

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

Steve Hawtin

# The world of technology



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?



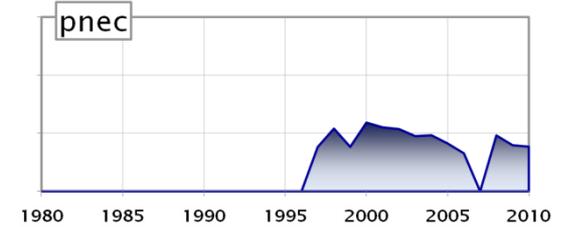
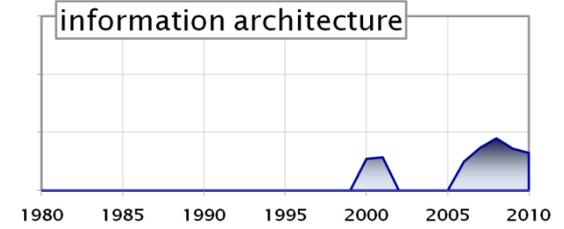
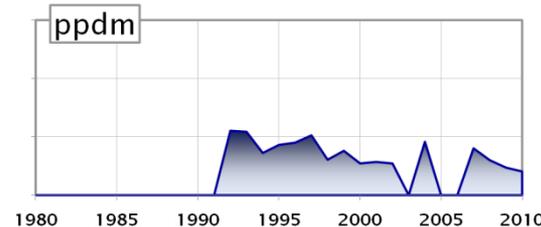
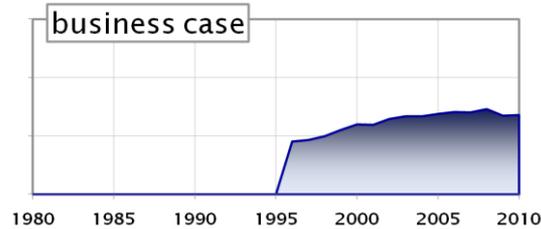
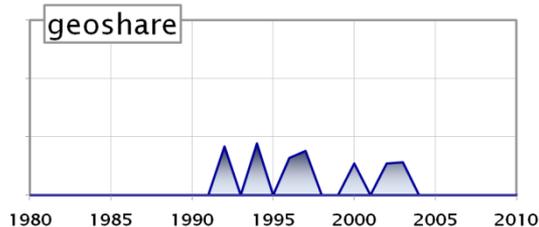
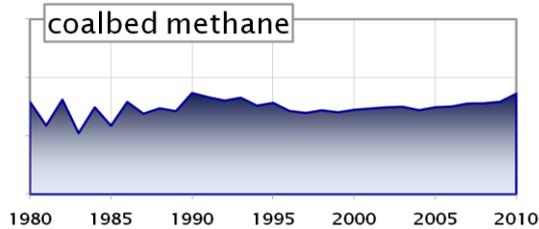
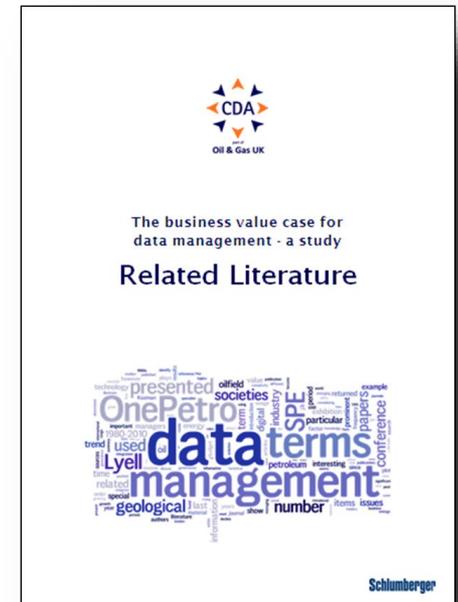


