

Farming Dynamics

Weather Risks(Intensity)

- Rainfall
- Temperature
- Wind
- Hail
- Flood
- Drought

Resource Risks

- Soil
- Water
- Access to Inputs
- Pollution

Economic Risks

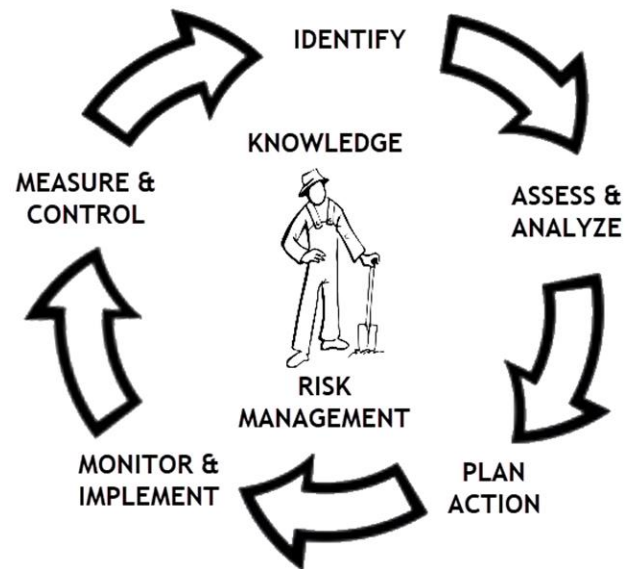
- Prices
- Access to Markets
- Trade Tariffs
- Administrative costs

Labour Risks

- Access to labour
- Labour Cost
- Labour Reliability

Locational Risks

- Crop Suitability
- Distance to Market
- Safety



Health Risks

- Aids
- Malaria
- Zoonosis

Biological Risks

- Diseases
- Insects
- Weeds

Financial Risks

- Access to Finance
- Input Costs
- Unforeseen Costs
- Interest rates

Policy and Political Risks

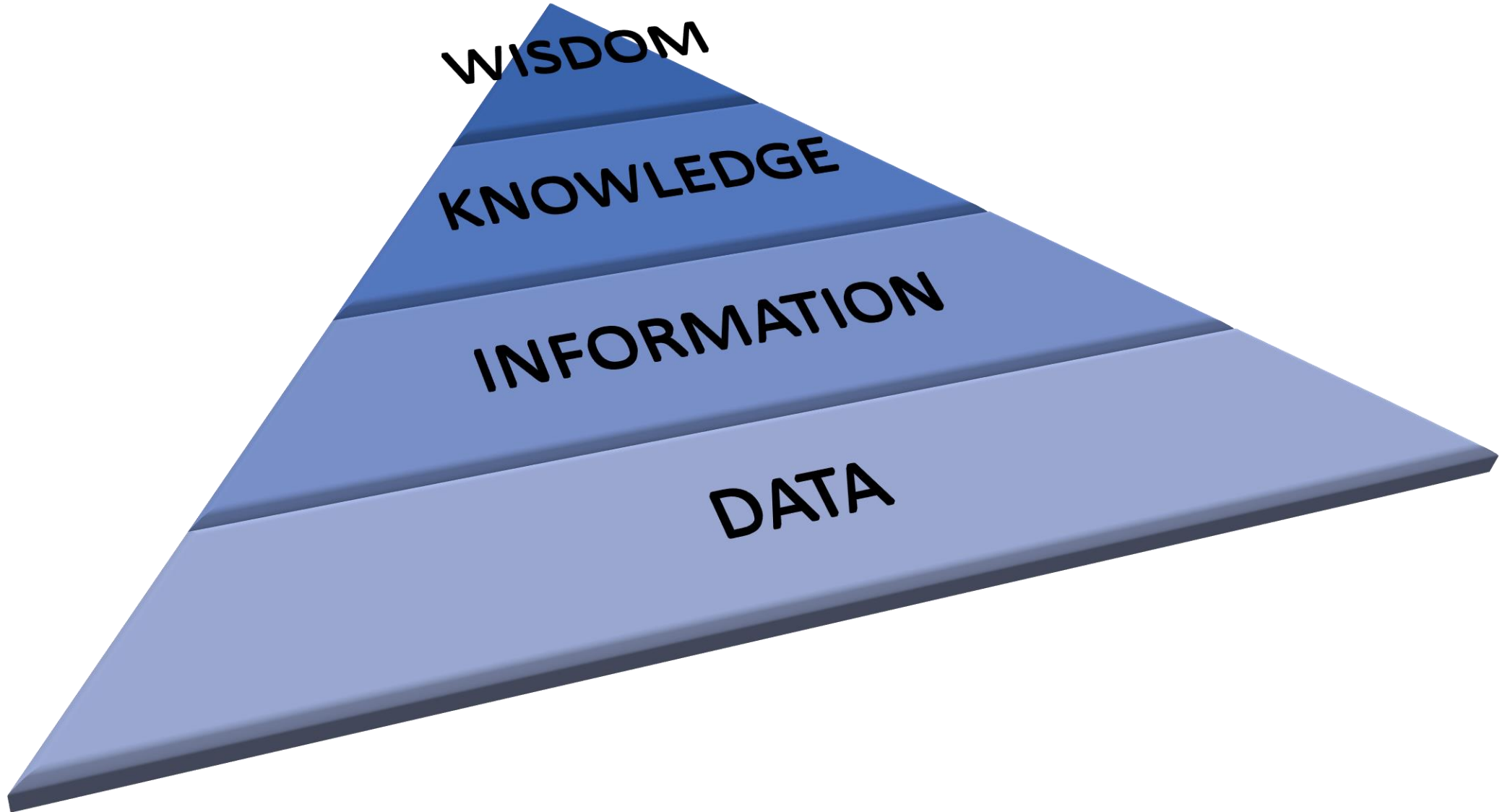
- Trade Policy
- Tenure Security
- Certainty

