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Obvladovanje tveganj AI

AI Risk Management

Risikomanagement für Künstliche Intelligenz

Gestion des risques liés à l'IA

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ICS:

35.240.01	Uporabniške rešitve informacijske tehnike in tehnologije na splošno	Application of information technology in general
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EUROPEAN STANDARD
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AI Risk Management

Gestion des risques liés à l'IA

Risikomanagement für Künstliche Intelligenz

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/CLC/JTC 21.

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prEN 18228:2026 (E)64 **European foreword**

65 This document (prEN 18228:2026) has been prepared by the Joint Technical Committee CEN-CENELEC/
66 JTC 21 “Artificial Intelligence”, the secretariat of which is held by DS.

67 This document is currently submitted to the CEN Enquiry.

68 This document has been prepared under a standardization request addressed to CEN-CENELEC by the
69 European Commission. The Standing Committee of the EFTA States subsequently approves these
70 requests for its Member States.

71 For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this
72 document.

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73 Introduction

74 This document was developed primarily for *providers* of *AI systems* on the basis of established principles
75 of product-safety-focused *risk management*, in support of EU AI Act regulatory purposes.

76 The requirements contained in this document provides a framework to systematically identify and
77 mitigate the *risks* associated with the use of *AI systems* throughout their *life cycle*. This *risk management*
78 system is a continuous and iterative *process*, planned and run throughout the entire *life cycle* of an *AI*
79 *system*, requiring regular systematic review and updating.

80 This document contains *processes* for managing *risks* to health, safety and *fundamental rights* which are
81 associated with *AI systems*. *Risks* can also be related to damage to property (for example objects, data,
82 other equipment), the environment and *critical infrastructure* when they can impact the health, safety
83 and *fundamental rights* of *persons*.

84 For the purposes of this document, the concept of *risk* has two key components:

- 85 — the probability of occurrence of *harm*; and
- 86 — the *severity* of that *harm*.

87 The *provider* reduces *risks* and makes evaluations of the acceptability of the *residual risks*. The *provider*
88 takes into account the generally acknowledged *state of the art*, in order to determine the suitability of an
89 *AI system* to be placed on the market for its *intended purpose*.

90 This document provides a *process* for:

- 91 — *risk* acceptability criteria establishment in the context of the *AI system intended purpose* and under
92 conditions of *reasonably foreseeable misuse*;
- 93 — determining *hazards* associated with the *AI system*, analysing and evaluating the *risks* associated with
94 these *hazards*;
- 95 — finally, controlling and mitigating these *risks* and monitoring the effectiveness of the controls
96 throughout the *life cycle* of the *AI system*.

97 For any particular *AI system*, other standards or regulations can require the application of specific
98 methods for managing *risk*.

prEN 18228:2026 (E)99 **1 Scope**

100 This document specifies requirements and provides guidance for *risk management* of *AI systems*. It
101 specifies terminology, principles and a *process* for *risk management*.

102 The *process* described in this document intends to assist *providers* of *AI systems* to identify the *hazards*
103 associated with the *AI systems*, to estimate and evaluate the associated *risks*, to control these *risks*, and to
104 monitor the effectiveness of the controls. The *process* described in this document applies to *risks* to health,
105 safety and *fundamental rights* associated with an *AI system*. The *process* described in this document is
106 applied throughout the *life cycle* of the *AI system*.

107 This document requires *providers* to establish objective criteria for *risk* acceptability but does not specify
108 *acceptable risk* levels.

109 This document is intended for use by organizations providing *AI systems*, regardless of their size, nature
110 or location. This document is not intended for managing *risk* faced by organizations. This document is
111 intended to support the organization in meeting applicable regulatory requirements.

112 **2 Normative references**

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

116 prEN 18229-1:20XX, *AI trustworthiness framework — Part 1: Logging, transparency and human oversight*

117 **3 Terms and definitions**

118 For the purposes of this document, the following terms and definitions apply.

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

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

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

122 **3.1 Terms relating to the AI Act**123 **3.1.1**124 **AI system**125 **Artificial intelligence system**

126 machine-based system that is designed to operate with varying levels of autonomy and that can exhibit
127 adaptiveness after deployment, and that, for explicit or implicit objectives, infers, from the input it
128 receives, how to generate outputs such as predictions, content, recommendations, or decisions that can
129 influence physical or virtual environments

130 [SOURCE: REGULATION (EU) 2024/1689, Article 3(1), modified — removed “means a”, “may” replaced
131 by “can”]

132 **3.1.2**133 **intended purpose**

134 use for which an *AI system* (3.3.1) is intended by the *provider* (3.1.5), including the specific context and
 135 conditions of use, as specified in the information supplied by the *provider* (3.1.5) in the instructions for
 136 use, promotional or sales materials and statements, as well as in the technical documentation

137 Note 1 to entry: Technical documentation is not *accompanying documentation* (3.2.1). Information on technical
 138 documentation can be found in Article 11 of the EU AI Act [1].

