# Gartner Business Intelligence & Analytics Summit 2013

5 - 7 February 2013
Barcelona

Gartner Summits

## TRIP REPORT

## ANALYZE. PREDICT. ACT.

## The 2013 Tracks

**Track A:**
**Data and Information Management**
Getting the data and information right is key to delivering BI and analytics. This track for technologists looks in detail at how to best use capabilities like data warehousing, BI platforms, data integration and data quality tools, to build the right foundation.

**Track B:**
**Organization and Strategy**
This track for BI leaders explores how non-technical factors, like having the right organization structure and strategy, are critical in bringing business users together with IT to drive greater adoption of BI. It also highlights best practices for justifying, establishing and managing a BI and analytics program.

**Track C:**
**Performance Management**
This track takes a business-centric view to help companies use BI, analytics and corporate performance management to improve operations, reduce inefficiencies, and enhance business performance. It has a particular focus on the needs of Finance teams, a key user and sponsor of BI and analytics in many organizations.

**Track D:**
**Analytic Trends and Futures**
This track looks towards the future. It provides a vision into the market trends, emerging analytic technologies, new approaches and external factors impacting how organizations use information for business value. It will assist architects and strategists when considering their roadmaps and give business leaders a view of the 'art of the possible'.

**Analyze.** With the rise of business analytics BI turns towards the future. Organizations need to move forward, beyond the descriptive reporting of quantitative data, towards the use of technologies and approaches that are predictive and prescriptive – guiding and driving business decision making using a richer pallet of different types of data. But to make this leap forward requires changed engagement models, skills, roles and even cultural shifts.

**Predict.** A future facing outlook means increased complexity and a broader range of options. New technologies and issues abound: big data; data science; the logical data warehouse; visualization; real-time intelligence; machine driven decision making; text analytics; the flood of sensor data; social network analytics; analytics in the Cloud; predictive modeling. Navigating a path through the hype in order to make best use of limited resources is critical to success and future competitiveness.

**Act.** With business intelligence, analytics and performance management organizations can have a powerful set of intertwined technologies and practices to monitor and understand activities, align around goals, and act on data to make better decisions. Attend Gartner's 2013 summit to get the information you need to fast forward with BI and analytics, and discover how to build a strategy, architecture and team that delivers value now and in the future.

**James Richardson**
Research Director,
Gartner

**Juliane Jung,**
Director, Program Management,
Gartner

# Keynotes

## *GARTNER OPENING KEYNOTE:* New Realities, New Appetites, New Approaches

**James Richardson**
Research Director,
Gartner

**Ian Bertram**
Managing VP, Gartner

**Ted Friedman**
VP Distinguised Analyst,
Gartner

In the Gartner keynote we discussed what are the new realities business are work within, what are the new appetites driving investment and what are the new approaches organisation should adopt.

We started with the old assumptions that drove yesterday's decisions just do not apply to managing a business today.

For all of us, the old information, technology and skills don't apply to managing a business today.

Demands are increasing but IT budgets are not. In fact budgets are predicted to be flat to falling in 2013.

This puts pressure on organizations, particularly in BI and analytics, which remain the CIO's top technology priority in 2013.

The variety and volume of information that can be analyzed will explode at an exponential rate. However, the amount of noise will increase at the same rate. That's what we call 'Big Data'.

Big Data makes us re-define how we build, deliver and promote analytics.

It is an opportunity for those organizations that can exploit it through analysis; that can sort the signals from the noise and make sense of the patterns in the data.

However the appetite from business units for these new processing styles is enormous.

So far, 80% of analytic investments have been to produce historical/ descriptive reports from information often aggregated in data warehouses and data marts. But the volume, velocity and variety of new information sources and the need for new analytical capabilities are increasingly presenting challenges and opportunities for organizations trying to exploit these new sources and analytic capabilities.

The interest in new analytical techniques is driving many business conversations about using analytics for business process innovation and differentiation, but is also driving investments which are creating analytic silos that often do not realize the Organizations effective in architecting analytical capabilities and the integration between analytical capabilities and business processes are seeing lower costs and greater business impact from analytic investments.

A shift in usage and investment toward the more advanced end of the analytics continuum will require expanding and connecting your processes, resources, technologies, vendors and skills beyond traditional report development.

