Obligations for Providers of High-risk AI systems

For a refresher on the notions of "Provider" and "High-risk AI systems", please consult our previous EU AI Act Decoded issues on "Who will the EU AI Act apply to?' and "Classification of AI systems and GPAI Models"

	This must comprise:
	 identification and analysis of the known and reasonably foreseeable risks that can be posed by the AI system to health, safety or fundamental rights when used in accordance with its intended purpose;
Implement a risk management system (Art. 9)	• estimation and evaluation of the risks that may emerge when the AI system is used in accordance with its intended purpose, and under conditions of reasonably foreseeable
	 misuse; evaluation of other risks possibly arising, based on the analysis of data gathered from the post-market monitoring system;
	• after testing, adoption of appropriate and targeted risk management measures designed to address the known and the reasonably foreseeable risks.
	→ Continuous iterative process to be run throughout the entire lifecycle of the AI system.
	These practices must cover in particular:
	 relevant design choices;
	 data collection and origin processes (in the case of personal data, this includes the original purpose of the data collection);
Implement data	 relevant data-preparation processing operations (e.g., annotation, labelling, cleaning, updating, enrichment and aggregation);
	 formulation of assumptions, in particular with respect to the information that the data are supposed to measure and represent;
	 assessment of the availability, quantity and suitability of the data sets needed;
	 examination of possible biases that are likely to affect individuals' health and safety / have a negative impact on fundamental rights / lead to prohibited discrimination, especially where data outputs influence inputs for future operations;
	 appropriate measures to detect, prevent and mitigate possible biases;
governance and management practices	• identification of relevant data gaps / shortcomings that prevent compliance with the EU AI Act, and how those gaps and shortcomings can be addressed.
for training, validation and testing data	Training, validation and testing data sets must meet the following quality criteria:
(Art. 10)	relevant;
(AII. 10)	sufficiently representative;
	 free of errors (to the extent possible);
	complete in view of the intended purpose;
	 have the appropriate statistical properties;
	• take into account the characteristics elements that are particular to the specific geographical, contextual, behavioral or functional setting within which the AI system is intended to be used.
	Nhere strictly necessary for bias detection and correction, special categories of personal data may be processed subject to certain conditions.
	It must be drawn up prior to the placing on the EU market / putting into service of the AI system,
Draft the technical	and kept up-to date.
documentation	🕼 Annex IV may be amended, from time to time, by the European Commission.
containing, at least, the	
elements set out in Annex IV of the EU AI Act	(form to be issued by European Commission).
(Art. 11)	

Design the AI system to allow for the automatic recording of events (logs) over its lifetime

(Art. 12)

Design the AI system to ensure that its operation is sufficiently transparent to enable deployers to interpret its output and use it appropriately

Draft instructions for use

(Art. 13)

(1) Specific logging capabilities must be met for Al systems used for remote biometrics identification covered by Annex III, 1. (a).

The instructions for use must at least contain:

- identity and contact details of the provider and, where applicable, of its authorized representative;
- characteristics, capabilities and limitations of performance of the AI system, including:
- its intended purpose;
 - the level of accuracy, including its metrics, robustness and cybersecurity against which it has been tested and validated, and which can be expected; and any known and foreseeable circumstances that may have an impact on that expected level of accuracy, robustness and cybersecurity;
- any **known or foreseeable circumstances**, related to its use in accordance with its intended purpose or under conditions of reasonably foreseeable misuse, which may lead to risks to the health and safety or fundamental rights;
- where applicable, its **technical capabilities and characteristics** to provide relevant information to explain its output;
- when appropriate, its **performance** regarding specific persons or groups of persons on which the system is intended to be used;
- when appropriate, **specifications for the input data**, or any other relevant information in terms of the training, validation and testing data sets used, taking into account its intended purpose;
- where applicable, information to enable deployers to interpret its output and use it appropriately;
- the changes to the AI system and its performance which have been pre-determined at the moment of the initial conformity assessment, if any;
- the **human oversight measures** implemented (incl. technical measures put in place to facilitate the interpretation of the outputs of the AI system by the deployers);
- the computational and hardware resources needed, the expected lifetime of the AI system, and any necessary maintenance and care measures (incl. their frequency) to ensure the proper functioning of the AI system (incl. software updates);
- where relevant, a **description of the mechanisms** included within the AI system that allows deployers to **properly collect**, store and interpret the logs.

