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# Driver-Based Budgeting

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- ▶ *The Proven Route to Faster Budgeting and More Frequent Reforecasts*

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## Executive Summary

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Many agree budgeting—as it is currently practiced—does not deliver much value. It takes too long, costs too much, and is perpetually out of date. As a result, though most organizations want to reforecast more frequently, they cannot.

Driver-based budgeting—where non-financial drivers such as sales volumes and resource consumption rates are used to predict line-item expenses—presents a way of breaking this bottleneck so budgeting is faster and less painful, allowing for more frequent reforecasts.

In this paper, we will highlight the benefits of driver-based budgeting and the differences between driver-based budgeting, traditional budgeting, and activity-based budgeting. We will also show you how you can implement driver-based budgeting.

### Introduction

Many organizations want to streamline the budgeting process; some want to eliminate it completely. Regardless of the endgame, producing more frequent reforecasts is typically part of the solution<sup>1</sup>. “Rolling” is the word that inevitably crops up whenever more frequent reforecasting is discussed, and many organizations use some form of rolling reforecasting today. For the most part, rolling reforecasts either consist of budget contributors making rough estimates of revenues and expenses in the out years (‘Budget Year +1’, ‘Budget Year +2’ etc.), or a senior finance team member reforecasting summary revenues and expenses for the months to go until year end, based on year-to-date variances against budget. While this type of high-level rolling reforecast will help to forewarn executives of the likelihood of underachieving budget, it does not provide insight into why variances have arisen or what actions need to be taken to address them.

For an organization to be constantly adaptive and capable of aligning capacity with demand, reforecasts need to go beyond the finance function and involve key operational managers. Reforecasts also need to be more frequent, and research shows for many organizations, this means bottom-up, enterprise-wide, monthly rolling reforecasts. But before we address the implementation issues associated with enterprise-wide, monthly rolling reforecasts, it is perhaps pertinent to reflect on whether it is appropriate in every instance.

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<sup>1</sup> The Reforecast Reforecasting Survey 2005, commissioned by Business Objects and sponsored by the Chartered Institute of Management Accountants. Available at [www.businessobjects.com](http://www.businessobjects.com)

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## Who to Involve in Rolling Reforecasts

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The expenses controlled by departmental cost-center managers, such as facilities, tend to be highly predictable across the year. So it is often suggested these managers be excluded from rolling reforecasts and only those managers responsible for revenue and large elements of controllable costs be involved.

In fact, on further examination, there is no valid reason to exclude these functions from more frequent reforecasting. Most of the time, they will simply review expenses and resubmit them unchanged, an activity that will take them a few minutes at most. But more importantly, they should be included in the process because they are managers of support functions and as such, make decisions involving step changes in capacity that have implications for many years into the future. In order for these managers to make informed decisions, they need good forward visibility into non-financial operational data, such as headcount and the anticipated number of new recruits. This way they can optimize resources under their control in the short term, for instance reorganizing existing space to accommodate changing headcount, and have adequate lead time to plan for any new facility needed in the long term.

The advent of web-based enterprise planning and budgeting applications, and work management tools, means all managers can be involved in the reforecasting process with little or no extra effort or cost. If, after reviewing a previous reforecast, a manager sees no need for change, he or she can simply resubmit it. The manager may not have made any amendments, but will have had the opportunity to review any assumptions underpinning future plans.

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## How Frequently Should You Reforecast?

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In the research referred to previously, over 50% of respondents expressed a desire to move to monthly rolling reforecasts. However, the same research showed it took the finance function an average of 14 working days to complete a round of reforecasting, and cost center managers an average of 2.4 working days to reforecast line-item expenses. Because reforecasting is so onerous, it is not surprising so few organizations carry out enterprise-wide, monthly rolling reforecasts. But how frequent should reforecasts be?

