COURSEWARE

# AI (Act) Compliance Officer Courseware

D-DATA

EU-OCI

AI Act & Governance

Certified by Van Haren CERTIFY

Van Haren PUBLISHING

# AI (Act) Compliance Officer
# Courseware

## Colophon


| | |
|---|---|
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## Publisher about the Courseware

The Courseware was created by experts from the industry who served as the author(s) for this publication. The input for the material is based on existing publications and the experience and expertise of the author(s). The material has been revised by trainers who also have experience working with the material. Close attention was also paid to the key learning points to ensure what needs to be mastered.

The objective of the courseware is to provide maximum support to the trainer and to the student, during his or her training. The material has a modular structure and according to the author(s) has the highest success rate should the student opt for examination. The Courseware is also accredited for this reason, wherever applicable.

In order to satisfy the requirements for accreditation the material must meet certain quality standards. The structure, the use of certain terms, diagrams and references are all part of this accreditation. Additionally, the material must be made available to each student in order to obtain full accreditation. To optimally support the trainer and the participant of the training assignments, practice exams and results are provided with the material.

Direct reference to advised literature is also regularly covered in the sheets so that students can find additional information concerning a particular topic. The decision to leave out notes pages from the Courseware was to encourage students to take notes throughout the material. Although the courseware is complete, the possibility that the trainer deviates from the structure of the sheets or chooses to not refer to all the sheets or commands does exist. The student always has the possibility to cover these topics and go through them on their own time. It is recommended to follow the structure of the courseware and publications for maximum exam preparation.

The courseware and the recommended literature are the perfect combination to learn and understand the theory.

-- Van Haren Publishing

## Other publications BY Van Haren Publishing

Van Haren Publishing (VHP) specializes in titles on Best Practices, methods, frameworks and standards within four domains:

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- Architecture (Enterprise and IT)
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- Project Management

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Van Haren Publishing is part of the Van Haren Group and additional to the book publishing also provides the following services: accredited training materials and e-learning through Van Haren Learning Solutions, as well as independent professional certification via examination through Van Haren Certify.

Topics are (per domain):

| | | |
|---|---|---|
| **IT Management** | IT Service Management | FitSM, ISM®, ISO/IEC20000, IT4IT®, ITIL®, VerISM®, SAF, TRIM, XLA® |
| | Data Management | Data literacy, Data visualization, DMBOK |
| | IT Asset Management | HAM, ITAM, SAM |
| | IT Security Management | BIO, ISO/IEC27001, NIS2 |
| | Test Management | CTAP |
| | Application Management | ASL |
| | Other | eCF, IT-CMF, Scrum |
| **Project Management** | Project Management | Half Double, ICB, ISO/IEC21500, P3.express, PM2, PMBOK Guide, Praxis, PRINCE2 |
| | Agile | Agile, Agile PM |
| | Other | PMO |
| **Business Management** | Operations Management | Lean, Lean Six Sigma, OBM, OMC, RASCI |
| | Contract Management | CATS CM, CATS RVM, IACCM World |
| | Business Information Management | BiSL, DID |
| | Artificial Intelligence | AI, Generative AI |
| | Outsourcing | OPBOK |
| **Enterprise Architecture** | Enterprise Architecture | BIAN, TOGAF |
| | Modeling | ArchiMate, BPMN |
| | Software Architecture | ISAQB |
| | Other | Open Agile Architecture |

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## Table of Content

## Self-Reflection of understanding Diagram

*'What you do not measure, you cannot control.''* – Tom Peters

Fill in this diagram to self-evaluate your understanding of the material. This is an evaluation of how well you know the material and how well you understand it. In order to pass the exam successfully you should be aiming to reach the higher end of Level 3. If you really want to become a pro, then you should be aiming for Level 4. Your overall level of understanding will naturally follow the learning curve. So, it's important to keep track of where you are at each point of the training and address any areas of difficulty.

Based on where you are within the Self-Reflection of Understanding diagram you can evaluate the progress of your own training.

| Level of Understanding | Before Training (Pre-knowledge) | Training Part 1 (1st Half) | raining Part 2 (2nd Half) | After studying / reading the book | After exercises and the Practice exam |
|---|---|---|---|---|---|
| ***Level 4 I can explain the content and apply it .*** | | | | | |
| ***Level 3 I get it! I am right where I am supposed to be.*** | | | | | Ready for the exam! |
| ***Level 2 I almost have it but could use more practice.*** | | | | | |
| ***Level 1 I am learning but don't quite get it yet.*** | | | | | |

(Self-Reflection of Understanding Diagram)

Write down the problem areas that you are still having difficulty with so that you can consolidate them yourself, or with your trainer. After you have had a look at these, then you should evaluate to see if you now have a better understanding of where you actually are on the learning curve.

