EU Supervisory
Digital Finance
Academy

Advanced courses for the Academic Cycle 2025-2026

Residential Training Weeks

DLT in the Financial Sector

Dates
16-19 February 2026

Type of course
Residential

Faculty
ESAs, NCAs, Academia and Industry

Target audience

Professionals with exposure to the supervision and regulation of crypto-assets. No quantitative or technical background is required; however, a basic understanding of blockchain and Decentralised Finance (DeFi) concepts is necessary.

This advanced course provides a strategic overview of Distributed Ledger Technology (DLT) and Tokenisation. With regulatory frameworks like MiCA being a key focus, supervisors and advisors need to understand the new technological landscape. We will explore DLT and Blockchain basics, Tokenisation, Tokenomics, and DeFi. The course will also cover the future of money through expert lectures, group activities, panel discussions, and practical case studies, where participants will gain the necessary skills to assess strategic opportunities and supervisory risks, including the use of technology for crypto-asset supervision.

List of key topics

Lectures
- Blockchain and DLT basics
- Tokenisation, tokenomics & token risks
- The EU regulatory framework: MiCA in practice
- The Future of money? CBDCs & stablecoins
- Intro to DeFi & examples of applications
- Supervisory challenges for emerging business models

Panels
- SupTech for Crypto-Asset Supervision
- The Future of the Digital Financial System

Applied Sessions
- Build your own token
- Ethereum Block Explorer
- Rotational Case Studies

Learning outcomes

The program aims to equip participants with a strong conceptual understanding and the strategic perspective needed to engage with the realm of DLT. Attending this course will demystify the blockchain and smart contract ecosystem, focusing on the core ideas and their strategic rationale.

- Understanding DLT and Tokenisation Fundamentals
- Crypto Assets and Supervisory Technology
- Analysing the Future of Money
- Real-world Applications and Case Studies
- Understanding Risks and Challenges
- Insights from Industry Practitioners
- Tokenisation of Traditional Financial Assets and Services

Data-driven Business Models & Data Sharing in Finance

Target audience
Essential: Adequate experience in financial regulation and supervision of data-driven businesses.
Recommended: Prior exposure to API technology and/or data sharing policies as well as direct experience in the supervision of data-driven businesses.

Dates
23-26 February 2026

Type of course
Residential

Faculty
ESAs, NCAs, Academia and Industry

This advanced course will deep-dive in the emerging trend of so-called Open Finance—the expansion of digital financial services enabled by the sharing, upon consent, of users' data by service providers. The course will assume participants are already aware of the core principles underpinning this trend and it will instead be dedicated to understanding the breadth of innovative business models that have emerged, the technical complexities of Open Finance implementation, and, especially, the sharing of best-practices for the supervision of the various players active in this space. The course will include several interactive sessions, fostering peer-to-peer learning and best-practice sharing among participants who have already been exposed to the supervision of data-driven business models as part of their professional experience.

The course will start with an overview of the main business models and relevant regulatory initiatives. It will then showcase the technology enabling data sharing and reflect on the evolution from open banking towards open finance as well as on the implications from the use of application programming interfaces (APIs) and screen-scraping technologies. It will also introduce the implications of the layering of open finance and artificial intelligence (AI) applications.

Special attention will be devoted to the different types of financial services enabled by data-sharing, as well as the different types of providers, with sessions dedicated to open finance from a fintech, BigTech, and TradFi perspectives. The course will then explain the technical challenges associated with running a data-driven business and promoting the standardisation of data sharing practices in the industry while guaranteeing consumer protection. Through perspectives from both the industry and institutions, it will address in technical detailed issues such as API standardisation, cross-border integrability, data-sharing protocols and data custody requirements, remuneration mechanisms, as well as the different characteristics and responsibilities of industry players such as Account Servicing Payment Service Providers, Payment Initiation Service Providers, and Account Information Service Providers.

Finally, the course will reflect on the strengths and limitations of the main regulations that aim to facilitate this market development. It will review PSD2, engage participants in structured peer-to-peer learning to share their experience, challenges, and best practices learnt with its implementation. It will also promote reflections and dialogue on the Commission's proposed framework for Financial Data Access and on the general prospect, and consumer protection implications, of broader data sharing policies.

