



Anatomy of a Decision

Choosing TIBCO Spotfire for Enterprise Data Discovery

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What You Need To Know

As employees increasingly require autonomy to access and manipulate data, companies must evolve their use of analytics solutions. Self-service data discovery tools present the opportunity for organizations to meet these needs by providing consumer-grade usability. However, usability itself is not enough. As the need for incorporating data analysis into business decisions increases, companies must couple self-service access with governance and scalability.

This report examines the experiences of three organizations as they evaluated which self-service analytics provider best matched their business needs. Ultimately, each organization selected TIBCO Spotfire because of its robust analysis capabilities, enterprise scalability, and TIBCO's completeness of vision around data governance. For each research participant, the choice of TIBCO Spotfire resulted in tangible contributions to workflow efficiency, cost savings, and top-line financial performance.

About the Subjects

For this research, Blue Hill studied the experiences of three organizations. While each participant wished to remain anonymous, they represent mid- to large-sized firms across three distinct industries. Participants in this study include a multi-national biotechnology firm, a global petrochemical firm, and a mid-sized financial services firm.

Organizational Challenges and Investment Drivers

Participants cited a range of factors contributing to their investment in a self-service data discovery solution. The acquisition drivers that they identified in common included the need to expand data access to more employees and to support stronger analytical capabilities across the enterprise. In addition, some participants identified a need for analytic collaboration and improved efficiency as key criteria for investing in a new solution.

As the participants matured in their use of data analysis, they needed to distribute access to growing numbers of individuals, and in some cases, enable collaboration amongst these individuals. Generally, the legacy solutions were designed for centralized control of organizational data, and presented an onerous process to scale and answer inquiries across large numbers of requests. In other cases, participants were using Microsoft Excel spreadsheets to perform data analysis and communicate findings across the organization. This institutionalization of Excel presented a number of challenges, both because of the analytic limitations of Excel, and the difficulties associated in sharing reports created from piecemeal, fragmented, and siloed data throughout the organization.

AT A GLANCE

Solution Sought:

- Self-service data discovery and analytics

Drivers for Investment:

Legacy business intelligence solutions created an environment with:

- Limited analytics access
- Insufficient analysis capabilities
- Limited collaboration

Solution Selected:

- TIBCO Spotfire

Reasons for Selection:

- Ease of self-service analytics
- Enterprise scalability & platform maturity
- Breadth of analytics capabilities



The common challenge leading to the purchase of TIBCO Spotfire was that legacy BI solutions could not keep up with the evolution of enterprise-grade analytic demands, including:

“Taking 1.6 million rows in Excel and trying to get an analysis out of that is impossible. You start to lose the trustworthiness of the data. The ability to take the data in whole from the source and immediately put it into the analysis without cutting or scripts is extremely valuable.”
-Manager, Information Security & Threat Vulnerability Financial Services

Workflow and software design: In today’s marketplace, companies expect analytics and data analysis to be embedded into their everyday workflows. Analytics must now be readily available, integrated both with key data sources and core business processes, and easy enough for line-of-business employees to use.

Scalability and governance: As data sources becomes larger and more varied in nature, analytics solutions must keep pace by providing results in a relevant timeframe while maintaining the governance necessary to make sure that results are trustworthy. Trusted and timely data analysis requires more than just basic discovery and visualization; it requires high-performance computing and data integration.

Presentation of new and relevant data: When interesting and unexpected data comes into the enterprise, companies must be prepared and well-positioned to take action. This means that data needs to be quickly translated from its raw inputs to

properly contextualized and visualized outputs that drive actual decisions.

Collaboration: It is not sufficient to simply analyze data and effectively govern data analysis. The results must also be shared with relevant stakeholders within a department or team to translate data into an optimal direction or result.

Solution Evaluation Decision Points

From these drivers for investment, participants evaluated a variety of solutions to help them better manage their data analytics initiatives. Common criteria that shaped the solution evaluation process included:

- Easy-to-use, self-service analytics
- Enterprise scalability and platform maturity
- Breadth of analytics capabilities

Easy-to-use, self-service analytics: Blue Hill observed a variety of end-user populations who needed access to data and analytics, ranging from dozens of people in the financial services organization to nearly 10,000 in the multi-national biotechnology firm. In each case, the incumbent centralized process for distributing insights, answering questions, and performing analysis was inefficient, and insufficient to support current and timely demands for analytics.

