

The role of the private sector, PPPs and intellectual property management in technology transfer

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Syngenta Foundation for Sustainable Agriculture

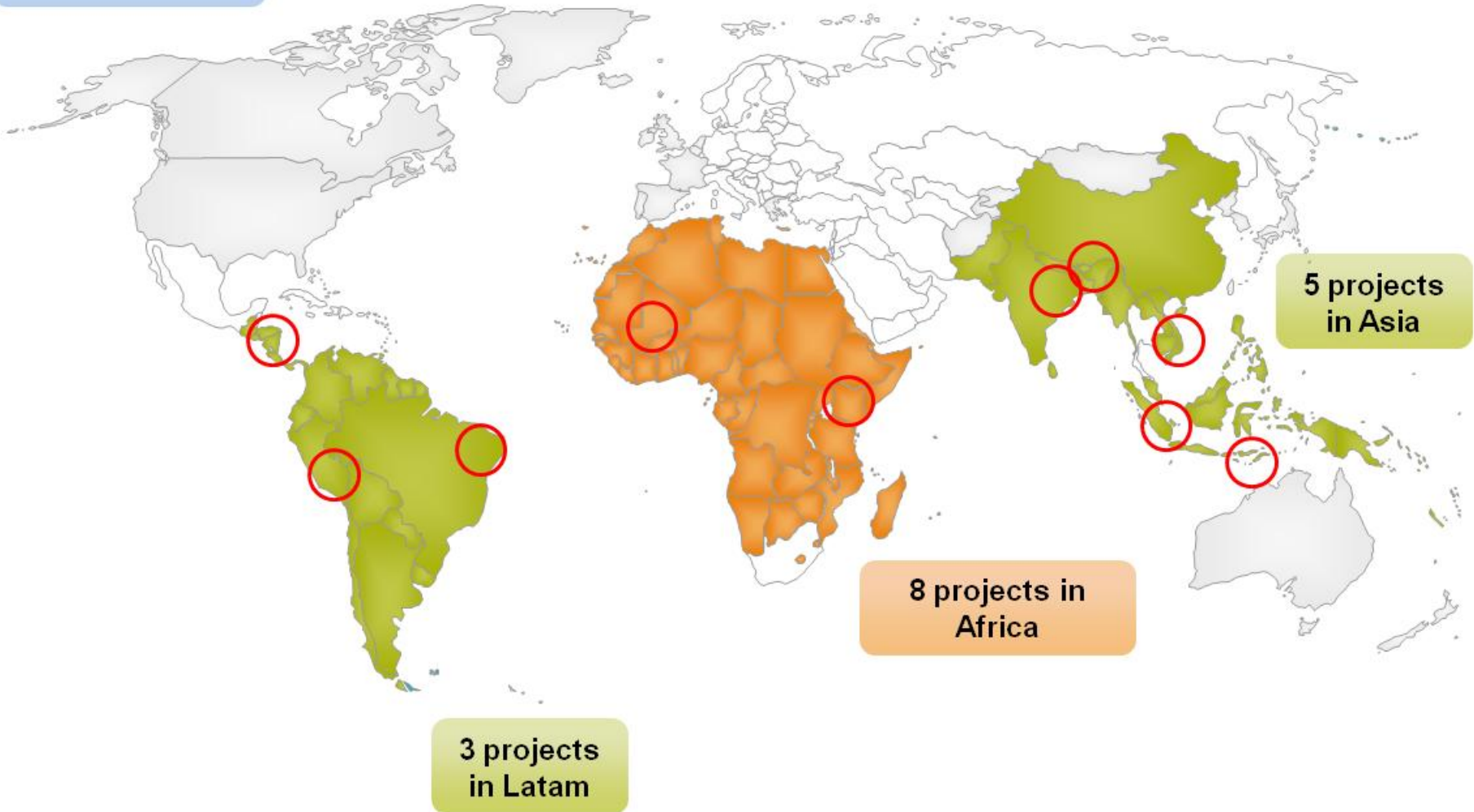
- The Foundation is a non-profit organization established by Syngenta under Swiss law.
- The Foundation can access company expertise, but is legally independent and has its own Board.
- We focus on “pre-commercial farmers”; Syngenta works primarily with commercial growers. The Foundation is free to choose the most suitable products and methods for its projects. Syngenta is one of many potential partners.

