

STN	Manažérstvo rizika Techniky posúdenia rizika	STN EN IEC 31010
		01 0380

Risk management - Risk assessment techniques

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola označená vo Vestníku ÚNMS SR č. 11/19

Obsahuje: EN IEC 31010:2019, IEC 31010:2019

Oznámením tejto normy sa od 18.07.2022 ruší
STN EN 31010 (01 0380) z decembra 2010

129752

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 31010

August 2019

ICS 03.100.01

Supersedes EN 31010:2010 and all of its amendments
and corrigenda (if any)

English Version

**Risk management - Risk assessment techniques
(IEC 31010:2019)**

Management du risque - Techniques d'appréciation du
risque
(IEC 31010:2019)

Risikomanagement - Verfahren zur Risikobeurteilung
(IEC 31010:2019)

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EN IEC 31010:2019 (E)**European foreword**

The text of document 56/1837/FDIS, future edition 2 of IEC 31010, prepared by IEC/TC 56 "Dependability" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 31010:2019.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-04-18
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IEC 62740	NOTE	Harmonized as EN 62740
IEC 60812	NOTE	Harmonized as EN IEC 60812
IEC 61882	NOTE	Harmonized as EN 61882
ISO 22000	NOTE	Harmonized as EN ISO 22000
IEC 61508 (series)	NOTE	Harmonized as EN 61508 (series)
IEC 61511 (series)	NOTE	Harmonized as EN 61511 (series)
ISO 22301	NOTE	Harmonized as EN ISO 22301
IEC 62502	NOTE	Harmonized as EN 62502
IEC 62508	NOTE	Harmonized as EN 62508
IEC 61165	NOTE	Harmonized as EN 61165
IEC 60300-3-11	NOTE	Harmonized as EN 60300-3-11

Annex ZA
(normative)**Normative references to international publications
with their corresponding European publications**

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NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 31000	2018	Risk management_- Guidelines	-	-
ISO Guide 73	2009	Risk management_- Vocabulary	-	-



IEC 31010

Edition 2.0 2019-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE



Risk management – Risk assessment techniques

Management du risque – Techniques d'appréciation du risque





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IEC 31010

Edition 2.0 2019-06

INTERNATIONAL STANDARD

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Risk management – Risk assessment techniques

Management du risque – Techniques d'appréciation du risque

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ICS 03.100.01

ISBN 978-2-8322-6989-3

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CONTENTS

FOREWORD	6
INTRODUCTION	8
1 Scope	9
2 Normative references	9
3 Terms and definitions	9
4 Core concepts	10
4.1 Uncertainty	10
4.2 Risk	11
5 Uses of risk assessment techniques	11
6 Implementing risk assessment	12
6.1 Plan the assessment	12
6.1.1 Define purpose and scope of the assessment	12
6.1.2 Understand the context	13
6.1.3 Engage with stakeholders	13
6.1.4 Define objectives	13
6.1.5 Consider human, organizational and social factors	13
6.1.6 Review criteria for decisions	14
6.2 Manage information and develop models	16
6.2.1 General	16
6.2.2 Collecting information	16
6.2.3 Analysing data	16
6.2.4 Developing and applying models	17
6.3 Apply risk assessment techniques	18
6.3.1 Overview	18
6.3.2 Identifying risk	19
6.3.3 Determining sources, causes and drivers of risk	19
6.3.4 Investigating the effectiveness of existing controls	20
6.3.5 Understanding consequences, and likelihood	20
6.3.6 Analysing interactions and dependencies	22
6.3.7 Understanding measures of risk	22
6.4 Review the analysis	25
6.4.1 Verifying and validating results	25
6.4.2 Uncertainty and sensitivity analysis	25
6.4.3 Monitoring and review	26
6.5 Apply results to support decisions	26
6.5.1 Overview	26
6.5.2 Decisions about the significance of risk	27
6.5.3 Decisions that involve selecting between options	27
6.6 Record and report risk assessment process and outcomes	28
7 Selecting risk assessment techniques	28
7.1 General	28
7.2 Selecting techniques	29
Annex A (informative) Categorization of techniques	31
A.1 Introduction to categorization of techniques	31
A.2 Application of categorization of techniques	31
A.3 Use of techniques during the ISO 31000 process	37

