

# Genetic Resource Management

## Designing a Decision Support System to Meet New and Emerging GRM Business Requirements

Presentation to Forest Practices Branch

October 24, 2007

# Objectives

- GRM DSS – setting the stage
- Opportunities and Linkages
- Defining DSS
- Business Architecture
- The GRM “System”
- Key Findings
- Data, Knowledge and Tools
- What worked / What didn't
- Key Recommendations

# Genetic Resource Management Decision Support System (GRM DSS)

“There is a clear and urgent need to strengthen support and commitment to the ability of the GRM DSS to continue this delivery in the face of climate change and its impacts on BC’s forests.”

Keith Elwood, 2007.

# Opportunities and Linkages

*A GRM DSS is needed to address new and emerging business requirements arising from...*

- Sustainable forest Management (SFM) strategy & vision
- Future Forest Ecosystem Initiative (Climate-based seed transfer and deployment)
- GRM Resource Strategy and Action Plan (*in progress*)

# What is a Decision Support System?

*For the purposes of this project,...*

A decision support system (DSS) is defined as the integrated system of tools (machine & human) that serve to support the process of decision making.

# Why Build a Business Architecture?

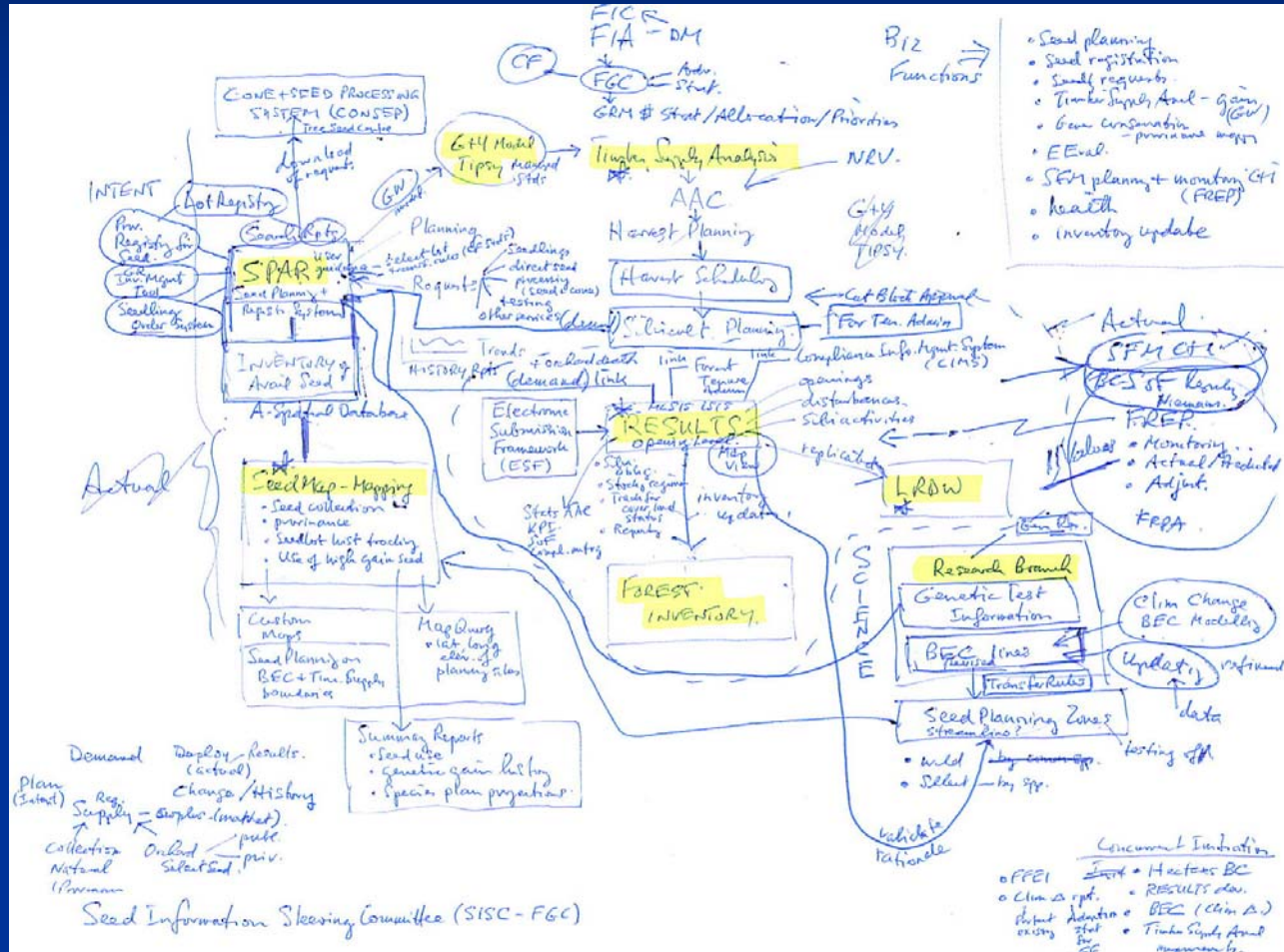
- *Test* existing services & rationale
- *Shake out* existing assumptions
- *Align* services with customer needs
- *Leverage* existing systems & tools
- *Foster* deliberate, planned approach
- *Respond* to future uncertainties
- *Respect* performance management

# Business Planning Lens

The GRM DSS project was undertaken through a business planning lens...

