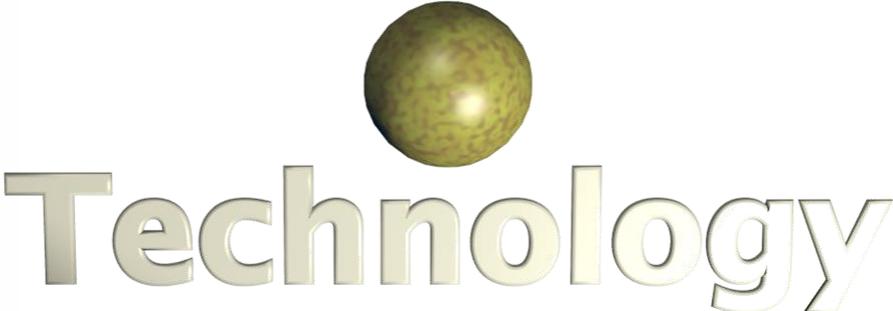


The value of data & data management – How the CDA report helps pick technology

Steve Hawtin

The world of technology



Technology is an enabler for the handling of data



...but technology alone doesn't solve anything

- Must match the existing business needs
- Must enable the flow of data and information
- Must match the user's level of expertise

- Challenges for the technology purchaser
 - Selecting the correct solution
 - Understanding the impact the new tools will have
 - Demonstrating a compelling case for investment

Learning from others

■ The Business Case

“The business value case for data management” CDA (2011)

- *“Quantitative value of data & data management” Paul Haines & Mark Weisman – PNEC15 (2011)*
- *“The Main Sequence: Matching Data Management Change to the Organization” Jess Kozman – PNEC12 (2008)*

■ Implementation Examples

- *The DAMA, ITIL, PMI & PRINCE2 standards*
- *“Information Requirements” Nigel Corbin – ECIM 2010*
- *“Data Ownership Model in DONG E&P” Kenneth Nordstrøm – EAGE Vienna (2011)*
- *“Improving technology investment planning with metering” Dan Shearer – PNEC10 (2006)*
- *“Experience from IM Assessments: E&P Data Management in 2006” Steve Hawtin – PNEC10 (2006)*
- *“The Data Integration Spectrum” Steve Hawtin et al – AAPG Cairo (2002)*

2010 CDA Study

- Attitudes of budget holders to data management
- What do they believe?
 - What value does data management deliver?
 - What value does data deliver?
 - Where is value lost and not realised?
 - What would improve the presentation of data management?
 - Where are the key opportunities to improve?

CDA Study

Published Feb 2011

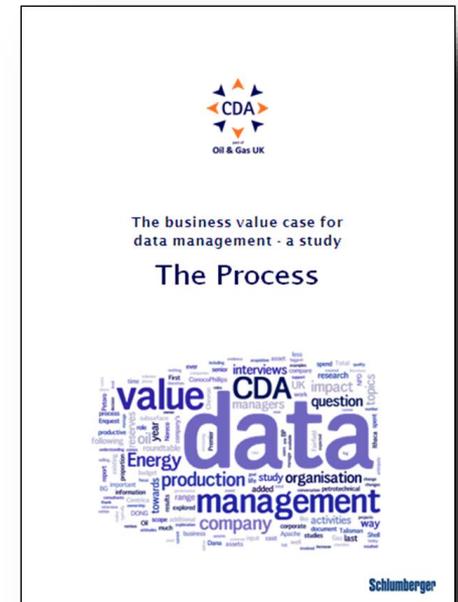


<http://www.oilandgasuk.co.uk/datamanagementvaluestudy/>

Schlumberger

CDA Study – Data Gathering

- 22 Interviews
 - September – November 2010
 - All senior E&P execs, no data managers
 - One hour each, Fixed Questionnaire
- Roundtable
 - Aberdeen CDA offices January 2011
- Literature
- Analysis

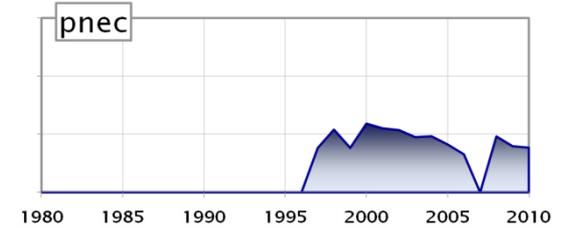
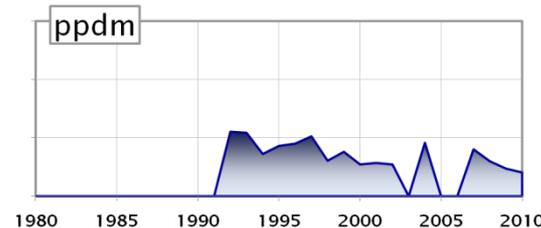
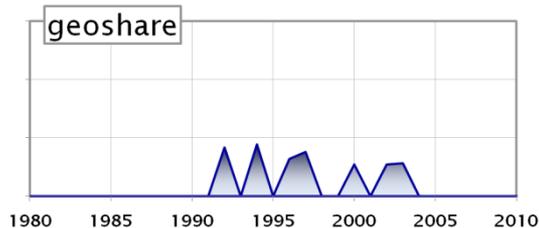
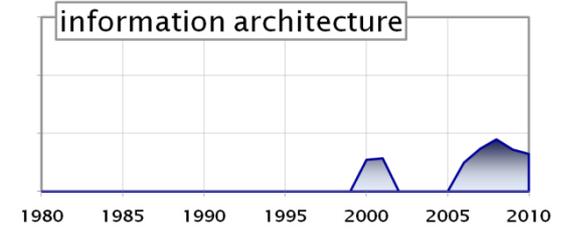
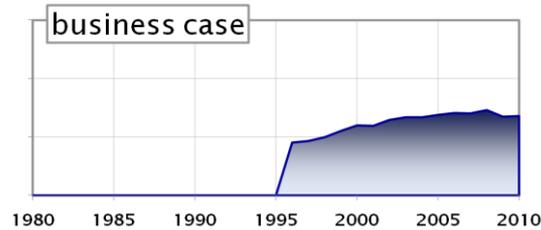
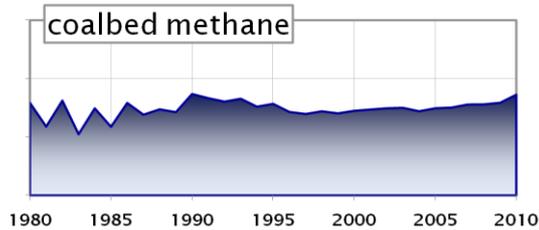
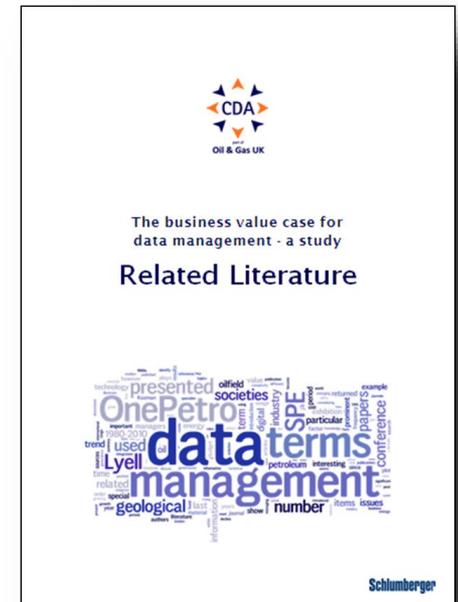


