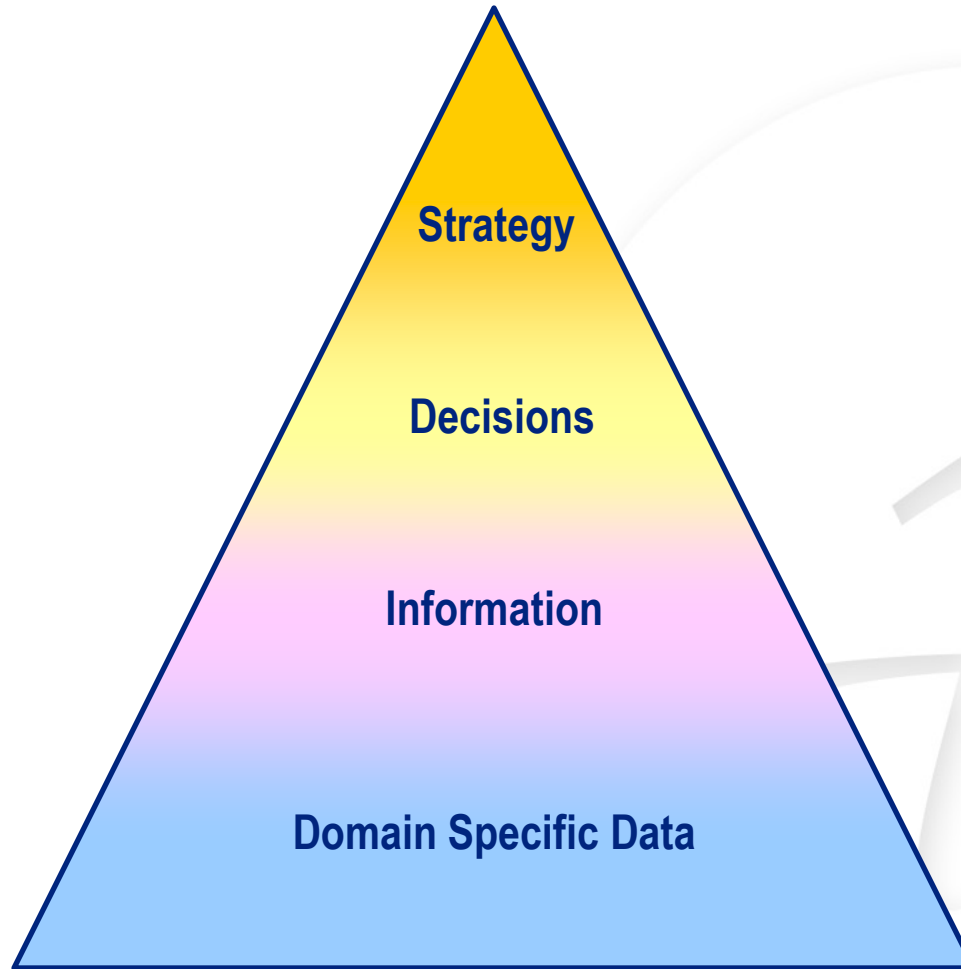




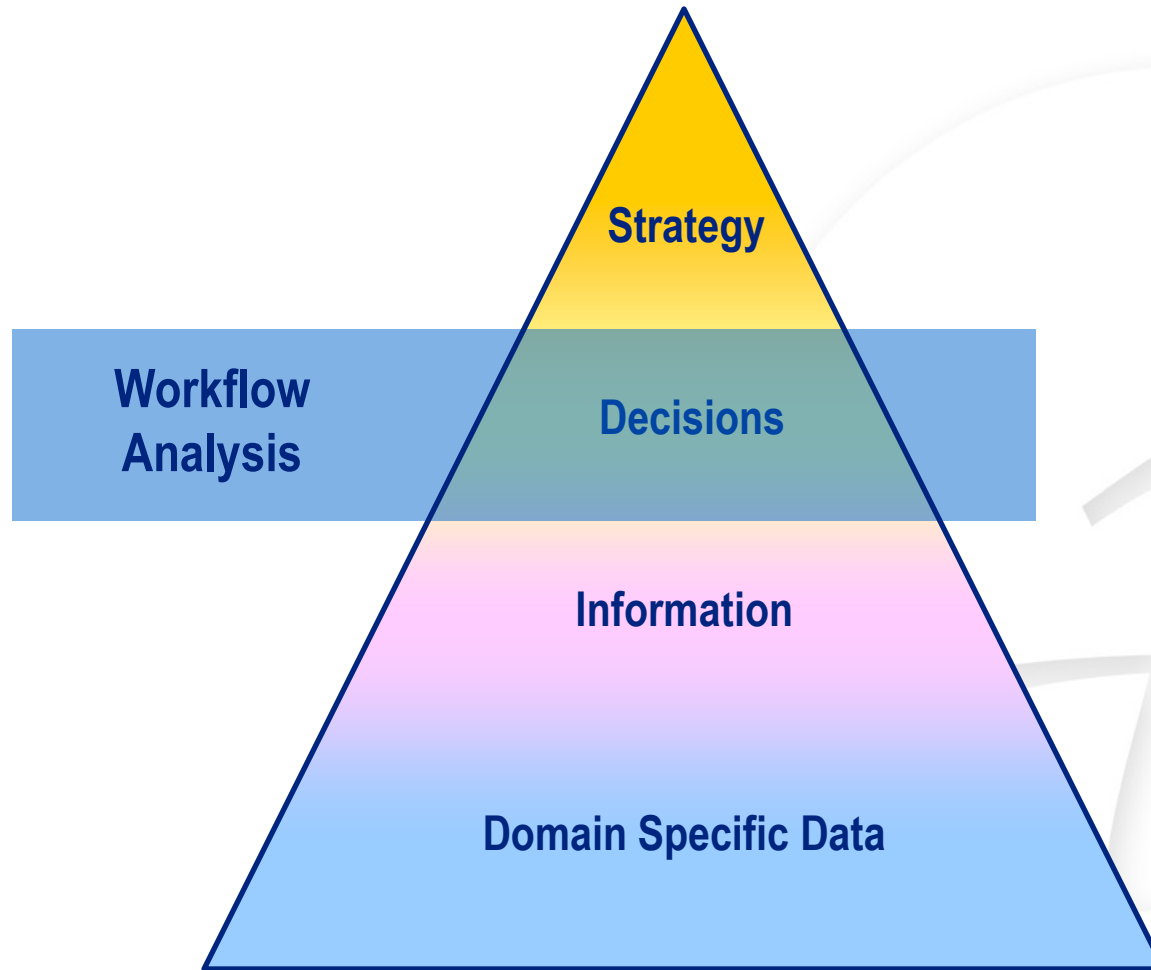
Data Integration for Disparate Repositories

