Navigating to a Modern Analytics Strategy

Managing the shift from traditional business intelligence to modern SAP analytics capabilities.

Introduction

As industries continue to trek deeper into the digital realm, organizations are finding themselves under mounting pressure to transform their core processes, revamp user experience and engagement, accelerate the deployment of new applications, and integrate IT and business processes more effectively, infusing agility and efficiency along the way.

The good news is most data-driven enterprises recognize the need to make these structural changes and are eager to embrace advanced analytics capabilities that empower them to independently and swiftly explore, create and analyze content to produce and share meaningful insights.

The challenge for business leaders, however, is understanding how they can harness the power of analytics and develop cognitive intelligence based self-service insights at scale for decisions and actions, and achieve value-based outcomes and significant return-on-investment.

In this point-of-view, we will provide a transformation roadmap to enable firms to navigate the shift from conventional and inept business intelligence (BI) capabilities to a 'modern analytics' strategy. Using our unique methodology and expert insights, we aim to help businesses successfully ride the digital wave and sail past the competition.

"Modern analytics strategies have the potential to uncover new revenue streams, improve the quality of products and services and cultivate closer engagement with profitable customers. But to fully capitalize on this potential, enterprises must balance a complex mix of technical, organizational and cultural requirements."

Source: Forbes Insights

Moving Beyond BI: A Business Imperative

Businesses today need analytics capabilities that can support rapid business growth, satisfy the appetite for data mining and analysis, sustain low costs of ownership, and provide easy-to-access insights. Firms still using traditional BI solutions and data warehousing processes are ill-equipped to meet the demands of the modern digital era. The chart below illustrates the limitations of conventional business intelligence solutions.

Challenges with Traditional BI Solutions

Business User Experience	• Cumbersome solutions to explore, analyze, plan, predict and collaborate using data. • Unable to support real-time reporting requirements for timely decisions. • In-effective self-service oriented BI creates dependency on the IT team. • Poor performance of reports.
BI / ERP Applications	• Cannot adapt to business situations that have evolved, transformed and grown in complexity over time resulting in rigid design, poor functional and technical fit for value-based reporting. • Built on multiple technology platforms making it complex and prohibitive to analyze SAP and non-SAP data in a robust, integrated manner.
BI Architecture	• Architecture has limited scalability and adaptability to meet business requirements such as predictive capabilities, large volume data handling, and seamless integration across data sources. • Lack of best-fit visualization tools resulting in underutilization of analytics platform and their features.
Cost	• A high total cost of ownership as a result of maintaining non-flexible complex BI architectures and redundant BI applications.
Data	• Suffers from high data redundancy, high data latency and compels data storage. • Un-harmonized master data and in-effective data governance resulting in low data quality.

> *"Modern analytics and BI platforms are characterized by easy-to-use tools that support a full range of analytic workflow capabilities. They do not require significant involvement from IT to predefine data models upfront as a prerequisite to analysis, and in some cases, will automatically generate a reusable data model."*
>
> *Source: Gartner Report on BI, 2018*

Modern Analytics Offer Future-Ready BI Solutions

Modern analytics is a set of transformational BI capabilities that provides a flexible solution to meet current and future business needs. Modern analytics capabilities enable agility with high performance reporting on varied and voluminous data. It empowers business users for self-service based BI and can harness the capability of machine learning to auto-discover patterns, issues and solutions in data with simplified data modeling. Delivered properly, modern analytics can help realize quicker dividends on its potential benefits.

Accelerating Time-to-Analytics Value with Embedded Analytics

Real-time analytics on live transactional data helps business users get contextual personalized insights that can drive smart processes and decisions. Value use cases include but are not limited to - faster financial month-end closing, exception vendor performance, delivery effectiveness, customer service and master data correctness.

SAP S/4HANA has built-in embedded analytics that is based on virtual data models called ABAP Core Data Services (CDS), which provides comprehensive views across different functional areas. Tile-based Fiori apps represent a combination of analytics and business process transactions for faster and better decision making.

Infosys leverages its "Infosys Catalyst" accelerator for implementing SAP S/4HANA embedded analytics. This has assisted our clients to contextualize their specific situation while reducing up to 25% on implementation costs.