To the study participants - Thank You

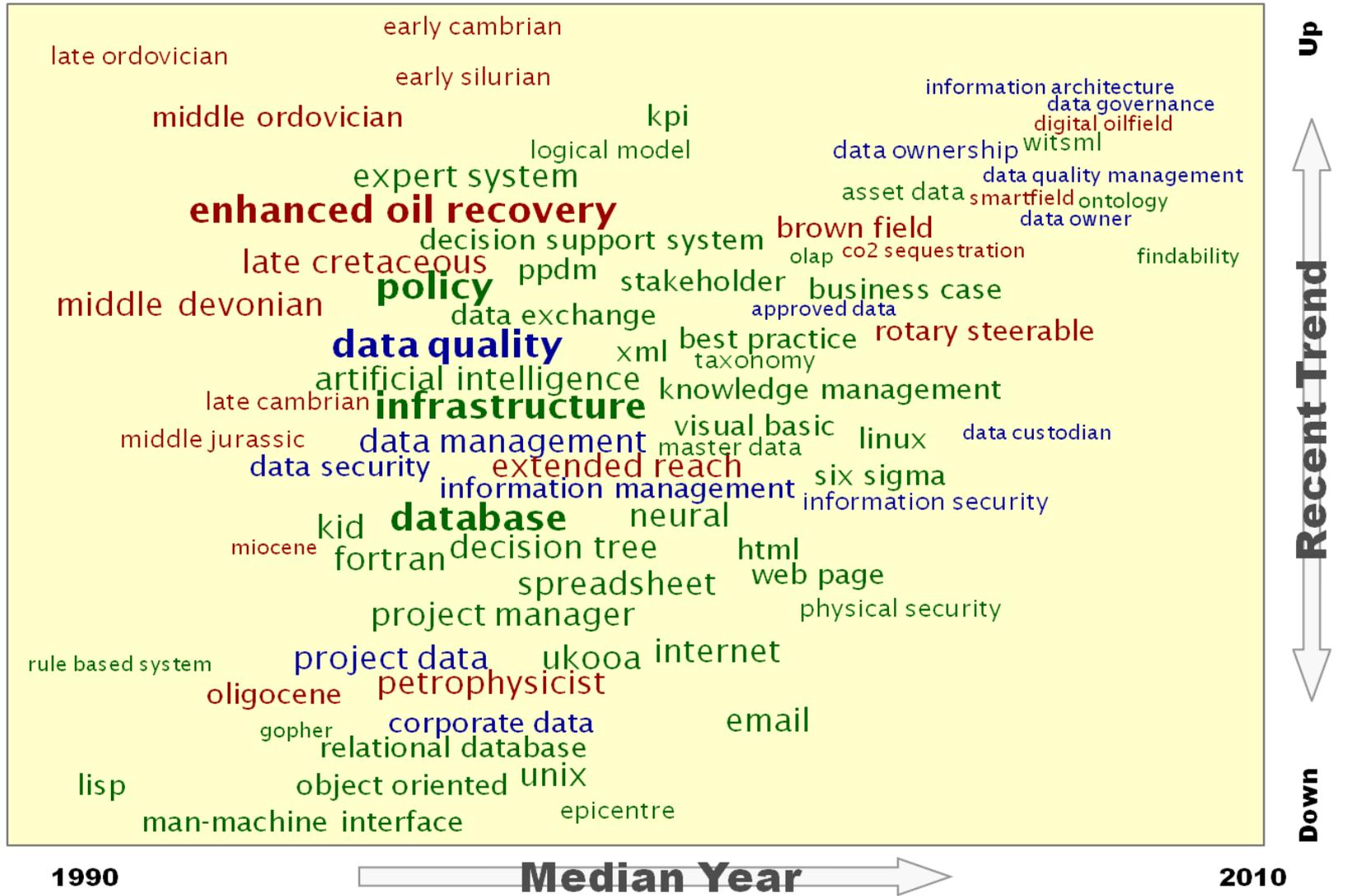


Related Literature

- E&P sources (but not data management focused ones) – SPE, AAPG, SEG
- List of papers
- Track search term popularity in OnePetro



E&P Literature search terms



Roundtable – Jan 2011

“You are only as good as the weakest part of your overall chain”

“You don’t mop the floor until you’ve turned off the tap”

“...the targets are becoming smaller and smaller...”

“...the accessibility of the data... is the building blocks of the value we create”

“Integration with business, that’s key”

“Nobody is looking to derive more value, everybody is looking to reduce the cost”

“...we’re a smaller organisation so it’s easier...”

“...why isn’t my data manager more proactive...”

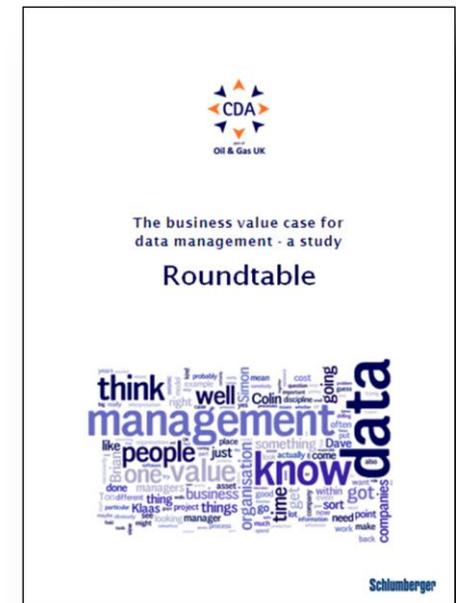
“...people have come to believe that solving your data management problems is too hard, therefore, we’ll mine for it...”

