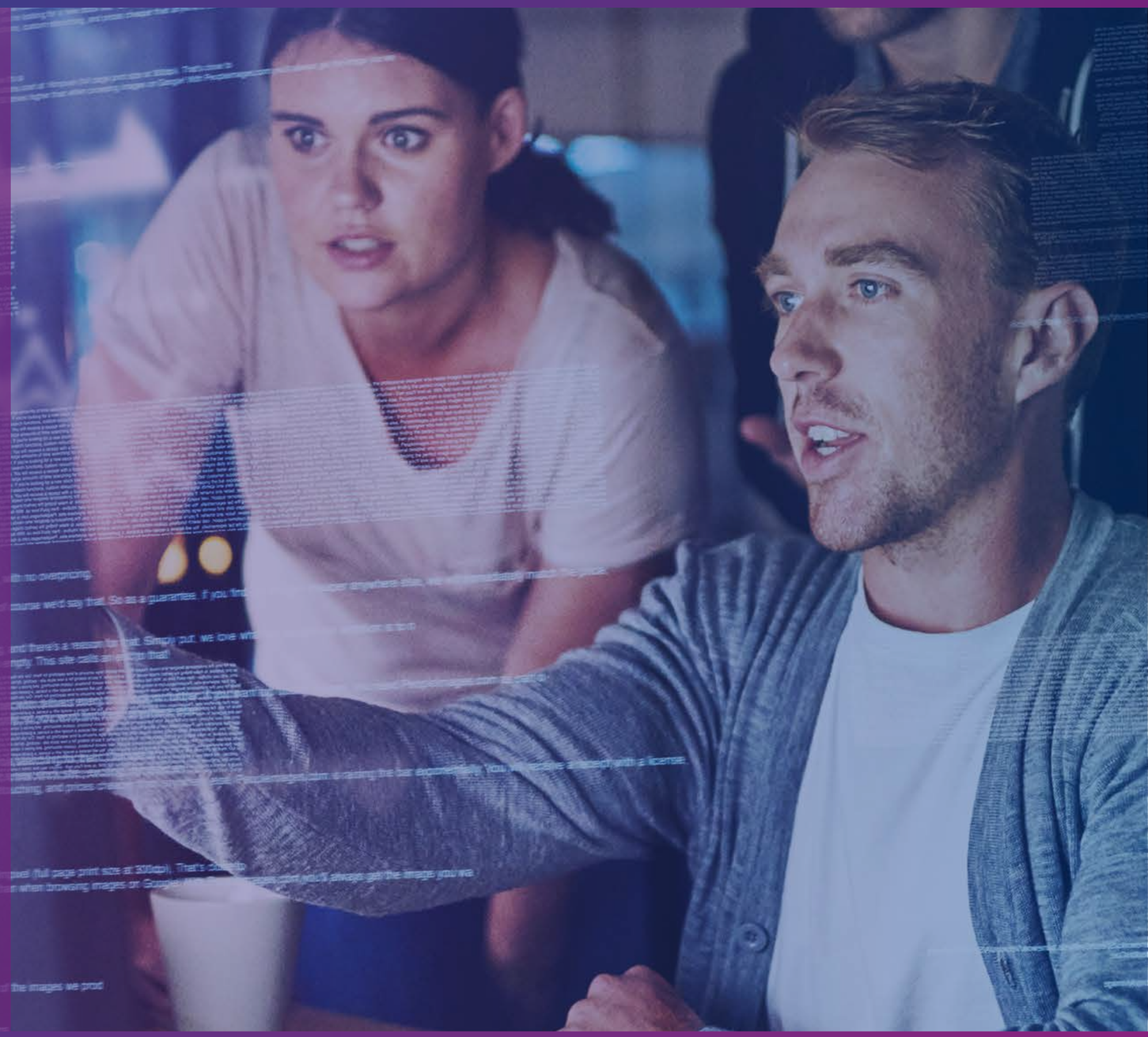
Achieving agility and transparency through integrated feature management

The data dilemma in financial services

Financial institutions must develop and deploy high-performing models that support decisions and generate value. To succeed, they need seamless access to high-quality data sources and a robust, centralized system to efficiently transform data into valuable features.

At the same time, organizations must ensure that data governance, compliance and risk management efforts remain prioritized throughout the lending lifecycle.

As institutions strive to leverage advanced analytics and AI for improved lending decisions, the need for an integrated, efficient feature management solution has never been more critical.



53%

of banks cite AI and advanced data analytics among their top technology priorities in 2025.

Celent Dimensions Retail Banking IT Pressures Priorities 2025

The feature lifecycle in context

Feature engineering serves as a bridge between raw data and model development, playing a pivotal role in the data-to-decision process:

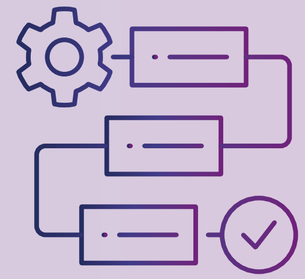
Data collection: Financial institutions accumulate vast amounts of data from various sources, including transaction records, customer demographics and market trends.

Preprocessing — data cleaning and transformation: This stage involves handling missing values, correcting inaccuracies and standardizing data formats to ensure consistency.

Preprocessing — feature engineering: Relevant features are extracted or created to serve as inputs for machine learning models. Effective feature engineering can significantly improve model performance by capturing essential patterns in the data.

Model training and evaluation: The engineered features are used to train models, which are then evaluated for accuracy and performance.

