Dynamic Forecasts: How to Steer in Volatile Markets

RESEARCH NOTE

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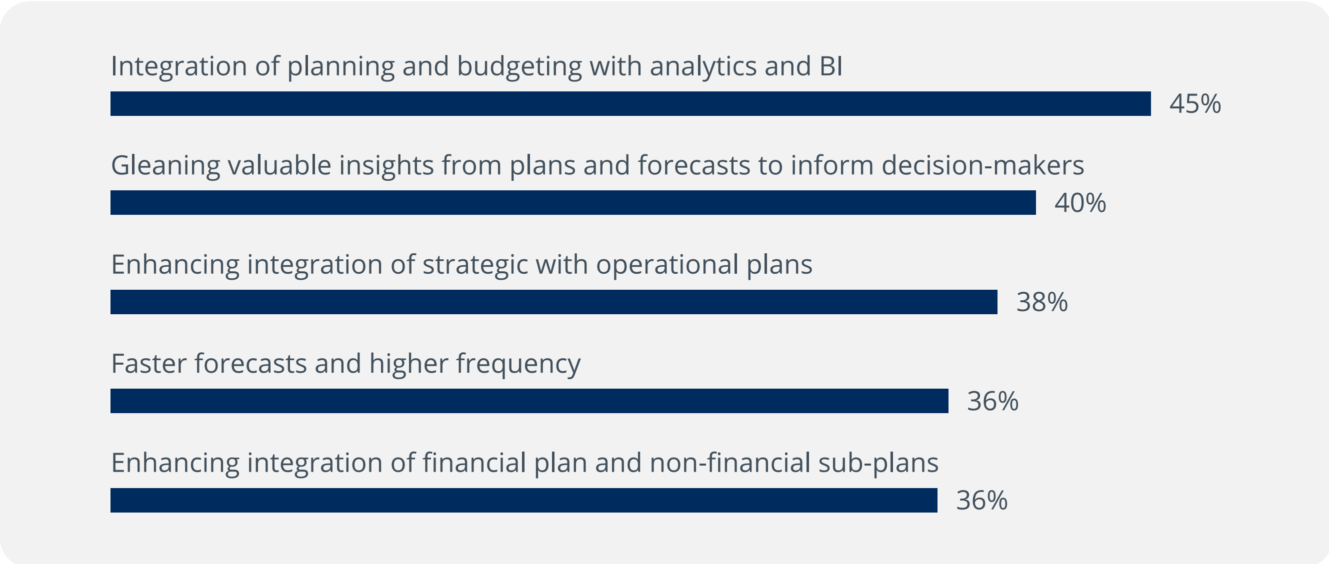
Management summary

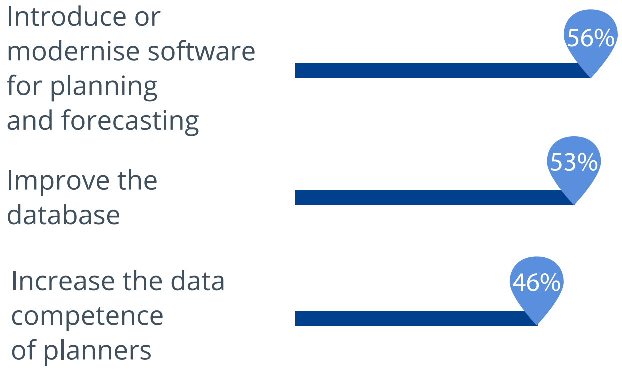
01 Dynamic environments reward flexible and real-time forecasting

It is not just COVID-19: disruptions can happen anytime, placing demands on corporate management to respond to change. Planning and forecasting are no exception. A dynamic business environment requires flexible decision support and short-term updates of targets and forecasts. Companies are experiencing rising pressure to be more agile and responsive to change. This need is intensified by technological progress. Digitalisation is a key driver in this respect. However, heightened and individual customer preferences, responsibility for the environment, sustainability and increasing global competition are also driving organisations to adapt. Growing pressure for change is being exerted on companies from all sides. Under these conditions, only truly agile organisations can deliver top performance and thrive in the market.

