EBA/Rep/2025/23

12 August 2025

Report on the use of AML/CFT SupTech tools

1. On 19 June 2024, the anti-money laundering and countering the financing of terrorism (AML/CFT) package([1]) was published in the Official Journal of the EU. The new AML/CFT framework transforms the EU's legal and institutional approach to combating money laundering and terrorism financing (ML/TF). It also creates a new agency – the Anti-Money Laundering and Countering the Financing of Terrorism Authority (AMLA) – that will coordinate national authorities to ensure the consistent application of EU rules, transform AML/CFT supervision in the EU, and enhance cooperation among financial intelligence units (FIUs).

2. The establishment of AMLA and the associated move towards a common supervisory methodology provides an opportunity to take stock of current approaches to AML/CFT supervision and to consider how these approaches may need to change to adapt to the new framework. The role of technology-enabled innovation (supervisory technology, or SupTech) is an important part of this assessment.

3. In November 2024, the EBA surveyed competent authorities on their use of SupTech tools. In January 2025, it hosted a workshop on AML/CFT SupTech as part of the EBA 'Forum of EU AML/CFT supervisors on the transition to the new AML/CFT framework'. Overall, while the adoption of AML/CFT SupTech remains at an early stage, competent authorities have already observed promising benefits, including enhanced collaboration, improved data quality and analytics, and greater capacity to scale supervision under the new EU AML/CFT framework, particularly with the establishment of AMLA. However, progress may be hindered by challenges such as poor data quality and governance, limited resources, legal uncertainty, operational risks, and friction related to institutional transformation. Authorities also noted that many are only moderately prepared to fully implement innovative technologies. To mitigate these risks and unlock the full potential of SupTech, a number of good practices have emerged, including fostering a digital-first culture, adopting structured change management strategies, strengthening data governance and interoperability, leveraging synthetic data to safeguard privacy, and ensuring SupTech solutions are needs-driven and continuously evaluated through clear performance metrics. Collaboration, both domestically and across borders, was also highlighted as essential to maximising impact and ensuring tools are scalable, secure and legally compliant.

[1] Comprising the AML Regulation (Regulation (EU) 2024/1624), the 6th AML Directive (Directive (EU) 2024/1640), the AMLA Regulation establishing the new EU Authority (Regulation (EU) 2024/1620), and the revised Transfer of Funds Regulation (Regulation (EU) 2023/1113).

4. This report summarises the findings from both initiatives. It takes stock of the current use of SupTech tools at EU level; how these tools are deployed; and the solutions competent authorities have identified that may determine the success or failure of SupTech initiatives.

The use of AML/CFT SupTech is at an early stage

5. Thirty-one competent authorities from 25 EU Member States, and three competent authorities from third countries responded to the EBA's 2024 survey. Overall, competent authorities have worked on a total of 60 SupTech projects or tools([2]) to date, using 13 different technologies([3]) (Figure 1) and applying these tools to address 13 types of AML/CFT supervision tasks or processes([4]) (Figure 2). These tasks or processes relate mostly to risk assessments and to the associated management of significant data volumes. Consequently, they focus on data storage, data analysis and visualisation, along with the automation of tasks.