Combining the benefits of workflow analysis and pragmatic integration

A Hierarchy of Business Processes



Workflow Analysis



Workflow Analysis Methodology

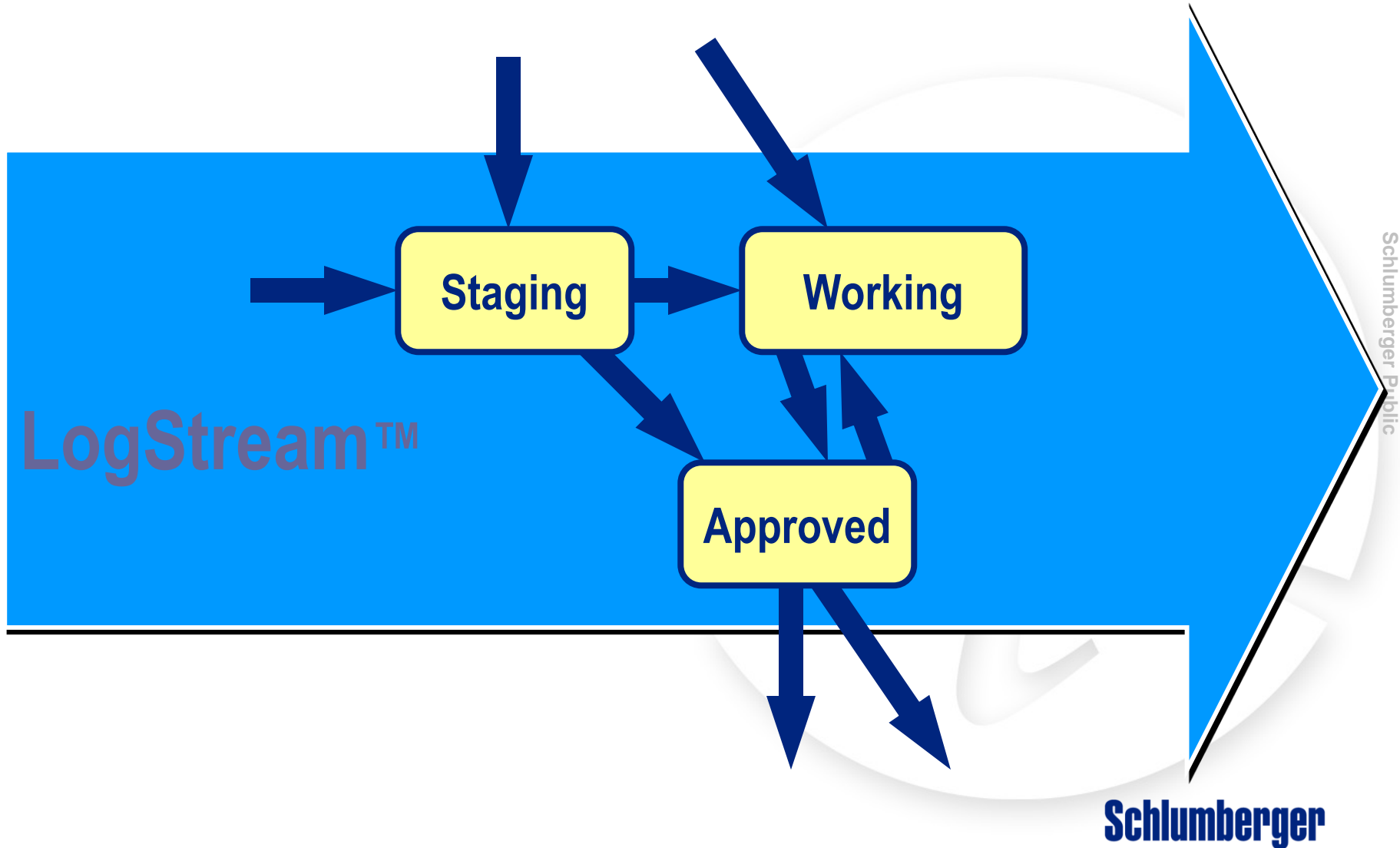
- Identify Current Work Processes
- Roles and Ownership
- Workflow within domain
- Workflow between domains
- Describe process vision
- Identify improvements
- Impact analysis
- Progress towards vision



