

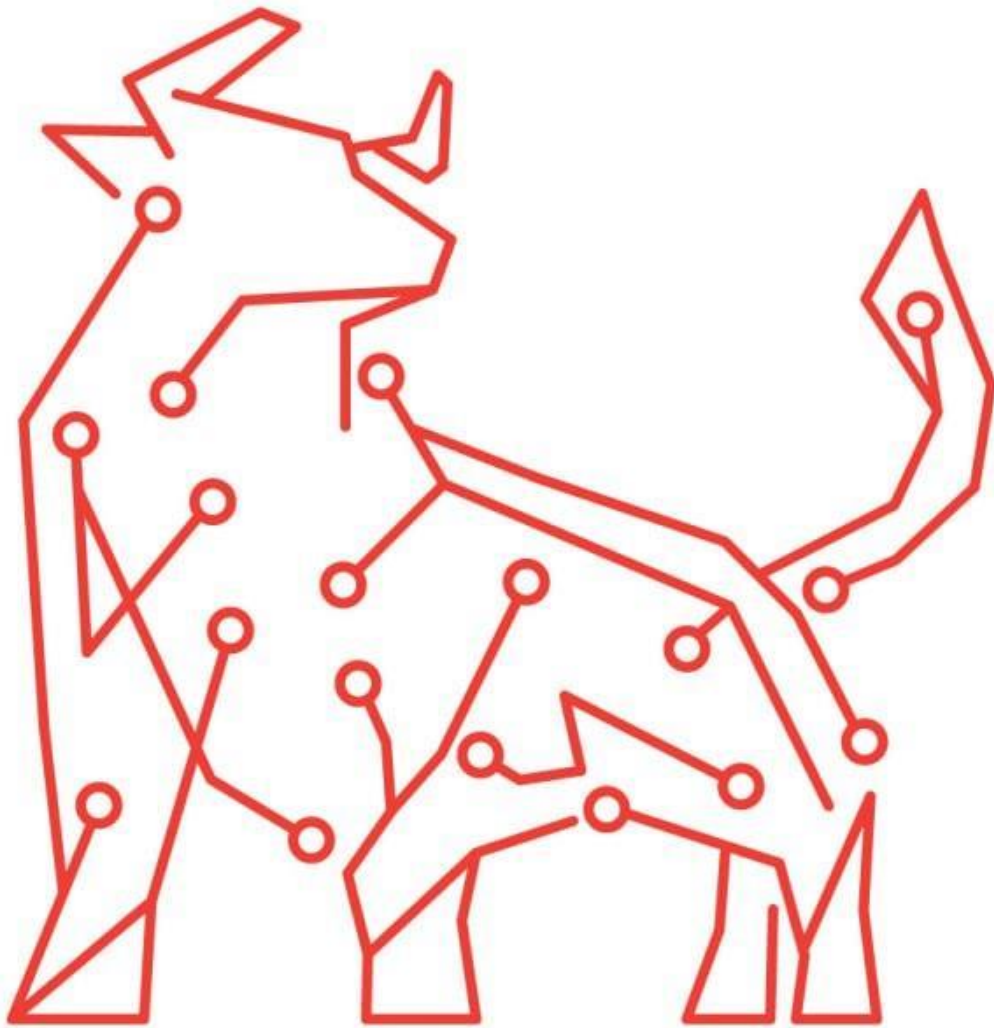
---

**OPTIMIZING LIVESTOCK  
& POULTRY DISTRIBUTION**

**VIA  
BLOCKCHAIN  
& SOULBOUND TOKENS**

---

**MOOXMOO**



---

Presented by MOOXMOO Foundation

---

## **DISCLAIMER**

The contents of this White Paper are subject to change in accordance with local regulations and other factors evolving over time. MOOxMOO Foundation may have to make changes to the business model or our tokens for any number of legitimate reasons. To the maximum extent permitted by the applicable laws, regulations and rules, MOOxMOO Foundation shall not be liable for any indirect, special, incidental, consequential or other losses of any kind, in tort, contract or otherwise (including but not limited to loss of revenue, income or profits, and loss of use or data), arising out of or in connection with any acceptance of or reliance on this White Paper or any part thereof by you.



---

## Table of Contents

### I. Executive Summary

- A. Meat Supply Chain Digitalization
- B. Business Transformation

### II. Korean Livestock & Poultry Market Opportunity

- A. Macro Environment
  - 1. Domestic Supply Chain Characteristics
  - 2. Import Supply Chain Characteristics
  - 3. KORUS Free Trade Agreement
  - 4. Local Breeders Feeling the Squeeze
- B. Current Supply Chain Inefficiencies vs MOOxMOO
  - 1. General Livestock Distribution Flow – Middleman Mania
  - 2. MOOxMOO Distribution Flow – B2B B2C P2P
- C. MOOxMOO – Full-Service Solution Provider
  - 1. Source & Process – Enhanced Quality Assurance
  - 2. Trade – Transparent Price Discovery
  - 3. Settlement & Clearing – Reduced Cost Burden
  - 4. Fulfilment – Delivery FOB or To The Table
  - 5. Working Capital Boost – Trade Finance & Security Deposit System
- D. Group Buying at Wholesale – SaaS
  - 1. Group Buying
  - 2. Schrödinger's Cow

### III. Architecture

### IV. About Us

- 1. Team & Advisors
- 2. Partners

### V. Business Roadmap

### VI. Token Economy



---

## I. Executive Summary

### A. Meat Supply Chain Digitalization

In a recently published report titled “Agricultural Outlook 2023” the Korea Rural Economic Institute estimated that Korea’s per capita consumption of three major meats (beef, pork and chicken) was 58.4 kg in 2022. This represents an annual 2.3 kg rise, a nearly 75% increase compared with 33.5 kg in 2002 and a mind-blowing increase of 1,123% since 1970.

Rising per capita incomes and relaxation of onerous import duties specifically with the US has enabled the population to consume more and higher value proteins. Yet despite the cutting-edge modernization of Korean industry in hi-tech fields, agricultural supply chains remain rooted in traditional frameworks, and inefficient business practices amongst producers and distributors continue to embed extraneous middleman costs into products which are passed on to the final consumer.

This problem behooved us to seek a solution: **MOOxMOO<sup>®</sup> is a simple to use blockchain marketplace concept led by the MOOxMOO Foundation<sup>1</sup>.** MOOxMOO serves as a supply and transactional platform utilizing Smart Contracts and SoulBased Tokens (SBTs) to streamline B2B and B2C transactions amongst local meat supply chain participants, volume retailers and retail customers. **Result: Members will avail quality meat products at wholesale prices.**

MOOxMOO is the first step towards a transparent and digitally accessible meat marketplace that provides substantial cost benefits for Breeders, SMEs and Consumers. Blockchain and Smart Contracts in general offer diverse benefits, ranging from increased liquidity, flexible working capital possibilities, faster transaction settlement times and increased security. Furthermore, fraud and counterparty risk is eliminated as MOOxMOO serves as fiduciary<sup>2</sup> and each supply chain participant is carefully vetted before being allowed to transact.

In sum, MOOxMOO enables:

- Decentralized and Transparent B2B & B2C meat product marketplace
- Dynamic and reflexive price-finding mechanisms, reflective of meat supply and demand dynamics as captured in Chicago Mercantile Exchange (CME) futures prices
- SBTs that attach to consumers’ profiles on our B2C marketplace MOOxDEAL<sup>®</sup> and to our MOOxBIZ<sup>®</sup> B2B members, entitling them to rewards based on tier-levels, activity and special events

---

<sup>1</sup> MOOxMOO Foundation is comprised of serial tech entrepreneurs and existing Korean livestock and poultry sourcing, production, marketing and distribution businesses that offer meat products on a wholesale and retail basis domestically as well as distributing processed frozen meat to the greater Asian region.