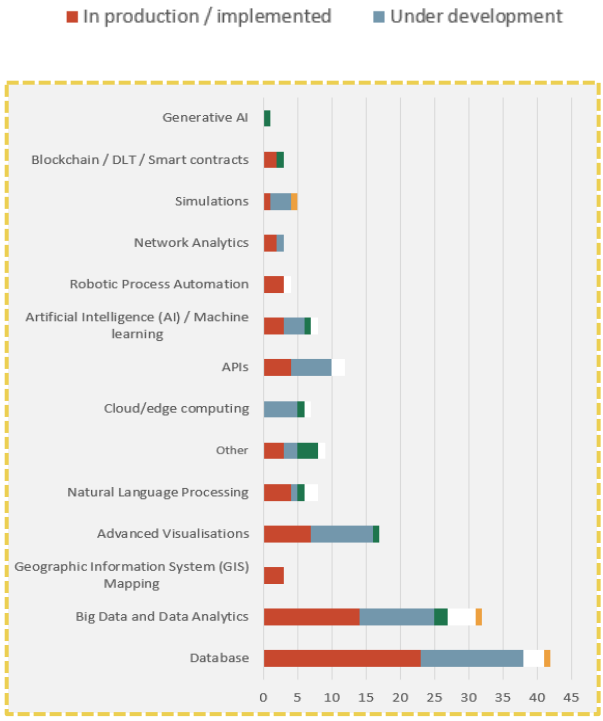

Figure 1. *Technologies used in the SupTech tools/project*

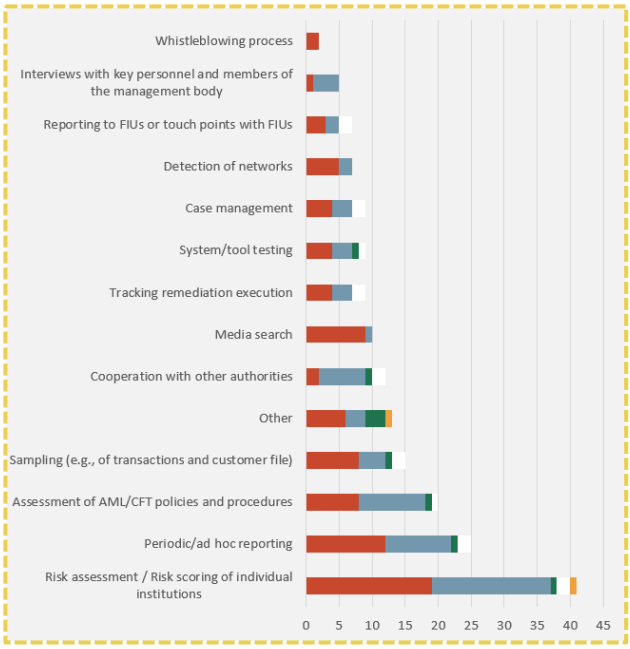

Figure 2. *AML/CFT tasks that SupTech projects/tools aim to address*

6. The results suggest that, overall, AML/CFT SupTech is at an early stage, but its uptake is increasing. Most tools or projects were initiated in the last three years; almost half were, at the time of the survey, in production (47%), 38% are under development and 15% are in an exploratory or ideation phase.

[2] For the purposes of this report, 'tools' refers to the tools in production/implemented; 'projects' refers to tools under development, in ideation stage, or testing stage.

[3] 'Technologies' refers to the technical components, systems and methodologies that underpin SupTech tools or projects to collect, process, analyse and visualise data.

[4] 'AML/CFT supervision tasks or processes' refers to the activities and workflows carried out by competent authorities to ensure that obliged entities comply with AML/CFT regulations.

AML/CFT SupTech can make supervision more effective

7. Information from competent authorities indicates that the use of SupTech tools can strengthen AML/CFT supervision by improving data analysis capabilities, enhancing efficiency and helping competent authorities obtain comprehensive insights into obliged entities' activities (Box 1). This confirms findings from the EBA's previous work in this area.

SupTech in on-site inspections	SupTech in risk assessment	SupTech in fitness and propriety
• An authority developed a tool that centralises inspection planning and improves audit trails, overcoming challenges related to a single point of information management. • An authority developed a remediation tracking system for AML/CFT oversight, consolidating data for effective monitoring and reporting. • An authority uses process mining, Natural Language Processing (NLP) and Artificial Intelligence (AI) for managing large datasets and streamlining supervision, particularly for crypto-related cases.	• An authority deployed an automated risk assessment tool, using NLP and AI, aimed at improving resource optimisation and risk accuracy by clustering algorithms and through semantic search. • An authority developed an integrated tool for ML/TF risk management that enhances supervisory planning, risk assessments and communication between authorities. • An authority developed a crypto transaction risk monitoring tool, using blockchain analytics to analyse crypto-related risks, refining supervision and risk classification.	• An authority developed a tool to support the fitness and propriety assessment process by facilitating the translations of documents, the structuring of data and generating an overall risk scoring.

***Box 1**. Examples of tools presented during the workshop in January 2025*

8. The main benefits identified by competent authorities relate to:

- **Enhanced data quality:** SupTech tools can help improve the quality of quantitative and qualitative data collected and used for AML/CFT supervision.
- **Improved analytical processes and decision-making:** SupTech tools with data-driven approaches can enhance the speed and quality of data analysis, and support more informed, timely and effective supervisory assessment of the adequacy of an entity's AML/CFT systems and control.
- **Operational efficiency:** SupTech tools automate repetitive tasks and can optimise resources, leading to more efficient supervisory processes.
- **Risk assessment:** SupTech tools can provide accurate and timely insights on new and emerging ML/TF risks and trends.
- **Improved collaboration:** SupTech tools facilitate better collaboration across jurisdictions and departments by enabling more consistent data collection, improving data sharing mechanisms, and

supporting the alignment of supervisory approaches, thereby helping to overcome data fragmentation and harmonise standards.

