experian

FROM DATA TO DECISION

Discussions on a unified platform

Welcome

In credit risk and fraud, the journey from **data to decision** is often a long one. From searching, acquiring and preparing data, through to model development and deployment, the process is highly complex and time consuming. As a result, almost two-thirds of businesses believe that it currently takes too long to develop and deploy their models. For many organisations, this process can take over a year, which makes it hard to adapt and respond to changes in the market.

So, what can be done? As lenders look to accelerate their model development and deployment process, a number of important factors are driving a change in approach

Businesses are looking to simplify the ingestion of data into modelling environments, making it easier to find and consume new data sources. They need flexible integration of services that easily connect to their existing tech stack, working seamlessly within their ecosystem. And they want to accelerate time to market – to develop or redevelop models in faster cycles to deliver a positive impact on business performance. All of these objectives must be achieved against a backdrop of increasing regulatory scrutiny.

By solving these challenges, businesses can start to create a unified model development and deployment experience which allows for greater collaboration between business stakeholders. **In this paper, we will explore what that unified experience could look like for organisations and what the essential building blocks are to enable this vision.** This view of the future will help businesses better prepare for the journey.

I hope you find this study insightful.

SHAIL DEEP
COO Experian EMEA & APAC

Introduction

The building blocks of a unified data-to-decision experience.

BLOCK 1
Data access and integration

Simplifying the connection and management of diverse data sources.

BLOCK 2
Analytical sandbox

Enhancing data analysis and model building through a consolidated environment.

BLOCK 3
Model deployment

Streamlining the process to shorten deployment cycles and improve business agility.

BLOCK 4
No-code decisioning

Empowering business users to manage decisions without extensive technical expertise.

BLOCK 5
Cloud ecosystem

Leveraging cloud technology for seamless integration and enhanced operational efficiency.

INTRODUCTION

This report delves into the intricate journey of transforming raw data into actionable insight, focusing on credit risk and fraud management.

The aim is to present a view of how a unified platform can revolutionise the data-to-decision journey and explore the building blocks necessary for this transformation. And to offer a deeper understanding of the future landscape of credit risk and fraud management and how to prepare for it effectively.

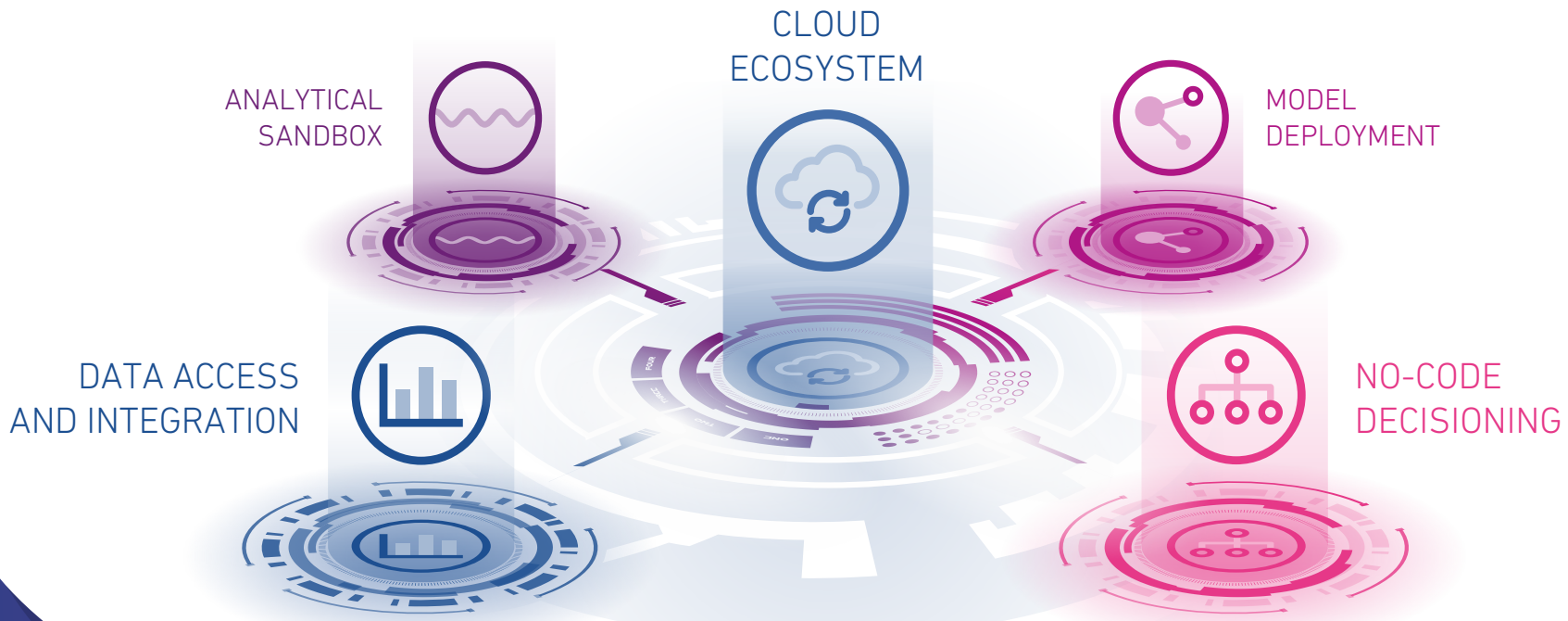
We'll highlight some of the challenges businesses face in the complex data-to-decision process, such as the lengthy timeframes required for model development and deployment, which can span over a year. Then reflect on why a unified platform can help solve some of these common challenges whilst looking at the implications of an integrated approach that seamlessly connects data, technology, and insights.