# To the study participants - Thank You

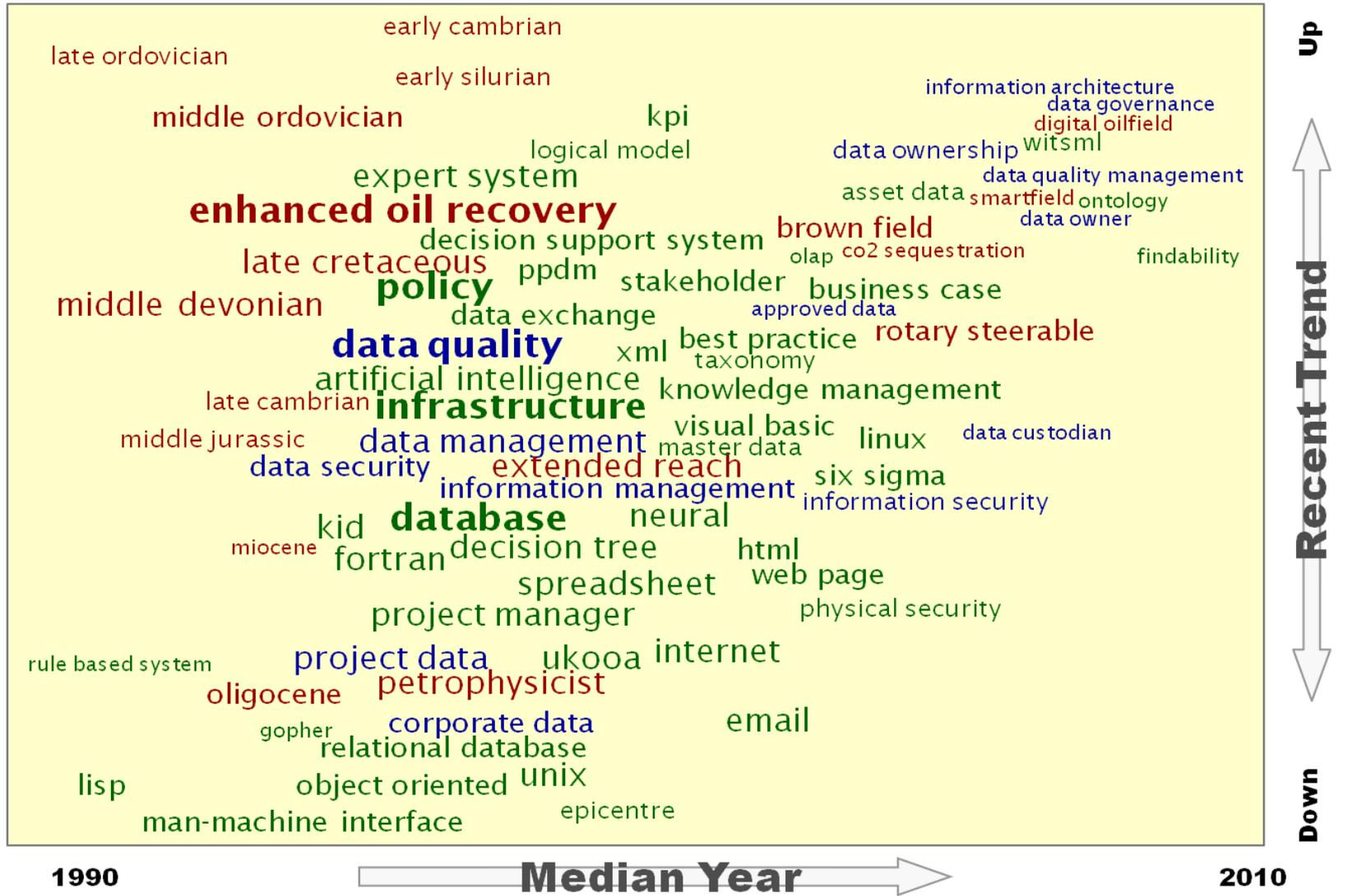


# Related Literature

- 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...”*

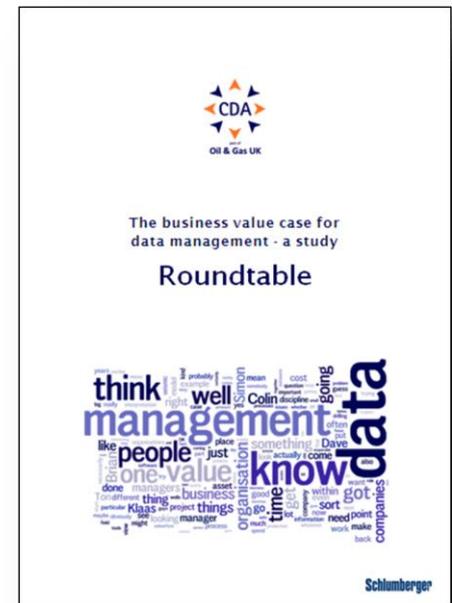
*“...people have come to believe that solving your data management problems is too hard, therefore, we’ll mine for it...”*

*“...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...”*



# CDA Study

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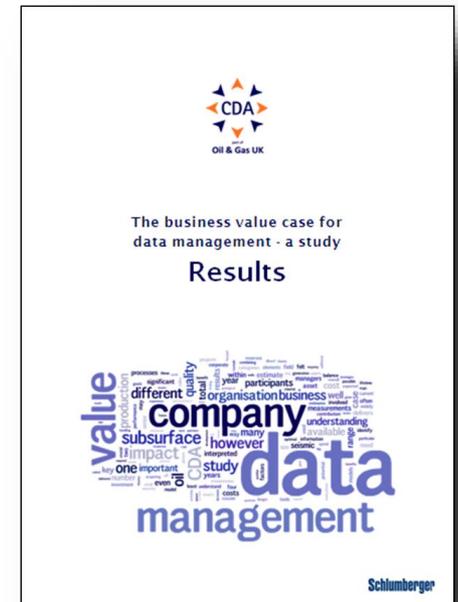


