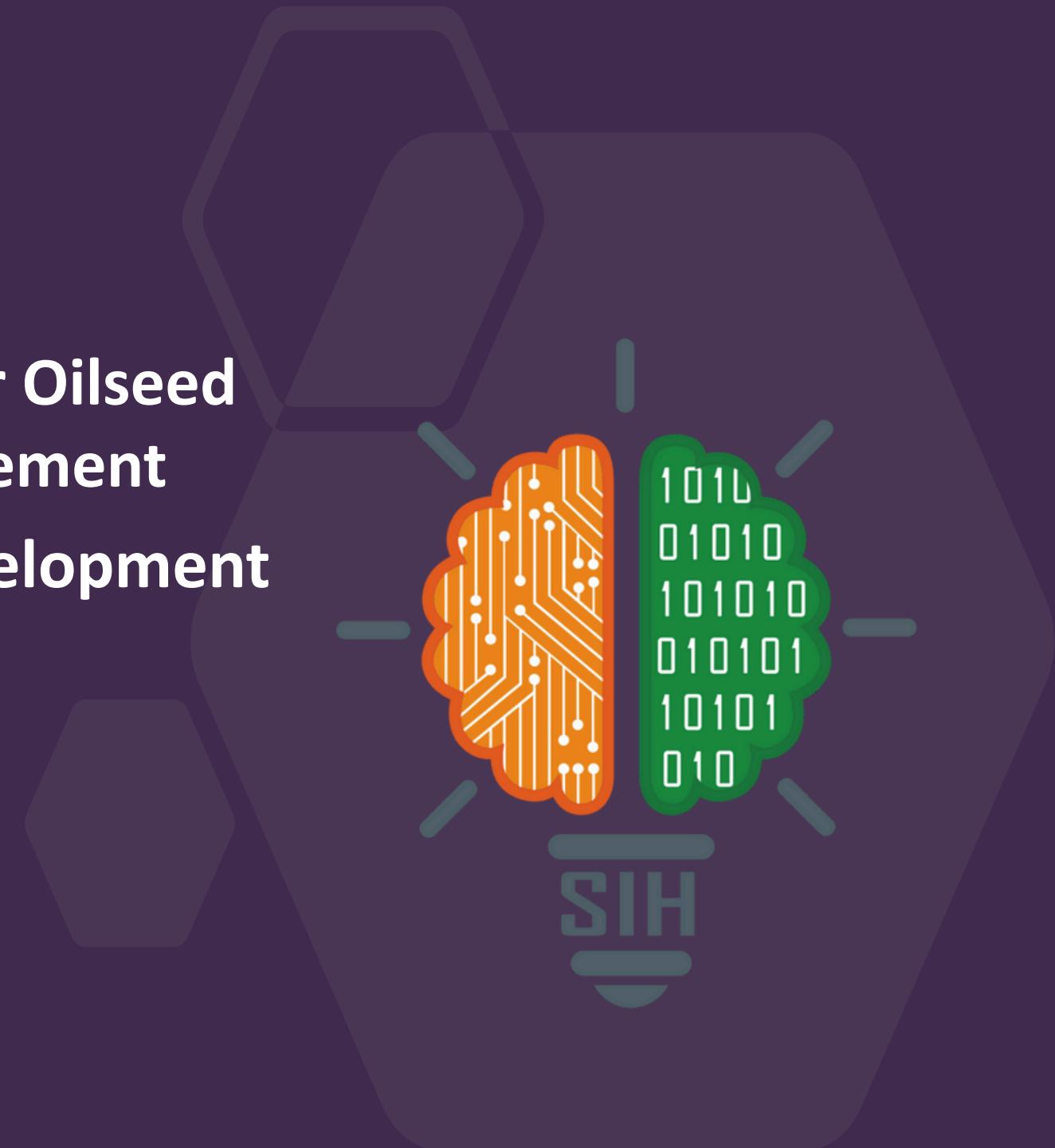


Krishi Dhan Kavach

- Problem Statement ID – 25274
- Problem Statement- Hedging Platform for Oilseed Price Risk Management
- Theme- Agriculture, FoodTech & Rural Development
- PS Category- Software
- Team ID- 54553
- Team Name - Quba



Krishi Dhan Kavach

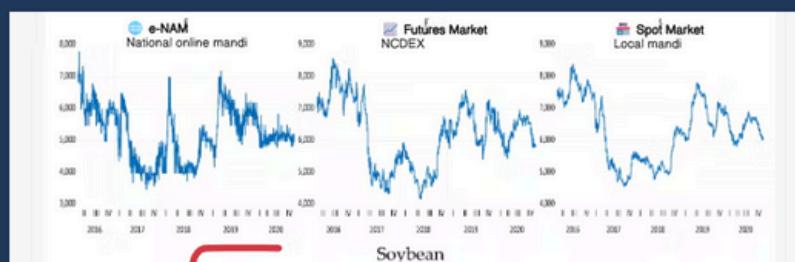


MoA&FW (Background)

MoA&FW – Empowering Farmers Digitally IN A leading government body 🌾 driving agri-innovation, 💰 ensuring income stability, and 🚗 modernizing risk management for India's growers.



