FP&A TRENDS
Best Practice in Financial Planning and Analysis

The FP&A Maturity Model:

Achieving Intelligent Transformation



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CONTENTS PAGE

1.	**Introduction: The FP&A Maturity Model**	**2**
	The FP&A Maturity Model	3
2.	**FP&A Intelligent Transformation defined**	**4**
3.	**Intelligent Transformation: The key to managing uncertainty**	**5**
4.	**Integrating planning processes**	**6**
	4.1 Traditional planning processes	6
	4.2 The move to xP&A	7
	Transformation Experience: Redefining the planning process	8
	4.3 Integrated management process action points	8
5.	**Driver Based Planning**	**9**
	5.1 Why Driver Based Planning?	9
	5.2 Establishing Drivers	10
	5.3 3-way models	10
	Transformation Experience: How Driver Based Planning transformed FP&A	10
	5.4 Driver Based Planning action points	11
6.	**Scenario Management**	**12**
	6.1 Why Scenario Management?	12
	6.2 Developing scenarios	13
	Transformation Experience: STMicroelectronics - evolution to Scenario Management	13
	Transformation Experience: Danone - preparing for uncertainty	14
	6.3 Scenario Management Action Points	14
7.	**Analytics: The power of Machine Learning**	**15**
	7.1 The need for a data-driven culture	15
	7.2 Approaching AI/ML	16
	7.3 Overcoming resistance	16
	7.4 AI/ML Centre of Excellence	17
	Transformation Experience: PayU - first steps in using AI/ML	17
	Transformation Experience: Amazon - applying AI/ML to FP&A	18
	Transformation Experience: Microsoft – forecasting using AI/ML	19
	7.5 Data and Analytics action points	19
8.	**FP&A Technology**	**20**
	8.1 Enabling Intelligent Finance	20
	8.2 Integrated planning platform	20
	Transformation Experience: NCR Services – achieving real-time business planning	21
	Transformation Experience: Jaguar Mining – automating plans	22
	8.3 Technology Action Points	22
9.	**Moving to the Leading State of FP&A Maturity**	**23**
	9.1 Attributes of FP&A maturity	23
	9.2 Seven steps to Intelligent Transformation	23
	9.3 The role of the FP&A Architect	25
10.	**Conclusions & recommendation**	**26**
	Acknowledgements	27

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1. INTRODUCTION: THE FP&A MATURITY MODEL

For many years, the International FP&A Board has been developing an FP&A Maturity Model. The aim is to highlight the attributes of an FP&A department that is best able to support management in achieving organisational objectives.

The model was conceived by the London FP&A Board in 2016 and further developed by hundreds of senior finance practitioners in 27 International FP&A Board chapters. The chapters span 16 countries across four continents. This extensive research provides a collective, balanced view on the realities being faced around the globe, and on the latest developments in FP&A best practices.

Today, the model allows organisations of any size, industry, and geography to assess where they are in terms of planning and analysis, and how they can improve, based on the six categories:

1. Leadership
2. Functional Skills
3. Business Partner and Collaboration
4. Process
5. Data & Analytics
6. Technology

Five maturity levels are identified within each category – from Level 1, the most basic, through to level 5, where FP&A aspires to be. At this level, planning and analysis adds real value to the organisation, and allows it to cope with a future that is difficult to predict (fig 1).

"The FP&A Maturity Model provides a road map for FP&A Intelligent Transformation"

Research for this paper focused on delving deeper into the most mature level – Level 5, Leading State. The purpose was to provide a road map for **FP&A Intelligent Transformation** that guides departments in how best they can serve their organisations. **In particular, we wanted to determine:**

- How organisations can develop and implement an effective Driver Based Planning process
- How predictive and prescriptive analytics improve FP&A maturity
- What are data-driven and agile planning best practices
- What is the most successful FP&A systems architecture
- How to balance process and technology for optimum results

The research is based on interviews with senior finance practitioners and thought leaders from around the globe.

We investigated current processes, solutions, and our interviewees' vision for FP&A Transformation. We further incorporated results from our latest surveys, thereby creating a paper that outlines how FP&A can best operate in today's volatile business climate.

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Fig 1: The FP&A Maturity Model

The FP&A Maturity Model

FP&A TRENDS

	DEVELOPING STATE		INTERMEDIATE STATE	LEADING STATE	
	LEVEL 1 - BASIC	LEVEL 2 - DEVELOPING	LEVEL 3 - DEFINED	LEVEL 4 - ADVANCED	LEVEL 5 - LEADING
LEADERSHIP	PLANS & FORECASTS INFLUENCED BY POLITICAL CONSIDERATIONS	DIVERGENCE OF INTEREST BETWEEN CENTRE AND BUSINESS UNITS	FORMAL ALIGNMENT OF PLANS AND INTERESTS	SINGLE INTEGRATED MANAGEMENT APPROACH	FULLY ALIGNED STRATEGIC / BUSINESS / OPERATIONAL PLANS
	CONSERVATIVE	DEVELOPING OPENNESS TO CHANGE	CHANGE ORIENTATION	EMBRACES CHANGE	**PROMOTES CHANGE**
	TRADITIONAL & TRANSACTIONAL	TRADITIONAL AND OPPORTUNISTIC	SLIGHTLY ANALYTICAL	MODERATELY ANALYTICAL	**ANALYTIC-BASED** DECISION-MAKING
	SHORT-TERM & TACTICAL	SHORT-TERM WITH STRATEGIC ELEMENTS	MEDIUM-TERM WITH STRATEGIC VISION	LONG-TERM WITH STRATEGIC VISION	**STRATEGIC** FOCUS SPANNING MULTIPLE YEARS
FUNCTIONAL SKILLS	ADMINISTRATION	ADMINISTRATION	ADMINISTRATION	ACCOUNTING	**MULTI-DISCIPLINED TEAM APPROACH**
	ACCOUNTING AND FINANCE	ACCOUNTING AND FINANCE	ACCOUNTING	ADVANCED ANALYSIS/ DATA SCIENCE	**ARCHITECT, ANALYST, DATA SCIENTIST**
		CONSOLIDATOR	ANALYSIS	ADVANCED TECHNICAL / ARCHITECTURE	**STORYTELLER, INFLUENCER**
			TECHNICAL	ADVANCED BUSINESS MANAGEMENT	**CONTINUOUS SKILLS** TRAINING AND INVESTMENT
BUSINESS PARTNERING AND COLLABORATION			FP&A BUSINESS PARTNER FUNCTION ESTABLISHED	STRONG FP&A BUSINESS PARTNERING	**COLLABORATIVE APPROACH**
	DISJOINTED OR NON-EXISTING BUSINESS PARTNERING	FP&A BUSINESS PARTNERING CONCEPT ACCEPTED	PROGRAMME SET UP TO BUILD SOFT SKILLS	KEY SOFT SKILLS DEVELOPED	CHALLENGING, **TRUSTED ADVISOR**
	LIMITED SOFT SKILLS & LACK OF CONFIDENCE	CONFIDENCE IN COMFORT ZONE	FP&A REPRESENTATION AT BU MANAGEMENT LEVEL	FP&A REPRESENTATION AT BOARD LEVEL	**SOFT SKILLS/** PERSUASIVENESS/EQ
					TEAM **LEADERSHIP COMPETENCE**
PROCESS			DEFINED PROCESSES	SOME INTEGRATED PROCESSES	**INTEGRATED** PROCESSES (VERTICAL AND HORIZONTAL)
	NO FORMAL PROCESSES	INCONSISTENT, MANUAL PROCESSES	BUSINESS UNIT FOCUS WITH CENTRAL SCHEDULES/ GUIDANCE	BUSINESS AND ACTIVITY VIEW	EXTENDS BEYOND FINANCE (xP&A) WITH **MULTIPLE POSSIBLE FUTURES**
	NO INTEGRATION	LEGAL ENTITY WITH CENTRAL CONSOLIDATION	LABORIOUS ON-DEMAND PROCESSES	ELEMENTS OF DYNAMIC & ADAPTABLE PROCESSES	FOCUS ON PRODUCT/ SERVICE **LIFE CYCLE**
		TRADITIONAL FORECASTING	TRADITIONAL AND ROLLING FORECASTS	ROLLING FORECAST ONLY	ON-DEMAND **AGILE** APPROACH
					PLANS UNDERPINNED BY LEADING ANALYTICAL DRIVERS
DATA & ANALYTICS	MANUAL DATA ENTRY	DATA EXCHANGE ELEMENTS	SOME AUTOMATED DATA EXCHANGE	AUTOMATED AND TRANSFORMED DATA EXCHANGE	**NEAR REAL TIME** ANALYTICS AND DATA EXCHANGE
	NO ESTABLISHED ANALYTICAL DRIVERS	BASIC ANALYTICAL & REPORTING DRIVERS	DEFINED ANALYTICAL DRIVERS	MULTIDIMENSIONAL ANALYTICAL DRIVERS	**AI / ML IDENTIFIED KEY DRIVERS**
	BASIC P&L REPORTS	DESCRIPTIVE ANALYTICS	DESCRIPTIVE AND DIAGNOSTIC ANALYTICS	PREDICTIVE ANALYTICS	**AI / ML INSPIRED FORECASTS**
			DRIVER-BASED MODEL (CAN BE EXCEL)	EASY SCENARIO ANALYSIS	MULTIDIMENSIONAL **SCENARIO ANALYSIS**
		MODEL WITH P&L	UNCONNECTED MODEL WITH P&L AND CASH	PART CONNECTED 3-WAY MODEL WITH P&L, CASH AND BALANCE SHEET	INTEGRATED **3-WAY MODEL**
TECHNOLOGY	FORMS, SPREADSHEETS AND MACROS	BASIC PLANNING MODEL AND TOOLS	DEFINED PLANNING MODEL AND SYSTEM LINKED TO ERP	DRIVER-BASED PLANNING MODEL	**INTEGRATED, FLEXIBLE, SELF-SERVICE** SYSTEMS
	NO BI TOOL	BASIC BI TOOL	DEFINED BI	ADVANCED BI	EMBEDDED **PREDICTIVE AND PRESCRIPTIVE** CAPABILITIES
	NO COLLABORATION	MINIMAL COLLABORATION	SOME ELEMENTS OF COLLABORATIVE PLANNING	COLLABORATIVE PLANNING	**EMPHASIS ON AUTOMATION**
			HEAVY RELIANCE ON IT	SELF-SERVICE PLANNING TOOLS	**REAL-TIME COLLABORATIVE PLATFORM**

