Phytobiomes Alliance Event

Framing Smallholder Digital Agriculture

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June 3 2021

The Commonwealth
Connectivity Agenda

- **Background**

- **D4Ag Framework**

- **Ag. Data Infrastructure & Policy Implications**

I: Background

The Commonwealth

The Commonwealth Secretariat

An intergovernmental organisation that supports its 54 member countries to achieve the Commonwealth's aims of development, democracy and peace

The Commonwealth
Connectivity Agenda

The Commonwealth Connectivity Agenda (CCA)

Boosting trade and investment across the Commonwealth in the process grow intra-Commonwealth trade to US$2 trillion by 2030, and expand investment

Physical Connectivity: Reducing physical barriers to trade

Digital Connectivity: Taking advantage of the opportunities presented by digital trade
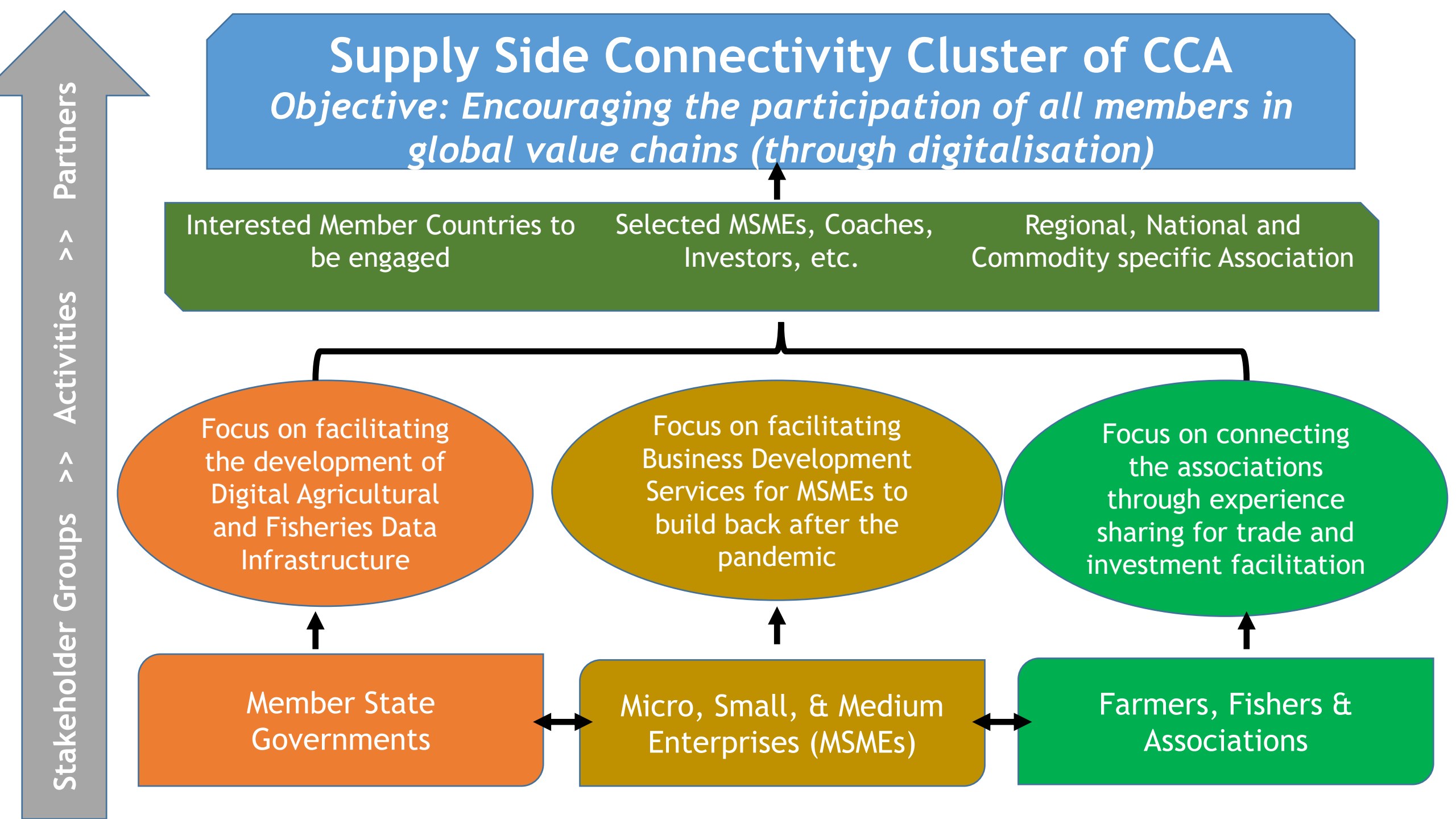
Regulatory Connectivity: Addressing the capacity deficit and improve the regulatory environment