The new realities and appetites for analysis create tremendous opportunity, but they also create some challenges. In order to capitalize on them, organizations must modernize their information infrastructure to re-value data as an asset, and provide information management capabilities in an application-independent manner. This requires a mind-set shift toward a primary goal of information sharing. The Gartner Information Capabilities Framework provides a conceptual model for how to do this – a set of common capabilities that can be leveraged across analytic applications and in support of other types of use-cases. Big data makes this a must. The dimensions of volume, velocity and variety are bringing the traditional information infrastructure to the breaking points. Organizations should approach big data through experimentation, with a strong focus on combining diverse information types to generate new insights – this is where the great power of big data lies. But they must also be aware of the governance mandates big data brings – consuming data from outside the enterprise, data that is of unknown structure and data that is of unclear meaning will require a strong emphasis on building trust and anchoring big data efforts with a solid foundation of master data. Data of all types can be a powerful asset, and now is the time to begin putting it to work.

## Practitioner Guest Keynote: Beyond Budgeting: Statoil's Ambition to Action Model, a Management Approach for New Business Realities?

**Bjarte Bogsnes**
Vice President Performance Management Development, Statoil

Statoil is Scandinavia's largest company with operations in 36 countries and a turnover of 120 bn USD. On Fortune 500, the company ranks #1 on Social responsibility and #7 on Innovation. Transparency International ranks the company as the world's most transparent public company.

Statoil realized that traditional leadership and management practices no longer work in today's competence organizations operating in business environments more complex, dynamic and unpredictable than ever. The company has implemented innovative alternatives to traditional management, like abolishing traditional budgets and calendar-based management in favor of more decentralized, agile and human processes.

Statoil's management model Ambition to Action translates strategies throughout the organization into more concrete objectives, KPIs and actions. It separates the three budget purposes target setting, forecasting and resource allocation. Each of the three is redesigned to reflect an unpredictable business environment and a "Theory Y" based people view, aiming at creating more autonomy for local business teams.

Targets are preferably set by teams themselves, and are set relative to others where possible. Forecasts are simpler and more unbiased. A dynamic resource allocation replaces the annual, detailed pre-allocation typically found in a traditional budget. The process is more event and business driven than calendar driven.

Measured business results are "pressure-tested", addressing insights not picked up through KPI measurement alone. This holistic performance evaluation also addresses how business targets are achieved, assessed against company values and given a 50% weighting.

Self-regulation is a key principle that continues to drive development of the Ambition to Action process.

## ID: The Quest For Identity in the 21ST Century

**Baroness Susan Greenfield**

The human brain will adapt to whatever environment in which it is placed; the cyber world of the 21st Century constitutes a totally new type of environment; the brain could therefore be changing in parallel, in correspondingly totally new ways. This change in mind-set will impacts on every sector of our professional and private lives, encompassing goods and services, insurance and risk management, the media, creativity, leadership, education and ultimately most of domestic and international policy planning. So we need to try and foresee what these changes, be they positive or negative, may be: only then can we minimise the threats and harness the opportunities. I would like to suggest a 'Mind Change' initiative to parallel that of Climate Change: it would involve the commissioning of studies exploring the significance of various societal and medical trends in relation to a screen-based lifestyle, along with the design of truly innovative software that attempted to offset some of the perceived or agreed deficiencies arising from the current digital culture. Most immediately we need surveys of the views and insights of various relevant sectors. Then finally, in the light of all this input, we could make recommendations to policy makers for proactively planning the most effective environment for future business, and indeed all aspects of life, to flourish.

## Gartner Keynote: Information as Strategy: CEOs are Waking Up to It. Are You Ready?

**Mark Raskino,**
VP and Gartner Fellow

In my keynote I took a high level perspective on the way the role of information innovation is changing in business and society. More than 40 years after the invention of the microprocessor we are now firmly in the second half of the great "information age". Yet when we look back, people teach that history as a list of computing technologies (mainframe, mini, pc, internet, mobile) not as a history of information. That will change. In the second half of the information age, the centre of innovation is already shifting from infrastructure and process to information (and intelligence). BI professionals have a fantastic moment of career opportunity. We will see many more Chief Data Officers and data scientists appointed in coming years. You could become one, or end up working for one - either way it will be an exciting ride. They will be taking advantage of the vast array of information coming from sensors and networks, many or most of which will be outside the enterprise. Shared datasets in the cloud will enable information professionals to exploit new kinds of information such as location, social graph, DNA, and object status data in entirely new ways. Innovation in Western nations, productivity, GDP growth and societal advancement will flow this new fountain of wealth.

