



How Agile Business Intelligence Is Vital to Your Organization

Michael Bitterman
Charlie Ambuhl
Founders - ITPMG, LLC

In Our *Dos and Don'ts* of BI Dashboard Development Presentation We...

- Defined what a dashboard is and is not
- Discussed the impediments to developing, deploying and managing successful dashboards
- Outlined our five-phase plan and an architecture
- Established a number of dashboard “no-nos”
- Offered a number of dashboard “dos”
- Gave you some *best practices* and made recommendations that you could implement
- Sent you away with the hope that you could gain higher penetration into your organization

Today We Are Going to...

- *Define BI (or at least give you one more definition to work with) and its conflicts*
- *Define Agile BI*
- *Illustrate the Agile BI environment*
- *Explain BI “self service” in terms of what IT does and what the business should do*
- *Explain the technology for Agile BI*
- *Summary*
- *Recommendation*
- *Questions and answers*

What Is Business Intelligence (BI)?

Among the many definitions is this consolidated perspective from the CIO's point of view:

“Business intelligence refers to the practices, technologies and applications for gathering, managing and analyzing data with the objective of delivering intelligence to assist organizations in making more informed, therefore better and faster decisions.”

The BI Conundrum

- According to an IBM survey of 2500 CIOs:
 - The use of BI analytics for decision making continues to be a high priority for organizations
 - 83% of the CIOs surveyed said that BI analytics is the way they are going to give their organization a competitive edge
- An Accenture study of 250 executives revealed
 - Producing analytics and making use of them is most often limited to the organization's SMEs that know how to get them and make use of them
 - 72% of companies indicated they were working toward greater use of analytics
 - Of those making use of analytics over 40% of decisions are made *without* using them
- What does this mean?
 - The inevitable now includes death, taxes and spreadsheets

The BI Conundrum

- Study done by Oracle:
 - 70% of organizations remain tied to the “spreadsheet culture”
 - In 2007 4% of organizations surveyed indicated that they had provided analytic capabilities to most of their organization’s workers
 - In 2010 4% of organizations surveyed indicated that they had provided analytic capabilities to most of their organization’s workers
 - In 2007 13% of the organizations said that their workers could build their own reports and dashboards
 - In 2010 13% of the organizations said that their workers could build their own reports and dashboards

What Do We Know and Can Conclude?

- Currently there remains a mixed picture for the adoption of BI and its associated analytics
 - CIOs say “yes,” but adoption is not there
- Data continues to increase in volume and users continue to insist on gaining access to more information
 - Relatively few organizations have or can provide what their workers are demanding
- There are issues surrounding access to data and the speed by which it can be provided in a form that offers it up as *information*
 - Spreadsheets continue to rule the day

What Are We Going to Do About It?

- A “data democracy” needs to be created within the organization — data availability to all that need to access it
- Executives, managers and workers get education and training regarding the use of analytic tools
- Followed by greater access to analytic tools and corporate dashboards
- How do we accomplish this?
 - By building an Agile BI environment

What Is Agile BI?

- *Agile BI* is the right user having easy and ready access to the right information at the right time and in the right form
- The *right user* is any of the 95% of people in the organization who are non-technical (using a PC or mobile device doesn't make you a techie)
- The *right information* answers the question(s) the user has right now, as opposed to the question the business analyst thought they were going to ask when they wrote the enterprise BI specifications a couple of years ago

