



# RM to Achieve Analytical Competitiveness

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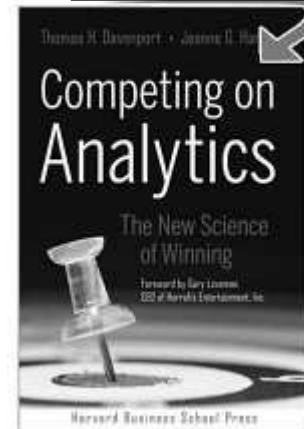
Modified July 2008

# New Challenges for Business Executives

# Competing on Analytics

“At a time when companies in many industries offer similar products and use comparable technology, many of the previous bases for competition are no longer viable. In a global environment, physical location is frequently not a source of advantage, and protectionist regulation is increasingly rare. Proprietary technologies can often be rapidly copied and attempts to achieve breakthrough innovation in products or services often fail. What’s left as a basis for competition is execution and smart decision making. An organizational commitment to and developed capability of Analytics is enabling market-leading companies to succeed in the rapidly evolving arena of global competition.” – Davenport and Harris 2007

D & H 2007



# Do You Have the Analytics to Win

Finding the right business metric is crucial to success

<b>Company</b>	<b>Original Metric</b>	<b>The Right Metric</b>	<b>Results</b>
Wells Fargo	Profit per loan	Profit per employee	Defined regional banks and early to adopt ATMs, 24 hour banking by phone, eBanking – has 75% of market share
Gillette	Profit per division	Profit per customer	Identified need for disposables – now premier global brand of daily necessity
Walgreen's	Profit per store	Profit per customer	Pioneered drive-thru pharmacies and 1 <sup>st</sup> to globalize convenient corner drugstore
Circuit City	Profit per single store	Profit per region	1 <sup>st</sup> “superstore” for electronics - stock up 300% over 10 years in a flat market
Pitney Bowes	Profit per postage meter	Profit per customer	Extended to provide all sophisticated back office equipment needed

Source: Jim Collins, *Good to Great*

# Can You Rely on Your Analytics?

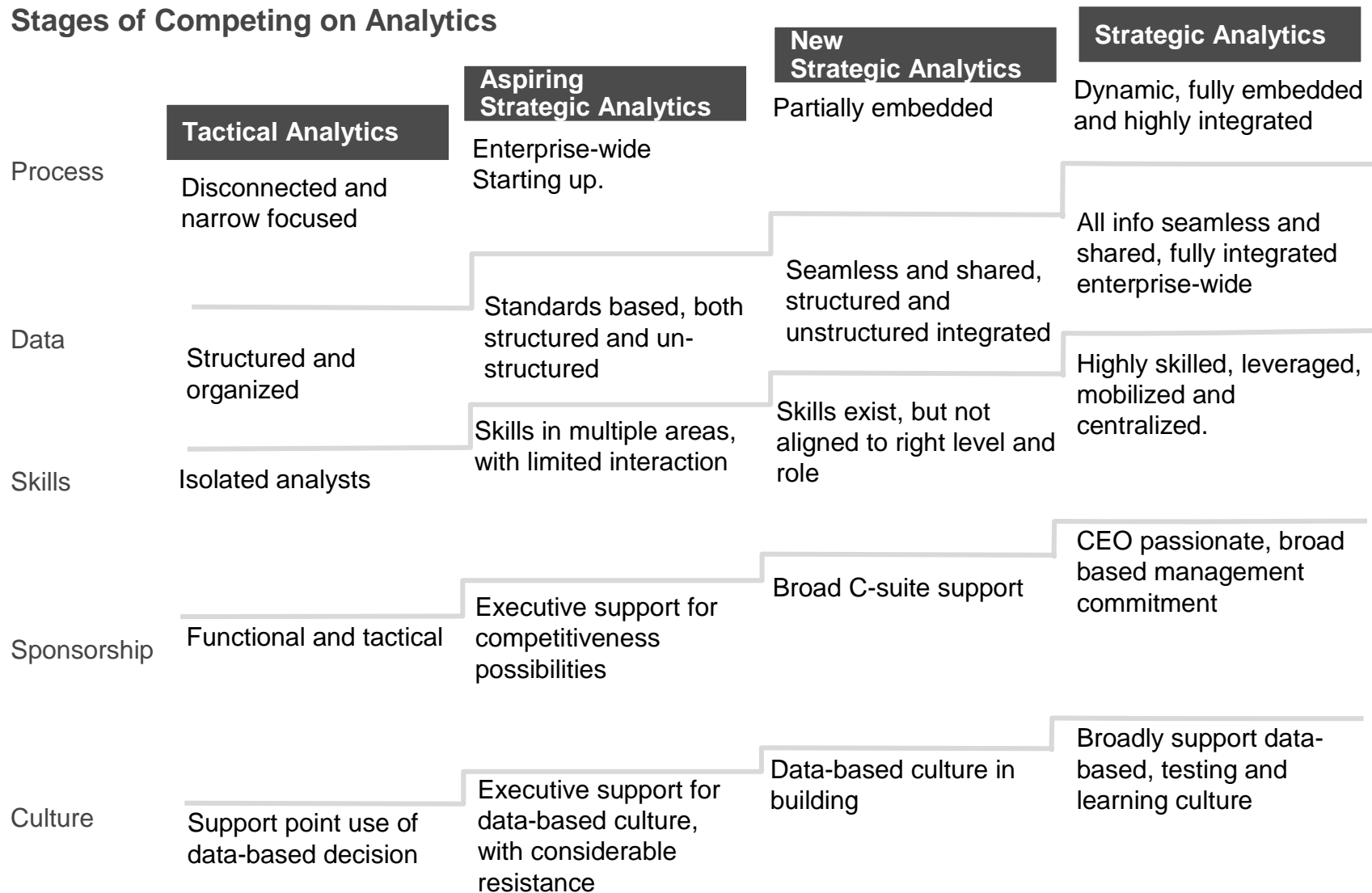
- **RELIABLE?**
- **ACCURARE?**
- **CONSISTENT?**
- **INTEGRATED?**
- **ACTIONABLE?**

