

# 2006 Pretoria SNP case study

## SNP Study of of 1500 European Barley Lines

### Marker

A specific SNP (polymorphic site either true SNP or indel), defined by sequence and variable position

### VariantSet

possible states of the marker – eg. A/T or \*/-indel

### MarkerProtocol

The description of the Illumina Golden Gate assay, plus specific modification)  
the experimental conditions and equipment used (Illumina machine etc. DNA prep ?)  
polymorphism type (e.g. A, B, H, null, +/-)  
definitions of polymorphism type  
calling software package

### ReferenceMarkerAssay

combination of Marker and MarkerProtocol (in this case no additional information) – do we need this ?

### UsedMarkerAssay

marker\_id, procol\_id

### GermplasmSample

Sample\_id  
Sample\_type  
Germplasm\_accession (stock)

### GermplasmGenotypeStudy

All studies done in this experiment  
Information about the project

### ExperimentalBatch

The Illumina OPA (oligo pooled assay).  
Plateid  
Date and time  
Who did it ?

### GermplasmGenotypeAssay

Cell\_id plus plate id which is define by germplasm and the marker used

### RawAssayData

Called nucleotide plus thus quality score

### AssayedVariantSet

Final version of the data in the context of the germplasm and protocol