



THE **BI** BUILDERS

## **BI Promise in Utilities Webinar Survey Results**

March 2009

BUILDING BUSINESS **IQ**

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# Background



- These results are from a survey that was conducted following the BI Promise in Utilities webinar (Presented on February 26, 2009 by SAP and BI Builders)
- Focus of the webinar was on the advantages of a best-practice BI as a strategic tool to help optimize operations in the Utilities sector
- About 76 industry practitioners attended the webinar
- A total of 19 attendees responded to the survey; and not all of them responded to all of the questions
- These summary results are designed to provide a perspective on a sampling of BI practices in Utilities, in relation to industry best practices

# General Observations

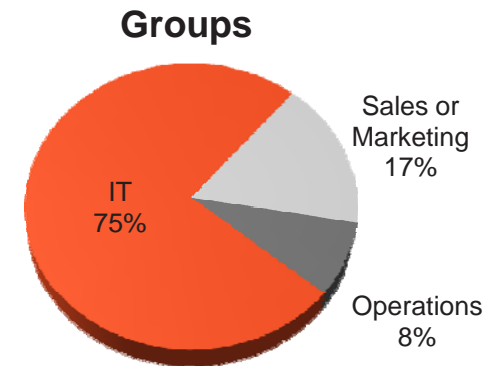


- Participation from business groups is lacking. In order to ensure more long-term success with their BI programs, the executives need to assign business sponsors who can:
  - Identify metrics for reporting
  - Set expectations for reports outcome and performance
  - Define requirements for complex business analytics in Utilities
  - Help identify authoritative sources of data and the business rules for the integration of high volume of disparate data
- Given the heavy reliance on Excel and manual reporting in light of the ongoing challenges with data integration and analysis, we can conclude that the large number of organizations that have implemented BI are in dire need of leveraging full advantages of BI in data integration and analysis.
- The ubiquitous data quality issues can also be resolved by getting business users involved early on, to help build the business rules for the cleansing and enterprise-wide integration of data through a BI Program.
- Challenges of the Operations in Utilities with respect to the integration and complex analysis of large volume of disparate data, specialized compliance reporting, and high frequency of data load and reporting can be fully satisfied by a solid BI Program.

# Respondents Demographics



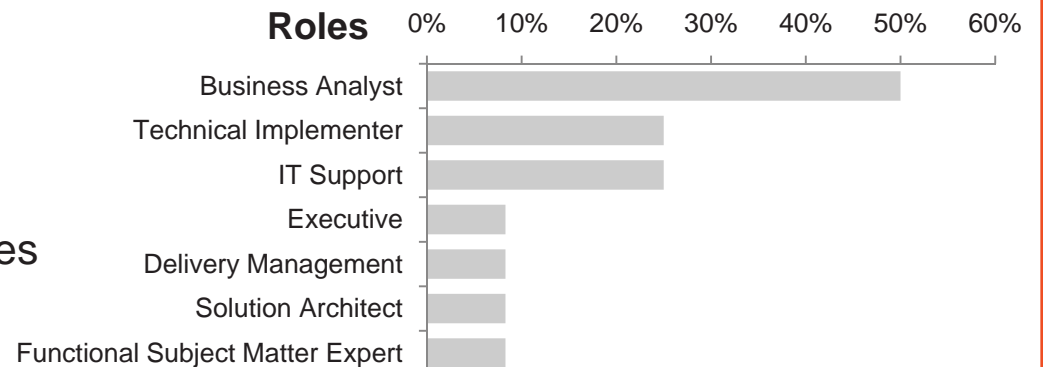
The majority of the respondents were from IT; which also happens to have the responsibility for most of the reporting. Today a large number of data warehousing and BI efforts are run by IT organizations.



## Reporting Responsibilities

IT	58.3%
Individual Departments	16.7%
Business Analysts	8.3%
Center of Excellence/Shared Services	8.3%
Combination of IT & Bus. Analysts	8.3%

The fact that most respondents identified themselves as Business Analysts is indicative of a growing interest in bringing more business focus to BI implementations in Utilities as well as other industries.