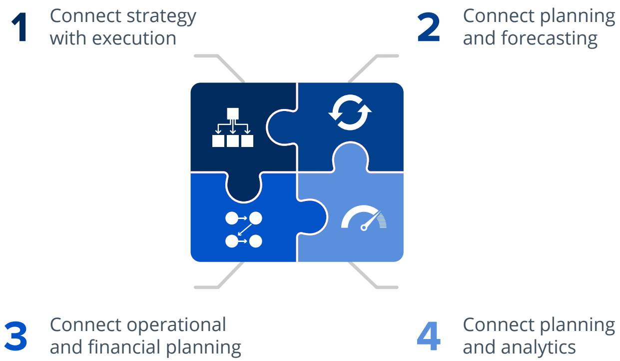


The biggest challenges in planning today

Management summary



Top 3 measures to align planning and forecasting with a dynamic business environment



The four facets of pervasively integrated planning and analytics

02 Targeted investments in technology and know-how pave the way for modern decision support

Decision-makers need up-to-date and high-quality information to cope with increasing dynamics. A high degree of adaptability to changing conditions and requirements is an essential goal that companies are currently pursuing. In order to remain capable of making sound decisions quickly, organisations must update their plans and forecasts frequently and integrate tightly. Many are therefore moving from classic year-end forecasts to rolling forecasts and attempting to increasingly automate forecasts – often by employing machine learning.

Companies consider implementing or modernising their planning solution to be the most important investment for optimising planning and forecasting, but it is also necessary to improve the underlying data and enhance data literacy as well as the methodological competence of those responsible for planning and forecasting.

03 The key to unlocking company-wide planning: An integrated forecasting and financial solution with embedded analytics capabilities

Many companies today only partially integrate analytics with planning, and few are able to actually execute on those plans. Without execution and analysis, planning is pointless – and yet that is what most planning tools provide. This inevitably leads to information gaps in decision-making and corporate management. Planning needs to be integrated pervasively and tightly connected to analytics and BI for better analyses and presentation. All levels must be interlinked to achieve maximum transparency and produce trusted data to base well-founded decisions on.

The stronger the integration between planning and analytics, the more precise and meaningful the results are and the greater the benefits. Tight integration enhances collaboration and communication around insights and results by offering a unified environment. This is the basis for better decisions. Integrated support has rightfully been a stable trend in the market for years and is relevant to companies of all sizes and industries.

BARC recommendations

Act with foresight: Market dynamics and thus the pressure to change have increased significantly. Expect this trend to accelerate further. Prepare your corporate management for this and with it your forecasts and scenarios for better decision support.

Use specialised platforms: Modern corporate management needs fast and reliable decision support. The use of specialised software is an important step but it must be accompanied by aligning forecasting content and processes.

Integrate planning: Those responsible for planning must be able to update forecasts quickly and efficiently. A high degree of integration in planning and greater automation of forecasts are crucial for this. Only up-to-date forecasts provide the relevant and solid information that managers need to make better decisions, oversee their execution and act on them.