<sup>2</sup> Meat products are stored at a platform participant’s facilities in Korea, a registered third-party cold chain warehouse in Korea, or is in transit from an exporting supplier post issuance of freight Bills of Lading. In each scenario, the specification (nature, quantity, grade, etc.) will be verified by MOOxMOO through documentary proof of ownership.

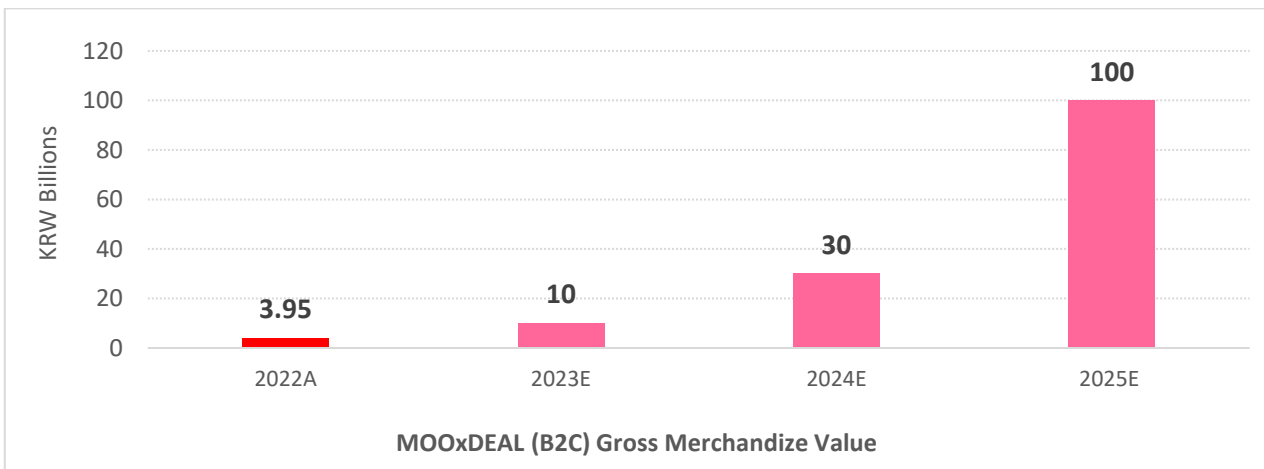


## B. Business Transformation

MOOxMOO Foundation leverages legacy meat Production, Marketing and Distribution constituents with successful operating histories in Korea. With the advent and broader adoption of Blockchain & Distributed Ledger Technologies over the past decade, the MOOxMOO Foundation will pursue the optimization of Korea's inefficient middleman congested livestock & poultry industry. The net result will be an improved pricing environment for Breeders and SMEs as well as margin enhancement through the value chain.

### Step 1 – MOOxDEAL<sup>®</sup> Shopping (B2C) with SBT Enhancers – Beta Commenced Feb 2022<sup>3</sup>

Cornerstone platform partners have successfully marketed and distributed carved meat and processed meats through myriad B2C sales channels including our own B2C platform “MOOxDEAL”, businesses offer direct sales to customers lifting business margins while lowering prices.



Source: MOOxMOO Foundation

A key commercial feature which we will add in late 2023 is a Rewards framework to increase vendor brand loyalty, utilizing SBT-based enhancers.

- Consumers will be rewarded with coupons, VIP events and discounts, and other perks based on their personal shopping history, as archived in the form of SBTs
- Vendors may search consumer SBT data for targeted marketing campaigns

Of note, our MOOxDEAL revenue model is a basic platform fee charged to vendors based on transacted merchandise value. We have not charged fees during our Beta Test, but anticipate collections once our comprehensive MOOxMOO platform is commercially launched in 2024.

<sup>3</sup> B2C Beta Test has been conducted on “mDeal” – an online shopping mall with myriad product verticals. Going forward, we will shift consumers and vendors to our dedicated meat marketplace – MOOxDEAL.com



---

## Step 2 – Token-based Working Capital Booster (B2B) – Coming 4Q 2023

MOOxMOO will use an open ledger to validate Trade Finance Deposits using the **MOOX Utility Token** (or otherwise accepted digital assets), to encourage buyers to deposit collateral for ordered goods in exchange for trade financing incentives. The Deposit-to-Order<sup>4</sup> ratio determines credit grace days.

*To illustrate:* IF Deposit Value > 30% of Order Value, THEN payment credit days = 45 days

- i. Buyer deposits MOOX token, Deposit Value<sup>5</sup> = KRW10mn
- ii. Buyer places a purchase order, Order Value = KRW30mn meat products
- iii. Platform auto issues invoice, with payment due date = +45 days

## Step 3 – MOOxMOO Platform, Full-Service Solution (B2B, B2C, P2P) – Coming 2024

Full discussion below at Chapter II, Section C “MOOxMOO – Full-Service Solution Provider”

---

<sup>4</sup> Deposit-to-Order Schedule will offer 30, 45, 60, 90 day credit terms, based on ratios.

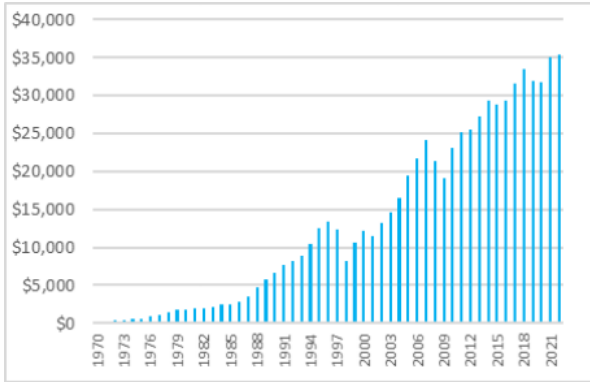
<sup>5</sup> Security Deposit Value fluctuates in real time -- *coinmarketcap* published reference prices will be used, time-stamped at time of PO acceptance, i.e. SBT minting.



## II. Korean Livestock & Poultry Market Opportunity

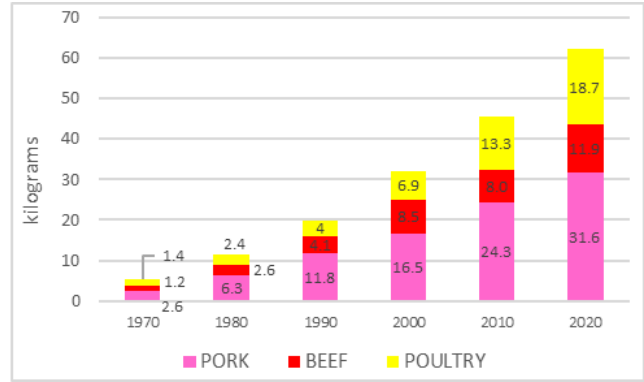
### A. Macro Environment

Since 1970 Korea's per capita GDP has risen from USD279 to ~USD35,000 in 2022 in current currency terms. If adjusting for Purchasing Power Parity, the figure would be even higher at ~USD45000. Korean meat consumption has increased tightly correlated with rising wealth.