<http://www.oilandgasuk.co.uk/datamanagementvaluestudy/>

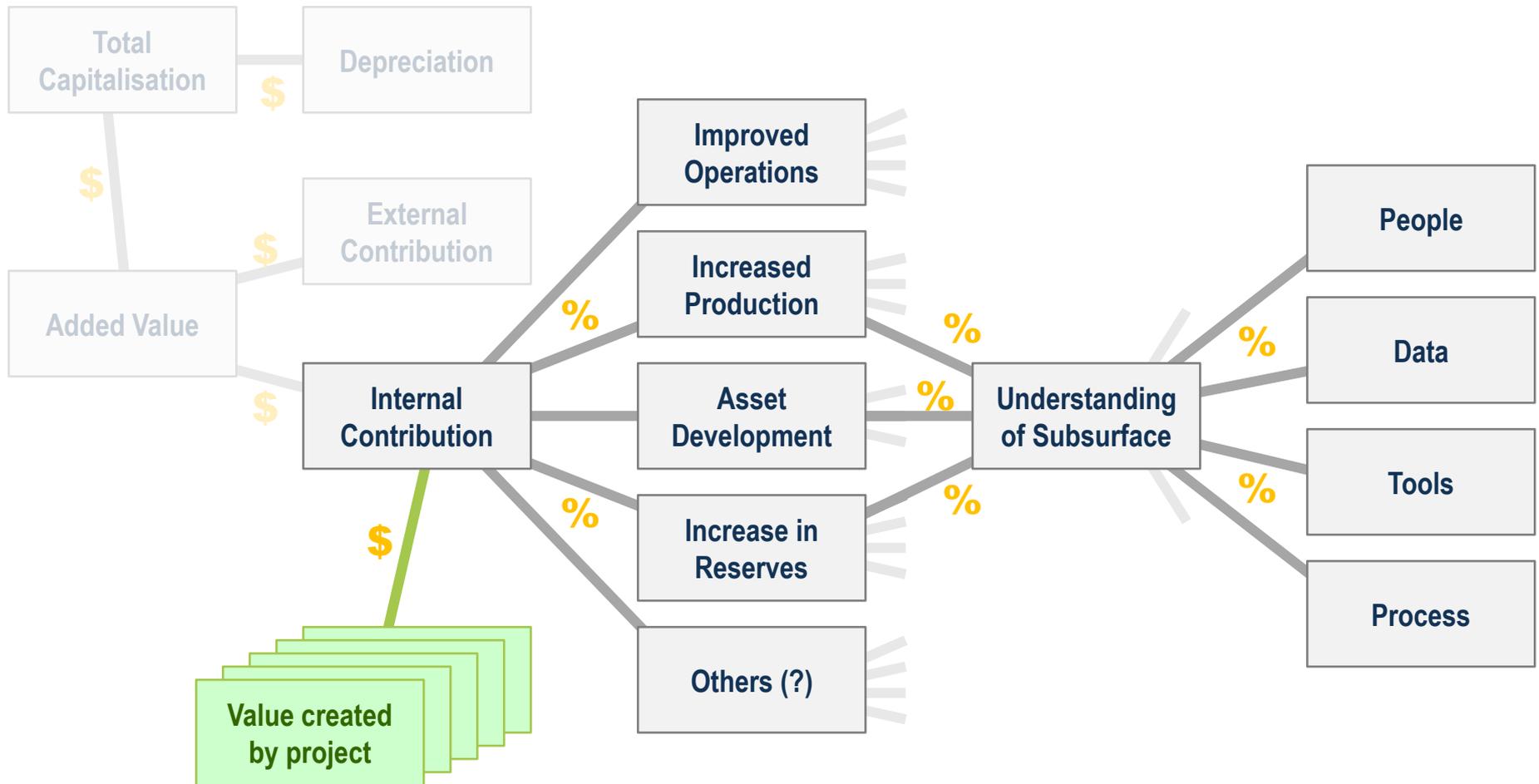
**Schlumberger**

# 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”

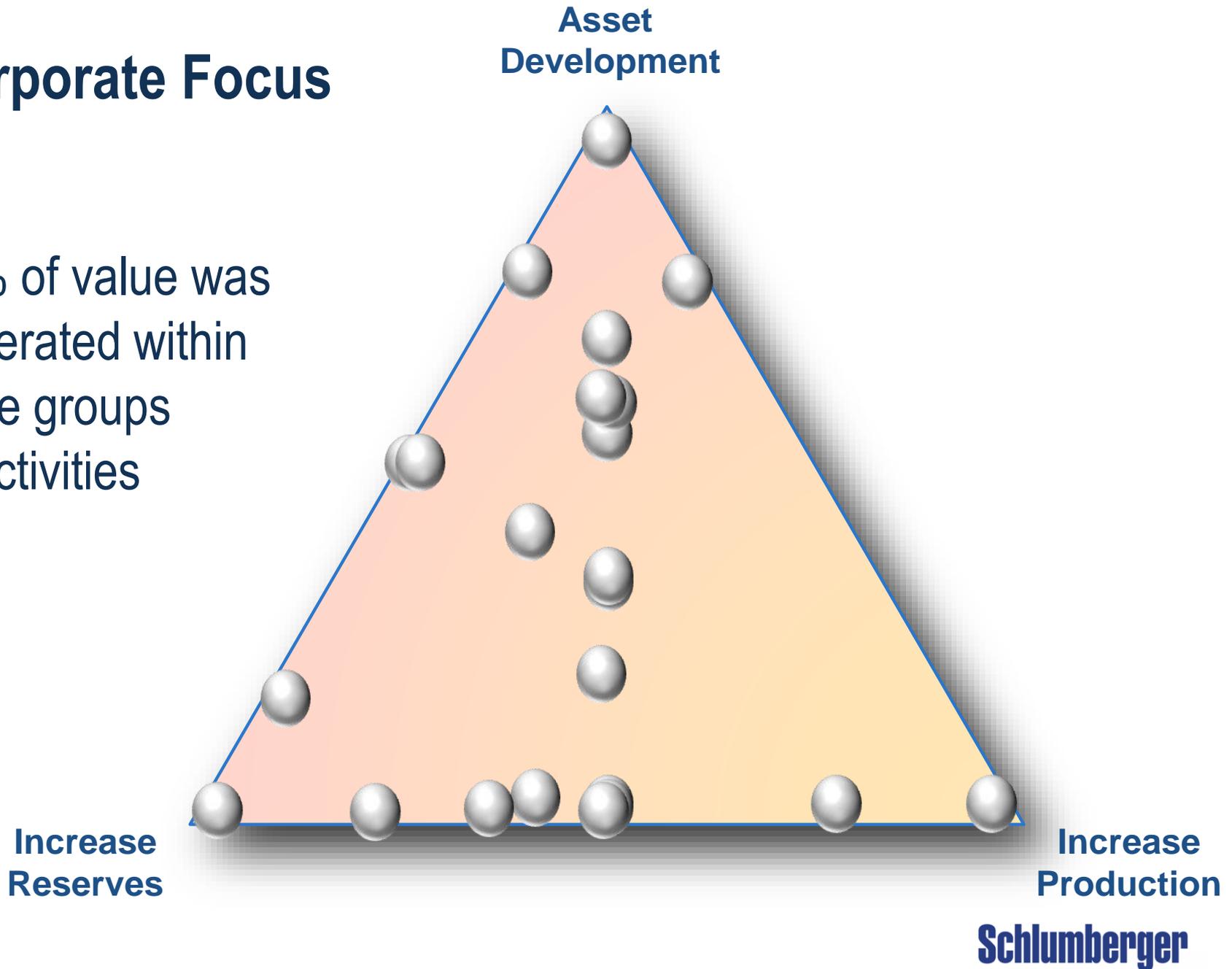


