



International Workshop on the promotion of Public-Private Partnerships for Pre-breeding

2 – 4 February 2015

Agropolis International, Montpellier, France

Monday 2 February

9.00 - 9.30

Opening and welcome from the organizers

Welcome by the International Treaty on Plant Genetic Resources for Food and Agriculture

Mario Marino, IT PGRFA

Welcome by private sector

Anke van den Hurk, Plantum

Welcome by public sector explaining the objectives of the workshop

Robert Domainque, Cirad

Objectives

- To understand the role of pre-breeding in the plant breeding development chain
- To recognize that PPPs are required for pre-breeding, functional to long term breeding goals and improved resilience of our agricultural systems
- To understand how to balance between public and private inputs in a pre-breeding project
- To highlight the need for strategic investments into pre-breeding from both public and private stakeholders
- To identify tentative elements of an action plan on PPPs for pre-breeding, which may include:
 - a) a global platform for the development of crop specific PPPs for pre-breeding
 - b) a capacity development initiative for developing countries to facilitate PPPs
 - c) guidelines, methods, best practices, recommendations, and standard forms for collaboration agreements and funding models

9.30 – 12.30

Session 1 - Pre-breeding and PPPs: definitions and functions

Chair: Robert Domaingue

- 9.30 – 9.45: Genetic Enhancement of Maize (GEM) Project: example of a successful public-private partnership for pre-breeding
Walter Trevisan, Consultant, Chair of the GEM project
- 9.45 – 10.00: 150 tomato genome project
Gabino Sanchez Perez, Wageningen University
- 10.00 – 10.15: Towards challenging pre-breeding and breeding approaches for the commodity CGIAR Research Programs (CRPs)
Philippe Ellul, CGIAR
- 10.15 – 10.30: Public-private partnerships in plant-breeding research within Germany
Petra Jorasch, German Plant Breeders Association

10.30-10.45: Coffee Break

- 10.45 – 11.00: Public-private partnerships in plant-breeding research within France
Michel Renard, Inra
- 11.00 – 11.15: Public-private partnerships for Pre-breeding - a Nordic model
Morten Rasmussen, Nordgen

Presenters will be asked to respond to the following questions:

- *How do your activities address issues related to utilization of genetic resources, base broadening, gene introduction, acquisition of knowledge, partnership and user needs? Where is it up to the individual and where is it up to partnerships?*
- *How do your activities link to current plant breeding practices/activities for selected markets and end-users?*
- *Public and/or private pre-breeding; what is the strength & where are the limitations?*
- *Definition of pre-breeding; where does pre-breeding start and where does it stop?*
- *What is the role of pre-breeding in the plant breeding development chain?*

11.15 - 12.15: Panel discussion between presenters and assistance

12.15 - 12.30: Conclusions

12.30 – 14.00 LUNCH

14.00 – 17.30

Session 2: Needs, gaps in pre-breeding (and breeding) and what is done to meet them. What is the role of Public Private Partnerships?

Chair: Mario Marino

- 14.00 – 14.15: General presentation on pre-breeding in the plant breeding development chain, and the role of different partners in different situations
Anke van den Hurk, Plantum
- 14.15 – 14.30: Presentation on public pre-breeding project without private partners; link to growers/farmers
Ruaraidh Sackville Hamilton - CGIAR

- 14.30 – 14.45: Presentation on project of private and public partnership; link to growers/farmers
Jaime Prohens - Polytechnic University of Valencia
- 14.45 – 15.00: Pre-breeding from an SME perspective
Orlando de Ponti, East West Seed

Presenters will be asked to respond to the following questions:

- What pre-breeding activities take place and where do they work or not work?
- How are they linked to current plant breeding practices/activities for selected markets and end-users?
- How to ensure that growing needs and constraints are taken on board?
- What needs to be changed to make pre-breeding activities work better?
- Who is responsible for what in the plant breeding development chain including pre-breeding?

15.00 - 15.30: Discussions

15.30 - 15.45: Coffee Break

15.45 - 17.00: Split up in small groups to address the following questions :

- Public and/or private; what is the strength of each & where are the limitations?
- Pre-breeding: when does a PPP make sense? What is required to establish a PPP? What may be possible bottlenecks to establish a PPP?
- What is the demand by users – both breeders (public and private) and farmers?

17.00 - 17.30: Group reporting

Tuesday 3 February

9.00 - 12.30

Session 3: What is the role of genetic resources in pre-breeding? Do we have the required genetic variation? How should genetic stocks be conserved and made available?

