

A photograph of a person, likely a woman, smiling while harvesting coffee beans from a tree. She is wearing a dark hat, a patterned headscarf, and purple gloves. The background is filled with green leaves and coffee branches. The text is overlaid on the right side of the image.

Progress against Medium Term Strategy (2017-2019)

Paper 02/RC19

Dr Trevor Nicholls, Chief Executive Officer



Priorities of MTS 2017-19

- Improve livelihoods
- Increase food and nutrition security
- Put know-how into people's hands
- Enhance sustainability and climate
- Support sustainable utilization and conservation
- Strengthen capacity of agricultural innovation systems



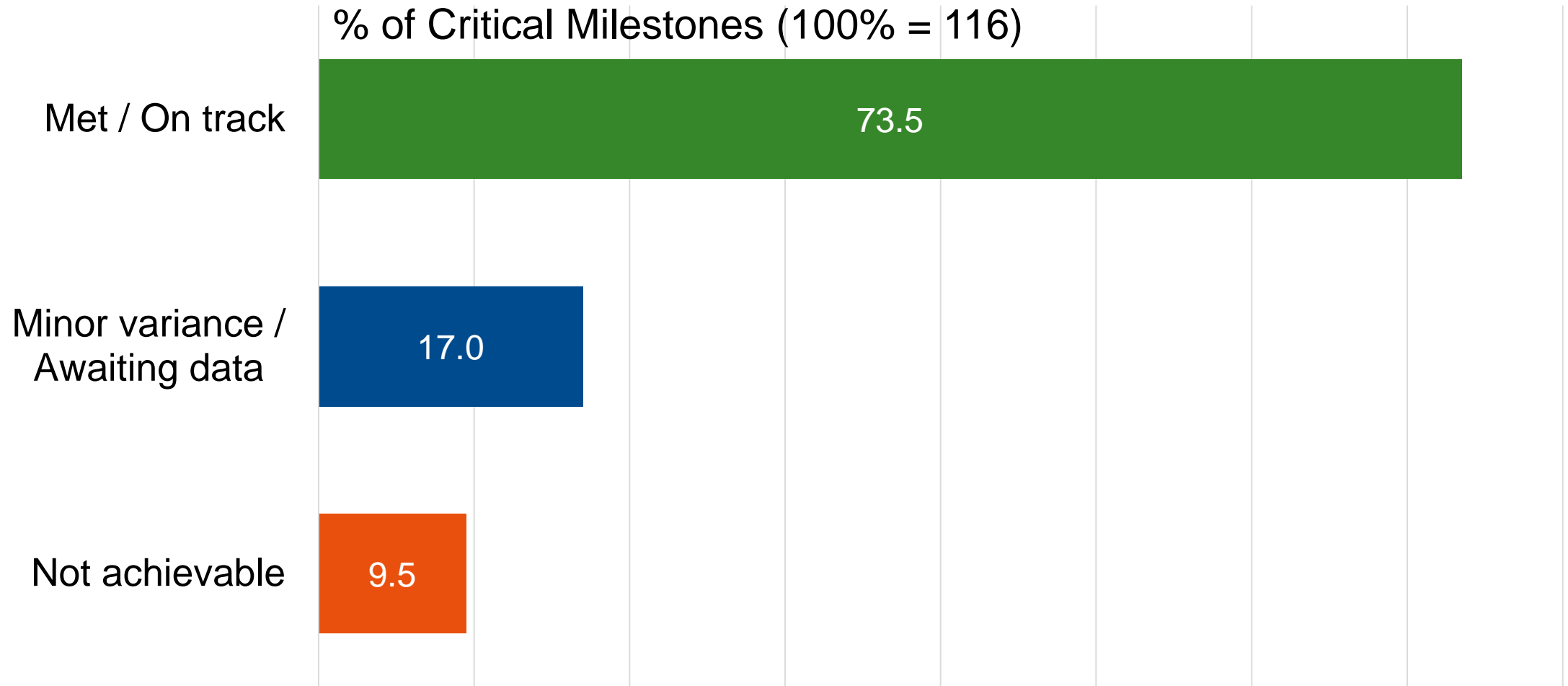
Headlines

- Most **milestones on track** but some shortfall in financial performance
- High level of **scientific output** maintained
- **Strengthened** monitoring, evaluation and learning capacity
- Strong progress on **Plantwise scale-up** and sustainability
- **Action on Invasives**: successful response to Fall Armyworm
- Acquisition and integration of **SciDev.Net**
- New Wallingford office development **on track**