Our mission

- Increasing productivity of pre-commercial farmers
- Enabling sustainable resource management
- Linking farmers to input and output markets

Global Presence

5 projects with
Global focus



kilimo salama

Agricultural Insurance Initiative



Better. Simple. Life.

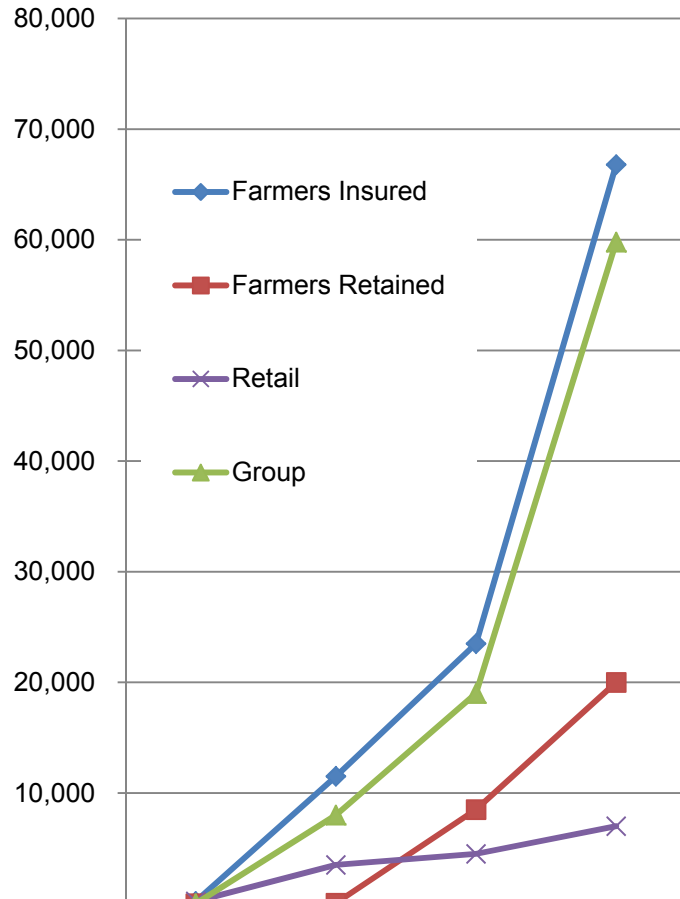
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Kilimo Salama: index linked micro-insurance



