

KYC Agent: Leveraging AI for Enhanced Efficiency and Security

The financial industry is increasingly reliant on Know Your Customer (KYC) processes to mitigate risk and comply with regulations. However, traditional KYC methods are often manual, time-consuming, and prone to errors especially for rapidly changing regulatory requirements and compliance standards. We propose an innovative AI-powered KYC agent that streamlines KYC processes, makes it cost-efficient, and always stays up to date with regulatory requirements.



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Problem statement

KYC is very expensive and low-efficient

Current KYC processes are mostly **manual (30-60%)**, **slow and expensive**, making client onboarding inefficient.

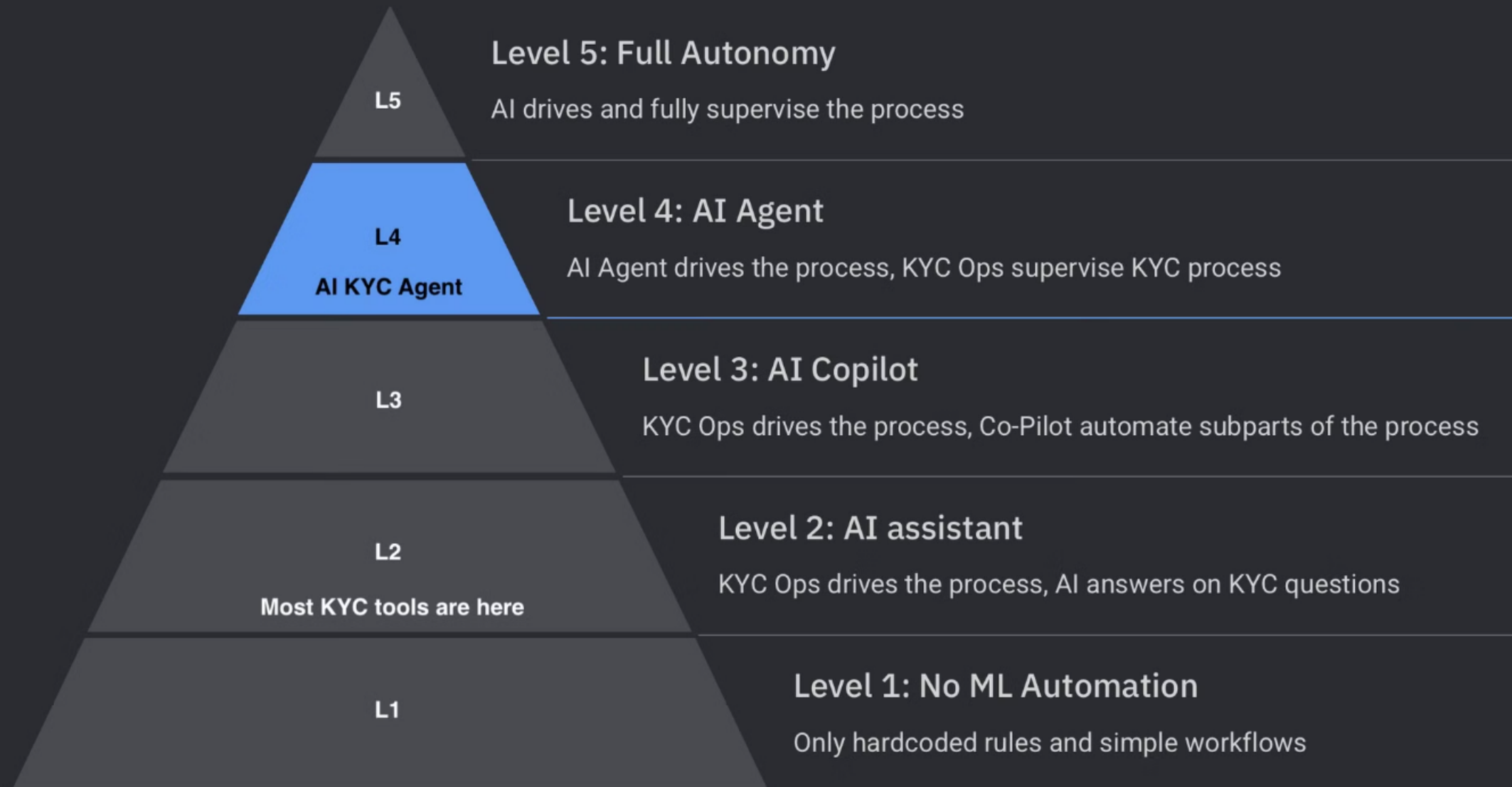
Businesses **struggle to stay compliant** with evolving global regulations.