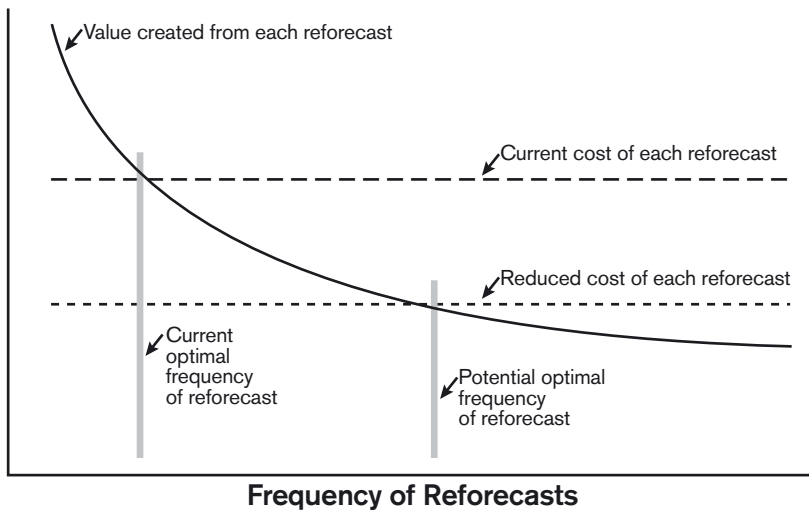
Let's start with the basic principle that the value gained from reforecasting should be greater than the cost of the reforecast. For instance, during the reforecast you may identify the opportunity to realign resources with new levels of trading and reduce operating costs. If the cost savings exceed the cost of the reforecast, it was clearly worth doing. Alternatively, a reforecast might reveal an opportunity for additional sales, and if the incremental profit of these sales exceeds the cost of the reforecast, it was worth doing.

Adopting a value-based approach to frequent reforecasting can help you focus on the key issues:

- ▶ For most organizations, the amount of finance and managerial time involved in producing a reforecast means the current cost of reforecasting is likely to outweigh the benefits. Before reforecasts can become more frequent and deliver value, you must substantially reduce the cost of doing them.
- ▶ The more frequently an organization reforecasts, the less value it is likely to realize from each round of reforecasting. Therefore, the cost of the reforecast must be minimal to realize value from monthly rolling reforecasts, particularly when one considers the constraints on headcount in support functions, such as finance.

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The challenge to continually derive value from more frequent reforecasting is represented in the diagram below. If the cost of reforecasting can be significantly reduced, more frequent reforecasts will deliver value for your organization.



*Exhibit 1: Optimal frequency of reforecasts*

Another good reason for more frequent reforecasting is it will likely unveil variances in the key assumptions underpinning your overall corporate strategy. At a time of increased uncertainty, organizations need to continually review long-range strategy and rolling reforecasts are likely to reveal anomalies that trigger such reviews and keep the company agile.

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## **Why Traditional Budgeting Cannot Deliver Cost-Effective Rolling Reforecasts**

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The budgeting process in most organizations involves the collection and consolidation of contributor revenue projections and expense resources. This process may include the collection of some non-financial data, such as sales units, headcount, or full-time equivalents (FTEs), but generally the focus of the exercise is line-item expenses.

To generate line-item expenses, contributors will typically work off-line on spreadsheets, first forecasting the demand on their department and then modeling the amount of resource required and the cost of each resource. Request a bottom-up, enterprise-wide reforecast and most contributors will update and recalculate their resource planning spreadsheets, then re-key the resulting line-item expenses into the enterprise budgeting application. Little wonder the exercise is so time consuming and costly.

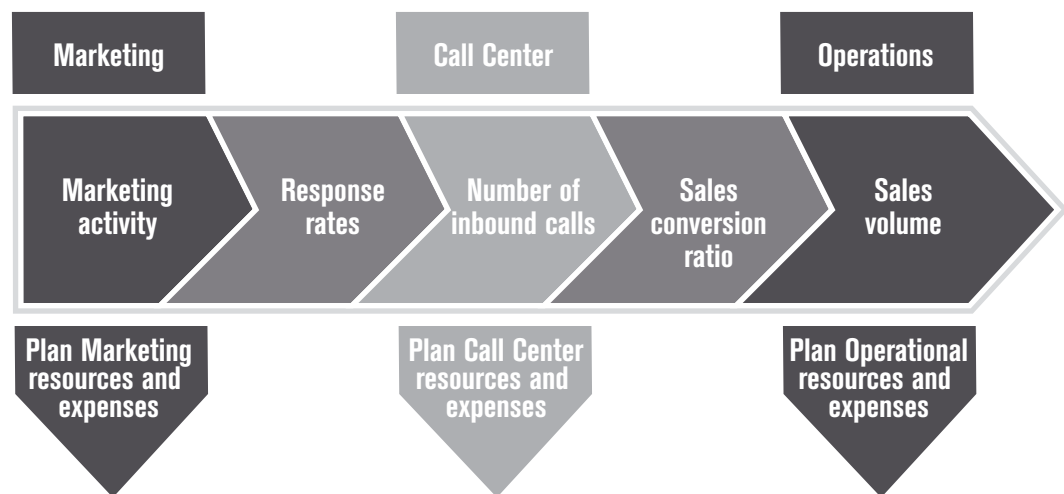
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## Driver-Based Planning and Budgeting

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The traditional budgeting process is hierarchical with the focus on collecting and consolidating individual contributions to produce the enterprise profit and loss account. But when managers generate departmental budgets, they are modeling the causal relationships running horizontally across the organization—the operational drivers. When asked to produce a budget or a reforecast, a manager’s first concern is that the department upstream provide her with a reliable forecast of future demand. In fact until a manager receives this, he cannot start his own departmental planning.

