



Data Input Component of CropGen International Consultancy for GCP

Robert Koebner PhD
Paul Brennan MAgSci, PhD

Consultants in Plant Breeding,
Application of Biotechnology to Plant Breeding and
Plant Intellectual Property Management

CropGen International

www.CropGenInternational.com

Segment 1

**Design and implement a data capture
and storage system for all data
generated in all GCP projects that allows
for retrospective analysis across data
sets**





Current GCP System

All data is stored in the GCP Central Registry
(CR) which is not a database and, therefore, does not
conform to GCP management
requirements to facilitate retrospective across
data set reanalysis of data generated through
GCP investment

This will continue

Proposal

- Use crop specific ICIS for data storage
- Use existing crop specific versions of ICIS where available
- Create new versions where these do not currently exist
- All data generated through GCP investment will be incorporated in these databases
- GCP project partners are free to use other databases as well





Proposal (Continued)

- GCP will provide a data input “wizard” for completion by Principal Investigators (PIs)
- GCP will arrange the data to be input into the crop specific ICIS using the wizard
- CropGen will design the content for the wizard in consultation with potential users and Guy Davenport
- Guy Davenport will do the software development
- GCP Principal Investigators will not be expected to be ICIS literate



Features of Stored Data

- detailed project description
- comprehensive environmental descriptors (emphasising drought)
- unique germplasm descriptors
- attribute descriptors that provide complete understanding of the method of measurement
- plot data as well as analysed data



Crop Species Will Include

cassava

chickpeas

common bean

cowpea

groundnut

potato

sweet potato

maize

pearl millet

rice

sorghum

wheat

Segment 2

Provide GCP Management with a proposal for implementing electronic data capture for breeders of some of the above crop species who work in resource poor countries



Components

- determine if the target breeders want such a system
- determine that such a system can interface with ICIS
- identify the magnitude of interface problems
- locate appropriate hardware
- canvas software options and availability
- develop an implementation strategy