# Why Is Your Analytics Not Good Enough?

- DISCONNECTED FROM BUSINESS PROCESS
- POOR DATA QUALITY
  
- **LOW ANALYTICS MATURITY LEVEL**  
– **THE KEY ISSUE for MOST ORGANIZATIONS**
- (many companies spent millions \$ in building data warehouse, but do not have high quality analytics to enable utilizing the data)

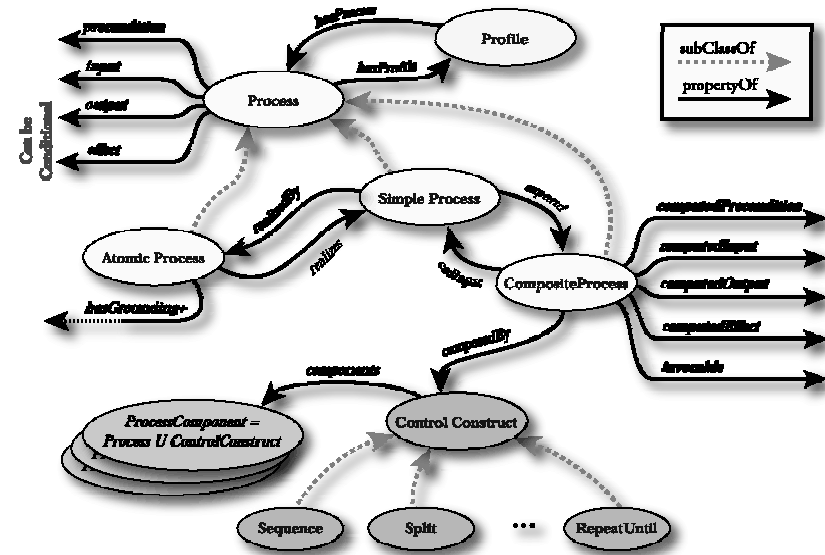
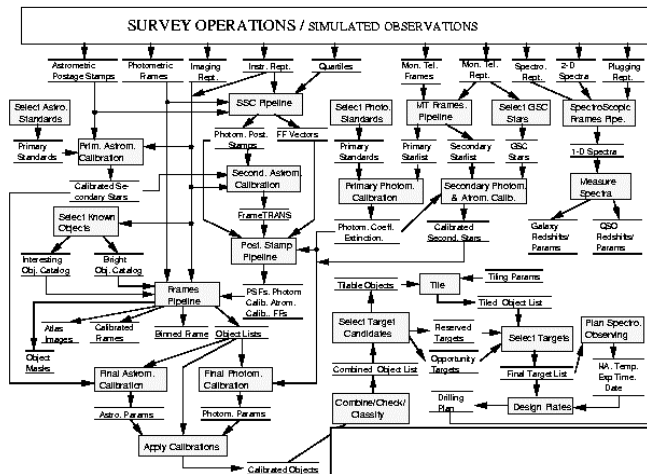
# Your Needs: Moving Up Enterprise Analytics Maturity

