



ASSOCIATION FOR  
FINANCIAL  
PROFESSIONALS

AFP® GUIDE TO

# Building an Integrated Business Planning Capability

FP&A Guide Series

Issue 14

Underwritten by

**Anaplan**





Every business plans, but not every business excels. What separates the thriving businesses from the average ones is how well they create, execute, and adjust their plans as conditions change. The ability to connect planning capabilities across the business is the essence of Integrated Business Planning (IBP).

The latest installment in AFP's FP&A Guide Series, *Building an Integrated Business Planning Capability*, was written to help your business rise above the average. As AFP's authors say, "Turning your planning capability into an enterprise strength will provide insight, agility, and the ability to outmaneuver competitors in a rapidly changing and fiercely competitive landscape."

This guide breaks down a complicated subject into its component parts:

- What makes up Integrated Business Planning (IBP);
- The role of **people** in IBP, including the tasks they do and the skills they need;
- The many connected **processes** that make IBP work;
- The **technology** that IBP relies on—next-generation planning software and its enabling technologies such as cloud and data integration.

What makes this guide exceptional is its focus on the role of finance—and the FP&A function in particular—in IBP. The authors point out that, regardless of industry, the finance department is often the natural home for IBP initiatives because it interacts with all stakeholders in a company. Furthermore, CFOs and their staff are increasingly called upon to be strategic partners with every part of the business, so the authors say FP&A teams need to be "bilingual" — that is, "speaking both the language of accounting and finance, and the language of the business operations."

Like the AFP, Anaplan is dedicated to helping CFOs and finance departments succeed as they connect all areas of the business with IBP. That's why we sponsored this guide. We hope you find it informative and useful, and we thank the AFP for its leadership in helping CFOs and finance departments understand and achieve IBP.



ASSOCIATION FOR  
FINANCIAL  
PROFESSIONALS

# AFP® GUIDE TO **Building an Integrated Business Planning Capability**

FP&A Guide Series

*Underwritten by*

**Anaplan**

## Contents

What is Integrated Business Planning?	1
People	2
Process	8
Technology	11
Conclusion	14



## Introduction

In the permafrost of Alaska and northwest Canada, researchers uncovered the remains of wolves that hunted during the last ice age. These wolves were fearsome: larger than today's wolves, bigger teeth, stronger jaws. Their image is that of a hunter who specialized in taking down large prey such as mammoths. Today there is no trace of these "super wolves." Comparing the fossil DNA with those of modern wolves revealed no correlation; this prehistoric species died out completely. How did a species fall from the top of the food chain to a footnote in history? Quite simply, it failed to adapt.

The super wolves could not adapt as their large prey died out and the retreating sheets of ice altered their habitat, allowing smaller animals to flourish in their place. In the commercial world, we see a similar churn in the form of "creative destruction" — the continuous cycle of product and process innovation that supplants old ideas with newer, more desirable ones. Unless they adapt, companies come and go. Only 64 companies from the original S&P 500 still exist, and one forecast expects an additional 50 percent to depart over the next 10 years<sup>1</sup> Fully 26 percent of the Fortune 500 fell off the list in 2016.

The pace of this churn is increased by a combination of forces: digitization of information, storage of that information, and communication networks to move data around. This is changing our societies as information is disseminated in real-time, individuals can reach mass audiences, industries both evaporate and arise with corresponding changes in employment and personal fortunes. In commerce, Brian Solis captured this churn with the phrase "digital Darwinism," to explain that the companies that adapt fastest and most completely will survive.

In their landmark report, *The Digital Advantage: How Digital Leaders Outperform Their Peers in Every Industry*, Capgemini noted three key findings:

- 1. Companies with stronger digital intensity derive more revenue from their physical assets.**
- 2. Companies with stronger transformation management intensity are more profitable.**
- 3. Companies with stronger transformation management intensity achieve higher market valuations.**

The authors of this report concluded that companies that successfully leverage digital technology to transform their business to keep it aligned with changing market needs create more value for investors. But this type of transformation

is not limited to external connections with customers. It describes internal capabilities that lead to flexibility and adaptability: to read the market, to align resources to where they can be most productive, to be able to visualize where your company is heading, and to react swiftly to change is key to survival.

This is the purpose of integrated business planning, and it puts the FP&A practitioner at the heart of digital transformation.

## What is Integrated Business Planning?

Integrated Business Planning (IBP) is more of a philosophy than a rigorously defined academic term; it is the gathering of all aspects of business planning so they can be viewed, understood, and acted upon in a seamless process. Breaking down the term helps us understand the goals of this paper:

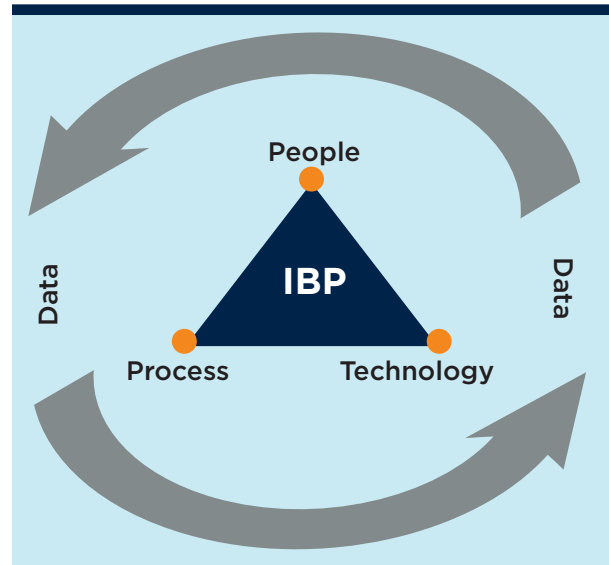
- **Integrated:** blending planning data from across the breadth of enterprise, including people, data sources and management guidance, from different lines of business and internal functions.
- **Business:** unifying financial, operational and market information.
- **Planning:** efficient allocation of resources (i.e., capital, people, assets) to satisfy customers, investors and other stakeholders. Planning may include strategy, execution, performance management, forecasting, predictive analytics and risk management.

This information is used to manage the company, not merely monitor it. This may sound impossible, but the pursuit of this perfect inter-working system constantly pushes us to improve our planning processes. From this emerges the definition we will use: Optimizing business performance by connecting an enterprise's planning capabilities, which resides in its human expertise, planning processes and information technology.

Elements of IBP are familiar. IBP shares characteristics of supply and operations planning (S&OP) in the effort to match demand projections from sales and marketing to production from the supply chain. It also has elements of enterprise or corporate performance management (EPM or CPM) in that these technology tools are essential for creating connections across the enterprise with a focus on analysis, modeling and reporting.

