resources to perform the process according to plan** 1) The human and infrastructure resources needed for performing the process are determined, provided and maintained.	COM-08.BP6	**Identify the required resources for performing the process** 1) Determine what resources will be required by the quality management system to achieve its quality objectives. This includes determining: i) the resources needed for these processes; ii) the capabilities of, and constraints on, existing internal resources; iii) what needs to be obtained from external providers; iv) determining the resources needed to achieve conformity to the product and service requirements; and v) the use of suitable infrastructure and environment for the operation of processes.	03-49 Product/service lifecycle model: Planning 3)
		TEC-05.BP3	**Estimate tasks and resources** 1) Size and estimate the tasks and resources necessary to complete the product/service development.	03-43 Organizational resource needs 1)
B4.1 PA.2.1.GP7	**Manage the interfaces between the involved parties** 1) The individuals and groups involved in the process performance are identified.	TEC-05.BP5	**Identify interfaces** 1) Identify interfaces between customer and relevant interested parties.	12-04 Customer - interested parties interface considerations 1)
B4.2 PA.2.2.GP1	**Define the requirements for the documented information** 1) The requirements for the documented information to be produced are defined. Requirements may include defining contents and structure.	COM-02.BP2	**Define the forms of documented information representation** 1) Identify the forms of information to be stored in the repository. For example, this may include documents, records, audio content, video content, image content.	03-02 Information item identification: External origin 1)

Table B.1 *(continued)*

ISO/IEC 33020:2019 Annex B generic practices	Description	ISO/IEC TS 33073:2017 base practices	Description	ISO/IEC TS 33073:2017 information items
B4.2 PA.2.2.GP1	**Define the requirements for the documented information** 2) Quality criteria of the documented information are identified.	COM-02.BP4	**Determine whether the documented information is current, complete and valid** 1) The documented information contained in the repository is adequately protected (e.g. from loss of confidentiality, improper use, or loss of integrity).	11-14 Product/service requirements change request 1)
B4.2 PA.2.2.GP2	**Define the requirements for documentation and control of the documented information** 1) Requirements for the documentation and control of the documented information are defined. Such requirements may include requirements for (1) distribution, (2) identification of documented information and their components (3) traceability	COM-02.BP6	**Make documented information available to relevant interested parties** 1) Manage the distribution, access, retrieval and use of documented information towards interested parties.	12-07 Information management requirements 1)
		COM-02.BP7	**Archive, or dispose of documented information, as required** 1) Manage documented information, including records, through its lifecycle by addressing the following activities: a) storage and preservation, including preservation of legibility; b) retention and disposition. Note: Records should be protected in accordance with statutory, regulatory, contractual and business requirements.	12-08 Information management requirements: disposition 1)
		TEC-01.BP1	**Identify configuration items** 1) Identify items requiring configuration management.	03-51 Product/service taxonomy 1)
B4.2 PA.2.2.GP2	**Define the requirements for documentation and control of the documented information** 3) Requirements for the approval of documented information to be controlled are defined.	COM-02.BP2	**Define the forms of documented information representation** 1) Identify the forms of information to be stored in the repository. For example, this may include documents, records, audio content, video content, image content.	03-02 Information item identification: External origin 1)
B4.2 PA.2.2.GP3	**Identify and control the documented information in accordance with requirements** 2) The documented information is identified and controlled in accordance with requirements.	COM-02.BP2	**Define the forms of documented information representation** 1) Identify the forms of information to be stored in the repository. For example, this may include documents, records, audio content, video content, image content.	03-02 Information item identification: External origin 1)
		COM-02.BP4	**Determine whether the documented information is current, complete and valid** 1) The documented information contained in the repository is adequately protected (e.g. from loss of confidentiality, improper use, or loss of integrity).	11-14 Product/service requirements change request 1)
B4.2 PA.2.2.GP3	**Identify and control the documented information in accordance with requirements** 3) Versions of documented information are assigned to product configurations as applicable.	ORG-01.BP2	**Determine asset status** 1) Determine the status of the asset.	08-46 Product asset communication record 1)
		ORG-01.BP3	**Control asset changes** 1) Control changes to assets under management.	08-46 Product asset communication record 1)
B4.2 PA.2.2.GP3	**Identify and control the documented information in accordance with requirements** 4) The documented information is made available through appropriate access mechanisms.	COM-02.BP6	**Make documented information available to relevant interested parties** 1) Manage the distribution, access, retrieval and use of documented information towards interested parties.	12-07 Information management requirements 1)
B4.2 PA.2.2.GP3	**Identify and control the documented information in accordance with requirements** 5) The revision status of the documented information may readily be ascertained.	COM-02.BP3	**Determine the documented information content status** 1) The status of the documented information content refers to the timeliness of the information content. This includes the control of changes, for example, by using version control techniques.	08-67 Product/service requirements status record 1)
		TEC-01.BP2	**Identify configuration item status** 1) Identify the status of configuration items and modifications.	09-06 Product/service configuration status report 1)

Table B.1 *(continued)*

ISO/IEC 33020:2019 Annex B generic practices	Description	ISO/IEC TS 33073:2017 base practices	Description	ISO/IEC TS 33073:2017 information items
B4.2 PA.2.2.GP4	**Review and adjust documented information to meet the defined requirements** 1) Documented information is reviewed against the defined requirements in accordance with planned arrangements.	COM-02.BP4	**Determine whether the documented information is current, complete and valid** 1) The documented information contained in the repository is adequately protected (e.g. from loss of confidentiality, improper use, or loss of integrity).	11-14 Product/service requirements change request 1)
		COM-02.BP5	**Release documented information according to defined criteria** 1) The documented information release status refers to those situations typically where authorisation is needed, such as in situations where: a) agreements are in force, b) policies and procedures are approved by management and their use in the organization is thereby obligatory.	08-17 Information item approval record 1)
B4.2 PA.2.2.GP5	**Maintain and retain information products to demonstrate that planned results are achieved** 1) Documented information needed to confirm the performance of the process is determined.	COM-02.BP3	**Determine the documented information content status** 1) The status of the documented information content refers to the timeliness of the information content. This includes the control of changes, for example, by using version control techniques.	08-67 Product/service requirements status record 1)
B5.1 PA.3.1.GP1	**Establish and maintain a standard process that will support the deployment of the defined process.** 1) A standard process is developed that includes the fundamental process elements.	COM-01.BP2	**Identify parties to communicate to** 1) Identify parties to communicate with.	12-02 Communication requirements 3)
		COM-08.BP1	**Identify process requirements** 1) Identify process requirements. These might arise from requirements associated with the quality management system, from realising the quality objectives, the operational and/or product/service requirements.	03-50 Product/service objectives 1)
		COM-08.BP8	**Plan the deployment of the process** 1) Plan the processes will be deployed in order to achieve the quality objectives. Planning includes, but is not limited to: i) the nature, duration and complexity of the design and development activities; ii) the required process stages, including applicable design and development reviews; iii) the required design and development verification and validation activities; iv) the responsibilities and authorities involved in the design and development process; v) the internal and external resource needs for the design and development of products and services; vi) the need to control interfaces between persons involved in the design and development process; vii) the need for involvement of customers and users in the design and development process; viii) the requirements for subsequent provision of products and services; ix) the level of control expected for the design and development process by customers and other relevant interested parties.	03-03 MS Measurement information gathering events 1)
		TOP-1.BP6	**Determine process strategy** 1) Determine the management system and operational process strategy.	03-23 Management system strategy: change management 1)

Table B.1 *(continued)*

ISO/IEC 33020:2019Annex B generic practices	Description	ISO/IEC TS 33073:2017 base practices	Description	ISO/IEC TS 33073:2017 information items
B5.1 PA.3.1.GP1	**Establish and maintain a standard process that will support the deployment of the defined process.** 2) The standard process identifies the deployment needs and deployment context.	COM-02.BP1	**Identify documented information to be managed** 1) Identify documented information of internal and external origin necessary for the operation of the quality management system.	03-28 Management system strategy: documentation 1)
		COM-08.BP1	**Identify process requirements** 1) Identify process requirements. These might arise from requirements associated with the quality management system, from realising the quality objectives, the operational and/or product/service requirements.	03-50 Product/service objectives 1)
		COM-08.BP7	**Determine the methods for monitoring the effectiveness and suitability of the process** 1) Determine the methods for monitoring the effectiveness and suitability of the process.	03-49 Product/service lifecycle model: Planning 2)
		COM-08.BP8	**Plan the deployment of the process** 1) Plan the processes will be deployed in order to achieve the quality objectives. Planning includes, but is not limited to: i) the nature, duration and complexity of the design and development activities; ii) the required process stages, including applicable design and development reviews; iii) the required design and development verification and validation activities; iv) the responsibilities and authorities involved in the design and development process; v) the internal and external resource needs for the design and development of products and services; vi) the need to control interfaces between persons involved in the design and development process; vii) the need for involvement of customers and users in the design and development process; viii) the requirements for subsequent provision of products and services; ix) the level of control expected for the design and development process by customers and other relevant interested parties.	03-03 MS Measurement information gathering events 1)
		ORG-02.BP1	**Define measurement resource requirements** 1) Define requirements for test and calibration measurement resources.	12-19 Process requirements: Measurement resources 1)
		TOP-1.BP6	**Determine process strategy** 1) Determine the management system and operational process strategy.	03-23 Management system strategy: change management 1)
B5.1 PA.3.1.GP1	**Establish and maintain a standard process that will support the deployment of the defined process.** 3) Guidance and/or procedures are provided to support implementation of the process as needed.	COM-08.BP1	**Identify process requirements** 1) Identify process requirements. These might arise from requirements associated with the quality management system, from realising the quality objectives, the operational and/or product/service requirements.	03-50 Product/service objectives 1)

