# Cross-Cutting Learning from Evaluations:
## CGIAR Excellence in Breeding and Big Data in Agriculture Platforms

Independent Advisory and Evaluation Service

CGIAR

## Introduction and Background

CGIAR Platforms (circa 2016-2021) were system-level coordinating units that enabled access to shared services, guidance, and tools to support enhanced research. The Independent Evaluation and Advisory Service (IAES)[1] recently conducted two evaluations of CGIAR Platforms: the evaluation of CGIAR Excellence in Breeding Platform (EiB Platform evaluation) and the evaluation of CGIAR Platform for Big Data in Agriculture (2017-21).

Both evaluations aimed to supply evaluative evidence to CGIAR governance decision-making processes and to inform the new CGIAR Initiatives. In particular, the EiB Platform's evaluation was designed to feed into CGIAR's global Genetic Innovation Action Area including its Initiatives. The Big Data Platform (BDP) evaluation was designed to inform One CGIAR's seventh way of working, "Making the Digital Revolution Central to Our Way of Working,"[2] feeding into the Digital Services planning, and the new CGIAR research Initiative, Harnessing digital technologies for timely decision-making across food, land, and water systems.

The evaluations assessed the design, implementation, and achievement of both Platforms' respective objectives, against the **CGIAR evaluation criteria**, provided lessons about the Platforms' implementation and, actionable and strategic recommendations. One CGIAR management provided a formal management response to each evaluations' recommendations.

This brief examines five cross-cutting themes: governance, gender, partnerships, people, and capacities, and monitoring, evaluation, and learning; across both evaluations. For effective implementation along these themes in CGIAR, the brief distills the salient recommendations from the evaluations and highlights the overlapping lessons learned. Thus, the brief can be applied across CGIAR's portfolio, not only to the EiB and Big Data Platform but to other initiatives. It can also potentially inform interventions outside CGIAR that pursue similar objectives.

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**CGIAR — Excellence in Breeding Platform**

The platform's underpinning rationale was to increase the rate of genetic gain delivered directly by CGIAR breeding programs and; to support the modernization of national breeding systems.

**CGIAR — Platform for Big Data in Agriculture**

The ultimate goal of the platform was to harness the capabilities of Big Data to accelerate and enhance the impact of international agricultural research.

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## Lessons Learned:

Building trust, effective leadership and stakeholder engagement are key levers for ensuring the diffusion of innovations and a culture of effectiveness as underscored by both evaluations:

> "…Change is a complex process, requiring not only effective influencing and leadership skills—e.g., to build trust and understanding—but also clarity of responsibilities, a culture of accountability, sufficient resources, and detailed and effective planning."
>
> *– Excellence in Breeding Platform Evaluation*

> "Building trust with and engaging all Centers in decision-making are important to ensure wide acceptance and adoption of any new, centralized technology and solutions."
>
> *– Big Data Platform Evaluation*

EiB Platform evaluation emphasized the criticality of partnerships and market differentiation: "It is important to interact more extensively with national agricultural research systems (NARS) about the role that a module or Initiative can play in improving their breeding programs. Do not downplay the importance of individual NARS centers. They will resist any indication of patronization. One size does not fit all. Understand the nuances of geographical and market differences."

The Big Data Platform evaluation highlighted the importance of consolidation: building upon existing digital solutions (e.g. CGSpace) is a leverage point and approach for "rationalizing information technology investments" as One CGIAR develops a unified digital strategy.

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[1] Formerly known as the CGIAR Advisory Services Shared Secretariat (CAS Secretariat)
[2] According to the CGIAR 2030 Research and Innovation Strategy

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## Recommendations by key overlapping themes between the two Platform evaluations:

**Excellence in Breeding Platform Evaluation**

**Big Data in Agriculture Platform Evaluation**

### PEOPLE AND CAPACITIES

The recommendations stress the necessity of making capacity building and tool enhancement a top priority in CGIAR to facilitate the achievement of CGIAR's mission:

One CGIAR must address issues of **"end-to-end" thinking** and ensure that the career development of all staff is well managed.

One CGIAR should support breeders with **information and tools** to allow them to determine priorities and traits.

**Prioritize specific digital solutions** for specific data (domains) aligned with agricultural research needs to demonstrate the value of the answer (big) data can provide to support CGIAR's key priorities.

### GOVERNANCE AND MANAGEMENT

The recommendations underscore the need to reinforce good governance standards in CGIAR:

One CGIAR units must set and **meet high standards of governance and project management, with clear roles, responsibilities, decision-making, and accountability systems;** including their independent steering committees, mechanisms to ensure collaboration and teamwork, deliberate change management, and transparency in grant-awarding processes.

Improve **grant scheme management, monitoring, and governance** to foster the Platform's (or successors') relevance to contribute to solving Agricultural Research for Development (AR4D) challenges.

### MONITORING, EVALUATION, LEARNING (MEL)

Among the recommendations for CGIAR are the need to strengthen its MEL system and address some obstacles that impede effective results management:

Develop a **clear results framework** aligned with the 2022-2030 Performance Results Management Framework (PRMF). Operationalize it by incorporating all levels of results and milestones, from outputs through to impact, based on agreement with CGIAR, donors, and other stakeholders such as national agricultural research and extension systems (NARES). The Results frameworks for CGIAR Initiatives should serve as a **common reporting framework** for all partners, significantly reducing transaction costs.