Evidence-Based Pain Point Analysis
(Oilseed Research Dataset)



Fragmented Oilseed Market & Ineffective Hedging

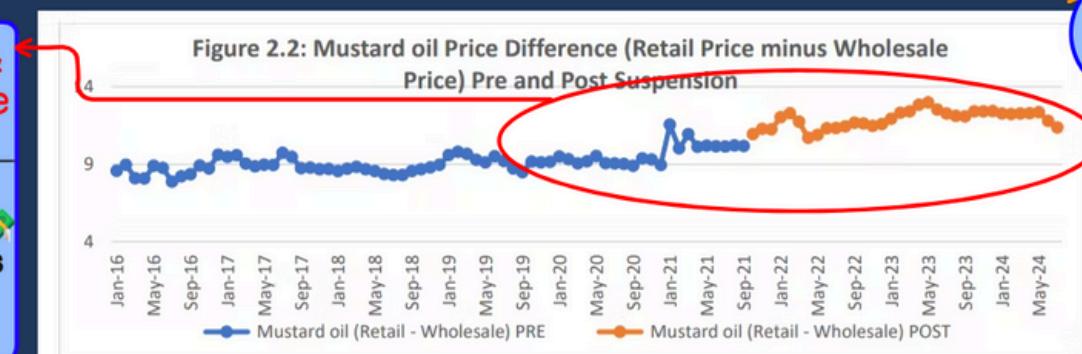
E-NAM, Futures, Spot diverge → ⚡️ spikes uncontrolled, 🚧 smallholders excluded, 📈 income instability.

Sudden Market Shock & Farmer Income Collapse

⚠️ Sudden Shock, No Shield → 🚨 Prices swing wildly, 🚧 farmers lose income stability, 🚧 futures suspended, 🚧 markets collapse without protection.

Table 06: Major Vegetable Oils: World Supply and Distribution (Country View)						
Imports	2021/22	2022/23	2023/24	2024/25	Aug 2025/26	Sep 2025/26
	India	14.31	17.12	15.85	16.02	16.36
China	7.13	11.40	9.14	9.14	9.59	8.84

Table 24: Oil, Rapeseed, Production, Supply and Distribution					
Oil, Rapeseed	2021/2022	2022/2023	2023/2024	Market Year Begins	
India	Oct 2021	Oct 2022	Oct 2023	USDA Official	New Post
Crush (1000 MT)	9650	9650	10200	10100	0
Extr. Rate 999.9999 (PERCENT)	0.3798	0.3798	0.3799	0.3738	0
Beginning Stocks (1000 MT)	333	333	365	305	0
Production (1000 MT)	3665	3665	3875	3775	0
MY Imports (1000 MT)	34	34	25	7	0

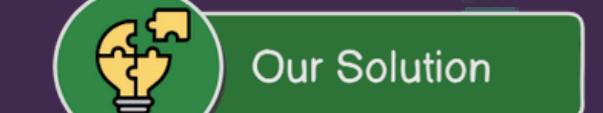


Excessive Import Dependence Economic & Farmer Risk

India imports 16 MMT edible oils (60%) → 🌎 global shocks hit, 🚧 farmers unprotected, 🚧 no hedging tools, 🚨 profits vanish with volatility.

Rising Production, Shrinking Stocks Triggering Price Volatility !

Stocks fell 365→305 🚧 → 🚧 despite higher output, 🚧 poor inventory control, ! supply shocks, 🚧 unstable prices, 🚧 no digital hedging visibility.



Our Solution



Krishi Dhan Kavach



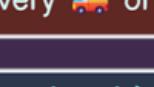
AI-Blockchain Powered Predictive, Tokenised & Geo-Intelligent Web/App Hedging Ecosystem for All Agri Value Chain Stakeholders

Empowering Farmers Through Predictive Analytics, Geo-Alerts, Blockchain Transparency, And Inclusivity.



Smart Hedging & Forward Contract Intelligence Engine

🔗 Blockchain forward contracts let farmers 🚧 & FPOs 🚧 securely lock stable prices; 🚧 smart contracts automatically settle 📈 on delivery 🚚 or targets 🚤 .