What is different now is the ubiquity of data. Data has been called “the oil of the 21st century” because it can be harnessed to power businesses and create new opportunities. It is marked by the fluidity of information, its ability to match the right data to the right person, time and format. Data cannot produce value in isolation; bringing the potential of data to fruition requires additional elements. We need skilled people to analyze data and make it meaningful, to design the processes that align people and help information flow, and we need the tools to manage the vast flow of information flooding us every day. Only by aligning each of these elements to the purpose of Integrated Business Planning can we adapt and thrive in the digital world.

## Components of IBP Capability



The alternatives to IBP are severely challenged. One option is that Finance creates the forecast based on investor/management guidance and distributes that to the business. That is usually quick, but has little business ownership, creates an adversarial relationship, and may not align with nor optimize operations and business plan. Another alternative is planning in silos with minimal coordination and potential mis-information disseminated, and FP&A acts as a collector and consolidator of financial data. Instead, IBP impels CFOs and those in the office of finance to become itself strategic business partners constantly looking for ways to improve operational efficiency, customer satisfaction, and profitability.<sup>2</sup> The benefits of IBP can be seen in strategic planning, planning execution, budgeting, forecasting, variance analysis, driver analysis, cost analysis, operational efficiency, or any number of other areas.

FP&A often is the team charged with completing the expanded CFO mission. Some business units may be incentivized on sales, production, business margins, or other targets which can compromise overall financial results if they are pursued in isolation. Finance is an independent arbiter of company performance that also has an enterprise-wide view of the company, including internal and external stakeholders, and that also has validated, structured financial data at its fingertips. FP&A must drive its company forward by building a competitive capability in integrated business processes, within the context of data and digital transformation, to become adaptable and agile, or else face extinction. Successfully achieving this requires focusing on the People, Processes and Technology used in planning.

## People

Integrated Business Planning is about getting the most productive effort from the people involved in the planning process. Before we get to the promise of data, the right talent is needed in FP&A teams to ask the right questions, establish the processes, and maintain the tools. However, FP&A's current level of proficiency is not equal to the talents required to keep companies, and itself, relevant. IBP demands those in the FP&A team have competencies in applying their finance skills. The interpersonal skills to develop successful partnerships with their peers in other lines of business, and technical capabilities to cope with the challenge of working with tools and platforms that extend into areas far beyond finance.

### Excerpts from a FP&A job description:

Provide proactive, timely, accurate and clear analysis and insights that drive key business decisions, including:

- Financial models used in annual budgeting, forecasting and multi-year strategic planning.
- Lead the budgeting, forecasting and monthly variance analysis for support departments.
- Compile monthly/weekly KPI's and financial reporting packages encompassing revenue, expense, headcount, utilization, billable charges and sales metrics.
- Identify, analyze and track financial and operational trends and works with key constituents to identify actionable solutions.
- Challenge processes and develop recommendations for standardization and efficiency improvements.
- Provide insights/analysis and executive summaries on key analytics and reporting
- Support SG&A senior leadership in managing expenses and budget. Provide guidance and advice on how to ensure financial commitments are delivered.
- Prepare ad hoc financial analysis as requested.

## New ways of applying finance skills

The heart of IBP is the alignment of all the stakeholders across the company, from the capital source through the company to the customers. These different stakeholders can only be satisfied if the company allocates capital efficiently to develop the products and services the market wants. Integrated Business Planning puts FP&A in the middle of this flow by being bilingual — that is, speaking both the language of accounting and finance, and the language of the business operations.

Many of FP&A's job requirements in supporting IBP fall into three broad categories: building a financial model, performing financial analyses, and management reporting. Managing the budget-forecast-variance cycle is a combination of a company-wide financial model and performing analyses on the variances between budget, forecasts, and actuals; it will be covered as a process in the next section.

### Building an integrated planning model

Financial modeling is the basis of FP&A work, whether for enterprise-wide planning or smaller projects in specific areas of the business. By definition, models reduce complex systems to simplified units that can be controlled and studied. For decades, the default action has been to build a spreadsheet model and, as will be discussed later, there are times where this may still be the preferred solution. However, in the world where digital Darwinism demands agility, there are newer ways to harness data and tools and platforms that go beyond their limited modeling capabilities.

Spreadsheets are like a flat piece of paper on which anything can be drawn. This is the source of both their flexibility (You can write anything!) as well as their limitations (You can write anything!). The user needs to write all the rules for inputs, calculations, and outputs, which can introduce many problems. These include errors in formulae hidden at cell level (it is commonly estimated that more than 80 percent of all spreadsheets have errors<sup>3</sup>), the inability to work collaboratively around shared data, poor chain of control as custody changes, and inability to provide rapid decision support due to the length of time needed to amend models.

The first difference in building an IBP model is to recognize that that they are inherently multi-dimensional — something that it difficult to accommodate in spreadsheets. Data is typically organized along dimensions, or key characteristics, such as time, business department,

geography customer segment or product. If you think of it in terms of a Rubik's Cube, when it is solved, each face could represent a different dimension of data. By twisting the axes of the cube, you can create different combinations of data for analysis. Each dimension typically has hierarchical relationships, often called parent-child, that provide additional planning and analytic capabilities where one can analyze at a summary level across dimensions or choose to drill deeper into one specific dimension to see lower levels of more granular detail, e.g., accounts. However, unlike a Rubik's Cube, IBP models may have seven or more dimensions to view the data.

While a modeling tool needs to be flexible enough to provide numerous ways for viewing the data across different dimensions, it also needs to be structured to ensure consistent calculations and roll-ups across the organization even when jagged hierarchies are involved. For example, a CFO needs to know that a corporate allocation or net present value (NPV) calculation from one part of the company is calculated the same as from another part. Achieving such consistency with spreadsheets is difficult, but models built on a single platform can be centrally controlled and widely distributed, providing security and consistency without sacrificing user operability. Financial models can also speed up the planning process by developing a standard, connected entry form for the business units, and even seeding or pre-populating templates with information so that the business does not need to start from a blank page.

With spreadsheets, a user who wants to compare two or more different versions of a model, such as budget, forecasts or actual, might compare different files. In a database world, each instance of a model can be saved as a new scenario where users can manipulate the assumptions and drivers without fear of damaging it. This ability to quickly create new models and compare results is a tremendous time-saver.

FP&A practitioners need to build models that reflect how changes to business drivers impact financial forecasts. This is very different from forecasting each line of the general ledger. IBP models should allow driver-based input from around the organization. This means having those in the business closest to the sources, who work with such data on a daily basis, being responsible for the non-financial driver data used to refresh the model. FP&A's ownership of IBP allows it to convert those drivers into dollars that populate the financial statements — the ultimate outcome and equalizing quantitative language of business performance.