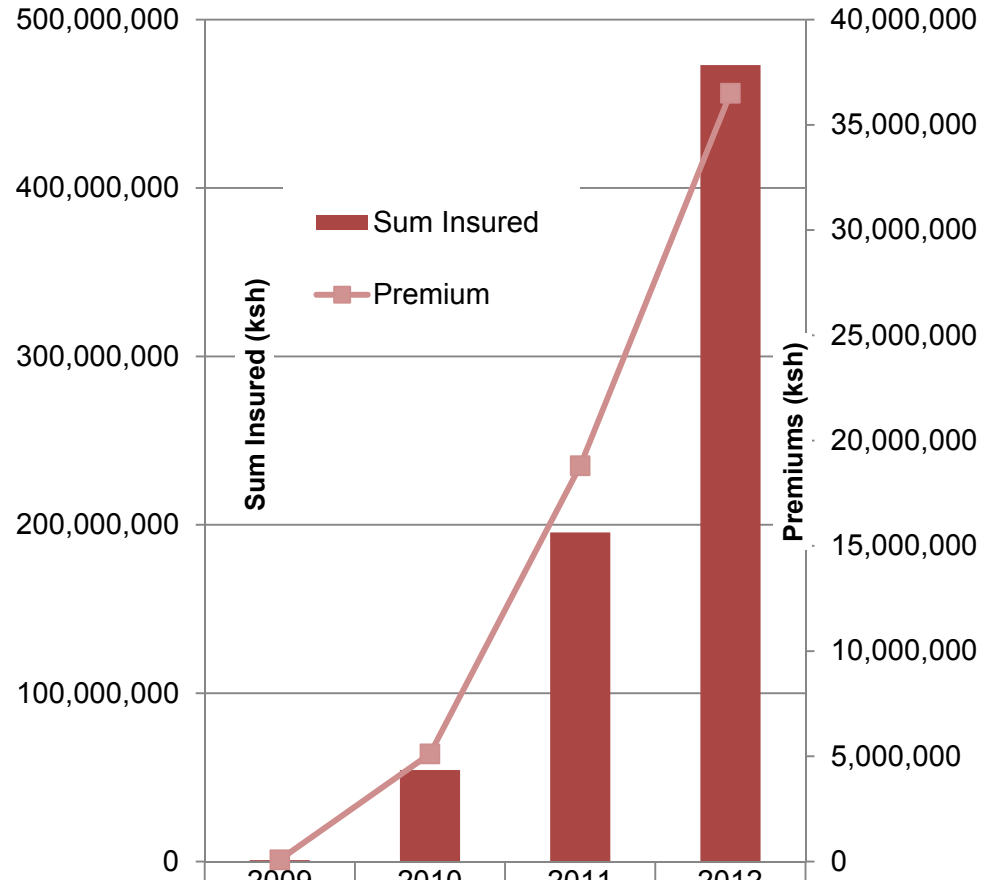
Growth 2009 – 2012 LR

Farmers Insured, Retained



	2009	2010	2011	2012
Farmers Insured	200	11,500	23,500	66,800
Farmers Retained	-	40	8,500	20,000
Retail	200	3,500	4,500	7,000
Group	-	8,000	19,000	59,800

Sum Insured, Premiums