Design the AI system to ensure effective human oversight when in use in order to prevent / minimize risks to health / safety / fundamental rights

(Art. 14)

This must be achieved through the implementation of measures built into the AI system by the provider, and/or to be implemented by the deployer that enable individual(s) in charge of human oversight at the deployer to:

- properly understand the relevant capacities and limitations of the AI system and be able to duly monitor its operation (incl. in view of detecting and addressing anomalies, dysfunctions and unexpected performance);
- remain aware of the possible tendency of automatically relying or over-relying on the output produced by the AI system (automation bias), in particular for AI system used to provide information / recommendations for decisions to be taken by natural persons;
- correctly interpret the Al system's output (e.g., considering the interpretation tools and methods available);
- decide, in any particular situation, not to use the AI system or to otherwise disregard, override or reverse its output;
- intervene in the operation of the Al system / interrupt it through a 'stop' button or a similar procedure that allows the system to come to a halt in a safe state.

Specific measures required for remote biometrics identification systems covered by Annex III, 1. (a).

Design and implement technical and organizational measures to ensure that the Al system achieves an appropriate level of accuracy, robustness, and cybersecurity throughout its lifecycle

(Art. 15)

Implement a Quality

Management System

(Art. 17)

This must be achieved through the implementation of **technical and organizational measures** to:

- ensure that the AI system is as resilient as possible regarding errors, faults or inconsistencies that may occur within the system / the environment in which it operates, in particular due to its interaction with individuals / other systems (e.g., technical redundancy solutions, such as backup or fail-safe plans);
- eliminate / reduce as far as possible the risk of possibly biased outputs influencing input for future operations (feedback loops), and to ensure that any such feedback loops are duly addressed with appropriate mitigation measures for any AI system that continues to learn after being placed on the EU market / put into service;
- ensure resiliency against attempts by unauthorized third parties to alter its use / outputs / performance by exploiting system vulnerabilities (incl. where appropriate, measures to prevent, detect, respond to, resolve and control for attacks trying to manipulate the training data set (data poisoning), or pre-trained components used in training (model poisoning), inputs designed to cause the AI model to make a mistake (adversarial examples or model evasion), confidentiality attacks or model flaws).
- → Levels of accuracy and relevant accuracy metrics of the AI system must be declared in the instructions for use.

The quality management system must include written policies, procedures and instructions, covering at least the following aspects:

- strategy for regulatory compliance (incl. compliance with conformity assessment procedures, and procedures for the management of modifications to AI system);
- techniques, procedures and systematic actions to be used for the **design**, **design** control, and **design** verification of the AI system;
- techniques, procedures and systematic actions to be used for the development, quality control and quality assurance of the AI system;
- examination, test and validation procedures to be carried out before, during, and after the development of the AI system; and the frequency with which they have to be carried out;
- **technical specifications** (incl. standards) to be applied and, where the relevant harmonized standards are not applied in full or do not cover all of the applicable requirements, the means to be used to ensure that the AI system complies with those requirements;
- systems and procedures for data management, including data acquisition, data collection, data analysis, data labelling, data storage, data filtration, data mining, data aggregation, data retention and any other operation regarding data that is performed before and for the purpose of the placing on the EU market / the putting into service of the AI system;
- the risk management system;
 - the setting-up, implementation and maintenance of a **post-market monitoring system**;
- procedures related to the reporting of a serious incident;
- handling of communication with competent authorities, other operators, customers or other interested parties;
- systems and procedures for record-keeping of documentation and information;
- resource management (incl. security-of-supply related measures);
- **accountability framework** setting out the responsibilities of the management and other staff with regard to all the aspects covered by the quality management system.

Keep documentation, at the disposal of national competent authorities, for 10 years after the placing on the EU market / putting into service of the AI system

(Art. 18)

This includes:

- the technical documentation;
- the documentation concerning the **quality management system**;
- the documentation concerning the changes approved by notified bodies, where applicable;
- the decisions and other documents issued by the notified bodies, where applicable; and
- the EU declaration of conformity.







- acknowledged state of the art of AI and AI-related technologies must be taken into account when determining the steps and measures required to comply with the above obligations.
- Compliance with all of the above obligations must be **documented**.
- Some compliance measures must be specific to each high-risk AI system (e.g., technical documentation), while others could be common to all high-risk AI systems (e.g. AI literacy measures).
- For providers that are subject to similar requirements under relevant provisions of other EU laws (incl. financial institutions), compliance with the above obligations may be integrated into compliance documentation drawn up under these other EU laws.
- Providers bear an **obligation of cooperation** with competent authorities, which notably entails the obligation to provide all the information and documentation necessary to demonstrate compliance.
- Providers must closely monitor regulatory developments including any templates to be issued by the European Commission / EU AI Office / national competent authorities.