139 [SOURCE: REGULATION (EU) 2024/1689, Article 3(12), modified — removed “means the”, note to entry
 140 added]

141 **3.1.3**142 **reasonably foreseeable misuse**

143 use of an *AI system* (3.1.1) in a way that is not in accordance with its *intended purpose* (3.1.2), but which
 144 can result from reasonably foreseeable human behaviour or interaction with other systems, including
 145 other *AI systems* (3.1.1)

146 Note 1 to entry: Reasonably foreseeable human behaviour includes the behaviour of all types of relevant *users*
 147 (3.5.7).

148 Note 2 to entry: Reasonably foreseeable misuse can be intentional or unintentional.

149 [SOURCE: AI Act Art. 3(13), modified — removed “means the”, “may” replaced by “can”, notes 1 and 2 to
 150 entry added]

151 **3.1.4**152 **performance**

153 <AI system> ability of an *AI system* (3.1.1) to achieve its *intended purpose* (3.1.2)

154 Note 1 to entry: Performance can relate either to quantitative or qualitative findings.

155 Note 2 to entry: Performance is evaluated in the context of use of the *AI system* (3.1.1). The use conditions under
 156 which performance is evaluated can result in significant performance outcomes and which can be explicitly stated

157 [SOURCE: REGULATION (EU) 2024/1689, Article 3(18), modified — removed “the”]

158 **3.1.5**159 **provider**

160 natural or legal person, public authority, agency or other body that develops an *AI system* (3.1.1) or a
 161 general purpose AI model or that has an *AI system* (3.1.1) or a general-purpose AI model developed and
 162 places it on the market or puts the *AI system* (3.1.1) into service under its own name or trademark,
 163 whether for payment or free of charge

164 Note 1 to entry: A distributor, importer, *deployer* (3.1.6) or other third party can be considered a provider of an *AI*
 165 *system* (3.1.1) in certain circumstances.

166 [SOURCE: REGULATION (EU) 2024/1689, Article 3(3), modified — removed “means a”, note to entry
 167 added]

prEN 18228:2026 (E)**3.1.6****deployer**

natural or legal person, public authority, agency or other body using an *AI system* (3.1.1) under its authority except where the *AI system* (3.1.1) is used in the course of a personal non-professional activity

[SOURCE: REGULATION (EU) 2024/1689, Article 3(4), modified — removed “means a”]

3.1.7**post-market monitoring system**

activities carried out by *providers* (3.1.5) of *AI systems* (3.1.1) to collect and review experience gained from the use of *AI systems* (3.1.1) they place on the market or put into service for the purpose of identifying any need to immediately apply any necessary corrective or preventive actions

Note 1 to entry: For the purpose of this document, activities shall mean all activities.

[SOURCE: REGULATION (EU) 2024/1689, Article 3(25), modified — removed “means all”, added note to entry]

3.1.8**placing on the market**

first making available of an *AI system* (3.1.1) on the Union market

Note 1 to entry: See *making available on the market* (3.1.9).

Note 2 to entry: Further information on this concept can be found in the Blue Guide [2], section 2.

[SOURCE: REGULATION (EU) 2024/1689, Article 3(9), modified — removed “means the”, added notes to entry]

3.1.9**making available on the market**

supply of an *AI system* (3.1.1) for distribution or use on the Union market in the course of a commercial activity, whether in return for payment or free of charge

[SOURCE: REGULATION (EU) 2024/1689, Article 3(10), modified — removed “means the”]

3.1.10**putting into service**

supply of an *AI system* (3.1.1) for first use directly to the *deployer* (3.1.6) or for own use in the Union for its *intended purpose* (3.1.2)

Note 1 to entry: Further information on this concept can be found in the Blue Guide [2], section 2.

[SOURCE: REGULATION (EU) 2024/1689, Article 3(11), modified — removed “means the”, added note to entry]

- 200 **3.1.11**
 201 **serious incident**
 202 incident or malfunctioning of an *AI system* (3.1.1) that directly or indirectly leads to any of the following:
- 203 a) the death of a *person* (3.5.9) or serious *harm* (3.6.3) to a *person* (3.5.9)'s health;
- 204 b) a serious and irreversible disruption of the management or operation of *critical infrastructure*
 205 (3.6.18);
- 206 c) the infringement of obligations under applicable regulatory requirements intended to protect
 207 *fundamental rights* (3.5.1);
- 208 d) serious *harm* (3.6.3) to property or the environment

209 [SOURCE: REGULATION (EU) 2024/1689, Article 3(49), modified — removed “means an”]

