

Professor Hugh Bunting CMG





Experiences Encouraging SME Entrepreneurship for Sustainable Rural Development

Dr Christie Peacock

Hugh Bunting Memorial Lecture
25th October 2022
University of Reading

Christie's bio

- Lived and worked for 42 years in Kenya & Ethiopia, Tz, Uganda, S Sudan, S Africa on
 - livestock research,
 - practical agricultural development
 - CEO Intl NGO Farm Africa
 - Started a business
- University of Reading
 - BSc (Hons) 1980; PhD 1984; Hon DSc 2011
- Passionate about the power of improved management of livestock to improve lives of rural poor, esp women and girls
- 2007 got excited by the power of social enterprise/ business
- *Can I make a business out of what I do?*
- Started Sidai a company in Kenya in 2011 with grant from Bill & Melinda Gates Foundation



PERIOD	DEVELOPMENT STRATEGY	IMPLICATIONS FOR AGRICULTURAL PRACTICE & EDUCATION (UK AND AFRICA)
Colonial	Scientific research and administration of publicly funded government services	Subject matter specialists (SMS) in research strong field skills
1960-1990	The Green Revolution (CGIAR, NARs) Technocratic solutions, government-managed projects, infrastructure e.g. irrigation, cash crops	Project-based development and mindset Project Managers, SMS
1990-2000	Structural adjustment, decline in government extension systems Direct budget support, limited investment in agriculture	Decline in priority to technical expertise Livelihoods, Natural Resource Management, Participatory research and Development Rise of NGO-led development
2000s	Reduction in role of the state Market-based solutions, private sector led development Policy makers create an 'enabling environment' Donors invest in value chain 'facilitation'	Need for ag-entrepreneurs, financial analysts. Policymakers with private sector knowledge Influence of non-specialist management consultants Information from social media
The future?	Digitization of agriculture IOT, Machine learning, AI applications, data driven decision-making at all levels	Financial and tech savvy agri-entrepreneurs



Where it started – Maasailand, Kenya 1980 PhD research



Field research – all the latest technology!



Ethiopia 1988-1996

- Very tough conditions end of communist regime followed by period of insecurity,
- New syndrome gun-fire induced abortion in goats!
- Band Aid/ODA/DFID funded project
- Dairy Goat Project project targeting very poorest - widows and women-headed households
- Goat credit and management improvement, women's savings associations, trained women as barefoot vets (Community Animal Health Worker) and barefoot lawyers



Crucial role of goats in supporting the poor

- Food and life security
- Cash in crises
- Cash for basic needs
- Cash for farm/non-farm investment
- Milk & Meat & Manure
- Social status of women esp widows
- Ceremonial and cultural



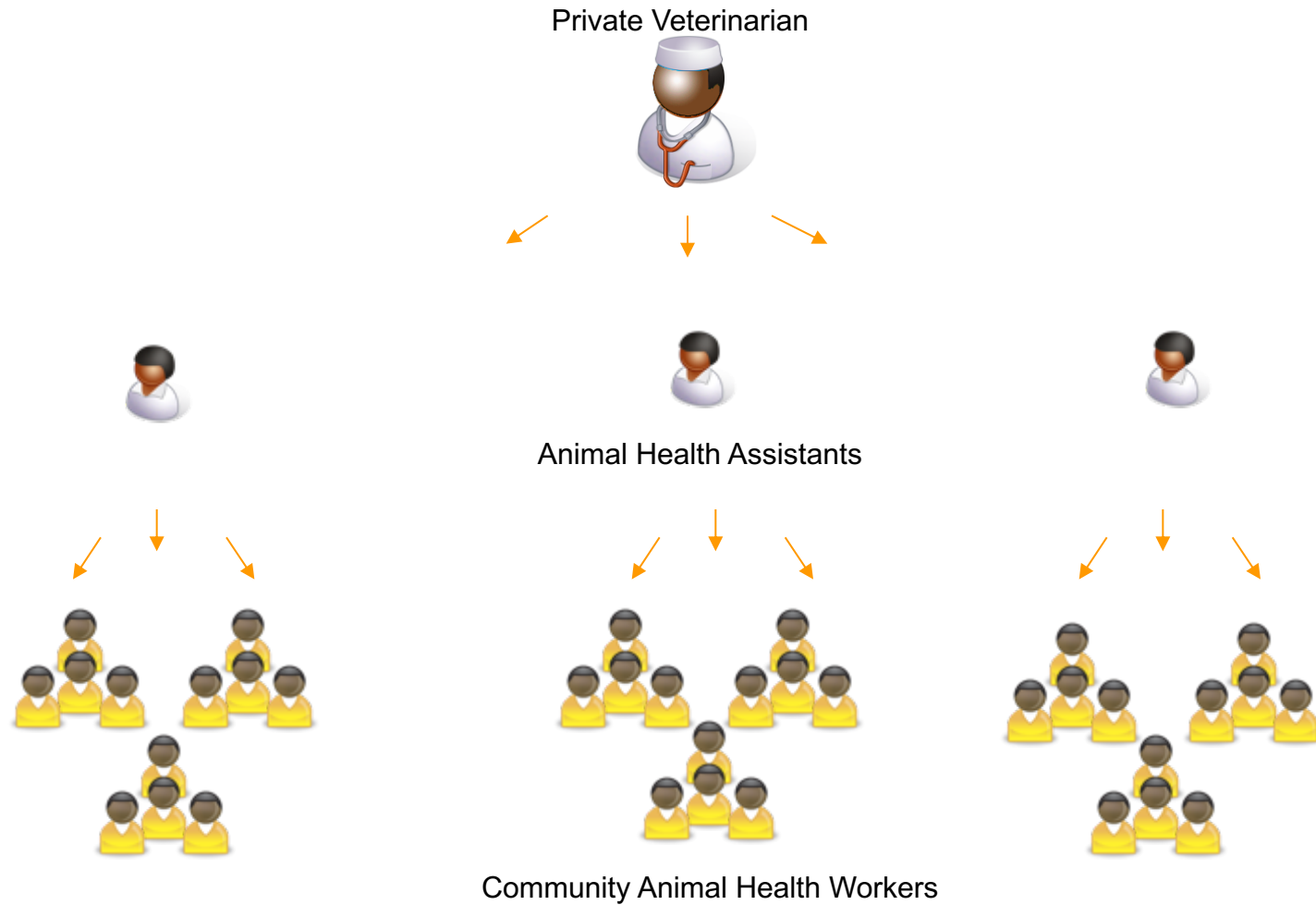
Dairy Goat Model

- Focused on poorest of poor
- Community-managed breed improvement 75% Toggenburg
- Buck keepers, farmer-managed breeding replacement stock
- Private veterinary system
- Goat Breeders Associations Kenya, Uganda & Tanzania
- Selling stock 5 countries
- 100,000s using services