The Agile BI Environment

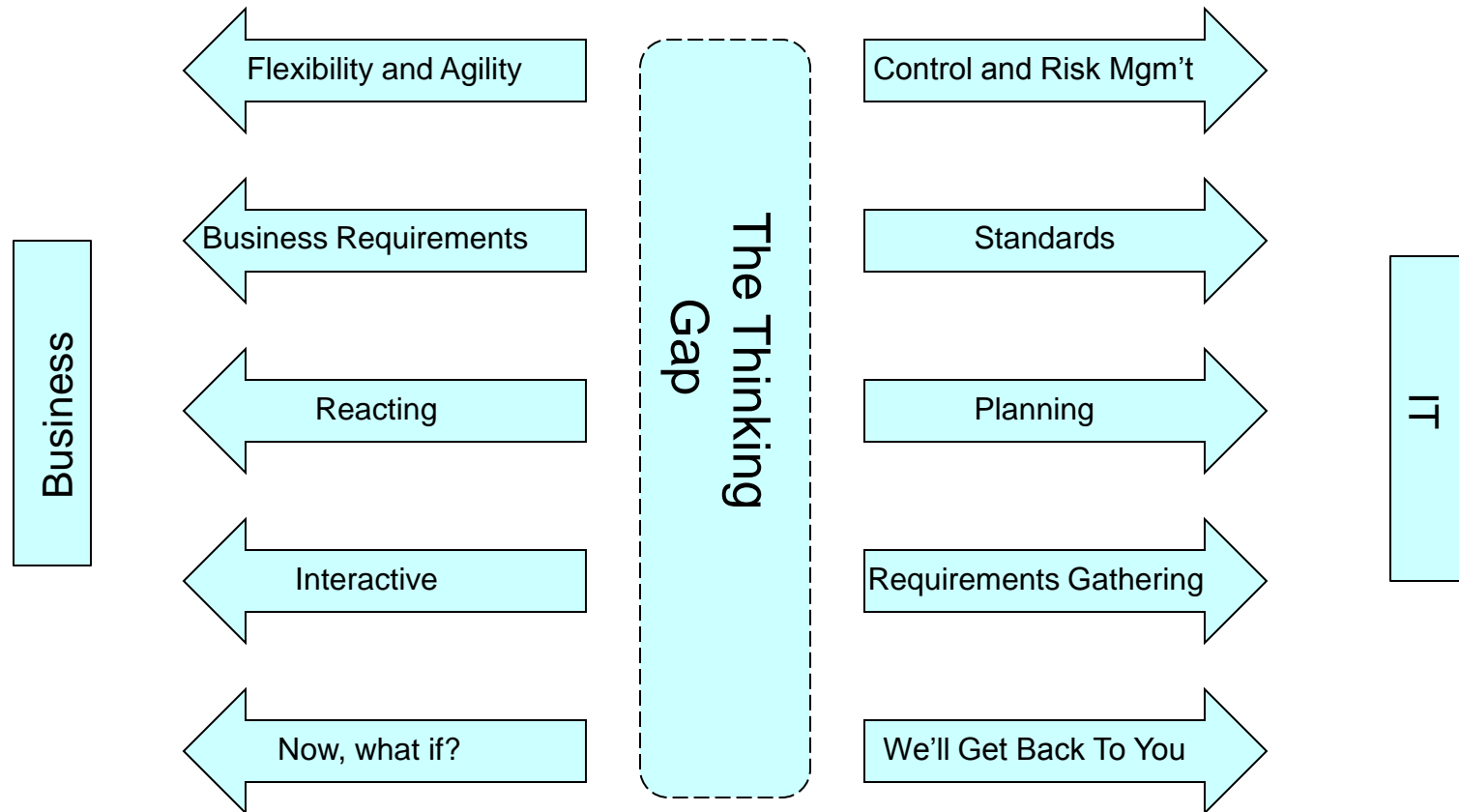
The development and deployment of an Agile BI environment consists of three major components:

1. Alignment between IT and the business/agency
2. Support structure and agreement between IT and the dashboard user community
3. The BI technology

IT and Business/Agency Alignment

- This is an area that has been discussed for years, and Agile BI doesn't approach it from the traditional standpoint of IT vs. business plans, projects and priorities
- The Agile BI focus on IT to business alignment deals with the development, implementation, management and use of BI analytics within the organization
- The challenges for IT regarding alignment with the business are...

The Alignment Challenge



The Agile BI Support Structure

The traditional support structure for IT has been:

- Annual “planning meeting”
- Develop the “strategy” or tweak the last one
- Develop the IT budget

The Agile BI Support Structure

The traditional support structure for IT has been:

- Annual “planning meeting”
- Develop the “strategy” or tweak the last one
- Develop the IT budget