“...you cannot outsource the responsibility...”

“...the cost of data management is small compared to other expenditures...”

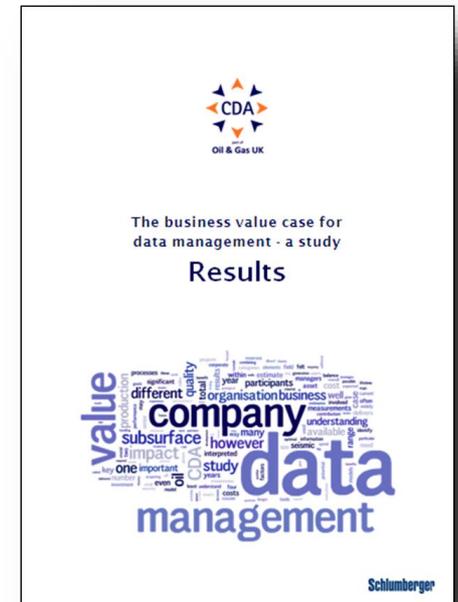
“Has our CEO ever asked me about data management? No”

“...a kind of a Cinderella function...”

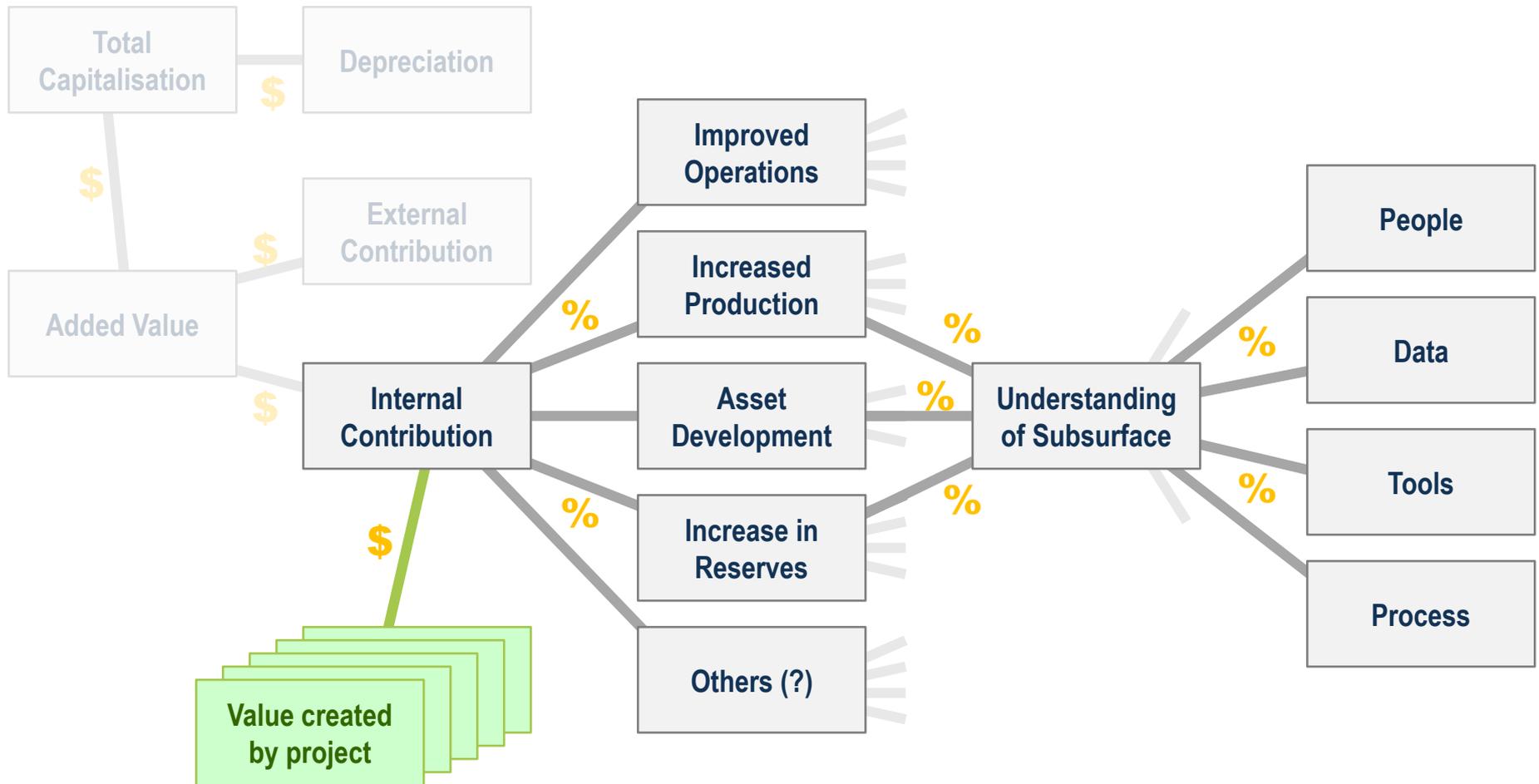


Report

- The value of data
 - Cost v Value
 - The beliefs of senior staff
- Value of data management:
 - How long data delivers value
 - Company size
 - The role of 'Data Management'
 - Common opportunities to improve



Working out the “Value of Your Data”

