

Sharing a common view of the "Information Landscape"

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Stating the obvious...



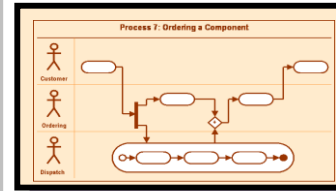
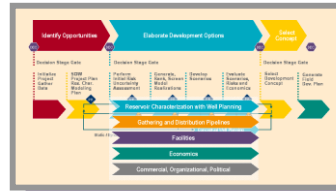
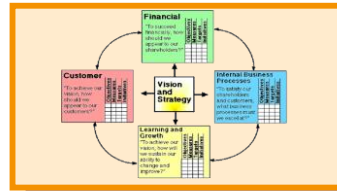
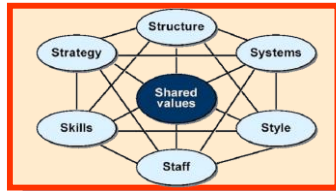
- Information Management (IM) has a significant impact on the success of E&P companies
- The most difficult (and important) IM issues are people ones
- Different stakeholders, different needs:
 - IM Professionals: Details, implementation
 - Business owners: Costs, benefits
 - Information users: only notice IM when it fails
- A shared common view of IM is a crucial first step

Example Business Impact Statements

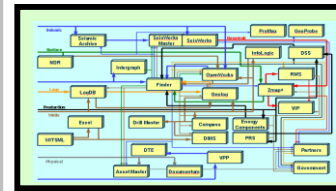
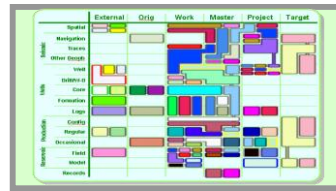
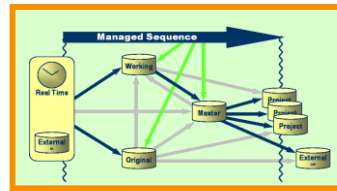
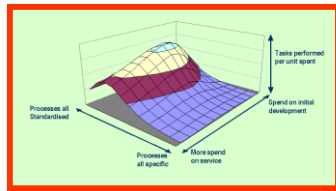


- Missing well test data in North Field → wells remain shut in
Impact: 250bbbls x 10 wells x 2 months production => \$6.0M
- 4 out of 5 Field Rework projects delayed for 3 months each while searching for data
Impact: 1500bbbls x 4projects x 45days x \$40 => \$10.8M
- Investment of USD \$11M/ year reduced annual data loss 3%
Impact: 47,984 well logs, replacement cost => \$74M

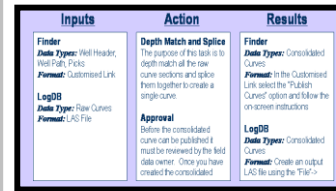
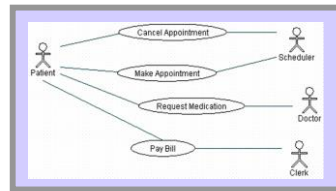
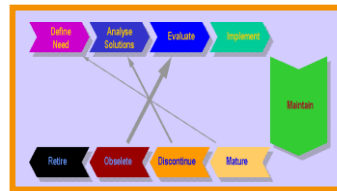
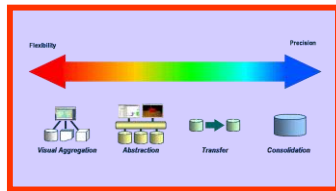
Complete Enterprise Architecture



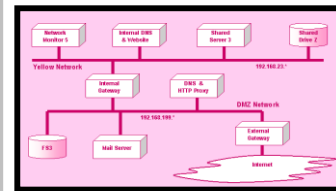
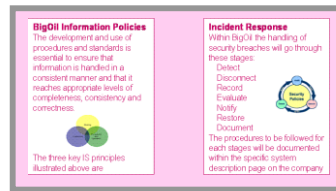
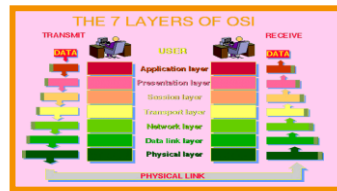
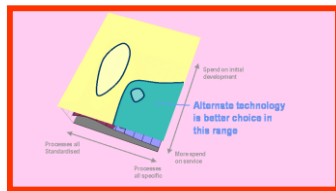
Business Processes



Information Landscape



Application



Infrastructure

Principles

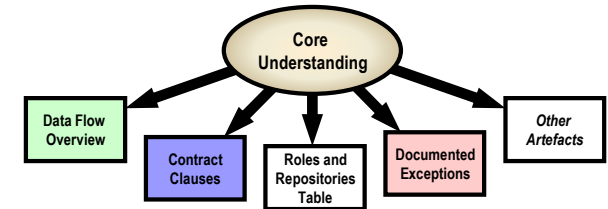
Patterns

Policies

Procedures

How information is managed:

- **Streams:** how data is organised
- **Activities:** what needs doing when and by whom
- **Data flows:** how information moves
- **Roles:** which categories of information are held where
- **Exceptions:** how IM varies within the organisation
- **Organisation:** relationships between groups