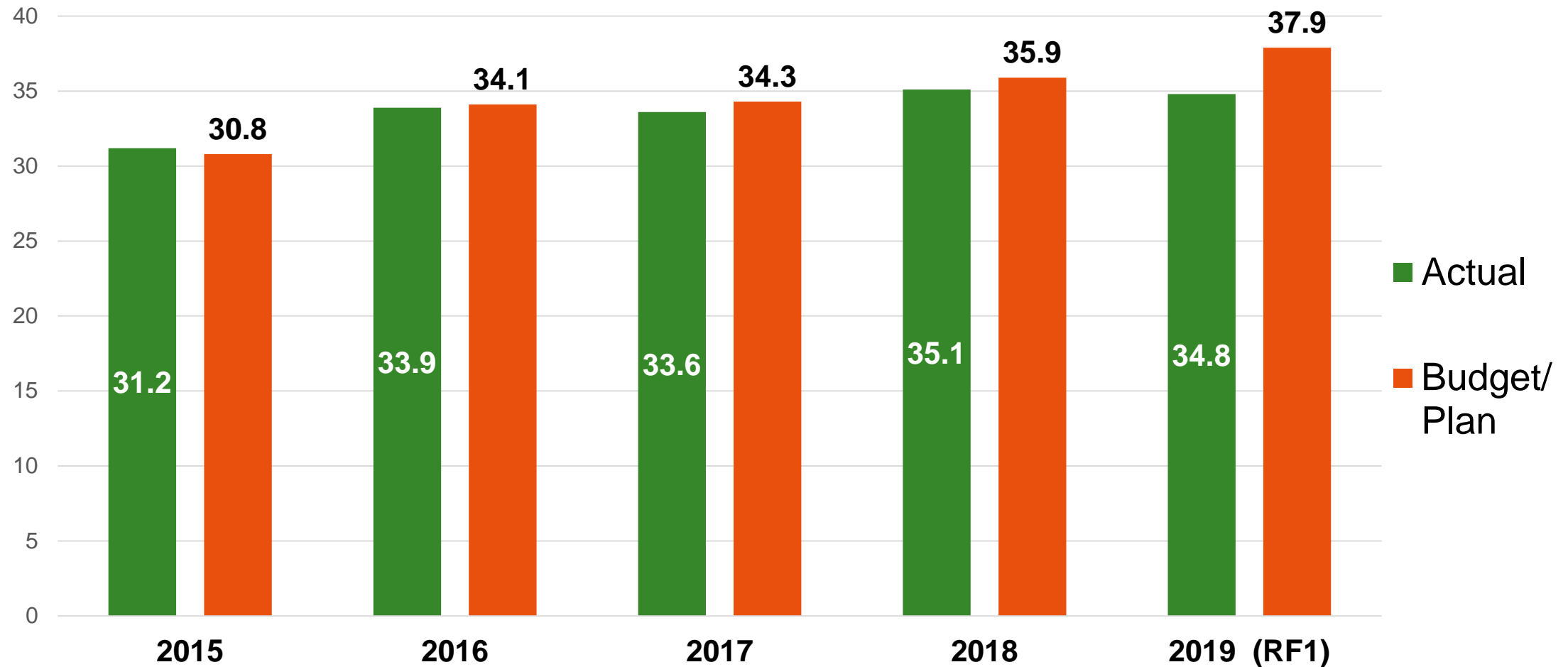
High level metrics

MTS 2017-2019 Critical Milestones



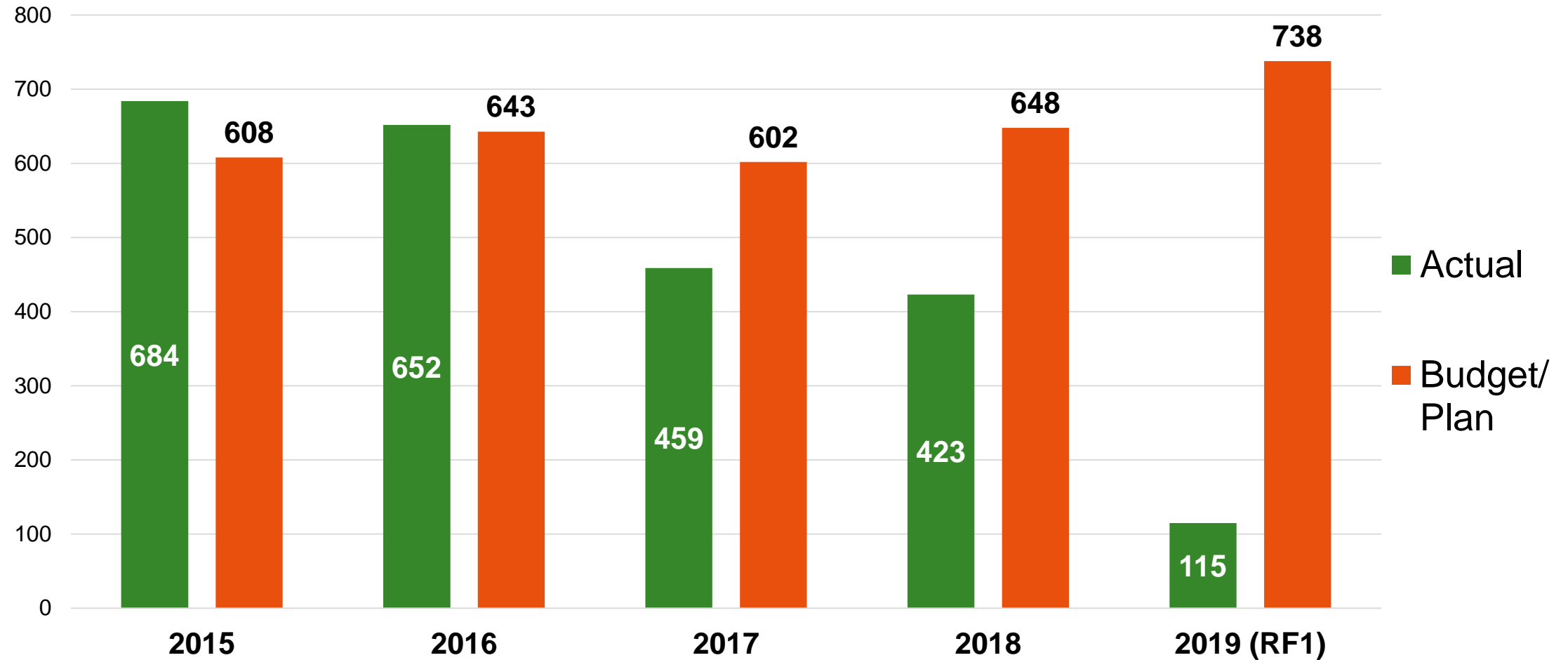
Net Revenue Performance (2015-19)

£ Million



Operating Surplus (2015-19)

