

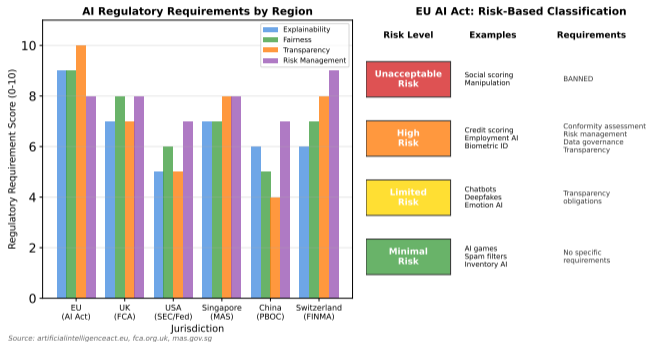
Lesson 36: AI Regulation

Mini-Lecture Version (30 min)

Digital Finance

Learning Objectives: Explain the EU AI Act and risk-based framework — Understand financial sector-specific AI regulations — Navigate GDPR Article 22 (automated decisions) — Evaluate emerging regulatory trends

Global AI Regulation in Financial Services



Regulatory compliance is essential in AI Regulation.

FINMA AI Guidance (Dec 2024):

- Governance and risk management for AI
- Technology-neutral principles
- Applies existing regulations to AI
- No AI-specific Swiss law (yet)

Key Risks Identified:

- Model risks (robustness, bias)
- Data quality and security
- Third-party dependencies
- Explainability requirements

Four Guiding Principles:

- ④ Clear roles and responsibilities
- ② Human oversight (no AI delegation)
- ③ Sufficient AI expertise required
- ④ Accuracy and reliability testing

Testing Requirements:

- Backtesting, out-of-sample
- Sensitivity analysis, stress tests
- Adversarial testing

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Swiss Approach:

- No specific AI legislation
- Existing laws apply (principle-based)
- FINMA guidance (non-binding)
- Focus on financial sector risks
- (See full lecture for details)

Swiss Advantages:

- Flexibility for innovation
- Faster adaptation
- Less compliance burden

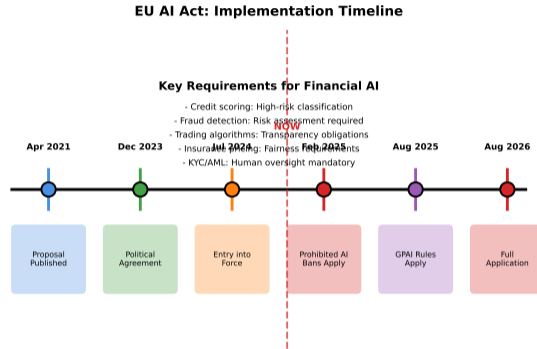
EU AI Act Approach:

- Comprehensive AI-specific law
- Risk-based classification
- High-risk: Credit scoring, fraud
- Extensive documentation required
- (See full lecture for details)

EU Requirements for Finance:

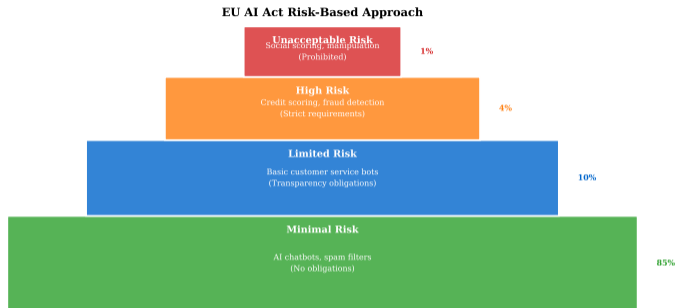
- Conformity assessments
- Human oversight mandatory
- Transparency obligations

Regulatory compliance is essential in AI Regulation.



Source: artificialintelligenceact.eu, europarl.europa.eu

This concept is fundamental to understanding AI Regulation.