Post structural adjustment (1995)

Three-tiered private animal health network





Three-tiered private veterinary system delivers sustainable services
– farmers willing to pay so everyone makes money

Direct benefits - products

- Milk F2 75% Togg 3-4 litres/day
- Selling surplus milk
- Income increased tenfold
- Goat houses – manure, urine, waste feed → crop land some farmers → export veg out-growers
- Local slaughter sale meat



Direct benefits – use of income

- Education
- House improvement
- Investment in farm
- Hospital bills
- Food
- Re-investment in goat enterprise



Impact – e.g. Mr Kinoti from Meru Kenya

- Casual labourer
- Received two goats
- Buck keeper ->
- Now 2ha land
- Bought oxen for contract ploughing
- Daughters to school
- Sons starting business in town



1999-2010 Frustrations of a CEO of International NGO (Farm Africa)

- Increased income six-fold, raised profile etc
- Frustrated by trying to building an effective organization capable of delivering long-term solutions on the back of increasingly short-term, project funding
- Very difficult to knit together grants to building something that will last
- Project mindset and operating methods constrain good practice and **long-term vision**
- Trends was the **decline of publicly funded government services** in Africa
- Excited by the concept social business
- 2011 Went in search of the Holy Grail.....**financially sustainable smallholder support services**

“IF we stop thinking of the poor as victims or as a burden and start recognizing them as **resilient and creative entrepreneurs and value-conscious consumers**, a whole new world of opportunity will open up.”

- C. K. Prahalad -





sidai

Delivering Solutions On Farm

The Challenge and Opportunity

Farmers in Kenya lack the inputs, services and knowledge they need to farm productively and profitability



85%

veterinary products sold by **unqualified** personnel

60%

of inputs are **substandard**

NO access

to livestock services in remote regions of Northern Kenya

Drug resistance



increasing at an alarming rate

- **Agriculture** directly contributes **24% of GDP** and supports the **livelihoods of 71%** of Kenya's **48 million** population
- **Livestock play a critical**, yet undervalued, role in Kenya, with **70% of the people living with an income under USD\$1** a day dependent on animals for their income and food security
- The **livestock services sector** is **fragmented** and **unregulated** with very few qualified veterinarians working in private practice
- **25%** of Kenyan **livestock die** each year from **preventable diseases**, contributing to a significant yield gap in sub-Saharan Africa
- Public health and food safety concerns rising

Market Potential – Yield Gap

There is a significant '**yield gap**' between actual and potential production in both smallholder and commercial sectors due to lack of access to quality products, application of existing knowledge and access to markets.

Kenya has the largest smallholder dairy sector (1.8m farmers) with poor **performance 6kg/day compared to 18kg/day potential.**

The rapidly growing commercial poultry sector performs at only **60% of its potential due to the high cost of feeds and poor flock management**

Maize production is estimated to achieve **25%-30% of yields** that could be reached through improved soil fertility and weed management practices.

Input delivery is the single most important avenue for closing the yield gap.*



Market Potential – Inputs Market

- The agricultural input market in Kenya has a value of US\$1 billion

Feed Market

- Kenya has 30 major commercial feed millers. The 2 leading millers are Unga and Pembe, with an increasing number of smaller feed millers.
- The total documented annual feed output is 645,264 MT against an estimated requirement of 1,902,772 MT.
- This large difference between requirement and output is met by informal millers and feed imports, with many farmers making their own feed to mitigate against cost and poor quality.
- There is an opportunity to supply quality and cost-effective feeds, including novel feeds from crop by-products and waste.

Agricultural Input Market in Kenya

Category	US\$ millions	Source
Feeds	320	Unga Feeds
Minerals	20	Industry research
Animal Health Products	40	Industry research
AI	11	Makoni, Hamudikuwanda & Chatikobo (2015)
Vaccines	13	Makoni et al (2015)
Crop Protection Products	158	Pest Control Products Board
Seeds	60	Kenya Markets Trust
Fertilizer (private sector)	325	Best estimate*
Total	947	