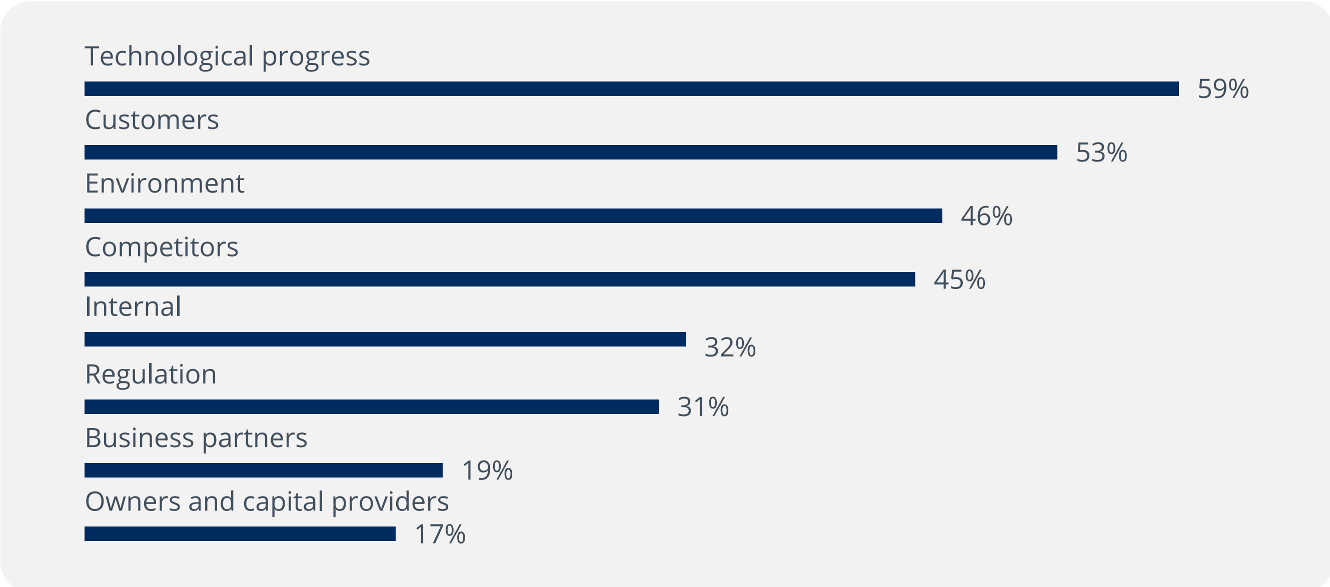
Use software suitable for business users: In a dynamic environment, more than ever, companies must be able to quickly adapt not only the content of their plans and forecasts, but also their models as well as the analyses, reports and dashboards communicating the results. You need skilled business users equipped with tools that they can easily adapt and use themselves.

Invest in competence: Only data literate employees can partake in decision-making based on data. Here, finance and controlling personnel can act as drivers and idea givers. More than anyone, they know the challenges and benefits of leveraging data for reasoning and decisions.

Evaluate the cloud: The cloud combines the advantages of practically unlimited scalability, quick set-up and resource-efficient operation. It helps to reach more users quicker, to implement changes faster and can enhance agility.

01 Continuous forecasts are a must as complexity is here to stay

Everything changes and nothing stands still



Where is the strongest pressure for change in your company coming from at the moment?