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2. FP&A INTELLIGENT TRANSFORMATION DEFINED

> ***"FP&A Intelligent Transformation is the adoption of an automated, fact-based approach to planning. It is an approach that seeks to improve the speed, quality, and agility of an organisation's decision-making processes in times of uncertainty."***

Intelligent Transformation is more than just the application of technology: it redefines how stakeholders collaborate, the organisation's approach to analysis, and how management processes are conducted throughout the enterprise.

"Intelligent Transformation is more than just the application of technology"

Our research focused on the Maturity Model categories of Process, Data & Analytics, and Technology. We found common practices within each of these that enabled organisations to move closer to Intelligent Transformation. We will be going into more detail throughout the paper, but these practices can initially be summarised as shown on figure 2.

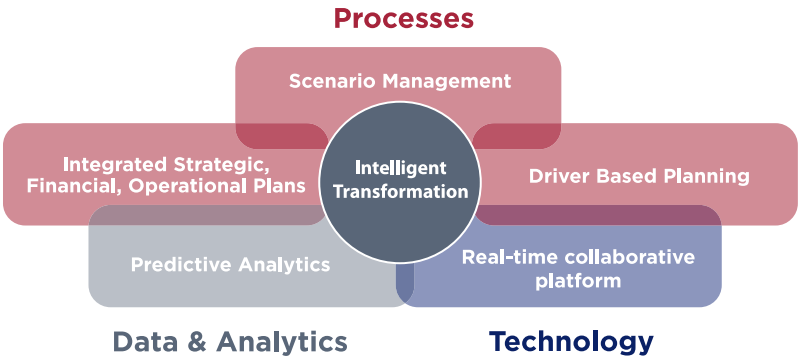


Fig 2: Elements of Intelligent Transformation

Within the Processes category, three elements stood out:

Integrated and dynamic planning processes. Everyone we interviewed said it was essential that strategic, financial, and operational plans are aligned and operate as one process. This is the only way decisions can be assessed in terms of how they impact operational activities, how resources should be allocated across the business, and their effect on organisational objectives.

"It is essential that strategic, financial, and operational plans are aligned and operate as one process"

Scenario Management. Scenarios are a vital tool for coping with uncertainty, as they allow management to simulate a range of possible futures that lead to actionable insights. By evaluating the impact of external events and internal initiatives, appropriate responses can be developed. As we will explain later, Scenario Management is an evolution of Scenario Planning.

Driver Based Planning is a crucial part of Scenario Management. It is also an essential element in Integrated planning and in achieving agility. Drivers are those factors with a proven mathematical link to outcomes that can be used to automatically generate predictions.

Within the Data & Analytics category, the critical area was:

Predictive Analytics. Each organisation we studied depended heavily on analytics and, in particular, Artificial Intelligence / Machine Learning (AI/ML) algorithms. These are used extensively to produce fact-based insights on what is driving organisational performance, and in making unbiased predictions.

Finally, the key area within the Technology category was:

A real-time collaborative platform. Mature organisations have moved on from single applications such as consolidation and stand-alone Business Intelligence systems. Instead, they use a modern planning platform with built-in collaboration and embedded predictive capabilities, to automate many planning and reporting activities that otherwise tie up FP&A's time.

This paper gives details on how the interviewed organisations approached these elements.

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3. INTELLIGENT TRANSFORMATION: THE KEY TO MANAGING UNCERTAINTY

> ***Coping with uncertainty requires new ways and tools where speed and agility are at the forefront. Intelligent Transformation is key to that change.***

Uncertainty is a way of life. Whether through a pandemic, political unrest, or a fast-changing business environment, no one can be sure that predictions made, even with the best intelligence available, will happen. Traditional planning, in which there is only one perceived outcome at the end of 12 months, doesn't make sense, as it requires the organisation to make a single bet on an unreliable future.

The situation facing STMicroelectronics, a significant supplier of semiconductors to businesses worldwide, typifies the findings of our research. When the pandemic hit, the company was suddenly faced with predictions that the market for semiconductors would shrink by 5-15%. Within this forecast were different estimates for products they supplied, which had significant implications for their plans. But, as the year progressed, they found that the semiconductor business actually improved, with some sectors such as communications booming, driven by the growth of "work from home". However, none of this was known when planning at the start of the year.

Uncertainty cannot be ignored. For example, the price of oil – something that affects every business – has fluctuated wildly over the past 12-18 months. At the start of the pandemic, the price dropped significantly as production was scaled back, but as recovery came and the threat of war conflict rose, it shot up to unprecedented heights. Even now, no one can be sure about economic growth and its impact on business over the next few months.

"How do you make sound business decisions when you can't predict the future with any degree of certainty?"

This brings us to the problem facing companies today: how do you make sound business decisions when you can't predict the future with any degree of certainty? Or, to put it better, **how do you create an intelligent planning process that can quickly adapt to multiple possible futures, while still achieving organisational objectives?**

It's clear that the traditional approach to FP&A must change. If it doesn't, organisations are like a ship without a rudder. Although everyone can see what's happening, they don't have the power to change course fast enough to deal with the danger or with any opportunities presented.

In all cases we studied, there was a search for a more straightforward, agile approach to FP&A that reflected the organisation's current realities. An approach that:

- connects strategic, financial, and operational plans
- enables plans to be run quickly, and at different levels of the organisation, in a collaborative and integrated manner
- can quickly adapt to changing circumstances
- can simulate multiple possible futures
- generates outcomes that can be trusted

The examples presented in the paper outline how FP&A departments at Level 5 of the maturity model achieve these goals. They include practical steps that every enterprise can emulate, regardless of industry or size.

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4. INTEGRATING PLANNING PROCESSES

> ***"Integrated planning processes are the coordinated departmental activities that lead to the development, assessment, and implementation of the most likely scenarios to achieve corporate goals."***

4.1 Traditional planning processes

Most organisations typically have three distinct planning processes:

- **Strategic planning** – determines future goals of the organisation and the strategies to achieve them
- **Financial planning** – determines cash requirements, investments, and the assignment of resources to achieve organisational objectives in the short-term (e.g., next 12 months)
- **Operational (or tactical) planning** – continually tries to balance supply with demand, maximise the use of resources, improve efficiency, and deal with unexpected changes at an operational level

"The problem is that traditional plans are usually disconnected, have different aims, are carried out by different groups of people, and contain different sets of measures"

Each process involves analysing past performance, setting targets, producing forecasts and reporting results. The problem is that they are usually disconnected, have different aims, are carried out by different groups of people, and contain different sets of measures. This leads to confusion – whose plan is right, which plan has precedence – and a situation in which overall performance is anything but managed.

> ***"We were operating in a silo – what we thought was often different to what operations thought would happen."***
>
> Hashim Ahmed, *CFO, Jaguar Mining Inc.*

Conventional planning processes have many other drawbacks, which **Hashim Ahmed, CFO, Jaguar Mining Inc.**, lists as:

- A predefined periodic planning cycle that is often out of step with changes in the business environment
- A linear process where each plan follows a set of activities that are far from agile
- Bias and errors – assumptions are often made based on incomplete data, or to support a personal view
- Frequent board approvals – any change to the 'planned' figures typically needs consent, which takes time and delays decisions unnecessarily
- Focus on value-added reviews rather than where the business is heading and the options available

"We stopped and asked the question: Does the energy and effort we spend on the planning allow us to be better at our purpose?"

To this, we could add the difficult and time-consuming nature, which often distracts from the purpose of planning. **Ramon Zapata, CFO Europe, Sandoz,** spoke for many: "We had a very lengthy, complex, time-consuming planning process (9-10 months) – the number of iterations was very painful – with a lot of detail focused on internal financial performance. We stopped and asked the question: does the energy and effort we spend on the planning allow us to be better at our purpose? Anything not supporting that is probably hindering us."

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4.2 The move to xP&A

Organisations at Level 5 of the FP&A Maturity Model have fully integrated planning processes. This desire for integration is nothing new. In recent years we have seen the adoption of Extended Planning and Analysis (xP&A) - where planning goes beyond finance to incorporate day-to-day operational planning with strategic ambition. In our survey of 760 respondents, 23% have already adopted an xP&A strategy, 34% are changing, and a further 41% are hoping to move in this direction over the next few years (fig 3).