Supply Side Connectivity: Encouraging participation in global value chains

Business to Business Connectivity: Exploring the role of private sector in promoting the blue and green economy

Digitalisation for Agriculture (D4Ag)

*The use of **<u>digital technologies</u>**, **<u>innovations</u>**, and **<u>data</u>** to transform **<u>business models</u>** and **<u>practices</u>** across the agricultural value chain and address bottlenecks in, among other things, productivity, postharvest handling, market access, finance, and supply chain management to achieve greater income for smallholder farmers, improve food and nutrition security, build climate resilience, and expand inclusion of youth and women (Tsan et al. 2019)*
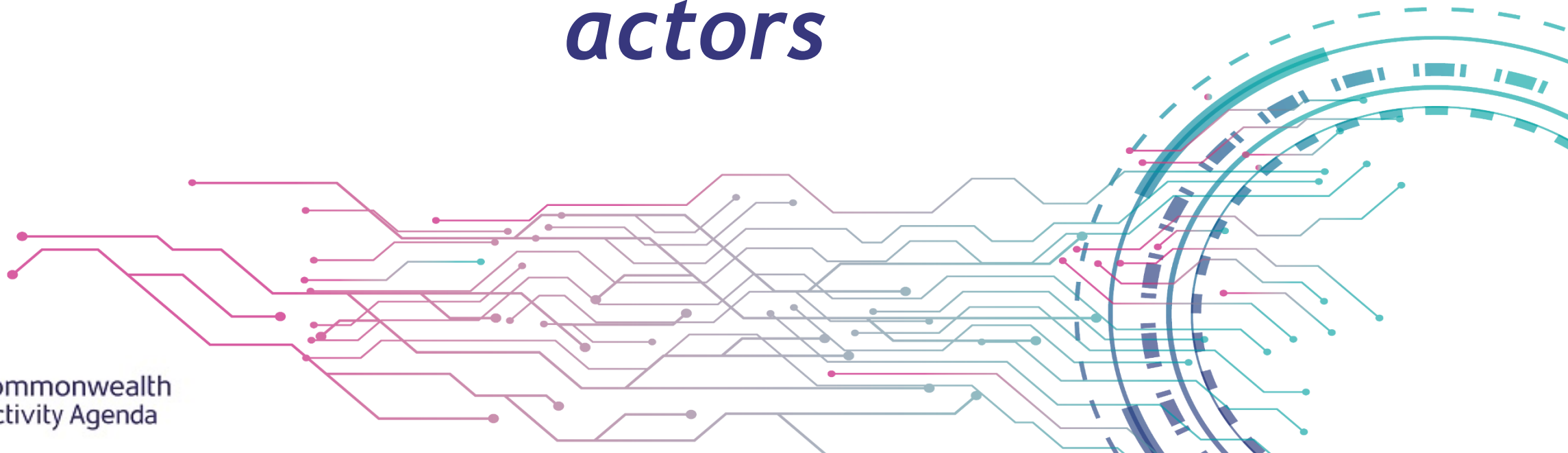
II:
D4Ag Framework