Example Workflow Engagement

- **Customer defined the scope of the assessment**
- **Combined team: Customer and Schlumberger experts**
- **Two week site assessment:**
 - **Individual key interviews**
 - **Design and distribute questionnaires**
 - **Analyze results**
 - **Report on issues**
 - **Describe opportunities**

Example Stream and Roles



Analyzing Questionnaire Results

- Management
- IT Support
- Geological Users
- Production Dept
- ...

	Markers			Production			Curves			...
	Staging	Working	Approved	Staging	Working	Approved	Staging	Working	Approved	
Data Files	Management, IT Support			Management, IT Support			Management, IT Support, Production Dept			
Excel				Production Dept	Management, IT Support	Production Dept				
Finder			Production Dept, IT Support	Geological Users		Management, IT Support			Production Dept, IT Support	
GeoFrame								Management, IT Support		
OpenWorks		Management, IT Support								
PPDM										
...										

General Agreement

Major Issues

Issues Identified in Engagement

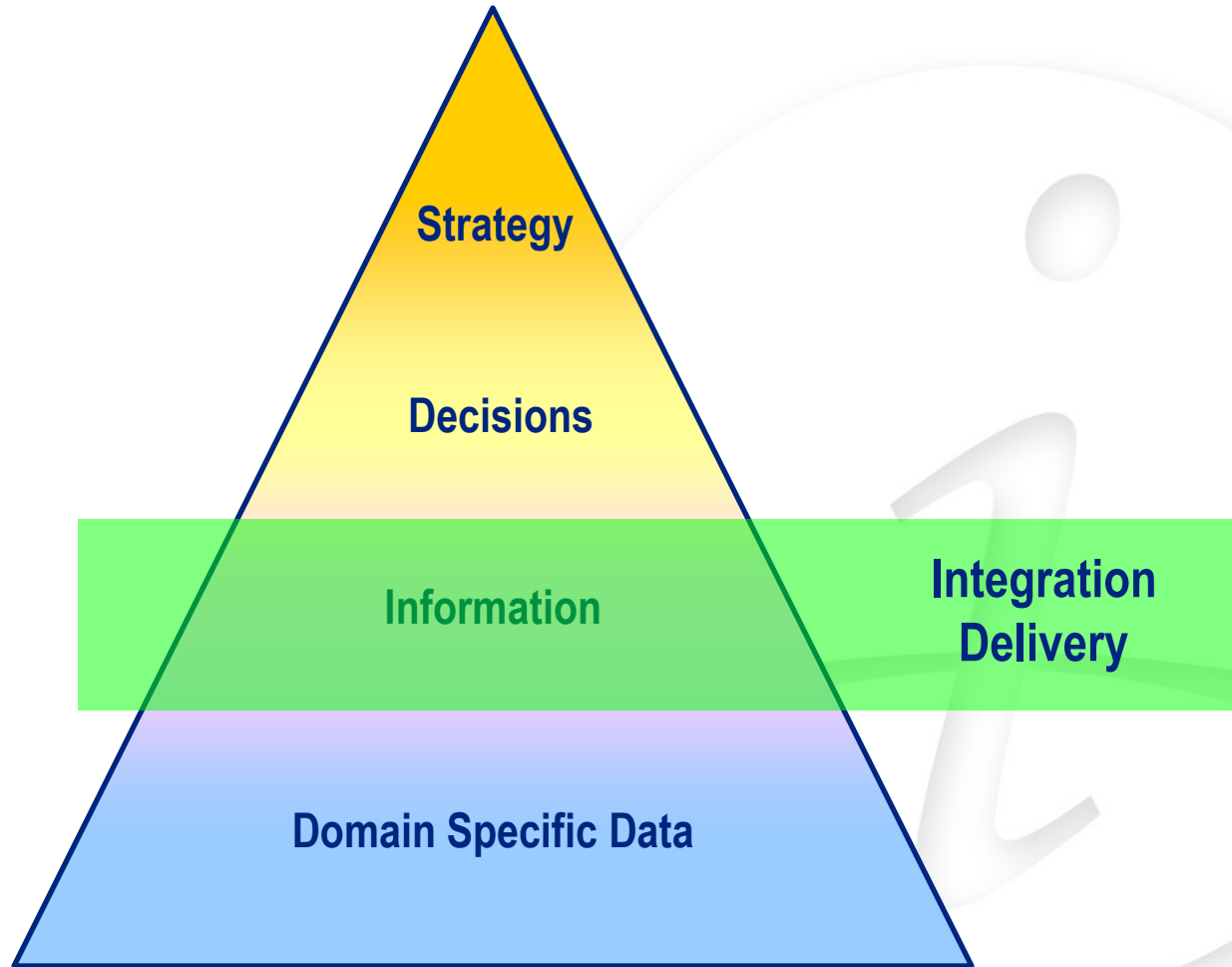
- **Data ownership and roles are unclear:**
 - **Who consumes**
 - **Who produces**
 - **Who guarantees quality**
- **Data flows undermines consistent data use**
- **Lack of confidence in other department's data**
- **Retrieving previous results is difficult**

