

The power of IT to achieve global food security

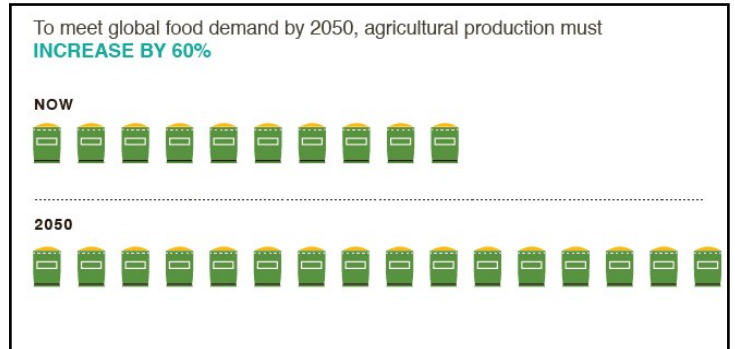
Perspective

Landscape and opportunities for the Integrated Breeding Platform

The Integrated Breeding Platform (IBP) is a not-for-profit entity, dedicated to helping breeders, especially in developing countries, to fully join in the global effort towards achieving food security. We provide them the Breeding Management System (BMS) — our own open source breeding software package — and attendant crop breeding services and training. Our profound belief is that breeders are at the forefront of the ongoing food revolution, and that access to the right tools and opportunities will help them achieve more efficiency in their aim to have a direct and lasting impact on their local environments and markets.

Unfortunately, many breeding programs in developing countries face limited financial resources, a small pool of specialized workers; insufficient infrastructure and equipment; deficient technology for data management and analysis; and limited access to information, expertise and networks (Ribaut et al. 2010). Our wager is that better data quality at the source, and performant tools and processes for data management, would considerably increase their capacity to deliver more and better crop varieties to farmers. Will you help us rise to the challenge?

Did you know?



Source: CGIAR Research program on Climate Change, Agriculture and Food Security (CCAFS)
<https://ccafs.cgiar.org/bigfacts/#theme=food-security&subtheme=food-demand>

“Without the genetic improvement that has taken place in the last couple of decades, the price of foodstuffs would be higher still, and more forests would have been destroyed for farmland” — Evenson et Gollin, 2003 ; Stevenson et al., 2013

HOW you can help



Cloud computing: We wish to see the BMS evolve into a true cloud solution. Cloud space would help us deploy to more non-profits and universities, and national entities of the developing world.



Expertise: Most of our resources go into developing and maintaining our software package. If your workforce is willing to help, we would be grateful to have them collaborate on designing functionality and API capacities.



Hardware: Up-to-date laptops, servers and other peripherals would help our partners solidify their material infrastructure and thus be more efficient and productive.



Complementary tools and services: In-kind contributions or preferential rates on tools and services that would complement our offer are more than welcome.



Operational funds: We won't lie: donor and public funds are essential to our survival as a not-for-profit. Please give generously to help us continue to deliver on our crucial mission.



Connectivity: Our clients and partners need internet access and connected devices to generate and collect data directly from the field. Tablets, phones and mobile plans will help them to fully join in the digital revolution.



AI, Big Data, IoT, etc.: Integrating the latest innovations, and exposing our developing world partners to the possibilities, would be thrilling!



Novel ideas: You have ongoing initiatives or other ideas that would be a nice fit for collaboration? We are all ears; please contact us to share your vision and plans!



Read some of our success stories online:

- ICRISAT uses the BMS in all its breeding programs and takes on the role of leader, supporting not only its own users but also many of their partners and other organizations in Africa and the South Asian region.
- As the biggest producer and marketer of certified crop seed in Southern Africa, Seed Co Limited uses the BMS to drive its commercial success and compete with the top players in the seed industry to feed the continent.
- AfricaRice uses the BMS to secure its institutional memory and collaborate effectively with national partners through mechanisms that facilitate data conservation, access and sharing.
- University of Thiés in Senegal has integrated the BMS to its plant breeding curricula to impart a professional edge to the next generation of scientists.
- The BMS was used by engineers and researchers at CIAT for data mining to decipher the family tree of rice varieties released in Latin America and the Caribbean since the center began: 44% of all 857 rice varieties released in the region (24 countries) are in fact CIAT offspring.

It used to take me up to three months before I could analyse the data I had collected in the field. Electronic data capture now let's me proceed with my analysis on the same day! – Cyril Diatta, sorghum breeder and research assistant, ISRA, Senegal

Why your contribution matters:

Africa holds the biggest potential for an increase in food production and for agricultural mitigation. Our vision is to see local farmers have access to more and better varieties, contributing to food security and poverty alleviation through increased yields and household income. Many share this vision and there are a number of initiatives currently working side-by-side to make this happen. Our contribution is to enable better science and efficient practices to manage the explosion of data that it generates. The world just cannot do without the full engagement of the plant science community in developing countries — they understand and shape the local environment, market and policy framework. From the latest advances, such as big data or deep learning to analyze plant science data, or simple equipment like a good Internet connection and mobile devices to connect farmers to actionable information and seed networks, your contribution of funds and expertise would have an immediate and catalyzing effect. Big IT players have the power and opportunity to make a very real difference in our global capacity to feed the world.

What's in it for you?



Real impact on global challenges: your investment will have a concrete impact on livelihoods, and directly align with the UN Sustainable Development Goals (SDGs) for people, planet and prosperity.



Alignment with mission and values: You get to leverage on your experience and expertise to serve your enterprise's social mission for greater good.



Visibility: Our joint success will make us both look good! Our communications team will be happy to promote your engagement as a responsible corporate citizen



Networks & Partnerships: The plant science world is a close-knit family; we'll introduce you to rich and often unsuspected avenues for expanded social impact.

Donor and CSR opportunities:

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