

Beyond Agricultural Innovations: Food Systems Require and Offer Opportunities for a Broader Range of Innovations

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1. RUFORUM: Dynamic, adaptive and learning network

10 Universities



170 Universities



175 Universities....



1992-2003

2004-2024

2024-2044>>>

RUFORUM'S MOTIVATION SINCE 2003

“Transforming agriculture & related sectors of the economy in Africa requires innovative scientific research, education and outreach approaches”

Institutional Innovation!

2. Is Africa preparing requisite human resources & are they connected in the ecosystem?

69%

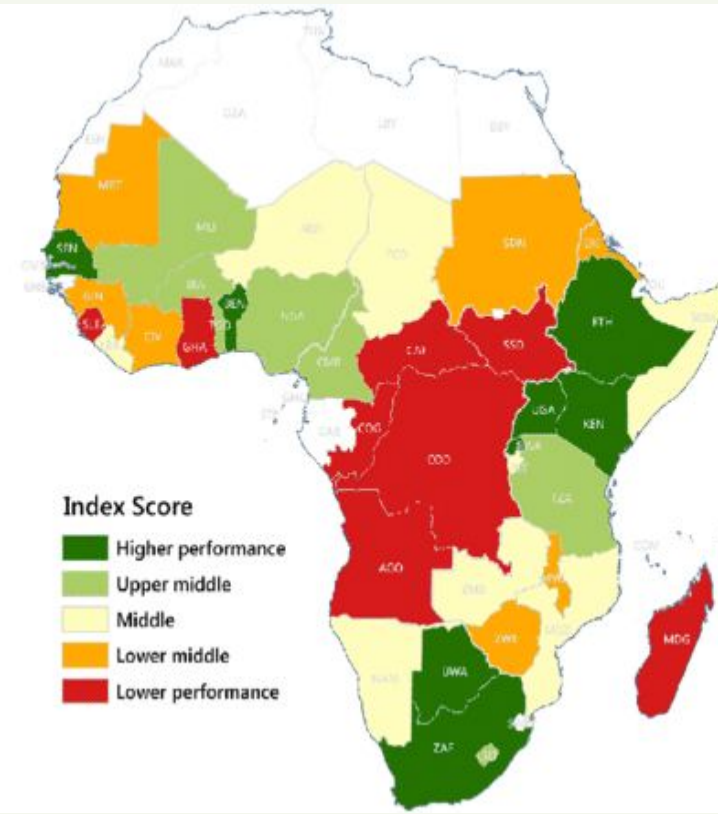
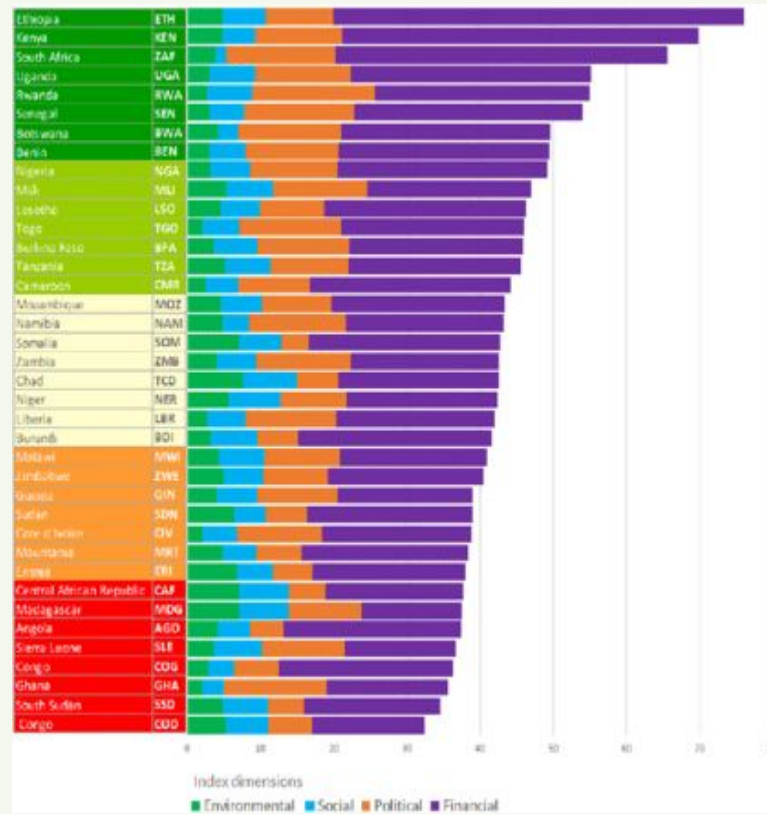
of employers globally reported experiencing talent shortages and **difficulty hiring** – a 15-year high, according to ManpowerGroup's Talent Shortage Survey

54%

of employers globally require significant re- & upskilling, according to The World Economic Forum