**Troubleshooting**

| ***Problem areas:*** | ***Topic:*** |
|---|---|
| | |
| **Part 1** | |
| | |
| | |
| | |
| | |
| **Part 2** | |
| | |
| | |
| | |
| | |
| **You have gone through the book and studied.** | |
| | |
| **You have answered the questions and done the practice exam.** | |
| | |
| | |
| | |

# Syllabus

AI Act, Governance & Ethics Officer Syllabus


Version 0.9



This material contains diagrams and text information based upon:
Regulation (eu) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonized rules on Artificial Intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144, and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act)

## About the AI Act, Governance & Ethics Officer certification

| | |
|---|---|
| IP Owner: | EU Organizational Compliance Institute |
| Accreditation institute: | Van Haren Certify |
| Examination institute: | certN |

AI has existed in a somewhat esoteric niche since the 1950's but its impact on business and society only became evident after the turn of the century, mainly due to the use of Intelligent Agents by social media, technology and entertainment organizations. Since 2020, the emergence of Large Language Models (Generative Pretrained Transformers) for text generation and the subsequent acceleration of Multi-Modal Models for image, animation, video, sound, voice and music generation have thrust AI out of its niche and into the mainstream. Everyone can now use AI – democratizing this technology and placing it in the hands of every business organization, government institution and society at large – even children now use AI.

The shift of AI from a niche to the mainstream of our business and personal lives brings many benefits but also raises a new set of risks and concerns. For this reason, regulatory initiatives have been started to foster innovation, define legal boundaries and set out guidelines for the protection of consumers and society against inadvertent misuse or malicious application of AI. The EU in particular has been a leader in establishing guidelines on trustworthy use of AI and subsequently defining a legally binding regulatory framework for AI within the EU.

The "AI Act, Governance & Ethics Officer" certification sets a standard for the ethically sound, trustworthy and regulatory compliant use of AI within any organization. It is intended for any business professional who wishes to acquire and demonstrate the capabilities necessary to:

- Develop a company policy for the ethically sound and compliant use of AI.
- Understand and address ethical issues raised by AI (and related data).
- Demonstrate trustworthiness in AI usage to external stakeholders.
- Ensure business benefits are achieved in line with regulatory compliance.
- Actively monitor and manage risks related to the categorization of AI systems.
- Promote the ethically sound application of AI within a company.
- Ensure adequate governance of AI within an organization.

This certification is based on best practices in regulatory compliance and AI ethics within the EU context. It aligns with the EU Artificial Intelligence Act and widely accepted frameworks on trustworthy and responsible AI.

The certification is designed and supported by professional training providers specializing in legal-tech and data governance for high-risk AI environments in European organizations.

## Benefits of being AI Act, Governance & Ethics Officer certified

- Promote innovation within the context of ethical usage and regulatory compliance.
- **Practical readiness for EU AI Act compliance:** Successful delegates will be ready to **engage with the AI Act's requirements** on day one, knowing what steps to take to comply. They will understand how to integrate the Act's obligations into their organization's existing processes and planning, reducing the risk of non-compliance as the law comes into force.
- **Improved cross-functional collaboration:** The training bridges the gap between legal, technical, and ethical teams. Participants will be equipped to facilitate collaboration between lawyers, data scientists, IT, and ethics boards in their company. By speaking a common language about AI risks and controls, they can help align compliance efforts with business goals and ethical standards.
- **Preparation for AI audits and oversight:** The course prepares attendees to handle **internal or external audits** of AI systems. They will know how to document AI processes and generate the evidence regulators expect – such as:
  - Capable of managing EU AI Act compliance within their organization.
  - Able to determine, based on the risk level assessment of the organization, the extent to which their organization and professionals within the organization need to be AI literate, and to what level.

## Target audience

This certification is designed for professionals in startups, small to medium businesses wishing to innovate with AI, and mid-to-large European companies where the EU AI Act will apply. It targets those working with, or overseeing, higher-risk AI systems – for example, AI used in critical infrastructure, healthcare, finance, or human resources (high-stakes decision systems)**.**

Ideal participants include:

- Compliance Officers & Legal Advisors – ensuring AI projects meet regulatory requirements.
- AI Product and Project Managers – integrating provisions of the Act into the AI development lifecycle.
- Data Officers and AI Developers – implementing data governance and technical controls for high-risk AI.
- Ethics Committee Members & AI Governance Leads – overseeing ethical risks and alignment with AI ethics guidelines.
- Supervisors, Regulators and other professionals focused on Governance.

