



Evaluation of CGIAR Excellence in Breeding Platform: Inception Report

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List of Acronyms

BPAT	Breeding Program Assessment Tool
CapDev	Capacity Development
CAS	CGIAR Advisory Services Secretariat
CRPs	CGIAR Research Programs
EiB	Excellence in Breeding
FGDs	Focus Group Discussions
GARDIAN	Global Agriculture Research Data Innovation Acceleration Network
GIZ	Gesellschaft für Internationale Zusammenarbeit
IAB	International Advisory Board
IDO	Intermediate Development Outcome
IEA	CGIAR Independent Evaluation Arrangement
IFPRI	International Food Policy Research Institute
KIIs	Key Informant Interviews
ISDC	Independent Science for Development Council
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation, and Learning
MELIA	Monitoring, Evaluation, Learning, and Impact Assessment
NARES	National Research and Agriculture and Extension Systems
OB	Organizational Behavior
OD	Organizational Development
OECD	Organization for Economic Co-operation and Development
Platform	Platform for Excellence in Breeding
SIMEC	Strategic Impact, Monitoring and Evaluation Committee
SLO	System Level Outcome
SME	Subject Matter Expert
SO	CGIAR System Office
SPIA	Standing Panel on Impact Assessment
ToC	Theory of Change
ToR	Terms of Reference
UoQ	University of Queensland
USAID	United States Agency for International Development

1 Introduction

1.1 Purpose and structure of the Inception Report

According to the Terms of Reference (ToRs) for the Evaluation of the Excellence in Breeding (EiB) Platform, the Inception Report (IR) should outline the evaluation team's proposed approach to the main phase of the evaluation as follows:

1. elaborating the scope and focus of the evaluation
2. developing the methodological tools for gathering evidence
3. providing a detailed evaluation matrix
4. clarifying the analytical frameworks to be used by the evaluation
5. providing a detailed work plan for the evaluation.

In addition to background information on the evaluation and the EiB Platform, it provides methodological and operational information on the evaluation design and implementation, building on the corresponding ToR and drawing on an initial review of documents and meetings between the EiB Platform team and the evaluation team. More specifically, the report summarizes the background and rationale of the Platform evaluation and provides an overview of the Platform's purpose and objectives, its impact pathways, structure, governance and management arrangements, its funding and budget, as well as an initial assessment of progress towards outputs (Section 1). It describes the evaluation objectives and questions as laid out in the ToRs (Section 2), as well as the proposed evaluation approach, methodology, phases, and data collection methods (Section 3). Information on the evaluation workplan, milestones and management are included in Section 4. A series of Annexes are also included such as the proposed evaluation matrix, a stakeholder mapping, an overview of key outputs delivered to date, and a presentation of the members of the evaluation team. Further to the request from the CAS Secretariat, the report also includes some very preliminary findings based on the desk review carried out to date.

1.2 Rationale and Context of the EiB Evaluation¹

The CGIAR Advisory Services Shared Secretariat (CAS Secretariat) supports and facilitates the CGIAR's independent advisory services, comprising the Independent Science for Development Council (ISDC), the Standing Panel on Impact Assessment (SPIA) and an independent Evaluation Function. The Evaluation Function supports the implementation of the CGIAR System's multi-year evaluation plan to meet the CGIAR System's need for rigorous high-quality independent evaluations to inform decision making across the System. Throughout the course of 2019/2020, twelve CGIAR Research Programs (CRPs) were subjected to external reviews, many of which were in their 2nd phase. The resulting findings and conclusions, with evaluative evidence from phase 1 and other thematic evaluations (total of 43), formed the basis of the "2021 Synthesis of Learning from a Decade of CGIAR Research Programs". To complement this work, as part of its 2021 approved workplan and budget, the Evaluation Function has been mandated to conduct an external evaluation of two of CGIAR's Platforms, namely the Excellence in Breeding (EiB) Platform and the Platform for Big Data in Agriculture. In line with the conclusions of the 2021 Synthesis referred to above, the evaluations of EiB and Big Data Platforms should provide an opportunity to assess the level of collaboration and synergies between these two Platforms and CGIAR breeding programs.

CAS received endorsement of the ToR for the EiB Platform evaluation from the Strategic Impact, Monitoring and Evaluation Committee (SIMEC) under CGIAR System Council. Their feedback, as well as the feedback from CAS and external peer-reviewers on the first IR version has been incorporated to the extent possible into this Inception Report.

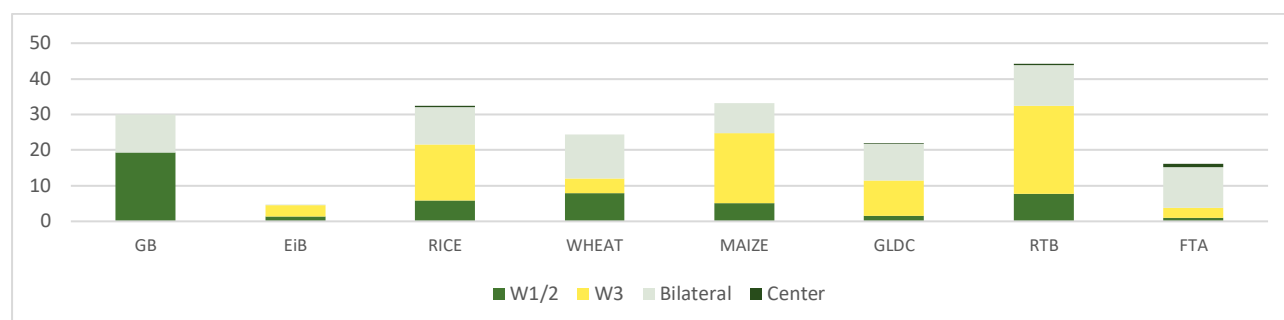
1.3 Overview of CGIAR Platform for Excellence in Breeding

Platform Background

¹ This section draws on the data provided in the relevant section of the EiB Platform Evaluation ToRs.

CGIAR and its partners have a long history of investing in delivering genetic gains to farmers' fields across the globe. Figure 1 depicts the latest data for CGIAR expenditure on Genebanks and plant breeding, which totalled over \$200 million in 2019—almost 25 per cent of total CGIAR expenditure for that year².

Figure 1: CGIAR 2019 Expenditure on Plant Breeding and Genebanks (\$M)³



Increasing both the rate of genetic gain delivered directly by CGIAR breeding programs and improving their ability to support the modernization of national systems is considered a key challenge and serves as the rationale underpinning the Excellence in Breeding Platform (hereafter the EiB Platform), approved by the System Council in 2016. Individually, even the largest CGIAR breeding programs are considered too small to support rapid modernization by adapting and mainstreaming state-of-the-art breeding technologies such as those found in multinational companies. By combining efforts, and through the support of the EiB Platform, it is expected that smallholders in the developing world will be able to raise the rate of genetic gain they deliver much more effectively.⁴ As noted in the original Platform proposal (2016):

“The EiB Platform is a coordinating mechanism to deliver a coherent data-driven and data-intensive strategy leveraging data capabilities and infrastructure. Its strategy focuses on collaboration among CGIAR Research Programs (CRPs) and Centers, leveraging external expertise to enable unrestricted discoverability of linked open datasets. The ultimate goal of the platform is to harness the capabilities of EiB to accelerate and enhance the impact of international agricultural research. It will support CGIAR’s mission by creating an enabling environment where data are expertly managed and used effectively to strengthen delivery on CGIAR SRF’s System Level Outcome (SLO) targets.”⁵

Since its start, the Platform has evolved from a role of facilitating access to breeding tools and services, into a more proactive one in driving change by targeting specific breeding programs (BPS), increasing the level of direct collaboration with them and providing guided support. Some commentators consider that the so called “Funders 6 requests” have essentially re written the EiB Platform’s mandate. This evolution in the role and mandate of the Platform is a key focus area of the evaluation.

In 2020, as part of the One CGIAR reform, CGIAR began streamlining the governance, operational structures and processes guided by the 2030 Research and Innovation Strategy. Action Area 3 of the Strategy, on Genetic Innovations and Genebanks, aims to ensure the world’s growing food and nutrition requirements are met in a time of unprecedented climate change, rapid population growth and urbanization, while simultaneously supporting the livelihoods of millions of farmers. This Action Area intends to address the pressing need for CGIAR to provide:

- Support for the optimization of breeding pipelines and implementation of genomics assisted breeding approaches
- Identification and incorporation of new traits, collaborating with the CGIAR Genebanks and

² In the CGIAR 2030 Research and Innovation Strategy, since Genetic Innovation under FISH and LIVESTOCK is to be implemented under Resilient Agrifood Systems, Action Area 2, these topics are not being treated in this brief. Refer to the Synthesis Annexes A5.1-A5.3 for more information.

³ Data sourced from: <https://www.cgiar.org/food-security-impact/finance-reports/dashboard/> Although genetic innovations were underpinned by two CGIAR Platforms, Genebanks and Excellence in Breeding (EiB), Agri-Food Systems Programs (RICE, WHEAT, MAIZE, GLDC, RTB and FTA) also invested in genetic innovations.

⁴ [EiB Coordination Platform: Full Proposal 2017-2020](#)

⁵ [EiB Coordination Platform: Full Proposal 2017-2020](#)

- Regionally adapted, rapidly cycling source populations with genomic selection models, to help provide a continuous flow of diverse, elite materials for use as parents by National Research and Agriculture and Extension Systems (NARES).

These goals are to be achieved by accelerating the supply of more productive, nutritious, and climate-resilient crop varieties.

1.3.1 EiB Platform Purpose and Objectives

The stated overall purpose/objective of the Platform varies, according to preliminary evidence gathered during scoping. According to the final July 2016 Proposal, its objective is “to become the one-stop place to go for advice, tested resources and best practices for any breeding program targeting the developing world.” The following sub-objectives were identified:

- a. EiB will support the network of partners (CGIAR centers, National Agricultural Research System [NARS], local private breeding sector) that are developing new cultivars/breeds and conserving genetic resources within eight Agri-Food Systems (AFS) CGIAR Research Programs (CRPs) and the Genebanks Platform.
- b. The Platform will develop international public goods, and its know-how and tools will also be accessible to cultivar development programs that work on other commodities (e.g., vegetables) or in non-target (i.e., high-income) countries.
- c. Similar to the organization of breeding programs and platforms in multinational, multi-crop companies, the Platform will support the adoption of cutting-edge tools and services that are in demand by multiple commodities and CRPs, exploit economies of scale to reduce costs, and accelerate learning and use of best practices across commodities and CRPs.
- d. The Platform will develop, explore, and improve access to tools and approaches that are difficult to develop at the commodity level; meanwhile, commodity-specific, and cross-cutting research common to a group of crops or animals (e.g., legumes, vegetatively propagated crops, livestock, fish) will be carried out within the respective AFS CRPs.

The same document goes on to describe the “Vision of success for the Excellence in Breeding Platform” as: to enable staple crop and animal breeding programs targeting the developing world to make step changes in increasing genetic gains of cultivars and breeds delivered to farmers, for impact on food and nutrition security, climate change adaptation and development at large”. This introduces higher level results related to food and nutrition security, climate change and development at large. The current vision for the Platform is described as: “CGIAR-NARS breeding networks generate rates of genetic gain $\geq 1.5\%$ p.a. and the average area weighted age of varieties in farmers’ fields is < 10 years”.

An alternative version is provided in the “Impact Pathway and Theory of Change for the Excellence in Breeding Platform” in the 2016 Proposal, which identifies a series of higher level objectives – System Level Objectives (SLOs) to which the Platform is expected to contribute, namely, “reducing poverty (SLO 1), improving food and nutrition security for health (SLO 2), improving natural resources systems and ecosystem services (SLO 3), and enhancing the cross-cutting issues of climate change (A), policies and institutions (C) and capacity development (D)- See section 1.3.3 below.”

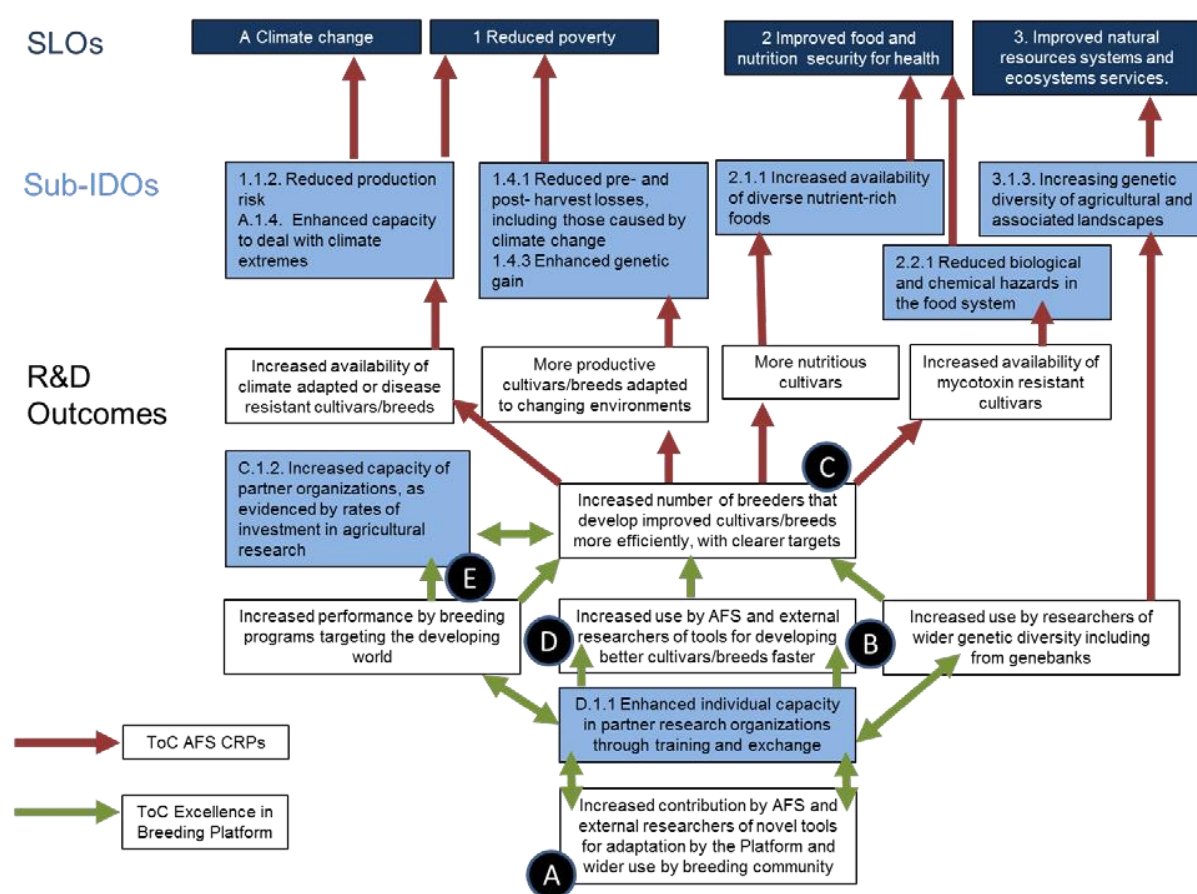
In the on-going discussions around the development of Theories of Change (ToC) for each of the Platform Modules in which members of the EiB evaluation team are participating⁶, there is frequent reference to genetic gains, and more specifically the target of “Increased rate of genetic gain to $> 1.5\%$ p.a. or 2x 2019 levels - whichever is greater” – as the overall aim/impact e.g., the case of Module 2 and “Increased rate of genetic gain to $> 1.5\%$ p.a. or 2x 2019 levels - whichever is greater, per \$ invested” as the aim/impact of Module 3. Increased varietal turnover is also frequently referred to alongside genetic gain as an overarching objective or aim of the Platform as is the “improved quality of breeding programmes”. Whilst the goal of genetic gain is easy to understand, the second one is less so given that speedier varietal turnover is not always necessary (or even desirable), but this needs to be investigated further during the evaluation.

1.3.2 EiB Platform Initial Impact Pathways and Theory of Change

⁶ August 2021.

Figure 2 below describes the Impact pathway and Theory of Change for the EiB Platform as presented in the original (2016) Project Proposal (and referred to above). It demonstrates how Platform tools and services applied by AFS CRPs will contribute to the Intermediate Development Outcomes (IDOs) of the respective CRPs, and thereby to the SLOs of the CGIAR, including (SLO 1- reducing poverty), improving food and nutrition security for health (SLO 2), improving natural resources systems and ecosystem services (SLO 3), and enhancing the cross-cutting issues of climate change (A), policies and institutions (C) and capacity development (D). By increasing the effectiveness of breeding programs targeting the developing world, the Platform will thereby contribute to the achievement of eight Sustainable Development Goals outlined by the United Nations (SDGs 1, 2, 3, 8, 12, 13, 15 and 17). According to the proposed impact pathway, the Platform which does not have an independent R&D agenda, supports the AFS CRPs and external users in generating the sub-IDOs. The Platform tools will be generic and can be applied to a range of traits and species. They will make trait mobilization and breeding more efficient and effective. As a result, cultivars and breeds required by farmers and consumers are better defined and more effectively developed by the AFS CRPs and external users.

Figure 2: Theory of Change for the Excellence in Breeding Platform in support of the AFS CRPs' Theories of Change.



Nine outcomes are identified as those leading to the listed Sub-IDOs and SLOs (Table 4 of Project Proposal):

- Increased availability of climate adapted or disease resistant germplasm/ cultivars/ breeds (Modules 2-5)
- A steady flow of productive cultivars/breeds adapted to changing environments (Modules 2-5)
- More nutritious cultivars (Module 2-5)
- Increased availability of mycotoxin resistant cultivars (Modules 2, 3, 5)
- Increased use by researchers of wider genetic diversity including alleles derived from Genebanks (Modules 2-5)
- Increased number of breeders that develop cultivars and breeds more efficiently, with clearer targets

- Increased use by AFS and external researchers of tools for developing better new cultivars and breeds faster
- Increased performance by breeding programs targeting the developing world (Module 1)
- Increased contribution by AFS and external researchers of novel tools for adaptation by the Platform and wider use by breeding community (Modules 1-5)

The evaluation team mapped the outcomes above to the EiB modules as shown in table 1 below.



Table 1: Mapping of outcomes to EiB Modules (Evaluation team)

Outcome	Module					Other
	M1	M2	M 3	M 4	M 5	
Increased availability of climate adapted or disease resistant germplasm/ cultivars/ breeds		X	X	X	X	
More nutritious cultivars		X	X	X	X	
Increased availability of mycotoxin resistant cultivars		X	X		X	
Increased use by researchers of wider genetic diversity including alleles derived from Genebanks		X	X	X	X	
Increased number of breeders that develop cultivars and breeds more efficiently, with clearer targets						X
Increased use by AFS and external researchers of tools for developing better new cultivars and breeds faster						X
Increased performance by breeding programs targeting the developing world	X					
Increased contribution by AFS and external researchers of novel tools for adaptation by the Platform and wider use by breeding community	X	X	X	X	X	X




1.3.3 EiB Platform Structure and Modules

In its original form, the Platform comprised 5 inter-linked modules, which have since been increased to 7 indicating a stronger emphasis on the role of NARES (Module 6) and on outreach and adoption (Module 7). The original five modules have also changed their scope and focus according to the evolved mandate of the Platform as described above and depicted in the table below.

Table 2: Mapping of EiB Platform Modules and their Objectives⁷

	2016 Proposal	2021 Online Adapted version
	1. Breeding program excellence Generic tools and services to support breeding program excellence across CGIAR and NARS breeding programs, based on: (1) common metrics and standards for monitoring performance and indicators of genetic gains in researchers' and farmers' fields; and (2) advice, including from the private sector, on product and breeding program design, tool implementation, and dissemination.	1. Product Design and Management Performance management and metrics of success, from breeding station and laboratory to farmers' field. Support client-oriented, gender responsive product profiles. Define breeding processes, identifying gaps and investment needs.
	2. Trait discovery and breeding tools and services Drawing on the innovations taking place in breeding and research programs worldwide, lower the transaction costs to identify, access and adopt newly emerging tools that support trait discovery and breeding. This module also provides the web platform where user groups upload successful applications	2. Breeding Scheme Optimization Defining breeding schemes & identifying where optimization can occur. Applying quantitative genetics theory and population modeling (e.g., simulation) to optimize decision making and resource investment. Match market segment investment and right-sizing breeding pipelines. Building capacity and developing tools.

⁷ Conducted during evaluation scoping.

	2016 Proposal	2021 Online Adapted version
	from all modules and feedback from users is captured	
	3. Genotyping / Sequencing Tools and Services 1) Procurement and coordination of common genotyping/sequencing services; (2) in collaboration with Module 5, customization of generic tools to support the sampling to data analysis pipeline; and (3) access to advice, including from the private sector, for the effective use of genotypic/sequencing information in breeding programs.	Support Genotyping as a value-added service alongside EiB centralized comprehensive support Assessment of appropriate genotyping applications Lowest cost services Delivery of timely quality data to breeders and partners
	4. Operations and Phenotyping Tools and Services (1) Common approaches, tools, accelerated learning, and advice for using cutting-edge remote sensing, high-throughput precision phenotyping, targeting, mechanization and automation approaches in breeding programs; (2) access to better value-for-cost laboratories for assessing physico-chemical composition and functional properties in plant and animal materials.	Current state assessments of agronomic practices, phenotyping, planting & harvesting, seed processing and continuous improvement culture Expert advice, manuals & training in best practices and technologies. Support networks and reduced cost services
	5. Bioinformatics and data management tools and services Open-access tools and services linked to core databases to support both complex and integrated data analysis and management of breeding program data, necessary for CGIAR, NARS, and SMEs to increase genetic gains and also as a prerequisite for applying genomic and high-throughput phenotypic information in cultivar/breed development.	5. Breeding Informatics Deliver integrated and centralized analytic capability Deliver software (i.e., Enterprise Breeding System) and support its adoption Coordinate long term strategy on data management systems for public breeding, with EBS team, stakeholders, funders
	6. NARES engagement Not existing as a separate Module previously	Build more effective CGIAR-NARES Breeding Networks, Support NARES to develop and implement customized improvement plans, Support NARES programs directly through advisory services, training, resources, Provide linkage to EiB modules as required.
	7. Adoption and Outreach Not existing as a separate Module previously	To speed up and improve deployment and adoption tools, processes, and services: Coordinate training Provide documentation across crops and systems Improve understanding of breeding program constraints/drivers of adoption Bring together personnel funded across diverse projects (e.g. Next-Gen cassava, IBP projects, ILO) around common goals for systems, workflows and tools adoption.

During scoping, the logic underpinning the module hierarchy was succinctly described by one of the Module leads using the baking of a cake as an analogy:

"Module 1 identifies what should be done to support the modernization of targeted breeding programs- definition of product profiles (which cake to bake) Module 2 identifies how to operationalize the plans developed by Module 1-optimize the breeding scheme (the recipe) while Modules 3,4 and 5 provide the necessary support (the ingredients). Module 6 was created in acknowledgement of the key role to be played by NARES in ensuring alignment with local needs (e.g., market segments and product profiles) while Module 7 currently named "Adoption and Outreach" has a very limited focus i.e., technology adoption (rather than adoption by the end-users – farmers)."

The elaboration of ToC for each of the seven modules is currently underway and will feed into an overarching ToC for the EiB Platform as a whole⁸. The evaluation team were invited to participate in these discussions and provide support. The exercise has proven very useful and insightful insofar as the evaluation team have had privileged access to the ongoing discussions with Module leads concerning the evolution of Modules, their goals and how they plan to achieve them. At the same time, both the expert leading the development of the ToC as well as the participants have indicated their appreciation of the input and suggestions provided by the evaluation team. As a general observation, and from a purely observer's perspective, the exercise seems somewhat rushed and challenging given that this is the first time most Module leads have been requested to develop a ToC and to date, they have only received minimal training/guidance. There is also some confusion around the purpose of the exercise with some participants under the impression that the ToC is being developed as a requirement of the evaluation which is clearly not the case.