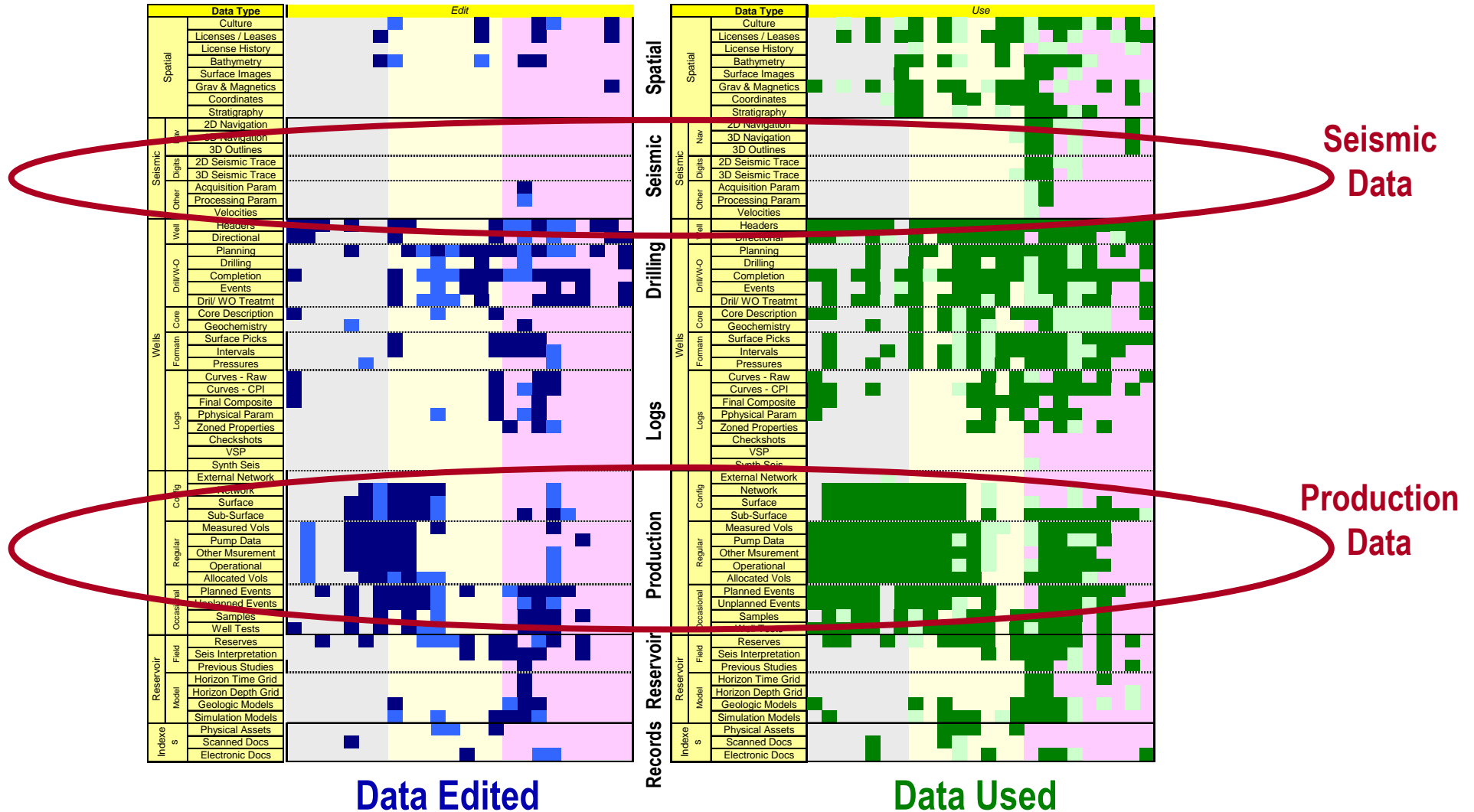


Categories of Data

- Broad groupings
 - Achieving Consensus is hard
- Hierarchical
 - Document at lowest level
 - Present at highest level
- Start from a default list
 - Add types that are important
 - Rename using terms familiar to the company

Data Type	
Spatial	Culture
	Boundaries / Licenses
	License History
	Bathymetry & Topography
	Gravity & Magnetics
	Coordinate Systems
Stratigraphic Columns	
Seismic	2D Navigation
	3D Navigation
	3D Outlines
	2D Seismic Trace
	3D Seismic Trace
	Acquisition Parameters
Processing Parameters	
Velocities	
Well	Headers
	Directional
Drill/W-O	Planning
	Drilling
	Completion
	Events
	Drilling/ W-O Treatment
	Drilling/ W-O Equipment
Wells	Core Description
	Geochemistry
	Surface Picks
	Intervals
Formtn	Pressures
	Curves - Preliminary
Logs	Curves - Final Processed
	Curves - Final Composite
	Petrophysical Parameters
	Zoned Properties
	Checkshots
	VSP
	Synthetic Seismograms
	Network
Config	Surface
	Sub-Surface
ation	Measured Volumes
	Other Measurements

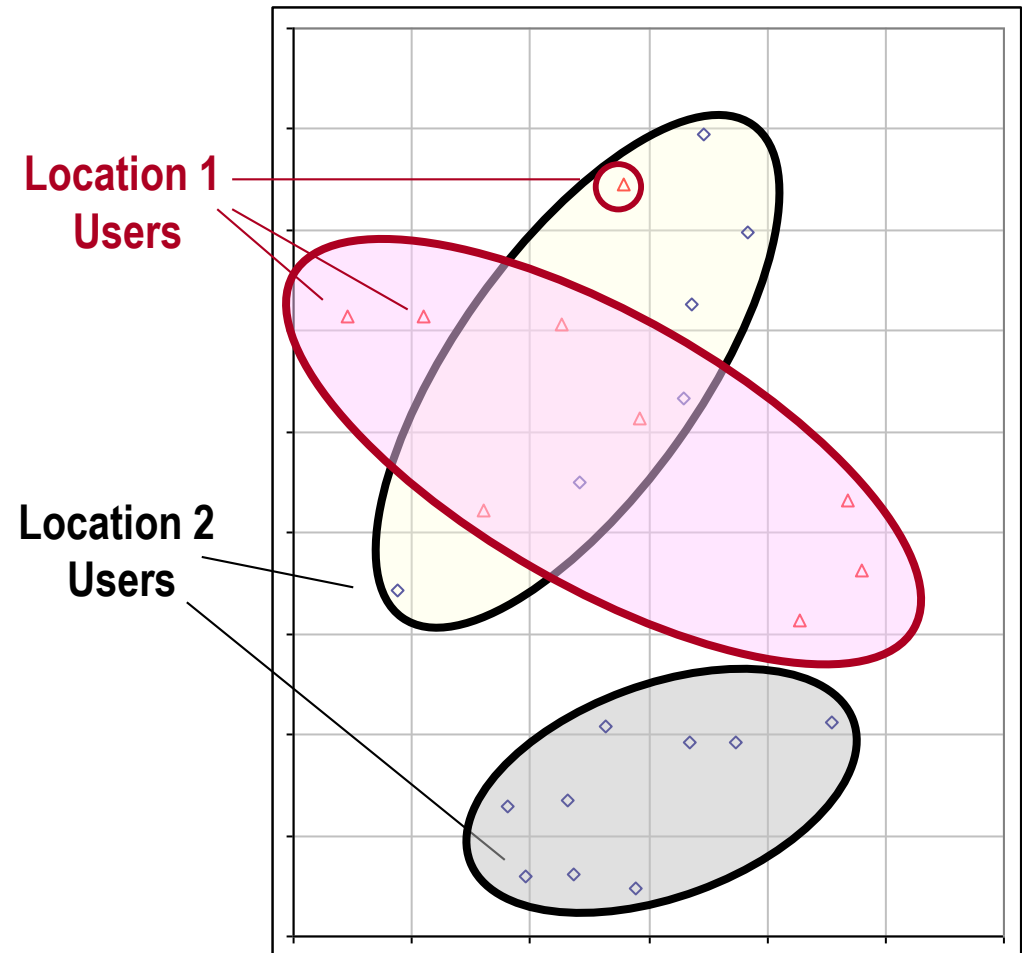
What data do users need



Different user's data requirements



- Analysis on user's stated data needs shows that while the needs overlap the two sites have distinct data requirements
- Location 2 users fall into two distinct groups
- A single user falls outside the "standard" Location 1 data profile



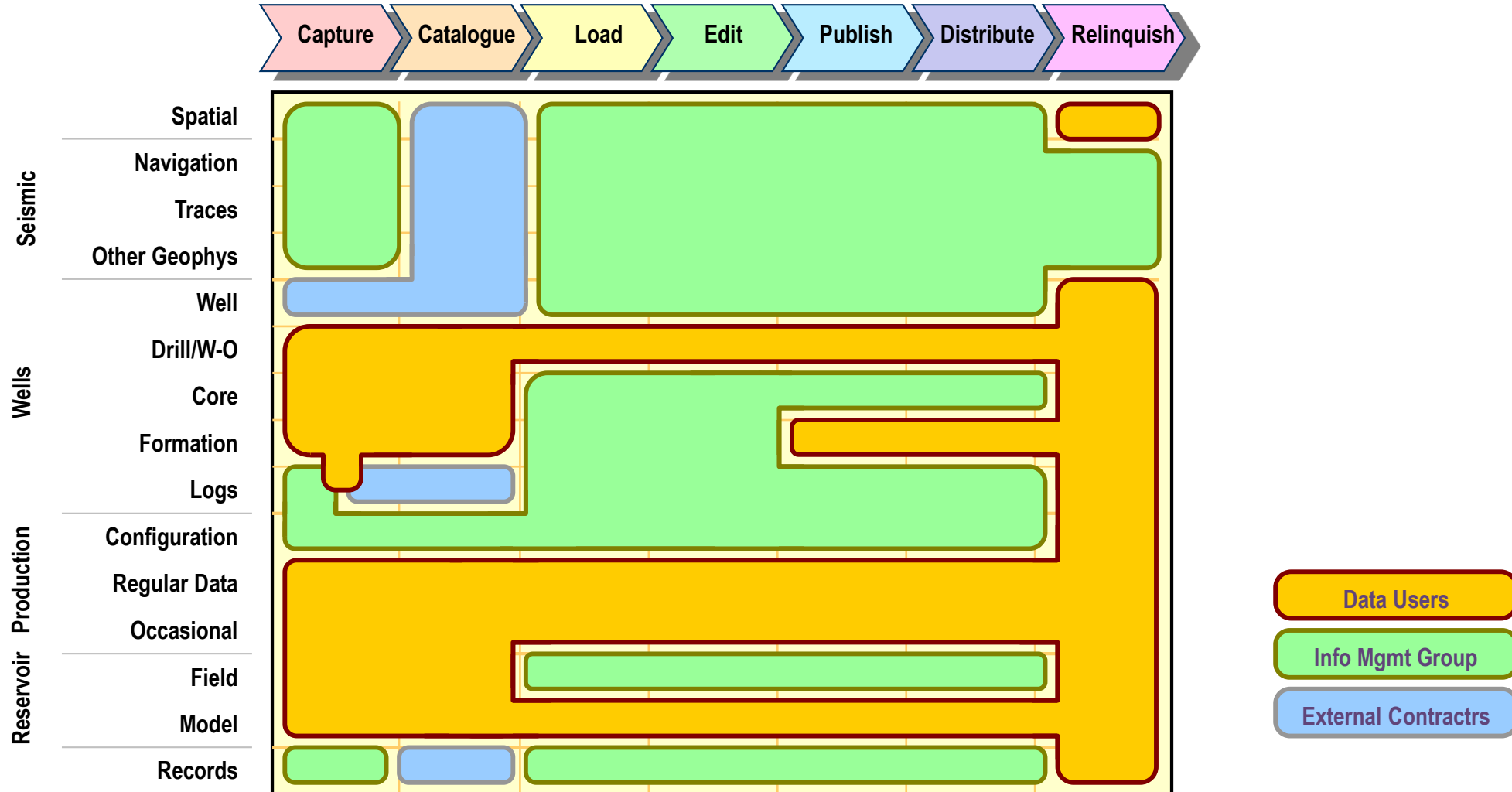
User's Impression of Information Management