# Value of projects – Two Simplified Examples

- 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

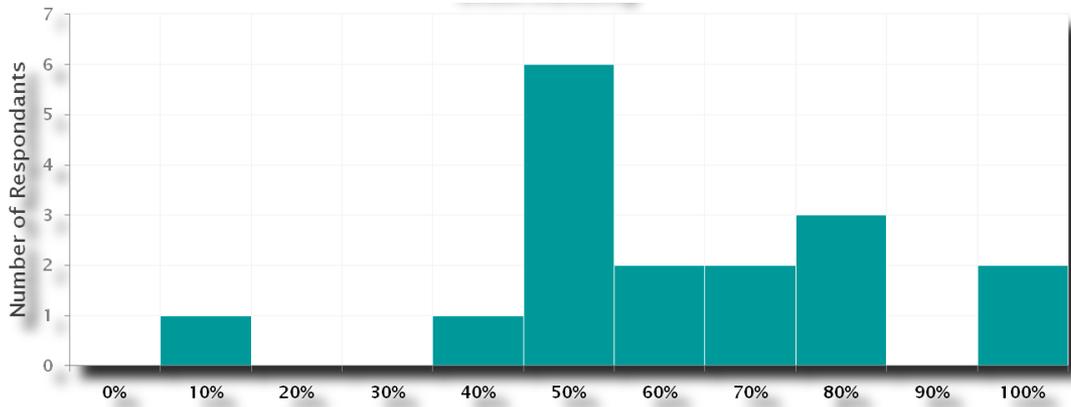
# Corporate Focus

95% of value was generated within three groups of activities



# How much does the subsurface contribute?

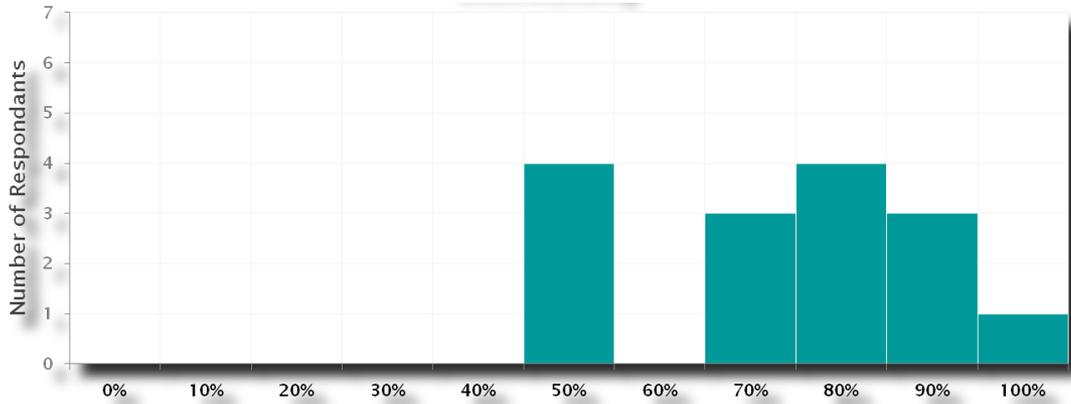