1.3.4 EiB Platform Management and Governance

The Platform works across CGIAR and is hosted by the International Maize and Wheat Improvement Center (CIMMYT), the CGIAR Center. It is governed by a Platform Steering Committee (PSC) consisting of 13 regular members in addition to the EiB Director, representing CGIAR, national agricultural research systems and the private sector.

In 2020, in addition to the Steering Committee, a Crops to End Hunger initiative (CtEH) Committee was created as a mechanism to keep CGIAR Centers focused on progress on their Improvement Plans which were development in accordance with the conclusions and recommendations of the Breeding Programme Assessment Tool (BPAT) reports. Donors and key Center breeding leads participate in the CtEH Committee. The relationship between these two committees will be assessed during the evaluation.

According to the 2020 Annual Report, the EiB leadership, management and team consists of⁹:

- One (1) Director and one (1) Deputy Director
- Product design and management team (three members)
- Breeding scheme optimization team (five members)
- Genotyping / sequencing team (three members)
- Operations and phenotyping team (three members)
- Breeding informatics team (two members)
- Adaption & outreach team (one member)
- NARS outreach team (three)
- Toolbox team (one)
- Breeding change implementation support team (three members)
- Core staff team (seven members)

A pilot Performance Management Standards (PMS) assessment of the EiB Platform was carried out in November 2019; its summary ratings are provided in Annex 5. The main objectives of the pilot PMS were to:

⁸ EiB Evaluation team was invited to be present during TOC elaboration sessions in August 2021. Precise timeline to be elaborated during the evaluation.

⁹ The number of persons is between brackets.

- Provide assurance to CGIAR System Funders and other stakeholders that program management standards are high, and that they can invest with confidence.
- Improve program performance management across CGIAR wherever needed, and
- Focus program efforts on a limited number of well-defined high-priority areas identified jointly by key stakeholders, in each business cycle, to complement (not replace) the more complex analysis carried out in program evaluations and appraisals.

Preliminary analysis of results showed that EiB platform scored highest (three out of four) on the following parameters.

Two (2) – Identification of gender relevance: complete and accurate application of the cross-cutting marker for gender in Program results reporting. Although high, such assessment relates to the Center level. Being focused on knowledge implementation, EiB relies on the information from CGIAR partner Centers to provide gender-relevant data to incorporate in understanding market segments (which has to include gender, youth, nutrition and socio-economic impact). These data then serve as the basis to design gender-inclusive target product profiles of the crops for which breeding pipelines will be adjusted or developed.

Five (5) – High quality results reporting: program reporting is of adequate quality, and the evidence presented is properly archived, linked and accessible.

A rating between two to three was awarded to parameter six (6) – Availability of Program/project information: key Program and project information is available, findable, and accessible by specified System Entities.

During the scoping exercise preceding the inception report design, PMS approach limitations were flagged, including the fact that it was geared to CRPs. However, important learning towards design of the evaluation was provided as specified in Annex 5.

The EiB evaluation team will assess the extent to which relevant and applicable recommendations made by the assessment team have been taken on board.

1.3.5 Platform Funding and Budget

According to the Platform's Proposal, the foreseen 6-year budget amounted to just over US\$68m with annual budgets of between US\$10m and US\$12m.

Table 3: CGIAR Excellence in Breeding Platform- Funding and Budget (USD)

Module Name	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Total
Module 1. Breeding Program Excellence	1,824,627	1,915,858	2,011,651	2,112,234	2,217,846	2,328,738	12,410,954
Module 2. Trait discovery and breeding tools	2,146,559	2,253,887	2,366,582	2,484,911	2,609,156	2,739,614	14,600,710
Module 3. Genotyping/sequencing tools	936,116	982,922	1,032,068	1,083,672	1,137,855	1,194,748	6,367,381
Module 4. Phenotyping tools and service	1,534,011	1,610,712	1,691,248	1,775,810	1,864,600	1,957,830	10,434,211
Module 5. Bioinformatics and data management	3,101,892	3,256,987	3,419,836	3,590,828	3,770,369	3,958,887	21,098,798
Management & Support Cost	456,794	479,634	503,615	528,796	555,236	582,998	3,107,073
Strategic Competitive Research Grant	-	-	-	-	-	-	-
	10,000,000	10,500,000	11,025,000	11,576,250	12,155,062	12,762,816	68,019,128

Source: EiB Proposal, 2016

In terms of the budget allocation per module, Module 5 received the largest share of US\$21,098,798 (31%). Module 3 with US\$ 6,367,381 was allocated the smallest budget (9%).

The 2016 Proposal also includes budgeted costs for certain activities as depicted in the table below:

Table 4: Budgeted Costs for certain Key Activities¹⁰

Key Activities	Estimate annual average cost (USD)
Gender	\$4,535,000
Youth	\$7,558,000
Capacity development	\$11,337,000
Impact assessment	\$75,000

¹⁰ Drawn from the 2016 Project Proposal.

Key Activities	Estimate annual average cost (USD)
Intellectual asset management	\$41,360
Open access and data management	\$114,780
Communication	\$35,845

At the time of TOR development for this evaluation, funding for the Excellence in Breeding EiB Platform was coming from the CGIAR Trust Fund and donors including national governments, foundations, development banks and other public and private agencies, as well as the Crops to End Hunger initiative, with support from five bilateral funders: German Federal Ministry for Economic Cooperation and Development (BMZ), supported via GIZ; Bill & Melinda Gates Foundation (BMGF); UK Foreign, Commonwealth & Development Office (FDCO); United States Agency for International Development (USAID), and the Australian Centre for International Agricultural Research (ACIAR). More specifically, the following distinction with detail on other academic and private sector partners was presented:

Table 5: EiB Platform Funder Category – Other Academic and Private Sector Partners and Key Contributors¹¹

Funder Category	Other Key Academic and Private Sector Contributors
	CGIAR System Centers
CGIAR Trust Fund Contributors	Biosciences eastern & central Africa / International Livestock Research Institute Hub
	Cornell University
Crops to End Hunger Donors	Diversity Arrays Technology,
	Corteva
Bill & Melinda Gates Foundation	Bayer
	University of Queensland

How these budgets have evolved over time and how they have been spent will be assessed in detail by the evaluation team.

During the scoping exercise, EiB Platform provided a list with descriptive information on 25 (sub) grants awarded by the EiB Platform to CGIAR Centers and other organizations over the course of 2017 -2020 we have not been able to source information on key aspects of these grants such as how the procedure operates e.g., guidelines, selection criteria, what the key purpose of these grants is, and what results have been achieved to date. These issues will be investigated during the course of the evaluation. Of note is the fact that these grants are currently awarded by the Platform but there is a suggestion that at some point in the future, funding should go directly from funders to breeders, i.e., bypassing EiB.

1.4 EiB Platform Progress Towards Outputs 2017-20

Based on Annual Reports (2017, 2018, 2019 & 2020) Platform progress towards achievement of outputs is summarized in the table below. A detailed table with information by Module is provided in Annex 4.

¹¹ <https://excellenceinbreeding.org/content/funders-and-contributors> Accessed July 2021

Table 6: EiB Platform's Progress Towards Outputs 2017-20, Cumulative

2017	2018	2019	2020
<ul style="list-style-type: none"> - Platform leader, MQ hired in August 2017 - Membership agreements on the commitments expected of breeding programs participating in EiB and the benefits they can expect to receive in turn were signed by most CGIAR breeding programs - meeting of EiB contributors and expert advisory group (EAG)¹² members from CGIAR was held in Amsterdam <ul style="list-style-type: none"> o first time that CGIAR breeders jointly discussed product development concepts and how to improve breeding program management - EiB supported the implementation of the Breeding Application Programming Interface (BrAPI). 	<ul style="list-style-type: none"> - Contribution and response to the Crops to End Hunger initiative (CtEH) - USD\$7.4 M of new funding from GIZ for the CGIAR to respond to CtEH, disbursed by EiB - Change to Platform Steering Committee to include a representative from each CGIAR breeding center - Two annual Contributors' meetings: one with over 130 contributors, primarily from the CGIAR - Launch of the EiB "Toolbox", the online platform for sharing tools services and practical advice (http://excellenceinbreeding.org/toolbox). - Launch of breeding program costing tool to cost out all breeding program costs with IRRI - Supported fast-tracking development of B4R and the Enterprise Breeding System (EBS). Secured a further contract with INTERTEK for low-cost genotyping for marker applications for CGIAR breeding teams. 	<ul style="list-style-type: none"> - EiB has evolved from a provider of tools, services and know how to also providing consultancy, coordination and support for optimization and modernization across all of CGIAR breeding programs - co-develop the agenda for breeding program modernization in CGIAR/NARS and to respond to priorities set by the CtEH - development of optimization plans of all CGIAR and a selection of NARS breeding programs. 	<ul style="list-style-type: none"> - EiB increased direct collaboration with breeding programs to increased CtEH funding for enhancement across CGIAR and NARS breeding programs - Crop-level breeding improvement plans continued to be revised for the 9 breeding programs prioritized by CtEH - EiB is developing plans for investments in breeding infrastructure, machinery and equipment across Africa at key CGAIR research centers - KPIs were integrated into a dashboard to assess individual breeding programs.

¹² Composition to be confirmed.

Figure 3: Some activities conducted by research Center (CGIAR/non-CGIAR)

		2017	2018	2019	2020
Not CGIAR	CGIAR	<p>Launched Module 1 Breeding Program Excellence Center: IRRI</p> <p>Launched Module 4 Phenotyping Tools and Services Center: ICRISAT</p>	<p>Launched EIB Coordinator to ICAR-BMGF: Indian Genetic Gains Platform (IGGP) Center: IRRI</p> <p>Launched Cloud-based data processing platform for drone-generated images Center: ICRISAT</p>	<p>Launched: Crops to End Hunger (CtEH) Launched Module 3 Genotyping and Logistic support for West Africa Center: IITA</p> <p>Launched Demand-driven Sweet Potato Breeding for Uganda Launched Piloting Tools for Gender Intentional Product Profile Development Center: CIP</p>	<p>Launched: Enabling Digitalization at IITA Center: IITA</p> <p>Launched: Crops to End Hunger (CtEH) – IRRI- Excellence in Breeding (Improvement Plans) Center: IRRI</p> <p>Launched: Modernizing Seed Processing, Inventory System and Field Operation Center: AfricaRice</p>
	University	<p>Launched Module 5 Bioinformatics and Data Management Tools and Services. Center: Cornell University</p> <p>Launched Development of aerial phenotyping guidance Center: Barcelona University</p>	<p>Launched Module 5 Bioinformatics and Data Management Tools and Services. Center: Cornell University</p>	<p>Launched Demand-driven cassava Breeding for Uganda Center: Cornell University</p>	<p>Launched Module 2 Quantitative Genetics in Support f Excellence in Breeding Center: University of Edinburg</p> <p>Launched Module 2: Optimizing Breeding Schemes- Polyploid Crop Breeding Optimization via Simulation Center: University of Wisconsin</p>
	Research Centre	<p>Launched Module IV Phenotyping Tools and Services Center: IRD</p>	<p>Launched Module IV: Phenotyping Tools and Services Center: IRD</p>	<p>Launched Integrated Breeding Platform (IBP) Center: IBP</p> <p>Launched Module 5- Bioinformatics and Data Management Tools and Services Center: JHI</p>	<p>Launched Digitization of breeding programs at KALRO-Kenya and NARO-Uganda in preparation for EBS deployment</p> <p>Launched Integrated Breeding Platform (IBP) Center: IBP</p>

1.5 Stakeholder Mapping

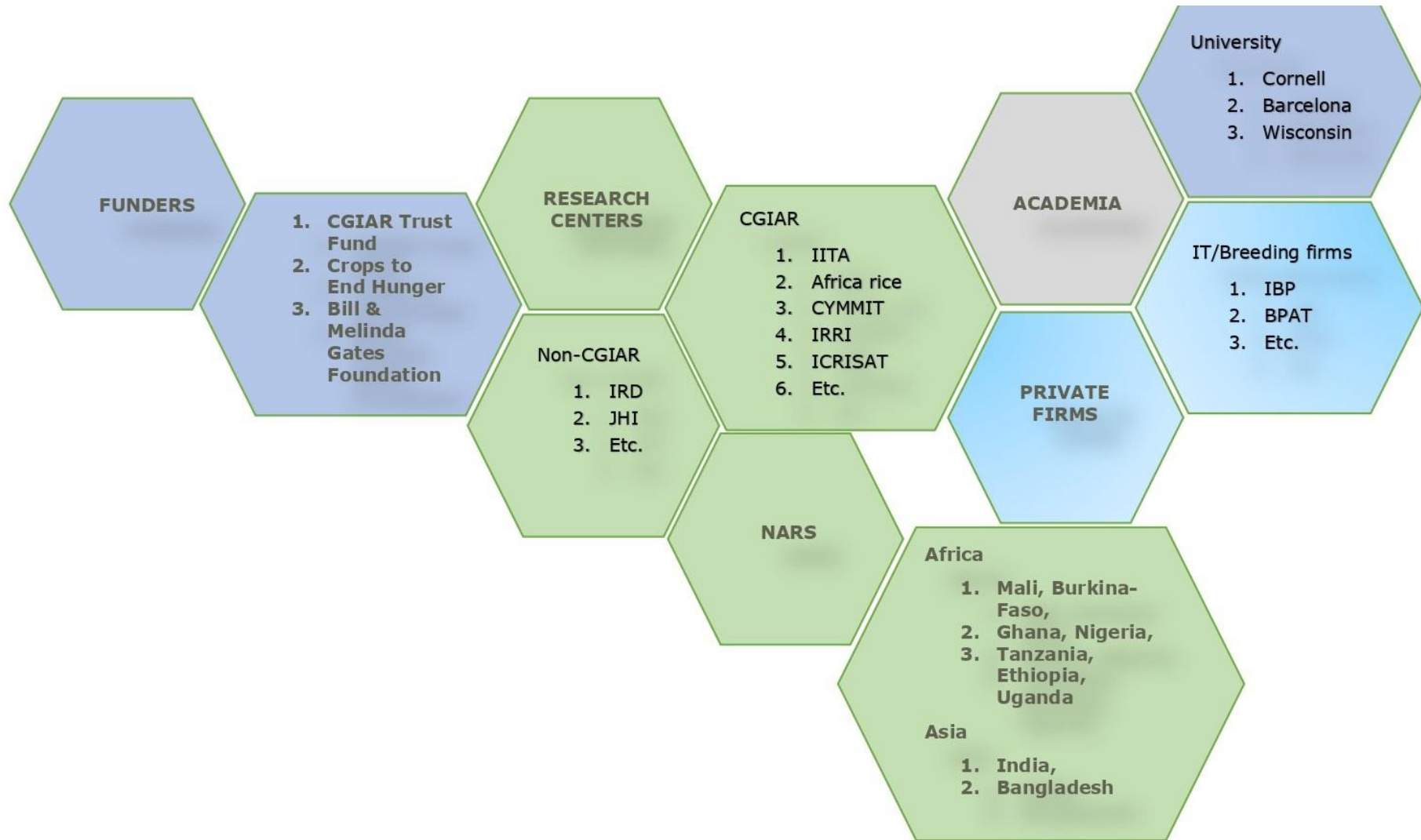
The Platform has numerous stakeholders that, to the extent feasible given the time allocated to the evaluation, will be widely consulted and engaged with throughout the evaluation process through relevant channels and using the appropriate tools. Based on defined roles and stakes, Platform stakeholders can be divided into three main categories:

1. **Leadership, Management and Governance Stakeholders**: which includes funders, management and coordination teams. Key stakeholders in this group are the CGIAR System, Council and Funders, the CGIAR System Board, the Platform Secretariat, the Steering Committee and the International Advisory Board and the CtEH Committee.
2. **Partners**: include a network of diverse partners comprising CGIAR Centers, the CRPs and other Platforms as well as external partners such as NARES, international organizations, academia, research institutes, CoPs and private companies.
3. **End Users**: varies by module and includes breeders, and farmers.

However, it should be noted that to date only limited information is available to the evaluation team as regards these different stakeholders. Support will be needed from EiB Platform to correctly identify the key players (and access their contact details).

Figure 5 above aims to depict the relations between stakeholders and their participation in different aspects of the Platform, as presented in Figure 6. A detailed list of stakeholders is provided in [Annex 3](#).

Figure 4: Stakeholder Mapping for EiB Platform



2 EiB Evaluation Objectives and Scope

This evaluation aims to serve the dual purposes of accountability and learning. It will be both summative and formative in nature and will assess the design, scope, implementation status and achievement of Platform objectives as well as the evolution of the Platform design to take account of new developments and the changing context in which it operates. It will collate and analyze lessons learned, challenges faced, and best practices identified during implementation to guide future planning. It will assess the performance of the Platform against planned results and the preliminary indications of the potential sustainability of achieved results. It will also assess the degree to which the core cross-cutting themes of Gender, Diversity, and Inclusion (GDI), youth, climate change and capacity development, as well open data and intellectual assets, have been addressed by the Platform. It aims to provide essential evaluative evidence for decision-making by the CGIAR System Council, EiB Platform management, and its partners.

Based on the availability of data, the evaluation will cover all the activities of the Platform from its initiation in 2017 up to the end of 2020. In those instances where relevant information is available for the first six months of 2021, it will be incorporated into the evaluation findings.

The main objectives of the evaluation of the EiB Platform as listed in the ToR are to:

1. Assess the **relevance and coherence** of the Platform design, its Theory of Change (ToC) and the Platform's role in providing services that create synergies and accelerate genetic gains of breeding programs targeting the developing world in support of its mission.
2. Assess the **effectiveness and efficiency** of the EiB Platform implementation, and its contribution towards CGIAR objectives, considering cohesion with other platforms and CRPs.
3. Identify the **supporting factors and constraints** behind achievements of the EiB Platform and each of its modules in light of the results achieved: governance and management, MEL, and other related implementation processes.
4. Provide **recommendations relevant to future** implementation aligned with the 2030 Research Strategy priorities of Action Area 3: Genetic Innovation, and related ways of working, and other system-wide recommendations.
5. Assess **sustainability** of the EiB platform achievements and its positioning in informing One CGIAR and future strategic directions, including in the breeding sector.

The formative and summative components will address both the efficiency of the Platform implementation strategy and the results (effectiveness). This includes the implementation modality, partnership arrangements, institutional strengthening, beneficiary participation and sustainability of the Platform. The evaluation will include a review of the project design and assumptions made at the beginning of the project development process. It will assess the extent to which the project results have been achieved, partnerships established, capacities built, and cross cutting issues integrated. Recommendations will be provided around areas for learning for initiatives under One CGIAR.

The evaluation criteria defined by the OECD DAC Network on Development Evaluation, guided the definition of the Platform evaluation questions and will serve as a framework for the analysis of findings. These criteria provide a "*normative framework used to determine the merit or worth of an intervention (policy, strategy, program, project or activity). They serve as the basis upon which evaluative judgements are made*". As proposed in the ToR, the evaluation will be guided by a series of Evaluation Questions (EQs) developed in accordance with five of the six OECD DAC evaluation criteria, consistent with the CGIAR Evaluation Policy, namely:

- **Relevance:** extent to which the intervention objectives and design respond to beneficiaries', global, country, and partner/institution needs, policies, and priorities, and continue to do so if circumstances change.

- **Coherence:** the compatibility of the intervention with other interventions in a country, sector, or institution; and overall coherence of both planning and implementation, particularly key in the networked matrix arrangements of the CGIAR and EiB platform set-up.
- **Efficiency:** extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way.
- **Effectiveness:** extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups
 - In the CGIAR context, attention is given to efficiency and effectiveness of institutional, governance, oversight and managerial arrangements, including responsiveness to changing circumstances, management of risk and the adjustment of resource inputs as necessary.
- **Sustainability:** extent to which the net benefits of the intervention continue or are likely to continue

The sixth criterion, Impact (extent to which the intervention has generated or is expected to generate positive or negative, intended or unintended, higher-level effects), is not addressed for three reasons: firstly, methodological and resource limitations. Secondly, consistent with the CGAR evaluation policy impact evaluations are not in the mandate of the CAS evaluation function and thirdly, because the platform has only been running since 2017 which makes any assessment of impact at this point in time unrealistic. That said, a sub-question on the extent to which the Platform has made progress towards its higher-level overall objective (to become the one-stop place to go for advice, tested resources and best practices for any breeding program targeting the developing world) has been included (Question 4.9).

Seven core Evaluation Questions have been elaborated to steer this evaluation and have been validated with SIMEC. They are presented in the table below.

Table 7: Evaluation criteria and questions

DAC Criteria	Key Evaluation Questions
Relevance	1. To what extent are the EiB Platform's objectives relevant to the needs of its internal and external partners and stakeholders, including end-users?
Coherence	2. How synergetic is the EiB Platform with other platforms and CRPs in CGIAR and comparable public and private sector programs/ initiatives?
Efficiency	3. Have resources (funds, human resources, time, expertise etc.) been allocated strategically and timely to achieve Platform outputs and outcomes?
Effectiveness	4. To what extent did the Platform achieve progress towards planned results? 5. Which internal and external mechanisms and factors, including inputs, contributed to, or inhibited, achievement of outputs and outcomes, intended and unintended?
Sustainability	6. What mechanisms have been put in place to ensure that EiB Platform assets, products and mechanisms are positioned to respond to donor requests (CtEH) 7. Which elements of the EiB Platform assets are likely to sustain and contribute towards One CGIAR?

A detailed Evaluation Matrix describing the sub-questions that will be used to respond to these seven core Evaluation Questions, including corresponding indicators and sources of verification is included as Annex 2.

3 EiB Evaluation Methodology

3.1 Overall Approach

The evaluation team will conduct a mixed methods design (qualitative and quantitative) to collect data and assess EiB Platform achievements and progress towards outcomes. Among the quantitative methods, the evaluation team proposes to draw on available statistical data and will conduct two online surveys to reach specific stakeholder groups (one internal to the Platform and one external to the Platform i.e., partner organizations). The qualitative methods will include semi-structured Key Informant Interviews (KII), Focus Groups Discussions (FGDs), document analysis, the synthesis of evaluative evidence, and four case studies. These different tools are described in more detail in the text below. Qualitative and quantitative methods will complement each other to provide credible and robust evidence in response to the evaluation questions.

Given the complexity of the context in which the EiB Platform operates, the ongoing reform process, the engagement of Platform staff in the design of new initiatives, and the diversity of sectors and stakeholders involved, the evaluation approach and methods will embrace a system thinking approach to capture interlinked issues. The qualitative inquiry will be exploratory in nature using open questions and snowball sampling. The approach will remain flexible and new data collection methods such as field visits to partner organizations can be designed and implemented after better familiarization with the context and the quality of data available, with a view to capturing any systemic and transformational changes among internal partners - CGIAR centers, CRPs and Platforms- as well as external partners – NARES and Communities of Practice (CoPs). The aim is to understand any intended or unintended changes (for example new collaborations, policy changes, new internal and external capacities, adoption of new practices) and to which extent the Platform has fostered or contributed to those.

The Evaluation Matrix (in [Annex 2](#)) forms the main analytical framework and sets out how each evaluation question and evaluation criterion will be addressed. It breaks down the main questions into sub-questions, mapping them to indicators, data collection and analysis methods, or/and lines of inquiry, and sources of information. The evaluation matrix ensures that all data collected is analyzed and triangulated and supports the identification of evidence gaps. As such, the Evaluation Matrix ensures that the evaluation design is robust, credible (reducing subjectivity in the evaluative judgement) and transparent. The evaluation team has been actively engaged in the revision of the original list of sub-questions and has incorporated new ones based on the desk review and feedback from SIMEC members.

Consistent with priorities under the Effectiveness criterion, and given the importance attached to change management by the Platform, particular attention will be given to organizational development and the management of change both within the Platform and by Partners. For clarity we look at Organizational Development (OD) as interventions that are developed with a 'systematic mindset' – they create alignment with the organization's goals and activities in a planned and intentional way, with a view to bringing about a particular result that will improve the overall performance of the organization. OD focuses on the organization's strategy, goals, and core purpose, as well as on maximizing the value gained from the organization's resources, including:

1. **'People'**: e.g., people, processes, leadership, culture, HR policies, organizational behavior. Driven by the behavioral sciences, typical interventions include performance management, reward and motivation, employee surveys, psychometrics, coaching, mentoring, training etc.
2. **'Technology & operations'**: including science / R&D, operations, physical structure. Typical interventions include e.g., Lean/Six Sigma, business process re-engineering, outsourcing, training etc.
3. **'Strategy & structure'**: including business planning, transformation programs, corporate/central services.

