

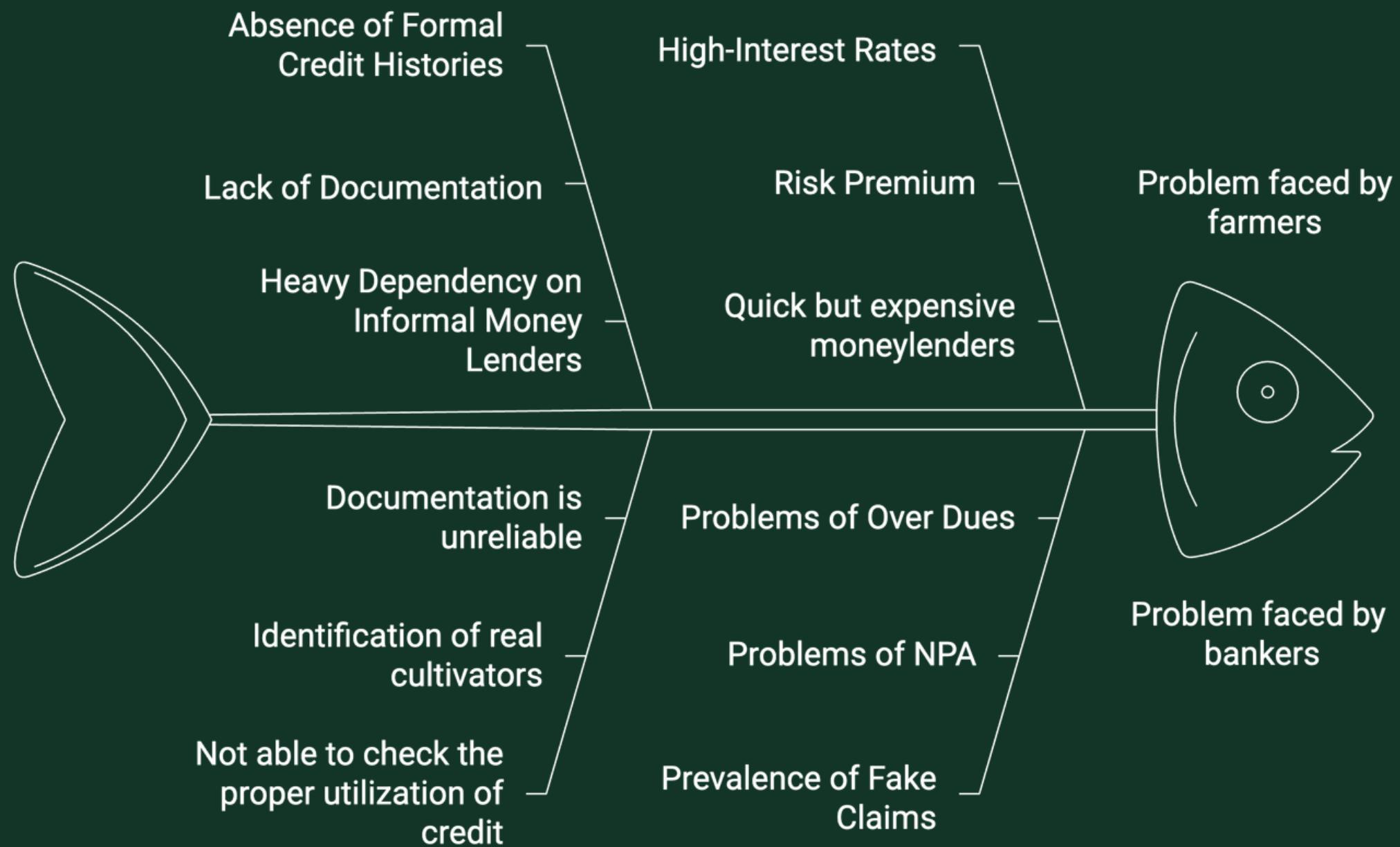


- Problem Statement ID : PS 8
- Team Name : BitVerse
- Team ID : HK 194
- Members : Himanshu Ranjan, Aaryak, Yukta Chauhan, Priyanshi Rawat



PROBLEM & SOLUTION

Problem Understanding: Farmers lack fair credit and banks misprice risk due to missing real-time agricultural data.