## Production



Average  
**62%**

Median  
**60%**

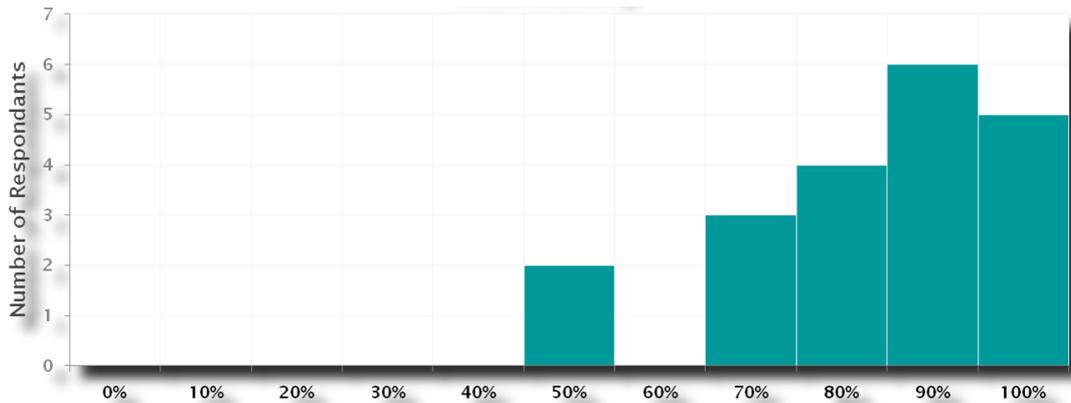
## Development



Average  
**73%**

Median  
**80%**

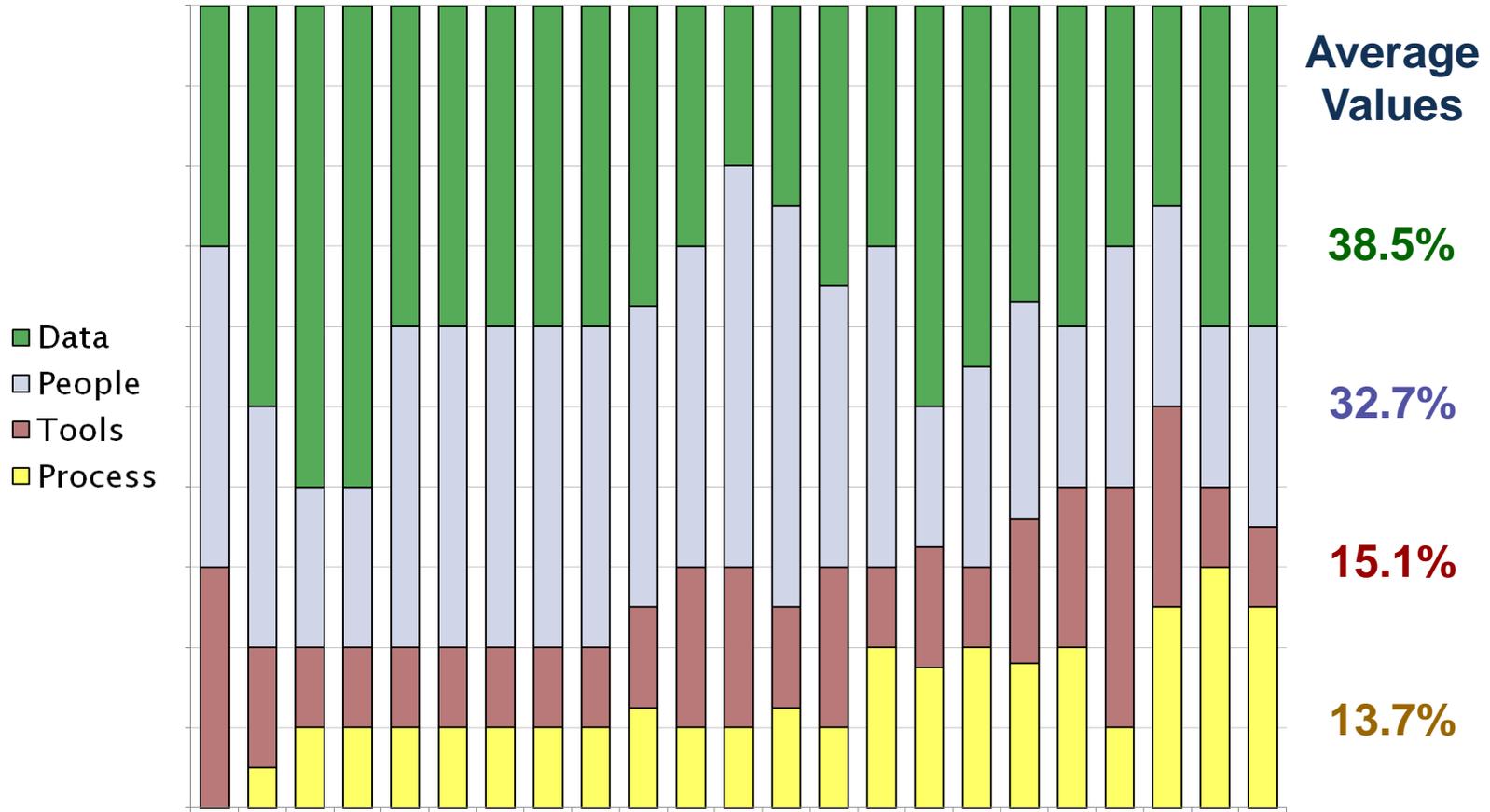
## Reserves



Average  