- 210 **3.1.12**
 211 **subject**
 212 natural person who participates in testing in real-world conditions

213 Note 1 to entry: Participating in *testing* (3.3.1) can require *informed consent* (3.5.12) of subjects.

214 [SOURCE: REGULATION (EU) 2024/1689, Article 3(58), modified — removed “for the purpose of real-
 215 world testing, means a”, note to entry added]

- 216 **3.1.13**
 217 **real-world conditions testing**
 218 temporary *testing* (3.3.1) of an *AI system* (3.1.1) for its *intended purpose* (3.1.2) in its intended context of
 219 use or deployment environment outside a laboratory or otherwise simulated environment

220 Note 1 to entry: Assessing and verifying conformity of the *AI system* (3.1.1) with the requirements of this document
 221 includes that the overall *residual risk* (3.6.6) of the *AI system* (3.1.1) is acceptable in accordance with its *intended*
 222 *purpose* (3.1.2) and *reasonably foreseeable misuse* (3.1.3).

223 Note 2 to entry: *Real-world conditions testing* can pertain to technical and non-technical aspects, including
 224 *performance* (3.1.4) *verification* (3.2.9) or usability study.

225 Note 3 to entry: *Real-world conditions testing* can require the participation of *subjects* (3.1.12).

226 [SOURCE: REGULATION (EU) 2024/1689, Article 3(57), modified — removed “means the”, replaced “in
 227 real-world conditions” with “in its intended context of use or deployment environment”, removed text
 228 after “with a view” for substitutability and because it contains references to specific parts of (EU)
 229 2024/1689]

prEN 18228:2026 (E)230 **3.2 Terms related to the risk management system**231 **3.2.1**232 **accompanying documentation**

233 materials accompanying an *AI system* (3.1.1) and containing information for the *user* (3.5.7) or those
234 accountable for the use, maintenance, decommissioning and disposal of the *AI system* (3.1.1)

235 Note 1 to entry: The accompanying documentation can consist of the instructions for use, technical description,
236 installation manual, quick reference guide, etc.

237 Note 2 to entry: The accompanying documentation is not necessarily a written or printed document but can involve
238 auditory, visual, or tactile materials and multiple media types.

239 Note 3 to entry: Materials include information relevant for the protection of health, safety and *fundamental rights*,
240 where each is applicable.

241 **3.2.2**242 **objective evidence**

243 data supporting the existence or verity of something

244 Note 1 to entry: Objective evidence can be obtained through observation, measurement, test or by other means.

245 [SOURCE: ISO 9000:2015, 3.8.3, modified — note 2 to entry deleted]

246 **3.2.3**247 **procedure**

248 specified way to carry out an activity or a *process* (3.2.4)

249 Note 1 to entry: Procedures can be documented or not.

250 [SOURCE: ISO 9000:2015, 3.4.5]

251 **3.2.4**252 **process**

253 set of interrelated or interacting activities that use inputs to deliver an intended result

254 Note 1 to entry: Whether the intended result of a process is called output, product or service depends on the context
255 of the reference.

256 Note 2 to entry: Inputs to a process are generally the outputs of other processes and outputs of a process are
257 generally the inputs to other processes.

258 Note 3 to entry: Two or more interrelated and interacting processes in series can also be referred to as a process.

259 [SOURCE: ISO 9000:2015, 3.4.1, modified — notes 4-6 to entry deleted]

260 **3.2.5**261 **record**

262 document stating results achieved or providing evidence of activities performed

263 Note 1 to entry: Records can be used, for example, to formalize traceability and to provide evidence of verification,
264 preventive action and corrective action.

- 265 **3.2.6**
 266 **risk management**
 267 systematic and continuous application of management policies, *procedures* (3.2.3) and practices to the
 268 tasks of analysing, evaluating, controlling and monitoring *risk* (3.6.5) throughout the entire *life cycle*
 269 (3.4.1) of an *AI system* (3.1.1)
- 270 [SOURCE: ISO/IEC Guide 63:2019, 3.15, modified — reference to life cycle of the AI system added]
- 271 **3.2.7**
 272 **state of the art**
 273 **generally acknowledged state of the art**
 274 developed stage of technical capability at a given time as regards products, *processes* (3.2.4) and services,
 275 based on the relevant consolidated findings of science, technology and experience
- 276 Note 1 to entry: The state of the art embodies what is currently and generally accepted as good practice in
 277 technology. The state of the art does not necessarily imply the latest scientific research still in an experimental stage
 278 or with insufficient technological maturity.
- 279 [SOURCE: ISO/IEC Guide 2:2004, 1.4, modified — note to entry added]
- 280 **3.2.8**
 281 **top management**
 282 *person* (3.5.9) or group of people who directs and controls a *provider* (3.1.5) at the highest level
- 283 [SOURCE: ISO 9000:2015, 3.1.1, modified — “an organization” replaced by “a provider”, notes to entry
 284 deleted]
- 285 **3.2.9**
 286 **verification**
 287 confirmation, through the provision of *objective evidence* (3.2.2), that specified requirements have been
 288 fulfilled
- 289 Note 1 to entry: The *objective evidence* (3.2.2) needed for a verification can be the result of an inspection, *testing*
 290 (3.3.1) or of other forms of determination such as performing alternative calculations or reviewing documents.
- 291 Note 2 to entry: The activities carried out for verification are sometimes called a qualification *process* (3.2.4).
- 292 Note 3 to entry: The word “verified” is used to designate the corresponding status.
- 293 [SOURCE: ISO 9000:2015, 3.8.12, modified — note 1 to entry modified]