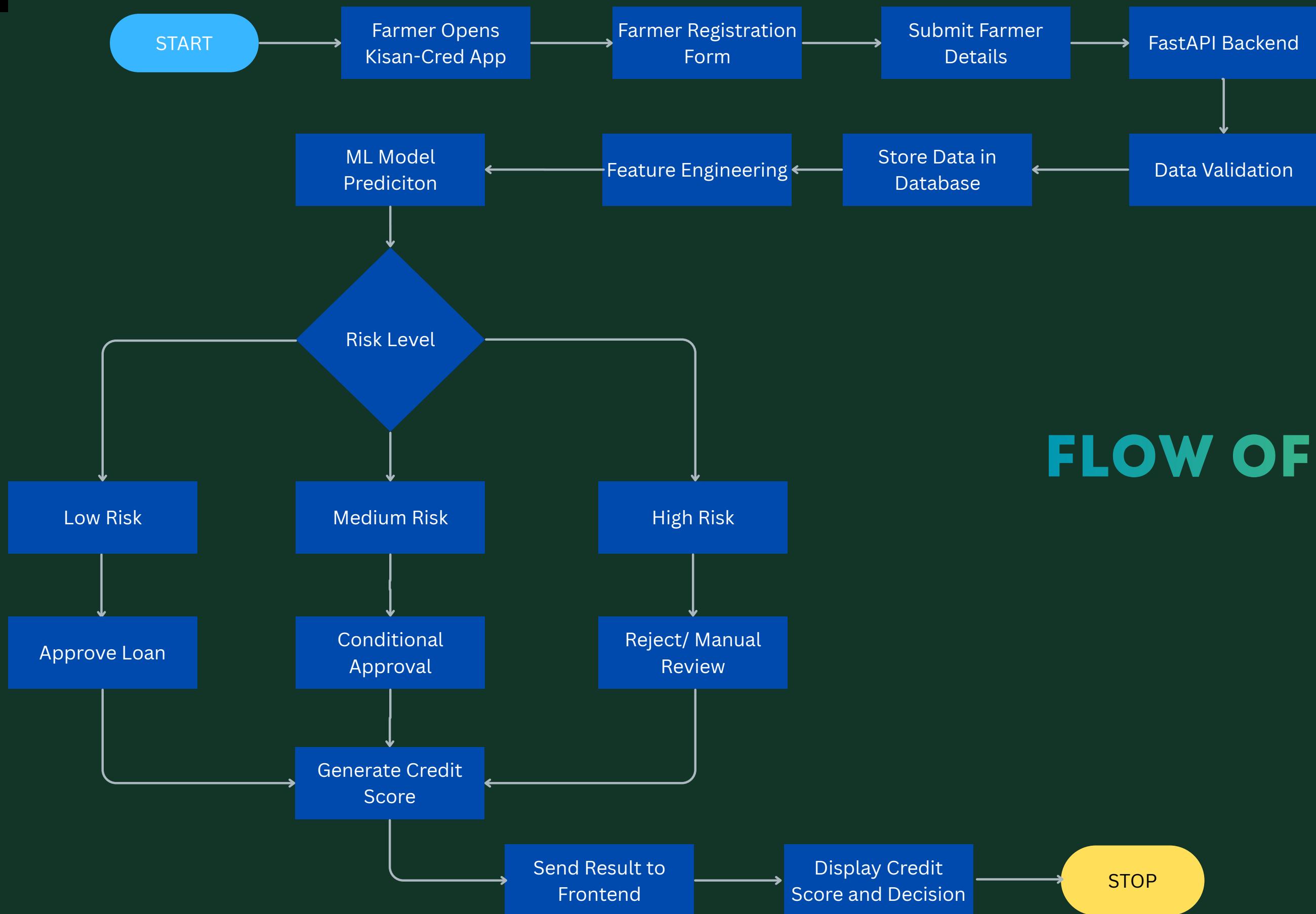
Solution: Presenting KisanCred.

How it works:

- Collects satellite data at the farm level along with crop health information.
- Integrates additional data such as weather conditions, market trends, and transaction signals.
- Uses machine learning to run dynamic risk models based on the collected data.
- Continuously updates and generates an Agri-Trust Score that reflects current risk and trustworthiness in agriculture.