The Commonwealth

First Statement

Generic (digitalisation) - we should be able to customise and apply the framework to different sectors
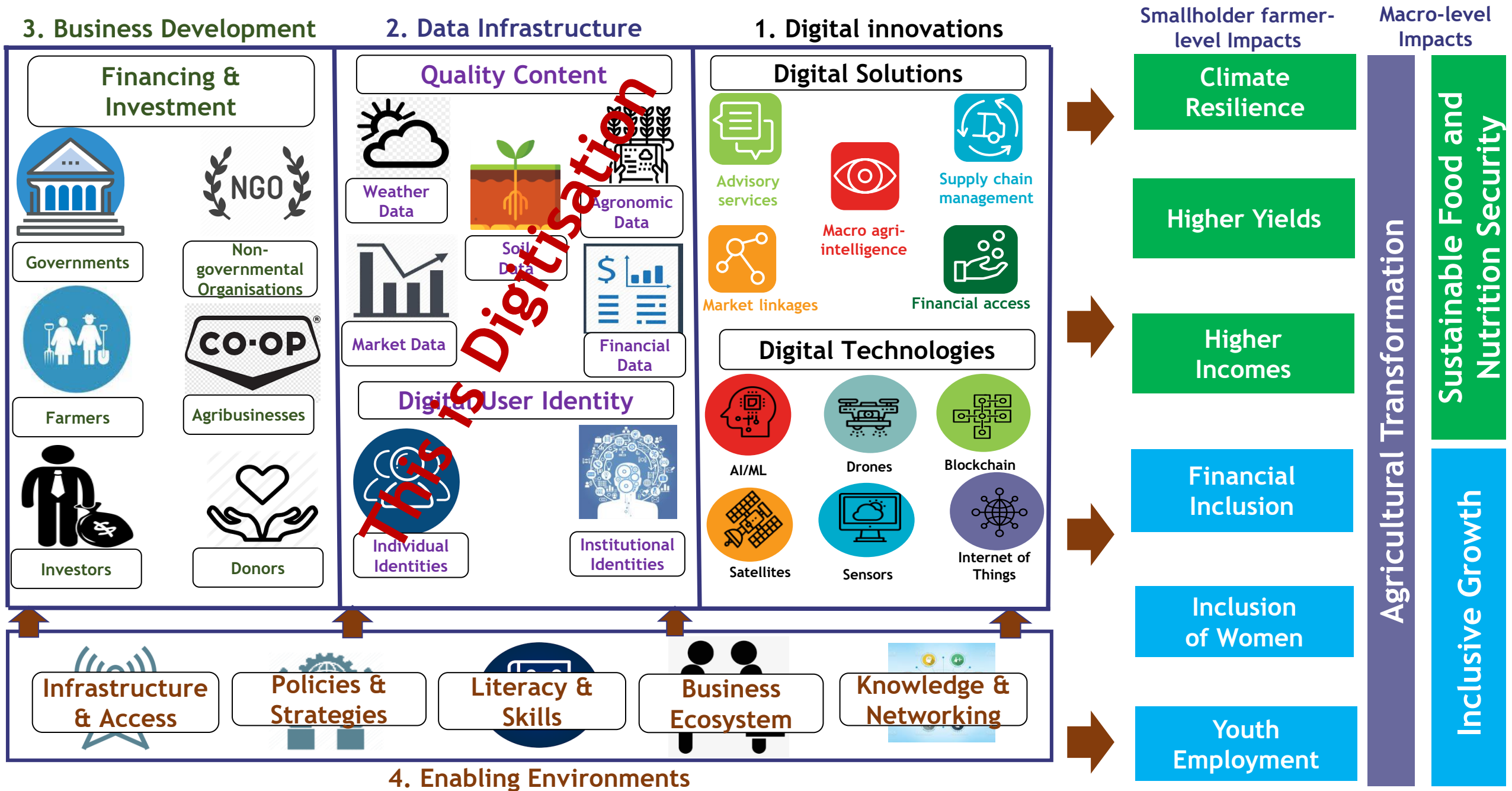
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Second Statement

National context – the framework takes a macro approach to digital agriculture and goes beyond individual actors

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Framing Digital Agriculture

3. Business Development

2. Data Infrastructure

1. Digital innovations

Smallholder farmer-level Impacts

Macro-level Impacts

3. Business Development

Financing & Investment

- Governments
- Non-governmental Organisations
- Farmers
- CO-OP / Agribusinesses
- Investors
- Donors

2. Data Infrastructure

Quality Content

- Weather Data
- Soil Data
- Agronomic Data
- Market Data
- Financial Data

Digital User Identity

- Individual Identities
- Institutional Identities

This is Digitisation

1. Digital innovations

Digital Solutions

- Advisory services
- Macro agri-intelligence
- Supply chain management
- Market linkages
- Financial access

Digital Technologies

- AI/ML
- Drones
- Blockchain
- Satellites
- Sensors
- Internet of Things

Smallholder farmer-level Impacts

- Climate Resilience
- Higher Yields
- Higher Incomes
- Financial Inclusion
- Inclusion of Women
- Youth Employment

Macro-level Impacts

- Agricultural Transformation
- Sustainable Food and Nutrition Security
- Inclusive Growth