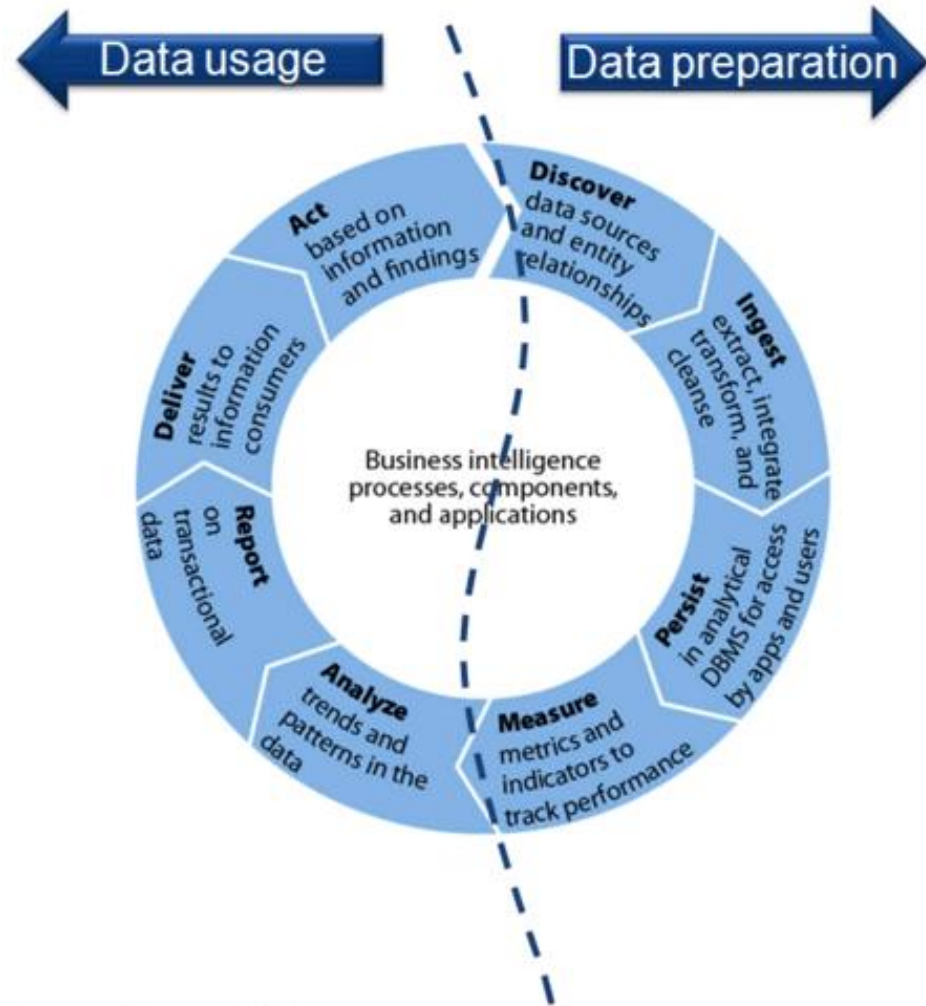
And then go back to the day to day operations — usually “event driven,” and also try to complete last year’s projects. This is the norm and probably will be after we’re all gone.

Agile BI, however, looks at support differently and from two perspectives. The focus is on *where to draw the line between IT support and business/agency “self service”!*

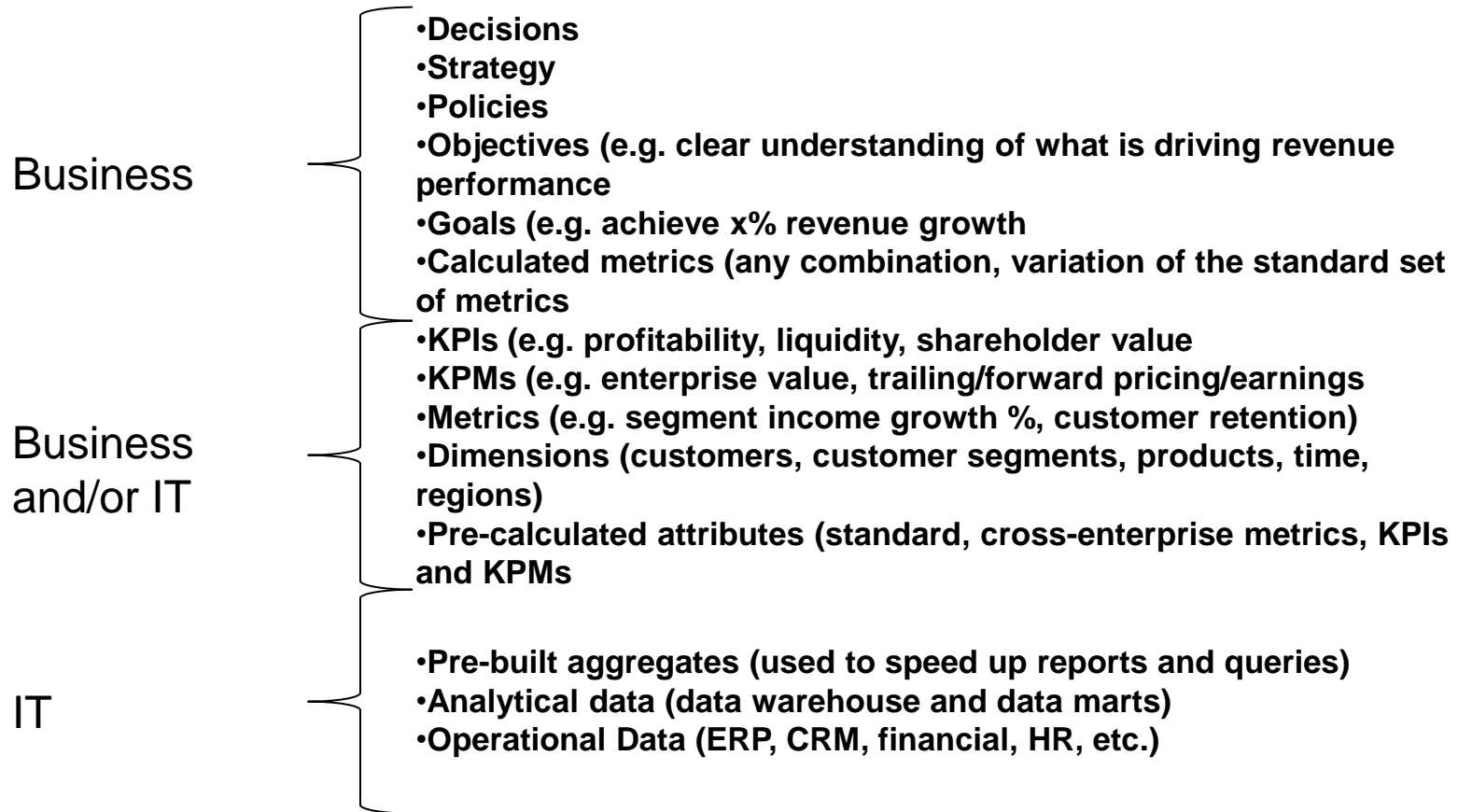
The BI *Process* Approach for Self Service