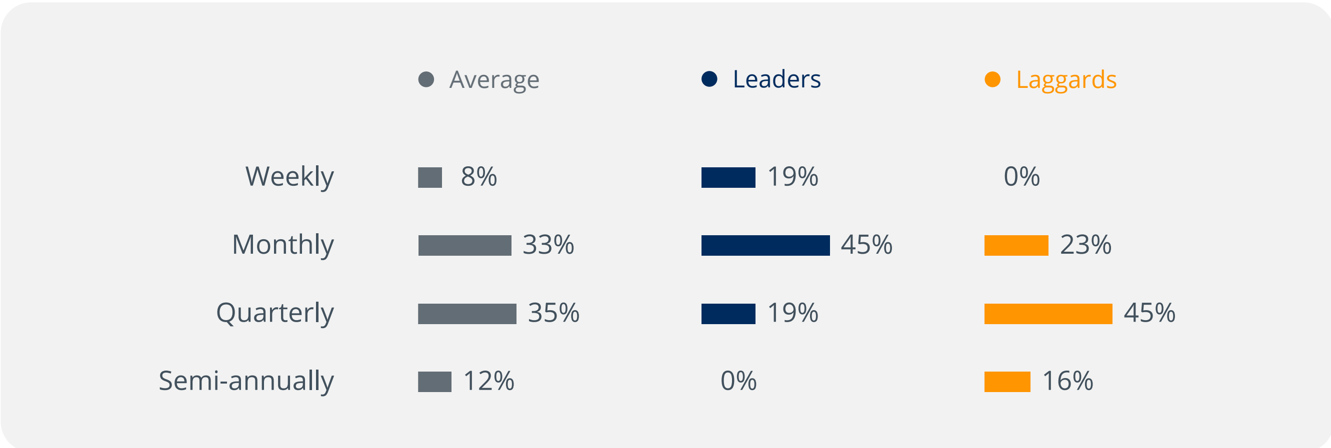
Over a year into the pandemic, one thing is for certain: the dynamics and ensuing instability companies are experiencing now are here to stay. Dynamics in this context describes the degree of change and the growing competitive pressure in markets that cause uncertainty. With changes in the day-to-day social and political environment, businesses are operating in a more complex and less predictable climate. This trend towards increasingly volatile markets has been ongoing. However, the speed with which COVID-19 overturned many presumed constants of daily life has brought the challenges of dynamics, complexity and volatility painfully back into the spotlight.

> **89 percent**
> *of respondents report increased dynamics.*

The need to change, which companies are increasingly confronted with, primarily stems from technological progress. It requires companies to revise and readjust their products and how they do business faster than ever. This development goes hand in hand with heightened and individual customer preferences. Responsibility for the environment and increasing global competition are similarly driving organisations to adapt. These increasing drivers for change are being exerted on companies from all sides and require corporate management to adjust quickly if they want to keep pace with the competition. Specifically, this requires meeting all these forces with quick and targeted action in order to thrive. Needless to say, only truly agile organisations can deliver top performance and overcome these challenges.

01 Continuous forecasts are a must as complexity is here to stay

Agility and adaptability are key in dynamic times



How regularly are your planning figures updated during the year?

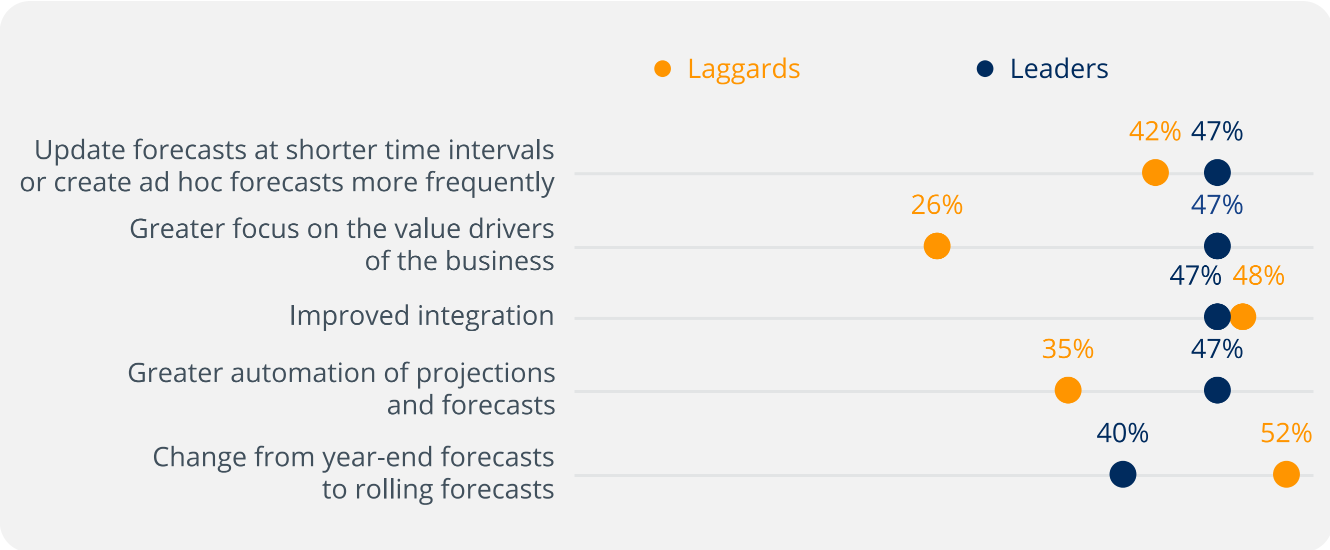
The way forward is clearly an agile data-driven strategy. For decision-makers, this route is paved with up-to-date and high-quality information that will allow them to lead their businesses through these volatile times and cope with increasing dynamics. Taking measures to realise this vision, companies are currently pursuing a high degree of adaptability and the efficient provisioning of information. The goal is to arm leaders with the knowledge to make good decisions quickly. Finance departments have always played a crucial role in analytics and the steering of companies. Naturally, changes to the analytics strategy have hit here first. The desired agility in this case translates to faster planning cycles and more forecasts. To evolve them into increasingly valuable management tools, organisations must update them more frequently. Many companies therefore increasingly automate forecasts and projections and are moving from classic year-end forecasts to rolling forecasts to enhance the information value gleaned from the exercise.