Decision-making: Insights derived from these models inform strategic decisions, such as credit risk assessment and fraud detection.



The critical role of feature building

Transforming raw data into valuable insights hinges significantly on feature building —selecting, modifying or creating new custom features based on existing data to enhance model performance. **The quality of data used in this process is paramount, as it directly influences the efficacy of predictive models and, consequently, the institution's ability to derive value.**

The high cost of siloed and poorly managed data

Organizations face significant hurdles in leveraging their data for analytics. A primary challenge is that data often exists in silos and can be poorly prepared for model building.

> Data silos and fragmented ownership prevent seamless integration and effective data management — impacting ROI.
>
> *Forrester Data Governance Solutions Landscape Q1 2025*

This fragmentation results in:

- **Increased operational costs:** Sourcing, centralizing and maintaining high-quality data for feature engineering is expensive.
- **Compliance risks:** Without clear data lineage and governance, ensuring regulatory adherence becomes complex.
- **Missed revenue opportunities:** Slow feature development and deployment lead to delayed insights, reducing agility in responding to market demands.

54%

of the source data used in credit decisioning isn't model-building ready

Experian Analytics Market Research 2023

> Global data and analytics decision-makers most often cited data silos, lack of data skills among business users, too many competing and shifting priorities, poor collaboration between internal teams and legacy systems hindering progress as challenges to achieving their objectives.
>
> *Put The Business Back In Your Data Management Business Case, Forrester, Feb. 12, 2025*

Key challenges facing risk and compliance teams

Bottlenecks in the feature lifecycle

Despite the wealth of available data, financial institutions struggle with key roadblocks that slow down the feature management process and introduce risks.

Data governance and compliance risks

Lack of data lineage tracking: Without transparency in feature creation and modifications, ensuring compliance against the backdrop of evolving regulations becomes challenging.

Inconsistent feature calculations: Different methodologies across development and production environments introduce model risk.

Unsecured data usage: In a recent IDC survey, more than 60% of financial institution respondents said that compliance presents a moderate or high challenge in adopting external data sources[1] leading to regulatory exposure.

Scalability and cost efficiency in feature engineering

High cost of sourcing and maintaining data: Managing multiple data stacks is complex and resource intensive.

Skills gap: Many teams lack expertise in automated credit reporting and advanced feature engineering.

Slow feature development cycles: The inability to rapidly test, deploy and iterate features slows AI and analytics adoption.

> Treating data and AI as siloed, one-off, single-use capabilities will hold companies back from reaping the rewards of these capabilities and put them in a reactive mode — especially when data risks abound.
>
> *Forrester 2024, Connect Data to Decisions to Drive Business Impact*

[1] *IDC, Collaboration Against Crime: Harnessing Data Sharing for Smarter Fraud Detection (#US52910925), February 2025*

Inefficient collaboration across teams

Disconnected workflows: Risk, compliance and data science teams often operate in silos, slowing down feature deployment.

Difficulty maintaining a centralized feature library: As teams expand, governing and standardizing feature definitions becomes more difficult.

Poor model monitoring and validation: Monitoring model drift, performance and compliance risks is challenging without integrated statistical reporting and lineage tracking.

The importance of a centralized repository for model governance underscores the difficulty of managing features and ensuring compliance without a system to track model versions and performance.

How Experian Feature Builder addresses these challenges

Financial institutions don't just need better tools — they need more **intelligent workflows** that **automate** governance, ensure **transparency** and **accelerate** development. They need to:

Break data silos by creating unified access across departments and data types.

Ensure trust and compliance by embedding audit and lineage tracking at every stage.

Reduce manual effort and rework through scalable, automated processes.

Enable strategic agility by empowering teams to test and deploy new features faster and more consistently.

Industry analyst perspective

When organizations have confidence in the governance of their models, they are more likely to bring new products to market swiftly and with lower risk exposure.

Addressing the bottlenecks in the feature lifecycle isn't about building more — it's about building smarter. Organizations must shift from reactive, fragmented data handling to proactive, governed and integrated feature development. This approach improves compliance, reduces risk, and unlocks faster paths to innovation and competitive advantage.

What's Experian Feature Builder?

Experian Feature Builder is a modern, integrated solution that streamlines the development, deployment and management of custom features across the modelling lifecycle. Built on the Experian Ascend Platform™, it connects the Ascend Analytical Sandbox™ for experimentation with Ascend Ops™ for production deployment — enabling a seamless, end-to-end workflow.

By centralizing feature development in one governed ecosystem, Feature Builder enhances compliance, accelerates time to market and reduces risk. It gives users access to 20+ years of trusted credit attribute definitions, supports the integration of multiple data sources and allows coding in Python — all while maintaining full visibility into feature lineage and performance.

The result? Faster, smarter and more secure credit decisions that empower institutions to innovate with confidence.

Platforms that offer robust and unique model governance capabilities may stand out, but as industry standards evolve, these features will become baseline expectations.

Experian Feature Builder is one critical component in the broader data-to-decision journey. True value comes from a unified, integrated approach that connects the full lifecycle — from data sourcing and feature development to model deployment and performance monitoring. Organizations that align their teams, tools and strategies around this connected ecosystem will be best positioned to unlock data value at scale, drive better decisions and stay ahead in a rapidly evolving financial landscape.

Industry analyst perspective

Platforms are increasingly being evaluated not only on their ability to generate analytics but on whether they can arbitrate between options and drive execution. The market is focused on enabling not just insight generation, but direct operational execution through automation.

Learn more about Experian Feature Builder