Consider a large call-center manager responsible for a team of telemarketers who take inbound telephone enquiries from homeowners seeking property insurance. First the manager needs the marketing department to provide her with a forecast of inbound enquiries for each of the coming months. Then by modeling resource consumption rates and unit resource costs, the manager can forecast line item-expenses for her team. At the same time, by modeling the sales conversion rate, she can provide the underwriting department downstream with a forecast of the number of new policy applications they will have to process.



*Exhibit 2: Example of interdepartmental drivers running across a business.*

The example below shows how operation driver volumes, consumption rates, unit resources costs, and other assumptions are modeled to generate the line-item expense for staff costs in the call center:

<b>Input from marketing</b>	# Inbound enquiries this month	80,000	
<b>Modeling of line-item expenses in the call center</b>	# Working days this month	20	
	# Calls per agent per day	50	
	# Agents required	80	$80,000 / (20 \times 50)$
	Allow 10% to handle peaks/absences	88	$80 + 10\%$
	Average cost per agent per month	US\$2,000	
	Staff cost	US\$176,000	$88 \times 2,000$
<b>Output to underwriting</b>	Sales conversion rate	16%	
	# New policy applications	12,800	$80,000 \times 16\%$

*Exhibit 3: Example of modeling operational drivers to generate line-item expenses.*

However, not all of the forecasted 12,800 new policy applications will arrive in the underwriting department in the current month; a third of the initial sales made in the current month will arrive the following month. Therefore, when the underwriting manager does his resource modeling, he may need to split the 12,800 applications between the current month and the following month in the ratio 2:1.

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## Characteristics of Driver-Based Planning and Budgeting

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Sometimes called “consumption-based” planning and budgeting or “resource consumption analysis,” the above example demonstrates the key characteristics of driver-based planning and budgeting:

Non-financial driver data is used to model financial data. These include:

- ▶ Quantitative measures of demand (the number of sales units or, as shown above, the number of inbound telephone calls).
- ▶ Consumption or productivity rates measuring the amount of input required to produce a unit of output. In the above example, this is a simple productivity ratio of 50 calls per agent per day. However, it could easily be a cycle time, such as the average duration of a call, or if you were modeling facilities requirements, the amount of space needed by each full time equivalent.

Quantification of any assumptions or rules of thumb:

- ▶ In a call-center environment, this would typically be allowance for training and one-to-one coaching, holidays, and absences, as well as some excess capacity to handle peaks. In the example provided, an additional buffer of 10% of the calculated number of staff required is added for this purpose.

Drivers run horizontally across organizations:

- ▶ Although the traditional budgeting process is essentially hierarchical, drivers span departments just like the business processes they are part of. The output of one department becomes the input of other departments downstream. This dictates how a driver-based budgeting process works inside an organization. Simply preparing and simultaneously distributing schedules to every contributor will not enable driver-based budgeting.

Drivers span time periods:

- ▶ In the example provided, the volumes of applications generated in the call center were split across two time periods to reflect when they arrived in the underwriting department. Similarly many other key drivers of financial performance, such as customer attrition rate, need modeling over time periods in order to forecast future demand and, ultimately, financial performance. In essence, this is using the leading indicators to predict the lagging financial results. If you adopt this approach, it will inevitably lead towards rolling reforecasts as you realize the superficiality of the traditional twelve month planning and budgeting timescale.

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## Driver-Based Budgeting and Fixed Costs

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Most of the focus of driver-based planning and budgeting is on variable costs, predicting line-item expenses such as salary costs, raw materials, postage, and telephony. However many so called variable costs are in effect “step-fixed.” For example, a driver-based budgeting model may suggest that 88.5 staff are required to handle the forecast number of inbound calls. Clearly you cannot have 88.5 people. One way to satisfy the resource requirement is by combining a fixed element of permanent staff with a variable element of overtime. Alternatively, you could employ 86 permanent employees and run with a margin of excess capacity.

You can also model other fixed expenses, such as property costs and depreciation costs for equipment. For instance, property costs are typically classified as fixed. However over the time horizon of a reforecast, you may need to consider property costs as variable. As an example, if our call center can only accommodate 100 seats and our budgeting model suggests more than 100 agents will be required in 16 months time, we need to know. You can do this by configuring an alert within the model to inform users that a capacity constraint is approaching, allowing them ample time to procure more space with the associated step change in costs.

