







USE OF DIGITAL SOLUTIONS IN AGRICULTURE







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Methodology

Source	Update
Survey	Surveyed >430 players with 175 responses
Interviews	More than 120 interviews of agribusiness leaders, tech experts, D4Ag solution providers, academics and policymakers.
Country field visits	Deep dive field visits and country case studies in Rwanda , Ethiopia , Nigeria , Senegal and Ghana ; lighter touch reviews in Kenya and the Sahel region
Desk research	Detailed review of D4Ag literature on market assessments, business models, end-user needs and feedback, and impact evidence
Advisory council	25 leading experts and practitioners in the D4Ag Sector



Advisory council







































Links to inclusive growth, sustainable food security agendas

D4Ag Infrastructure

Ag Data

(e.g., farmer registries, farmer transactions, soil maps, weather, agronomy, pest & disease surveillance)

D4Ag Hardware

(e.g., drone, satellite/GIS, field sensors, machinery sensors, portable soil/crop/input diagnostics)

D4Ag Software

(e.g., CRM, ERP, data capture tools, field agent management tools, data analytics tools, blockchain platforms)

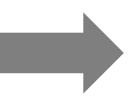
D4Ag use cases



Advisory & informatio n services



Market linkages



Financial access



Supply chain managemen t



Macro agri-intelligence

SHF-level impacts Macro-level impacts

Higher yields

Climate change resilience

Higher incomes

Inclusion of women

Youth employment

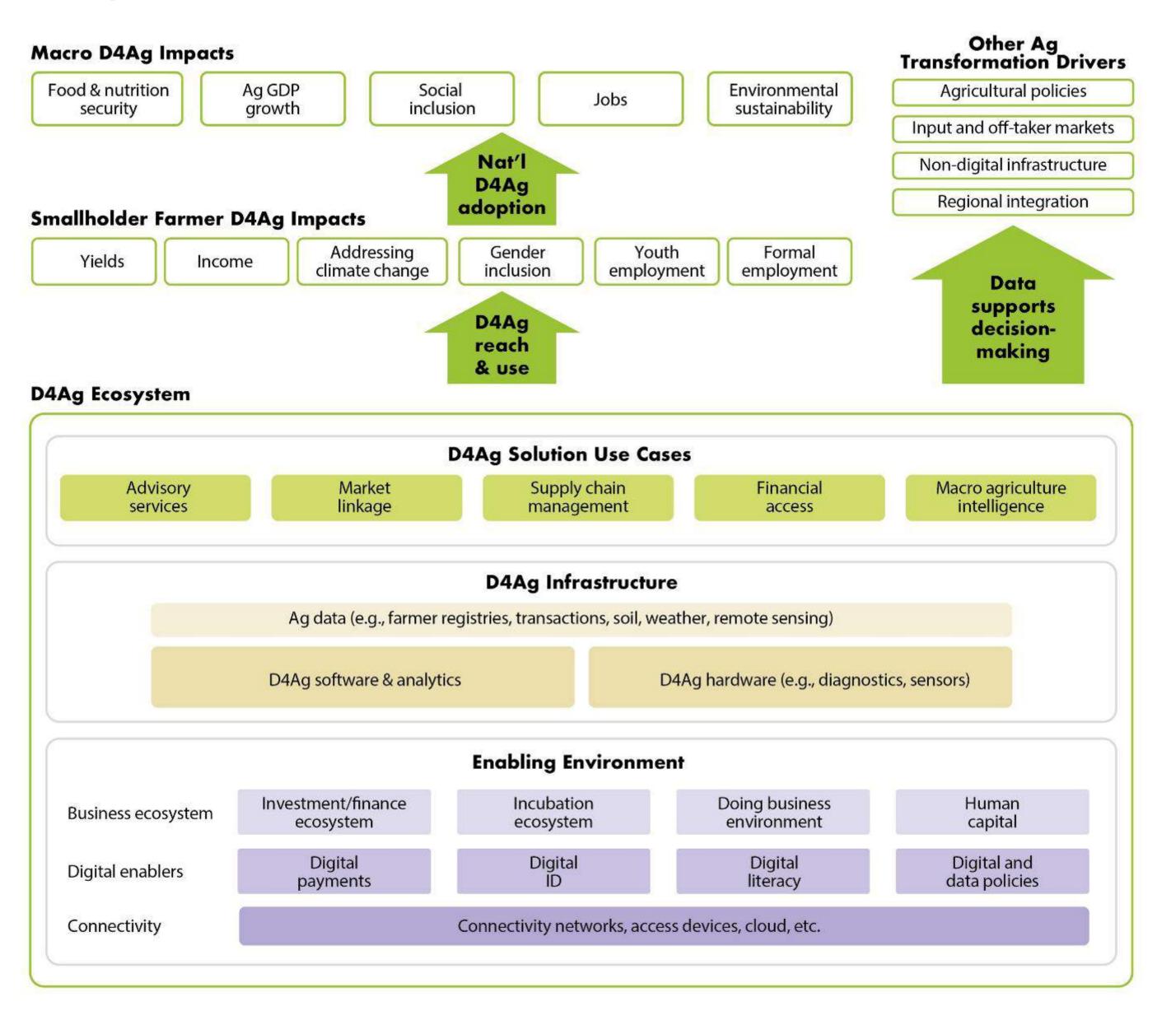
Sustainable food and nutrition security

Agricultural transformation

Inclusive growth



