



# CGIAR Platform on Excellence in Breeding

Tools and services that create synergies and accelerate genetic gains of breeding programs targeting the developing world

Through the **Excellence in Breeding Platform** the CGIAR intends to modernize breeding programs targeting the developing world for greater impact on food and nutrition security, climate change adaptation and development.

Drawing from innovations in the public and private sector, the Platform will provide access to **cutting-edge tools, services and best practices, application-oriented training and practical advice.**

## Why a platform on Excellence in Breeding?

Future agri-food systems and changing climates require **more resilient, nutritious and productive** crop varieties and animal breeds that reach farmers faster.

Advances in genomics, breeding and information technologies offer **huge opportunities**. However, the pace of modernization in breeding programs targeting the developing world is slow.

By joining forces, breeding programs will be able to test, adapt and use step-changing approaches and have a **greater impact** on the lives of farmers and consumers in the developing world.

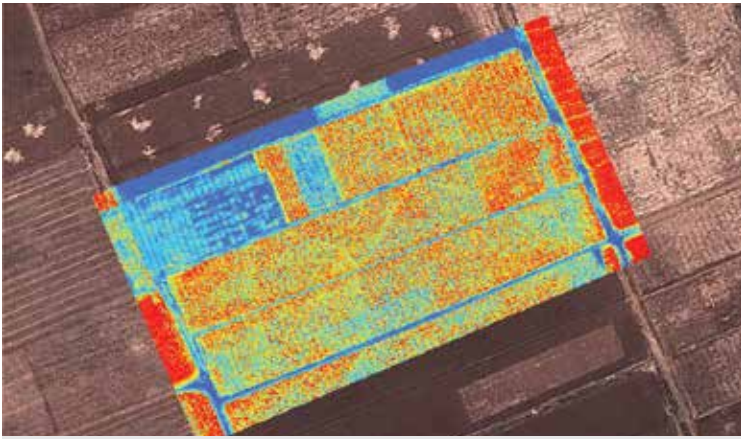
## Who will use the Platform?

CGIAR centers, national research systems, advanced research institutes and the private sector will be both contributors and users.

The Platform adapts and makes commodity-specific innovations available as an international public good to a wider range of users.

Through their feedback, users will drive the agenda of the Platform.

- Demand for food will **increase by 50-60%** during the 21st century
- Climate change **decreases** crop yields by about **5% per degree of warming**
- Currently, crop performance is improved at an average rate of **just 1% each year**
- 45% of the global area sown to major staples is found in **low- and lower-middle income countries**, along with 84% of the world's poor
- However, these countries receive just 5% of private sector investment in breeding



## FUNDING AND EXECUTION

The Excellence in Breeding Platform delivers its agenda through five modules



### 1 Breeding program excellence

Joining efforts to define and promote a standard breeding program performance management system to monitor success and highlight investment needs of breeding programs targeting the developing world.



### 2 Trait discovery and breeding tools and services

A common platform to share tools, information and training modules on how to successfully incorporate new approaches into the breeding process, from trait discovery to cultivar development.



### 3 Genotyping and sequencing

Broker access to genotyping services at reduced cost, assess the latest advances and support breeding programs to optimize the use of genotyping in their work.



### 4 Phenotyping

Adapt cutting edge phenotyping approaches for routine use in breeding programs, broker access to phenotyping capacities and expertise, and share and improve infrastructure.



### 5 Bioinformatics and data management

Harness the power of genotype, phenotype and other data by providing access to integrated bioinformatics tools and biometrics support.

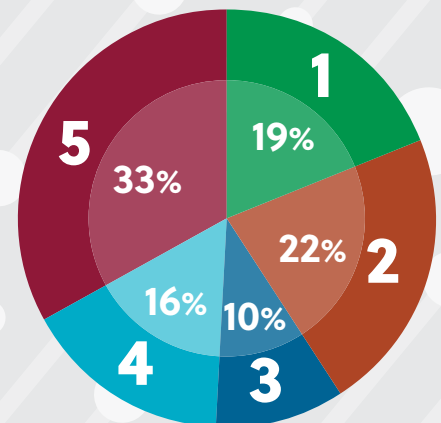
**Target annual budget: US \$10-15 million**

The Platform will invest in identifying, testing, adapting and documenting open-access tools and information. It will support virtual workshops, and face-to-face training of personnel that are key for reaching a wider user community.

For this it is to be funded by pro-bono investors. Other, individual services will be provided on a pay-for-use basis.

As a solid user base is established, the Platform will assess its ability to move to a membership or user-pays model.

## EXPECTED BUDGET ALLOCATION PER MODULE



The Excellence in Breeding Platform is led by the International Maize and Wheat Improvement Center (CIMMYT)

For more information, email us at [Excellence-In-Breeding@cgiar.org](mailto:Excellence-In-Breeding@cgiar.org) or visit <http://excellenceinbreeding.org>

