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SOCIETE GENERALE: TREATING DATA LIKE AN ASSET

Winner of Celent Model Sell Side 2023 Award for Data Management & Analytics

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CASE STUDY AT A GLANCE

Across the financial service industry, and especially across capital markets, data is the “raw material” that ultimately generates performance. But this data must be mined to extract insight—a process that relies on sophisticated technology, specialized expertise, and access to unique data sets. Having invested into and built such a data and analytics platform, Societe Generale’s Global Markets (SG Markets) embarked on a win-win initiative that extended and digitally transformed an existing legacy platform to internal and external clients. Clients benefit from easy and efficient access to data that boosts performance. SG Markets benefits by mutualizing costs for this platform to provide revenue and fund ongoing investment and by ultimately strengthening client relationships.

Table 1: Case Study at-a-Glance

Financial Institution	Societe Generale
Initiative	SG Markets Data & Analytics
Synopsis	This solution from Societe Generale, a leader in derivatives trading, offers the company’s internal and external clients direct access to its unique and proprietary trading and quant data sets and analytics, with years of historical depth and daily used data. This C-Level-sponsored initiative modernized (including move to public cloud), and extended the internally built platform, and now supports a licence fee model so costs are mutualized.
Timeline	This three-phase project was delivered over two years.
Key Benefits	Qualitative benefits focus on data quality, IT system simplification and client relationships. Quantitative success metrics include reaching over 1,100 external clients (companies) and a 200% increase in downloaded data versus last year.
Key Solution Partner	Amazon Web Services (AWS)
Next Step	Continue with current phase focused on converting free licenses to paid licenses, adding more data sets and features, and increasing the use of cloud for analytics and collaboration

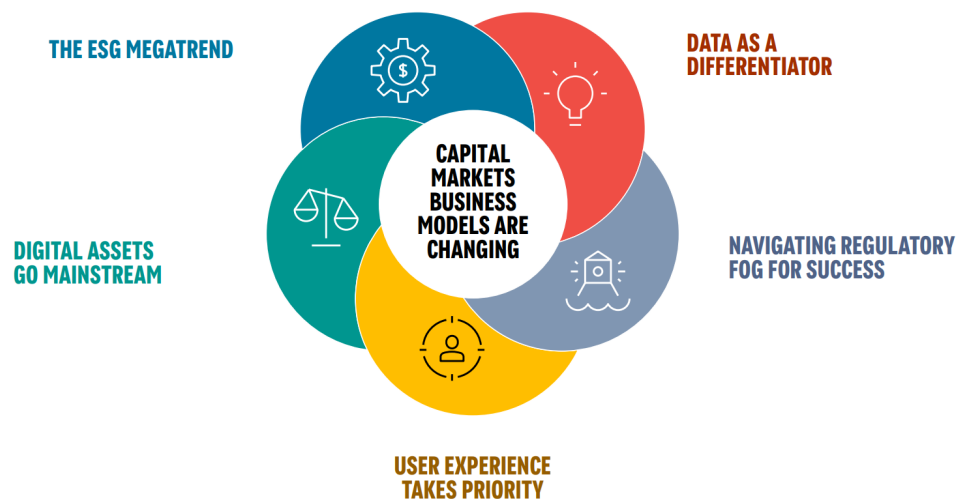
Source: Celent

CELENT PERSPECTIVE

Data is at the heart of the financial markets, and the analysis of this data can enhance performance. SG Markets, the capital markets trading division of the investment bank of Societe Generale, offers direct access to a range of pre-trade, execution, and post-trade data. Its SG | Data & Analytics offering leverages a range of emerging technologies such as APIs, web technology, and public cloud to provide full transparency on pricing and implicit levels via historical and live data.

This initiative illustrates the power of “data as a differentiator” and “user experience takes priority,” two key business trends that [Celent has identified](#) as driving technology investment across capital markets in 2023 (see Figure 1).