### To The Point: BICC 2.0: Instilling New Competencies to Advance your Analytic Initiatives

**Neil Chandler,**
Research Director,
Gartner

- If you don't have a BICC or Business analytics centre of excellence then initiate one.
- If you have one then ensure that it has a broad enough scope including BI, Analytics and Performance Management.
- There is a global shortage of analytics skills so you will need to consider adding virtual members via crowdsourcing or external services.

### Lead, Follow or Get Out of the Way

**Bill Gassman,**
Research Director,
Gartner

At Gartner's European Business Intelligence conference, held the first week of February, the gap between the IT led business intelligence groups and digital marketers couldn't have been more clear. The expected "big data" hype was visible all over the exhibit hall, but it was a stretch to see where any vendors were pitching solutions that would help the digital marketer succeed with analytics - or even help the BI group get involved with the task. Digital marketing is not yet a hot topic among the BI crowd.

The user round-table that I moderated on building rapport between the BI and marketing teams was well attended, but the stories were unfortunately familiar. One contributor lamented that marketers don't follow the rules, and their requests are for flexible, dynamic and agile solutions. They don't have appreciation for what is done for them and ask for the impossible", said another. A third complained that, "marketers ignore security issues and have no patience".

Well, these descriptions of marketers are accurate, but you may be having the same reaction I did; "Yeah, so what? If you can't stand the heat, stay out of the kitchen!". Digital marketing involves demanding and dynamic use of technology and analytics and nobody should be surprised with the demands, the pace or the passion to get things done.

In defense of the BI organizations, they have challenges too. Up to 90% of their time is consumed handling operational tasks to satisfy their many analytics consumers, such as keeping the data flowing, worrying about data quality, agonizing over the artistic value of reports and meeting deadlines. But, no excuse is sufficient. The BI organization doesn't have a monopoly on analytics. IT is but one supplier of analytics to a marketing organization. Marketers have a job to do and source appropriately.

At the end of the session, we went around the table to see what people had learned. Many realized for the first time that they were not alone in feeling inadequate to support their marketing organization. Some were pleased to learn of successful cases where the BI organization introduced self-service tools, such as Tableau and Qlikview to the marketing team. The best advice of the day seemed to be "focus on where you can be most valuable, and don't try to do everything".

While it is tough advice for a BI organization to hear, marketers should give them a choice to lead, follow or get out of the way. A few BI teams are able to provide leadership, and examples from industries like the telecom world are stunning. Many are able to provide value by following the lead of the marketing organization, which can often use qualified help, such as vendor selection, data integration or training on self-service tools. For other BI teams, getting out of the way - at least for the most part - is the most valuable tactic. It allows marketing to chart their analytics path and leaves the BI team free to work on other tasks where it can be more relevant.

Give your BI team a chance to help. See if there is interest and capability. If the BI organization won't work with you, you may find a good analyst or two that wouldn't mind switching teams.



# KEY FINDINGS

### Premier Sponsor Panel & Audience Predictions:

**Gareth Herschel,**
Research Director,
Gartner

- Ambitious BI Practitioners should move outside the IT organization, they need to be in a line of business organization for the most significant impact.
- Failure rates for BI are in the 30-90% range (significantly up on last year's panel's estimates) because most organizations do not take the time to define what success would look like.
- Healthcare, retail/e-commerce, telecommunications and financial services will be the most interesting industries to watch for emerging best practices in analysis.

### How Next-Generation Analytics Will Revolutionize Business Decision Making

**Nigel Rayner,**
Research VP, Gartner

- We are at a tipping point in the Information Age. So far, IT has focused on automating clerical and manual tasks but in the future the focus will shift to automating knowledge work and business decision making.
- The emergence of predictive and prescriptive analytics will allow users to model, simulate and predict business outcomes across the entire organization, while also optimizing resource allocation. In-memory technologies and the use of new data sources will only increase the potential of these analytic applications. Organizations which adopt these technologies will create significant competitive advantage.
- IT professionals need to educate business users in how these technologies can change business decision making for the better (and why they can't do this in spreadsheets). Data scientists will have a key role to play here.