	2009	2010	2011	2012
Sum Insured	900,000	54,400,000	195,500,000	473,000,000
Premium	90,000	5,120,000	18,810,000	36,504,000



**Mobile technology
to support
“farming as a business”**

“FarmForce”

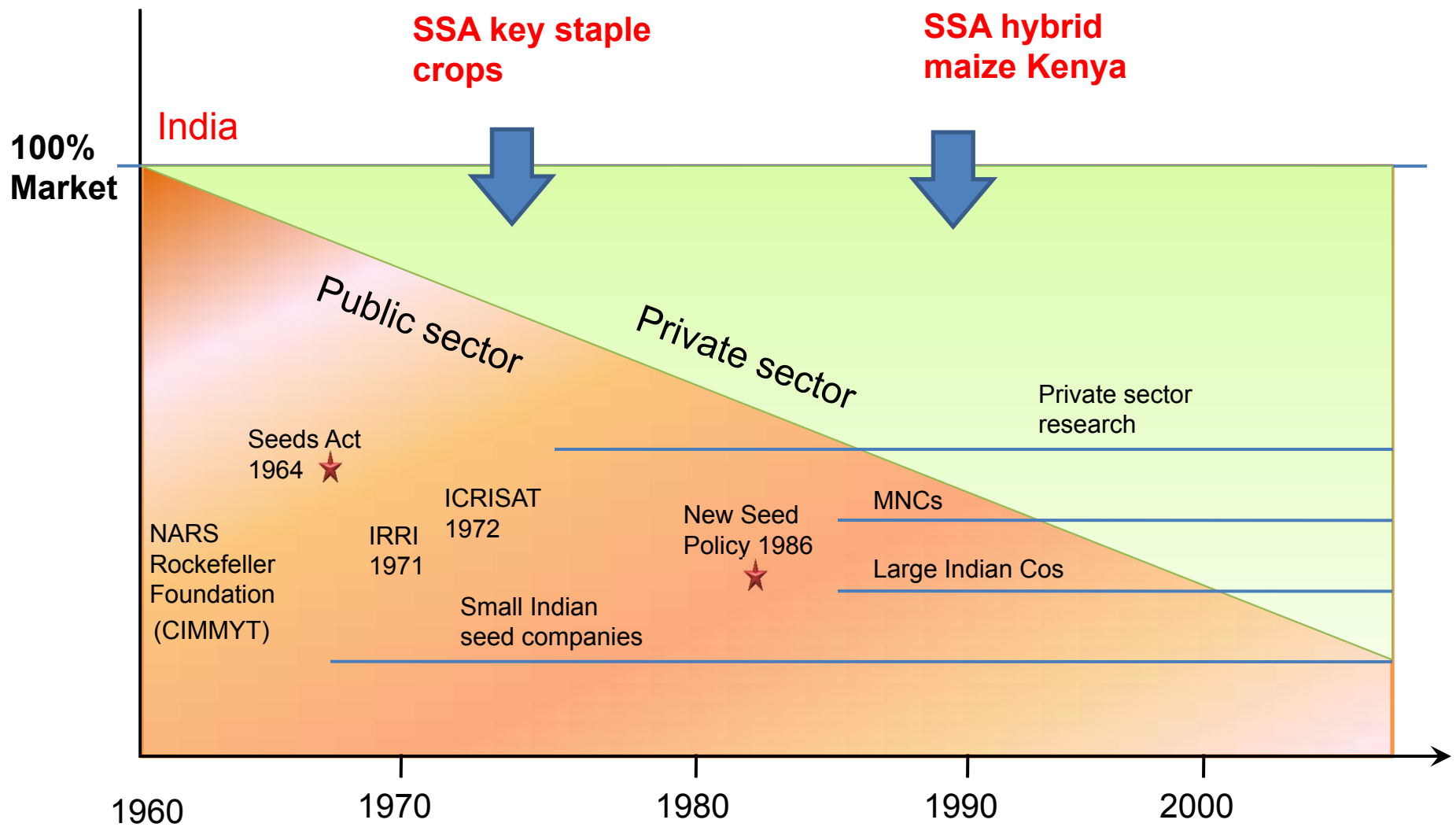
**Savings-linked
extension and
seed supply:
Mali**