The tools should allow for comparisons between any instances of the model, including actual results from any period, forecast projections made at any period, or budget models. All software packages should extend this concept to create multiple scenarios of the model, allowing the end user to test different assumptions and assess potential outcomes. These different scenarios should be able to be compared to each other, and run through the regular report filter.

*For additional resources on modeling, please see AFP's 2016 FP&A Resource Guide titled, "Guide to Driver-Based Modeling and How It Works," a primer on driver-based modeling, planning and analysis.*

### Performing financial analyses

Financial analysis is finding insights from the examination of the business operations and financial and operational data. Since research and analysis is a key reason for having an integrated planning tool, all systems on the market have some level of analytics capabilities.

IBP brings data from across the organization into a single system in a structured format — it has specific definitions and resides with like data in searchable tables. The data will have been mapped into a tool or platform that enables multi-dimensional modeling to allow for flexibility in data exploration and examination, which means that entire categories can be compared, changed and analyzed again.

Imagine that you are decorating a room. The dimensions may include flooring, furniture, wall covering, lighting, etc. You can spin the cube to lay the elements against each other or, if you decide that you no longer want to study flooring aspects, you can simply remove that dimension and perhaps replace it with another, say, curtains.

The user should be able to drill down for additional levels of detail or drill up to a higher level in the hierarchy. Extending the decorating analogy further, this is akin to considering different types of flooring, i.e., hardwood versus tile versus carpeting, and then going to the next level to choose among types of hardwood (wood versus laminate) and then selecting colors. Tools also include drilling through to additional reports linked to that data, and drilling across by switching among data hierarchies. Another capability that provides additional analytic value is the ability to drill directly from a specific report that is more of a summary to the actual transaction detail, making up the balances in the initial report. This can be accomplished in various ways but modern tools and the enabling solution platform typically offer this capability.

Many software packages now offer a version of predictive analytics. The most common form is a trend analysis in which the future is expected to resemble past events. However, if a true driver-based forecast is available, FP&A can apply regressions to data to distill relationship strength among variables and financial or operational results. Bringing disparate data together into a single analytical tool allows the analyst to improve his or her ability to uncover insights, and the correlations and relationships that might have remained hidden.

In a spreadsheet environment, creating a new scenario is as easy as copying and renaming a file. IBP tools can create new scenarios just as simply, and offer additional benefits. The user who creates the scenario retains access to the entirety of the model, including linkages to the underlying data, reports, and custom views. If a new month's accounting actuals are now ready, they can be rolled into the scenario along with updated operational data.

### Management reporting

So far, we have discussed entering data into the tool and working on it there. However, being able to pull actionable information out of the tool is what makes the effort worthwhile. IBP tools that fluidly move data through various templates and reporting tools free up a tremendous amount of low-productivity time that can be repurposed to value-adding analysis or partnership building.

FP&A must design the system to deliver the right information to the right person at the right time in the right format. The first step is to identify the profiles and requirements of various end users, such as executives, business-line managers, functional leads, power users, and analysts. Then, work with these groups to learn their challenges, and what information they require to meet those challenges. How often they need that data depends on the decisions and actions derived from the data; there is a cost to supplying real-time data that may be unnecessary if related decisions take a week. Finally, consider how the information will be digested by the recipient. Is it pixel-perfect presentation reports, standard reporting packages and dashboards, guided analysis, ad hoc analysis, data mashup and visualization, or even a data feed to be entered into another system?

Establishing standard reporting is a powerful feature and potentially a huge time-saver. Once a report format is established using a designed look and feel, the analyst can apply the data elements and select the desired scenarios.

The same report can be re-purposed for different data sets depending on the audience, updated and replicated as needed. This is especially useful in creating weekly or monthly briefing books for operational managers. An additional useful feature is to have data from the planning tool populate into other reports, such as a predefined PowerPoint or Word template. This is aided by XBRL tagging (eXtensible Business Reporting Language), the global standard for reporting and exchanging business information where the content is the same from period to period, such as financial reporting and disclosure documents, board or investor presentations.

In addition to set reports, an integrated tool should allow for ad hoc reports that pull together data and analysis from across the organization. The ability to gather information from disparate data sets, combine and present them is a powerful tool for generating insights and displaying the enterprise-wide view and corporate allocation of capital for which FP&A is tasked.

Integrated Business Planning requires that FP&A deliver its insight and information effectively. Currently, there is a trend toward screen-ready reports being output to a printer. These may be created via digital report books or webpage displays. An important subset is dashboards tailored to the end-user's needs. Consider the look and feel of data outputs in a paperless, mobile environment, and functionality that allows for digital transmission through the platform itself, linked through email or posted to a collaborative workshare. The output should be viewable on a variety of computers, tablets or mobile devices.

### Technical Skills

To unlock the new finance applications, FP&A needs to develop an understanding of how databases work and learn the new integrative tools. The volume, velocity and variability of data is increasing tremendously enabled by new capabilities of capturing, storing and recalling data. FP&A needs to develop "database thinking" and understand that data are organized into tables with records and attributes that can be read and processed. The masses of data should be managed as a process, the computation is a separate process, and extraction is a different process, one that is used for both analysis and reporting. The qualities of data are discussed in the "Process" section below and tools and trends in the "Technology" section. Here, the focus is on the individual skills that FP&A practitioners should have in day-to-day work.



Data Science Competency	Expected FP&A Fluency
<b>Think Like An Investigator</b>	Ask good questions, know the business, think about what data are relevant, and what level of precision is useful
<b>Data Visualization &amp; Communication</b>	Present data in a clear, concise visual format, often interactive, with drill-down features; understand the principles of what types of representations are effective in different situations
<b>Basic Data Tools</b>	Acquire, transform, manipulate and analyze data from multiple sources, ensure data quality; use advanced capabilities of spreadsheet tools, out of the box features of dimensional data tools, basic SQL queries
<b>Data Munging</b>	Build basic tables for your own use; data clean-up tools and methods in spreadsheets. Example: converting messy data to standardized, usable data, such as missing values, inconsistent formatting (e.g., New York vs. NY) and date formatting (2014-01-01 vs. 01/01/2014)
<b>Software Engineering</b>	Understand at a high level structured versus unstructured data
<b>Statistics</b>	Understand of common statistics required for data analysis including regressions, mean/median/mode, percentiles
<b>Machine Learning, IoT and Next Generation Technologies</b>	Stay current on advances in data science, know what they are, what they can do, and who can help you to apply it

## Data Science

As data drives the business planning, FP&A roles will interact with and resemble elements of data scientists. FP&A will need to leverage their business knowledge to ask the right questions, find the right data, analyze it using tools and techniques, and present it to the appropriate end user, business data analysts and business intelligence developers. A robust planning system can make many elements of aggregation and analysis easier and put more tools in the hands of the end user; this means that FP&A must be prepared to know how to use those tools to extract useful information and draw insights.