Table B.1 *(continued)*

ISO/IEC 33020:2019 Annex B generic practices	Description	ISO/IEC TS 33073:2017 base practices	Description	ISO/IEC TS 33073:2017 information items
B5.1 PA.3.1.GP1	**Establish and maintain a standard process that will support the deployment of the defined process.** 5) The standard process is maintained to meet the improvement needs and opportunities.	COM-06.BP1	**Identify the objectives for management system review** 1) Objectives for management review include: a) the status of actions from previous management reviews; b) changes in external and internal issues that are relevant to the quality management system including its strategic direction; c) information on the quality performance, including trends and indicators for: 1) nonconformities and corrective actions; 2) monitoring and measurement results; 3) audit results; 4) customer satisfaction; 5) issues concerning external providers and other relevant interested parties; 6) adequacy of resources required for maintaining an effective quality management system; 7) process performance and conformity of products and services; d) the effectiveness of actions taken to address risks and opportunities; e) new potential opportunities for continual improvement.	03-12 Management review: Objectives 1)
		COM-08.BP7	**Determine the methods for monitoring the effectiveness and suitability of the process** 1) Determine the methods for monitoring the effectiveness and suitability of the process.	03-49 Product/service lifecycle model: Planning 2)
		TOP-1.BP6	**Determine process strategy** 1) Determine the management system and operational process strategy.	03-23 Management system strategy: change management 1)
B5.1 PA.3.1.GP2	**Determine the inputs and outputs of the standard process** 1) Required inputs are identified, including information needed.	COM-01.BP1	**Define information content** 1) Define information content in terms of identified communication needs and requirements.	12-02 Communication requirements 1)
		COM-08.BP2	**Determine process input and output products** 1) Determine process input and output products expected from these processes.	03-18 Management system strategy: Establish the management system 3)
B5.1 PA.3.1.GP2	**Determine the inputs and outputs of the standard process** 2) Expected outputs are identified.	COM-01.BP4	**Identify communication events** 1) Identify the events that require communication actions.	12-02 Communication requirements 2)
		COM-06.BP1	**Identify the objectives for management system review** 1) Objectives for management review include: a) the status of actions from previous management reviews; b) changes in external and internal issues that are relevant to the quality management system including its strategic direction; c) information on the quality performance, including trends and indicators for: 1) nonconformities and corrective actions; 2) monitoring and measurement results; 3) audit results; 4) customer satisfaction; 5) issues concerning external providers and other relevant interested parties; 6) adequacy of resources required for maintaining an effective quality management system; 7) process performance and conformity of products and services; d) the effectiveness of actions taken to address risks and opportunities; e) new potential opportunities for continual improvement.	03-12 Management review: Objectives 1)
		TOP-1.BP6	**Determine process strategy** 1) Determine the management system and operational process strategy.	03-23 Management system strategy: change management 1)

Table B.1 *(continued)*

ISO/IEC 33020:2019 Annex B generic practices	Description	ISO/IEC TS 33073:2017 base practices	Description	ISO/IEC TS 33073:2017 information items
B5.1 PA.3.1.GP3	**Determine the sequence and interaction of the process as an integrated system of processes** 1) The process's sequence and interaction with other processes are determined.	COM-01.BP5	**Select communication channel** 1) Select the channel for the communication.	12-02 Communication requirements 4)
		COM-08.BP3	**Determine the set of activities that transform the inputs into outputs** 1) Determine the set of activities that transform the inputs into outputs. Controlled conditions include, as applicable, the availability and use of suitable monitoring and measuring resources.	03-49 Product/service lifecycle model: Planning 1)
		COM-08.BP4	**Determine the sequence and interaction of the process with other processes** 1) Determine the sequence and interaction of the process with other processes, by establishing criteria for the acceptance of products and services, the need for validation, and periodic revalidation, of the ability to achieve planned results of the processes for production and service provision, where the resulting output cannot be verified by subsequent monitoring or measurement, the implementation of actions to prevent human error, and the implementation of release, delivery and post-delivery activities.	03-49 Product/service lifecycle model: Planning 4)
B5.1 PA.3.1.GP3	**Determine the sequence and interaction of the process as an integrated system of processes** 2) Deployment of the standard process as a defined process maintains integrity of processes.	COM-08.BP4	**Determine the sequence and interaction of the process with other processes** 1) Determine the sequence and interaction of the process with other processes, by establishing criteria for the acceptance of products and services, the need for validation, and periodic revalidation, of the ability to achieve planned results of the processes for production and service provision, where the resulting output cannot be verified by subsequent monitoring or measurement, the implementation of actions to prevent human error, and the implementation of release, delivery and post-delivery activities.	03-49 Product/service lifecycle model: Planning 4)
B5.1 PA.3.1.GP4	**Determine the roles, competencies, responsibilities and authorities for performing the standard process** 1) Roles and related competencies for performing the process are determined.	COM-01.BP3	**Identify party responsible for communication** 1) Identify the party responsible for the communication.	12-02 Communication requirements 5)
		COM-03.BP1	**Identify organizational competencies** 1) Identify the competencies required by the organization.	12-16 Organizational competence: Requirements 1)
		COM-08.BP5	**Identify the required competencies and roles for performing the process** 1) Identify the required competencies and roles for performing the process. These include: i) ensuring that the quality management system conforms to the management system requirements; ii) ensuring that the processes are delivering their intended outputs; iii) reporting on the performance of the quality management system and on opportunities for improvement, in particular to top management; iv) ensuring the promotion of customer focus throughout the organization; v) ensuring that the integrity of the quality management system is maintained when changes to the quality management system are planned and implemented; vi) who will be responsible for meeting quality system objectives; and vii) the appointment of competent persons, including any required qualification.	03-38 Management system strategy: roles and responsibilities 1)

Table B.1 *(continued)*

ISO/IEC 33020:2019 Annex B generic practices	Description	ISO/IEC TS 33073:2017 base practices	Description	ISO/IEC TS 33073:2017 information items
B5.1 PA.3.1.GP4	**Determine the roles, competencies, responsibilities and authorities for performing the standard process** 2) Authorities necessary for executing responsibilities are determined.	COM-08.BP5	**Identify the required competencies and roles for performing the process** 1) Identify the required competencies and roles for performing the process. These include: i) ensuring that the quality management system conforms to the management system requirements; ii) ensuring that the processes are delivering their intended outputs; iii) reporting on the performance of the quality management system and on opportunities for improvement, in particular to top management; iv) ensuring the promotion of customer focus throughout the organization; v) ensuring that the integrity of the quality management system is maintained when changes to the quality management system are planned and implemented; vi) who will be responsible for meeting quality system objectives; and vii) the appointment of competent persons, including any required qualification.	03-38 Management system strategy: roles and responsibilities 1)
B5.1 PA.3.1.GP5	**Determine the resources for performing the standard process** 1) Appropriate resources are identified and determined.	COM-08.BP6	**Identify the required resources for performing the process** 1) Determine what resources will be required by the quality management system to achieve its quality objectives. This includes determining: i) the resources needed for these processes; ii) the capabilities of, and constraints on, existing internal resources; iii) what needs to be obtained from external providers; iv) determining the resources needed to achieve conformity to the product and service requirements; and v) the use of suitable infrastructure and environment for the operation of processes.	03-49 Product/service lifecycle model: Planning 3)
		TEC-05.BP3	**Estimate tasks and resources** 1) Size and estimate the tasks and resources necessary to complete the product/service development.	03-43 Organizational resource needs 1)
B5.2 PA.3.2.GP1	**Deploy a defined process that satisfies the context specific requirements of the use of the standard process** 1) The defined process is appropriately selected and/or tailored from the standard process.	COM-09.BP3	**Perform process activities** 1) Perform process activities. The organization: i) monitors and reviews information about these external and internal issues; ii) monitors and reviews information about interested parties and their relevant requirements; iii) evaluates the effectiveness of the actions taken; iv) ensures that contract or order requirements differing from those previously defined are resolved; v) ensures the adequacy of requirements prior to their communication to the external provider; vi) maintains an audit programme(s) including the frequency, methods, responsibilities, planning requirements and reporting, which shall take into consideration the importance of the processes concerned, changes affecting the organization, and the results of previous audits.	08-58 Product/service implementation record 1)
		ORG-02.BP2	**Acquire measurement resources** 1) Acquire measurement resources for performing tests and calibrations.	08-20 MS Implementation log: Provide 3)
B5.2 PA.3.2.GP1	**Deploy a defined process that satisfies the context specific requirements of the use of the standard process** 2) Criteria to verify conformity of the defined process with the standard process are determined.	COM-06.BP3	**Identify risks, problems and opportunities for improvement** 1) Identify risks, problems, and opportunities related to improvement, and the need for changes to the quality management system.	08-24 Management review action log (retired) 1)

Table B.1 *(continued)*

ISO/IEC 33020:2019 Annex B generic practices	Description	ISO/IEC TS 33073:2017 base practices	Description	ISO/IEC TS 33073:2017 information items
B5.2 PA.3.2.GP1	**Deploy a defined process that satisfies the context specific requirements of the use of the standard process** 3) The defined process is used to achieve the process outcomes.	COM-06.BP2	**Assess status and performance of activities** 1) Top management conduct reviews of the organization's quality management system to ensure its continuing suitability, adequacy and effectiveness.	08-26 Management review: Implementation 1)
B5.2 PA.3.2.GP2	**Deploy competent people with defined responsibilities and authorities to support the performance of the defined process** 3) The responsibilities and authorities for performing the defined process are assigned and communicated.	COM-09.BP1	**Allocate roles, responsibilities and authorities** 1) Allocate the required roles, responsibilities and authorities. Top management ensures that the responsibilities and authorities for relevant roles are communicated and understood within the organization.	08-81 Roles and responsibilities assignment record 1)
B5.2 PA.3.2.GP2	**Deploy competent people with defined responsibilities and authorities to support the performance of the defined process** 4) Competency of the required person(s) is monitored and maintained with appropriate education, training, or experience.	COM-03.BP3	**Demonstrate awareness of understanding of role** 1) Each individual demonstrates their understanding of their role and activities in achieving organizational objectives.	08-41 Organizational training effectiveness evaluation result 1)
B5.2 PA.3.2.GP3	**Provide resources and information to support the performance of the defined process** 1) Required human resources are made available, allocated and used.	COM-03.BP2	**Fill competency gaps** 1) Fill identified competency gaps through training or recruitment.	12-15 Organizational competence: Provision 1)
		COM-09.BP2	**Allocate resources** 1) Allocate and apply the required resources. The organization i) provides the resources needed for the establishment, implementation, maintenance and continual improvement of the quality management system; ii) determines the persons necessary for the effective implementation of its quality management system and for the operation and control of its processes; iii) provides the persons necessary for the effective implementation of its quality management system and for the operation and control of its processes. iv) ensures that the resources provided are suitable for the specific type of monitoring and measurement activities being undertaken; and v) ensure that the resources provided are maintained to ensure their continuing fitness for their purpose.	02-5 Measuring equipment asset list 1)
		COM-09.BP4	**Review process activities** 1) Review process activities.	08-58 Product/service implementation record 2)
B5.2 PA.3.2.GP3	**Provide resources and information to support the performance of the defined process** 3) Resources are measured and monitored to ensure their effective use.	COM-09.BP2	**Allocate resources** 1) Allocate and apply the required resources. The organization i) provides the resources needed for the establishment, implementation, maintenance and continual improvement of the quality management system; ii) determines the persons necessary for the effective implementation of its quality management system and for the operation and control of its processes; iii) provides the persons necessary for the effective implementation of its quality management system and for the operation and control of its processes. iv) ensures that the resources provided are suitable for the specific type of monitoring and measurement activities being undertaken; and v) ensure that the resources provided are maintained to ensure their continuing fitness for their purpose.	02-5 Measuring equipment asset list 1)
		COM-09.BP4	**Review process activities** 1) Review process activities.	08-58 Product/service implementation record 2)