Figure 1: SG | Data & Analytics Aligns with Key Business Trends Driving Tech Investment in Capital Markets



Source: Oliver Wyman analysis

Celent considered the following factors when deciding to name Societe Generale our Model Sell Side Award winner:

- The initiative to modernise and open the SG Markets | Data & Analytics offering was a clear example of a business-driven use case for legacy modernization, which was also innovative in its approach to mutualize the costs of the platform.

- The solution successfully leverages emerging technologies such as microservices, data fabric, APIs, and public cloud.
- Innovative approaches such as modular architectures, infrastructure as code, and use of scalable generic tools reduced time to market over traditional approaches.
- SG Markets' approach to offering its data and analytics via a licensing model monetizes its market-leading position.
- We were impressed with the wide-reaching support for this project, with sponsors and stakeholders consisting of C-Suite and senior managers across not only Global Markets but also other corporate functions.
- By mutualizing costs and monetizing data, SG Markets has built a self-sustaining solution that allows it to continue build better client relationships.

Figure 2: Initiative by the Numbers



Source: Societe Generale, Celent analysis

“

This solution positively impacts business capability by having the right data, right analytics at the right time to make the right decisions on the markets.”

Philippe Dufaÿ, Head of Sales, Data & Analytics
Global Markets, Societe Generale

DETAILED DESCRIPTION

Since inception, Societe Generale has emphasized progress and international reach. Established by a group of industrialists and financiers in 1864, with Napoleon III signing its founding decree, the bank aimed to modernize the

SG Global Markets & Investor Services Offerings

SG Global Markets & Investor Services offers a full-service platform in Europe, leveraging its expertise to provide advisory services and trading execution. Societe Generale's market activities are integrated into a multiasset, multiproduct platform, servicing clients across asset managers, pension funds, banks and insurance companies, hedge funds, and more. Global markets activities include solutions in equities, fixed income and currencies (FIC), and securities services.

economy and build a financing infrastructure essential to the economic development of France and beyond, including countries in Latin America, Europe, and North Africa.

That modernizing spirit is apparent in this year's winning initiative, SG | Data & Analytics. This solution is available to clients of SG Global Markets & Investors Services, a business line of Societe Generale's Global Banking & Investor Solutions division. The delivery team, including core team and contributors, was drawn from across the bank to ensure the project had a broad range of experience.

Introduction

Table 2: Societe Generale

Year	1864
Headquartered	Paris, France
Global Markets Revenue	€5.9 billion in 2022, up 17.1% YoY
Geographic Presence	Global, with its largest footprint across Europe
Employees	117,000 employees across 66 countries
Other Key Metrics	Europe's seventh largest bank, with total assets of €1,464 billion (as of April 2022). Ranked #1 in Multi Asset Research and Index Research, #2 in Quant Research and #3 in Derivatives Research in the Institutional Investor 2022 Europe Research Survey

Sources: [Societe Generale](#), [S&P Global](#), Institutional Investor, Celent analysis.

Opportunity

Data sits at the heart of financial markets, and the insight drawn from this data offers a unique way to generate performance. Too often, however, data is not readily available to be accessed or leveraged to create insight, and Societe Generale's initiative sought to address this shortcoming. SG Markets already provides its internal users with access to internal proprietary data. This data is based on more than 5,000 instruments distributed to and used in numerous markets worldwide. These data sets provide access to a catalog of products across not only different asset classes, such as equities, equity derivatives, rates, and forex products, but also cross thematic.

Societe Generale believed that widening access to the data by providing an easy-to-use, flexible platform would benefit the company and its clients. As a derivatives and innovation leader (see box below), it wanted to expand on its in-house data assets to create a comprehensive and analytics offering for its internal and external stakeholders and clients. It also embarked on the initiative with a goal of mutualizing costs, ultimately transforming these costs into revenues generated through data licensing fees.

Societe Generale's commitment to innovation

Since 2018, [Societe Generale's Global Markets Incubator](#) has offered startups exposure for their products and solutions across the bank's Global Markets divisions. Selected entrepreneurs receive access to bank experts to enable rapid progress and deployment of solutions. Societe Generale becomes a potential client.