375 M

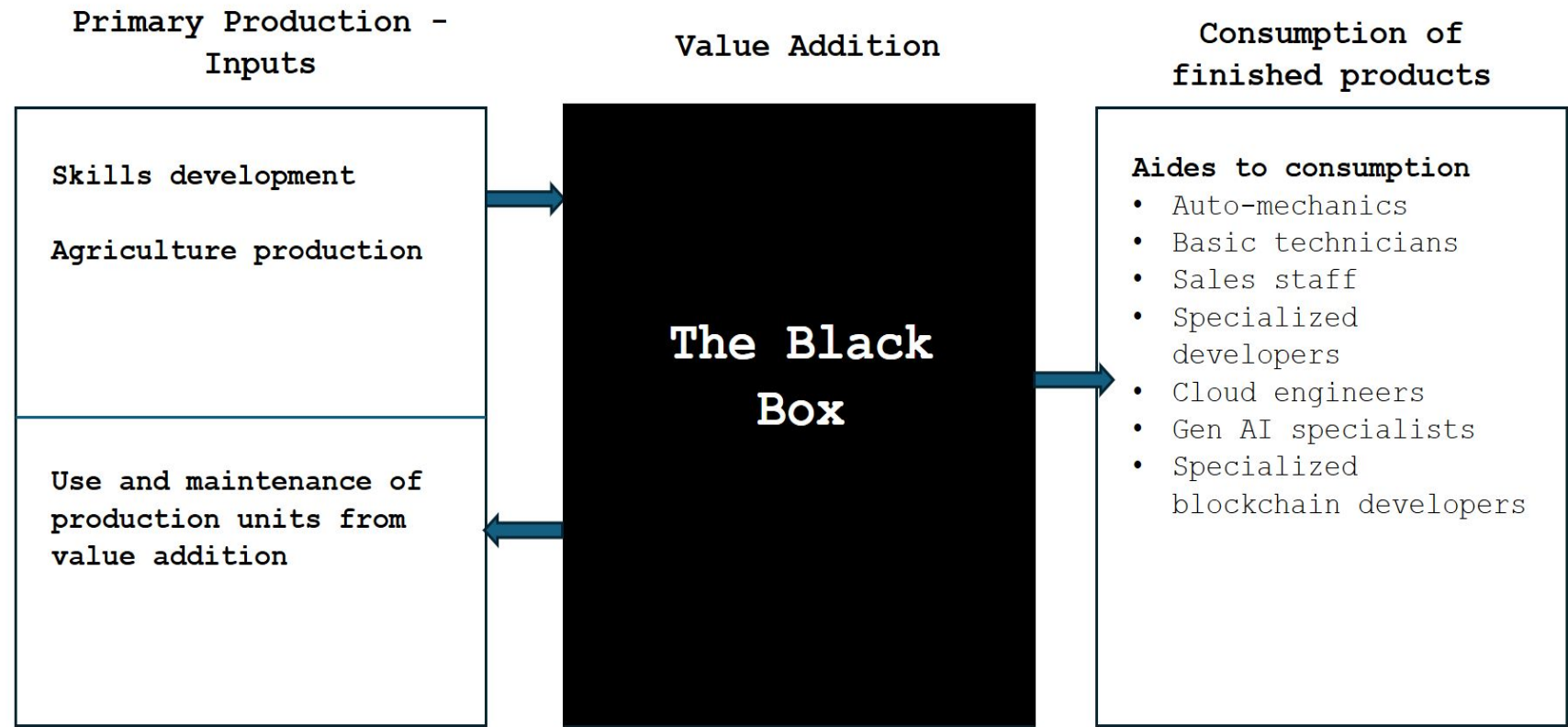
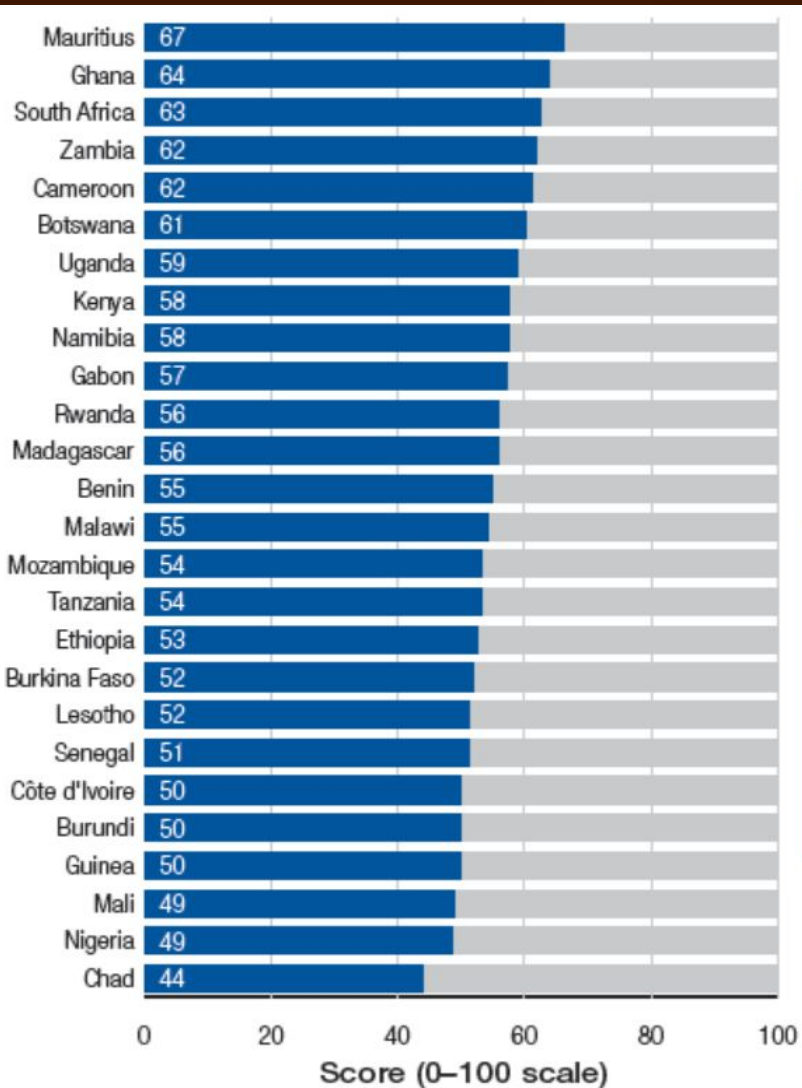
workers will have to switch occupations or acquire new skills by 2030 because of **automation and artificial intelligence**, a report by McKinsey & Company found