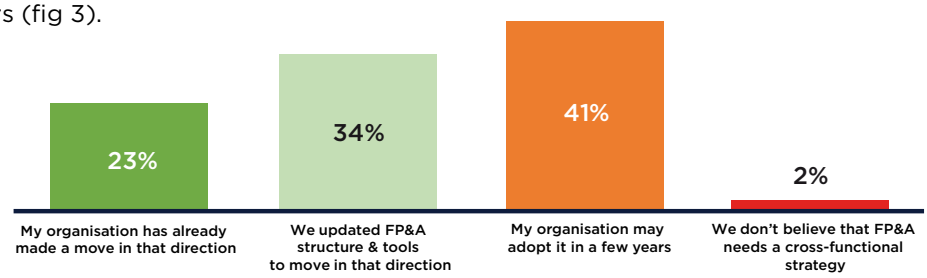


Fig 3:
Adoption of xP&A strategy

Source: FP&A Trends Webinars, 760 respondents

xP&A is a simple, straightforward concept that requires management at all levels to re-imagine their plans as part of a single process. All those interviewed had a similar approach that begins by defining where they were and the characteristics of what would be a better planning process.

"xP&A is a simple, straightforward concept that requires management at all levels to re-imagine their plans as part of a single process"

We spoke with a large engineering company that operates around the globe, processing nearly a million orders each year. It's a complex operation with low margins, making it hard to manage profitability.

The company was decentralised, which meant the systems were not fully integrated. They also had different accounting rules, e.g., on how costs were allocated, no clear master data management, and analyses focused on what had already happened rather than what was happening now.

Similarly, their planning processes were disjointed:

- Strategic planning had a limited focus on financials
- The budget was mainly about finance
- Operational plans were at different levels of maturity around the organisation

They would spend their time on how they could improve their processes by tweaking things like production, rather than taking a more strategic view of what they could do to win in tomorrow's world. The company didn't have the time or the resources for a long, drawn-out approach to Intelligent Transformation, and so with a small, focused team, they created a new framework that supported both long & short-term planning (fig 4).

Fig 4:
Reimagining planning: old vs new process. Insights from a large engineering company

OLD PROCESS	NEW PROCESS
Bottom-up, **"consensus-based"** on qualitative local inputs with limited data points to support market trends.	**Automated**, using a predictive model as the basis of the forecast, which is then reviewed and adjusted by affected teams.
Locally developed governance framework to assess demand, ranging from detailed rolling forecasts to a 1-month outlook with many "surprises".	**Global S&OP framework** with aligned timelines and process steps feeding into **a continuous financial outlook** (1 month to 10 years) to improve management decision-making.
Limited opportunities for profit maximisation by evaluating different "filler" businesses.	Enhanced plant optimisation by proactively assessing volumes and plant capacity, including other sources.

The first version took this engineering company three months, and its achievement relied heavily on technology.

Ramon Zapata, CFO Europe, Sandoz, took a similar approach. The company wanted a much faster process (from several months to just a few weeks) that was simple to understand, and where time was spent ensuring alignment between strategic, financial, and operational plans (fig 5).

Fig 5:
Sandoz criteria for a revised planning process

WHERE WE WERE	WHERE WE WANTED TO BE
Complex and iterative bottom-up planning	Clear, single top-down financial guidance
6-9 months planning duration	Few weeks running the target cascading process
Time and energy spent on negotiating	Time spent on strategic alignment & actions
High level of detail and preparation effort	Focus on what "moves the needle" & use of tools
Internally focused performance management	Increasingly externally focussed performance management

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"Integration requires the whole organisation to recognise that each department plays a vital role in the planning process"

Integration requires the whole organisation to recognise that each department plays a vital role in the planning process. Our research showed that achieving this recognition requires identifying the key business drivers, which are then broken down and cascaded throughout the organisation. These drivers, and their relationship with costs and revenues, are then encoded within driver-based models. As a result, data from strategic decisions can flow down as targets to an operational level, while operational changes can likewise flow up to the strategic level.



Transformation Experience: Redefining the planning process

A well-known online travel shopping company told us that organic growth and acquisitions led them to have disconnected systems and manual-intensive processes. As a result, forecasts and reporting in many areas were inadequate for their needs. In 2018, they set up a project to determine how they could improve and solve the complexities being experienced. They recognised that this was not a one-off event, but a multi-year project.

One of the changes made was to their forecast and outlook process. They were trying to solve something that is quite simple – how do they create a single process they can rely on? They had two separate processes – weekly and quarterly – that used different, inconsistent approaches within the company. These focused on outcomes rather than what was driving the business. The output generated consequently lacked business confidence and placed a considerable burden on the FP&A teams.

"If we get the drivers right, the outcomes will take care of themselves"

The aim was to create a single process that "always provided a complete picture of all our finances." To make it more accurate and achieve confidence, they adopted a driver-based approach focused on the drivers of performance. "If we get the drivers right, the outcomes will take care of themselves."

AI/ML was used to uncover key business drivers and make predictions. This enabled them to simplify and automate the process, which can be run at any time.

Key to achieving this was the recruitment/collaboration with subject matter experts. **"Too often, we have lots of voices – but they are not the right ones – which leads to a lot of confusion. Everyone must know what is in it for them and who are the affected people."**

To help steer the collaborative effort, the team was aligned on some fundamental principles. The main one was to update their approach to solve the problems being experienced. The others included:

- Developing a common methodology and unlocking synergies
- Simplifying and automating the process
- Leveraging data and analytics
- Aligning measures (CofE) to decision-making
- Focusing on accuracy

Once the team and principles were in place, they were then able to move to engagement and action.

4.3 Integrated management process action points

- **Move away from calendar-based planning** to a process that is agile, triggered by events, and enhanced by Business Intelligence
- **Create a team of subject experts** who can advise on the integration of strategic, financial, and operational planning processes
- Ensure that **what is planned goes beyond finance**, and links day-to-day operational activities with strategic goals
- **Expand the planning horizon** to include product/service life cycles
- **Enlist senior-level support** so that any issues can be dealt with at the appropriate level

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5. DRIVER BASED PLANNING

> *Driver Based Planning is an agile and flexible method for predicting future outcomes based on proven mathematical relationships between business drivers (factors that directly impact performance) and target measures.*

"Planning is not just about what is sold and the associated costs, but also about how we sell, how we make it"

5.1 Why Driver Based Planning?

Driver Based Planning (DBP) is a fundamental aspect of the FP&A Maturity Model that plays a crucial role in creating an intelligent, agile process. When done correctly, DBP models can improve accuracy, eliminate bias, and automate much of the work involved in producing plans.

Alex Beired, Director of Corporate FP&A, Owens Corning, believes that Driver Based Planning is essential for:

- Challenging performance assumptions
- Connecting initiatives with organisation capabilities when trying to improve performance
- Explaining variances between actual and plan

He says that planning is not just about what is sold and the associated costs, but also about "how we sell, how we make it, and how we balance production with inventory and demand".

However, many of the planning models we typically encounter simply automate the production of the P&L. By entering a few numbers, such as predicted sales, and defining the mathematical relationship on related costs, the models then work out what the resulting profit should be.

The only concern is that there is no information about what is 'driving' sales or the underlying costs in these models. For example, sales could depend on market trends, competitors' actions, and customer satisfaction. Similarly, costs may depend on various geopolitical factors, the availability of skilled staff, and the lack of disruptions in the supply chain. These are the factors that ultimately drive profitability, which means their effect needs to be included in any planning model.

In our survey of 1,412 FP&A practitioners, 11% claimed to have planning systems that were fully driver-based, and a further 66% had some predictive (e.g., driver) capabilities (fig 6).

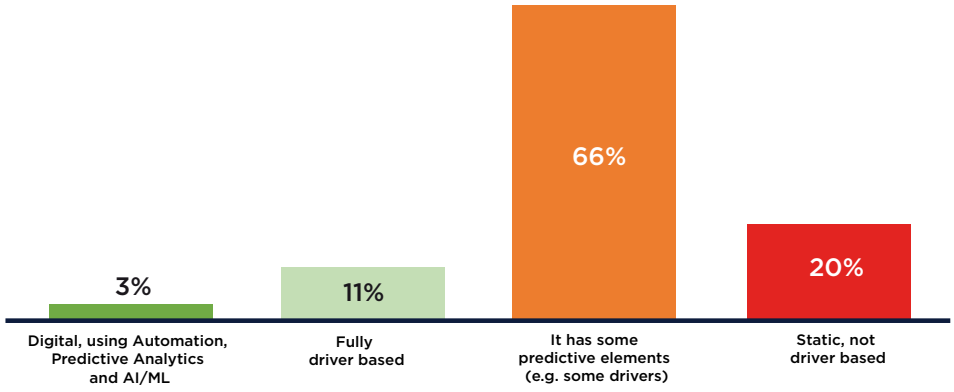


Fig 6:
Driver Based Planning maturity

Source: FP&A Trends Webinars, 1412 respondents

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5.2 Establishing Drivers

In our research, we found that drivers are best established through analysis and conversations with managers around the business. It's important to have drivers that make sense to those affected. (We will examine this in more detail in the section on analytics.)

> ***"When an organisation uses Driver Based Planning, discussions centre around what drives the business, rather than a 'hunt for the guilty' on missed goals."***

As **Alex Beired of Owens Corning** points out, finding drivers is a good, two-way learning process between FP&A and operations. "We educate them on factors that could affect them, and they help us not to spend too much time on factors that don't matter. This helps in gaining (shared) ownership of the models."

Relationships between drivers and revenue/costs are then built into the DBP models that are used throughout the organisation to provide a consistent view of performance. It is these models that run simulations and assess different scenarios relating to the drivers.