No deep technical or legal background is required, but attendees should have a basic understanding of their organization's AI applications. The course is especially relevant to cross-functional teams that manage AI risk and compliance.

# Certification requirements

Candidates can become certified by passing the AI Act, Governance & Ethics Officer exam.

Vouchers for the certification exam are available through accredited trainers and Van Haren Group.

To certify, you are required to:

- Complete the one-day training course
- Pass the closed-book exam (multiple choice)
- Accept the professional code of conduct for AI governance

## Certification definition

This certification demonstrates that an individual understands and can apply the core obligations and principles of the EU AI Act in a practical setting.

The certified professional is equipped to support or lead internal efforts to ensure AI systems comply with legal and ethical requirements throughout the AI lifecycle. The course and certification are an ideal companion to existing certification programs such as the AI BREVET.

## Validity of the certification & renewal

The AI Act, Governance & Ethics Officer certificate is valid for three years.

The certificate you receive after passing the exam shows the date of issue. It also indicates how long the certificate is valid.

# Exam format

The general exam regulations apply to this exam.

| Attempts per voucher: | 1 |
|---|---|
| Number of questions: | 30 |
| Passing score: | 65% |
| Passing score for trainers: | 75% |
| Time: | 45 min. |
| Open book: | No |
| Language: | English |
| Invigilation: | Yes |
| Question type: | Multiple choice |

## Learning objectives

By the end of this one-day training, participants will be able to:

- **Understand the structure and scope of the EU AI Act.** Grasp the Act's *risk-based framework* (unacceptable, high, limited, minimal risk categories) and its overall scope and goals. This includes knowing which AI systems are classified as high-risk and the general obligations that follow.
- **Recognize obligations per level of risk, AI systems.** Identify the specific legal requirements that the AI Act imposes on high-risk AI systems. Participants will learn the key compliance areas – *data governance, documentation, transparency, human oversight, robustness, accuracy, and security*– and what each means in practice (e.g. ensuring high-quality data and record-keeping).
- **Apply compliance strategies across the AI lifecycle.** Learn how to implement the Act's requirements during AI development, deployment, and post-market monitoring. This involves understanding how to set up compliance processes (like risk management, testing, and human oversight) as part of the AI product lifecycle, performing conformity assessments, and leveraging existing governance frameworks (e.g. adapting GDPR processes to AI) for efficient compliance.
- **Identify ethical risks and embed ethical reasoning.** Develop the ability to spot ethical risks in AI systems (such as bias, discrimination, or lack of transparency) and address them proactively. Trainees will practice embedding principles of *trustworthy AI* – like fairness, accountability, and human oversight – into AI design and use. For example, they will learn techniques to detect and mitigate bias in AI models

## Exam structure

The following table is an overview of the topics examined in the certification exam.

| *Category* | Weight | Level of cognition |
|---|---|---|
| ***1. EU AI Act Overview*** | 20% | Bloom level 1 |
| - *Scope, objectives, risk levels, definitions* | | |
| - *Define governance and code of conduct* | | |
| - *Relation to existing laws* | | |
| ***2. Categorizing AI Systems*** | 20% | Bloom level 2 |
| - *Prohibited Practices* | | |
| - *High Risk systems* | | |
| - *General Purpose Models* | | |
| ***3. Transparency and information requirements*** | 20% | Bloom level 1 |
| - *Communication to users* | | |
| ***4. Compliance throughout the AI Lifecycle*** | 20% | Bloom level 2 |
| - *Obligations during AI development* | | |
| - *Post implementation monitoring* | | |
| - *Innovation support* | | |
| ***5. AI Ethics & Trustworthiness*** | 20% | Bloom level 2 |
| - *AI Literacy* | | |
| - *Promoting ethical use of AI* | | |

## Exam specifications

These exam specifications give a more detailed explanation of the examinable learning content.