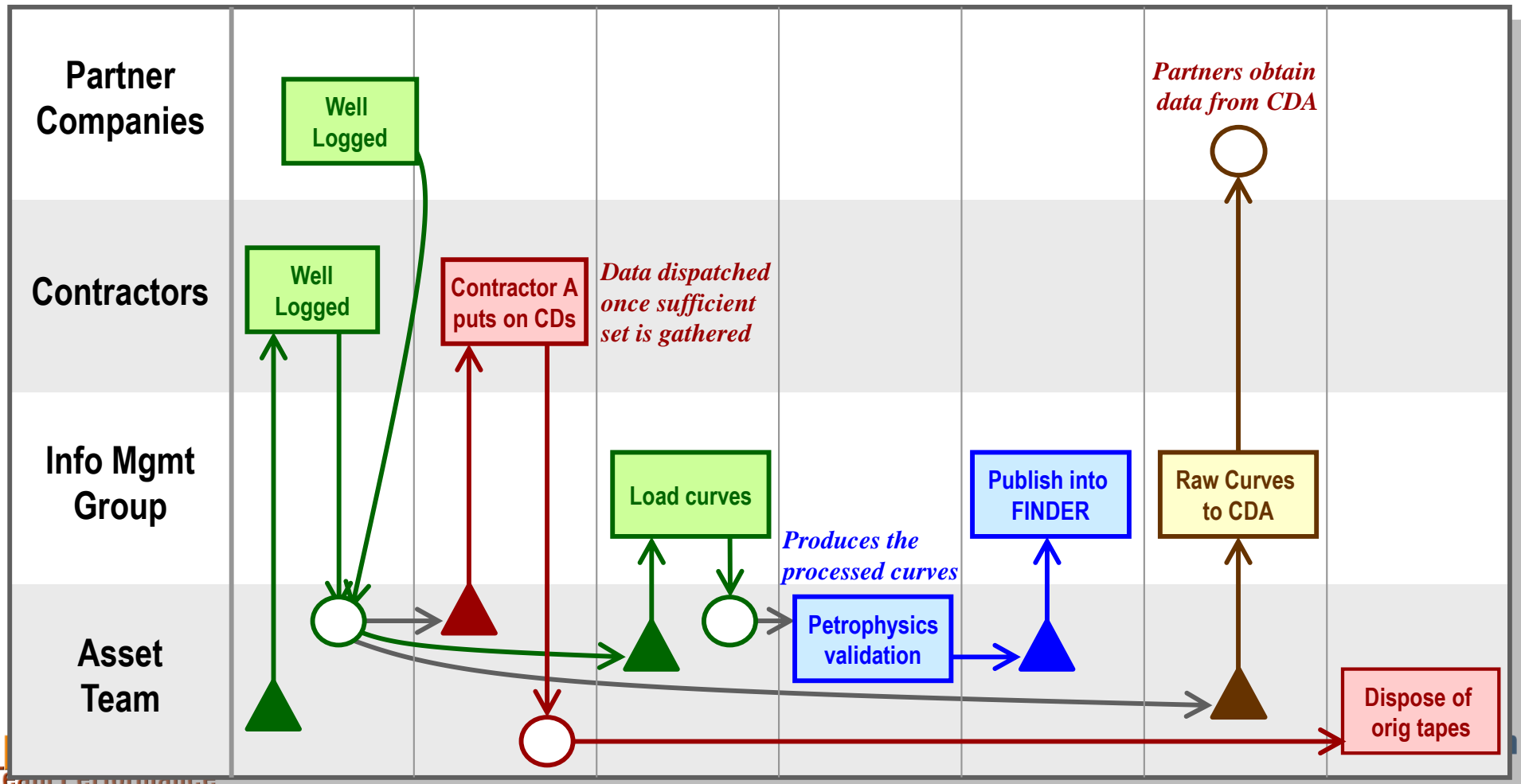
		Tools	Data	People	Processes
Seismic	Cultural/ Spatial	Is a Concern	Is a Concern	Above Average	Serious Issues
	Navigation	Is a Concern	Above Average	Works Well	Serious Issues
	Traces	Works Well	Above Average	Works Well	Is a Concern
	Other Geophys	Serious Issues	Is a Concern	Above Average	Serious Issues
Wells	Well	Works Well	Above Average	Works Well	Serious Issues
	Drill/W-O	Above Average	Above Average	Above Average	Works Well
	Core	Above Average	Above Average	Works Well	Above Average
	Formation	Works Well	Is a Concern	Works Well	Is a Concern
	Logs	Works Well	Is a Concern	Works Well	Is a Concern
Production	Configuration	Production Data not documented			
	Regular Data				
	Occasional				
Reservoir	Field	Works Well	Above Average	Works Well	Above Average
	Model	Works Well			Above Average
	Records	Is a Concern	Above Average	Works Well	Is a Concern