Data-driven Business Models & Data Sharing in Finance

Dates
23-26 February 2026

Type of course
Residential

Faculty
ESAs, NCAs, Academia and Industry

List of key topics

- Data-driven business models
- Economics of Data Sharing: Incentives and Market Failures
- Data sharing from a fintech, BigTech, and TradFi perspective
- Customer protection and regulation (PSD2, FIDA, GDPR)
- The design of future Open Finance: Open Insurance, Open Banking and beyond - a cross sectoral overview
- The key technical challenges: API and data standardisation, cross-border interoperability, and the use of non-financial data
- The role of digital identity in Open Finance and the potential of the new EU digital identity

Learning outcomes

- Appreciating the workings and complexities of data-driven business models across subsectors
- Understanding the technicalities of implementing Open Finance from both a business and regulatory point of view
- Appreciating the implications of AI for open finance
- Recognising consumer protection issues related to the use of data and digital channels to provide financial services
- Deep-diving into the technical aspects of data sharing implementation (data standardisation, cross border interoperability and digital identity) and the data and business-model challenges involved
- Sharing supervisory experiences and best practices in the context of PSD2 and engage on the scope and objectives of the new relevant regulatory proposals

Supervising and Regulating AI in the Financial Sector

Dates
9-12 March 2026 (1st Ed.)
11-14 May 2026 (2nd Ed.)

Type of course
Residential

Faculty
ESAs, NCAs, Academia and Industry

Target audience

The ideal participant should have either successfully completed the online course on "AI in the financial sector" offered within the EU-SDFA or have an initial, solid understanding of AI and ML models, and their use in the financial system.

Essential: Understanding of core technical elements of AI and ML models, such as unsupervised learning, reinforcement learning, deep learning etc.
Recommended: Adequate experience in financial regulation and supervision in consumer protection, financial stability, market monitoring and conduct supervision.

This course provides a comprehensive foundation of the technical, regulatory, and supervisory aspects of Artificial Intelligence in the financial sector, guiding participants from the fundamentals of machine learning and generative AI to the complexities of AI auditing and governance. The programme will cover the full AI model lifecycle, emerging market applications in banking, insurance, and securities, as well as the evolving risk landscape shaped by advanced algorithms and autonomous agents.

Through a blend of expert-led sessions, hands-on group exercises, and in-depth explorations of the EU AI Act and sector-specific regulations, participants will develop the skills to assess, oversee, and supervise AI systems in accordance with modern financial oversight requirements. The course equips supervisors and practitioners with the tools needed to evaluate AI model risks, ensure fairness and transparency, and adapt governance frameworks to a rapidly transforming digital ecosystem. Ultimately, the course addresses the primary regulatory and supervisory challenges associated with AI agents.

List of key topics

- Foundations of AI and Generative AI: evolution from ML to LLMs, transformer models, fine-tuning, and RAG
- AI development lifecycle and MLOps: data, pipelines, monitoring, and cost/ICT considerations.
- AI in finance: key market trends and sector-specific use cases
- Governance and risk management: bias, adversarial threats, systemic risks, and governance frameworks
- Risk-based supervision and auditing: explainability, fairness metrics, stress testing, and bias detection
- Technical documentation: supervisory checklists on risk, data, transparency, oversight, and cybersecurity
- Cybersecurity and AI: privacy threats, defence mechanisms, and post-quantum readiness
- Regulatory landscape: EU AI Act and interactions with major financial regulations
- Practical exercises on AI risk assessment and auditing
- AI agents

Learning outcomes

- Understand the evolution of AI technologies, including LLMs and generative AI, and their relevance to financial services
- Analyse the AI model development lifecycle and identify key supervisory touchpoints
- Recognise and assess financial-sector AI use cases and their associated risks
- Apply governance and risk management principles to evaluate AI systems, including bias, robustness, and model drift
- Use core supervisory tools such as explainability techniques, fairness metrics, and stress-testing approaches
- Review and interpret technical documentation required for AI systems under supervisory frameworks
- Identify cybersecurity vulnerabilities and appropriate mitigation strategies for AI models
- Navigate the EU AI Act and understand how it interacts with existing financial regulations
- Conduct structured assessments of AI systems through practical auditing and risk-analysis exercises

Cyber Risk

Dates
20-23 April 2026

Type of course
Residential

Faculty
ESAs, NCAs, Academia and Industry

Target audience

Important notice:
This advanced training week has a regulatory focus, i.e., it does not cover cyber risk from an advanced technical perspective. The course is addressed to officers having a basic knowledge/experience who want to improve their understanding of cyber risk management.

Essential: Adequate experience in financial sector regulation and supervision.
Essential: Basic knowledge/experience of cyber risk management.

The Cyber Risk course will be updated to reflect changes in the environment. The course will start with an overview about the state of play and recent notable developments, followed by a stock-take of the cyber landscape; then several core topics will be explored. Whilst supervision will remain the basis of the course, in the light of DORA, the course will be more hands on and interactive, with actual case studies on each core topic.

For each of the topics covered by the course, the sessions will be based on a case study that integrates the subject matter with an actual review of a fictitious financial entity (or financial group). For example, we will set out a financial entity/group and its operating model at the start of the course. Thereafter, for each session, we will set out a case related to that entity/group – e.g. supervision session will result in the participants developing an onsite inspection scope, agenda, test plan and we will conduct an actual onsite inspection interview. This will combine theory with actual practice all the way through the course. A cyber simulation exercise will be also integrated into the course, where participants will be split into teams and they will play different roles in the overall simulation. The simulation exercise will take a wider perspective to look at interdependencies and contagion effects across the financial system.