(a) Sub-Saharan Africa map with the PV-DEI index score for each country computed for the private sector approach: From highest performance (in dark green) to lowest performance (in dark red). The colour scheme is divided in five ranges, separated at the values of the 20th, 40th, 60th, and 80th percentiles. (b) Country-level ranking and breakdown of index with share of the four main dimensions (Environmental, Social, Political and Financial)

Talent development innovations!

3. Is Africa optimizing its skilled population for wealth creation in AFS & other sectors?



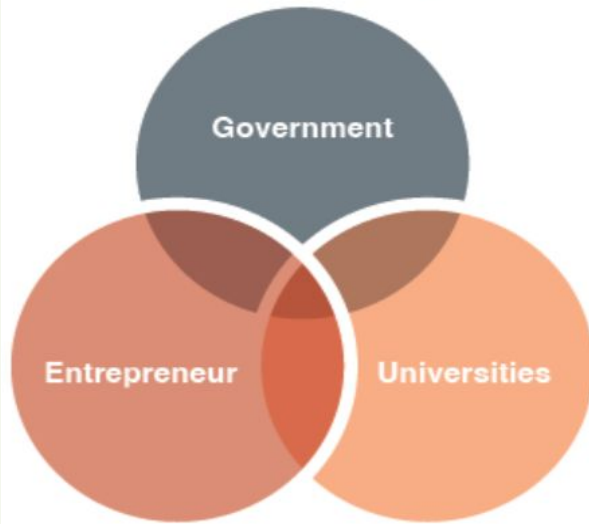
We have limited contribution in the true value creation process but we are establishing very big consumption channels
Source (MoSTI/RUFORUM)

Human capital optimization in Africa (Source WEF)

Talent deployment innovation!

4. Is there a private sector that can accelerate AFS transitions in Africa? if not, create it but it takes an ecosystem level innovation!

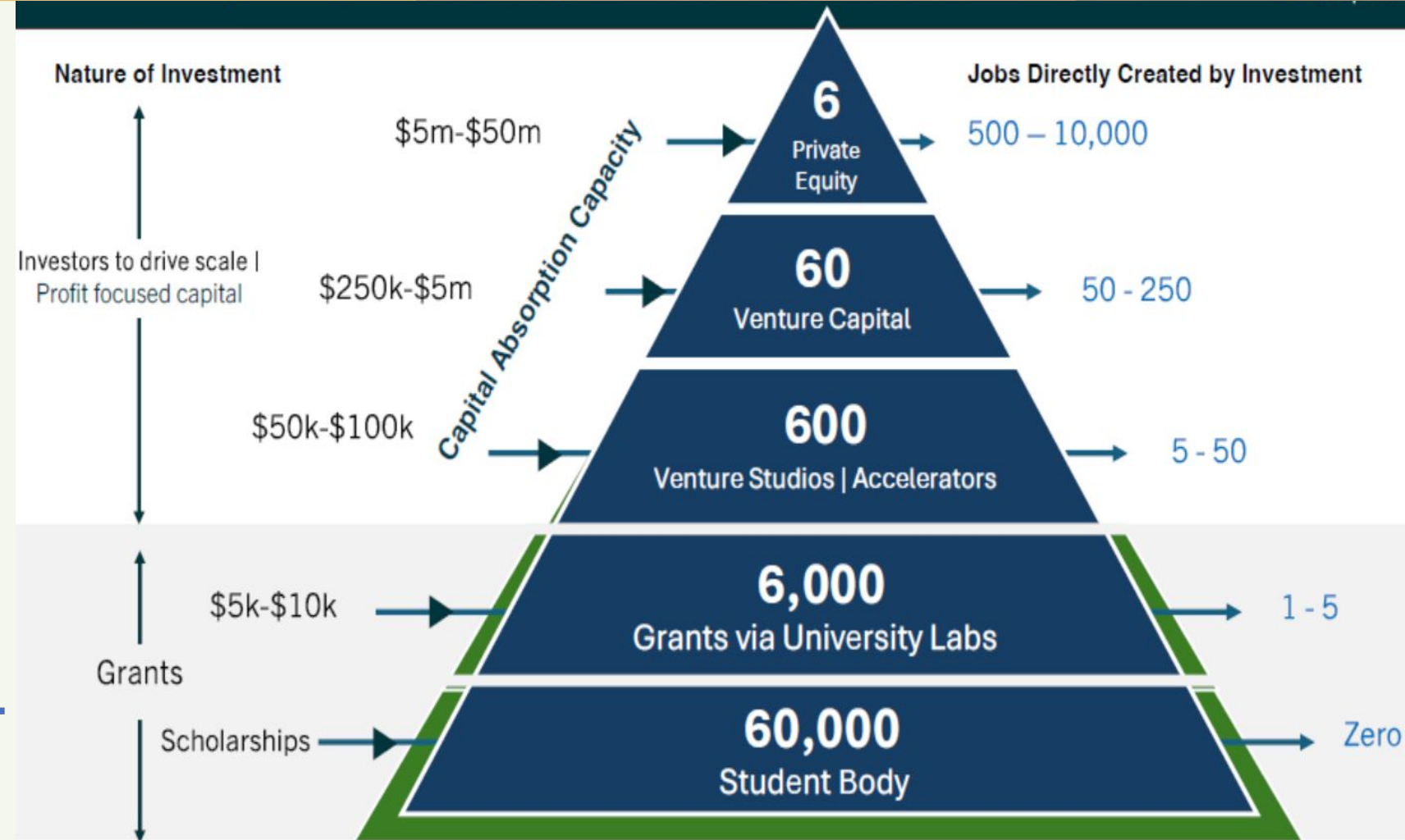
Connectivity and Interdependency in Innovation and capital



