

Products Management in the GCP



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The generation and delivery of products in the GCP



- **Every project in the GCP has a number of quantifiable outputs, but not all outputs are products**
- **Products in the GCP are defined as “complete or almost complete project components that can be passed on to another researcher outside the project and outside the GCP”**
- **Products may include: reference sets of germplasm, validated molecular markers, new screening protocols, EST/BAC libraries, training materials, etc..**

The generation and delivery of products in the GCP



- **Products need to be useful and, for this, they need to be of high quality**
- **Some products need validation before being widely adopted (e.g., downstream products which impact highly depends on environment)**
- **Products needing validation are under the responsibility of the Product Manager, while products ready to be delivered outside the GCP are under the responsibility of the Product Delivery Manager**

Objectives of the GCP products management strategy



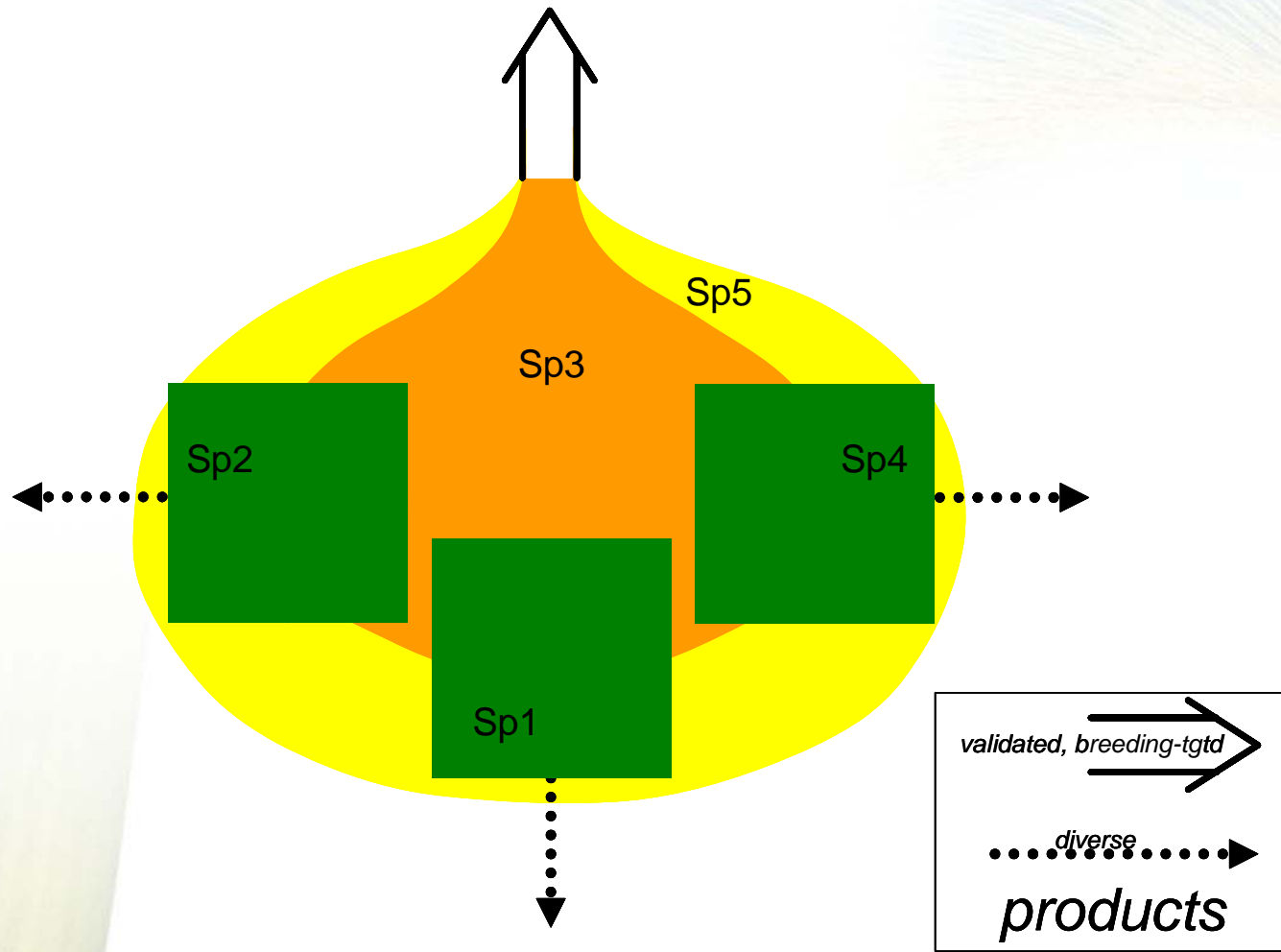
- **strongly connect upstream research and the deployment of research-based products that can have tangible impacts in agricultural development**
- **proof the concept and ensure development and delivery of products to impact plant breeding in the medium and long term**

The different phases in products management



- **The process always starts by the quality control of products generated within a given SP (corresponding SP Leader)**
- **This is followed by the identification of products that need validation (managed by SP3), and by delivery of those that are ready for wide use (managed by SP5)**

Farmers, end-users



Products identification and description (1)



A first step in product management is their identification and description

Products are

- **of very different types (e.g., germplasm, genes, markers)**
- **are generated by very diverse SPs projects**
- **have very diverse potential users within or outside the GCP**

Products identification and description (2)