4. Enabling Environments

- Infrastructure & Access
- Policies & Strategies
- Literacy & Skills
- Business Ecosystem
- Knowledge & Networking

"*Digital agriculture*" *is not the same as* "*Digital Agricultural Solutions*"
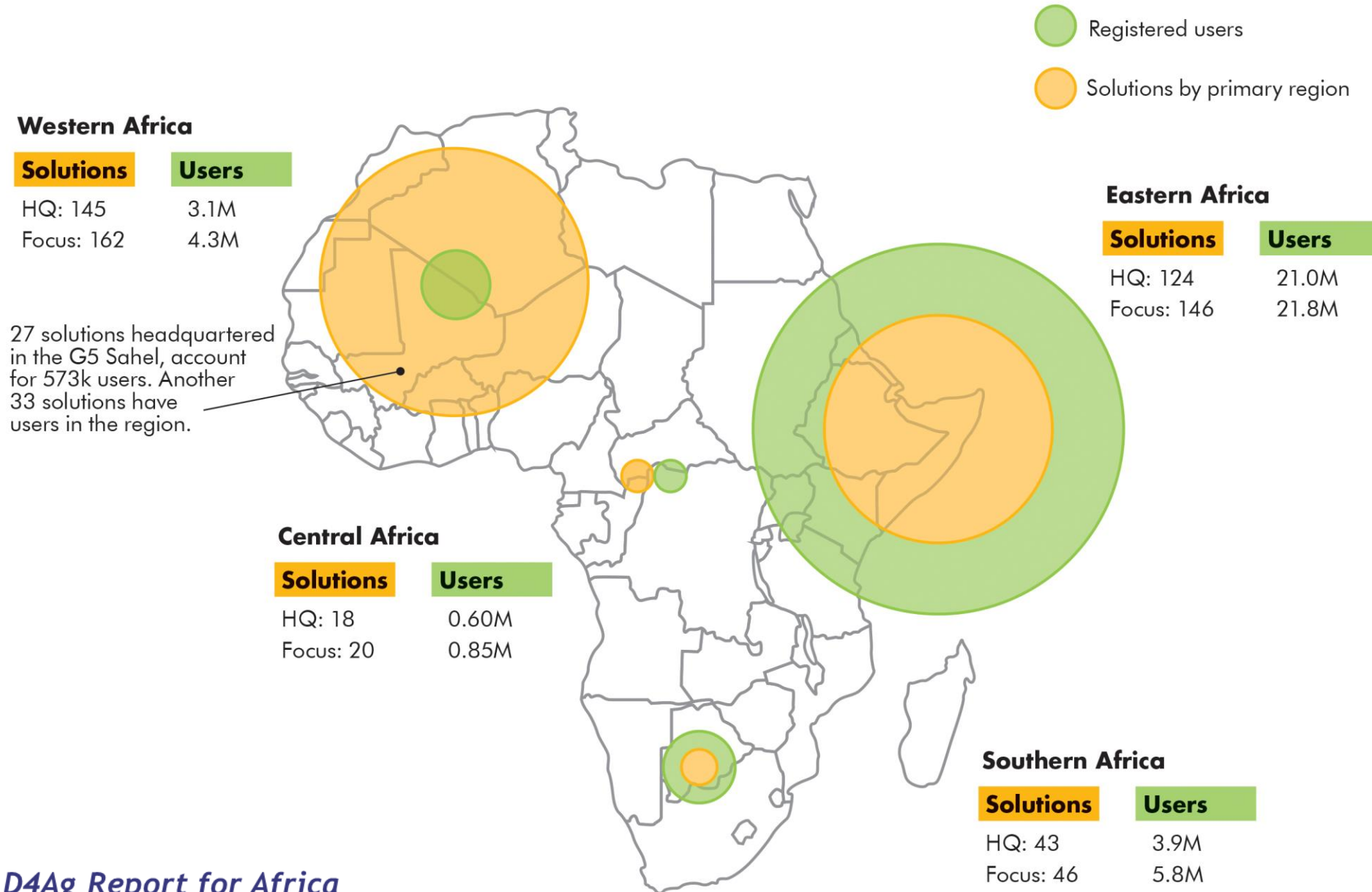
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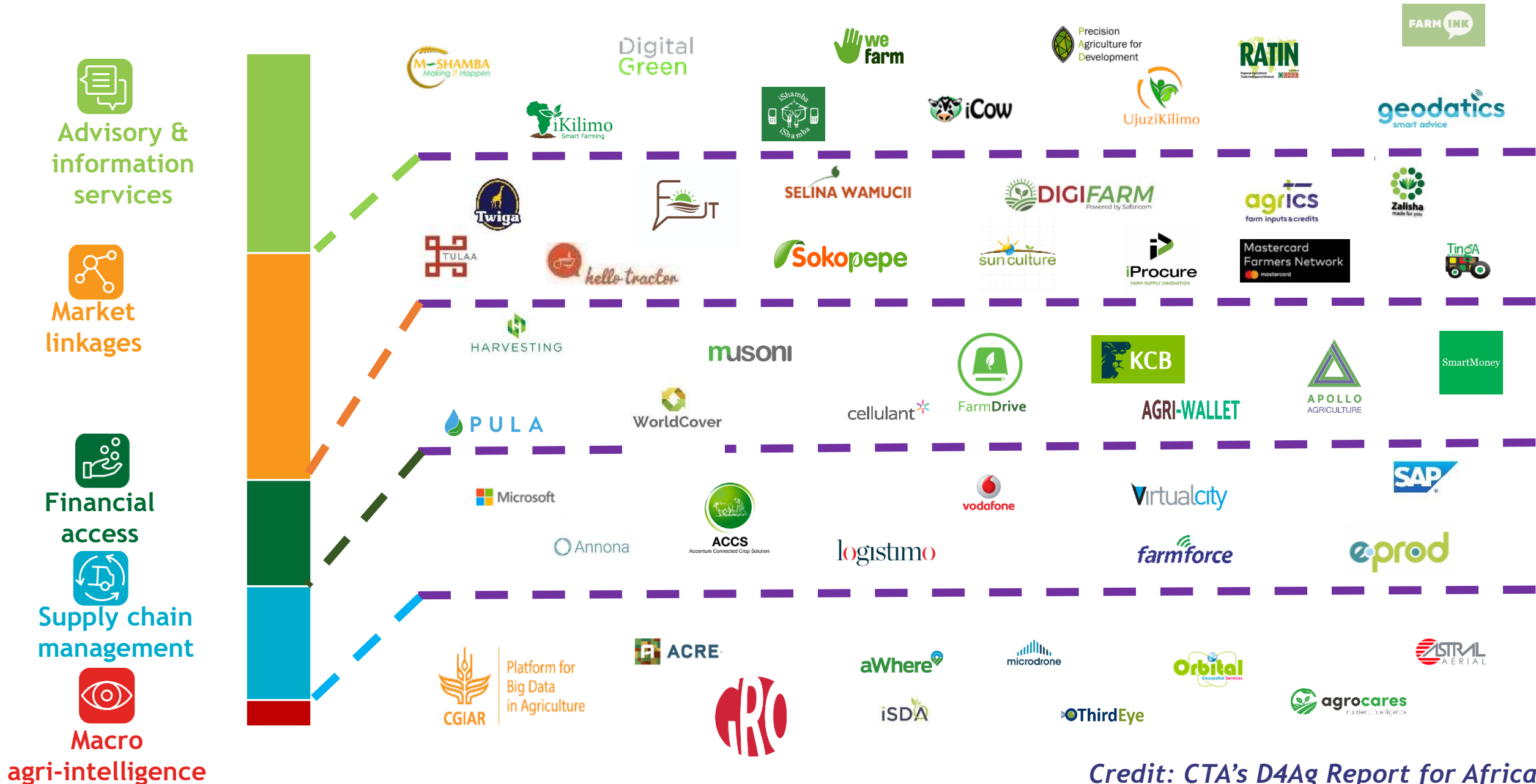
The Missing Middleware