Separate the use of the data and turning it into information, which is the job of the business/ agency...

...from gathering, preparing and making the data available, which is the job of IT

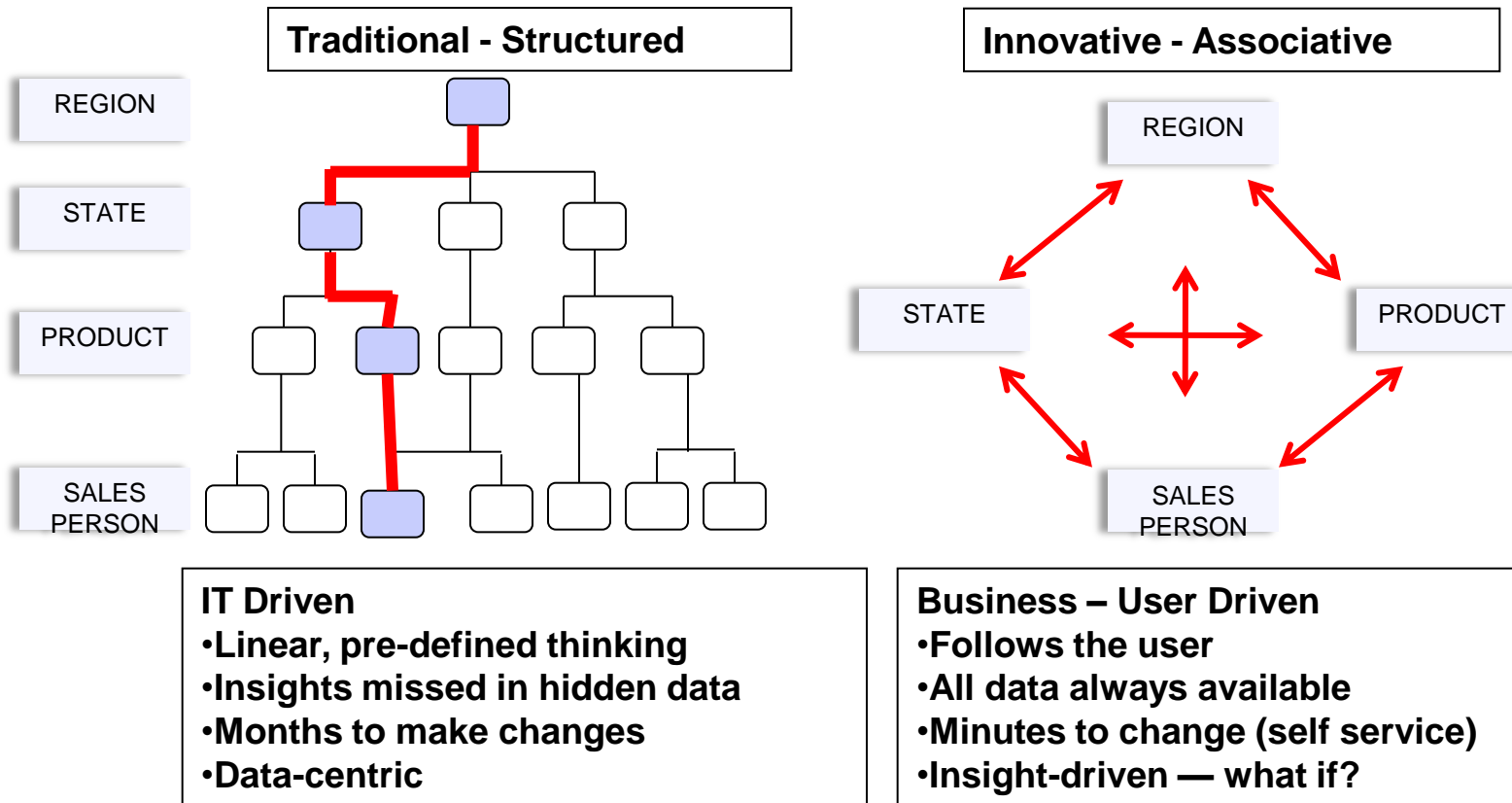


The BI Performance Management Approach for Self Service

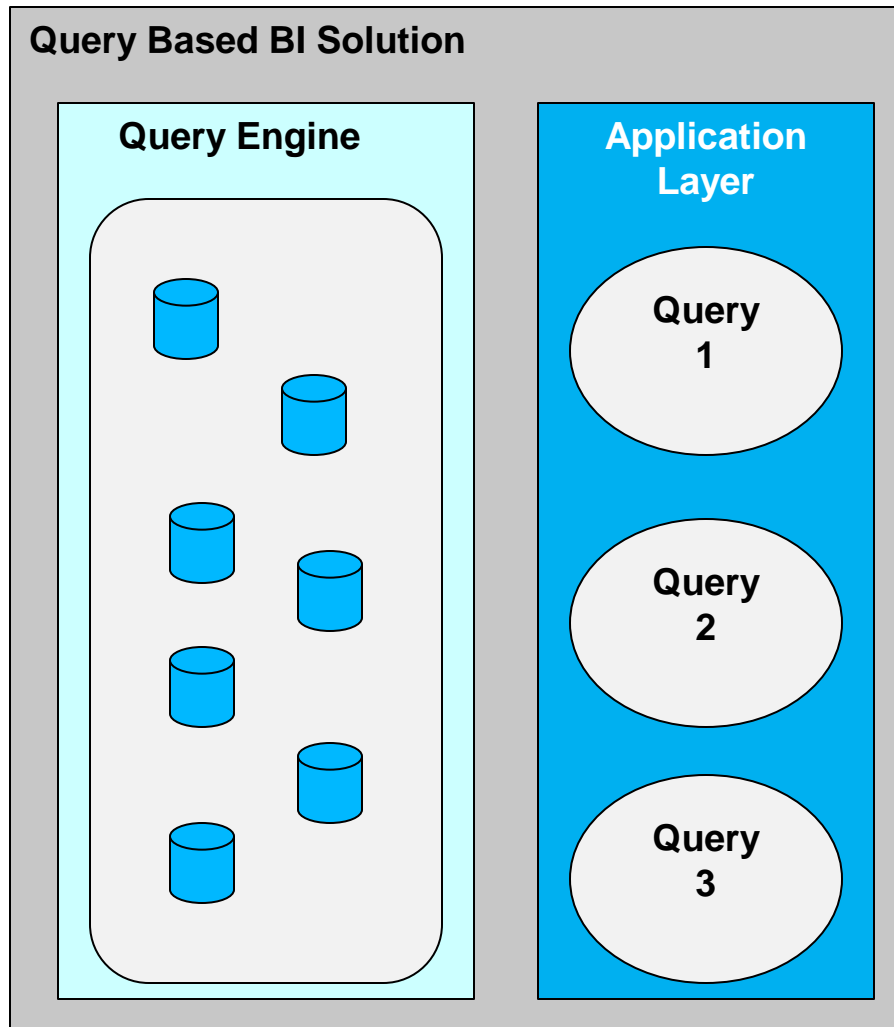


The Technology for Agile BI

The primary change is from a “structured” to an “associative” technology architecture



Traditional SQL Structure



No inherent associations between queries (e.g. queries sharing filter state)

No inherent associations back to original data set (e.g. drill to detail)