Access to Seed of new varieties for many crops in Africa is still a problem: “Technology left on the shelf”

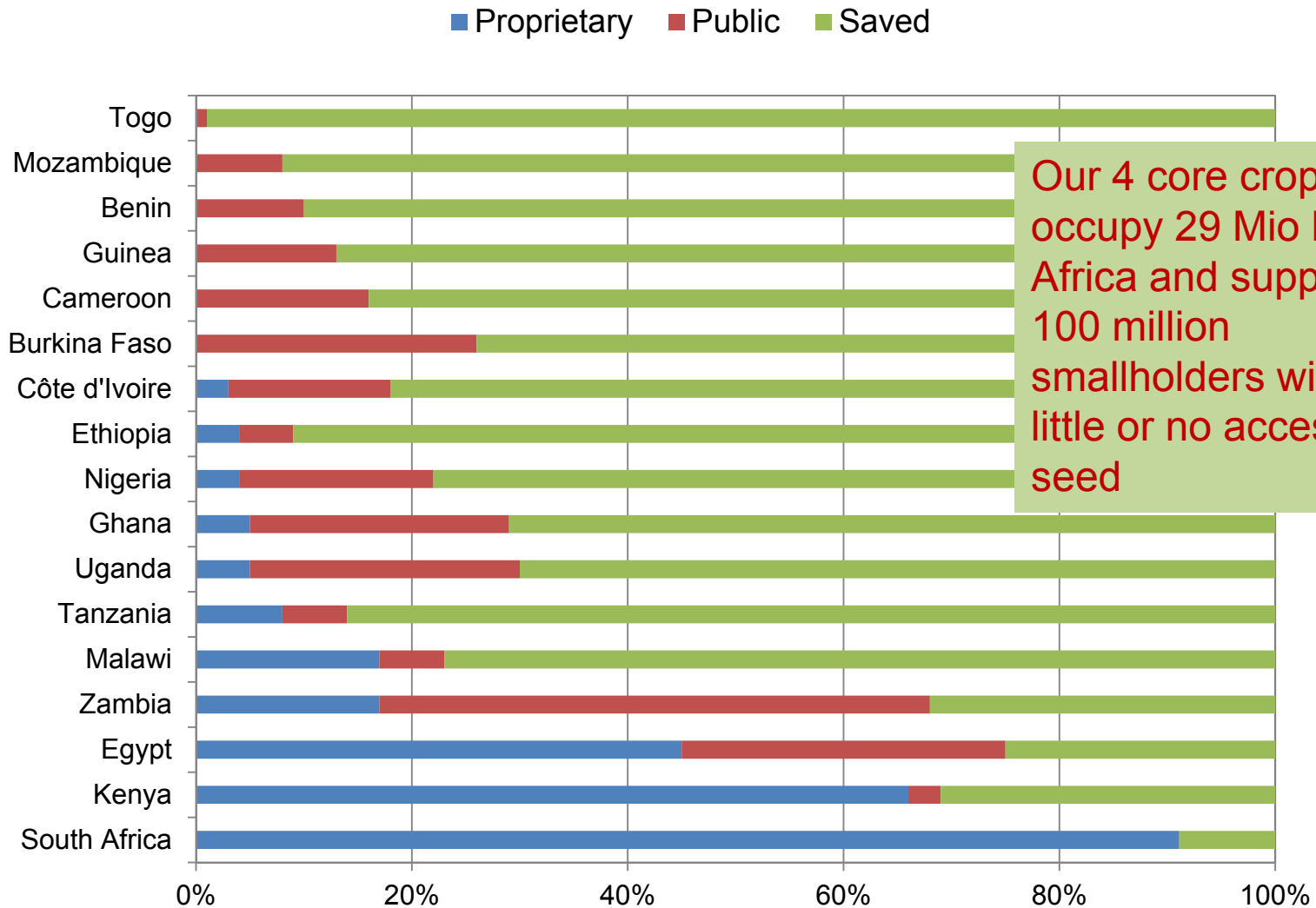
- Access to quality seed of improved varieties is the key in modernization of small-holder agriculture: tackling the yield gap, improving nutrition and livelihoods
- Availability of quality seed of many crops is very limited in SSA, with exception of hybrid maize in some East and Southern African countries.
- Public Private Partnerships hold key to progress, but require, trust, risk sharing and common goals.