Tokenised Marketplace & Transparent Trade Ledger

🔗 Tokenised warehouse receipts 🚧 ensure farmers' ownership & 🚧 track deliveries; 📈 escrow & 🚧 blockchain link buyers, processors transparently.



AI-Driven Price Forecasting, Geo-Mapping & Instant Alert System

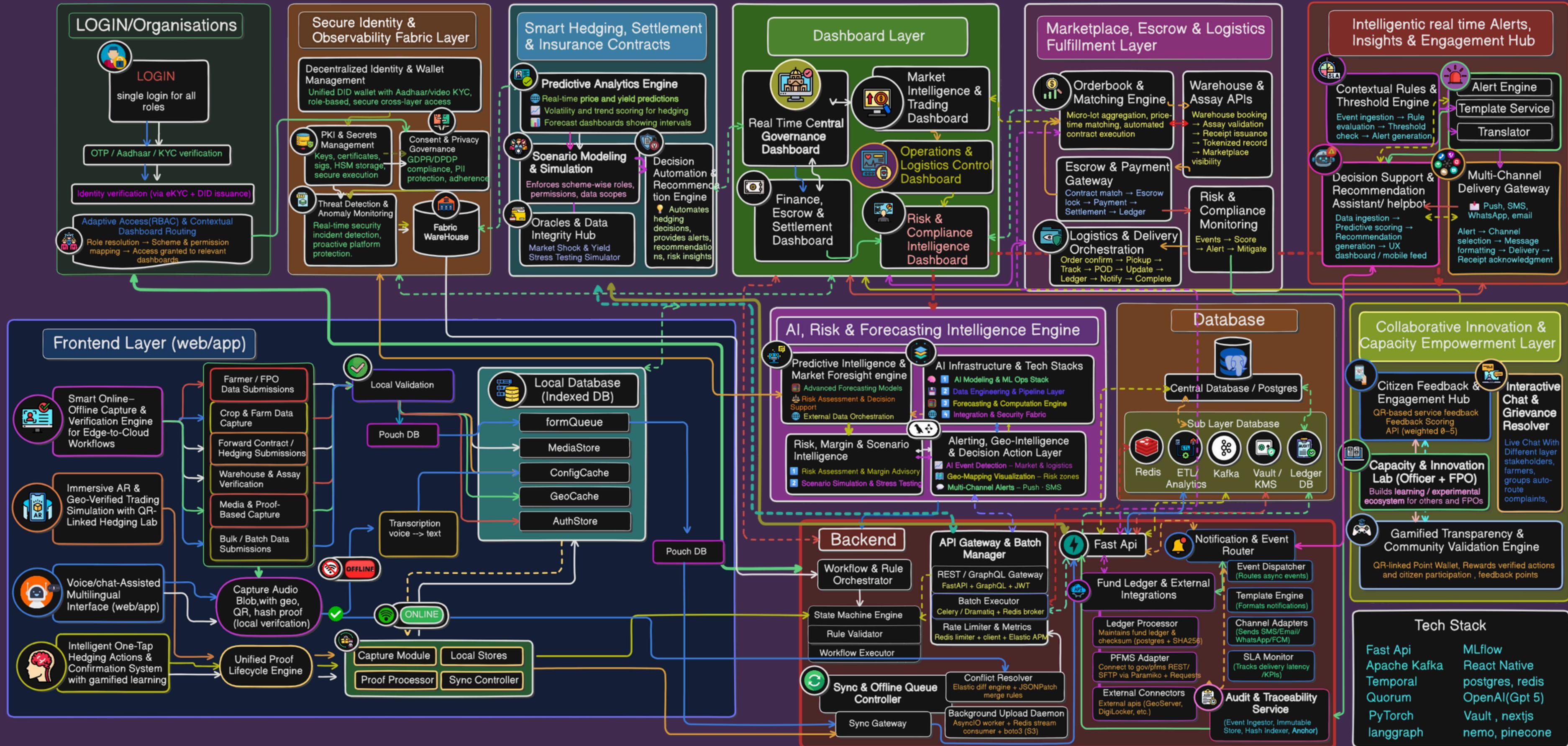
ML & geo-data forecast 📈 prices & volatility for farmers; 🚧 alerts & dashboards map 📈 farms, 📈 supply zones & 📈 storage hubs for stakeholders.