Change Management is a collective term for all approaches to prepare, support, and help individuals, teams, and organizations in making organizational change. Critical within Change Management is the role of the individual, therefore requiring an understanding of resistance, organisational defence routines, pervading cultures and the engagement process required to bring people along.

The validation of results and quality assurance will rely on triangulating data and findings from different data sources and methods e.g. cross-checking the results of surveys with KII. This approach will also help in ensuring transparency, independence of judgement, and minimization of bias. A two-stage analysis will be conducted: **Seven Module Assessments covering the seven EiB Platform Modules will be conducted concurrently** and will serve as the main input for the final evaluation report. In addition, internal and external peer reviews will help strengthen the soundness of the articulated lessons learned and recommendations. Presentation of findings will rely on verifiable evidence and robust inference pathways from evidence to conclusions and from conclusions to recommendations.

The evaluation approach will ensure the integration of the following principles: participatory, learning-oriented, utilization-focused and gender responsive. Participation implies that the continuous involvement of different stakeholders throughout the evaluation process leads to conclusions and recommendations that are more widely acceptable, and thus more likely to be acted on, and more likely to lead to the envisaged outcomes. The Platform coordination team has already been engaged with and will be invited to participate actively in the evaluation through the review of the evaluation matrix, the inception report, data collection instruments, and in the interpretation of the results. Stakeholder groups that will be consulted will be inclusive of all stakeholders' categories and subcategories (see stakeholder mapping in Section 1) and special attention will be given to gender balance and youth inclusion. Likewise, data collection will be conducted in a way that ensures full understanding, respect and complete confidentiality of stakeholders' views and perceptions. In order to do so it is essential that evaluators establish a relationship of trust with those being consulted/interviewed and that the latter perceive that an evaluation is a constructive exercise, an opportunity to step back and see what is working and what is not and how to improve. It is key that all parties involved understand that evaluators and evaluands share the same objective; improved performance of the EiB Platform.

Although it is important to stress that the evaluation team will work as a team, each Module Assessment will be led and drafted by a designated member of the team with back up support provided by a second team member. Cross cutting issues are also attributed to specific team members as depicted in the table below.

The clear designation of roles within the team will allow team members to flag all relevant issues that they come across in their work to the person with overall responsibility for that Module/topic. The Module Assessments will adopt the analytical framework centered around the evaluation questions and sub questions outlined in the evaluation matrix as described in Section 2 of this report. In addition, logistic, coordination and analytical support will be provided by the Team Leader (TL) and one of the Subject Matter Experts (SMEs).

Table 8: Allocation of EiB Modules/Topics to Evaluation Team Members

MODULES/TOPICS	Subject Matter Expert	MR	VM	SA	FN	KM
1. Product Design and Management	-					
A standard breeding program performance management system to monitor successes from the lab to the farmers' fields, highlighting strategic areas for research and investment.	LEAD: Michel Ragot (MR) BACK UP: Sumita Acharjee (SA)	X		X		
2. Optimizing breeding schemes	-					
Access to support and knowhow to optimize breeding schemes, respond appropriately to changes in resources and to extract maximum value from implementation of new technologies, tools or services to the breeding process to achieve the highest possible rate of genetic gain	LEAD: Michel Ragot BACK UP: Sumita Acharjee	X		X		
3. Genotyping/ Sequencing	-					
Access to genotyping services at reduced cost, and support for breeding programs to optimise the use of genomic data in their work.	LEAD: Michel Ragot BACK UP: Sumita Acharjee	X		X		
4. Operations and Phenotyping	-					
Information about new tools and approaches to quantify plant and animal traits, access to services and shared infrastructure, and support the routine use of cutting-edge phenotyping in breeding programs.	LEAD: Michel Ragot BACK UP: Sumita Acharjee	X		X		
5. Bioinformatics, biometrics and data management tools and services	-					
Access to integrated bioinformatics tools and biometrics support that allow breeding programs to harness the power of genotype, phenotype and other data.	LEAD: Freddy Noma (FN) BACK UP: Michel Ragot	X			X	
6. NARES engagement	-					
Build more effective CGIAR-NARES Breeding Networks Support NARES to develop and implement customized improvement plans. Support NARES programs directly through advisory services, training, resources Provide linkage to EiB modules as required	LEAD: Karen McHugh (KM) BACK UP: Sumita Acharjee			X		X
7. Adoption & Outreach	-					
Speed up and improve deployment and adoption of tools, processes, and services	LEAD: Freddy Noma BACK UP: Vanda Morgan (VM)		X		X	
Themes						
Organizational Development	Vanda		X			
Capacity Development	Sumita			X		
Partnerships, including with NARES, private sector, UoQ, etc	Karen/Michel		X			
Gender, Diversity, Inclusion (GDI); Monitoring, Evaluation and Learning (MEL)	Karen/Sumita			X		X
Funding	Karen/Freddy				X	
Open data and Intellectual Assets ¹³	Freddy				X	

¹³ Maximum synergies on exploring this theme will be sought with an ongoing evaluation of the Big Data in Agriculture platform.

The evaluation will be guided by the validated terms of reference ([Annex 8](#)) with evaluation design reflecting preliminary evidence and faced limitations. CAS Secretariat's processes will guide, and quality assure the evaluation process.

3.1.1 Data Collection Methods

As noted in the evaluation matrix in Annex 2, the main data sources to be used by the team, include documents/data and statistics, Key Informant Interviews (KIIs), Focus Group Discussions (FGDs), on-line surveys, and four case studies. Field visits to CGIAR center(s) and other partner organizations in India and Benin are currently being discussed.

i) Analysis of Documents/Data/Statistics

Like other analytical methods in qualitative research, document analysis requires that data be examined and interpreted in order to elicit meaning, gain understanding, and develop empirical knowledge (Corbin & Strauss, 2008; see also Rapley, 2007 cited in Bowen, 2009). Through its Share Point (SP), the evaluation team has been provided with access to some core Platform documents (see Annex 1). An initial review of these documents took place during the inception phase in order to get an initial understanding of the EiB Platform structure, governance and management, implementation, as well as an initial appraisal of progress made to date.

ii) Key Informant Interviews and Focus Group Discussions

Key Informant interviews (KIIs) and Focus Group Discussions (FGDs) will help triangulate the quantitative and qualitative data collected through desk research and surveys. We envisage that the majority of KIIs and FGDs will be via videoconference though there is scope for potential face to face interviews given the physical location of certain evaluation team members (India and Benin). The identification of interviewees will be as inclusive as possible of the categories and subcategories identified in the stakeholder mapping in Annex 3. To avoid any duplication of effort, lists of potential interviewees will be drafted and shared among team members and where the same person is identified by other team members, the scheduling of meetings will be coordinated. A list of core interviewees who will need to be interviewed by a majority of the evaluation team members will be elaborated. The list of core interviewees (as it currently stands is included as Annex 6). Interviews will be approached as discussions semi-structured around a number of key issues which will vary in function of the interviewees. The aim is to encourage stakeholders to talk freely about what they consider important. Members of focus groups will be identified in the next phase of the evaluation and will be agreed with the EiB Platform team. The participants and content of FGD will be decided once some initial interviews have taken place. This will allow the team to assess the potential added value of FGDs. At this point in time, it is likely that a representative group of NARES and members of the PSC as well as members of some CoPs would be invited to attend a FGD but this will be confirmed later when more information is made available to the evaluation team.

iii) Online surveys

The evaluation team is considering conducting online surveys targeting different users of the Platform and partners including the members of communities of practice and NARES. The content of this survey(s) and the target groups are currently being discussed and an initial list of questions to be shared with CAS. Support will be required from EiB team to identify potential participants and corresponding contact details. The evaluation team will use SurveyMonkey software for survey administration and analysis.

iv) Case studies

The evaluation team will conduct relevant case studies of different parameters of the work related to EiB from its inception. For each case study, the analysis framework will be developed in line with the key elements of the evaluation matrix. Case studies will be purposefully selected to showcase the diversity of the EiB Platform's stakeholders and respective needs, and the modules' related outputs, outcomes, failures, and successes. Case studies will include but may not be limited to the following actions:

- Breeding programs' performance assessment (BPAT), recommendations for improvement, and improvement plans (Module 2): one large CGIAR Center's program and one of the smallest/least

resourced NARES breeding programs, including assessment of a Breeding program for Africa (for which breeding program efficiency assessments have been conducted either through at least one, preferably two of: BPAT, CG internal assessment, private partner assessment, or EiB assessment). The case study will focus on both methodology and results of the assessments, technical quality of the recommendations by EiB platform towards improvement plans, and the partnership between EiB and the University of Queensland (UoQ), implementing BPAT. The study of large CG breeding programs and small NARS breeding programs and of different methodologies, will provide valuable insights into how the relevance and fit of assessment methodologies to very different breeding programs operating in very different contexts. Breeding program assessments are the basis of Module 2 as improvements can only be made based on a good understanding of a breeding program's current ways of working and context.

Box 1. Breeding programs' Performance Assessment (BPAT)

The BPAT is an assessment tool that facilitates a structured review of key technical, capacity and management components of plant breeding programs to help design improvements that increase their efficiency and achieve higher rates of genetic gain. This tool was developed with the support of the Bill & Melinda Gates Foundation and is being run by the University of Queensland with its own staff and ad hoc consultants.

- It is a structured evaluation process for breeding programs that assesses their management and organization using criteria commonly used to evaluate commercial plant breeding programs
- It consists of a questionnaire and an evaluation visit by a team of cultivar development experts
- A scorecard and report are generated describing program strengths and areas for improvement
- The evaluation can then be used by the breeding program as a basis for developing an improvement plan
- The tool is used by select donors for evaluating and developing subsequent investments in crop improvement

The BPAT focuses on the following elements:

- Clarity of program objectives and product concepts
- Technical capacity of staff
- Organization of breeding pipelines
- Management, accountability, and "incentivization" of scientific teams

The figure below illustrates an initial list of countries and staple crops and countries targeted for use of BPAT mapped against the improvement plans provided for CGIAR centers, breeding's selected crops.

BPAT Target countries	BPAT Target breeding programs	CGIAR centers with improvement plans
AFR: Mali, Burkina Faso Ghana, Nigeria, Tanzania, Ethiopia, Uganda SE Asia: India, Bangladesh	1. maize	- International Rice Research Institute (IRRI) - Philippines
	2. wheat	- International Crops research Institute for the Semi-Arid Tropics (ICRISAT) - INDIA
	3. sorghum	- International Maize and Wheat Improvement Center (CIMMYT) - Mexico
	4. rice	- International Potato Center (CIP) - PERU
	5. cowpea	- The International Center for Agricultural Research in the Dry Areas (ICARDA) - Lebanon
	6. chickpea	- International Institute of Tropical Agriculture (IITA) - NIGERIA
	7. common bean	
	8. groundnut	
	9. yam	
	10. sweet potato	
	11. cassava	
	12. banana	

Sources: * <https://plantbreedingassessment.org/bpat-project/bpatmission/>

**EiB Platform as per request of CAS

For more information on BPAT see <https://plantbreedingassessment.org/>

- Infrastructure assessment (Module 4): one large CGIAR center's program and one of the smallest/least resourced NARS breeding programs. The case study will focus on both methodology and results of the EiB-led assessments, identified gaps, and recommended/implemented solutions. The study of a large CG breeding program and a small NARS breeding program will provide valuable insights into the relevance and fit of assessment methodology to very different breeding programs operating in very different contexts. Infrastructure assessment are the basis of Module 4. They result in improvements and investments and are followed-up by impact monitoring.
- Data management (Module 5): This case study will focus on both methodology and results from identification and prioritization of needs to enable easy access for breeding stakeholders to all needed information to make the best-possible breeding decisions. To the extent possible, the design of this case study will benefit from ongoing evaluation of Big Data platform in agriculture.

Other case studies may be added to this list as deemed appropriate by the evaluation team, in consultation with CAS.

3.1.2 Phases of the EiB Evaluation

i) Inception Phase

An induction meeting took place via videoconference on 4 August between the evaluation team and the CAS Secretariat. The inception phase is dedicated to designing evaluations, with fine-tuning evaluation sub-questions and methodology based on initial understanding of the Platform: review of documents obtained by CAS and Two (2) introductory meetings with members of the EiB Platform on 10 August (Michael Quinn and Jan Debaene) and 18 August (Brenda Bautista Perez and Nick Tang).

The inception phase focus was/is on the following elements:

- Refinement of the evaluation questions, elaboration of evaluation methodology including quantitative and qualitative approaches through an evaluation framework ("evaluation matrix")
- A stakeholder analysis identifying key stakeholders, networks, and channels of communication
- Identification of key output achievements to date based on annual reports and 2016 proposal
- Initial mapping and analysis of sub grants, and aggregate information on BPATs
- Division of roles and responsibilities between the evaluation team members
- Participation in the development of the Theories of Change for the seven Modules

Building on review of the Inception report, a consultation will be arranged between CAS Secretariat, the evaluation team and members of the EiB Platform management to discuss the evaluation approach and methodology and finalize the evaluation matrix.

ii) Data Collection and Analysis Phase

The data collection phase is meant primarily to collect data from desk research and stakeholder consultations (KIIs, FGDs, Online surveys...). The Evaluation team will collect the evidence according to the plan, complete its analysis, and prepare a preliminary list of findings and conclusions.

iii) Reporting Phases and Deliverables

The ToR identify key deliverables, to be adjusted according to the evaluation design. Detail on evaluation phases to tasks, outputs by responsibilities and deliverables is provided in table 9. Key deliverables include:

The inception report: the inception report, which builds on the Terms of Reference for the evaluation, outlines the evaluation team's proposed approach to the main phase of the evaluation as follows: (i) elaborating the scope and focus of the evaluation; (ii) developing the methodological tools for gathering evidence; (iii) providing a detailed evaluation matrix; (iv) clarifying the analytical frameworks to be used by the evaluation; and (v) providing a detailed work plan for the evaluation.

The module assessment/case study reports- To ensure uptake of learning through targeted communication with relevant stakeholders, the module case study reports will be stand-alone documents, and executive summaries annexed to the EiB Platform Evaluation Report, with extracts presented in the evaluation report as applicable in answering the evaluation questions

The evaluation report- the main output of this evaluation - will describe findings and conclusions, based on the evidence collected in the framework of the evaluation questions defined in the inception report, and recommendations logically following the conclusions. Case study reports will be the core systematic triangulated pieces of evidence, and the recommendations will be evidence-based, relevant, focused, clearly formulated, and actionable. They will be prioritized and addressed to the different stakeholders responsible for their implementation. The main findings and recommendations will be summarized in an executive summary. The main evaluation report should be concise (no longer than 25 pages – excluding the Executive Summary and Annexes) and written in plain English, following CAS style guide. The final evaluation report will be published on the CAS Secretariat's website. The evaluation team produce a two- or three-page brief of key findings and lessons, following a template provided by the CAS Secretariat.

The draft evaluation report- The evaluation team will submit a first- draft report to the CAS Secretariat as part of the quality assurance process. Upon the acceptance of a draft of adequate quality, CAS Secretariat will share this first -draft report with a team of peer reviewers. The first draft will be shared with the Platform team for their review and comments- for any errors of fact and highlight the significance of any such errors in any conclusions. Subsequently, a pre-final discussion version of the report will be presented to SIMEC for feedback. With the feedback of SIMEC integrated, the discussion version of the report will be presented to System Council for their input which will guide the final evaluation report.

The final report will be submitted to the Evaluation Function Lead in electronic editable form (MS Word) aligned with CAS Secretariat's style guide. The template for case studies and the final report will follow a standardized structure of the CAS Secretariat, and will be adapted as needed for subsequent finalization and professional editing of the report. The evaluation Team Leader will be responsible for addressing editors' suggestions, in consultation with the team as necessary and within a short time frame.

Presentations/slides: CAS will facilitate organization, and the evaluation team will prepare a presentation for validation the evaluation results with the EiB Platform, to finalize the report. After presentation to the SIMEC, and endorsement of the report by the System Council, CAS with potential participation from evaluation team members will present results to key CGIAR stakeholders (internal and external) via various communication channels to targeted audiences, in a tailored way. The inception report, evaluation report, the executive summary, the evaluation briefs and other knowledge products along with the management response, will be published on the CAS Secretariat's website.

i) Management Response

CAS Secretariat will liaise with the EiB Platform management to coordinate the preparation of the management response, as per the timelines indicated in tables 8 and 9. The management response will be published on the CAS Secretariat website.

Indicative Evaluation Report Outline

Executive Summary

Introduction

Methodology

Limitations

Key Findings

- Relevance
- Coherence
- Efficiency
- Effectiveness
- Sustainability
- Lessons Learned

Conclusions

Recommendations

Annexes

References

Executive Summaries of Module Assessments

Executive Summaries of Case Studies

List of Stakeholders Consulted

Questionnaire from KIIs

Online Survey questionnaire

Evaluation Matrix

ToRs

3.1.3 Limitations and Mitigation Actions

A key potential limitation is the limited availability of EiB staff due to their intense involvement in the ongoing CGIAR reform and design of initiatives¹⁴ as well as other activities, such as the development of ToC in response to donors' requests.

An ongoing limitation at the time of elaboration of this report has been the limited availability and incompleteness of key documentation such as those listed above (Data Collection Methods).

The evaluation has limited time and both the nature of the evaluand—a complex Platform whose stakeholders and end users are spread all over the world— and the current travel restrictions caused by the COVID-19 Pandemic make travel unlikely. A review of this type might usually expect to commit a significant proportion of its effort to talking to a sample of end users of products. Also, a review with a field work element offers the opportunity for discovery, follow-up questions and interviews, and comparison of with and without cases. These approaches can enrich findings and improve recommendations. In the case of this review, this will not be possible as it is wholly desk based. However, through the use of virtual interviews and in particular group interviews/focus group discussions, it is hoped that this limitation can be mitigated to a certain degree.

The evaluation team is aware about the shortcomings of conducting online consultations and the effects this model can have on the quality of interactions between evaluators and stakeholders. For this reason,

¹⁴ To diminish after submission on September 30, 2021.

interviews are designed to be semi-structured, and stakeholders will be strongly encouraged to share their ideas freely about what they consider important.

In the case of surveys, there is a risk that they may not yield sufficient responses. To address this risk, the team will design short and structured surveys that provide the maximum information from the minimum amount of time and will clearly identify the benefits to be derived by participants from their active engagement in the survey. The response rate will be closely monitored, and reminders will be sent if necessary.

In order to access meaningful and insightful information that can be constructively used, it is essential for evaluators to establish a relationship of trust with those being consulted. Lack of physical contact can limit the scope for this type of trust to be developed but we are aware of this risk and have successfully overcome it in previous evaluations of CGIAR CRPs so we hope to do the same for the EiB Platform.

4 Evaluation Workplan, Management, Dissemination and Quality Assurance

4.1 EiB Evaluation Workplan

The EiB Platform evaluation follows a pre-determined and standardized process that is guided by the ToRs, and to the extent possible- the ongoing evaluation of Big Data in Agriculture platform. The table below provides an indicative timeline for the evaluation.

Table 9: Indicative Evaluation Timeline



Further detail on alignment of evaluation phases to tasks, outputs by responsibilities and dates is provided in table 10.

Table 10: Overview of evaluation tasks and outputs, by phase and roles

Evaluation Phase	Tasks	Outputs	Responsible	Dates 2021
<i>Preparatory</i>	Draft evaluation ToR / ToR Revisions	Final evaluation ToR	CAS Secretariat	July 30
	Selection of consultants from the vetted roster	Evaluation team contracts.		

Evaluation Phase	Tasks	Outputs	Responsible	Dates 2021
<i>Inception</i>	Onboarding and briefing of the external evaluation team	PPT	Evaluation Team; CAS Evaluation Function	August 4
	Development of the Inception report with the evaluation matrix	Draft inception report with evaluation matrix	Evaluation team	August 26
	Introduction of the EiB Platform management, and IR validation	Intro PPT from the Platform	CAS team to facilitate	30 July
	Integration of feedback from peer review on the methodology.	Final inception report and evaluation matrix	Evaluation team	September 3
<i>Inquiry: data collection and analysis</i>	Desk review	Interview guide	Evaluation Team	Sept 10 - October 8
	Survey	Survey instrument, survey result note		
	Interviews	Interview notes		
	Analysis for developing Module Assessments	Case studies/ Module Assessment reports		
<i>Reporting</i>	Data triangulation, analysis, and report development	Detailed report outline to CAS	Evaluation Team; CAS Evaluation Function	October 18-22
	Validation workshop with the EiB Platform management	PPT		
	Submission of draft Platform evaluation report	Draft Platform evaluation report	Evaluation Team	November 1
	Report review by CAS, peer-reviewers and key stakeholders as needed.	Compiled feedback by peer-reviewers and key stakeholder groups.	CAS with peer-reviewers	Nov 1-5
	Integrating CAS and peer-reviewers feedback into the final discussion version of report	Draft discussion final report	Evaluation Team	Nov 6 – December 4
	Presentation of Draft final Report to SIMEC for feedback	Draft final report, PPT	CAS Secretariat with selected SMEs	
	Revision of the final report integrating SIMEC's feedback	Revised draft final Report	Evaluation Team	
	Presentation of final Report to System Council	Draft final report. PPT	CAS Secretariat/ Evaluation Team	December 10
	Integration of any relevant feedback, if applicable	Final report	Evaluation Team	
<i>Management Response</i>	Liaising with Project Coordination, Monitoring and Performance Unit for obtaining management Response coordinated	Management response	CAS Secretariat	December 2021
<i>Dissemination and Knowledge Management</i>	Development of knowledge products and knowledge management in line with dissemination and KM strategy	Evaluation briefs and knowledge products.	CAS Secretariat/ Evaluation team where necessary.	November - Onwards

4.2 Evaluation Management

4.2.1 Role of the CAS Evaluation

CGIAR Advisory Services Secretariat (CAS) will guide the evaluation team in the design and implementation of the evaluation. To ensure the independence of the evaluation, the CAS Secretariat's staff will not participate in selected KIIs and FGDs where their presence could bias the responses of external stakeholders. Adequate consultations with evaluation stakeholders will be ensured by the EiB evaluation team and the CAS Secretariat throughout the process, with debriefings on key findings held at various phases of the evaluation. CAS will organize validation meeting with the EiB platform for the evaluation team to present results. The Evaluation Function Lead will ensure transparent and open communication with stakeholders at each phase.

4.2.2 Platform Management

The Platform's management, steering committee and focal persons will respond to the Evaluation team's needs for information throughout the evaluation: documentation and data, access to partners and staff for engagement with the evaluators, and information on partners and stakeholders. These actors will also be responsible for giving factual feedback on the draft evaluation report.

4.2.3 Team Leader Role

CAS secretariat has framed and agreed the EiB evaluation with the CGIAR System Council through SIMEC, and these are the bounds within which the Team Leader (TL) will direct and coordinate the process. The Team Leader, who is the lead author for the report, will be coordinating and quality assuring this effort and be accountable for the evaluation team's performance and provide clarifications after submission of the final report. The role of the TL includes:

1. Serve as a main point of contact for CAS Secretariat for the Platform Evaluation team
2. Manage Subject Matter Experts (SMEs) and other members of the evaluation team, aided by the CAS' Evaluation Function
 - a. Lead the evaluation team during the relevant evaluation phases
 - b. Oversee the preparation of, and quality-assure data collection outputs by SMEs and other members of the team, such as case study reports
 - c. Consolidate team members' inputs to the evaluation products (interview guides, online survey instruments, inception report and the evaluation report)
3. Lead the delivery of the inception report, draft and final evaluation reports
4. Inform CAS of any potential delays and management-related issues
5. Contribute to the knowledge management of documentation across the EiB Platform Evaluation team, in line with contractual obligations of CAS ownership of such documentation
6. Monitor any arising declarations of interest among the Subject Matter Experts and raise these to the attention of CAS Evaluation Lead and CAS Secretariat Director.
7. Where necessary, represent the evaluation team in meetings with stakeholders
8. Specific tasks of the TL through the course of the evaluation include:

1) PREPARATION-

Briefing by the CAS Evaluation function, familiarization with background reading of specified in the ToR and other documents as required, helping to facilitate onboarding and recruitment of subject matter experts and peer-reviewers by CAS.