Associations must be hard coded query-by-query into the application layer

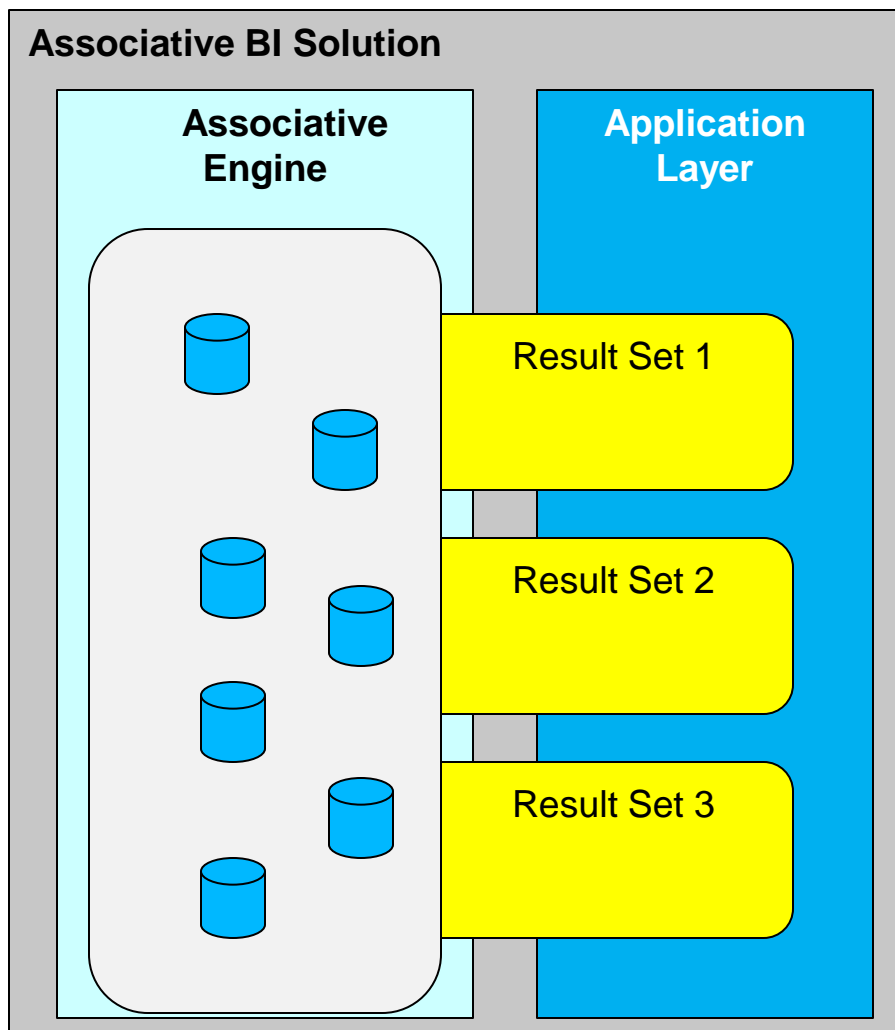
This is time consuming, expensive and inefficient

Results in inflexible, brittle and distinctly non-agile BI

Traditional Analysis Has Been Query Based

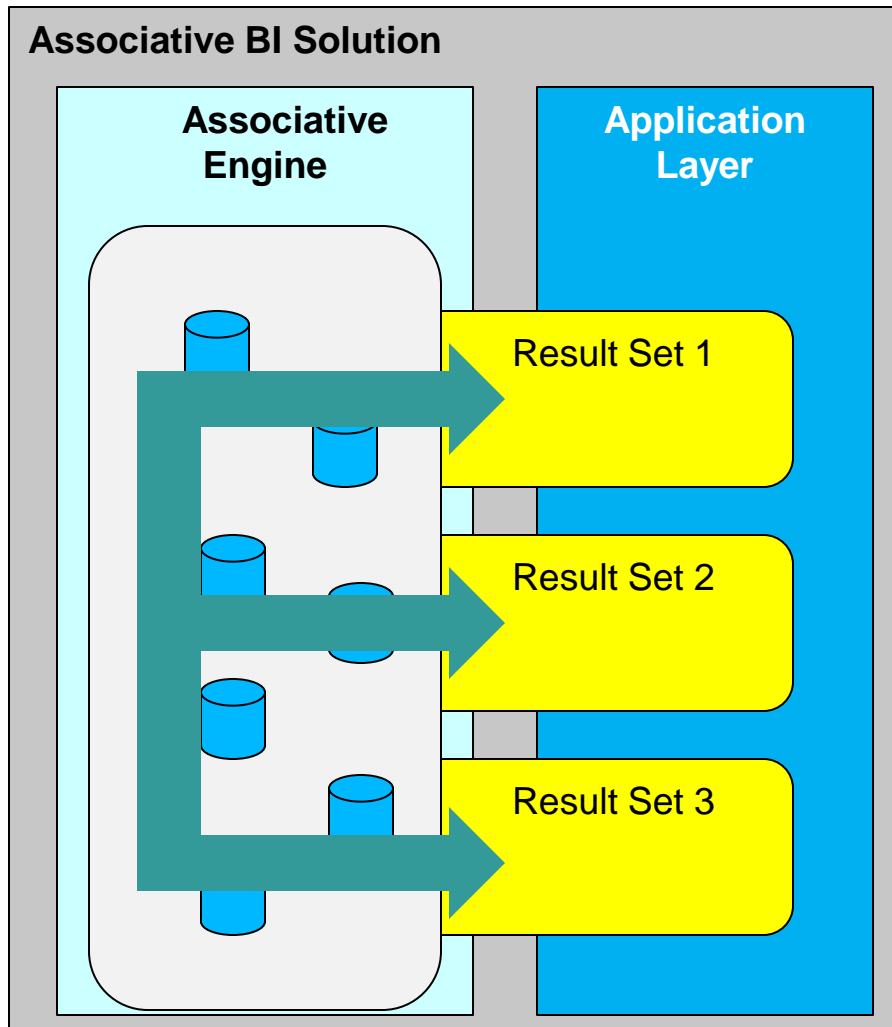
- SQL has been the in-place standard for 50+ years
- There are a few other query languages, e.g. MDX (multi-dimensional queries)
- Query languages are perfect for loading, extracting and altering data, so by default they became the de facto choice for doing the analysis, but...
- Each query is separate and divorced from the source data and from data in any other query
- Query result sets are not associated with any other query, so it turns out that today...
- Queries are not the best tool for actually doing analysis