£'000

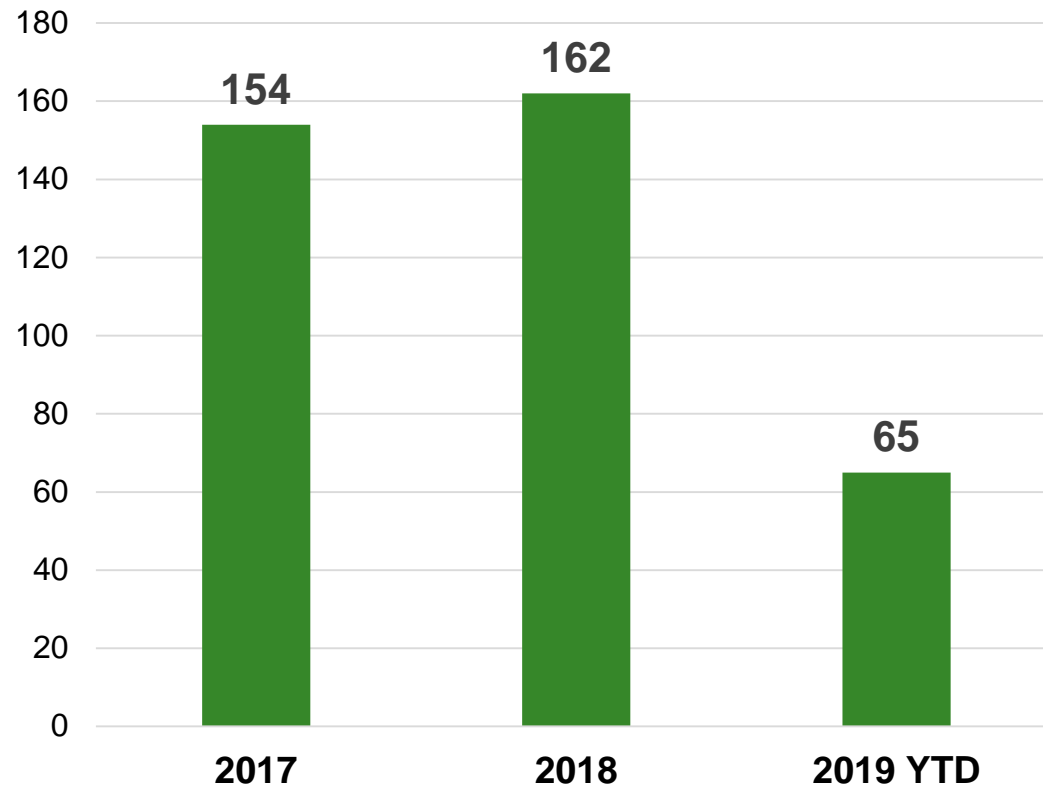


Successful project development

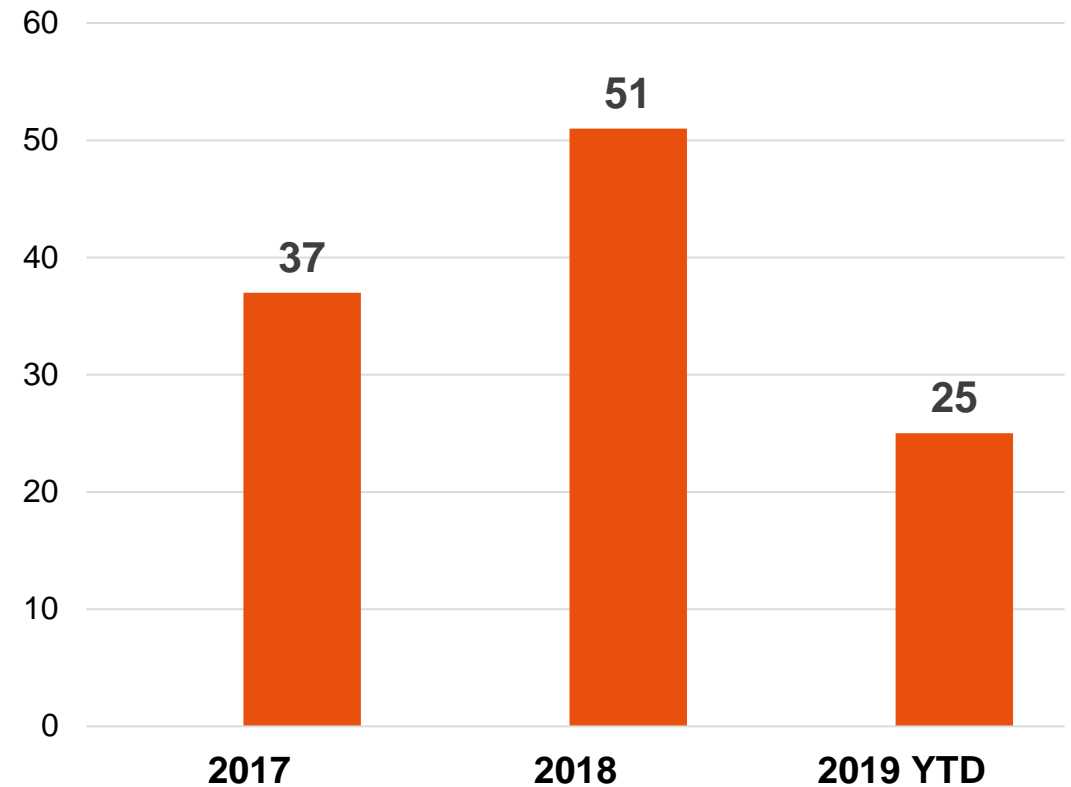
	2017	2018	2019 YTD
Total Projects	51	48	38
Gross Revenue	11,209	18,608	5,593
Net Revenue	10,542	14,082	5,122
Projects <£100k	34	29	31
Net Revenue of projects <£100k	1,295	923	863

High level of scientific output

Total Papers



Impact Factor >2



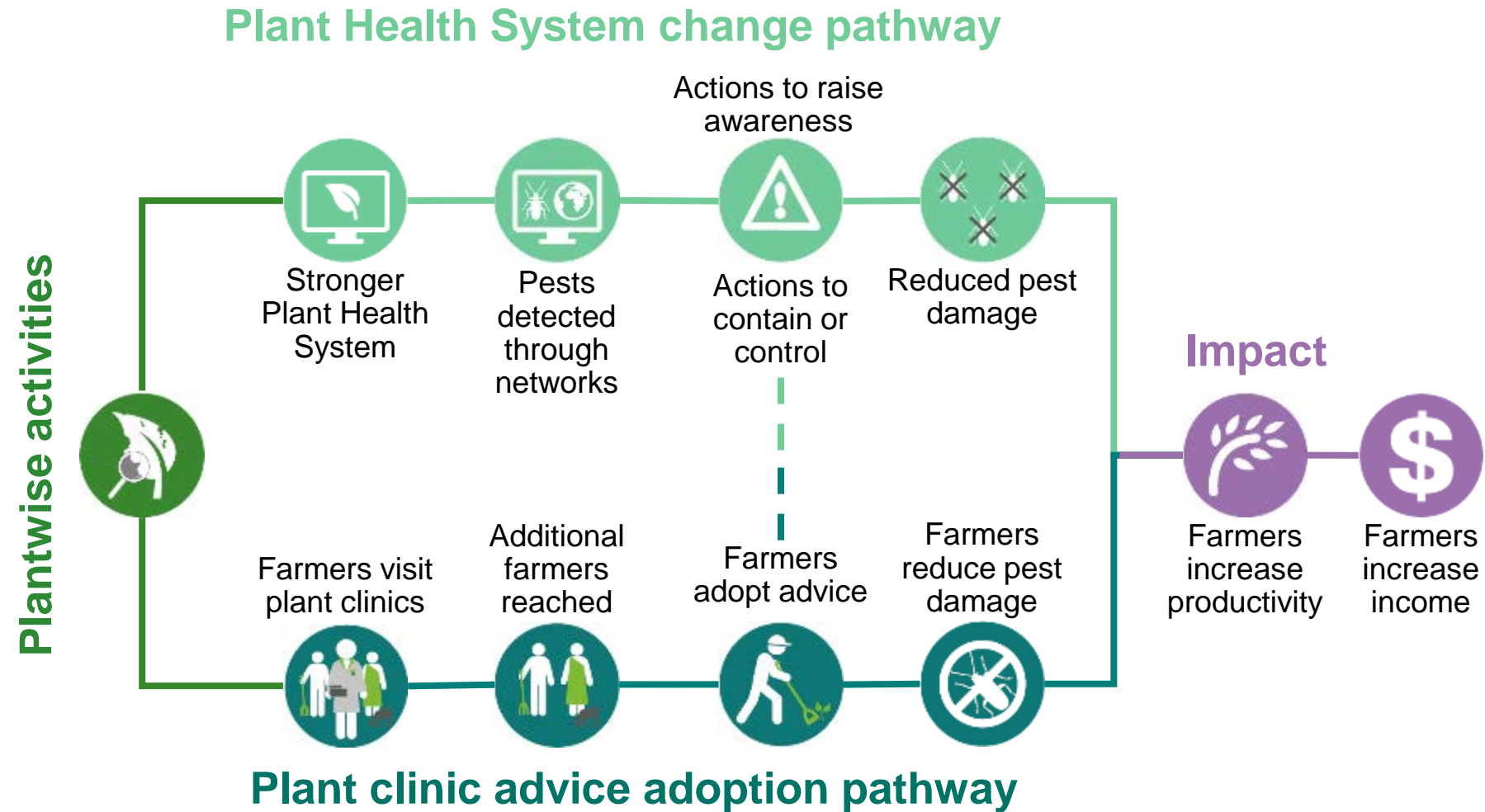
A man wearing a yellow and blue shirt and a cap is driving a tractor with a trailer full of sacks on a dirt road. The tractor has a license plate that reads "47N-0251". In the background, another tractor is visible, also carrying sacks. The scene is set in a rural area with dense green foliage on the left and a dirt path leading into the distance.