**83%**

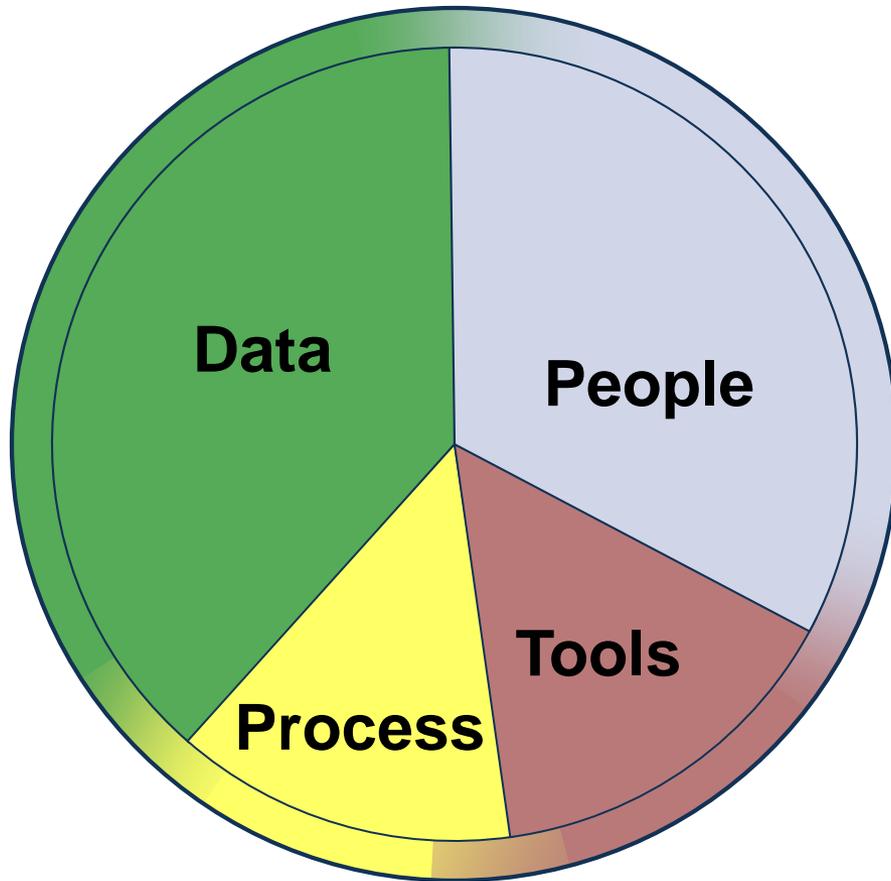
Median  
**90%**

# What contributes to sub-surface understanding?



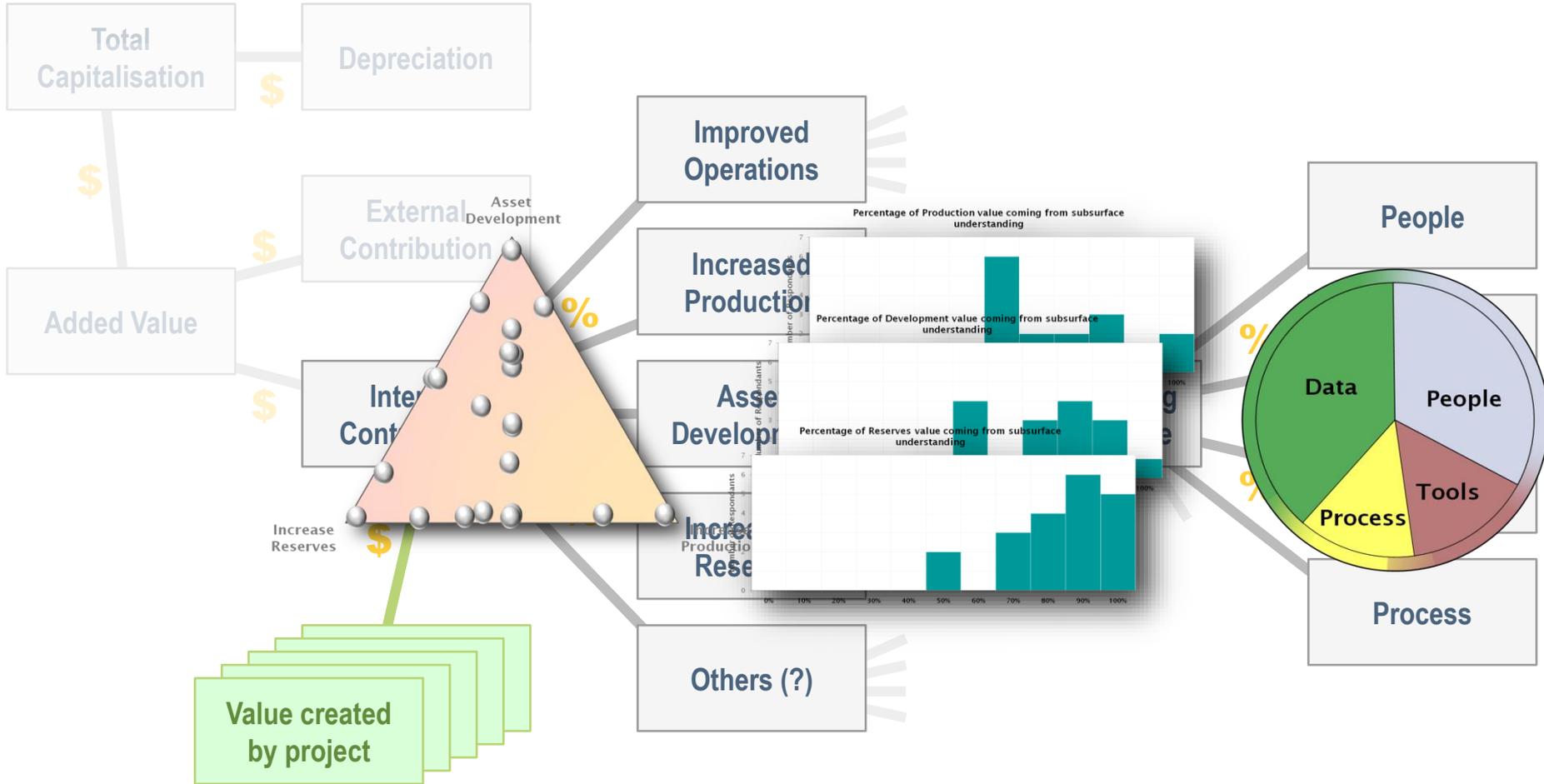
Individual responses

# What contributes to sub-surface understanding?

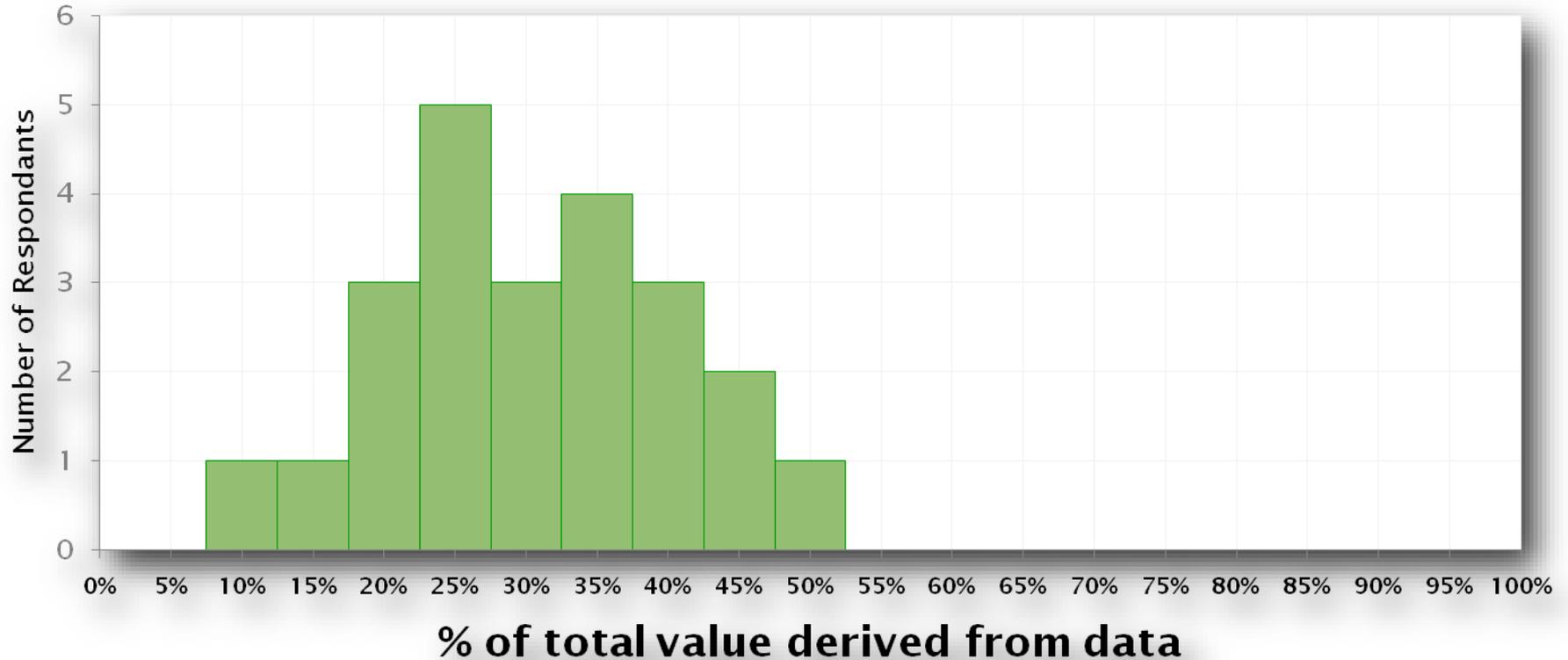


