



# The Integrated Breeding Platform: the one-stop shop for simple to sophisticated breeding

Xavier Delannay\*, Graham McLaren\*, Fredrick Okono\*, Arllet Portugal\*, Chunlin He\*, Mark Sawkins\*, Ndeye Ndack Diop\*, and Jean-Marcel Ribaut\*

Figure 2 IBP Portal Homepage

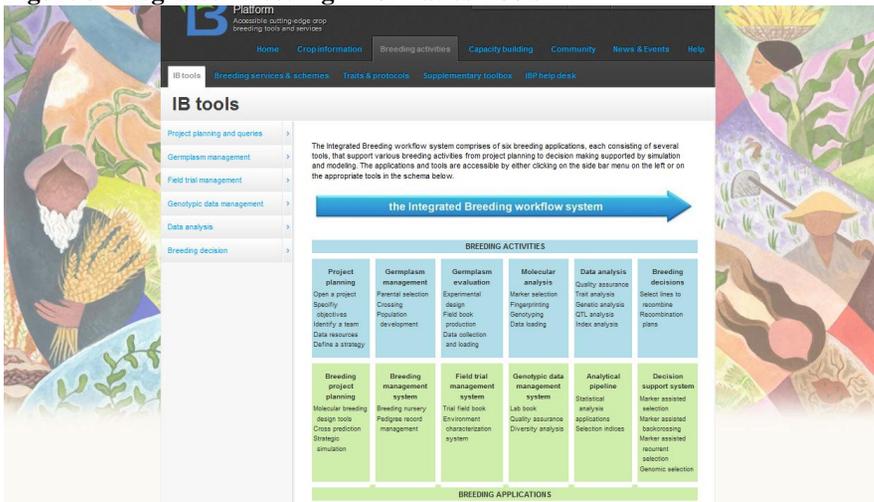


The Integrated Breeding Platform (IBP) of the Generation Challenge Programme is conceived as a vehicle for dissemination of knowledge, tools and services, enabling broad access to and proactive distribution of crop information and breeding material; molecular, genomics and informatics technology; cost-effective high-throughput genotyping services; and capacity-building programmes.

This information, tools and services are available only to registered users. You can register conveniently through the user-friendly IBP web portal.

Having registered, you can obtain valuable crop breeding information through the Platform web portal, including crop databases, trait dictionaries and molecular marker information. This information is compiled from various CGIAR Crop Lead Centres and other collaborators and is conveniently downloadable (Figure 2).

Figure 3 Integrated Breeding Informatics Tools



You can also download purpose-built informatics tools for data management, analysis and decision support, together with user manuals and tutorials (Figure 3) by simply clicking on the breeding application that corresponds to the breeding activity that you wish to perform. Technical support is conveniently accessible. The IBP also provides convenient access to selected third-party tools.

Other services are provided in-house, to help you with breeding plan development, experiment design, data management, analysis, intellectual property and policy, and integrated breeding in general. Platform staff are available to answer queries posted through the crop community pages described below.