Annex B (informative) Description of techniques	40
B.1 Techniques for eliciting views from stakeholders and experts.....	40
B.1.1 General	40
B.1.2 Brainstorming	40
B.1.3 Delphi technique.....	42
B.1.4 Nominal group technique	43
B.1.5 Structured or semi-structured interviews.....	44
B.1.6 Surveys	45
B.2 Techniques for identifying risk.....	46
B.2.1 General	46
B.2.2 Checklists, classifications and taxonomies.....	47
B.2.3 Failure modes and effects analysis (FMEA) and failure modes, effects and criticality analysis (FMECA)	49
B.2.4 Hazard and operability (HAZOP) studies.....	50
B.2.5 Scenario analysis	52
B.2.6 Structured what if technique (SWIFT)	54
B.3 Techniques for determining sources, causes and drivers of risk	55
B.3.1 General	55
B.3.2 Cindynic approach	56
B.3.3 Ishikawa analysis (fishbone) method	58
B.4 Techniques for analysing controls	60
B.4.1 General	60
B.4.2 Bow tie analysis.....	60
B.4.3 Hazard analysis and critical control points (HACCP)	62
B.4.4 Layers of protection analysis (LOPA)	64
B.5 Techniques for understanding consequences and likelihood	66
B.5.1 General	66
B.5.2 Bayesian analysis.....	66
B.5.3 Bayesian networks and influence diagrams.....	68
B.5.4 Business impact analysis (BIA).....	70
B.5.5 Cause-consequence analysis (CCA).....	72
B.5.6 Event tree analysis (ETA)	74
B.5.7 Fault tree analysis (FTA)	76
B.5.8 Human reliability analysis (HRA).....	78
B.5.9 Markov analysis.....	79
B.5.10 Monte Carlo simulation	81
B.5.11 Privacy impact analysis (PIA) / data protection impact analysis (DPIA)	83
B.6 Techniques for analysing dependencies and interactions	85
B.6.1 Causal mapping.....	85
B.6.2 Cross impact analysis	87
B.7 Techniques that provide a measure of risk	89
B.7.1 Toxicological risk assessment.....	89
B.7.2 Value at risk (VaR)	91
B.7.3 Conditional value at risk (CVaR) or expected shortfall (ES)	93
B.8 Techniques for evaluating the significance of risk	94
B.8.1 General	94
B.8.2 As low as reasonably practicable (ALARP) and so far as is reasonably practicable (SFAIRP)	94

B.8.3	Frequency-number (F-N) diagrams	96
B.8.4	Pareto charts	98
B.8.5	Reliability centred maintenance (RCM)	100
B.8.6	Risk indices	102
B.9	Techniques for selecting between options	103
B.9.1	General	103
B.9.2	Cost/benefit analysis (CBA)	104
B.9.3	Decision tree analysis	106
B.9.4	Game theory	107
B.9.5	Multi-criteria analysis (MCA)	109
B.10	Techniques for recording and reporting	111
B.10.1	General	111
B.10.2	Risk registers	112
B.10.3	Consequence/likelihood matrix (risk matrix or heat map)	113
B.10.4	S-curves	117
	Bibliography	119
	Figure A.1 – Application of techniques in the ISO 31000 risk management process [3]	37
	Figure B.1 – Example Ishikawa (fishbone) diagram	59
	Figure B.2 – Example of Bowtie	61
	Figure B.3 – A Bayesian network showing a simplified version of a real ecological problem: modelling native fish populations in Victoria, Australia	69
	Figure B.4 – Example of cause-consequence diagram	73
	Figure B.5 – Example of event tree analysis	75
	Figure B.6 – Example of fault tree	77
	Figure B.7 – Example of Markov diagram	80
	Figure B.8 – Example of dose response curve	89
	Figure B.9 – Distribution of value	91
	Figure B.10 – Detail of loss region VaR values	91
	Figure B.11 – VaR and CVaR for possible loss portfolio	93
	Figure B.12 – ALARP diagram	95
	Figure B.13 – Sample F-N diagram	97
	Figure B.14 – Example of a Pareto chart	98
	Figure B.15 – Part example of table defining consequence scales	114
	Figure B.16 – Part example of a likelihood scale	114
	Figure B.17 – Example of consequence/likelihood matrix	115
	Figure B.18 – Probability distribution function and cumulative distribution function	117
	Table A.1 – Characteristics of techniques	31
	Table A.2 – Techniques and indicative characteristics	32
	Table A.3 – Applicability of techniques to the ISO 31000 process	38
	Table B.1 – Examples of basic guidewords and their generic meanings	51