The table above presents a view of various competencies that are essential to a data scientist or expert in business intelligence. FP&A cannot be a master of each field, but there are certain elements in which they should be knowledgeable or conversant to be on the leading edge of IBP.

## Advanced spreadsheet skills

It may seem counter-intuitive to including spreadsheet skills in a discussion of modern, technical skills required for FP&A, but 1) the market demands these skills, and 2) there are ways to apply database thinking to spreadsheets.

### Excerpts from FP&A job description:

- Ability to lead teams working with large amounts of data and to translate results into meaningful metrics and recommendations aimed at improving business performance
- Proven expertise in financial modeling techniques and managing large data sets
- Experience with major ERP systems
- Expert skills in MS Excel, PowerPoint, Word and Outlook. Additional experience with a complex financial system (e.g., Oracle) is beneficial but not required

For the past three decades, the standard language of finance has been spreadsheets, and finance professionals have grown very good at driving organizations using spreadsheets. As the *lingua franca* of finance, an analyst could easily walk from one department to another, or from one company to another, study the spreadsheets in use, and begin working. Even today, 86 percent of survey

**Excerpts from an FP&A job description:**

- Ability to lead teams working with large amounts of data and to translate results into meaningful metrics and recommendations aimed at improving business performance.
- Proven expertise in financial modeling techniques and managing large data sets.
- Experience with major ERP systems.
- Expert skills in MS Excel, PowerPoint, Word and Outlook. Additional experience with a complex financial system (e.g., Oracle) is beneficial but not required.

respondents say they use spreadsheets somewhere in their budgeting process, and there are nearly a billion spreadsheet packages installed globally, which, if it were a language, would make them the third most spoken language in the world. Spreadsheets cannot support IBP for many reasons, but clearly it remains a useful skill on its own and is important to operate alongside more sophisticated technologies.

In general, spreadsheets are used in modeling, data analysis, reporting, and in a myriad of other ways. This paper will focus on a few advanced skills that FP&A should have and understand within the context of IBP. In a data-rich world, many position descriptions explicitly require advanced spreadsheet skills to manage large data sets. Spreadsheet capabilities have continued to evolve and with advanced, business intelligence-like functionality that FP&A should be familiar with, such as pivot tables, data tables and filtering. Data can be imported or exported through flat files (.CSV, .TXT or other delimited formats) where rows of data have separators to indicate column headings. Newer versions of spreadsheet packages have versions of ETL—extract, transform and load data—functions with native linkage tools to connect to a variety of data sources, including files, web data, and local or cloud-based databases.

Spreadsheets are often used as a front end to other data systems where data can be loaded into a database or extracted from the database for local use. Many systems have developed an add-in functionality to extend the native spreadsheet functionality to their system. Alternatively, other systems have created spreadsheet functionality inside their

planning tools to get some of their benefits tightly integrated throughout their planning platform.

Spreadsheets are so embedded in business already that they will continue to be a required skillset for financial professionals. As such, FP&A needs the skills to treat spreadsheets as they would a more sophisticated package that has native security, modeling and reporting functionality. Models should be designed in a way that they can be shared appropriately, including the use of security settings that allow certain cells to be designated for read or write-access, password protected, or hidden. Data inputs can be managed through drop-down menus and data validation tools, and the designer should clearly separate inputs, calculations and outputs. FP&A can make use of improved online collaboration capabilities that now allow for simultaneous users.

Reporting in spreadsheets is both simple and challenging. The tools exist and are familiar to finance; using them effectively is as much art as science. FP&A should understand how to make reporting dashboards that are easy to update, intuitive to read, and easy to export from the model as stand-alone reports or integrated into a slide deck or word processing document.

**Developing partnerships: EQ and CQ**

FP&A is in the people business. The job requires aligning the sources and uses of capital around the company for maximum benefit, which means they are in constant contact with all parts of the business to understand how they support the company strategy, what their needs are, and how they can support their efforts. To be good at their jobs, finance professionals need business smarts, which are encapsulated by the intelligence quotient (IQ); the interpersonal skills to read people and situations known as emotional quotient (EQ); and the ability to get the best work — effort, information and creativity — from the collection people in your enterprise, known as collaboration quotient (CQ). In short, integrated planning requires integrated people.

However, FP&A often reports that their efforts to win the hearts and minds of business units are met with feelings of mistrust. Some of the hurdles they run in to include the fear that people outside their operational group will not know the business as well as they do, or that they will interfere with ongoing work. Perhaps finance is looking for a way to cut the budget and so they will withhold information or sand-bag their projections. There are many ways that FP&A can develop trust with business and planning partners to build a successful integrated business planning program.

**“Be a line, not a point”**

Trust is built over time, which means that FP&A must expect to devote time and resources to building a relationship. One practitioner explained it this way: “You don’t want to show up on their doorstep one day and ask for a ton of information. That is like being a single dot on a graph. Instead, you must work with them for many days, become many dots, until those dots become a line.” Relationships are made on many interactions, and FP&A should look to be on both the side of offering assistance as well as requesting information.

**Excerpts from a FP&A job description:**

- The success of finance depends on its team of dedicated, strategic-minded individuals who understand the business and can partner to help influence decisions and proactively identify areas of opportunity.
- Ability to develop trusted business relationships (with internal clients) and demonstrate ability to adapt to numerous and shifting priorities throughout the organization
- Cross-functional business skills, excellent facilitation and communication skills, strong influencing skills, and ability to effectively present to and work with senior management.

**Match the expertise of your company with diverse staffing**

Royal Dutch Shell is a complicated business. Investments take years to implement, cost billions of dollars, have useful lives measured in decades and profitability that changes daily on commodity markets. Additional challenges include major technology changes in physical extraction such as hydraulic fracturing (i.e., fracking), the rise of competing technologies such as renewables, complicated and changing government and tax policies, and multiple international markets. The FP&A needed corresponding talents and an international outlook, so the team is based in The Netherlands and is intentionally staffed with engineers, finance professionals, and commercial executives. It is led by a physicist and has its own dedicated IT resources to enable a smarter approach to using data.

The multidisciplinary approach was the key to the team’s ability to generate integrated planning solutions that spoke to the leaders of business units and other departments whose priorities lay outside of finance. “It showed them an approach that integrated the technical, financial and commercial, and it had a buy-in from all these other disciplines, so it made it more powerful,” said Michael High, head of FP&A for Shell’s Deepwater Division.

An integrated functional perspective has led to more credible forecasts, and the leaders of Shell’s different divisions welcome FP&A representatives showing up at their meetings; in fact, they now request their attendance. Senior leaders proactively seek FP&A’s instruction on what cash, earnings and other elements of finance mean in the context of the functions they lead so that they can more effectively present their strategies and priorities to senior management.