**Korean Per Capita GDP (current currency)**

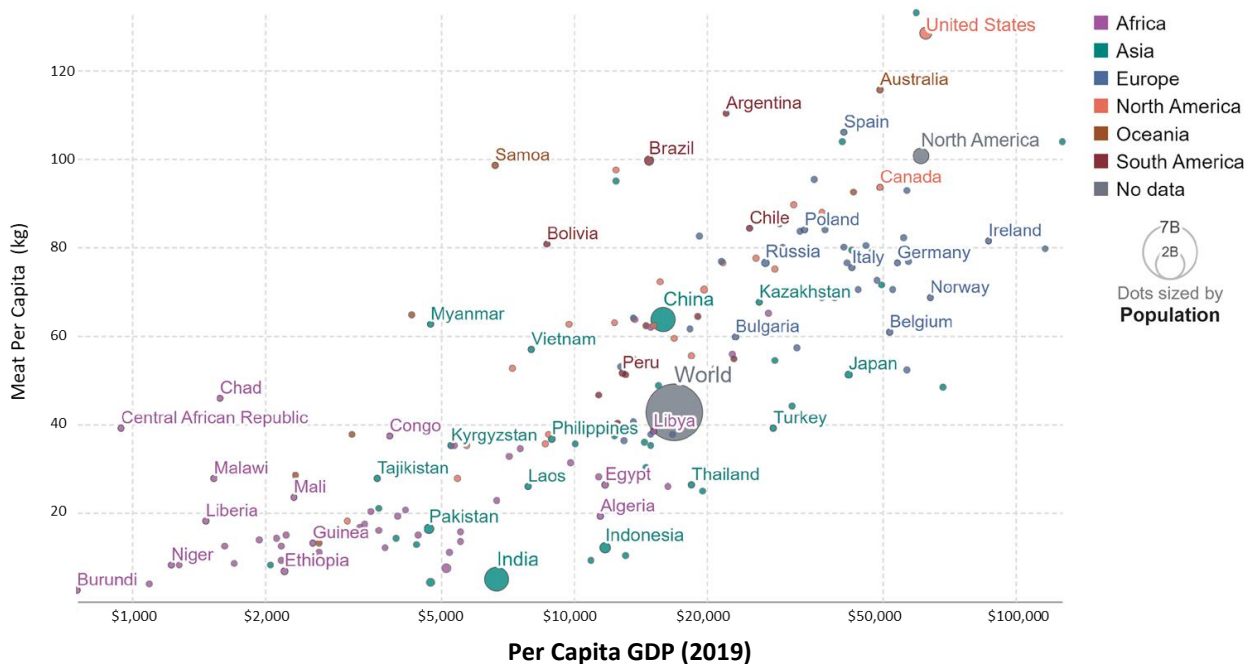
Source: World Bank



**Korean Per Capita Meat Consumption (kg/annum)**

Source: Ministry of Agriculture, Food and Rural Affairs, OECD

Correlations are consistent globally as developed nations exhibiting greater per capita consumption. The empirical evidence on consumer behaviour suggests that increases in income in low-income countries, where the share of food expenditure represent a high share of all expenditure, stimulate a higher consumption of lower valued foods, particularly carbohydrates. Beyond a certain threshold, higher valued foods such as animal proteins are preferred. For meat proteins the evidence suggests that the shift towards higher shares of meat protein in the diet have increased the most for upper middle-income countries, particularly China.



**Per Capita GDP (2019)**

Source: Our World in Data



Notably, the relative growth of Korean meat consumption ranks 2nd globally since the 1960s.

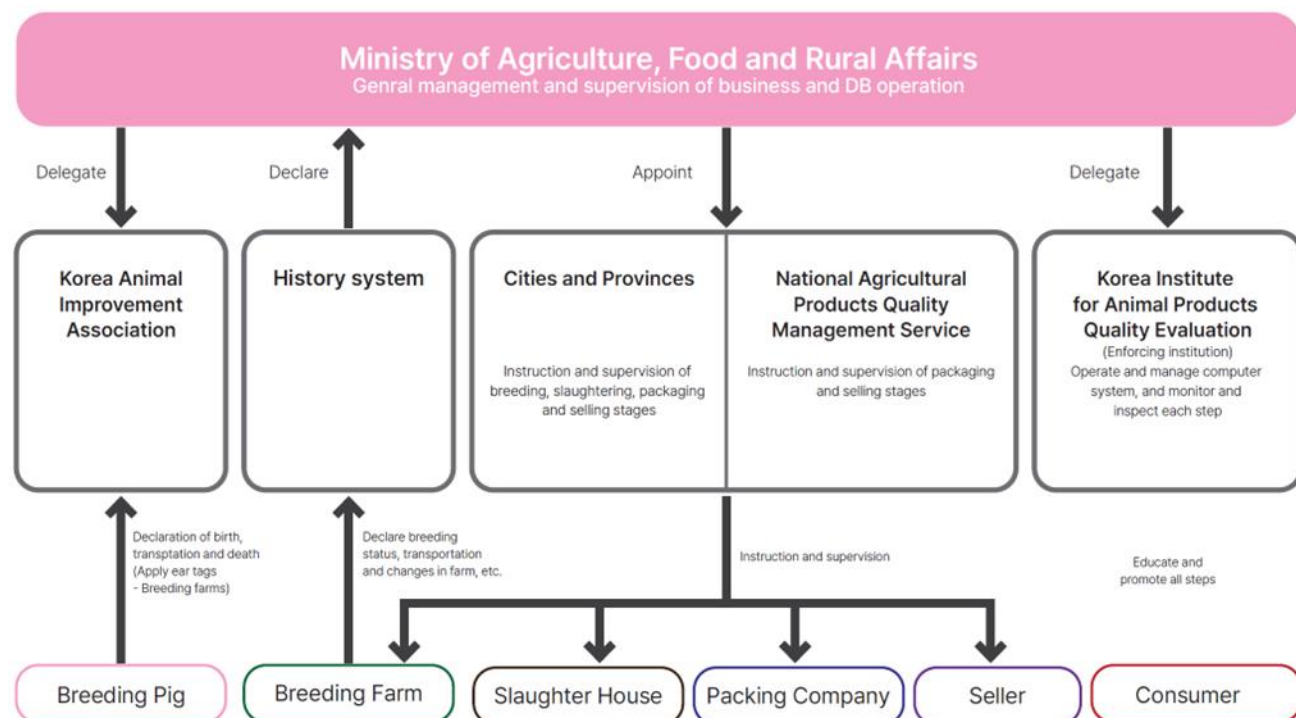
	1961	2019	Absolute Change	Relative Change
China	3.27 kg	63.67 kg	+60.40 kg	1847%
<b>South Korea</b>	<b>4.08 kg</b>	<b>79.32 kg</b>	<b>+75.24 kg</b>	<b>1846%</b>
China (FAO)	3.79 kg	64.37 kg	+60.58 kg	1598%
Eastern Asia (FAO)	4.47 kg	63.10 kg	+58.63 kg	1312%
Melanesia	4.40 kg	60.42 kg	+56.02 kg	1273%
Myanmar	4.71 kg	62.44 kg	+57.73 kg	1227%
Saint Vincent and the Grenadines	9.09 kg	97.36 kg	+88.27 kg	971%
Cape Verde	3.36 kg	32.74 kg	+29.38 kg	874%
Mauritius	6.55 kg	55.91 kg	+49.37 kg	754%
Malawi	3.41 kg	27.69 kg	+24.28 kg	713%
Japan	7.53 kg	51.11 kg	+43.58 kg	578%
Asia	5.29 kg	33.48 kg	+28.19 kg	533%

**Kilograms Per Capita Per Annum**

Source: Our World in Data

## 1. Domestic Supply Chain Characteristics

As with agriculture and fisheries overall, the Korean domestic cattle breeding and meat packing industry is highly regulated to both promote the commercial prospects of industry participants – especially breeders – as well as to provide consumer health assurances. A sample of regulatory oversight is encapsulated in the following traceability diagram.



