



TEAM : Case.Closed



# JPMorgan Chase's Contract Intelligence Platform (COiN)

Revolutionizing Legal Document Review with Artificial Intelligence

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# Introduction

- The Cognitive System interprets complex legal agreements (e.g., commercial credit contracts) using Machine Learning and Natural Language Processing .
- Developed by JPMorgan's Intelligent Solutions team to automate manual reviews, COiN analyzes 12,000+ documents annually in seconds.
- The platform was first deployed to automate the review of credit agreements, a process that previously required hundreds of thousands of hours of manual effort each year.





# Background



- COiN is built using Natural Language Processing algorithms that allow it to “read” legal terms just like a human would—but much faster.
- It’s trained on thousands of contract examples, and it continuously improves by learning from new documents, ensuring accuracy and compliance over time.



# Problem Statement

## ● Manual Review Bottlenecks:

- 360,000 hours/year spent on manual analysis, causing operational delays and high labor costs.
- Human error rates in clause identification and data extraction create compliance risks.

## ● Complex Legal Language

- Legal documents contain nuanced, complex language requiring precise interpretation.
- Inconsistent human analysis leads to variable compliance outcomes.
- Increasing regulatory scrutiny demands flawless compliance with evolving standards (e.g., GDPR, SOX)

## ● Scalability & Cost Constraints

- Document volumes are growing, but manual workflows cannot scale efficiently.
- Traditional methods struggle with diverse formats (PDFs, scans, handwritten notes).
- Manual reviews cost millions annually and error-related penalties further strain resources



# Case Analysis

## Focus Area

- Commercial loan contracts with standard templates (interest rates, collateral, covenants).

## Training

- Thousands of past contracts fed into COiN, identifies ~150 attributes like “interest rate clause” or “default condition” using pattern recognition.

## Data Extraction

- Pulls key fields (rates, dates, clause texts) based on wording and layout patterns.

## Scale

- Automates review of ~12,000 contracts/year; tasks that took hundreds of thousands of manual hours now completed in seconds.

## Expansion

- Plans to apply the model to related financial documents (e.g., credit-default swaps, custody agreements); adaptation needed for more diverse contracts.