Difficult verification steps frustrate users and increase drop-off rates.

Existing solutions **fail to detect sophisticated fraud**, such as deepfakes and synthetic identities.

There is a need for an **AI-driven KYC solution** that is **fast, secure, cost-effective, and user-friendly**.

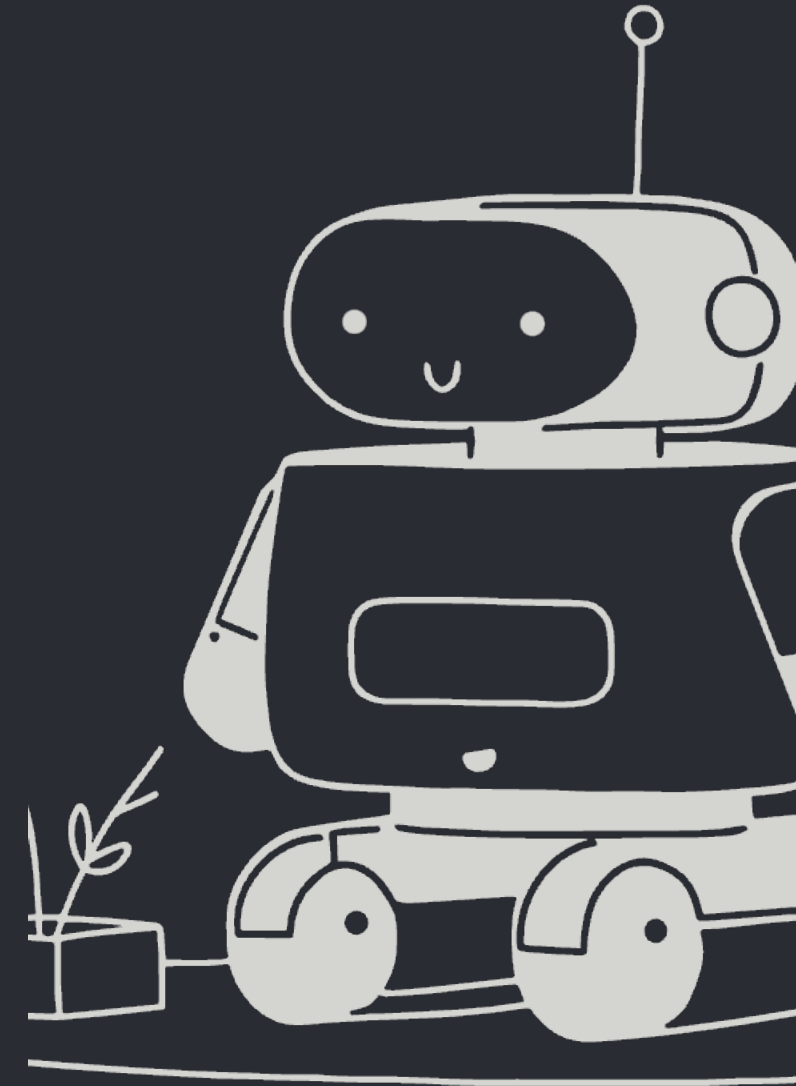
AI KYC Agent: high level of autonomy



KYC AI Agent targets to achieve Level 4 autonomy, demonstrating high automation capabilities. It will handle complex KYC processes with minimal human intervention, significantly enhancing efficiency and accuracy.

Key features

- **Perform E2E KYC for a client**
 - Request information from a client
 - Extract information from client messages and documents
 - Perform risk assessment
 - Provide summarisation of the client risk and risk matrix
 - Support 4-eyes review
 - Escalate risk to AFC
- Upload policy to change the process and reassess risks for all clients affected by changed policy
- Transparency and explainability on every step, fully audit-friendly



DEMO



AI KYC Agent



john@example.com
Compliance

[Logout](#)

Search by KYC ID, Client Name, Policy, or Status...

