



Project Development Guide (PDG): an online tool for researchers —Introducing the prototype

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Learning is like rowing upstream: not to advance is to drop back



Q: Why the PDG?

A: *Because of the need to level the playing field*

- ▶ The PDG gives every researcher an equal chance at proposal stage to qualify for GCP project funding

What it is?

- A guide, a knowledge-based tool,but very practical
- A checklist of all essential elements
- Best practice: project design, management, monitoring and review
- Special emphasis on GCP projects, **and relevant beyond GCP**

A one-stop shop for...

- Getting acquainted with all issues needed to look for GCP funding
- Reinforcing the core goal of GCP - focus on delivery and users
- Knowing GCP expectations
- Streamlining procedures
- Locating application forms and templates
- Ensuring high quality proposals, and as a consequence **enhancing chances for funding**
- ...



...

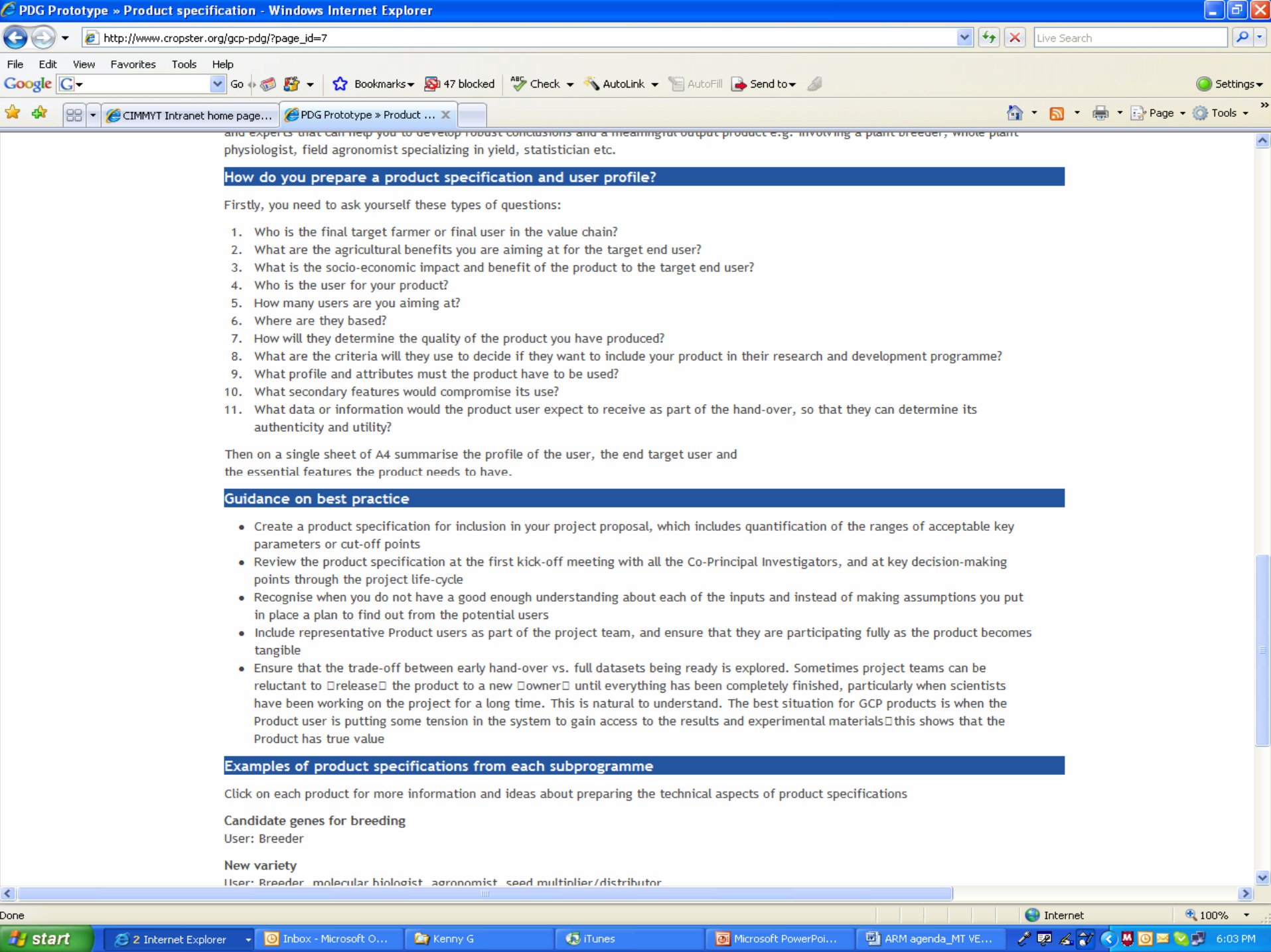
- the quality and format
- the structure of the proposal -- ensuring correct sequence
- the nature and number of partners

Who is it for?

- Principal investigators
- Co-principal investigators
- Scientists seeking GCP funding
- External reviewers
- Subprogramme leaders
- GCP Management
- Scientific community at large

Content of the PDG

- Project phases and milestones
- Multi-disciplinary expertise and communication
- Decisions and roles
- Product user specifications
- Critical path analysis and risk management
- Project monitoring and reports
- Freedom to operate



and experts that can help you to develop robust conclusions and a meaningful output product e.g. involving a plant breeder, whole plant physiologist, field agronomist specializing in yield, statistician etc.