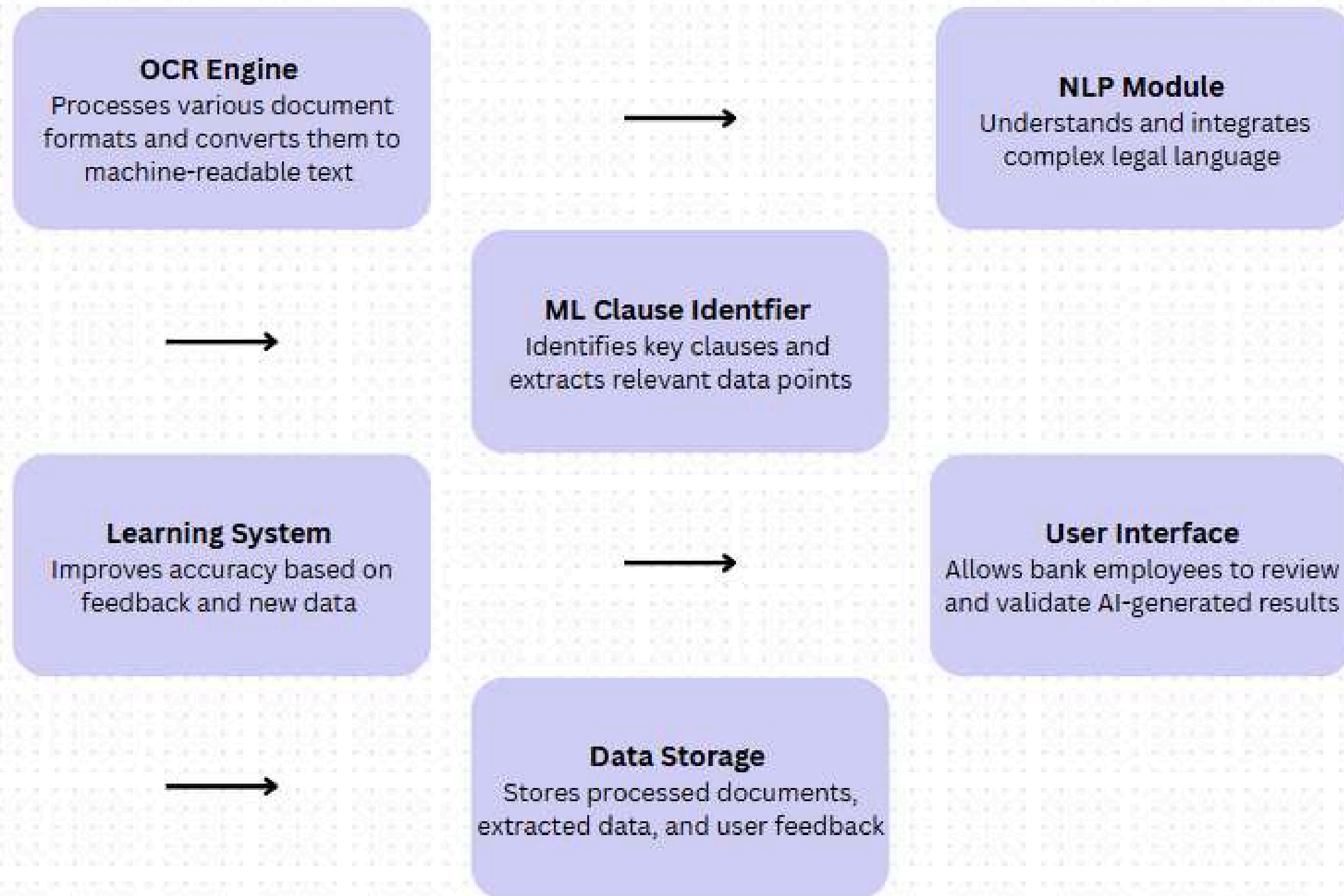
# Solutions & Implementation

- Formed a cross-disciplinary team including AI engineers, legal experts, product managers, and designers.
- Built a data pipeline starting with OCR to digitize contract documents.
- Applied NLP and machine learning models to analyze text and extract relevant information.
- Used pattern recognition algorithms to detect clause locations and meanings within contracts.
- Deployed the system on JPMorgan's private cloud infrastructure for secure and scalable processing.
- Designed a human-in-the-loop review system where legal teams verify and correct AI outputs.