“We’re seeing more examples of other departments asking FP&A to educate them about what those financial concepts mean and how to use the vocabulary, as opposed to us having to proactively ask them if they’re interested,” said High.

**Learn the business, learn the data**

Business-unit leaders tend to hold the perception that finance is unfamiliar with the ins and outs of the actual business and is therefore unqualified to provide advice and may even serve as a threat. It is therefore critically important in the effort to implement integrated planning effectively that FP&A gain their support, which can be accomplished by involving executives from other departments early in the process and getting their input.

Jonathan Crane, senior finance manager at Hamilton Company, said many of his organization’s systems still run on FORTRAN, an archaic programming language, which allowed executives to question the validity of the data if they didn’t like the outcome. “I felt that if they just saw a finished report from me, they would immediately question the data and argue that maybe FP&A doesn’t know how to get the right information out of the system,” said Crane.

So, he made the rounds with his data, asking the appropriate people in different departments if they could look through it and validate whether the data matched. Before Crane described “the meat” of the forecasting techniques he planned to use, he got the other departments’ input on what information was available and should be used. They also knew about customer trends, such as a succession of large purchasing quotes, so he pulled that information into the model, too.

“Then, when we got into a discussion about how the report was put together, I didn’t have to go back and answer data questions,” Crane added, noting that a portion of the integrated planning initiative was implemented 18 months ago, and since then collaboration has greatly improved.

### Learn their business by walking in their shoes

Lawrence Serven, director of advisory services at KPMG, noted that, while doing work for a utility company last year that had a couple of hundred business planners, FP&A held the reputation of being classic bean counters rather than partners with the business. In fact, many of the people in that role were accounting alumni who tended to think in terms of journal entries and looking in the past for a single right answer.

Nevertheless, there were a few effective and well-respected business partners who went out with the crews to repair lines and do other street work, typically once a quarter. They invested significant time in understanding the inner workings of the areas they supported in addition to the business itself — and it paid off.

“When that area had to make a big decision, the business planners had developed relationships and credibility and had earned a seat at the table,” Serven said, adding that when the business-unit leaders address decisions they know will have big financial impacts, they now ask FP&A to sit in.

## Process

Integrated Business Planning is about the processes that pull together the best input from subject matter experts and the best data and connects the data to a single, accessible plan. This requires stitching together the seams of the organization that may be geographically and functionally dispersed, using systems that may be on different to coordinate the people requires effective project management to gain alignment on goals and objectives, communicate responsibilities and deadlines. Many of the tools of project management can be useful here. All steps here are facilitated by the strong business partnering discussed in the previous section.

## Continuous planning

Markets, customers, machines and operations are constantly moving, which means that data is constantly moving and the planning process must now be continuous. What does that mean for FP&A?

Planning starts with strategy. All enterprises need to know how they will convert capital into products or services that customers want. The strategy is disaggregated into goals and objectives for different areas of the company; if a budget is used, then that becomes a plan of how to achieve the objectives over a stated period. Constant re-forecasting is the key process that defines IBP.

The forecast is where you think you are and where you think your enterprise is heading at that point in time. It needs to be a best estimate, free from the taint of gamesmanship on the part of the organization, which means it needs to be free from financial incentives. The forecast is the coordination of everyone’s input, churned through the model, and producing an output that everyone can see and act upon quarterly, monthly, or even weekly.

## Establish the structure of the working group

Implementing and maintaining IBP requires broad support, and one successful model is to establish ownership and delegation among a senior sponsor, project leader, steering committee, and working group. The CFO is the natural sponsor of the process, with daily leadership management through FP&A.

Other broad leadership support is required from impacted departments to ensure staff buy-in and overcome resistance, staffing resources, access to data residing in systems, and even an incentive structure that reinforces collaboration. The working group can include departmental leaders and operators close to the business who can promote the IBP as champions among their departments. This structure is intended to be an on-going process, as models are constantly evolving and will require new data sets, data flows, tools, calculations, and business lines.

## Collaboration is a process

IBP should build communication into the process using the planning tool. Features such as adding comments or attaching supporting documentation to a data point right in the platform provides support at the point of the anomaly. For example, if a consulting expense is uncharacteristically high in one month, an analyst can attach an explanation to that data point, which will be visible to readers throughout the roll-up process, thereby adding detail along the way and preventing re-work later. Other features include social chat functions that support conversation threads more effectively than email, and mobile accessibility for a mobile workforce.

**Apply project management principles**

A project is temporary in that it has a defined beginning and end date, and therefore defined scope and resources. While continuous planning may be considered a process, the rigor and framework of project management techniques can be helpfully applied to each iteration of

the forecast update. The table below includes the five key phases of a project management plan, a description of the phase related to IBP, and some of the key actions to consider at that phase. The last column indicates how management of the forecasting process can be tied in with the data and tools.

**Project Management for the Planning Cycle**

Project Phase	Phase Description	Actions	Potential Data/Technology Application
<b>INITIATE</b>	A project is formally started, named and defined at a broad level during this phase; project sponsors and other important stakeholders commit to a project	<ul style="list-style-type: none"> <li>• Create a project charter, including description and goals of the plan               <ul style="list-style-type: none"> <li>- Sample Goal: integrated and collaborative process</li> <li>- Sample Goal: explain how the plan will be used in the company</li> </ul> </li> <li>• Project sponsors (CFO) and key stakeholders (CEO, presidents) are identified</li> <li>• Plan scope</li> <li>• Plan timing and calendarization (high-level)</li> <li>• Plan resources</li> <li>• Define themes and planning parameters (growth of X percent, inflation of Y percent)</li> </ul>	<ul style="list-style-type: none"> <li>• Documents stored a publicly-accessible location</li> <li>• Key elements visible on calendar or task pages</li> </ul>
<b>PLAN</b>	A project is formally started and planned. Includes the following: scope, duration, quality, communication, risk and resources, tasks, schedule, milestone charts, GANTT charts, estimating and reserving resources, planning dates and modes of communication with stakeholders based on milestones, deadlines and important deliveries	<ul style="list-style-type: none"> <li>• Work Breakdown Structure (tasks):</li> <li>• Resources plan</li> <li>• Identify resources, from FP&amp;A and other divisions</li> <li>• What expertise is needed?</li> <li>• Standardize data sources, supporting systems, and process flow of information distribution and submissions, including chains of approval</li> <li>• Schedule</li> <li>• Project metrics: what is a successful planning cycle? How will you capture this?</li> <li>• Risk management: are there pockets of resistance? Key staff out of office?</li> <li>• Communications plan</li> </ul>	<ul style="list-style-type: none"> <li>• Identify project work flow</li> <li>• Identify individuals, create team chats or work-stream chats</li> <li>• Assign tasks and deadlines</li> </ul>
<b>IMPLEMENT</b>	Do the prescribed work to deliver and complete the project	<ul style="list-style-type: none"> <li>• Kickoff Meeting</li> <li>• Departments complete the plan</li> <li>• Challenge, validation and testing of inputs</li> <li>• FP&amp;A role and communications</li> <li>• Motivation</li> <li>• Information sharer</li> <li>• Maintain parameters</li> <li>• Defend integrity of the process (maintain shareholder value)</li> <li>• Status reports: work completed/variances, challenges or unplanned concerns</li> </ul>	<ul style="list-style-type: none"> <li>• Distributed data input</li> <li>• Approvals, rejections, referrals, and rework assigned</li> <li>• Departments can see assumptions from other departments and coordinate planning</li> </ul>
<b>MONITOR</b>	Measure the project performance and progression in accordance to the project plan	<ul style="list-style-type: none"> <li>• Schedule</li> <li>• Scope</li> <li>• Negotiated changes may have ripples down the line</li> <li>• Scorecard (metrics) for your process</li> <li>• FP&amp;A monitors the process, identifies and addresses potential challenges to any of the above</li> </ul>	<ul style="list-style-type: none"> <li>• See when tasks are completed/rejected</li> <li>• Lead to follow-ups with individuals</li> </ul>
<b>CLOSE</b>	Deliver the product, relieve resources, reward and recognition to the team members and formal termination of contractors in case they were employed on the project	<ul style="list-style-type: none"> <li>• Do the parts add up to the total?</li> <li>• Delivery to senior management and the board</li> <li>• Communicate to the planning team</li> <li>• Post-mortem</li> <li>• Did we deliver on objectives?</li> <li>• Were we on time?</li> <li>• Was communication effective?</li> <li>• Was it a good use of time?</li> <li>• Was planning adequate?</li> <li>• What challenges arose during the process?</li> <li>• What would improve the process?</li> </ul>	