## Driver-Based Budgeting and Capacity Management

Driver-based budgets first model the amount of resource needed to satisfy a forecast level of demand, then cost it to generate a line-item expense. Therefore, the model contains considerably more data than traditionally held in a budgeting system and is available for analysis and reporting. Consider a month end report for the call center first encountered in Exhibit 1.

	Driver-Based Budget			Traditional Budget		
	Plan	Actual	Variance	Plan	Actual	Variance
# Inbound enquiries this month	80,000	88,400	+10.5%	Typically none of this is available, or where it is available as working papers, it is disconnected from the budget.		
# Working days this month	20	20	-			
# Calls per agent per day	50	52	+4%			
# Agents required	80	85	+6.3%			
Allow 10% to handle peaks/absences	88	93	+5.7%			
Average cost per agent per month	\$2,000	\$2,000	-			
Staff cost	\$176,000	\$186,000	+5.7%	\$ 176,000	\$186,000	+5.7%

*Exhibit 4: Variance reporting in driver-based budgeting and traditional budgeting.*

With a traditional budgeting system, containing little but line-item expenses, all we can see is the salary costs for the call-center are 5.7% above plan. In a driver-based budgeting system, we can see the reason behind this is the volume of inbound calls was 10.5% above plan. In fact, the call center team performed exceedingly well, raising productivity by 4% and limiting the amount of overspend. In this scenario we don't just know something has happened; we know exactly why it happened!

Knowing the expenses for a responsibility center are above or below plan is not enough. Until we know more, we can't take any action. However, if we have access to information about the level of demand facing the responsibility center during a specific period, the amount of resources required to satisfy that level of demand, and the amount of resources actually provided, we know exactly what action to take. We can immediately see where excess capacity exists and take action to bring it in line with what is actually required. At a time when profitable revenue growth is increasingly difficult to achieve, keeping resources tightly aligned with trading is a problem common to many sectors.

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## Driver-Based Budgeting vs. Activity-Based Budgeting

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Driver-based budgeting, as described in this paper, is not the same as activity-based budgeting (ABB). Activity-based budgeting (as described in numerous publications and papers) relies on cost decomposition and the prior existence of an activity-based costing (ABC) model. Changing volumes and drivers and “back-calculating” the ABC model produces new line-item expenses.

Some of the new generation of ABC applications allow for multiple periods and let users incorporate user-defined rules into the ABB calculation. This allows users to better reflect reality in their ABB model such as the fact that activities occurring in one period have an impact in a subsequent period or that in real life an increased level of activity may be resourced in a different way. This new functionality has led to a reevaluation of ABB’s role and it is increasingly being adopted for long-range scenario planning by organizations wishing to underpin strategic planning with a sound understanding of costs.

Rather than being based on the structured decomposition of costs, driver-based budgeting uses cause and effect relationships, and the common sense rules of thumb managers use to model resource requirements and line-item costs. Many of these same drivers will be used in an ABC model, but in driver-based budgeting there is no activity layer and the use of drivers is based on experience.

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<sup>2</sup> Institute of Financial Services (2006), “Customer Value—Is there an information deficit?”

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## **Driver-Based Budgeting and Activity-Based Costing**

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Driver-based budgeting shares much of the data required for activity-based costing and the enterprise will benefit if the application used for driver-based budgeting also provides ABC results. That way cost and profitability analytics can be done on actual and forecast data, providing managers with an understanding of how costs behaved in the past and how costs will behave in the future.

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## The Benefits of Driver-Based Budgeting

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Organizations that have adopted driver-based budgeting have gained many benefits.

The time and costs involved in budgeting and reforecasting are significantly reduced:

- ▶ When responsibility center managers are asked to reforecast a driver-based budget, there is no need for them to work off line on spreadsheets because all the rules and assumptions they previously held in disparate spreadsheets are incorporated in the budget model. For the most part they are simply reviewing and amending key operational drivers which typically takes a matter of minutes. This reduces the time and cost involved in planning and budgeting, giving managers more time to focus on implementing actions suggested by the reforecast.

Rolling reforecasts give better visibility into future performance:

- ▶ The speed and ease of reforecasting a driver-based budget means reforecasts can be much more frequent. Previously it may have taken 10-12 days to complete a reforecast, now entire organizations can complete the process in two or three working days allowing rolling monthly reforecasts that look many months into the future. In fact without using a driver-based methodology, it is difficult to see how enterprise-wide monthly rolling reforecasts could be delivered.