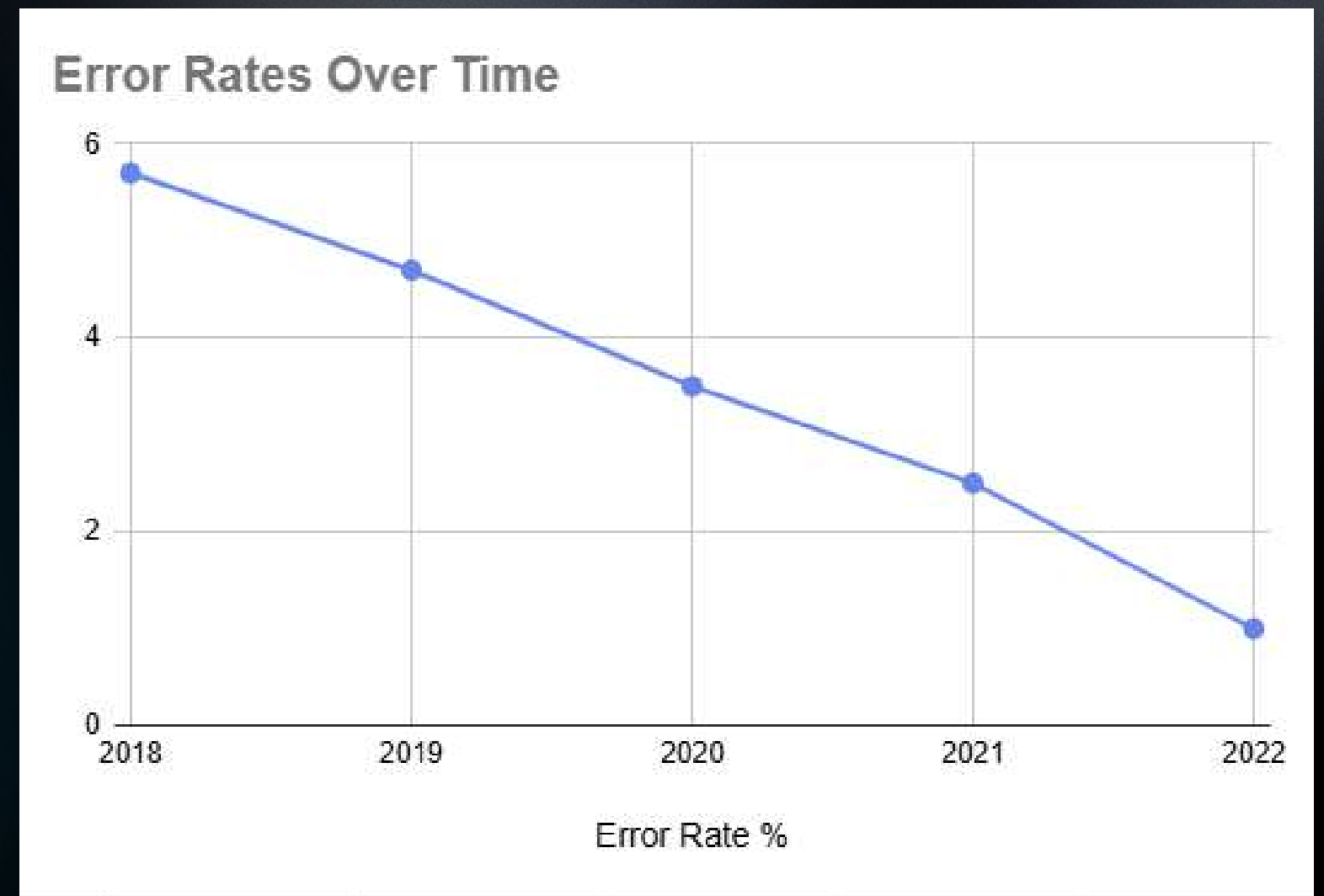
## JPMorgan Chase COiN Platform Architecture