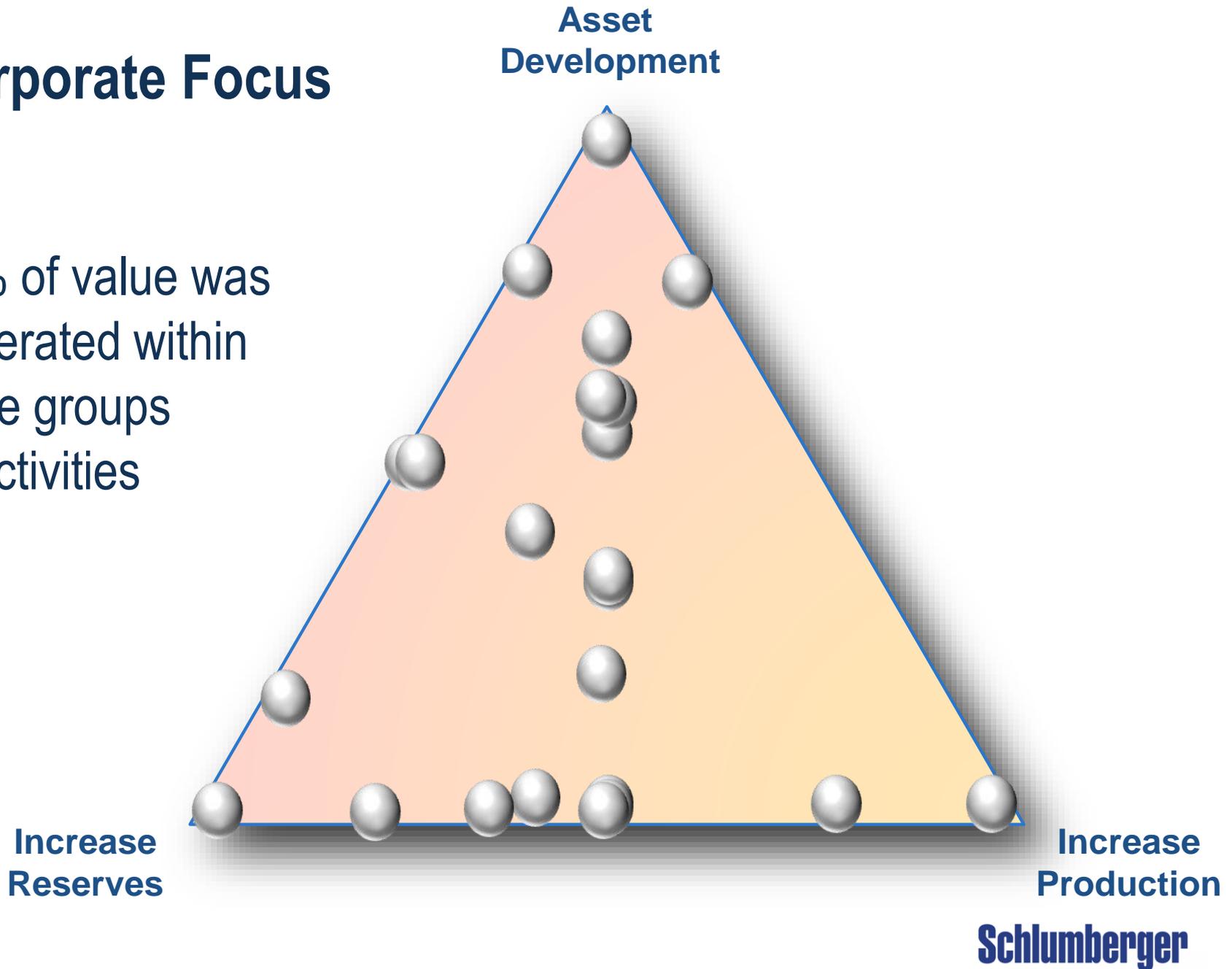


Value of projects – Two Simplified Examples

- 50% interest cost £5M
- Spent £20M over 2 years
- Turned down offer of £100M for our stake
- Value created: $(100-5-10)/2$
=> £42½M per year
- 20 year drilling program to 2030
- 400M barrels from 20 additional wells (20M each)
- £20M to drill each well (\$34M)
- FPSO - £2B (\$170M / well)
- 20M barrels @ \$40 => \$800M
- Value created: \$696M per year

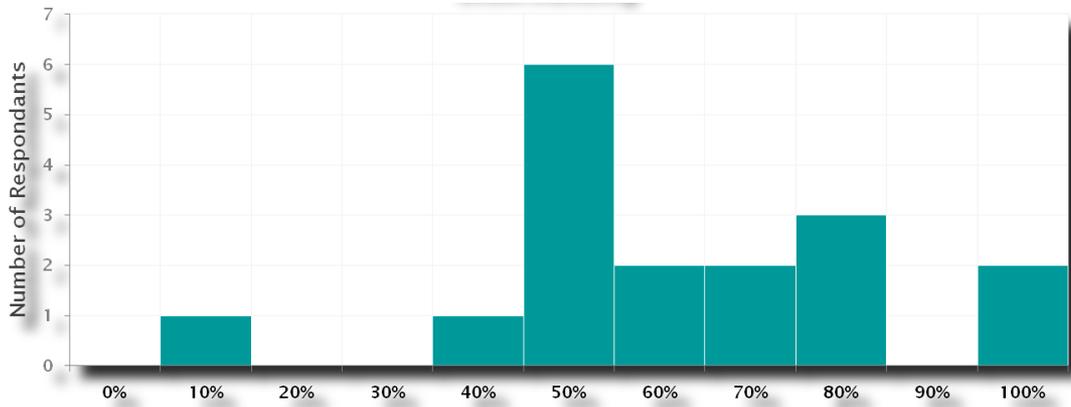
Corporate Focus

95% of value was generated within three groups of activities



How much does the subsurface contribute?