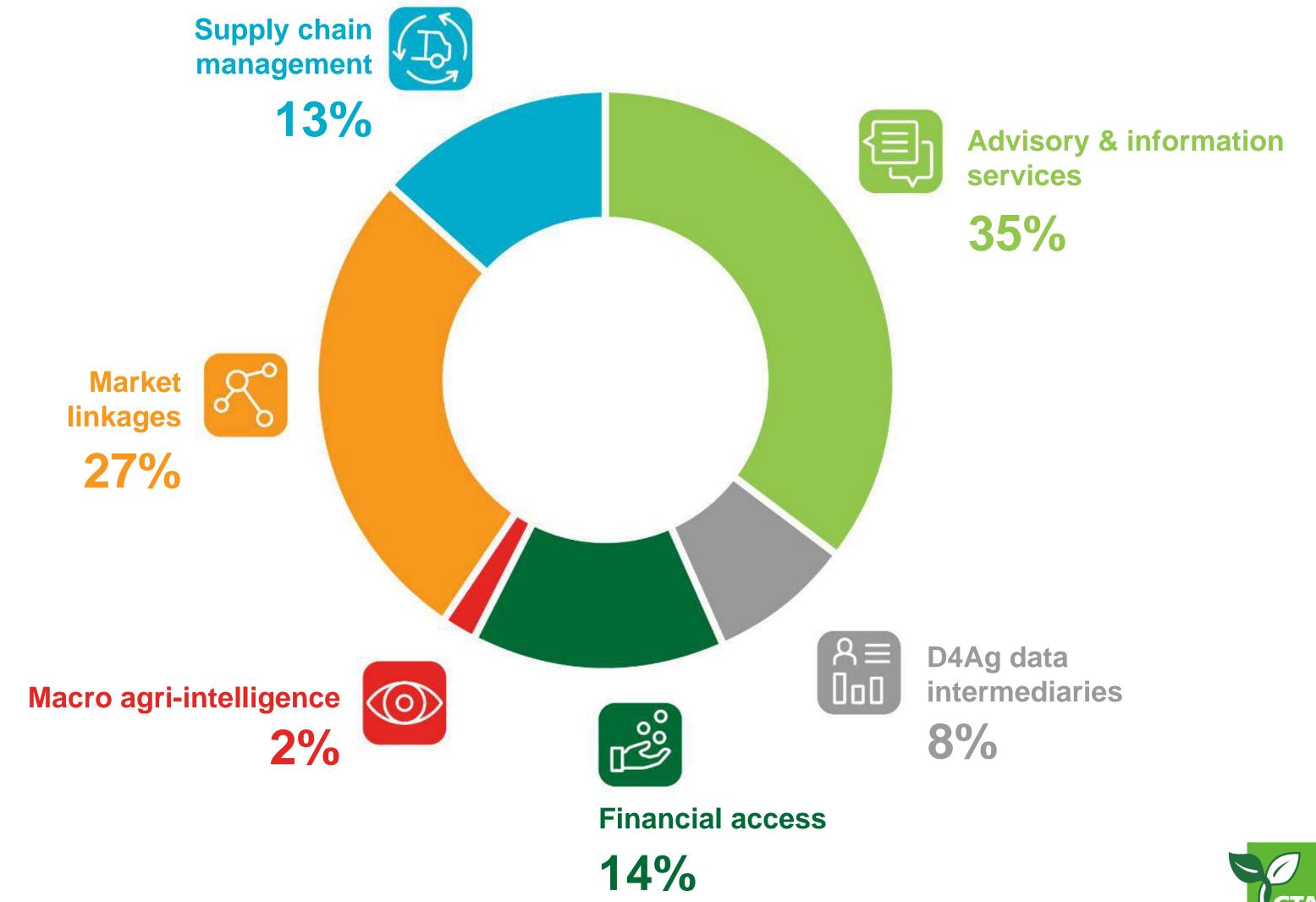
The D4Ag ecosystem



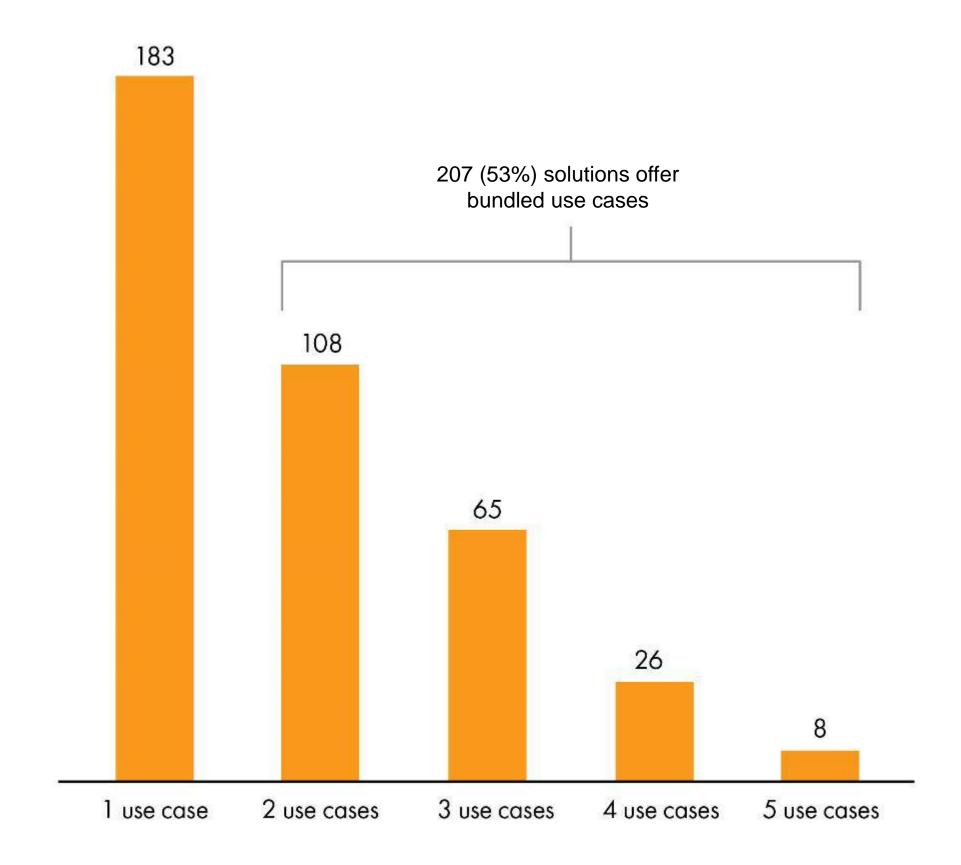




D4Ag solutions by use case

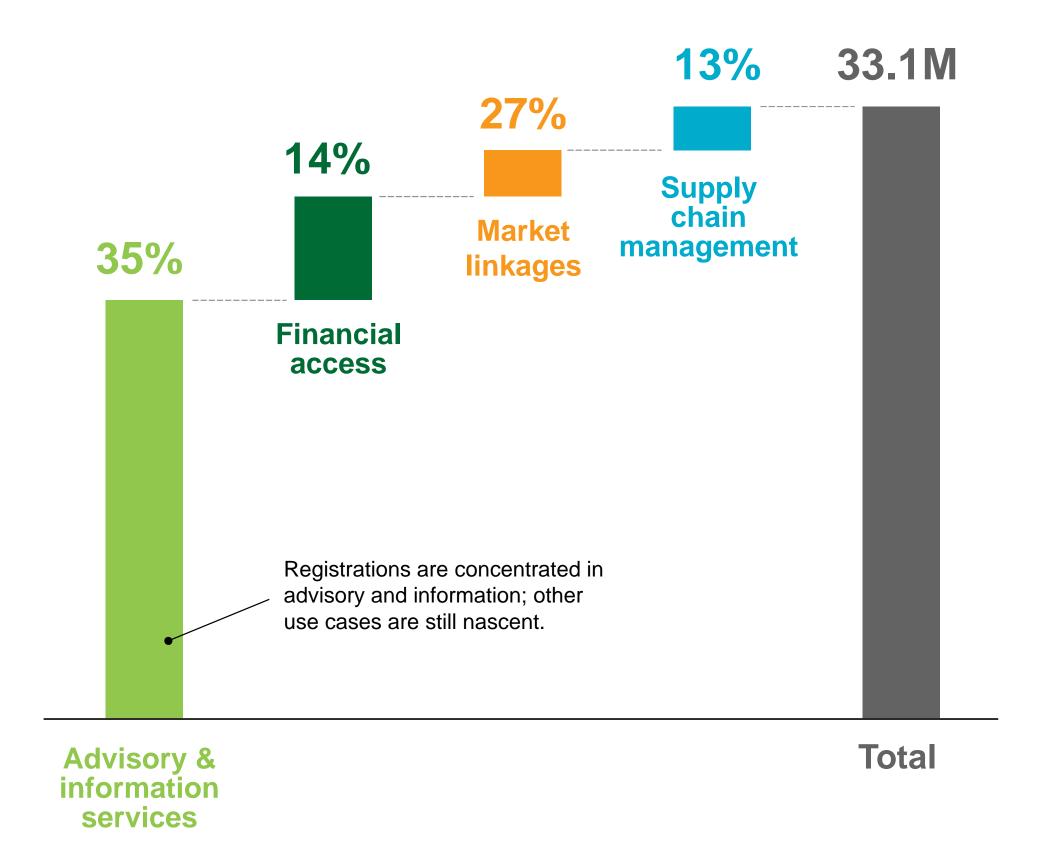


Solutions by number of use cases offered



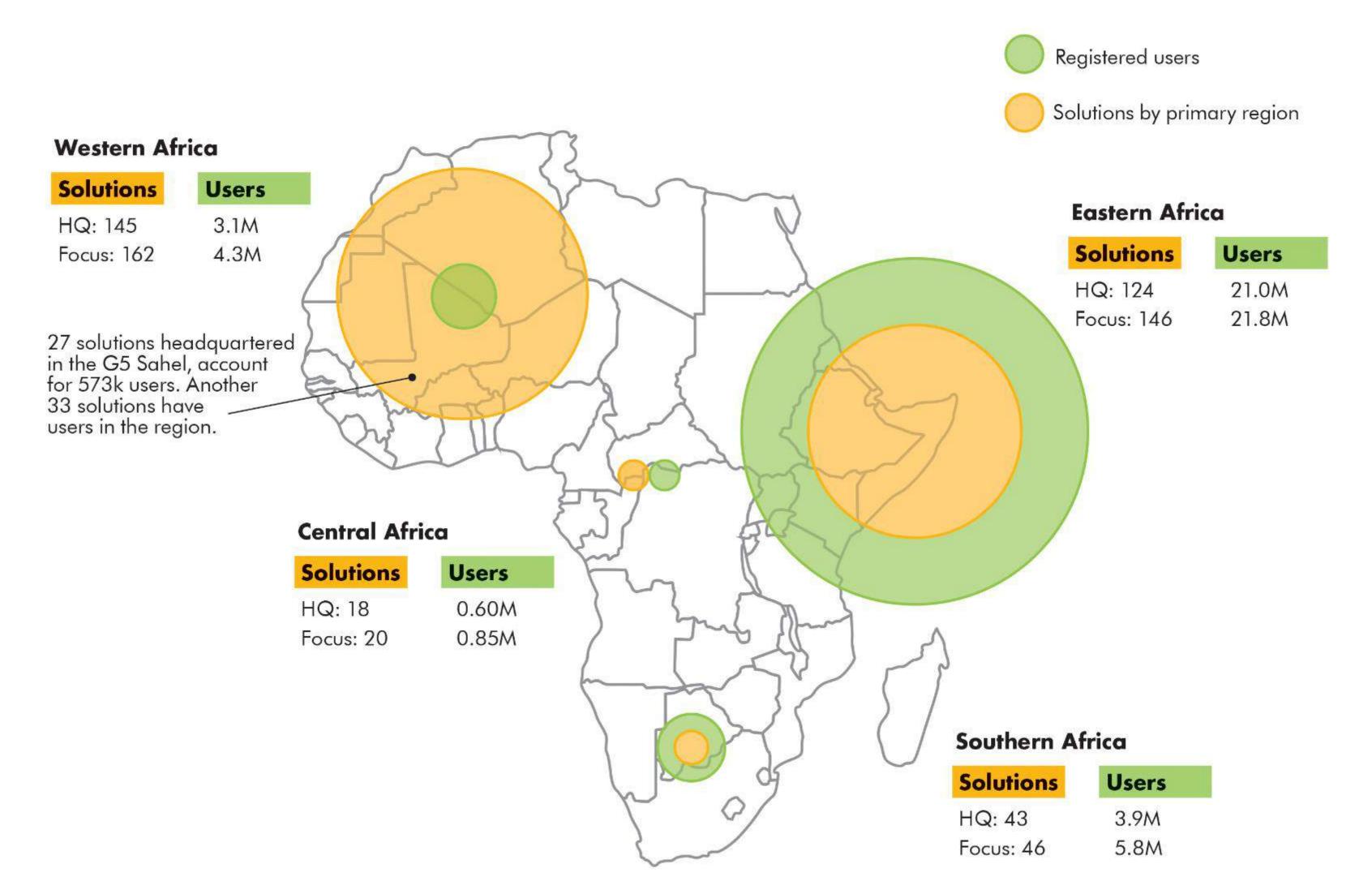


Smallholder registrations by use case



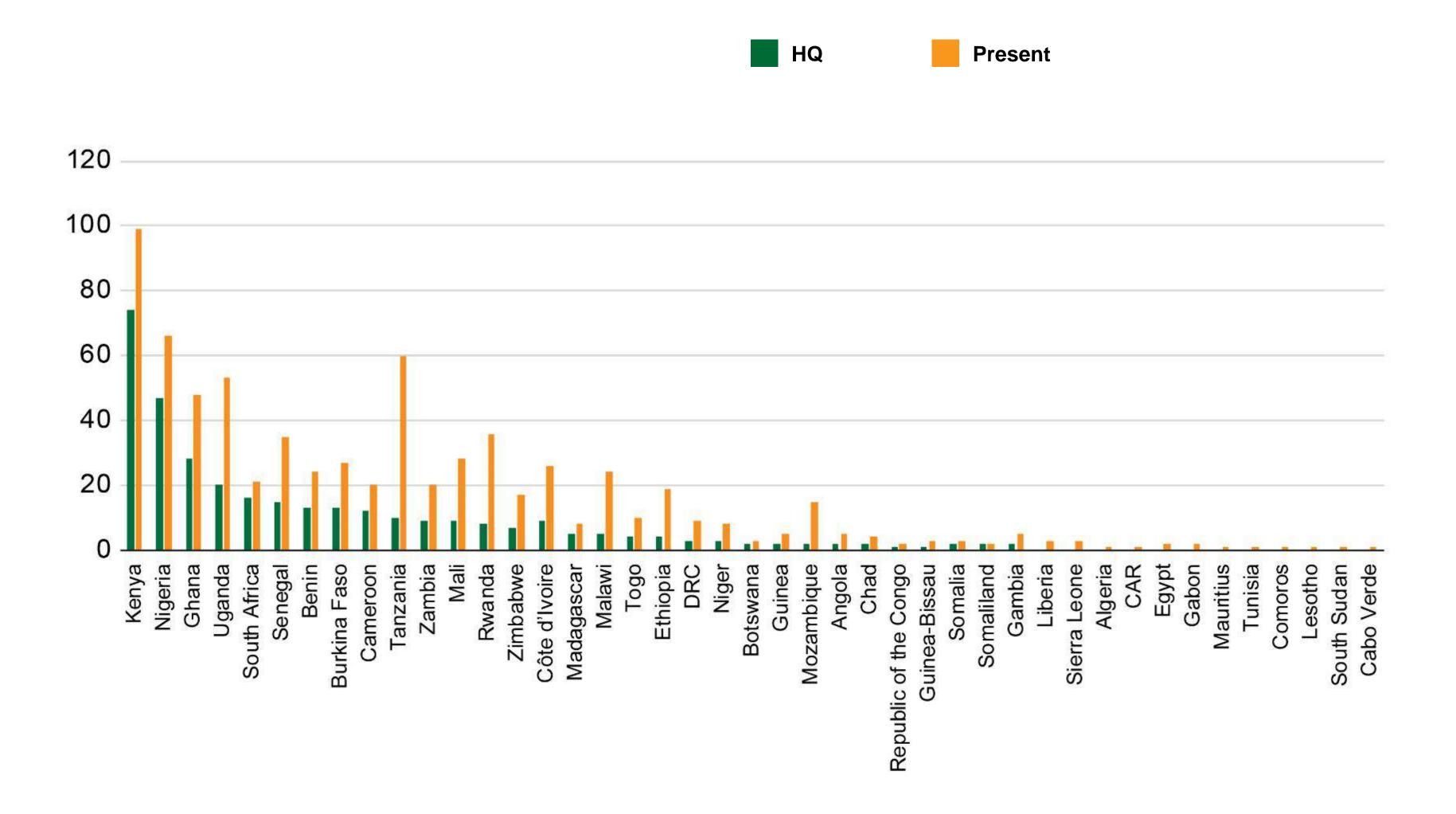


Regional distribution of users and solutions





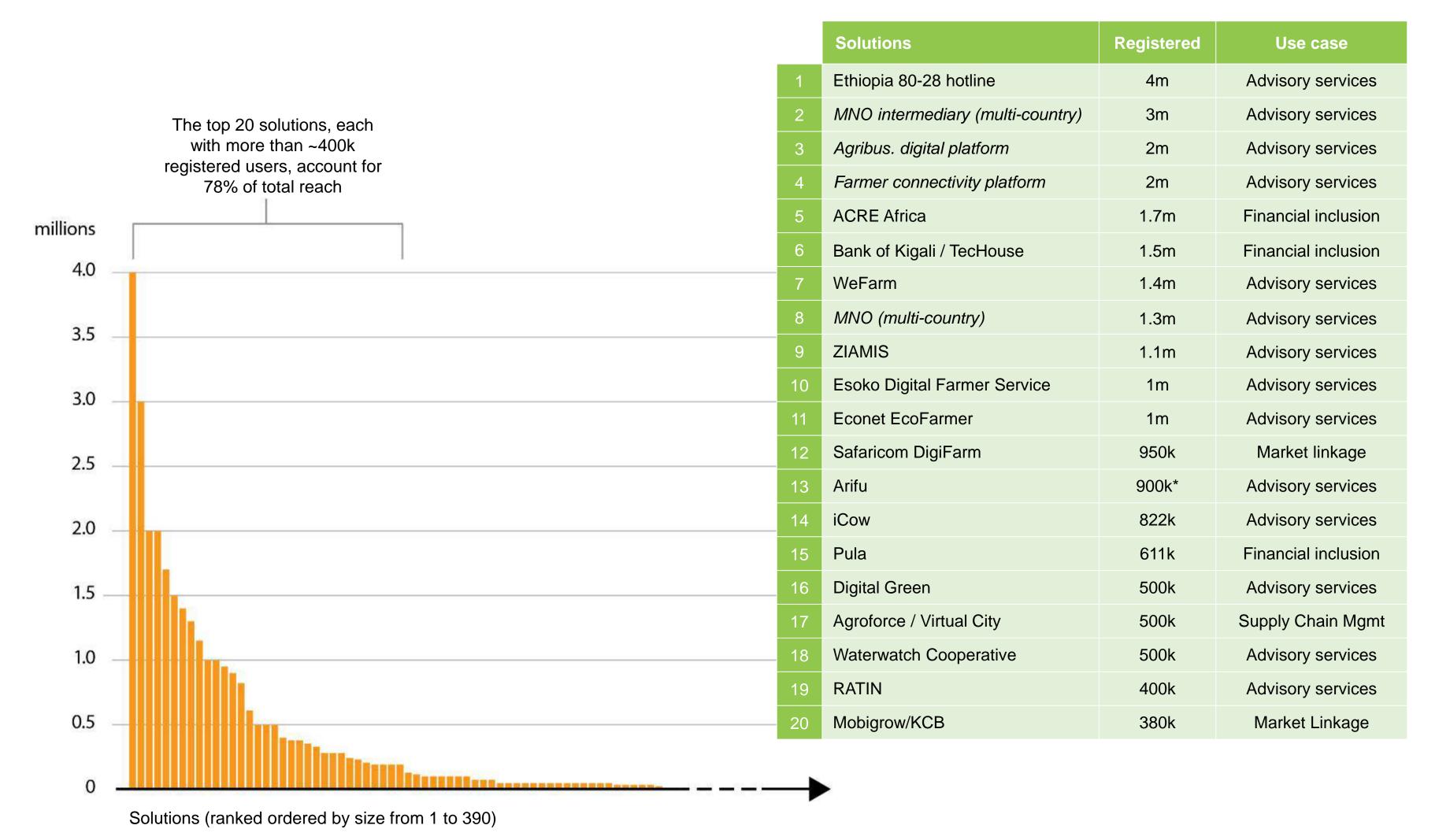
Distribution by country





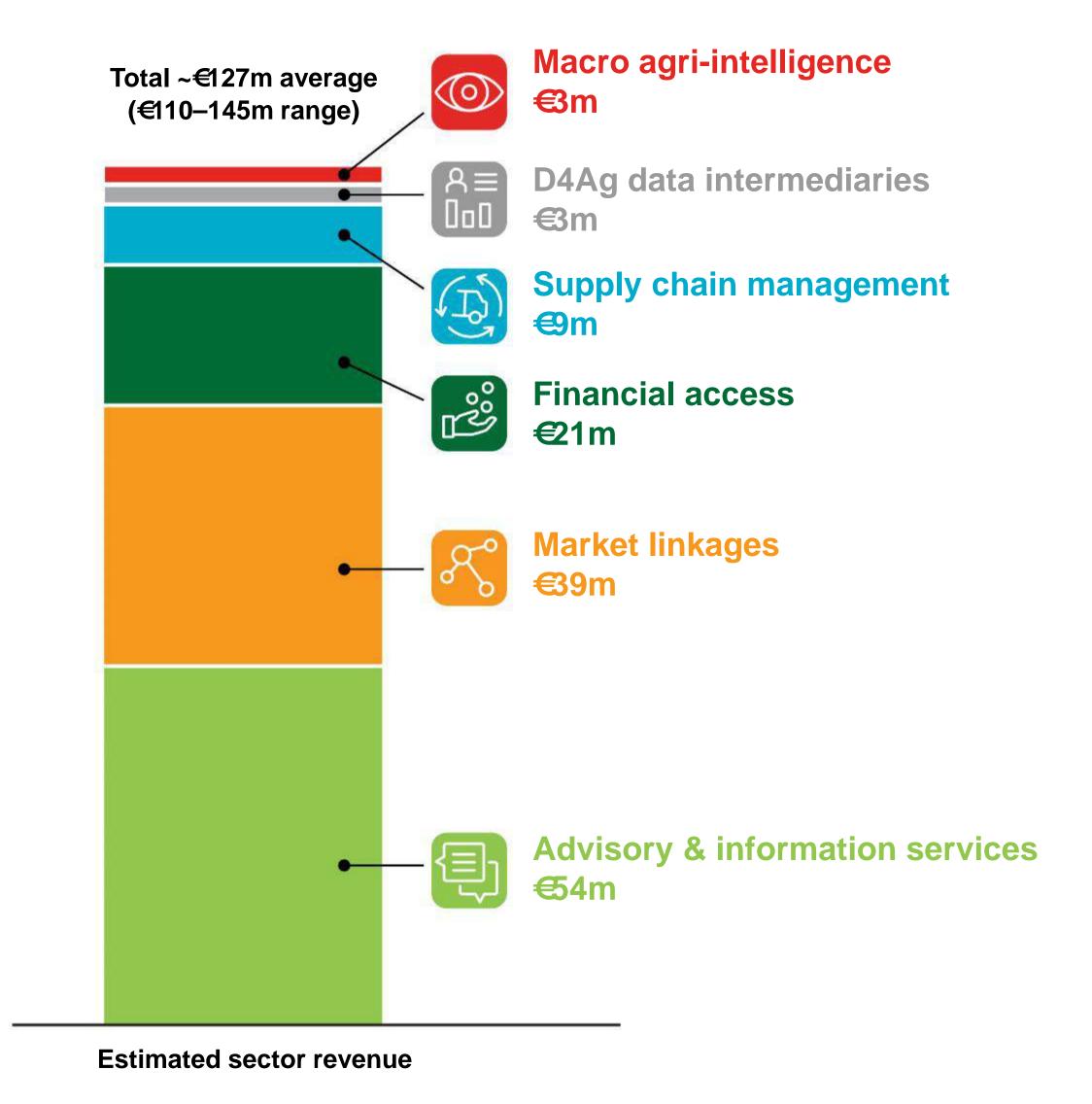
D4Ag solutions by number of registered farmers