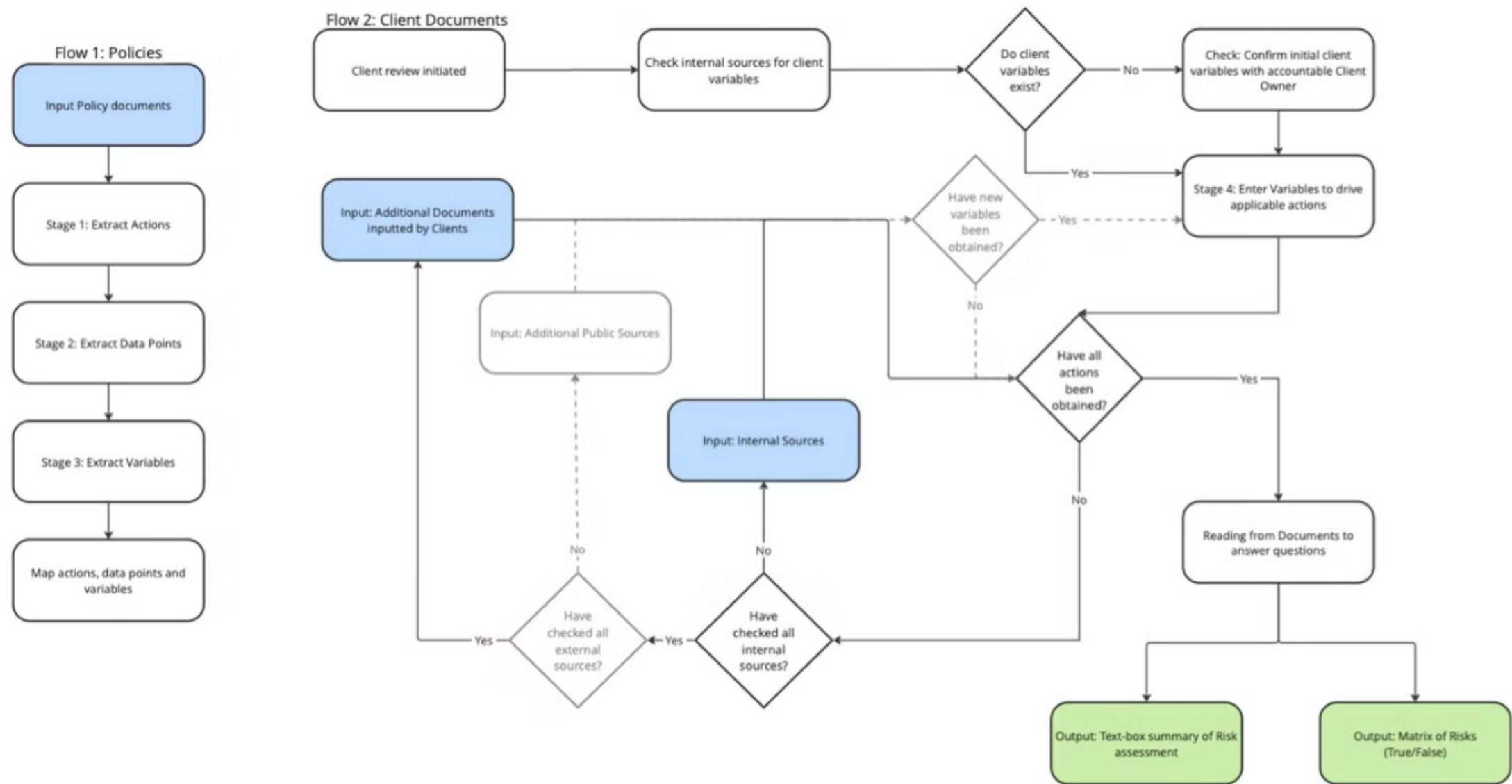
KYC Requests

KYC ID ↑	Client Name ↑	Policy ↑	Trigger Date ↑	Status
5	The Arsenal Football Club Ltd	JMLSG Part Two June 2020 (amended July 2022)	Thursday, February 6, 2025	COMPLETED
6	Brentford FC Limited	JMLSG Part One June 2020 (amended July 2022)	Thursday, February 6, 2025	IN PROGRESS
71	The Arsenal Football Club Ltd	JMLSG Part One June 2020 (amended July 2022)	Thursday, February 6, 2025	NOT STARTED
72	AFC Bournemouth Limited	JMLSG part1	Thursday, February 6, 2025	NOT STARTED
73	Brighton & Hove Albion FC Ltd	JMLSG part1	Thursday, February 6, 2025	NOT STARTED