| ***Module*** | Topics & Submodules | Weight |
|---|---|---|
| ***1. EU AI Act Overview*** *(L1: Remember)* | *Foundations:* Objectives and scope of the Act.<br><br>*Key Definitions:* What counts as an AI system, who are "providers" vs. "users" under the law.<br>• Improve the functioning of the internal market.<br>• Promote the uptake of human-centric and trustworthy AI.<br>• Ensure a high level of protection of health, safety, fundamental rights, democracy, the rule of law, and environmental protection.<br>• Support innovation, particularly focusing on SMEs and startups. | 20% |
| ***2. Categorizing AI Systems*** *(L2: Understand)* | *Categorizing AI Systems:* Criteria and real-world examples (e.g., AI in hiring or credit scoring).<br>• ***Prohibited Practices***<br>**Manipulative and Exploitative Systems:** AI systems that manipulate behavior, exploit vulnerabilities, create social scoring, predict criminality based on profiling, scrape facial images, infer emotions in workplaces or schools, and use biometric categorization or real-time remote biometric identification with certain exceptions.<br><br>• ***High Risk AI Systems***<br>• **Safety Components:** AI systems intended to be used as safety components of products or as products themselves, covered by Union harmonization legislation listed in Annex I, and requiring third-party conformity assessment [s6-1].**Annex III AI Systems**: AI systems used in specific areas listed in Annex III, such as biometrics, critical infrastructure, education, employment, access to essential services, law enforcement, migration, asylum, border control, justice, and democratic processes [Annexiii-1][Annexiii-2].<br>• **Profiling:** AI systems performing profiling of natural persons are always considered high-risk.<br><br>• ***General-Purpose AI Models with Systemic Risk***<br>• **High Impact Capabilities**: General-purpose AI models classified as having systemic risk if they have high impact capabilities evaluated based on technical tools and methodologies.<br>• **Commission Decision**: The Commission can designate a general-purpose AI model as presenting systemic risks based on criteria set out in Annex XIII<br><br>*Legal Requirements:* In-depth look at obligations for high-risk AI (data governance, documentation & record-keeping, transparency to users, human oversight, accuracy & robustness).<br><br>*Impact on Roles:* Responsibilities of providers vs. users (deployers) of high-risk AI. | 20% |

| | | |
|---|---|---|
| ***3. Transparency*** | ***High Risk AI Systems requirements***<br><br>• *Design and Development:* High-risk AI systems must be designed and developed to ensure sufficient transparency, enabling deployers to interpret the system's output and use it appropriately.<br>• *Instructions for Use:* These systems must be accompanied by clear, concise, complete, correct, and accessible instructions that include: Identity and contact details of the provider.<br>• *Characteristics, Capabilities, and Limitations of Performance [s13-2].* Changes to the system and its performance predetermined by the provide.<br>• *Human Oversight Measure.*<br>• *Computational and Hardware Resources Needed, Expected Lifetime, Maintenance, and Care Measures.*<br>• *Mechanisms for Logging and Interpreting Logs [s13-3].*<br><br>***Medium Risk AI Systems***<br><br>• *Interaction Disclosure:* Providers must ensure that AI systems intended to interact directly with natural persons inform them that they are interacting with an AI system, unless it is obvious from the context.<br>• *Synthetic Content:* Providers must mark synthetic audio, image, video, or text content as artificially generated or manipulated in a machine-readable format.<br>• *Emotion Recognition and Biometric Systems:* Deployers must inform natural persons exposed to emotion recognition or biometric categorization systems and process personal data in accordance with relevant EU regulations.<br>• *Deep Fakes:* Deployers of AI systems generating or manipulating deep fake content must disclose that the content has been artificially generated or manipulated, with certain exceptions for criminal investigations and artistic works [s50-2][r134-1].<br>• *Public Interest Content:* AI-generated or manipulated text published to inform the public on matters of public interest must be disclosed, unless it has undergone human review or editorial control [s50-2].<br><br>***Provision of Information:***<br><br>• *Information must be provided to natural persons in a clear and distinguishable manner at the latest at the time of the first interaction or exposure [s50-3].*<br>• *Transparency obligations must conform to applicable accessibility requirements [s50-3].* | 20% |
| ***4. Compliance throughout the lifecycle*** *(L2: Understand)* | *AI Lifecycle Compliance:* How to apply requirements during development (e.g. bias mitigation, testing) and deployment (e.g. user disclosures, human-in-the-loop).<br><br>*Risk Management:* Setting up a Risk Management System and risk monitoring process for AI projects.<br><br>*Conformity Assessment:* Overview of how high-risk AI systems will be assessed/audited for compliance, and preparing the necessary documentation (technical file, logs, etc.). | 20% |