Infrastructure Risks(condition)

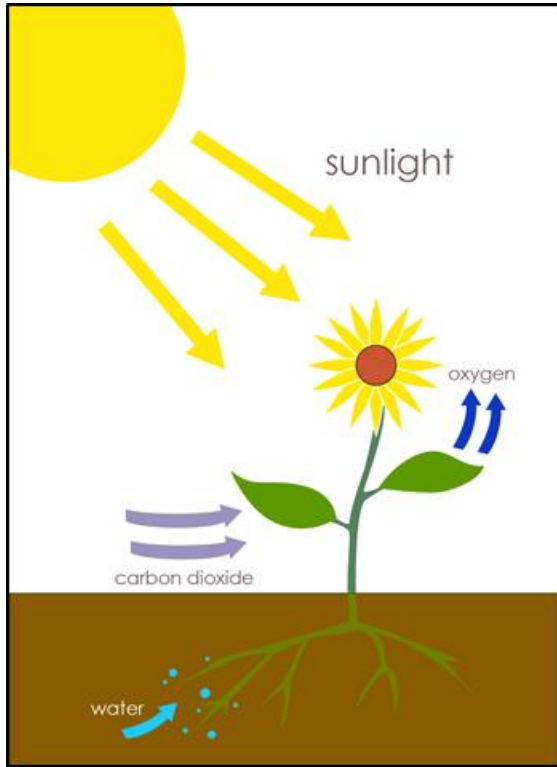
- Energy
- Water transport
- Roads
- Storage Facilities
- Processing Facilities
- Communication
- Access to Equipment and Spares