# Current -State Reporting Needs



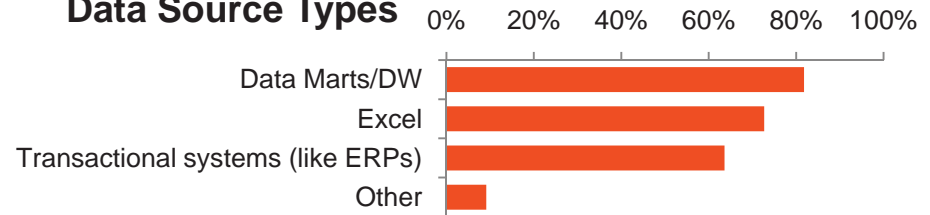
The requirements for the integration of large volumes of disparate data and complex analytics for actionable results, were typical of Operational BI in the Utilities industry.

## Priority for Operations Data and Reporting Needs

- |         |   |
|---------|---|
| Ranking | 1. Ability to take action on data   |
|         | 2. Analysis of large volume of data                                       |
|         | 3. Integration of data from multiple disparate sources                    |
|         | 4. Complex analytics (e.g. 'what-if' and predictive analysis)             |
|         | 5. Real-time data integration and analysis                                |
|         | 6. Direct interface with source systems (e.g., GIS and sensor meter data) |
|         | 7. Integration with specialized tools and technologies                    |

Data Warehouses (DW) have now been implemented for the past couple of decades. A considerable percentage of the respondents have reported having a DW solution in place.

## Data Source Types



## Metrics captured

- |         |                        |  |
|---------|------------------------|--|
| Ranking | 1. Customer Relations  | The fact that the respondents most commonly track Customer Relations metrics, is a good example of the growing interest in Customer Analytics in BI. |
|         | 2. Process Improvement |  |
|         | 3. Online Interactions |  |

Excel is to this day one of the most popular tools for reporting. However, with a large investment in DW/BI implementations, it is best to take advantage of their rich set of data and analytics through more automation, and more sophisticated right-time reporting capabilities.

## Report types

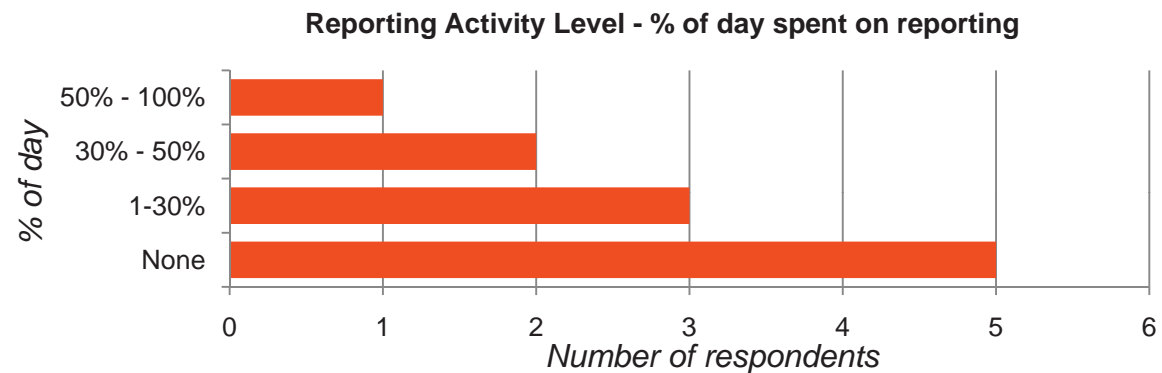
- |         |                 |
|---------|-----------------|
| Ranking | 1. Spreadsheets |
|         | 2. Ad-hoc       |
|         | 3. Manual       |
|         | 4. Preformatted |
|         | 5. Automated    |

# Current-State Reporting Estimations



- Typically it takes most organizations that rely heavily on manual and Excel reporting by their business users , a substantial amount of time and resources to do their reporting.

- This level of effort assessment is from a majority of respondents from IT who do not do much reporting as part of their daily work. The report developers from the business groups would be able to provide more accurate results.



## Reporting Level of Effort

Number of resources				
	3 or less resources	4 to 6 resources	More than 6 resources	
On average, each report requires:	8	1	1	