Is the India small seed company model part of the way forward in Africa?



In Africa, most seed systems are informal (farmer-based) and low-yielding

Area share of maize seed types



Our 4 core crops occupy 29 Mio ha in Africa and support 100 million smallholders with little or no access to seed

Source: Global Seed Market Database, 2010

The 71 members of the *International Union for the Protection of New Varieties of Plants (UPOV)*



Crop and country focus for SFSA Seed project

1

Accelerated seed and variety development platform

Accelerated variety release

Proprietary access to public/ private bred germplasm-IPR

Harmonization- East and West Africa

2

Commercial Seed System 1:

- Potato
- Kenya
- Tanzania
- Mali
- (Indonesia)

3

Commercial Seed System 2:

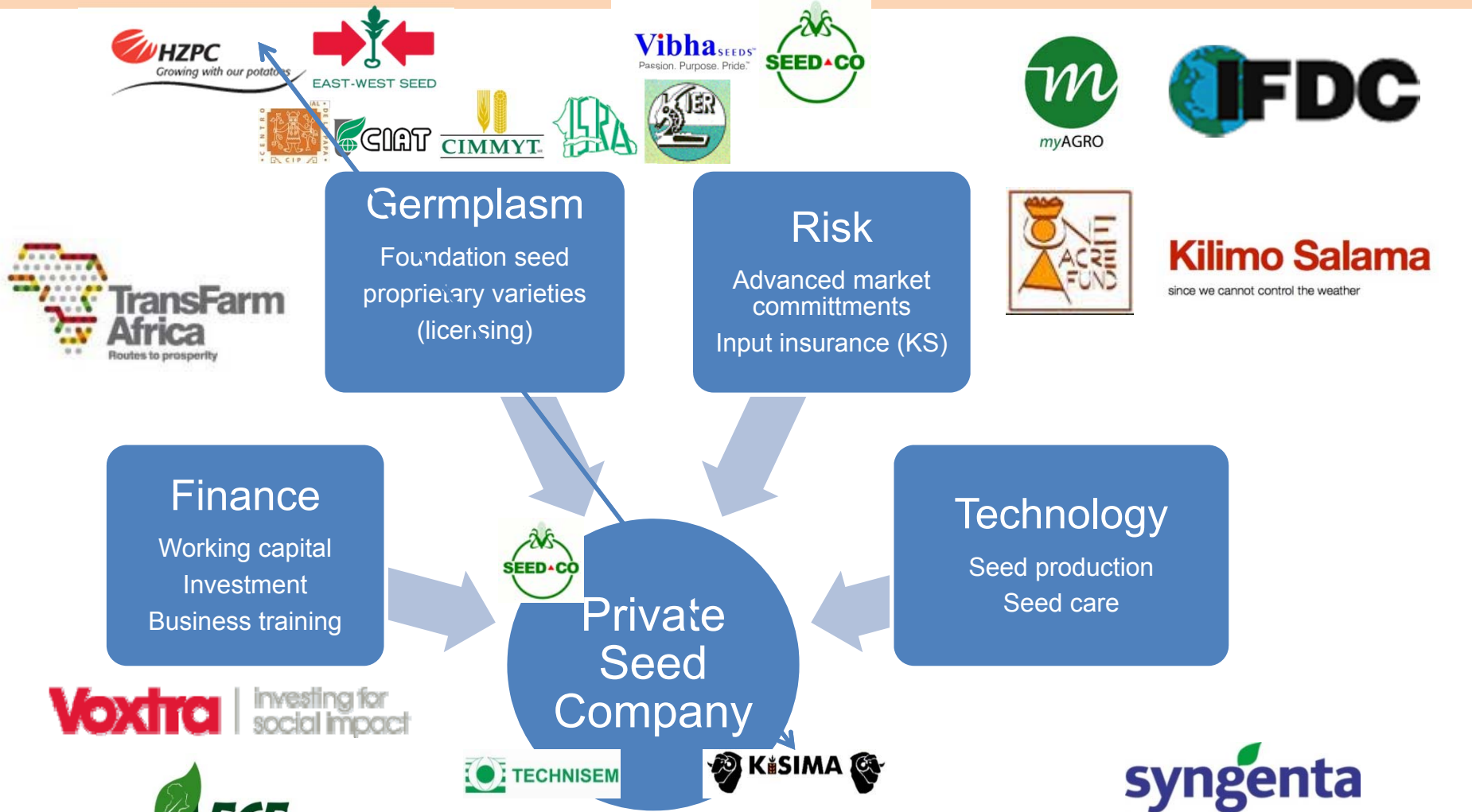
- Beans
- Kenya
- Rwanda

4

Commercial seed system 3:

- Sorghum
- Rice
- Mali
- Senegal
- Cote D'Ivoire

Seeds2B: model and current partners- added value in Africa



- Seed company needs to have:
- Enabling policy environment
 - Access to and confidence in markets
 - Access to proprietary germplasm

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Seeds2B: strategic facilitating partner



Aspen Institute based staff (Washington DC):
Project facilitation, advocacy, enabling policy
environment (*Breaking the Barriers*)