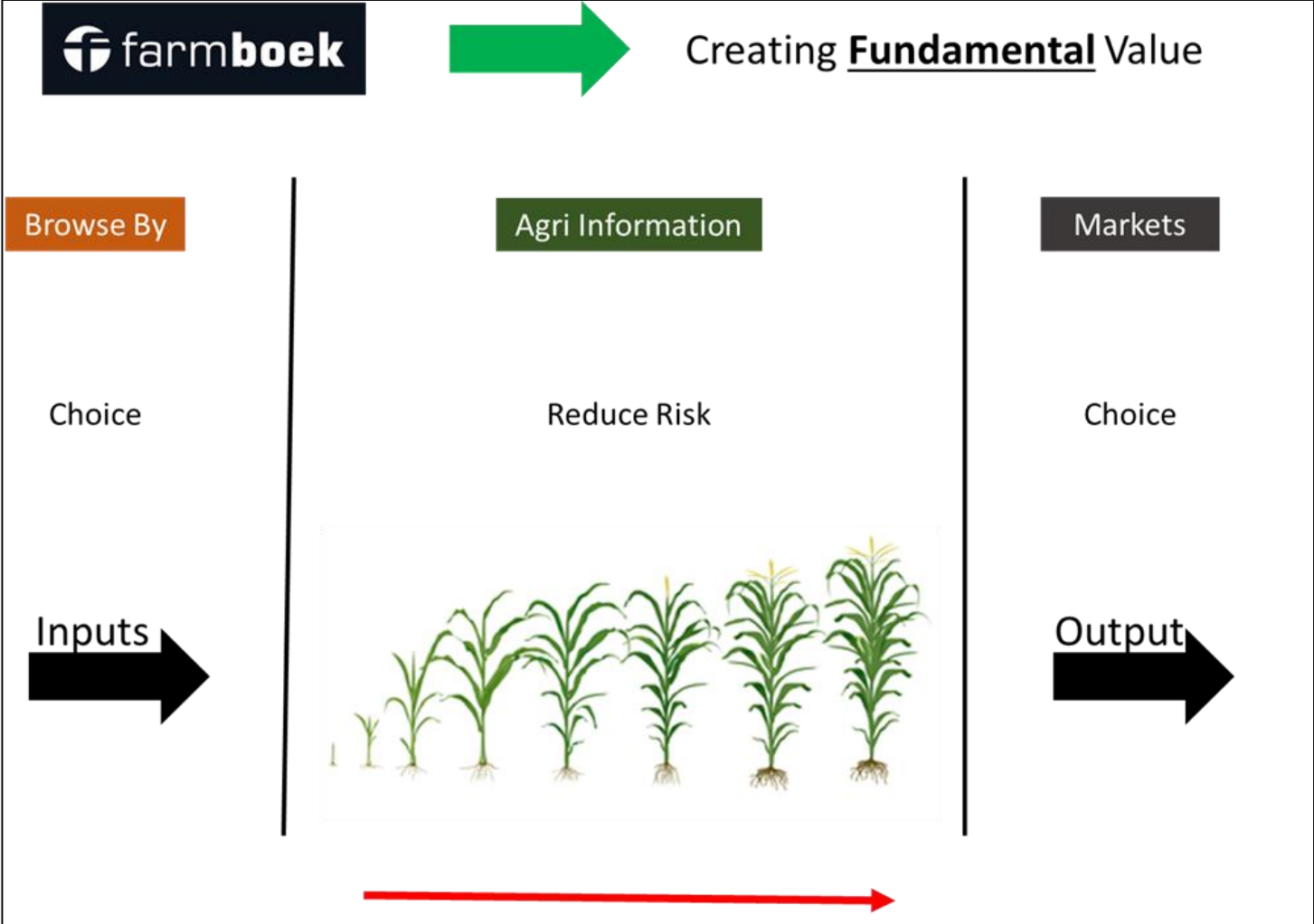
Experience



Everything starts with Photosynthesis
Value is created by utilising free resources, namely : sunlight and CO2



Agriculture is the only industry that can create **Fundamental Value** in the **Value Chain**.