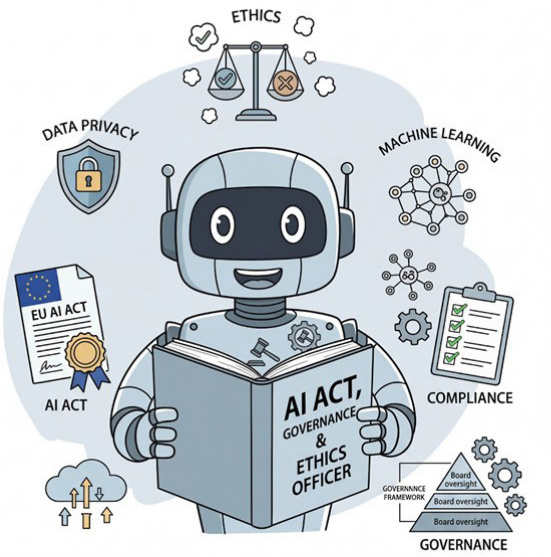
| | | |
|---|---|---|
| ***5. Governance, Monitoring and Ethics*** *(L2: Understand)* | *Ethical Principles:* Core AI ethics principles (fairness, transparency, accountability, privacy) and their relevance to the EU AI Act's notion of "trustworthy AI".<br><br>*AI Literacy:* Ensuring adequate level of AI Literacy in the organization.<br><br>*Embedding Ethics:* Best practices to embed ethics in AI design (e.g. "ethics by design" checklists, diverse team oversight, ethics committees), and how to document these efforts for compliance purposes. | 20% |

## Reference material

This material contains diagrams and text information based upon:
Regulation (eu) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonized rules on Artificial Intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144, and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act).

## Trainer accreditation

Van Haren Learning Solutions organizes the trainer accreditation for this certification program. More information on the accreditation process can be found on their website.




# AI Act, Governance & Ethics Officer

COURSEWARE



## Introduction

Who are you?

- Name & role
- Do you already encounter AI (at work or in daily life)
- What would you like to get out of this training?

 2

# About the AI Act, Governance & Ethics Officer Certification


TWO PARALLEL CONSEQUENCES

**Benefits**
- Democratization of technology
- Accessible to business, government and society
- Available to everyone, including children

**Risks & concerns**
- Inadvertent misuse of AI
- Malicious application
- Harm to consumers and society

**EU regulatory response**
From trustworthy AI guidelines to the EU AI Act — a legally binding regulatory framework. Goals: foster innovation, define legal boundaries, and protect consumers and society against misuse.

**AI Act, Governance & Ethics Officer — certification**
For any business professional who wants to develop, manage and demonstrate responsible and compliant AI use

| | | |
|---|---|---|
| **AI policy** Develop a compliant company AI policy | **Ethics** Address ethical issues raised by AI and data | **Trust** Demonstrate trustworthy AI use to stakeholders |
| **Business value** Align business benefits with compliance | **Risk management** Monitor and manage AI system risk categories | **Governance** Ensure adequate AI governance in your organization |

**Based on:** EU AI Act · Trustworthy AI frameworks · Responsible AI best practices
Designed with legal-tech and data governance specialists for European organizations

 3

## Benefits of being AI Act, Governance & Ethics Officer certified

- Promote innovation within the context of ethical usage and regulatory compliance.
- **Practical readiness for EU AI Act compliance:** Graduates will be ready to **engage with the AI Act's requirements** on day one, knowing what steps to take to comply. They will understand how to integrate the Act's obligations into their organization's existing processes and planning, reducing the risk of non-compliance as the law comes into force.
- **Improved cross-functional collaboration:** The training bridges the gap between legal, technical, and ethical teams. Participants will be equipped to facilitate collaboration between lawyers, data scientists, IT, and ethics boards in their company. By speaking a common language about AI risks and controls, they can help to align compliance efforts with business goals and ethical standards.
- **Preparation for AI audits and oversight:** The course prepares attendees to handle **internal or external audits** of AI systems. They will know how to document AI processes and generate the evidence regulators expect.
- Following this course delegates will be capable of managing EU AI Act compliance within their organization.
- Delegates will be able to determine, based on the risk level assessment of the organization, the extent to which their organization and professionals within the organization need to be AI literate, and to what level.

 4

## Certification requirements

Candidates can become certified when the following conditions are met:

- Complete a one-day accredited training course
- Pass the closed-book certification exam
- Accept the professional code of conduct for the certification program

Vouchers for the certification exam are available through Van Haren Group.

The certificate is valid for three years.

 5

## Exam format

| Attempts per voucher: | 1 |
|---|---|
| Number of questions: | 30 |
| Passing score: | 65% |
| Time: | 45 minutes |
| Open-book: | No |
| Language: | English |
| Invigilation: | In-person<br>Online |
| Question type: | Multiple choice |

 6

## Learning objectives

After today, you will be able to...