## Stages of Competing on Analytics



**New Challenges for Analysts  
to enable strategic analytics**

# Challenge 1: Research Flows Difficult to Manage



# Challenge 2

- Finding needle in a haystack
  - Gain control over complexity
  - Focus on strategies rather than technical details
  - Manage logbook needs
- Moving up from try-outs to production
  - Develop research flows with ease
  - Manage partial results
  - Maintain reproducibility, validability, audit

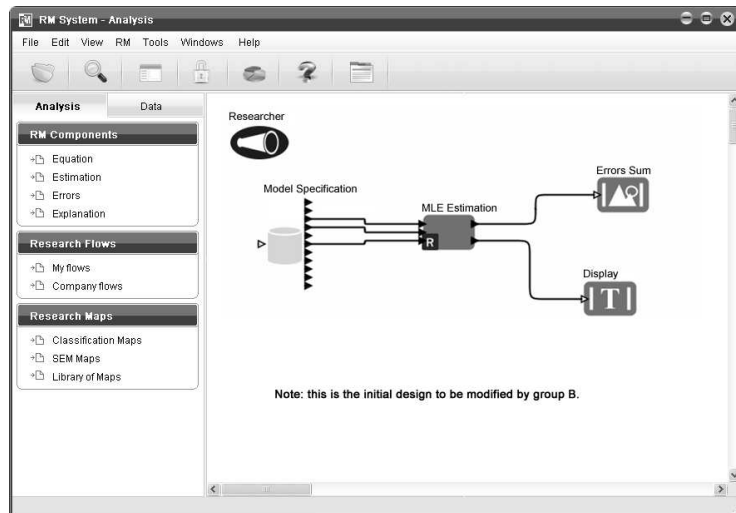
# Challenge 3

- Safeguard Analytics Assets
  - Control access
  - Auditing & tracking
  - Knowledge management
- Regulatory compliance
  - Book keeping
  - Versioning
  - Timely recording

# Our RM Solution

Customized Research Management System

# Core of the RM Solution: Manage Research Flows Systematically



## Our RM System can

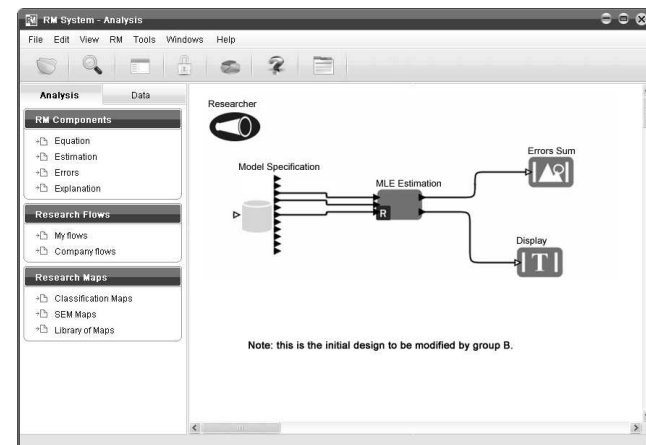
1. Manage analytics flows effectively
2. Increase research productivity
3. Improve research quality

- Research Flow Management has been used in Bioinformatics and in engineering with great success
- Research Flow Management has not been used in business and social research yet

# Major Benefits of Managing Research Flows

- Automating tedious technical procedures
- Managing analytical processes and analytical resources effectively
- Supporting high-level analytical strategies