HACK KRMU 5.0



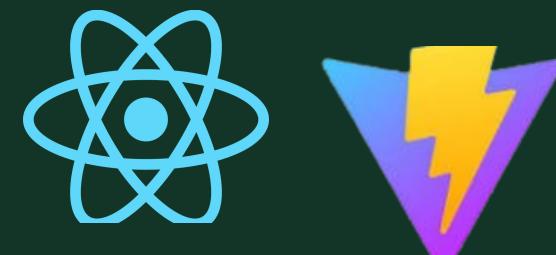
FLOW OF SOLUTION



TECH STACK & APPROACH

TECH STACKS

Frontend: React, Vite



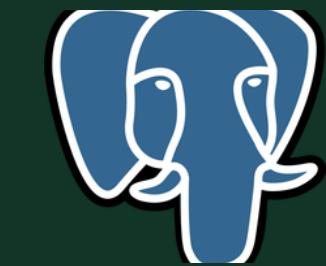
Map Engine: MapLibre GL JS



Satellite Data: Farmonaut API



Database: PostgreSQL



Backend: Python FastAPI



ML-Libraries: Scikit-Learn





UNIQUENESS & INNOVATION FACTOR

Uniqueness of KisanCred

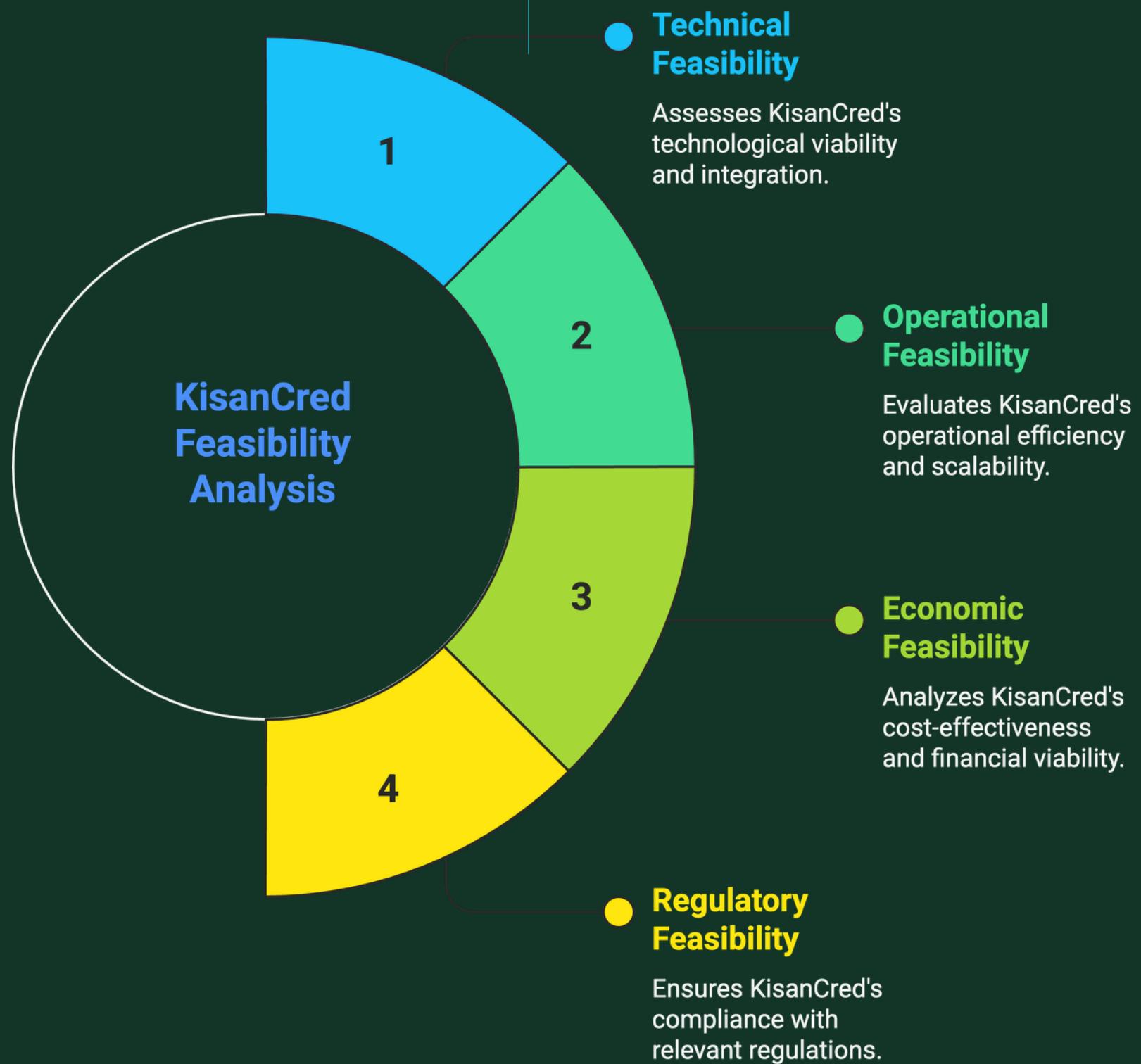
- Real-time Agri-Trust Score using satellite, weather, and transaction data.
- Dynamic, personalized risk-based pricing rewarding reliable farmers.
- Satellite-verified crop activity to prevent fraud.
- Transparent AI explanations for credit decisions.
- Mobile-friendly, scalable platform designed for rural use.

KisanCred's Innovative Cycle





FEASIBILITY & CHALLENGES



CHALLENGES

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- Dynamic, personalized risk-based pricing rewarding reliable farmers.
- Satellite-verified crop activity to prevent fraud.
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- Mobile-friendly, scalable platform designed for rural use.



RESEARCH & REFERENCE

Research Page:

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2. F. U. Khan, M. Nouman, L. Negruț, J. Abban, L. M. Cismas, and M. F. Siddiqi, "Constraints to agricultural finance in underdeveloped and developing countries: a systematic literature review," International Journal of Agricultural Sustainability, vol. 22, no. 1, Art. no. 2329388, 2024
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Research Page:

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