**The elements that contribute towards understanding the sub-surface**

# Combining the results



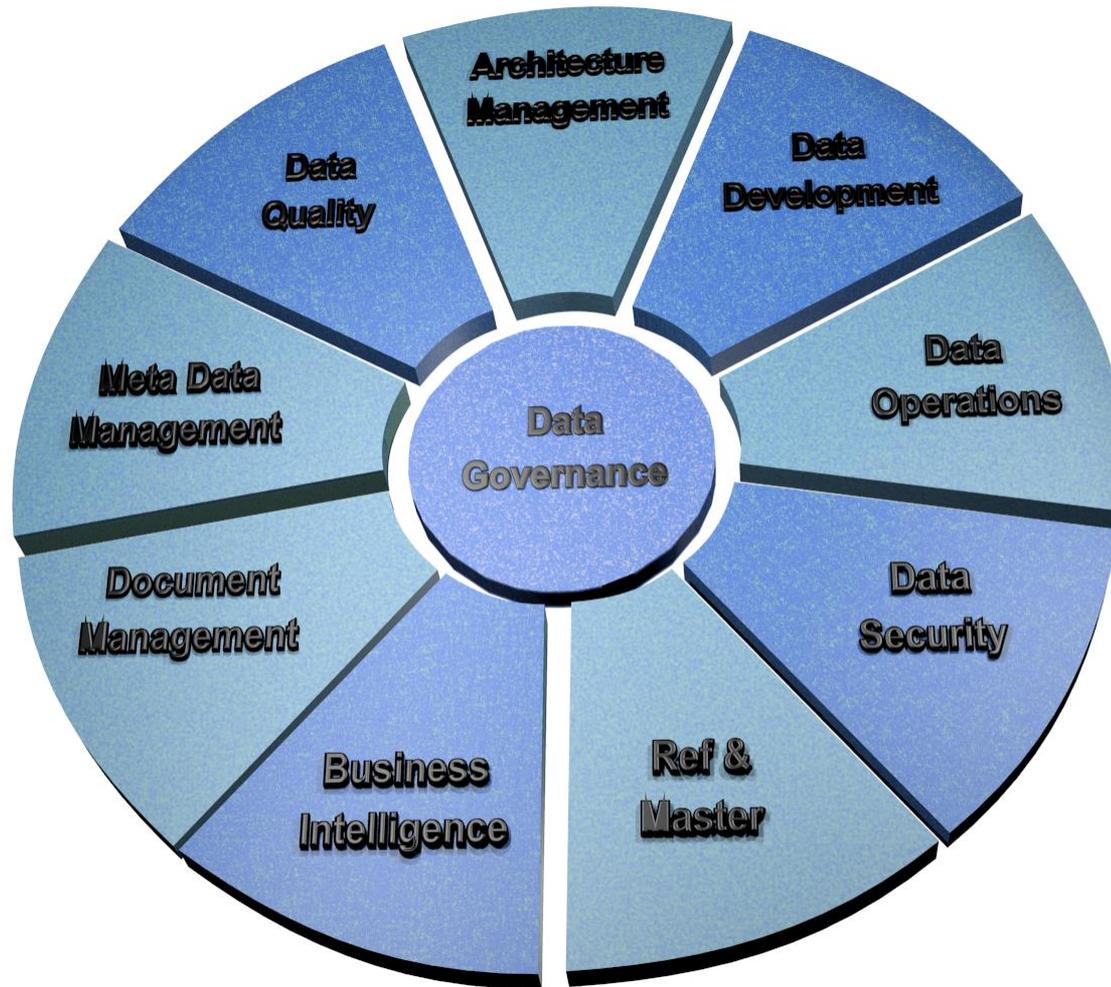
# Contribution of subsurface data to total value generated each year