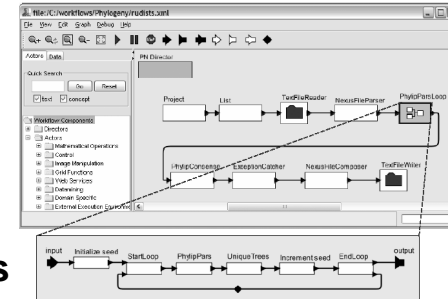
- Research flow & component reuse
- RM4Es components
- Easy research design & documentation
- Archival and sharing
- Provenance support
- Performance improvement
  - Distributed execution
- Rmap intelligent support



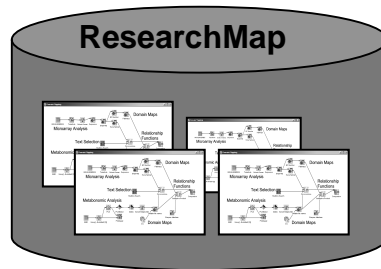
# RM System Manages Research Flow Life Cycle

## Developing research flows

- Capture the best practice and support innovation
- Integrate data, resources and software applications



RM4Es

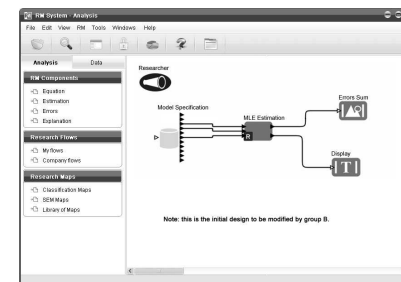


## Warehousing research flows

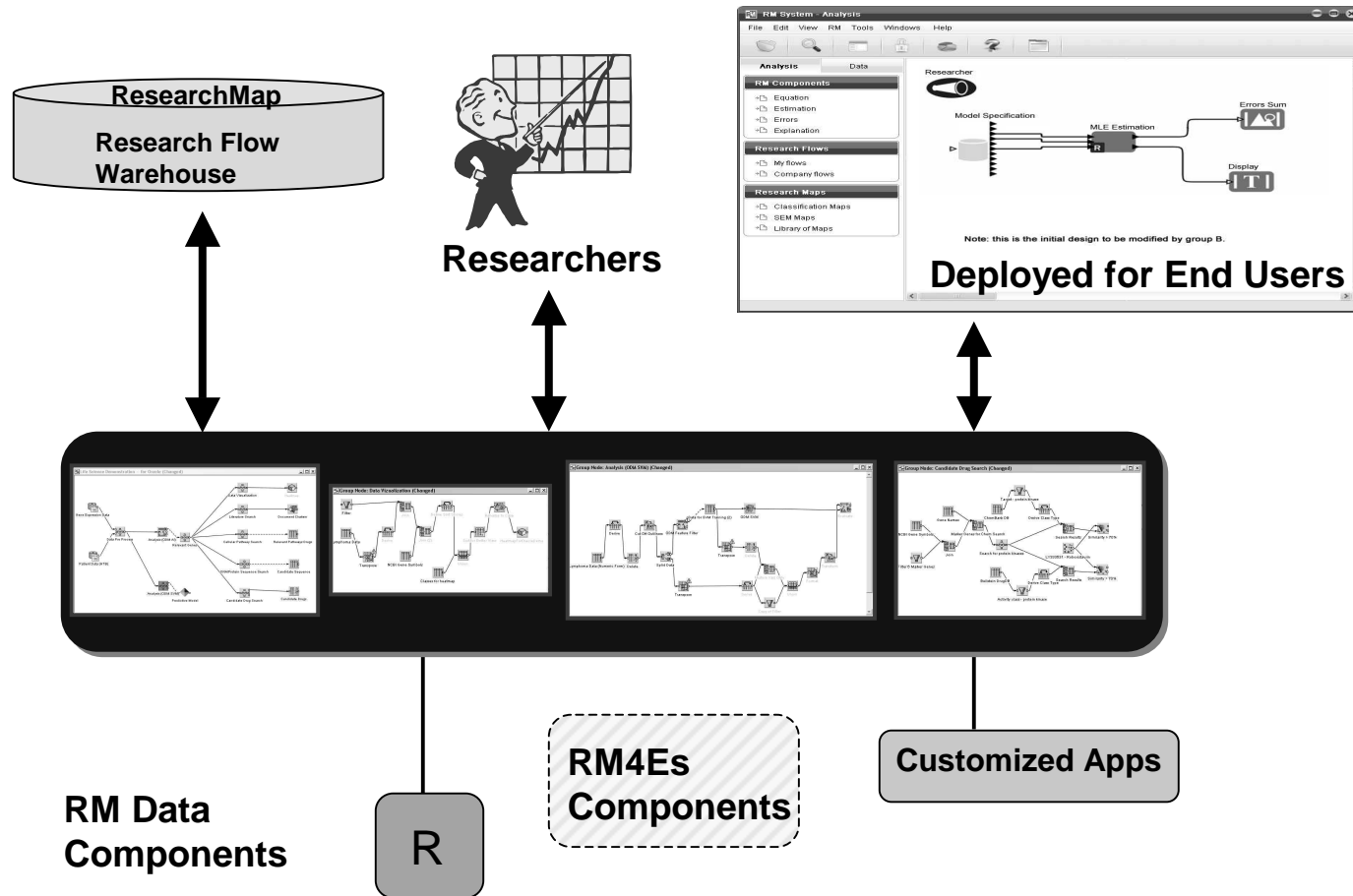
- Manage research flows
- Construct knowledge base of research flows