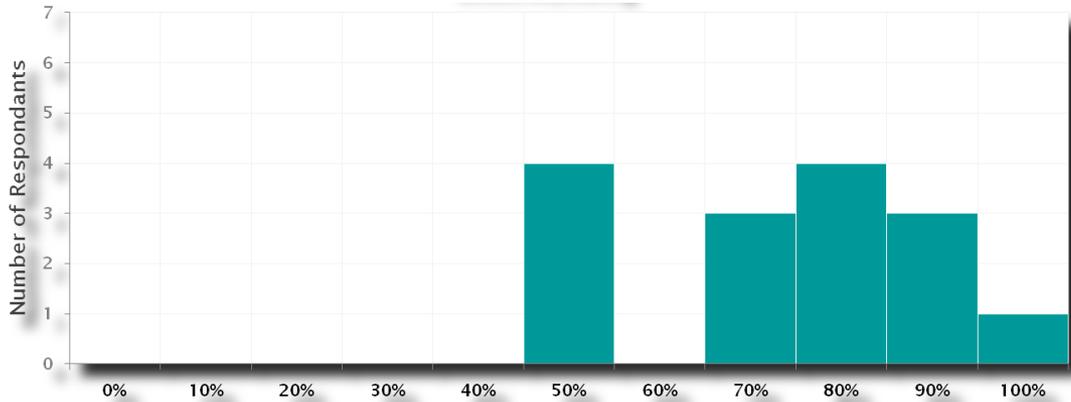
Production



Average
62%

Median
60%

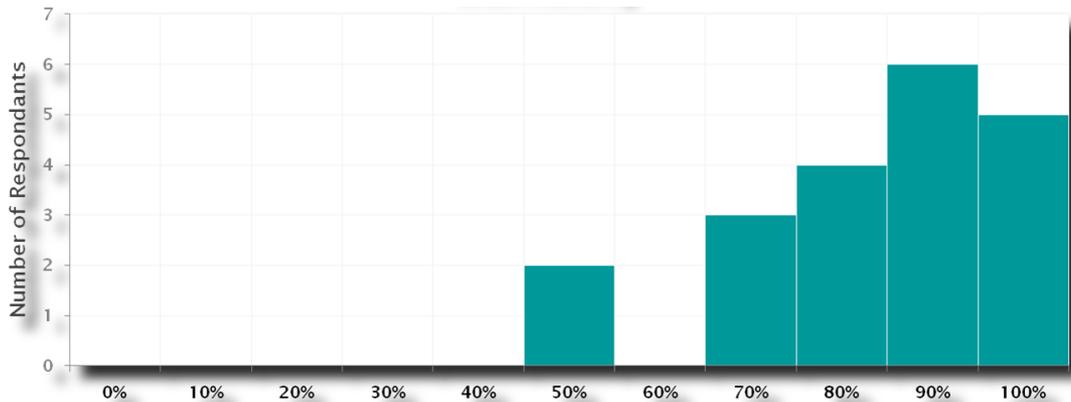
Development



Average
73%

Median
80%

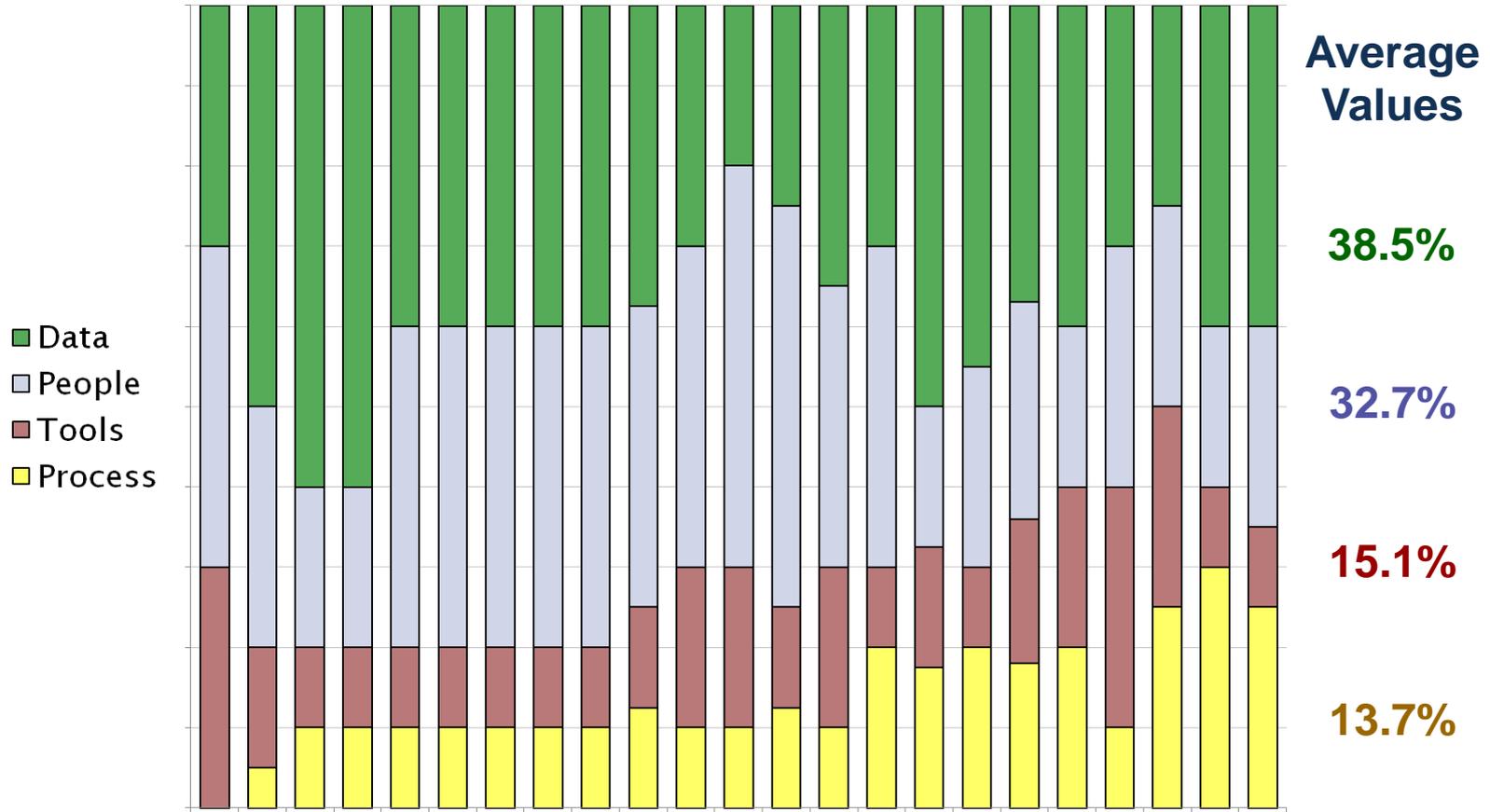
Reserves



Average
