

Start thinking in systems

By Berthold Kracke, Head of Clearstream Global Operations

New technologies – be it the Internet of Things, quantum technology or artificial intelligence (AI) – will and to some extent already do have a transformative impact on all areas of our lives. Financial services and the post-trading industry are no exception.

Traditionally, our industry has been very operations-heavy and grapples with a lot of manual processes which take up resources and are vulnerable to human error. As cost pressure mounts in the industry, market participants have been looking to new technologies for their potential to create operational efficiencies.



If we want the promise of automation and machine learning to materialise on a large scale, it is vital for us not to see individual use cases or technologies in a vacuum. While it is important to focus on concrete use cases that can bring real benefit, that alone is not enough. We need to create the right ecosystem for these solutions to work.

Technological transformation in post-trading operations

Achieving true technological transformation in post-trading operations is conditional on providing the right expertise, the right technical infrastructure and the right contractual framework. Employ experienced data scientists and engineers who will be able to support your business in developing machine learning and automation solutions. Provide access to flexible cloud services as the necessary technical foundation. Ensure that these services are available within a highly regulated environment with strict data protection requirements.

At Clearstream, we have been able to successfully implement machine learning solutions in production that have resulted in tangible efficiency gains, e. g. by using machine learning in SWIFT message routing to improve straight-through processing rates or by employing optical character recognition and natural language processing to classify and process incoming e-mail attachments in fund operations.

The right ecosystem for automation and machine learning

We have been able to do so because, being a part of Deutsche Börse Group, we are embedded in an excellent ecosystem with a clear focus on new technologies, which provides centralised big data and automation tools and services as well as agile development with mixed business and IT teams. This is further supported by Deutsche Börse's multi-cloud strategy, which enables us to work in a regulated environment while making use of cloud services provided by trusted partners.

Harnessing the potential of automation and machine learning takes a holistic view that considers the interaction of technologies and the necessary legal and regulatory framework – ensuring a focus on stability and integrity at least as much as on efficiency. This is a challenge we can only take on if we stop seeing processes and technologies in a vacuum and instead start thinking in systems.