2) INCEPTION

- a. Lead the refinement of the evaluation questions, elaboration of the Platform evaluation methodology with quantitative and qualitative approaches, including case studies, through an evaluation framework. The analytical framework would identify the means of addressing the questions, including an outline of the data collection methods and instruments, this would feed into the development of the inception report
- b. Lead the conduct of the stakeholder analysis/mapping with the identification of groups of interlocutors and the Platform's internal and external partners, and preliminary list of

- interviewees and possible surveys to be conducted with the division of roles and responsibilities between the team leader and the SMEs
- c. Oversee preparation for and conduct of a consultation on the Platform evaluation methodology and approaches with CAS and external peer reviewers
- d. Lead the development of Inception report with peer-reviewed evaluation approach and framework, workplan, limitations and other key domains in line with IEA Guidance on evaluation inception reports
- e. Lead the preparation of the Platform evaluation report outline in line with the IEA Guidance Note 5, in close collaboration with CAS Evaluation function.

3) INQUIRY

- a. Coordinate and provide guidance to the evaluation team's analysis and work
- b. Provide substantive leadership to the overall analysis, findings, conclusions, and recommendations of the Platform Evaluation and Module Case studies
- c. Coordinate review and meta-analyses and compilation of preliminary evidence along the evaluation matrix
- d. Coordinate compilation of reflections on the preliminary evidence
- e. With SMEs, coordinate and participate in interviews with internal and external Platform stakeholders, as needed, using interview guide(s).

4) REPORTING

- a. Lead the preparation of the detailed report outline, coordination of the inputs provided by the team members, preparation of the draft Platform Evaluation report
- b. Lead the preparation of the comprehensive discussion version of Platform Report for System Governance; coordinate the validation consultation workshop with CAS Evaluation
- c. Manage the integration of relevant feedback into the discussion version of Platform Evaluation Report for System Governance
- d. Coordinate the development of materials for selected presentations and learning events around the launch of the Final Platform Evaluation Report (PPTs, briefings etc.).

4.2.4 Subject Matter Experts' Role

SMEs will report through the Team Leader to CAS Secretariat. The TORs for the Subject Matter Experts direct them to focus on the CGIAR areas of work for which they have specific expertise, with necessary coordination and collaboration with other SMEs. Each SME was assigned to lead the development of a designated module component study report. To achieve this, the SMEs will address the questions set out in the Analytical Framework described above, as they relate to the designated modules within their purview and integrating cross-cutting themes.

The module case study reports will be stand-alone documents, and executive summaries annexed to the EiB Platform Evaluation Report, with extracts presented in the evaluation report as applicable in answering the evaluation questions. The Team Leader will ensure a consistency of approach between the experts and alignment with the evaluation TORs. The Team Leader will be responsible for their ultimate collation as a unified evaluation report.

4.3 Knowledge Management and Dissemination

The evaluation report of the CGIAR Platform for Excellence in Breeding will be disseminated to key internal and external stakeholders. The evaluation report and its derivative products will be publicly available and in appropriate formats. User-friendly, and visual communications products, tailored to specific audiences will be developed to create awareness, promote adequate utility, accessibility, dialogue, follow-up and reach to support organizational learning and use for decision making. The potential for additional derivative products picking up on specific issues will be assessed based on the strength of evidence in the technical report.

The 2021 Platform evaluation dissemination and knowledge management (KM) strategy covers internal knowledge management of evidence. The KM strategy comprises two parts (a) the first part embodies an internal communication and dissemination plan targeted to CAS Secretariat's internal stakeholder groups and (b) the second part covers an external plan, targeting engagements with key external stakeholders.

The team will ensure the documentation of processes for knowledge management is established and maintained and recognizing the relative quality and independence of different source materials used. These will include all analysis documentation and Notes from the interviews – where appropriate. Access has been provided to the extant documentation relating to the Platform and is being expanded. Confidentiality is expected as spelled out in contracting documents. Access to internal files will terminate when contracts concluded, whenever these may be granted.

4.3.1 Quality Assurance

Across the evaluation lifecycle, a multi-layered quality assurance system which addresses all dimensions of quality, including evaluation design, process, team, timelines, and the final deliverables will be followed in order to meet the objectives of EiB Platform.

Quality Assurance by CAS: CAS is responsible for the quality assurance of the evaluation process and outputs, and for dissemination of the evaluation results. CAS secretariat will work closely with the evaluation team throughout the evaluation, and will ensure that the tools and methodologies, as well as the process followed, are in line with CGIAR Evaluation Policy and Standards. Regular communication between the evaluation team and CAS, and check-ins at the key points, are standard.

External peer reviews: CAS quality assurance of evaluations includes external peer review for each evaluation at two stages in the evaluation process. First, evaluation peer reviewers will check the choice of methodology to assure the quality and technical soundness and, second the draft evaluation report; the SME peer-reviewers will review the programmatic and technical findings, and, whether it is appropriate for answering the evaluation questions, that the design is valid for the methodology, the sampling and data analysis are appropriate, and finally the results and conclusions are valid for the sample and context. At each stage the drafts are circulated for review and comments from the external peer reviewers and the comments made are collated and addressed in a matrix, which is provided to the evaluation team.

The Team Leader: the team leader is responsible for the first level of QA; responsible for checking the quality and promptness of all outputs and ensuring that the evaluation complies with CGIAR Evaluation standards and with broader international evaluation standards. The team leader will assure the quality of the SMEs processes and products, this oversight function will be a critical role for the Team Leader in ensuring consistency and quality of the overall evaluation.

Quality Assurance checklists: The QA checklists will be useful tools for self-assessments, and to facilitate intra team coordination and communication. When used by the TL and SMEs it will help ensure the team is focused on delivering towards the Platform evaluation's desired objectives. These will include:

- Interactions between TL and SME – communication, understanding of the methodology, clarity on roles and responsibilities, mutual reliance, coordination and collaboration etc.
- Team interactions with CAS, partners - constructive engagement, coordinated approach of the team, sharing data etc. as required, constructive stakeholder interviews etc.
- Progress in data collection and analysis – to ensure scope of work and report template are well understood and followed, evidence basis is understood, and qualitative and quantitative analyses integrated appropriately.
- Ensuring preliminary findings and conclusions are clearly and logically presented, objectively determined and supported by documented evidence.
- Final findings are derived directly from the Platform evidence, backed by use of evidence from cross-cutting themes and logically described in ways that answer the evaluation questions and sub-questions.
- Recommendations must be directly derived from specific conclusions and be realistic and actionable, within the parameters of the 2030 CGIAR Research and Innovation Strategy.

Final report check: In the week of 5 November, the evaluation team will submit its 2nd draft report (integrating feedback from peer-reviewers), to CAS Secretariat first and then discuss any further clarifications needed with Platform stakeholders. The QA checklist for the draft report will provide further

QA guidance to the review team. Challenges and opportunities identified in these discussions will be resolved into the report. QA checklists for the evaluation reports set out the requirements for inter alia:

- Clarity and logical flow in the reports
- A concise executive summary, setting out the scope and purpose of the evaluation and the key questions addressed, briefly describing the methods used and summarizing the main findings, conclusions, and key recommendations
- A clear and concise introduction and background, and description of the scope of the review methodology, organization of the review team and summary of limitations
- The methodology will need to outline the approach used and rationale, the data analysis methods used and the limitations and mitigation of the Platform evaluation
- The findings sections will need to be clearly and logically described, evidence based, and limited to what has been observed, collected, mined, or calculated from the reference materials and data sources, answering the evaluation questions. Charts and tables must be easy to read and interpret and the discussion of evaluation findings should be objective and balanced, covering both positive and negative findings and clearly addressing all the evaluation questions and sub-questions, with explanations for those that cannot be answered
- Conclusions must be clearly derived from stated findings, be formulated to answer the Evaluation Questions and sub questions, and the recommendations must derive directly from these.

All recommendations must be realistic, actionable, and clearly indicate who is responsible for taking recommended actions and at what level

In style, the reports should be written clearly and in an active voice to engage non-experts and so that they can readily understand and find their way through the report

Final check: As a final step in the process of finalizing the evaluation report and to obtain the expected output, a final check will allow the CAS Team to better understand review weaknesses and strengths. Gathered lessons learned will be complemented with final report checklist results and a “review of reviewing.” Here, the Executive summary will be cross-checked and the report checked to ensure it follows the agreed template, with the final report being well-written and systematically addressing all (Platform/CAS/Peer-reviewers) comments and suggested changes from the draft version, with these changes documented and retained in the share-point.

Templates: The Team Leader and SMEs will follow the CAS report and PPT templates in the CAS style guide¹⁵. Feedback loops to the SMEs from TL and CAS on their products would ensure these are revised where necessary to align with the report template, CAS QA guidelines and style guide for reports and communications.

After submission of the pre-final report to CAS, the final report will be copy edited and reviewed to ensure quality standards are met.

¹⁵ All available templates have/will be provided in the designated folder in the SharePoint, facilitated by CAS.

5 Annexes

Annex 1: Key documents and References

CGIAR (2016). EiB full proposal on: Excellence in Breeding Tools and services that create synergies and accelerate genetic gains of breeding programs targeting the developing world.

[CGIAR Advisory Services \(CAS\) Secretariat - EiB Full Proposal 2016.pdf - All Documents \(sharepoint.com\)](#)

CGIAR (2017). *Annual Report of Excellence in Breeding platform*. [CGIAR Advisory Services \(CAS\) Secretariat - Annual Report 2017.pdf - All Documents \(sharepoint.com\)](#)

CGIAR (2017). *EiB Quarterly Portfolio & Non-portfolio Report – CIMMYT* [CGIAR Advisory Services \(CAS\) Secretariat -EiB Quaterly Portfolio & Non-portfolio_2017.excel - All Documents \(sharepoint.com\)](#)

EiB (2017). Annual Plan of Work and Budget (POWB) for 2017. [CGIAR Advisory Services \(CAS\) Secretariat - Annual Plan of Work and Budget 2017.pdf - All Documents \(sharepoint.com\)](#)

BPAT (2018). *Final Report of the Assessment of IRRI Rice Breeding programs –for Marginal(Inbred)and Favourable Environments(Inbred and Hybrid)*

[CGIAR Advisory Services \(CAS\) Secretariat -BPAT Final Report.2018.pdf - All Documents \(sharepoint.com\)](#)

CGIAR (2018). *Annual Report of Excellence in Breeding platform*. [CGIAR Advisory Services \(CAS\) Secretariat - Annual Report 2018.pdf - All Documents \(sharepoint.com\)](#)

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EiB (2018). Annual Plan of Work and Budget (POWB) for 2018. [CGIAR Advisory Services \(CAS\) Secretariat - Annual Plan of Work and Budget 2018.pdf - All Documents \(sharepoint.com\)](#)

CGIAR (2019). *Annual Report of Excellence in Breeding platform*. [CGIAR Advisory Services \(CAS\) Secretariat - Annual Report 2019.pdf - All Documents \(sharepoint.com\)](#)

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EiB (2019). Annual Plan of Work and Budget (POWB) for 2019. [CGIAR Advisory Services \(CAS\) Secretariat - Annual Plan of Work and Budget 2019.pdf - All Documents \(sharepoint.com\)](#)

EiB (2020). Annual Plan of Work and Budget (POWB) for 2020. [CGIAR Advisory Services \(CAS\) Secretariat - Annual Plan of Work and Budget 2020.pdf - All Documents \(sharepoint.com\)](#)

CGIAR (2020). *Annual Report of Excellence in Breeding platform*. [CGIAR Advisory Services \(CAS\) Secretariat - Annual Report 2020.pdf - All Documents \(sharepoint.com\)](#)

CGIAR (2020). *EiB Portfolio Expenditure Report – CIMMYT* [CGIAR Advisory Services \(CAS\) Secretariat -EiB Portfolio Expenditure_2020.excel - All Documents \(sharepoint.com\)](#)

CGIAR (2020). Requests from CtEH Funders Crops to End Hunger (CtEH), 2020. Version of May 2021 [CGIAR Advisory Services \(CAS\) Secretariat -CtEH 2020.pdf - All Documents \(sharepoint.com\)](#)

CIMMYT (2020). International Maize and Wheat Improvement Center; Staff list as of Jan 31 2020 [CGIAR Advisory Services \(CAS\) Secretariat - CIMMYT.Staff list.- All Documents \(sharepoint.com\)](#)

EiB (2021). Annual Plan of Work and Budget (POWB) for 2021. [CGIAR Advisory Services \(CAS\) Secretariat - Annual Plan of Work and Budget 2021.pdf - All Documents \(sharepoint.com\)](#)

IITA (2021). *Technical Report - Digitalization@IITA – EiB* [CGIAR Advisory Services \(CAS\) Secretariat - Digitalization@ITTA 2021.pdf - All Documents \(sharepoint.com\)](#)

Websites

CGIAR Platform for Excellence in Breeding. *About the Platform*. [About the Platform | CGIAR Platform for Excellence in Breeding](#)

CGIAR Platform for Excellence in Breeding. *About the Platform*. [Toolbox | CGIAR Platform for Excellence in Breeding](#)

Annex 2: Evaluation Matrix

Table 10: EiB Evaluation Design Matrix: August 20, 2021

Key Evaluation Questions	Sub-Questions	Indicators / Evidence	Data collection methods
Relevance			
1. To what extent are the EiB Platform's ¹⁶ objectives relevant to the needs of its internal ¹⁷ and external partners and stakeholders, including end-users?	1.1 Were the Platform design and approaches aligned with Centers', partners' and end users' priorities and capacities?	<ul style="list-style-type: none"> - Internal and external stakeholders' opinions about the extent to which Platform objectives and approaches were aligned with the priorities and capacities of target partners and end-users, by type. - Level of engagement/participation of end users (farmers) in setting the breeding agenda (definition of product profiles) - Documentary evidence that the needs of partners and other key stakeholders have been expressed clearly (or requested by EiB) 	<ul style="list-style-type: none"> - Online survey (of a range of stakeholders including CoP members) - Key Informant Interviews (KII) and Focus Group Discussions (FGDs) - (Partners & Platform G&M team) - Document analysis/ Synthesis of Evaluative Evidence
	1.2 To what extent have cross-cutting themes (Gender, Diversity and Inclusion -GDI, Youth, Climate Change and Capacity Development, been incorporated into Platform design?	<ul style="list-style-type: none"> - Guidance or training made available to Platform staff on how to integrate cross cutting themes into programming. - Extent to which POWBs specifically incorporate cross cutting themes - Number (and evolution over the years) of specialized partners engaged by the Platform to strengthen the relevance and effectiveness of cross cutting themes across program cycle: design, implementation, monitoring and evaluation. 	<ul style="list-style-type: none"> - Document analysis - KIIs/FGDs - Assessed as part of case studies (selected Breeding Programs - BPs) - Publications relating to these themes, enabled by the Platform
	1.3 How have the Platform design and mechanisms evolved over time to adapt to emerging developments and constraints, including the COVID-19 Pandemic?	<ul style="list-style-type: none"> - Stakeholders' opinions on ability of the Platform to adapt to developments/changes e.g., whether implemented technologies are flexible enough to allow upgrading and evolution in line with new technologies, new desired features, and new concepts. - Has there been a mechanism in place to ensure that, as the needs of partners became clearer (through BPAT evals among others), Platform's objectives would be revised and adjusted if necessary? - Extent to which Platform design has changed over time to respond to a changing context. Extent to which decisions were 	<ul style="list-style-type: none"> - KIIs/FGDs - Online Survey - Document Analysis - Assessed as part of case studies (selected Breeding Programs - BPs)

¹⁶ Hereafter referred to as the Platform

¹⁷ Where internal partners are other CGIAR platforms and CRPs

Key Evaluation Questions	Sub-Questions	Indicators / Evidence	Data collection methods
		taken and implemented in a timely fashion to respond to the e evolving context, needs, including the COVID-19 Pandemic (examination of the timeline of decision-making process and its implementation).	
Coherence			
2 How synergetic is the EiB Platform with other platforms and CRPs in CGIAR and comparable public and private sector programs/ initiatives?	A- Internal 2.1 To what extent has the Platform sought and managed to create synergies with other CGIAR platforms and CRPs?	<ul style="list-style-type: none"> - Internal stakeholders' opinions on the extent to which the Platform complements the role of other CGIAR platforms and CRPs. - Documented evidence indicating that the design was appropriate to allow for synergies with other CGIAR platforms and CRPs 	<ul style="list-style-type: none"> - Evidence from 2021 synthesis - Document analysis - KIIs
	2.2 How aligned is the design and implementation of the Platform with core CGIAR programmatic guidance and the <u>CGIAR Strategy and Results Framework 2016-2030</u> ?	<ul style="list-style-type: none"> - Extent to which there is alignment between the results and targets of the Platform and the SRF - Extent to which the Platform monitoring and reporting system tracks progress towards SRF targets. 	<ul style="list-style-type: none"> - Document analysis - MARLO - KIIs
	2.3 To what extent is the Platform coherent internally, in terms of the mandate of the lead center (CIMMYT), and in terms of the interlinkages/coherence between its respective result areas (Modules) and initiatives (BOND, BrIN, CtEH, HiRice)?	<ul style="list-style-type: none"> - Degree of consistency between the mandate of the CIMMYT and the objectives of the Platform - Extent to which the different Platform Modules interact with and complement each other. - Extent to which the various Initiatives of the Platform work together (BOND, BrIN, CtEH, HiRice) 	<ul style="list-style-type: none"> - Document analysis - KIIs
	B- External 2.4 To what extent and in what ways is the Platform coherent externally: with priorities of key funders (CGIAR Trust Fund, Crops to End Hunger Donors, and Bill & Melinda Gates Foundation) and other contributors?	<ul style="list-style-type: none"> - Funders' opinion on the degree of coherence between their priorities and Platform interventions - Platform Steering Committee's opinion on the degree of coherence between their priorities and Platform interventions 	<ul style="list-style-type: none"> - KIIs (donors, PSC members)
	2.5 What is the added value of the Platform interventions to NARS and the work of similar breeding programs and platforms in the public and private sector in developed countries. Is there any duplication of efforts, e.g., with the private sector?	<ul style="list-style-type: none"> - Evidence of the added value of Platform interventions with regard to NARS (including assessment of any duplication of efforts) - Evidence of the added value of Platform interventions with regard to similar breeding programs and platforms in the public or private sector e.g., multinational, multi-crop companies (including assessment of any duplication of efforts) 	<ul style="list-style-type: none"> - KIIs - FGDs - Case studies

Key Evaluation Questions	Sub-Questions	Indicators / Evidence	Data collection methods
Efficiency			
3. Have resources (funds, human resources, time, expertise etc.) been allocated strategically and timely to achieve Platform outputs and outcomes?	3.1 How adequate has the high-level technical, institutional, and administrative support from the Platform's internal partners (CRPs and other Platforms) been?	<ul style="list-style-type: none"> - Platform management's opinion about the support provided by internal partners (strengths and weaknesses). - Internal partners' opinions on the Platform's capacity to manage resources and partners (agile management). 	<ul style="list-style-type: none"> - KIIs/FGDs (Partners & Platform G&M team) - Online survey - Document analysis - 2020 CRP reviews- 2021 synthesis
	3.2 How was priority setting done and were funds allocated accordingly?	<ul style="list-style-type: none"> - Mechanisms in place to decide on priorities and fund allocations 	<ul style="list-style-type: none"> - Document analysis - KII
	3.3 How appropriate and efficient was/is implementation: use of human and financial resources, within agreed timelines.	<ul style="list-style-type: none"> - Adequacy of staffing levels - Staff rotation and retention - Staff motivation - Competency frameworks, Job specs (aligned with goals of the organization etc?) - Learning and development programs and participation - Gender, diversity, inclusion - Communication - Use of 360 feedback - Adequacy of funding levels - Efficiency of funding decision making process - Allocation of funding from different sources (donor) - Timeliness of output achievement (extent of delays) - Quality of reporting 	<ul style="list-style-type: none"> - Document analysis - Analysis of stats - KIIs/FGDs (Platform G&M)
	3.4 How efficient was the provision and/or brokerage of materials, services, and sites by the Platform?	<ul style="list-style-type: none"> - Adequacy of the procurement process (materials, services) 	<ul style="list-style-type: none"> - Document analysis (Budget & Workplans) - KIIs
	3.5 How efficient was the grant awarding process?	<ul style="list-style-type: none"> - Efficiency of the grant awarding process as judged by Platform staff - Efficiency of the grant awarding process as judged by recipients 	<ul style="list-style-type: none"> - Document analysis - KIIs
Effectiveness			
4. To what extent did the Platform achieve progress towards planned results?	4.1 To what extent did the Platform achieve the planned outputs noted in the proposal?	<ul style="list-style-type: none"> - (%) of planned output achievement across modules - Rates of use of Platform's tools (e.g., number of users of the Enterprise Breeding System) 	<ul style="list-style-type: none"> - Document analysis - Online Survey (Partners, CoP members + CGIAR) - KIIs/FGDs

Key Evaluation Questions	Sub-Questions	Indicators / Evidence	Data collection methods
	<p>4.2 To what extent did the Platform achieve the planned outcomes noted in the proposal?</p> <p>4.3 How variable was achievement of results: by modules, centers, crops?</p> <p>4.4 How effectively did the Platform react to the need to change/adapt objectives/plans?</p> <p>4.5 To what extent was progress made wrt key cross cutting themes (GDI, Youth, Climate Change)?</p> <p>4.6 To what extent have open data and intellectual assets been addressed?</p> <p>4.7 What has been the uptake by partners of the Platform's capacity development and technical support?</p> <p>4.8 How effective has the capacity building effort been?</p>	<ul style="list-style-type: none"> - Identification of still unaddressed key needs of partners/stakeholders - Stakeholders' feedback about the quality of outputs in relation to the objectives and targets of each module. - Stakeholders' satisfaction with their level of participation in delivery of planned outputs, by module/center. - Evidence on extent to which outputs have led, or are leading, to planned changes/outcomes. - Stakeholders' opinion on the rate of progress towards achievement of planned outcomes - Variance in the achievement of planned results by modules, Centers, and crops - Stakeholders' opinion on ability of Platform to perceive changes and adapt its objectives or processes to deliver to these new needs (and stop delivering to obsolete ones) - Extent to which cross-cutting themes are evident in results e.g., impact of product profiles on gender-responsive breeding approaches, - Evidence relating to data and intellectual assets - Number of partners that have availed of Platform's capacity development interventions - Number of partners that have availed of Platform's technical support - Opinion of partners on the quality & relevance of Platform's capacity development initiatives - Opinion of partners on the quality & relevance of Platform's technical support - Extent to which the results of capacity development and technical support are assessed 	<ul style="list-style-type: none"> - MARLO
	<p>4.8 How effective was the Platform in supporting its network of partners (CGIAR centers, NARS, local private breeding sector) in developing new cultivars/breeds and conserving genetic resources within eight</p>	<ul style="list-style-type: none"> - Extent to which the Platform has supported its network of partners (CGIAR centers, NARS, local private breeding sector) in developing new cultivars/breeds and conserving genetic resources within the eight Agri-food Systems CGIAR Research Programs (AFS CRPs) and the Genebanks Platform? 	<ul style="list-style-type: none"> - Document analysis - Online survey of partners - KIIs/FGDs