Table B.1 *(continued)*

ISO/IEC 33020:2019 Annex B generic practices	Description	ISO/IEC TS 33073:2017 base practices	Description	ISO/IEC TS 33073:2017 information items
		ORG-02.BP4	**Confirm calibration status** 1) Confirm the calibration status of measurement resources, as applicable at appropriate intervals.	02-4 Measurement resource calibration log 1)
		ORG-02.BP5	**Maintain measurement resources** 1) Maintain measurement resources in accordance with defined requirements.	02-6 Measuring equipment maintenance log 1)
		ORG-02.BP6	**Segregate mal-performing measurement resources** 1) Segregate and control mal-performing measurement resources in order to avoid unintended use.	02-4 Measurement resource calibration log 5)
B5.2 PA.3.2.GP4	**Maintain documented information as evidence of the process achieving expected results** 1) Documented information is maintained.	COM-09.BP4	**Review process activities** 1) Review process activities.	08-58 Product/service implementation record 2)
		ORG-02.BP4	**Confirm calibration status** 1) Confirm the calibration status of measurement resources, as applicable at appropriate intervals.	02-4 Measurement resource calibration log 1)
B5.2 PA.3.2.GP4	**Maintain documented information as evidence of the process achieving expected results** 2) Documented information is available for review.	COM-04.BP1	**Identify improvement opportunities** 1) These might arise from the following sources: a) The decisions and actions arising from the outputs of the management reviews; b) feedback arising from actions to meet customer requirements and assess customer satisfaction; c) actions arising from i) improving products and services to meet requirements as well as to address future needs and expectations; ii) correcting, preventing or reducing undesired effects; iii) improving the performance and effectiveness of the quality management system.	11-06 Management review: Outputs 1)
		COM-09.BP4	**Review process activities** 1) Review process activities.	08-58 Product/service implementation record 2)
		COM-09.BP5	**Correct deviations** 1) Correct deviations from planned arrangements when targets are not achieved.	08-60 Product/service provision change evaluation record 2)
		ORG-02.BP4	**Confirm calibration status** 1) Confirm the calibration status of measurement resources, as applicable at appropriate intervals.	02-4 Measurement resource calibration log 1)
B5.2 PA.3.2.GP4	**Maintain documented information as evidence of the process achieving expected results** 3) Documented information can be verified by person(s) independent of those performing the process	ORG-02.BP4	**Confirm calibration status** 1) Confirm the calibration status of measurement resources, as applicable at appropriate intervals.	02-4 Measurement resource calibration log 1)
B5.3 PA.3.3.GP1	**Collect and analyse data about performance of the process to identify needs for improvement** 1) Data required to understand the behaviour, suitability and effectiveness of the process are identified, collected and analysed.	COM-02.BP1	**Identify documented information to be managed** 1) Identify documented information of internal and external origin necessary for the operation of the quality management system.	03-28 Management system strategy: documentation 1)
		COM-04.BP1	**Identify improvement opportunities** 1) These might arise from the following sources: a) The decisions and actions arising from the outputs of the management reviews; b) feedback arising from actions to meet customer requirements and assess customer satisfaction; c) actions arising from i) improving products and services to meet requirements as well as to address future needs and expectations; ii) correcting, preventing or reducing undesired effects; iii) improving the performance and effectiveness of the quality management system.	11-06 Management review: Outputs 1)

Table B.1 *(continued)*

ISO/IEC 33020:2019 Annex B generic practices	Description	ISO/IEC TS 33073:2017 base practices	Description	ISO/IEC TS 33073:2017 information items
		COM-10.BP1	**Determine what needs to be monitored** 1) Determine what needs to be monitored and measured.	03-05 MS Measurement information: Needs 1)
		COM-10.BP2	**Determine appropriate performance measures** 1) Determine appropriate performance measures that support the performance measurement needs.	03-40 Organizational measures 1)
		COM-11.BP7	**Identify opportunities** 1) One of the options for treating risk involve taking or increasing the risk in order to pursue an opportunity.	08-78 Risk treatment action log 1)
		TEC-02.BP1	**Classify process change requests** 1) Classify process change requests. The organization reviews changes for production or service provision, to the extent necessary to ensure continuing conformity with requirements.	08-44 Process change request review record 1)
		TOP-1.BP5	**Define quality objectives** 1) Define quality objectives at relevant functions and levels, which are measurable, consistent with the quality policy.	03-54 Quality objectives: Establish 1)
		TOP-1.BP6	**Determine process strategy** 1) Determine the management system and operational process strategy.	03-23 Management system strategy: change management 1)
B5.3 PA.3.3.GP1	**Collect and analyse data about performance of the process to identify needs for improvement** 2) Results of the analysis are used to identify where continual improvement of the standard and/or defined process can be made.	COM-04.BP1	**Identify improvement opportunities** 1) These might arise from the following sources: a) The decisions and actions arising from the outputs of the management reviews; b) feedback arising from actions to meet customer requirements and assess customer satisfaction; c) actions arising from i) improving products and services to meet requirements as well as to address future needs and expectations; ii) correcting, preventing or reducing undesired effects; iii) improving the performance and effectiveness of the quality management system.	11-06 Management review: Outputs 1)
B5.3 PA.3.3.GP2	**Determine suitable methods and measures to monitor and evaluate the process** 1) Methods and measures for monitoring the suitability, effectiveness and adequacy of the process are determined.	COM-10.BP3	**Determine the appropriate methods for monitoring, measurement, analysis and evaluation** 1) Determine the appropriate methods for monitoring, measurement, analysis and evaluation as well as how the results will be evaluated.	03-10 MS Measurement methods: Determination: Quality management 2)
B5.3 PA.3.3.GP2	**Determine suitable methods and measures to monitor and evaluate the process** 3) The need to conduct internal audit, process compliance audit/ reviews and management review is established.	COM-08.BP7	**Determine the methods for monitoring the effectiveness and suitability of the process** 1) Determine the methods for monitoring the effectiveness and suitability of the process.	03-49 Product/service lifecycle model: Planning 2)
B5.3 PA.3.3.GP2	**Determine suitable methods and measures to monitor and evaluate the process** 4) Suitability, adequacy and effectiveness of the process are measured and analysed continually using appropriate methods.	COM-10.BP3	**Determine the appropriate methods for monitoring, measurement, analysis and evaluation** 1) Determine the appropriate methods for monitoring, measurement, analysis and evaluation as well as how the results will be evaluated.	03-10 MS Measurement methods: Determination: Quality management 2)

Table B.1 *(continued)*

ISO/IEC 33020:2019 Annex B generic practices	Description	ISO/IEC TS 33073:2017 base practices	Description	ISO/IEC TS 33073:2017 information items
B5.3 PA.3.3.GP3	**Assure conformity of the defined process** 1) Associated activities, outputs and documented information are evaluated.	COM-05.BP1	**Define the criteria and scope of each audit** 1) Define the audit criteria and the scope of each audit.	04-02 Audit plan 1)
		COM-09.BP6	**Collect and analyse data** 1) Collect and analyse data as a basis for understanding the behaviour of, and to demonstrate the suitability and effectiveness of the processes.	02-1 MS Performance measurement: Analysis 1)
		COM-10.BP4	**Monitor and measure the quality management system performance** 1) Collect and verify data on the quality management system performance of the organization.	02-2 MS Performance measurement: Data 1)
		COM-10.BP5	**Analyse the collected data** 1) Analyze the collected data in order to evaluate the quality management system performance, the effectiveness of the quality management system as well as the effectiveness of any action taken within the scope of the quality management system.	09-01 Customer satisfaction evaluation report 1)
B5.3 PA.3.3.GP3	**Assure conformity of the defined process** 2) Conformity of the defined process with the standard process requirements is verified.	COM-05.BP3	**Conduct audits** 1) Conduct audits according to the defined criteria ensuring objectivity and the impartiality of the audit process.	08-01 Audit (MS) log 1)
		COM-10.BP5	**Analyse the collected data** 1) Analyze the collected data in order to evaluate the quality management system performance, the effectiveness of the quality management system as well as the effectiveness of any action taken within the scope of the quality management system.	09-01 Customer satisfaction evaluation report 1)
B5.3 PA.3.3.GP3	**Assure conformity of the defined process** 3) Any nonconformities are identified and documented.	COM-05.BP3	**Conduct audits** 1) Conduct audits according to the defined criteria ensuring objectivity and the impartiality of the audit process.	08-01 Audit (MS) log 1)
		COM-07.BP1	**Identify non-conformities** 1) Non-conformities are identified. These might arise during development and/or production of the product/service, or from post-production activities e.g. feedback from customers.	08-02 Audit corrective action record 1)
B5.3 PA.3.3.GP3	**Assure conformity of the defined process** 4) Assurance activities are performed independently of the process instance to ensure objectivity.	COM-05.BP2	**Select auditors** 1) Select auditors to ensure objectivity and the impartiality of the audit process.	08-05 Auditor list 1)
		COM-07.BP1	**Identify non-conformities** 1) Non-conformities are identified. These might arise during development and/or production of the product/service, or from post-production activities e.g. feedback from customers.	08-02 Audit corrective action record 1)
B5.3 PA.3.3.GP4	**Act on nonconformities to adjust the performance of the process** 1) The nature and effect of nonconformities are analysed to plan appropriate actions.	COM-07.BP5	**Implement selected action proposals** 1) Implement a selected action proposal. The organization implements any action needed. If necessary, changes are made to the quality management system.	08-07 Correction action log 1)
B5.3 PA.3.3.GP4	**Act on nonconformities to adjust the performance of the process** 2) Any changes needed are implemented to ensure that the process achieves its intended results.	COM-07.BP3	**Determine cause of non-conformities** 1) Determine the cause of selected non-conformities. The organization evaluates the need for action to eliminate the cause(s) of the nonconformity, in order that it does not recur or occur elsewhere, by: i) reviewing and analysing the nonconformity; ii) determining the causes of the nonconformity; iii) determining if similar nonconformities exist, or could potentially occur.	08-08 Corrective action cause analysis record 1)