How do you prepare a product specification and user profile?

Firstly, you need to ask yourself these types of questions:

1. Who is the final target farmer or final user in the value chain?
2. What are the agricultural benefits you are aiming at for the target end user?
3. What is the socio-economic impact and benefit of the product to the target end user?
4. Who is the user for your product?
5. How many users are you aiming at?
6. Where are they based?
7. How will they determine the quality of the product you have produced?
8. What are the criteria will they use to decide if they want to include your product in their research and development programme?
9. What profile and attributes must the product have to be used?
10. What secondary features would compromise its use?
11. What data or information would the product user expect to receive as part of the hand-over, so that they can determine its authenticity and utility?

Then on a single sheet of A4 summarise the profile of the user, the end target user and the essential features the product needs to have.

Guidance on best practice

- Create a product specification for inclusion in your project proposal, which includes quantification of the ranges of acceptable key parameters or cut-off points
- Review the product specification at the first kick-off meeting with all the Co-Principal Investigators, and at key decision-making points through the project life-cycle
- Recognise when you do not have a good enough understanding about each of the inputs and instead of making assumptions you put in place a plan to find out from the potential users
- Include representative Product users as part of the project team, and ensure that they are participating fully as the product becomes tangible
- Ensure that the trade-off between early hand-over vs. full datasets being ready is explored. Sometimes project teams can be reluctant to release the product to a new owner until everything has been completely finished, particularly when scientists have been working on the project for a long time. This is natural to understand. The best situation for GCP products is when the Product user is putting some tension in the system to gain access to the results and experimental materials this shows that the Product has true value

Examples of product specifications from each subprogramme

Click on each product for more information and ideas about preparing the technical aspects of product specifications

Candidate genes for breeding

User: Breeder

New variety

User: Breeder, molecular biologist, agronomist, seed multiplier/distributor



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RISK MANAGEMENT

What is it?

All projects contain activities with potential risks that can lead to problems or delays. Some of these can be averted or reduced if thinking is done in advance by everyone in the collaboration. This is always a better approach with a greater chance of project success than relying on crisis management. The key steps are:

1. Anticipate and identify the risks
2. Assess their amount of impact on the project timelines and in terms of financial cost
3. Assess the likelihood of the risk occurring
4. Devise ways of reducing the risks occurring or the amount of their impact
5. Have a backup plan

As an aid to this thinking process a check list of risks to consider is provided (link). To aid learning and profit from the experiences of other GCP scientists, examples are given of problems that have occurred in previous GCP projects. Some options on how to mitigate these risks are also given

Assessment and communication of risk

Project proposals

The best project proposals will highlight core risks inherent in the project and will recommend how these can be reduced, averted or managed. This approach shows an in depth understanding about the science being recommended, and recognises that doing innovative research always involves uncertainty.

Some of this uncertainty should and can be managed, such as some of the practical and logistical elements. For other elements anticipation usually can help or at least contribute to an understanding about the potential for more time and money to be required to achieve the goals. All of these reasons will help a stronger proposal to be made and for the reviewers to make a more informed choice on which projects to support. It is important to remember that more uncertainty and risk is often linked with more innovation and the possibility of making scientific breakthroughs that will help poor farmers – the ultimate goal for GCP. The key is to make these risks transparent.

Project review discussions and technical update reports

Best practice is where principal investigators routinely review risks in their project with co-principal investigators. The critical path of the project and the associated risks ideally should be discussed and updated as part of the each project review agenda. Risks should also be highlighted annually in the technical update report and ideas put forward on ways these can be reduced or managed.



Sub topics

- Stewardship: health, safety and environmental impact
- Dependency on single expert
- Lack of commitment
- Recruitment dependent
- Not experienced in techniques leading
- Communication difficulties
- Insufficient planning
- Funds not available in time
- Materials and equipment
- Dependency on scientific equipment
- Computers problems
- Intellectual property and freedom to operate issues
- Research experimental design not adequately reviewed prior to initiating data collection
- Research methods are not validated

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RISK CHECKLIST

The same problems and risks occur in various projects. This list is a collection of common risks. Click on the items to learn about the risks.

People, expertise and money

- Dependency on single expert
- Lack of commitment
- Recruitment dependent
- Not experienced in techniques leading
- Communication difficulties
- Insufficient planning
- Funds not available in time

Materials and equipment

- Materials and equipment
- Dependency on scientific equipment
- Computers problems
- Intellectual property and freedom to operate issues

Experimentation and data quality

- Research experimental design not adequately reviewed prior to initiating data collection
- Research methods are not validated
- High biological variation and inconsistent results
- Identity preservation
- Environmental threats
- Agronomy
- Field and glasshouse data observations
- Failing equipment
- Reagents and chemicals
- Laboratory data observations
- Stewardship: health, safety and environmental impact

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Next steps to launch the PDG

- Testing phase: review by potential users --- End of September
- Amendments and improvements --- Mid October
- Final release on the GCP website --- End of October



The PDG assists in

- making complete and higher quality proposals
- ensuring focus with the GCP core goal

We highly encourage the use of the PDG,

....but it is not mandatory



Higher chances of success for PI and,
by extension, a better life for us all!

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