## Good data is a process

Armen Zakharyan, an independent finance and IT consultant, said he once had a client who wanted to launch a predictive analytics and decision modeling project but spent almost a year working out the data definitions first. He likened the process to having good plumbing running through a building at the start of construction.

“You need to have good data in order to build any sort of prediction,” Zakharyan said, and enumerated the challenges of the aforementioned client: the data was at different hierarchical levels, such as by sales representative, management officer, zip code, region and office, and some of the data sources were free, which meant that his client had little opportunity to request that it be captured or formatted in a specific way. Finally, data availability differed by industry and region, which complicated its comparability. The conclusion: analysis and subsequent decisions based on this data would not be reliable.

The process of collecting, manipulating, and managing planning data is complex, but it is essential to produce useful results.

## Bring your data together

“The number one thing we wanted was the simplicity of having everyone on a single platform, no matter what their level in the organization,” one FP&A executive said. “Even within finance, we have different ways of doing planning and different systems, so it will be a quick win for me to have everyone within finance using the same platform.”

Hamilton Company’s Jonathan Crane recognized that any meetings have collapsed under the weight of arguments regarding the source, quality, granularity/hierarchy, or the version of data being reviewed. They began defining their requirements for a planning system with the need to create a centralized data repository to create a single source of truth that everyone could agree on and access. This led to a change in the operating process for the planning team: offline subsets of data represented a risk to the overall planning process. It might be useful to create extracts for analysis, but introducing offline, out-of-sync data back into models and reports risked violating the goal of a single source of truth and reintroduce the types of problems that Crane wanted to solve.

It is useful consider that data may be generated automatically (e.g., sales transactions or parts ordered) or manually (e.g., planning parameters such as inflation,

estimations such as consulting spend). These may enter the integrated plan in different ways, but the premise of bringing the together into a single, transparent place remains valuable.

**Sources, uses and common definitions of data**  
Given that integrated planning often requires FP&A to incorporate data from across the company that may not be subject to the rigorous standards applied to financial data, it is essential that FP&A ensure the use of common definitions.

Beyond a single version of truth for the data itself, FP&A’s fluency with data and the actual business makes them vital participants in — if not the overseers of — the integrated planning process, to help make sure everyone is looking at the right data and using it correctly moving forward. “There are a lot of data users and creators, but they don’t always understand what they’re looking at, and FP&A provides that link between the understanding and the technical sides,” said Travis Lockhart, FP&A, finance manager with the CALIBRE Group.

Linda Coven, a senior analyst at Aite Group, was even more forthright: “Technology like cloud computing doesn’t add much [by itself],” she said. “You have to have structure: You need to know where the data is, what it represents, and what the relationship is of one piece of data to all the others.” Creating a data dictionary to define terms, calculations, and relationships is an arduous and invaluable process that disseminates company knowledge and enhances controls over the planning and analysis processes. This includes the data that enters the plan, consistency in the “transformations” or calculations and manipulations occur, grouping by hierarchies such as time, geography, business units, and product types.

## Find the connections and the pain points

The flow of data around an organization into a forecasting model can help to uncover the sources and uses of data as well as the planning processes. According to William Washington of Orrick, Herrington & Sutcliffe, pursuing integrated planning is typically a year-long project that starts with rounding up representatives from each department to discuss the big picture and how they fit it, which enables the directors to see where the walls between departments are and how data and information can become siloed. At that point, folks start to see where some of the breakdowns are, the pain points,” he said.

## What is good data?

FP&A should access as much data as possible, but separate the useful and productive data from the noise.

Good data tends to have the following characteristics:

- **Completeness:** the set is comprehensive and includes all necessary data, even if optional data items are missing.
- **Validity:** the data represents the issue being studied.
- **Timeliness:** the ability to access the data and bring it into the tool, database or format you need in an acceptable amount of time and with an acceptable amount of effort.
- **Recency:** degree that the data is current and relevant to the item, i.e., no one wants old news.
- **Accuracy:** the data are correct, unambiguous or unique; if each data point was a circle in a Venn diagram, would it be distinct or overlapping?
- **Consistency:** data are presented in the same manner, i.e., represents the same point or level of aggregation.
- **Conformity:** data meets appropriate definitions, example MM/DD/YYYY vs DD/MM/YY.

There are other data characteristics considered at the data system layer that may not involve finance end users in FP&A and treasury. However, they are still relevant concepts that must be thought through at the establishment of a system or data connection, and then checked periodically.

- **Synchronicity:** data elements across systems reflect the same information (in sync) and the status of the data before, during or after various actions are taken on the data. For example, point-in-time consistency means that the data reflects the same stage of processing.
- **Availability:** data can be accessed and system uptime is acceptable.
- **Provenance:** tracing data back to its source to assess its trustworthiness. May include rules for data capture and exchange of metadata or information about the data such as systems, time and location.