International development

Plantwise countries

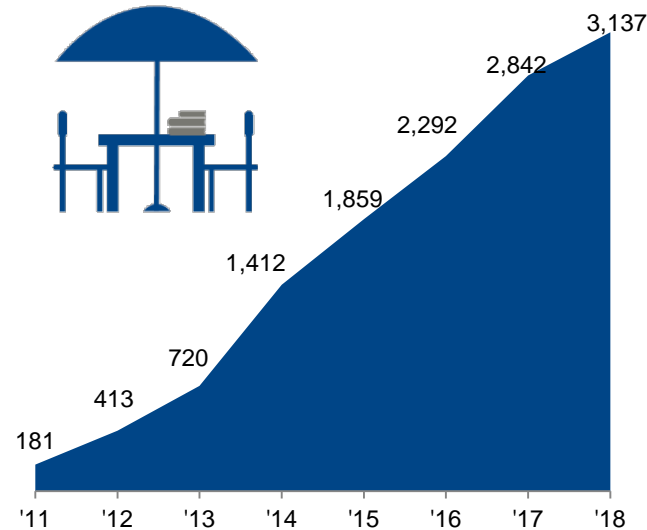


Impact pathways

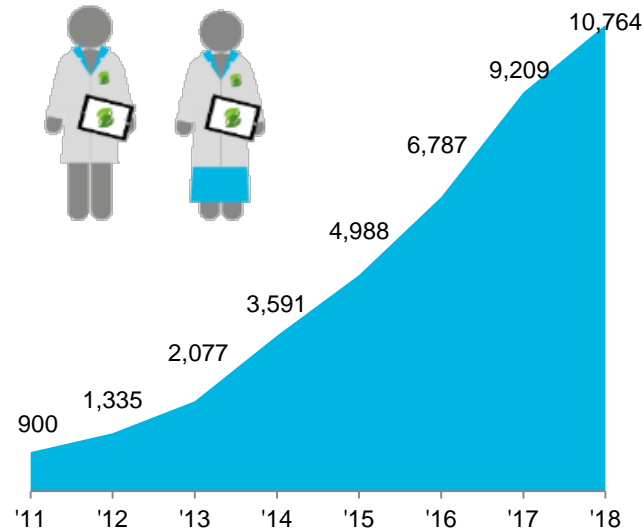


Scale

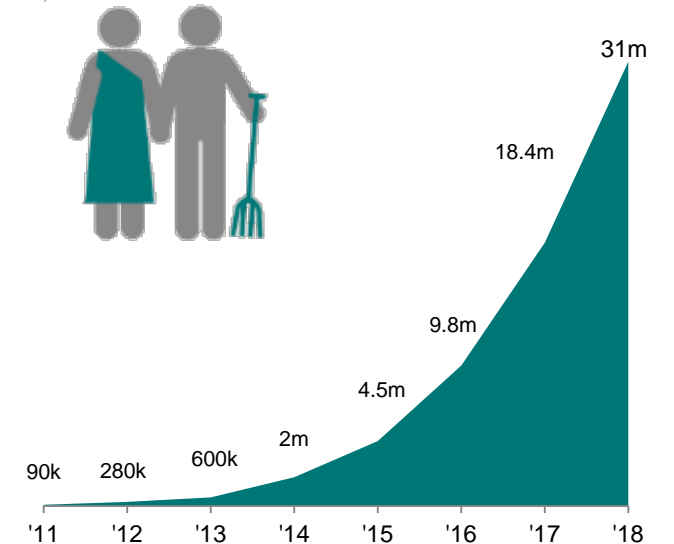
**3,100 plant clinics
established**



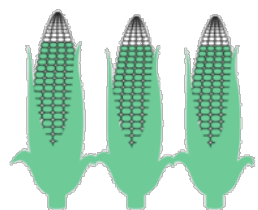
**10,700 plant
doctors trained**



**31 million
farmers reached**



Making a difference



79%

of farmers report yields **increased** after using advice from plant clinics



70%

of farmers report incomes **increased** after using advice from plant clinics



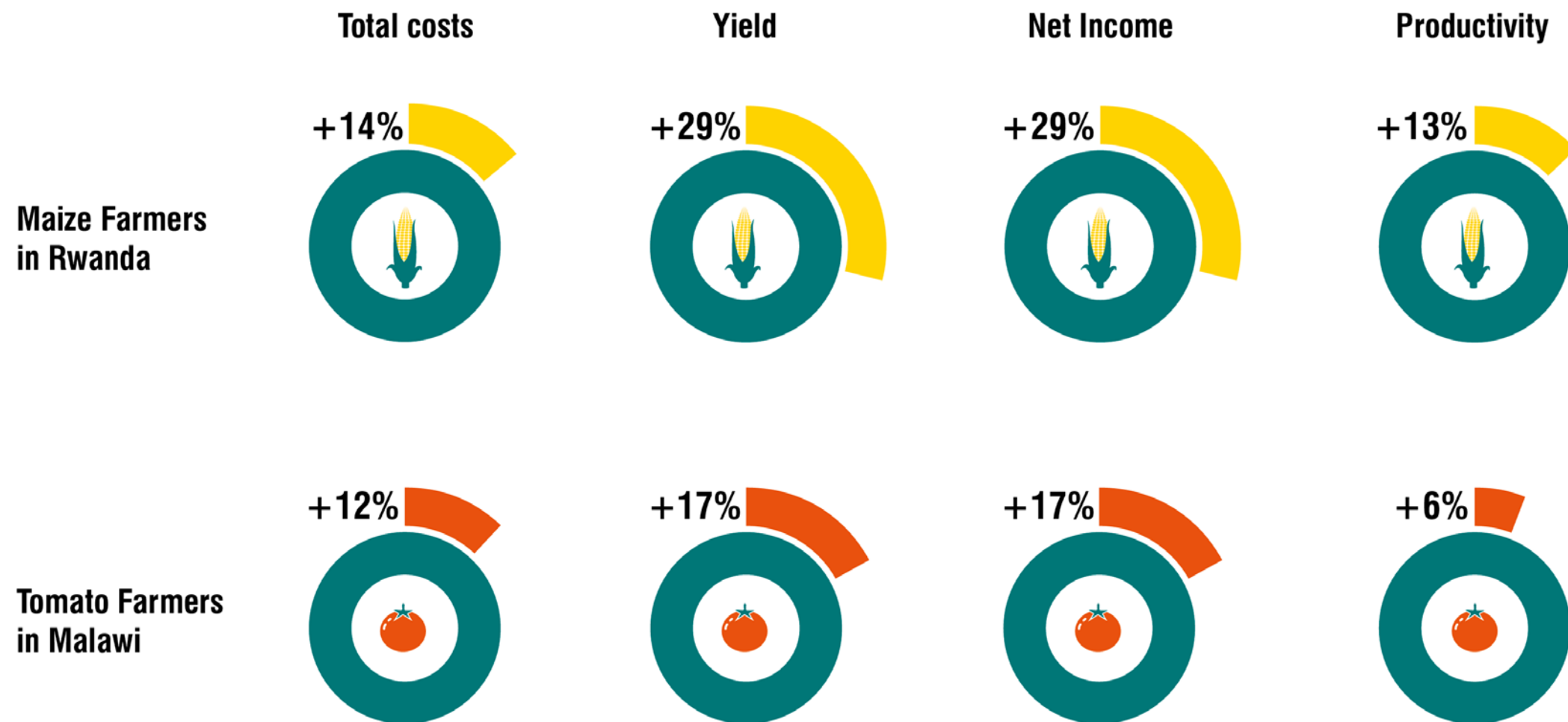
Farmers reported use of pesticides **decreased by**
30%



