

# Business Planning in the Digital Age

How a highly integrated and real-time approach will elevate a select few firms to future market dominance.



As we advance into a new age of disruptive digital technologies, the rules and ways-of-working that we have been so accustomed to are being quickly re-written, thus drastically changing the business models of some of today's most established companies.

The seamless connectivity between data and objects through the Internet of Things has reached the mainstream consumer (i.e., the smart home). Automation and artificial intelligence are helping to streamline organizational planning processes and analyze data on unimagined levels. Industry 4.0 is redefining discrete manufacturing as a new, intelligent and sustainable way of production. And, new models of interaction and collaboration between resources and assets are being created (i.e., "Uberization").

One of the key challenges executives face head-on is how to harness these now main stream industry disruptions and convert them into business opportunities – and ultimately drive competitive advantage for their firms. One element will remain constant, however – the need to predict, plan and generate profit for the organization. The good news is that these technology breakthroughs will offer new and more powerful ways to enable the planning and realization of bottom-line results.

This thought-piece will explore these concepts in more detail and offer a view into the different maturity levels an organization can achieve in their integrated planning processes.

## Evolution of Planning Capabilities in the Enterprise

Corporate planning systems have evolved over time from basic, manual planning models and early spreadsheet-based systems, to increased levels of optimization such as manufacturing resource planning (MRP2).

The common characteristic of this evolution up to now has been the elimination of barriers between planning data and transactional data, powered in large part by the shift to seamless technical integration in memory planning and cloud computing. In the near future we will see another transformational barrier being achieved: the convergence between physical world, real-time

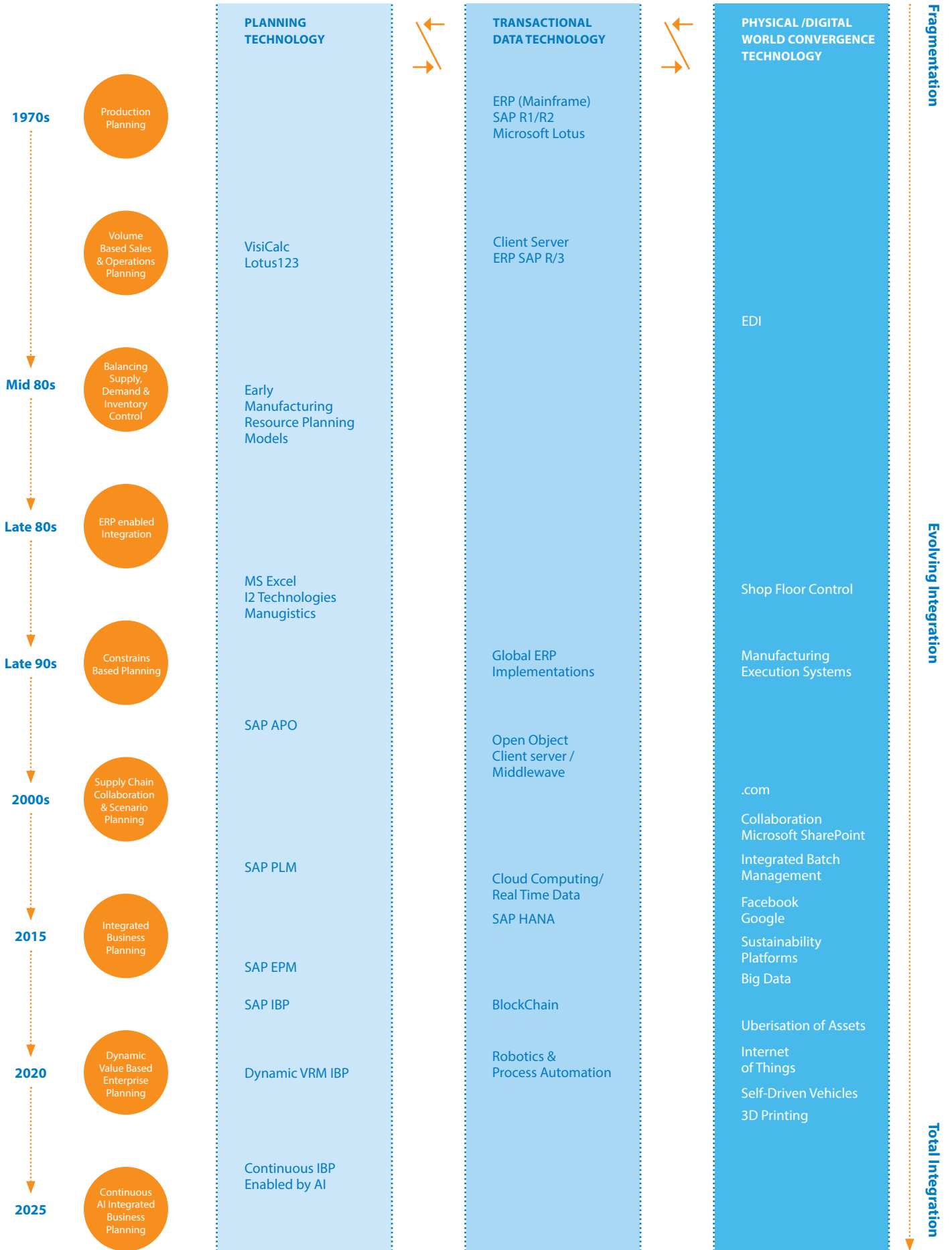
information and transactional/planning systems. This evolution will allow for even more rapid response to business changes, more complex and relevant planning models and further integration between sales, operations and finance to analyze and show the real value drivers for the business. This has profound meaning for the C-suite:

- ▶ **For the CFO:** This translates to increased predictability of the month-end results, achieving a complete reconciliation between the real financial actuals and the promises made via the business planning and performance management process.
- ▶ **For the COO:** This allows for the complete focus of company resources that maximize key value drivers by dynamically adjusting company plans to constant feedback and response capabilities.
- ▶ **For the CEO:** It will produce a quantum leap in the company results and deliver greater value to its stakeholders.

The current planning offering in today's enterprise is often referred to as "integrated business planning." Many vendors and solutions exist to support this complex function, but most offer only scattered solutions based on the premise of long planning cycles to address the limited visibility and slow information flow across commercial, supply chain and finance planning systems.

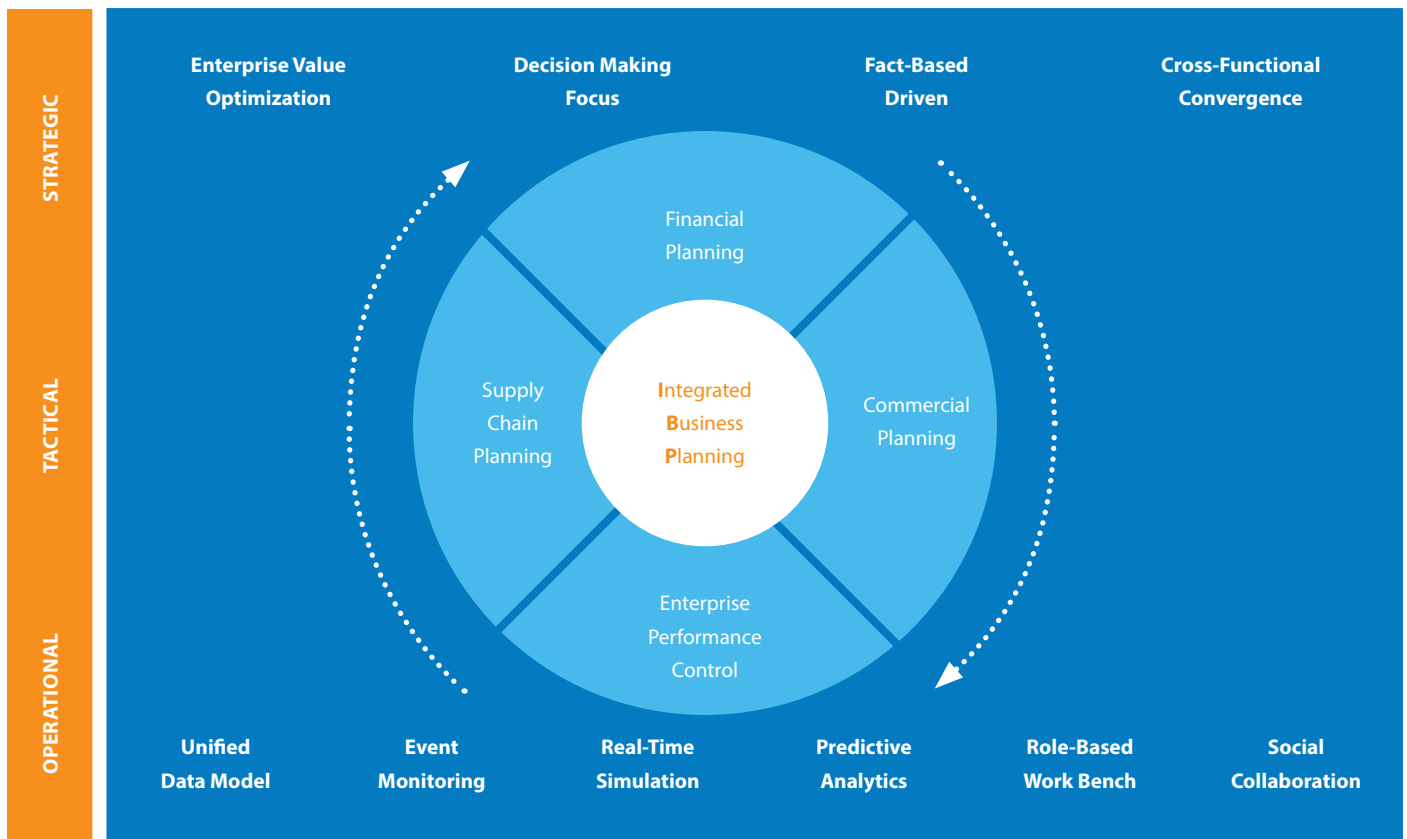
We believe the future of business planning will go well beyond the current paradigm and will be expanded to more dynamic models as new technologies become real, implementable propositions for organizations. In our view, a best practice model for integrated business planning in the digital age should include end-to-end business processes across the entire supply chain, including finance and performance management.