Potential Benefits of Modern Analytics

Embedded Analytics	• Reduces data latency and redundancy • Faster time to insight • Enables businesses to make smarter and quicker decisions
Augmented Analytics and Cognitive Intelligence Capabilities	• Auto data discovery with simplified data modeling for planning and analytics • Continuous improvements in decision making and pattern finding • Useful in analyzing sensor, social media and Internet of Things data
Self-Service Analytics	• Reduced dependency on IT teams • Improved individual productivity and efficiency • Value-added analytics skills
Insights Anytime Anywhere	• Analytics availability on multiple devices – mobile, tablets, computer, wearables etc. • Best fit deployment model (on-premise /cloud/hybrid)
Single Store Data lake	• Easier to access repository of structured and un-structured data • Usability for complex exploratory, advanced and predictive analytics
BI Tool Rationalization	• Usage of select BI tool set that can provide highest business value in a quick time frame

Unlocking Automated Insights with Augmented Analytics and Cognitive Intelligence

AI + BI = CI is the new mantra. AI is artificial intelligence, BI is business intelligence and CI is cognitive intelligence.

Augmented analytics and cognitive intelligence are growing trends that assist business users with automated data insights. It involves applying machine learning algorithms for data modeling and manipulation of huge data sets. These algorithms and patterns also trigger automatic statistical data-finding processes in relation to critical issues and problems which would otherwise be buried under huge amounts of data, enabling smarter business decisions.

Some examples of use cases include smart water level monitoring in agriculture and meteorology, smart city identification and analysis, blockchain-based clinical data management and track-and-trace in supply chain.

"Augmented analytics, an approach that automates insights using machine learning and natural-language generation, marks the next wave of disruption in the data and analytics market."

Source: Gartner

Analyzing trends and discovering value from streaming and sensor data is a key need among businesses using significant SAP capabilities. Many of these firms are qualifying their use cases with rapid proof-of-concept. SAP provides smart data integration (SDI) based adapters to acquire IOT data and transform it for business insights. SAP data hub solution enables data sharing, pipelining and orchestration. SAP Leonardo provides a single unified platform to integrate machine learning, analytics, big data and other next-generation technologies.

Empowering Business Users with Self-Service Analytics

Business users today are keen on easy-to-use tools for data preparation, lean data modeling and data discovery, all of which reduces the dependency on IT departments while enabling faster decision making. Modern analytics strategy thus focuses on the empowerment of such users with self-service analytic tools. While IT control is required for governance and uniformity across the organization, modern BI tools promote self-service and rapid prototyping. Case examples include simple dashboards, sophisticated ad-hoc reports, and user storyboards for key performance indicators.

SAP Analytics cloud is the strategic product from SAP for future innovation and modern analytics. It is designed for self-service and storytelling-based analytics capabilities targeted for business users. But it is yet to become the first tool of choice among the majority of SAP customers.

Infosys' consulting experience across different industry verticals and its assessment methods help clients traverse and optimize the varied user requirements with a decision tree based approach.

Data Lakes and Challenges in Integration with SAP Systems

In the last few years, we have seen a significant rise in the number of data lakes across different enterprise information architectures. Data lakes form a single repository of various types of data including historical and current, structured, unstructured, stream, sensor and social media data. Many businesses want to deploy their data lakes in cloud-based environments like Amazon S3, Azure, etc.

One of the challenges that SAP customers face currently is combining data from data lakes and other legacy systems data together to harvest meaningful insights, and to do so, finding the best-fit analytics model is critical.

Using a best-practices approach, we have developed specific tools to establish data lakes and have accelerators that can assist with the rapid design of analytics data models. This significantly reduces implementation efforts and costs while integrating data lakes with native SAP HANA, BW4HANA and SAP Analytics Cloud.

Choosing the Right Analytics Tools

Business Intelligence solution vendors are investing heavily to make their product an attractive choice for customers defining a modern analytics strategy. In our experience, customers using SAP tend to try out and consider different BI products by doing multiple proof-of-concept evaluations which can be a time consuming and costly affair, delaying the commencement of a meaningful analytics journey.