Chair: Hannes Dempewolf

- 9.00 – 9.15: What is in gene banks today and where should priorities lie for expanding the collections? Should collections focus on making available more diversity of newly collected accession or should they shift their focus and also include the conservation and maintenance of genetic stocks
Hari Upadhyaya and Michael Abberton, CGIAR
- 9.15 – 9.30: Presentations on pre-breeding from a gene bank where conservation, pre-breeding and breeding go hand in hand; the example of banana breeding at Cirad
Jean Pierre Horry, Cirad
- 9.30 – 9.45: Regional genetic resources - SPGRC
Paul Munyenembe, SADC Plant Genetic Resources Centre
- 9.45 – 10.00: Pre-breeding and in situ conservation
Béla Bartha, ProSpecieRara

Presenters will be asked to respond to the following questions:

- *Do we have the required genetic variation in genebanks today? What type of genetic resources are available (wild, ancestral, related species, tilling pops?....) Is expanding the collections through collecting of new accessions a priority?*
- *How should pre-bred lines and genetic stocks be conserved and maintained? Who should do it? Who should pay for it?*
- *Role of genebanks: Do genebanks have a role to do pre-breeding and/or support/prepare material for pre-breeding? Should genebanks only focus on conservation or should they also work on sustainable utilization?*

10.00 – 10.45: Discussions

10.45 - 11.00: Coffee Break

11.00 - 12.30: Split up in small groups to address the following questions :

- Resources - Genetic: What are current gaps in collections? How to identify need for pre-breeding activities? In which form do pre-breeders and breeders want to access genetic variation?
- Resources - Human: Who should do what? Roles, mandates and responsibilities: How to determine who should or should not be involved in a pre-breeding project? What are the needs for capacity building?
- Outcomes – Genetic and Data: Conservation and maintenance of genetic stocks and associated data - Who, where, when, how, for how long, who pays for it? Under which terms should it be made available?

12.30 – 14.00 LUNCH

14.00 - 15.00: Group reporting

15.00 – 17.45

Session 4: Funding to establish and maintain public-private partnerships in pre-breeding

Chair: Philippe Ellul

- 15.00 – 15.15: Farmer supported research on lentil pre-breeding: What has been achieved so far? How does the funding model work and is it sustainable?
Bert Vandenberg, University of Saskatchewan
- 15.15 – 15.30: Government (both research and development) funding for pre-breeding: experiences and future directions. Involvement of private sector?
Jennifer Long / Nora Lapitan, USAID
- 15.30 - 15.45: Possible funding models for public-private partnerships on pre-breeding: The Syngenta Foundation's perspective
Vivienne Anthony – Syngenta Foundation

Presenters will be asked to respond to the following questions:

- *How can business models be developed, that make long-term engagement in pre-breeding attractive for investment?*
- *How can public/governments resume responsibility to support pre-breeding for global food security?*

- *When is 'one-time off' support appropriate and when do long-term commitments make more sense?*
- *How can the public sector engage with the private sector?*
- *When is the private sector interested in participation and when not?*

15.45 - 16.00: Discussion

16.00 – 16.15: Coffee Break

16.15 – 17.15: Split up in small groups to address the following questions:

- How to determine partners in a pre-breeding project? How to interest funding partners including government, foundations and private sector?
- What does this mean for different types of crops and different types of end users?
- How do we develop a relationship between public and private sector actors that benefit both and the needs of both partners are respected?
- Private companies in a global context, how can they contribute to development?

17.15 – 17.45: Group reporting

19.30: Workshop Dinner

Wednesday 4 February

9.00 – 15.30

Session 5: IPR and protection of innovation/investments in breeding varieties

Chair: Anke van den Hurk

- 9.00 - 9.15: Open source approach to pre-breeding results;
Erwin Goldman, University of Wisconsin
- 9.15 – 9.30: Breeders rights and the breeding exemption; the use in pre-breeding;
Petra Jorasch, German Plant Breeders Association
- 9.30 – 9.45: The role of patents in plant breeding and in particular for pre-breeding;
Brad Kurtz, DuPont Pioneer
- 9.45 – 10.00: IP rights in the CGIAR environment; SMTA + 'additional conditions'
Isabel Lope, Selim Guvener, CGIAR
- 10.00 – 10.15: Need of IP rights in public pre-breeding research
Michel Renard, Inra

10.15 – 10.30 : Coffee Break

10.30 - 12.30

Panel discussion with speakers and the following people:

- **Yolanda Huerta**: UPOV
- **Frank Michiels**, Bayer Crop Science
- **Jennifer Long / Nora Lapitan**, USAID
- **Daniele Manzella**, ITPGRFA

Panel/speakers will be asked to respond to the following questions:

- *Who owns results of pre-breeding projects? How is IPR organized for the results and the work done afterwards?*
- *What are the concerns of the seed industry? What are the concerns from the public sector?*
- *What is the contribution of the informal seed sector?*
- *How do we promote synergies?*

12.30 – 13.30 LUNCH

13.30 – 15.00: Split up in small groups to address the following questions:

- What are the needs of the different players with regard to IPR?
- What forms of IPR are suitable for pre-breeding projects? Are there any model clauses?
- What may be done with the material and protection after the pre-breeding project?
- Should the material stay freely available for the participants of the pre-breeding project?

15.00 – 15.30: Group reporting

15.30 - 15.45: Coffee Break

15.45 – 17.00

Session 6 - Conclusions and follow-up

Chair: Morten Rasmussen