A Change in Technology



The Associative Engine provides inherent built-in associations among all result sets and back to the un-aggregated detail data

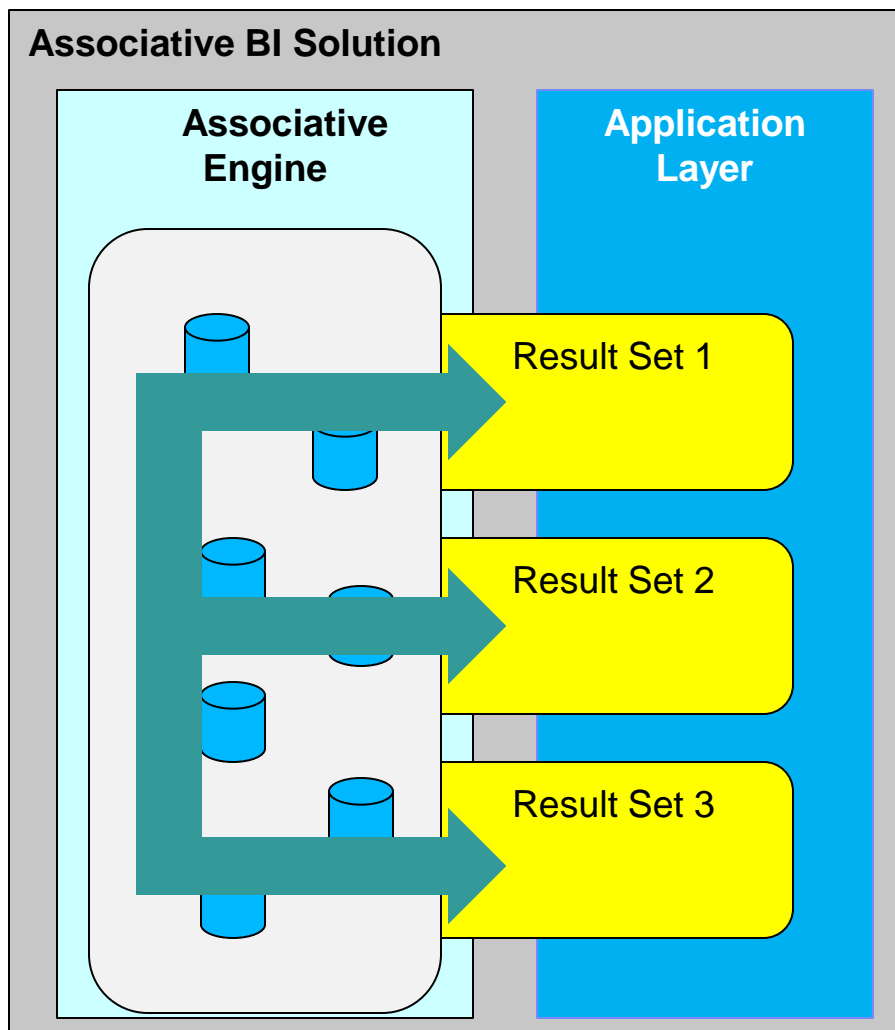
A Change in Technology



The Associative Engine provides inherent built-in associations among all result sets and back to the un-aggregated detail data

Associations are provided “free of cost” because adding or modifying result sets does not require any additional effort

