SUB SAHARAN AFRICA LOCAL SEEDS SYSTEMS

High Quality Seeds
via Community Aggregators

Introducing SOS Labs
sos = seeds open supply

Establish an **Integrated Service Delivery mechanism** through Community Aggregators* serving as a non-disruptive microfinancing and value adding platform.

The Community Aggregators allow for a comprehensive and **complimentary intervention model** to develop smallholder farmers, to enhance adoption of improved seeds, and thus Food Security.

*local providers of agricultural supplies

The Community Aggregator is KEY for integrating services to Farmers, and for the adoption of Improved Seeds

IMPROVED SEEDS - ADVANTAGES

Livelihood

Climate Resilience

Nutrition Enhancement

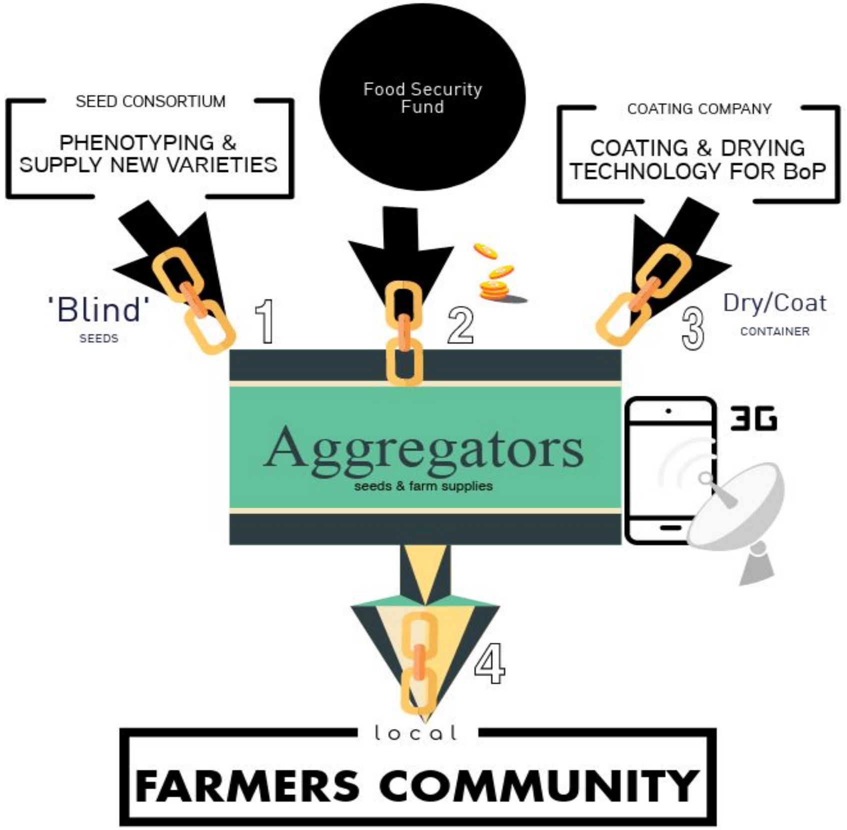
Create Market Pull

Interventions
Improved Seeds
Drying and Coating Tool
Farmers Fund
Train the Trainer Materials

COMMUNITY AGGREGATOR

Target Group
Aggregators
Farmers
Local community

Concrete Steps



1. Aggregators facilitate access for the local farmers to a tablet or smartphone with an) intuitive dApp on a BlockChain.

2. The farmer, via this dApp, gets access to:
    - blind tested improved and adapted seeds
    - funds from a Food Security Fund
    - training via tailored online material that will create awareness and enhance entrepreneurial skills

3. Trained Aggregators can conduct a drying/coating treatment for the seeds for enhanced shelf life

Blind tested Seeds

The Aggregator sells improved seeds to farmers on a micro-loan and provides services

Aggregators will get 'blind results' from phenotyped varieties from (multi) national seed companies

Aggregators will receive training of trainers (ToT) on delivering knowledge and skills such as:

- ❑ Use of Improved Seeds and Fertilizer
- ❑ Drought, Pest and Disease Management
- ❑ Entrepreneurship and Market Entrance

Key Partners

Phenotyping / R&D

Coating / Drying

Finance / Blockchain

Implementation

Blockchain / Smart Contracts

Smart Contract 1

Seeds get phenotyped / blind tested, and registered in Public Seeds Record by Phenotyping Entity.