25%

of Plantwise plant doctors **are female**

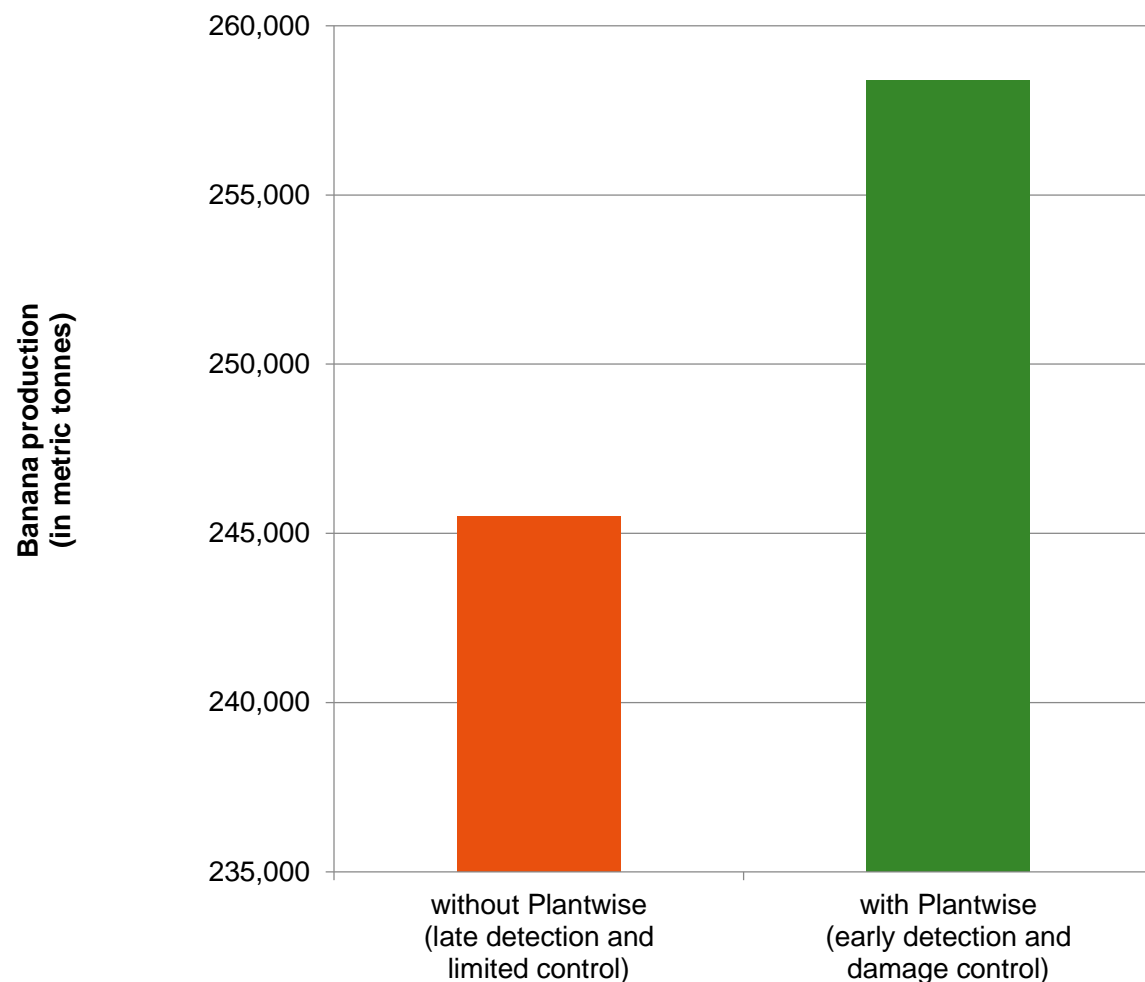
Plantwise impact



Long-term evaluation in Kenya

- **Four year Randomized Controlled Trial (RCT)** conducted by American Institute of research (AIR)
- The evaluation **shows positive and economically significant results** of key program outcomes along the impact pathways
 - Strong impacts of Plantwise training on plant health knowledge
 - Improved likelihood of identifying pest outbreaks and responding in a timely manner
 - Positive impacts on intermediate outcomes related to good agricultural practices and knowledge
 - Positive impacts on production of improved maize, a key crop
- Longer-run impacts indicate **benefits exceed costs by 3:1**

Early detection generates massive value



- In Sri Lanka, banana skipper would have affected over 60% of the production area
- Plantwise helped prevent crop losses of up to 12,900 metric tonnes

PRISE: Prevention rather than cure

Aims to improve the livelihoods of smallholder farmers by alerting them to increased pest risks and reducing crop losses caused by pests

Coverage: **Kenya, Ghana, Zambia, Rwanda and Malawi**

Combining:

- Earth Observation technology
- Plant health modelling, and
- Real-time field observations

A five year, **£8.1m** project (2017-2021), funded by the UK Space Agency's International Partnerships Programme



Pest Risk Information Service for Africa (PRISE) – extending Plantwise

STATIC SOURCES



TOPOGRAPHICAL MAPS,
ADMINISTRATIVE MAPS, ETC



ASSIMILA

GIS LAYERING

DYNAMIC SOURCES



ASSIMILA

WEATHER DATA



SATALLITE DATA



CABI

KNOWLEDGE BANK



PEST DATASETS



GROUND TRUTH

ASSIMILA
& CEDA



AGROMET
DATACUBE



RISK MODELLING
SYSTEM



PEST & DISEASE
FORECASTS

CABI & NATIONAL
PARTNERS



FORECAST DISSEMINATION
SYSTEMS



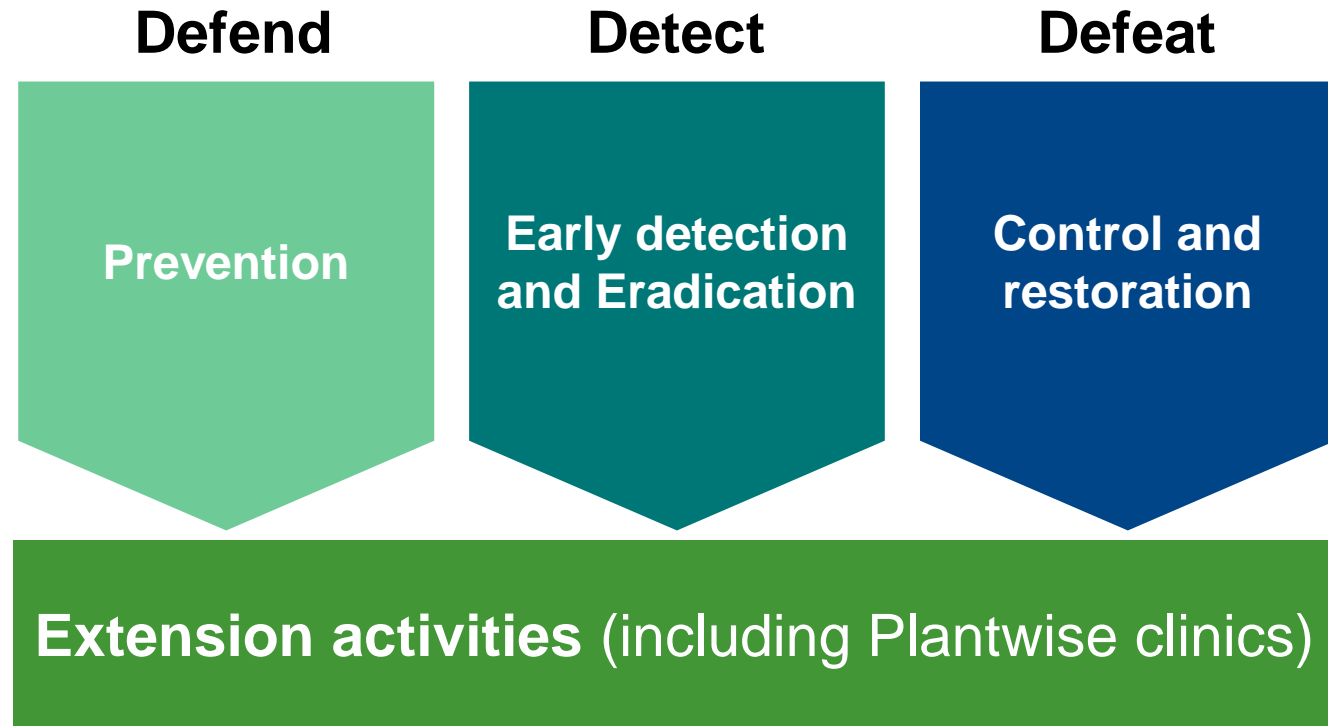
Action on Invasives – GOAL

to protect and improve livelihoods of over 50 million poor rural households impacted by invasive species

Action on Invasives: leveraging existing extension activities

Action on Invasives:
targeted interventions

Extension: advice on
any plant health
problems



Pakistan's first Quarantine Lab



Fall Armyworm Biocontrol agent

Marc Kenis et al. Insects **2019**, *10*(4), 92; <https://doi.org/10.3390/insects10040092>

- Collaboration with three CABI Centres, IITA, ICRISAT, ICIPE and others
- First report of an egg parasitoid *Telenomus remus* in Africa
- Confirmed presence in Benin, Côte d'Ivoire, Kenya, Niger and South Africa
- DNA analysis and morphological observations conducted at CABI's Egham laboratories
- Economically and environmentally safer alternative to synthetic insecticides
- Next steps:
 - An affordable product for Africa
 - Regulatory approval for release



Fall armyworm: Life cycle and damage to maize

The fall armyworm life cycle includes egg, 6 growth stages of caterpillar development, pupa and moth.

