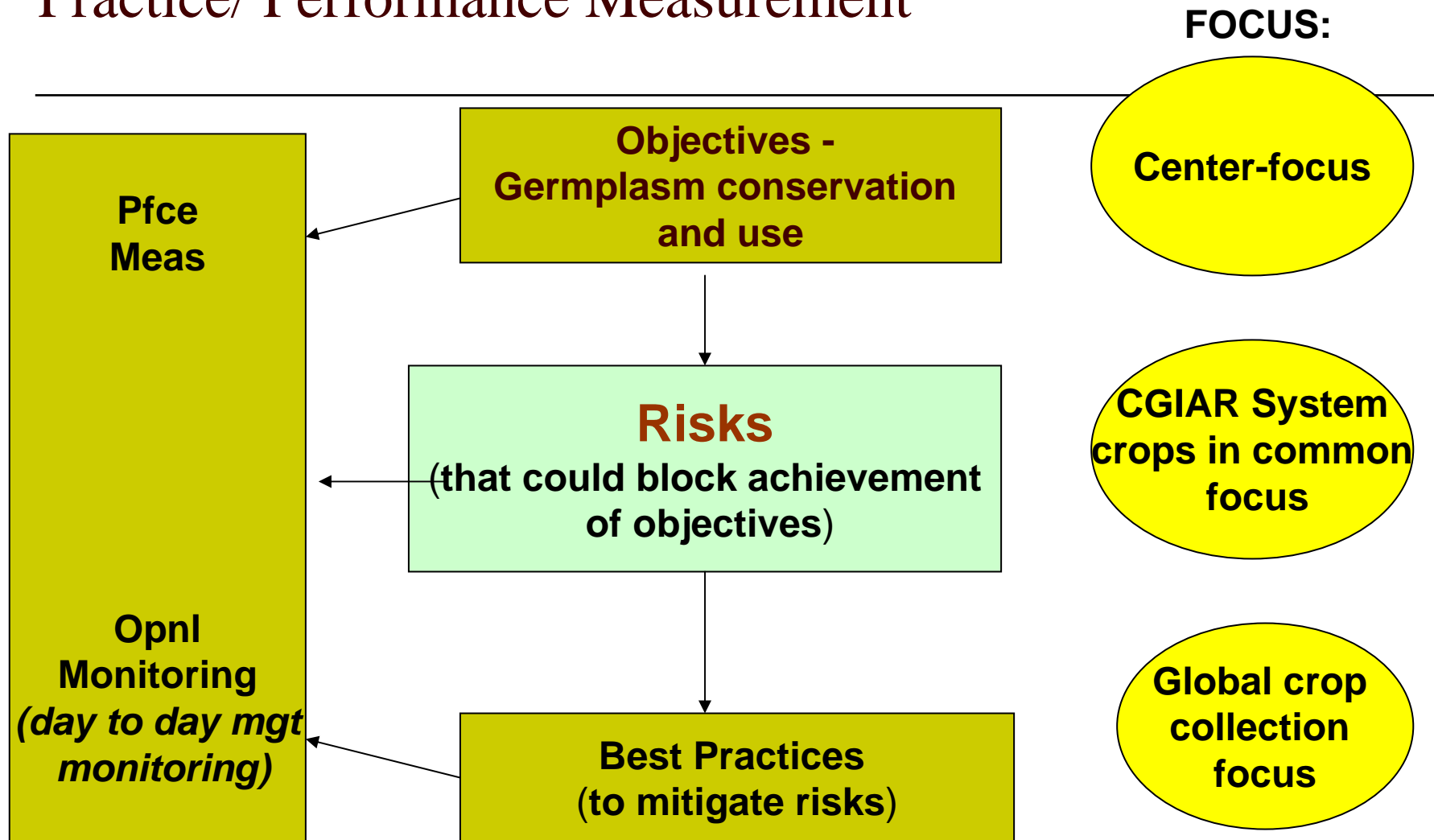




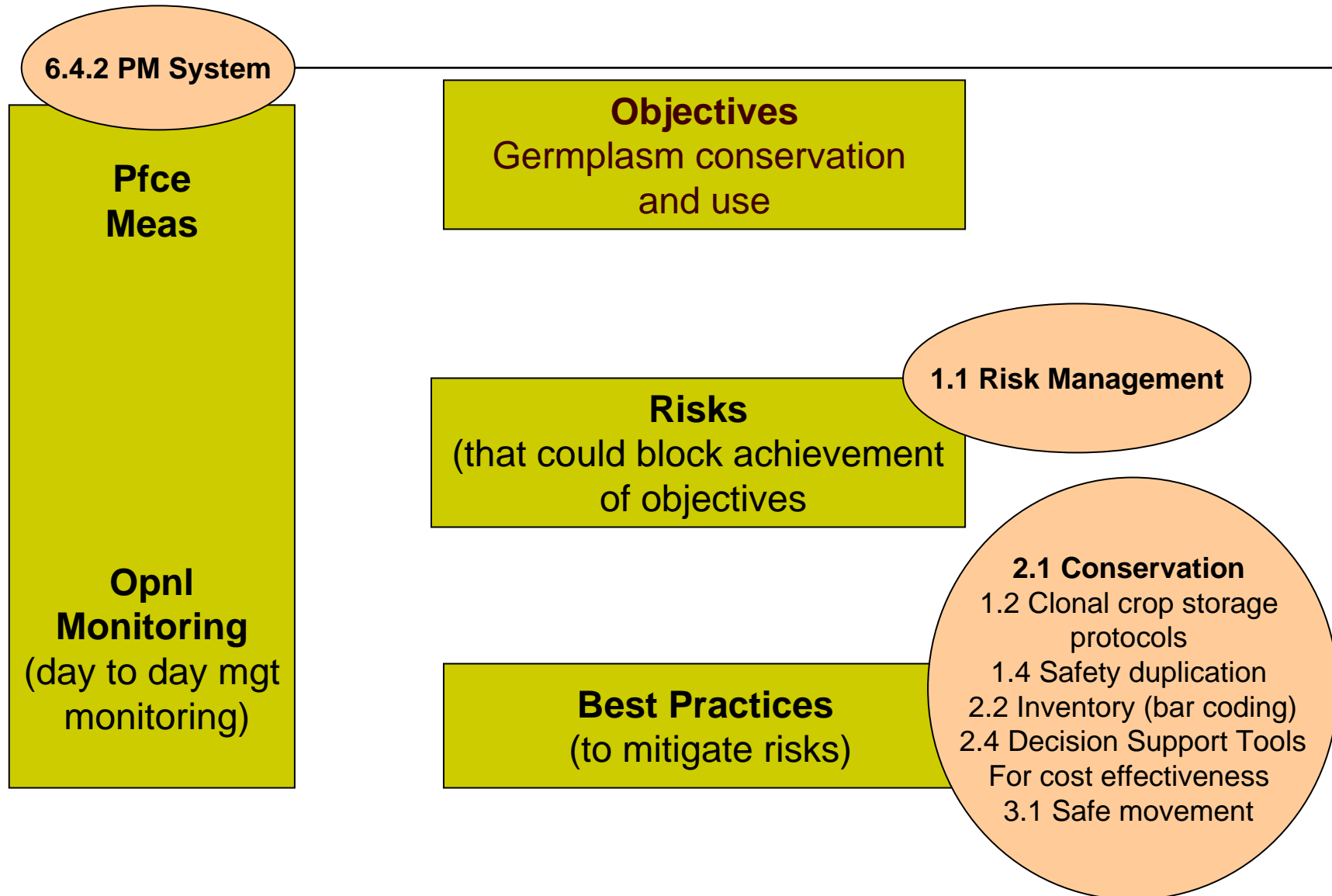
**CONSERVATION AND USE OF
GENETIC RESOURCES:
RISK MANAGEMENT**
John Fitzsimon, Director, CGIAR IAU