**Data is difficult to obtain and confused by the GOK's subsidised fertilizer programme*

Market Potential – Inputs Market

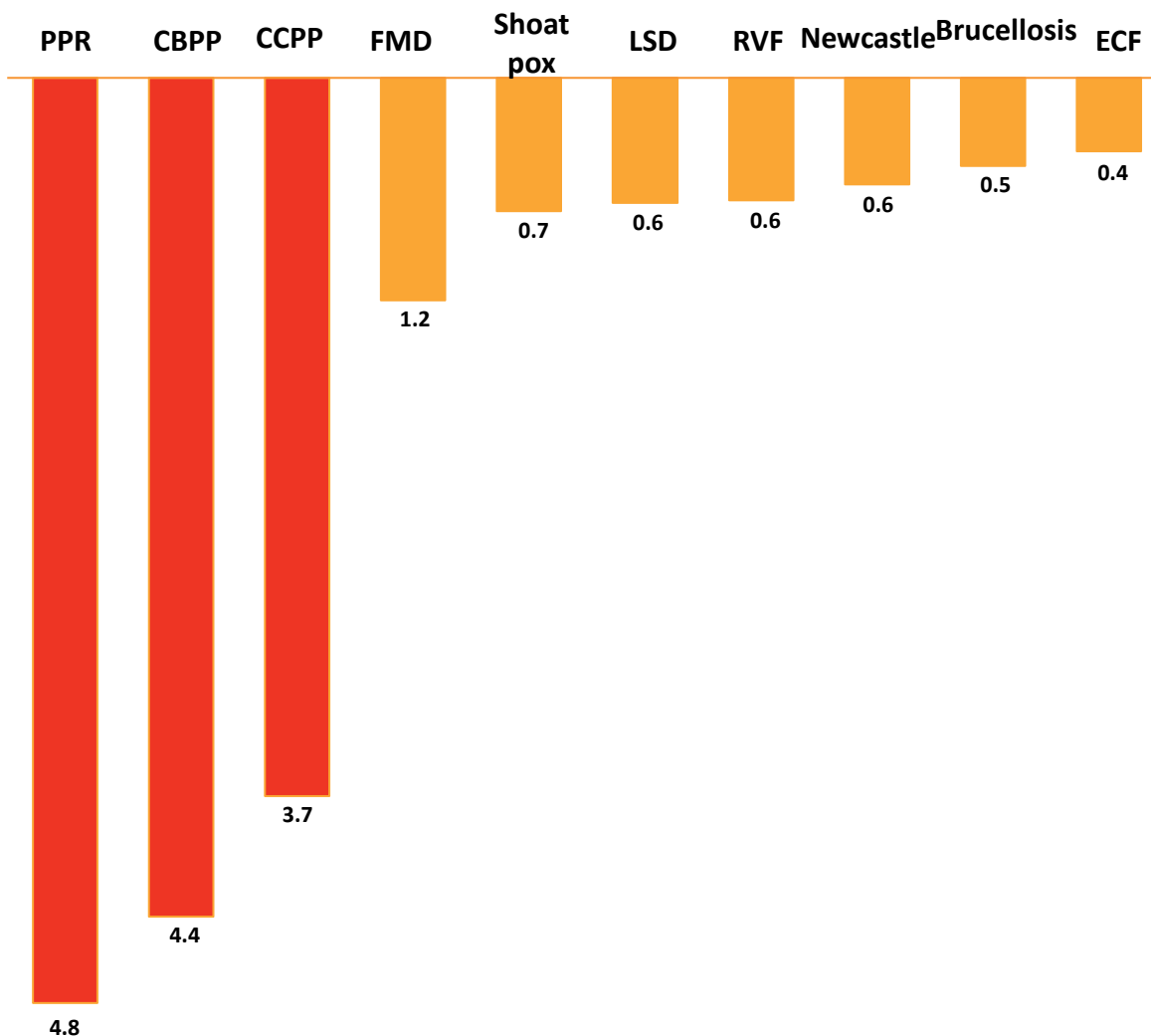
Vaccine Market

- The business potential of the **livestock vaccine market is US\$200 million per annum.**
- Figure 2 illustrates the annual losses of US\$17.5 billion as a result of livestock diseases in Africa, which could be prevented by the use of existing vaccines.
- Vaccination and good nutrition could solve 90% of livestock health issues.

Potential

- The size of the agricultural inputs market is extremely small in relation to the value of both the crop and livestock sectors to the Kenyan economy and people. There is huge potential to grow the market and improve overall productivity very significantly in the future.

Figure 2: Annual losses in US\$ billions from diseases in Africa



Sidai's Solution

Sidai provides farmers with **access** to **quality** products and the **knowledge** to use them effectively and farmer successfully. This comprehensive approach, will help to drive productivity and Kenya's economic growth.

FARMER NEEDS

Quality products

- Genuine products
- Reliable performance
- Good manufacturing

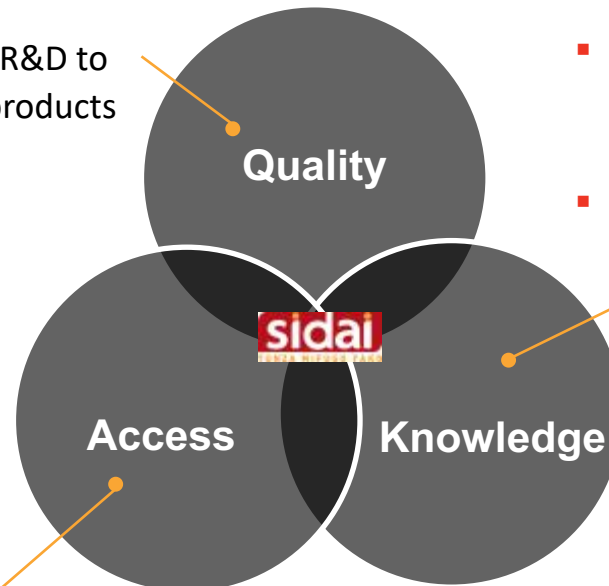
Knowledge

- Best practice and herd management
- Disease awareness
- Product knowledge

Access

- Physical access
- Financial access
- Market access

- Distribution of quality products
- Extensive internal R&D to develop the best products at the best price



- Last-mile infrastructure in place with CRS, franchisees and field staff
- Sidai branded products are fairly priced
- Improving access to markets e.g. Brookside partnership
- Implementation of large-scale vaccination programmes in rural areas

- All Sidai outlets have technically qualified staff
- Sidai's international and local partnerships ensure up to date knowledge
- Sidai Academy ensures efficient delivery

Knowledge Example:

Failure to measure animal weight often leads to under dosing and subsequent drug resistance

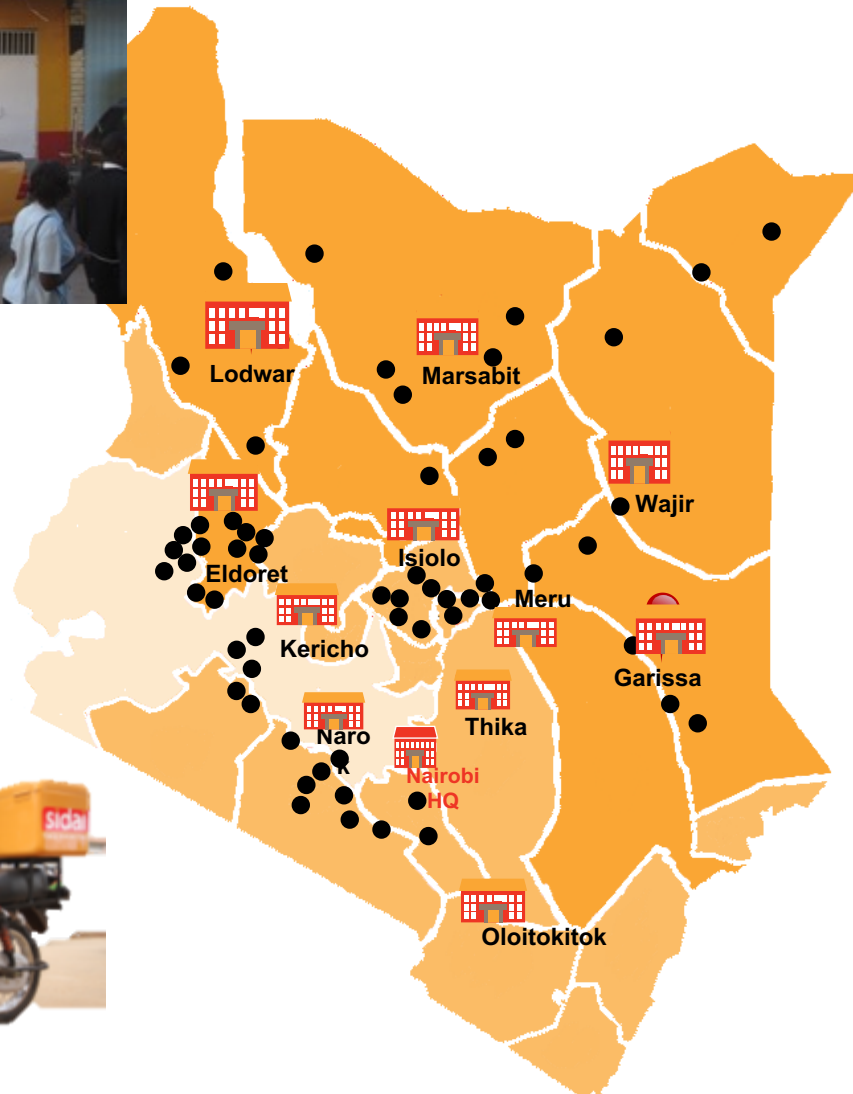


Operations - Distribution



Distribution Hubs:

- Thika
- Meru
- Lodwar
- Marsabit
- Wajir
- Eldoret
- Isiolo
- Garissa
- Kericho
- Narok
- Oloitokitok



11

Company
Run
Stores

60

Distributors

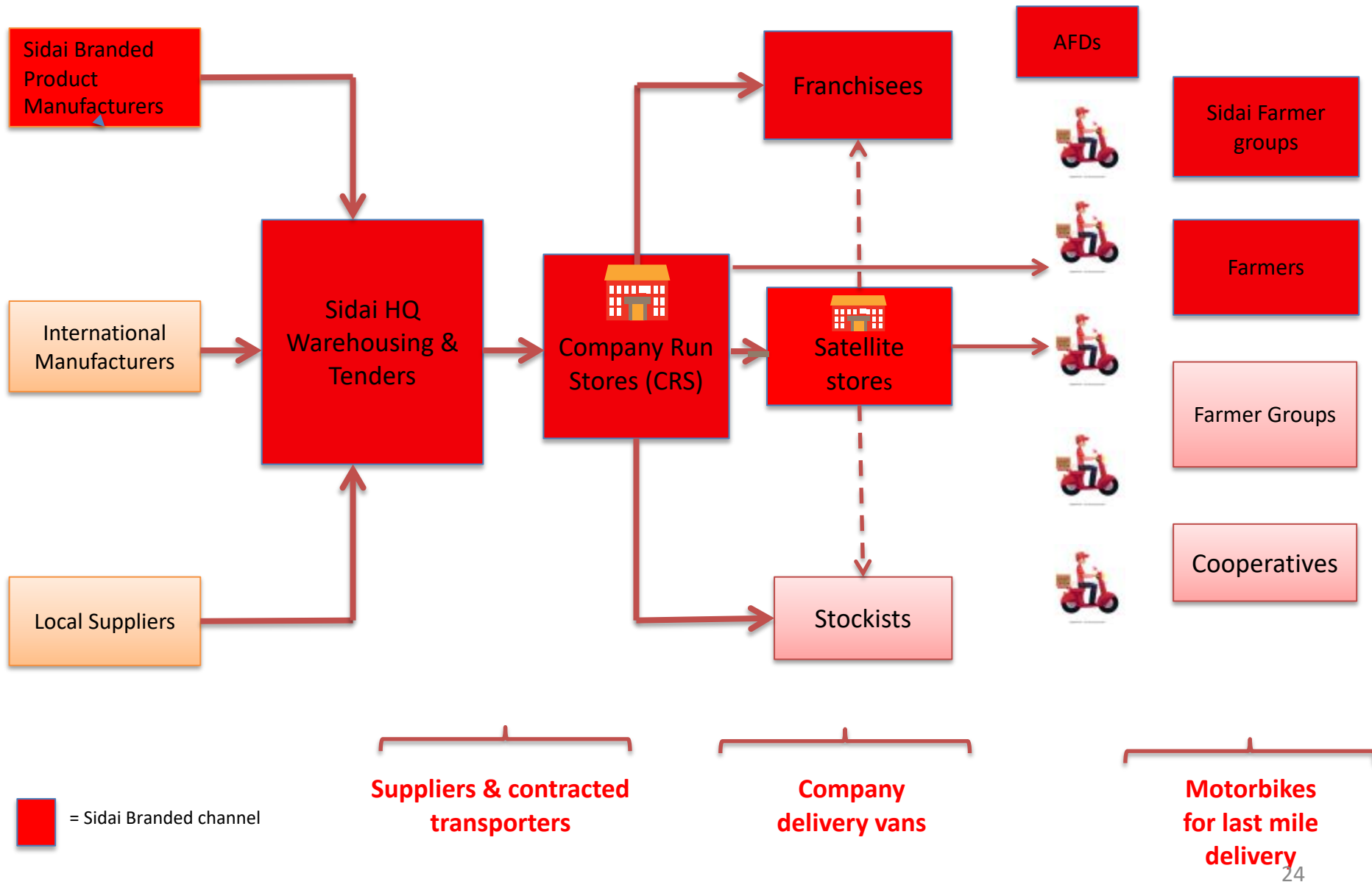
4,000

+

Agro-
dealers

400,000
Farmers

Operations – Route to Market



Knowledge

Sidai provides **business and technical training** to farmers and professionals across Kenya



Sidai Training and Services

Sidai is a Kenya Veterinary Board accredited continuous professional development training provider. Through Sidai, 30 veterinary internships are completed annually, and 700 poultry professionals have been trained through a joint Sidai and Elanco/Lohmann Animal Health poultry course.

Business Training:

- Essential selling skills
- Agrovet business management
- Commercial farming management

Technical Training:

- ECF vaccination
- Commercial poultry, cow & camel farming
- Tick control
- Soil health and management
- Crop health and management

Sidai franchisees are trained according to defined standard operating procedures and clear customer service standards, and **stockists** are trained in all products and correct product use so that they serve their customers to Sidai's high standards.

Knowledge Gap

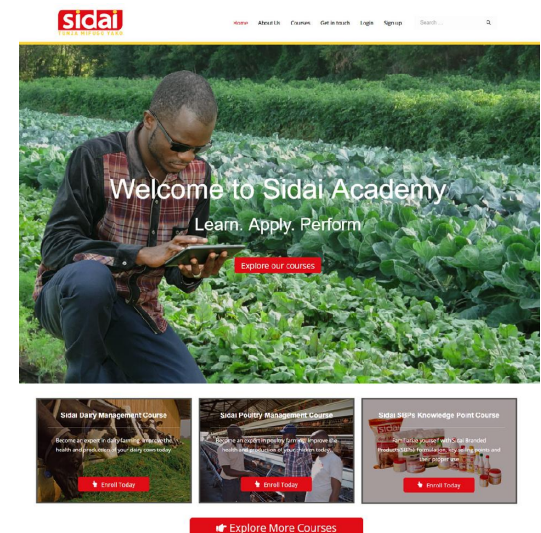
Sidai works to fill the knowledge gaps in each part of its supply chain including resellers, veterinarians, and farmers. Many farmers in rural Kenya lack the proper knowledge and training to keep their livestock and soil healthy and producing to their full potential. Medicine and vaccines in rural Kenya are often sold by unqualified individuals, leading to issues such as antibiotic resistance diseases due to improper dosages and incomplete treatments. Veterinarians that do have technical skills often lack critical business skills to run sustainable service businesses. Sidai offers a range of trainings aimed at boosting the effectiveness of all parts of its business, ensuring that resellers are



knowledgeable, veterinarians are profitable, and that farmers can run a sustainable and profitable business.