Societe Generale's objective is to "help grow sustainable businesses without conditions or limitations in the development of [its] partner startups." The focus is on partnership, shared expertise, go-to-market advice, and exposure to the Societe Generale network. Incubator alumni include [Forge](#), [Finsemble](#), and [AI for Alpha](#)

In undertaking this project, Societe Generale needed to combine various data sets and different analytics and to update the platform using modern technologies with goals of futureproofing and scalability. The new SG | Data & Analytics builds upon an existing, legacy, internal offering and needed to converge various data sets and different analytics.

The initiative was sponsored by C-Suite executives, namely, the CEO of Global Markets, and was supported by the deputy CEO in charge of technology. The initiative also had the support of what was termed the "Data Wise Committee," comprising senior managers of Global Markets including the global head of sales, global head of equity sales, global head of prime services, global head of global banking and investors services digital transformation, and the global head of Societe Generale research.

Solution Overview

SG | Data & Analytics covers the whole lifecycle of decision-making and data quality is enforced by leveraging feedback from internal users (over 180 Societe Generale departments are connected to the platform). The offering is relevant for a broad range of user types including portfolio managers, trading execution

teams, valuation teams, and quant and systemic research teams, and a wide scope of client types including private banks, systemic and hedge funds, insurance companies, pension funds, and more.

The solution was originally built over 10 years ago utilizing legacy technologies. The previous system was a mix of internal and external applications such as Excel add-ins. Data exchange with clients was conducted by static methods such as emailed files and file transfer protocol (FTP). There were some technical enhancements in the first eight years, for example efforts to migrate to cloud technology and early workaround APIs. These laid the foundation to kick off the transformation project two years ago.

Over the last two years, as part of a wider digital transformation program focused on boosting efficiency and future capacity across the bank, the legacy platform was transformed into a modern, agile, and modular platform. Societe Generale believed the time was right to strike for several reasons, including increased:

- Awareness of new digital capabilities.
- Demand for more data and data analytics.
- Need for greater interconnection with other systems.

In the process, the team built and leveraged expertise on AWS public cloud, microservices, APIs, front-end development, and database technologies. An agile methodology approach was employed. From a data and feature point of view, the platform offers significant upgrades including:

- Extension of the scope of the data set, for example new environmental, social, and governance (ESG) data.
- New transversal capabilities were made available to client across for the whole platform such as data visualization tools.
- Ability to leverage cloud for technical analytics to manage the scalability of the platform in response to activity and the needs of users.

Data, Technology, and Applications

Societe Generale built a set of APIs and websites supporting access to its data and analytics, applying microservices principles and technical market standards. Other technology expertise developed and/or leveraged in delivering this initiative included data management such as data lakes, data fabric, next-gen enterprise data management (EDM), DevOps, continuous integration (CI), serverless functions for websites, advanced testing approaches, and infrastructure as code.

In reviewing the initiative, it was clear that the project team was able to effectively combine these technologies and integrate them in a way that directly and positively impacted business processes and workflows. For example, the project team developed the concept of “digital bricks,” which refer to microservices exposed through APIs. These were designed to be continuously enriched by the tech teams, and several “digital bricks” could be assembled to

build out the application. The IT team is continuously adding new digital capabilities or “digital bricks” such as generic authentication, data parsing, visualization widgets, etc. The modular design of the solution and easy-to-understand concept of “digital bricks” support the building of new components on a DIY basis, for further scaling of the offering. The solution also leverages public cloud capacity in a safe and confidential environment.

In all there are over 25 data sets offered externally to the client. Over 100 Societe Generale internal applications are connected directly to the platform.

Timelines and Value Chain Impact

The project was delivered in three phases over approximately two years:

- **Phase 1** (one year): Platform build-out for select internal users.
- **Phase 2** (six months): Opened platform more widely internally and to external clients while adding new data sets and analytics.
- **Phase 3** (six months but ongoing): Convert client users from free licensing to a paid licensing model that matches their unique needs based on activity, data set, and usage required.

This solution impacts users across the markets value chain including primarily front office (research, sales, trading) and middle office.