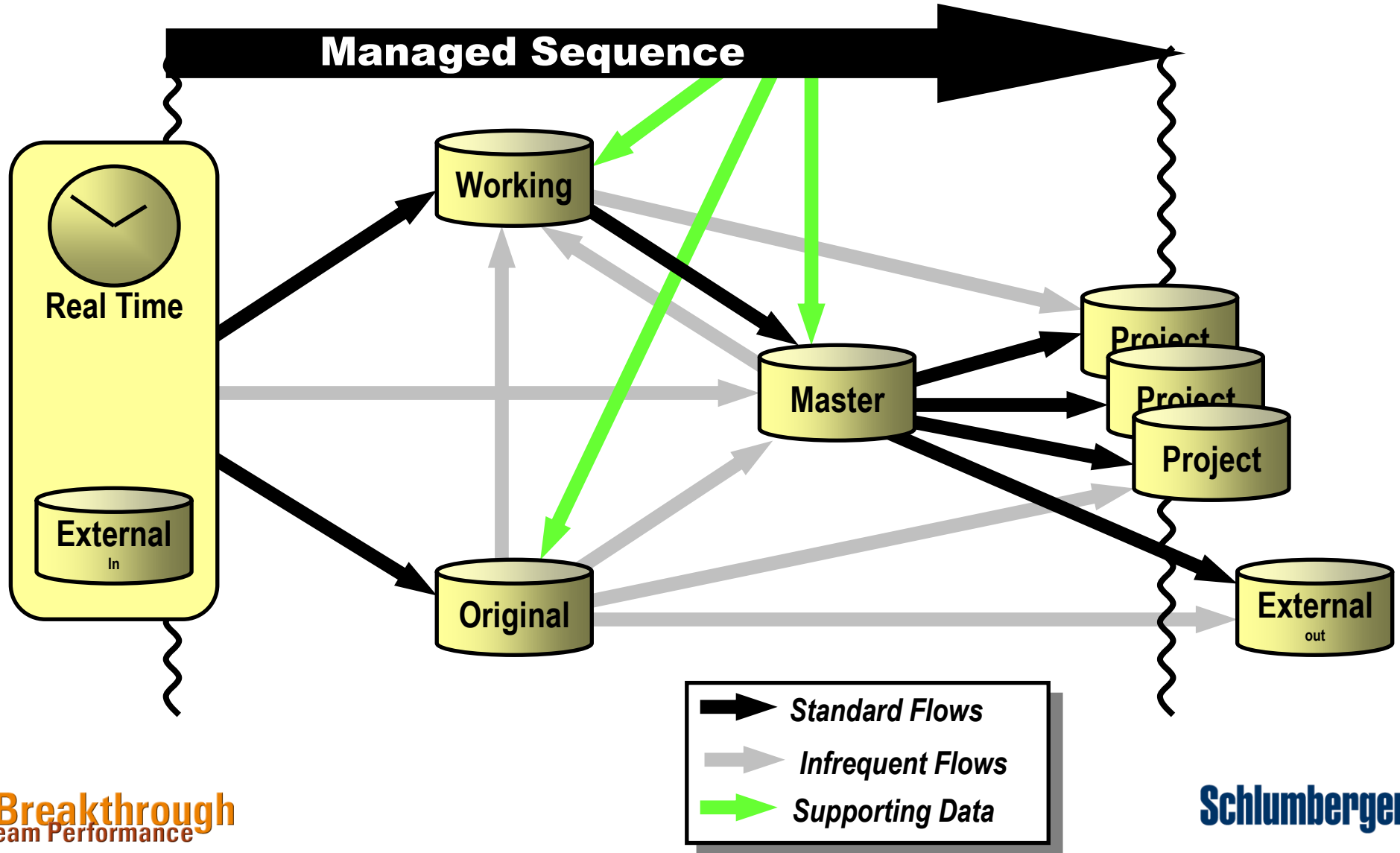
Who is responsible for IM activities?



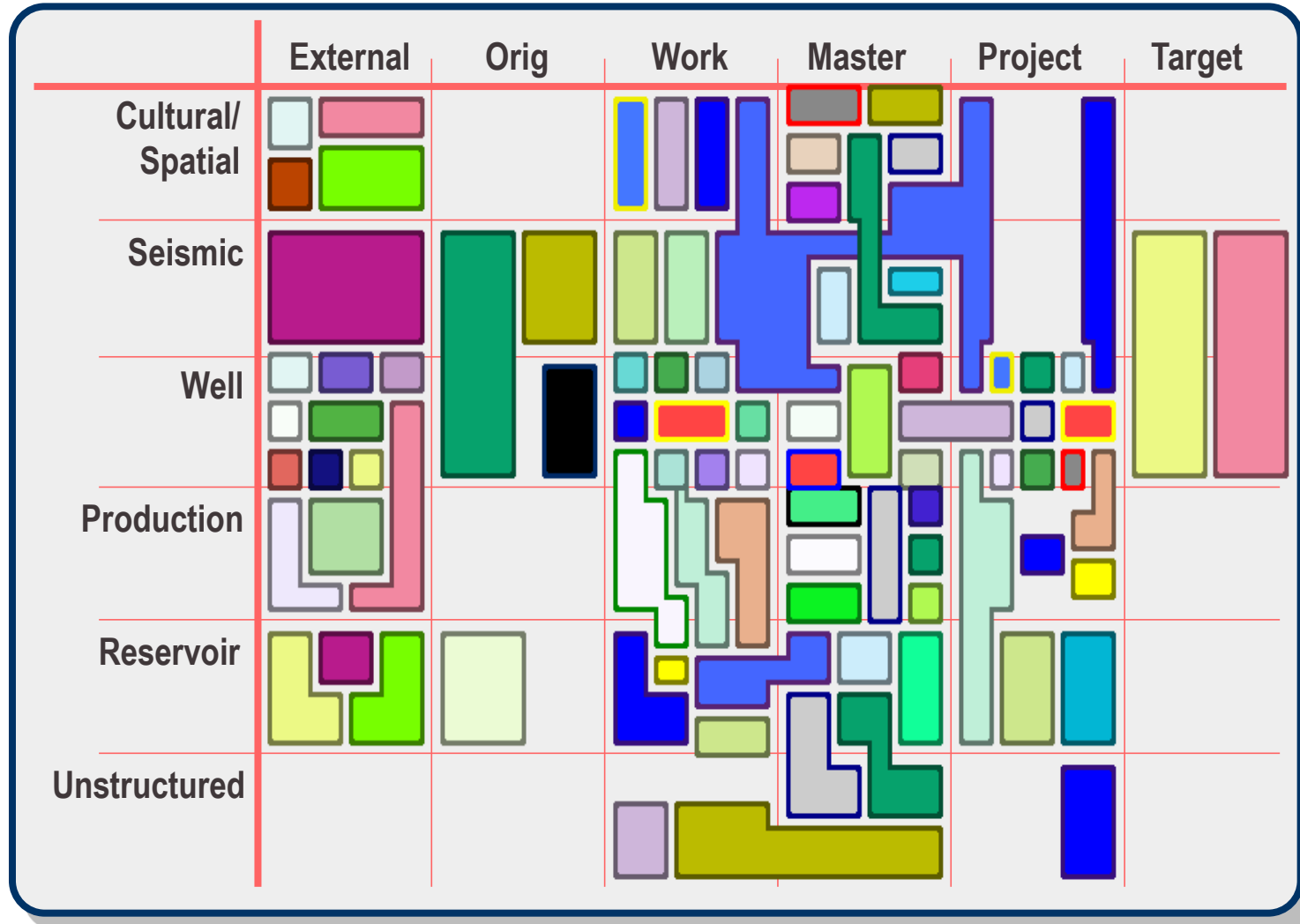
What activities?