# EVOLUTION OF PLANNING CAPABILITIES



SOURCE: INFOSYS CONSULTING

## INTEGRATED BUSINESS PLANNING FRAMEWORK



SOURCE: INFOSYS CONSULTING

# End-to-End Integrated Business Planning

Based on current trends, a new framework for integrated business planning should include end-to-end business processes across the entire enterprise. Let's explore the dimensions of this.

## Financial Planning & Management

This process is a core part of the long-term business strategy in every company. Budgeting and forecasting is normally an annual exercise that is often time and resource intensive, and produces a snapshot of data amassed by different departments across the enterprise and after long negotiations. It is at most reviewed on a monthly basis, but more often on a quarterly cycle. It is quite difficult to accurately predict and to finally reconcile with the actuals achieved by month-end.

The proliferation of company-wide global enterprise resource planning (ERP) systems has powered a revolution in the integration of transactional data by providing consistent measurement of direct costs and an allocation of indirect costs.

As we evolve in the digital age, we will experience increased seamless integration between planning and execution systems, making it a reality to have more dynamic business plans and to evaluate financial risks on-the-go. Finally, it will allow for the complete, automatic reconciliation of planning commitments as part of the financial close and consolidation process.

Companies leveraging such break-throughs will be able to focus on managing the real, hard constraints of the business – and relieve their people of some of the most painful and often excruciating parts of the legacy planning cycle.

## Commercial Planning

Market dynamics take place in real time. Customers with unique demands, the rise of multi-channel commerce and shrinking product lifecycles are just a few of the continuously changing factors that stress the importance of a tight integration of commercial planning to drive finance and supply chain agendas.

An integrated commercial plan will allow organizations to successfully manage new product introductions into the marketplace through continuous monitoring of financial indicators to make adjustments. Sales and P&L projections will no longer be a static input to other functions, but instead will drive the entire business plans.

Optimal category planning, in alignment with finance and supply chain, will have a profound impact on harmonizing value creation by leveraging opportunities. This is a corporate CFO's dream state!

## Enterprise Performance Management

The rapid migration through this new digital era is expected to bring increased alignment of the performance management process with the planning and execution of the overall company objectives. This includes key performance indicators, monitoring systems and various cost optimization drivers, such as tax efficiency.

In recent years we have witnessed a proliferation of global supply chain hubs (i.e., "control towers") to provide end-to-end visibility of the entire

supply chain, its constraints, and various cost and optimization drivers. These are mainly managed by monitoring dashboards which trigger alerts to key decision makers.

These control towers will extend beyond supply chain monitoring to include commercial and financial areas to use more integrated cloud-based, real-time data that can be shared across all relevant legal entities and external partners of an enterprise. Also, with the arrival of big data, robotic process automation and artificial intelligence will turbo-charge the levels of efficiency that a business can operate.