- **Business** process mapping (As Is and To Be)
- **Business** requirements (customer survey)
- **Business** case (preliminary, risk mgmt)

# The 'As Is' GRM DSS



# Gaps and Challenges

*The current GRM DSS may not be sustainable as delivered today due to:*

- Climate Change and Seed Use
- Enabling Technologies
- Capacity, Knowledge Management & Application

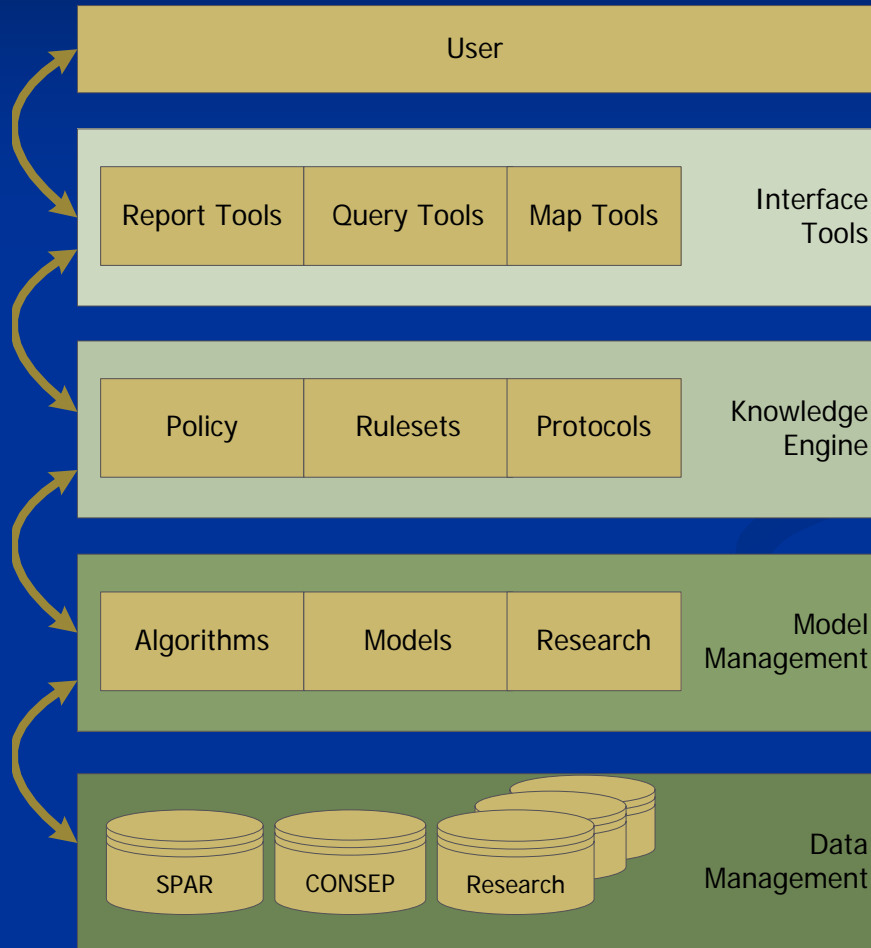
# GRM “System”

DRAFT v6  
July 14, 06

## Forest Tree Genetic Resource Management “System”



# The 'To Be' GRM DSS



Knowledge-based engines  
and predictive modeling tools

# Key Findings

- Linkage between policy advances and the clients
- Role of DSS is to improve decision maker access to critical information
- Collaboration underpins the DSS
- DSS is the wiring in the GRM 'house'
- Additional capacity is required
- GRM DSS - a template for corporate DSS

# Data, Knowledge & Tools

- Greater reliance on RESULTS data
- SEEDLOT data (genetic source)
- Status and Forecasting (Trends)
- Dashboard; Business Intelligence (BI) reports
- Predictive modeling, risk mgmt and impact assessment

# What worked / What didn't

- Team building – GRM DSS
- Conceptual design (DSS)
- Business lens – new approach
- Timing – GRM resource strategy
- Value – develop DSS competency within ‘Community of Practice
- Critical Success Factor – DSS is now identified as a critical component within GRM Resource Strategy

# Key Recommendations

Develop and/or enhance:

- Climate-based seed deployment DSS
- Data access & modeling (increase relevance of DSS)
- Capacity to monitor genetic resource before (source) and after the 'seedling hits the ground'
- DSS for Genetic Conservation (new)
- Extension & Training (GRM mentorship)
- Effective Governance (support collaboration)
- Integrated corporate SFM DSS

# Cultivating 'Communities of Practice'

Communities of practice are...

groups of people who share a passion for something that they know how to do and who interact regularly to learn how to do it better.

# GRM DSS Action Team

*The GRM DSS Action Team members included:*

- Forest Genetics (RB)
- Tree Seed Centre (TIB)
- Policy, Decision Support and Information Mgmt (TIB HQ), and
- Consultant team (Lime Kiln Group)

# Acknowledgements

- GRM DSS Action Team

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