GPG2/GCP Quality Management and Performance
Measurement System Design Workshop
Lunteren, October 2007

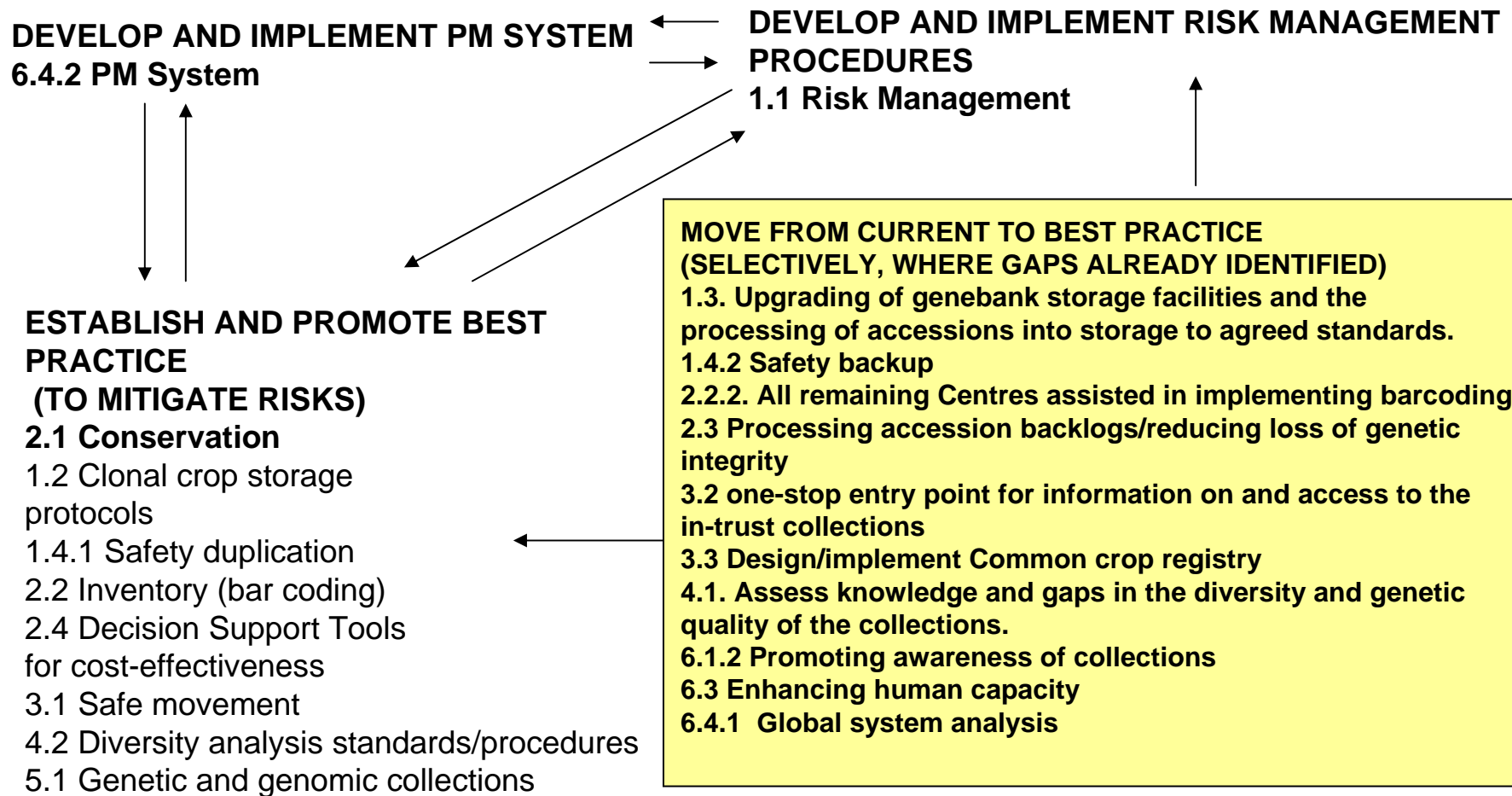
Relationship between Risk Management/ Best Practice/ Performance Measurement