## Supply Chain Planning

The creation of supply chain plans – balancing demand and supply, the optimization of inventory levels, efficiency of 3rd party suppliers and the achievement of service fulfillment – has been

a challenge that companies have dealt with for ages. The creation of long-term demand with a monthly rolling forecast update, medium-term plans for supply and the short freeze planning window are all common practices for companies with a good maturity level for this process.

However, this new age is ushering in one that allows for increased demand forecasting using the power of big data for real-time information exchange. This will be powered by artificial intelligence through heuristic models, true seamless inter-departmental collaboration models, faster response processes and dynamic optimization of value realization models.

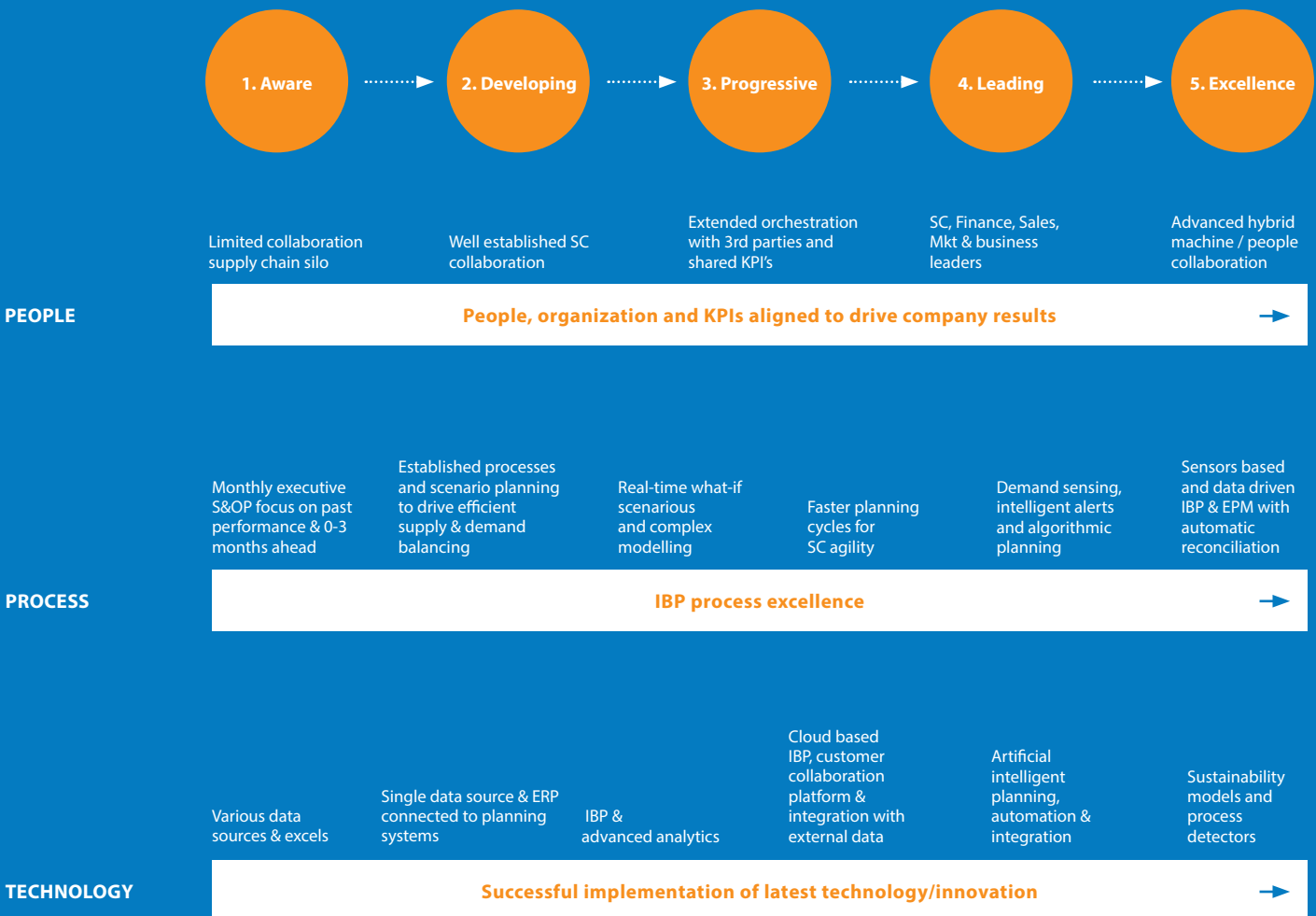
This will create opportunities for increased inventory control and optimization by incorporating sensor-based solutions, which will generate a faster supply of goods in and out of the market. Firms that can serve the consumer first, through mass customized, near-real-time delivery, will emerge as leaders of the pack.