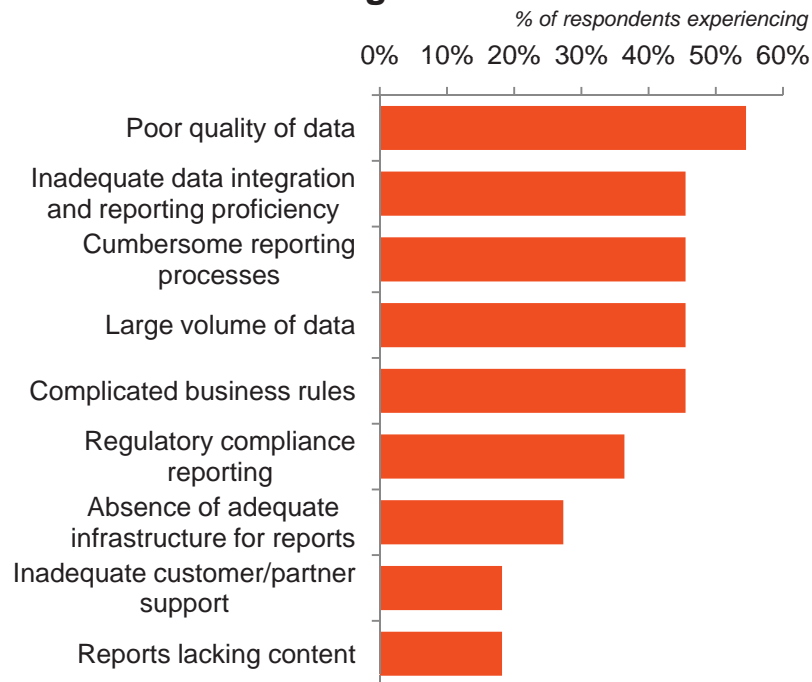
Time to Compile				
	Less than 1 minute	1 to 10 minutes	10 to 30 minutes	30+ minutes
On average, each report requires:	1	3	1	5

# Challenges and Satisfaction



As with many BI implementations, **data quality** was identified as the biggest BI challenge in Utilities. Expected complications around massive integration of disparate data and lack of infrastructure for more sophisticated reporting were also all described.

## General BI Challenges



The focus areas were ranked based on their level of satisfaction with their reporting needs. Again, note that this ranking is mainly from the IT perspective.

## Compliance Reporting Challenges

- Ranking
1. Large volume of data
  2. Complex reporting requirements
  3. Visibility into data lineage
  4. Reporting frequency
  5. Other

For typical Compliance Reporting in Utilities, all of the expected challenges that a BI solution can best satisfy, were identified. Notably, the state of reporting for Smart Grid and Advanced Metering is largely unsatisfactory.

## Ranking of Reporting Satisfaction by Focus Area

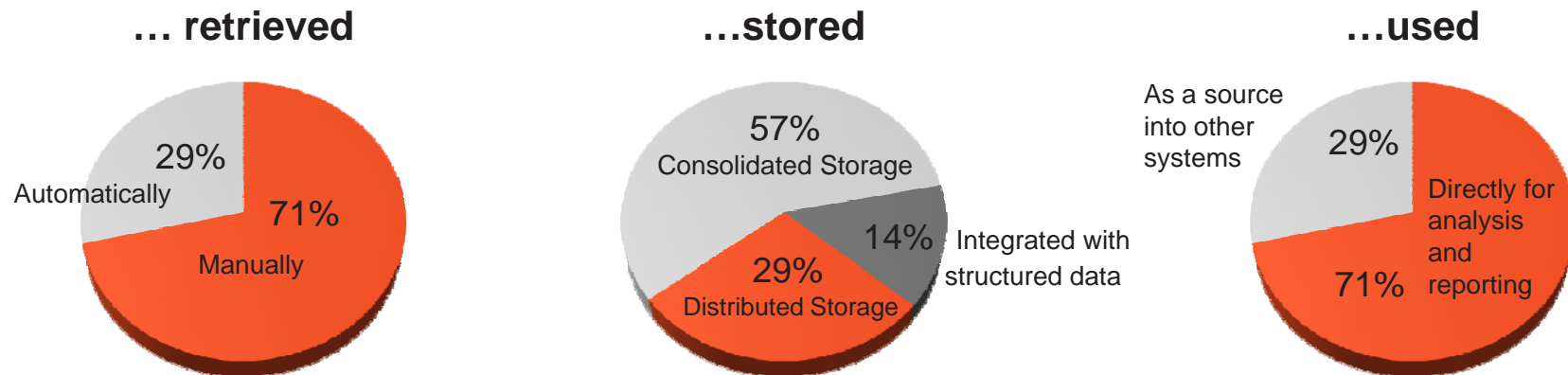
- Ranking
1. Finance
  2. Supply chain management
  3. Enterprise asset management (EAM)
  4. Customer information system
  5. Workforce management
  6. Outage management
  7. Geographical information system (GIS)
  8. Smart grid (intelligent grid devices)
  9. AMI (smart meters)

# Unstructured Data Requirements



- As in many other industries, analysis of unstructured data available in contracts, emails, and all sorts of operations-related documents in Utilities, is gaining momentum . As well presented in the survey results below, the unstructured data is retrieved mostly manually, typically stored locally in one individual or one group's file, to be used mostly in conjunction with some related structured data for reporting and analysis.
- To help improve the capture and use of unstructured data, specialized tools designed for similar Text Analytics can be deployed that can be readily incorporated into the BI environment for optimized integration with all sorts of data and richer analytics.