This unification brings together simplified data access and management, flexible service integration, and accelerated time to market.

And of course, a unified platform must be open and extensible, with API capabilities that allow for scalable integration with third-party tools and data sources. This approach enables businesses to leverage the value of a unified platform whilst maintaining preferred tools and systems.

We will use the term 'unified' to describe the idea of core risk and fraud components – data, analytics, and software – being brought together within a single integrated cloud platform.

The core building blocks of a unified platform



BLOCK 1: Data access and integration

MAKING CONNECTIONS

Seamless access to data connectivity and integration

The volume of data is growing exponentially. As data expands, so does the compute resource required to handle it. Most businesses recognise the need for more data to fuel the creation of insight. With growing volumes, the need to ensure that data is accurate and clean also grows in importance.

For 55% of businesses, this thirst for data means that investment in new alternative data sources for analytical models is one of their biggest priorities. However, once this new data is sourced, many organisations find the integration process time-consuming and complex, with data scientists often spending between 40-60% of their time on data preparation and integration tasks.

To obtain a single customer view, businesses must successfully connect data from multiple areas and systems. **As the number of data sources used for credit and fraud decisions increases, the way it is accessed is changing.**

Faster API connectivity, cloud storage, and elastic infrastructure make it possible to connect data to systems in smarter ways. RESTful APIs are designed for flexibility and allow simple integration with a variety of data sources, including databases, web services, and third-party applications. These APIs facilitate seamless data exchange and manipulation, allowing businesses to efficiently link disparate systems and automate data workflows.

"Data is like garbage. You'd better know what you're going to do with it before you collect it."

MARK TWAIN

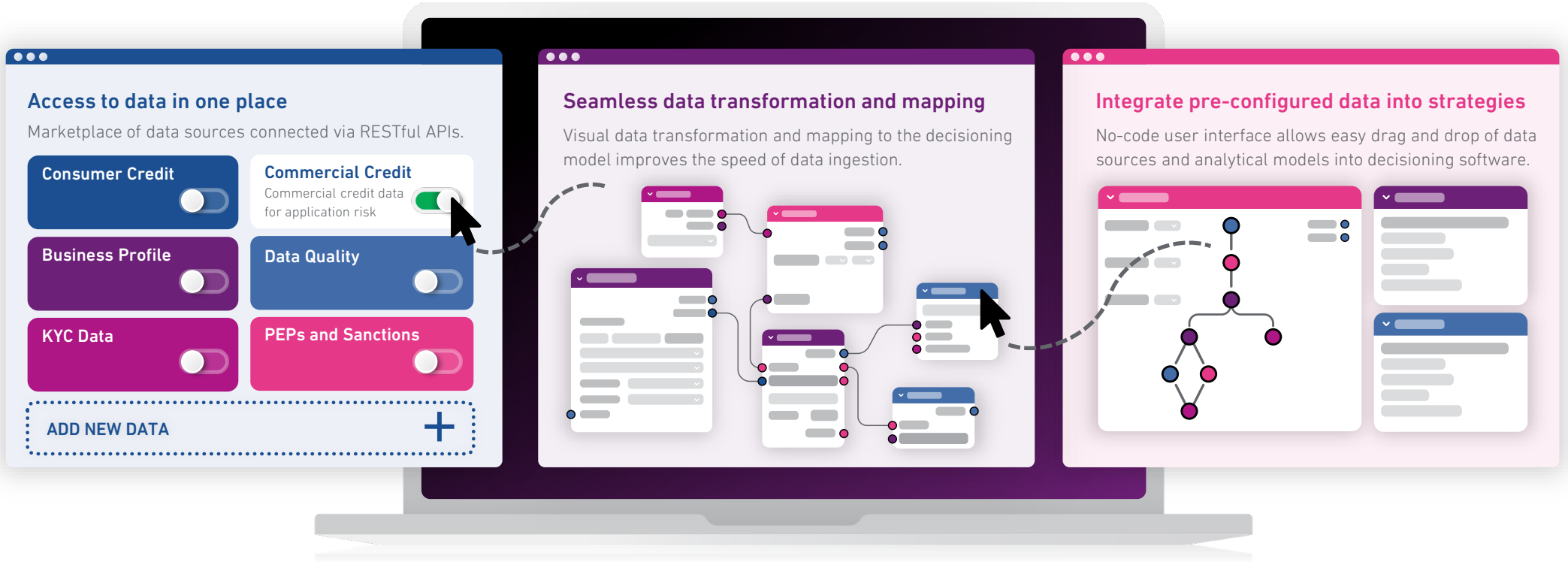
Data preparation also plays a pivotal role in facilitating connectivity and integration. By gathering, structuring, and organising data, businesses are better able to derive meaningful insights from their analysis to identify trends, patterns, and correlations with greater precision. The aim of data governance is to ensure that data is accurate, consistent and reliable, and that it meets the needs of the business while complying with relevant regulations.