Invest in the missing middleware infrastructure. *Successful D4Ag solutions require access to a wide range of data (from remote sensing data to farmer-specific data) in order to deliver high-quality services to farmers*
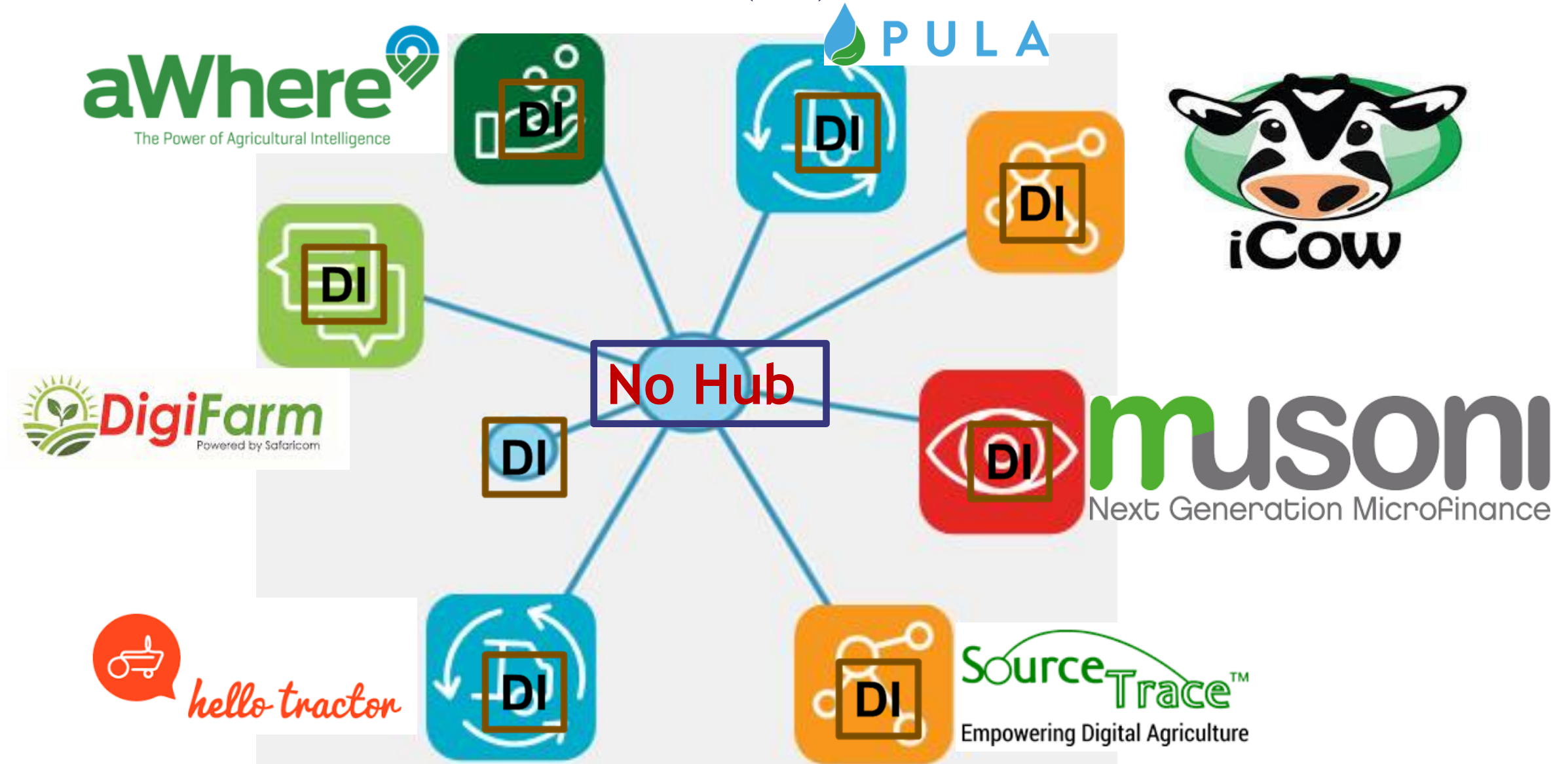
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Digital Solutions & Users in Africa (2018)