Top 20 solutions, by number of registered users





Annual D4Ag sector revenues

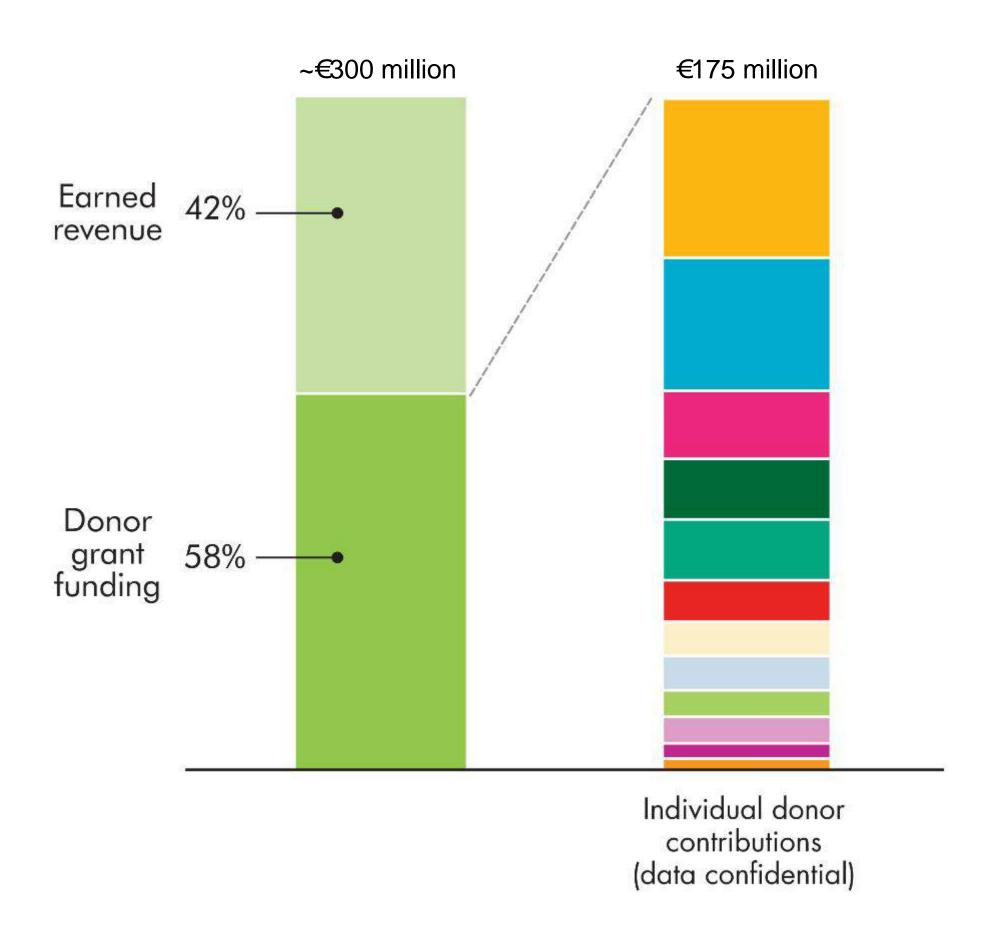




Grant funding

Estimated annual Sub-Saharan Africa D4Ag funding, 2018

€ millions, Sub-Saharan Africa, 2018



Top global D4Ag funders





















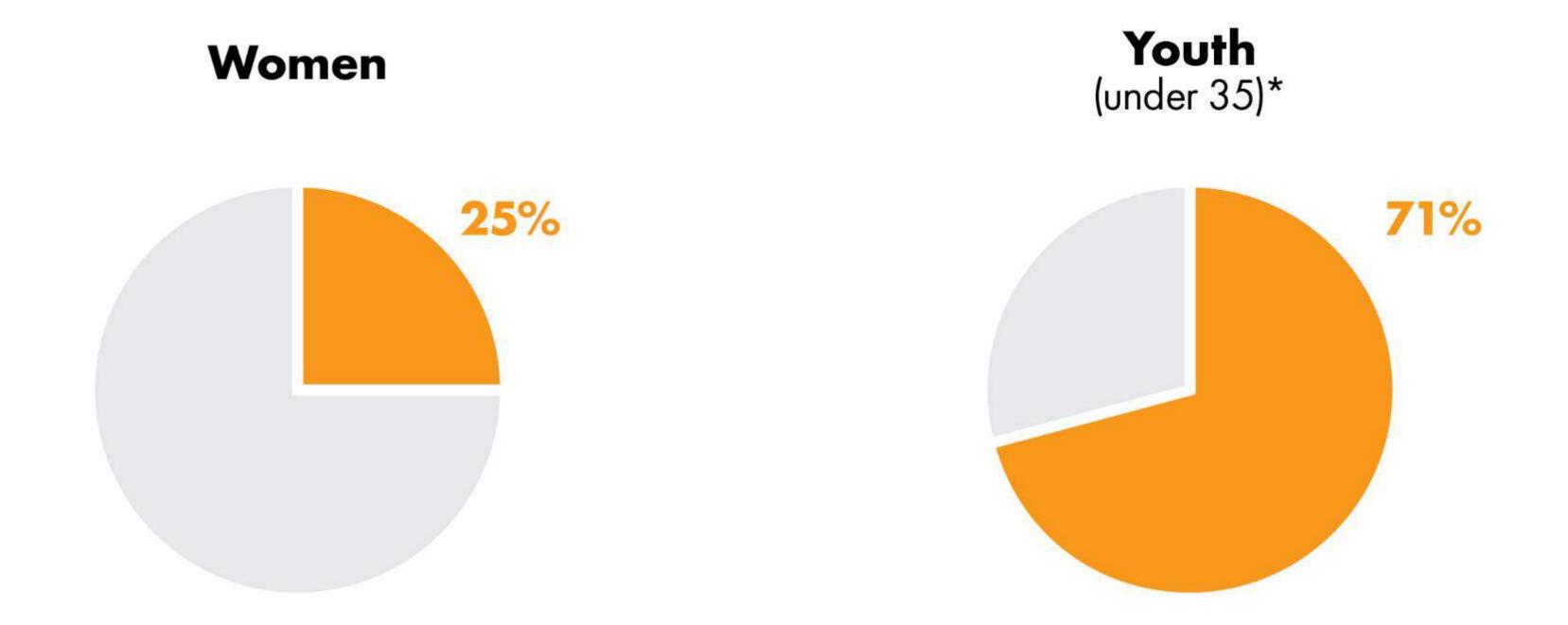






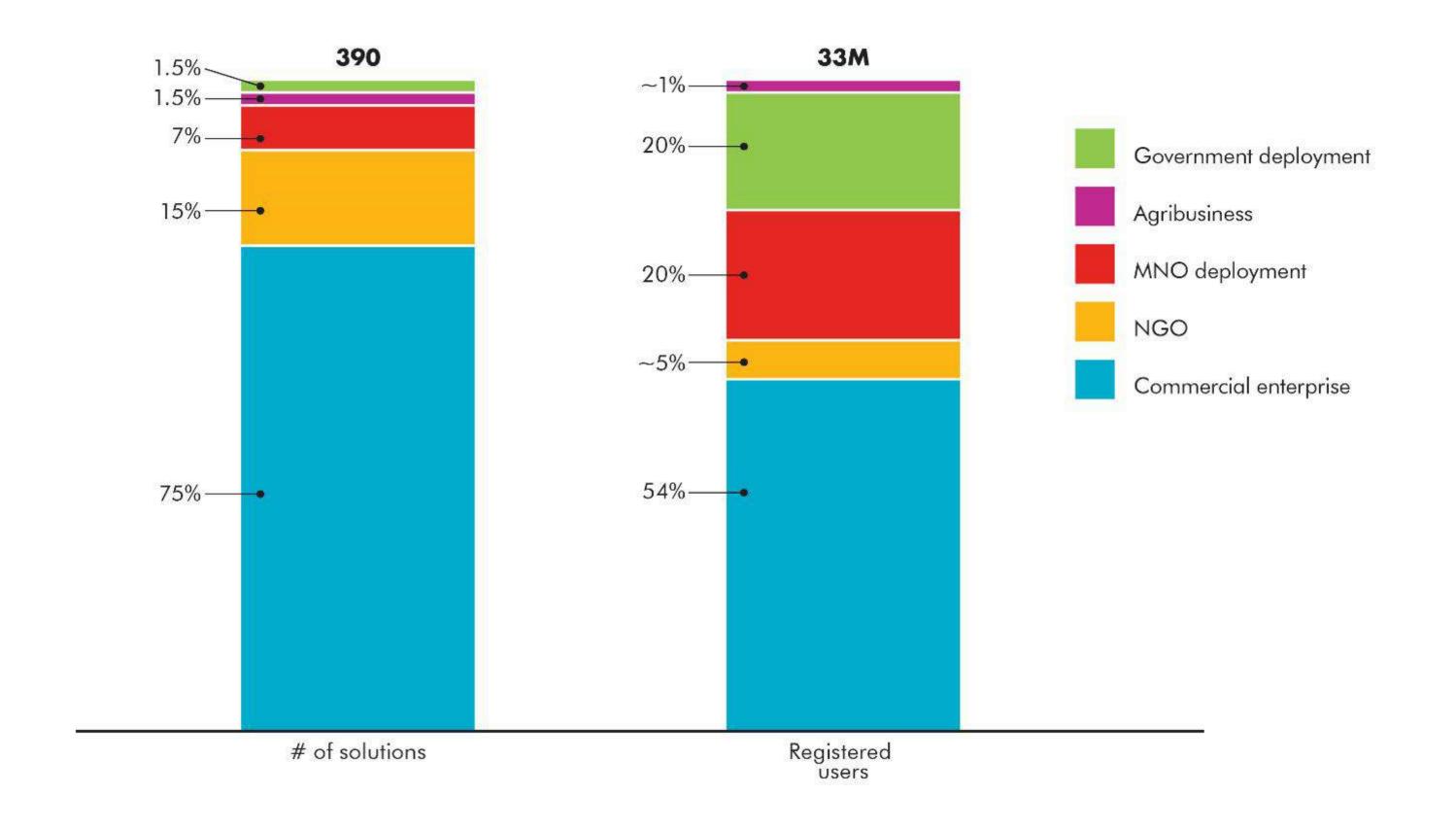