Source: Ministry of Agriculture, Food and Rural Affairs





Domestic breeders and producers have historically been protected through Korean import tariffs and provided subsidies on livestock feed. In this beneficial environment Korean livestock breeders have been able to breed premium grades of beef cattle, namely “Hanwoo”, which is viewed comparable to the Wagyu variety. Korean consumers also have a preference for locally raised meats, be it for presumed higher quality control, taste or otherwise.

Variety	Quality	2019	2020	2021	Change in Price		Price Ratio over US Frozen Beef		
					2020	2021	2019	2020	2021
Korean Hanwoo		5,230	6,103	6,857	1.17	1.12	2.09	2.48	2.66
US Beef	Frozen	2,508	2,464	2,581	0.98	1.05	--	--	--
Australian Beef	Chilled	2,577	2,367	2,647	0.92	1.12	1.03	0.96	1.03
	Frozen	2,190	2,368	2,496	1.08	1.05	0.87	0.96	0.97
Korean Pork Belly	Chilled	1,843	2,122	2,429	1.15	1.14	0.73	0.86	0.94
Imported Pork Belly	Frozen	1,025	1,078	1,309	1.05	1.21	0.41	0.44	0.51

#### Comparative Pricing for Beef Short Ribs and Pork Bellies (KRW per 100g)

Source: Korea Agriculture Marketing Information Service (KAMIS)

## 2. Import Supply Chain Characteristics

Korea imports beef from nine countries including the US, Australia and Canada.

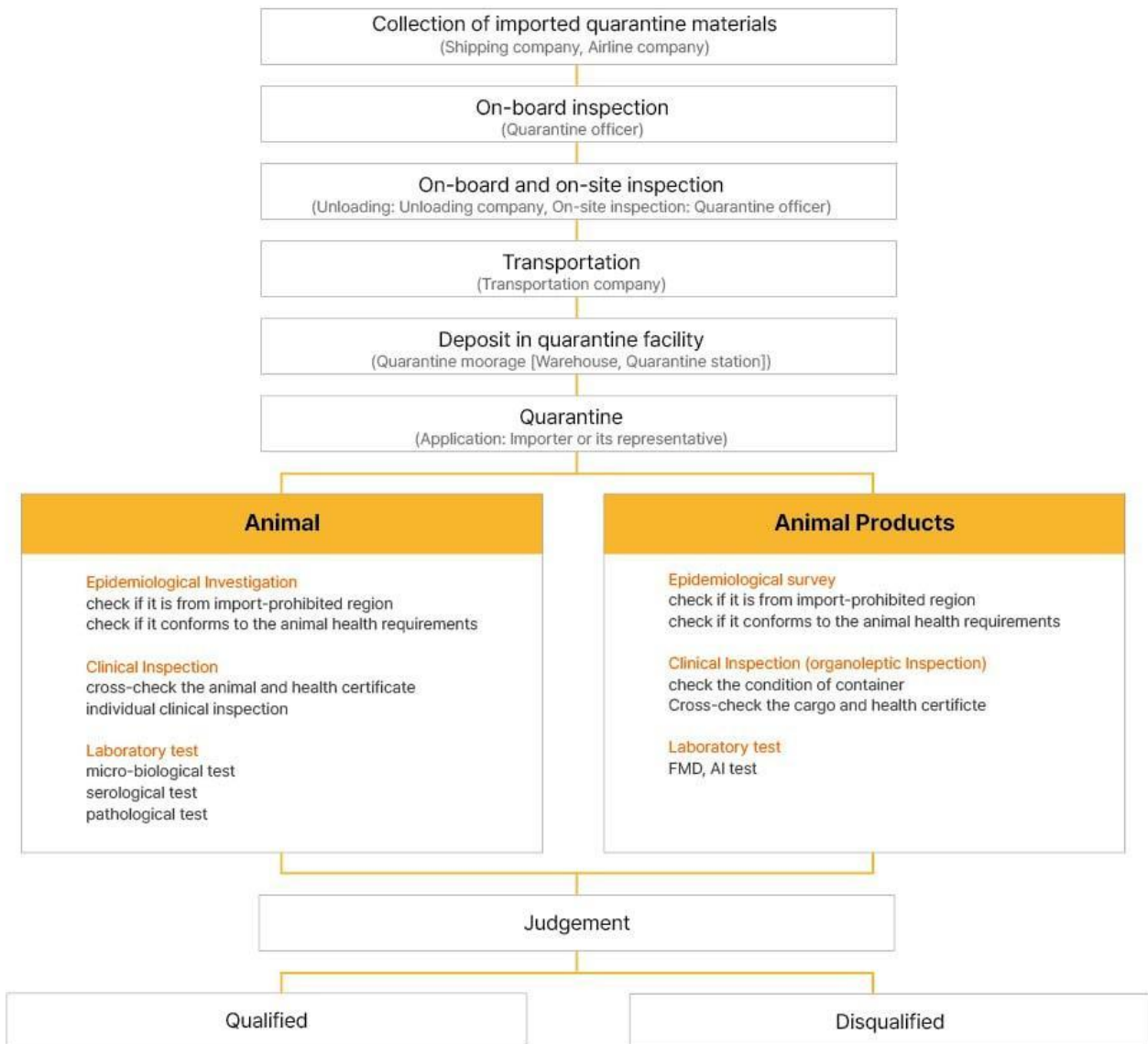
Country	2019		2020		2021	
	Value	Volume	Value	Volume	Value	Volume
US	1,745,507	235,729	1,731,836	243,198	2,093,138	249,950
Australia	1,038,788	177,806	1,026,799	170,238	1,260,164	179,260
New Zealand	71,505	16,015	70,077	15,362	99,452	20,082
Mexico	29,517	6,791	31,887	7,511	33,715	7,444
Canada	32,312	5,921	31,395	5,965	61,003	9,675
Uruguay	5,245	1,068	3,935	796	13,021	2,626
Chile	2,178	502	1,805	457	1,699	416
Others	1,131	223	4,449	925	10,076	1,750
Total	2,926,183	444,055	2,902,183	444,452	3,572,268	471,203

#### Korea Beef Imports (US\$ Thousands and Metric Tons)

Source: Korea Trade Statistics Promotion Institute



While breeding, raising, slaughter and packing processes have taken place in the export nation prior to freezing for shipment, imported meat is subject to a quarantine and must clear an inspection and approval procedure prior to being forwarded into the local supply chain.



Source: Animal and Plant Quarantine Agency



---

### 3. KORUS Free Trade Agreement

Imports from the U.S. have been on a rise in recent years. According to data from Korea Institute for Animal Products Quality Evaluation, U.S. beef imports surged 50% to 254,873 tons in 2021 from 169,000 tons in 2017. The growth is partially attributable to the COVID19 pandemic, as the Korean government implemented a short-term zero tariff policy on imported beef products from Australia and the US to tame inflation in 2022, which stimulated import demand.