# Integrated Business Planning Maturity Model

With the rapidly changing technology landscape, only a select few best-in-class organizations have been able to fully take advantage of the latest capabilities outlined previously. Based on our experience through a number of advisory engagements, it's our view that most organizations today rarely achieve a level of maturity higher than a robust sales and operations planning (S&OP) model, with some level of integration to the financial results, when it comes to their business planning processes. Let's explore the various dimensions of maturity in more detail...

SOURCE: INFOSYS CONSULTING

### MATURITY MODEL DIMENSIONS



## Aware to Developing

- Companies progress from disconnected management processes, annual budgeting with poor forward projection and few aligned metrics per function to monthly S&OP standardized processes with formal reviews, decision making forums and scenario planning.
- New disciplines are introduced: decision making process on a 3-6 month horizon, standardized rough-cut capacity plans, monthly production schedules, as well as new tools and reports.
- Typically a single ERP is connected to the planning system, along with tools for forecasting, SC planning and inventory optimization.
- Organizations normally develop mature S&OP processes before they implement IBP. Once maturity is reached, it will often transition from supply chain to other business leaders, since IBP acts as a business management process that runs the entire organization.

## Progressive to Leading

- Companies focus on integrated planning between previously siloed areas, especially functions such as sales and marketing. This is a huge step change - it's here where a collaborative approach delivers true enterprise value, affording all departments' access to the same data, thus closing the divide between finance and the supply chain.
- In this level we see a high degree of optimization by scenario planning and modelling, continuous integrated reconciliation, and risks modelled and mitigated through established processes.
- Many companies often become stuck in these mid-stages of IBP maturity and don't develop crucial practices that help unlock full benefits.

## Excellence

- Businesses achieve a high level of maturity when IBP framework is boosted with best-in-class artificial intelligence (AI) for full automation and integration.
- From a supply chain planning perspective, the following will be possible: Real-time visibility of demand and inventory, intelligent alerts, algorithmic planning, live data dashboards, multi-level visibility and AI planning for risk-adjusted inventory optimization.
- Flexibility factors – service levels, costs, time, and quality – as well as inventory synchronization will be evaluated by advanced auto-decision support, simulation models and analyzers. These components play a key role in reducing variability and increasing visibility, which will drive velocity through the supply chain, reducing lead time and releasing cash to invest in new products.
- These enablers will revolutionize planning processes:
  - » Sensor-based solutions to reduce inventory costs with increased visibility.
  - » Production and distribution process detectors to monitor and control energy usage and waste and to plan downtimes.
  - » Smart devices to monitor transportation, distribution and facility asset management.
  - » Non-compete, multi-partner information-sharing among key stakeholders such as consumers, suppliers, manufacturers, logistics service providers and retailers.
  - » Sustainability models to analyze and monitor usage impact (carbon, energy, water, waste).
- Corporate culture, outlook and fundamental beliefs need to create a pull force of change within the organization to drive faster maturity. All core functions will work alongside each other, and more importantly, from the same, accurate information.



Research from Aberdeen Group shows that companies that successfully implemented S&OP – regardless the size of the sector – routinely **outperformed** their competitors by at least **20%**.

SOURCE: ABERDEEN: SALES & OPERATIONS PLANNING - GLOBAL COMPARISON STUDY

Gartner: "S&OP is a corporate imperative and that 70% of the enterprises will be forced to upgrade their processes by 2020."

SOURCE: GARTNER: S&OP MATURITY MODEL FOR SUPPLY CHAIN LEADERS

The Hackett Group: 90% of organizations reported that they have some form of IBP. However, less than 30% categorized their IBP programs as "standardized and consistently adopted across the company."

SOURCE: THE HACKETT GROUP RESEARCH

## Preparing for the Journey

Top performers have a clear vision around their approach to integrated business planning (IBP) in their enterprise. This includes a view on relevant disruptive technologies, assessing their current maturity levels and developing a business transformation roadmap that breaks the typical barriers across their business model.

Investments will be required to manage the enormous quantity of data and turn it into actionable insights. Implementing enabling technologies is essential but not sufficient to maximize the benefits, as processes and people are a critical driver to achieving full success.