### Tracking Cost of Ownership

**Rita Sallam,**
Research VP, Gartner

Babies and puppies are a lot like BI platform ownership costs (BIPOC); they are often low cost going in, they can be pretty fun to procure, their most significant costs occur over time (if you've put kids through college, you know what I mean), and their value should not be measured in terms of cost – but rather in terms of the benefits they generate.

- Gartner MQ 2013 customer survey data shows that while license and maintenance costs are most visible element of BIPOC and are often a major decision criterion in vendor selection, they account for only 9% of total 3 year BIPOC. Hardware costs account for about 3% and initial implementation costs about 6%. It is the people based costs, ongoing development, administration, and migration that drive BIPOC making up 82% of a 3 year BIPOC. Major attention should be paid to making these investments as productive as possible through user training and enablement, standardization of functionality, program management, and agile development.
- Often vendors delivering the highest business benefits do not have the lowest BIPOC. Similarly, the highest benefit BI strategy often does not have the lowest BIPOC. This paradox occurs because deployments that deliver the highest business benefits are more pervasively deployed to business users who use insights to make better decisions, improve business processes and to innovate. This requires more licenses for users. These users often are doing more complex types of analysis themselves so they need the more expensive developer type licenses versus consumer licenses than would be the case when delivering static reporting to larger numbers of users. More complex types of analysis to more users typically requires more hardware. And more extensive use of analytics means developers of content, often business users and more training and enablement of those users. Similarly, a strategy that satisfies both systems of record reporting as well as business users needs for data discovery may require multiple tools to achieve the desired business benefits with the same impact on expanded costs as described above plus additional program management and governance costs and effort.
- Focus on benefits quantification, but extend your benefits analysis beyond IT cost reduction. Work with business users to identify measures of improved business performance, improved processes, and the impact of specific decisions as a result of analytics capabilities. Survey users and measure impact regularly. Collect and market success stories and anecdotes of value with a focus on tangible benefits. Do not skimp on investment in training and change management as it is a key enabler of user adoption and productivity and therefore benefits realization.

### Using a Prediction Market Game to Predict the Future of Big Data

Over 70 attendees participated in Gartner's Big Data Prediction Market game to gain insight into Big Data intentions. The Gartner prediction market game called Huunu uses the same approach as applications such as Intrade, IEM, Predictwise, or BetFare to predict events like elections. To play, gamers invested game points based on their judgment and confidence in the response choices. The more confident in a response, the more points players should have invested. The value of each player's investment increases or decreases as others respond. The gaming platform works similar to a stock market so responses are like buying shares of answers that the player feels strongly about, whether positive or negative. Here are the results:

1. What will be the MOST limiting factor in adopting Big Data best practices over the next 24 months? 'Skills' was the highest probability response, although funding was a close second. Choices were 'lack

of organizational strategy', 'lack of focus on the right problems', 'infrastructure', 'lack of analytic capability to understand results', 'governance' (security, privacy, ownership, data quality)', 'skills', 'other'.