The successful roll-out of AML/CFT SupTech tools may be hampered by lack of preparedness

9. Competent authorities recognise the significant benefits SupTech tools offer, but feedback suggests that most feel only 'moderately prepared' to fully embrace innovative technologies. They acknowledge that more expertise, an increased budget, and organisational or technological adjustments would be needed to fully achieve the potential of SupTech solutions in AML/CFT supervision.

10. Competent authorities identified the following obstacles to the successful deployment of SupTech tools:

- **Data quality and governance:** The effectiveness of SupTech tools depends on high-quality, structured and standardised data. There is a risk that legacy, fragmented, incomplete or inconsistent data sources may affect the accuracy of SupTech-led risk assessments and automated analysis. Additionally, weak data governance frameworks may result in inefficiencies, duplication of efforts, and challenges in data integration across different supervisory functions.

- **Resource allocation:** Deploying and maintaining SupTech tools requires significant investment in both human and technical resources. Many authorities face limited budgets, legacy IT infrastructure, and a shortage of skilled personnel with expertise in data science, AI and financial crime analysis. This resource gap can delay adoption, limit the scalability of solutions, and hinder the continuous development of SupTech capabilities.

- **Legal risks:** The use of innovative technologies by AML/CFT supervisors gives rise to legal questions that are not explicitly addressed, or addressed only in part, by the current framework. Examples include questions regarding the application of data protection requirements to the collection and processing of large datasets, and questions regarding liability in automated decision-making. Lack of certainty in this regard gives rise to legal risks and may hamper the development or adoption of SupTech solutions.

- **Operational risks:** Operational risks such as system failures, data misinterpretation, or opaque algorithms (i.e. explainability and interpretability) can undermine supervisors' trust in these technologies. Without adequate risk mitigation, such tools shall not be deployed.

- **Accountability:** Ensuring clear lines of accountability in the use of AI and machine learning for AML/CFT supervision is a significant challenge. Competent authorities must be able to justify risk assessments and compliance decisions derived from algorithmic models. However, certain technologies may currently present limitations in terms of explainability and auditability, which

can pose challenges in meeting regulatory expectations, particularly in areas such as transparency, human oversight, and the fair treatment of supervised entities.

- **Transformation friction:** The adoption of SupTech tools may encounter resistance from staff at authorities and at supervised entities. Cultural inertia, concerns about job displacement, and scepticism about the reliability of AI-driven insights can delay implementation. Additionally, a lack of digital literacy among supervisors can make it difficult to fully integrate SupTech into existing supervisory processes.

- **Collaboration among competent authorities remains rare:** Most competent authorities are currently working in isolation to develop solutions to address the same supervision challenges, potentially resulting in a duplication of efforts and the development of solutions that may not be interoperable or may hamper cooperation and information exchange. While some legal and institutional obstacles to greater collaboration currently exist, the new legal and institutional AML/CFT framework, and a more harmonised approach to AML/CFT supervision, is likely to create opportunities for interoperable, scalable and more cost-effective tools that make closer cooperation and information exchange possible.

The successful use of AML/CFT SupTech depends on a considered and tailored strategy

11. As the use of technology in financial services evolves, the importance of SupTech also increases, driven by the need for more efficient, data-driven approaches to assessing risks and compliance. In this regard, competent authorities identified a number of good practices and lessons learned that can contribute to the smooth adoption of new technology and help maximise the benefits of SupTech solutions. Good practices identified include:

Change management

- **Fostering digital-first culture initiatives to support the adoption and effective use of SupTech tools.** Promoting digital culture initiatives such as training, workshops, leadership support and internal awareness-raising can be critical to the successful integration of SupTech tools. At some competent authorities, encouraging a shift in mindset towards tech- and data-driven approaches proved essential for embedding these tools within existing supervisory frameworks.

- **Building a change management strategy.** Implementing new technologies in AML/CFT supervision involves significant changes to existing processes and systems, which staff may be reluctant to embrace. Well-defined change management strategies have helped competent authorities ensure the successful adoption of new tools and processes within their organisations. Such strategies were developed by establishing a structured framework with specific objectives, active stakeholder engagement, cross-agency collaboration and phased implementation. This approach included conducting a thorough impact assessment to identify gaps and risks, followed by setting measurable goals aligned with both regulatory and operational needs. It has proved to be essential to minimise operational disruptions and optimise resource allocation.