Solution Partner

Societe Generale was an early cloud leader (see box below) and worked with several cloud solution providers. For this project, it worked with AWS. Societe Generale has had a strong partnership with AWS since 2015 and continues to work with the AWS teams to address new use cases using new services.

Societe Generale’s long history in the cloud

In 2022 Societe Generale [revealed plans](#) to close its data centers in the US and migrate applications and internal data lakes to the cloud. It started its cloud journey in 2015, focusing on data storage and compute “burst” capabilities for overnight processing of risk and P&L calculations. Later pricing engines (e.g.,

credit valuation, and migration of client portals for research and analytics) followed. The most recent activity focused on moving into trading-related use cases. The bank uses both AWS and Microsoft Azure clouds in the US, building additional “hardened” services on top of standard offerings, for an additional level of security.

Challenges

Change management, specifically regarding client interaction around data sharing, was cited by Societe Generale as a key challenge. Specifically, questions and concerns arose internally around the shift from providing data for free to having to support this offering as a product. Having the Data Wise Committee in place meant that decisions regarding these issues could be made quickly. Having

C-Suite sponsorship for the overall initiative ensured any challenges were resolved quickly.

Results

Key success metrics include the rate of client take-up and the amount of data downloaded. The platform has proved popular with clients, with over 1,100 external client companies currently using the platform. Overall data downloaded has increase 200% compared to last year.

On more qualitative levels, the platform has helped the bank streamline its IT systems and offered efficiencies such as saving technology specialists' time as tasks such as data quality checks and providing system access are simplified by the platform. The platform has also succeeded led to enhanced client relationships by increasing Societe Generale's reach into client organizations and by building long-term connectivity with clients. Clients use the platform to help deliver better investment performance and generate revenues. Examples of revenue-generating activities clients can use the platform for include:

- Building new trading signals.
- Optimizing investment allocation.
- Executing smarter trades
- Managing risk.
- Streamlining post-trade activities and analysis.

Lessons Learned and Future Plans

Societe Generale attributes its success to these key lessons learned:

- Ensure agility to test various ideas with low investment.
- Encourage a “no ego mindset” to allow the team to stop, pivot, and rebuild if necessary.
- Align across a wide-ranging team including representatives from legal, IT, sales, marketing, trading, compliance, etc.

In the future, Societe Generale hopes to build partnerships around the platform, such as bringing more value to clients by adding relevant tools and expertise, even if they are sourced from external providers. Societe Generale recognizes it cannot provide everything to clients and will focus on its areas of expertise and potentially look externally.

PATH FORWARD

SG | Data & Analytics is this year's Model Sell Side Award winner for numerous reasons including the innovative use of technology and a clear, well-executed, and demonstrable positive impact. As an executive at Societe Generale told us, "Technology is nothing without a good business case and a strong team alignment." We agree with the comment and see evidence of that sentiment with this initiative.

Looking forward, the bank plans to continue to build out its value proposition by extending the offering and establishing new partnerships. Societe Generale is interested in adding new data and analytics providers, further leveraging the bank's commercial team and distribution networks and perhaps even connecting its platforms with data marketplaces or clients' platforms. However, Societe Generale's main challenge is to continue to stay ahead of the competition and keep the innovative spirit going.

This project not only demonstrates an innovative and bold use of technologies, especially around public cloud but also is a good example of successful data monetization. By making a commitment to invest in transforming a legacy platform, Societe Generale has mutualized the costs of maintaining the platform, creating a new, recurring revenue stream for the bank that enhances client relationships. A measure of success is client engagement, with any profits from this initiative available for reinvestment to further enhance the platform.

This initiative also demonstrates strong business alignment—this was not a build-it-and-they-will-come project. The platform had already demonstrated its value to internal clients, and the data that is leveraged is unique to Societe Generale and in an area where they are recognized as a market leader. Additionally, by assembling a broad team with C-Suite sponsorship, internal concerns and questions were quickly and successfully resolved.

This case study provides an interesting model for other banks considering how best to leverage in-house data and analytics. Key takeaways include:

- The business use case should come first.
- C-Suite sponsorship combined with broad stakeholder collaboration is a must-have.
- A clear focus on building for the future is necessary.

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