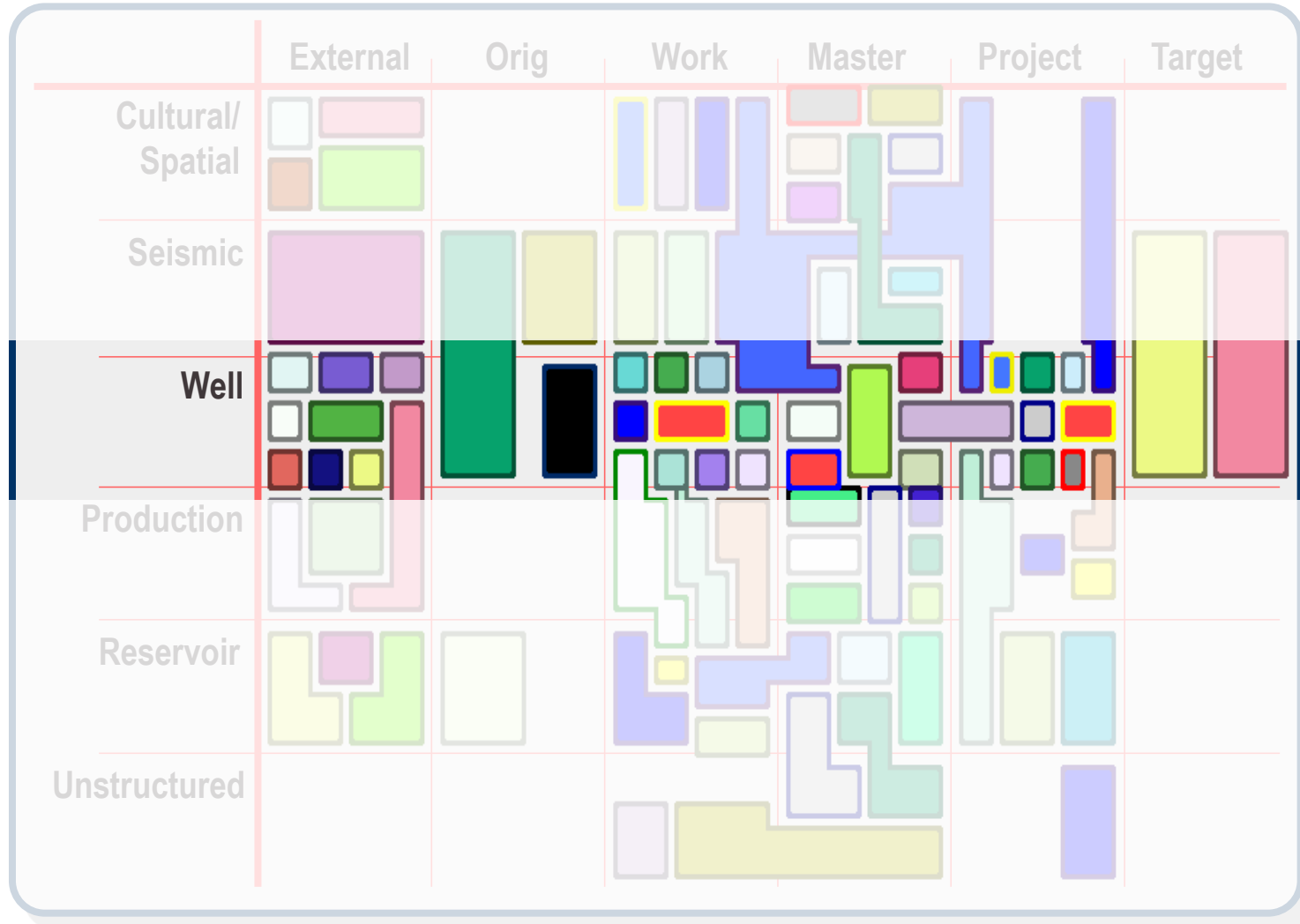
The roles that repositories play



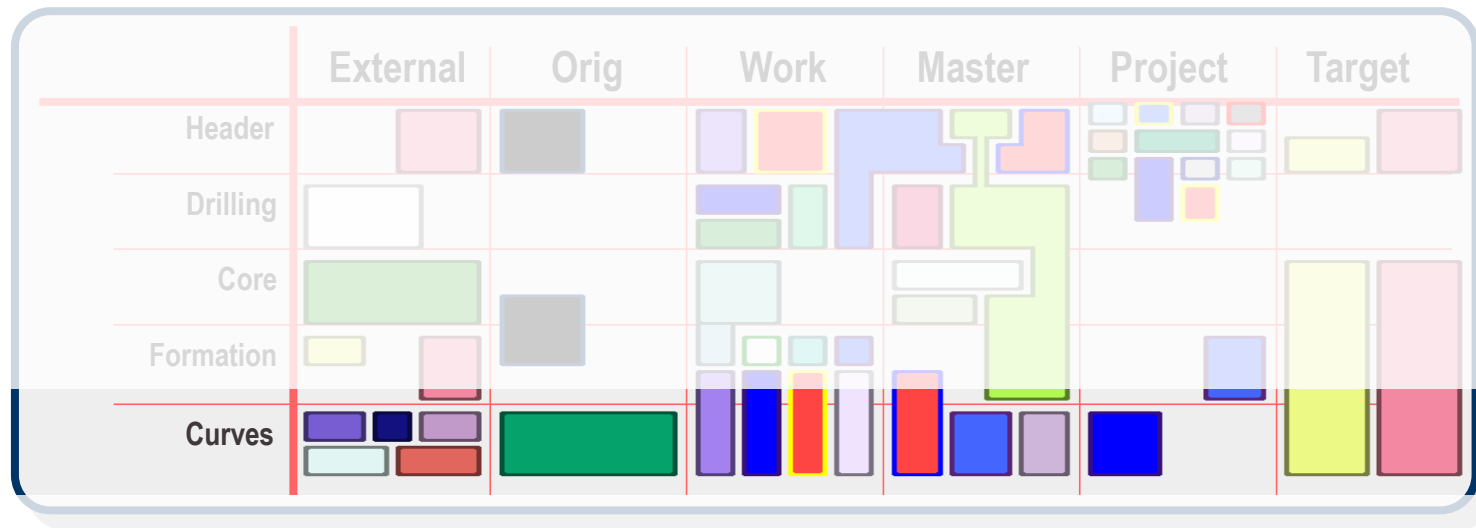
Repository roles



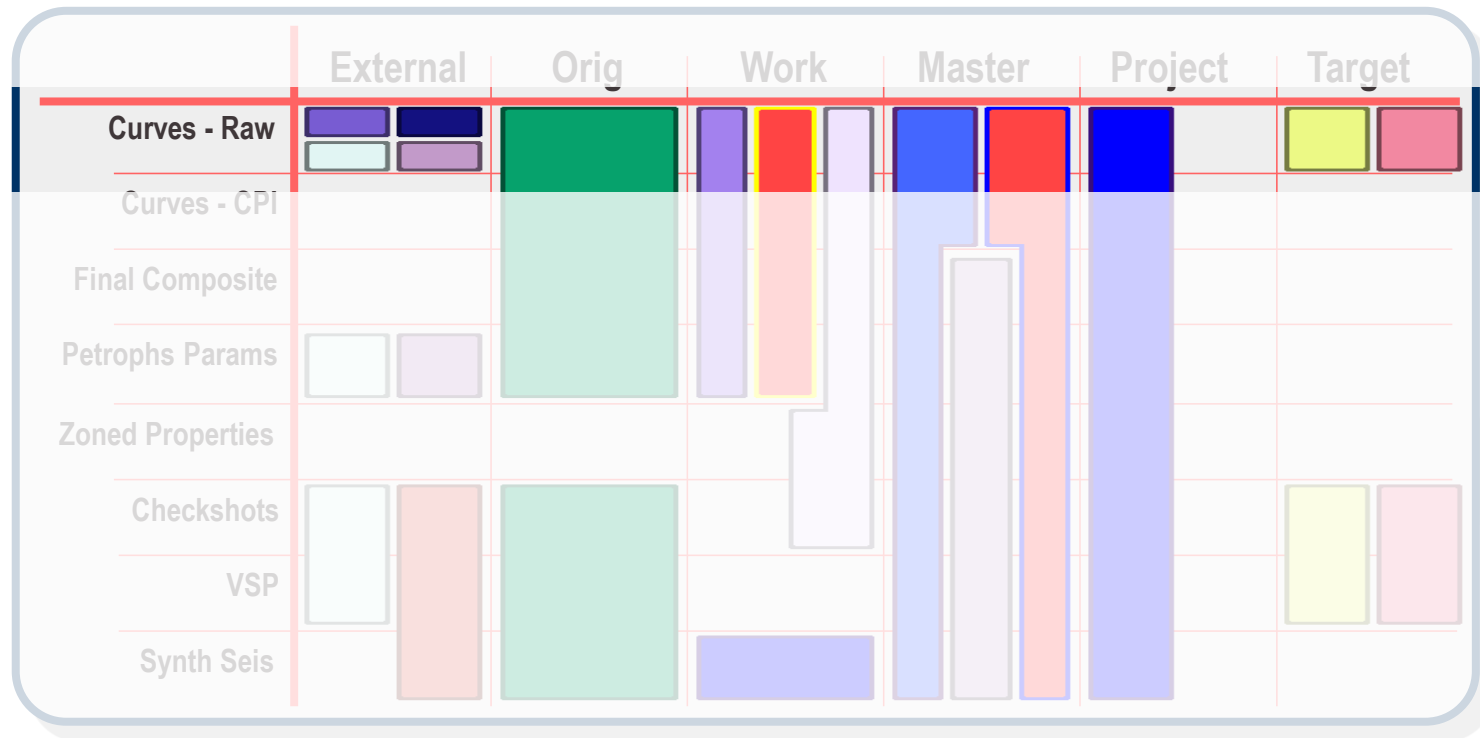
Repository roles



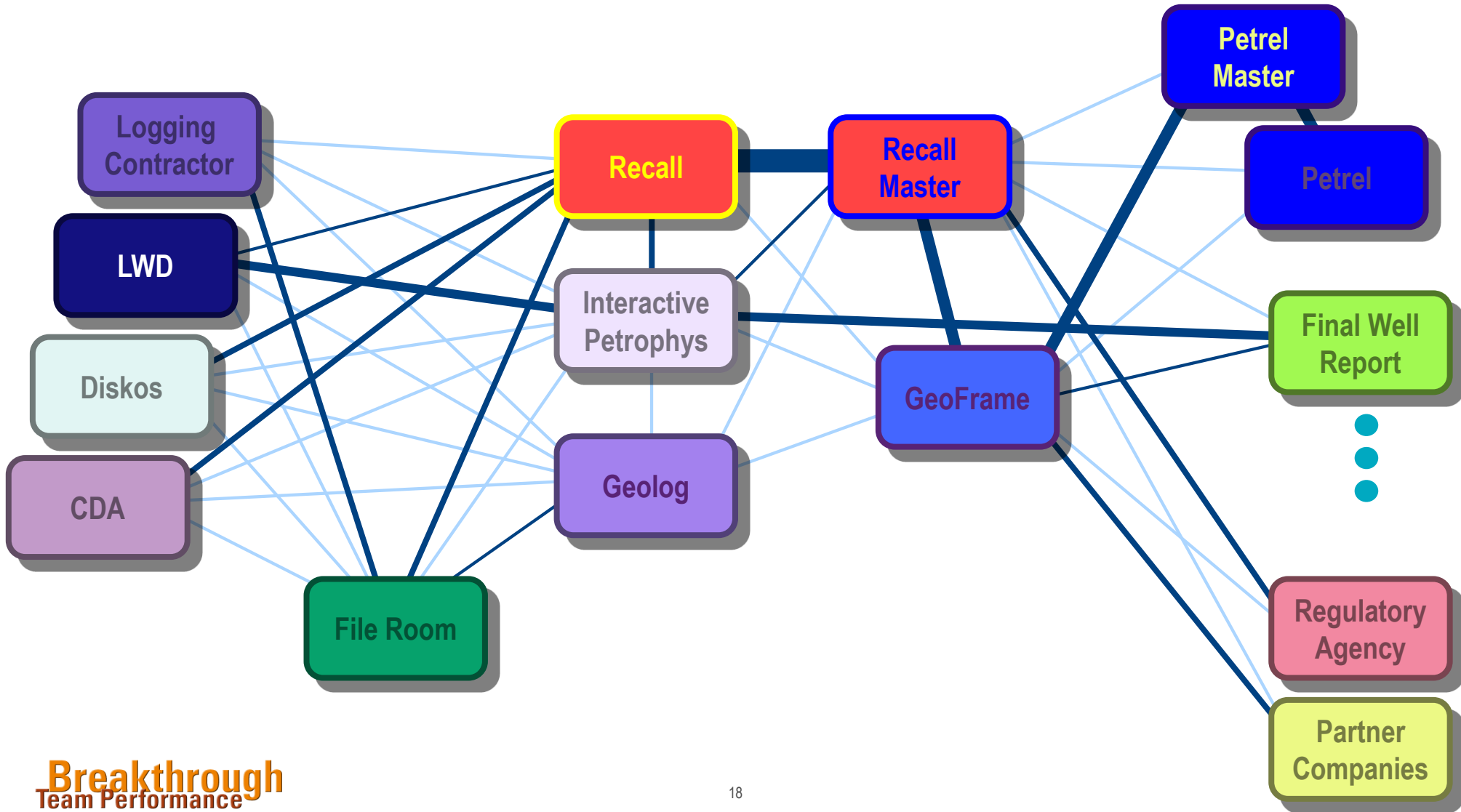
Repository roles - Well Data

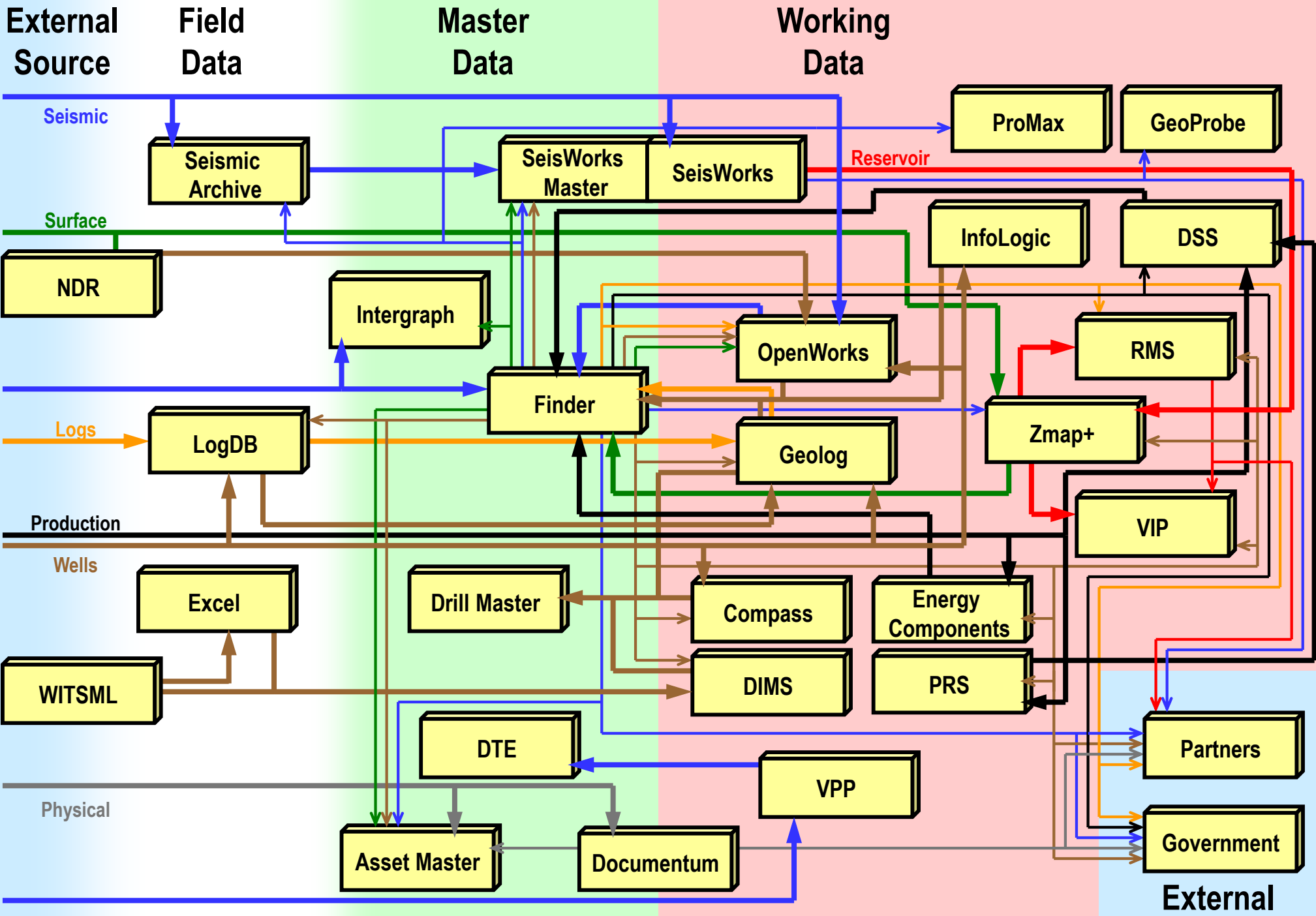


Repository roles - Curve Data

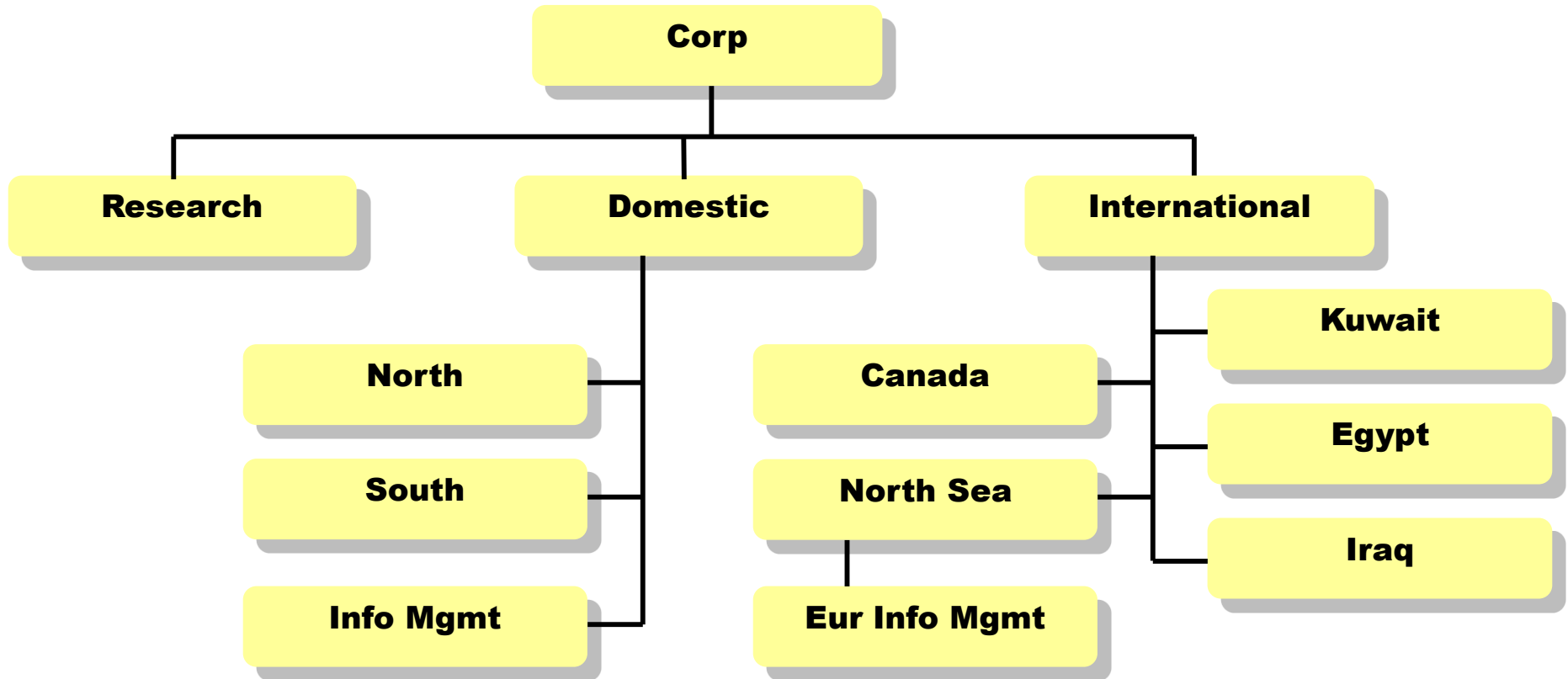


Data Flows for Log Curves

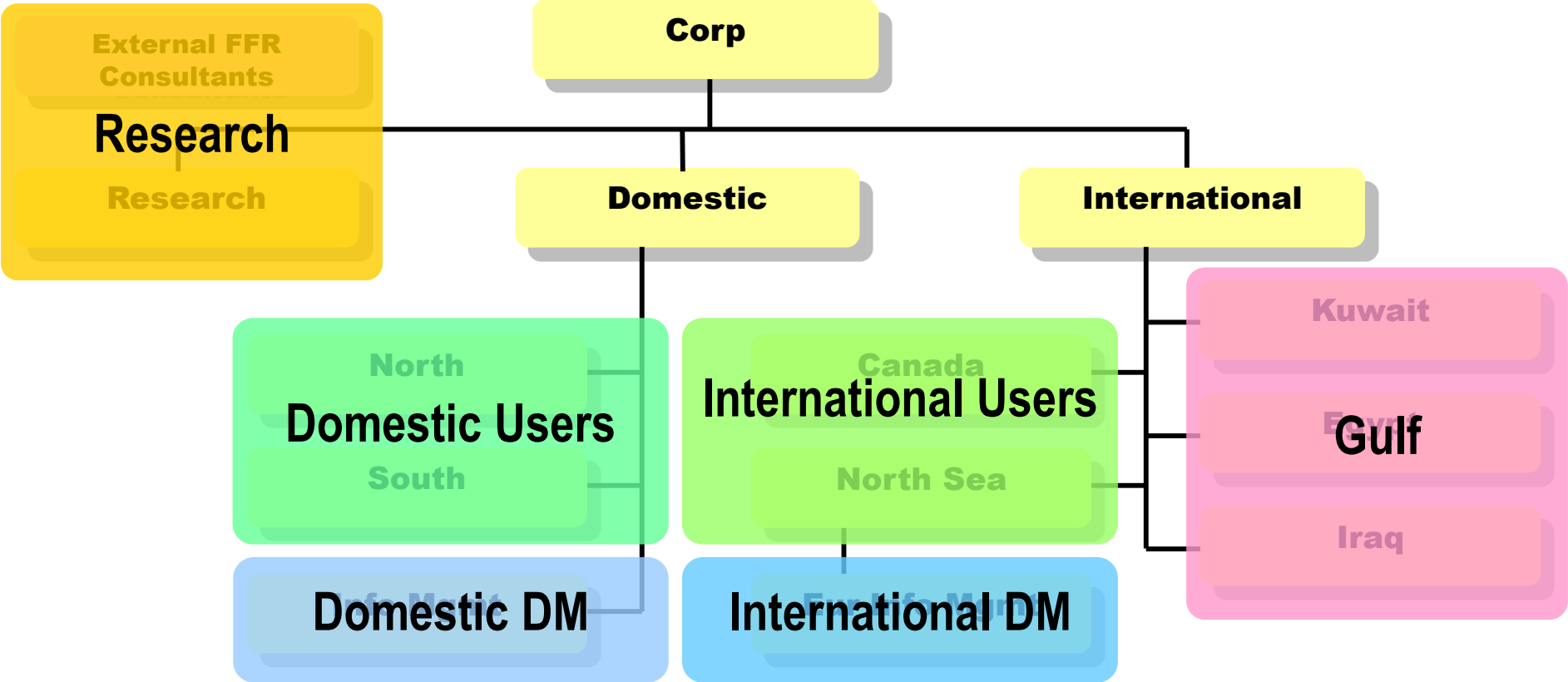