"Pandemic caused us to look at the real drivers of performance. Today we focus on actionable drivers, which are used for scenarios"

One company we interviewed told us that the pandemic caused them to look at the real drivers of performance. In the past, they had used price/volume to drive their plans. Today, however, they focus on actionable drivers, which are then used to create future scenarios based on the sensitivity of those drivers.

Being in healthcare, they know that disease rates and volume are a better guide to future growth. Similarly, billing and cost per working day are better measures than revenue per patient. In each case, these drivers act as predictors, and can define actions that can help improve overall performance.

Their approach is to break down the drivers and use these in analyses to see how they may change over time. For example, the evolution of Covid meant that demand for services would change in the future. Organisations had to react to what was happening now, but also to look ahead to what demand would be post-Covid. For example, there would be a pent-up demand for services that had not been possible during the pandemic. This in turn has a knock-on effect, causing supply chain concerns driven by limited capacity, constraints, and people.

Saurabh Jain, VP Performance and Controlling, told us that **organisations should be constantly looking at internal and external drivers and how they are applied.** "This approach allows to completely transform business models, both in the drivers we use and how we plan".

5.3 3-way models

"3-way models that integrate P&L, Balance Sheet, and Cash Flow statements are a must for every FP&A department."

In today's fast and uncertain business environment, it is important to remember that Driver Based Planning should not just be about Profit and Loss Account (P&L) accounts. 3-way models that integrate P&L, Balance Sheet, and Cash Flow statements are a must for every FP&A department – but many organisations around the globe continue to focus their planning mostly on P&L. **Elena Kiristova, former regional CFO, TUI,** believes 3-way models are vital in promoting the integration of processes and in gaining support from the various stakeholders, as they help to manage Cash and Capital Investments holistically. Consequently, each part of the company can quickly see how change impacts its area, and the need to collaborate when making decisions.

Transformation Experience: How Driver Based Planning transformed FP&A

A global manufacturer of building materials told us that, like most companies, they faced several challenges when planning:

- The financial planning process was not integrated with underlying performance assumptions (e.g. OpEx, headcount, etc.)

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- There was no connection between capabilities and the different initiatives established to improve performance
- Planning models were different in every region – they were not looking at the business in a consistent way
- Regional Excel models were not scalable to support business growth and were impractical to maintain
- Because of the different models, the company couldn't see the underlying assumptions that could explain variances

The solution was to integrate the planning process into one system that is driver-based. The model used global KPIs, to allow everyone to look at the business in the same way, and to help explain what was happening when the results came in. Rather than focus on variances, they preferred to discuss what drivers were not delivering the expected results and the potential causes.

"The solution was to integrate the planning process into one system that is driver-based"

Their first driver-based model was for a combined strategic and operating plan. Initially it focused on what was sold, but they knew they had to extend this to see how they sold. This would introduce many new KPIs. To get there, they worked with their global partners to make sure the drivers made sense. They also educated the partners on factors affecting them.

As a result of Driver Based Planning, we were told, "We can now connect our financial work to the underlying business drivers that are familiar to our capability leaders." Driver Based Planning has also enabled the company to become agile. By changing drivers or assumptions, they can immediately see the calculated effect. Changes instantly ripple across all connected plans right through to the consolidated P&L, Balance Sheet and Cash Flow forecasts.

5.4 Driver Based Planning action points

- **Examine the models** used for planning – are they based on performance drivers?
- **Identify the drivers**, both internal and external, and make them actionable. Remember the Pareto principle: 20% of all drivers (i.e., those that are key) that explain 80% of results
- Drivers may differ between products and territories, so **involve local managers** when identifying
- **Continually search** for performance drivers – and challenge those that are generally accepted
- **Create "3-way" driver models** that combine P&L, Balance Sheet, and Cash Flow statements
- **Remember that there are known and unknown business drivers**. Use predictive analytics (e.g., AI/ML) to uncover them
- **The time concept of drivers is important:** old drivers may become less sensitive and valuable over time, while new ones will appear. Scan your drivers on sensitivities and constantly look for new drivers
- **Automate the driver identification process** as much as possible using new technology

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6. SCENARIO MANAGEMENT

> *"Scenario Management is the development and communication of action plans to take advantage or mitigate the impact of events, both seen and unseen, on strategic objectives."*

6.1 Why Scenario Management?

Organisations at Level 5 of the Maturity Model can run simulations quickly, dynamically, and at different levels of the organisation. This is a crucial capability when the future cannot be predicted with any degree of certainty, and when there is more than one probable outcome.

Scenario Planning has been around a long time – and yet, as we have discovered, few organisations use it when setting financial and operational plans. In a survey of 1,400 attendees at global FP&A Trends Webinars, only 11% were able to run scenarios in real-time, with 63% finding them time-consuming, and 8% impossible to run (fig 7).

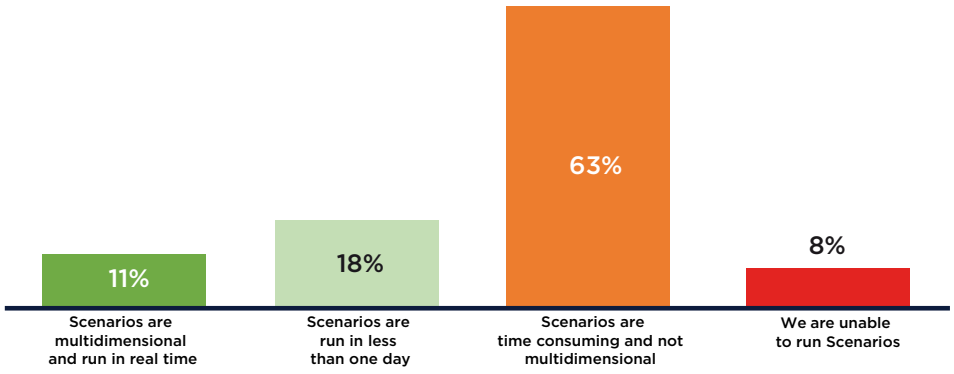


Fig 7:
Scenario Planning journey

Source: FP&A Trends Webinars, 1400 respondents

Massimo Magliocco, Planning Director, STMicroelectronics, believes **three issues prevent the widespread use of this approach:**

- **Short-sighted culture.** Scenario Planning requires a strategic mindset about how the company can adapt to a changing future
- **Complexity.** Planning for multiple futures is not straightforward and requires identifying the key drivers across the business
- **It is not for free.** Being prepared for different scenarios costs time, effort, and resources

"Scenario Planning requires a strategic mindset about how the company can adapt to a changing future"

Despite these drawbacks, everyone in our research embraced Scenario Planning and then went one stage further – onto what we call Scenario Management. The difference is that while Scenario Planning is used to evaluate different options, Scenario Management goes on to prepare carefully considered action plans that can be implemented at any time. In short, **Scenario Management is a mindset, and one that requires moving away from the traditional mentality of "one plan-one forecast".**

> *"When we place all our resources on one set of forecasts and one set of assumptions, particularly in a time of uncertainty, we run the risk that all our efforts will become obsolete right from the start, and we are left with nothing. Instead, we leverage our FP&A technology platform and lay out all the possible scenarios so that we can prepare contingency plans. So, when reality kicks in we are ready to go with an execution plan already thought out. That makes us more agile and more able to react quickly – that's what really drives value."*
>
> Alex Beired, *Director Corporate FP&A, Owens Corning*

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6.2 Developing scenarios

Scenarios should not be plucked out of the air or thought about casually. **Aravinda Tiwari, Regional Senior FD, IQVIA**, has found that it is best to first secure a commitment from senior management on the methodology to develop and manage scenarios. Once this is in place, the best approach is to involve others in developing the scenarios, and to assign a narrative that explains each one clearly. **Aravinda Tiwari** suggests the following **7 steps for developing planning scenarios:**

1. **Define the scope, issues, and time horizon for each decision.** For example, is it about increasing production or about dealing with a forecasted shortage of materials?
2. **Define assumptions and establish relationships between the key drivers directly affecting the issues.** This could be a combination of internal and external factors.
3. **Collect and analyse the data involved.** Do they confirm the impact of drivers and the trends being forecast?
4. **Develop scenarios that could address the issue.** This may entail brainstorming ideas, but it needs to involve the stakeholders affected.
5. **Once you have a range of scenarios, reduce them to the top 4 or 5 at the maximum,** for which you will work out a response. This can be done via a task force designated to examine each one.
6. **Apply scenarios.** Focus on material differences between scenarios. Develop action plans and determine how resources would be reallocated.
7. **Maintain and track critical scenarios,** e.g., within a dashboard, so that they can be continually assessed and implemented as required.

> "Business intelligence is the key to Scenario Planning and to finding out what is actually going on."

Aravinda Tiwari also offers a word of caution concerning Scenario Planning:

- Avoid developing scenarios without defining the issues first
- Don't develop too many scenarios
- Don't attempt to establish the perfect scenario
- Avoid becoming fixated on any one scenario
- Don't hold on to a scenario after it has ceased to be relevant

Transformation Experience: STMicroelectronics - evolution to Scenario Management

STMicroelectronics is a French-Italian multinational electronics and semiconductors manufacturer headquartered in Plan-les-Ouates, near Geneva. With over 48,000 employees and revenues of 12.8 billion Euros, they are one of the major suppliers of semiconductors to businesses worldwide.