They do so as increasing dynamics lead to declining value derived from classic annual planning and budgeting. In a forthcoming BARC survey-based study, 80 percent agree that forecasts and projections provide greater value than plans and budgets today. Therefore, a high degree of automation is needed to update forecasts quickly and efficiently. To achieve this, many organisations are striving for the more intensive use of predictive algorithms, statistical methods and machine learning (ML) models. In the BARC study *"Sound Decisions in Dynamic Times"*, as many as 75 percent of companies confirmed that predictive models provide good forecasts for them, even in volatile markets, although sometimes for distinct areas only. Together with simulations and scenario analyses, they provide highly relevant information for decision-makers.

> *Organisations must update their plans and forecasts frequently to remain capable of making good decisions quickly.*

02 Better tools for better decisions

Optimisation of planning requires speed, integration, focus and automation



What measures are necessary to align planning and forecasting with an increasingly dynamic business environment?

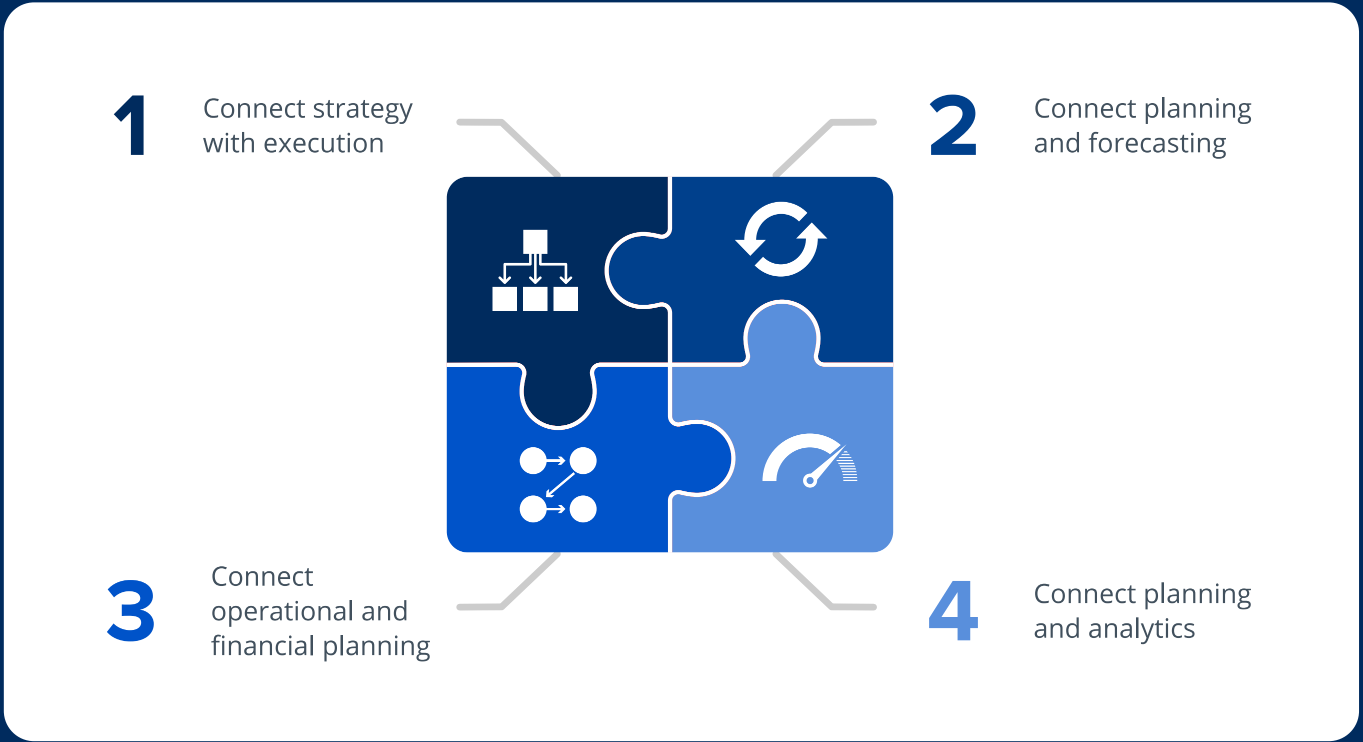
Multiple paths can lead to the modernisation of planning processes to adapt to more frequent and comprehensive forecasts, simulations and analyses. However, adequate software support is vital. Typically, modern software for corporate planning supports flexible scenario modeling and offers central data management as well as high-performance computations for simulations, scenarios and detailed analyses.

On their own, improved forecasting and simulations are not enough if planning, analytics and execution remain “separate worlds”. Otherwise, the result would be a significant (manual) effort to bring together actuals, planned figures and analytical findings for decision-making and management purposes. This is not only time-consuming, but it also carries the risk of failing to unearth errors and insights in existing data.