Data and technology strategy

- **Ensuring effective data governance.** The effectiveness of SupTech tools depends on the quality of the data being processed. A number of competent authorities have prioritised the development of robust data governance frameworks to ensure that data were accurate, complete and up to date. Equally important was the establishment of guidelines for data collection, processing and sharing across authorities. Regular audits and data validation processes were put in place to maintain high-quality data and to ensure that SupTech tools continued to function effectively in support of AML/CFT supervision.

- **Facilitating data standardisation and interoperability.** Developing common standards for data formats, structures and exchanges is a slow process, which hinders the scaling up of SupTech tools. However, when applied effectively and as reported by competent authorities, standardisation enhanced the functionality of these tools by promoting greater interoperability between systems and improving the overall effectiveness of AML/CFT supervision across the EU.

- **Using synthetic data generation to enable innovation while safeguarding privacy.** Synthetic data provides a powerful solution for creating realistic training datasets without relying on personal or sensitive information. This approach helped a competent authority to address data privacy concerns while still allowing them to test, train and optimise machine learning models and other AI-driven tools effectively.

- **Staying up to date with industry developments and fostering cooperation with stakeholders.** Many authorities highlighted the value of actively engaging with industry experts, technology vendors and peers within the supervisory community. Such knowledge exchange helps supervisors stay informed of emerging trends and challenges and supports the thoughtful design and implementation of SupTech tools. Authorities reported that such engagement, whether through formal or informal channels, has facilitated a better understanding of available technologies and enabled the sharing of good practices across jurisdictions.

- **Promoting sandboxes, application incubation and ecosystem acceleration initiatives in collaboration with external stakeholders.** These are structured, often experimental frameworks that allow competent authorities to co-develop and test SupTech tools in collaboration with supervised entities, technology providers and other partners. One competent authority put this into practice and assessed that this hands-on approach has accelerated tool development and helped ensure that the solution was aligned with supervisory needs, was technically robust and legally compliant from the outset.

- **Establishing metrics to evaluate the tool's effectiveness**: Several national competent authorities have stressed the importance of developing concrete and well-aligned metrics to assess the performance and added value of SupTech tools. These metrics should be directly tied to supervisory objectives, ensuring that the tools meaningfully contribute to AML/CFT supervision. Authorities noted that continuous evaluation, through pilot phases, user feedback loops and impact assessments, enabled timely adjustments and improvements. This

iterative approach helps ensure the tools deliver measurable benefits in enhancing supervisory processes. Examples of the type of objectives that supervisors have used include:

Supervisory strategy

- **Strengthening cross-border collaboration.** Cooperation and information-sharing among

