

Smart supervision: sound capacity development approaches for tech-savvy supervisors¹

Executive summary

The rapid and continual advancement of technology is transforming the financial industry, requiring financial sector supervisors to keep pace. From a supervisory perspective, technological advancements present both risks and opportunities. On the risk front, technologies such as artificial intelligence (AI) can introduce new risks or amplify existing ones as firms leverage these tools to develop innovative financial products, enhance services and improve internal operations. Breakthroughs in quantum computing, while still on the horizon, could significantly impair cyber resilience of firms in the future, with potential systemic implications. All these developments require supervisors to stay on top of the underlying technology to be able to understand and address potential risk implications for supervised financial institutions and the financial system as a whole.

At the same time, supervisory technology (suptech) presents opportunities for supervisors to improve the efficiency and effectiveness of their processes. Technology can automate processes, cutting down the processing time and resources needed to supervise firms effectively while augmenting supervisory capabilities to achieve better supervisory outcomes. For example, AI has the potential to disrupt regulatory/supervisory functions, redeploying resources to high-value activities such as real-time supervision. To achieve these benefits, supervisory staff need to have not only the necessary knowledge but also confidence on the responsible use of AI in supervision. Both the risk and opportunity dimensions of technology require authorities to cultivate tech-savvy supervisors who can understand the technology and use suptech effectively.

An effective capacity development (CD) framework on technology should be steered by a clear strategy that is well aligned with an authority's strategic objectives and priorities. The framework should be operationalised through a structured process and be adaptable to technological developments. Given the rapid pace of technological advancements, authorities need to institutionalise a flexible framework that can be adapted and adjusted to remain relevant. This requires flexible CD processes, which should be iterative, identifying training needs, delivering training and assessing outcomes to improve the identification and delivery of CD activities. External factors such as technological advancements, policy changes and evolving business models should be continuously taken into account, shaping the CD framework as needed.

To support technology adoption and enhance organisational efficiency and effectiveness, authorities can foster an innovation-friendly culture as part of their technology-related (tech-related) CD strategies. Authorities with an innovation-friendly culture will find staff who are technologically adaptable and open to embracing new technology responsibly to augment their capabilities and improve their efficiency. An innovation-friendly culture requires promoting cross-functional collaboration and embedding innovation in organisational values. Having an institutional digital or technology policy can help to reinforce top-down steer on an authorities' level of ambition and, thus, clarify the necessary tech-related skills needed to achieve the ambition.

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Fundamental to supporting tech-related CD activities is an effective CD function to implement a tech-tailored CD approach, working closely with tech experts across the organisation.

While it might not be proportionate to establish a unit dedicated solely to tech-related CD, the general CD function needs to adopt a tailored approach for tech-related CD. Close collaboration with functional or specialist teams is crucial to identify training needs and source subject matter experts to deliver CD activities. Such internal cross-collaboration is essential to address specific details about individual authorities, such as their unique suptech tools or unique risks arising from tech-adoption by firms in their jurisdictions.

Unlike other CD areas, identifying tech-related training needs presents unique challenges.

As technologies advance rapidly, training needs can change very quickly. Emerging technologies can be complex, as can their implications for the financial sector. The complexity of the topics makes it challenging to pinpoint specific skills or knowledge gaps. This is because to do so requires a deep understanding of both the technology itself and its potential impact on the financial industry. Compounding these challenges is the potential difficulty of fostering an innovation-friendly culture in a typically risk-averse environment with staff at varying levels of readiness. An effective way to identify training needs is through structured competency frameworks that are aligned with institutional priorities. Such frameworks can be used to define role-specific technical and functional skills, identify gaps and guide targeted training initiatives. These frameworks should address varying proficiency levels and support both tech-specific and non-tech roles.

Given the nascency and constant evolution of most tech-related topics, the delivery of tech-related CD requires a range of approaches to access the necessary knowledge and skills. A key challenge in sourcing appropriate training on tech-related topics is the limited pool of high-quality, context-specific training providers in emerging or rapidly evolving areas. As a result, authorities need to combine in-house and external training, leverage external partnerships and rely on non-training activities such as secondments, research collaborations and other knowledge-sharing initiatives to build well-rounded, tech-savvy staff.

Assessing the effectiveness of tech-related CD programmes is crucial given the time and monetary and human resources involved – both by CD providers and by recipients. Unlike other areas of CD delivery, tech-related CD relating to suptech tools can yield tangible productivity benefits in terms of accomplishing tasks more efficiently or delivering better output. In this sense, measuring CD benefits for tech-related topics appears relatively more feasible than CD on other topics. In contrast, the impacts may manifest over an extended period, creating a time lag between the training and the application of newly acquired skills. Authorities can employ diverse methods – such as pre- and post-training assessments, feedback mechanisms and benchmarking – to evaluate the impact of CD activities on organisational goals. At an institutional level, evaluating the maturity of tech-related CD programmes can be useful to identify gaps and refine strategies.

Tech-related CD is a crucial enabler to transform supervisory approaches. The evolution of supervisory approaches, from compliance-based to risk-based, took years to achieve, not only upskilling technical competencies but also changing mindsets that place greater reliance on the exercise of sound judgment. As the financial supervisory world enters the next wave of technology-driven transformation, tech-based supervision will require tech-savvy supervisors. New supervisory capabilities can revolutionise how and when firms are supervised, potentially even delivering efficiency gains from reduced compliance burden. Nevertheless, to fully reap the benefits of AI and other emerging technologies, reskilling supervisory workforce will take time and needs to start now. Smart supervision – leveraging advanced technologies to further enhance oversight capabilities – can be a reality only with skilled and knowledgeable tech-savvy supervisors who can support effective implementation of supervisory priorities.