Aggregator buys the seeds from the Phenotyping entity.

Smart Contract 2

Aggregator gets paid by Food Security Fund to buy the seeds from Phenotyping entity

Aggregator pays back Food Security Fund, when farmer pays back loan

Smart Contract 3

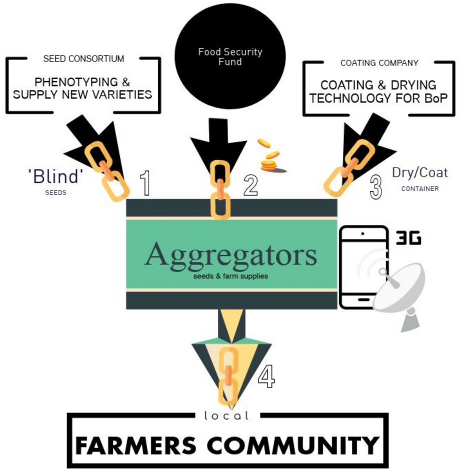
Seeds get coated by Aggregator

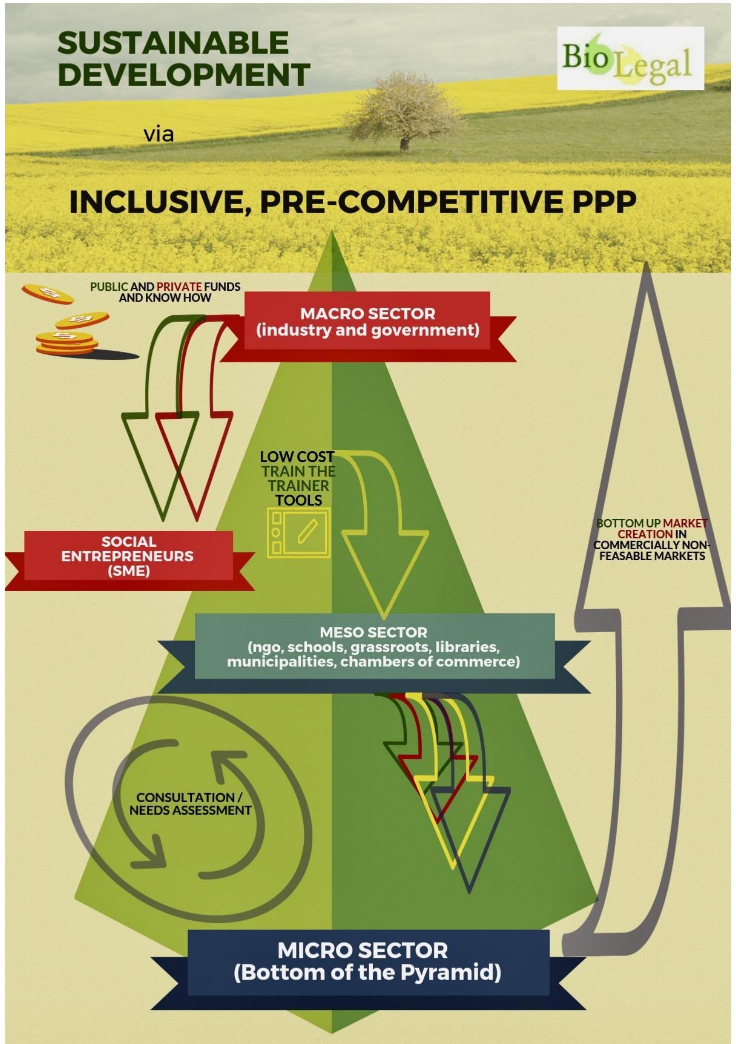
Aggregator pays license fee to Coating Tech Party upon sales of seeds

Smart Contract 4

Farmer gets seeds on a micro loan from Aggregator

Farmer pays back Aggregator after selling his/her yields





It is the perfect PPP

The Aggregator is the Social Entrepreneur in the Meso Sector, and uses low cost Train the Trainer Tools.

