



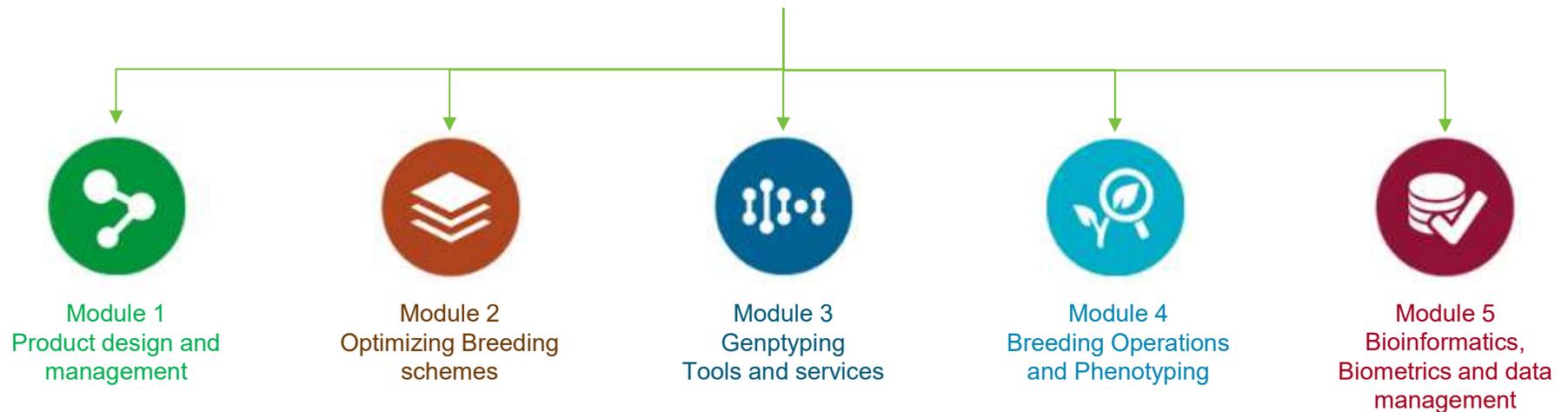
Continuous Improvement



Do you know EiB?



Excellence in Breeding





Breeding Operations and Phenotyping

Our goal is....

That Platform members breeding programs have the most cost efficient phenotypic process, from field preparation to data collection.

M4 support



Why continuous improvement?



As defined by DDGs, head of breeding, funders and other stakeholders during the EIB annual meeting in 2019, and documented in the vision of a modern breeding program, one of the important component is that the CGIAR breeding programs need to have implemented a culture of continuous improvement.



Pillars of a world-class breeding program

Focus on developing products and adoption for impact

- **Double the rate of genetic gain**
- All breeding activities are targeted by clear **targeted product profiles** that define customers and their needs
- **Target market segments** are defined and linked to distinct germplasm pools and breeding schemes

Data accuracy, cost & throughput

- **Appropriate** use of technology to increase genetic gain per dollar invested
- Selections made on **high-quality trials**
- Continuous and accurate **data collection**
- Current best practice data management and quality control
- **Breeding costs** known and readily retrieved

Maximized evaluation accuracy

- **Genetic gains assessed annually**
- Best practice implementation of **trial designs**
- Reliable generation of data representative of **targeted population of environments** to select parents earlier
- Latest **phenotyping** and **envirotyping** technologies exploited

Impactful breeding pipeline

- A **defined pipeline** is established to deliver high-quality germplasm from first cross to adopted varieties
- Sufficient data is generated and available to enable customers and growers to make **informed variety choices**

Optimized breeding schemes

- Variety development, parent development, identification and validation of novel genetic diversity are **distinct and separate activities**
- **Breeding cycles** are shortened towards to the biological limit
- A **stage gate system** is implemented to manage breeding activities

Crossing linked to breeding strategy

- Parental selections made and genetic diversity managed according to the **breeding strategy**
- Variety development strictly based on **elite-by-elite crosses**
- **Genetic diversity** is measured and actively managed

Accurate selection

- **Annual advancement meeting**
- **Selection index** aligned with product profile
- Best practice **trial analyses** to estimate breeding values and genetic merit
- **Visualization tools** support decision-making
- **Selection intensity** and **genetic diversity** considered in parent selection

Continuous improvement culture

- Full use of external trialing and germplasm
- **Breeding teams are the experts**
- Clear **pathway and metrics** to deploy new and successful breeding methods
- **Annual review** of performance metrics
- Respect and safety for **all employees**

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What do you mean about Continuous Improvement?