Modeling the financial impact of different scenarios is rapid:

- ▶ Driver-based budgeting allows organizations to rapidly assess the financial impact of different business scenarios. Line-item expenses, and ultimately bottom line profitability, are the result of a mix of product and/or service volumes, operational drivers, productivity ratios, and unit resource costs. In an application such as BusinessObjects™ Predictive Planning (with on-demand calculation), individual users can change any driver they have access to and immediately recalculate the model to show the impact on their responsibility center. Similarly a senior manager or designated power user, with access rights to the entire model, can change any piece of information and recalculate the entire model to assess how overall profitability is affected.

In a traditional budgeting process, making changes to a budget would either take multiple iterations backwards and forwards to the individual cost center managers, or would require someone simply making top-down amendments to line-item expenses without a full understanding of how the changes might restrict the organization's ability to satisfy anticipated level of demand. Such exercises are the antithesis of driver-based budgeting.

Driver-based budgeting provides a better understanding of performance:

- ▶ A driver-based budget is based on cause and effect relationships. Rather than simply having reports that show variances in line-item expenses, managers have access to detailed information about the key drivers of financial performance. This way they can develop a better understanding of the factors causing variances and can “sandbox” in order to work out the best way to correct any negative performance. This might mean restoring productivity levels back to normal. However, if the cause of a negative variance in financial performance is an external factor, such as slower-than-anticipated market growth, appropriate action may include a wider review of strategy.

Developing this deeper understanding of financial performance is essential to satisfying many of the recent requirements in corporate reporting. Because driver-based budgeting integrates key non-financial drivers alongside traditional financial data in cause and effect relationships, it can help organizations develop a deeper understanding of their performance.

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## Implementation

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Organizations can rapidly implement driver-based budgeting. Managers know how to model resource requirements and line-item expenses, so it is simply a matter of integrating this knowledge into a single dynamic planning and budgeting model. And with today's web-based applications for data entry and reporting, the solution can be quickly deployed to users without having to preload any desktop software.

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## Applications to Support Driver-Based Budgeting

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However, not all enterprise planning and budgeting software supports driver-based budgeting. Driver-based budgeting relies on being able to write rules that cross departments and having models that can be calculated on demand. Currently this is contrary to the way most enterprise planning and budgeting systems work. Typically they work by allowing users to download a subset of the data to their desktop. Once contributors have prepared their submissions, the separate data elements are collected and the model is calculated to generate the consolidated result. This negates much of the benefits of driver-based budgeting, particularly inter-department rules.

The Business Objects solution for driver-based budgeting does not rely on users downloading separate data elements. Instead users enter data into a single central database and the application is capable of being calculated by the user on demand. That way, whenever a user changes a piece of data that impacts a department downstream of them, or as soon as the model is refreshed, the downstream user has access to the new data. In practice, a work management tool is used to schedule user submissions along the value chain and with this approach, organizations are delivering enterprise-wide, driver-based rolling reforecasts every month. Individual users are spending no more than 10-15 minutes reviewing and amending their departmental forecasts.

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## Order of Implementation for Integrated Solutions

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Increasingly organizations are integrating various aspects of performance management in a single solution—typically driver-based budgeting, activity-based budgeting, and activity-based costing. At the same time, many organizations are now integrating shared-services costing and cross charging into the central budgeting process. We have already discussed the benefits of developing a single solution and although these techniques share much of the same data, driver-based budgeting and activity-based budgeting are distinctly different.

So to implement an integrated solution, where should you start? While it is evident activity-based budgeting cannot be implemented before activity-based costing, experience in numerous implementations suggests it makes little difference whether organizations start with activity-based costing or driver-based budgeting:

- ▶ If ABC models already exist, it makes sense to leverage these to deliver activity-based budgeting and top down scenario planning where required. Then you can deploy driver-based budgeting for operational planning and budgeting, revealing any potential planning gap that may need to be filled with other strategic initiatives.
- ▶ Where there are no ABC models, start with the functionality that will deliver most benefit to the organization. Sometimes this will mean starting with ABC; sometimes this will mean starting with driver-based budgeting. We have witnessed many successful implementations that have followed either route.

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## Conclusion

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Driver-based budgeting is neither a new concept nor a radical concept. Many line managers do driver-based budgeting intuitively when they use non-financial drivers to model their line-item expenses for their budget submission.

What is new is the ability of newer enterprise planning and budgeting applications to integrate all this off-line modeling into a single dynamic model. Because line managers work with non-financial drivers every day, they typically have a sound insight into both their current performance and future trends, and can reforecast driver-based budgeting models rapidly.

This leads to:

- ▶ Short budget cycles
- ▶ More frequent reforecasts
- ▶ The opportunity for organizations to abandon the annual budgeting cycle and move to a culture of perpetual planning







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