According to Philip Peck, vice president of finance transformation with Peloton Group, very robust data governance, management of master and meta hierarchies, and the origin of data sets need to be in place across the enterprise. “Traditionally, the IT department has driven this, but we would strongly recommend that FP&A very actively helps support it,” he said.

## Technology

Integrated Business Planning is about the technology that links people and processes, that houses the data and makes it accessible in the most useful format. The previous sections address how to apply tech and data, this section focuses on the tools used for to manage the data and build the model(s). We live in a data-rich age, and we need the tools to manage it.

---

“Between the dawn of civilization and 2003, we only created five exabytes; now we’re creating that amount every two days. By 2020, that figure is predicted to sit at 53 zettabytes (53 trillion gigabytes) — an increase of 50 times.”

—Hal Varian, Chief Economist at Google

---

## Cloud scalability

Cloud technologies supply inexpensive, on-demand storage relative to on-premise systems, and are prime drivers behind the explosion of data creation and capture. For IBP, cloud technology, whether hosted or proprietary, can supersede business silos to allow data to move fluidly across the world and across systems to wherever it needs to be applied. Users can reside anywhere, and data linkages can be made quickly and transactional systems can populate EPM/CPM systems easily.

Clouds offer the potential of quick setup with minimal requirements from in-house IT, and since the maintenance of hardware and software is handled remotely, they generally have a low total cost of ownership.

Clouds also offer scalability: You pay for what you use, as measured in seat licenses or data flow, so you can expand and contract with your staffing needs. Just be sure to keep an eye on how you are charged for cloud usage to make sure the costs do not exceed your expectations.

### **Capability scalability**

EPM/CPMs are designed as both a platform and set of applications, a combination of the software, hardware and the operating system to execute the desired processes. When compared with spreadsheets that are applications or tools, EPM/CPM offer significant increases in computational power and stability. The number of users who can interact with the platform, the quantity of data that can be analyzed, and the speed of calculations and reporting is significantly increased, making the IBP more useful to everyone involved.

### **Data connectivity**

Integrated Business Planning does not require every data point in the company; it does require that the relevant data identified in the previous process section find its way into EPM/CPM tools. Software packages provide multiple solutions to aggregating data, such as ETL (extract/transform/load), direct interfaces, and pre-built connectors to data stores that speed up data integration, batch loads, and the ongoing management of master and meta data. Consider the frequency with which you want data refreshes: Real-time may be required for transactional systems, but planning systems may not need up-to-the-second data. This will inform which connection method you use to extract data, your operational process for loading those data, hardware and communications requirements and, of course, deployment and ongoing costs.

### **Security is not negotiable**

Integrated Business Planning requires that many people touch the tool and the model, but there must be controls and safeguards against misuse. A basic security feature relates to internal access to data. The tool administrator should determine what data is readable and writeable to each end user by division, function, or level of seniority. For example, salary information or staff count may be kept out of sight, cost per unit detail may be visible to all but editable only by the warehouse team, and some planners may be restricted to forecasts inputs for their team only.

In addition, the system should have a log or trail of what information was uploaded, by whom, and when, to understand changes to the model. The tool should also allow for various versions and the ability to revert to a previous point to recover information.

Outside of IBP, vendor and cloud security questions are standard, and you should consult your IT staff for best practices. Specific to your version, consider the frequency of software updates and new feature rollouts. Ask whether there is a history of data breaches in the planning tool, with the vendor itself, or within the cloud hosting company that owns your individual server. How has the company reacted to other customers who have found software flaws? Is the data encrypted in transit and at rest?

### **Enable end user self-service...**

Michael High of Shell recounted that in his legacy system, changing one line item in his forecast model, such as adding an additional SG&A line to the planning template, would require upward of 50 other changes to the IT systems and would require IT to play a major role. This creates a couple of problems: the time to make the change detracts from the benefit, and analysts who want an immediate answer will devise some sort of system hack such as using spreadsheets or manipulating the model in other ways. In both instances, the efficacy of the model is defeated.

Business is fluid, and business models are dynamic. The business needs to adjust models quickly to keep in sync with continuous planning cycles, product launches, and executive requests. Finance needs to be able to configure the input sources, calculations, and output reporting itself. Also, the program administrator at the business unit level should have the ability to grant access and administrative rights to individuals throughout the planning team. These rights may include allowing power users in other departments to make versions of the model or pull together their own analyses and reports. Other users may receive more limited access, such as read-only, based on their role in the organization.

### **...While Increasing System Controls**

There is a challenge in having total end-user freedom, which is one of the great drawbacks to spreadsheets. “Model proliferation” is the problem for too many models used by many people, all of whom have the ability to tweak them. Integrated business planning should have a process for documenting the model and for changing the model, which can be enforced through security administrative rights. This can also prevent unauthorized data sets from entering the stream, thereby maintain data integrity.



IBP tools can manage the seeming contradiction between mass flexibility implied in end user self-servicing and system control through the creation of unique user profiles. Individuals can have customized dashboards and custom views with drill-down capabilities that are restricted to their security access rights. Data sources and calculations are controlled to prevent non-standard tinkering, even from knowledgeable subject matter experts. The SMEs or power users can create their own “sandboxes” or copies of the model for analysis, with the full robustness of the planning tool, without contaminating the information in the tool, or other SMEs’ sandboxes.