Table B.1 *(continued)*

ISO/IEC 33020:2019 Annex B generic practices	Description	ISO/IEC TS 33073:2017 base practices	Description	ISO/IEC TS 33073:2017 information items
		COM-07.BP4	**Determine the need for action** 1) Determine the need for action to eliminate the causes of non-conformities. Corrective actions are appropriate to the effects of the nonconformities encountered.	08-11 Corrective action record 1)
		COM-07.BP5	**Implement selected action proposals** 1) Implement a selected action proposal. The organization implements any action needed. If necessary, changes are made to the quality management system.	08-07 Correction action log 1)
		TEC-02.BP2	**Assess process change requests** 1) Assess process change requests using defined criteria.	08-42 Process change approval record 1)
B5.3 PA.3.3.GP4	**Act on nonconformities to adjust the performance of the process** 3) Actions are managed and tracked to closure.	COM-07.BP5	**Implement selected action proposals** 1) Implement a selected action proposal. The organization implements any action needed. If necessary, changes are made to the quality management system.	08-07 Correction action log 1)
		TEC-02.BP2	**Assess process change requests** 1) Assess process change requests using defined criteria.	08-42 Process change approval record 1)
B5.3 PA.3.3.GP5	**Improve the process based on the monitoring of the process** 1) Suitability, adequacy and effectiveness of the process are measured and analysed continually using appropriate methods.	COM-07.BP6	**Confirm change effectiveness** 1) Confirm the effectiveness of changes to eliminate the non-conformities. The organization reviews the effectiveness of any corrective action taken.	08-10 Corrective action change proposal verification record 1)
B5.3 PA.3.3.GP5	**Improve the process based on the monitoring of the process** 2) Internal audits, process capability audits/reviews and management reviews are performed when needed.	COM-04.BP2	**Evaluate improvement opportunities** 1) Evaluate opportunities for improvement against defined criteria. The results of analysis are used to evaluate the need for improvements to the quality management system, and to the business processes.	09-02 Improvement opportunity evaluation report 1)
B5.3 PA.3.3.GP5	**Improve the process based on the monitoring of the process** 3) Process changes are implemented to maintain the standard process.	COM-04.BP4	**Implement improvements** 1) Implement the selected improvements.	08-15 Improvement opportunity implementation log 1)
		TEC-02.BP3	**Implement process changes** 1) Implement process changes, as appropriate.	02-7 Process change implementation log 1)

B.2 Mapping exceptions

The exceptions in the mapping of the ISO/IEC 33020 process attribute generic practices and the ISO/IEC TS 33073 base practices are listed in Table B.2.

Table B.2 — Exceptions list - Associations between the ISO/IEC 33020 generic practices, ISO/IEC TS 33073 base practices and associated information item

ISO/IEC 33020:2019, Annex B generic practices	Name	Description
B4.1 PA.2.1.GP1	**Determine results to be achieved for the performance of the process**	4) Results to be achieved are communicated to involved parties.
B4.1 PA.2.1.GP3	**Plan the performance of the process to achieve the determined results.**	2) Process activities and tasks are defined.
B4.1 PA.2.1.GP3	**Plan the performance of the process to achieve the determined results.**	4) Documented information reviews are planned.
B4.1 PA.2.1.GP4	**Control the performance of the process**	1) Process performance measures are established.
B4.1 PA.2.1.GP4	**Control the performance of the process**	2) Process performance is monitored and the results are controlled.
B4.1 PA.2.1.GP4	**Control the performance of the process**	3) Appropriate actions are taken when planned results are not achieved.
B4.1 PA.2.1.GP4	**Control the performance of the process**	4) The plan(s) are adjusted and rescheduling is performed, as necessary.
B4.1 PA.2.1.GP6	**Allocate and maintain resources to perform the process according to plan**	2) The information necessary to perform the process is identified and made available.
B4.1 PA.2.1.GP6	**Allocate and maintain resources to perform the process according to plan**	3) The use of the resources is measured and monitored to identify possible deviations.
B4.1 PA.2.1.GP7	**Manage the interfaces between the involved parties**	2) Responsibilities of the involved parties are assigned.
B4.1 PA.2.1.GP7	**Manage the interfaces between the involved parties**	3) Communication is assured between the involved parties.
B4.1 PA.2.1.GP7	**Manage the interfaces between the involved parties**	4) Communication between the involved parties is effective.
B4.2 PA.2.2.GP1	**Define the requirements for the documented information**	3) Appropriate review and approval criteria for the documented information are defined.
B4.2 PA.2.2.GP2	**Define the requirements for documentation and control of the documented information**	2) Dependencies between documented information are identified and understood.
B4.2 PA.2.2.GP3	**Identify and control the documented information in accordance with requirements**	1) Change control is established for documented information.
B4.2 PA.2.2.GP4	**Review and adjust documented information to meet the defined requirements**	2) Issues arising from documented information reviews are resolved.
B4.2 PA.2.2.GP5	**Maintain and retain information products to demonstrate that planned results are achieved**	2) Documented information is used to demonstrate that the products and/or services satisfy their requirements.
B5.1 PA.3.1.GP1	**Establish and maintain a standard process that will support the deployment of the defined process.**	4) Appropriate tailoring guideline(s) are available as needed.
B5.1 PA.3.1.GP5	**Determine the resources for performing the standard process**	2) Requirements for the quality of the resources are defined.
B5.1 PA.3.1.GP5	**Determine the resources for performing the standard process**	3) Process infrastructure components are identified (facilities, tools, networks, methods, etc).
B5.1 PA.3.1.GP5	**Determine the resources for performing the standard process**	4) Work environment requirements are defined.
B5.2 PA.3.2.GP2	**Deploy competent people with defined responsibilities and authorities to support the performance of the defined process**	1) Competency criteria for the required roles are defined.
B5.2 PA.3.2.GP2	**Deploy competent people with defined responsibilities and authorities to support the performance of the defined process**	2) The roles for performing the defined process are assigned and communicated.
B5.2 PA.3.2.GP3	**Provide resources and information to support the performance of the defined process**	2) Required information to perform the process is made available, allocated and used.

Table B.2 *(continued)*

ISO/IEC 33020:2019, Annex B generic practices	Name	Description	
B5.3 PA.3.3.GP2	**Determine suitable methods and measures to monitor and evaluate the process**	2) Appropriate criteria and data needed to monitor the process are defined.	
B5.3 PA.3.3.GP2	**Determine suitable methods and measures to monitor and evaluate the process**	5) Identified risks are evaluated and managed.	
		Totals:	26

Annex C
(informative)

Listing of the information items and their characteristics

Table C.1 presents a list of the applicable information items associated with ISO/IEC TS 33073.

Table C.1 — Listing of the information items and their characteristics

Reference	Name	Category	Characteristics
01-1	Supplier agreement	Contract	[ISO/IEC TS 33073:2017, Annex B 01-2 (1] 1) The generic considerations of the Generic Work Product category of 'Contract' apply.
02-1	MS Performance measurement: Analysis	Data	[ISO/IEC TS 33073:2017, Annex B 02-6 (3] 1) The organization shall analyse and evaluate appropriate data and information arising from monitoring and measurement.
02-2	MS Performance measurement: Data	Data	[ISO/IEC TS 33073:2017, Annex B 02-6 (1] 1) [The organization shall retain appropriate documented information as] evidence of the results.
02-3	MS Performance measurement: Gather	Data	1) [The organization shall analyse and evaluate appropriate data and] information arising from monitoring and measurement.
02-4	Measuring equipment maintenance log	Data	[ISO/IEC TS 33073:2017, Annex B 02-1 (1] 1) a) When measurement traceability is a requirement, or is considered by the organization to be an essential part of providing confidence in the validity of measurement results, measuring equipment shall be: a) calibrated or verified, or both, at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards; [ISO/IEC TS 33073:2017, Annex B 02-1 (2] 2) When no such standards exist, the basis used for calibration or verification shall be retained as documented information; [ISO/IEC TS 33073:2017, Annex B 02-1 (3] 3) b) When measurement traceability is a requirement, or is considered by the organization to be an essential part of providing confidence in the validity of measurement results, measuring equipment shall be: b) identified in order to determine their status; [ISO/IEC TS 33073:2017, Annex B 02-1 (4] 4) c) When measurement traceability is a requirement, or is considered by the organization to be an essential part of providing confidence in the validity of measurement results, measuring equipment shall be: c) safeguarded from adjustments, damage or deterioration that would invalidate the calibration status and subsequent measurement results. [ISO/IEC TS 33073:2017, Annex B 02-1 (5] 5) The organization shall determine if the validity of previous measurement results has been adversely affected when measuring equipment is found to be unfit for its intended purpose, [and shall take appropriate action as necessary.]
02-5	Measuring equipment asset list	Data	[ISO/IEC TS 33073:2017, Annex B 02-3 (1] 1) The organization shall ensure that the resources provided: a) are suitable for the specific type of monitoring and measurement activities being undertaken;
02-6	Measuring equipment maintenance log	Data	[ISO/IEC TS 33073:2017, Annex B 02-4 (1] 1) The organization shall ensure that the resources provided: b) are maintained to ensure their continuing fitness for their purpose.