For a unified platform to work, simplified data access and connectivity between applications is vital. In today's complex environment, **the ability to access and analyse vast amounts of data at speed has become a differentiator.**

To be most effective, data, risk, compliance, and fraud teams need an integrated environment that combines data, advanced analytics, and decision-making tools in one cohesive platform that informs a data-led, insight-driven risk policy complete with monitoring and auditing features.

BLOCK 1: Core needs

- Centralised access to internal and third-party data sources with flexible self-service integration
- Data transformation and resolution to allow amalgamation of data sets in a consistent and compatible format
- Scalable data storage
- Simplified access to data sources across platform applications
- Ability to self-register data sources and add catalogues to the central platform
- Seamless processing of large data sets (e.g. bureau feeds)
- Robust encryption for data at rest and in transit with comprehensive audit trails to ensure data integrity and security
- Simplified UX to ingest and manage data inflows with drag-and-drop functionality
- Ability to profile, standardise, cleanse, transform and enrich data assets



Implications of unified data access

Data marketplaces already exist, but the true value lies in multi-directional data connection between applications, including model development and Model Ops tools, and credit/fraud decisioning software. **A central marketplace or data hub makes it easier for users to browse, search, and source data within a central platform.** This avoids the challenge of bringing data together from multiple different sources and, therefore, simplifies the data ingestion process considerably. Moreover, a consolidated access point helps reduce data redundancy. The pre-integration of data sources means users can try data before buying, with a simulator to test data before moving it into production.

If the data marketplace is held within a single platform, then the same data is available to all the other tools within the platform.

As we move into our next core building block – Analytical Sandbox environments – it becomes very clear why a seamless data connection can streamline data management processes. Business units can become more efficient by being able to access, integrate and then analyse data seamlessly – reducing complexity and fragmentation whilst saving time and resources.

BLOCK 2: Analytical sandbox

MAKING SENSE OF THE OCEAN OF DATA

"We are surrounded by data but starved for insights."

JAY BAER

Simplified data control to insight

Credit scores still dominate the risk decision process. However, businesses recognise that they require more data to address increased risk - whether that be macroeconomic, geopolitical, climate, or fraud and cyber risk. As we've discussed, many businesses are now expanding the amount and type of data they incorporate into models to better manage these risks. This has led to an increase in the use of alternative data and synthetic data in model development.

Block 2, the Analytical Sandbox, is all about interpreting and analysing that data to create insight. Here, the model builders get to work. Data scientists know that working with a wide variety of internal and external data sources will deliver better models, but bringing that data together can be extremely challenging. Close to half (48%) of lenders struggle to seamlessly connect different data assets in a unified way.

By connecting the **Analytical Sandbox** to **Data Access** (block 1) on a unified platform, businesses can make sense of often disconnected datasets. **An Analytical Sandbox allows a variety of structured and unstructured databases to be consolidated into a single environment, where it can be normalised, cleansed and prepared for analysis.** This simplifies data governance and security.

How does a unified platform improve model development productivity?

With an integrated platform, technology and data teams have seamless access to the relevant data sources they need via the sandbox environment - where they can safely experiment with developing models. The platform allows businesses to house all their data sources in a secure and scalable environment. Data scientists can then easily search, select, test and ultimately ingest data from the marketplace discussed in block 1.

With a range of tools available in the sandbox, different users can work simultaneously and collaboratively on different types of model development, all in a single environment. Once models are developed and tested in the sandbox environment, they can be seamlessly transferred to the model production software.