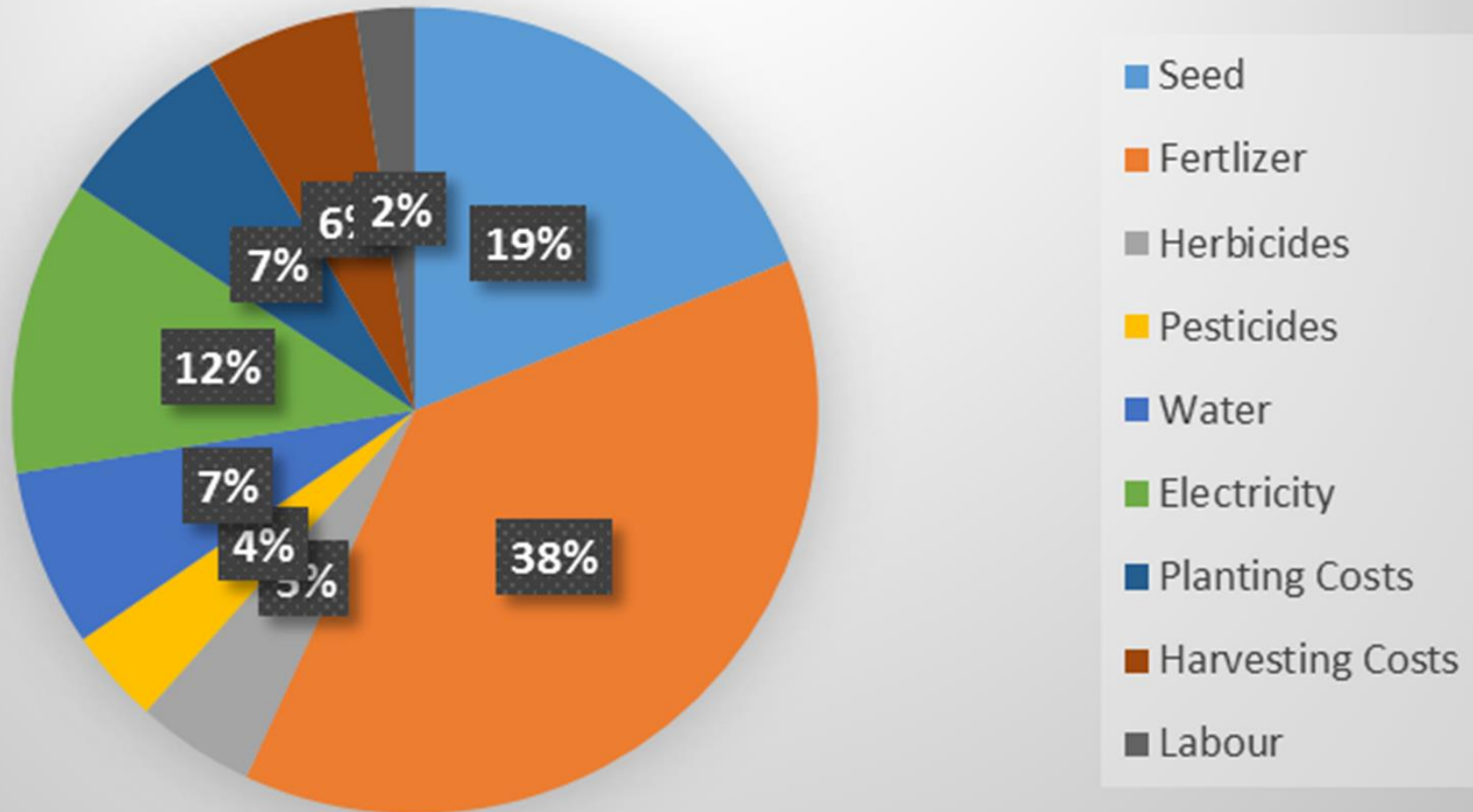


What is needed?



Adding Value

Irrigation Farmer Inputs



The Commercial Farmer

Irrigation Maize Farmer Inputs

Fixed Cost	Seed	19%	R	3,990.00	53%
	Water	7%	R	1,470.00	
	Electricity	12%	R	2,520.00	
	Planting Costs	7%	R	1,470.00	
	Harvesting Costs	6%	R	1,260.00	
	Labour	2%	R	420.00	
		53%	R	11,130.00	

Variables	Fertilizer	38%	R	7,980.00	47%
	Herbicides	5%	R	1,050.00	
	Pesticides	4%	R	840.00	
		47%	R	9,870.00	

The small-scale Farmer

Irrigation Maize Farmer Inputs - Small Scale

Fixed Cost	Seed	R	3,990.00	74%
	Water	R	1,470.00	
	Electricity	R	2,520.00	
	Planting Costs	R	1,470.00	
	Harvesting Costs	R	1,260.00	
	Labour	R	420.00	
		R	11,130.00	

Variables	Fertilizer	R	3,000.00	26%
	Herbicides	R	500.00	
	Pesticides	R	420.00	
		R	3,920.00	