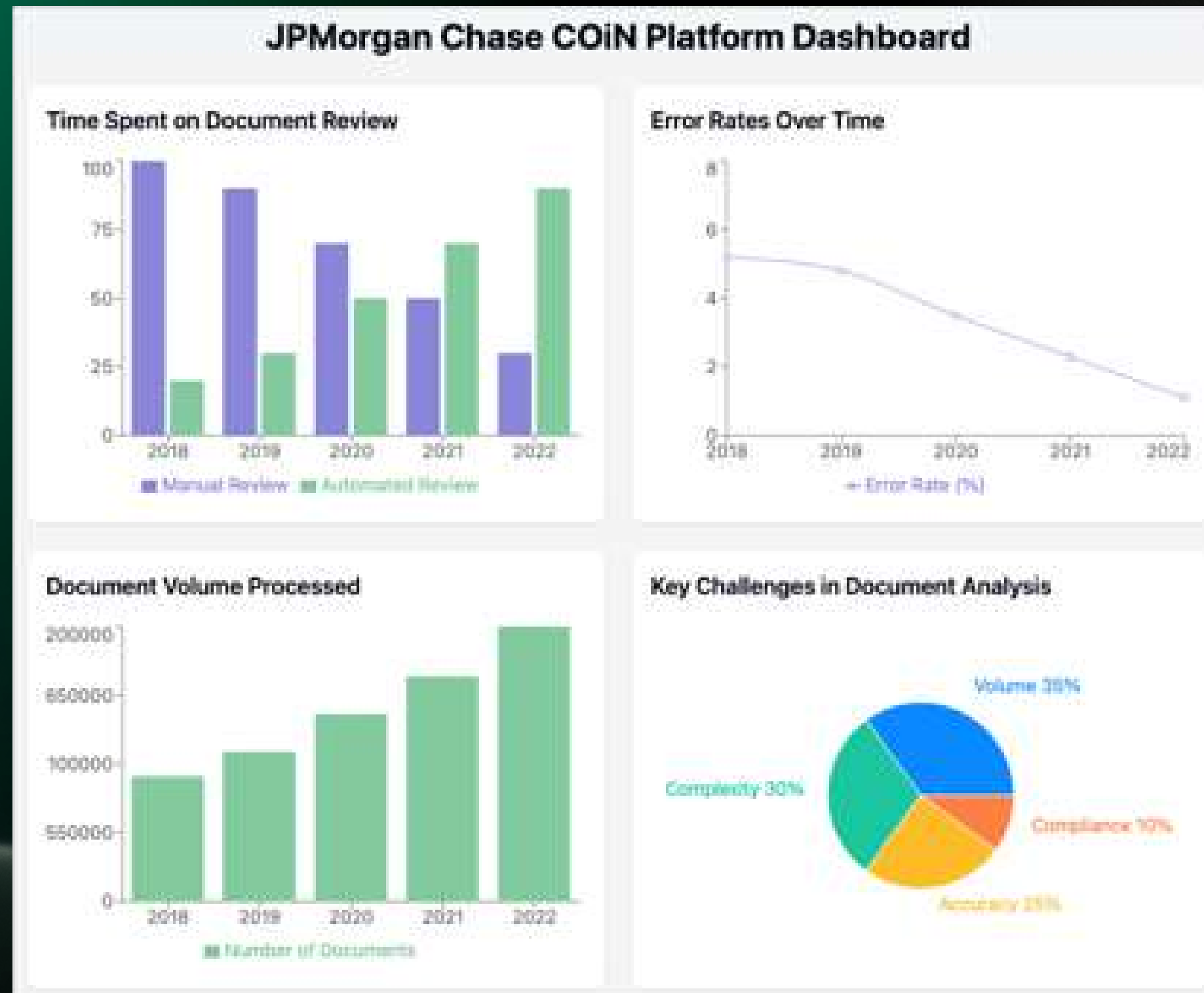
# Results & Outcomes

- **Massive Time Savings:** COiN replaces 360,000 hours of manual review annually, processing 12,000+ contracts almost annually.
- **High Accuracy:** With a near-zero error rate, COiN reduces human mistakes and ensures consistent, compliant data extraction.
- **Operational Impact:** Saves millions, speeds up deal processing, and shifts teams to higher-value work. Used in audits and compliance.
- **Quantitative Metrics:** Automates nearly all applicable reviews, turning a slow, manual task into a fast, AI-driven process.





# Results Trends







# Conclusion

JPMorgan Chase's Contract Intelligence (COiN) platform exemplifies how AI can revolutionize financial workflows. By integrating natural language processing (NLP), machine learning (ML), and image recognition, COiN automates the analysis of complex legal documents, achieving:

- 360,000 annual hours saved by reducing manual review time from weeks to seconds.
- 99%+ accuracy in clause extraction, minimizing errors and compliance risks.
- \$millions in cost reductions through streamlined operations and error mitigation.
- Scalability to process 12,000+ contracts/year with consistent, regulatory-compliant outputs.

The platform's success redefines legal and financial operations, enabling teams to prioritize strategic decision-making while aligning with frameworks like GDPR and SOX. COiN's AI-driven approach sets a benchmark for the financial sector, proving that automation, precision, and adaptability are critical to modernizing high-stakes document workflows.



# Recommendations

## Multilingual & Multijurisdictional Support

- Enable COiN to process contracts in multiple languages and legal systems, ensuring global compliance and broader business reach.

## Cross-Industry Cognitive Integration

- Adopt best practices from sectors like healthcare and cybersecurity to enhance risk detection and contract analysis.

## Explainable AI (XAI)

- Provide clear, auditable reasoning for AI decisions, increasing trust and meeting regulatory requirements.







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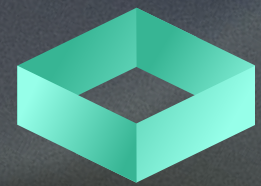
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# Thank You

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