SmartSuite

Framework / Risk Management / Other

IEC 31010:2019

IEC 31010:2019 gives guidance on selecting and applying risk assessment techniques, and replaced the 2009 first edition in June 2019.



What it is

IEC 31010:2019, Risk management - Risk assessment techniques, is the international guidance standard on choosing and applying techniques for assessing risk. It is used by risk managers, auditors and engineers in any sector, and it has been the current edition since 13 June 2019, when it canceled and replaced the 2009 first edition that this page's title still carries.

IEC technical committee 56 (Dependability) prepared it with ISO technical committee 262 (Risk management), and it is published as a double logo standard. It does not repeat the concepts of ISO 31000. It lists techniques, shows what each one is suited to, and explains how to plan, implement, verify and validate an assessment (clauses 4 to 7, Annexes A and B).

At a glance

PUBLISHER International Electrotechnical Commission (IEC), with ISO as a double logo standard	TYPE Standard	VERSION IEC 31010:2019, Edition 2.0 (replaces the 2009 first edition)
EFFECTIVE June 13, 2019	DOMAIN Risk Management	FAMILY Other
REGION International	ADOPTION MODEL Voluntary	IMPLEMENTATION COMPLEXITY Medium

Source: webstore.iec.ch/en/publication/59809

Why it matters

- **Uncertainty is the starting point** Clause 4 sets out two core concepts, uncertainty (4.1) and risk (4.2), so that assessments are built around the uncertainty that affects a decision.
- **A defined way to choose a technique** Clause 7 covers selecting risk assessment techniques (7.1 general, 7.2 selecting techniques), supported by the categorization in Annex A.
- **Planning and checking the work** Clause 6 runs from planning the assessment (6.1) to verifying and validating results (6.4.1). The 2019 edition gives more detail on this than the 2009 edition.
- **A fit with the ISO 31000 process** Annex A.3 and Figure A.1 show where techniques apply in the ISO 31000 risk management process, and ISO 31000:2018 is a normative reference.

How SmartSuite supports ISO 31010:2009

Technique Library

Hold each Annex B technique with its group (B.1 to B.10) and the Annex A characteristics, so assessors choose by purpose.

Assessment Plan Record

Capture purpose and scope, context, stakeholders, objectives and decision criteria for each assessment (6.1.1 to 6.1.6).

Technique Selection Log

Record the technique chosen, the alternatives considered and the reason, with an owner and approver (clause 7.2).

Information and Model Register

Track data sources, model assumptions and their owners for each assessment (6.2.2 to 6.2.4).

Review and Validation Tracker

Log verification and validation results, uncertainty and sensitivity analysis notes, and monitoring dates (6.4.1 to 6.4.3).

Risk Register and Reporting

Feed results into the risk register (B.10.2) and report open risks and actions to governance forums from the same records (6.6).

Common framework mappings

COBIT 2019 | COSO ERM 2017 | Open FAIR | ISO 31000:2018 | ISO 27001:2022 | NIST CSF 2.0 | NIST SP 800-30 Rev. 1 | NIST 800-53 Rev.5

Official resources

IEC 31010:2019 on the IEC Webstore

Edition 2.0 of Risk management - Risk assessment techniques, published 13 June 2019, with scope and edition details.

webstore.iec.ch/en/publication/59809

IEC 31010:2019 in the ISO catalog

The ISO catalog record for IEC 31010:2019, the co-published edition that replaced ISO/IEC 31010:2009.

iso.org/standard/72140.html

Frequently asked questions

Is ISO 31010:2009 still current?

No. IEC 31010:2019 (Edition 2.0, published 13 June 2019) cancels and replaces the 2009 first edition. It adds more detail on planning, implementing, verifying and validating the use of techniques, increases the number and range of techniques, and no longer repeats the concepts covered in ISO 31000.

Which techniques does IEC 31010:2019 describe?

Annex B describes techniques in ten groups, B.1 to B.10, from eliciting views from stakeholders and experts to recording and reporting. Examples are brainstorming (B.1.2), FMEA (B.2.3), HAZOP (B.2.4), bow tie analysis (B.4.2), fault tree analysis (B.5.7), Monte Carlo simulation (B.5.10), cost/benefit analysis (B.9.2) and risk registers (B.10.2).

How do I choose a technique under IEC 31010:2019?

Start with clause 7 (selecting risk assessment techniques) and Annex A, which categorizes techniques by their characteristics and by where they apply in the ISO 31000 process (Tables A.1 to A.3). Clause 6.3 also groups techniques by the question being asked, such as identifying risk or understanding consequences and likelihood.

Is IEC 31010 mandatory or certifiable?

It is guidance, not a certification scheme. Clause 1 describes it as guidance on the selection and application of techniques, and the Foreword states that the IEC itself provides no attestation of conformity. Organizations adopt it voluntarily, often because a regulator or customer expects a documented, standard approach to risk assessment.

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How does IEC 31010 relate to ISO 31000?

ISO 31000:2018 is a normative reference (clause 2). IEC 31010 supports the risk assessment steps of identifying, analyzing and evaluating risk in the ISO 31000 process, and Annex A.3 with Figure A.1 shows where each technique applies. The 2019 edition no longer repeats ISO 31000 concepts.

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Full framework page and mappings: smartsuite.com/frameworks/iec-31010-2019-risk-assessment-techniques