With these various tools managed in one unified platform, users can switch between applications with ease. Organisations can manage single sign-on access parameters to set specific control permissions across multiple teams and users involved in the process, including data scientists, credit risk managers, and IT teams.

Simultaneous multi-user access to the same data enables agile working and increased efficiency whilst ensuring full data traceability.

BLOCK 2: Core needs

- Simplified data management to effectively utilise data across different tools
- Flexible access and control across multiple functional teams: risk, data scientists, and IT
- Secure cloud environment that can deliver feature updates and upgrades seamlessly
- Built-in tools to support auditing and regulatory compliance, e.g., model ‘explainability’ to comply with AI Act in EU markets
- Scalable and adjustable on demand without worrying about infrastructure limitations
- Full choice of industry-leading analytics and data visualisation tools (R, Python, SAS, PowerBI, etc.)
- GenAI integration to support users e.g., help with data queries and support with coding

With these various tools managed in one unified platform, organisations can manage access parameters to set specific control permissions across multiple teams and users involved in the process, including data scientists, credit risk managers, and IT teams.

Implications of simplified data control

A key priority for technology and data teams is to ensure ease of connectivity to all relevant data sources, whilst ensuring data security and privacy. Sandbox environments allow data scientists to explore and analyse rich datasets, providing a centralised location for data discovery and model development. It enables organisations to accelerate data analysis and insight creation processes, which means they can be more responsive to changing market dynamics and shifting customer behaviour.

BLOCK 3: Model deployment

SHORTENING TIME TO MARKET

"The only constant in life is change"

HERACLITUS

The challenge of moving models into production

Block 3 focuses on shortening the process of model deployment – a key component of Model Ops. Our latest research reveals that for more than a third of businesses (36%), the model deployment process takes longer than one year to complete. Considering that the efficacy of models diminishes over time, a delay of 12 months on model deployment may result in the model underperforming from day one. **The longer it takes to get a model live, the slower the impact of the improvement, which reduces the return on investment.** Time really matters. And with 48% of businesses stating that they are updating models more frequently than ever before, a slow deployment process is likely to impact profitability.

How long, on average, does it take your organisation to complete model deployment-related activities?

Model Ops has become a key differentiator between lenders. Having the agility to fast-track newly developed models into production is critical to keep pace with changing credit behaviour.

Source: Experian research conducted by Forrester Consulting, August 2024
Base: 1320 EMEA & APAC decision-makers at Financial Services and Telco providers

Why are organisations updating their models more frequently?

Regulatory changes, such as frameworks like IFRS9, demand more dynamic modelling:

- Analytical modelling standards to ensure consistency, transparency, explainability and strong governance
- Model monitoring and validation to ensure ongoing accuracy of model performance
- Regulatory classification and measurement of assets and liabilities (IFRS9) to ensure standardised reporting of solvency

Macroeconomic factors impacting default rates and repayment behaviour

Implementation of advanced analytical methods like Machine Learning (ML)

Incorporation of alternative data sources to refine predictive accuracy

Model development to combat emerging risks – such as climate and evolving cybersecurity threats

Why does the process take so long?

One of the biggest challenges for organisations comes from the reliance on multiple teams to complete deployment-related activities. For example, analytics teams often rely on IT Ops to re-code and package the models before moving them into production. Analytics teams will then need to retest the models, taking them away from more productive work. There is also a requirement for model governance associated with the validation and compliance of models. These factors add time to the process.

As well as the time to deployment, **the second biggest pain point highlighted in our research is the integration of models into existing workflows.** This disconnect results from the need to re-code models from their original development code into a coding language recognised by a decision engine. This issue is compounded by the non-linear workflow pattern that is usually required to optimise models. This back-and-forth between data preparation, model engineering, deployment and monitoring can cause significant delays. The complexity of these workflows is exacerbated when different databases and tools are required.

How does a unified platform help?

A unified platform can solve many of these challenges by streamlining the connection between credit and fraud models and related strategies. This involves the direct integration of Model Ops with the decisioning software, where the model is deployed and ready to be used. This connection is vitally important because until models are successfully moved into decisioning, they represent a cost – there is no return on investment until they are live in the decisioning environment.

Integrating Model Ops with decisioning software simplifies and encourages collaboration between different departments, as model monitoring and strategy performance can work hand-in-hand to enhance the precision of credit decisions. This offers scalable deployment into decisioning, whilst improving model governance to ensure ongoing model monitoring of potential drift or bias developing over time.