A Change in Technology

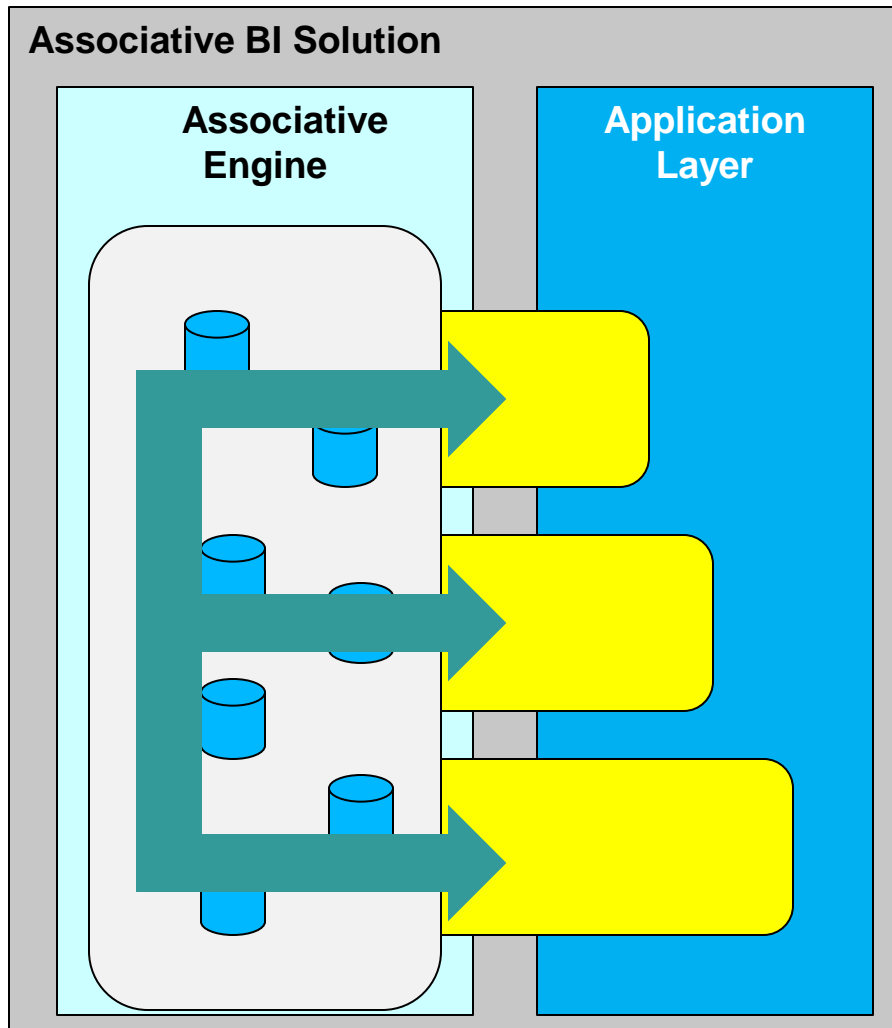


The Associative Engine provides inherent built-in associations among all result sets and back to the un-aggregated detail data

Associations are provided “free of cost” because adding or modifying result sets does not require any additional effort

**The result is
Agile BI**

A Change in Business Thinking



Result sets update themselves instantly as the user executes selections within the application

With no hard-coded associations and no pre-defined drill paths the user can explore the data in any direction

“Breakthrough” business insight is found by following where the data leads vs. following the path pre-determined at least months if not years ago

What Does Agile BI Bring?

- **Users Make Changes Themselves:** The cycle of innovation continues in a rapid flow directed by the user
- **Data Can Come and Go as Needed:** New tables can be added to the mix so the flow of analysis can continue un-interrupted
- **Fast Response:** The user can quickly and easily see what the data is telling them
- **User Directed Drill Downs:** Users can drill down the paths they decide are important not those planned for them in advance
- **Cheap and Fast Experimentation:** Once the user is in charge the evolution and penetration of the dashboard is viral. Users find themselves with their hands on the pulse of the business and a real sense of empowerment
- **Knowledge Sharing:** Dashboards, KPIs, tips and tricks propagate around the company like shared decks of presentation slides creating a culture of innovation

What Are the Benefits?

- **Low Hanging Fruit Is Harvested:** Once user controlled technology is introduced user can what they have always wanted. The result is a burst of user energy, innovation and business optimization
- **Jumpstart to Innovation:** Users stop asking questions when they cannot get answers. When they can get answers they start asking questions again. Answers lead to more questions and eventually to innovative solutions
- **Closing Loops:** Those in charge of a process can get answers about the results of the process and how it is working. The effects of actions can be readily seen and new leading indicators can be quickly developed allowing more effective changes to be made resulting in greater optimization
- **Increasing Accountability:** More visibility equals greater accountability. When an agile dashboard “turns the lights on” all can see where performance is and where it is headed
- **Propagation of Knowledge:** Discoveries in one part of the business about the business or the dashboard can be shared and then tuned for each situation as they arise

In Summary

For BI *self service*

- Draw clear lines where IT and business ownership and governance begin and end
- Empower your business users
 - Embrace next generation BI technology
 - Practicing Agile BI
- Leave IT in control of
 - Standards
 - Risk Management
 - Data preparation
 - Bringing Agile BI to the enterprise

In Summary

For Agile BI

- Remember that original estimates of cost and time are always too low
- Don't over promise
- Don't over commit
- Have a strategy and a plan that can be shown to the organization and then followed and amended as necessary
- Monolithic models have not been successful for implementation of BI — be flexible

**To receive additional materials and details on
How Agile Business Intelligence is Vital
to your Organization**

contact ITPMG at:

**by email:
information@itpmg.com**

**or phone:
+1.843.377.8228**