Key Evaluation Questions	Sub-Questions	Indicators / Evidence	Data collection methods
	Agri-food Systems CGIAR Research Programs (AFS CRPs) and the Genebanks Platform?		
	4.9 To what extent has the Platform made progress towards its overall objective (to become the one-stop place to go for advice, tested resources and best practices for any breeding program targeting the developing world)	<ul style="list-style-type: none"> - Evidence of uptake by breeding programs of the Platform's CapDev and technical offering (based on improvement plans from BPATs, learning events) - Opinion of partners on whether Platform offers technically sound and feasible CapDev and technical support - Evidence on delivery mechanisms from breeding programs to farmers that worked best 	<ul style="list-style-type: none"> - Improvement plans - KII - Synthesis evidence from 2020 CRP reviews - Analysis of Learning series
	4.10 To what extent has the awarding of grants by the Platform contributed to the overall results, in terms of effectiveness and transparency	<ul style="list-style-type: none"> - Mapping and analysis of grants to modules, trends - Effectiveness of the awarded grants as judged by Platform staff - Effectiveness of the awarded grants as judged by recipients 	<ul style="list-style-type: none"> - Document review of sub-sample of grants - KII's (PSC)
5. Which internal and external mechanisms and factors, including inputs, contributed to, or inhibited, achievement of outputs and outcomes, intended and unintended?	A- Management and Governance 5.1 To what extent have the Platform's governance and institutional mechanisms helped/inhibited achievement of results?	<ul style="list-style-type: none"> - Org charts with delineation of roles and responsibilities for all key results - Documented processes in place describing how staff were expected to meet their responsibilities and report to management - Decision-making hierarchy is clear, documented and widely known by staff - Individuals in management positions have been trained adequately for management duties (including effective performance management, feedback, situational leadership, relationship management, difficult conversations) - Opinion of staff members regarding management and institutional processes 	<ul style="list-style-type: none"> • KIIs • Document review • Online survey could address some issues possibly
	5.2 How effectively was change managed internally and with partnering breeding programs?	<ul style="list-style-type: none"> - Leadership and staff opinion of change management process during program reframe. - Documented change management strategy and evidence of intentional planning during program reframe. - Training and/or support to staff members to manage changes in their roles and responsibilities. - Evidence of collaborative processes internally during reframe to garner support. 	<ul style="list-style-type: none"> • KIIs • Document review • Breeding partner FGD (and/or survey)

Key Evaluation Questions	Sub-Questions	Indicators / Evidence	Data collection methods
		<ul style="list-style-type: none"> - Evidence of interventions and response to address internal sources of resistance to change. - Opinions of breeding program partners of how well EiB supported them to enact EiB recommended and/or facilitated change. 	
	5.3 How effective has Platform engagement with the leadership of selected breeding programs/CRPs/CGIAR centers been with a view to meeting Platform objectives?	<ul style="list-style-type: none"> - Opinion from breeding program/CRPs/CGIAR centers leadership on how effective EiB's engagement has been with them in helping the platform meet its objectives that relate to their organizations. - Opinion from EiB on how effective breeding program/CRPs/CGIAR centers leadership engagement has been in helping the platform meet its objectives 	<ul style="list-style-type: none"> • KIIs • Document Analysis (MoU, Agreements, Protocols, etc.)
	B- Partnerships 5.4. How effectively has the Platform engaged with internal and external partners in support of its objectives? Is there a variance in results and ownership by type of partnership?	<ul style="list-style-type: none"> - - Number and types of new partnerships initiated by the Platform. Among them (%) that are specialized in cross cutting themes. - Internal and external partners' opinions about the quality of their partnership with the Platform - Platform staff opinion on how different partnerships have contributed to achievement of Platform objectives - Levels of success of different partnerships (most successful) 	<ul style="list-style-type: none"> - Document Analysis/ Synthesis of Evaluative Evidence. - KIIs/FGDs - Online survey
	5.5 What has been the role of partnerships in addressing cross-cutting issues (at the Platform Level)?	<ul style="list-style-type: none"> - Internal and external partners' opinions about how they have helped the Platform to address cross-cutting issues - Platform staff opinion on how different partnerships have helped the Platform to address cross-cutting issues - Extent to which Platform interacted and coordinated with the GENDER Platform 	<ul style="list-style-type: none"> - Platform analytics - KII/FGD - Document analysis - Online survey
	5.6 To what extent have partnerships with NARS been effective?	<ul style="list-style-type: none"> - NARS opinion on the effectiveness of their partnerships with the Platform - Degree of uptake of Platform outputs and services by NARS - Level of appreciation of the relevance of Platform outputs to needs of NARS 	<ul style="list-style-type: none"> - KII/FGD - Document analysis
	5.7 How strategic and complementary has the role of the private sector been (e.g., Bayer, Syngenta, Corteva, etc.)?	<ul style="list-style-type: none"> - The level and type of involvement of the private sector in Platform interventions - Assessment of the importance of buy-in from the private sector (Bayer, Corteva, etc.)? - Extent to which private sector involvement has improved performance of Platform - Extent to which private sector involvement will contribute to 	<ul style="list-style-type: none"> - Platform analytics - KIIs - FGDs

Key Evaluation Questions	Sub-Questions	Indicators / Evidence	Data collection methods
		sustainability of Platform services	
	5.10 What role have CoPs played in the achievement of the Platform's goals?	<ul style="list-style-type: none"> - Number of CoPs created - Number of people included in CoPs - Opinion of CoP members on their contribution to achievement of Platform's goals - Opinion of Platform staff on the contribution CoPs have made to achievement of Platform's goals 	<ul style="list-style-type: none"> - Platform analytics - KIIs - FGDs
	C- MEL, Knowledge Management and Communication 5.11 How has the CGIAR Monitoring, Evaluation and Learning (MEL) and CIMMYT system facilitated or inhibited achievement of results?	<ul style="list-style-type: none"> - Degree of compatibility between CIMMYT MEL system and CG MEL system - Extent to which MEL system is used by Platform staff - Opinion of Platform staff on the usefulness of the MEL system - Opinion of CIMMYT on the usefulness of the MEL system 	<ul style="list-style-type: none"> - Document analysis - KIIs
	5.12 What mechanisms have best facilitated effective learning within the Platform, with other platforms, CRPs and external partners (CoP, etc)?	<ul style="list-style-type: none"> - Evidence of uptake of learning within the Platform, with other platforms, CRPs and external partners - Opinion of Platform staff on most effective learning mechanisms within the Platform - Opinion of Platform partners on most effective learning mechanisms developed by Platform 	<ul style="list-style-type: none"> - Document analysis - Survey - KIIs
Sustainability			
6. What mechanisms have been put in place to ensure that EiB Platform assets, products and mechanisms are positioned to respond to donor requests (CtEH)	6.1 What is the level of progress with regard to the CtEH Funders' 6 requests?	<ul style="list-style-type: none"> - Extent to which the Platform modules or 4 main initiatives (BOND, BrIn, CtEH, HiRice) are addressing the 6 requests? - Level of prioritization of the 6 requests (addressed with the same intensity) - Aspects of the Platform that have enabled or inhibited the Platform to effectively respond to the 6 requests from CtEH Funders (2020) 	<ul style="list-style-type: none"> - KIIs - Desk Review/Document analysis
7. Which elements of the EiB Platform assets are likely to sustain	7.1 To what extent is the sustainability of the Platform assured vis-à-vis other Platforms	<ul style="list-style-type: none"> - Extent to which the added value of the Platform vis-à-vis other platforms or initiatives is likely to continue going forward 	<ul style="list-style-type: none"> - KIIs

Key Evaluation Questions	Sub-Questions	Indicators / Evidence	Data collection methods
and contribute towards One CGIAR?	(GENDER) or initiatives (e.g., Genebanks)		
	7.2 What are the mechanisms and products, through which the Platform-generated insights, products, and communities have contributed to the One CGIAR reform/ reorganization? What are the key factors in management and governance structures to ensure success and sustainability of the Platform?	<ul style="list-style-type: none"> - Extent to which Platform-generated policies, products, communities, and approaches have been integrated into One CGIAR - The extent to which sustainability considerations are reflected in the 2021 POWB work plan and implementation 	<ul style="list-style-type: none"> - Document analysis - KIIs
	7.3 What are the lessons learned to facilitate the translation of the Platform's outputs and outcomes to CGIAR's Action Areas, Impact areas and the 7 ways of working?	<ul style="list-style-type: none"> - Lessons learned identified to facilitate the translation of the Platform's outputs and outcomes to CGIAR's way of working - Lessons drawn from the experiences with Platform for One CGIAR and the various GI initiatives 	<ul style="list-style-type: none"> - Document analysis - KIIs
	7.4 What are the key lessons learnt for sub-grant projects continuing past 2021, and for the future design of similar initiatives?	<ul style="list-style-type: none"> - Platform staff's opinion on the key lessons learnt for sub grant projects post 2021 - Grant recipients' opinion on the key lessons learnt for sub grant projects post 2021 	<ul style="list-style-type: none"> - Online survey - KIIs

Annex 3: EiB Platform Stakeholders

Table 11: Preliminary overview of Platform Stakeholders

Category	Name	Stakeholders' name	Composition	N	Role
Leadership, Management and Governance	EiB Steering Committee (PSC)	CGIAR System Council, Funders, NARS, Private sector	<ul style="list-style-type: none"> (1-11) CG Center research directors from AfricaRice, CIAT, CIMMYT, CIP, ICARDA, ICRAF, ICRISAT, IITA, ILRI, IRRI, and WorldFish (12) NARS; (13) Private sector; and (14) the Platform Leader (ex-officio). <p>Members from the NARs, and the Private Sector may be reelected to a second three-year period; the full term cannot exceed six years. For the CGIAR Center research directors and the two ex-officio members their appointment will be until the Platform finalizes operations</p>	13 (regular member)	Keep under review the strategy, mission, impact and continued relevancy of EiB platform
Leadership, Management and Governance	CtEH Committee	CGIAR Center breeding leads, Funders	TBC	TBC	keep CGIAR Centers focused on progress on their Improvement Plans
Leadership, Management and Governance	CGIAR	Big Data Focal Points in all CGIAR Centers	One person per each CGIAR center	15	TBC
Partnership	CGIAR	CGIAR partners involved in generating and use of CGIAR knowledge products	Representatives of CGIAR centers	TBC	Can make decisions to improve the Platform. Can access and provide information to facilitate research in agriculture.
Partnership	CGIAR	CGIAR Communities of Practices (CoPs)	7 Communities of Practice and CoP coordinators	7	Can access and provide information to facilitate research in agriculture.
Partnership	Academia	Various partners	University of Cornell, Barcelona, Wisconsin Queensland, etc.	TBC	Can access and provide information to facilitate research in agriculture

Category	Name	Stakeholders' name	Composition	N	Role
Partnership	International organizations	Various partners	IRD, JHI, etc.	TBC	Can access and provide information to facilitate research and policy making in agriculture
Partnership	Private sector	Various partners	IBP, BPAT, Ocelot Consulting of St Louis USA, NTERTEK, etc.	TBC	Can access new capabilities and integrate these into how they do business
Partnership	Research institutes	Various partners		11 (TBC)	Can access and provide information to facilitate research in agriculture
Partnership	Governments	Various partners	NARS	2 (TBC)	Can access and provide information to facilitate research and policy making in agriculture
End Users	CGIAR	CGIAR Breeding centers	CGIAR Centers	TBD	Access to shared infrastructure, including common infrastructure and analytics Platform, cloud storage and backup, high-end analytics capacity and processing infrastructure
End Users	NARS	NARS breeding centers	NARS Centers	TBD	Access to shared infrastructure, including common infrastructure and analytics Platform, cloud storage and backup, high-end analytics capacity and processing infrastructure. Facilitated access to CGIAR data products, including interoperability opportunities with CRP-developed data Platforms.

*TBC: to be confirmed

*TBD: to be defined

Annex 4: Desk Review – Progress Towards Outputs per Module

Table 12: Progress towards outputs per EiB Platform Module

	2017	2018	2019	2020
EiB Platform	<ul style="list-style-type: none"> - Platform leader, Michael Quinn hired in August 2017 - A membership agreements on the commitments expected of breeding programs participating in EiB and the benefits they can expect to receive in turn were signed by most CGIAR breeding programs - meeting of EiB contributors and expert advisory group (EAG) members from CGIAR was held in Amsterdam <ul style="list-style-type: none"> o first time that CGIAR breeders jointly discussed product development concepts and how to 	<ul style="list-style-type: none"> - Contribution and response to the Crops to End Hunger initiative (CtEH) - USD\$7.4 M of new funding from GIZ for the CGIAR to respond to CtEH, disbursed by EiB - Change to Platform Steering Committee to include a representative from each CGIAR breeding center - Two annual Contributors' meetings: one with over 130 contributors, primarily from the CGIAR - Launch of the EiB "Toolbox", the online platform for sharing tools services and practical advice (http://excellenceinbreeding.org/toolbox). - Launch of breeding program costing tool to cost out all breeding program costs with IRRI - Supported fast-tracking development of B4R and the Enterprise Breeding System (EBS). - Secured a further contract with INTERTEK for low-cost genotyping for marker applications for CGIAR breeding teams 	<ul style="list-style-type: none"> - EiB has evolved from a provider of tools, services and know how to also providing consultancy, coordination and support for optimization and modernization across all of CGIAR breeding programs - co-develop the agenda for breeding program modernization in CGIAR/NARS and to respond to priorities set by the CtEH - development of optimization plans of all CGIAR and a selection of NARS breeding programs 	<ul style="list-style-type: none"> - EiB increased direct collaboration with breeding programs to increased CtEH funding for enhancement across CGIAR and NARS breeding programs - Crop-level breeding improvement plans continued to be revised for the 9 breeding programs prioritized by CtEH - EiB is developing plans for investments in breeding infrastructure, machinery and equipment across Africa at key CGAIR research centers - (KPIs) were integrated into a dashboard to assess individual breeding programs -

	2017	2018	2019	2020
	<p>improve breeding program management</p> <p>EiB supported the implementation of the Breeding Application Programming Interface (BrAPI)</p>			
NARS		- quality analysis workshop in Hyderabad, India		
CGIAR		- Business volume for low-density genotyping services grew from \$200k in 2017 to \$800k in 2018, covering 14 CGIAR mandate crops		
Module 1: Breeding program excellence	<ul style="list-style-type: none"> - The concept of a product advancement process (stage gate management) was introduced through workshops - The need to measure breeding program success through assessment of genetic gains is introduced - As of 7 May 2018, Module 1 leadership has been engaged on a full-time basis - 	<ul style="list-style-type: none"> - Launched an on-line product profile tool designed to increase accountability for delivering products and supporting CGIAR and NARS variety development and turnover objectives - Product profile workshops have been held across 6-8 centers and CRPs - introducing a continuous improvement philosophy in the area of product management by incorporating a transparent, annual product advancement - Modules 1 and 3 have begun working together to develop a common CGIAR stage-gate management system for products/germplasm and traits 	<ul style="list-style-type: none"> - best practice approaches and requirements for breeding programs tools - workshop held by CGIAR and NARS breeding programs to promote those tools, led to the submission of over 200 provisional product profiles and the establishment of cross-functional product design teams at 7 breeding programs in Africa - All CGIAR BPAT assessments were reviewed for inclusion of Module 1 components - Through CtEH, a grant scheme is being developed to hire product managers to support CGIAR centers and NARS to embed market-driven breeding practices supported by Module 1 - adapted the best practice stage-and-gate concept to public sector breeding program management 	<ul style="list-style-type: none"> - 320 unique regional market segments were identified across 26 crops - An assessment of the rate of genetic gain was calculated and reported for most breeding pipelines - Plans were developed for the second phase of this effort to take place in the first 6 months of 2021 -

	2017	2018	2019	2020
Module 2: Optimizing breeding schemes	<ul style="list-style-type: none"> - Toolbox now situated outside the modules, housing inputs from all five modules - For the objective of developing a simulation tool, discussions have been held with a private company that has developed such tools for Syngenta - 	<ul style="list-style-type: none"> - A Module 2 lead has now been successfully recruited and began in June 2019, after long struggles to find one - A consultant has been identified and started in April 2019 - To be hired a full-time module 2 specialist with expertise in quantitative genetics, biometrics, breeding pipelines, etc. - A tool for capturing breeding schemes has been drafted. The purpose of this tool is for application to CGIAR and NARS breeding programs - Contribution to CtEH approaches - Began development of breeding scheme simulation and decision support with Roslin Institute in the UK - with the NARS coordinator, captured breeding schemes from NARO and KALRO breeding programs in Uganda and Kenya 	<ul style="list-style-type: none"> - tools to support breeding programs to systematically document breeding processes for process and investment optimization - potential projects will be formalized in 2020 with breeding scheme simulation incorporated - 	<ul style="list-style-type: none"> - best practices and guidelines for critical topics such as the implementation of predictive tools, including marker-assisted selection (MAS), genomic selection (GS) and quality control (QC) applications - conducted a breeding scheme optimization process based on the six-sigma methodology with breeding teams and drove the execution of improvement plans - The Toolbox has advanced well with increased numbers of users, higher numbers of client-oriented resources - the Learning Management System of EiB (EiB-LMS) is ready to facilitate virtual training for EiB clients
Module 3: Genotyping/ sequencing tools and services	<ul style="list-style-type: none"> - The outcome of the survey supports genotyping sample forecasting, which is critical to service contract negotiation - The HTPG project focused on low-density genotyping platforms and a 	<ul style="list-style-type: none"> - Increased adoption of low-density genotyping through High Throughput Genotyping Project (HTPG), with a growth in total demand from \$200K in 2017 to \$800K across 14 CGIAR mandate crops in 2018 - HTPG provided access to low-cost genotyping for 	<ul style="list-style-type: none"> - the low-density genotyping platform is now a financially self-sustaining project with US \$2 million since 2016 - mid-density genotyping final contract awarded to Intertek-DArT to provide a DArTAG custom amplicon solution - to ensure effective application, six training workshops for new 	<ul style="list-style-type: none"> - Launch of the Mid-density SNP genotyping (MDSG) service - usage and adoption of the low-density marker platform increased with a volume of over \$1M USD (a 25% increase over the previous year)

	2017	2018	2019	2020
	<p>service contract led by ICRISAT was signed with Intertek to provide services to all EiB members</p> <ul style="list-style-type: none"> - the joint workshop in East Africa hosted by the National Crops Resources Research Institute (NACRRI), Uganda and sponsored by EiB, GOBii, IGSS and HTPG to address cross-EiB module integration - launch of IGSS genotyping service was offered, with 47 projects with a forecast of 70,000 samples for genotyping between 2017 and 2019 - two communities of practice (CoP) for maize and beans were set up with breeders from Ethiopia, Kenya, Uganda, Rwanda and Tanzania 	<p>many smaller crop breeding programs in sub-Saharan Africa, Asia and South America</p> <ul style="list-style-type: none"> - Use of low-density genotyping for quality control (QC) in cassava and rice by national breeding programs in Africa - Significant improvements have been made in sampling logistics and genotyping job submission workflow by national partners under HTPG as a result of routine hands-on training and protocols published on the EiB Toolbox - Significant improvements have been made in sampling logistics and genotyping job submission workflow by national partners under HTPG as a result of routine hands-on training and protocols published on the EiB Toolbox - Service contract renegotiation for HTPG Project has completed and low-cost genotyping will continue to be offered to all users with significant cost reduction (up to 50%) on larger numbers of marker panels - A "simple tracker" application to support routine HTPG job submissions and result interpretation has been 	<p>and ongoing users were held in South Asia and Africa, ICRISAT being the lead implementing partner</p> <ul style="list-style-type: none"> - Quality control (QC) and marker assisted selection (MAS) were mainstreamed in crops identified as priorities by the CtEH initiative - engagement in the development of center level improvement plans 	<ul style="list-style-type: none"> - with One CGIAR transition, Module 3 is co-developing a business model enabling centralized trait augmentation with IRRI and AfricaRice

	2017	2018	2019	2020
		developed and deployed via the EiB Galaxy instance		
Module 4: Phenotyping tools and services	<ul style="list-style-type: none"> - Survey to assess current status in phenotyping and TPE analysis - A detailed analysis report was generated from the answers to the survey - Drone-based Image generation with a standard operating procedure (SOP) manual - A cloud-based platform for data processing inputting image data and outputting spectral indices - expert support in IT-image analysis could be provided by INRA-Avignon firm developing same tool for INRA 	<ul style="list-style-type: none"> - Two new staff, Steven Corak and Gustavo Teixeira were added to the module 4 leadership team in 2018 - to create improvement plans, conducted “current state assessments” of CGIAR breeding trial execution/operations to support CG centers’ and breeding programs: total of 8 stations across 3 Centers in 4 countries between August and December of 2018 - A plot cost analysis template was developed, shared with contributors at the annual meetings - A survey will be conducted in first quarter 2019 to aggregate demand for handhelds, printers, barcode readers, and seed counters, identified as priorities in 2018 Contributors’ meeting 	<ul style="list-style-type: none"> - Breeding operations and phenotyping capacities were assessed at eight research stations across four CGIAR centers - project on operational excellence was first piloted on the CIMMYT campus. Staff received training in Six Sigma techniques - EiB organized a visit for CGIAR and NARS cassava and yam breeders based in Africa and Colombia; - Plot cost recording tools were evaluated, with software developed by the University of Queensland adopted by the CIMMYT maize breeding program 	<ul style="list-style-type: none"> - Continuous improvement training was delivered to CGIAR, NARS and EiB staff - engineering designs were provided for key CGIAR breeding infrastructure (including irrigation and seed drying)
Module 5: Bioinformatics, biometrics and data management	<ul style="list-style-type: none"> - A survey was conducted to assess the breeding informatics support for CGIAR breeding programs (80 respondents); - Report on the current landscape of databases, bioinformatics capabilities/software, 	<ul style="list-style-type: none"> - Progress regarding systems interoperability, data analytics and capacity development. In the area of interoperability: a common architecture was defined - BrAPI made significant advances in stabilizing the API and providing validation facilitate interoperability - The Enterprise Breeding System (EBS) project made substantial advances such 	<ul style="list-style-type: none"> - Enterprise Breeding System (EBS) reached a major milestone with joint deployment of Breeding 4 Results (B4R) and GOBii alongside the EBS service gateway - The 7th BrAPI Community Hackathon took place in April, focusing on the release of BrAPI V 2.0 - 7 sabbaticals were focused on software and app development. 	<ul style="list-style-type: none"> - the hiring of a senior project manager was initiated - cloud IT consulting company was engaged (Ocelot Consulting of St Louis USA, to assess the current project roadmap and ways of working - The biometrics and bioinformatics agenda was completely redefined. Module 5 will focus on

	2017	2018	2019	2020
	<p>and biometric capabilities/software</p> <ul style="list-style-type: none"> - Documented gap analysis for the Year 1-2 case studies - Existing databases and tools assessed and updated 	<p>as initiating a software development project to fully integrate several key systems</p> <ul style="list-style-type: none"> - EiB Galaxy instance was launched to allow researchers to easily run state of the art analytical pipelines in a web interface (http://galaxy-demo.excellenceinbreeding.org) - Communities of practice (CoP) were initiated and self-organized 3 workshops, 3 hackathons and 7 sabbaticals 		<p>setting up a precursor to a global shared service for analytics and data management in One CGIAR in 2021-2022.</p>

Annex 5: PMS Report Summary

Key findings of EiB Platform Performance Management Standards PMS Assessment

Table 13: The Six Program Performance Management Standards

Performance Standard short title	Long title	Rating awarded
1 – Adding and withdrawing projects	Program has a transparent and logical process for selection, prioritization and inclusion of new projects and withdrawal of projects from the Program.	1
2 – Identification of gender relevance	Complete and accurate application of the cross-cutting marker for gender in Program results reporting.	3
3 – Financial management	Program has transparent systems for planning and managing budgets to reach Program objectives, and clear and efficient division of responsibility between the Program and their implementing partners (including Centers).	1
4 – Prioritization of pooled funding	Program progress and priorities are regularly reviewed, and logical and transparent decisions are taken about (re)prioritization of pooled Program funding including activities to expand or cut back.	1
5 – High quality results reporting	Program reporting is of adequate quality, and the evidence presented is properly archived, linked and accessible.	3
6 – Availability of Program/project information	Key Program and project information is available, findable and accessible by specified System Entities.	3, 2, 2

The ratings which go from 1 (lowest) to 4 (highest) awarded to each standard for the EiB Platform are presented in the table below:

The main findings of the EiB Platform PMS Pilot Assessment can be summarized as follows:

The overall rating is weak, with 3 of the standards being rated as 1.