Based in Brussels and Geneva: developing
licensing tools and strategy



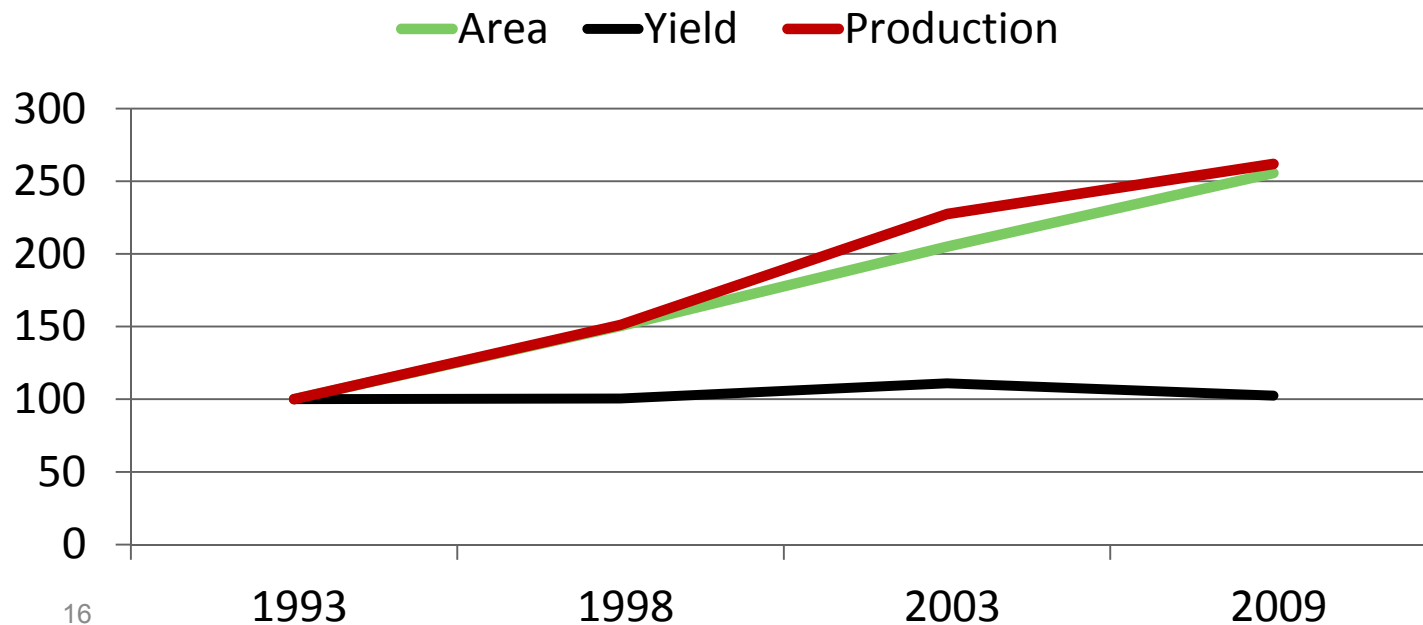
Merchant Bank based in London: developing
business models



AATF based in Nairobi: potential scaling
partner for *Seeds2B*

Potato production in Africa including Kenya

- Second crop after maize in Kenya
- Important short-cycle cash and subsistence crop in highlands of East Africa
- Demand growing at 3.1% p.a.
- Average yields of 7.8 t/ ha (FAOSTAT 2005) but many progressive farmers achieve 25t/ha
- Less than 1% of seed planted is quality seed, compared with 20% in India and China and 30% in Brazil



Large commercial farms can be successfully linked to smallholder enterprises: in this case as seed suppliers and offering training (Kenya).



Minituber production



Field multiplication



Kisima Foundation: Smallholder field days



First commercial certified potato seed in Iringa, Tanzania: Mtanga Farm

- Private sector investment and support from private foundations has seen investment in the production and dissemination of publically bred (CGIAR- CIP) improved potato varieties carrying pro-poor traits (disease resistance)
- Field multiplication from this pilot investment (AECF) will supply seed for 7000 small-holder farmers. Further private investment will scale this.
- Registration (with **Trans Farm Africa**) of new varieties by the Tanzanian authorities in 2012, using Kenyan and ugandan data (EAC harmonized protocol), and continued training of TOSCI by KEPHIS in field certification and seed testing).



Opportunities to promote variety technology transfer

- To develop cross-center partnerships and platforms to evaluate promising germplasm and promote accelerated variety development (progress in EAC) and diffusion models with NARS and regulatory partners.
- Evaluate fair and transparent models (leveraging private sector investment, expertise and equitable benefit sharing) for offering commercial licences to varieties derived from IARC/NARS germplasm to private sector seed companies (and private to private).
- Jointly exploring and promoting IPR mechanisms and strategies for disseminating “ PGRFA material under development” (International Treaty) through PVP systems.

A possible strategy for accelerated technology transfer of improved public bred germplasm

- Re-evaluate thinking on appropriateness of IPG concept in relation to variety development and dissemination amongst public sector breeders (IARCS and NARS) and the development of more impact and market-oriented programs (through development of innovative partnership PPPs, and utilizing IPR tools for the benefit of the poor).
- Development of benefit sharing models, linked to PPPs, that incentivize private sector engagement and provide either long term sustainable **income streams** for public breeding and *in-situ* conservation or **evidence of adoption** depending on institutional mandates.



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