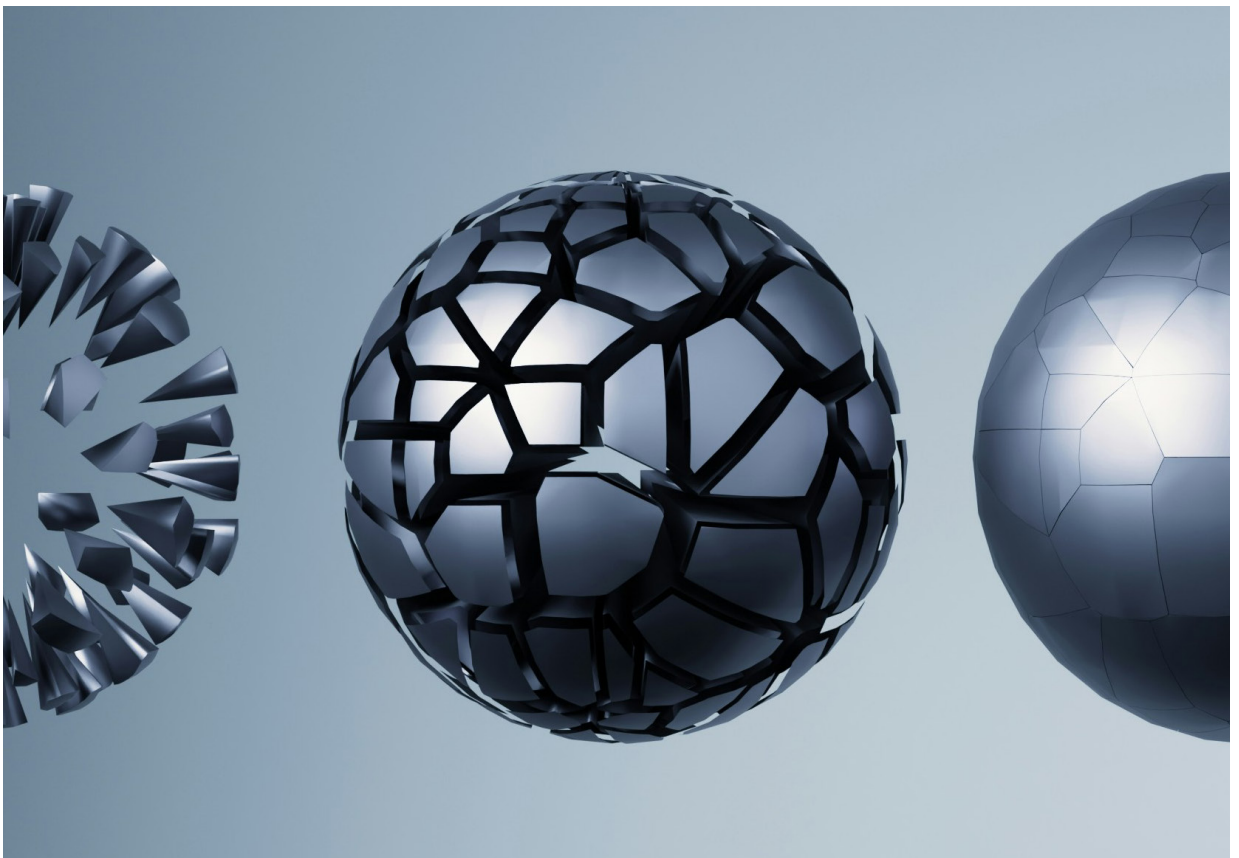

CENTRAL BANKING

Transforming modern supervision



Three forces reshaping
regulatory practices

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Transforming modern supervision

Three forces reshaping regulatory practices

Financial supervisory authorities are increasingly leveraging cloud-native infrastructure, granular data, and AI-enhanced oversight to transition towards a more data-driven and forward-looking approach to supervision.



Amid rising data volumes, increasing complexity and evolving supervisory demands, central banks and regulators are advancing how data, technology and analytics support effective oversight. Drawing on regulatory dialogues and its work with more than 100 supervisory authorities worldwide, Regnology has identified three forces increasingly shaping supervisory modernisation initiatives: cloud-native infrastructure, granular data and artificial intelligence-enhanced oversight.

Cloud-native Building resilience and scalability

foundation Cloud-native architecture is emerging as a key enabler of supervisory resilience. It enables authorities to scale efficiently, manage rising data volumes and deploy new capabilities at the pace of regulatory change. [A 2025 Central Banking survey](#) found 53% of regulators already using cloud services, with another 27% planning adoption.¹

The experience of the Andorran Financial Authority (AFA) illustrates this transition. By replacing legacy on-premises systems with the Regnology Supervisory Hub (RSH) hosted on Rcloud, [AFA modernised its supervisory infrastructure in just five months](#),² and established a secure, scalable foundation that reduced infrastructure costs and improved efficiency across national and European supervisory processes.