Standard 1: adding and withdrawing projects

Rated 1: No clear process or criteria for adding or withdrawing projects. Although there are W3/bilateral funded grants in the portfolio, which indicates that they add bilateral projects, according to the platform staff this Standard does not apply to them.

Assessor suggestions:

- CGIAR System Organization should discuss the relevance of Standard 1 with Platforms before future assessments.
- Develop a clear process and criteria to manage bilateral and W3 funded projects' incorporation in the platform.
- Ensure that the process created adheres to the Standards and is applied regularly

Standard 2: identification of gender relevance

Rated 3: 100% of milestones are tagged for gender (and a short justification is given for the score. Also, 80%-100% of the gender tags are, in the assessor's opinion, clearly consistent with scores, or consistent with scoring for other projects with similar narratives, as assessed by a sample.

No suggestions made.

Standard 3: financial management

Rated 1: Accounts were audited for 2017 and the auditor's report describes financial statements as giving a true and fair view of the financial position. Windows 1 & 2 grant revenues are clearly separated from Window 3 and Bilateral revenues. The POWB and Platform Financial Report use the CGIAR System Organization template and include all information required.

However, there is no clear evidence that budget holders for W1/2 funding are clearly assigned and documented.

Assessor suggestion

Provide documentation clearly showing the budget assignments for W1/2 funding

Standard 4: prioritization of pooled funding

Rated 1: There are clear criteria and processes for prioritization of pooled funding. However, there is no documentation, such as meeting minutes, emails, etc., to indicate that the criteria and processes are consistently and transparently followed in practice. There is no evidence to indicate that Program Management are consistently involved in decision-making for prioritization of pooled funding. There is no evidence that future performance is taken into account in prioritization of pooled funding.

Assessor suggestions

Provide documents that clearly demonstrate that the process for prioritization of pooled funding is applied regularly and consistently in most cases and that it takes future performance into account (to reach level 3)

Provide documents that clearly demonstrate that there is a process for prioritization of pooled funding that meets standards, is regularly and consistently applied, involves program management in key decisions, is part of a system that makes it easy to track results/performance, and is transparent (to reach level 4).

Standard 5 high quality results reporting

Rated 3: Five out of thirteen tables are completed for the EiB Platform. This is partially because portions of the annual report template are less relevant for Platforms, and partially because having nothing to report for the calendar year is an acceptable answer for CRPs and Platforms. For the five completed tables, most information is "complete", "checkable", and "adequately evidenced", with a few gaps in "comprehensive" and "checkability".

Assessor suggestions

Fill gaps in "comprehensive" and "checkability" (Table 5) and make all documentation publicly available.

Report outcomes and milestones (Table 5) in a more readily understandable way (e.g., splitting up the milestones to easily see the evidence for each milestone individually).

Standard 6: availability of Program/project information

Rated 3 for availability of Program information online (X); rated 2 for availability of Program information to be provided on request (Y) and rated 2 for availability of project information to be provided on request (Z).

In the case of X, all relevant information is available publicly online.

In the case of Y, most relevant information is available on request through the Drop Box, with the exception of staff Center affiliation and W3/Bilateral projects. The lack of W3/Bilateral projects was due to potential confidentiality issues.

In the case of Z, the Platform provided the sub-grant or research collaboration agreement for the three projects listed in their project list within 10 working days. These documents, in addition to the original project list, included all relevant information. However, the Platform did not provide Project Reports.

Assessor suggestions

To reach level 3 For Y:

Provide information on the staff Center affiliation in the staff list.

Provide a list of W3/Bilateral projects as confidentiality agreements allows. If issues with confidentiality prohibits this, a solution should be agreed-upon, such as review by a member of the CGIAR System Organization rather than an external evaluator.

To reach level 4 for Y:

In addition to the above, provide the information requested via an updateable internal online link.

To reach level 3 for Z

Provide project reporting documents where relevant

Additional observations by the assessor:

The document request for the pilot assessment was not clear in stating that Evidence documents were required to be submitted, and so this will be clarified for the official assessment.

Annex 6: Preliminary Interview list (live document- version of 07 09 2021)

Type /Category	Role	Name	EiB Platform/ CGIAR Center/ University/ Other entity
EiB Platform	Director, Excellence in Breeding Platform	Michael Quinn	EiB
	Deputy Director for Excellence in Breeding Platform	Jan Debaene	EiB
	Admin support	Carol Mukundi	EiB
	Full-Stack Digital Systems Specialist	Solomon Sirak	EiB
	Excellence in Breeding - Platform Administrative Officer	Brenda Bautista	EiB
	Finance Manager	Adriana Gonzalez	EiB
	Snr Project Manager	Nick Tang	EiB
		Adam Hunt	
	EiB learning management system	Sarah Hearne	EiB
	Former M&E officer	Shaylyn Gaffney	former CIMMYT
	Director of Human Resources		
	IDT team "Market Intelligence for More Equitable and Impactful Genetic Innovation "	Jason Donovan	EiB
Module 1	Module Lead	Peter Coaldrake	EiB
		George Kotch	EiB
		Tawanda Mashonganyika	CIMMYT
Module 2	Module Lead	Giovanny C. Pazaran	EiB
	Trait Deployment (Maize Trait Pipeline and Upstream Research Coordinator)	Mike Olsen	EiB
		Marlee Labroo	EiB
		Harish Gandhi	ICRISAT
		Edward Kanju	IITA
		Parthiban Prakash	IRRI
		Rajeev Varshney	ICRISAT
	EiB Coordinator- IGGP	Sanjay Kathiar	IRRI
	1-2 individuals who have conducted BPAT at 1) a CG center and 2) a NARS		University of Queensland
Module 3	Module Lead	Eng Hwa Ng	EiB
	EiB Regional Genotyping Coordinator	Ana Luisa Garcia Oliveira	EiB
	S-Asia Genotyping Coordinator	Rajaguru Bohar	EiB
		Parthiban Prakash	IRRI
Module 4	Module Lead	Gustavo Teixeira	EiB

Type /Category	Role	Name	EiB Platform/ CGIAR Center/ University/ Other entity
	Mechanization Support Specialist - West Africa	Amer Najm	EiB
Module 5	Module Lead	Young Wha Lee	EiB
		Kelly Robbins	EiB
		Thomas Hagen	EiB
		Jean-Marcel Ribaut	IBP
Module 6	Module Lead	Bish Das	EiB
	1-2 individuals who have conducted EiB assessment of a NARS breeding program		Consultants
Module 7	Module Lead	Liz Jones	EiB
Donors	BMGF	Gary Atlin	BMGF
	GIZ	Stefan Kachelriess	GIZ
	USAID (CtEH funder)	Erik Witte	USAID
	GIZ (CtEH funder)	Sarah Schmidt	
	ACIAR (CtEH)		
	UKAID (DFID) (CtEH)		
Steering Committee	TBC		
Hosting organization	Human Resources Director/CSP Mexico	Monica Altmaier	CIMMYT
NARES			
Module 2	ICAR	AK Singh	Singh
	Indian Institute of Millets Research	T. Napoleon	Nepolean
	ICAR	Bharadwaj Chellapilla	
	BARI, Bangladesh	Iftekharuddaula (Pavel) Khandakar	
	University of Queensland	Chris Lambrides	
	Cornell University	Tufan Hale Ann	
	Cornell University	Chiedozi Ngozi Egesi	
	Cornell University	Peter Selby	
	KARLO, Kenya	Felister Makini	
	KARLO, Kenya	Joyce Malinga	
	NARO, Uganda	Yonah Baguna	
	NARO, Uganda	Godfrey Asea	
Module 7			
	INRAB, Benin		
	Coconut breeding program	Jonas Dossou	

Type /Category	Role	Name	EiB Platform/ CGIAR Center/ University/ Other entity
	Vegetable breeding program	Armel Mensah	
	Palm oil breeding program	Hubert Domonhedo	
	Cashew fruits	TBC	
	Maize	TBC	
	Yam	TBC	
Private Sector			
	Monsanto	Mark Edge	
	Syngenta Foundation	Mike Robinson	
	Syngenta Foundation	Viv Anthony	
	Bayer Cropscience	Mark Edge	
	Bayer Cropscience	Stella Salvo	
	Corteva	Gino Beltran	
	Corteva	Emily Combs- Ziemke	
	Corteva	David Meyer	
	KWS	Leon Broers	
	Syngenta	Monica Mena	
	DArT, Australia	Andrzej Kilian	
BPAT assessors		Andre Drenth	BPAT
		Bill Angus	BPAT
	Staff	Chris Lambrides	BPAT
		David Beck	BPAT
		David Jordan	BPAT
		David Tabah	BPAT
		Errol Corsan	BPAT
		Emanuel Monyo	BPAT
		Guus Heselmans	BPAT
		Graeme Wright	BPAT
		Jesse Pollard	BPAT
		Jane Sample	BPAT
		Mark Cooper	BPAT
		Randall Holley	BPAT
		Rollin Sears	BPAT
	Consultant	Vanda Morgan	BPAT
		Yilma Kebede	BPAT
non-CGIAR innovation partners	World Vegetable Center — WorldVeg,	TBC	
	Cornell University	TBC	
	CIRAD	TBC	

Annex 7: Evaluation Team Background

Karen McHugh, Team Leader



Ms. McHugh has worked in overseas cooperation for over thirty years, mainly with the EU but also with the Council of Europe, the World Bank, the ASEAN Secretariat and FAO. She has worked in many different sectors tackling both economic and social inequalities. She has a strong background in Monitoring and Evaluation (M&E) having been Team Leader for the EU's Results Oriented Monitoring service in Latin America between 2003 and 2008 and for Asia and Central Asia between 2009 and 2014. She now trains Brussels and EU Delegation based staff, partner organisations such as the UN and NGOs, the Council of Europe and the College of Europe on Project/Programme Design, Project/Programme Cycle Management (PPCM), Monitoring and Evaluation Methodologies.

Sumita Acharjee, Subject Matter Expert



Sumita Acharjee is an Assistant Professor at the Assam Agricultural University in Jorhat, India. She worked as a Visiting Scientist at the CSIRO, Australia for more than 4 years. She is interested in agricultural biotechnology, particularly in improving resistance to host pests in food legumes. She has worked on 10 projects on legume genetic improvement and molecular ecology from funding agencies in India (DBT and DST) and abroad (Kirkhouse Trust, UK; ACIAR, Australia and JSPS, Japan). She is the recipient of several fellowships, including Norman E. Borlaug International Agricultural Science and Technology Fellowship conferred by the US Department of Agriculture (USDA), the USA in 2014. She is also acting as an Academic Editor of Journal PlosOne and Review Editor of Frontiers in Plant Science. She has supervised several postgraduate students and has published (20 peer-reviewed) research outcomes in various high-impact factor journals.

Freddy Noma, Monitoring and Evaluation Consultant



Freddy holds a PhD in Agricultural Economics with 10 years of experience in development related issues, to which he has added strong skills in Data Science (DS) and Machine-Learning (ML), complemented with experience in developing Digital System Support (DSS) tools for both agricultural extension and development projects Monitoring and Evaluation (ME). He is Lead digital agriculture and Machine-Learning and has conducted the development of Smart Monitoring and Evaluation Tools – SMET that is a ME digital system to support a multi-country (Burkina-Faso, Benin, Togo, Chad) project PAO2P financed by Switzerland Cooperation. He leads a firm which develops DSS with a focus on applying Data Science technics to address Sustainable Development Goals challenges, in this regards Freddy he has teamed up with IFPRI experts to apply for the 2020 INSPIRE IFPRI challenge to deploy ML-based DSS to recommend appropriate food diets and related farm production resources allocation; with pilots to be conducted in Democratic Republic of Congo and India. In 2021, He was presenter at the Food Security Network showcase on the use COVID19 data monitoring, he presented ML-based system to automatically identify individuals at risk of infection. In line with applied DS, Freddy has also developed systems to suggest appropriate climate-smart agriculture strategies to households, to predict maize yields' variations.

Vanda Morgan, Organisational Development Expert



Post university Vanda initially worked in finance, corporate and commercial banking in London; including organizational restructuring looking at how, and what factors are important for organizations to be effective and viable. Her Master's in Organizational Psychology at London University was undertaken whilst heading up a departmental restructure - considering the people and interpersonal perspectives as well as the infrastructures that make organizations work.

Moving into consultancy – UK and international – she has had the privilege over the last 20 years to work with individuals and teams across diverse organizations and sectors, from finance to pharma – organizations such as GSK, Eli Lilly, Roche, through to science and research at the Sanger Institute, John Innes Institute in the UK to e.g., IITA, EARI, NARO, TARI in Africa. Also, DFID in Africa and Asia and in the last two years at the JUDGE Business School in Cambridge working with the India IAS development program – government leaders considering how the latest international organizational and leadership development principles can be adapted to fit the culture and traditions of a rapidly developing Indian nation.

Vanda's key focus is on organizational effectiveness (OE) and leadership development, combined with a passion for science and international development this has recently involved a rich mix of opportunities including being asked to join the BMGF Breeding Program Assessment Team (BPAT) two years ago with a specific role to review the OE context in which the breeding programs operate.

Michel Ragot, Subject Matter Expert



Michel Ragot is co-founder and managing director at Nouvelle France Genetics, a plant breeding consulting practice operating out of Minnesota, and co-founder and Chief Business Officer at DeltaGee, a French company focusing on breeding process optimization and decision-making support.

His involvement with plant breeding dates back to his MSc at AgroParisTech in Paris, France. He was later introduced to molecular breeding during his PhD at North Carolina State University in the USA, which led him to spend most of his career at the interface between breeding and technologies with a constant focus on breeding efficiency.

Michel has worked with many crops, from barely domesticated ones to the most widely grown, from field- to active glasshouse-grown, from commodities to vertically integrated. His experience also spans public and private sectors, from large multinational groups to small local organizations, throughout the world.

He is very interested in skills and knowledge transfer and has always been involved, and even more so now, in training, coaching, and mentoring

Annex 8: Evaluation Terms of Reference (ToR)

Terms of Reference EVALUATION OF CGIAR EXCELLENCE IN BREEDING PLATFORM

Draft, August 10, 2021

Direct questions or comments about this Terms of Reference to CGIAR Advisory Services Evaluation (CGIAR) <CAS-Evaluation@cgiar.org> cc s.negroustoueva@cgiar.org, CAS Evaluation Function Lead

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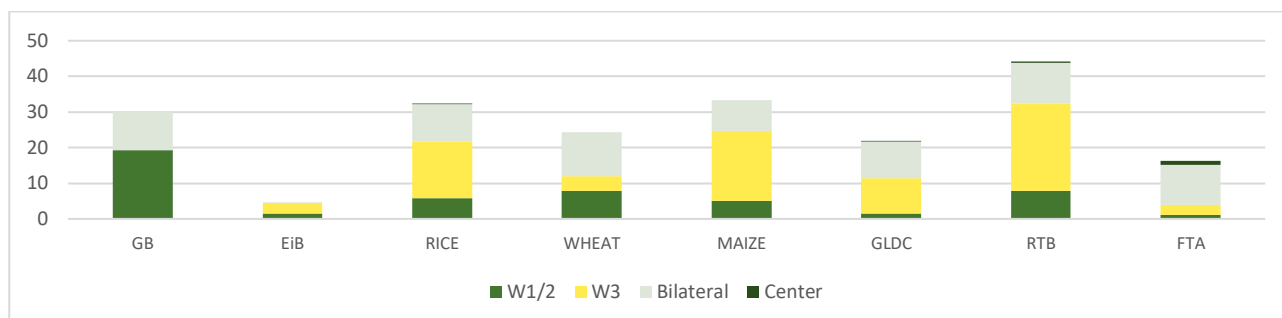
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1. Background

1.1 Rationale and Context of the Evaluation

CGIAR with partners has a long history of investing in genetic gains in farmers' fields across the globe. Figure 1 depicts the latest data for CGIAR expenditure on genebanks and plant breeding, which totalled over \$200 million in 2019—almost 25 per cent of the total CGIAR expenditure for that year¹⁸.

Figure 1: CGIAR 2019 Expenditure on Plant Breeding and Genebanks (\$M)¹⁹



Increasing both the rate of genetic gain delivered directly by CGIAR breeding programs and improving their ability to support the modernization of national systems is the key scientific challenge facing the system, and the purpose for the [Excellence in Breeding Platform](#) (EiB), approved by the System Council in 2016. Individually, even the largest CGIAR breeding programs were considered too small to support rapid modernization by adapting and mainstreaming state-of-the-art breeding technologies such as found in the multinational private sector. Together, coordinated and supported by the EiB Platform, the programs intended to serve smallholders in the developing world can raise the rate of genetic gain they deliver much more effectively.²⁰ Together, coordinated and supported by the EiB Platform, the programs intended to serve smallholders in the developing world can raise the rate of genetic gain they deliver much more effectively.

The EiB Platform is a coordinating mechanism to deliver a coherent data-driven and data-intensive strategy leveraging data capabilities and infrastructure. Its strategy focuses on collaboration among CGIAR Research Programs (CRPs) and Centers, leveraging external expertise to enable unrestricted discoverability of linked open datasets. The ultimate goal of the platform is to harness the capabilities of EiB to accelerate and enhance the impact of international agricultural research. It will support CGIAR's mission by creating an enabling environment where data are expertly managed and used effectively to strengthen delivery on CGIAR SRF's System Level Outcome (SLO) targets.”²¹ An overview of the Platform is summarized in Annex 1.²²

In an ambitious One CGIAR reform, under the [2030 Research and Innovation Strategy](#) Action Area 3 on Genetic Innovations aims to ensure the world's growing food and nutrition requirements are met in a time of unprecedented climate change, rapid population growth and urbanization, while simultaneously supporting the livelihoods of millions of farmers.

In 2020, in an ambitious One CGIAR reform, CGIAR commenced to streamline the governance, operational

¹⁸ In the CGIAR 2030 Research and Innovation Strategy, since Genetic Innovation under FISH and LIVESTOCK is to be implemented under Resilient Agrifood Systems, Action Area 2, these topics are not being treated in this brief. Refer to the Synthesis Annexes A5.1-A5.3 for more information.

¹⁹ Data sourced from: <https://www.cgiar.org/food-security-impact/finance-reports/dashboard/>. Although genetic innovations were underpinned by two CGIAR Platforms, Genebanks and Excellence in Breeding (EiB), Agri-Food Systems Programs (RICE, WHEAT, MAIZE, GLDC, RTB and FTA) also invested in genetic innovations.

²⁰ [EiB Coordination Platform: Full Proposal 2017-2020](#)

²¹ [EiB Coordination Platform: Full Proposal 2017-2020](#)

²² [EiB Coordination Platform: Full Proposal 2017-2020](#)

structures and processes guided by the [2030 Research and Innovation Strategy](#). In the Strategy, the Action Area 3 on Genetic Innovations and Genebanks aims to ensure the world's growing food and nutrition requirements are met in a time of unprecedented climate change, rapid population growth and urbanization, while simultaneously supporting the livelihoods of millions of farmers. Action Area on Genetic Innovation and Genebanks intends to address a great global need for CGIAR to provide:

- ✓ Support for the optimization of breeding pipelines and implementation of genomics assisted breeding approaches;
- ✓ Identification and incorporation of new traits, collaborating with the CGIAR Genebanks; and
- ✓ Regionally adapted, rapidly cycling source populations with genomic selection models, to help provide a continuous flow of diverse, elite materials for use as parents by NARES.

This will be achieved by accelerating the supply of more productive, nutritious, and climate-resilient crop varieties. Without access to genetically diverse resources for breeding programs and the mobilization of genetic resources conserved in genebanks, agri-food systems will not be able to respond to emerging threats or meet the evolving needs of consumers including women and youth²³.

The [CGIAR Advisory Services Shared Secretariat](#) (CAS Secretariat) supports and facilitates the CGIAR's independent advisory services, comprising the Independent Science for Development Council (ISDC), the Standing Panel on Impact Assessment (SPIA) and an independent [Evaluation Function](#). CAS Secretariat's Evaluation Function supports the implementation of the CGIAR System multi-year evaluation plan to meet CGIAR System's needs for rigorous high-quality independent evaluations to inform decision making across the System. The 2021 [Synthesis of Learning from a Decade of CGIAR Research Programs \(CRPs\)](#) conducted by CAS, found that the modernization of the CGIAR breeding programs accelerated during the second phase of the CGIAR research programs (CRP) era with support from Platforms like the Excellence in Breeding Platform (EiB), cross-CRP collaboration and partnerships with Advanced Research Institutes (ARIs)²⁴. The 2021 Synthesis also brought to the fore evidence gaps. The missing assessment of the support platforms in 2020 constrained the analysis of progress along and between the two phases (the Genebanks platform) and made it impossible to assess the level of collaboration and interaction between the Platforms ([Genebanks](#), EiB, [Gender](#) and [Big Data in Agriculture](#)) and CRPs. It was also noted that Climate-change threats have highlighted the urgent need for conserving the wealth of the genetic diversity found in nature and on farms.

In line with the objectives of [Synthesis of Learning from a Decade of CGIAR Research Programs \(CRPs\)](#), the following recommendations were made towards Genetic Innovation (AA3):

- 17 Ensure that high priority is given to nutrition, health, resilience, and environmental sustainability objectives in research groups focused on genetics.
- 18 Increase inclusiveness in defining product profiles, executing programs, and delivering outputs, to better contextualize variety development and tailor research to diverse agricultural communities and to the needs of children, youth, women, and other at-risk or marginalized groups.
- 19 Prioritize seed sector development, including by expanding partnerships with the private sector and civil society and strengthening key policies and regulations.
- 20 Catalyze partnerships with other research and innovation partners in defined systems to enable crop system diversification and improve access to affordable, healthy diets.
- 21 Accelerate the modernization and technical capacity development of plant-breeding programs across Centers and in national program partners.
- 22 Integrate research with wider development and investment commitments related to climate change adaptation and mitigation.
- 23 Engage strategically with policies (e.g., ITPGRFA, CGRFA) around the value of germplasm diversity, farmers' and breeders' rights to plant and animal genetic resources, and international transfer agreements to ensure access to and availability of diverse and valuable germplasm, improved varieties and strains, and crop wild relatives.

²³ [2030 Research and Innovation Strategy](#)

²⁴ The 2021 [Synthesis of Learning from a Decade of CGIAR Research Programs \(CRPs\)](#) pooled evidence from 43 CGIAR evaluations, reviews, syntheses, and assessments including: [2020 CRP Reviews](#), including of: [Maize](#) and [Wheat](#) (CYMMIT), [Grain Legumes and Dryland Cereals](#) (GLDC), [Roots, Tubers and Bananas](#) (RTB), [Rice](#); The 2019 performance management standards (PMS) pilot assessments of the EiB Platform commissioned by CAS Secretariat and conducted by Dalberg Advisors on behalf of the CGIAR System; [2017 CRP Evaluation of Genebanks](#)

To meet the needs of System Council represented by Strategic Impact, Monitoring and Evaluation Committee (SIMEC), as part of its [2021 approved workplan and budget](#), the Evaluation Function is mandated to conduct an external evaluation of CGIAR's EiB Platform. In line with the conclusions of [2021 Synthesis of Learning from a Decade of CGIAR Research Programs](#), the evaluations of EiB and Big Data Platforms would provide an opportunity to assess the level of collaboration and synergies between these two Platforms and CGIAR breeding programs.

Beyond evidence included in the [Synthesis of Learning from a Decade of CGIAR Research Programs \(CRPs\)](#), scoping showed the potential use of reports from the use of Breeding Program Assessment Tool (BPAT)²⁵ as directly relating to the evaluation of EiB Platform. The BPAT is a structured evaluation process for breeding programs that assesses their management and organization using criteria commonly used to evaluate commercial plant breeding programs. This tool was developed with the support of the Bill & Melinda Gates Foundation, one of the EiB platform partners.

2. The Evaluation

2.1. Evaluation Purpose and Scope

This evaluation will serve the dual purposes of accountability and learning. It will be both summative and formative in nature and will assess the design, scope, implementation status and achievement of EiB Platform objectives. It will collate and analyze lessons learned, challenges faced, and best practices obtained during implementation to guide future planning. It will assess the performance of the project against planned results and the preliminary indications of potential sustainability of results. The evaluation will provide essential evaluative evidence for decision-making by the CGIAR System Council, Excellence in Breeding Platform management, and its partners.