The magic happens when planning and forecasting are integrated with execution and analytics plus automated processes. This automation is only possible by using modern technology and includes potential use cases such as automatic data collection from different data sources, workflows to control processes and early warning mechanisms based on thresholds for quick feedback from execution. The resulting increase in speed and insightfulness as well as the reduction of manual effort and data errors involved in corporate planning are among the most important benefits of smart integration. In other words, integration is the foundation to provide decision-makers with a transparent view of the current situation, trusted scenarios of future developments and an overview of the execution of corrective initiatives. The methods are clear and established: extensive analysis, forecasting and simulation options. Companies trust that excelling in this area will give them a clear competitive advantage.

Spotlight: Connect planning and analytics with execution

Pervasively integrated planning requires aligned data, processes and systems



The four facets of pervasively integrated planning and analytics

The comprehensive integration of planning, execution and analytics is an essential condition for effective corporate management and its efficient support through planning and forecasting.

Integration must be carried out conscientiously at all levels to maximise its benefits. Connecting corporate planning, execution and analytics quickly provides reliable and relevant information only when all four of the above aspects are addressed at the same time.

Connecting all four areas requires organisations to build a pervasive data inventory they can leverage for planning and forecasting. A unified view on data makes it possible to simulate the effect of corrective actions at operational level and to observe their impact. This allows companies to become more agile by being able to adjust their course of action much quicker than before.

Spotlight: Connect planning and analytics with execution

If you want to outperform your competitors and drive competitiveness by making better use of quicker, collaborative forecasts than they do, you must connect all areas of performance management and data from all areas of the organisation.