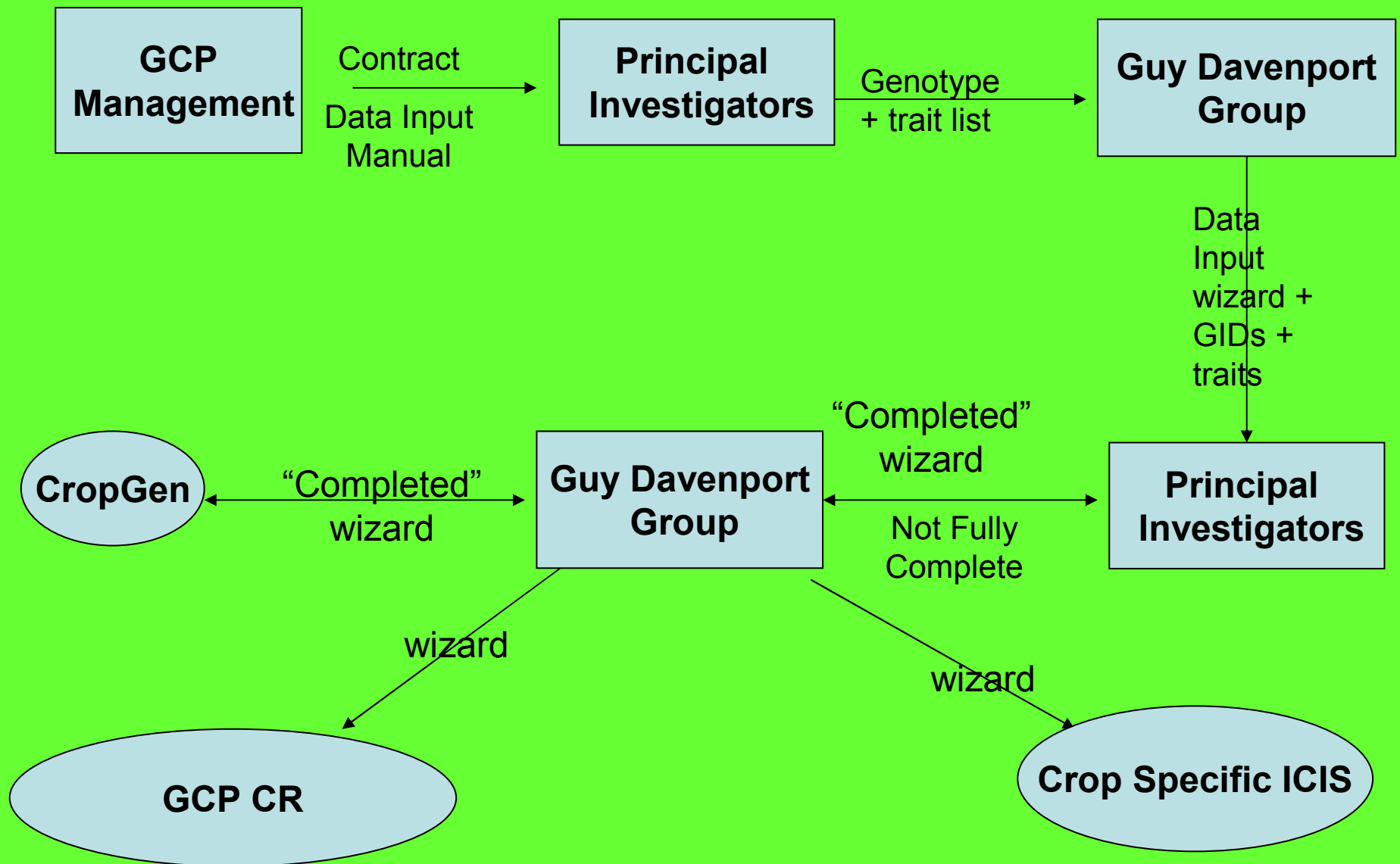




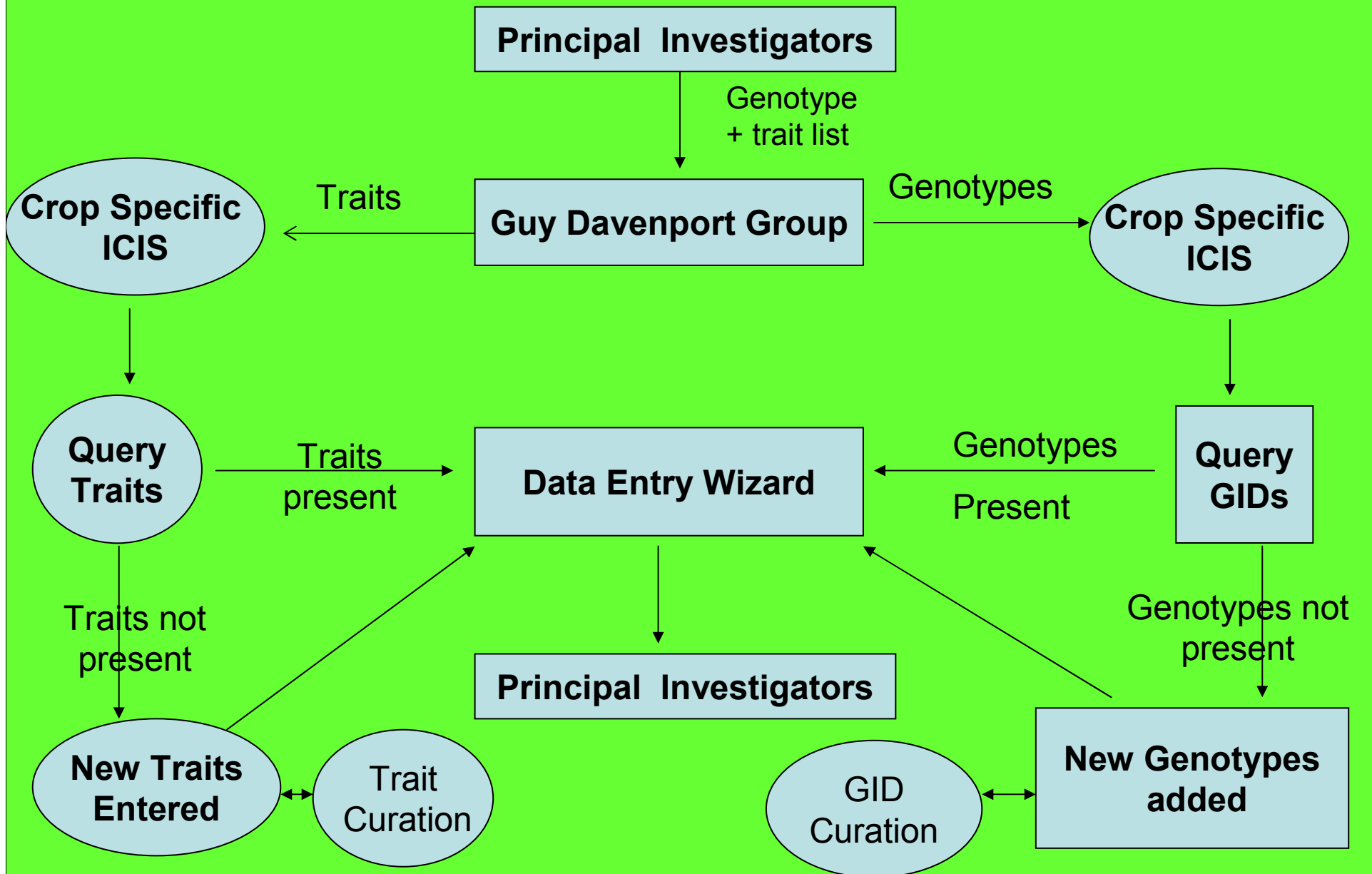
Purpose of attending this meeting

- Determine the feasibility of the proposal
- Identify as many issues as possible that have to be resolved
- Develop options for addressing these issues

GCP Data Management (Draft)



“Guy Davenport” Group (Draft)





Programming Language for Wizard

Use excel with macros linked to ICIS

Pro: This already exists

Con: need to download & install ICIS,

some institutes are thinking about outlawing excel macros for security reasons

current version is not very user friendly and work would be need to get a wizard type interface



Programming Language for Wizard

Extend the current Java template program to generate the excel template

Pro: this will be building on existing work

**Con: need some connection to ICIS (either local or remote) to get the existing and available traits, this will require some development work
(This could be done at CIMMYT)**



Programming Language for Wizard

Develop a new web interface for generating excel (workbook) templates from ICIS

Pro: You would not need to download any ICIS database

Con: This would be a completely new development project and you would need an internet connection (This could be done at CIMMYT or IRRI)