GPG2 Activities relating to Risk/ Best Practice / Performance Measurement



GPG2 Activities – Inter-Linkages



CGIAR Center “enterprise risk management” frameworks

COMMON FEATURES (WORK IN PROGRESS):

- ❑ Risks are identified in relation to objectives of the organization (*e.g. effective and efficient conservation and use of genetic resources*)
- ❑ Risks are evaluated for prioritization by potential impact, inherent/actual likelihood taking into account environment, preventive controls and contingency measures, and these are clearly documented
- ❑ Preventive controls and contingency measures (actual and desirable) linked to international best practice
- ❑ Prioritization of resource and time investments, and requests for additional resources, linked to evaluation of impact/likelihood of the risks
- ❑ Performance measures help ascertain alignment of what is actually happening versus what is stated to be the situation in the risk evaluation
- ❑ Audits review completeness and logic of the risk evaluation and validates controls and measures claimed to be in place
- ❑ Quality management systems support the documentation and audit processes



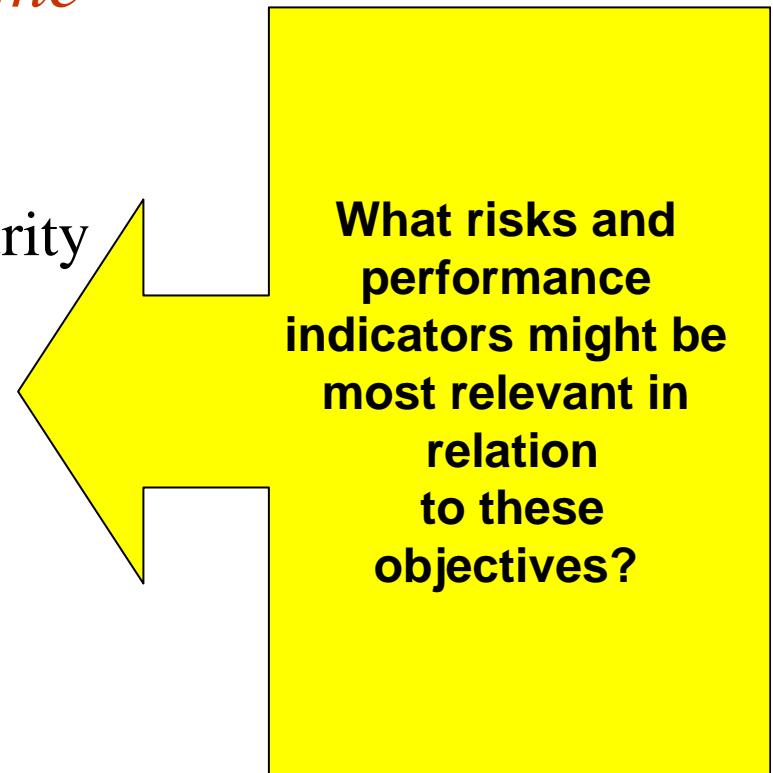
Applying different levels of risk analysis

- ❑ Macro risks – broad risks relating to objectives (e.g. physical loss of collection)
- ❑ Sub-risks – which contribute to overall macro risk (e.g. poor storage, poor security, failure of safety duplicate collection)
- ❑ Micro (process) risks – risks relating to failure in the detailed processes to manage the sub risks

Conservation and Use Objectives – first iteration (March 2007)


Per Generic Seed Genebank Standards + Discussion in Rome

- Conservation
 - Coverage of the genepool
 - Ensuring security (physical security viability)
 - Maintaining genetic integrity
- Use
 - Ensuring availability
 - Distribution
 - Providing information



Identifying relevant performance indicators and risks relating to the objectives: what are the problems around which these can be prioritized? First iteration March 2007

