



AI ACT and Standardization



- International level -



ISO/IEC JTC 1/SC 42 – Artificial intelligence

Scope

- Standardization in the area of Artificial Intelligence
- Provide guidance to JTC 1, IEC, and ISO committees developing Artificial Intelligence applications
 - Serve as the focus and proponent for JTC 1's standardization program on Artificial Intelligence

Committee information

Published standards	44
Standards under development	48

Major “ISO/IEC JTC 1/SC 42” standards

Published standards

<u>ISO/IEC 22989:2022</u>	Information technology — Artificial intelligence — Artificial intelligence concepts and terminology
<u>ISO/IEC 23053:2022</u>	Framework for Artificial Intelligence (AI) Systems Using Machine Learning (ML)
<u>ISO/IEC 8183:2023</u>	Artificial intelligence — Data life cycle framework
<u>ISO/IEC 5259 series</u>	Artificial intelligence — Data quality for analytics and machine learning (ML)
<u>ISO/IEC TS 12791:2024</u>	Information technology — Artificial intelligence — Treatment of unwanted bias in classification and regression machine learning tasks
<u>ISO/IEC 24029 series</u>	Artificial Intelligence (AI) — Assessment of the robustness of neural networks
<u>ISO/IEC 12792:2025</u>	Information technology — Artificial intelligence (AI) — Transparency taxonomy of AI systems
<u>ISO/IEC TS 6254:2025</u>	Information technology — Artificial intelligence — Objectives and approaches for explainability and interpretability of machine learning (ML) models and artificial intelligence (AI) systems
<u>ISO/IEC TR 20226:2025</u>	Information technology — Artificial intelligence — Environmental sustainability aspects of AI systems
<u>ISO/IEC 42001:2023</u>	Information technology — Artificial intelligence — Management system
<u>ISO/IEC 42006:2025</u>	Information technology — Artificial intelligence — Requirements for bodies providing audit and certification of artificial intelligence management systems

Standards under development

<u>ISO/IEC 25590</u>	Guidance for output data quality of generative AI applications
<u>ISO/IEC 23282</u>	Artificial Intelligence — Evaluation methods for accurate natural language processing systems
<u>ISO/IEC 4213</u>	Information technology — Artificial Intelligence — Performance measurement for AI classification, regression, clustering and recommendation tasks
<u>ISO/IEC TS 22440 series</u>	Artificial intelligence — Functional safety and AI systems
<u>ISO/IEC TS 25568</u>	Information technology — Artificial Intelligence — Guidance on addressing risks in generative AI systems
<u>ISO/IEC 42105</u>	Information technology — Artificial intelligence — Guidance for human oversight of AI systems
<u>ISO/IEC 24970</u>	Artificial intelligence — AI system logging
<u>ISO/IEC 25029</u>	Artificial intelligence — AI-enhanced nudging
<u>ISO/IEC 42007</u>	Information technology — Artificial intelligence — High-level framework and guidance for the development of conformity assessment schemes for AI systems
<u>ISO/IEC 22443</u>	Information technology — Artificial intelligence — Guidance on addressing societal concerns and ethical considerations
<u>ISO/IEC 25059</u>	Software engineering — Systems and software Quality Requirements and Evaluation (SQuaRE) — Quality models for AI systems
<u>ISO/IEC 25870</u>	Information technology — Artificial intelligence — Data elements for reporting AI system incidents
<u>ISO/IEC 42119 series</u>	Artificial intelligence — Testing of AI

- European level -



CEN/CLC/JTC 21 – Artificial Intelligence

Scope	The JTC shall produce standardization deliverables in the field of Artificial Intelligence (AI) and related use of data, as well as provide guidance to other technical committees concerned with Artificial Intelligence. The JTC shall also consider the adoption of relevant international standards and standards from other relevant organisations, like ISO/IEC JTC 1 and its subcommittees, such as SC 42 Artificial intelligence. The JTC shall produce standardization deliverables to address European market and societal needs and to underpin primarily EU legislation, policies, principles, and values.	
Committee information	Published standards	18
	Standards under development	35

Major “CEN/CLC/JTC 21 ” standards

Published standards	<u>CEN/CLC/TR 17894:2024</u>	Artificial Intelligence - Artificial Intelligence Conformity Assessment
	<u>CEN/CLC/TR 18115:2024</u>	Data governance and quality for AI within the European context
	<u>CEN/CLC/TR 18145:2025</u>	Environmentally sustainable Artificial Intelligence
	<u>EN 18274:2026</u>	Competence requirements for professional AI ethicists
	<u>EN 18286:2026</u>	Artificial intelligence - Quality management system for EU AI Act regulatory purposes
Standards under development	<u>prCEN/CLC/TR 18347</u>	Overview and architecture of standards in support of the EU AI Act
	<u>prEN 18228</u>	AI Risk Management
	<u>prCEN/CLC/TR XXX</u>	AI Risks - Check List for AI Risks Management
	<u>prEN 18229-1</u>	AI trustworthiness framework - Part 1: Logging
	<u>prEN 18229-2</u>	AI trustworthiness framework - Part 2: Transparency
	<u>prEN 18229-3</u>	AI trustworthiness framework - Part 3: Human oversight
	<u>prEN 18281</u>	Artificial Intelligence - Evaluation methods for accurate computer vision systems
	<u>prEN 18282</u>	Artificial intelligence - Cybersecurity specifications for AI Systems
	<u>prEN 18283</u>	Artificial Intelligence - Concepts, measures and requirements for managing bias in AI systems
	<u>prEN 18284</u>	Artificial Intelligence -- Quality and governance of datasets in AI
	<u>prEN 18285</u>	AI Conformity assessment framework
	<u>prEN 18287</u>	Artificial Intelligence – Requirements and guidance for the environmental impact evaluation of artificial intelligence systems and services
	<u>prEN 18288</u>	Artificial Intelligence - Taxonomy of AI tasks in computer vision
	<u>prCEN/CLC/TR XXX</u>	Impact assessment in the context of the EU Fundamental Rights
	<u>prCEN/CLC/TR XXX</u>	Guidance on application of Risk Management in Critical Digital Infrastructure
	<u>prCEN/TS</u>	Guidelines on tools for handling ethical issues in AI system life cycle
	<u>prCEN/TS</u>	Guidance for upskilling organisations on AI ethics and social concerns

- National level -



ILNAS/NSC 04 – Artificial Intelligence

Scope	The national commission offers Luxembourgish market players a unique platform to follow and participate in standardization work in the field of artificial intelligence (AI). The members have the opportunity to contribute to the global development of standards for AI with the privileged access to both European (CEN/CLC JTC 21) and international (ISO/IEC JTC 1/SC 42) standardization activities in the field.	
Committee information	National delegates	28