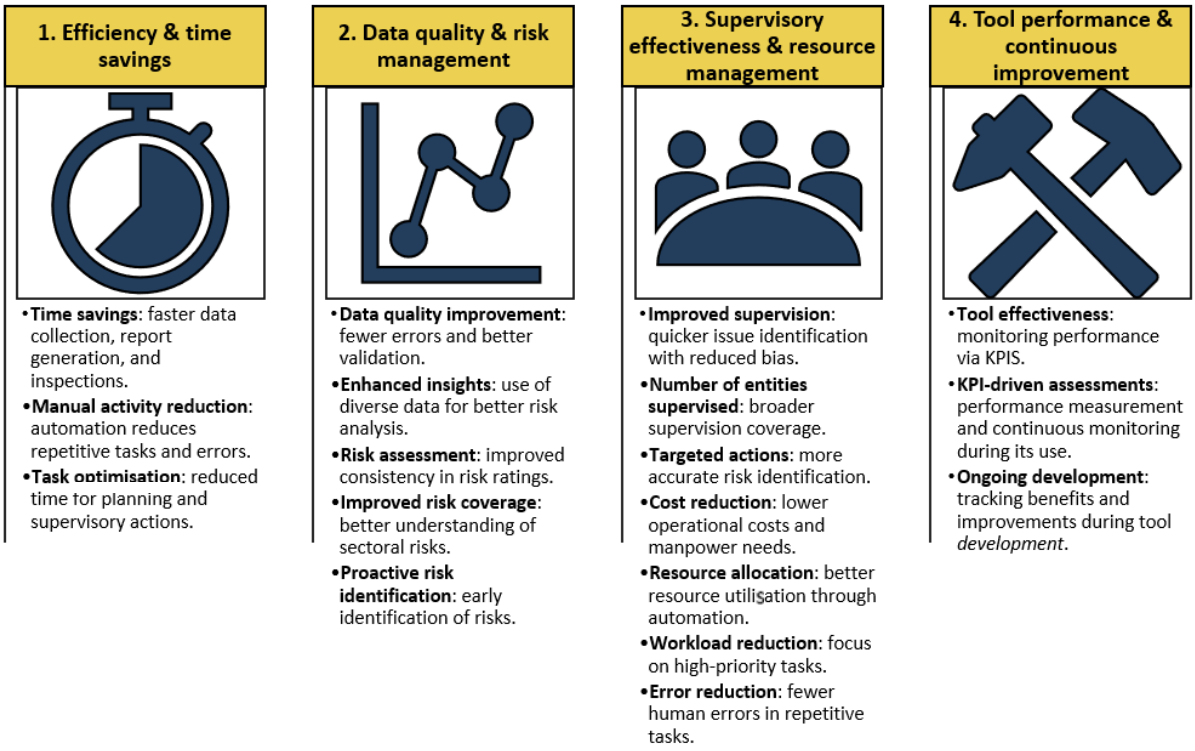

Figure 3. *Examples of the type of objectives that supervisors used to measure the benefits of SupTech*

competent authorities is key to tackling cross-border ML/TF risks effectively. However, SupTech tools are often not cooperation-ready, even at Member State level. This is the case, for instance, when it comes to readable data extraction. To overcome these limitations, some authorities have developed secure data exchange platforms with enhanced interoperable extraction tools that use AI and natural language processing (NLP) to structure data for safe and seamless data sharing. These tools can be complemented by privacy-preserving technologies, such as federated learning, digital identity controls and API-based connectivity, which help facilitate secure, compliant and efficient cross-border collaboration.

- **Ensuring SupTech tools address concrete supervisory needs or pain points (needs-driven approach).** Successful SupTech adoption begins with an understanding of the specific challenges and objectives it aims to address. Competent authorities have emphasised that SupTech should not be implemented simply because it is fashionable or technologically advanced. Instead, tools must be developed and deployed in response to real supervisory problems, whether related to data analysis, case prioritisation, monitoring or enforcement. This needs-driven approach ensures that SupTech investments deliver tangible value, improve supervisory outcomes, and avoid unnecessary complexity or resource strain.

Regulatory strategy

- **Establishing clear data protection expectations.** Defining robust data protection controls is perceived by competent authorities as challenging, particularly in cases not explicitly addressed in existing legislation. This provides authorities with the legal clarity needed to adopt and implement SupTech tools effectively, while ensuring compliance with EU data protection laws, such as the GDPR. Close collaboration with data protection authorities is essential in developing a shared understanding and consistent guidance.

Conclusion

12. The use of SupTech in AML/CFT supervision across the EU is evolving but remains at an early stage. Most competent authorities are still in the exploratory or early implementation phases or have not started using SupTech at all.

13. The changing legal and institutional AML/CFT supervision framework within the EU presents significant opportunities. The increasing adoption of SupTech tools by EU supervisors signals a shift towards more efficient, data-driven approaches to tackling financial crime. By leveraging technologies such as AI, blockchain and synthetic data generation, authorities are improving their risk assessment capabilities, enhancing operational efficiency and fostering greater collaboration across jurisdictions.

14. To be successful, the journey towards the full integration of SupTech into AML/CFT supervision needs to address specific challenges, including data quality issues, resource constraints, legal uncertainties and friction related to institutional transformation. These challenges may explain the varying stages of adoption observed across Member States.

15. SupTech should be tailored to the specific needs of each supervisory authority, with tools designed to align with operational realities and supervisory objectives. One-size-fits-all solutions are often ineffective, making it essential to incorporate strong safeguards for sensitive data and ensure cross-border cooperation through improved data interoperability and clear data protection principles. Close collaboration between IT, AML/CFT and data protection experts is key to developing effective tools, supported by knowledge exchange through workshops, peer learning and joint projects. The current diversity of national approaches risks duplication and missed opportunities for coordinated innovation; greater emphasis should be placed on pooling resources and co-developing common solutions. In this context, AMLA can play a central role in promoting collaboration, driving standardisation and supporting joint initiatives.

16. The priorities outlined in this report, along with the good practices and lessons learned, will guide the continued development and deployment of SupTech tools in AML/CFT supervision. As technology evolves, so too must the strategies and regulatory frameworks that govern its use. The future of AML/CFT supervision in the EU depends on the successful integration of SupTech, enabling authorities to stay ahead of emerging financial crime risks and ensuring the EU remains a global leader in the fight against financial crime.