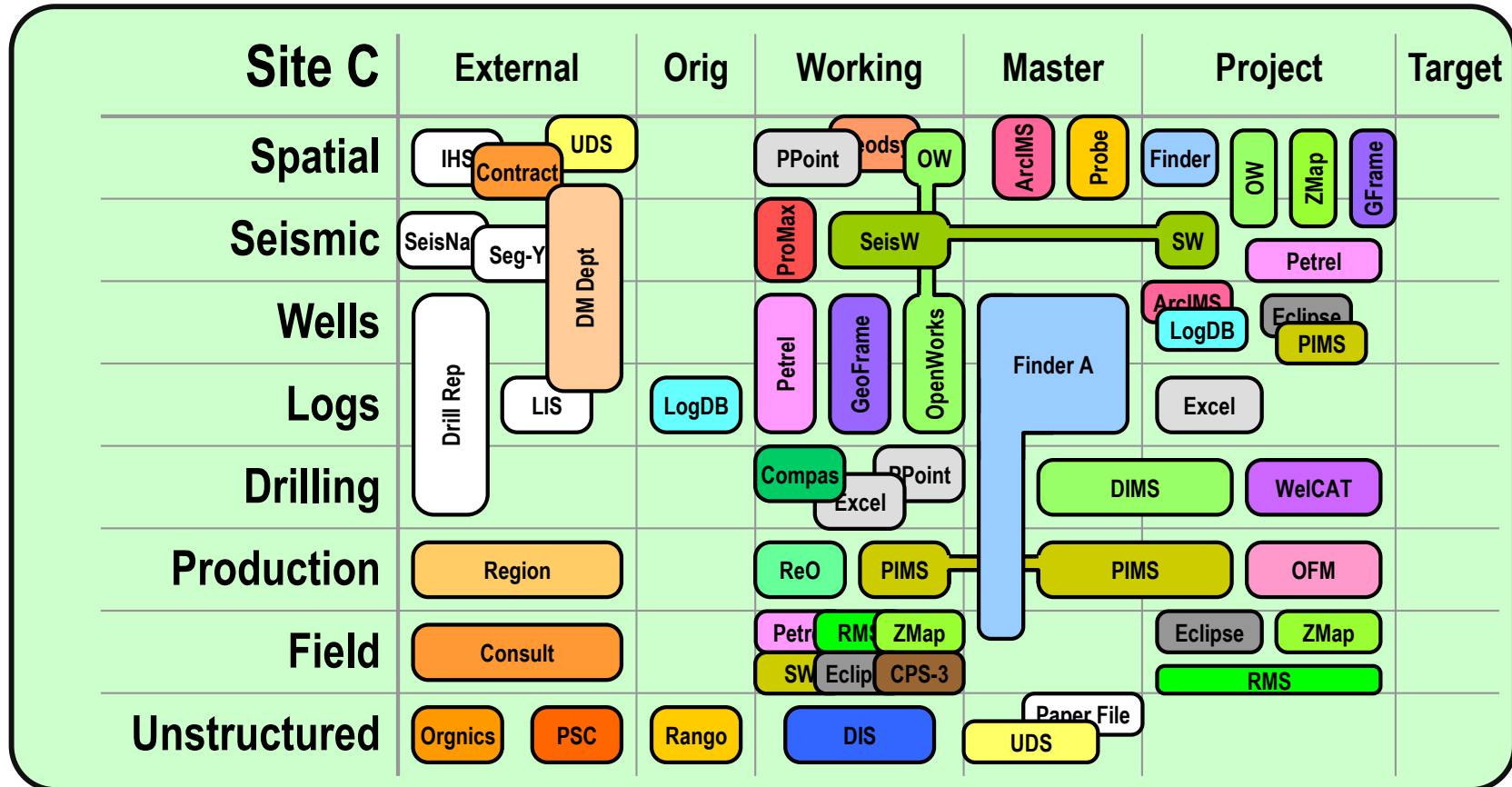
Corporate Structure



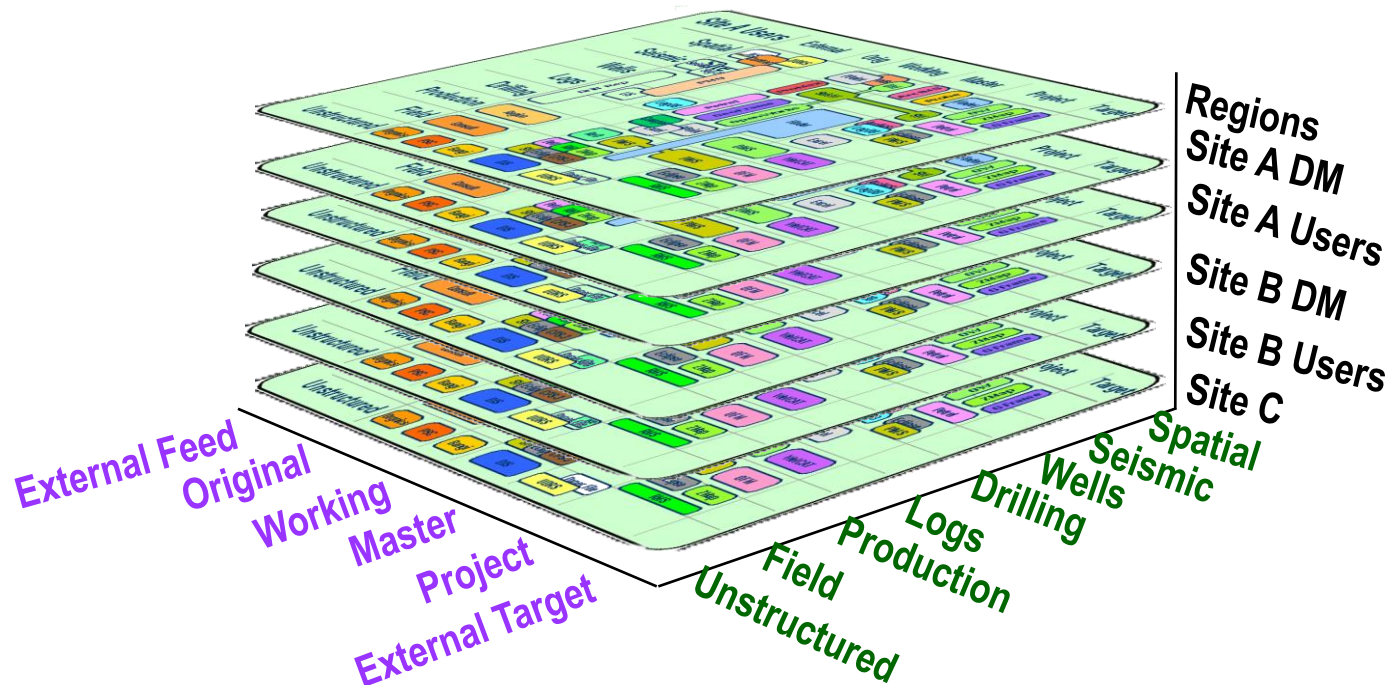
Differences between Information Landscapes



Information Landscape – Repositories Used



Real companies have multiple sites



Comparing Usage in different sites



Location 1	External	Original	Working	Master	Project	Target
Spatial						
Seismic						
Wells						
Production						
Reservoir						
Records						

Location 2	External	Original	Working	Master	Project	Target
Spatial						
Seismic						
Wells						
Production						
Reservoir						
Records						

Core Analysis Report

Field Office File Room

File Room

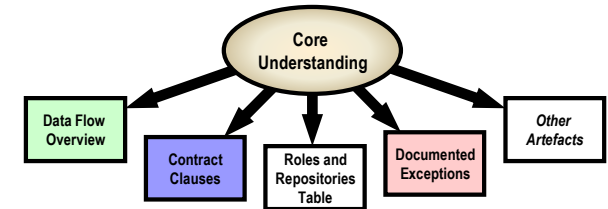
Paper Prints

Paper Production Reports

Well Information Sheet

Document the way information is managed:

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Discussion – Communicating with your users



- What are the keys to shared understanding of information flows in your organisation?
- Which categories of data are most and least important for your company?, Why?
- Do you have activity descriptions for the most crucial data categories? How do you represent activities?
- What roles do your key repositories play? For what data?
- How many “ways of working” do you have to enable? What are the main differences?
- How do **you** present IM to new users? To managers looking for a potential new project?