01 Connect strategy with execution

Objectives and assumptions from strategic planning must automatically be incorporated into short-term plans. This is the only way to ensure that a company's long-term ambitions are consistent with its medium and short-term goals. It is essential to fully convey the strategic guidelines into the detailed data of short-term plans in order to provide orientation and context for tactical and operational decisions and actions. Additionally, integrating the strategic view with operational execution ensures streamlined initiatives.

02 Connect planning and forecasting

Companies are forced to make forecasts and projections at ever shorter intervals – and this will not change as we adapt to a new normal. This is the only way to ensure that decisions are based on the latest information available, which is essential in volatile markets. The integration and intertwining of planning with continuous forecasts, execution and analytics are vital to provide an integrated and transparent view for management.

03 Connect operational and financial planning

The very core of integrated corporate planning and often the biggest challenge is the correct linking of all sub-plans. Only this integration can ensure that the planning model represents a suitable image of the company and its environment. All integrated sub-plans must also be linked to results planning to correctly represent the financial view of an enterprise and to enable it to produce consistent forecasts efficiently. More recently, companies increasingly drive execution of operational initiatives through their integrated solutions.

04 Connect planning and analytics

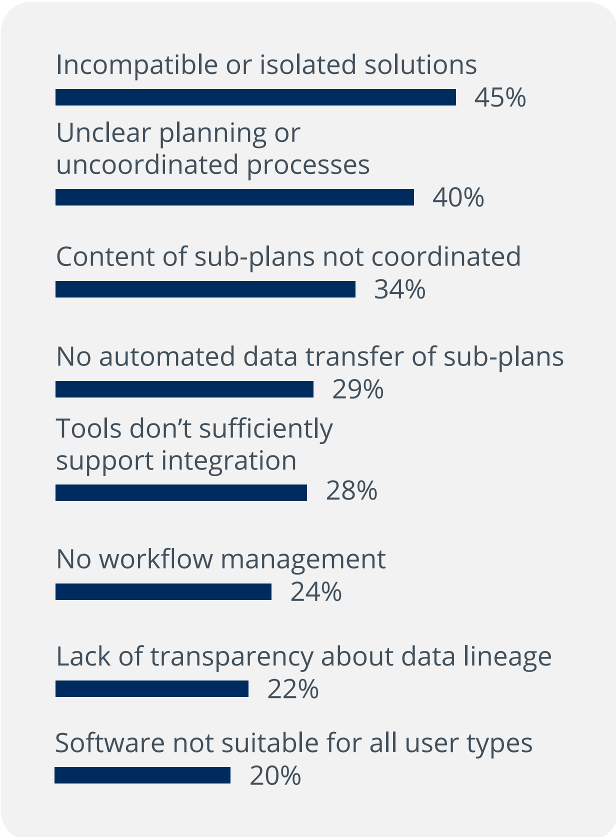
Linking planning and analytics (e.g., reporting, analysis, dashboards) is essential for effective and timely decision support. The management of organisations profits from the seamless integration of analytics with planning and forecasting. It allows the comprehensive and – at the same time – efficient verification of the achievement of objectives and alleviates the burden to implement changes in multiple tools. Analytics and reporting integration makes the impact of actions and initiatives transparent.

05 Connect the dots

Connecting all areas requires having data in one place to connect the dots. A common data store offers the possibility to analyse and combine data from all areas of the organisation. It allows the impact of changes in strategic indicators to be seen on operational plans and forecasts. Through this, it becomes possible to speed up the implementation of corrective initiatives and quickly see effects in detail.

02 Better tools for better decisions

Implementing company-wide integrated planning requires coordinated effort



What are the biggest challenges in implementing integrated corporate planning?

Planning in isolated solutions – often with inconsistent master data – makes automating data transfers and therefore the required integration an ongoing challenge.