SAVING TIME AND MONEY

A multi-national biotechnology firm deployed TIBCO Spotfire to support data management and access to researchers throughout the company. In doing so, the firm realized both cost and time savings. After deploying TIBCO Spotfire, the firm was able to save the equivalent of 5.5 full-time employees on their data management team. In addition, the company was able to reduce the lag time of data access from days or weeks to on-demand access.



Each participant underscored the importance of investing in a solution that allowed individuals to access the information on demand. In both the multi-national biotechnology and global oil firms, the ability to collaborate on analysis in real time was an important piece to allow individuals to do their jobs and work efficiently together across different geographies.

“Researchers are hired for their domain knowledge, not for data management. But they were spending lots of time doing things like number-crunching and formatting. We needed something to take this burden off their shoulders, and Spotfire did this.”

*-Visual Analytics Lead
Biotechnology*

Enterprise scalability and platform maturity: Participants also required an analytics solutions that provided enterprise-grade scalability, so that individuals could trust the results of their analytic discovery. Participants identified the need for a solution that could support the analytic workloads for large numbers of users across a variety of geographies. To ensure self-service access without sacrificing data governance, participants required a combination of trust and speed.

For larger deployments, platform maturity was especially important. Participants put a great deal of consideration into choosing a provider with extensive experiences in large deployments and resources to ensure success.

Breadth of Analytics Capabilities: Both the multi-national biotechnology firm and global petrochemical company needed advanced and predictive analytics capabilities in conjunction with self-service data discovery. They required a solution that provided a scalable, governable data infrastructure and the ability to conduct forecasting and predictive modeling across millions of data points. Participants intended to use the selected solution for such use cases as tracking results from clinical trials and forecasting production of oil wells.

Selecting TIBCO Spotfire and the Business Value Realized

In light of the decision points outlined, TIBCO Spotfire was ultimately selected as the solution that best met participants’ set of challenges and goals. Each reported significant benefits to their organization across key line-of-business, financial, and IT stakeholders.

Line-of-Business Stakeholders: Participants reported advantages in improving the efficiency and quality of their work. While the uses for TIBCO Spotfire varied within each organization, each participant saw efficiency gains in the workflows of line-of-business employees. Users were able to greatly reduce or eliminate time previously spent on data management and preparation. In doing so, users were able to spend more time on analysis and other value-added endeavors throughout the company.

The multi-national biotechnology firm deployed TIBCO Spotfire to a team of nearly 10,000 employees to support research and development initiatives. Prior to TIBCO Spotfire, the firm had used a legacy BI solution as their central data-analysis platform. Researchers were



experiencing delays in accessing data because of the number of requests required. In some cases it would take upwards of three days for researchers to receive the data they needed.

Because TIBCO Spotfire provides self-service access to data for the researchers, it allows them to upload, analyze, and iterate their data analysis on-demand. As a result, the firm was able to reduce the time researchers had to wait for data from potentially days to seconds. This impact offers an important point of consideration for organizations using legacy BI solutions that have not been recently optimized. An organization in a comparable analytic environment may have opportunities for similar efficiency gains.

Further, our research found that TIBCO Spotfire catalyzed collaboration by developing analytic-focused channels and communities across departments and geographies that were

previously non-existent. Researchers in different countries can now review and ideate a colleague’s data at a far greater speed.

“We chose Spotfire because our users need real-time access and the ability to answer questions on the fly. We needed something that was highly scalable and integrated well with our in house tools.”

*-Manager,
Business Intelligence
Oil & Gas*

The global oil company reported roughly 2,000 seats of TIBCO Spotfire that are deployed across a spectrum of use cases. The participant noted that TIBCO Spotfire enabled access to larger volumes of data while also allowing visual data exploration capabilities. This made it easier to discover trends and communicate insights throughout the organization. In this way, TIBCO Spotfire brings broader accessibility of data analysis to non-technical users who may lack scripting or SQL backgrounds.