- ☞ Duplication across collections/ duplication of efforts
- ☞ Lack of gap analysis
- ☞ Insufficient public information about the collections
- ☞ Don't know enough about what is in the collections
- ☞ Perceptions that collections not fairly distributed – outreach activity, monitoring use activity
- ☞ Accessions not used for any important purpose – monitoring use
- ☞ Insufficient and unsustainable long term funding
- ☞ Collection management not efficient
- ☞ Lack of articulation of system's role within a global system / with global players



**Activities
1.1.1 and
6.4.2 to use
these
results to
think about
priority
indicators
and risks**

Risks identified around objectives/related activities – existing genebank risk analyses (1)

Coverage of the genepool

- Diversity assessment of collection
- Receipt from collecting/donations
- Analysis of duplicates in collection
- Analysis of gaps and duplicates System-wide

- Breaches of ITPGRFA or country laws
- Disputes with providers/countries of origin

Inefficient use of resources by storing many duplicates

Sub-optimal investment of limited resources

Risks identified around objectives/related activities – existing genebank risk analyses (2)

Ensuring security

- ❑ Evaluation for transgenes
- ❑ Meeting quarantine and health requirements
- ❑ Processing into storage
- ❑ Storing
- ❑ Monitoring in storage
(viability of stock)
- ❑ Carrying out regeneration
- ❑ Duplicating into safety backup

Introgression of transgenic material into collection

Loss of collection due to
- lack of viability of accessions
- lack of regeneration
- pests and diseases
- poor storage conditions
- natural or man made calamities theft

Failure of backup arrangements

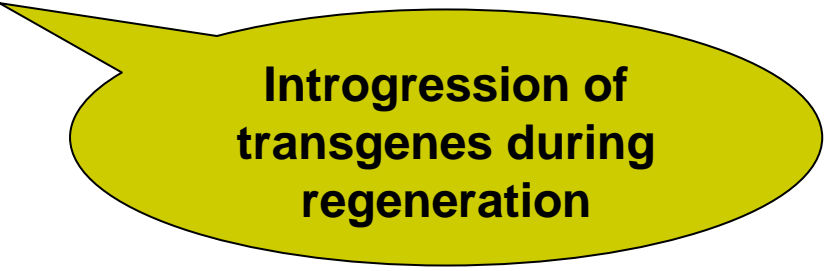
Risks identified around objectives/related activities – existing genebank risk analyses (3)

Maintaining genetic integrity

- Storing
- Monitoring in storage
(stability of stock)



Genetic shifts
and drifts



Introgression of
transgenes during
regeneration

Risks identified around objectives/related activities – existing genebank risk analyses (4)

Ensuring availability

- Storage and regeneration
- Meeting requests

Insufficient collection sizes to make available

**- Inefficient and untimely processing of requests for samples
- Errors in preparing samples**

Risks identified around objectives/related activities – existing genebank risk analyses (5)

Distribution

- ❑ Distribution policies and criteria
- ❑ Transfer agreements
- ❑ Safe movement
- ❑ Publicizing

collections

Failure to make use of collections

**- Loss of samples
- Spread of pests and diseases**

Disputes over IP of material transferred

Actual or perceived inequities in the distribution of material

Risks identified around objectives/related activities – existing genebank risk analyses (6)

Providing information

- ❑ Registering accessions
- ❑ Documenting identity and origin
- ❑ Characterization and evaluation
- ❑ Databases

**-Errors in registration
- Mix up of storage
labeling**

**Inadequate or
erroneous
documentation,
characterization or
evaluation**

**- Incomplete databases
- Errors in databases
-Databases not easily
accessed
-- Databases corrupted**

Interaction of GPG2 Performance Measurement / Best Practice / Risk Management activities

- Compare results of each, to identify gaps in the frameworks being used for each activity and update them as necessary (iterative process)
- Ensure that during GPG2 that the frameworks used for each become fully consistent

THANK YOU