Sidai Academy

Sidai has recently launched Sidai Academy, an online platform providing on-demand access to courses ranging from technical skills to business and management principles. The program has been rolled out to Sidai's internal employees and official representatives, and will be available to customers in late 2019, allowing remote farmers the opportunity to take courses in commercial poultry and dairy farming.



On-Farm Services

Sidai offers a range of after-sales support and **on-farm services**, including vaccinations, illness diagnostics and soil diagnostics



Sidai offers on-site vaccinations, animal and product testing, and product support. This holistic approach differentiates Sidai from other providers, ensuring that products are more effective by being used correctly and allowing customers to build trust in Sidai representatives and products. Training is carried out by professionally trained Sidai Area Farm Developers based at Sidai company-run stores, who are able to visit farmers for advisory services.

On-farm services:

- **On-farm milk quality testing**
- **Mastitis testing**
- **Faecal Egg Count (internal parasites)**
- **Blood parasite identification**
- **Post-mortem examinations**
- **Soil testing**
- **Pregnancy Testing**

On-Farm Soil Testing

Sidai offers on-farm soil testing services using a hand-held Near Infrared Spectrometer supplied by our partner, Aggrocares. Farmers receive an immediate test result on their mobile phone or printed on paper including fertilizer recommendations.



Diagnostics

Sidai offers numerous on-farm and basic laboratory diagnostic services including blood parasite identification, faecal egg count, and post-mortem examinations.

Mastitis Testing and Prevention

Mastitis is a common problem in dairy cows and leads to a reduction in milk production, rejection of milk, expensive treatment and, in some cases, loss of udder function. Sidai supports farmers by offering milk testing, products to help prevent and treat mastitis, and Mazzicans (available at company outlets) to aid early detection of udder infections.

On-Farm Services



“When they promise to come to your farm, they do come without failure.”

Northern Kenya: The Challenges and Opportunities of Frontier Markets

There are estimated to be \$4.4 billion worth of livestock in Kenya of which 75% are kept by pastoralists in the arid, drought-prone, northern counties. For too long this part of Kenya has been the target for short-term emergency interventions which has crowded out the private sector and created a culture of dependency. Sidai is showing how to build resilient pastoral economies and financially sustainable businesses in a challenging market. Sidai's current focus on routine vaccination of the majority of livestock in northern Kenya, through Public-Private Partnerships, has attracted local and international support and interest from the OIE and other organisations.

Vaccination Services

The company offers a complete vaccination service and is able to supply and administer a full range of cattle, sheep and goat vaccines as well as vaccines for commercial and village poultry systems. Sidai is also able to offer large-scale vaccination services, on a contract basis, for county governments, donors and NGOs. These include:

Ruminant Vaccines:

- Lumpy Skin Disease (LSD)
- Brucellosis
- Anthrax and Blackquarter
- Contagious Bovine Pleuropneumonia
- Foot and Mouth Disease
- Rift Valley Fever
- Contagious Caprine Pleuropneumonia
- Peste des Petits Ruminants
- Enterotoxaemia
- Rabies
- East Coast Fever

Poultry Vaccines:

- Marek's Disease
- Newcastle Disease
- Gumboro
- Fowl Typhoid



East Coast Fever Vaccine:

Sidai is the national distributor of the East Coast Fever vaccine manufactured by the Centre for Ticks and Tick-Borne Diseases in Malawi. Sidai has played a critical role in developing the ECF vaccine market in Kenya, in partnership with GALVmed, through farmer and professional training as well as importing, storing and supplying the vaccine.

“Thank you for the vaccination that you did to my chickens, because they all survived.”



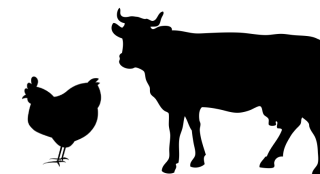
Our Impact

120

direct jobs, employing
30% women

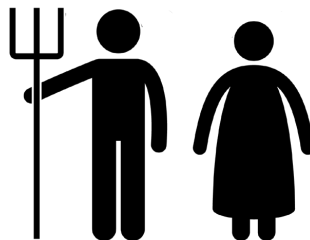
My animals are very healthy because of quality dewormers.

My chickens are growing at a faster rate and laying big eggs.

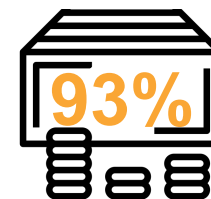


8,237,000
animals vaccinated

Sidai is the only organization that can bring the product to your home.



I have settled the loans I used to owe banks and I am now free.



of farmers have earned more money from crops/livestock since working with Sidai

98%

of farmers reported an improved quality of life thanks to Sidai

Since we started stocking Sidai products, the number of loyal customers has increased.

I harvested a lot of maize and beans this season.

201,093
farmers reached

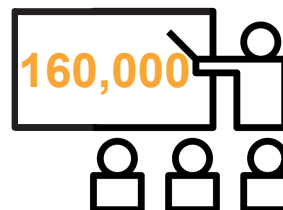


96%

of stockists reported improvements in business



"Sidai has provided me with every thing that I need for my broilers...I access all the products I need from the Sidai shop. Sidai staff are always available to respond to my calls and give technical support on poultry management. This has helped me to raise a healthy flock and run a profitable business."
- Lydia Muroita, Customer, Isiolo, Kenya



farmers and professionals accessed Sidai training

Poultry Farmers:

Lydia Muroita

With the establishment of Sidai's Livestock Service Centre in Isiolo in 2013, a reliable cold chain for vaccine delivery and a consistent supply of quality feed was established.

This is transforming poultry farming in this new market, enabling poultry farmers to supply quality animal products to the growing middle classes.



“

Lydia Muroita, a poultry farmer from Kiwanjani in Isiolo says....