Massimo Magliocco, Planning Director, STMicroelectronics, told us there were three issues the company had to tackle when developing scenarios:

- The first was a detailed analysis of risks and opportunities associated with the business they are in – what does a downturn or upturn mean for them?
- Next, they had to get rid of the bias. The pandemic was new territory, and everyone believed that the business would decline
- Third was the impact of getting it wrong – or getting it right

Massimo Magliocco explained the importance of accurate predictions. "If you look at the business of semiconductors, there is a massive rise in demand for products such as 5G phones and electric vehicles, which we believed would continue despite the overall downturn in the global economy." To take advantage of this rising demand – even when other industries are shrinking – requires a detailed understanding of the market and customers.

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For **Massimo Magliocco,** the key to Scenario Management is Business Intelligence – finding out what is actually going on. Once the drivers are understood, predictive driver-based models can be used to create multiple alternative futures. This allows them to see how they would cope depending on what may happen.

"We found it was essential to give each scenario a name whereby senior management could remember the narrative of what was being assessed," adds **Massimo**. "We then invest in the most likely scenarios, including CAPEX. Scenario Management isn't free."

"Once the drivers are understood, predictive driver-based models can be used to create multiple alternative futures."



Transformation Experience: Danone - preparing for uncertainty

Danone S.A. is a multinational food-products corporation based in Paris. Danone specialises in health / nutritional products and comprises many well-known brands, such as Actimel, Alpro, Volvic and Nutricia. The company employs over 100,000 people in 120 countries, and has revenues in excess of 26 billion Euros.

Ivo de Brouwer, FD, Controlling Methodologies (Worldwide), Danone, explained that it was fairly easy in the past to predict the outside world and what they would sell. Annual budgeting with occasional updates worked well – until the advent of the world of Volatility, Uncertainty, Complexity, and Ambiguity (VUCA). At this point, Danone realised that looking at the business for one calendar year doesn't make sense if you want to make decisions to affect the future.

They therefore stepped away from annual budgets and introduced rolling forecasts, whereby in each quarter they would predict the next six. **Ivo de Brouwer** commented, "It was a struggle to begin with as the concept was new, but it worked out well for the company until Covid came along. That changed everything. All the effort we put into the different scenarios would be thrown away two months later. We realised that we had to be better prepared for an uncertain future."

"Looking at the business for one calendar year doesn't make sense if you want to make decisions to affect the future"

Danone worked on several areas to improve planning and better prepare for uncertainty. Specifically, they had to:

1. **Understand the data.** This meant harmonising hierarchies on product, brand, customer, and channel across the organisation. As a result, they ended up with unified data definitions across functions and systems.
2. **Combine financial and non-financial data**. Once they had standard definitions, they combined them with non-financial KPIs. The aim was to look at the business drivers so they could create and see the impact of different scenarios. It was important that these KPIs were global and understood by all.
3. **Focus locally. Local conditions and consumers drive their business.** Therefore, they decomplexified the matrix organisation structure and empowered each country to act and make decisions as required.
4. **Focus on business.** Finally, they reduced the frequency and granularity of reporting. In its place, they increased focus on simulations, and on potential areas where the business could evolve.

6.3 Scenario Management Action Points

- **Move away from a single view** of the future to one based on multiple possible futures
- **Ensure your planning models incorporate the agreed key business drivers (both internal and external)**
- **Talk with other stakeholders** on:
  - the most likely events that could affect those drivers
  - activities that could improve overall performance
- **Run simulations** on those events/activities to assess their impact
- **Prepare and communicate action plans** for the most likely scenarios

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7. ANALYTICS: THE POWER OF MACHINE LEARNING

> ***Machine Learning is a branch of Artificial Intelligence that uses algorithms to build predictive functions that learn from the data being analysed to produce fact-based insights.***

7.1 The need for a data-driven culture

"Data-related problems are still among the most significant issues organisations face"

Data are facts about what has gone on before that can provide an unbiased overview of an organisation's activities and the business environment in which it operates. Analytics can turn this data into insights from which managers can initiate change to improve overall performance. However, it can only do this if the data used is accurate, complete, appropriately analysed with all relevant factors, and presented in the context of the entire business environment.

As our surveys reveal, data-related problems are still among the most significant issues organisations face. Most do not have a single source of data that everyone trusts, there are too many inconsistencies in definitions, and the use of spreadsheets creates data silos that prevent people from seeing the 'big picture'. (fig 8).

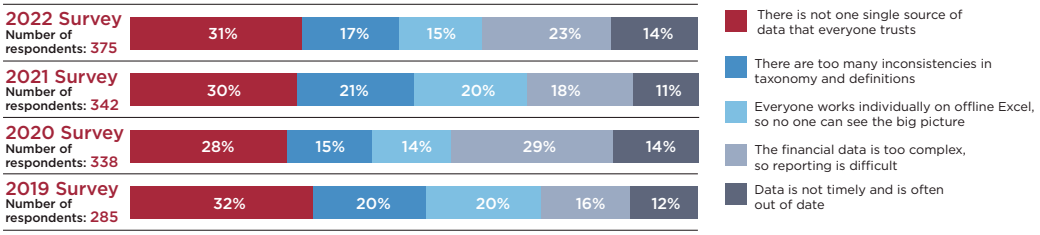


Fig 8:
Data issues identified by FP&A Trends surveys

Source: FP&A Trends surveys 2019-2022

> ***The pandemic moved us away from looking at variances from plan – in this new environment they were totally irrelevant. We needed to see how things were over the next few weeks: were there any signs of recovery and so on. For this we needed to look at the data – a lot of data.***
>
> Nahuel Rozas Delpit, *a former FD and Head of FP&A EMEA, Medtronic*

Nahuel Rozas Delpit, a former FD and Head of FP&A EMEA, Medtronic, believes that organisations need to embrace a data-driven culture if they are going to deal with uncertainty. This is where organisations take decisions informed by objective data insights, whether that is in day-to-day operations, management initiatives, strategic plans, etc.

To achieve this, Medtronic recognised the need for expertise to draw insights, so they asked around the company. Colleagues in Italy were particularly vital, as this is where the pandemic first hit. What could be learned from them? "Initially, it involved a lot of manual work," **Nahuel Rozas Delpit** commented, "so we decided to leverage other expertise in the company with predictive analytics on a digital platform." By predictive analytics, he was referring to Artificial Intelligence/Machine Learning.

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7.2 Approaching AI/ML

The use of Machine Learning is increasing within FP&A. In recent surveys of nearly 300 professionals, 8% were already using AI/ML, with 55% planning to deploy in the next few years (fig 9).

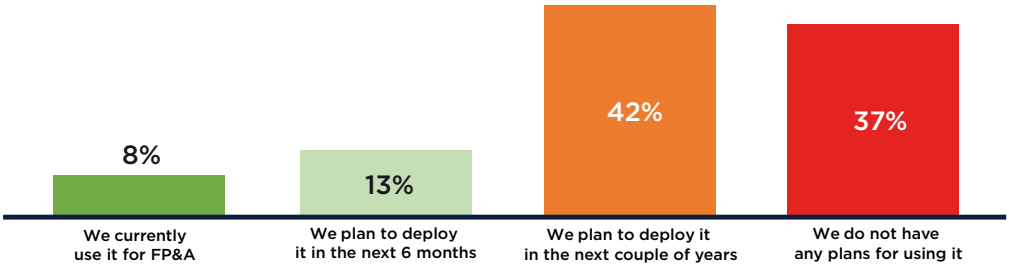


Fig 9:
FP&A deployment of PA/AI/ML

Source: FP&A Trends Webinars, 300 respondents

Medtronic, along with many other companies we researched, investigated using AI/ML both to uncover the drivers of performance and to make predictions.

AI/ML works by applying specialised algorithms to data in order to identify relationships and trends. These algorithms typically operate at a detailed level, and it requires specialist knowledge to know what combination to use at what time. For this reason, most people we interviewed believe that it is vital to take a small team approach to identifying drivers.

Teams typically consist of:

- Executive lead
- Data scientists (e.g., one in-house, one external consultant)
- Master Data Management manager (i.e., someone who knows where data resides and its condition)
- Ad-hoc operational people, e.g., sales, procurement, as their expertise is sought

"AI/ML works by applying specialised algorithms to data in order to identify relationships and trends"

Small teams can make significant progress in short periods of time (e.g., 3 months). One professional told us: **"We used a smaller consulting company that specialised in AI/ML to help us develop a framework that we could use. We spent 25% of the time cleaning up the data sets. That first model gave us 70% accuracy on 70% of the products."**

Beyond by this initial success, the company then created a second model that used external drivers. They asked the consulting company to share their knowledge so they could be involved in its development and the skills passed onto the FP&A team.

They found that the more data they used, the more accurate the model became, provided they recognised that drivers were often different for particular products and geographies. Similarly, they found that quarterly forecasts were more accurate than individual monthly forecasts (from 87% to 93%), and so these became the focus when predicting future performance.

7.3 Overcoming resistance

Although AI/ML is a powerful tool for predicting performance, it has generated its own unique problems. Nahuel Rozas Delpit of Medtronic told us that everyone worked hard, and a lot of progress was made, but then they hit an obstacle with resistance to change. "The systems were seen as a black box and couldn't be trusted", explained Nahuel.

"The more data we used, the more accurate the model became"

Trust has been a big issue for early adopters. Although the team using the algorithms may be happy with the approach and the results obtained, those who previously carried out those roles – or whose performance is measured against predictions – feel otherwise.