The evaluation will cover all the activities of the Platform from its initiation in 2017 through end of 2020 (TBC) considering the need for timely evidence with the drivers, the transition to One CGIAR. The evaluation will integrate cross-cutting themes of Gender, Diversity, and Inclusion (GDI), youth, climate change and capacity development as well open data and intellectual assets.

The main objectives of the evaluation of the Excellence in Breeding Platform are to:

- A. Assess the **relevance and coherence** of the Platform design, theory of change (ToC) and the Platform's role in providing services that create synergies and accelerate genetic gains of breeding programs targeting the developing world in support of its mission;
- B. Assess the **effectiveness and efficiency** of the EiB Platform implementation, and its contribution towards CGIAR objectives, considering cohesion with other platforms and CRPs;
- C. Identify the **supporting factors and constraints** behind achievements of the EiB Platform and each of its modules in light of the results achieved: governance and management, MEL, and other related implementation processes;
- D. Provide **recommendations relevant to the future** implementation aligned with 2030 Research Strategy priorities of Action Area 3: Genetic Innovation, and related ways of working and other system-wide recommendations.
- E. Assess **sustainability** of the EiB platform achievements and its positioning in informing One CGIAR and future strategic directions, including in the breeding sector.

The formative and summative component will address both effectiveness of the Platform implementation strategy and the results. This includes the implementation modality, partnership arrangements, institutional strengthening, beneficiary participation, sustainability of the Platform. The evaluation will include review of the project design and assumptions made at the beginning of the project development process. It will assess the extent to which the project results have been achieved, partnerships established, capacities built, and cross cutting issues integrated. Recommendations will be provided around areas for

²⁵ The BPAT is an assessment tool that facilitates a structured review of key technical, capacity and management components of plant breeding programs to help design improvements that increase their efficiency and achieve higher rates of genetic gain.

learning towards new initiatives under One CGIAR.

2.2. Key Stakeholders

The key stakeholders of the EiB Platform evaluation by two areas of interest are presented in Table 1.

Table 1. The Platform Evaluation key stakeholders

Type of stakeholder	INTEREST	
	Accountability	Learning
CGIAR System Council & Funders	✓	
CGIAR System Board	✓	✓
One CGIAR Portfolio Performance Management Team	✓	✓
MD, Institutional Strategy and Systems, Global Director, Digital Services		✓
Initiative Design Teams (IDTs) specific to AA3, and the relevant MD and SGD 26		✓
System Office Project Coordination, Monitoring and Performance Management Unit		✓
EiB Platform Management, and Module leaders		✓
EiB Platform Steering Committee, International Advisory board		✓
Breeding program Managers and EiB Focal Points in relevant CGIAR Centers with breeding programs ²⁷		✓
EiB networks, and any Communities of Practice, i.e. Breeding Informatics Network (BrIN)		✓
End Users of EiB Platform- NARES, industry, others	✓	✓

To the extent feasible given the resource and time allocated to the evaluation, key stakeholders will be widely consulted and engaged throughout the evaluation process through relevant channels and using the appropriate engagement tools.

2.3. Evaluation Criteria and Questions

Consistent with the [CGIAR Policy for Independent External Evaluations](#), and industry standards [the OECD evaluation criteria](#) will be the framework for the summative and formative evaluation. The focus will be on 5 criteria (relevance, coherence, effectiveness, efficiency, sustainability), reflecting the evaluation timing, objectives and scope. In line with the criteria, upon endorsement by SIMEC of evaluation questions (EQs), together with the sub-questions they may be refined at the inception phase towards the development of the evaluation matrix in close consultation between the evaluation team, the CAS, EiB platform and selected key stakeholders.

Towards these objectives, key evaluation questions mapped by OECD/DAC evaluation criteria are presented in Table 2 and sub-questions are further detailed in Annex 2:

Table 2. Evaluation criteria and questions

Criteria	Key Evaluation Questions
Relevance	ii) To what extent are the EiB Platform's objectives relevant to the needs of its internal and external partners and stakeholders, including end-

²⁶ TBC.

²⁷ Precise Breeding Program prioritized by EIB will be established during inception phase.

Criteria	Key Evaluation Questions	
		users in target groups?
Coherence	iii)	How synergetic is EiB Platform with others in CGIAR and comparable programs in the industry?
Efficiency	iv)	Have resources (funds, human resources, time, expertise etc.) been allocated strategically and timely to achieve EiB Platform outcomes?
Effectiveness	v)	To what extent did the Platform achieve progress towards outcomes?
	vi)	Which internal and external mechanisms and factors, including inputs, contributed or inhibited achievement of outputs and outcomes?
Sustainability	vii)	What mechanisms have been put in place to ensure that EiB Platform assets, products and mechanisms are positioned to respond to donor requests in transition from EiB Platform to respond to CTeH requests?
	viii)	Which elements of the EiB Platform assets are likely to sustain and contribute towards One CGIAR?

2.4 Approach and Methodology

The evaluation will be primarily desk-based and use a mixed-methods design. Methodological rigor in the evaluation design will be adhered to. The inception report will describe a proposed methodological approach and include a detailed evaluation matrix with envisioned data sources to answer EQs and sub-questions.

Quantitative data will be collected via online survey instruments, and to the extent possible analyses would be performed on available quantitative indicators and/or metadata from the relevant data sets (including from the Breeding Program Assessment Tool (BPAT)²⁸ as prioritized by the EiB Platform). Quantitative data will be disaggregated (wherever possible) by age and gender.

Qualitative techniques would combine an extensive review of extant documentation on the Platform, content analysis of the evaluative evidence from the [2021 Synthesis](#) exercise, open and semi-structured interviews with internal and external stakeholders and focus-group discussions. Potentially, case studies are recommended for each EiB Platform Module or breeding programs to understand the user perspectives and experiences.

Recognizing 'that CGIAR is only one actor within the complex reality of innovation webs' and objectives of the EiB Platform, contribution analysis is recommended, using mixed-method approaches to determine, from the data and perspectives of others, the scale and value of the contribution made by EiB platform into CGIAR and externally toward achieving sustainable development outcomes. Data sources will be triangulated to ensure transparency and independence of judgement, and to minimize bias. The inception and draft reports will be peer-reviewed by evaluation and Subject Matter Experts (SMEs).

Building on groupings in Table 1, stakeholder groups to be interviewed would be further elaborated during the inception phase and include key Platform partners, the Platform's focal points at the CGIAR Centers with breeding programs, and end-users of the Platform, including in the funders and NARES²⁹. The evaluation team will determine whether to seek additional information and opinions from representatives of external thought partners to the Platform.

To increase credibility, particular value will be placed on the triangulation of the data and solid argumentation of the conclusions drawn and recommendations made. The evaluation would be conducted with close information and coordination support and collaboration with the EiB Platform. CAS Secretariat

²⁸ Detailed information on approach to using evidence from BPAT would be covered in the Inception report, including information on confidentiality protocols; e.g., aggregated data, specific permissions will be sought from breeding programs to use specific information in selected case studies.

²⁹ TBC

will guide and quality assure the evaluation process, and ensure that the evaluation team uses appropriate tools and technology to enhance data access and, that data analysis is robust. CAS Secretariat will also ensure the effective communication of evaluation results with internal and external evaluation stakeholders.

2.5 Expected Limitations to the Evaluation

The evaluation's remit and its resources limit the extent to which it can collect primary information from the EiB Platform's vast network of partners and end-users, including in the breeding's programs at the country levels. Therefore, the evaluation will use reports and other documents, representative sample of interviews, surveys and limited ground-truthing to gather evidence on the evaluation questions and validate its findings. Detailed limitations and mitigations measures will be stipulated in the Inception report.

3. EiB Platform Evaluation Timeline and Management

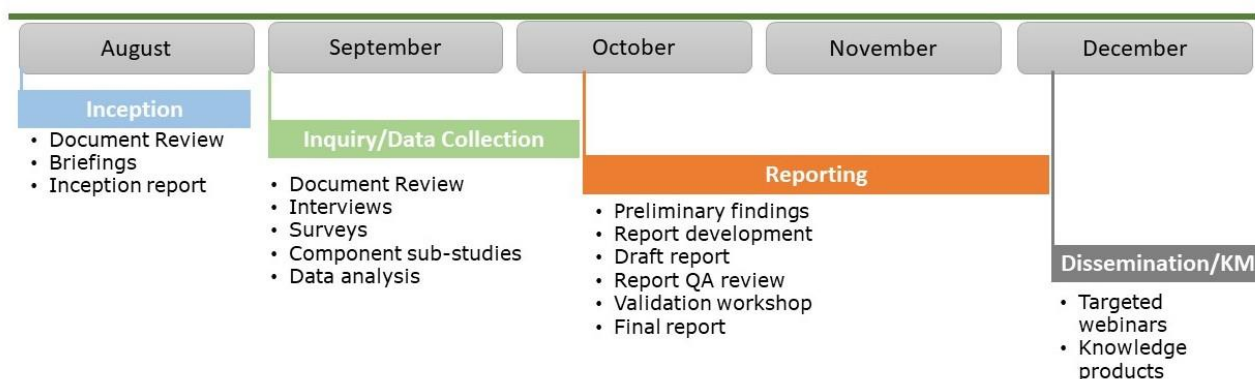
3.1 Evaluation Phases and Timing

Preliminary discussions with the EiB platform were conducted during scoping and preparation to the evaluation. CAS Secretariat, in consultation with relevant stakeholders, will review key documents and define the evaluation scope, and carry out the following tasks:

- Develop the Terms of Reference (ToR);
- Consult the ToR with stakeholder groups (SIMEC, Global Science Group Director- Systems Transformation, evaluands);
- Select and contract the evaluation team leader and in consultation with her/him, the evaluation team.

The key phases of the evaluation would take place between August and November 2021, for transmission to and endorsement by the System Council in December 2021, after vetting with SIMEC. An indicative time frame for the evaluation is presented in Figure 2 and phases by expected deliverables are elaborated in Annex 3 with a detailed schedule: no changes to key milestones are expected.

Figure 2. Indicative Evaluation Timeline, 2021



Inception phase: The inception phase is the responsibility of the team leader. The inception report will focus on the following elements:

- Preliminary project theory model(s); refinement of the evaluation questions, elaboration of evaluation methodology including quantitative and qualitative approaches through an evaluation framework ("evaluation matrix");
- A stakeholder analysis identifying key stakeholders, networks and channels of communication. This information should be gathered from the Platform documents and discussion with the Platform team;
- A preliminary list of strategic issues of importance for emphasis during the inquiry phase;
- An indicative evaluation report outline and division of roles and responsibilities between the evaluation team leader and the external evaluation team; people to be interviewed and possible

surveys to be conducted and a debriefing and reporting timetable. These elements will be drawn together in an inception report to be agreed between the team and the CAS Secretariat, which will subsequently represent the contractual basis for the team's work and deliverables of the evaluation. As a requirement to finalize the inception report, a consultation will be arranged between CAS Secretariat and the evaluation team to interrogate the evaluation approach and methodology and enhance the evaluation matrix. Evaluation expert peer-reviewer will be a Team lead of the ongoing evaluation of the EiB in Agriculture platform, commissioned by CAS.

Inquiry and Data Collection phase: The evaluation team will collect the evidence according to the plan detailed in the inception report, complete its analysis, and prepare preliminary list of findings, conclusions and recommendations to debrief the CAS Secretariat. Peer-reviewers will be engaged in the review of sub-deliverables and the preliminary results.

Reporting phase: In this phase, the evaluation team will present preliminary results to the EiB Platform Management and to seek validation, factual corrections, and feedback.

The evaluation team would then develop the draft evaluation report for the review by CAS Secretariat's comments and factual corrections. Under the CAS Secretariat's guidance, the report would be reviewed by a team of external peer-reviewers. With the feedback from relevant stakeholders, the evaluation team would finalize the evaluation report taking into account comments according to the team's judgement.

Management Response: Embedded under Reporting phase, management response is key to the independent evaluation process. CAS Secretariat will liaise with the Project Coordination, Monitoring and Performance Unit through its relevant Tasks Units- Project Coordination Unit (PCU) and, Monitoring and Performance Management Unit (MPMU)³⁰ to coordinate the preparation of the management response with the EiB Platform management. After evaluation completion, the management response will be published on the CAS Secretariat website.

Dissemination: The evaluation report, the executive summary, the evaluation brief and other knowledge products along with the management response, will be published on the CAS Secretariat's website. In line with the dissemination and knowledge management strategy to be developed at the inception phase, tailored presentations will be made to targeted stakeholders and learning events organized with internal and external stakeholders.

3.2 Evaluation Management and Responsibilities

The Evaluation Lead, Svetlana Negroustoueva, of the CAS Secretariat manages the evaluation process, under the overall direction of the CAS Secretariat Director, Allison Grove Smith. Under CAS, the Evaluation Function Lead supported by a Senior Evaluation Officer will provide support to the team throughout the evaluation. The CAS Secretariat will be responsible for scoping, contracting the evaluation team members and other aspects of managing the evaluation. It will also be responsible for the quality control of the evaluation process and outputs, and lead knowledge management and dissemination of the results. The CAS Secretariat will provide the relevant mandated templates for all key deliverables.

The evaluation will be conducted by an independent team of experts (the evaluation team). The evaluation Team Leader (TL) has final responsibility for the evaluation report and all findings and recommendations, subject to adherence to [CGIAR Evaluation Standards](#). The primary responsibilities of the team leader include:

- Setting out the methodology and approach in the inception report;
- Guiding and managing the evaluation team during the inception and evaluation phases;
- Overseeing the preparation of, and quality-assuring, data collection outputs by other members of the team;
- Consolidating team members' inputs to the evaluation products (inception report, peer point presentations and the evaluation report);
- Delivering the inception report, draft and final evaluation reports.

³⁰ If these entities do not yet exist, the interaction will be with the existing System Office Programs Unit.

- Where necessary, representing the evaluation team in meetings with stakeholders;

The evaluation team is responsible for submitting the deliverables highlighted in 3.3 and detailed in Annex 3 to CAS Secretariat, these include but are not limited to:

- An inception report;
- Reports from Module case studies or similar type analytical pieces of work towards the development of the final report;
- Draft report of the Platform evaluation (CAS template, according to the CAS Style Guide);
- A final evaluation report following the report template with a maximum of 25 pages, and written in plain English in line with CAS Secretariat's style guide;
- A two to three-page executive summary, and a set of annexes with additional information apart from the main body of the report;
- At least 4 PowerPoint presentations covering the main points of the evaluation, including on methodology, limitations, findings, conclusions, recommendations, and additional notes relevant to the evaluation, to be shared at key moments along the timeline.

The Platform's management, steering committee and focal persons will respond to the Evaluation team's needs for information throughout the evaluation: documentation and data, access to partners and staff for engagement with the evaluators, and information on partners and stakeholders. These actors will be also be responsible for giving factual feedback on the draft evaluation report.

To ensure the independence of the evaluation, the CAS Secretariat's staff will not participate in meetings where their presence could bias the responses of external stakeholders. Adequate consultations with evaluation stakeholders will be ensured by the evaluation team and the CAS Secretariat throughout the process, with debriefings on the process, challenges and findings held at various stages of the evaluation. The CAS Evaluation Function Lead will ensure transparent and open communication with stakeholders during each of the key evaluation phases.

Table 3 provided additional detail on evaluation phases, with tasks and responsibilities.

Table 3. Indicative Evaluation Tasks and Outputs, by Phase and Roles, 2021

Evaluation Phase	Tasks	Outputs	Responsible	Dates 2021
<i>Preparatory</i>	Draft evaluation ToR / ToR Revisions	Final evaluation ToR	CAS Secretariat	July 30
	Selection of consultants from the vetted roster	Evaluation team contracts.		
<i>Inception</i>	Onboarding and briefing of the external evaluation team	PPT	Evaluation Team; CAS Evaluation Function	August 4
	Development of the Inception report with the evaluation matrix	Draft inception report with evaluation matrix	Evaluation team	August 26
	Introduction of the EiB Platform management, and IR validation	Intro PPT from the Platform	CAS team to facilitate	30 July
	Integration of feedback from peer review on the methodology.	Final inception report and evaluation matrix	Evaluation team	September 3
<i>Inquiry: data collection and analysis</i>	Desk review	Interview guide	Evaluation Team	Sept 10 - October 8
	Survey	Survey instrument, survey result note		

Evaluation Phase	Tasks	Outputs	Responsible	Dates 2021
	Interviews	Interview notes		
	Analysis for developing sub-component studies	Module component study reports		
<i>Reporting</i>	Data triangulation, analysis and report development	Detailed report outline to CAS		
	Validation workshop with the EiB Platform management	PPT	Evaluation Team; CAS Evaluation Function	October 18-22
	Submission of draft Platform evaluation report	Draft Platform evaluation report	Evaluation Team	November 1
	Report review by CAS, peer-reviewers and key stakeholders as needed.	Compiled feedback by peer-reviewers and key stakeholder groups.	CAS with peer-reviewers	Nov 1-5
	Integrating CAS and peer-reviewers feedback into the final discussion version of report	Draft discussion final report	Evaluation Team	Nov 6 – December 4
	Presentation of Draft final Report to SIMEC for feedback	Draft final report, PPT	CAS Secretariat with selected SMEs	
	Revision of the final report integrating SIMEC's feedback	Revised draft final Report	Evaluation Team	
	Presentation of final Report to System Council	Draft final report. PPT	CAS Secretariat/Evaluation Team	
	Integration of any relevant feedback, if applicable	Final report	Evaluation Team	December 10
<i>Management Response</i>	Liaising with Project Coordination, Monitoring and Performance Unit for obtaining management Response coordinated	Management response	CAS Secretariat	December 2021
<i>Dissemination and Knowledge Management</i>	Development of knowledge products and knowledge management in line with dissemination and KM strategy	Evaluation briefs and knowledge products.	CAS Secretariat/ Evaluation team where necessary.	November - Onwards

3.3 Deliverables and Dissemination of Findings

The inception report: the inception report, which builds on the Terms of Reference for the evaluation, outlines the evaluation team's proposed approach to the main phase of the evaluation as follows: (i) elaborating the scope and focus of the evaluation; (ii) developing the methodological tools for gathering evidence; (iii) providing a detailed evaluation matrix; (iv) clarifying the analytical frameworks to be used

by the evaluation; and (v) providing a detailed work plan for the evaluation.

The evaluation report- the main output of this evaluation - will describe findings and conclusions, based on the evidence collected in the framework of the evaluation questions defined in the inception report, and recommendations logically following the conclusions. The recommendations will be evidence-based, relevant, focused, clearly formulated, and actionable. They will be prioritized and addressed to the different stakeholders responsible for their implementation. The main findings and recommendations will be summarized in an executive summary. The main evaluation report should be concise (no longer than 25 pages – excluding the Executive Summary and Annexes) and written in plain English, following CAS style guide. The final evaluation report will be published on the CAS Secretariat's website. The evaluation team will be expected to produce a two- or three-page brief of key findings and lessons, following a template provided by the CAS Secretariat.

The draft evaluation report- The evaluation team will submit a first- draft report to the CAS Secretariat as part of the quality assurance process. Upon the acceptance of a draft of adequate quality, CAS Secretariat will share this first -draft report with a team of peer reviewers. The first draft will be shared with the Platform team for their review and comments- for any errors of fact and highlight the significance of any such errors in any conclusions. Subsequently, a pre-final discussion version of the report will be presented to SIMEC for feedback. With the feedback of SIMEC integrated, the discussion version of the report will be presented to System Council for their input which will guide the final evaluation report.

The final report shall be submitted by email to the Evaluation Function Lead in electronic editable form (MS Word) aligned with CAS Secretariat's style guide. The final report will follow a standardized structure and template to be provided by CAS Secretariat, for subsequent finalization by having it professionally edited. The evaluation Team Leader will be responsible for addressing editors suggestions, in consultation with the team as necessary; within a short time frame.

Presentations: The team leader and evaluation team where necessary will present the evaluation results to key CGIAR stakeholders (internal and external) via various communication channels to targeted audiences.

4. Evaluation Team

To meet the evaluation objectives, the evaluation team will comprise five (5) team members drawn from the vetted Subject Matter Expert (SME) and Evaluator roster maintained by CAS:

- (1) Evaluation team leader- Evaluator;
- (2) Senior SMEs in breeding, and
 - (1) Senior SME in Organizational Effectiveness (OE) and change management.
 - (1) mid-level evaluation analyst (consultant) will supported data collection, analysis, and Knowledge Management (KM).

4. 1 Qualifications of the Evaluation Team and Team Leader

The team members would have a strong multi-disciplinary cumulative experience in conducting complex, global strategic evaluations with suitable background relating to EiB in agriculture and working knowledge of CGIAR and its research, including competencies and expertise in the following areas:

- Priority areas relevant to the EiB Platform (breeding program management, breeding, genomics, phenotyping and/or bioinformatics);
- Proven record with conducting assessments of breeding programs, including using breeding program assessment tools (BPAT);
- Data generation, analysis, management and governance;
- Organizational Effectiveness (OE) and change management and power relationships and politics around information (social science);
- Knowledge of emerging innovations, tools and services) and the requirements of users, i.e., breeding programs targeting the developing world
- Partnerships, in particular, with the private sector;
- High-level expertise and skills in mixed qualitative and quantitative data collection and analysis

techniques: reviewing and processing a large number of documents, conducting one-on-one and group interviews using appropriate technology in data collection and analysis and communication of evaluation results, including visualization;

- Research or development agencies on issues, programs and policies related to agriculture and natural resources and digital technologies;
- An understanding of Gender, Diversity and Inclusion (GDI) issues.

Individual TORs for team members would align to match areas of expertise required, and mapping against team requirements will be presented in the Inception report. Each evaluation team member will be carefully vetted for any present or future conflicts of interest (COI).

The **team leader** will have a minimum of 15 years' experience in evaluation, with extensive experience in regional and/or global strategic-level evaluations with working knowledge of the CGIAR. The team leader must have The TL will manage the team of 2 (two) subject-matter expert and one (1) mid-level analyst with the following qualifications:

- At least a master's degree in Development Economics/Planning, Digital Systems, Breeding, Organizational development, Change management, Economic, and related university degree;
- Extensive expertise, knowledge, and experience in the field of evaluation of development programs;
- Experience in leading evaluation teams;
- Demonstrated skills in mixed qualitative and quantitative data collection and analysis techniques;
- At least 10 years of experience in working with international organizations and donors;
- Experience of program formulation, monitoring and evaluation;
- Excellent analytical, synthesis and communication skills (written and verbal)
- Skills on high-quality analysis, reporting in English and time management for timely deliverables submission;
- Proven experience coordinating program activities with governmental, nongovernmental, and private-sector partners.

At least 2 (two) peer-reviewers with relevant subject -matter expertise will be called up at necessary stages of evaluation design and implementation for enhanced rigor and validity.

4.2 Contract and Payment Schedule

The CAS Secretariat is hosted by CGIAR System Organization through an arrangement with the Alliance of Bioversity International and the International Center for Tropical Agriculture, at its offices in Rome, Italy. Contracting will be carried out by our hosting entities and under their name on behalf of CAS Secretariat. The members of the evaluation team must abide by the [Conflict of Interest policy](#) of the CAS Secretariat and must maintain independence in fact and appearance from the Platform under review throughout the duration of the assignment. Each evaluation team member must sign and return statements indicating their understanding and compliance with the policies of the CAS Secretariat and its host institutions. All contracting fees and conditions will be administered in line with the approved policy for consultants. Confidentiality provisions are covered in these contracts. All collected data must be shared with CAS for the confidential records kept within the CAS Secretariat, as an independent entity reporting to the System Council, and not the CGIAR management; informants should be duly notified to adhere to ethical evaluation principles.