- a compilation of products is needed to identify them adequately
- because this was not requested since the beginning of the GCP, the establishment of a repertoire is consequently needed to identify and described a *posteriori* the products delivered by these projects

Products identification and description: repertoire of products (1)



- **the Repertoire of Products is established by collecting the information provided in the technical reports, and completed by additional information required from the PIs**
- **this repertoire provides a list of products delivered by the different GCP projects**

Products identification and description: repertoire of products (2)



- **the repertoire offers information on the project having generated the product: title, PI contact details, start date, end date (if applicable), status (in process vs. finished), funding (amount of funds received), and a short description of the activities that allowed the generation of the product**
- **Information provided by the repertoire concerning a given product also includes its date of release, the type of quality control applied (within the project) and its availability (whether germplasm, marker or tool)**

Products identification and description: repertoire of products (3)



- **in the case of germplasm, the repertoire stipulates if seeds have been multiplied and their available quantity**
- **the repertoire also indicates whether the product has been validated and used by another project (within or outside the GCP)**
- **if the information concerning the development or description of a new product has been published, the reference of the publication (also considered as a product) is provided**

Products identification and description: repertoire of products (3)



- **the repertoire will link to Axapta, the project database used by the Project Officer to monitor reporting and manage the disbursements of funds**
- **this will connect the administrative and scientific information and will facilitate the evaluation of “return on investment” (ROI) per project**

Products identification and description: templates (1)



- **in 2006, templates were designed to help in the identification/description of products to be presumably generated by each project**
- **actualized version is provided with each report**

Appendix A. Activities, Quantifiable Outputs, and Key Products



| Project Title: Marker Development and Marker Assisted Selection for Drought Tolerance and Striga Resistance in Cowpea | |
|---|---|
| Principal Investigator/Institute: | |
| Objective 1: Marker assisted selection for Striga resistance in cowpea | |
| • Activities | Quantifiable Outputs |
| 1. Develop molecular markers linked to race specific Striga resistance genes | 1. One SCAR marker developed for resistance to Striga races SG1 and SG3 2. One marker mapped for Striga race SG5 |
| 2. Screen cowpea genotypes in Striga “hotspots” in West Africa | 3. 47 cowpea cultivars evaluated |
| 3. Test markers and develop of MAS protocols | 4. One Striga resistance marker validated for resistance to Striga races SG1 and SG3 5. Five populations developed and evaluated for races SG1, SG2 & SG4z |
| Objective 2: | |
| • Activities | Quantifiable Outputs |
| 1. | 8. 9. |
| 2. | 10. 11. 12 |
| 3. | 13. 14. |
| Objective 3: | |
| • Activities | Quantifiable Outputs |
| 1. | 15. 16. |
| 2. | 17. 18. 19. |
| 3. | 20. 21. |

Key Products Developed by the Project (those that you think have the biggest potential impact Please limit to 5):

Products identification and description: templates (2)



- **facilitate follow-up of the accomplishment of the project objectives**
- **help the MT to anticipate the type of products that will be generated**
- **help the Product Manager to identify those products that might need validation**
- **inform the Product Delivery Manager of those products that are ready for marketing and dissemination**
- **facilitate the actualization of the repertoire**

Products identification and description: templates (3)



- **templates are part of the set of tools linking Project Management and Products Management activities within the GCP**
- **they are integrated in the PDG**

Products transfer



- **products generated by GCP projects can be used by other GCP projects (e.g., a reference set may be phenotyped by another project; an EST library may be used for genotyping, etc...)**
- **these “within GCP” transfers will be favored and stimulated by the Product Manager**
- **identification and transfer involve all types of products**
- **validation concerns downstream, final products that may be further delivered directly to breeders**

Products validation (1)



- **most of the strategies are based on the development of markers identifying the gene of interest or directly assaying products related to specific gene function**
- **the expression of new genes in relation to the trait of interest and the use of corresponding markers however need a validation in field conditions**
- **the main objective of the validation phase is to confirm the accuracy and potential value of a given product in a given environment**

Products validation (2)



- **since validation needs additional research efforts and specific protocols and designs, it is mainly realized through SP3 commissioned projects**
- **validation projects focus on crops, crop systems and regions defined as priorities by the GCP Strategic Framework and on potential partners chosen according to their capacities and facilities and to existing partnerships**
- **validation projects constitute the link between SP3 activities *per se* and products management activities**

Platforms (1)



- **complementary way to improve product management**
- **on a crop basis**
- **favor and stimulate contacts and exchanges between projects/scientists placed at different levels of the products delivery chain**

Platforms (2)



Platforms can help:

- **to better develop comparative advantages in scientific approaches**
- **to have a better continuum in the delivery chain of products**
- **to generate additional (synergetic) outputs and products**
- **to better identify the bottlenecks in this chain**
- **to better identify further needs and implement new commissioned validation projects**

Platforms (3)



- platforms are established through a multi-step process:
- selection of priority crops/regions (*Strategy Framework*)
 - evaluation of the potential strategic impact
 - comparative advantages for the GCP
 - identification of optimal partnership (*G/S*)
 - meetings, CB (*SP5*)
 - examples: ibridge-NERICA, rice-Asia, cassava-Africa

Conclusions

- **demand-driven research**
- **funding-targeting**
- **follow-up and quality control**
- **product management (identification-transfer-validation)**
- **product delivery**



“The essence of knowledge is, having it, to apply it...”

(Confucius)