Benefits of integrated decisioning by business function

Data and analytics teams

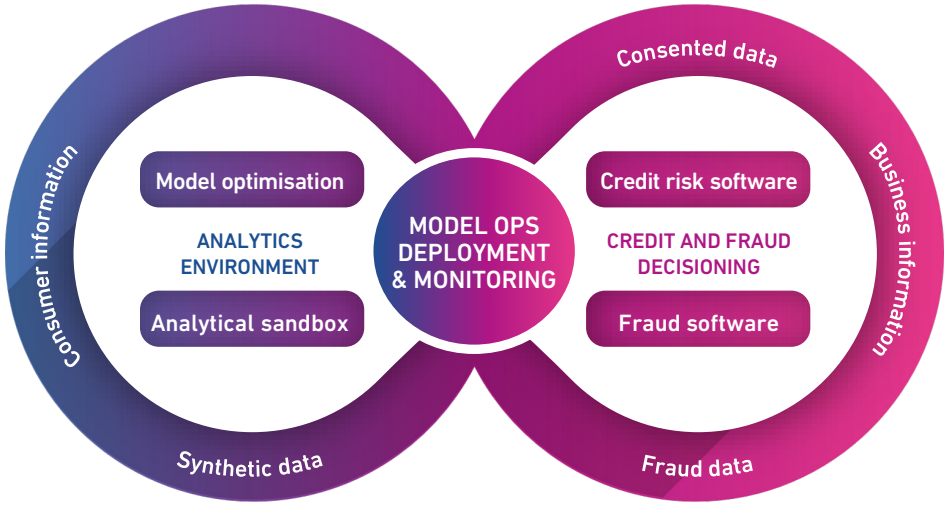
Enables more ML models to be deployed faster. This can accelerate and increase the return on investment that organisations are putting into ML model development. Automated model monitoring can also help identify potential model drift, which enables early intervention to protect against the risk of deteriorating model performance. A further benefit is that it allows analytics teams to own the end-to-end deployment process without relying on IT teams for model re-coding.

IT teams

Removes the need for IT to recode analytical models. This immediately removes multiple dependencies and constraints from the process, which typically add considerable cost and delay. The IT function can focus on being an enabler for the business rather than a dependency. At the same time, the integrated, modular nature of a unified platform also fits with wider technology objectives of increased scalability, interoperability and composability.

Risk teams

With the faster deployment of ML models, risk teams can respond faster to any economic, behavioural, or regulatory changes which are threatening portfolio volatility and loss exposure. Risk teams will also benefit from model monitoring, which allows them to track and validate the performance of models to identify any issues. And with decisioning software seamlessly connected to Model Ops software, a risk analyst can use no-code integration tools to directly call the model from the Ops environment straight into the workflow. With user-friendly visualisation tools and drag-and-drop functionality, the creation of decision process flows can be achieved in minutes.



Chief Data Officer

Faster model deployment

Improved analytics ROI

Reduced model under-performance

Line-of-sight

Head of IT

Reduced dependencies, constraints and complexity

Reduced total-cost-to-serve

Scalable architecture

Line-of-sight

Chief Risk Officer

Reduced losses

Increased agility and revenues

Reduced compliance risk

BLOCK 3: Core needs

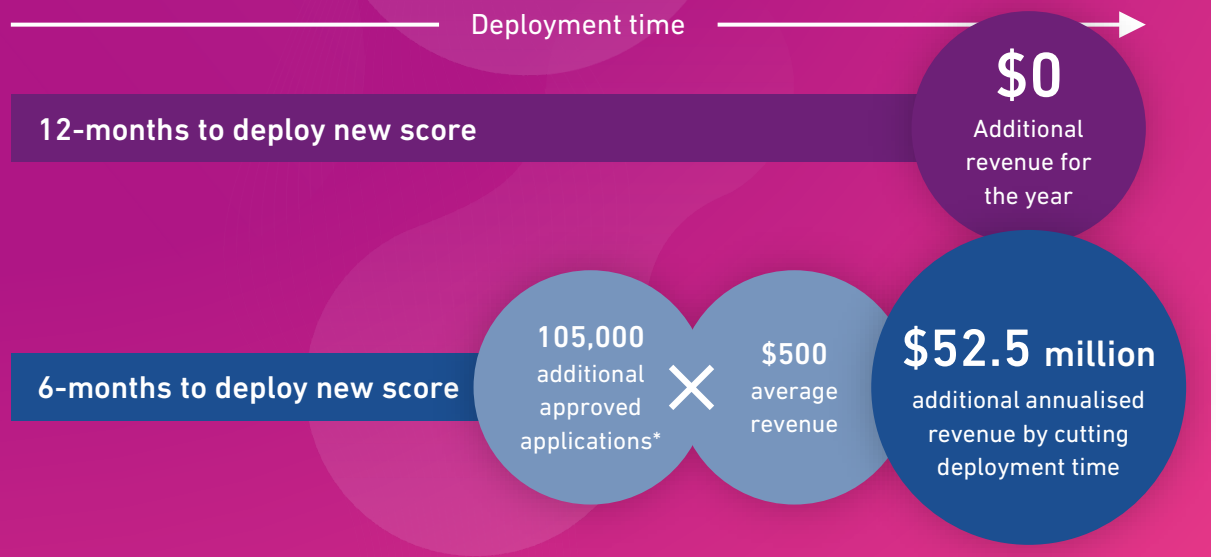
- Simplified, scalable deployment process that delivers faster analytical cycles
- Analytics teams empowered to own the models through the development and deployment process
- Eliminate the need to re-code and package models before moving them into production
- Full model visibility, transparency and explainability for internal auditors and external regulators
- Real-time model monitoring and feedback connection into the analytical sandbox environment