Entrepreneurship Ecosystem – Requires Systems Thinking Across All Stakeholders

“There is not a single tech company out there without connection to a university.”

JEREMY THOMPSON, EXECUTIVE VICE PRESIDENT, HUAWEI EUROPE

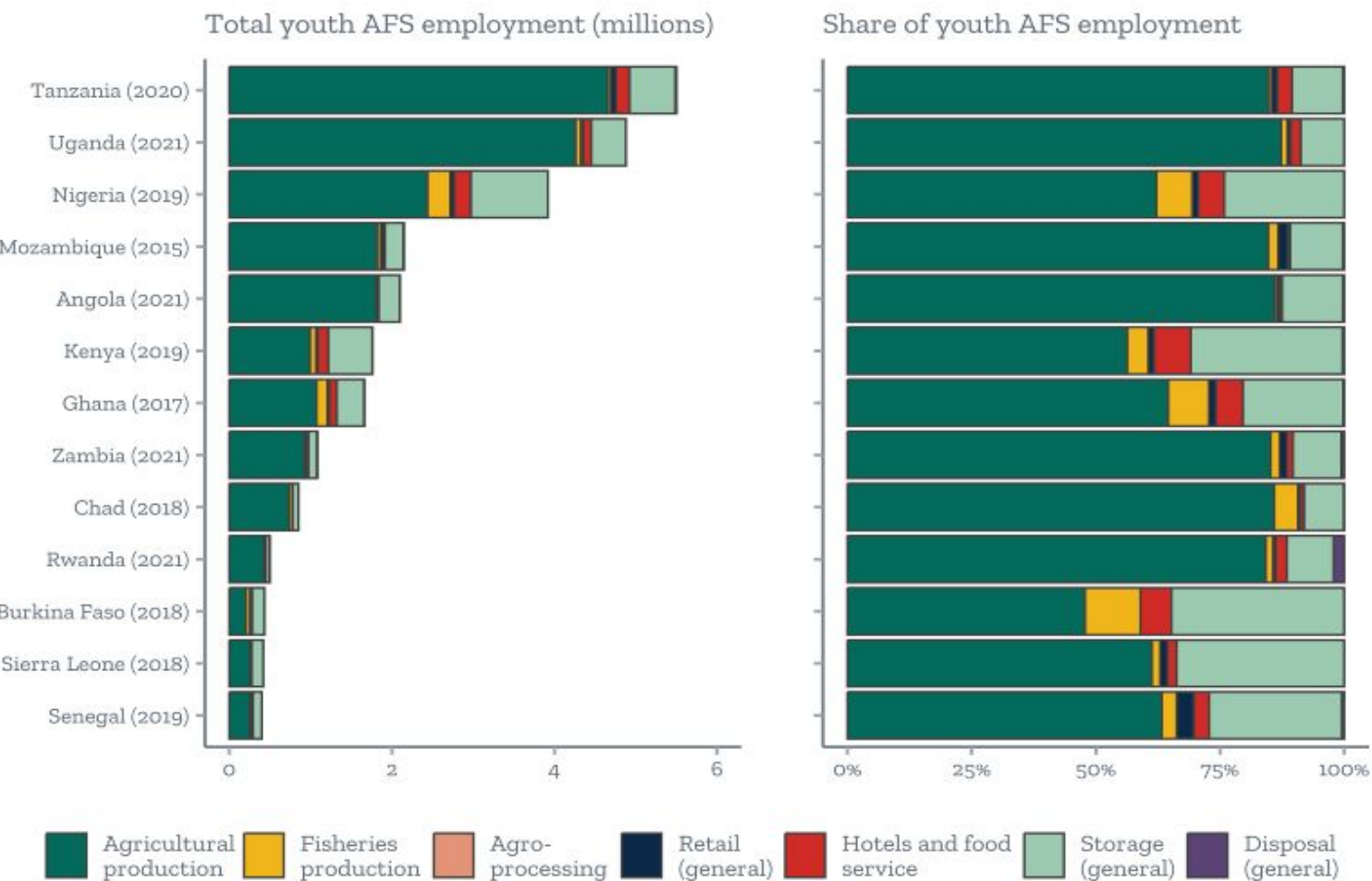


Systems thinking - connectivity and interdependency (Source: VVG/RUFORUM)

Integration innovation!

6. Where are the young people playing a role in the AFS? Refocus AFS as an opportunity destination but beyond production!

Youth (15-24) employment across AFS segments



Source data: ILO



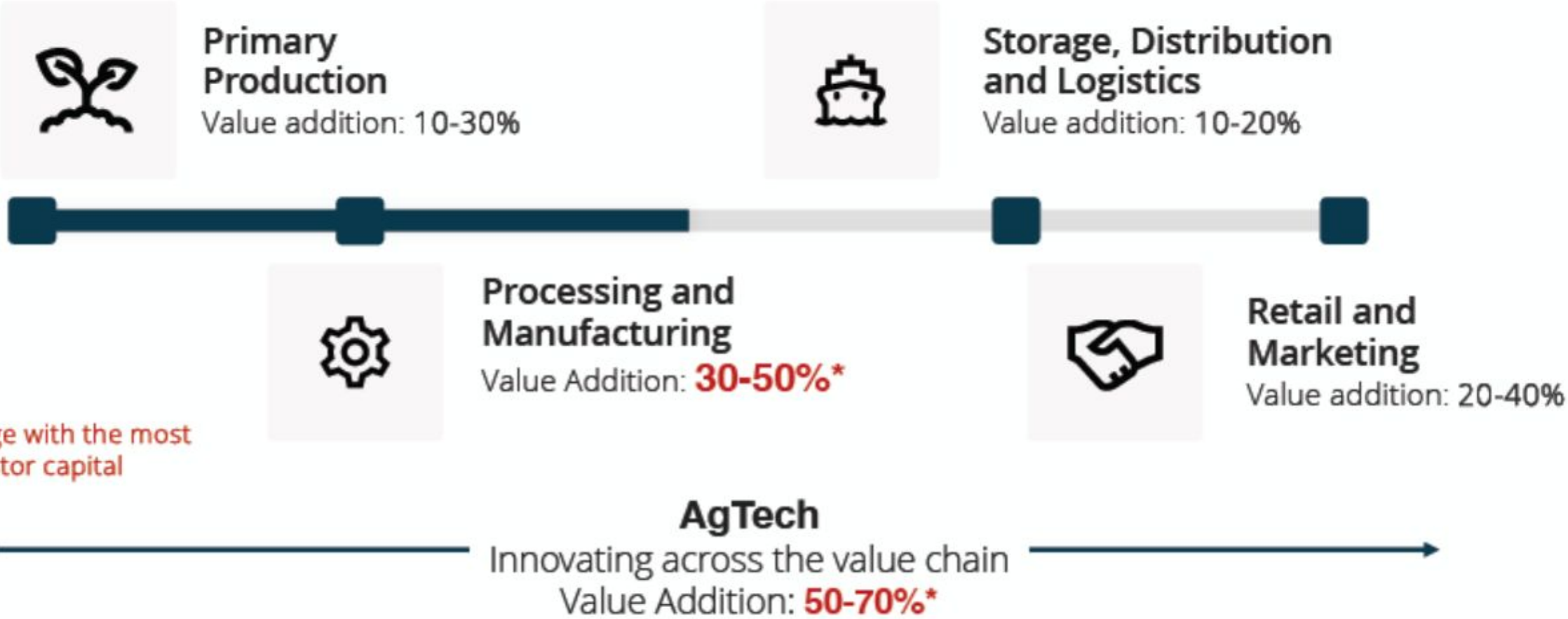
Africa must accelerate its transition from mainly producing and exporting raw materials and importing processed foods to establishing a thriving and competitive agro-processing sector that delivers on the African Union's Agenda 2063 targets of economic growth, wealth generation, and employment (AUC 2015). Failure to do so will mean continued food import dependency, heightened vulnerability to global supply shocks, and lost opportunities for significant wealth generation among both rural and urban populations (Badiane, Collins and Glatzel, et al. 2022).

Transition to the quality of jobs is critical for African youth

Opportunity prioritization innovation!