Figure 1 Crop Information

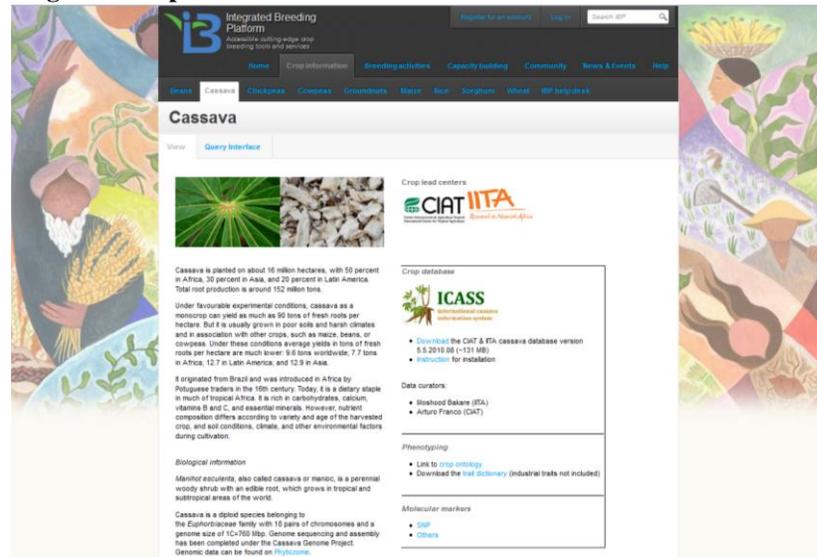
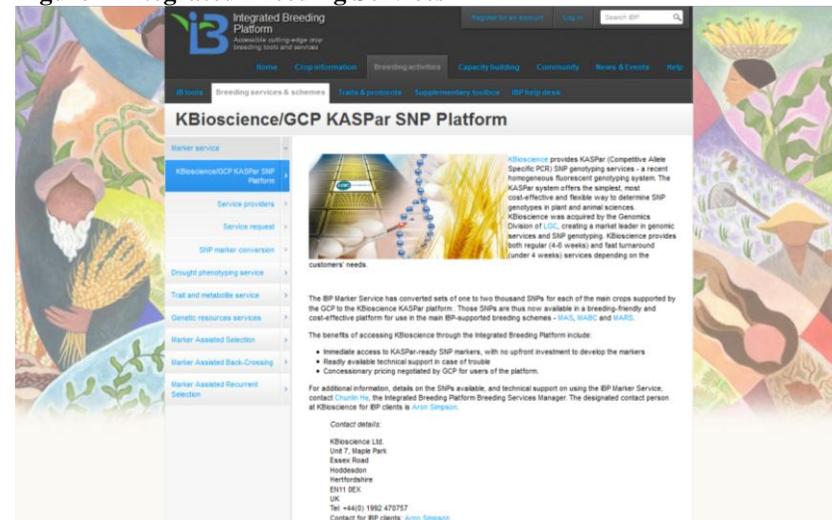
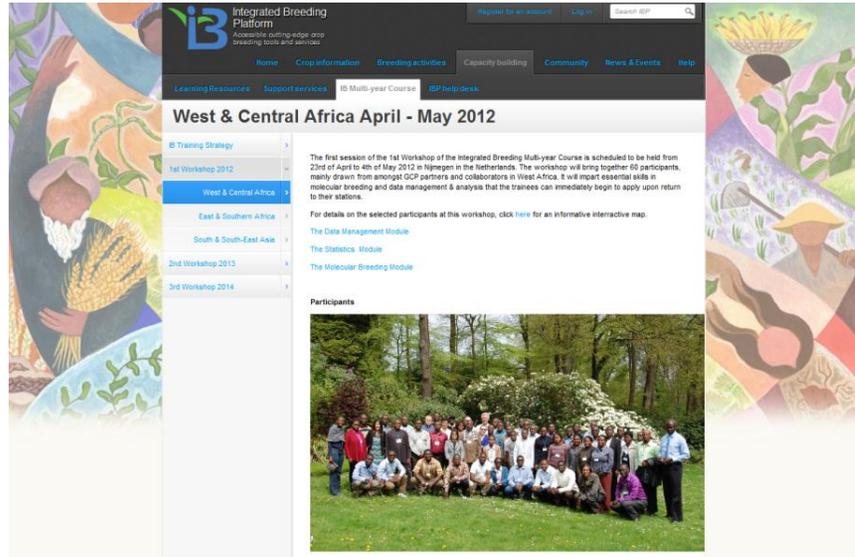


Figure 4 Integrated Breeding Services



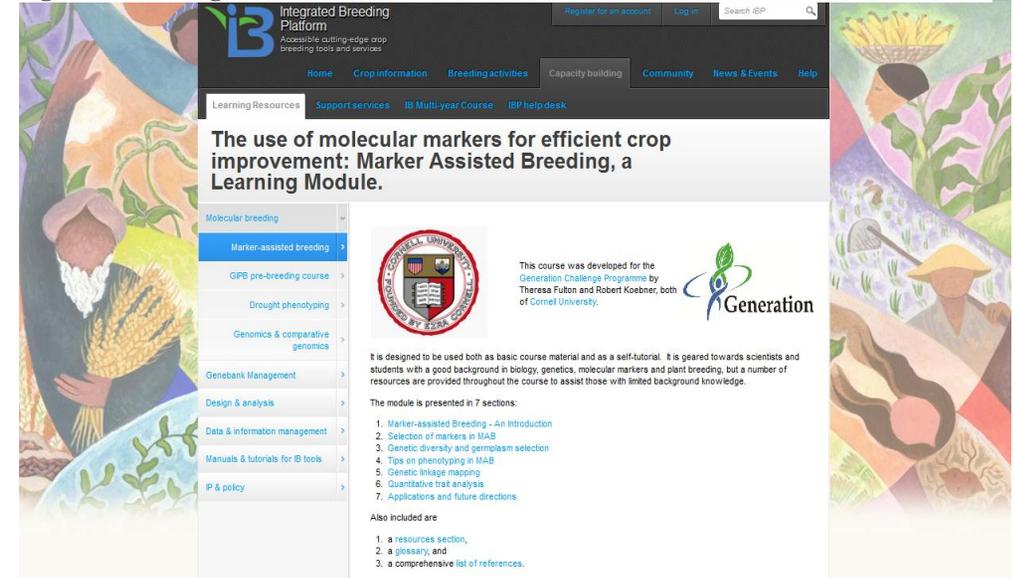
Through the Platform, you can obtain breeding services at concessionary fees, including quality high through-put genotyping services (Figure 4). The variety of services will grow as the Platform matures.