A unified approach helps improve user experience by making it easier to move between applications. It allows businesses to build a model in the sandbox environment, then auto-register in the Model Ops application with the necessary regression testing and compliance checks, approve them, and then pull those models (and the supporting documentation) immediately into the decisioning software ready for action. Ordinarily, this process would involve hopping between different services and vendors, but with a unified platform, the process is more ergonomic and streamlined.

Why 'time-to-market' in Model Ops is so important

Let's look at a hypothetical scenario. COMPANY A develops a new score for personal loans. Compared to the current score, it is proven to increase predictiveness without impacting current risk thresholds. In a retro analysis it delivered a 32% increase in approved applications compared to the previous score when compared over 12-month period.

This equated to an indicative additional 210,000 (17,500 per month) in approved applications over the year. Hypothetically, let's say the average revenue per applicant for personal loans is $500 per annum for COMPANY A. Let's see what the difference 'time-to-market' makes in the deployment process.



* Assumes consistent monthly volumes across 12-months and calculates as 6x 17,500 applications being approved by deploying 6-months faster

Implications of shortening the model development cycle

The ability to shorten the development or redevelopment of models and subsequent deployment is a true game-changer. Model Ops is playing an increasingly important role in business agility. **It is likely that efficient Model Ops will be a key differentiator in the medium term, providing a competitive advantage to those organisations that can rapidly adapt their credit risk and fraud models.** Our research shows that the majority (54%) of decision-makers believe that Model Ops will play a key role in shaping the credit industry over the next 3-5 years.

BLOCK 4: No-code decisioning

AUTOMATION GOALS

Empowerment of business users

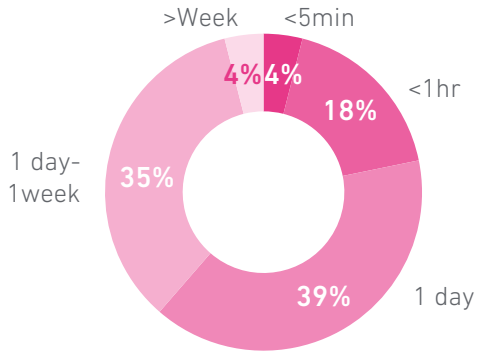
To manage credit risk and fraud decisions, businesses typically use specialist software, and here we come to the penultimate block. Over the past few years, decisioning software providers have invested in graphical user interfaces that allow a wider audience to complete complex tasks. **By building functionality that requires no coding, this type of interface empowers business users to create and manage both simple and complex decisions.** This is an important step to reduce the reliance on advanced technical experts for some of the key processes.

In a competitive marketplace, lenders continue to focus on decreasing the time to decision for approval of new customers, whilst ensuring the risk threshold is at the right balance. Our research shows a significant variation in average approval times for a new loan. Many organisations are prioritising the use of automation – especially for lower-risk applications. **In fact, investment in automated decision-making was cited as a critical or high priority for 52% of businesses.**

"Automation applied to an efficient operation will magnify the efficiency"

BILL GATES

"How long, on average, does it take your organisation to approve a new application for a typical consumer loan?"

