Blockchain In Agriculture
GRAINCHAIN
SUITE OF PRODUCTS

OUR MISSION
To create world-class innovative technology driven solutions to solve the biggest challenges facing global commodity trade and supply-chain flow.

• Connecting people directly with each other.
• Increasing trust in transactions.
• Producing reliable data.
• Empowering small to midsize producers.
• Achieving global expansion.
HOW IT LOOKS LIKE IN ACTUAL USE

1. **Farmer**
   - Grower & buyer negotiate commodity purchase agreement with terms, price schedule, logistics and delivery dates defined.

2. **HarvX / Silosys**
   - Grain elevators receive notice of all deliveries arriving, commodity type, owner information.

3. **HarvX**
   - Grower plans for harvest, schedules delivery trucks.

4. **HarvX**
   - Delivery trucks arrive at exact harvest location - the entire process is digitalized, all parties have real-time data on delivery status & location.

5. **Silosys**
   - Grain elevators process deliveries, determines grain quantity and quality parameters and feeds information directly to the blockchain.

6. **HarvX**
   - HarvX can be used between grower/grain-elevator and also grain-elevator/grain-elevator to track all commodity logistics all the way to consumer.

7. **HarvX / Silosys / HarvX**
   - The blockchain receives all the data from HarvX & Silosys about the commodity quality, quantity, harvest location, current location & condition to automatically settle the smart contract exactly as agreed upon.

8. **Consumer**
The Ability to **Admin in Real Time.**

**WHAT IS SILOSYS?**
A cloud-based management platform that handles and streamlines all aspects of your business operation including buying, selling, silo management and logistics.

**OUR MISSION**
*To be the global leader in commodity storage & management software solutions by digitizing and automating workflows, creating reliable data and reducing manual entry.*

- All-in-one solution.
- 3rd party integrations and API.
- Increase reliability.
- Superior service.
Know with confidence the origin of the commodity and its quality. Split tickets amongst several farmers with ease.

COMPATIBLE

SiloSys is compatible with most Moisture, Quality Testers & Scales
MULTIPLE DEVICE ACCESS IN REAL TIME

Desktop

Web

iOS / Android
With **SiloSys Web Client**, you can connect and manage your operations from anywhere in the world. Real time views of contracts, deliveries, orders and inventory.
A SPECIALIZED SOFTWARE FOR EACH PARTICIPANT WITHIN SILO OPERATIONS.

Operators / Farmers (Client) / Buyers / Logistics
SILO OPERATOR APP
Complete view and control of all operations in every facility.

SiloSys Operator App
• Real time storage from all locations & tanks
• Receiving & shipping detail by commodity, location, buyer or seller
• Ticket detail & history
• Custom Reports
• Logistics information
• Statistics
• Contract status
• Performance Metrics
SiloSys Farmer App

• Real time trucks on every facility
• Ticket weight, commodity, statistics & logistics
• Ticket detail & history
• Custom Reports
• Farmer financial data
• Contract progress

FARMER APP
Real-time data on all trucks, shipments, and sales.
OUR BLOCKCHAIN ENABLED PLATFORM IS DRIVEN BY SMART CONTRACTS WHICH BRING THE MOST TRUSTED, EFFICIENT AND RELIABLE TECHNOLOGY TO GLOBAL AGRI-SUPPLY CHAINS.

OUR MISSION
To facilitate transactions, increase trust and empower participants in domestic & global commodities trading using a central blockchain enabled software platform.

• Reducing middlemen.
• Increasing transaction reliability.
• Increasing traceability.
• Increasing international trade.
Empowering farmers on the global market by settling transactions faster, safer and more reliably.

RIs blockchain enabled transaction platform. Participants in an agricultural transaction can sign up and easily create smart contracts in minutes, without the need to know how blockchain works and still receive all the benefits it has to offer.

One of the keys to making sure the system works is ensuring the data being fed to the smart contracts are reliable. Two main sources of data are from the grain elevators and the logistics of commodity transportation. We tackle those by providing a solution to each of these processes.
Revolutionary Blockchain Platform
for the Agricultural Business Ecosystem

Fast and Secure Transactions for Real Commodities
GrainChain EcoSystem

GrainChain Integrators
Offering a new set of features to their current customers, integrating a robust payment system.

