

High expectation but low integration? Experiences in modernising and integrating information systems for supervision¹

Executive summary

Rapid digitalisation and evolving risks in the financial system place high expectations on financial supervision. Digital innovation has accelerated financial activity and increased complexity, but regulatory and supervisory frameworks have not fully kept pace. This has created gaps that authorities must address. At the same time, pressures to simplify regulation and enhance competitiveness could result in less risk sensitivity, placing greater responsibility on supervision. Strengthening supervisory capability is therefore critical to maintaining financial stability.

Enhancing supervisory capability requires a more coherent and integrated approach to systems, processes and tools. While improvements in supervisory skills, tools and processes are important, their effectiveness and how well they function together depends in large part on the infrastructure and systems that support them. Suptech offers opportunities to improve efficiency and effectiveness, but current efforts are often fragmented and issue-specific. A holistic approach – anchored in digital transformation and data governance strategies – is essential to fully realise the benefits of these technologies.

Information systems that support the supervision cycle (ie supervision systems) have evolved. The supervision cycle encompasses planning, risk assessment, engagement with supervised entities, action and reporting. This cycle is supported by three main systems responsible for data collection, workflow management and analytics. These systems have progressed from manual processes to fragmented digital tools, partially integrated systems and, in some cases, fully integrated platforms that provide a single source of truth. While this is a simplified characterisation of supervision systems, it provides a useful model that supervisory authorities may use to assess the maturity of their supervision systems.

The level of maturity of supervision systems remains varied, with only a few authorities achieving full systems integration. The survey conducted for this paper shows that only eight respondents have fully integrated their supervision systems. Including those with partial integration raises the proportion to slightly more than half of respondent authorities. Lack of integration of supervision systems is more common among authorities in emerging market and developing economies (EMDEs).

Information technology (IT) environments differ across financial authorities, and integration approaches are therefore shaped by institutional circumstances. Smaller or newly established authorities typically operate with simpler IT infrastructures that allow for more straightforward integration, whereas large and long-established institutions often face more complex integration challenges due to legacy systems. Interviews with authorities and other anecdotal evidence suggest that many authorities are shifting from traditional management information system (MIS)-centric architectures towards more customer relationship management (CRM)-based platforms as the core of integrated supervision systems. This reflects CRM's perceived advantages in supporting workflow management –

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improving user experience in interactions with supervised firms and enabling more streamlined, engagement-focused supervisory processes.

Integration of supervision systems is primarily driven by the need for better access to information and greater efficiency. Integrated systems enable supervisors to access timely, consistent and comprehensive data, reducing fragmentation and improving decision-making. They also eliminate duplication, automate processes and optimise resource allocation, resulting in more efficient supervision. In addition, integration enhances transparency in workflows and facilitates the adoption of advanced technologies. It also facilitates consistent interaction with supervised firms and clear communication of supervisory priorities and expectations.

Integrated supervision systems are a key enabler of effective artificial intelligence (AI) adoption. By improving data quality, standardisation and accessibility, integrated systems provide the necessary foundation for deploying AI applications at scale. They also allow authorities to experiment with AI in controlled environments and to easily transition from pilot use cases to fully embedded solutions. Moreover, integrated systems support more advanced capabilities such as agentic AI, which depends on interoperability across data, analytics and workflow platforms.

Despite its benefits, systems integration presents significant technical and organisational challenges. Common technical barriers include legacy infrastructure, limited interoperability, poor data quality and increased cyber risk. These issues complicate integration efforts but may have relatively straightforward solutions. In contrast, non-technical and people-related challenges – such as resistance to new ways of working and rigid organisational culture – are often more difficult to address. These challenges highlight the need for authorities to implement robust change management.

Vendor-related issues are increasingly demanding attention from authorities. Limited expertise in the market on the niche area of supervision is an issue that authorities have always faced when looking for technology solutions. This is now compounded by the growing prevalence of vendor proprietary models that are embedded in these solutions. This can lead to long-term dependence and concentration risk. Many authorities opting for the same vendor amplifies these issues. To address them, authorities need to carefully assess integration approaches, balancing efficiency with the need to leverage existing tools and future flexibility, while managing third-party risks.

Successful integration depends on strong governance, collaboration and sound implementation practices. Leadership support and a clear institutional strategy are critical to guiding integration efforts and allocating resources effectively. Collaboration across supervisory, IT, cyber security and other functions ensures that both technical and organisational aspects are addressed. Practical approaches such as prioritising data governance, starting with pilot projects and adopting iterative development processes help manage risks and build momentum.

Ultimately, supervision systems integration represents a strategic transformation rather than a purely technical exercise. Authorities that align digital transformation, data governance and suptech strategies are better positioned to enhance supervisory effectiveness and respond to emerging risks. As financial systems continue to evolve, the ability to operate integrated, data-driven supervisory frameworks will become a defining feature of effective financial oversight. Indeed, the success of systems integration should be measured not just by how effective the technology deployment has been but, more importantly, by how effective supervision has become.