The participant cited that TIBCO Spotfire, in addition to being able to perform basic visual data discovery, was powerful enough to handle more advanced analytics as well. This included projections used to determine probabilistic yields for oil wells and optimizing efforts to

maximize revenue.

IT Stakeholders: The scalability and self-service access of TIBCO Spotfire led to enhancements in data governance and efficiency for IT stakeholders. Individuals were able to access the data they needed on-demand without going through IT, because centralized data governance was already baked into Spotfire’s data access and discovery options. This meant that IT teams were not inundated with basic data access and report scripting requests, and could focus on more important value-added activities.

The ease of data access eliminated many existing frustrations around data governance. The financial services company interviewed in this research required daily updates on security vulnerabilities. Blue Hill found that the firm effectively used TIBCO Spotfire to access data through the platform and have managers individually access their analyses. Previously, the IT department was answering a multitude of often-redundant questions on a daily basis. Now



managers can access their analyses & dashboards themselves, and remove this burden from the IT team.

The multi-national biotechnology firm in this research found that TIBCO Spotfire provided improvements in data quality by reducing the latency of data change. Previously, the latency of getting data into and out of a legacy BI system incentivized researchers to work with data outside of the central system and on their own desktops, without formalized data and analytic replication or synchronization. This unmanaged analysis environment created serious concerns in ensuring that data in the central system was up-to-date and correct, a necessity for ensuring research efficacy.

For the biotechnology and oil firms, Blue Hill found that the enterprise scalability of TIBCO Spotfire was paramount to the success of the deployments. In addition to the number of users, each company had several existing data management, storage, and analysis tools within their organization. As such, they sought to partner with a solution provider that demonstrated a completeness of vision around the full process of data analysis within their organization. A major value proposition of TIBCO Spotfire was the breadth of data that it brought into the analysis environment, providing a holistic approach to data discovery. This expertise is also supported by TIBCO's broad experience in managing large-scale analytic deployments, including "Big Data" analytics. Participants reported that TIBCO's enterprise experience was valuable to the implementation's successful outcomes.

Financial Stakeholders: Blue Hill found that TIBCO Spotfire deployments led to a variety of financial improvements as the solution was deployed across each organization.

While the oil firm was unable to quantify ROI associated with deploying TIBCO Spotfire because of the diversity and variety of use cases throughout the organization, it was able to identify specific financial value propositions associated with the deployment. For example, financial savings were realized as a result of better projections and modeling surrounding the production forecasting of oil wells. This allows for the firm to maximize production, and more efficiently conduct capacity planning. The result is a tangible contribution to top- and bottom-line growth.

In the case of the biotechnology firm, it was able to reduce its data management team from seven full-time employees to one and a half. This was a direct cost savings of five and a half full time employees. TIBCO Spotfire allowed for researchers at this firm to access data on-demand, and created an easier-to-manage data environment, which accelerated time-to-action and reduced the cost of ongoing management.



Conclusion

Blue Hill determined that TIBCO Spotfire provides specific benefits for each of the research participants beyond what is typically observed in the self-service market. Decision makers considering self-service data analysis tools in their own organization should study these experiences in the context of their individual circumstances.

Common to the decision criteria of each participant was the need to partner with a solution provider that could provide self-service access for all levels of analysis complexity on an enterprise scale, without sacrificing data access governance. By shifting from a centrally-managed BI reporting structure to on-demand access to data and analytics, research participants offloaded the burden of requests from the IT department, and created new efficiencies for line-of-business users. Similarly, these time and personnel savings provide meaningful financial impacts as users began to apply data-driven decisions to revenue generating activities.

To maximize the value of self-service analytics, careful consideration must be given to support governed data access. Ensuring confidence in the data at the foundation of analysis lays the groundwork necessary to reap benefits from self-service access to analytics and data discovery. Based on the value and successes documented, Blue Hill believes that companies seeking to provide self-service analytics at scale with data governance and mature analytics capabilities should consider TIBCO Spotfire.

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