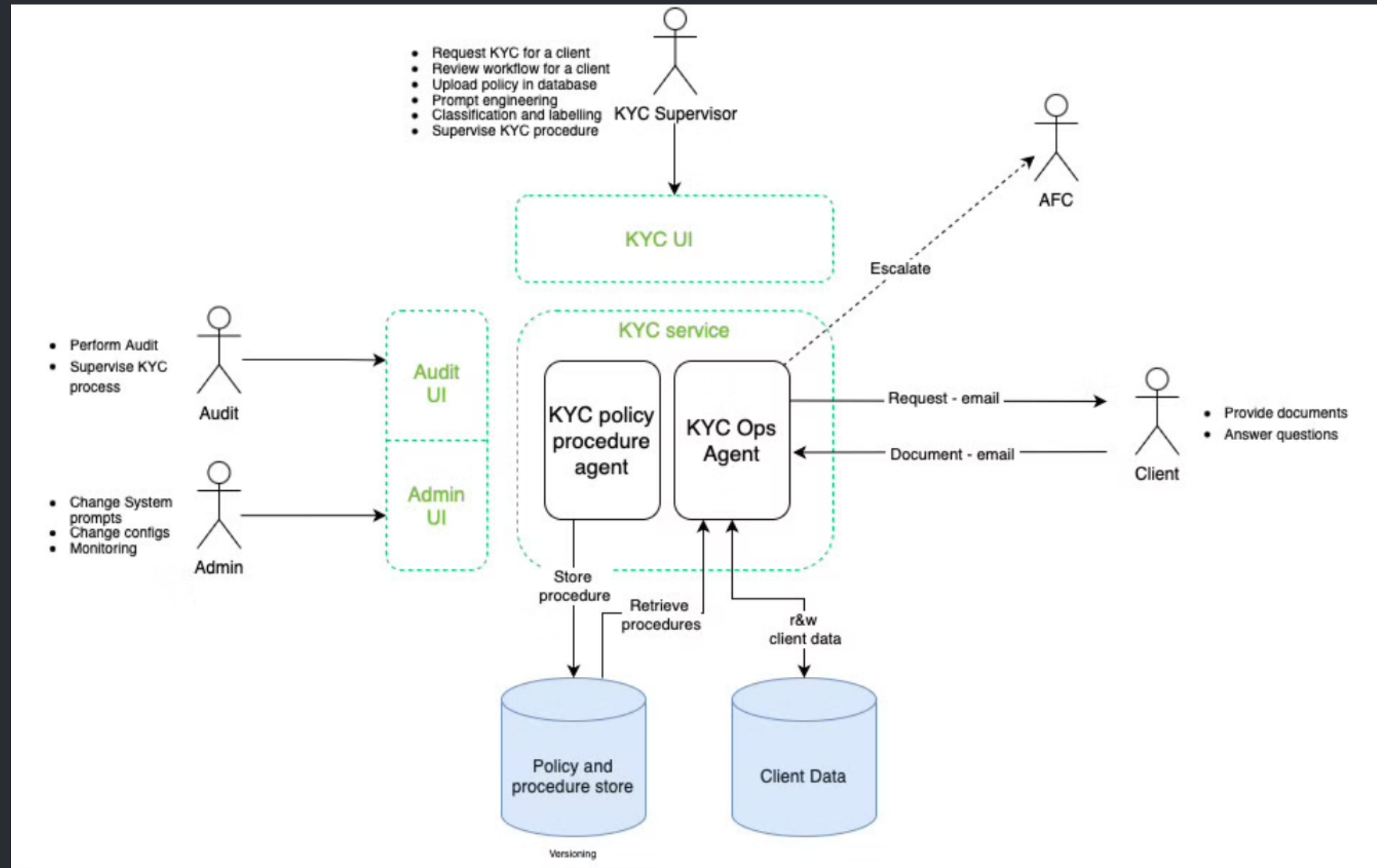
Trigger KYC Process →

Start KYC

Workflow



Architecture Diagram



Tech stack



Python

Core language for AI model development and data processing.



Postgres SQL

Provides a robust and secure database for storing and managing KYC data.



Claude Sonnet 3.5

Fast, capable SOTA LLM model by Anthropic, optimized for reasoning, coding, and conversation.



React.JS

Used for building the user-friendly interface of our solution.



Agent framework

Self written implementation of core Agent concepts.



AWS Bedrock

Cloud solution enables developers to build and scale generative AI apps using foundation models.