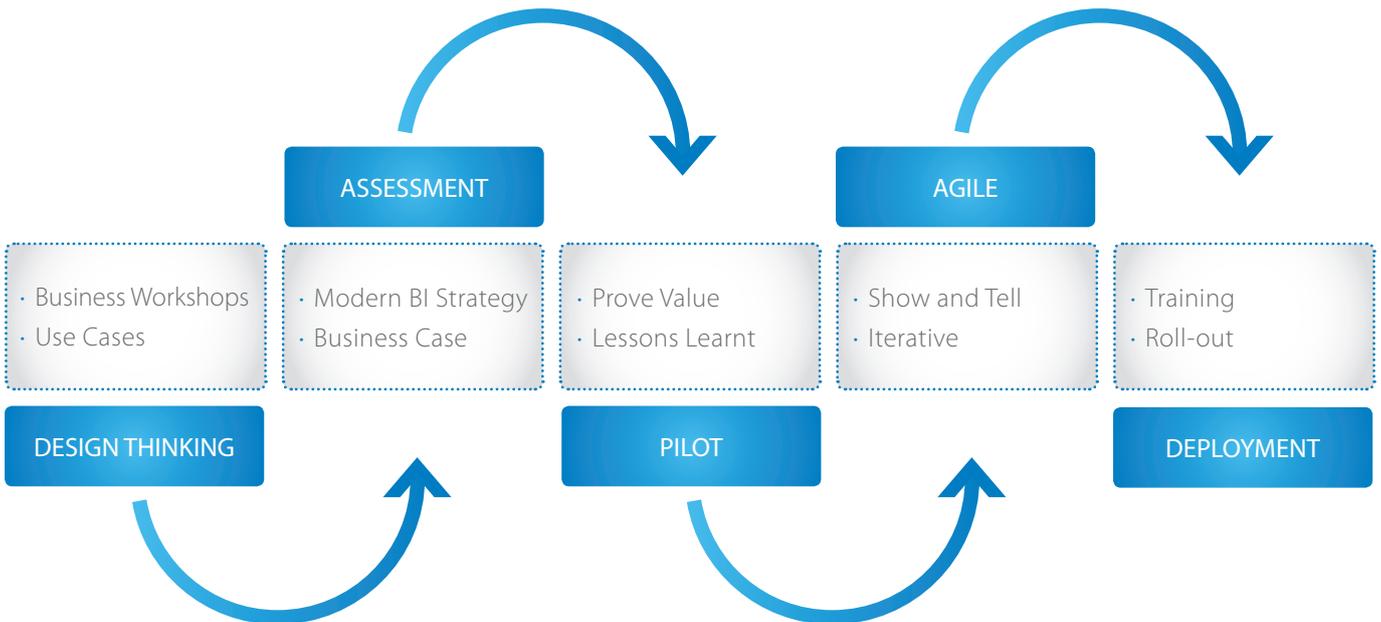# Our Approach to a Winning Analytics Program

For businesses embarking on their modern analytics journey and those implementing it, we have developed a structured method to help steer enterprises towards their desired business destinations.

Our approach involves design thinking-based workshops to help define initial use cases and prioritizing them for deep-dive assessments. This is followed by a quick yet comprehensive analytics assessment that evaluates existing analytics processes, technology, data, and resource capabilities across strategic, business, technical and infrastructure dimensions. It also covers effectiveness of functional and project management areas.

The outcome of the assessment is translated into a roadmap with a clear business case, expected costs and benefits. A follow up pilot project validates the assessment findings and helps formulate the future modern analytics strategy and its elements. Learnings from the pilot are applied in the subsequent value execution phases. Periodic 'show and tell' sessions are conducted to validate the solution with business users during the execution phases.

These sessions help users in the adoption of the new analytics solution. Once the solution is tested by the users, it is rolled out based on the customer-specific deployment strategy (for example, big bang or staggered), risk appetite and success factors.

Infosys Analytics Methodology

ASSESSMENT		AGILE	
· Business Workshops	· Modern BI Strategy	· Prove Value	· Show and Tell	· Training
· Use Cases	· Business Case	· Lessons Learnt	· Iterative	· Roll-out

DESIGN THINKING   PILOT   DEPLOYMENT

Infosys Catalyst Accelerator

In order to realize analytics value quickly, Infosys uses a hybrid agile (iterative) approach with the 'Infosys Catalyst' accelerator, see graphic below.

Automation – Pre-built operational reports and pre-configured dashboards leveraging SAP's prescribed best practices and Infosys experience

Innovation – Infosys provides SAP customers with an exclusive decision tree to guide the organization towards a robust and cognitive intelligence-based analytics strategy

Learning – Knowledge repository of POVs and demos including videos that support self-learning

Core Tenets of a Successful Strategy

1. Adopting a modern analytics strategy is imperative for businesses to stay relevant and competitive in today's market. Traditional BI applications cannot live up to the demands of the digital era.

2. Modern analytics and BI platforms are characterized by easy-to-use tools that support a full range of analytic workflow capabilities and help demarcate businesses that will be the pioneers and leaders of tomorrow from the followers of today.

3. Customers using or intending to use SAP S/4HANA should use embedded analytics within S/4HANA, Native

HANA, BW/4HANA and the next generation SAP Leonardo platform to establish their modern analytics capabilities.