...all opportunities to improve

Benefits of Workflow Analysis

- **Document**
 - Interfaces between disciplines, regional groups, goals, etc
 - Unwritten conventions
 - Unexpected consequences
- Identifies the main issues
- Plan for how the process should work...
 - ...today, tomorrow and in the long term

Integration Delivery



Engagement Methodology

- Document engagement scope
- Select integration strategy
- Select technologies
- Define maintenance plan
- Illustrate cost/ benefit
- Implement
- Measure
- Review



Integration Strategies

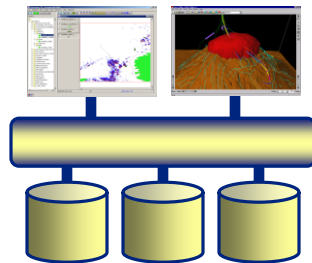


Value to User

Value to Corporation



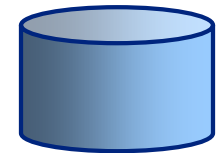
Visual Aggregation



Abstraction



Transfer



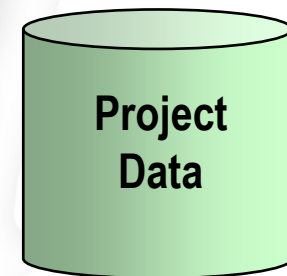
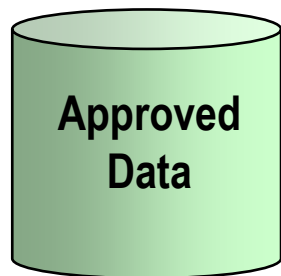
Consolidation

Schlumberger Public

Schlumberger

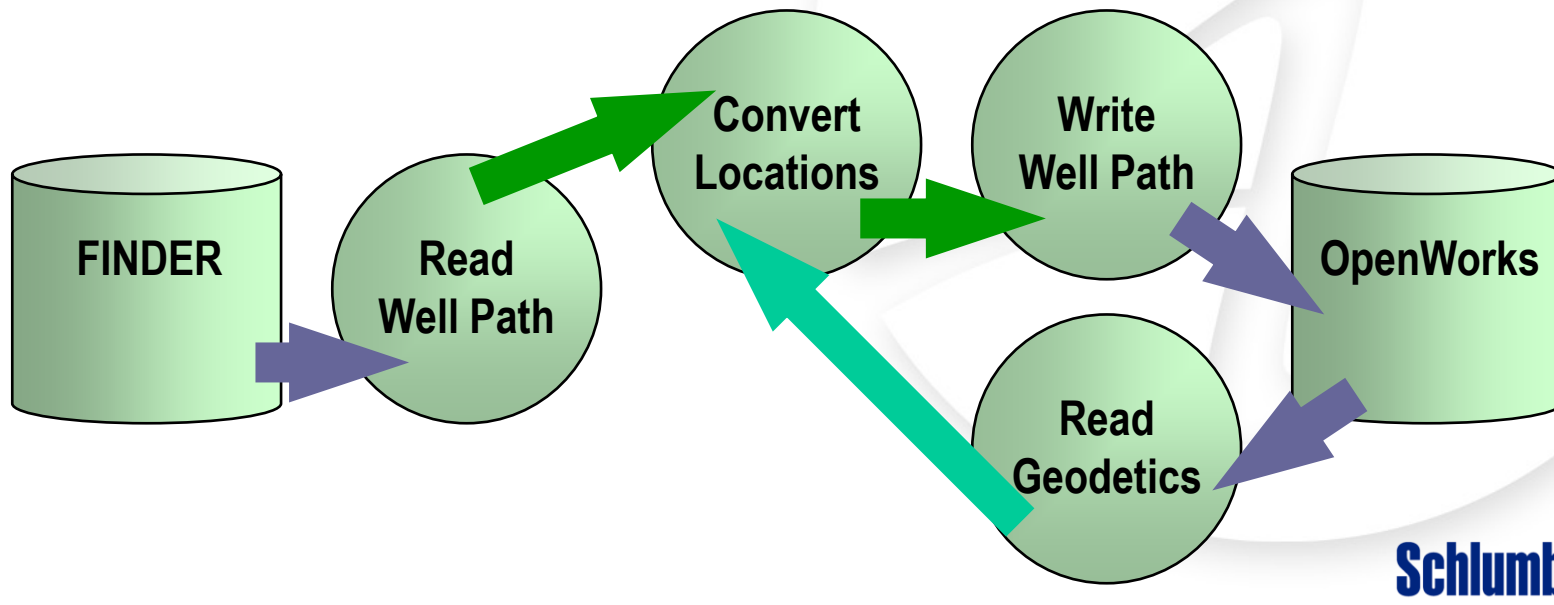
Example Solution Implementation

- Finder as approved data, OpenWorks for working data
- Select “Transfer” integration strategy
 - Many minor issues that must all be addressed
(e.g. well path information...)



