Get Smarter, build an Analytics Laboratory

Turn Big Data into actionable information.

December 2012
Overview

1. Introducing Tessella
2. Digital Oil Field – expectations
3. What has happened since 2003
4. Decisions first, Data last
5. Reducing data volumes – bayesian inference
6. Conclusion
Tessella

• Understanding the science and engineering

• Strategic consulting and business analysis in domain specific context

• Delivering the technical computing solutions

200+ consultants in UK, NL and US
“There is still a large gap between promise and delivery with digital technology in the oil and gas industry.

Where is digital technology failing to make its users delighted - and how can this gap be closed?”
What we thought: London November 2003

Potential Strategic Progression

<table>
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<th>Low</th>
<th>High</th>
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| Low | Operational
   - Incorporate into standard field and facility designs
   - Reconfigure operations processes
|   | Senior Management
   - Align portfolio
   - Market to entitlement holders
   - Adjust organizational structure
   - Fill expertise gaps

Degree of Risk

Operational
- Isolated implementations
- Proof-of-concept stage

Technology Development
- Acquire off-the-shelf
- Minimal funding (internal or 3rd party)

Senior Management
- Establish exploratory group
- Minimal, tacit support

Operational
- Identify appropriate fields
- Develop best practices
- Implementation partnerships
- Execute!

Technology Development
- Establish partnerships (universities, service firms, etc.)
- Develop internally

Senior Management
- Allocate resources
- Communicate support

Source: Cambridge Energy Research Associates (CERA - DOFF)
What is expected to be taking place?

Plan
Optimise
Operate
Check Results
Analyse
Decisions First and Data Last - Analytics Laboratory.

Start from here and work from left to right
REDUCING DATA VOLUMES – BAYESIAN INFERENC
Conclusion

To close the gap between promise and delivery with digital technology in the oil and gas industry, a shift in focus to Decisions First and Data Last is essential.

Tessella are masters in analysing and interpreting large quantities of data around complex issues, and can help business to translate the prioritise in business issues into analytical solutions and organisational change.
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