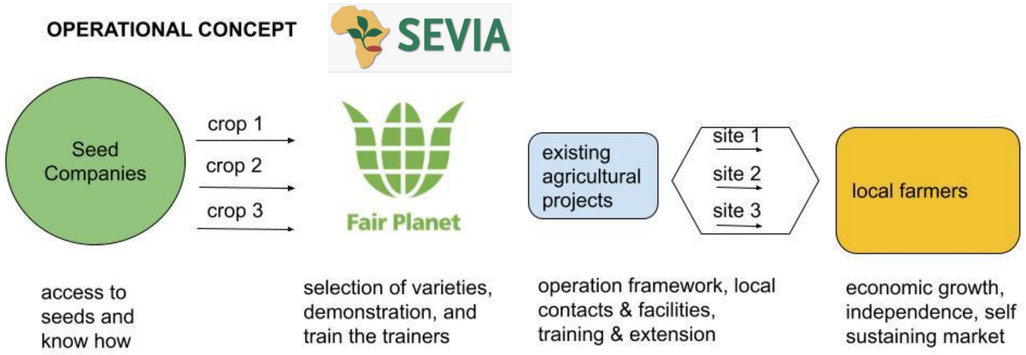
The macro sector provides funds and know how.

Consultation / Needs assessment with the Micro Sector via dApp.

This means that bottom up market is created in a commercially non feasible market, which means private sector will guarantee sustainability, and

there is no dependency of farmers towards global AgriBusiness.