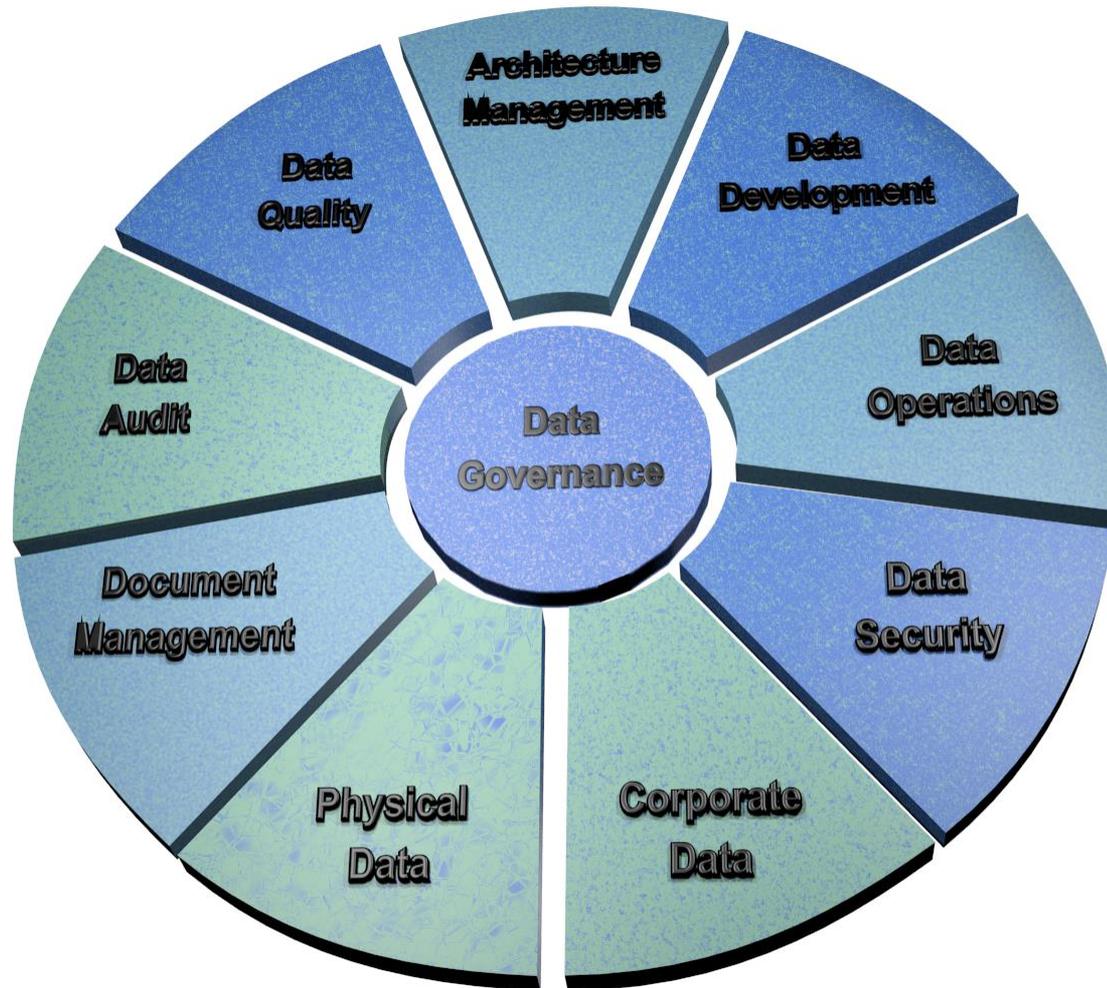
# CDA Report Conclusion

- 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

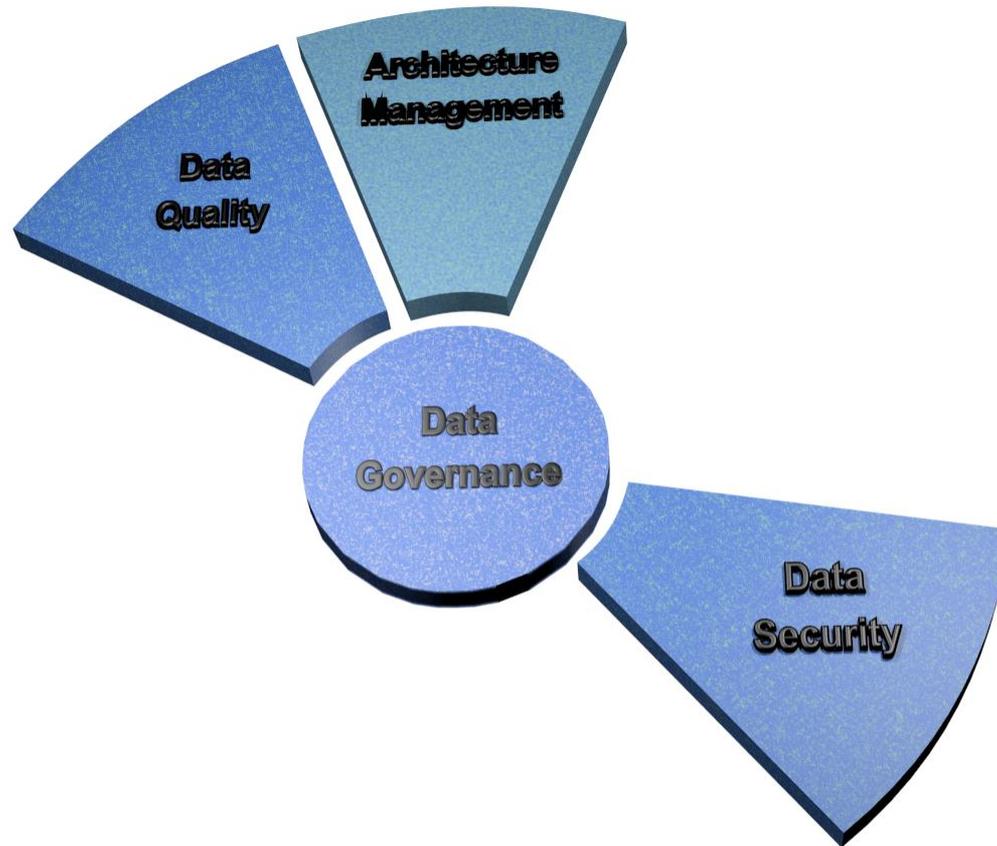
# DAMA Data Management Body of Knowledge



# 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