Table C.1 *(continued)*

Reference	Name	Category	Characteristics
02-7	Process change implementation log	Data	[ISO/IEC TS 33073:2017, Annex B 02-7 (1] 1) The organization shall retain [documented] information describing the [results of the review of changes, the person(s) authorizing the change, and] any necessary actions arising from the review.
02-8	Process change implementation log: Documentation	Data	[ISO/IEC TS 33073:2017, Annex B 02-7 (2] 1) [The organization shall retain] documented [information describing the results of the review of changes, the person(s) authorizing the change, and] any necessary actions arising from the review.
03-01	Improvement target	Description	[ISO/IEC TS 33073:2017, Annex B 03-01 (1] 1) The generic considerations of the Generic Work Product category of 'Description' apply.
03-02	Information item identification: External origin	Description	[ISO/IEC TS 33073:2017, Annex B 03-02 (1] 1) Documented information of external origin determined by the organization to be necessary for the planning and operation of the quality management system shall be identified as appropriate, [and be controlled].
03-03	MS Measurement information gathering events	Description	[ISO/IEC TS 33073:2017, Annex B 03-22 (1] 1) The organization shall determine: c) when the monitoring and measuring shall be performed; [ISO/IEC TS 33073:2017, Annex B 03-22 (2] 2) The organization shall determine: d) when the results from monitoring and measurement shall be analysed and evaluated.
03-04	MS Measurement information: Monitoring	Description	1) The organization shall monitor customers' perceptions of the degree to which their needs and expectations have been fulfilled.
03-05	MS Measurement information: Needs	Description	[ISO/IEC TS 33073:2017, Annex B 03-23 (1] 1) The organization shall determine: a) what needs to be monitored and measured;
03-06	MS Measurement methods: Application: Quality assurance	Description	1) .. and shall: c) [determine and] apply the criteria and methods (including monitoring, measurements and related performance indicators) needed to ensure the effective operation and control of these processes;
03-07	MS Measurement methods: Application: Quality management	Description	1) .. and shall: c) [determine and] apply the criteria and methods (including monitoring, measurements and related performance indicators) needed to ensure the effective operation and control of these processes;
03-08	MS Measurement methods: Determination: Measurement	Description	1) .. and shall: c) determine [and apply] the criteria and methods (including monitoring, measurements and related performance indicators) needed to ensure the effective operation and control of these processes; [ISO/IEC TS 33073:2017, Annex B 03-24 (1] 2) The organization shall determine: b) the methods for monitoring, measurement, analysis and evaluation needed to ensure valid results; [ISO/IEC TS 33073:2017, Annex B 03-24 (3] 3) The organization shall determine the methods for obtaining, monitoring and reviewing this information.
03-09	MS Measurement methods: Determination: Quality assurance	Description	1) .. and shall: c) determine [and apply] the criteria and methods (including monitoring, measurements and related performance indicators) needed to ensure the effective operation and control of these processes; [ISO/IEC TS 33073:2017, Annex B 03-24 (1] 2) The organization shall determine: b) the methods for monitoring, measurement, analysis and evaluation needed to ensure valid results; [ISO/IEC TS 33073:2017, Annex B 03-24 (3] 3) The organization shall determine the methods for obtaining, monitoring and reviewing this information.

Table C.1 *(continued)*

Reference	Name	Category	Characteristics
03-10	MS Measurement methods: Determination: Quality management	Description	1) .. and shall: c) determine [and apply] the criteria and methods (including monitoring, measurements and related performance indicators) needed to ensure the effective operation and control of these processes; [ISO/IEC TS 33073:2017, Annex B 03-24 (1] 2) The organization shall determine: b) the methods for monitoring, measurement, analysis and evaluation needed to ensure valid results; [ISO/IEC TS 33073:2017, Annex B 03-24 (3] 3) The organization shall determine the methods for obtaining, monitoring and reviewing this information.
03-11	MS Relevant Interested parties	Description	1) Due to their effect or potential effect on the organization's ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements, the organization shall determine: a) the interested parties that are relevant to the quality management system;
03-12	Management review: Objectives	Description	1) Top management shall review the organization's quality management system, [at planned intervals], to ensure its continuing suitability, adequacy, effectiveness and alignment with the strategic direction of the organization. [ISO/IEC TS 33073:2017, Annex B 03-03 (2] 2) The management review shall [be planned and carried out] taking into consideration: a) the status of actions from previous management reviews; b) changes in external and internal issues that are relevant to the quality management system; c) information on the performance and effectiveness of the quality management system, including trends in: 1) customer satisfaction and feedback from relevant interested parties; 2) the extent to which quality objectives have been met; 3) process performance and conformity of products and services; 4) nonconformities and corrective actions; 5) monitoring and measurement results; 6) audit results; 7) the performance of external providers; d) the adequacy of resources; e) the effectiveness of actions taken to address risks and opportunities (see 6.1); f) opportunities for improvement.
03-13	Management system (MS) scope	Description	[ISO/IEC TS 33073:2017, Annex B 03-04 (1] 1) The organization shall determine the boundaries and applicability of the quality management system to establish its scope. [ISO/IEC TS 33073:2017, Annex B 03-04 (2] 2) When determining this scope, the organization shall consider: a) the external and internal issues referred to in 4.1; b) the requirements of relevant interested parties referred to in 4.2; c) the products and services of the organization. [ISO/IEC TS 33073:2017, Annex B 03-04 (3] 3) The organization shall apply all the requirements of this International Standard if they are applicable within the determined scope of its quality management system. [ISO/IEC TS 33073:2017, Annex B 03-04 (6] 4) The scope shall state the types of products and services covered, and provide justification for any requirement of this International Standard that the organization determines is not applicable to the scope of its quality management system. 5) Conformity to this International Standard may only be claimed if the requirements determined as not being applicable do not affect the organization's ability or responsibility to ensure the conformity of its products and services and the enhancement of customer satisfaction.

Table C.1 *(continued)*

Reference	Name	Category	Characteristics
03-14	Management system (MS) scope: Documentation	Description	1) The scope of the organization's quality management system shall be available [and be maintained] as documented information. 2) The scope of the organization's quality management system shall be [available and be] maintained as documented information.
03-15	Management system strategy: Determine the processes: Quality assurance	Description	[ISO/IEC TS 33073:2017, Annex B 03-09 (2] 1) The organization shall determine the processes needed for the quality management system and their application throughout the organization,
03-16	Management system strategy: Determine the processes: Quality management	Description	[ISO/IEC TS 33073:2017, Annex B 03-09 (2] 1) The organization shall determine the processes needed for the quality management system and their application throughout the organization,
03-17	Management system strategy: Documentation	Description	[ISO/IEC TS 33073:2017, Annex B 03-09 (4] 1) To the extent necessary, the organization shall: a) maintain documented information to support the operation of its processes; [ISO/IEC TS 33073:2017, Annex B 03-09 (5] 2) To the extent necessary, the organization shall: b) retain documented information to have confidence that the processes are being carried out as planned.
03-18	Management system strategy: Establish the management system	Description	[ISO/IEC TS 33073:2017, Annex B 03-09 (1] 1) The organization shall establish, implement, maintain and continually improve a quality management system, including the processes needed and their interactions, in accordance with the requirements of this International Standard. [ISO/IEC TS 33073:2017, Annex B 03-09 (2] 2) The organization shall determine the processes needed for the quality management system and their application throughout the organization, [ISO/IEC TS 33073:2017, Annex B 04-6 (2] 3) .. and shall: a) determine the inputs required and the outputs expected from these processes; [ISO/IEC TS 33073:2017, Annex B 04-6 (3] 4) .. and shall: b) determine the sequence and interaction of these processes; [ISO/IEC TS 33073:2017, Annex B 04-6 (1] 5) .. and shall: g) evaluate these processes and implement any changes needed to ensure that these processes achieve their intended results;
03-19	Management system strategy: Measurement: Establish	Description	[ISO/IEC TS 33073:2017, Annex B 03-14 (1] 1) The organization shall evaluate the performance and the effectiveness of the quality management system.
03-20	Management system strategy: Measurement; Documentation	Description	[ISO/IEC TS 33073:2017, Annex B 03-14 (2] 1) The organization shall retain appropriate documented information as evidence of the results.
03-21	Management system strategy: Responsibilities: Quality management	Description	[ISO/IEC TS 33073:2017, Annex B 03-20 (1] 1) Top management shall ensure that the responsibilities and authorities for relevant roles are assigned, [communicated and understood within the organization]. [ISO/IEC TS 33073:2017, Annex B 03-20 (2] 2) .. and shall: e) assign the responsibilities and authorities for these processes;
03-22	Management system strategy: Risks and opportunities	Description	[ISO/IEC TS 33073:2017, Annex B 03-09 (3] 1) .. and shall: f) address the risks and opportunities as determined in accordance with the requirements of 6.1;
03-23	Management system strategy: change management	Description	[ISO/IEC TS 33073:2017, Annex B 03-05 (1] 1) The organization shall ensure that outsourced processes are controlled (see 8.4).

Table C.1 *(continued)*

Reference	Name	Category	Characteristics
03-24	Management system strategy: customer focus	Description	1) Top management shall demonstrate leadership and commitment with respect to customer focus by ensuring that: a) customer and applicable statutory and regulatory requirements are determined, understood and consistently met; 2) Top management shall demonstrate leadership and commitment with respect to customer focus by ensuring that: c) the focus on enhancing customer satisfaction is maintained.
03-25	Management system strategy: customer focus: risk determination	Description	1) Top management shall demonstrate leadership and commitment with respect to customer focus by ensuring that: b) the risks and opportunities that can affect conformity of products and services and the ability to enhance customer satisfaction are determined [and addressed];
03-26	Management system strategy: customer focus: risks addressed	Description	1) Top management shall demonstrate leadership and commitment with respect to customer focus by ensuring that: b) the risks and opportunities that can affect conformity of products and services and the ability to enhance customer satisfaction are [determined and] addressed;
03-27	Management system strategy: customer property	Description	1) The organization shall exercise care with property belonging to customers or external providers while it is under the organization's control or being used by the organization.
03-28	Management system strategy: documentation	Description	1) The organization's quality management system shall include: a) documented information required by this International Standard; 2) The organization's quality management system shall include: b) documented information determined by the organization as being necessary for the effectiveness of the quality management system.
03-29	Management system strategy: external and internal issues	Description	[ISO/IEC TS 33073:2017, Annex B 03-10 (1] 1) The organization shall determine external and internal issues that are relevant to its purpose and its strategic direction and that affect its ability to achieve the intended result(s) of its quality management system.
03-30	Management system strategy: improvement	Description	[ISO/IEC TS 33073:2017, Annex B 03-11 (1] 1) The organization shall continually improve the suitability, adequacy and effectiveness of the quality management system. [ISO/IEC TS 33073:2017, Annex B 03-11 (2] 2) .. and shall: h) improve the processes and the quality management system.
03-31	Management system strategy: knowledge: establish	Description	[ISO/IEC TS 33073:2017, Annex B 03-12 (1] 1) The organization shall determine the knowledge necessary for the operation of its processes and to achieve conformity of products and services. [ISO/IEC TS 33073:2017, Annex B 03-12 (4] 2) When addressing changing needs and trends, the organization shall consider its current knowledge and determine how to acquire or access any necessary additional knowledge and required updates.
03-32	Management system strategy: knowledge: maintain	Description	[ISO/IEC TS 33073:2017, Annex B 03-12 (3] 1) This knowledge shall be [maintained and be] made available to the extent necessary.
03-33	Management system strategy: management commitment	Description	[ISO/IEC TS 33073:2017, Annex B 03-13 (1] 1) Top management shall demonstrate leadership and commitment with respect to the quality management system [by:] [ISO/IEC TS 33073:2017, Annex B 03-13 (2] 2) ..by: a) taking accountability for the effectiveness of the quality management system; [ISO/IEC TS 33073:2017, Annex B 03-13 (3] 3) ..by: b) ensuring that the quality policy [and quality objectives] are established for the quality management system and are compatible with the context and strategic direction of the organization;