Operational Structure

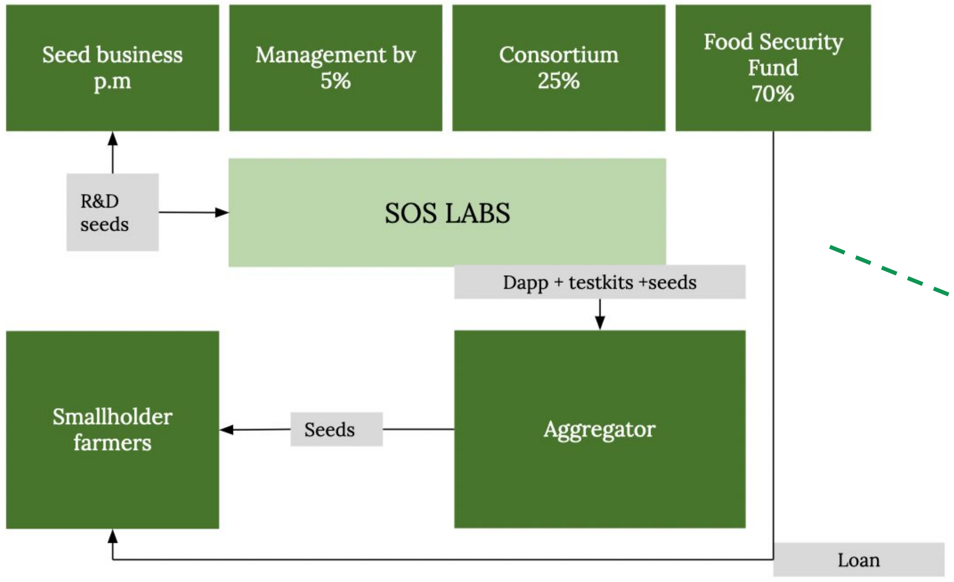


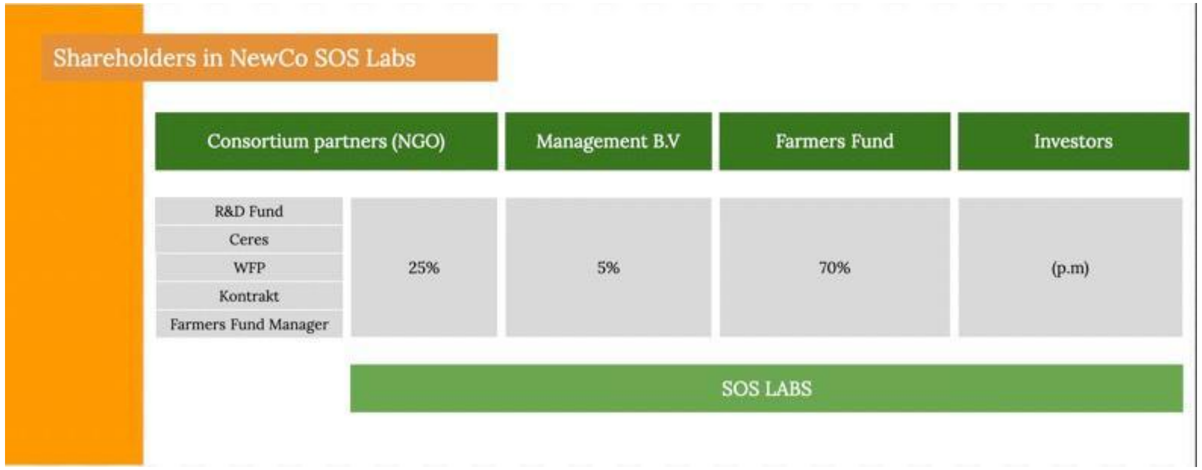
SCALE UP AND DIGITIZE THE EXISTING GROUND WORK WITH A BLOCKCHAIN PLATFORM

'SOS LAB'

Multi-Stakeholder Co-operation

Cooperation Structure





Shareholders in NewCo SOS Labs

Consortium partners (NGO)		Management B.V	Farmers Fund	Investors
R&D Fund Ceres WFP Kontrakt Farmers Fund Manager	25%	5%	70%	(p.m)
	SOS LABS			