2. What will be the most common new Big Data analytics capability deployed over the next 24 months? Predictive Analytics was the clear choice of outcomes by participants with the highest total number of traders, total investment and average investment. Choices were data discovery, predictive analytics, prescriptive analytics, text analytics, video analytics, voice analytics, social network monitoring, sentiment analysis, network analysis.
3. In which platform components and capabilities used for Big Data will most NEW Big Data investment be made during the next 24 months be? Text, voice, multimedia, social analytics had the highest score of this question. It also had the highest total number of traders and total investment. Cloud data warehousing was second. Choices were cloud data warehousing, high capacity data warehousing, Map Reduce/ No SQL, search based indexes, complex event processing, columnar / in memory databases, graph analytics, text/voice/multimedia/ social analytics, algorithmic decision making.
4. By the end of 2013, what % of companies overall IT budget will be allocated or spent on Big Data initiatives? The 1-3% outcome ended with the highest score as a large number of traders invested in this outcome. However, examining the underlying investment amounts by demographic, large average investments are seen in the 5-10% outcome by the Marketing and Sales role and the 501-1000 organization size. Choices were none, 1-3%, 3-5%, 5-10%, greater than 10%.
5. By the end of 2013, most companies will be in what stage of Big Data adoption? Knowledge gathering was the clear leading outcome for this question. Choices were 'have not begun', 'knowledge gathering', 'developing a strategy', 'piloting', 'deployed'.
6. Who will sponsor the most Big Data initiatives in organizations over the next 24 months? The CIO was the clear leading outcome for this question, although CMO was second. Choices were BICC, CEO, CIO, CFO, CMO.
7. Over the next three years, what will be the biggest business opportunities and potential business value of Big Data? Two outcomes for this question were clear leaders compared with the others for this question: Customer Centric and New Products/Markets. Choices were cost reduction, customer centric, new business model, customer collaboration, new product/markets, compliance, other.
8. What percentage of vendors at the BI Summit and MDM conference will indicate they use Big Data in their online marketing material? This question was designed to judge the predictive ability of the participants regarding the marketing activities of summit vendors. The actual outcome for this question was judged to be 'More than 60%' (it was actually 67%) indicating the participants correctly identified the question outcome.

## Interactive Workshop: How to Deliver Self-Service BI

**Kurt Schlegel,**
Research VP, Gartner

**Key Challenges:**

Consider self-service business intelligence (BI) from two perspectives: users' ability to create analytical content and their ability to consume it.

Offer data mashup capabilities, as these are essential to facilitate end-user creation of analytical content.

Avoid focusing exclusively on ad hoc query and online analytical processing (OLAP) capabilities for users.

**Recommendations to IT Leaders:**

Create organizational structures that blend IT and business skills, and strike a balance between centralized and decentralized BI delivery.

Invest in consumerization technologies such as mobile devices, interactive visualization tools and search applications to increase user adoption.

Empower end users to create their own analytical views, but also provide a way to certify this content for distribution.

## To the Point: Big Data: Insight From the Trenches

**Svetlana Sicular,**
Research Director,
Gartner

1. Big data is not only unstructured data, this is all kinds of data with the high volume, velocity or variety characteristics.

   **Action item:** Identify sources and uses of data that are crucial to deliver value to your business via big data solutions.
2. Big data analytics use cases resemble familiar use cases, such as customer insights or fraud detection, but they require new technology capabilities, such as processing large volumes of data, combining multiple sources of structured and unstructured data and performing complex analysis.

   **Action item:** Understand use cases for your industry and line of business by considering big data technology capabilities, and decide what is practical for your organization.
3. Data scientist alone does not deliver big data solutions.

   **Action item:** Form a multidisciplinary team with the right skills to implement big data analytics. Grow data scientists out of your best people who understand data and analysis.
4. Success in big data adoption i s grounded in good understanding of a) analytics and b) data management.

   **Action items:** Evolve you existing analytics to big data analytics and ensure information centricity via data governance. Develop your enterprise information management strategy that includes but not limited to big data.

# KEY FINDINGS

## To the Point: BI and Analytics Market Trends - 2020 Vision

**Dan Sommer,**
Principal Analyst

Business Analytics will continue to grow in adversity and reach 100% of us is a significant way by 2020 and beyond. Vendors, users and service providers should plan for several triggering events in their planning cycles, to drive this pervasive adoption. Reaching the first 25% has been achieved largely from IT-driven reporting-centric paradigms extracting information from Systems of Record We'll see continued prioritization from IT despite flat budgets,

- 50% of users will be reached by 2014, as the centre of gravity will shift more and more toward the business/departmental needs, as there are really three trends that will hit mainstream in 2013: 1) The semantic layer will be increasingly challenged for diagnostic use cases. 2). Pick your own analytics, enabled by vendors, service providers and content vendors, and 3). Operational BI will hit its stride.
- 2014 to 2020 the impact of social, cloud, mobile and information will help drive towards 75% of users, but it's adopted in an inverse fashion, from the consumer and personal use-case, before it moves into mission critical in businesses and IT.
- 2020 and beyond will be the final frontier, where 100% of users will be reached by a rich set of analytic processes, as budding areas like human/machine interaction, artificial intelligence and the internet of things become mainstream.

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