83%

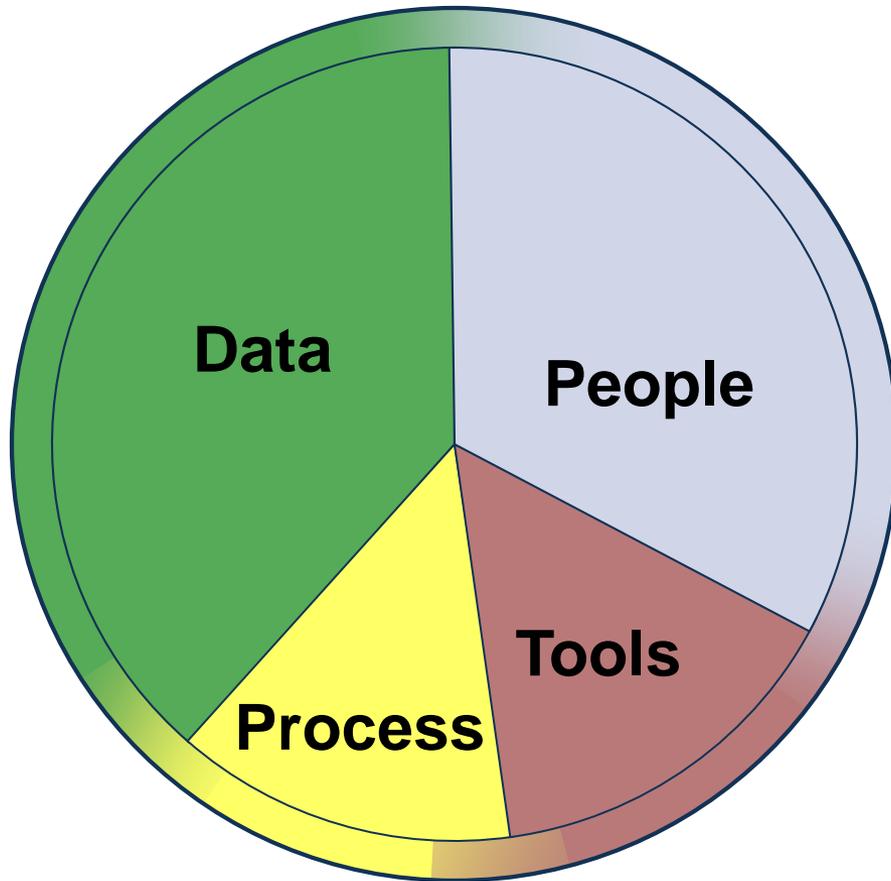
Median
90%

What contributes to sub-surface understanding?



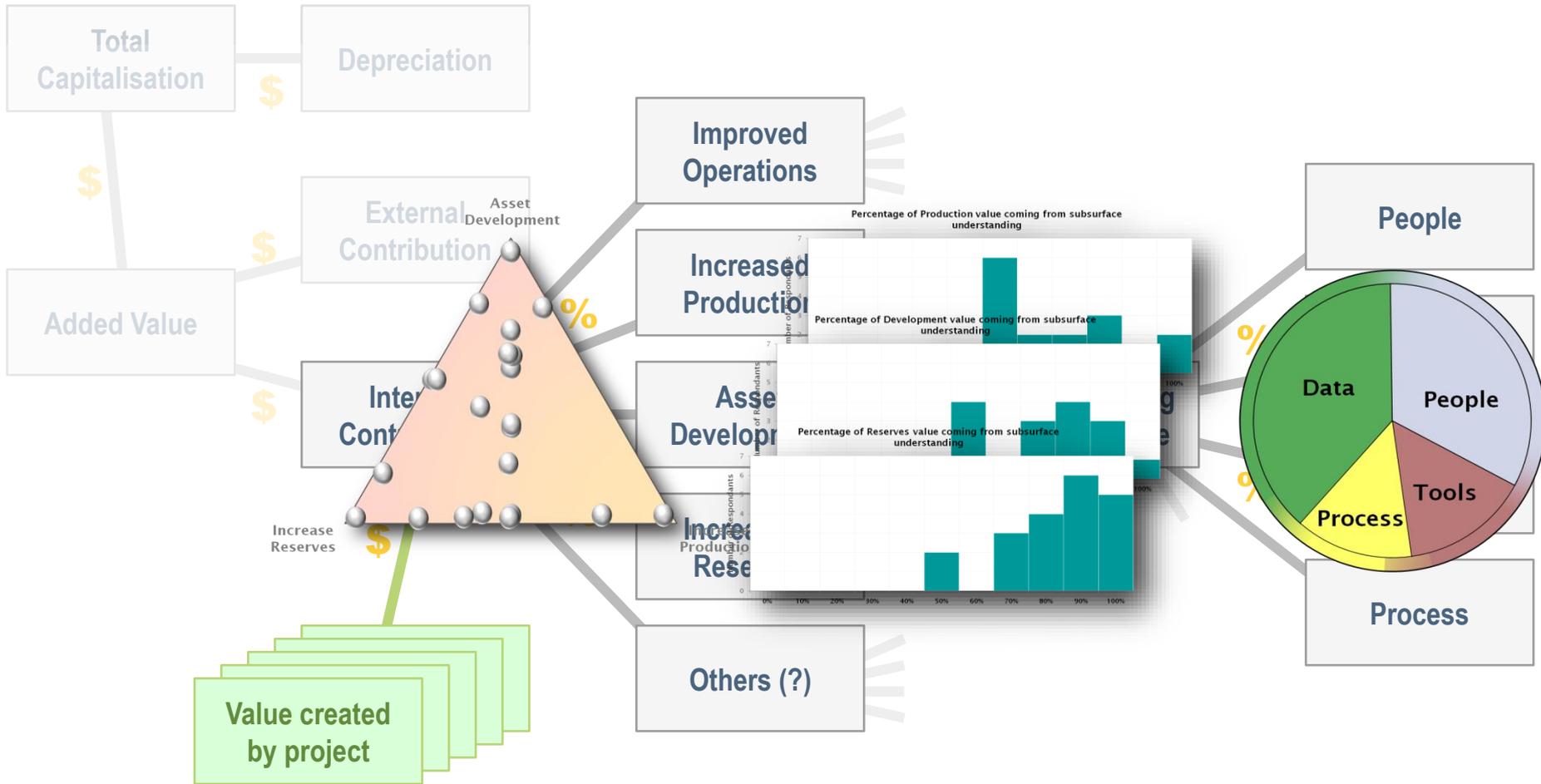
Individual responses

What contributes to sub-surface understanding?