Elevator (SILO) Operators
Web and app based real time inventory tracking across multiple locations. Fast payment for in/out, storage & management for grain.

Farmers
Immediate payment upon delivery and quality verification. Increased customer base due to secure funded transactions.

Buyers
Smart contract guarantees availability and quality of purchase. Expanded customer base.

Consumers
Traceable from seed to mouth with IoT data input giving ultimate data transparency on the Blockchain.

Insurance & Regulators
Participants have the option of generating efficient and reliable real time reports for insurance and regulators directly from the blockchain.
HOW DOES IT WORK?

The GrainChain platform utilizes GrainPay* to conduct all transactions immediately and seamlessly online connecting the global market.

Each GrainPay in circulation is 100% backed by the funds of the Buyers.

*GrainPay represents the monetary value of an asset that can be attached to a smart contract and transferred to the participants of a contract
Smart Contract
Example
Buyer Smart Contract

Smart Contract Flow Example

New smart contract created to buy commodities

Buyer
Payee
Elevator
Farmer
GrainChain platform
The smart contract is negotiated & accepted by the farmer.

These contracts can be multivariable & multipayee, in this example an elevator, payee and logistics have been added into the contract along with the multiple DROPOFF points.
Buyer Smart Contract
Smart Contract Flow Example

Buyer
Payee
Elevator
Farmer
Bank
GrainChain platform

The commodity is on its 1st trip
All the peer nodes achieved consensus on the blockchain and the 1st delivery is accepted.
Now that a consensus has been achieved, GrainPay is distributed in accordance to the smart contract.
Buyer Smart Contract

Smart Contract Flow Example

Buyer

Payee

Elevator

Farmer

Bank

Driver

GrainChain platform

The commodity is on its 2nd trip for the same contract
All the peer nodes achieved consensus on the blockchain and the 2nd delivery is accepted
Consensus has been achieved for a 2nd time. The remaining parties receive GrainPay.
The smart contract has been fully executed and now title of the commodity is transferred to the buyer.
GrainChain participants may convert or auto-convert their GrainPay to fiat currency at any point of ownership.
GRAINCHAIN PARTICIPANTS
Type of participant
Using SiloSys

Type 1

Type 2
Type of participant

Not with SiloSys

Optional Node
Virtual / Physical

Type 3
Using GrainChain Web Portal

Optional Node
Virtual / Physical

Type 4
Using GrainChain API

Type 5
Payee / Vendor
GrainChain Mobile App
The GrainChain platform uses GrainPay to conduct all transactions immediately and seamlessly online, connecting the global market. Each GrainPay in circulation is 100% backed by the funds of the Buyers.
GrainChain Dashboard
HarvX
Logistics Management for the Entire Agri-Supply Chain: Field, Transportation, Elevator, and Beyond.

OUR MISSION
To enhance global commodity logistics by connecting clients directly with delivery drivers, automating workflows and capturing reliable tracking information.

• Digitizing business processes.
• Producing reliable data.
• Reducing human error.
Connecting users directly to delivery truck drivers from a mobile device. Request trucks, track location and delivery status in real-time information from pick-up to destination from any mobile device.

Is our logistics solution that enables farmers to request delivery trucks, track their status and location in real-time from pick-up to final delivery all using your mobile device. This ensures accurate data which provides a true method of blockchain traceability.

Each solution can work stand alone or together seamlessly to provide a powerful comprehensive business solution for every participant in the marketplace.

This product provides true automatization to the data delivery of your ERP System.

DATA ENTRY IS A THING OF THE PAST.
Benefits to Farmer

- Direct access to Truckers
- Real time logistics information
- More efficient farming operation
- Full compatibility with GrainChain platform
Benefits to Drivers

- Faster payment
- Fully manage business operation in mobile app from the road
- Direct access to Farmers, full compatibility with GrainChain platform
- Find more trips via BID System
Benefits to Facilities

- Greater efficiency in operation
- Greater accountability
- More inventory control
- Full compatibility with GrainChain platform
- Adhoc route redirection for efficient logistics management