- Understand the structure and scope of the EU AI Act
- Recognize obligations per level of risk for AI systems
- Apply compliance strategies across the AI lifecycle
- Identify ethical risks and embed ethical reasoning

 7

## Tested objectives

These topics will be examined in the certification exam:

- EU AI Act Overview
- Categorizing AI systems
- Transparency and information requirements
- Compliance throughout the AI Lifecycle
- Governance, Monitoring & Ethics

 8

## EU AI Act Overview



Categorizing AI systems



Transparency and information requirements

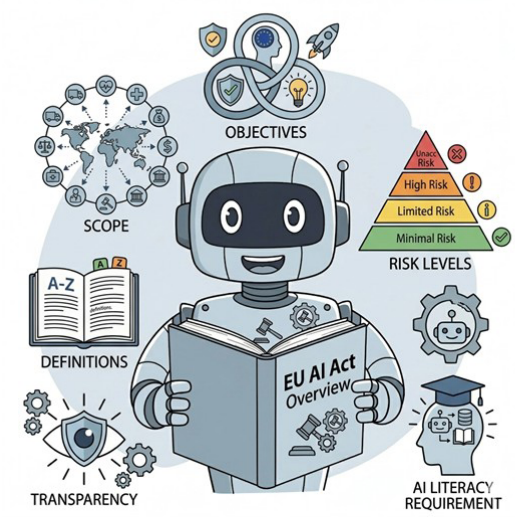


Compliance throughout the AI Lifecycle



Governance, Monitoring & Ethics




# Part 1
# EU AI Act Overview

- Scope, objectives, risk levels
- Definitions
- AI literacy requirement

## AI system

*"'AI system' means a **machine-based system** that is designed to operate with varying levels of **autonomy** and that may exhibit adaptiveness after deployment, and that, for explicit or implicit objectives, **infers**, from the input it receives, how to **generate outputs** such as predictions, content, recommendations, or decisions that can influence physical or virtual environments." - EU AI Act art. 3*

- ChatGPT
- Google Assistant
- Social media feeds
- Self-driving cars
- Netflix recommendation system
- E-mail spam filters

 11

## The European AI Act

- First comprehensive **law** in the world regulating Artificial Intelligence (AI)
- Classifies AI systems by **risk level**
- Sets rules for trustworthy AI in the EU
- Aimed at **developers, deployers, and users** of AI
- States that users of AI should be AI-literate


 12

## The primary objectives of the EU AI Act

Smooth functioning of the internal market

Balanced

Regulatory Framework

Promotion of human-centered and trustworthy AI

- Introduces uniform rules for the development, market placement, and use of AI systems.
- Prevents fragmentation by harmonizing regulations across EU Member States.

- Ensures AI systems are developed and used in line with fundamental EU values.
- Protects personal data, safety, health, democracy, and the rule of law.

 13

## Key roles defined in the EU AI Act

| Provider | Deployer | Authorized representative | Importer | Distributors | Product manufacturer |
|---|---|---|---|---|---|
| Developer or client of a GPAI system who markets or operates it under their name or trademark, for payment or free of charge. | User of an AI system on their own responsibility, except for personal and non-professional use. | Person appointed in writing by a provider who is based in the EU and who assumes the obligations of the provider with regards to compliance with the AI Regulation. | Places an AI system on the market in the EU under the name or trademark of a person established outside the EU. | Any person in the supply chain who makes an AI system available in the EU market, with the exception of the supplier or importer. | Brings an AI system together with its product onto the market or into operation under its own name or trademark. |

 14

## The EU AI Act

Rules and regulations apply to:

- Providers of AI solutions in the European Union
- Deployers of AI solutions located in the European Union
- Providers or deployers of AI solutions where output is used in the EU
- Importers and distributors of AI systems

 15

## The EU AI Act

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

Chapter 1 Article 3

 16

## The EU AI Act

Multiple definitions of AI exist but common features in AI definitions are:

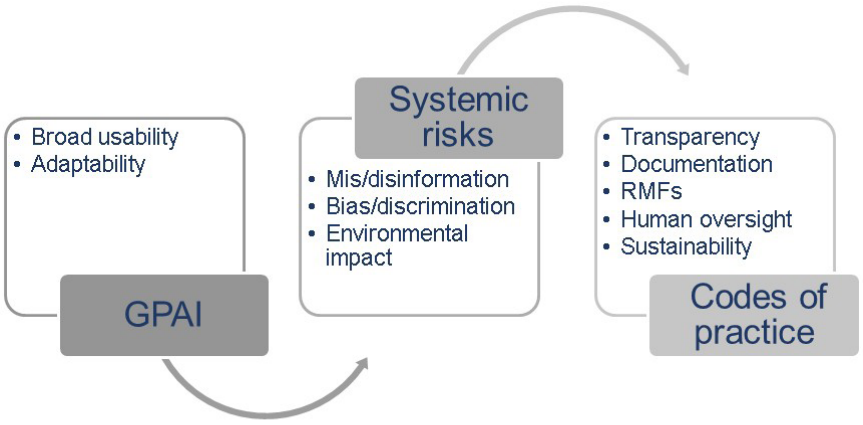

- **Perception of the environment:** including the consideration of real-world complexity
- **Information processing:** collecting and interpreting inputs (in the form of data)
- **Decision-making (including reasoning and learning):** taking actions, performance of tasks (including adaptation, reaction to changes in the environment) with certain levels of autonomy
- **Achievement of specific goals:** this is considered to be the ultimate reason for AI systems

 17

## General purpose AI (GPAI)

Flexible AI systems

- Large language models (ChatGPT)
- Image generators
- AI chatbots




 18

## The scope of the AI Act

| Scope of the AI Regulation | Not in scope |
|---|---|
| • General-purpose AI (GPAI) systems | • Personal, non-commercial activities |
| • AI systems (or results) used in the EU | • Used outside of the EU |
| • Product manufacturers, providers, deployers, and importers | • Military purposes or national security uses |
| • On the market, put into service, or used in the EU | • Research and development |
| • Authorized representatives | • Not yet on the market or put into operation |
| • Real-world testing of AI systems | • Authorities in third countries and international organizations |

 19

## Key regulations

AI literacy requirements:

- Employees can only use AI if they are *AI literate*
- Employees know the risks of working with AI models, such as large language models

New AI technologies are assigned a certain risk level:

- The risk level determines if the technology is allowed and which regulations apply
- Some technologies are forbidden if the risk level is unacceptable
- Providers are responsible for determining the risk level

 20

## AI literacy

Article 4 of the EU AI Act reads

"Providers and deployers of AI systems shall take measures to ensure, to their best extent, a sufficient level of AI literacy of **their staff and other persons dealing with the operation and use of AI systems** on their behalf, taking into account their technical knowledge, experience, education and training and the context the AI systems are to be used in, and considering the persons or groups of persons on whom the AI systems are to be used."

 21

## Levels of AI and data literacy and their core focus

| 1. Data and AI **aware** | 2. Data and AI **proficient** | 3. Data and AI **fluent** | 4. Data and AI **expert** |
|---|---|---|---|
| Basic knowledge and awareness of AI and data. | Critical application and evaluation of AI and analyses. Basic knowledge of data collection. | In-depth understanding and knowledge of working with data & AI, the prerequisites, and the opportunities. | Designing, developing, and optimizing data and AI solutions. |

*Levels and core focus as described by the Dutch Government data and AI literacy working group.*

 22

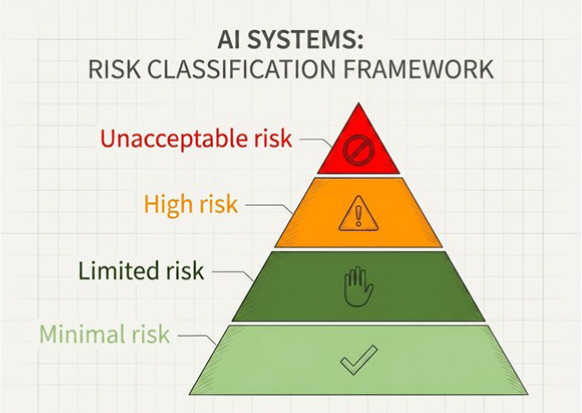
## The four risk levels in the EU AI Act

**Unacceptable risk**
Fully relying on AI to make important decisions

**High risk**
Using AI to make important decisions

**Limited risk**
Low risk application for which the users should be aware that it uses AI

**Minimal risk**
Inconsequential AI applications




 23

## The EU AI Act and SMEs

Small and medium-sized enterprises (SMEs) have a key focus in the EU AI Act

- SMEs may face relatively higher impact due to compliance
- May get support mechanisms like regulatory sandboxes and guided compliance tools
- But are not getting exemptions

