Digital Finance 3: Technology in Finance
Lesson 36: AI Regulation and Future

FHGR

December 13, 2025

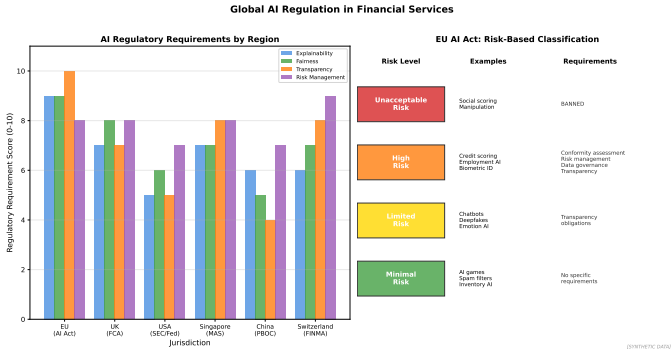Summary of key concepts presented above.

Learning Objectives

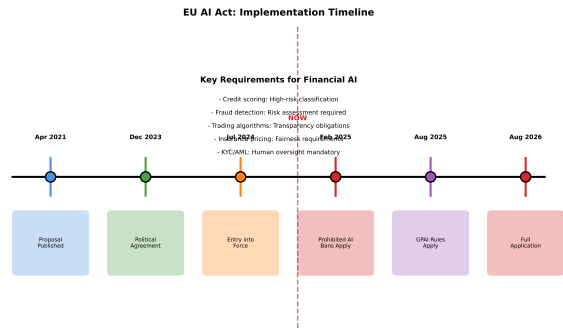By the end of this lesson, you will be able to:

- 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
- Anticipate future AI developments in finance
- Assess career opportunities in AI finance

Summary of key concepts presented above.

Global AI Regulation in Financial Services

AI Regulatory Requirements by Region

EU AI Act: Risk-Based Classification

Risk Level	Examples	Requirements
Unacceptable Risk	Social scoring Manipulation	BANNED
High Risk	Credit scoring Employment AI Biometric ID	Conformity assessment Risk management Data governance Transparency
Limited Risk	Chatbots Deepfakes Emotion AI	Transparency obligations
Minimal Risk	AI games Spam filters Inventory AI	No specific requirements

(SYNTHETIC DATA)

Global AI regulation is converging toward risk-based frameworks prioritizing high-risk financial applications.

EU AI Act: Implementation Timeline

Key Requirements for Financial AI

- Credit scoring: High-risk classification
- Fraud detection: Risk assessment required
- Trading algorithms: Transparency obligations
- Insurance pricing: Fairness requirements
- KYC/AML: Human oversight mandatory

NOW

| Apr 2021 | Dec 2023 | Jul 2024 | Feb 2025 | Aug 2025 | Aug 2026 |

| Proposal Published | Political Agreement | Entry into Force | Prohibited AI Bans Apply | GPAI Rules Apply | Full Application |

[SYNTHETIC DATA]

The EU AI Act enters force in phases, with full compliance required by 2026 for most financial systems.

Summary

Key Takeaways:

- EU AI Act establishes risk-based framework (2024-2026)
- Financial ML systems mostly high-risk (credit, insurance)
- GDPR Article 22: right to explanation for automated decisions
- Explainability and fairness now regulatory requirements
- Future trends: LLMs, federated learning, quantum ML
- Career opportunities: ML engineers, model validators, AI ethicists

Module 3 Complete! Next: Module 4 - Traditional Finance Technology

Summary of key concepts presented above.