Source: Mathematica

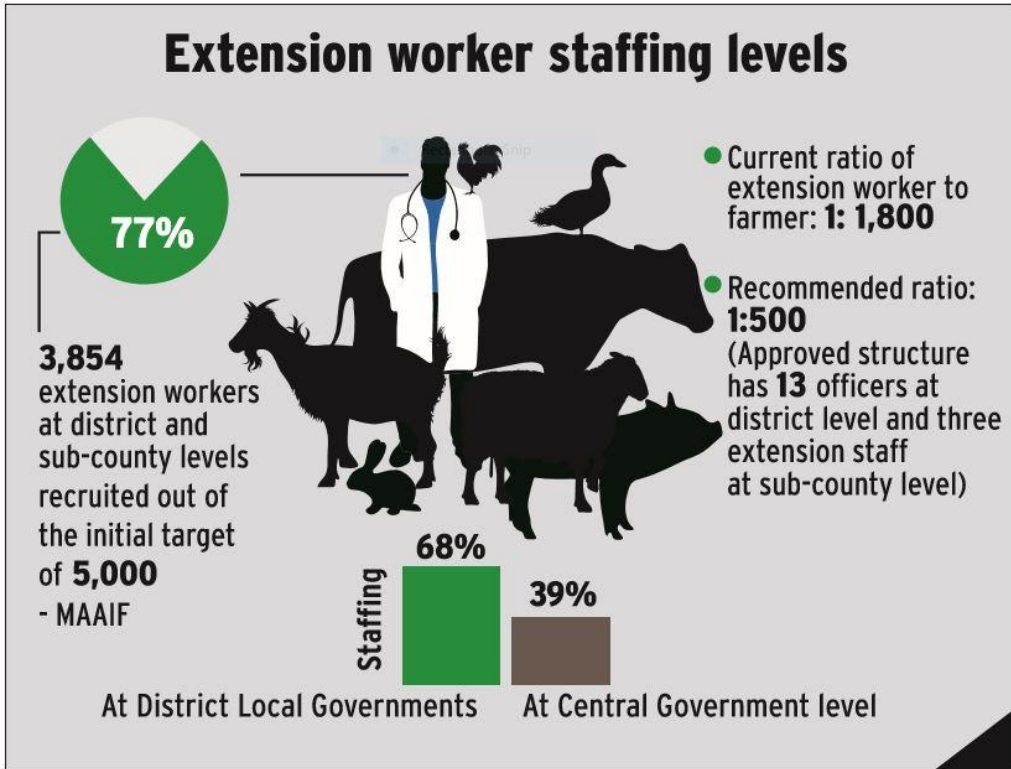
5. Where are the young people likely to play an active role with disruptive innovations with greater ROIs for themselves in the AFS?



Universities/RUFORUM Strategy for jobs creation and sustainable impact should focus to not creating “Grantpreneurs”. But How Do We Achieve this? (Source: VVG/RUFORUM)

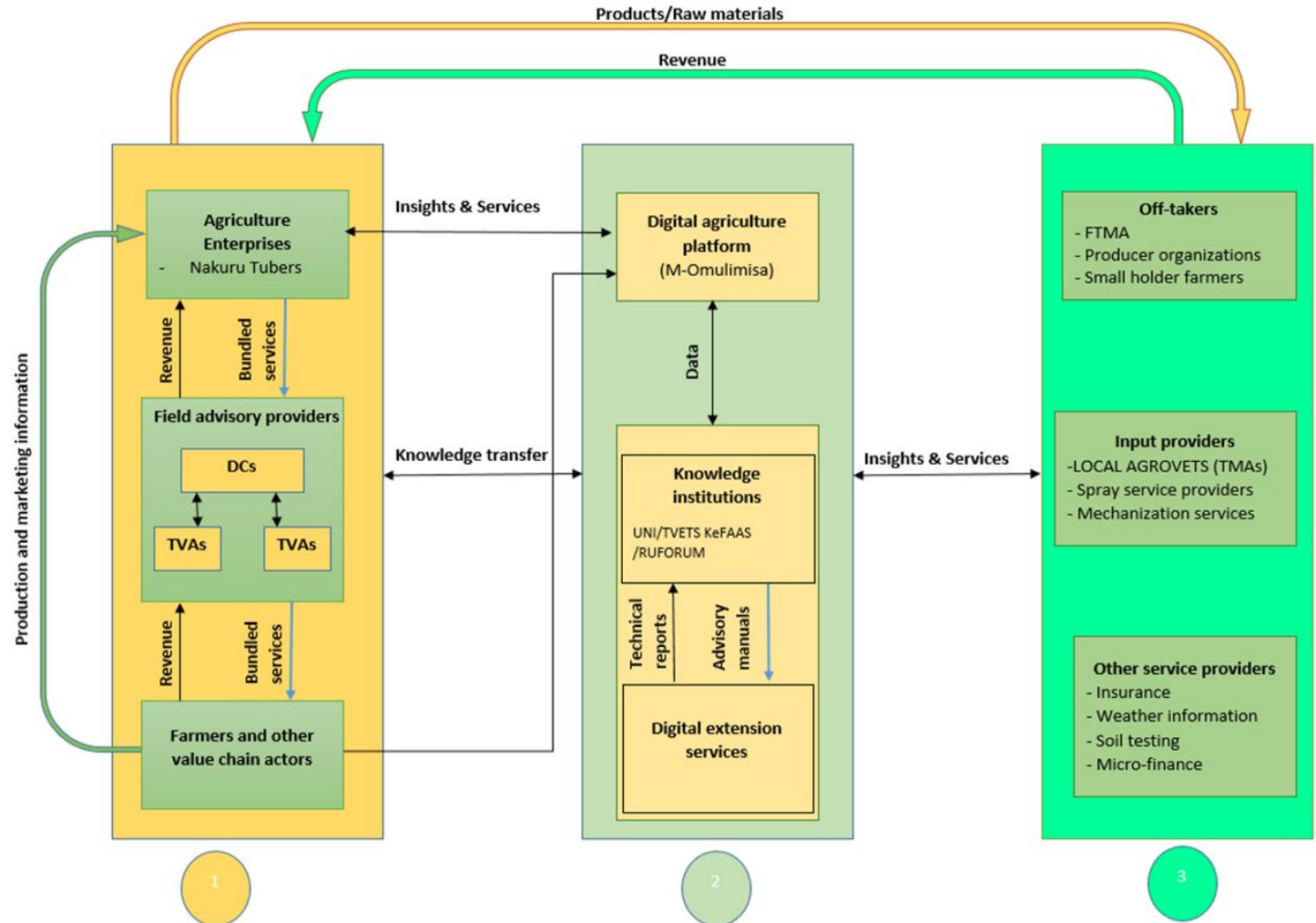
Valorization innovation!