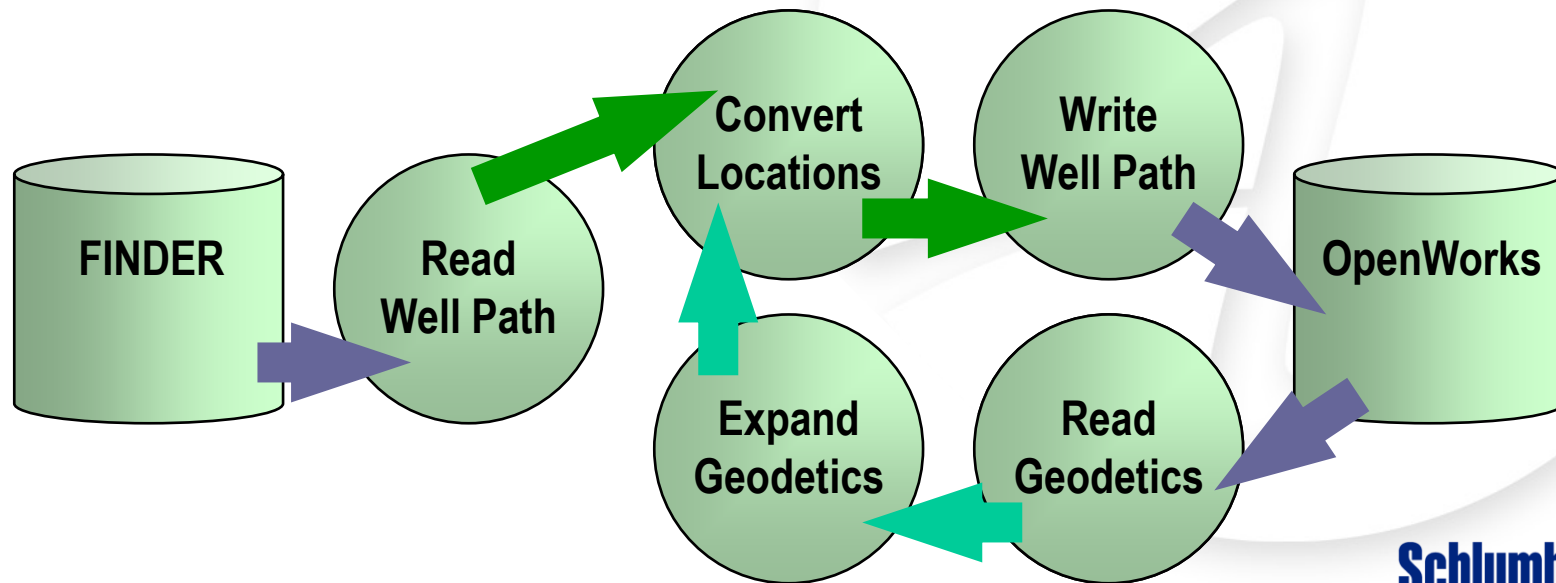
Example Solution Implementation

- Combining the standard mechanism for transferring data...



Example Solution Implementation

- Combining the standard mechanism for transferring data...
 ...with some local adjustment...
 ...leads to a complete solution for the end users