Table C.1 *(continued)*

Reference	Name	Category	Characteristics
			[ISO/IEC TS 33073:2017, Annex B 03-13 (4] 4) ..by: b) ensuring that the [quality policy and] quality objectives are established for the quality management system and are compatible with the context and strategic direction of the organization; 5) ..by: c) ensuring the integration of the quality management system requirements into the organization's business processes; [ISO/IEC TS 33073:2017, Annex B 03-13 (6] 6) ..by: d) promoting the use of the process approach and risk-based thinking; [ISO/IEC TS 33073:2017, Annex B 03-13 (7] 7) ..by: e) ensuring that the resources needed for the quality management system are available; [ISO/IEC TS 33073:2017, Annex B 03-13 (8] 8) ..by: g) ensuring that the quality management system achieves its intended results; [ISO/IEC TS 33073:2017, Annex B 03-13 (9] 9) ..by: h) engaging, directing and supporting persons to contribute to the effectiveness of the quality management system; [ISO/IEC TS 33073:2017, Annex B 03-13 (10] 10) ..by: i) promoting improvement; [ISO/IEC TS 33073:2017, Annex B 03-13 (11] 11) ..by: j) supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility.
03-34	Management system strategy: outsourcing	Description	1) a) The organization shall determine the controls to be applied to externally provided processes, products and services when: a) products and services from external providers are intended for incorporation into the organization's own products and services; [ISO/IEC TS 33073:2017, Annex B 03-15 (2] 2) b) The organization shall determine the controls to be applied to externally provided processes, products and services when: b) products and services are provided directly to the customer(s) by external providers on behalf of the organization; [ISO/IEC TS 33073:2017, Annex B 03-15 (3] 3) c) The organization shall determine the controls to be applied to externally provided processes, products and services when: c) a process, or part of a process, is provided by an external provider as a result of a decision by the organization. [ISO/IEC TS 33073:2017, Annex B 03-15 (4] 4) The organization shall determine [and apply criteria] for the evaluation, selection, monitoring of performance, and re-evaluation of external providers, based on their ability to provide processes or products and services in accordance with requirements. [ISO/IEC TS 33073:2017, Annex B 03-15 (5] 5) The organization shall [determine and] apply criteria for the evaluation, selection, monitoring of performance, and re-evaluation of external providers, based on their ability to provide processes or products and services in accordance with requirements.

Table C.1 *(continued)*

Reference	Name	Category	Characteristics
			[ISO/IEC TS 33073:2017, Annex B 03-15 (6] 6) The organization shall retain [documented] information of these activities and any necessary actions arising from the evaluations. 7) The organization shall: c) take into consideration: 1) the potential impact of the externally provided processes, products and services on the organization's ability to consistently meet customer and applicable statutory and regulatory requirements; [ISO/IEC TS 33073:2017, Annex B 03-15 (8] 8) [The organization shall retain] documented information [of these activities and any necessary actions arising from the evaluations.] [ISO/IEC TS 33073:2017, Annex B 03-15 (9] 9) The organization shall: c) take into consideration: 2) the effectiveness of the controls applied by the external provider;
03-35	Management system strategy: planning	Description	[ISO/IEC TS 33073:2017, Annex B 03-16 (1] 1) When the organization determines the need for changes to the quality management system, the changes shall be carried out in a planned manner (see 4.4).
03-36	Management system strategy: process environment	Description	[ISO/IEC TS 33073:2017, Annex B 03-17 (1] 1) The organization shall establish, [implement and maintain] a design and development process that is appropriate to ensure the subsequent provision of products and services. [ISO/IEC TS 33073:2017, Annex B 03-17 (2] 2) The organization shall [establish], implement [and maintain] a design and development process that is appropriate to ensure the subsequent provision of products and services. [ISO/IEC TS 33073:2017, Annex B 03-17 (3] 3) The organization shall [establish, implement and] maintain a design and development process that is appropriate to ensure the subsequent provision of products and services. [ISO/IEC TS 33073:2017, Annex B 03-17 (4] 4) The organization shall ensure that externally provided processes, products and services conform to requirements. 5) The organization shall ensure that externally provided processes, products and services do not adversely affect the organization's ability to consistently deliver conforming products and services to its customers. [ISO/IEC TS 33073:2017, Annex B 03-17 (6] 6) The organization shall: a) ensure that externally provided processes remain within the control of its quality management system; [ISO/IEC TS 33073:2017, Annex B 03-17 (7] 7) The organization shall: b) define both the controls that it intends to apply to an external provider and those it intends to apply to the resulting output; [ISO/IEC TS 33073:2017, Annex B 03-17 (8] 8) The organization shall: d) determine the verification, or other activities, necessary to ensure that the externally provided processes, products and services meet requirements. [ISO/IEC TS 33073:2017, Annex B 03-17 (9] 9) The organization shall implement production and service provision under controlled conditions.
03-37	Management system strategy: product preservation	Description	[ISO/IEC TS 33073:2017, Annex B 03-18 (1] 1) The organization shall preserve the outputs during production and service provision, to the extent necessary to ensure conformity to requirements.

Table C.1 *(continued)*

Reference	Name	Category	Characteristics
03-38	Management system strategy: roles and responsibilities	Description	[ISO/IEC TS 33073:2017, Annex B 03-20 (1] 1) Top management shall ensure that the responsibilities and authorities for relevant roles are assigned, [communicated and understood within the organization]. [ISO/IEC TS 33073:2017, Annex B 03-20 (2] 2) .. and shall: e) assign the responsibilities and authorities for these processes;
03-39	Management system strategy: supplier capability	Description	[ISO/IEC TS 33073:2017, Annex B 03-21 (1] 1) b) When determining the requirements for the products and services to be offered to customers, the organization shall ensure that: b) the organization can meet the claims for the products and services it offers.
03-40	Organizational measures	Description	[ISO/IEC TS 33073:2017, Annex B 03-30 (1] 1) When planning how to achieve its quality objectives, the organization shall determine: e) how the results will be evaluated.
03-41	Organizational planning objectives	Description	[ISO/IEC TS 33073:2017, Annex B 03-29 (1] 1) When planning how to achieve its quality objectives, the organization shall determine: a) what will be done;
03-42	Organizational planning schedule	Description	[ISO/IEC TS 33073:2017, Annex B 03-33 (1] 1) When planning how to achieve its quality objectives, the organization shall determine: d) when it will be completed;
03-43	Organizational resource needs	Description	[ISO/IEC TS 33073:2017, Annex B 03-31 (1] 1) When planning how to achieve its quality objectives, the organization shall determine: b) what resources will be required;
03-44	Organizational roles and responsibilities	Description	[ISO/IEC TS 33073:2017, Annex B 03-32 (1] 1) When planning how to achieve its quality objectives, the organization shall determine: c) who will be responsible;
03-45	Process knowledge status record	Description	[ISO/IEC TS 33073:2017, Annex B 03-12 (2] 1) This knowledge shall be maintained [and be made available to the extent necessary.]
03-46	Product/service delivery: Planning	Description	[ISO/IEC TS 33073:2017, Annex B 03-09 (6] 1) The organization shall plan, [implement and control] the processes (see 4.4) needed to meet the requirements for the provision of products and services, and to implement the actions determined in Clause 6, by:.. [ISO/IEC TS 33073:2017, Annex B 03-09 (9] 2) The organization shall meet requirements for post-delivery activities associated with the products and services. [ISO/IEC TS 33073:2017, Annex B 03-09 (10] 3) In determining the extent of post-delivery activities that are required, the organization shall consider: a) statutory and regulatory requirements; b) the potential undesired consequences associated with its products and services; c) the nature, use and intended lifetime of its products and services; d) customer requirements; e) customer feedback.
03-47	Product/service design	Description	1) The organization shall ensure that design and development outputs: a) meet the input requirements; 2) The organization shall ensure that design and development outputs: b) are adequate for the subsequent processes for the provision of products and services;
03-48	Product/service lifecycle model: Control	Description	[ISO/IEC TS 33073:2017, Annex B 02-5 (1] 1) Controlled conditions shall include, as applicable: c) the implementation of monitoring and measurement activities at appropriate stages to verify that criteria for control of processes or outputs, and acceptance criteria for products and services, have been met; [ISO/IEC TS 33073:2017, Annex B 03-26 (3] 2) Controlled conditions shall include, as applicable: d) the use of suitable infrastructure and environment for the operation of processes;