Since KORUS entered into force in 2012, US beef exports to Korea have more than doubled and the US is now the leading beef exporter to Korea. US beef imports reached an all-time high in 2022, with over 250,000 tons valued at \$2.54 billion shipped. According to the US Meat Export Federation, Korea imported 256,910 tons of American beef in 2022, accounting for 54% of its total beef imports, up 2.8 percentage points from the previous year. Demand for U.S. beef is expected to rise even further as the current 8% tariff will be removed from 2026 under the KORUS FTA.

### 4. Local Breeders Feeling the Squeeze

While imports of meat continue to grow, the Korean livestock industry has protested government policy, concerned that all meat, milk and eggs are at risk of being substituted by imported goods. While the claim appears exaggerated, the local breeders are facing competitive pressures as increases in prices of livestock feed can cripple the local breeders, as consumers continue to opt for imported meat. (See Korea Rural Economic Institute for detailed analysis.)

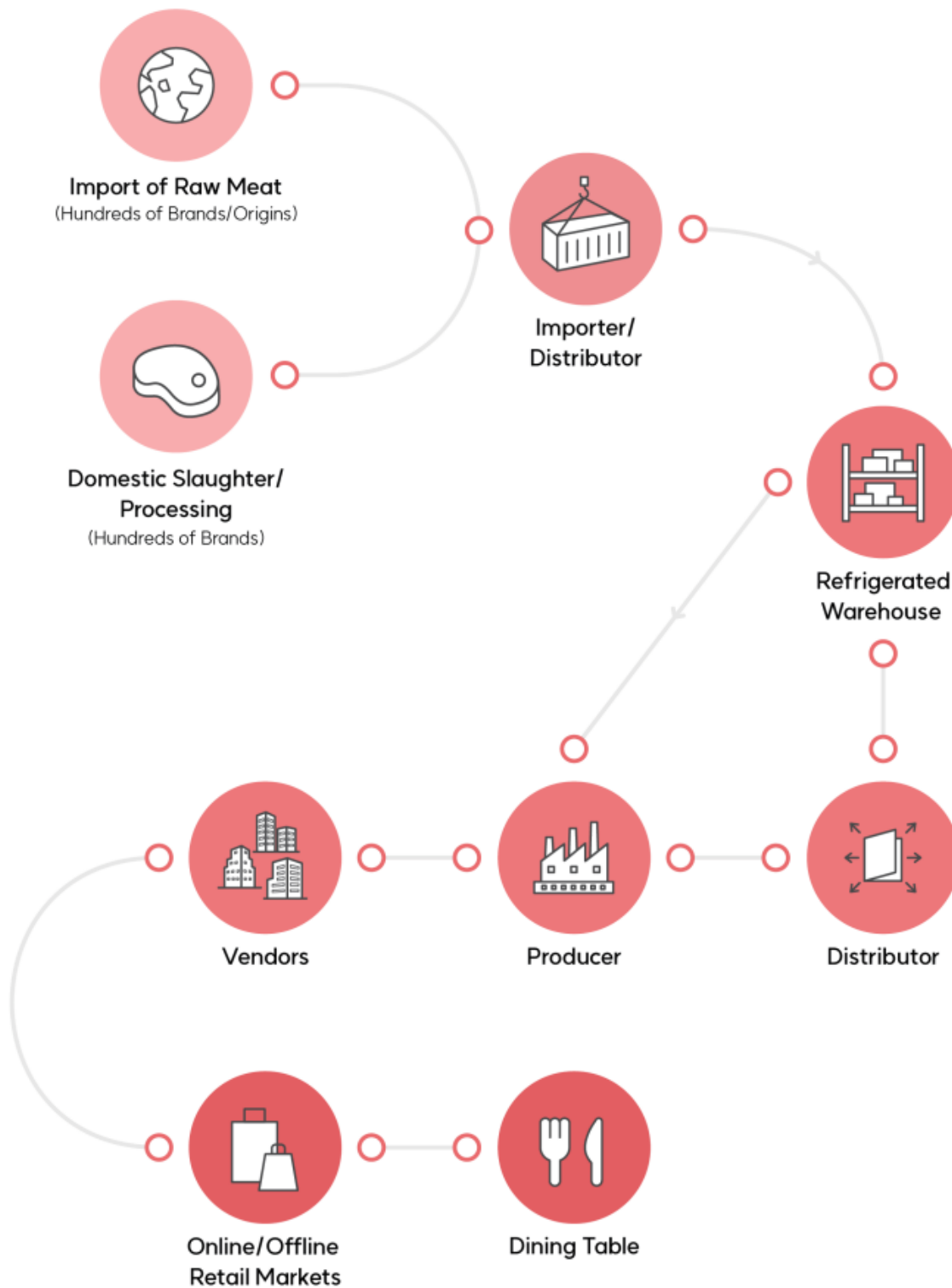
**Notably:** One goal of MOOxMOO is to alleviate the squeeze pressure upon breeders and SMEs – a sympathetic cohort within the oft brutal meat commodity business – by enhancing profitability and stability for upstream and downstream participants.



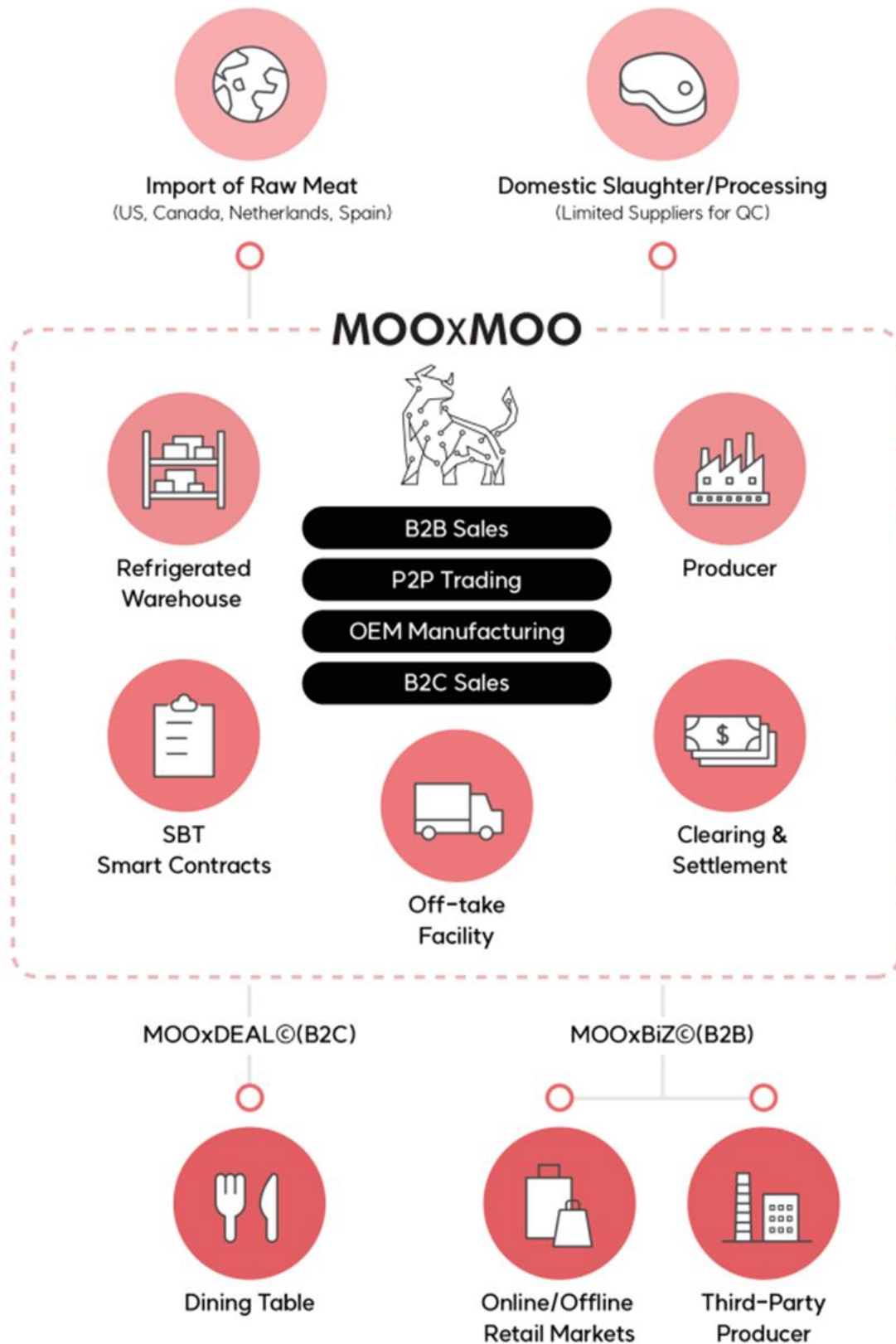
## B. Current Supply Chain Inefficiencies vs MOOxMOO