Share of users that are women and youth



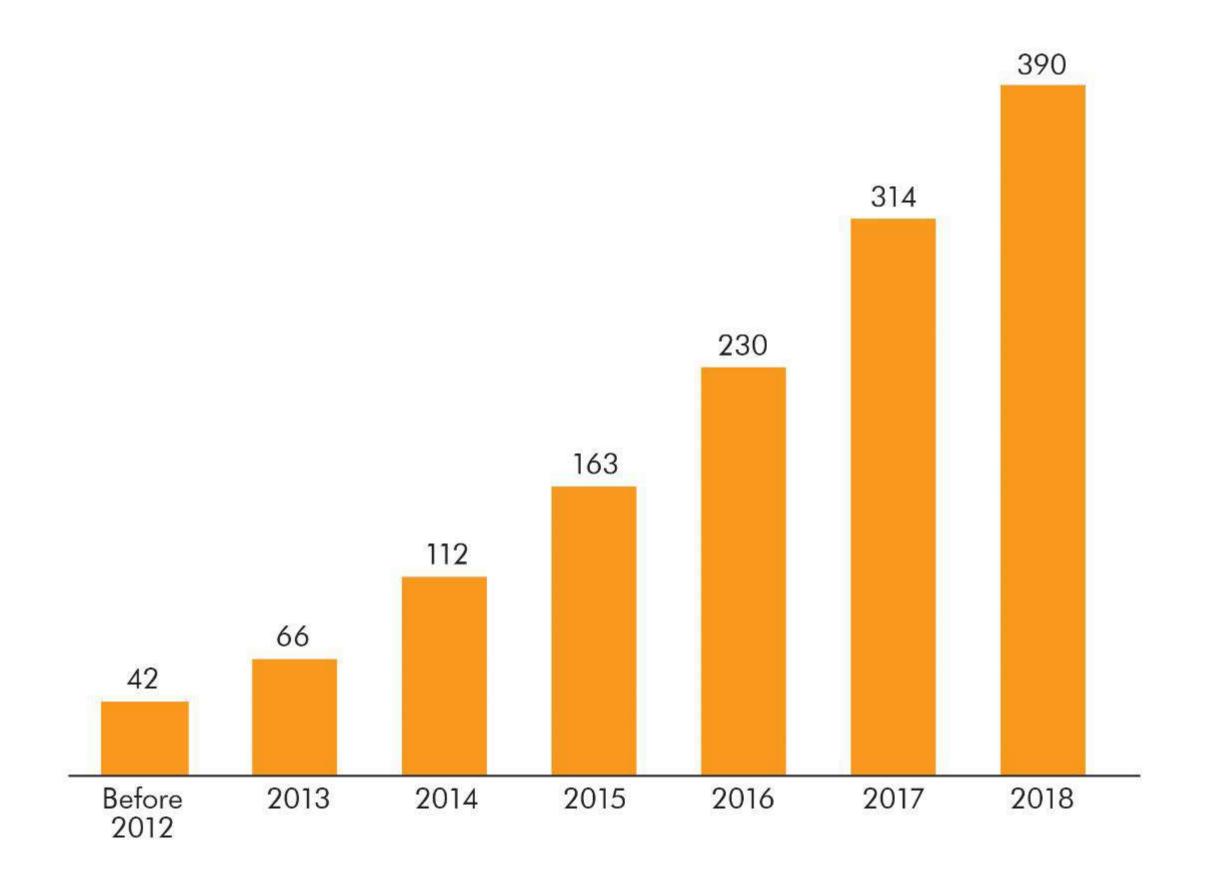


Smallholders registered by solution type





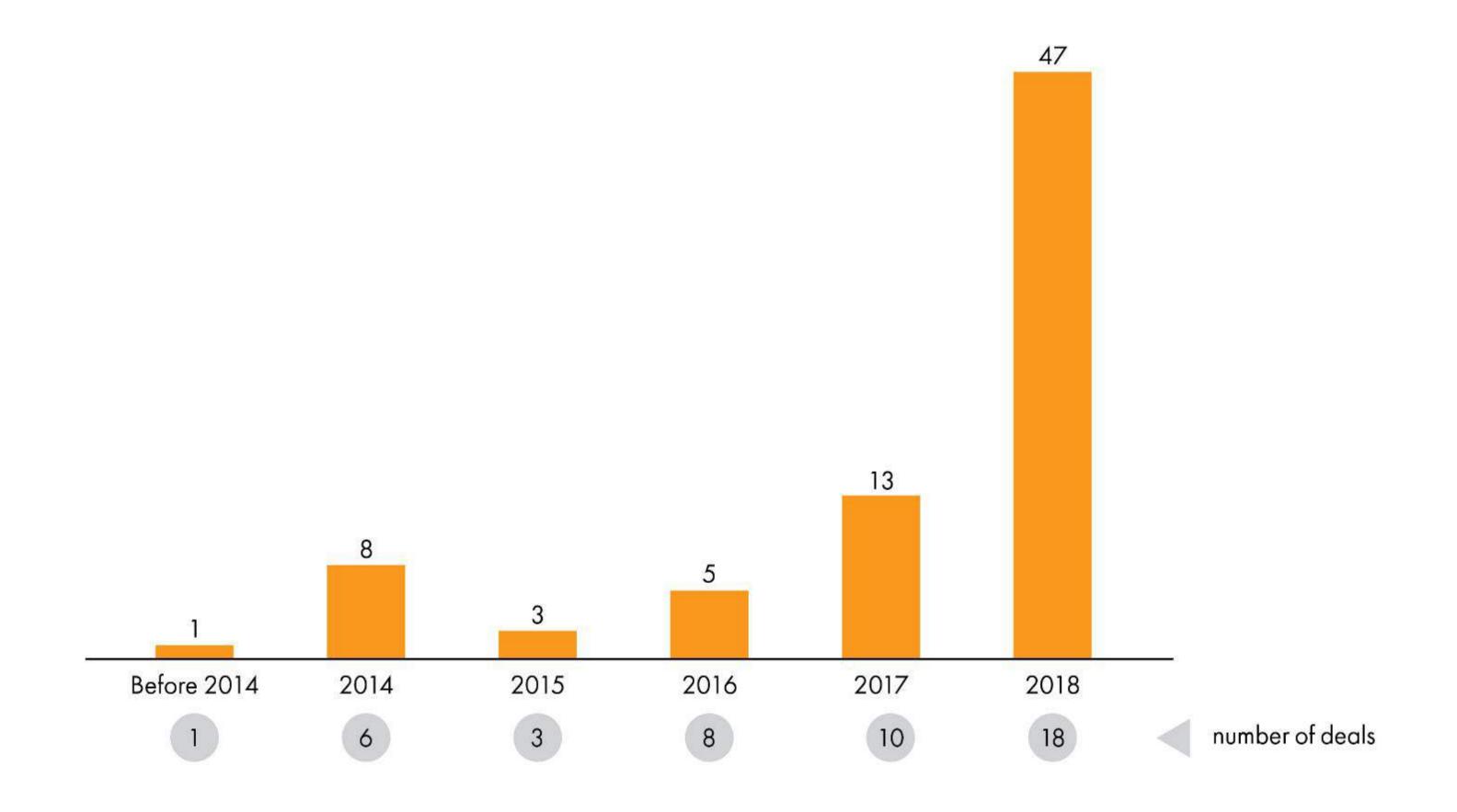
Number of solutions by year





Value and volume of investments

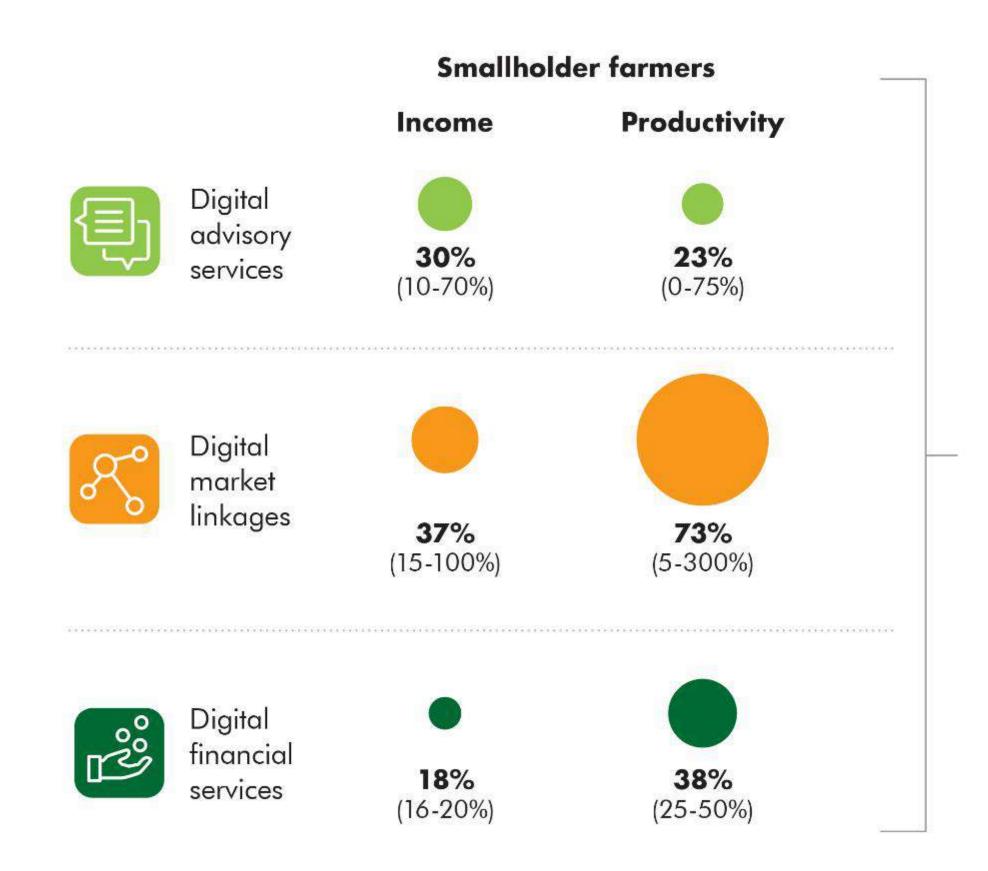
€ millions and number of transactions

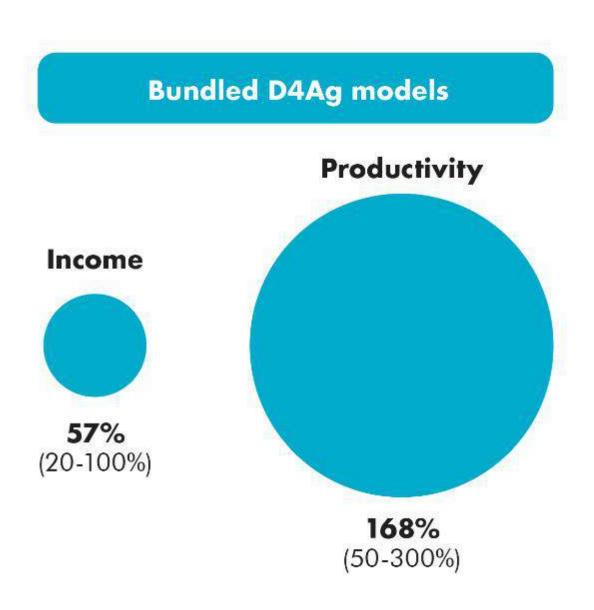