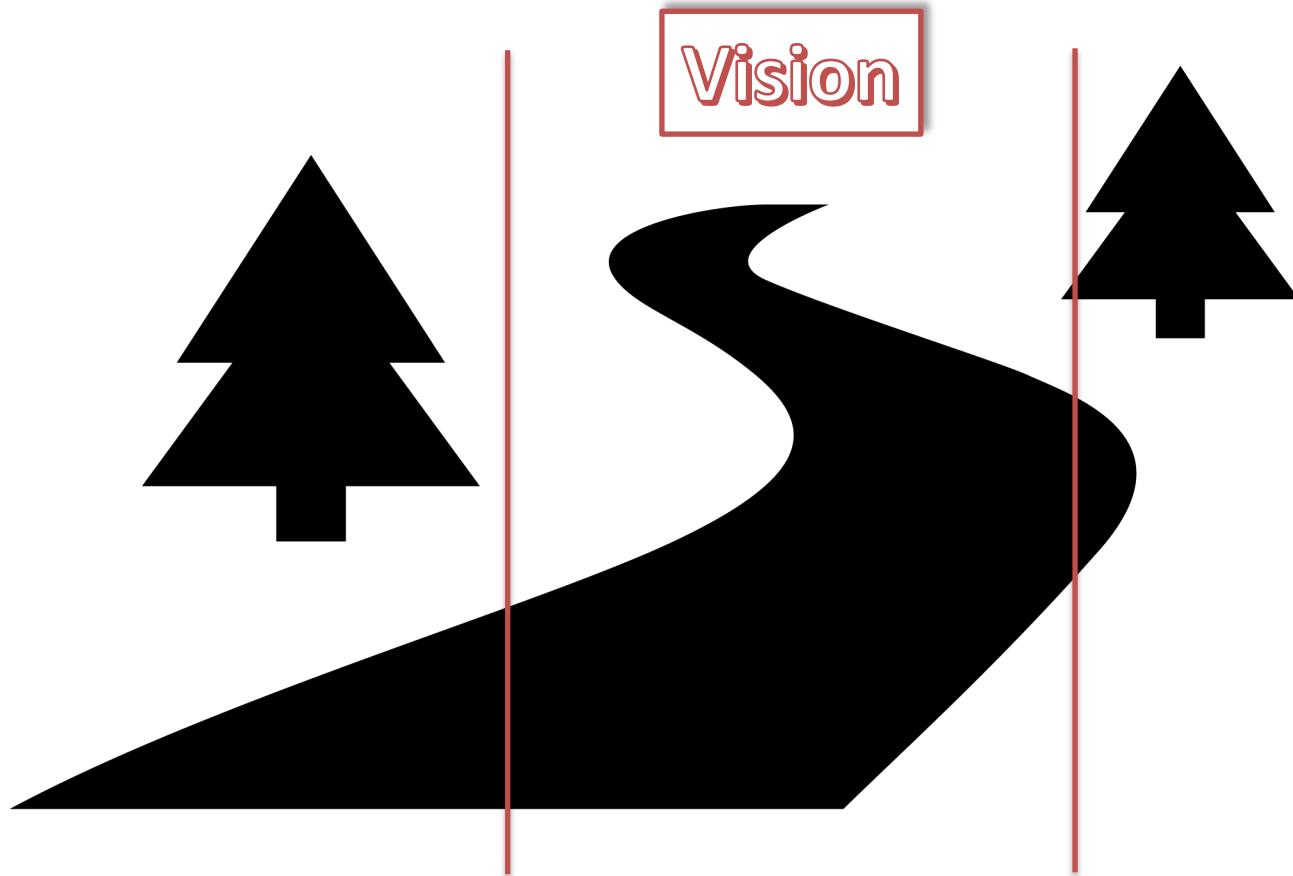
*"Sidai has provided me with **everything that I need for my broilers**; ranging **from advice on housing, biosecurity, hygiene, routine vaccination, feeding and flock density**. I access all the products I need from the Sidai shop...[and] **Sidai staff are always available to respond to my calls** and give technical support on poultry management. This has helped me to raise a healthy flock and run **a profitable business**".* ”

LESSONS LEARNED

The fun of building a
business !

The Zig Zag

How far off your ideal path are you prepared to go achieve your vision?



What will you do/not do to make money in order to achieve your social mission?

No 1 Zig zag

Add to business model to achieve profitability

Can't be profitable selling other people's products, margins too low, to support the cost base needed to deliver social mission so what do you do?

Manufacture your own products!

Now 87% of sales are Sidai Branded Products

Sales Kshs. 30m/month @GM 28% now profitable

Sidai Products



Sidai Beef Mineral



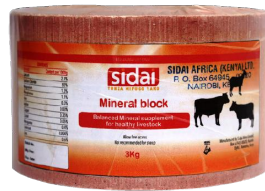
Sidai Camel Mineral



Sidai Dairy Mineral



Sidai Poultry Vitamins



Sidai Mineral Block



Sidai Milking Salve



Sidai Ultradip™ Acaricide



Sidai Dewormer (Albendazole 2.5%)



Sidai Dewormer (Albendazole 10%)



Sidai Dewormer (Levamisole 1.5% B.P. & Oxytoclozanide 3% B.P.)



Sidai Dewormer (Levamisole 3% B.P. & Oxytoclozanide 6% B.P.)

Sidai Products



Sidai Dairy Meal



Sidai Dairy Meal High Yielder



Sidai Chick & Duckling Mash



Sidai Growers Mash



Sidai Layers Meal



Sidai Broiler Starter Meal



Sidai Broiler Starter Crumbs



Sidai Broiler Finisher Meal



Sidai Broiler Finisher Pellets

No 2 Zig Zag

Scaling without compromising social mission



Wanted to reach farmers directly but cost to serve through own and franchised shops high

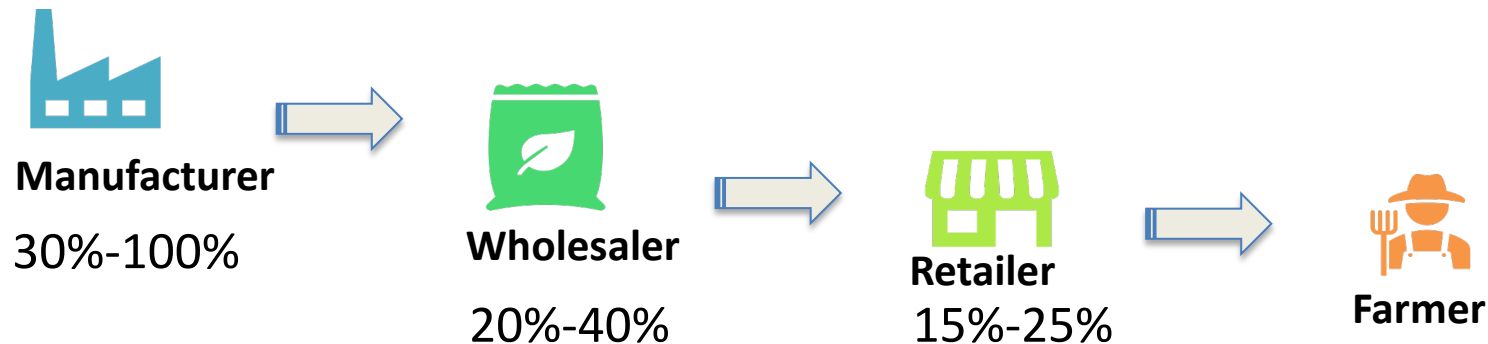


Low margin business so need volumes through scale to achieve profitability. This led to adding a wholesale business to retail business