Middlemen distributor and vendor profit margins add unnecessary costs to a final consumers bill. Through MOOxMOO the supply chain is simplified, administrative and logistics costs are reduced and Quality Control is enhanced. The MOOxMOO product flow will result in improved margins for Producers and Retailers and more satisfied final Consumer experiences at lower prices.

### 1. General Livestock Distribution Flow – Middleman Mania



## 2. MOOxMOO Distribution Flow – B2B P2P B2C



---

## C. MOOxMOO – Full-Service Solution Provider

Our MOOxMOO platform – serving as a Sourcing Agent, Processor, Market Maker, Sales Platform, Settlement & Clearing Administrator and Fulfilment Agent for the meat industry and retail consumers – is imbued with the innate benefits of the blockchain and smart contract paradigm, coupled with commercially practical and attractive functionality.

### 1. Source & Process – Enhanced Quality Assurance

We and our members source wholesale meat and process & package. We also assure product quality by maintaining physical custody of bulk and processed meat at our own cornerstone partner premises, via Warehouse Receipts<sup>6</sup> issued by third-party cold chain facilities, or via Bills of Lading if meat is in transit. Thus, MOOxMOO members needn't take the time and added cost to vet a vendor<sup>7</sup> as we provide serve as a fiduciary to safeguard our members.

### 2. Trade – Transparent Price Discovery

Traditionally, B2B transactions for bulk or processed meat products take place between known counterparties via conventional ordering means relying on arbitrary quotations that often are not reflective of supply and demand dynamics. Mispricing results. Additionally, orders are often subject to take-it-or-leave-it trade terms.

B2B members on MOOxMOO will not be limited in their choice of counterparty – parties may remain anonymous other than accredited Market Makers (e.g. cornerstone partners). Meat pricing will be publicly viewable by all platform users on our MOOxBIZ portal. This transparency allows for more accurate and dynamic price discovery. Since commodity meat markets are often manipulated by heavyweight trading firms, transparency is an important benefit to the smaller players and upstream breeders.

Additionally, MOOxMOO smart contracts replace costly banking instruments like L/Cs, escrow fees, attorney fees and other transaction costs.

---

<sup>6</sup> In the traditional trading and custody framework, Warehouse Receipts are documentary proof of ownership of assets that are stored in a warehouse or other secure facility (e.g.s. bank vault or securities depository) for safekeeping. These documents are often printed with holograms and special codes to avoid counterfeit documents, and are viewed as equivalent of commercial paper and can be used as collateral for bank loans.

<sup>7</sup> MOOxMOO has already vetted vendors to assure that platform participants are properly licensed or registered by the Korean government for import, handling, processing and distribution of meat products. We also assess a participants financial condition and, depending on the circumstances, will require a supplemental security deposit in order to trade on our platform.



---

### 3. Settlement & Clearing – Reduced Cost Burden

Sales on MOOXMOO will entail a simple send-and-receive transaction, allowing transactions to be completed in seconds rather than hours or days. Transaction costs are greatly lowered by streamlining IT systems and sharing infrastructure among all members. Inefficiencies can also be reduced by the digitalization and automation of manual work as well as an elimination of a portion of trade reconciliation chores for the active member.

### 4. Fulfilment – Delivery FOB or To The Table

Delivery (or collection FOB) of the meat product is made in accordance with the delivery terms of the SBT smart contract. In general, we expect physical collection of MOOXBIZ transactions to take place at the off-take loading bays of our cornerstone partner cold storage facilities on an FOB basis. However, alternative delivery venues (for B2B) or home delivery (for B2C) may be designated in the SBT or as amended.

### 5. Working Capital Boost – Trade Finance & Security Deposit System

Members' receivables management will be enhanced, as their receivables turnover ratio for MOOXDEAL and MOOXBIZ sales will improve significantly vs standard terms of trade amongst Korean third-party online shopping malls and offline points of sale. More specifically:

- MOOXDEAL vendors can expect their sales to be credited upon expiry of the customary one-week refund period offered retail consumers.
- MOOXBIZ vendors can expect their sales to be credited based on the value of security deposits left with our platform. The Deposit-to-Order<sup>8</sup> ratio determines credit grace days. *To illustrate:*

IF Deposit Value > 30% of Order Value, THEN payment credit days = 45 days

- i. Buyer deposits MOOX token, Deposit Value<sup>9</sup> = KRW10mn
- ii. Buyer places a Bulk Meat Purchase Order = KRW30mn meat products
- iii. Platform auto issues invoice, with payment due date = +45 days

---

<sup>8</sup> Deposit-to-Order Schedule will offer 30, 45, 60, 90-day credit terms, based on ratios.

<sup>9</sup> Security Deposit Value fluctuates in real time -- *coinmarketcap* published reference prices will be used, time-stamped at time of PO acceptance, i.e. SBT minting.



---

## D. Group Buying at Wholesale – SaaS

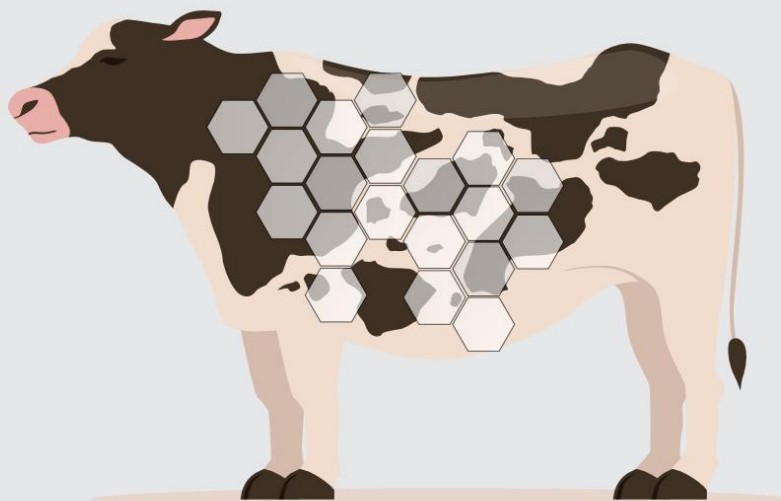
### 1. Group Buying

On MOOxMOO, we will enable the retail consumer to collectively buy bulk meat nearly at wholesale prices, which can be shared amongst family and friends. Notably, MOOxMOO handles butchering for retail buyers –SaaS: “Slice as a Service” – since most retail buyers are not capable of butchering bulk beef. The offering price of the bulk meat slated for collective buying will reflect a pre-embedded cost of the SaaS process to be incurred by vendors. Thus, prior to Delivery FOB (or as otherwise requested), the underlying bulk meat is butchered into Steaks, Ground, Ribs, Stew, and other parts. These butchered beef cuts and other parts are prorated into equivalent portions, to be collected FOB (or shipped per buyer’s instruction at cost).