The difference

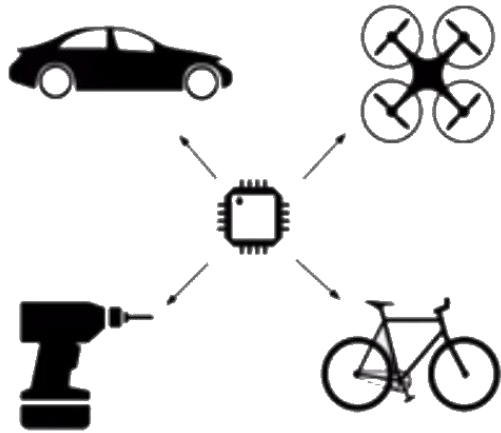
Yield(t/ha)	Price
12	2100
Output	R 25,200.00
Input	R 21,000.00
Profit	R 4,200.00

Yield(t/ha)	Price
7	2100
Output	R 14,700.00
Input	R 15,050.00
Profit	-R 350.00

Information portal for the farmer

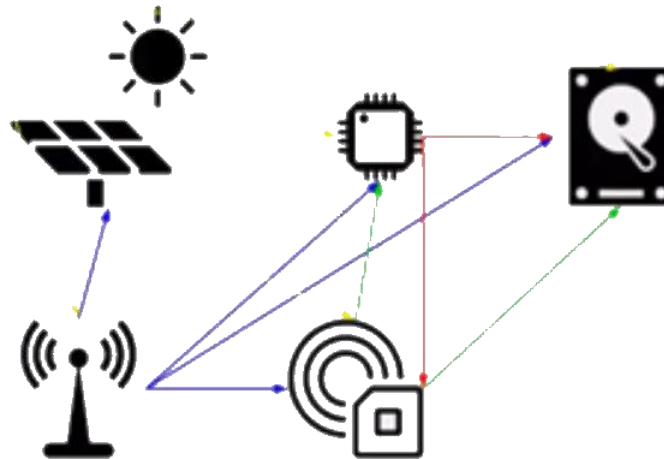


Sharing Economy



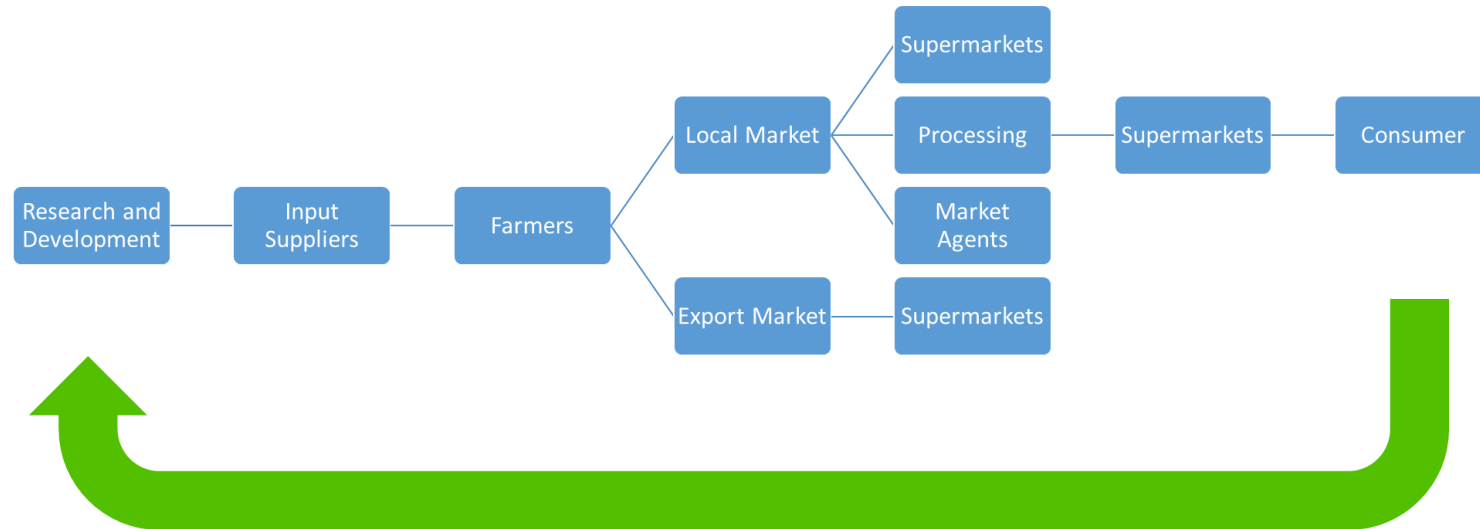