ANNEX 1: Background: CGIAR Excellence in Breeding Platform

A1.1 Purpose and Objectives

Tasked by the funder coalition Crops to End Hunger, EiB supports consistent and rapid progress toward six requests from Funders (download PDF), and monitoring of progress (2021)³¹. According to the final July 2016 [Proposal \(2017-2022\)](#), the Excellence in Breeding (EiB) Platform should be seen as part of the [CGIAR Portfolio of Research Programs \(CRPs\) and Platforms](#). It stated the ambitious objective 'to become the one-stop place to go for advice, tested resources and best practices for any breeding program targeting the developing world' through the following sub-objectives:

- a) *"EiB will support the network of partners (CGIAR centers, NARS, local private breeding sector) that are developing new cultivars/breeds and conserving genetic resources within eight Agri-food Systems CGIAR Research Programs (AFS CRPs) and the Genebanks Platform.*
- b) *The Platform will develop international public goods and its know-how and tools will also be accessible to cultivar development programs that work on other commodities (e.g., vegetables) or in non-target (i.e., high-income) countries.*
- c) *Similar to the organization of breeding programs and platforms in multinational, multi-crop companies, the Platform will support the adoption of cutting-edge tools and services that are in demand by multiple commodities and CRPs, exploit economies of scale to reduce costs, and accelerate learning and use of best practices across commodities and CRPs.*
- d) *The Platform will develop, explore and improve access to tools and approaches that are difficult to develop at the commodity level; meanwhile, commodity-specific and cross-cutting research common to a group of crops or animals (e.g., legumes, veget. Its scope includes "agenda directed at the needs of public and private sector breeding programs targeting farmers in low- and middle-income countries".*

Notably, the 2016 proposal clarifies that *"Local public and private sector breeding programs can be divided between those that do pure cultivar selection [i.e., select and release new varieties and hybrids from among varieties and hybrids generated by CGIAR centers or larger NARS ("cultivar selection programs")] and others that make their own crosses and generate their own varieties and hybrids ("cultivar development programs")*. There is no statistics available [as of 2016] on the number of these programs yet we can make an estimate based on the rationale for public and private sector investments".




In addition to developing new partnership models with EiB leaders at the global level, the Platform seeks to promote CGIAR-wide collaboration across CRPs and Centers.

³¹ <https://excellenceinbreeding.org/content/what-we-do>



A1.2 Excellence in Breeding Platform- Structure and Modules

EiB is housed at the [International Maize and Wheat Improvement Center \(CIMMYT\)](#), the CGIAR research center.

By design, the EiB Platform operationalizes its tripartite objectives via 5 (five) inter-linked modules³². Notably, the structure and modules of implementation have somewhat changed between the 2016 proposal and the time of this evaluation, as seen in Figure A1 below:

2016 proposal	2021
 <p>1) Breeding program excellence: Generic tools and services to support breeding program excellence across CGIAR and NARS breeding programs, based on: (1) common metrics and standards for monitoring performance and indicators of genetic gains in researchers' and farmers' fields; and (2) advice, including from the private sector, on product and breeding program design, tool implementation, and dissemination</p>	<p><u>1. Product Design and Management</u> A standard breeding program performance management system to monitor successes from the lab to the farmers' fields, highlighting strategic areas for research and investment.</p>
 <p>2. Trait discovery and breeding tools and services: Drawing on the innovations taking place in breeding and research programs worldwide, lower the transaction costs to identify, access and adopt newly emerging tools that support trait discovery and breeding. This module also provides the web platform where user groups upload successful applications from all modules and feedback from users is captured</p>	<p><u>2. Optimizing breeding schemes</u> Access to support and knowhow to optimize breeding schemes, respond appropriately to changes in resources and to extract maximum value from implementation of new technologies, tools or services to the breeding process to achieve the highest possible rate of genetic gain</p>
 <p>3. <u>Genotyping / sequencing tools and services</u> (1) Procurement and coordination of common genotyping/sequencing services; (2) in collaboration with Module 5, customization of generic tools to support the sampling to data analysis pipeline; and (3) access to advice, including from the private sector, for the effective use of genotypic/sequencing information in breeding programs.</p>	<p>Access to genotyping services at reduced cost, and support for breeding programs to optimise the use of genomic data in their work.</p>
<p><u>4. Phenotyping tools and services</u></p>	

³² The number of modules is to be confirmed during inception.

	2016 proposal	2021
	(1) Common approaches, tools, accelerated learning, and advice for using cutting-edge remote sensing, high-throughput precision phenotyping, targeting, mechanization and automation approaches in breeding programs; (2) access to better value-for-cost laboratories for assessing physico-chemical composition and functional properties in plant and animal materials.	Information about new tools and approaches to quantify plant and animal traits, access to services and shared infrastructure, and support the routine use of cutting-edge phenotyping in breeding programs.
	Bioinformatics and data management tools and services: Open-access tools and services linked to core databases to support both complex and integrated data analysis and management of breeding program data, necessary for CGIAR, NARS, and SMEs to increase genetic gains and also as a prerequisite for applying genomic and high-throughput phenotypic information in cultivar/breed development.	<u>5. Bioinformatics, biometrics and data management tools and services</u> Access to integrated bioinformatics tools and biometrics support that allow breeding programs to harness the power of genotype, phenotype and other data.

The knowledge accumulated by EiB's five inter-linked Modules is supposed to be shared among partners, and publicly through an online [Toolbox](#)³³.

The forward looking lense in the 2016 proposal were explicit in an articulation of the *Future evolution*:

"A wider range of cross-commodity synergies may be exploited in the future, both upstream (e.g., on gene editing) and downstream to accelerate cultivar replacement in farmers' fields. In the case of gene editing, it was decided that experiences should first be gained through individual AFS CRPs collaborating with license holders on high return-to-investment and likely-to-succeed traits. Licensing approaches, intellectual property management and other generic insights should be shared as part of Module 2. In the case of activities that exploit synergies of scale for scale-out, possible investments will be assessed and proposed based on insights from Module 1, aligned with the agenda of AFS CRPs."

As of 2020, tasked by the funder coalition Crops to End Hunger, EiB supports implementation toward six requests to CGIAR centers from Funders, and monitoring of progress³⁴.

A1.3 EiB Platform: Management and Governance

Leadership of the Platform is provided through a secretariat, which consists of a EiB coordinator, Platform co-founders, a project coordinator, Module One leader, communications specialists, and administrative support. The Platform coordinator doubles as the leader for both Modules Two and Three respectively. In addition, the Platform also has focal points in all 15 Centers through which it liaises with centers as needed. At the proposal stage, the CGIAR EiB Platform's Secretary was assigned as the Platform Administrator (PSC TOR, 2018).

³³ The time of establishment to be confirmed at the inception.

³⁴ Requests from CtEH Funders: Crops to End Hunger (CtEH), 2020

<https://excellenceinbreeding.org/sites/default/files/u1025/6%20Requests%20from%20CtEH%20Funders.pdf>

As per governance, the Platform relies on its **Platform Steering Committee (PSC)**³⁵. The PSC consists of member CG Center research directors (10), private sector (1), NARS (1), and Platform Leader (ex-officio). Since CIMMYT has been the lead center of EiB, the CIMMYT PSC member represent CIMMYT as both a member CG center and as the Lead Center of EiB. Further, thirteen (13) regular and one ex-officio members representing:

- (1-11) CG Center research directors from AfricaRice, CIAT, CIMMYT, CIP, ICARDA, ICRAF,
- ICRISAT, IITA, ILRI, IRRI, and WorldFish
- (12) NARS;
- (13) Private sector; and
- (14) the Platform Leader (ex-officio).

Members from the NARS, and the Private Sector may be reelected to a second three-year period; the full term cannot exceed six years. For the CGIAR Center research directors and the two ex-officio members their appointment will be until the Platform finalizes operations.

A1.4 EiB Platform Principles

Defined in 2016 proposal, the Platform intended to execute its agenda through a combination of CoPs, consultancies, and contracted services. Instead of reinventing the wheel through its own staff, the intent was to capitalize on providers of innovation from the public and private sector, including AFS CRPs, and invest in their adaptation, documentation and mainstreaming, with a view to making them available to the greatest number of users, based on priorities set by its members. It will operate both at a strategic level and guide the implementation of best practices. Not every user will need the same service or use the same information. In many instances, tools and approaches should be suitable for resource-constrained breeding programs that often operate far away from service providers. Platform staff and contractors thus need to combine technical expertise with a strong ability to interact with users and understand their needs. As a lesson from the past, it will validate tools and services first with members before making them more widely available. The 2016 proposal indicated commitment to ensure connecting data flows between Genebanks, the Excellence in Breeding Platform, the AFS CRPs and the EiB, Information, and Knowledge Platforms.

A1.5 Partnership Ecosystem for EiB Platform

EiB Platform relies on a network of diverse partners comprising, making an explicit reference in the 2016 proposal. The EiB EiB's partnership ecosystem spans upstream knowledge generators, through downstream knowledge users.

A1.6 Progress Monitoring and Learning

Impact on intermediate development outcomes and systems level outcomes will be generated through the use of Platform products by the CGIAR and NARS breeding programs and genebanks and other users, with the ambitious objective of the Platform becoming the one-stop place to go for advice, tested resources and best practices for any breeding program targeting the developing world.

What's new: In the past, breeding programs and projects were only loosely associated and with little accountability on the rate of genetic gain delivered. AFS CRPs strongly endorsed and emphasized the use of common metrics and standards for stimulating greater breeding excellence and transparency of breeding programs targeting the developing world. Membership in this community-driven effort and publication of associated metrics will result in a transparent assessment of the success and bottlenecks of breeding programs and may be used to stimulate investments in high-payoff activities, within and across AFS CRPs. The Platform will foster best practices across the system, with tools and processes that are effective and adaptable across a broad set of commodities. It will test, adapt and mainstream tools, provide expert advice as well as develop a knowledge base ("Toolbox") on a broad range of approaches for increasing breeding efficiency. Platform interventions should allow lower budget and less advanced CRPs and partners (NARS and SMEs) to capitalize on the bigger budgets of more advanced CRPs and the private sector. The Platform will also broker access to cost-effective genotyping/sequencing, laboratory analysis services, and

³⁵ TOR for the Platform Steering Committee (PSC) (Revised December 8, 2018) Minutes from 9 meetings between 2017 and 2021 are available.

data analysis capacities. Through the networks of the AFS CRPs, it will support capacity strengthening and knowledge transfer beyond first users.

Table 8: Outcome targets for the Platform, and their scope for Base and Uplift Budget

Module	2022 Outcomes	Scope: Base budget	Scope: Uplift budget
Module 1: Breeding Excellence	Breeding excellence assessment process	Main CGIAR breeding programs, 3-5 NARS	Including sub-units in CGIAR breeding programs, > 10 NARS
	Standardized metrics		
	Genetic gains assessments	4 studies (AFS funding)	> 6 studies (AFS funding)
	Best practices documentation in ToolBox	4 modules/use cases per year	> 10 modules/use cases per year
	Expert consultations	7 per year	> 12 per year
	Investment and ROI increases	20%	> 30%
Module 2: Trait discovery and breeding tools and services	Toolbox (all Modules)	> 5000 users	> 10,000 users
	Best practices documentation for trait discovery and breeding in ToolBox	18 modules/use cases per year	25 modules/use cases per year
	Pipelined analyses approaches tested, adapted and promoted	5	>10
	Training	40 participants per year	125 participants per year
	Expert consultations	> 4 per year	> 6 per year
Module 3: Genotyping/ sequencing tools and services	Common genotyping services	5-10 users	> 15 users
	Marker conversions to SNP-based platforms or best practices documentation for genotyping/ sequencing in ToolBox	8 use cases per year	>12 use cases per year
	Training	16 participants per year	55 participants per year
	Expert consultations or external marker conversions to SNP-based platforms	5 per year	> 7 per year
Module 4: Phenotyping tools	HTP phenotyping	3 successful institutional users reducing phenotyping cost by >25%	> 5 successful institutional users reducing phenotyping cost by >25%
	GxExM analyses	> 5 routine users	> 10 routine users
	Mechanization and automation	> 3 institutional beneficiaries	> 8 institutional beneficiaries
	Best practices documentation for phenotyping/mechanization/ automation in ToolBox	7 modules/use cases per year	>15 modules/use cases per year
	Training	13 participants per year	50 participants per year
	Expert consultations	> 4 per year	> 4 per year

Module 5: Bioinformatics and data management tools and services	Software tools	> 1,000 users	> 2,500 users
	Contributors of BrAPI compatible components	> 5 institutions	> 10 institutions
	Use of computational infrastructure in other institutions	3 users	> 6 users
	Training	75 participants per year	185 participants per year
All	Members	10	> 30

The RBM framework will be documented using a monitoring, evaluation, learning and impact assessment (MELIA) plan to be designed at Platform and Module Level and which is to support the Platform's results-

oriented management of strategy, results, people, resources, processes, and measurements, aligned with the guidance given by the CoP for MEL at the CGIAR level. Beyond analyzing the performance of the Platform using indicators at the output, outcome and impact levels, the key assumptions of the theories of change, and the critical risks, the monitoring plan will define a set of indicators that quantitatively and qualitatively measure contributions to and use of Platform materials and services. Baseline information will be established in Year 1 aligned with the capacity needs assessment. External evaluations and impact assessments will be implemented in Years 3-6 to assess relevance, efficiency, quality of science, effectiveness, attributable impact and sustainability. The information gained from internal monitoring, external evaluations and impact assessments will be the basis for the Platform's learning as part of its annual planning and reporting cycle, and used to adjust its strategy, agenda, processes, and use of human and financial resources. Table 8 lists the main outcome targets

A1.6 Funding and Budget

According to the Platform's Proposal, EiB Platform had a six-year budget of US\$30.2m primarily from Windows 1 & 2, representing an annual budget which ranges from US\$3.9m to US\$6.7m. In terms of the budget allocation per module, Module One received the largest budget share in 2017 (68% total) and 2018(58%) with the main cost driver being funding to Centers aimed improving the effective management of CGIAR data and compliance with the Open Access, Open Data (M) Policy. Module Two's budget in 2017 was US\$1.46 with a progressive growth by a standard 5% annually to maintain the fixed costs associated with creating an enabling environment. Similarly, Module Three's budget was projected to double by its fourth year from year one (US\$0.6m) to year four (US\$1.31m). Budgeted cost for the Platform Secretariat was pegged at US\$300k in the proposal and was covered under Module Two Convene- with percentage allocations to cross-cutting themes such as capacity building (40%), gender and youth-related activities (17%).

Table A1. CGIAR Excellence in Breeding Platform- Funding and Budget (USD)

Module Name	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Total
Module 1. Breeding Program Excellence	1,824,627	1,915,858	2,011,651	2,112,234	2,217,846	2,328,738	12,410,954
Module 2. Trait discovery and breeding to	2,146,559	2,253,887	2,366,582	2,484,911	2,609,156	2,739,614	14,600,710
Module 3. Genotyping/sequencing tools	936,116	982,922	1,032,068	1,083,672	1,137,855	1,194,748	6,367,381
Module 4. Phenotyping tools and service	1,534,011	1,610,712	1,691,248	1,775,810	1,864,600	1,957,830	10,434,211
Module 5. Bioinformatics and data manag	3,101,892	3,256,987	3,419,836	3,590,828	3,770,369	3,958,887	21,098,798
Management & Support Cost	456,794	479,634	503,615	528,796	555,236	582,998	3,107,073
Strategic Competitive Research Grant	-	-	-	-	-	-	-
	10,000,000	10,500,000	11,025,000	11,576,250	12,155,062	12,762,816	68,019,128

Source: EiB Proposal, 2016

Breakdown for specific cross-cutting and general activities was also presented (2016 Proposal):

	Estimate annual average cost (USD)
Gender	\$4,535,000
Youth (only for those who have relevant set of activities in this area)	\$7,558,000
Capacity development	\$11,337,000
Impact assessment	\$75,000
Intellectual asset management	\$41,360
Open access and data management	\$114,780
Communication	\$35,845

As per [2017 Annual report](#), EiB expanded its annual funding from US\$ 2 million to US \$6 million through bilateral funding from the Bill & Melinda Gates Foundation (BMGF), thus reaching 60% of its base budget.

(2017)³⁶.

At the time of TOR development for this evaluation, funding for the Excellence in Breeding (EiB) Platform was coming from **the CGIAR Trust Fund** and donors including national governments, foundations, development banks and other public and private agencies, **as well as the Crops to End Hunger initiative**, with support from five bilateral funders: German Federal Ministry for Economic Cooperation and Development (BMZ), supported via GIZ; Bill & Melinda Gates Foundation (BMGF); UK Foreign, Commonwealth & Development Office (FDCO); United States Agency for International Development (USAID), and Australian Centre for International Agricultural Research (ACIAR). More specifically, the following distinction with detail on other academic and private sector partners was presented³⁷:

Funders	Key Contributors
	CGIAR System Centers
CGIAR Trust Fund Contributors	Biosciences eastern & central Africa / Int'l Livestock Research Inst. Hub
	Cornell University
Crops to End Hunger Donors	Diversity Arrays Technology
	Corteva
Bill & Melinda Gates Foundation	Bayer
	University of Queensland

[Bill & Melinda Gates Foundation](#). The figure below illustrates an initial list of countries and staple crops and countries targeted for use of BPAT mapped against the improvement plans provided for CGIAR centers, breeding's selected crops

BPAT Target countries	BPAT Target breeding programs	CGIAR centers with improvement plans
AFR: Mali, Burkina Faso, Ghana, Nigeria, Tanzania, Ethiopia, Uganda SE Asia: India, Bangladesh	13. maize	- International Rice Research Institute (IRRI)
	14. wheat	- Philippines
	15. sorghum	- International Crops research Institute for the Semi-Arid Tropics (ICRISAT) - INDIA
	16. rice	- International Maize and Wheat Improvement Center (CIMMYT) - Mexico
	17. cowpea	- International Potato Center (CIP) - PERU
	18. chickpea	- The International Center for Agricultural Research in the Dry Areas (ICARDA) - Lebanon
	19. common bean	- International Institute of Tropical Agriculture (IITA) - NIGERIA
	20. groundnut	
	21. yam	
	22. sweet potato	
	23. cassava	
	24. banana	
Sources: * https://plantbreedingassessment.org/bpat-project/bpatmission/ **EiB Platform as per request of CAS		

During an inception stage, further evidence will be reviewed on the Breeding Informatics Network (BrIN) is an alliance of biometricians, bioinformaticians (B&B), and geneticists supporting breeding programs across the CGIAR.

³⁶ Funding's trends would be analyzed as part of evaluation, unless related evidence is provided by the EiB Platform.

³⁷ <https://excellenceinbreeding.org/content/funders-and-contributors> Accessed July 2021

Annex 2: Evaluation Criteria, Key questions and Sub-questions

Table A2.1: Evaluation Criteria, Key questions and Sub-questions

Key Evaluation Questions	Sub-Questions
Relevance	
1. To what extent are the Platform's objectives relevant to the needs of its internal and external partners and stakeholders, including end-users in target groups?	1.1 Were the Platform design and approaches aligned with Centers, partners and end users' priorities and capacities. by type?
	1.2 To what extent have cross-cutting themes (Gender, Youth, Climate Change, Capacity Development) been considered in Platform design?
	1.3 How flexible has been the Platform's design and mechanisms to evolving developments and constraints, including COVID-19 Pandemic?
Coherence	
2. How synergetic is EiB Platform with others in CGIAR and comparable programs in the industry?	Internal
	2.1 To what extent has the EiB sought and managed to create synergies with other platforms and CRPs?
	2.2 How aligned is design and implementation of EiB platform with core CGIAR programmatic guidance and the <u>CGIAR Strategy and Results Framework 2016-2030</u> ?
	2.3 To what extent is the EiB Platform coherent internally, considering the mandate of the lead center (CYMMIT) and the interlinkages between its respective result areas?
	External
	2.4 To what extent and in what ways is the EiB Platform coherent externally, with priorities of key funders (CGIAR Trust Fund, Crops to End Hunger Donors, and Bill & Melinda Gates Foundation) and contributors?
	2.5 What is the added value of the EiB interventions to NARS and the work of similar organization of breeding programs and platforms in multinational, multi-crop companies to avoid duplication of efforts, i.e. with private sector?
Efficiency	
3. Have resources (funds, human resources, time, expertise etc.) been allocated strategically and timely to achieve Platform outcomes?	3.1 How adequate has been the high-level, technical, institutional, and administrative support from the internal EiB Platform's partners?
	3.2 How appropriate and efficient was/is the implementation: human and financial resources, within agreed timelines, and under changing circumstances?
	3.3 How efficient was provision and/or brokerage of materials, services and sites by the EiB Platform?
	3.4 How efficient was grant process as judged by recipients?
Effectiveness	
4. To what extent did the Platform achieve progress towards outcomes?	4.1 To what extent did the Platform achieve the planned outputs and outcomes noted in the proposal?
	4.2 How effective was EiB Platform in progress towards overall objective: to become the one-stop place to go for advice, tested resources and best practices for any breeding program targeting the developing world
	4.3 How effective was the EiB Platform in supporting its network of partners (CGIAR centers, NARS, local private breeding sector) in developing new cultivars/breeds and conserving genetic resources within eight Agri-food Systems CGIAR Research Programs (AFS CRPs) and the Genebanks Platform?
	4.4 How variable was achievement of results: by modules, centers, crops?
	4.5 To what extent has the grant making by the EiB contributed to the overall results, judged by effectiveness and transparency of grant making activities?

Key Evaluation Questions	Sub-Questions
5. Which internal and external mechanisms and factors, including inputs, contributed or inhibited achievement of outputs and outcomes, intended and unintended?	A- Management and Governance 5.1 To what extent has the platform's governance and institutional mechanisms helped/inhibited achievement of results? 5.2 How effective was change managed within evolving internal and external priorities and funding 5.3 How are CRP/other platform leadership in selected centers affecting their role in the meeting EiB objectives
	Partnerships 5.4. How effectively has the EiB engaged with internal and external partners in support of its objectives? Is there a variance in results and ownership by type of partnership? 5.5 What has been the role of partnerships in addressing cross-cutting dimensions (at the EiB Platform Level)? 5.6 In what domains have partnerships with NARS been most effective 5.7 How strategic and complementary has the role of the private sector been (e.g., Bayer, Syngenta, Corteva, etc.)? 5.8 What has been the uptake by the breeding programs of the EIB capdev and technical offering
	MEL, Knowledge Management and Communication 5.9 How has the CGIAR Monitoring, Evaluation and Learning (MEL) and CYMMIT system facilitated or inhibited achievement of results? 5.10 What mechanisms have best facilitated effective learning within EiB platform, other platforms, CRPs and external with partners (CoP, etc)?
Sustainability	
6. What mechanisms have been put in place to ensure that EiB Platform assets, products and mechanisms are positioned to respond to donor requests in transition from EiB Platform to respond to CTeH requests?	6.1 How well has EiB platform been positioned to respond to the 6 requests from CTeH Funders (2020)?
	6.2 What are the key lessons learnt for sub-grant projects continuing past 2021, and for future design of similar initiatives?
	6.3 How would capacities built in partners ensure sustainability of results?
7. Which elements of the EiB Platform assets are likely to sustain and contribute towards One CGIAR?	7.1 How well is the EiB Platform positioned in the GARDIAN ecosystem vis-à-vis other Platforms (GENDER) or initiatives (e.g. Excellence in Agronomy)
	7.2 What are the mechanisms and products, through which the Platform-generated insights, products, and communities have contributed to the One CGIAR reform/reorganization? What are the key factors in management and governance structures to ensure success and sustainability of the Platform?
	7.3 What are the lessons learned to facilitate the translation of Platform's outputs and outcomes to CGIAR's Action Areas, Impact areas and the 7 ways of working?

Annex 3: Key Reference Documents

- a) List of documents provide by the EiB platform
 - EiB Original Proposal, 2016
 - Annual Reports 2017-2021
 - POWBs 2017-2021
 - List of BMGF/CteH/W1/W2 Subgrants
 - List of Internal and External Partners
 - The RBMF was updated in 2021, to reflect the current EiB mandate
 - CGIAR Center improvement plans against BPAT reports
- b) [G+ tools for gender-responsive breeding - CGIAR](#)
- c) <https://www.cgiar.org/research/investment-prospectus/>



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