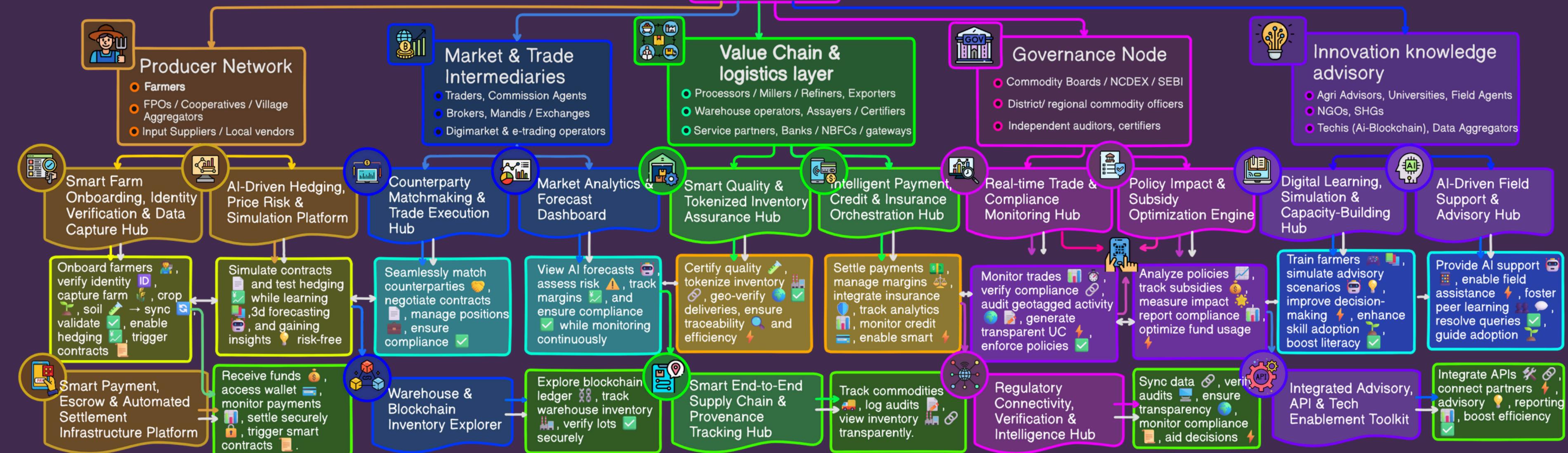
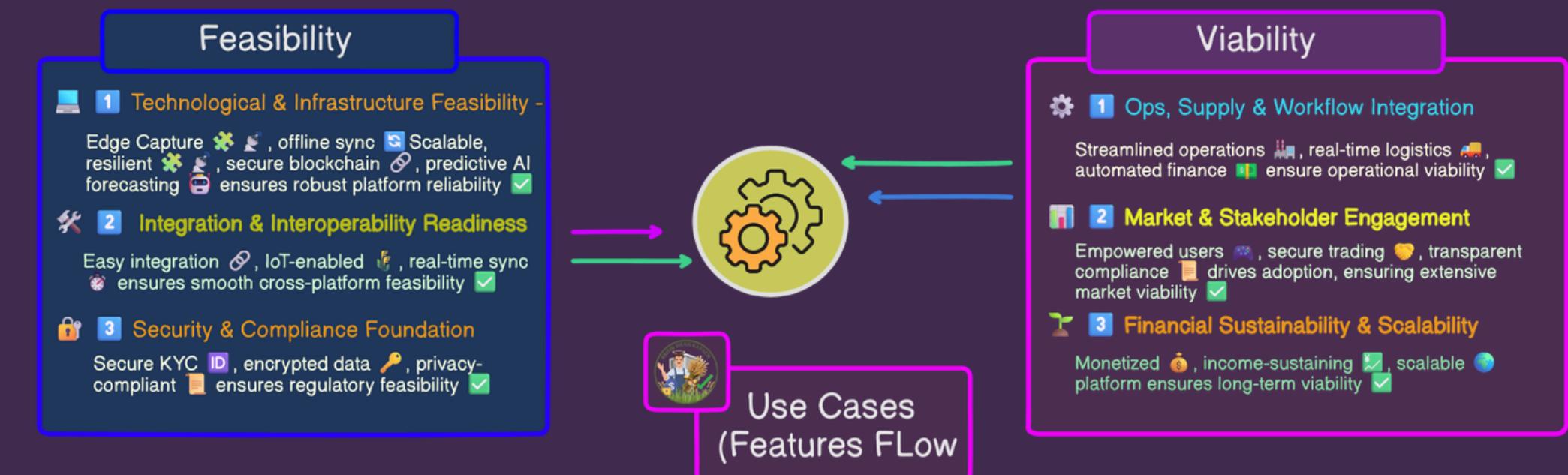
Multilingual Simulation & Financial Literacy Suite

Multilingual gamified modules teach hedging, ! price risk, 🚧 trading; AI-voice/chatbot, 🚧 forums & webinars enable learning.