Table C.1 *(continued)*

Reference	Name	Category	Characteristics
03-49	Product/service lifecycle model: Planning	Description	[ISO/IEC TS 33073:2017, Annex B 03-26 (1] 1) Controlled conditions shall include, as applicable: b) the availability and use of suitable monitoring and measuring resources; [ISO/IEC TS 33073:2017, Annex B 02-5 (1] 2) Controlled conditions shall include, as applicable: c) the implementation of monitoring and measurement activities at appropriate stages to verify that criteria for control of processes or outputs, and acceptance criteria for products and services, have been met; [ISO/IEC TS 33073:2017, Annex B 03-26 (3] 3) Controlled conditions shall include, as applicable: d) the use of suitable infrastructure and environment for the operation of processes; [ISO/IEC TS 33073:2017, Annex B 03-26 (5] 4) Controlled conditions shall include, as applicable: f) the validation, and periodic revalidation, of the ability to achieve planned results of the processes for production and service provision, where the resulting output cannot be verified by subsequent monitoring or measurement; [ISO/IEC TS 33073:2017, Annex B 03-26 (6] 5) Controlled conditions shall include, as applicable: g) the implementation of actions to prevent human error; [ISO/IEC TS 33073:2017, Annex B 03-26 (7] 6) Controlled conditions shall include, as applicable: h) the implementation of release, delivery and post-delivery activities.
03-50	Product/service objectives	Description	[ISO/IEC TS 33073:2017, Annex B 03-29 (2] 1) a) The organization shall apply controls to the design and development process to ensure that: a) the results to be achieved are defined; 2) The organization shall ensure that design and development outputs: d) specify the characteristics of the products and services that are essential for their intended purpose and their safe and proper provision.
03-51	Product/service taxonomy	Description	[ISO/IEC TS 33073:2017, Annex B 03-27 (1] 1) The organization shall use suitable means to identify outputs when it is necessary to ensure the conformity of products and services. [ISO/IEC TS 33073:2017, Annex B 03-27 (2] 2) The organization shall control the unique identification of the outputs when traceability is a requirement, [and shall retain the documented information necessary to enable traceability.]
03-52	Product/service taxonomy: Documentation	Description	[ISO/IEC TS 33073:2017, Annex B 03-27 (3] 1) [The organization shall control the unique identification of the outputs when traceability is a requirement], and shall retain the documented information necessary to enable traceability.
03-53	Quality objectives: Documentation	Description	1) The quality objectives shall: g) updated as appropriate; [ISO/IEC TS 33073:2017, Annex B 03-34 (9] 2) The organization shall maintain documented information on the quality objectives.
03-54	Quality objectives: Establish	Description	[ISO/IEC TS 33073:2017, Annex B 03-34 (1] 1) The organization shall establish quality objectives at relevant functions, levels and processes needed for the quality management system.

Table C.1 *(continued)*

Reference	Name	Category	Characteristics
03-55	Quality objectives: Requirements	Description	[ISO/IEC TS 33073:2017, Annex B 03-34 (2] 1) The quality objectives shall: a) be consistent with the quality policy; [ISO/IEC TS 33073:2017, Annex B 03-34 (3] 2) The quality objectives shall: b) be measurable; [ISO/IEC TS 33073:2017, Annex B 03-34 (4] 3) The quality objectives shall: c) take into account applicable requirements; [ISO/IEC TS 33073:2017, Annex B 03-34 (5] 4) The quality objectives shall: d) be relevant to conformity of products and services and to enhancement of customer satisfaction; [ISO/IEC TS 33073:2017, Annex B 03-34 (6] 5) The quality objectives shall: e) be monitored; [ISO/IEC TS 33073:2017, Annex B 03-34 (7] 6) The quality objectives shall: f) be communicated;
03-56	Request for proposal (RFP)	Description	1) The request for proposal (RFP) is the acquirer's request for information and commitments needed from the supplier that are required to be included in the potential supplier's proposal. It announces the acquirer's intention to potential bidders to acquire a specified system, software product or software service. It includes the following: a) the stakeholders' system requirements; b) scope statement; c) bidder instructions; d) the scope of tasks to be referenced in the draft contract; e) deliverable product list; f) terms and conditions; g) contract milestones (for example, review and audit of supplier progress); h) control of subcontracts; i) procedural and technical constraints (for example, target environment); j) supporting processes and their performing organizations, including responsibilities (if other than supplier), so suppliers may, in their proposals, define the approach to each of the specified supporting processes. It may outline the supplier selection criteria.
03-57	Risk and opportunity identification criteria	Description	[ISO/IEC TS 33073:2017, Annex B 03-36 (1] 1) [When planning for the quality management system], the organization shall consider the issues referred to in 4.1 and the requirements referred to in 4.2 and determine the risks and opportunities that need to be addressed to: a) give assurance that the quality management system can achieve its intended result(s); b) enhance desirable effects; c) prevent, or reduce, undesired effects; d) achieve improvement.
03-58	Sub-contracted supplier roles and responsibilities	Description	[ISO/IEC TS 33073:2017, Annex B 03-01 (1] 1) The generic considerations of the Generic Work Product category of 'Description' apply.
04-01	Audit (MS) schedule	Plan	1) [The organization shall conduct internal audits] at planned intervals [to provide information on whether the quality management system: a) conforms to: 1) the organization's own requirements for its quality management system; 2) the requirements of this International Standard; b) is effectively implemented and maintained.]
04-02	Audit plan	Plan	[ISO/IEC TS 33073:2017, Annex B 04-2 (1] 1) The organization shall: b) define the audit criteria and scope for each audit;
04-03	Audit programme plan	Plan	[ISO/IEC TS 33073:2017, Annex B 04-3 (1] 1) The organization shall: a) plan, establish, [implement and maintain] an audit programme(s) including the frequency, methods, responsibilities, planning requirements and reporting, which shall take into consideration the importance of the processes concerned, changes affecting the organization, and the results of previous audits;
04-04	Improvement implementation schedule	Plan	[ISO/IEC TS 33073:2017, Annex B 04-4 (1] 1) The generic considerations of the Generic Work Product category of 'Plan' apply.

Table C.1 *(continued)*

Reference	Name	Category	Characteristics
04-05	Management review schedule	Plan	[ISO/IEC TS 33073:2017, Annex B 04-5 (1] 1) The management review shall be planned [and carried out taking into consideration:] 2) [Top management shall review the organization's quality management system,] at planned intervals, [to ensure its continuing suitability, adequacy, effectiveness and alignment with the strategic direction of the organization.]
04-06	Product/service lifecycle model: Establish	Plan	[ISO/IEC TS 33073:2017, Annex B 04-6 (4] 1) The organization shall .. by: b) establishing criteria for: 1) the processes; [ISO/IEC TS 33073:2017, Annex B 04-6 (5] 2) The organization shall .. by: b) establishing criteria for: 2) the acceptance of products and services; 3) The organization shall .. by: c) determining [and keeping] documented information to the extent necessary: 1) to have confidence that the processes have been carried out as planned; 4) The organization shall .. by: e) determining [and keeping] documented information to the extent necessary: 2) to demonstrate the conformity of products and services to their requirements. 5) The output of this planning shall be suitable for the organization's operations. [ISO/IEC TS 33073:2017, Annex B 04-6 (9] 6) a) In determining the stages and controls for design and development, the organization shall consider: a) the nature, duration and complexity of the design and development activities; [ISO/IEC TS 33073:2017, Annex B 04-6 (10] 7) b) In determining the stages and controls for design and development, the organization shall consider: b) the required process stages, including applicable design and development reviews; [ISO/IEC TS 33073:2017, Annex B 04-6 (11] 8) c) In determining the stages and controls for design and development, the organization shall consider: c) the required design and development verification and validation activities; [ISO/IEC TS 33073:2017, Annex B 04-6 (12] 9) d) In determining the stages and controls for design and development, the organization shall consider: d) the responsibilities and authorities involved in the design and development process; [ISO/IEC TS 33073:2017, Annex B 04-6 (13] 10) e) In determining the stages and controls for design and development, the organization shall consider: e) the internal and external resource needs for the design and development of products and services; [ISO/IEC TS 33073:2017, Annex B 04-6 (14] 11) f) In determining the stages and controls for design and development, the organization shall consider: f) the need to control interfaces between persons involved in the design and development process; [ISO/IEC TS 33073:2017, Annex B 04-6 (15] 12) g) In determining the stages and controls for design and development, the organization shall consider: g) the need for involvement of customers and users in the design and development process; [ISO/IEC TS 33073:2017, Annex B 04-6 (16] 13) h) In determining the stages and controls for design and development, the organization shall consider: h) the requirements for subsequent provision of products and services;

Table C.1 *(continued)*

Reference	Name	Category	Characteristics
			[ISO/IEC TS 33073:2017, Annex B 04-6 (17] 14) i) In determining the stages and controls for design and development, the organization shall consider: i) the level of control expected for the design and development process by customers and other relevant interested parties; [ISO/IEC TS 33073:2017, Annex B 04-6 (18] 15) j) In determining the stages and controls for design and development, the organization shall consider: j) the documented information needed to demonstrate that design and development requirements have been met.
04-07	Product/service review schedule	Plan	1) In determining the stages and controls for design and development, the organization shall consider: b) the required process stages, including applicable design and development reviews;
04-08	Risk management planning	Plan	1) The organization shall plan:] [a) actions to address these risks and opportunities; b) how to: 1) integrate and implement the actions into its quality management system processes (see 4.4); 2) evaluate the effectiveness of these actions.]
04-09	Risk management planning: risk treatment effectiveness evaluation	Plan	1) [The organization shall plan:] b) how to: 2) evaluate the effectiveness of these actions.
04-10	Risk management planning: risk treatment implementation	Plan	1) [The organization shall plan]: b) how to: 1) integrate and implement the actions into its quality management system processes (see 4.4);
04-11	Risk management planning: risk treatment options	Plan	1) [The organization shall plan]: a) actions to address these risks and opportunities;
04-12	Risk treatment plan	Plan	[ISO/IEC TS 33073:2017, Annex B 04-4 (1] 1) The generic considerations of the Generic Work Product category of 'Plan' apply.
05-1	Improvement policy	Policy	[ISO/IEC TS 33073:2017, Annex B 05-1 (1] 1) The generic considerations of the Generic Work Product category of 'Policy' apply.
05-2	Quality policy: Availability	Policy	[ISO/IEC TS 33073:2017, Annex B 05-2 (8] 1) The quality policy shall: c) be available to relevant interested parties, as appropriate.
05-3	Quality policy: Documentation	Policy	[ISO/IEC TS 33073:2017, Annex B 05-2 (6] 1) The quality policy shall: a) be available [and be maintained] as documented information;
05-4	Quality policy: Maintenance	Policy	[ISO/IEC TS 33073:2017, Annex B 08-23 (3] 1) Top management shall [establish, implement and] maintain a quality policy that:.. [ISO/IEC TS 33073:2017, Annex B 05-2 (7] 2) The quality policy shall: a) be [available and be] maintained as documented information;
05-5	Quality policy: Requirements	Policy	[ISO/IEC TS 33073:2017, Annex B 05-2 (1] 1) Top management shall establish, [implement and maintain] a quality policy that:.. [ISO/IEC TS 33073:2017, Annex B 05-2 (2] 2) .. that: a) is appropriate to the purpose and context of the organization and supports its strategic direction; [ISO/IEC TS 33073:2017, Annex B 05-2 (3] 3) .. that: b) provides a framework for setting quality objectives; [ISO/IEC TS 33073:2017, Annex B 05-2 (4] 4) .. that: c) includes a commitment to satisfy applicable requirements; [ISO/IEC TS 33073:2017, Annex B 05-2 (5] 5) .. that: d) includes a commitment to continual improvement of the quality management system.
06-1	Improvement procedure	Procedure	[ISO/IEC TS 33073:2017, Annex B 06-1 (1] 1) The generic considerations of the Generic Work Product category of 'Procedure' apply.