## Deploying research flows

- Turn your research flows into reusable
- Turn every researcher to a solution builder



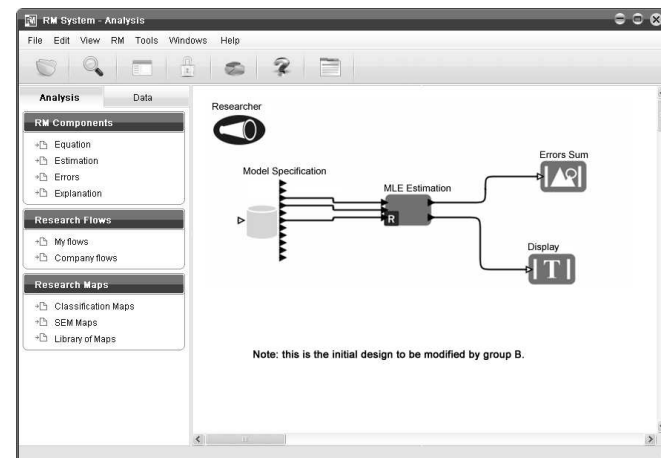
# RM System Provides an Integrative Platform



# Key to success of the RM System:

- User Centric Research Flow Management

- RM makes use of previous knowledge about developing and mapping research flows
  - Explicit and Expert knowledge
  - Implicit knowledge
- RM semi-automatic tools advise and assist users in authoring research flows