**Strengthen** the conceptualization **(theory of change)** of how to increase the impact of AR4D to solve development problems faster, better, at a greater scale with big data and ICT approaches.
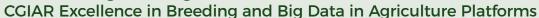
### INTEROPERABILITY AND PARTNERSHIPS

Effective linkages, interoperability and partnerships are critical to ensuring CGIAR's mission. The recommendations emphasized:

Ensure the new One CGIAR structure encourages and enables **strong links** among Initiatives for programs and goals to reflect all the needs of the pathway from gene discovery to sustainable production systems and food consumption.

**Build** a new harmonized and interoperable analytical **environment** in CGIAR based on accumulated knowledge from the experience of the Platform's implementation.

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# Cross-cutting Findings/Conclusions predicated the above recommendations.

## Excellence in Breeding Platform Evaluation

## Big Data in Agriculture Platform Evaluation

### PEOPLE AND CAPACITIES

Although the findings indicated that capacity development was valued and implemented, they also pointed to the need to equip teams with hard and soft skills to deepen synergies and enhance collaboration:

The **technical expertise** and **motivation** of team members were one of the **best aspects of the EiB Platform**. However, EiB team members required people skills which are crucial to manage people and continue change processes efficiently and effectively. Both partners and EiB staff expressed concern that the interaction and cooperation between teams could have been more effective, raising the concern that EiB was not greater than the sum of its parts.

Capacity development activities were steadily integrated into the Big Data Platform's modules, guided by the CGIAR Capacity Development Framework (2015). However, **inadequate skills were impeding the use of data analytics in agriculture;** with low institution-wide levels of such expertise among Centers when compared to private sector entities. These capacity gaps can be addressed through leveraging existing partnerships with universities, attracting younger talent, and encouraging the private sector to invest in the work of CGIAR.

### GOVERNANCE AND MANAGEMENT

While there were gains recorded in using collaborative models such as communities of practice (CoPs), inherently governance mechanisms and grant management processes required strengthening with clear lines of responsibilities and an empowering centripetal force:

Although seen as a precursor to the One CGIAR, cross-center, cross-crop approach, there was scope for improving the relevance of the EiB services for CGIAR Centers and NARES. **Limited understanding of grant management** by Centers and unclear initial guidance led to limited and patchy investments. There was no evidence that the Platform Steering Committee (PSC) held the leadership to account on an ongoing basis; without a PSC signoff on major decisions regarding EiB. **Change management can be hampered by a lack of clarity of responsibilities among stakeholders**, understanding, and ability to manage people.

The Big Data Platform was instrumental in the revision of the CGIAR **Open and FAIR Data Assets policy** and leveraged CGIAR's "convening power," **the management team was the chief decision-making body complemented by** mechanisms for technical collaboration such as open technical CoPs and an innovation process to move the agenda of (big) data management and analytics in agriculture research forward, yet this was not enough to foster Centers' engagement with the Platform's outputs.

### MONITORING, EVALUATION, LEARNING (MEL)

Both evaluations assessed MEL systems as inadequate, albeit with some indications of progress, with the need to articulate a clear theory of change (ToC). This indicates an underlying need to reinforce MEL:

MEL was not prioritized in EiB Platform, although in 2021 positive steps were taken to improve the quality of indicators and MEL. The EiB Platform was well aligned with the CGIAR Strategy and Results Framework and the One CGIAR approach, which relies on integrated cross-center, cross-crop systems research. Thus, it is necessary to have **clearly defined goals**, and a **viable ToC** to assess whether the delivery of expected results is on track, and to report to funders and other key stakeholders in a meaningful way on results achieved.

The Platform's **MEL activities did not adequately support programmatic learning and reporting** (successes, failures, and lessons learned). More could be done so that the Platform serves as a mechanism that promotes CGIAR's function as a "learning organization". Thus, lack of explicit articulation of the Platform's ToC as a 'transformer' for agricultural research-for-development (AR4D) was identified as a design weakness.

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## Cross-cutting Findings/Conclusions Cont'd

| **Excellence in Breeding Platform Evaluation** | **Big Data in Agriculture Platform Evaluation** |
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**PARTNERSHIPS** Both evaluations showed opportunities to deepen partnership and influence in research and innovation for impact:

EiB developed and signed a **CGIAR-NARES collaborative model** with defined roles and responsibilities to build NARES's breeding networks and capacity; the customization based on each NARES' stage of development had not yet occurred. The Platform's relationship with the private sector exemplified both cooperation and complementarity, albeit the evaluation found limited involvement of these companies in EiB activities, disproportionate to the expectations raised about public-private partnerships in EiB and CGIAR at large.

The Platform was deemed to have convening power crossing the public, private, and non-profit divide. Although CGIAR is well-positioned and stakeholders valued the outputs of the BDP and seek its continuity, **CGIAR is not sufficiently prepared to have a leadership voice in international digital agriculture** according to its internal stakeholders.

**GENDER** Both Platforms demonstrated gender work, the evaluations highlighted the need to mainstream gender, align it with donor priorities and support its continuous funding to make for transformative programming:

EiB demonstrated coherence with the Gender and Breeding Initiative (GBI). Two gender-related tools were piloted in a selected set of breeding programs. Overall, as with the challenges common to bilateral grant making, **Gender was one of the frequently shifting donor priorities** which required fund recipients to adapt.

The integration of **gender as a transversal theme remains patchy** with no gender expertise inhouse. Piecemeal approach to gender integration is less cost-effective in the long run.

**ACCESS THE EXCELLENCE IN BREEDING EVALUATION**
**Report**, **Annexes** and **Management Response**

**ACCESS THE BIG DATA PLATFORM EVALUATION**
**Report, Annexes & Online Survey results & Management Response. Read the Evaluation Case Study:** *CGIAR Ontologies Community of Practice*

**For more information**

Visit the IAES evaluation **webpage**          Contact us at: **iaes-evaluation@cgiar.org**