Challenge managing multiple sales channels but direct farmer contact through retail sales essential to achieve social mission

Animal Health Product input supply chain margins and commercial challenges of 'last mile distribution'



The cost to serve one customer increases as
inputs get closer to farmer =====>

How to do more than sell stuff to farmers

Supply side



Streamline
distribution



Payment terms



Improve retail service
standards
(e.g. bundle services)

Demand side

- Farmer segmentation/ aggregation to drive efficiencies (co-ops, groups)
- Commission from market linkages (outgrower schemes, check-off systems)
- Quality issue

No 3 Zig zag

Challenges of supporting SME growth

Franchising – pros and cons



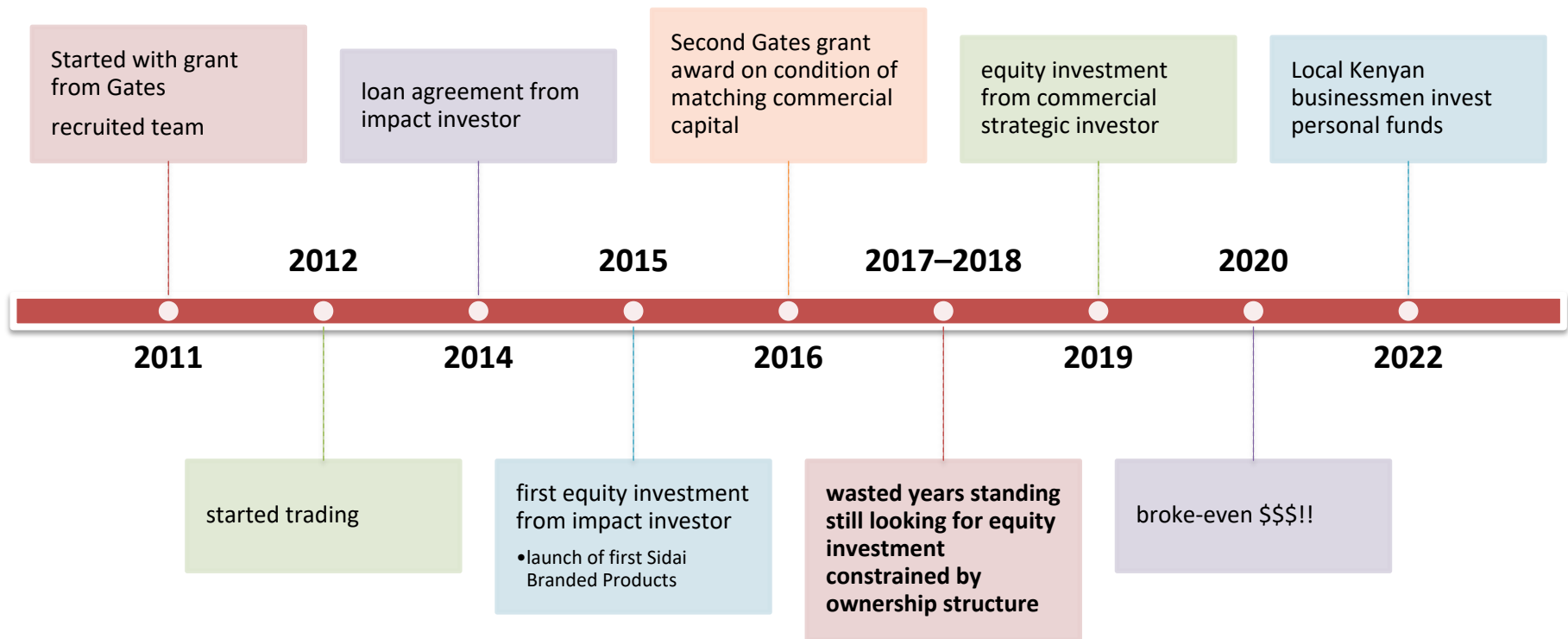
Do they want to grow?

Capacity to grow – capital, business skills,
introduce controls in family firms

Difficult for Donor-funded SME support
interventions not to distort the market
through subsidized support

Indiscriminate subsidises undermine local
SMEs and investor confidence

Sidai timeline – blending grant, debt and equity investment





Financing growth

- **Blending grant, debt and equity investments** to finance growth is tricky and will never be perfect
- Profits are SO precious
- A **grant** is not free money... there is a cost to raising, managing grants and can take you off track and be a distraction
- Make **conservative financial projections** - better to under-promise and over-deliver remember the tortoise and the hare, the tortoise wins in long run
- **Cashflow** is everything, be on top of it
- There may be times you have to take expensive money, grit your teeth
- Get good **professional advice** early from an experienced transaction advisor
- There is a lot of **pro bono legal advice** available – get it

What have I learned about social enterprise?



Keep the vision in mind
at all times



Break **Vision** down to
the **essentials** and the
nice-to-haves then
prioritise



If you don't achieve
commercial objectives
will never achieve social
objectives because you
won't exist, so focus