6. Are we evolving innovative mechanisms that bridge gaps in AES delivery but allow for young people's active engagement in AFS?



Extension service personnel gaps in Uganda (Source: New Vision)

Opportunity innovation!



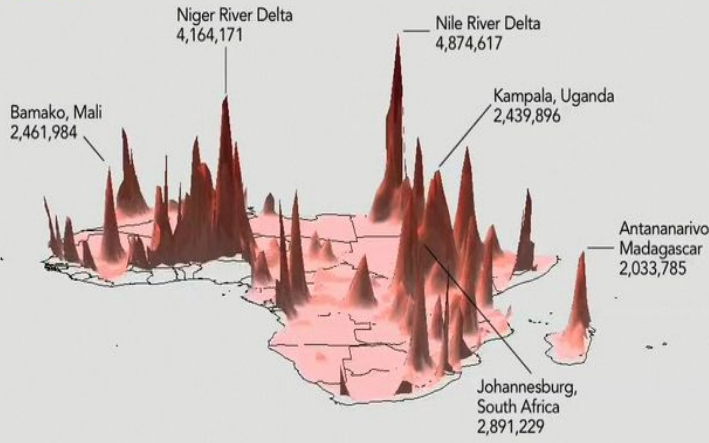
Last Mile Delivery Acceleration Framework (Source: RUFORUM/AFAAS)