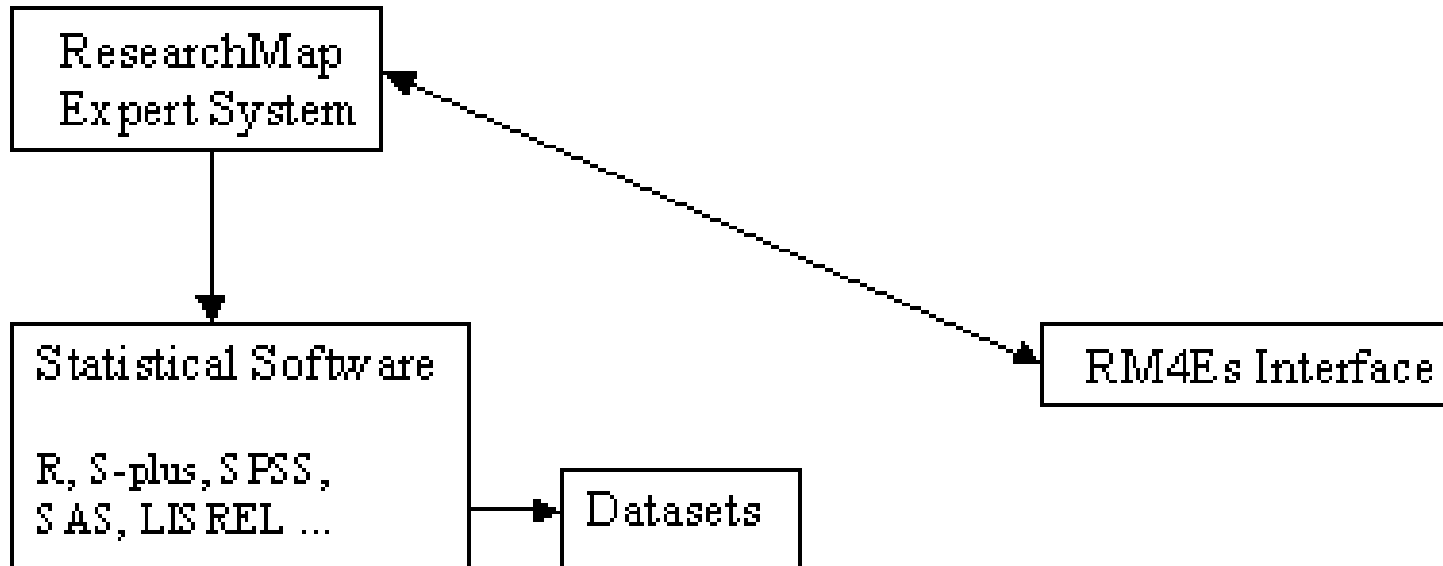


**The aim is to help researchers, not to replace them**

# The RM System Design



# Major Elements of The RM System



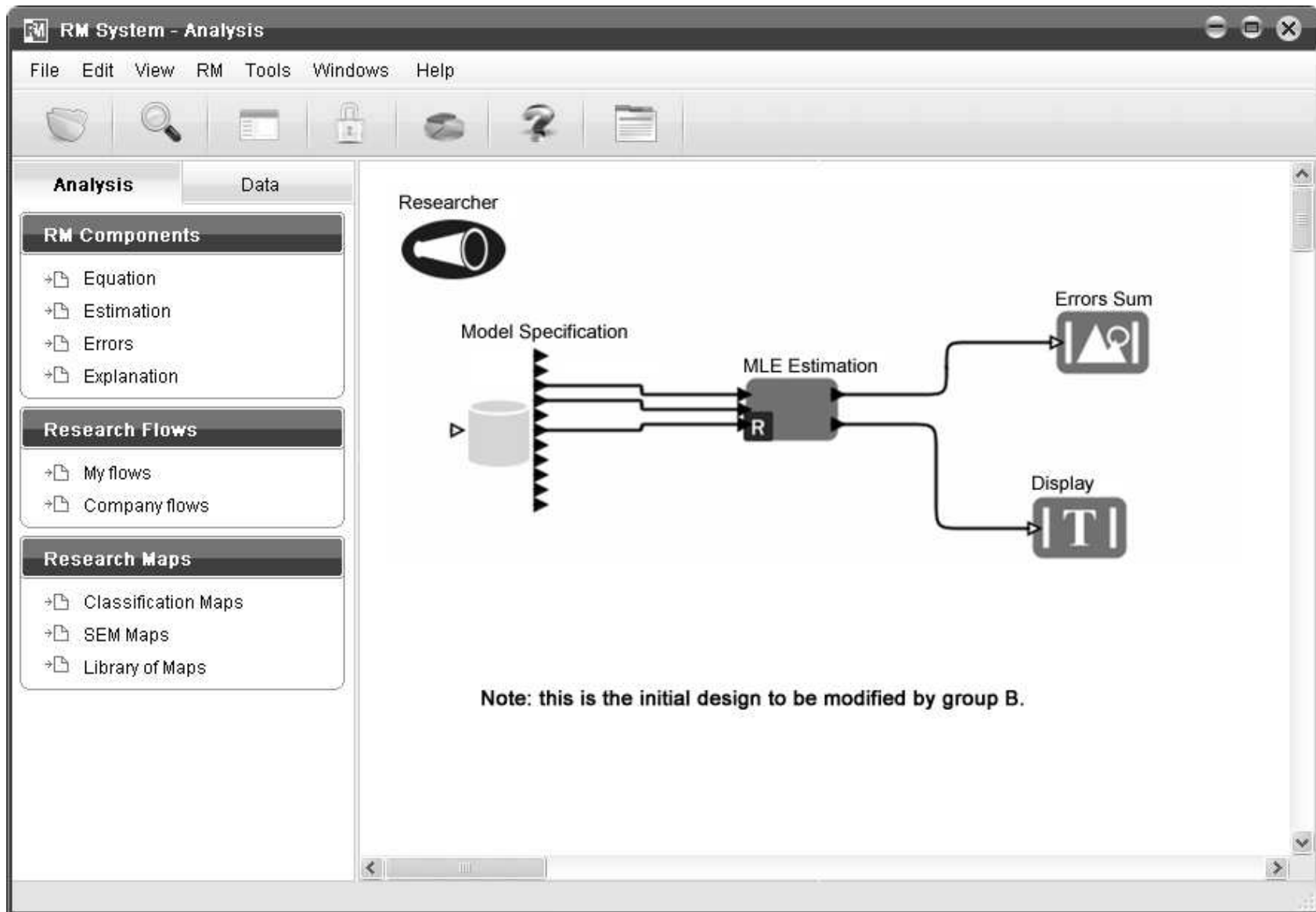
**THREE ELEMENTS:**

**RM4Es components**

**Research flow repository**

**ResearchMap Intelligence**

# RM User Interface



# RM Structure

**Manager**      **Analyst**      **User**

**Portal  
Application  
To Business Process**

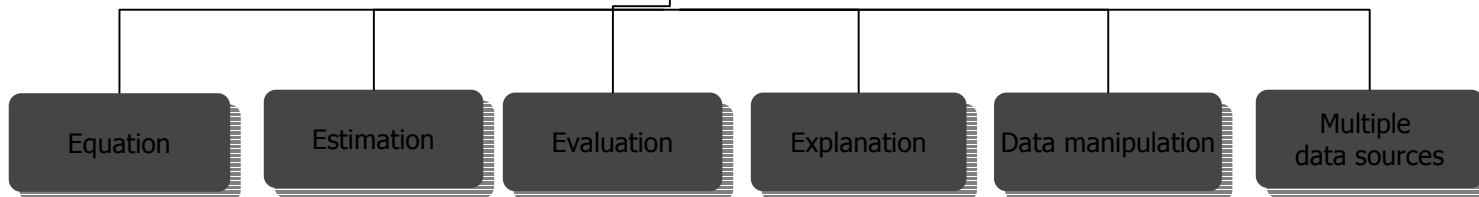
## Solution Building

**Integrative Research Flow Platform**

**Rmap  
Expert  