Impact data suggests power of bundling

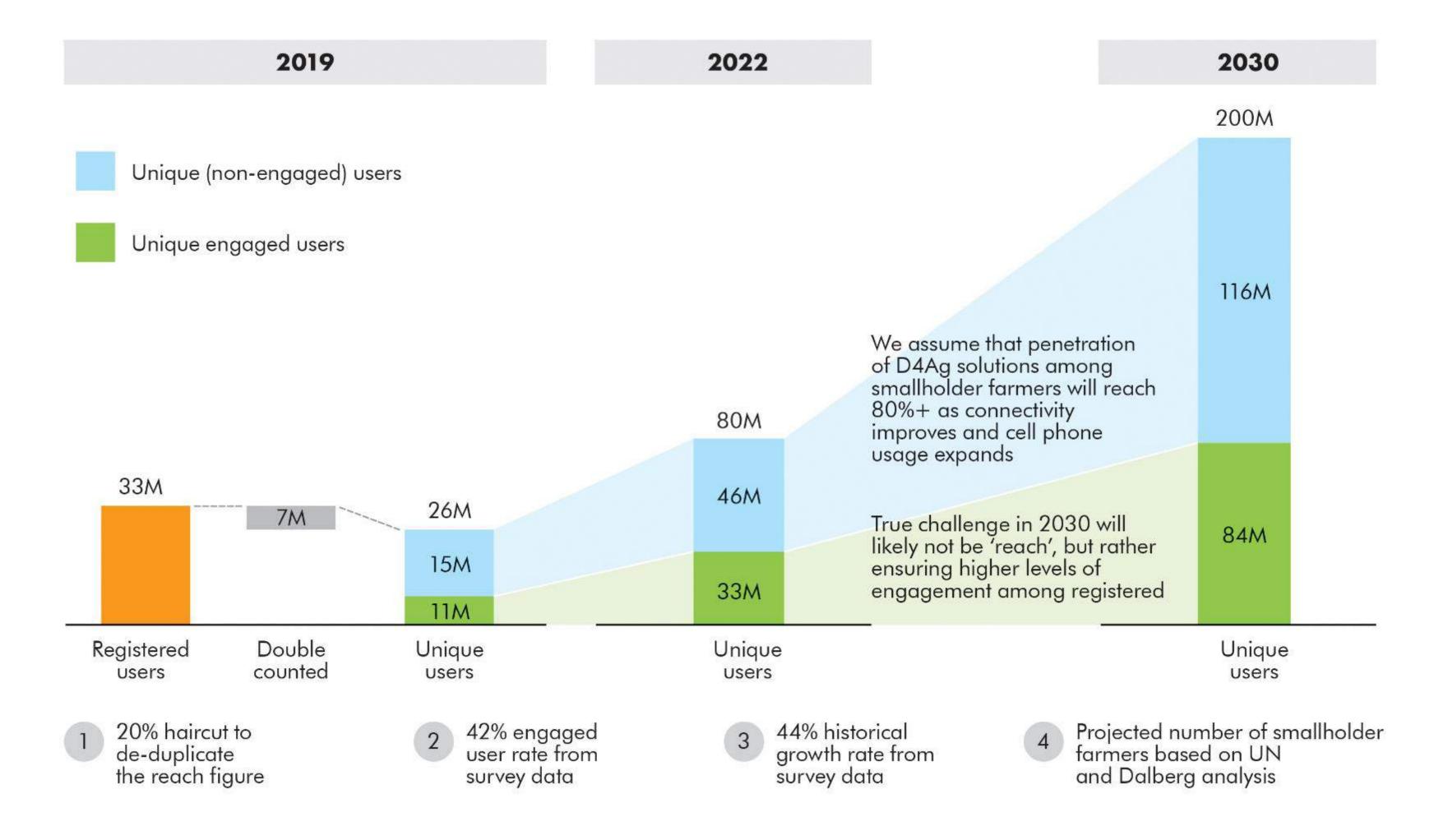






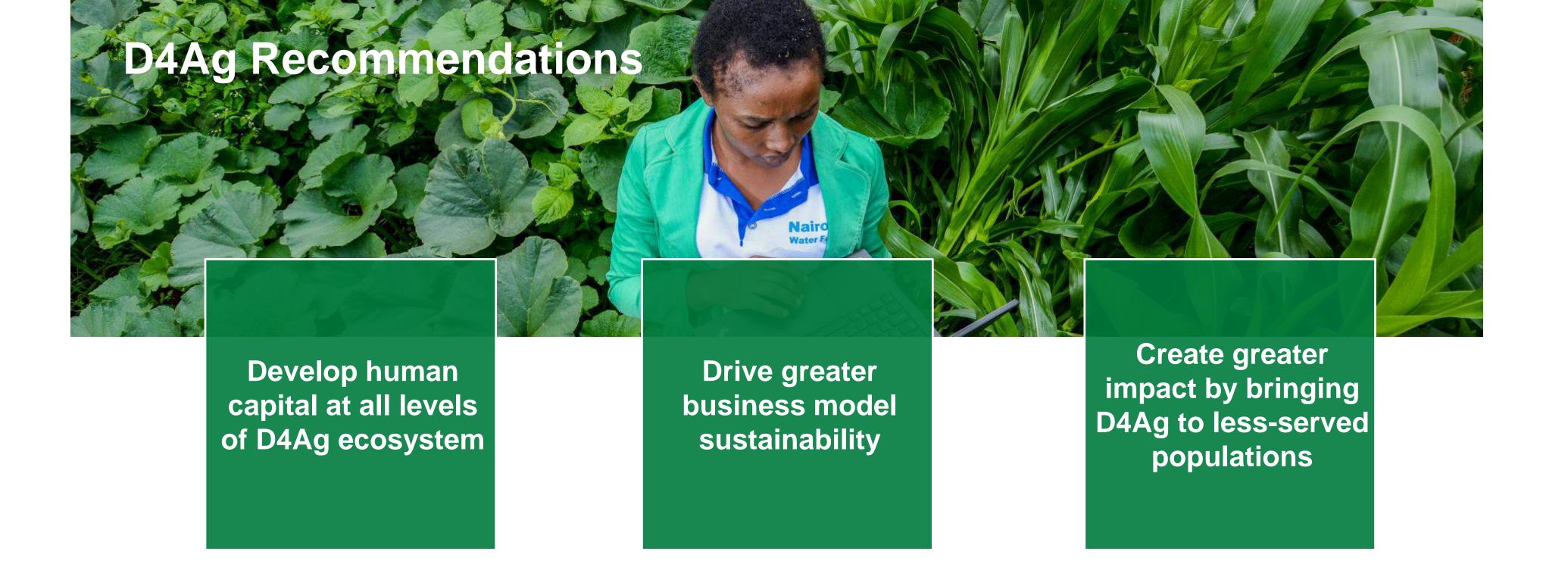


Projected unique and active users









Invest in the missing middle infrastructure

Invest in good data stewardship and design for risks

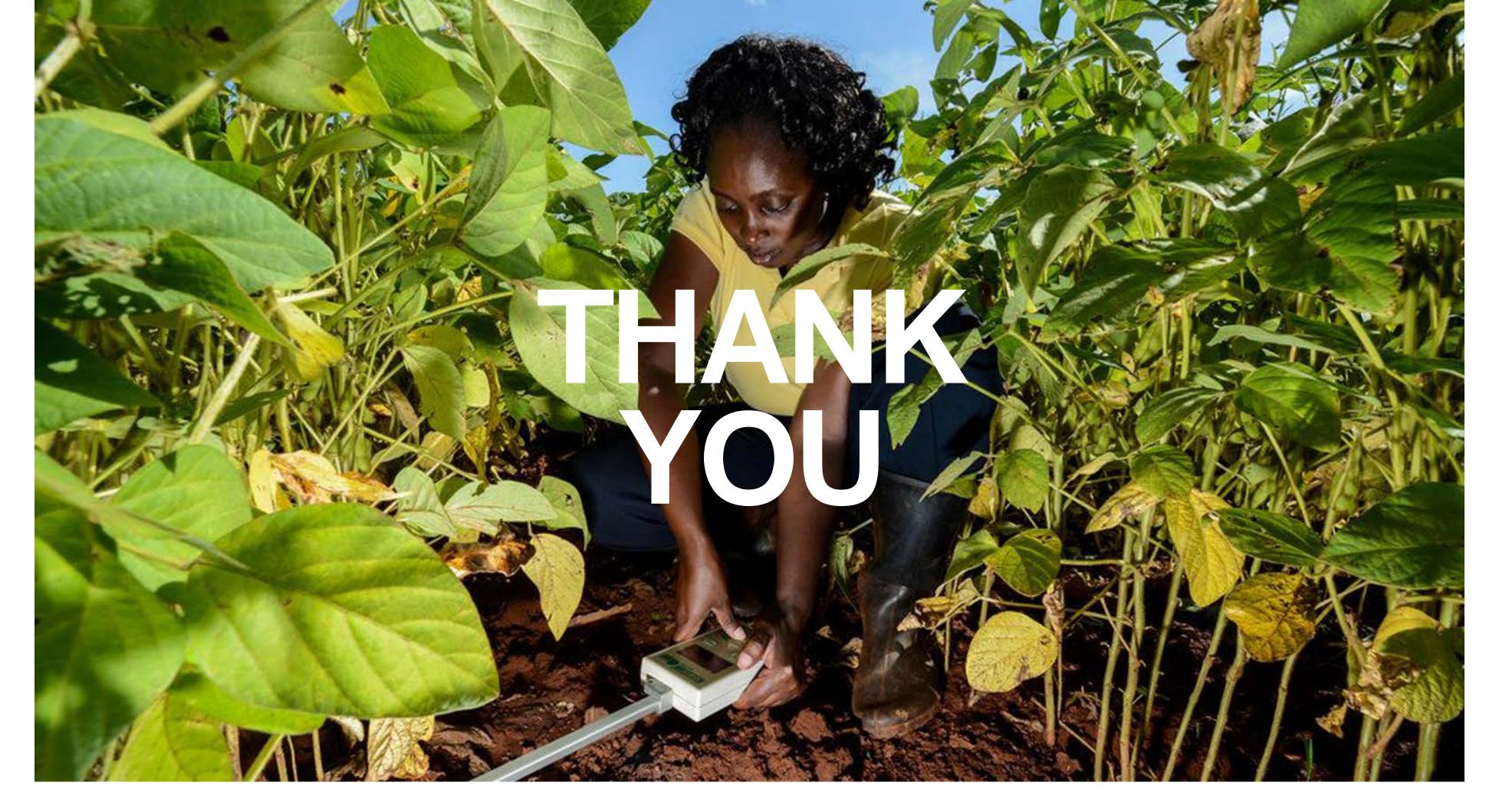
Invest in the D4Ag research agenda





- Attract investment
- Facilitate deeper relationships and collaboration
- Link agricultural technology innovation to big technology players
- Build knowledge and produce periodic reports
- Develop capacity
- Develop indicators for monitoring/ tracking progress





Download the report from cta.int/d4ag-report

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