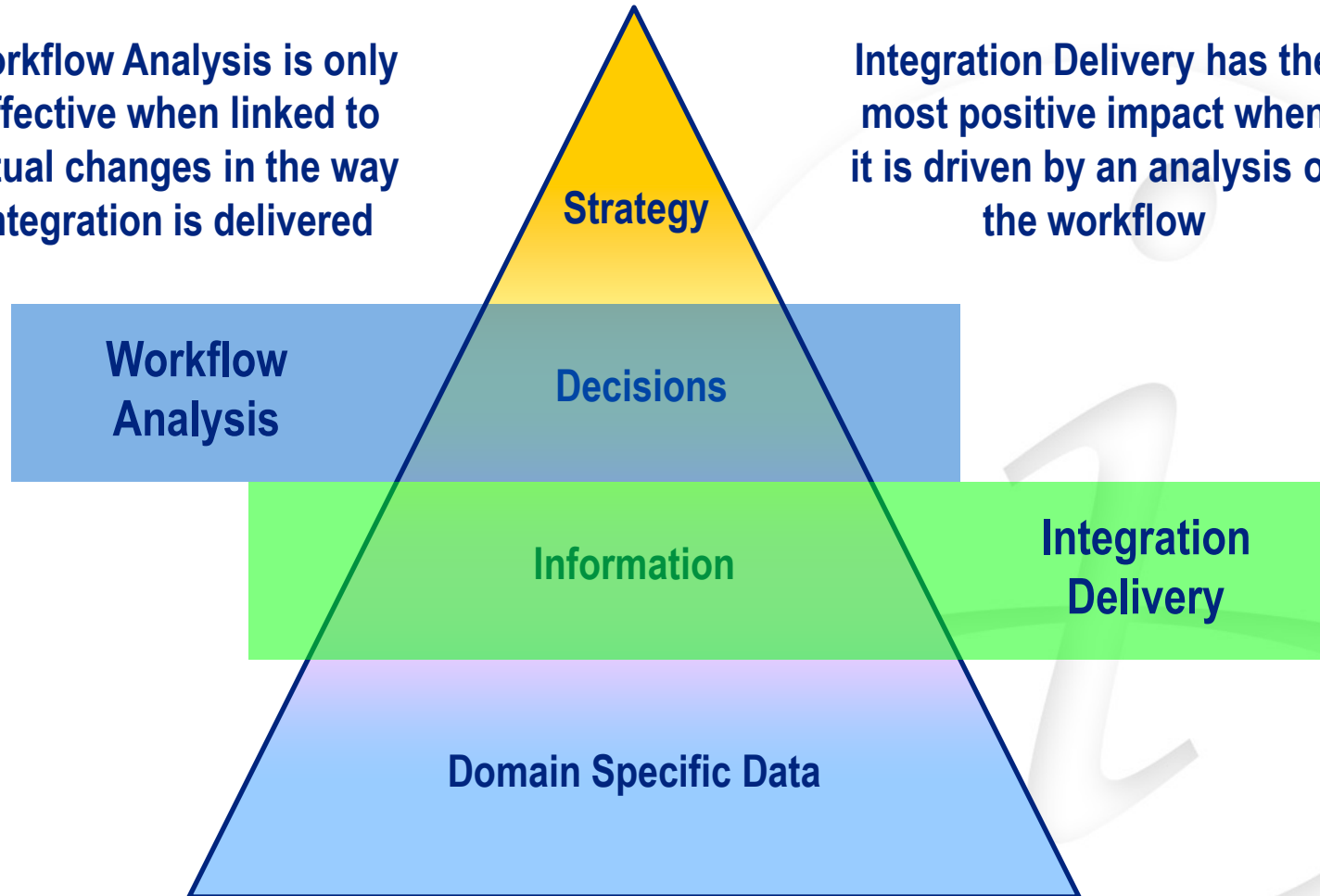
Benefits of Integration Delivery

- **Focus on real issues**
 - Pragmatic approach
 - Quick wins (i.e. Rapid return on investment)
 - Proven benefits
 - Create Solutions
- Simple cost benefits analysis
- Add value
- Extend the value of current assets

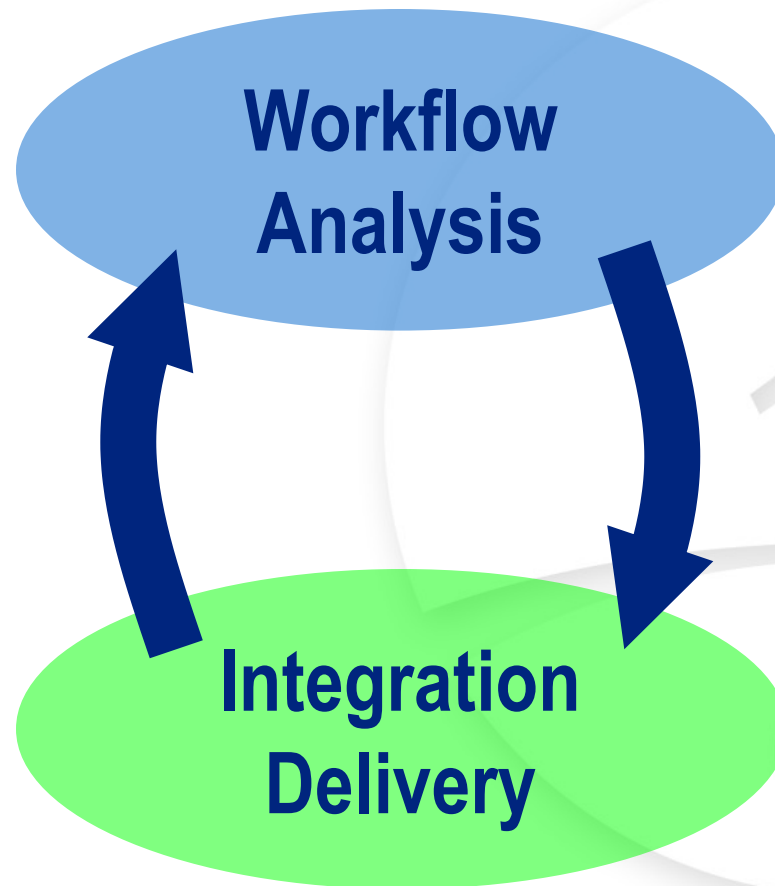
Cross Fertilization

Workflow Analysis is only effective when linked to actual changes in the way integration is delivered

Integration Delivery has the most positive impact when it is driven by an analysis of the workflow