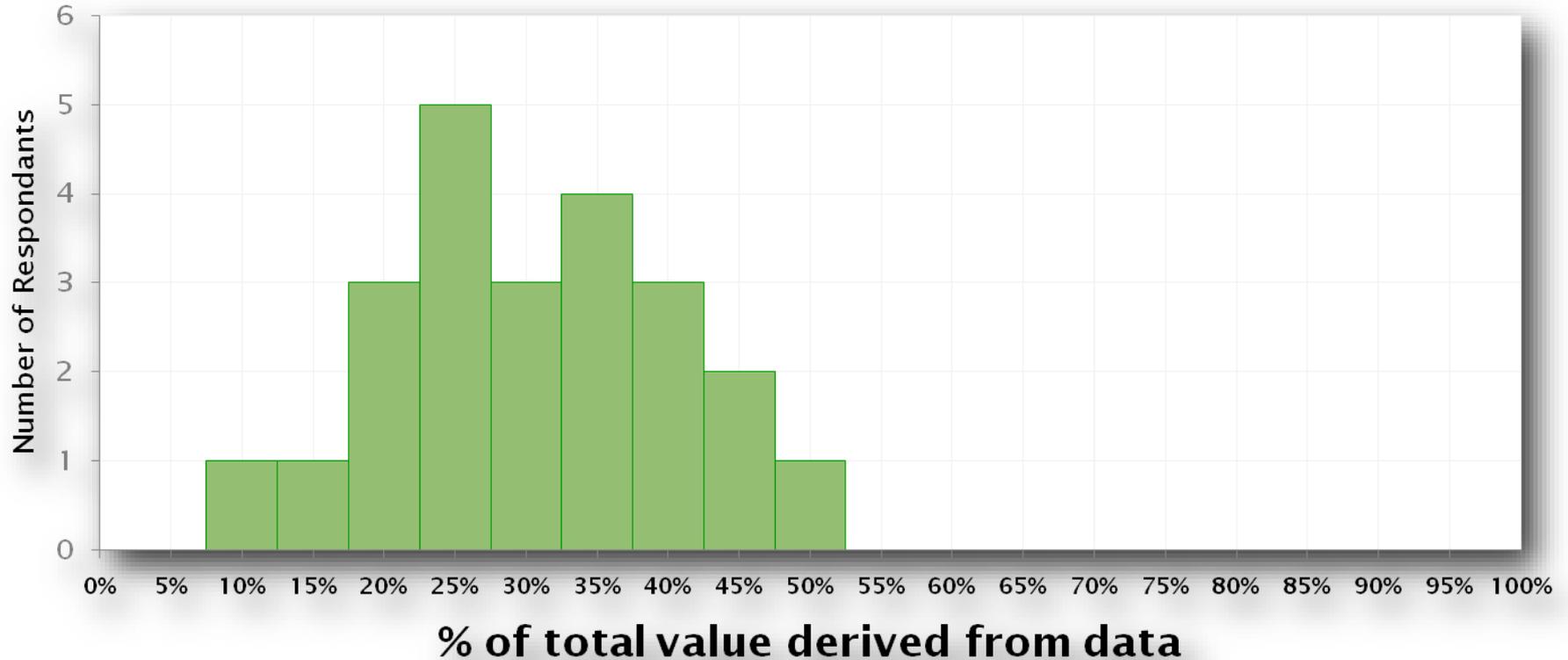


The elements that contribute towards understanding the sub-surface

Combining the results



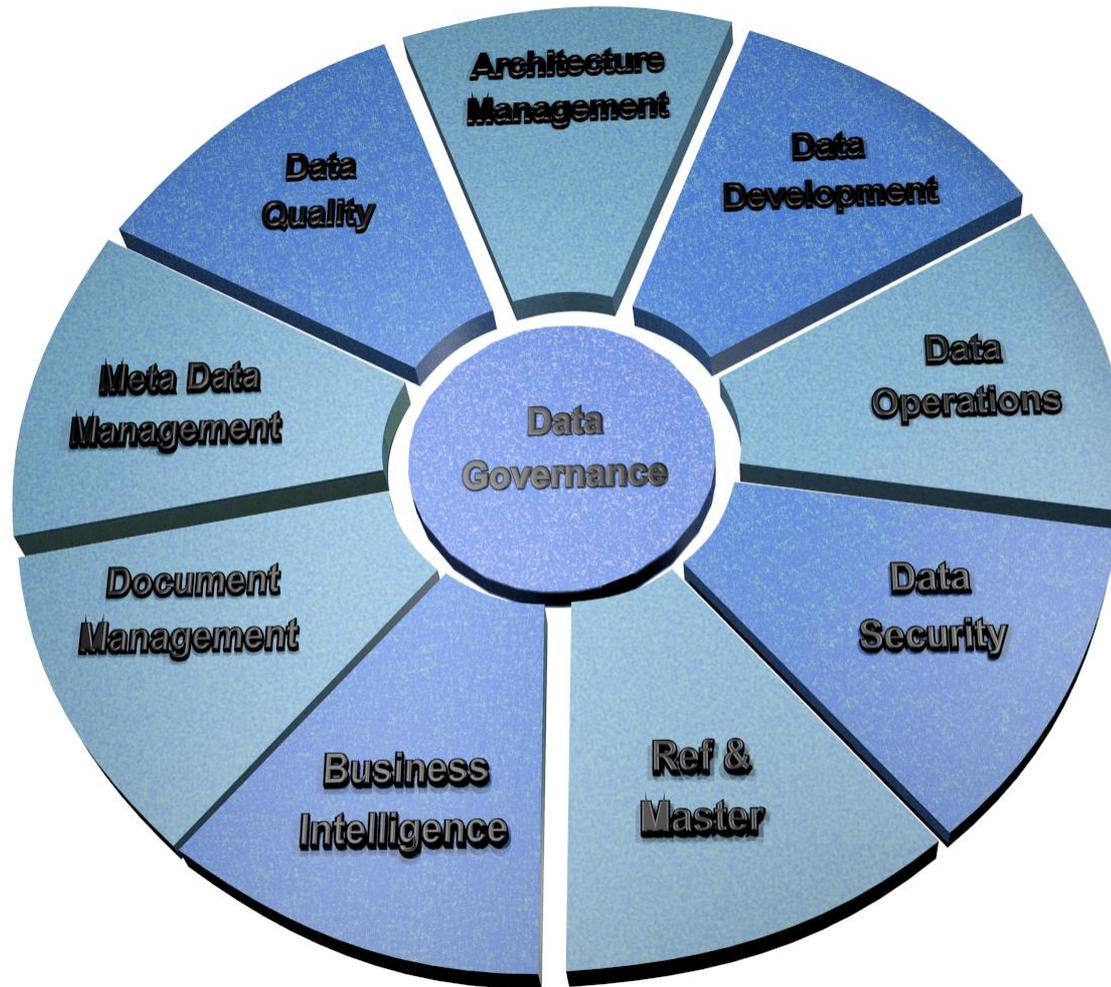
Contribution of subsurface data to total value generated each year