4. Data lake integration with SAP S/4HANA can pose complexities that will need to be carefully managed.

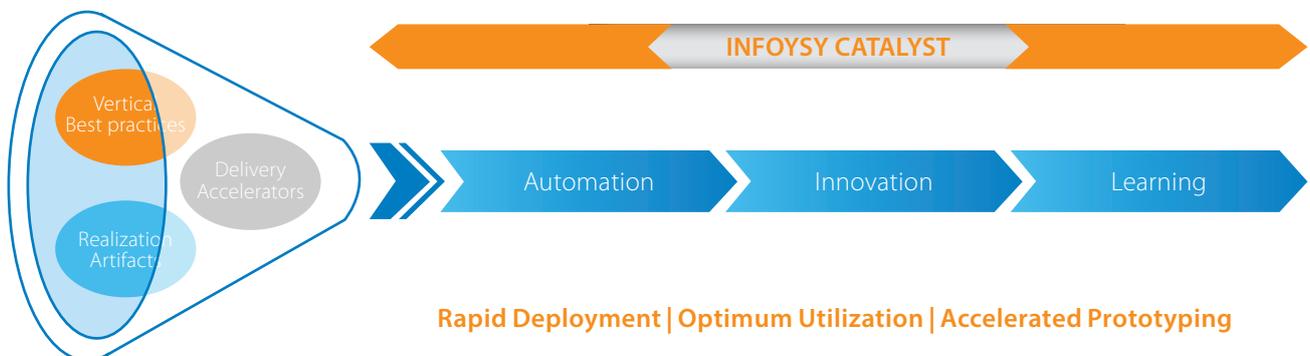**5.** Choose best fit analytics tools that will align to the organizational culture and system landscape.

6. Navigate the modern analytics journey with a strategic approach – begin with 1 to 3 well-defined use cases that align with business stakeholders, develop a forward-looking strategy and execute to value.

The Time to Seize the Future is Now

With emerging technologies like AI, machine learning and predictive analytics disrupting established business models, most global firms understand why data-driven enterprises of today will be the leaders of tomorrow. The competitive edge will be seized by those who not only have the data but have the capability to convert that data into actionable insights, filtering out the noise. This is where a robust analytics strategy comes into play and a trusted partner can accelerate an organization's journey towards becoming a leading firm of the future.

At Infosys Consulting, our team of experts believes that data is the key to unlocking an organization's full potential in today's digitally-centric world. Our consultants focus on helping companies see new opportunities by analyzing insights across the enterprise, and creating turn-key solutions for them to drive growth and competitive advantage.

Maximize Your Investments by Minimizing Time-to-Value

INFOYSY CATALYST

Vertical Best practices

Delivery Accelerators

Realization Artifacts

Automation → Innovation → Learning

Rapid Deployment | Optimum Utilization | Accelerated Prototyping

About the Experts

Alex Collevecchio – **Partner, SAP Digital Transformation Practice**

Alex Collevecchio is a senior partner leading the Innovation and Cognitive Intelligence practices for the Infosys Consulting SAP service line. Alex joined the firm in 2017 and has over 29 years of experience as a digital strategist and business transformation leader. He is an entrepreneurial visionary in the emerging technology space, having significant expertise on topics ranging from SAP Leonardo, big data/analytics and the internet of things to social media, cyber security and artificial intelligence. Alex specializes in leveraging his passion for SAP, digital technologies, and AI & automation technologies to drive innovative and integrated use cases with his clients.

Surya Khoday – **Senior Principal, SAP Digital Transformation Practice**

Surya Khoday is a senior principal in the business consulting division at Infosys Consulting. He has more than 25 years of industry and consulting leadership experience implementing business & digital transformation strategies enabled by SAP, SAP S/4 HANA and data analytics. He has worked with several Fortune 100 clients across consumer, manufacturing, life sciences and utility industries.

Amit Agarwal – **Principal, SAP Digital Transformation Practice**

Amit Agarwal is part of the firm's business consulting division. He has over 17 years of IT and consulting experience and specializes in implementing business intelligence programs across SAP, SAP S/4 HANA, BW on HANA, and non-SAP platforms.

About Infosys Consulting

Infosys Consulting is a global management consulting firm helping some of the world's most recognizable brands transform and innovate. Our consultants are industry experts that lead complex change agendas driven by disruptive technology. With offices in 20 countries and backed by the power of the global Infosys brand, our teams help the C-suite navigate today's digital landscape to win market share and create shareholder value for lasting competitive advantage. To see our ideas in action, or to join a new type of consulting firm, visit us at **www.InfosysConsultingInsights.com**.

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April 2019

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