

# The Changing Nature of ‘Regulation by Information’: Towards Real-time Regulation?

Regulation by Information is a concept that has long shaped regulatory practices. Significant transformations in today’s technological landscape are radically changing regulation by information. Integrating regulatory technologies, commonly known as RegTech, revolutionises how data flows are incorporated into regulatory processes. Our [article](#), forthcoming in the European Law Journal, explores the impact of RegTech on Regulation by Information, focusing on financial regulation as a prime example.

The evolution of Regulation by Information can be understood through four distinct dimensions. Initially, it involved gathering information to support decision-making, which was extended in the second phase to guiding private actors through decision-making practices. With time, imposing information and publication standards became crucial for regulatory decision-making. Today, the advent of RegTech has ushered in the fourth dimension, characterised by integrating regulatory software into market data flows.

In the context of financial regulation, the need for near real-time information flows between market participants and regulatory bodies has intensified. Consequently, regulatory software has become instrumental in shaping reporting standards and formats, thus influencing information flows and regulatory choices. One example is the reporting requirement for all derivatives to trade repositories, which maintain real-time records of all derivative contracts and thus enhance transparency and reduce risks. Another example is increasing compliance requirements with reporting standards set by the European Securities and Markets Authority, such as the Financial Instruments Reference Data System, covering the Markets in Financial

Instruments Regulation (MiFIR) and Market Abuse Regulation (MAR). This development is not confined to financial markets alone; it is expected to impact other data- and information-intensive areas.

We argue that RegTech marks a fundamental change as to how Regulation by Information may take place.

First, RegTech facilitates a shift from traditional supervision to Real-time Regulation. The ability provided by RegTech to monitor and respond to regulatory requirements in near real-time has transformed the regulatory landscape. Regulators' decision-making processes can occur in real-time rather than following a lengthy parliamentary procedure.

Second, many of these decisions are now driven and enabled by programmed software and data interfaces that handle a constant flow of information based on real-time market data.

This shift raises several questions concerning concepts of public law relevant to regulation. In our [article](#), we outline how, for instance, regarding decision-making conditions, the protection of fundamental rights can be ensured and how to measure the impact on businesses resulting from the described changes. RegTech allowing Regulation by Information must be adapted to requirements of ensuring proper administrative procedures related to data collection, the use thereof, decision-making procedures linked to the information collected, and ensuring the right to an effective judicial remedy. The increasing reliance on third-party software providers also requires robust accountability mechanisms to safeguard procedural and substantive rights.

By examining the impact of RegTech on financial regulation, we gain valuable insights into the broader implications for data- and information-intensive policy areas. However, what we lay

out in our research for financial regulation is not limited to this field of law. We observe the same challenges wherever RegTech enables real-time data flow integration into regulatory processes. For example, we argue that software developers assume a role akin to a de facto 'lawmaker', requiring further accountability mechanisms to secure procedural and substantive rights. The continuous advancements in RegTech necessitate a thorough examination of their implications for public law as a whole.

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