### 2. Schrödinger's Cow

Schrödinger's Cow: MOOxMOO SBTs are NFTs (non-fungible tokens) in script and essence as they are smart contracts linked to a specific underlying sales transaction. However, a MOOxMOO SBT also reveals its dual nature as a fungible token – a contractual obligor can supply any meat product meeting the smart contract’s specifications within a delivery period. The dual nature of MOOxMOO SBTs will enable the sophisticated meat obligor to arbitrage and fulfil delivery by accessing other platform smart contracts or by substitution by sourcing from an external spot meat market.

A noteworthy distinction, however, is that while the fate of Schrödinger's Cat remains a mystery, we are certain that the Cow is dead.





### III. Architecture

#### Wholesale / Retail Meat Blockchain Platform

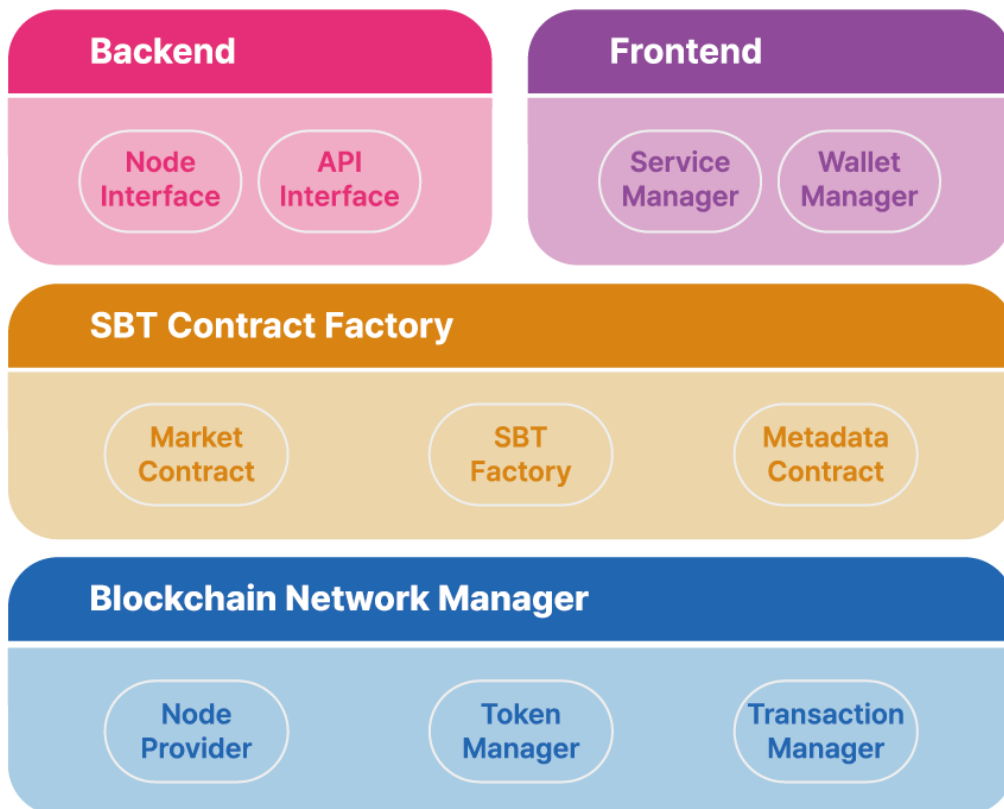
Features Required by Platform & Participants:

- Ability to record and deliver wholesale / retail meat transaction information to smart contracts
- Ability to record and deliver wholesale meat specification information related to smart contracts
- Forgery of transaction information and specification information can be prevented by using immutable or non-transferrable token functions post issuance.

To address the above requirements, the following three SBTs<sup>10</sup> have been developed:

- Wholesale SBT – Tokens that store wholesale records and are issued post verification by platform members involved in wholesale transactions
- Member SBT – Tokens issued to verify the eligibility of platform members involved in wholesale transactions. Also issued to processors and those involved in wholesale trade
- Retail SBT – Tokens that store retail records and issue after verification by members involved in retail transactions

#### SBT Architecture

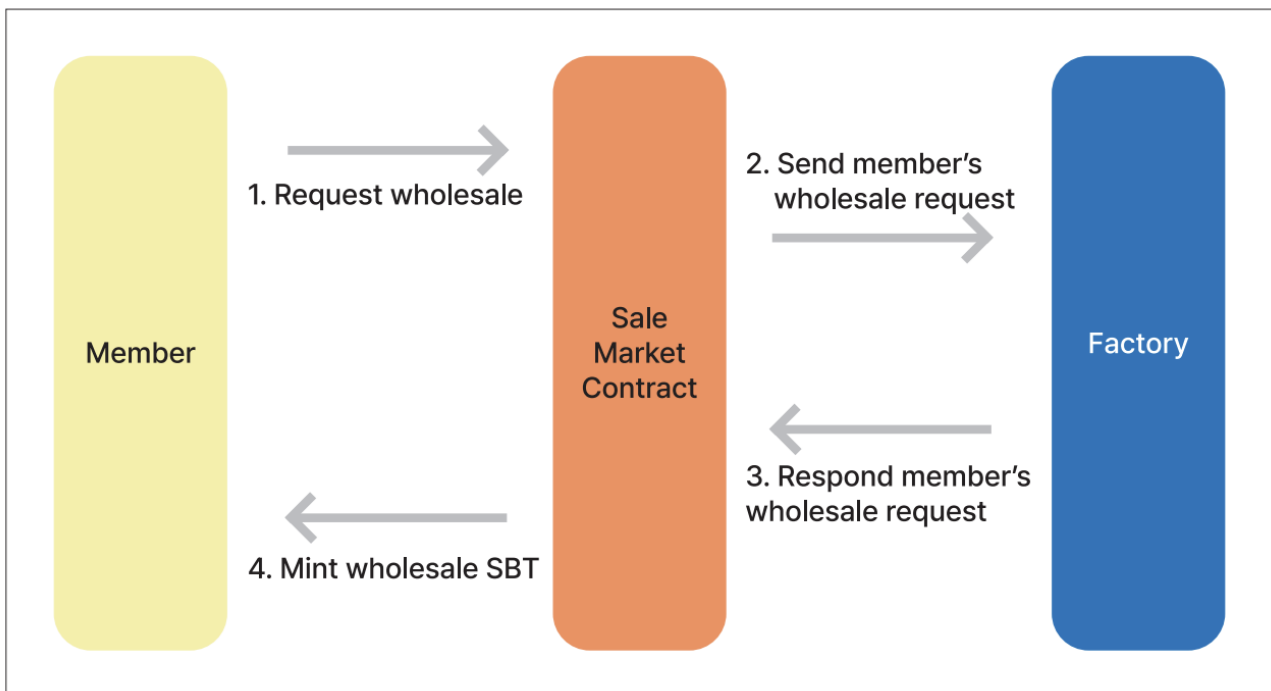


<sup>10</sup> Wholesale SBT and Retail SBT records are used in accordance with and to execute the guaranty policy as determined by the MOOXMOO platform.