Meet the Team

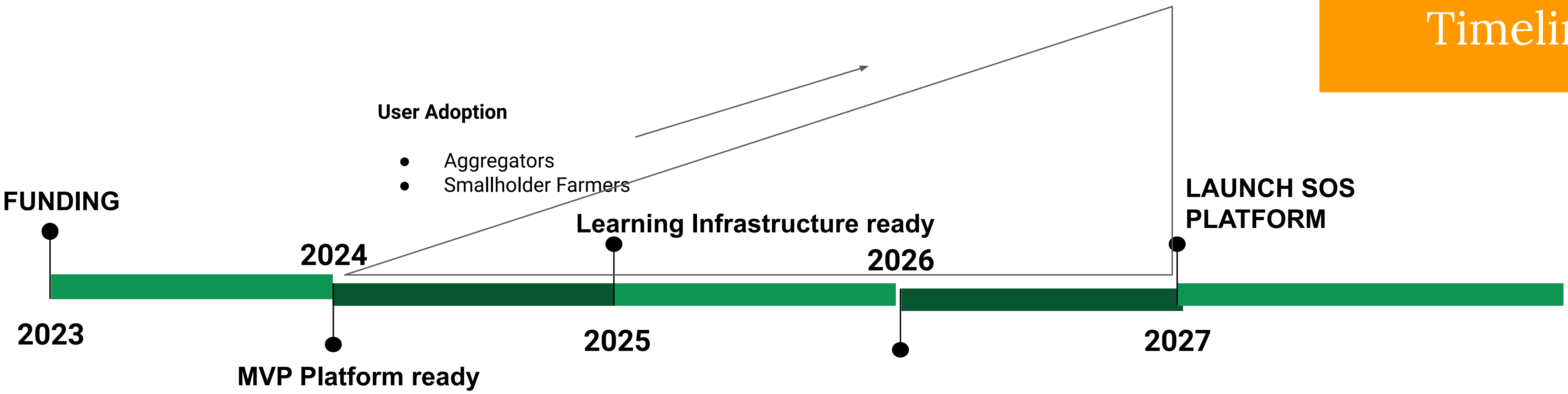






Dion Achterberg	Christine Baker	Marjan Frik	Dvorah Graeser	Tsedal Yohannes	Jenny Elissen	Nikolet Zwart
Dutch General Counsel with 30+ years experience in multinational seeds business	UK Financial expert with 30+ years experience in global banking and investments	Dutch IP Lawyer with 30+ years experience in biotechnology and seeds R&D	Israelian/US Tech & Patent expert, with 30+ years experience in entrepreneurship and digitization	Eritrean activist and farmer in Africa, with 30+ years experience in international cooperation and global finance	Dutch Strategist and integrative thinker with 30+ years experience in Marketing and systematic change	Dutch lawyer with 25+ years experience in Partnerships, R&D, entrepreneurship, and agribusiness

Timeline



Technical Phase

- Onboard Seed Industry and Farmers Fund
- Create MVP Platform (Kontrakt)
- Phenotype Seeds on the ground (Fair Planet/SEVIA)
- Establish R&D Fund

Learning Infrastructure

- Design training for aggregators
- Design learning infrastructure (mentoring, train the trainer, handbook) (WFP / CERES)

Governance Setup (DAO)

DAO for voting and profit sharing

Public Funding	Seed industry	Private equity
70% of global food is produced by smallholder farmers + 70% of world's poor are smallholders (mostly women) Environmental benefits Level Playing Field	80% of the seeds used in the **continent Africa** are <u>not</u> purchased from the 9 multinationals that together account for 85% of the **global** seeds supply New market creation in sustainable manner	Private Equity partners are looking for Impact Investments Private money matched with public funding
	➔ **Turnover Seed Sales** ➔ **Equity in Newco**	➔ **Earning model via Food Security Fund** ➔ **Equity in Newco**

Impact Investment

In Impact and Capacity Building

In (digital) Currencies and Equity

Earning Model

SOS Labs makes money by the sales of improved seeds to farmers (Buyers) via Aggregators (Sellers)

Seed Agents (expanded with 4 per month to 336) visit the local Aggregators to get them administered on the dApp

Starting in 3 regions in Tanzania where partners are presently active, scaled via WFP throughout Southern Africa

Irresistible Offer

For Sellers (aggregators, seed centers)	For Buyers (farmers)
Range Expansion: Improved Seeds next to Informal Seeds	ID on the Blockchain - Credit History for unbanked
Easy Administration via the dApp	Seeds on Credit
Oversight of Farmers Purchases and payments in dashboard	Loan to be paid back after harvesting
In dealings with Seed Multinationals choices made via R&D	No Harvest Risk
Free Entrepreneurial training	Free Entrepreneurial training

Financial Goals

Goal 1: Create an ever expanding Revolving Fund for smallholders in 13 Southern African countries (69% net revenues)

Goal 2: Create an ongoing stream of income for 5 NGOs in the Consortium for capacity building (25% net revenues)

Goal 3: Management Team (5% net revenues) exits after 7 years with an 8% cap, rest will be reinvested in Fund

Goal 4: Investors (1% net revenues) will receive ROI of 10% per year and exit after 7 years with 8% cap

Food Security Fund

CREDIT RISK REDUCED VIA GEOSPATIAL DATA / FOOD SECURITY MODELS

INTERNAL FACTORS

STRENGTHS (+)

Founders from the Seed Industry
Since 1989 in Pre-competitive R&D Cooperation
Core team (7p) 30+ years in R&D, Legal, Finance, Marketing
Active in blockchain space since 2017

WEAKNESSES (–)

Consortium of NGOs working with commercial Seed Industry
Digital illiteracy of elderly directors of potential partners

EXTERNAL FACTORS

OPPORTUNITIES (+)

80% market to win for vegetable seeds in continent Africa
Bottom up market creation (market pull), instead of top down
Creating a Fair Chain by ‘cushioning’ market power of macro sector
Blockchain for transparency and low-barrier multi-actor participation

THREATS (–)

Multinationals competing with the SOS Labs system
Regulatory hindrances or reluctance of public bodies to give permissions
Non-compliance, or even fraud by Smallholder Farmers
Lack of access to markets to sell increased harvest to pay back loans