System**

## Research & Data Components

## Data & App Integration



# RM Elements for Integration

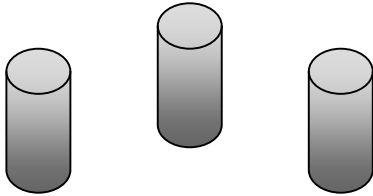


**Embedding  
Research applications**

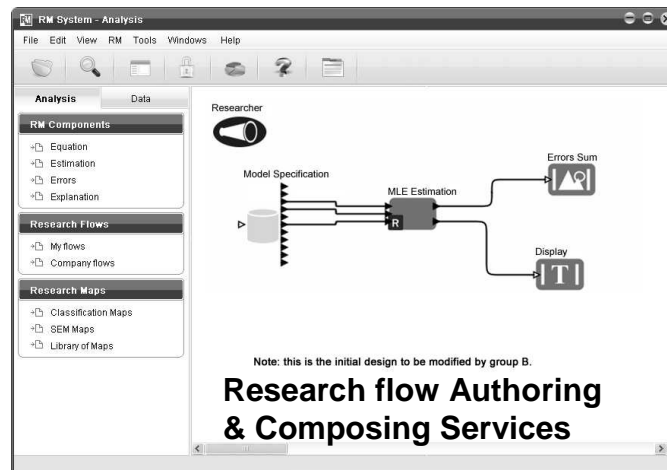
**Resource  
Mapping**



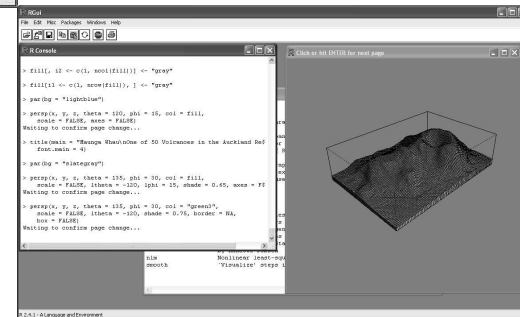
**Research flow  
Warehousing**



**ResearchMap Expert System  
ResearchMap Knowledge Management**



**Research flow  
Execution & Deployment**



# A Total Solution for Competing on Analytics

Optimal Use of RM System

# Embedding RM into Solutions