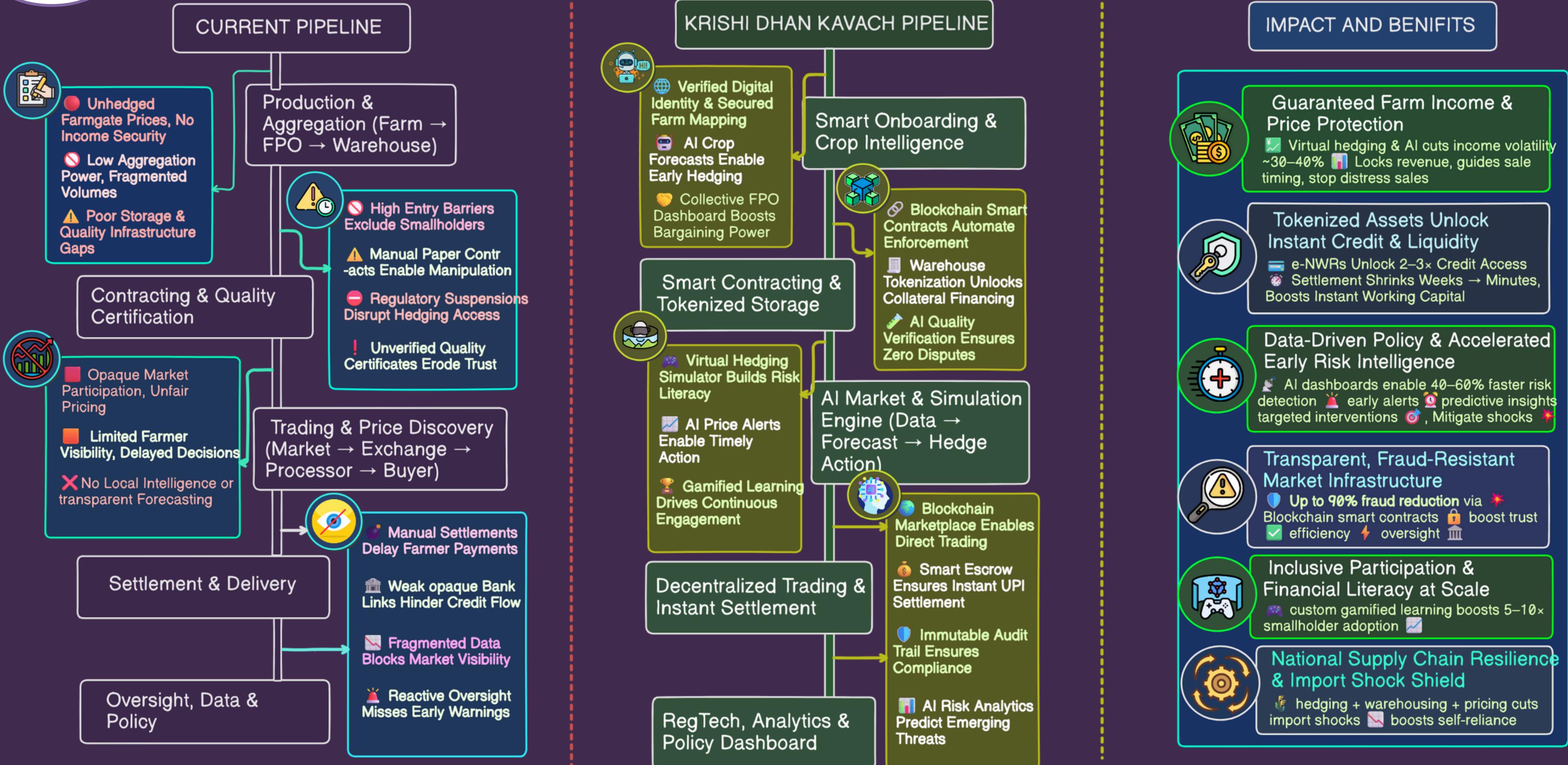
TECHNICAL APPROACH



FEASIBILITY AND VIABILITY



IMPACT AND BENEFITS



RESEARCH AND REFERENCES



Challenges /Overcomes

- High Data Load** -> Solved using batching and auto-scaling
- Data Security Risks** -> Mitigated with encryption and vault KMS.
- Rural Connectivity Gaps** -> Handled via offline sync modules.

Scan this QR to see instantly hedge simulation for any crops and future risks

Research and References

Click here to see Research Repository

Click

Click here to see Internal Research

Click

click here to see prototype

Click