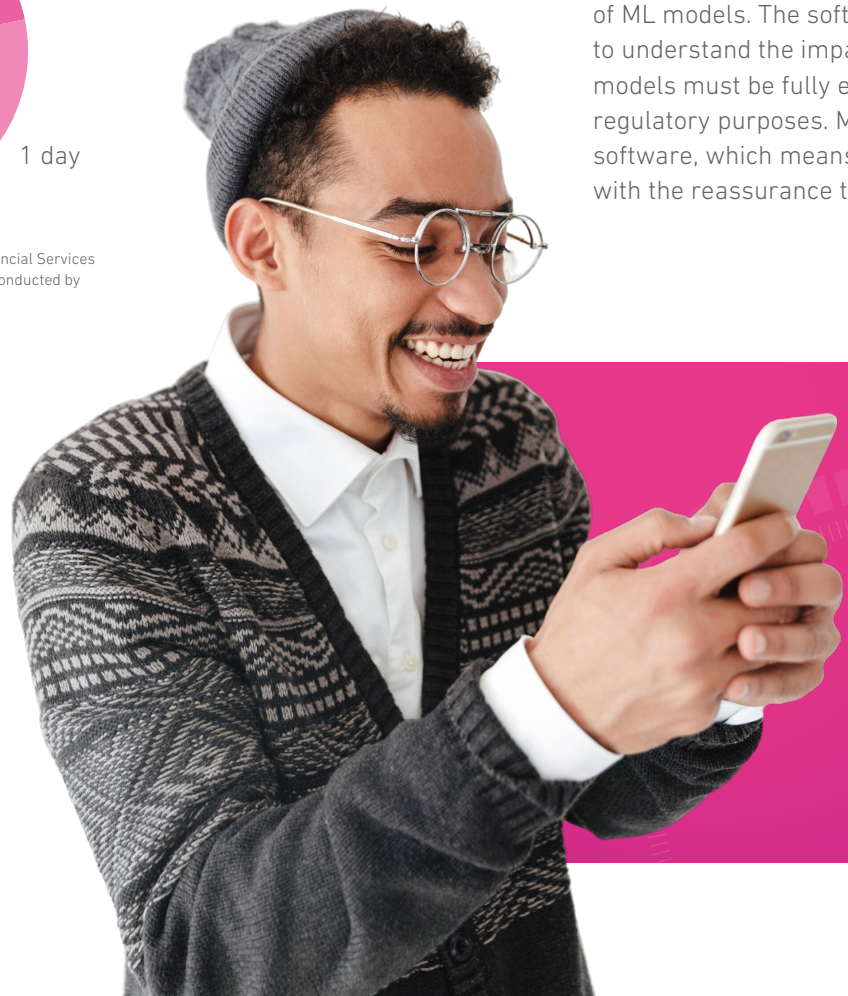


Base: 325 EMEA & APAC technology leaders at Financial Services and Telco providers. Source: Experian research conducted by Forrester Consulting, August 2024

Machine Learning powered automation

To automate more credit and fraud decisions with confidence, many businesses have turned to AI. Machine Learning is transforming the way data scientists develop models and scores. The analytical power of **ML has become critical to extract greater value from alternative data.**

From a software perspective, it's important that the user interface allows business users to design strategies that take advantage of the increased predictive accuracy of ML models. The software should allow ML models to be tested and simulated to understand the impact on performance prior to deployment. In credit risk, all ML models must be fully explainable – with clear and transparent outputs required for regulatory purposes. ML explainability is supported within leading credit decisioning software, which means businesses can benefit from the performance power of ML with the reassurance that all regulatory requirements have been met.



49%

of businesses have increased their budgets for the 'automation of internal tools and processes'

BLOCK 4: Core needs

- No code data integration to call the model from the Model Ops environment
- User friendly ‘drag-and-drop’ model deployment into decisioning workflow, including ML models
- Full explainability for ML-based models, with values and reason codes
- Strategy refinement and optimisation without replacing existing model or API link
- Strategy design assistance – simulations, ‘what if’ scenarios and impact analysis to optimise performance

Implications of no code decisioning

The race is on to make better use of automation to drive faster, more accurate decisions. With model deployment applications integrated into the decisioning software on a unified platform, the process is much more efficient. Unnecessary manual steps can be eliminated, and tasks automated.

A cloud platform means upgrades to credit and fraud decisioning software happen regularly and automatically – including new features, performance enhancements and security updates. **Visual data mapping and transformation tools within the decisioning software means businesses can quickly connect to data sources.** These operational efficiency gains can help businesses deliver faster time-to-market for model development and also enable straight-through processing for more customers to shorten that all-important time to decision.

BLOCK 5: Cloud ecosystem

INTEGRATED TECHNOLOGY

"The future is still so much bigger than the past"

TIM BERNERS LEE

Cloud coverage is expanding

According to our research, 69% of businesses state that investment in SaaS and cloud technology is a critical or high priority. From a credit risk perspective, almost two-thirds of senior risk leaders believe all credit risk decisioning platforms will be cloud-based within three years. With that in mind, there is an increasing desire to better integrate technology for teams involved in the risk and fraud process. This desire is driven by simplified architecture, reduced friction, and consolidation of vendor management.

Cloud infrastructure is the foundation of a unified risk and fraud platform. It is essential because it allows for a diverse range of tasks to be connected. For example, a credit originations journey involves many processes that must be stitched together – affordability assessments, risk modelling, testing, identity verification, fraud checks, and decision workflows. This process often involves a combination of in-house systems and third-party systems, involving different databases and platforms.