 24

EU AI Act Overview

**Categorizing AI systems**



Transparency and information requirements

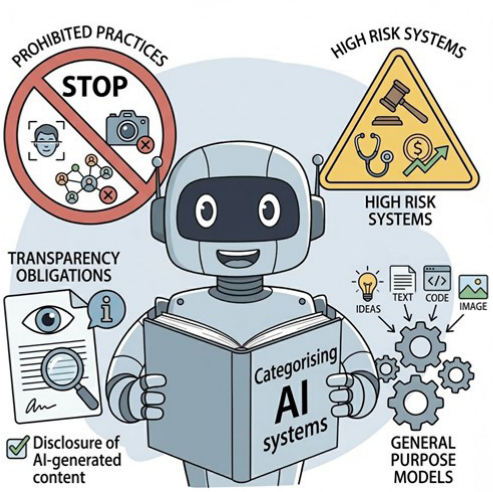


Compliance throughout the AI Lifecycle



Governance, Monitoring & Ethics




# Part 2
# Categorizing AI systems

- Prohibited practices
- High risk systems
- Intellectual property

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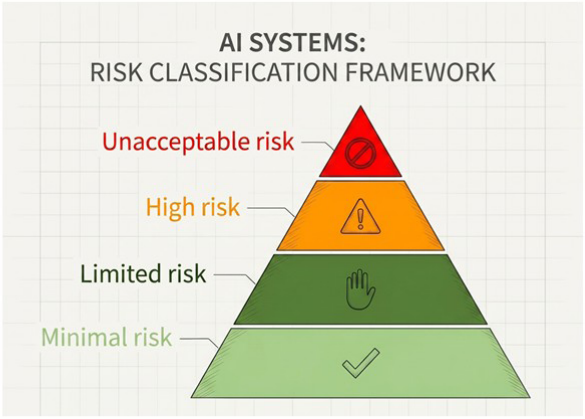



 27

## Unacceptable risk

An AI application fall under the unacceptable risk category if:

1. It severely impacts the privacy of people:

- Using or **collecting facial** recognition data from CCTV systems
- **Inferring emotions** in work or educational institutions*
- Using real-time **biometric identification** in public spaces*


*Exceptions hold for specific cases

 28

## Unacceptable risk

An AI application fall under the unacceptable risk category if:

2. There is a high risk of harm to people:

- It purposefully **manipulates** humans in informed decision-making that may cause harm to themselves or others
- **Exploits or discriminates** against certain groups
- Evaluates people's behavior over time (**social scoring**)
- **Assesses a person's risk** of committing an offence purely based on personal traits and characteristics


 29

## Unacceptable risk

Application of AI that fall under the category of unacceptable risk are **prohibited**

- Fines up to €35m or 7% of the total turnover of a company
- No cases of unacceptable risk applications that are subject to a fine due to the EU AI Act have occurred (yet)
- However, there are many examples from the past that would fall under unacceptable risk

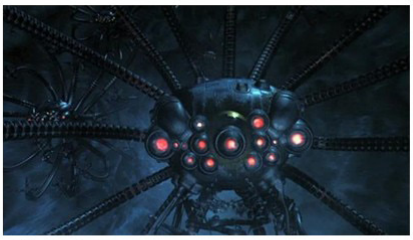

 30

## Examples of unacceptable risks

Within pop culture there are many examples of AI that have unexpected risks

*Avengers: Age of Ultron*


*2001: A Space Odyssey*



*The Matrix*

## Real-world example of unacceptable risk

**De toeslagenaffaire toont aan dat we uitlegbare AI-regels nodig hebben**

UvA-onderzoeker Błażej Kuźniacki dringt aan op meer transparantie rond AI

13 februari 2023

## Real-world example of unacceptable risk

- The childcare benefits scandal in the Netherlands (Toeslagen affaire) was one of the biggest scandals where AI was involved in automated decision-making
- Many families (from lower income and non-Dutch backgrounds) were unjustifiably labeled as posing a high-risk of fraud
- As a result, thousands of families where wrongly accused of fraud, with terrible consequences as a result

This is an example of **bias** that exists in the data and can lead to devastating results when not corrected by human oversight

 33

## Real-world example of unacceptable risk

The childcare benefits scandal in the Netherlands (Toeslagen affaire)

What happened?

- The data of past fraud was used, which contained many cases of non-Dutch people
- As a result, an inherent **bias** was introduced in the model

- There was little to **no human oversight**
- As a result, families were directly fined and required to pay back large amounts of money

- The model was **not transparent**
- It was only detected at a very late stage that ethnicity was a key feature

 34