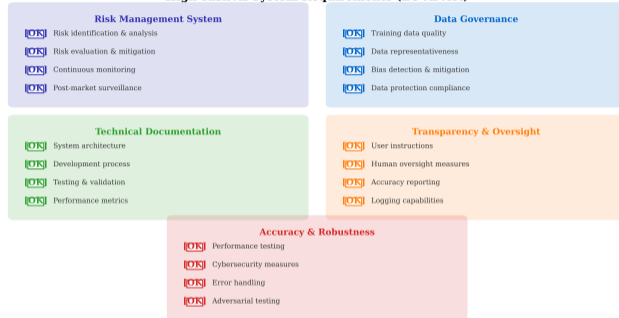
Risk level determines regulatory requirements and compliance obligations

Source: artificialintelligenceact.eu, europarl.europa.eu (EU AI Act)

Addressing these challenges is critical for AI Regulation success.

High-Risk AI System Requirements

High-Risk AI System Requirements (EU AI Act)

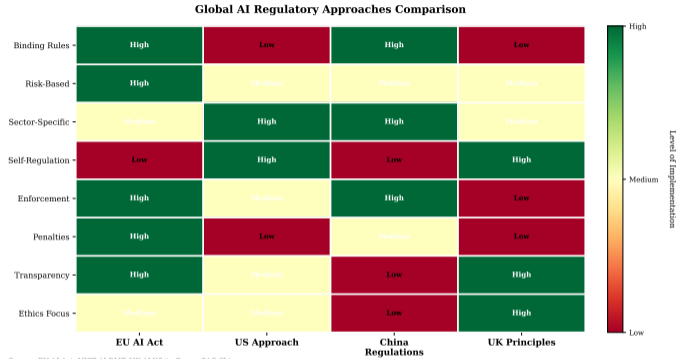


All requirements must be met before market deployment

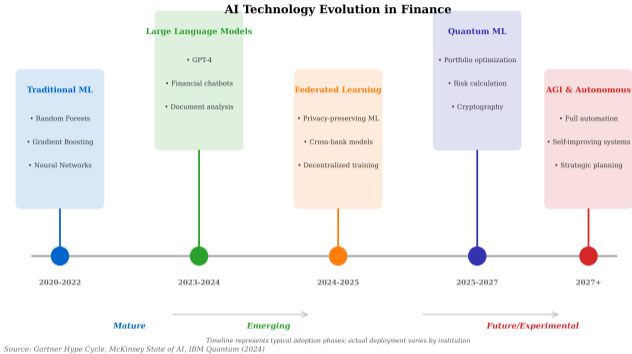
Source: EU AI Act (2024), eur-lex.europa.eu, digital-strategy.ec.europa.eu

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Global AI Regulation Comparison



Regulatory compliance is essential in AI Regulation.



These trends will shape the future of AI Regulation.

Key Takeaways

- 1 Explain the EU AI Act and risk-based framework
- 2 Understand financial sector-specific AI regulations
- 3 Navigate GDPR Article 22 (automated decisions)
- 4 Evaluate emerging regulatory trends

Bottom Line: AI Regulation is transforming how financial services operate and compete.

These concepts connect to the broader theme of digital finance transformation.

AI Regulation in Visual Perspective



Technology view



Application view



Future view

Visual representations help reinforce key concepts of ai regulation.

Concrete Examples: Making It Real

Technical Examples

- Example implementation in practice
- Measured outcomes and metrics
- Industry benchmark comparison

Case Study

- Real-world deployment scenario
- Quantifiable results achieved

Industry Leaders

- Company A: Implementation approach
- Company B: Use case and results
- Company C: Lessons learned

Market Data

- Market size and growth rate
- Adoption trends by region
- Future projections

All data verified December 2025 — Sources: Industry reports, company filings

Quiz Questions (1–5)

Q1. What is the primary purpose of ai regulation?

- A) Increase efficiency B) Reduce costs C) Improve access D) All of the above

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Answer: D – All these factors contribute to the value proposition.

Q2. Which technology is most commonly associated with ai regulation?

A) APIs B) Blockchain C) Machine Learning D) Cloud Computing

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Q4. Which industry sector benefits most from ai regulation?

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- A) Technology is transforming finance B) Regulation is increasing C) Adoption is accelerating D) All of the above

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Answer: D – All these trends are interconnected.