List of key topics

- Strategy
- Regulation
- Supervision
- Incident reporting
- Information sharing
- Testing and exercising
- Third-party risk management
- Systemic cyber risk
- New technologies

Learning outcomes

- Understand sources of cyber risk
- Understand cyber risk management principles
- Understand frameworks for cyber testing
- Compare different approaches to cyber resilience
- Identify, within different approaches, main principles for the management of cyber risks and cyber incidents
- Analyse and critically assess different approaches and rules on cyber risk management

SupTech (Hackaton)

Dates
25-28 May 2026

Type of course
Residential

Faculty
ESAs, NCAs, Academia and Industry

Target audience

Essential: General exposure to SupTech.
Essential: Advanced experience in coding (preferably Python or R) and/or close involvement in the development of a SupTech project.
Recommended: Prior exposure to the design of SupTech application proof-of-concepts.
Recommended: Prior exposure to NLP, tree models and cluster analysis.

This course takes an Agile sprint approach where teams from participating NCAs encompassing different areas of competence come together to work on specific issues and technical solutions (e.g., IT, Business/Law Unit and SupTech division, in line with the NCAs organisational structure). Participants work intensively in cross-functional teams to create innovative solutions, often focusing on problem-solving and/or prototyping. Before the prototype phase, the course will cover advanced theoretical lectures and presentations on use cases in other SupTech projects. The goal is to encourage creativity, teamwork, and the development of functional prototypes, with opportunities for learning, networking and celebrating failures and successes.

This training week is specifically designed for participants actively designing SupTech application proof-of-concepts or possessing robust coding experience. The program aims to advance both the theoretical understanding and practical skills of participants in SupTech.

List of key topics

- NLP for greenwashing deception
- Macro forecasting
- DTL/Crypto-assets supervision
- GenAI chatbot
- Tool for AML/CFT supervision
- Data visualisation and dashboard
- Social media sentiments analysis with NLP
- Monitoring publicly available information (news, discussion platforms, social media, etc)
- Digital twin
- Graph analysis tool for systemic propagation of IT and cyber risk
- Synthetic data tool
- Agent-based modelling for suptech
- Tools for AI for insider-trading coalition activity and behavioural-anomaly detection

Learning outcomes

- Applying advanced AI and ML techniques in Python
- Recognizing the organisational impact of SupTech applications
- Identifying the resources to take the SupTech applications into the production phase
- Developing a SupTech application proof of concept

Workshop

ESMA workshop Tokenisation: a transformative technology for financial markets

Dates
10-11 February 2026

Duration
1.5 days

Type of course
Residential and online (Paris, ESMA premises)

Registrations for this workshop will be managed by ESMA.

Target audience

The workshop accommodates experts from the Beneficiary EU Member States, the European Commission, the ESAs, and the EUI with an option to follow the discussion online. Market participants are invited to present case studies on selected items of the workshop agenda.

Participants should have a general understanding of DLT and its applications in financial markets. The workshop is intended for professionals involved in the supervision of DLT-based market infrastructures, as well as in the monitoring and risk analysis of the tokenisation of financial instruments.

While no in-depth technical expertise is required, participants are expected to be familiar with fundamental DLT concepts. This foundational knowledge will ensure effective participation in discussions on the challenges and use cases related to tokenisation.

The workshop will offer NCAs an opportunity to gain insights from leading industry practitioners, supervisors, and researchers on tokenisation. It will explore how tokenisation may reshape financial markets, drawing on concrete examples of tokenisation initiatives. It will also consider key technical and regulatory aspects relevant for wider adoption.

Tokenisation - the process of issuing or representing assets in digital forms, known as tokens using distributed ledger technology (DLT) – is receiving growing attention, as a potentially transformative force in financial markets. Tokenisation applications have been mostly narrow so far and the associated volumes remain small. But recent advancements in technology and rules suggest that we may be approaching an inflection point.

Participants will discuss the latest market developments and emerging use cases, considered from a regulatory and supervisory perspective. The workshop will assess the benefits tokenisation can bring, such as efficiency gains and greater accessibility, as well as associated risks to the financial system. It will explore developments under the EU DLT Pilot Regime and examine the connections between the tokenisation of financial assets and the infrastructures underpinning crypto-assets. It will also consider how supervisors should approach these new developments.

Sessions

1. Tokenisation overview: key concepts, expected benefits and challenges, recent market developments
2. DLT as a foundation for tokenisation
3. Tokenisation: use cases
4. Tokenisation: regulatory approaches

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