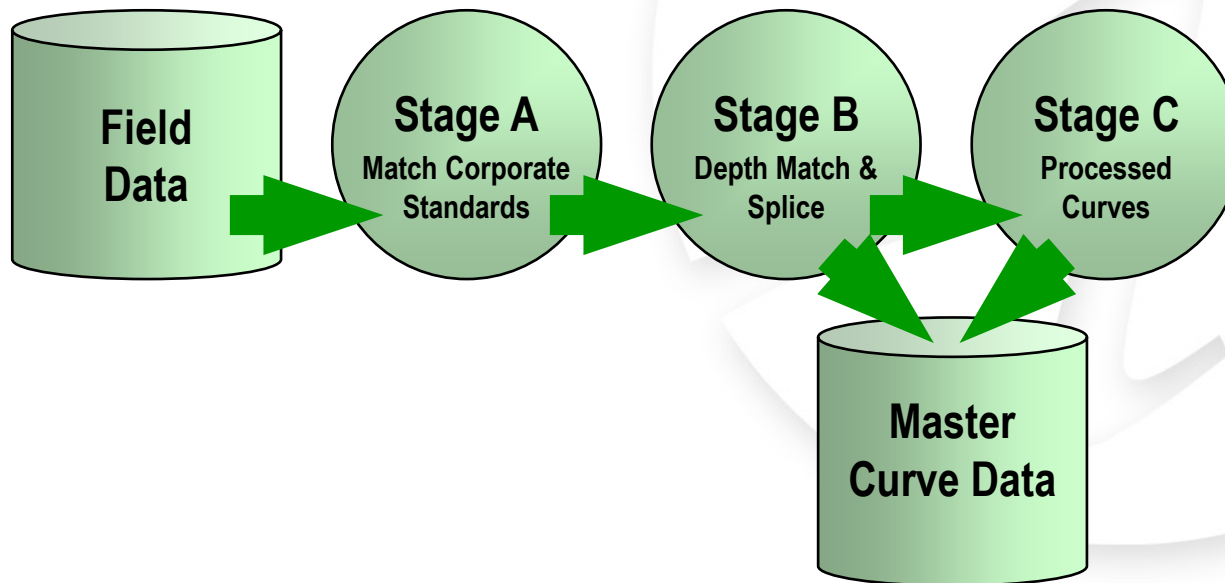


A Combined Approach

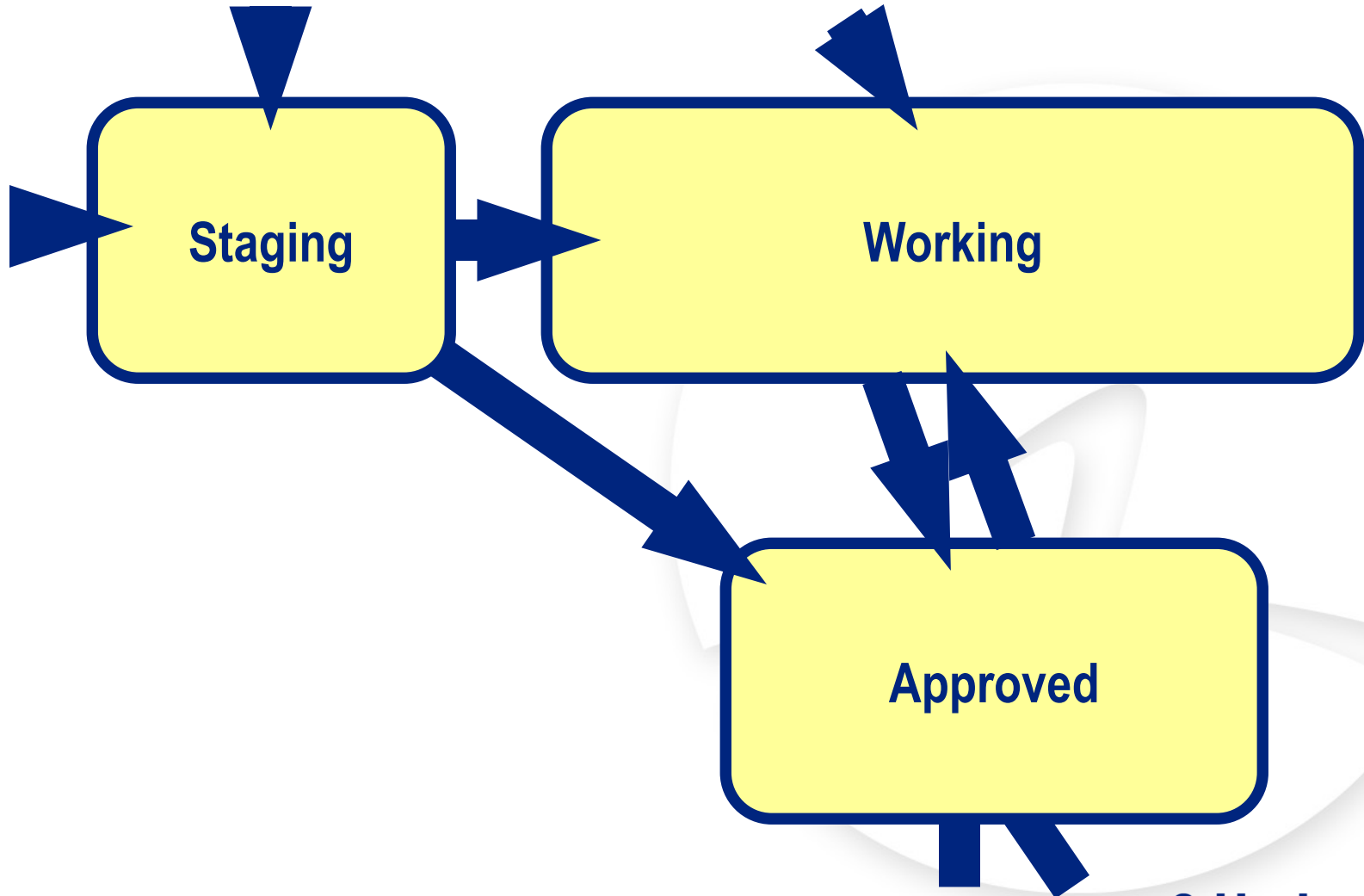


Combined Example

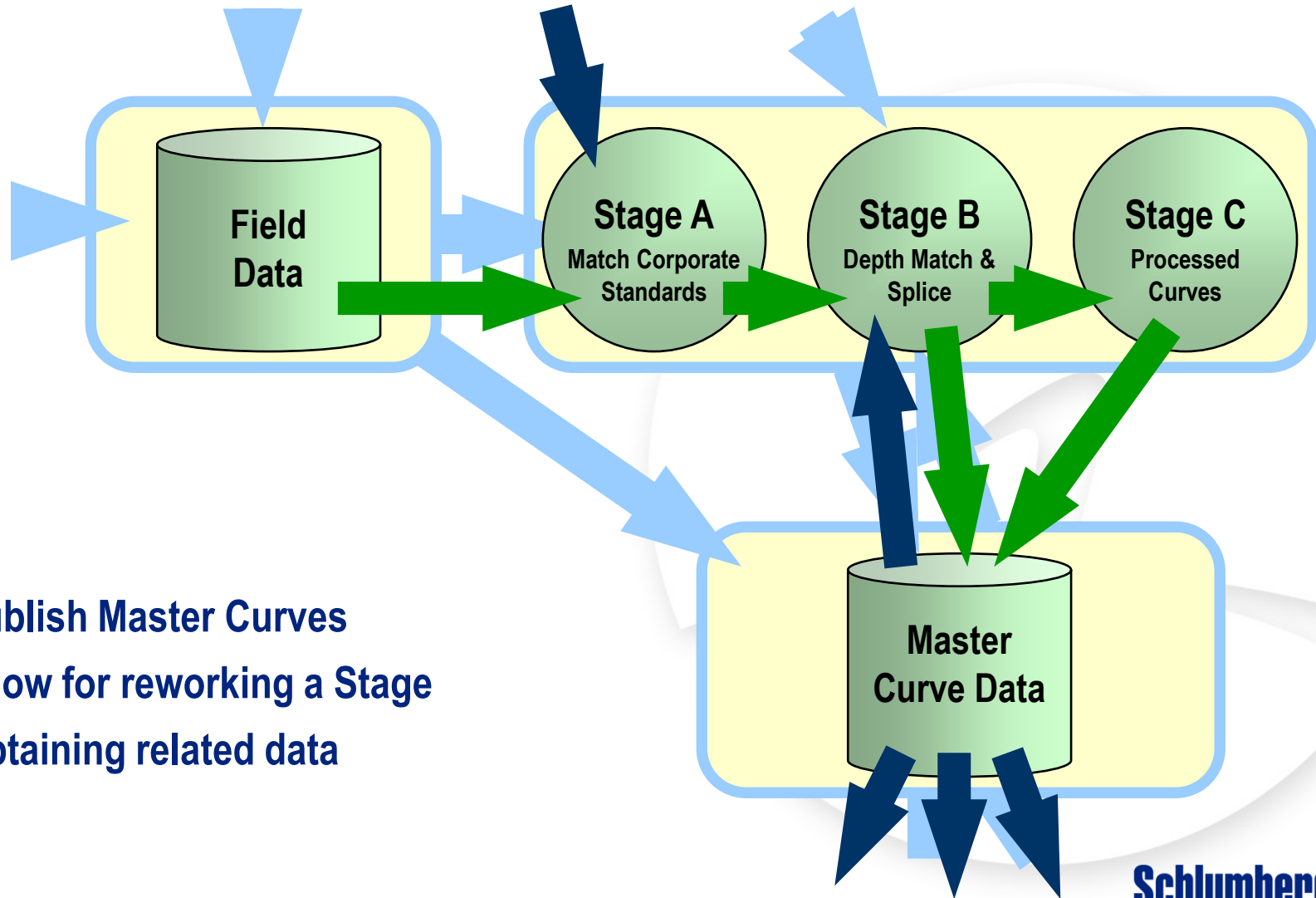
- Customer wanted to enable Well Curve data flows
- Different stages of the log processing
- Initial requirement focused on how to deliver



This Customer's Data Roles



Combined View



- Publish Master Curves
- Allow for reworking a Stage
- Obtaining related data

Benefits of the combined approach

- Quickly identified overlooked elements
- Making the delivery wider actually simplified the implementation:
 - More generic
- Focused on business workflow during implementation
 - How the software was to be used
- Grounded the business discussion in achievable wins

Conclusion

- **Pragmatic solutions to key issues combined with an understanding of the larger business workflow gives solutions that are:**
 - **Cheaper**
 - **Quicker**
 - **Better**
- **Optimize your existing assets**