LARVAL GROWTH STAGES 4-6

By stage 4 the caterpillar will be bigger and have reached the whorl, where it does the most damage, resulting in ragged holes in the leaves. Feeding on young plants can kill the growing point, resulting in no new leaves or cobs developing.

If the plant is older and has already developed cobs, then the caterpillar will eat its way through the protective leaf bracts into the side of the cob, where it begins to feed on the developing kernels (seeds).

LARVAL GROWTH STAGES 1-3

After hatching, the young caterpillars begin feeding, which creates patches on the leaves called windows. Young caterpillars can spin silken threads that catch the wind and transport the caterpillars to a new plant.

Batches of 100-200 eggs are laid on the lower leaves.

After approximately 14 days the fully grown caterpillar will drop to the ground.

After around 8-9 days the adult moth emerges to restart the cycle.

The caterpillar will then burrow 2-8 cm into the soil before pupating. The loose silk oval shape cocoon is 2-3 cm in length. If the soil is too hard then the caterpillar will cover itself in leaf debris before pupating.

Fighting Fall Armyworm

- Created valuable capacity-building resources
- Evidence Note for Africa in 2017, included Asia in 2018
- Global media coverage to raise awareness of threat and impact
- Developed global environmental suitability models
- Helped countries develop National Invasive Species Strategy and Action Plan
- Major enhancement of the Invasive Species Compendium
- Completed FAW natural enemy surveys in Africa, finding at least 12 parasitoids

FAW: Spreading the word



40,000

Posters printed and displayed at local points



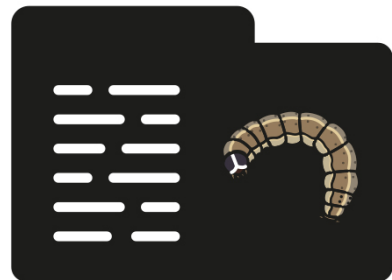
2,455

Visitors to hub on the CABI website



9,308

Content views on the Factsheet Library App



10,687

Factsheets downloaded from Knowledge Bank



122,000

Impressions / engagements with social media campaigns



1.3m

Listeners to radio campaigns and call-in shows



Increasing focus on value chains

- Strengthening Vegetable Value Chains in Pakistan (ACIAR) **£1.7M**
- Horticulture Value Chain Technical Assistance funded by the Government of Punjab, worth **£4.8M**
- Continued funding from the Better Cotton initiative for the implementation of safer pest management processes and the training of women **£401K**
- Integrated pest management training for coffee and cocoa farmers in Colombia (Innovate UK) **£282K**
- Improved pest management practices in the horticulture industry in Uganda (STDF) **£214K**
- Certification Facilities for Quality Assurance & Creation of Market Linkages for Agriculture Interventions in Khyber Pakhtunkhwa, CABI CWA **£415K**
- USDA FAS aflatoxin funding for CABI CWA **£370K**
- CASA – five year programme to support investment in commercial agriculture for the benefit of smallholder farmers, covering Uganda, Nepal and Malawi (DFID) **£2.8M**

Commercial Agriculture for Smallholders and Agribusiness (CASA)

Objective: Increased global investment in agribusinesses which trade with smallholders in equitable commercial relationships, **increasing smallholders' incomes and climate resilience**

- **£30 million DFID-funded programme** aiming to improve the livelihoods of 565,000 smallholder farmers and their families
- For CABI: £3 million over five years, involving six centres
- Implementing partners:





Plantwise Plus

Main goals:

- Stronger trade and value chain focus
- Delivering safer and more sustainable food systems

Elements:

- Improved pest detection and appropriate response
- Access to and use of lower-risk inputs
- Increased supply of safe (low residue) produce
- Accelerated adoption of GAP techniques

Achieved through:

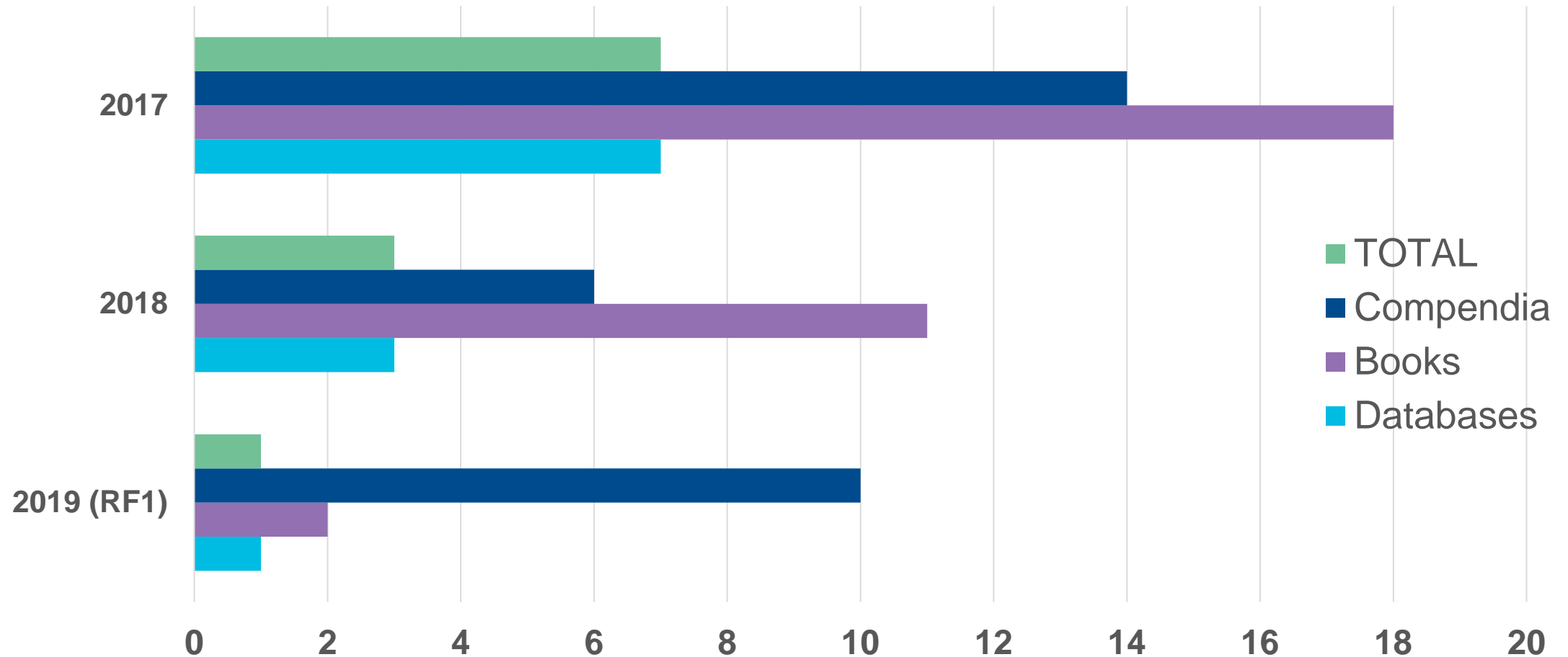
- ICT tools for capacity development
- Better surveillance and preparedness,
- Creation of women and youth employment opportunities (post-farmgate/value addition)