Part of the issue is that algorithms do not provide an explanation of how they arrived at a particular conclusion. For Medtronic, things only changed when people saw the predictive reports being used at the top of the organisation. "More importantly", adds Nahuel, "is when senior management started raising questions on the results it produced.

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Our leaders using it as a source of truth drove the adoption. It was not perfect – and they knew that – but it provided the right, unbiased direction."

> ***"The key to success in AI/ML is to collaborate between headquarters, regions and countries and people with subject matter expertise, e.g., Data Scientists, Commercial people, etc., who then create the right algorithms."***
>
> Ramon Zapata, *CFO Europe, Sandoz.*

Ramon Zapata of Sandoz points out that the algorithms they used were not created by one team working alone. He then went on to say, "Once we have the output of the AI/ML, we trust it – it's not up for debate. Instead, we spend our time assessing things that cannot be generated by AI/ML, for example, changing legislation, or new product launches, which can be different for different areas. We take these out of the AI/ML predictions and lay our estimates on top of the areas that can be predicted."

"AI/ML in FP&A is a relatively new discipline that requires specialist expertise: e.g. 'Centre of Excellence' where successes and lessons learned can be quickly disseminated around the organisation"

7.4 AI/ML Centre of Excellence

Because AI/ML in FP&A is a relatively new discipline that requires specialist expertise, many of the organisations we interviewed have created a 'Centre of Excellence' where successes and lessons learned can be quickly disseminated around the organisation.

One company created a virtual team consisting of people from head office and the different operations. The team's mission is to 'support management for taking improved decisions today, for a far better future tomorrow'. They 'own the models' and are responsible for developing new applications. Their approach is to look at each line of the P&L up to EBIT, to turn forecasting away from a short-term outlook to one that enables them to assess strategic opportunities.

Transformation Experience: PayU - first steps in using AI/ML

Asif Khan, a former Head of Global FP&A, PayU, a technology company that provides financial services to new companies, became interested in using AI/ML when traditional planning did not work. At that time, the pain points for PayU were:

- Fast growth made forecasting difficult – they could easily be 5% off for the next month
- PayU was in a new industry, and so there was limited understanding of business drivers
- Vast amounts of time were spent on activities involved in producing a forecast, e.g., consolidating and analysing pipeline data from every country/business
- Forecasts were affected by conscious and unconscious bias

These issues led to suboptimal predictions caused by inaccurate business insights. As a result, it caused delays in decision-making, and made it difficult to make the right capital allocations. Faced with this, Asif Khan decided to investigate the use of AI/ML for forecasting.

PayU took an agile approach and set up a small team to test AI/ML (fig 10). The success criterion was whether the AI/ML forecasts were better than the current bottom-up process. They hired experts to help, but kept the team small. They also had to create a clean, single data source before they could start.

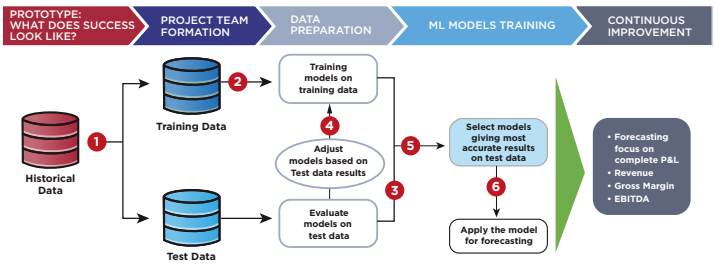


Fig 10:
PayU's approach to using AI/ML

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Data were split into two sets – training and test data. The training data was used to develop the algorithms; the test data confirmed the accuracy of those algorithms, boosting confidence in the AI/ML approach.

To begin with, they explored what the drivers of the business could be, which were mainly 'internal' elements such as the sales pipeline and market segmentation. However, AI/ML allowed them to experiment with various other drivers, including workday/weekends, special events, industry growth rates, etc. **Asif Khan of PayU** said they kept an open mind. "We would test out various drivers quickly, including those we didn't know about. We kept those best drivers to make accurate predictions for the final model."

> "We would test out various drivers quickly, including those we didn't know about. We kept those best drivers to make accurate predictions for the final model"

Not surprisingly, they found that drivers acted differently in different markets. For example, people shop differently in different countries. In some markets, people choose to shop at weekends, while in others they shop on weekdays.

The prototype took 3 to 4 months to set up and proved successful in forecasting revenue and gross margin (fig 11).

Process	Local	Centralised
Drivers	Internal	Internal & External
Faster Forecasting	1 week	1 day
Better Accuracy	~5% variance	<2% variance
Budget Input	Low confidence	Higher Confidence

Fig 11: AI/ML forecasting improvements at PayU

Transformation Experience: Amazon - applying AI/ML to FP&A

Amazon.com is a multinational technology company involved in e-commerce, cloud computing, and digital streaming.

Anton Malmygin, CFO France, Amazon, reported on their use of AI/ML in one key aspect of their business: agreements with local vendors. The issue was that many agreements were being terminated early - some because a newer deal had been established, and some because the terms were not favourable. Amazon wanted to know why this was happening, as it greatly impacted the FP&A business teams. For example, an early termination can consume 10,000s hours of re-work, and often incurs write-offs, both of which significantly affect the P&L. Therefore, the company looked for some way to detect any risky agreements in advance, so they could avert these problems.

In approaching AI/ML, they didn't have a reasonable hypothesis on what was driving terminations. The variables they had did not show a strong correlation between them. They therefore used an AI/ML algorithm-based model known as the XG Boost classifier that looks for patterns in the data. **Anton Malmygin of Amazon** explained, "Our data scientists updated the model for our use, which we then trained on some past data relating to agreements that were terminated early. The model detected 26% of these terminated agreements with a high (77%) probability. This may not sound very good," **Anton Malmygin** continued, "but it represents a considerable saving in time. We are confident that we can improve the model's performance to be in the 60+% region with more training." Since then, the system has been enhanced to provide an automated email that warns managers of recently signed agreements with a high risk of early termination.

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Transformation Experience: Microsoft – forecasting using AI/ML

Microsoft Corporation is an American multinational technology corporation that produces computer software, consumer electronics, personal computers, and related services.

Charles Peter, FD, WW Microsoft Customer and Partner Solutions, said that within Finance HQ, the Commercial Sales team collects and consolidates sales forecasts from the teams in the field. Finance HQ also make projections, which are then combined with the field forecast and presented to Central Finance.

Their challenge was how to simplify planning and make it more efficient. How do they push corporate strategy down to the field, and what does that mean for the operational teams? **Charles Peter's** team sits in the middle, so they have a dual language of corporate and field.

Previously, forecasts were made from the field up. The issue was that while they have local knowledge, they don't know about future pricing and other strategic initiatives that could affect them. Similarly, for HQ's purposes, the detail being collected was sometimes too simple. **Charles** emphasised that It's essential to have a common language that everyone – both field and corporate – understands, and to provide sufficient detail to understand what is going on.

"They went from a system based on multiple Excel spreadsheets to a single, online, AI/ML forecast solution that combines the best of human and machine intelligence"

In redesigning the planning process, they went from a system based on multiple Excel spreadsheets to a single, online, AI/ML forecast solution that combines the best of human and machine intelligence. The methods used include:

- Historical close rate / projected run rate
- Moving average / exponential smoothing
- Random Forest, KNN, SVM AI/ML algorithms, etc.

The method chosen is the one that has the best result in predicting results. Although some of the detail was increased, much of it is prepopulated – e.g., the forecast numbers were those provided as corporate guidance, which the field teams can change if necessary.

Charles continued, "It's essential that the same method used for forecasting is also used for planning. For planning, we start with market share that is then cascaded down to the operational level. Also noteworthy is that the same tools we use at corporate are also used at the field level."

The new system was built and implemented in around 8-10 weeks. It uses a SQL database and is accessed by users with Power BI. The result has been an increase in forecast accuracy – 98.4% with the new system, compared to 97.1% with traditional methods. It has also significantly reduced the resource-intensive process of 2-3 weeks to 2 days, and has enabled Amazon to be far more agile in their decision-making.

7.5 Data and Analytics action points

AI/ML is a gamechanger for many industries. It is still early days, but there is every indication that the use of algorithms will transform the way plans are created for most industries. It is not a perfect solution, however, and requires suitable expertise to guide the 'black box'.

"AI/ML is a gamechanger for many industries"

We strongly recommend that if you have not yet investigated AI/ML in FP&A, then do so without delay:

- **Review skills within the FP&A team** to see if anyone would be suitable to work in this area
- **Find out if there is any use/expertise within the company** – quite often, operations will have some knowledge of using AI/ML
- **Get senior management approval to run a pilot project** – choose something small with good historical data

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- **Assemble a small team with suitable expertise in operations, finance, and AI/ML.** With the latter, you may need to engage the services of an external specialised consulting company
- **Keep an open mind** as to what the drivers are – **and experiment**

8. FP&A TECHNOLOGY

"FP&A Technology refers to the technical tools that can be used to build agile, planning and analysis applications"

8.1 Enabling Intelligent Finance

"Using the right technologies, FP&A is able to move from being a department of analysts focused on processes to one that is business-centric"

Technology plays a major part in the FP&A Maturity Model, as both an enabler and an essential ingredient for an intelligent planning approach. The companies we interviewed made it clear that older technologies – such as consolidation packages, spreadsheets and simple BI tools – do not have the capabilities required to quickly produce accurate forecasts or assess multiple possible futures.

Fortunately, technology is constantly evolving. Today, instead of single-purpose applications, we now have sophisticated technology platforms directly aimed at supporting an extended, completely integrated approach to planning that spans the entire organisation.