The cloud-native, modular RSH delivers end-to-end automation across the supervisory lifecycle, from data collection and validation to analytics. Through Regnology's content-as-a-service, AFA receives standardised, continuously updated content packages for frameworks such as the European Banking Authority, automating data collection without manual monitoring and template creation. New report creation and implementation times have been reduced from weeks to days.

By consolidating fragmented data sources into a single platform, AFA eliminated data silos and streamlined reporting. Its team can now focus on high-value analysis and decision-making, supported by a future-ready infrastructure that adapts to evolving mandates and expands to new regulatory domains.

Enabling data-centric supervision

Supervisors and financial institutions worldwide share a common ambition: reporting that is accurate, timely and adaptable. A fundamental shift is gathering pace, from aggregated, template-based reporting towards granular, standardised data models that redefine how data is collected, processed and used.

Shared definitions and agreed levels of granularity ensure data can be consistently interpreted, compared and reused across multiple supervisory and analytical purposes. This evolution simplifies reporting, reduces duplicative submissions and provides supervisors with richer datasets for deeper insights and proactive oversight.

To unlock its full potential, granularity is most effective when aligned with data, processes and technology. Defining appropriate levels of granularity and shared semantics up front avoids unnecessary complexity, enables automation and paves the way for end-to-end straight-through reporting (STR).

This global direction is evident across markets. The European Central Bank's Integrated Reporting Framework programme harmonises statistical reporting across eurozone banks, consolidating multiple requirements into a single, standardised reporting framework. In Asia-Pacific, the Hong Kong Monetary Authority's Granular Data Reporting 3.0 programme and Bank Negara Malaysia's Statistical Reporting and Data Management Project, known as Project Stream, promote a 'collect once, use many' approach through granular, transaction-level reporting. In North America, the Office of the Superintendent of Financial Institutions' Data Collection Modernisation programme is modernising its data collection technology platform, advancing key data initiatives and improving data quality.

RSH complements this transformation by streamlining data collection and validation workflows across multiple technical formats, from narrative reports to granular data. By enforcing data quality through regulatory controls, filing requirements and validation rules, it supports simplified reporting, secure data exchange and cross-supervisory collaboration.

From experimentation to operational AI

The convergence of cloud-native infrastructure and granular data is paving the way for the next phase of modernisation: agentic-enhanced oversight. AI is becoming embedded across supervisory workflows, enhancing analytics, automation and risk assessment. Instead of replacing human expertise, this technology provides intelligent augmentation, reducing manual effort while surfacing critical patterns and deviations for deeper analysis.

[Recent Central Banking case studies](#) demonstrate how supervisors are applying AI in practice.³ The Qatar Financial Centre Regulatory Authority uses AI to identify new risk factors. In Peru, the Superintendency of Banking, Insurance and Private Pension Funds applies AI and machine learning tools within its solvency stress-testing framework. Similarly, the Central Bank of Brazil uses machine learning to compare banks' results and identify potential risk underestimation. These examples illustrate a shift from AI experimentation to practical supervisory applications.

**From
aggregation
to granularity**

**Towards
agentic-
enhanced
oversight**

These developments highlight both progress and challenges. AI effectiveness depends on data quality and integration, while advanced models raise concerns around explainability and auditability. Bridging this gap between potential and practice is therefore as much an institutional endeavour as a technological one, requiring robust governance, specialised skills and aligned data and operational frameworks.

Regnology, From foundations to intelligence-led oversight with RSH Ascend

a trusted partner for modern supervision As supervisory authorities modernise their infrastructure, success is best achieved by connecting data, technology and governance within a trusted framework. Drawing on deep domain expertise and experience supporting more than 100 supervisory authorities worldwide, Regnology enables this transformation through a future-ready supervisory ecosystem.

[At its core is Ascend, Regnology's cloud-first, agentic-first platform](#),⁴ which provides the foundation for governed intelligence (RGI), trusted data management and shared services. This common architecture enables scalability, security and intelligent automation across Regnology's solutions.

Building on this foundation, the award-winning RSH delivers best-in-class capabilities for near-real-time supervision, granular data management and AI-powered oversight. RSH supports the full supervisory lifecycle with advanced risk calculation, stress-testing, predictive analytics and early-warning capabilities, helping authorities identify emerging risks and make more informed decisions.

Together, Ascend and RSH accelerate the industry's vision for STR, enabling a more autonomous, efficient and forward-looking approach to supervision. 

Notes

1. Regnology/Central Banking (2025), *Regtech and supotech in central banks survey*, bit.ly/3TuhDMU
2. Regnology (2025), *Andorran Financial Authority modernizes regulatory oversight with Regnology Supervisory Hub*, bit.ly/45xh7QV
3. Regnology (2026), *Regtech and supotech in central banks: 2026 case studies*, Part 2 – Advancing with AI, bit.ly/4w4N7XB
4. Regnology (2026), *Regnology announces next-generation Ascend platform with agentic AI, advancing the future of regulatory reporting*, bit.ly/3TPOyvr

Regnology Supervisory Hub (RSH)

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Learn more about RSH bit.ly/4hHDyKt