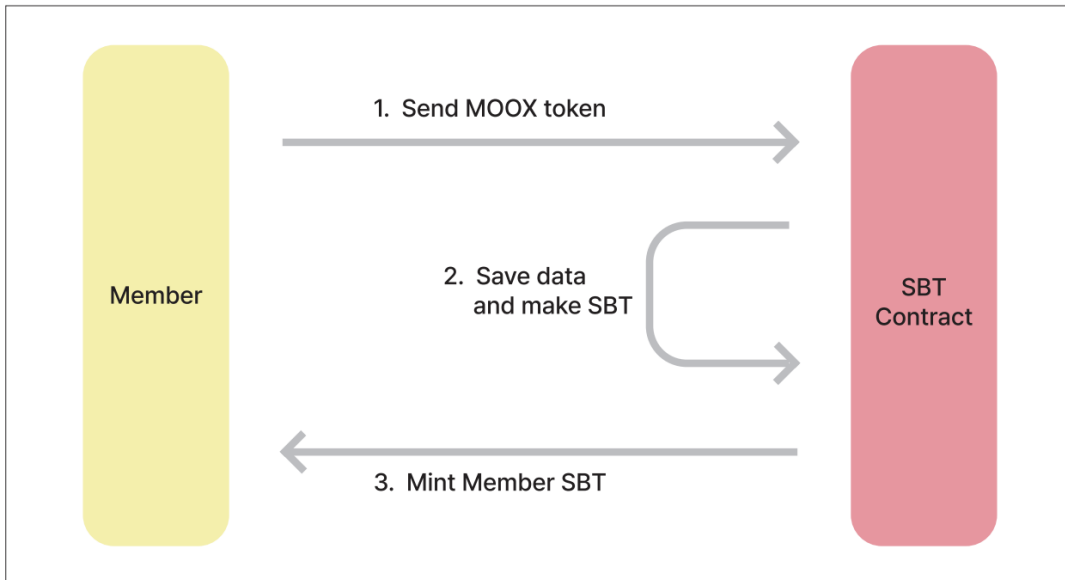
## Wholesale SBT Process

1. Members send meat purchase applications to Market Smart Contracts
2. Market Smart Contract determines whether the purchase request is valid based on the sending member's SBT information, and if it is valid, records the information in the smart contract and delivers the request information to the processing plant
3. After checking the purchase requisition information, the processing plant checks and confirms that the information is valid, communicates it to the Market Smart Contract, and delivers the meat to the member.
4. Market issues wholesale SBT from trading members based on the processing plant's confirmation information



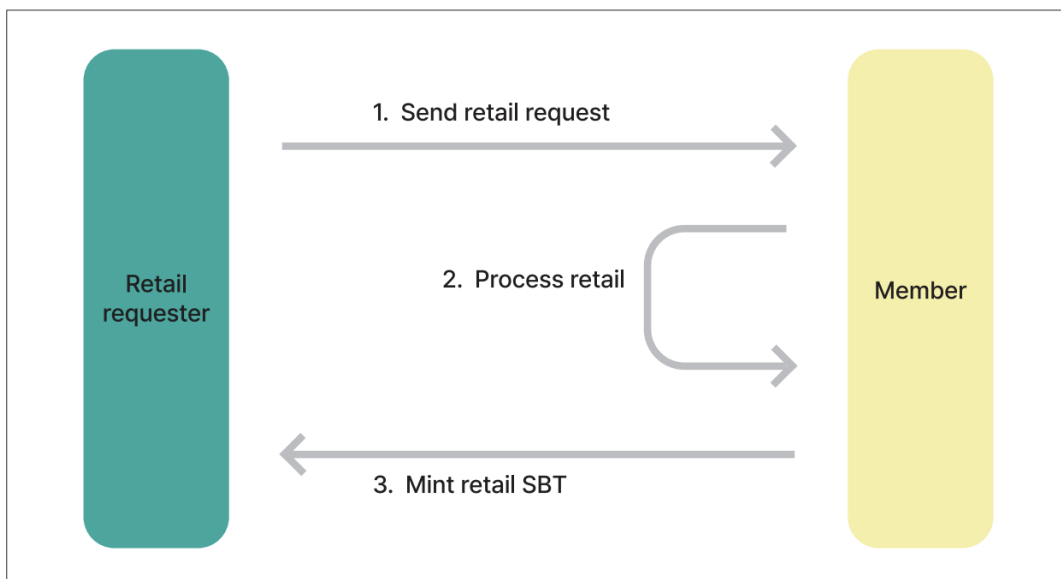
## Member SBT Process

1. Members transfer a certain amount of MOOX tokens to Member SBT Factory Smart Contract (MSF).
2. MSF record the sent address and token amount information, adds metadata such as the transfer date, and issues and transmits a Member SBT to the sent address.



## Retail SBT Process

After receiving purchase requests from consumers, retailers, brick-and-mortar stores, etc., the member conducts the actual retail sale, and issues and transmits a Retail SBT that stores the address of each party and the corresponding sales record.



---

## IV. About Us

### A. Team



**CEO** **Kim Jongmin**

**Management, Platform Operations & Market Making**

A meat distribution expert with **10** years' experience

- Hapdong Theological Seminary, Masters of Divinity.
- Konkuk University, Bachelor's degree, in English linguistics.
- Sales Manager, Modu Corp.
- Team Manager, AI smart database solution team, VOICEIN Corp.



**CTO** **Woo Seunghun**

**Tech Development**

**20** years of experience as an expert in it platform development

- Incheon National University, Bachelor of Electronic and Computer Engineering.
- Chief Engineer of Albastella.ai, an AI specialized company.



**CFO** **LEE Chungsang**

**Working Capital & Risk Management**

**30** years' financial management experience

- University of Seoul, Bachelor's Degree in Public Administration
- Shinhan Bank -- Audit Dept, Branch Manager, Marketing Dept, ICT HQ



B. Partners:

1. Cornerstone Partners



2. Sample OEM Partner Products and Own Brands



### 3. Partners & Customers

B2B Direct Import Clients = 20+ including:



B2B OEM Production Clients = 10+ including:



B2C Distribution Network



---

## **V. Business Roadmap**

### **2Q 2023**

- Evaluate MOOxDEAL (B2C) 14-month Beta Performance (February 2022 to April 2023)
- Prepare Full Service MOOxMOO Platform Design
- Pre-Development Planning

### **3Q 2023**

- Develop b2b supply chain backend infrastructure
- Develop supply contribution web-service with smart contract
- Design SBT smart contract

### **4Q 2023**

- Develop b2c supply chain backend infrastructure
- Develop supply contribution web-service with smart contract
- Develop SBT smart contract

### **1Q 2024**

- Develop b2b and b2c web service with each backend infrastructure
- Develop web3 supply service
- Develop SBT distribution smart contract

### **2Q 2024**

- Deploy smart contract
- Develop bridge service between chains
- Develop DAO for supply chain community

### **2H 2024**

- Explore Expansion Opportunities:
  - Horizontal (product genre)
  - Vertical (upstream breeding / downstream eateries)
  - Geographic



---

## VI. Token Economy

### 1. Token Summary

Name	MOOxMOO
Type	ERC-20
Ticker	MOOX
Total Issuance	1 Billion

### 2. Token Allocation