Table B.2 – Table of deficits for each stakeholder.....	57
Table B.3 – Table of dissonances between stakeholders	57
Table B.4 – Example of Markov matrix	80
Table B.5 – Examples of systems to which Markov analysis can be applied	81
Table B.6 – An example of RCM task selection	101
Table B.7 – Example of a game matrix.....	108

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**RISK MANAGEMENT –
RISK ASSESSMENT TECHNIQUES****FOREWORD**

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International Standard IEC 31010 has been prepared by IEC technical committee 56: Dependability, in co-operation with ISO technical committee 262: Risk management.

It is published as a double logo standard.

This second edition cancels and replaces the first edition published in 2009. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- more detail is given on the process of planning, implementing, verifying and validating the use of the techniques;
- the number and range of application of the techniques has been increased;
- the concepts covered in ISO 31000 are no longer repeated in this standard.

The text of this International Standard is based on the following documents of IEC:

FDIS	Report on voting
56/1837/FDIS	56/1845/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table. In ISO, the standard has been approved by 44 P members out of 46 having cast a vote.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

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INTRODUCTION

This document provides guidance on the selection and application of various techniques that can be used to help improve the way uncertainty is taken into account and to help understand risk.

The techniques are used:

- where further understanding is required about what risk exists or about a particular risk;
- within a decision where a range of options each involving risk need to be compared or optimized;
- within a risk management process leading to actions to treat risk.

The techniques are used within the risk assessment steps of identifying, analysing and evaluating risk as described in ISO 31000, and more generally whenever there is a need to understand uncertainty and its effects.

The techniques described in this document can be used in a wide range of settings, however the majority originated in the technical domain. Some techniques are similar in concept but have different names and methodologies that reflect the history of their development in different sectors. Techniques have evolved over time and continue to evolve, and many can be used in a broad range of situations outside their original application. Techniques can be adapted, combined and applied in new ways or extended to satisfy current and future needs.

This document is an introduction to selected techniques and compares their possible applications, benefits and limitations. It also provides references to sources of more detailed information.

The potential audience for this document is:

- anyone involved in assessing or managing risk;
- people who are involved in developing guidance that sets out how risk is to be assessed in specific contexts;
- people who need to make decisions where there is uncertainty including:
 - those who commission or evaluate risk assessments,
 - those who need to understand the outcomes of assessments, and
 - those who have to choose assessment techniques to meet particular needs.

Organizations that are required to conduct risk assessments for compliance or conformance purposes would benefit from using appropriate formal and standardized risk assessment techniques.

RISK MANAGEMENT – RISK ASSESSMENT TECHNIQUES

1 Scope

This International Standard provides guidance on the selection and application of techniques for assessing risk in a wide range of situations. The techniques are used to assist in making decisions where there is uncertainty, to provide information about particular risks and as part of a process for managing risk. The document provides summaries of a range of techniques, with references to other documents where the techniques are described in more detail.

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 Guide 73:2009, *Risk management – Vocabulary*

ISO 31000:2018, *Risk management – Guidelines*

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