Flavio Caruso, Country & Pharma CFO, Novartis, believes that the latest technologies allow FP&A to become a respected business partner and strategic advisor, something he calls Intelligent Finance. However, this can only happen if the technology is applied correctly. For example, planned measures must include the key drivers of the business. Predictive/prescriptive algorithms must be used within agile planning models that allow the assessment of multiple scenarios (fig 12).

	ANALYST	BUSINESS PARTNER	STRATEGIC ENABLER
Measures:	Account focused	Business focused	Key Drivers
Analysis:	Descriptive	Predictive	Predictive / prescriptive
Analytic Focus:	Backward Looking	Forward Looking	Likely scenarios
Data Type:	Financial Data	Financial / Operations	Integrated Strategic Financial / Operational KPI's
Skills Required:	Accounting Skills	Analytic Skills	Multi-Functional Team
Data Storage:	Functional Silos	Business aligned	Intelligent, agile operating model

Fig 12: Technology supported components of Intelligent Finance

Flavio Caruso of Novartis believes that by using the right technologies, FP&A is able to move from being a department of analysts focused on processes to one that is business-centric, able to combine finance with operations and manage multiple scenarios.

"FP&A technology creates an environment where productivity is greatly improved, decision-making is data-driven, and the organisation can adopt an agile operating model."

Flavio Caruso, *Country & Pharma CFO, Novartis*

8.2 Integrated planning platform

From a technology point of view, all those we interviewed were using an integrated planning platform. Integrated planning platforms allow collaboration, and are essential for supporting an agile decision-making process. They enable organisations to build multiple models that act as a single model. For example, organisations can create a high-level strategic model that passes its results to a more detailed financial model. Similarly, operations can build detailed transaction-level models (if required) that employ AI/ML capabilities, which automatically feed summary financial models. The key to enabling this approach are the common building blocks used for creating models. For example, the agreed business labels, definitions, and rules (Dimension structures) are used to build and link the models. Models are fed by a common data warehouse and can use the same analytic tools (fig 13).

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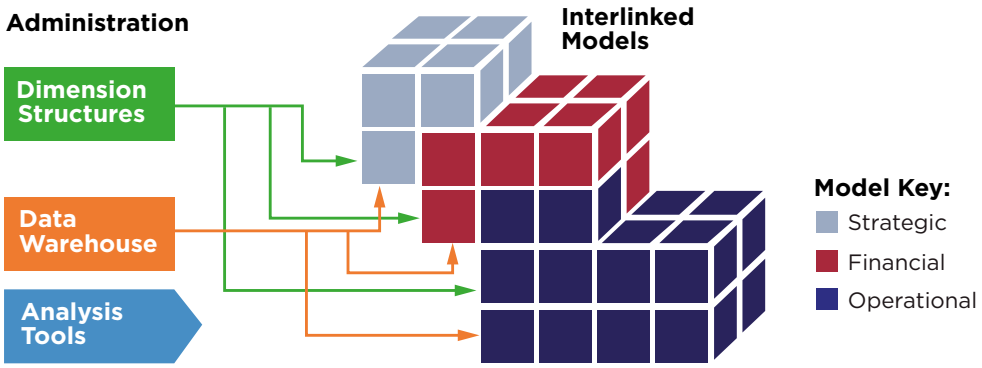


Fig 13:
Integrated planning platform

The concept is like the familiar Lego approach. Each element is designed to work with each other, allowing organisations to create a system that meets their needs while being adaptable to change. This is a very different approach from a point solution that typically has a single focus and model, e.g. when creating a budget.

Integrated planning platforms are typically cloud-based, which means users are always on the latest version and can access the system from any location and any internet-enabled device.

Elena Kiristova, former regional CFO, TUI, found that moving to a modern platform allowed them to interconnect the different planning models from around the organisation. This provided them with a single information/data space and consistent information as the models used agreed drivers. The platform also offered self-service analytical capabilities, which helped reduce the load on FP&A.

Transformation Experience: NCR Services – achieving real-time business planning

NCR Services Supply Chain is part of the American NCR corporation, which provides consulting and technology-based solutions. The organisation is in the food and food service distribution business, where they help customers optimise the flow of inventory, data and payments.

Tamer Abomosalam, Services Supply Chain Global CFO, NCR Corporation, explained that their challenge was in providing real-time business simulations to make faster business decisions. As data became more readily available, there was an increased expectation to deliver better information, while simultaneously reducing overall expenditure and headcount.

Like many companies, NCR were using Excel to report by cost centre that itemised all expenditure making up the P&L. This was very time-consuming to produce and difficult to navigate through. The capabilities required to transform their process included:

- The capacity to analyse business functional areas down to the smallest building blocks
- Increased frequency of analyses and response to uncontrollable changes
- Move beyond finance and embrace xP&A

"Moving to a modern platform allowed them to interconnect the different planning models from around the organisation"

Tamer Abomosalam of NCR Corporation told us that moving to a modern BI solution helped immensely: "It was quick and easy to populate and gave users a lot of information." He also said that the move:

- Eliminated data preparation & collection time
- Reduced headcount
- Provided analysis & data on the spot
- Enabled real-time simulation of business scenarios
- Improved data visualisation

As a result, the technology solution has enabled the FP&A team to focus more on data analytics than data processing.

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Transformation Experience: Jaguar Mining – automating plans

Jaguar Mining is a Canadian-listed gold mining, development, and exploration company operating in Brazil, with revenues of just over $150 million USD.

Hashim Ahmed, the company's CFO, said that they wanted to move away from a conventional planning process to one that was continuous and driven by advanced analytics. He emphasised that this was not about implementing rolling forecasts, but instead a smart planning system that picks up predefined inputs and updates plans automatically, without human intervention.

As a first step, they removed the difference between fixed and variable inputs. They then adopted an 80-20 rule by identifying 20% (top 4-5 inputs) that derive 80% impact on the planning process. By doing so, they only automated a few inputs, and still achieved automation of 80% of the planning process.

Hashim **outlined the following examples of their approach to automation:**

- "The team started by focusing first on an area that affected us the most – consumables/materials pricing. Through automation, as soon as a new purchase order/contract is signed, that information is automatically added into the pricing module. This uses AI/ML to update the pricing plan, which is then used in predictions and scenario analysis. There is no human intervention, and the management team does not override the results."
- "Next, we looked at labour costs, which have a major impact on our profitability. The model looks at all aspects of employment, including rates of pay, holiday, maternity leave and so on. If someone resigns, is expecting a baby or falls sick, the model picks up the information from the Human Resource system, adding common time-lags like time to recruit and cover those positions. The impact of this 'outage' is automatically calculated and used to update the labour cost plan."
- "Similarly, delays in shipping automatically updated the capital expenditure plan, and revenue (gold price per ounce) is automatically updated based on market consensus towards commodity prices."

"A major step towards a fully automated AI/ML enabled planning process with no or minimal human bias"

Hashim emphasised that these examples, although small, are a major step towards a fully automated AI/ML enabled planning process with no or minimal human bias.

He also added that he is a great believer in using commonly available telematics to capture (digitise) and transmit (upload) 'live' data onto cloud platforms. "For example, we use sensors to monitor fuel and tire wear. These transmit back to the planning models where the data is automatically loaded and, through the use of AI/ML, used to update the forecast plan. If historical consumption rates are higher than plan assumptions, the plan updates itself. Consumption rates can also lead to revising maintenance schedules – all of which is then reflected in the updated plan."

The important point is that as they learn how to plan each area of the business, it is then automated so that plans are automatically generated on a constant forward-looking basis. The AI/ML algorithms they use are monitored and 'tweaked', but the answer they produce is relied upon.

8.3 Technology Action Points

- **Break out of spreadsheets** – move to a modern planning platform where models can automatically pass data/results and act as though they were one model
- **Choose a platform** that can assess scenarios in practically real-time
- **Understand and organise data** so that it becomes a single source of information
- **Automate as much as possible** to free up time for higher-value activities
- **Provide users with self-service analytics** so they can produce their own reports and analyses

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9. MOVING TO THE LEADING STATE OF FP&A MATURITY

9.1 Attributes of FP&A maturity

Lawrence Serven, thought leader, author and Regional Director, Board International, believes the world's most successful companies use FP&A to drive results, not just predict them.

"FP&A maturity is about driving performance and accountability in making plans happen"

"FP&A has its roots in monitoring performance – a backwards-looking exercise at what happened," comments **Lawrence Serven**. "This was followed closely by looking forwards towards predicting what could happen (forecasting) using a model. As FP&A maturity increased, the next level was about planning what we wanted to happen and how that will be achieved. Today, the most mature level is about FP&A driving performance. It's about having a culture of accountability to make plans happen."

To achieve this level of maturity, companies need to embrace Intelligent Transformation to:

- Facilitate scenario management: what does the future hold, and how will they manage it in terms of initiatives and resources?
- Integrate strategic, financial, and operational planning: strategy can only be implemented by connecting it to budgets and the day-to-day operations of every department
- Adopt Driver Based Planning and forecasting, where the drivers of the business are identified, understood and managed
- Understand where value is created at the lowest level, e.g., product or SKU
- Bring unbiased, fact-based predictions into planning processes

Intelligent Transformation requires new tools and the latest collaborative technology platforms, where planning and analysis become an automated, continuous, demand-driven exercise, and not just one that takes place once a month.