Knowledge Business

Slowing growth in core Publishing

% Growth Year on Year



Knowledge Business revitalisation

Stabilize revenues for core products

- **Increase** sales emphasis
- **Regain** major consortia in developing markets as economies recover

Improvements to existing products

- **Invasive Species Compendium** relaunched and upgraded
 - Horizon Scanning Tool improved and relaunched
 - Pest Risk Analysis tool added
- **PRISE v2 ('Knowledge')**
 - Launched with important new pests and architecture

More efficient business processes

- **Database production**
 - Aiming to replace Indexing technology in 2019 and reduce production costs by £250K in 2020
- **Books workflow and stock control improvements**
 - Print on demand and paperback reprints of best-selling hardbacks

Refresh the publishing product portfolio

- E-learning
- **CABI Agriculture and Bioscience Journal**
- **Biopesticide Portal**: prototype developed.
- Upgraded **Global Health** database launched in Q1, 2019

PestSmart eLearning

- **PestSmart Diagnostics** eLearning package – launched October 2018
- **PestSmart Management** module in development
- Based on CABI's award-winning Plantwise training
- A true **one CABI initiative** incorporating staff in our: Egham, Switzerland, India, Kenya and Wallingford offices



Enhanced Invasive Species Compendium

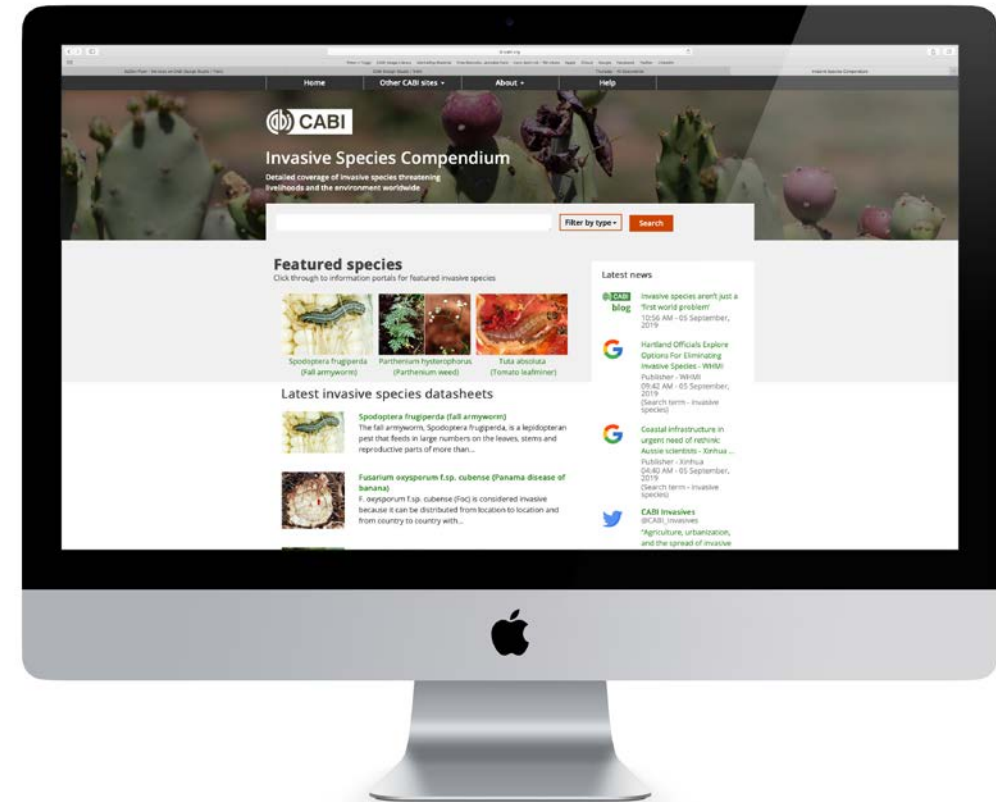
The Action on Invasives “Knowledge Platform”

Enhancements:

- Species “portals”
- Improved mapping
- Toolbox
 - Horizon scanning tool
 - Pest risk analysis (PRA)

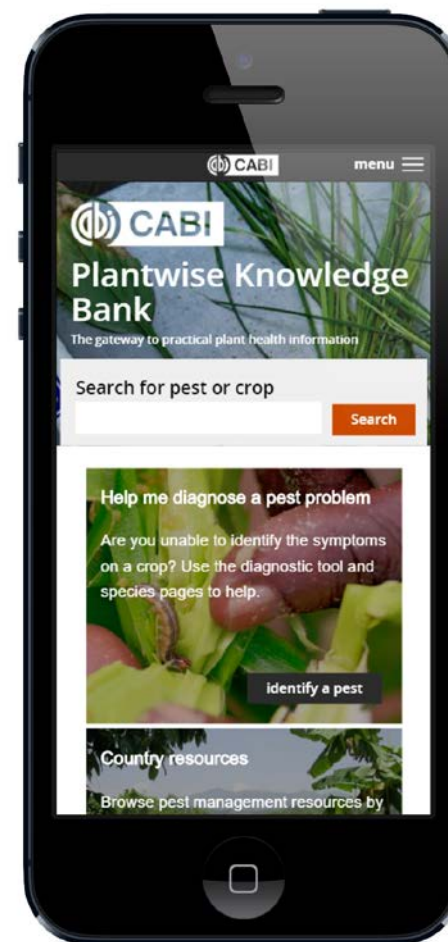
Resources

- Diagnostics
- Communication materials
- Data
- Abstracts
- News



New look for Plantwise Knowledge Bank

- **Site launched on 2 May 2019**
 - Mobile-responsive
 - User-friendly diagnostic tool
 - Link to the Horizon Scanning Tool
 - Visitors staying longer and viewing more
- **New Data Collection App released in June 2019**
 - Positive feedback from all regions
 - Integrated with Google Analytics to monitor app performance



A photograph of four people (three men and one woman) seated at a long table covered with a white cloth. They are all smiling and looking towards the left. The table is set with several clear glasses, a bottle of water, and a small bowl. Two microphones are positioned in front of them. The background is a light-colored wall with a large window showing a blurred view of people outside. The word "Corporate" is overlaid in white text on the right side of the image.

Corporate

SciDev.Net

- Widespread **brand recognition and reputation** for independent journalism in development science
- **Educational charity** set up in 2001
- **Weekly output** of news and feature articles, opinion pieces, multimedia packages and data visualisations
- **Five** regional editions
- Extensive global reach with **427 million readers**
- SciDev.Net content seen **2.7 times every second!**