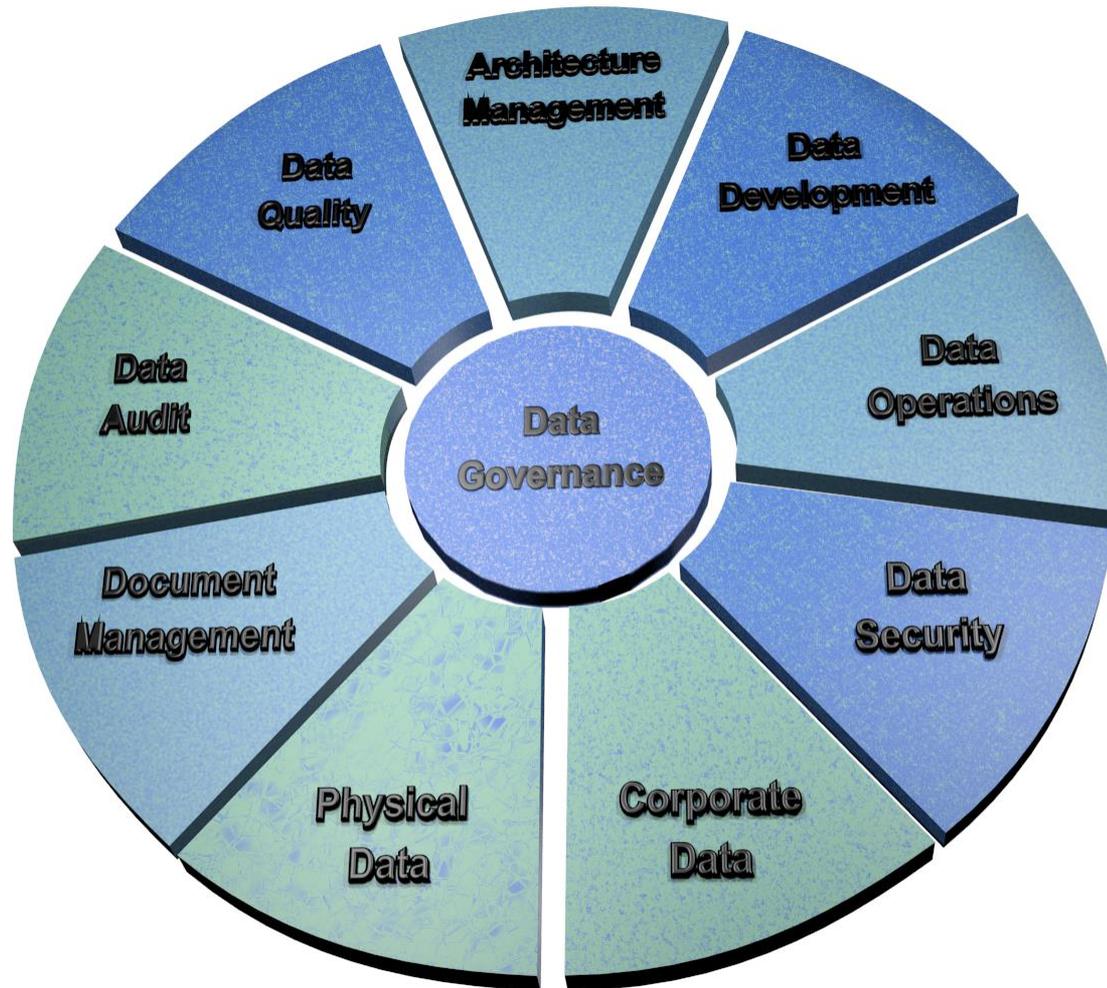
CDA Report Conclusion

- Reinforces things we already know:
 - Focus on increasing business value
 - The limitations of “Value Based Management”
 - Be proactive (of course)
 - Point out the value of data (again)
- There appears to be a growing awareness of the impact of good data management

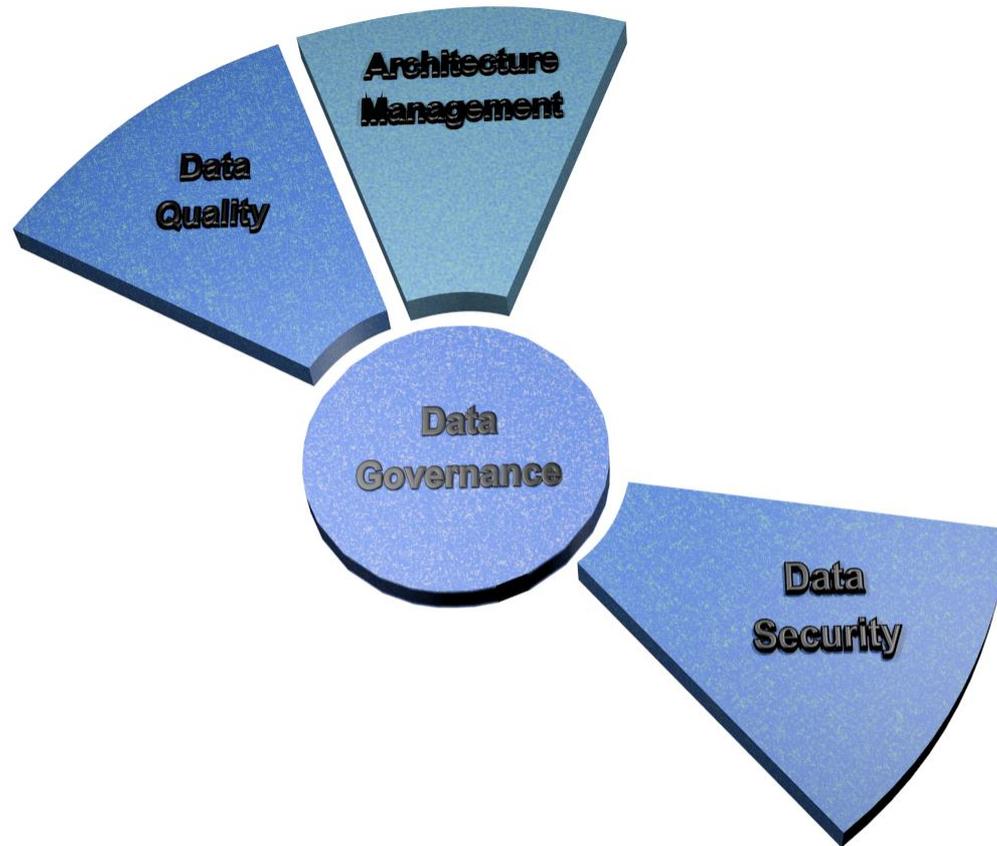
DAMA Data Management Body of Knowledge



E&P Variet



Key Opportunities for Improvement



Overview

- Data generates 25%-33% of the total value
- Well managed data continues to create value for a long time
- Key improvement opportunities:
 - Governance, Landscape, Security, Quality