Access Trumps Ownership

- Information
- Maximise Asset Productivity
- Economy of Scale



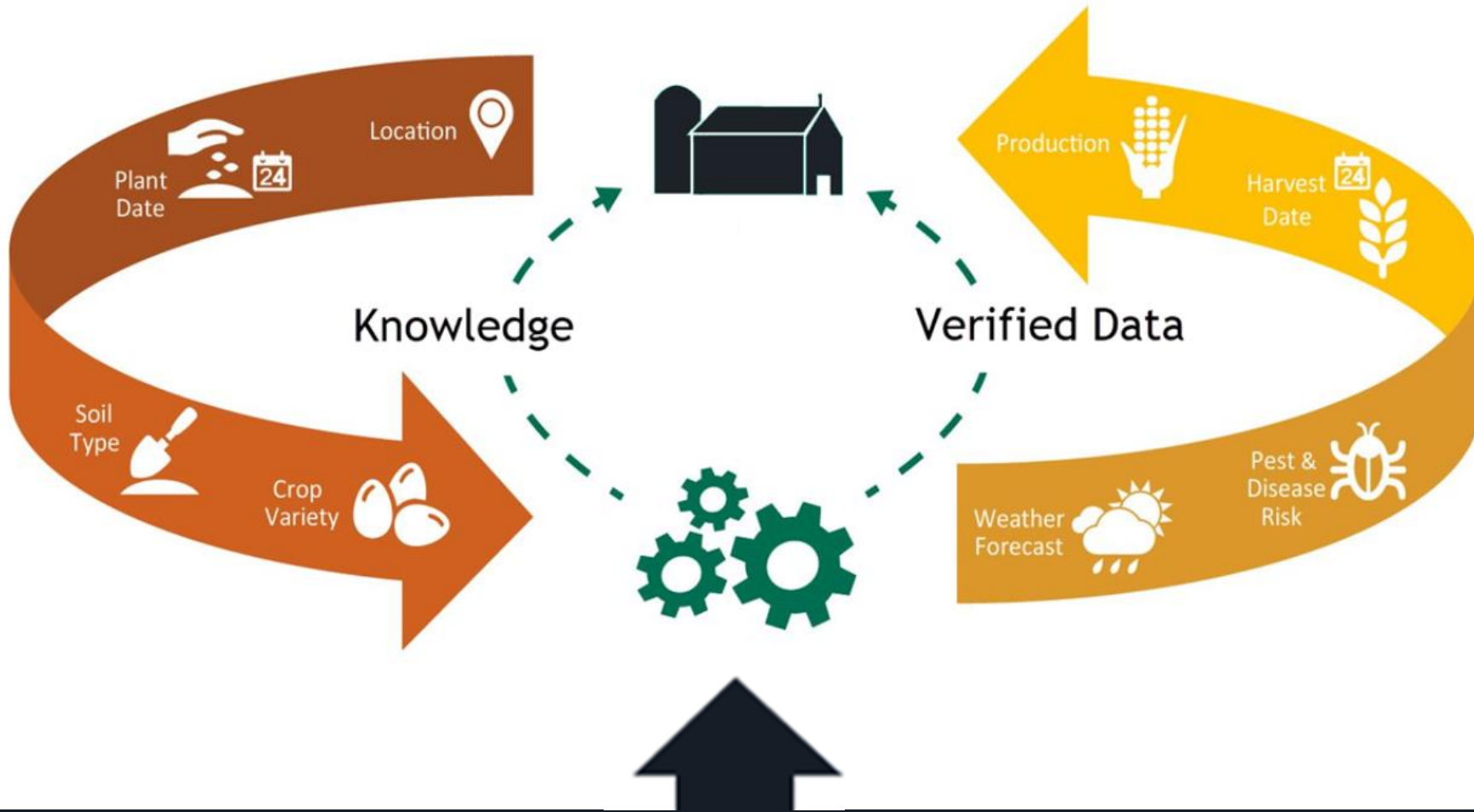
Supply Chain Auditing and Efficiency

- Traceability
- Global Gap
- Quality Control



Bigger **barrier to entry**
than
trading tariffs

Full Circle - Profitability



aWhere

IOTA

 farmboek™