9.2 Seven steps to Intelligent Transformation

"Intelligent Transformation requires new tools and the latest collaborative technology platforms"

> ***"Intelligent Transformation isn't a single project, but an ongoing determination to improve how planning can help the organisation achieve its objectives."***

Everyone we spoke to mentioned that achieving the leading state of FP&A maturity requires a determined, corporate-wide effort. Below are 7 steps organisations can take in their transformation journey (fig 14):

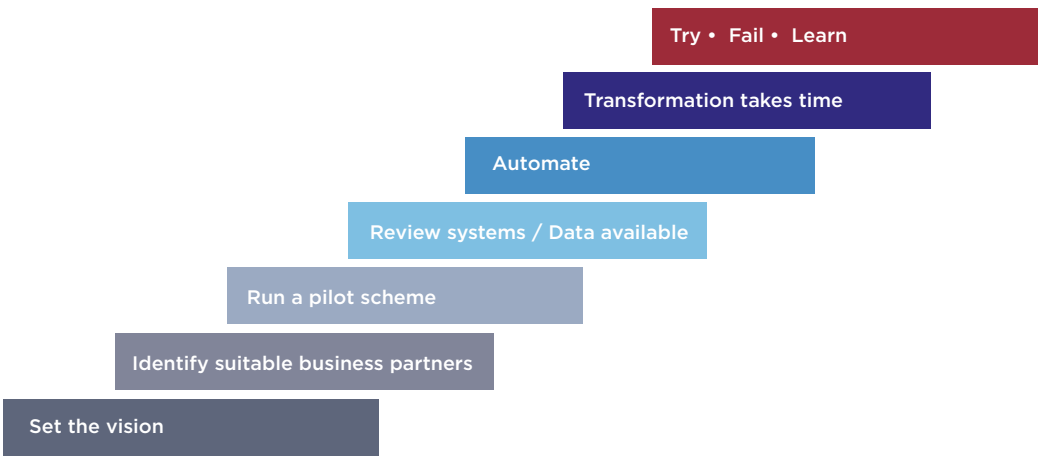


Fig 14:
7 Steps to FP&A
Intelligent Transformation

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1. Set the vision

> ***All business transformation needs to start with a vision.***
> Flavio Caruso, *Country & Pharma CFO, Novartis.*

"No process can ever be successful unless it is fully supported by senior management"

In all the user cases presented in this paper, FP&A transformation started with a vision of what planning could be. However, no process can ever be successful unless it is fully supported by senior management, and the various stakeholders see it as something that serves their needs.

William Howell, Senior FP&A Manager, Honda, told us that Transformation starts with people. "You need to get senior management behind you, or you end up fighting the culture throughout the organisation, which results in fighting on too many fronts. We were fortunate that our senior management was very much on board. "

As we have mentioned in section 4, set out a vision of what planning could be and the benefits it would bring to everyone in the organisation.

2. Identify suitable business partners

Intelligent Transformation cannot be achieved by one person, or even one department. It requires a collaborative approach around the goals of the vision. "It's worth identifying other FP&A business partners who may be distributed around the organisation," continues **William Howell of Honda**. "They need to be able to deliver the right business partnering with the right attitude and the understanding of what you want to achieve. It has to be a two-way street. "

3. Run a pilot project

Most people we spoke with suggest that running a pilot project in an individual business unit or division is a good way of getting support. However, it's essential to have people with operational knowledge of how the business works. It is also crucial to find the right business stakeholders, such as IT and the technical experts within their fields, such as AI/ML.

4. Review Systems/Data available

Intelligent Transformation is primarily concerned with systems and data. **William Howell** had a familiar story to tell: "We thought we knew our data well, but the more we got into it, the more we realised the gaps in our knowledge," said **William**. "We had a lot of work to do in that area."

Similarly, data management is a big issue for many organisations due to the number of spreadsheets and their complex macros. This not only makes it difficult to keep control over versions, but it leads to errors, prevents an agile approach, and sucks time away from FP&A staff.

"Data quality and systems issues must be addressed if Transformation is to occur"

Data quality and systems issues must be addressed if Transformation is to occur.

5. Automate

Automation is key to unlocking FP&A time. Too much time is spent by FP&A on low-value tasks such as loading data, sending out spreadsheets, checking returns, writing reports, and so on. These are all things that can be automated simply and quickly by using the right technologies. Automation is also a key ingredient in an agile planning process; it allows processes to be directed and managed by data, rather than requiring someone to initiate an activity.

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6. Transformation takes time

Although organisations can experience 'quick wins' on their analytic journey, complete Transformation will take time. Honda found it was not possible to tackle the areas mentioned above simultaneously. It was a progressive evolution that took place over three years. But it was worth it. The project brought the FP&A team together around a shared vision, and their current system allows them to link strategic, financial, and operational planning.

"For example, if we decide to invest in the business," comments **William Howell,** "the investment module takes data from the planning system and looks at what that will mean for costs and output. We also look at environment and safety considerations – this is done in real-time, and we can see the impact on the bottom line. Once a decision is taken, data flows back into the P&L module to see how resourcing changes, and what that means for depreciation, the balance sheet, and overall timing. The system gives us great confidence, so that we don't have to go back and check things."

7. Try, Fail, Learn

The last point is that Intelligent Transformation is a learning process. There is no one clear path, and the route will involve failures. The critical point is to learn from them and to move forward continually.

9.3 The role of the FP&A Architect

> ***"The FP&A person is responsible for the design and implementation of an agile, integrated process that uses the best analytical methods supported by the best technologies available."***

"Any transformation needs planning, and someone who can lead the collaboration required between stakeholders"

Any transformation needs planning, and someone who can lead the collaboration required between stakeholders. Over the past few years, we have identified several key roles that enable FP&A to be an effective business partner. These include Architect, Analyst, Data Scientist, Storyteller, and Influencer.

The FP&A Architect is the person who acts as a bridge between corporate strategy, finance, IT, and operational departments. Their role is vital when moving to the Leading State level of maturity, as they understand how the organisation operates and are familiar with the latest developments in FP&A systems. With this knowledge, they can oversee the development of an agile planning process that links the different areas of the business and the technical infrastructure required to support corporate-wide decision-making.

Many of the people we interviewed for this paper perform the role of FP&A Architect.

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10. CONCLUSIONS & RECOMMENDATIONS

Modern economies had never experienced a global shutdown until Covid in 2019/20. This one event significantly impacted revenues and employment, disrupted supply chains, and eroded baseline data trends. As a result, many CFOs withdrew their guidance on what may happen, as it was likely to be completely wrong. But on the plus side, Covid accelerated digitisation as companies sought ways to bring people and customers together.

> ***"Our goal is not to predict the future but to enable policymakers to make richer and better decisions involving the future, as a result of having a deeper grasp of key drivers and key uncertainties."***
>
> Flavio Caruso, *Country & Pharma CFO, Novartis*

"Intelligent Transformation is not just desirable, but an essential requirement for managing any business in today's volatile environment"

Intelligent Transformation is not just desirable, but an essential requirement for managing any business in today's volatile environment. The different components of Transformation - integrated processes, Scenario Management, Driver Based Planning, Predictive Analytics, and a collaborative technology platform – add little value on their
Modern economies had never experienced a global shutdown until Covid in 2019/20. This one event significantly impacted revenues and employment, disrupted supply chains, and eroded baseline data trends. As a result, many CFOs withdrew their guidance on what may happen, as it was likely to be completely wrong. But on the plus side, Covid accelerated digitisation as companies sought ways to bring people and customers together.
Intelligent Transformation is not just desirable, but an essential requirement for managing any business in today's volatile environment. The different components of Transformation - integrated processes, Scenario Management, Driver Based Planning, Predictive Analytics, and a collaborative technology platform – add little value on their
own. As can be seen from the experiences presented, Intelligent Transformation is achieved by applying a combination of them all.

For many, the Covid pandemic has been a game-changer. **Nahuel Rozas Delpit of Medtronic** told us that his company's most significant challenge pre-Covid was dealing with inefficiencies. "We found we were spending 40% of our time forecasting and only 15% on business partnering." This situation did not sit well with the people they served. And then Covid hit: "The pandemic accelerated change like never before."

Nitu Agarwal, VP Finance, Thomson Reuters, explained, "Covid taught us that we can't always rely on past trends – this is a typical failing of traditional planning." For both of them, FP&A had to change to deal with both inefficiencies in the planning process and in coping with unprecedented uncertainty.

As this paper has demonstrated, adopting an automated, fact-based approach to planning that seeks to improve the speed, quality, and agility of organisational decision-making is possible. But it does require a shift away from a traditional planning mindset. Here are some recommendations on how that can be achieved:

- Communicate why traditional processes do not work and the benefits that an integrated, agile approach could bring
- Make sure FP&A's mandate is aligned within the business. FP&A is not just a finance activity - it is one that can bring the organisation together around the single purpose of making better decisions
- Start the move to fully driver-based models that identify what is driving performance rather than being influenced by prior trends
- Emphasise the importance of Scenario Management involving simulations that lead to actionable insights. Having a single outcome when preparing plans leaves the organisation unprepared for uncertainty
- Ensure your systems support an integrated planning approach, have embedded AI/ML capabilities, and can perform simulations and real-time analytics

The authors truly believe that following the advice in this paper will help FP&A to achieve its purpose, no matter what happens in the economy.

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OTHER SOURCES

- FP&A Trends Research Paper 2021: FP&A Board Maturity Model: Best-in-class FP&A and how to get there
- FP&A Trends Webinar series
- FP&A Trends Research papers

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