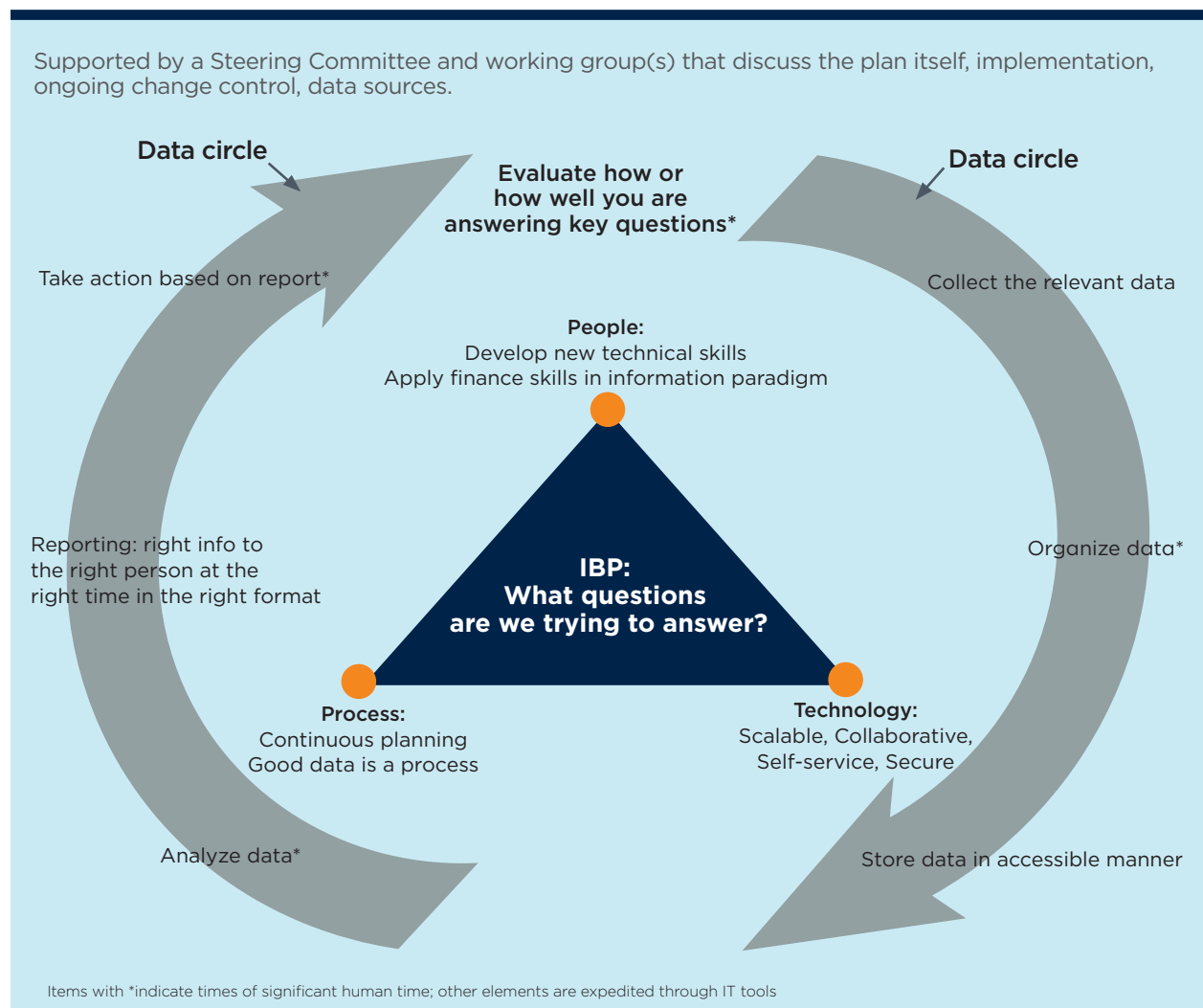
### Extending the platform

Vendors can provide additional value to their offerings by extending the platform on which they deliver their service. One example of this is the encouragement of diffused

innovation, similar to Apple’s App Store, in which other parties can display and potentially sell applications they have developed. Similarly, some vendors create pre-built, industry-specific solutions to common client requests that can be readily added onto the base model.

All platforms need to consider their relationship to spreadsheets. One approach is for vendors to create an “add-in” that allows the spreadsheet to communicate directly with the platform. In this approach, data can be uploaded and downloaded seamlessly, and users can get the best of both tools; a potential drawback is that some of the work is now segregated from the platform and may need to be re-integrated. A different approach is to consider a tool that provides spreadsheet capability inside the platform itself, leverage the native multi-dimensionality, and reduce the proliferation of spreadsheets.

### The Virtuous Cycle of IBP and Data



---

## Conclusion

The concept of integrated business planning — closing gaps in an organization’s various planning functions and aligning operations and strategy with its financial performance — has existed in various forms for decades. What has changed is creation of planning platforms that can handle the fluidity of data to erase silos and enterprise borders where once there were multiple geographies, departments, time zones, languages and currencies. All elements of business are managing the avalanche of information coming to them. Just like connecting disparate people, we also must connect data that resides in various systems, applications and tools.

Today’s tools allow for integrated business planning on a scale that matches the complexities of the challenges. We can connect our people and data through single platforms that provide the single version of the truth, collaboration, security, self-servicing, reporting and other needs. The processes we design need to be relevant and specific to each company, but the basic premise remains the same: integrated planning leverages the best information tools and people can provide to stitch together the company, create a unified plan, and make good decisions. Turning your planning capability into an enterprise strength will provide insight, agility, and the ability to outmaneuver competitors in a rapidly changing and fiercely competitive landscape.

### NOTES:

<sup>1</sup>Anthony, Scott D., S. Patrick Viguerie, and Andrew Waldeck. “Corporate Longevity: Turbulence Ahead for Large Organizations.” Innocite, Spring 2016. <https://www.innosight.com/wp-content/uploads/2016/08/Corporate-Longevity-2016-Final.pdf>

<sup>2</sup>Ibid.

<sup>3</sup><http://www.marketwatch.com/story/88-of-spreadsheets-have-errors-2013-04-17>

<sup>4</sup><http://blog.udacity.com/2014/11/data-science-job-skills.html>

<sup>5</sup>BARC Research, “The Planning Survey,” March 2014



### **About the Author**

Bryan Lapidus is a contributing writer, editor and presenter to the Financial Planning & Analysis (FP&A) Practice at the Association for Financial Professionals. He has been published in the *AFP Exchange*, AFP's flagship publication, the monthly *Finance in Focus*, and AFP blogs, as well as having written and presented AFP courses on budgeting and modeling. He has more than twenty years of experience in the office of the CFO, including leading and consulting to FP&A, supporting capital risk management and operational analysis. Bryan is a Certified Corporate FP&A Practitioner.



ASSOCIATION FOR  
FINANCIAL  
PROFESSIONALS

### **About the Association for Financial Professionals**

Headquartered outside Washington, D.C., the Association for Financial Professionals (AFP) is the professional society that represents finance executives globally. AFP established and administers the Certified Treasury Professional™ and Certified Corporate FP&A Professional™ credentials, which set standards of excellence in finance. The quarterly AFP Corporate Cash Indicators® serve as a bellwether of economic growth. The AFP Annual Conference is the largest networking event for corporate finance professionals in the world.

AFP, Association for Financial Professionals, Certified Treasury Professional, and Certified Corporate Financial Planning & Analysis Professional are registered trademarks of the Association for Financial Professionals. © 2017 Association for Financial Professionals, Inc. All Rights Reserved.

General Inquiries      [AFP@AFPonline.org](mailto:AFP@AFPonline.org)

Web Site                [www.AFPonline.org](http://www.AFPonline.org)

Phone                    301.907.2862



# Driving a new age of connected planning in finance

Customer demand, market volatility, government regulations, and other external factors are increasing the need for finance departments—and FP&A teams in particular—to react quickly.

The Anaplan platform enables FP&A teams to connect data, people, and plans across finance and operations to respond to uncertainty, foresee the effects of external and internal factors, and transform the way companies collaborate when planning.

Lead your company's journey to connected planning—within finance and across the business.

Learn more at [anaplan.com/finance](https://anaplan.com/finance)