© PANOS

Immediate synergies

For SciDev.Net

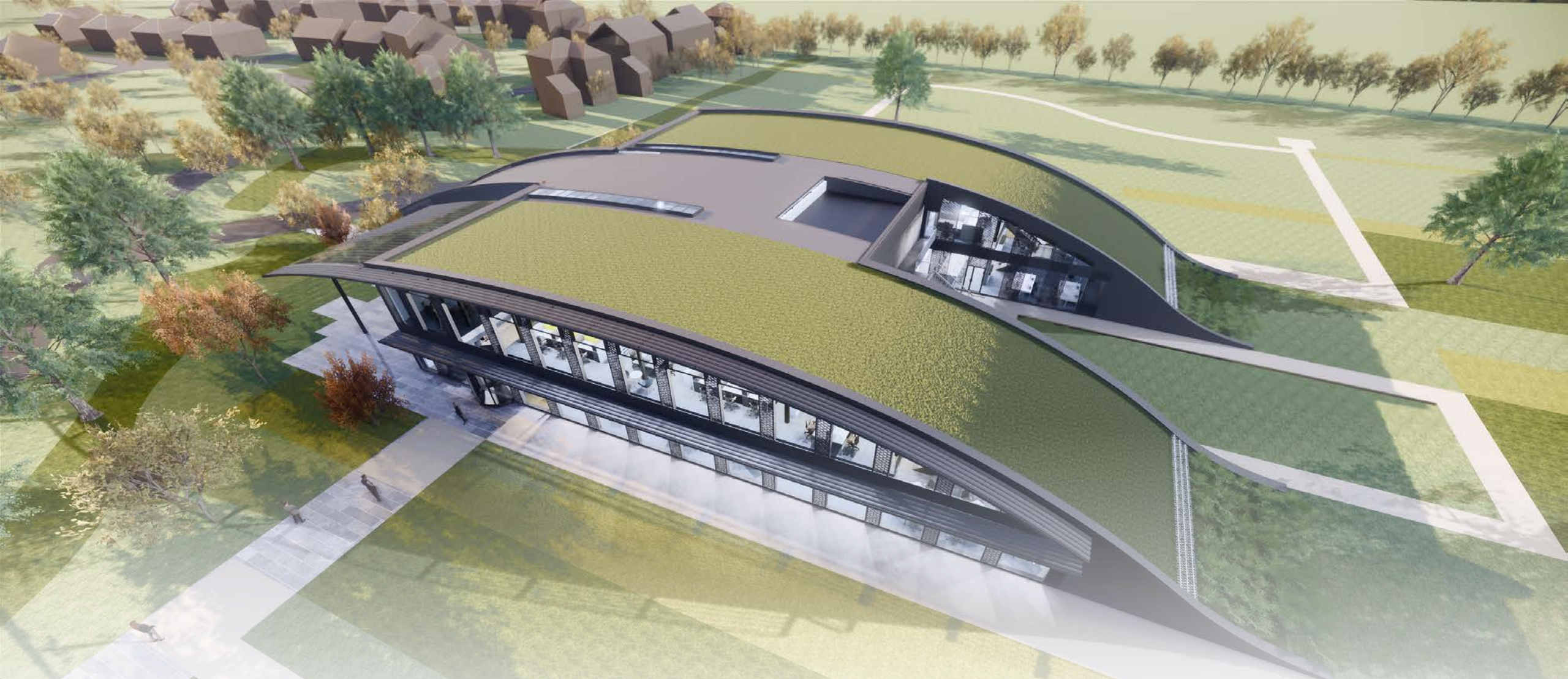
- **Greater security** in a larger organisation
- **Increased reach and impact**
- **Linkage** to project implementation
- Part of a **bigger team**

Immediate synergies

For CABI

- Access to **trained journalists** with expertise in writing for and placing content with local media outlets
- **Expertise** in the wider aspect of Dev Comms
- Thorough understanding of the **local actors and sensitivities**
- Skills to **maximise impact and reach** of regional/national communications initiatives
- **Broader donor base**
- Longer term **business and income development opportunities**





New office on track and on budget



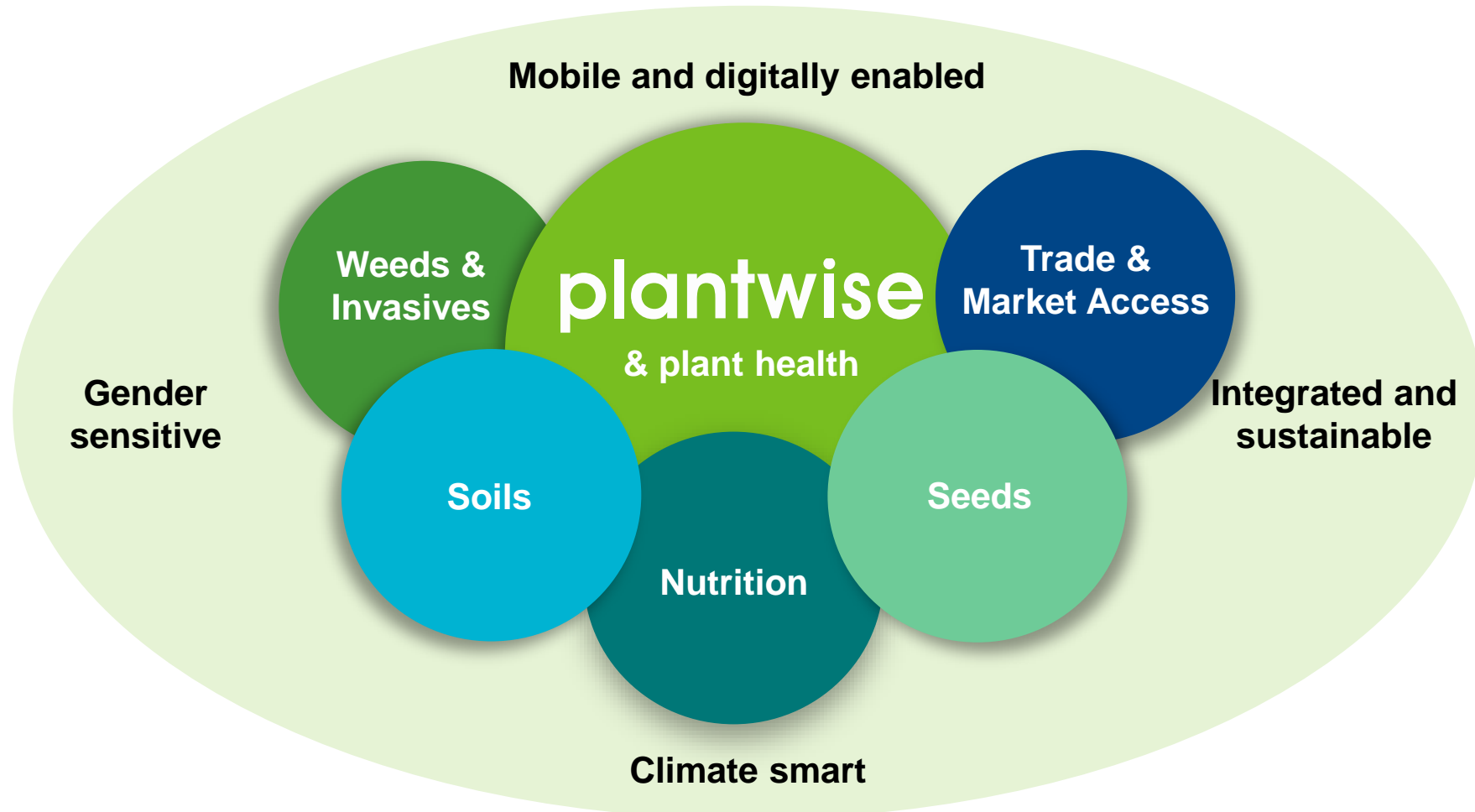
In conclusion....

CABI remains in good health

- Implementation of the **Medium Term Strategy** is on track and delivering positive impact
- There has been **good progress in Plantwise and Invasives** which have elevated CABI's presence and reputation
- We are increasingly seen both **as reliable implementation partners** and as thought leaders in next generation advisory/extension services
- Short term financing is secure but the **donor environment is challenging**
- We see a number of **exciting opportunities** in climate change, value chains and digital development

CABI in the future

An integrated knowledge platform for healthy, sustainable agriculture





CABI is an international intergovernmental organisation, and we gratefully acknowledge the core financial support from our member countries (and lead agencies) including:



Ministry of Agriculture and
Rural Affairs,
People's Republic of China



Agriculture and
Agri-Food Canada



Ministry of Foreign Affairs of the
Netherlands



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development
and Cooperation SDC