**Figure 5 Multi-year Integrated Breeding Course**



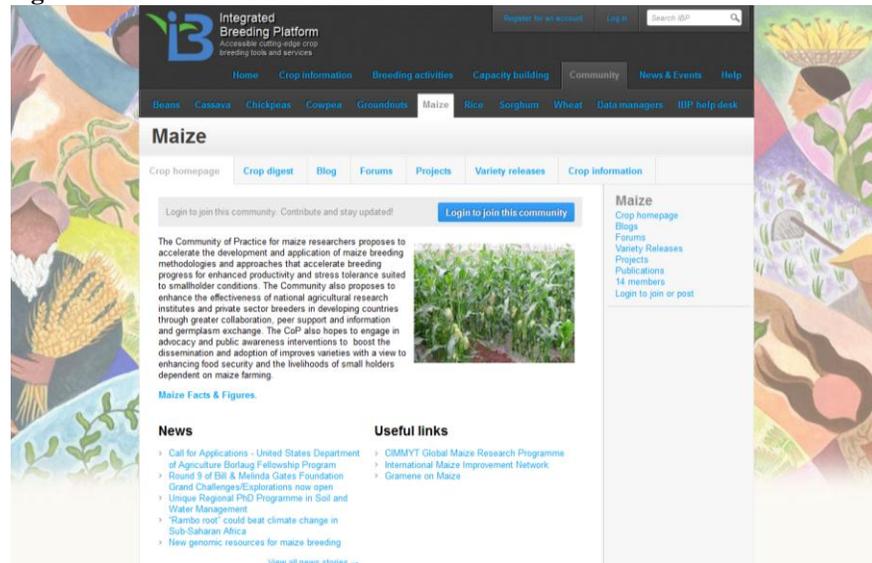
The Platform supports a comprehensive training programme (Figure 5) to build human resource capacity for integrated breeding, targeting breeders in Sub-Saharan Africa and South & South East Asia. The programme provides skills-based training in molecular breeding, data management, and analysis. You can also access other useful in-house and third party learning resources covering a variety of areas, including marker-assisted breeding, phenotyping, genomics & comparative genomics, genbank management and intellectual property and policy (Figure 6).

**Figure 6 Learning Resources**



An important objective of the Platform is to build vibrant crop-based communities of practice (CoPs) to connect crop researchers – primarily breeders – to share experiences, information, informatics tools, best practices and improved varieties, and also orient research towards a more applied and collaborative path. The IBP provides online space and collaboration tools for these communities (Figure 7), and IBP staff and designated community members provide technical backstopping and other support. Registered community members can make blog posts, join various discussion forums, announce their variety releases, access and disseminate publications, and enjoy technical support by posting queries on specific topics.

**Figure 7 Communities of Practice**



The Integrated Breeding Platform will be opening up to a broader clientele in December 2012. To register as a user of the platform go to: <https://www.integratedbreeding.net/user/register>.

The Platform will continue operating even after the close of the Generation Challenge Programme in 2014. Discussions are ongoing on its management and positioning in the agricultural research for development landscape after that date.

The development of the Integrated Breeding Platform is being financed by the Bill & Melinda Gates Foundation, the European Commission and the Department for International Development of the United Kingdom.

14 breeding projects for eight crops across thirty-two developing countries in Africa and Asia collaborate on the project to ensure Platform development is driven by real breeder needs and its interface is user-friendly.

\*Integrated Breeding Platform  
 Generation Challenge Programme  
 c/o CIMMYT, Int.  
 Apartado Postal 6-641  
 Col. Juarez  
 Del. Cuauhtemoc  
 C. P. 06600  
 Mexico, D. F.  
 MEXICO  
 Telephone: +52 (55) 5804 2004  
 Telephone No. via US: 1-650-605-5205  
 Direct fax: +52 (55) 5804 7691  
 General email address: [ibp@cgiar.org](mailto:ibp@cgiar.org)  
 Website: [www.integratedbreeding.net/](http://www.integratedbreeding.net/)