New skills are required to truly deliver integrated business planning. These include how to work in cross-functional collaboration models, how to navigate increased proliferation and complexity of data, and how to make meaningful decisions and future predictions based on rapid business changes. Managers across functions will be required to have a broader understanding of end-to-end value chain management.

Due to its complexity, we advise seeking expert counsel in the creation and management of an integrated business planning roadmap. Such counsel would include expertise on business enablement, ERP process transformation, disruptive technologies and transformation management. Gaining the latest views and best practices will be critical to establishing a strong business case and achieving the executive buy-in such a transformation will require.

## Market Leadership is at Stake

Today's digital age customer has adopted an entirely new set of expectations and behaviors. Disruptive technologies are powering this, and burgeoning new firms are taking flight as a result. For many of today's long-standing enterprises, business models are being upended and a seismic shift is forcing a reshape of how they operate.

The complexity and speed of the market is forcing these very companies to have an ultra-fast, highly responsive and deeply integrated approach to business planning to stay competitive and deliver growth. To respond to these new realities and market dynamics, a live supply chain running on real-time data will enable companies to plan, predict and act at the speed of the marketplace.

A conscious move towards embracing integrated business planning will see companies move ever closer to cross-functional collaboration, creating a cycle which sees finance, sales, purchasing, engineers, production, and senior management teams working alongside each other with accurate and live information to power decision-making. Firms that adopt this approach will thrive and win. The ones that lag behind will likely be rendered obsolete.

For the ones that do succeed, integrated, live planning will provide the perfect platform for innovation, exposing a holistic view of the market and customer demand, allowing an organization to identify long-term trends, and anticipate customer demand before its known.





# About the experts

## ABOUT INFOSYS CONSULTING

Infosys Consulting is a global advisor to leading companies for strategy, process engineering and technology-enabled transformation programs. We partner with clients to design and implement customized solutions to address their complex business challenges, and to help them in a post-modern ERP world. By combining innovative and human centric approaches with the latest technological advances, we enable organizations to reimagine their future and create sustainable and lasting business value.

Infosys Consulting is the worldwide management and IT consultancy unit of the Infosys Group (NYSE: INFY), a global leader in consulting and technology services, with nearly 200,000 employees working around the globe.

To find out how we go beyond the expected to deliver the exceptional, visit us at [InfosysConsultingInsights.com](http://InfosysConsultingInsights.com).



**Marco De Abreu, Senior Principal**  
*Supply Chain practice*

Over the past 26 years Marco has advised senior industry executives in developing and translating business strategy into value-driving solutions and results. He has managed global business transformation programs and large-scale planning and ERP implementations for a broad range of clients. He also leads thought leadership initiatives incorporating new technologies to address business imperatives. Marco holds an industrial engineering degree with a specialization in business optimization. He is the co-author of this report.



**Paula Forzani, Principal**  
*Supply Chain practice*

Paula started her career in supply chain and has more than 10 experience across sectors ranging from oil and gas to consumer goods. Her focus is advising clients on best practices and innovation around supply chain optimization, S&OP and operations. She also leads process design and modelling programs, as well as IT solutioning initiatives around business intelligence and data management. Paula has a degree in business and economics, is a certified scrum master as well as CPIM certified in production and inventory management. She is the co-author of this report.



**Jacques Le Ny, Partner**  
*Advisory practice*

Jacques is a 25-year industry veteran in consulting and a recognized expert in supply chain transformation. He has been in various leadership roles for Infosys Consulting over the past 7 years, and currently heads up the firm's new advisory practice, which is focused on a range of services helping the C-suite transform their business. Prior to Infosys Consulting, Jacques had significant operational experience in logistics and systems design. He was also a program director for major business transformations programs in consumer products and pharmaceuticals. He is a special contributor and subject matter expert to this paper.



**Jonquil Hackenberg, Partner**  
*Supply Chain practice*

As partner and UK supply chain practice head, Jonquil defines the go-to-market strategy for digitally-focused market offerings - and leads strategic change and complex supply chain transformation programs for the CPG and manufacturing industries. She is passionate about people, ardent about leadership and about developing high-performing teams with a sense of purpose, internally leading all coaching initiatives for the UK. As an educationist, she is committed to learning and growth - reflected in her part-time role as a lecturer at Beuth University, Berlin, and in her authorship on sustainability and renewables in Industry 4.0. She possesses an MBA from Beuth University and is fluent in German, English and Spanish. She is a special contributor and subject matter expert to this paper.

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