It is only with a cloud platform that these different components can be brought together in a way that ensures seamless integration and automated updates. This is perhaps why, in our latest research, **senior risk leaders stated that the top strategic priority to enhance their overall risk strategy was a centralised cloud-based platform for data, analytics and software.**

50%

of risk leaders stated that developing a centralised cloud-based platform for data, analytics, and software was their top strategic priority to enhance their risk strategy.

Open integration

Given businesses already have existing technology – any unified platform must be open and extensible, with API capabilities that allow for integration with third-party tools and data sources. This approach enables businesses to leverage the value of a unified platform, with the ability to connect services over time but, importantly, allowing them to maintain their preferred tools and systems.

The biggest strength of a unified platform is that all the relevant applications are in one place – accessible via single sign-on. Users can select the relevant application for their task but also switch seamlessly between other applications and services. They can move from block to block effortlessly. This access can be managed by the platform provider. Or alternatively, advanced organisations may already have federated approaches which the platform can link to, enabling single sign on across systems. Depending on the complexity of the business, they may prefer the platform provider to handle all aspects of authentication and access management.

Maximise the GenAI opportunity

GenAI technology is becoming an important weapon in the armoury of data, risk and fraud teams – from support with coding to generation of synthetic data. From a credit risk and fraud perspective, most business leaders are focusing on using GenAI to augment human experts. **From a unified platform perspective, GenAI can offer valuable support throughout the modelling lifecycle across connected applications on the platform.** Each of the blocks can benefit from GenAI integration in order to further improve the user experience. For example, in block 2, the analytical sandbox, GenAI is already being used to help data scientists explore and interrogate data, whilst providing effective coding support. It allows users to leverage a natural language interface to extract insight from structured and unstructured data in a way that is regulatory compliant and permissible.

BLOCK 5: Core needs

- Interoperable design that allows data to be seamlessly shared between software and application components
- Unified experience – simple access to data and tools with single sign-on – improving efficiency and usability
- Connected software and data access covering the entire credit and fraud model lifecycle
- The highest possible security standards with regular and automated updates/patches
- Seamless updates across all applications – without the need for downtime or local IT effort
- Integrated GenAI that improves the productivity and efficiency of users

Implications of a cloud ecosystem

As businesses continue to focus on efficiency, the value of a unified platform becomes crystal clear. Recent research commissioned by Experian shows that the convergence of credit, fraud and compliance teams is on the rise as organisations move towards more effective technology integration.

The main reason for this is to deliver more effective overall risk management, improve operational efficiency, and reduce costs. A unified platform supports this approach by empowering different users to accelerate and scale their specific activities. **These functions are linked by connected applications and data management that ensures activities are streamlined for the benefit of the organisation.**

A unified cloud platform that brings together data, analytics and software enables more models to be deployed, improves productivity and collaboration, and provides the building blocks to significantly improve accuracy and performance in credit risk and fraud.

INTRODUCING EXPERIAN'S ASCEND PLATFORM

Experian's award-winning Ascend Platform brings together software tools for analytics, credit decisioning and fraud into a single interface – simplifying the deployment of analytical models and enabling businesses to optimise their practices.

The platform offers streamlined access to many of Experian's award-winning integrated solutions and tools through a single sign-on and managed via a user-friendly dashboard.

The platform leverages Generative AI and makes it easy for clients from organisations of varying sizes and experience levels to pivot between applications, automate processes, modernise operations and drive efficiency. In addition, existing clients using Experian solutions today can now easily add new capabilities through the platform to enhance business outcomes.

The benefits of Experian's Ascend Platform can be summarised as follows

- Simplified model governance and audit requirements
- Standardised workflows for faster time-to-market and improved scalability
- Full ownership of models by data scientists without reliance on IT for re-coding
- Drag-and-drop interface between model development and deployment into decisioning solutions
- Greater collaboration between departments and teams
- Faster model registration and automated version control
- Automated software updates
- Single sign-on for employees with access according to their authorisation level

ABOUT EXPERIAN

Experian is a global data and technology company, powering opportunities for people and businesses around the world.

We help redefine lending practices, uncover and prevent fraud, simplify healthcare, deliver marketing solutions, and gain deeper insights into the automotive market, all using our unique combination of data, analytics, and software. We also assist millions of people to realise their financial goals and help them to save time and money.

We operate across a range of markets, from financial services to healthcare, automotive, agribusiness, insurance, and many more industry segments.

We invested in talented people and new advanced technologies to unlock the power of data and innovate. As a FTSE 100 Index company listed on the London Stock Exchange (EXPN), we have a team of 22,500 people across 32 countries. Our corporate headquarters are in Dublin, Ireland.

Learn more at experianplc.com

Find out more

Contact your local Experian consultant or visit experianacademy.com

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