## How is unstructured data ...



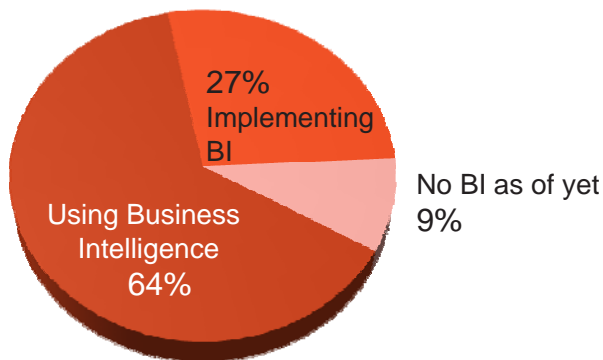
# Implementation Plans



According to the results of a recent BI Maturity study in various industries conducted by The Data Warehousing Institute (TDWI), about 67% of the organizations that have implemented BI, are struggling with reaping the full benefit of BI in providing enterprise-wide analytics platforms, to drive their business performance.

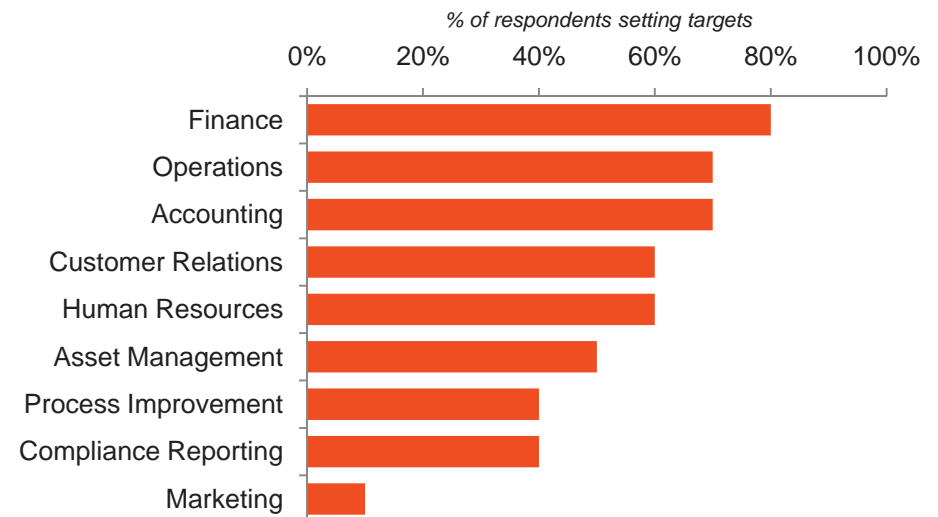
Our survey respondents with a large majority (almost 90%) involved in BI, will all be facing certain challenges along the way in implementing their BI Program. The best practices and trends presented in the webinar could have a major impact on their success.

## Current BI Status



The survey respondents (Business Analysts from IT) identified these target areas. The identification and prioritization of target areas is an ongoing process.

## Target areas for Future BI Integration



# Future Webinars



- Based on your feedback about this webinar
  - SAP and BI Builders will continue to offer:
    - Utilities-specific presentations based on our ground work with actual clients
    - Discussion of best practices in BI
  - In future webinars, we will strive to offer:
    - Alternative audio options
    - Live software demonstrations
- Based on your feedback, the following topics have been selected for future webinars:
  - Reports and Dashboards
  - BI Strategy and Planning

# Extending our Services



- The BI Builders will follow up with selected survey respondents for further details about their BI plans and needs.
- The BI Builders will leverage its existing expertise, to offer business intelligence services that address some of the utilities-specific BI challenges identified herein:
  - Integration and complex analysis of large volume of disparate data
  - Strategic services to gain executive sponsorship and better integration between business units and IT
  - Offer services to methodically address persistent data quality issues, as the data assets of organizations grow
  - Build an enterprise platform as part of a BI roadmap, to modernize and standardize inefficient and disjointed reporting processes



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