Registered users

Solutions by primary region

Western Africa

Solutions	Users
HQ: 145	3.1M
Focus: 162	4.3M

27 solutions headquartered in the G5 Sahel, account for 573k users. Another 33 solutions have users in the region.

Eastern Africa

Solutions	Users
HQ: 124	21.0M
Focus: 146	21.8M

Central Africa

Solutions	Users
HQ: 18	0.60M
Focus: 20	0.85M

Southern Africa

Solutions	Users
HQ: 43	3.9M
Focus: 46	5.8M

Credit: CTA's D4Ag Report for Africa

Duplication Digital Solutions (Kenya, 2018)
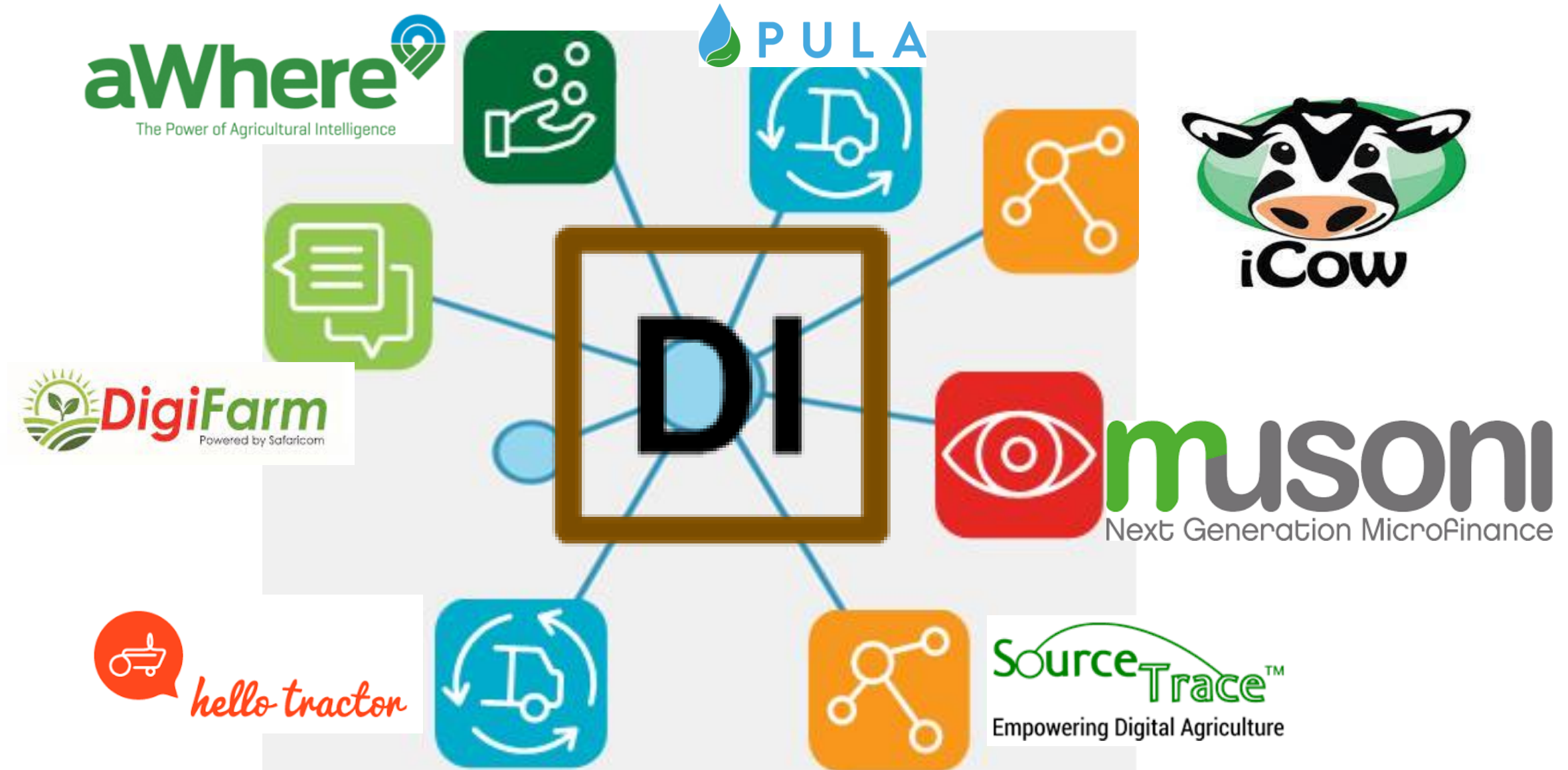

Credit: CTA's D4Ag Report for Africa

Data Infrastructure (DI) - current situation!

Multiple Spokes With No Hub

Data Infrastructure (DI) – alternative option!

National Hubs & Spokes

IV.
Conclusion

The Commonwealth

D4Ag Framework

- The Commonwealth Secretariat welcomes interested partners to work and build the D4Ag framework

- **The Framework can be used to assess, track and compare** the **resilience of the agricultural sector** through digitalisation at national level

- Enable us to know countries that are **leading** in leveraging digitalisation in agricultural sector

Data Infrastructure & Smallholder Agriculture

Imagine what we can do, if we build, connect & sustain agricultural data infrastructure across countries/continents

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THANK YOU