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294 **3.2.10**
 295 **international norms of behaviour**
 296 expectations of socially responsible organizational behaviour derived from customary international law,
 297 generally accepted principles of international law, or intergovernmental agreements that are universally
 298 or nearly universally recognized

299 Note 1 to entry: Intergovernmental agreements include treaties and conventions.

300 Note 2 to entry: Although customary international law, generally accepted principles of international law and
 301 intergovernmental agreements are directed primarily at states, they express goals and principles to which all
 302 organizations can aspire.

303 Note 3 to entry: International norms of behaviour evolve over time.

304 [SOURCE: ISO 26000:2010, 2.11]

305 **3.2.11**
 306 **risk management file**
 307 set of *records* (3.2.5) and other documents that are produced by *risk management* (3.2.6)

308 [SOURCE: EN ISO 14971:2019, 3.25]

3.3 Terms relating to testing

310 **3.3.1**
 311 **testing**
 312 set of activities conducted to facilitate discovery and evaluation of properties of *test items* (3.3.2)

313 Note 1 to entry: Testing activities include planning, preparation, execution, reporting, and management activities,
 314 insofar as they are directed towards testing.

315 [SOURCE: ISO/IEC/IEEE 29119-1:2022, 3.131]

316 **3.3.2**
 317 **test item**
 318 **test object**
 319 work product to be tested

320 EXAMPLE Software component, system, requirements document, design specification, *user* (3.5.7) guide.

321 [SOURCE: ISO/IEC/IEEE 29119-1:2022, 3.107]

322 **3.3.3**
 323 **test objective**
 324 reason for performing *testing* (3.3.1)

325 [SOURCE: ISO/IEC/IEEE 29119-1:2022, 3.114, modified — EXAMPLE removed]

- 326 **3.3.4**
 327 **test completion report**
 328 **test summary report**
 329 report that provides a summary of the *testing* (3.3.1) that was performed
- 330 Note 1 to entry: The report may contain statistical analysis.
- 331 [SOURCE: ISO/IEC/IEEE 29119-1:2022, 3.87, modified — added note to entry]
- 332 **3.3.5**
 333 **test plan**
 334 detailed description of *test objectives* to be achieved and the means and schedule for achieving them,
 335 organized to coordinate *testing* (3.3.1) activities for some *test item* (3.3.2) or set of *test items* (3.3.2)
- 336 Note 1 to entry: A *test plan* is a written document included in the *risk management file* (3.2.11)
- 337 [SOURCE: ISO/IEC/IEEE 29119-1:2022, 3.117, modified — note to entry modified]
- 338 **3.3.6**
 339 **test monitoring and control process**
 340 test management *process* (3.2.4) that aims to ensure that *testing* (3.3.1) is performed in line with a *test*
 341 *plan* (3.3.5) and with organizational test specifications
- 342 [SOURCE: ISO/IEC/IEEE 29119-1:2022, 3.113]
- 343 **3.4 Terms related to the AI system**
- 344 **3.4.1**
 345 **life cycle**
 346 evolution of a system, product, service, project or other human-made entity, from conception through
 347 retirement
- 348 [SOURCE: ISO/IEC/IEEE 15288:2015, 4.1.23]
- 349 **3.4.2**
 350 **pre-market**
 351 every *life cycle* (3.4.1) stage before *putting into service* (3.1.10) or *placing on the market* (3.1.8) the *AI*
 352 *system* (3.1.1)
- 353 Note 1 to entry: *Pre-market* can include *real-world conditions testing* (3.3.4).
- 354 **3.4.3**
 355 **post-market**
 356 every *life cycle* (3.4.1) stage after *putting into service* (3.1.10) or *placing on the market* (3.1.8) the *AI system*
 357 (3.1.1)
- 358 EXAMPLE Installation, use, maintenance, repair, modifications and decommissioning.