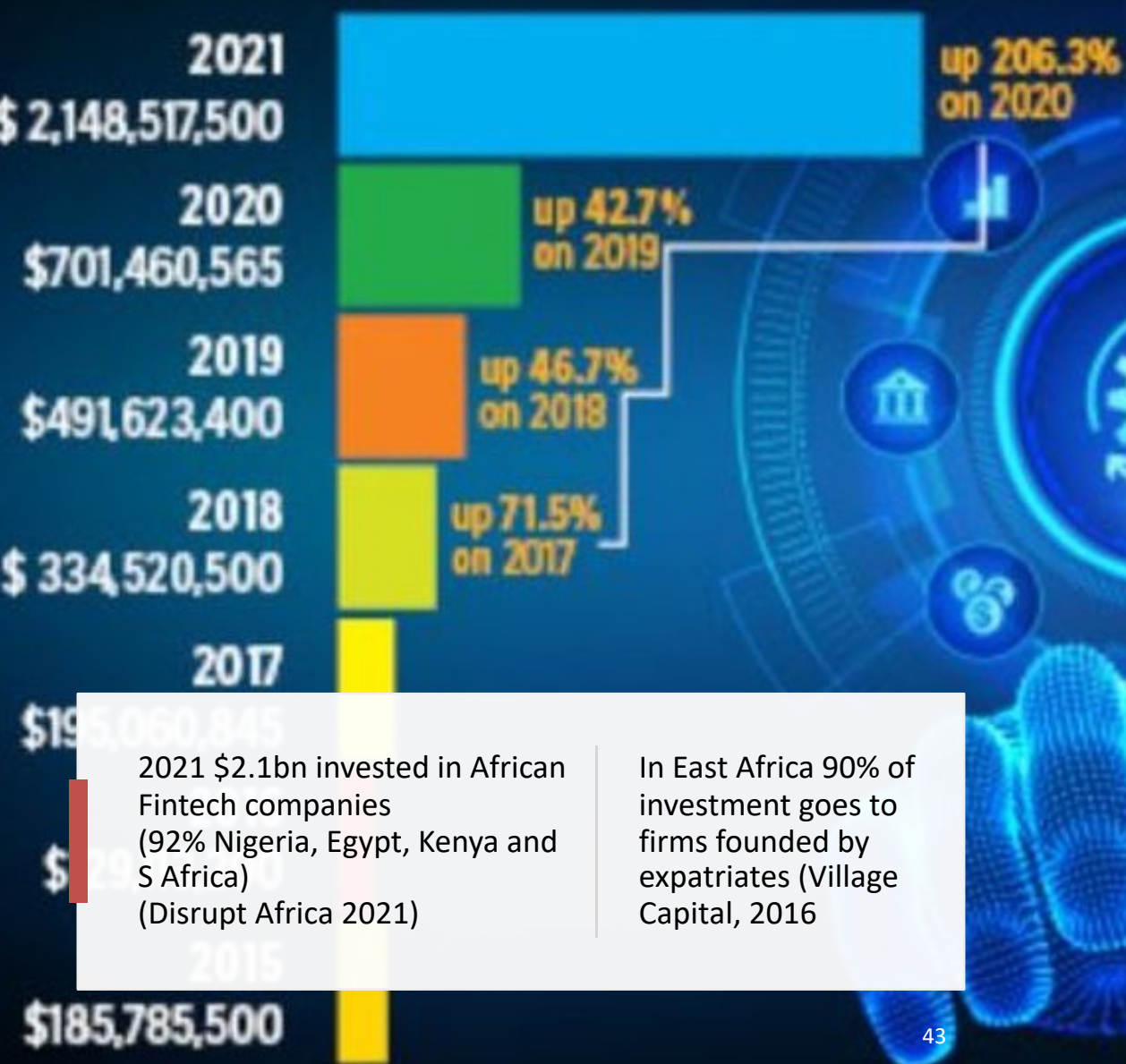


Persistence is everything
this stuff is hard

Investment landscape in Sub Saharan Africa is changing

- Development finance declining
- Chinese investment in infrastructure growing
- Impact investment as an investment category growing fast \$500bn p.a. - \$1 trillion in assets under management, but only 2% in Africa (GIIN, 2021)
- Many impact investors interested in agriculture but either lack viable deals or ability to evaluate them

Total funding secured by African tech startups by year 2015-2021



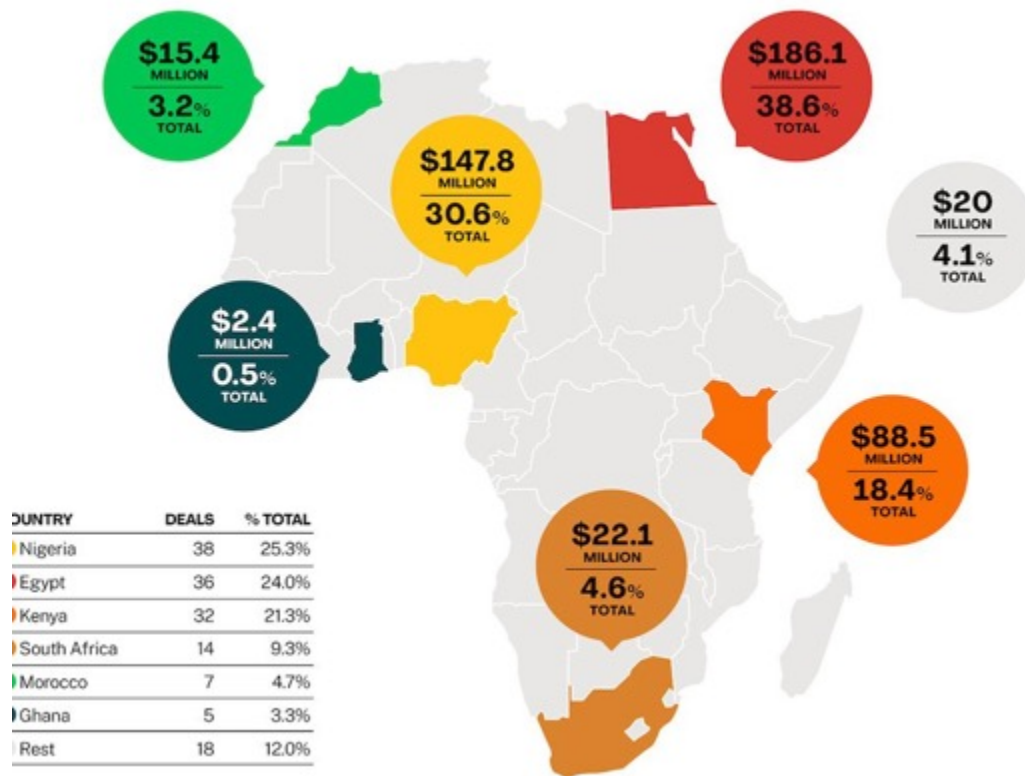
2021 \$2.1bn invested in African Fintech companies (92% Nigeria, Egypt, Kenya and S Africa) (Disrupt Africa 2021)

In East Africa 90% of investment goes to firms founded by expatriates (Village Capital, 2016)

2021 \$482m
invested in
agritech

90% in
Nigeria,
Egypt &
Kenya

AgFunder (2021)



The 21st century agriculturalist in Africa

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2000s	Reduction in size of the state Market-based solutions, private sector led development Policy makers create an 'enabling environment' Donors invest in value chain 'facilitation'	Need for agri-entrepreneurs, financial analysts. Policymakers with private sector knowledge Influence of non-specialist management consultants Information from social media
The future?	Digitization of agriculture IOT, Machine learning, AI applications, data driven decision-making at all levels	Financial and tech savvy agri-entrepreneurs with sound understanding of the market, technical solutions and business operations



Your Trusted Farming Partner

Halima Gedi (2nd from right), Lead Herder in Isiolo, experienced high mortality in her sheep until Sidai vaccinated them against enterotoxaemia. She now advocates for routine vaccination in her community and pays Sidai to vaccinate her sheep, goats and camels.