Table C.1 *(continued)*

Reference	Name	Category	Characteristics
07-1	Product asset	Product	1) The organization shall identify, [verify, protect and safeguard] customers, or external providers, property provided for use or incorporation into the products and services. 2) The organization shall [identify,] verify, protect and safeguard customers, or external providers, property provided for use or incorporation into the products and services.
07-2	Product/service	Product	[ISO/IEC TS 33073:2017, Annex B 07-2 (1] 1) The generic considerations of the Generic Work Product category of 'Product' apply.
07-3	Product/service component	Product	[ISO/IEC TS 33073:2017, Annex B 07-2 (1] 1) The generic considerations of the Generic Work Product category of 'Product' apply.
08-01	Audit (MS) log	Record	1) The organization shall conduct internal audits [at planned intervals] to provide information on whether the quality management system: a) conforms to: 1) the organization's own requirements for its quality management system; 2) the requirements of this International Standard; b) is effectively implemented and maintained.
08-02	Audit corrective action record	Record	[ISO/IEC TS 33073:2017, Annex B 08-02 (1] 1) The organization shall: e) take appropriate correction and corrective actions without undue delay;
08-03	Audit result communication record	Record	[ISO/IEC TS 33073:2017, Annex B 08-03 (1] 1) The organization shall: d) ensure that the results of the audits are reported to relevant management;
08-04	Audit results	Record	[ISO/IEC TS 33073:2017, Annex B 08-04 (1] 1) The organization shall: a) .. results of [previous] audits; [ISO/IEC TS 33073:2017, Annex B 08-04 (2] 2) The organization shall: a) .. results of previous audits;
08-05	Auditor list	Record	[ISO/IEC TS 33073:2017, Annex B 08-05 (1] 1) The organization shall: c) select auditors and conduct audits to ensure objectivity and the impartiality of the audit process;
08-06	Configuration item change log	Record	[ISO/IEC TS 33073:2017, Annex B 08-06 (1] 1) The generic considerations of the Generic Work Product category of 'Record' apply.
08-07	Correction action log	Record	[ISO/IEC TS 33073:2017, Annex B 08-07 (1] 1) When a nonconformity occurs, including any arising from complaints, the organization shall: b) evaluate the need for action to eliminate the cause(s) of the nonconformity, in order that it does not recur or occur elsewhere, by: [1) reviewing and analysing the nonconformity; 2) determining the causes of the nonconformity; 3) determining if similar nonconformities exist, or could potentially occur;]
08-08	Corrective action cause analysis record	Record	[ISO/IEC TS 33073:2017, Annex B 08-08 (1] 1) [When a nonconformity occurs, including any arising from complaints, the organization shall: b) evaluate the need for action to eliminate the cause(s) of the nonconformity, in order that it does not recur or occur elsewhere, by: 1) reviewing and analysing the nonconformity]; 2) determining the causes of the nonconformity; 3) determining if similar nonconformities exist, or could potentially occur;
08-09	Corrective action change proposal approval record	Record	[ISO/IEC TS 33073:2017, Annex B 08-09 (1] 1) When a nonconformity occurs, including any arising from complaints, the organization shall: c) implement any action needed; [ISO/IEC TS 33073:2017, Annex B 08-09 (2] 2) When a nonconformity occurs, including any arising from complaints, the organization shall: f) make changes to the quality management system, if necessary.
08-10	Corrective action change proposal verification record	Record	[ISO/IEC TS 33073:2017, Annex B 08-10 (1] 1) When a nonconformity occurs, including any arising from complaints, the organization shall: d) review the effectiveness of any corrective action taken;

Table C.1 *(continued)*

Reference	Name	Category	Characteristics
08-11	Corrective action record	Record	[ISO/IEC TS 33073:2017, Annex B 08-11 (2] 1) Corrective actions shall be appropriate to the effects of the nonconformities encountered.
08-12	Corrective action: Documentation	Record	1) The organization shall retain documented information as evidence of: [a) the nature of the nonconformities and any subsequent actions taken;] b) the results of any corrective action.
08-13	Improvement communication record	Record	[ISO/IEC TS 33073:2017, Annex B 08-06 (1] 1) The generic considerations of the Generic Work Product category of 'Record' apply.
08-14	Improvement opportunity evaluation result	Record	[ISO/IEC TS 33073:2017, Annex B 08-06 (1] 1) The generic considerations of the Generic Work Product category of 'Record' apply.
08-15	Improvement opportunity implementation log	Record	[ISO/IEC TS 33073:2017, Annex B 08-06 (1] 1) The generic considerations of the Generic Work Product category of 'Record' apply.
08-16	Improvement opportunity record	Record	[ISO/IEC TS 33073:2017, Annex B 08-06 (1] 1) The generic considerations of the Generic Work Product category of 'Record' apply.
08-17	Information item approval record	Record	[ISO/IEC TS 33073:2017, Annex B 08-17 (1] 1) When creating and updating documented information, the organization shall ensure appropriate: c) [review and] approval for suitability and adequacy.
08-18	MS Implementation log: Documentation	Record	[ISO/IEC TS 33073:2017, Annex B 08-22 (6] 1) The organization shall: f) retain documented information as evidence of the implementation of the audit programme [and the audit results.] [ISO/IEC TS 33073:2017, Annex B 08-22 (7] 2) The organization shall: f) retain documented information as evidence of the implementation of the [audit programme and] the audit results.
08-19	MS Implementation log: Implement	Record	[ISO/IEC TS 33073:2017, Annex B 08-22 (1] 1) Top management shall [establish,] implement [and maintain a quality policy that:.. [ISO/IEC TS 33073:2017, Annex B 08-22 (5] 2) The organization shall: a) [plan, establish], implement [and maintain] an audit programme(s) including the frequency, methods, responsibilities, planning requirements and reporting, which shall take into consideration the importance of the processes concerned, changes affecting the organization, and the results of previous audits;
08-20	MS Implementation log: Provide	Record	[ISO/IEC TS 33073:2017, Annex B 08-22 (2] 1) The organization shall [determine], provide [and maintain] the infrastructure necessary for the operation of its processes and to achieve conformity of products and services. [ISO/IEC TS 33073:2017, Annex B 08-22 (3] 2) The organization shall [determine,] provide [and maintain] the environment necessary for the operation of its processes and to achieve conformity of products and services. [ISO/IEC TS 33073:2017, Annex B 08-22 (4] 3) The organization shall [determine and] provide the resources needed to ensure valid and reliable results when monitoring or measuring is used to verify the conformity of products and services to requirements.
08-21	MS Implementation: Maintain	Record	[ISO/IEC TS 33073:2017, Annex B 08-23 (4] 1) The organization shall [determine, provide and] maintain the infrastructure necessary for the operation of its processes and to achieve conformity of products and services. [ISO/IEC TS 33073:2017, Annex B 08-23 (5] 2) The organization shall [determine, provide and] maintain the environment necessary for the operation of its processes and to achieve conformity of products and services.

Table C.1 *(continued)*

Reference	Name	Category	Characteristics
08-22	MS Implementation: Monitor and review	Record	[ISO/IEC TS 33073:2017, Annex B 08-23 (1] 1) The organization shall monitor and review information about these external and internal issues. [ISO/IEC TS 33073:2017, Annex B 08-23 (2] 2) The organization shall monitor and review information about these interested parties and their relevant requirements. [ISO/IEC TS 33073:2017, Annex B 08-23 (7] 3) The organization shall: a) [plan, establish, implement and] maintain [an audit programme(s) including the frequency, methods, responsibilities, planning requirements and reporting, which shall take into consideration the importance of the processes concerned, changes affecting the organization], and the results of previous audits;
08-23	MS Resources provision record	Record	[ISO/IEC TS 33073:2017, Annex B 08-24 (1] 1) The organization shall determine [and provide] the persons necessary for the effective implementation of its quality management system and for the operation and control of its processes. [ISO/IEC TS 33073:2017, Annex B 03-19 (1] 2) The organization shall [determine and] provide the resources needed for the establishment, implementation, maintenance and continual improvement of the quality management system. [ISO/IEC TS 33073:2017, Annex B 08-24 (3] 3) The organization shall [determine and] provide the persons necessary for the effective implementation of its quality management system and for the operation and control of its processes.
08-24	Management review action log (retired)	Record	[ISO/IEC TS 33073:2017, Annex B 08-19 (1] 1) The outputs of the management review shall include decisions and actions related to: a) opportunities for improvement; b) any need for changes to the quality management system; c) resource needs.
08-25	Management review: Documentation	Record	[ISO/IEC TS 33073:2017, Annex B 08-20 (2] 1) The organization shall retain documented information as evidence of the results of management reviews.
08-26	Management review: Implementation	Record	1) The management review shall be [planned and] carried out taking into consideration: a) the status of actions from previous management reviews; b) changes in external and internal issues that are relevant to the quality management system; c) information on the performance and effectiveness of the quality management system, including trends in: 1) customer satisfaction and feedback from relevant interested parties; 2) the extent to which quality objectives have been met; 3) process performance and conformity of products and services; 4) non-conformities and corrective actions; 5) monitoring and measurement results; 6) audit results; 7) the performance of external providers; d) the adequacy of resources; e) the effectiveness of actions taken to address risks and opportunities (see 6.1); f) opportunities for improvement. [ISO/IEC TS 33073:2017, Annex B 11-02 (1] 2) The outputs of the management review shall include decisions and actions related to: a) opportunities for improvement; 3) The outputs of the management review shall include decisions and actions related to: b) any need for changes to the quality management system; c) resource needs.
08-27	Measurement resources effectiveness review result	Record	[ISO/IEC TS 33073:2017, Annex B 08-21 (1] 1) The organization shall retain appropriate documented information as evidence of fitness for purpose of the monitoring and measurement resources.