7. Is convergence and complementarity for impact at scale feasible within the AFS ecosystem in Africa?

Source: Population Action

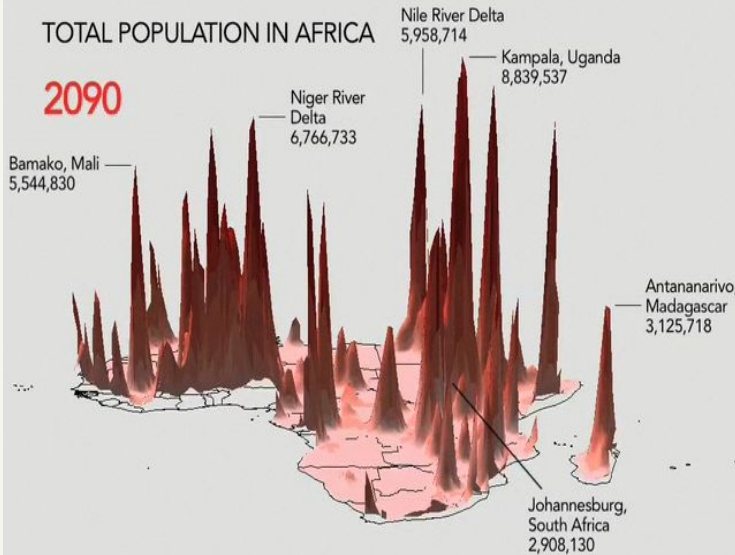
TOTAL POPULATION IN AFRICA

2035



TOTAL POPULATION IN AFRICA

2090

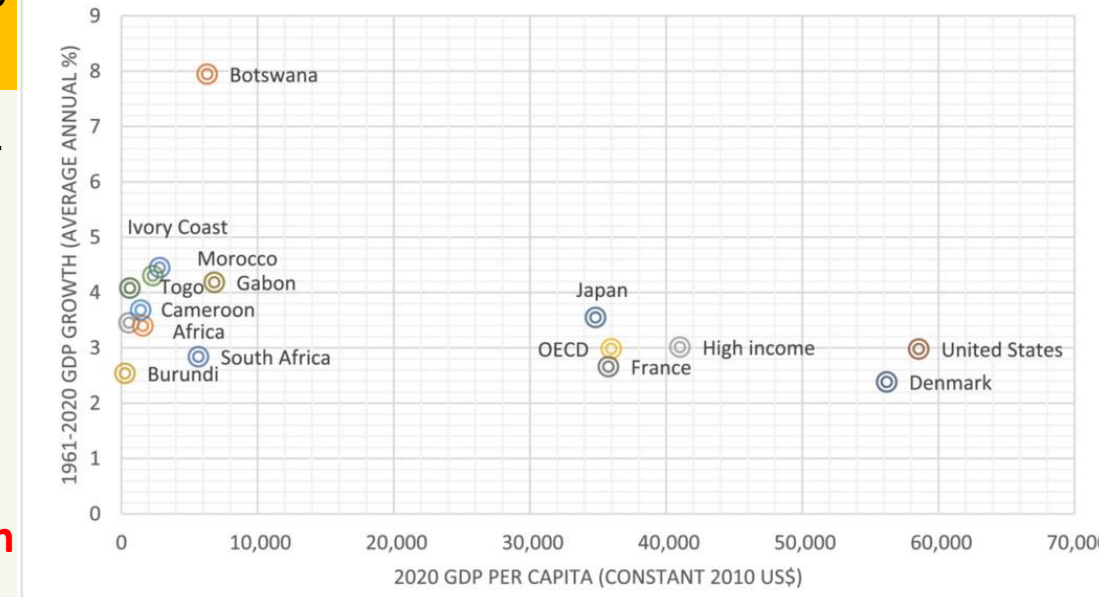
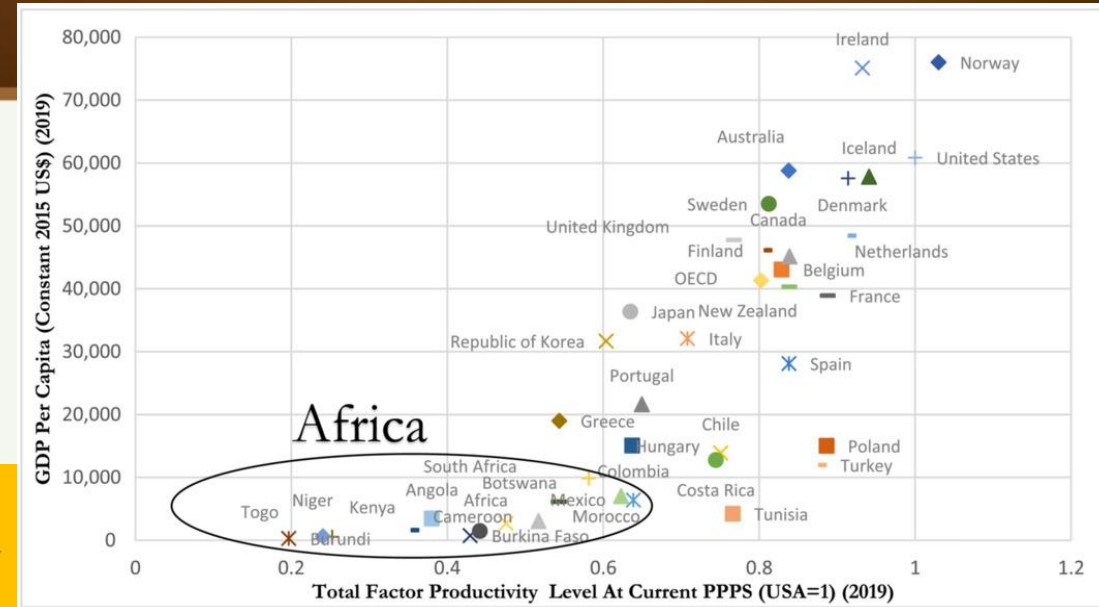


Total Factor Productivity by development level, 2019. (Source: Aomar & Elouaourti, 2023)

Feeding the Continent's population in cities can only be possible if a convergence to delivery is made possible

Convergence: GDP per capita in 2020 versus average economic growth rate 1961–2020 (Source: Aomar & Elouaourti, 2023)

Structural-transformation innovation!



8. There is enough work for all of us in this room, but, we must put effort in how we can add value in all our processes & intentions

Produce raw materials

Add value

Consumption

- Relevant trained human capital.
 - Agriculturalists
 - Developers
 - Data scientists
 - Cyber security experts
- Relevant Data generation driven by market and industry needs.
- Computing power.
 - GPUs
 - Cloud infrastructure
 - Tech Labs
 - Innovation Labs

- Research and development into new products & services solving market and community needs.
- Joint product and services development with industry.
- Moonshot projects development.

- Commercialize products and services.
- Engage investors to scale technology products and services.
- Internally utilize institutionally developed products and services.

Design Innovation!

Welcome to
Gaborone,
Botswana Nov/Dec,
2025 for the
RUFORUM's 21st
Annual General
Meeting and
Exhibition



THANK YOU



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