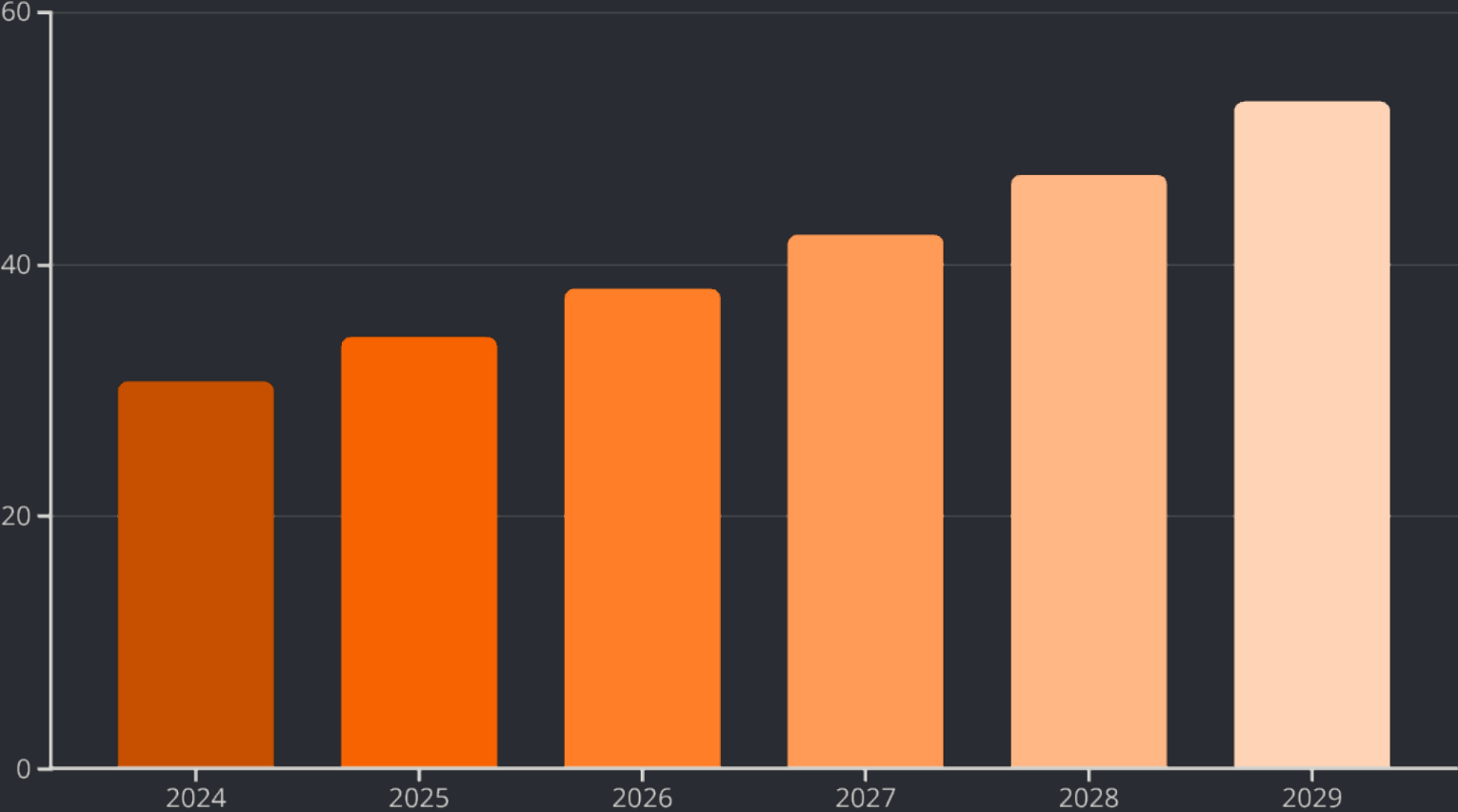


KYC Market size

KYC market size, 2024 **\$30.8bn**

KYC market size, 2029
(estimated) **\$52.9bn**

KYC Market size, \$Bn





Transforming the KYC Landscape

Industry Impact

AI KYC Agent will drastically decrease costs for KYC processes, make it more robust, accurate and efficient. It will increase transparency for regulators and customers satisfaction.

Collaboration

Our solution fosters collaboration between financial institutions and regulators by providing transparent and auditable KYC processes.

Roadmap

MVP

Finish current functionality, make it stable and easy to deploy

Evaluate quality of KYC checks

Implement supervisory and audit functionality

Productionalize

Examine responsible AI practices and compliance (GDPR, EU AI Act, etc)

Enhanced functionality: versioning of policies and KYC procedures, interaction with KYC process on every step (human in the loop), receiving of information from external sources

Pilot

Introduce AI KYC Agent for re-evaluation of risks scores for existed clients

Use AI KYC Agent for 1% of KYC requests

Scale

Apply for all KYC requests within organization

Appendix 1. Links

GitHub repo: <https://github.com/finos-labs/dtcch-2025-db>

Application: <https://dtcch-2025-db.sibnick.men>

Get started guide: [link](#)

Documentation: [link](#)

GitHub repo



Application



Appendix 2. Want to use, invest or contribute?

Contact Maxim Romanovsky via [LinkedIn](#) or [email](#)

LinkedIn



Email