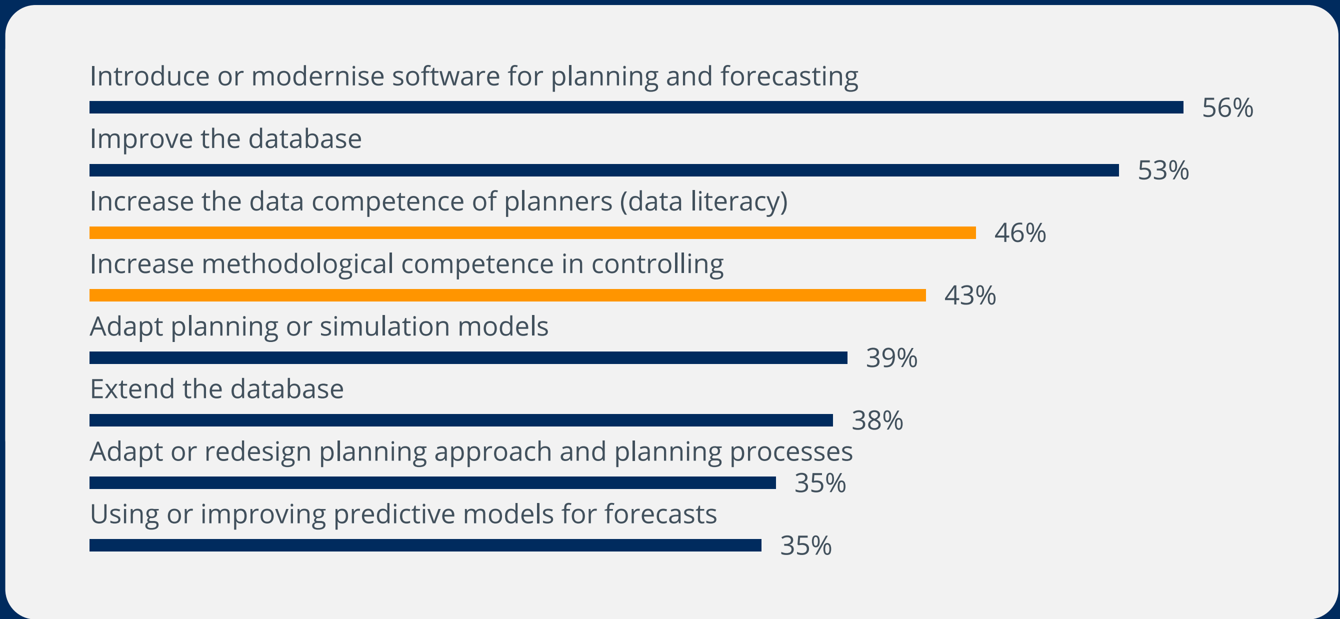
Supporting a full integration of planning with execution and analytics requires companies to invest effort in functional, technical and organisational terms. Only a parallel improvement of these three dimensions leads to a high degree of maturity rewarded with better and more relevant results. The better the integration between planning, execution and analytics, the more precise and meaningful the results are and the greater the benefits.

The implementation of systematically integrated sub-plans based on identical structures with unified master data is one of the greatest challenges in integrated corporate planning. In practice, cost and sales planning are commonly integrated into profit planning, while topics such as personnel (HR) are often not fully integrated. This is where companies need to level up their efforts.

The close integration of planning, execution and analytics is a crucial success factor for the management of corporate performance as well as for well-founded decisions. Integrated support has been a stable trend in the market for years. This applies to companies of all sizes, industries and global regions. A major enabler for integration of planning with analytics and operational applications is the cloud. It delivers scalability, continuity in innovation and efficiency to deployments of all sizes. As such, the cloud is a driver towards integrated company-wide planning.

Spotlight: Data literacy – the overlooked investment?

Data literacy is an important enabler for company-wide planning



What investments are necessary to align planning and forecasting with an increasingly dynamic business environment?

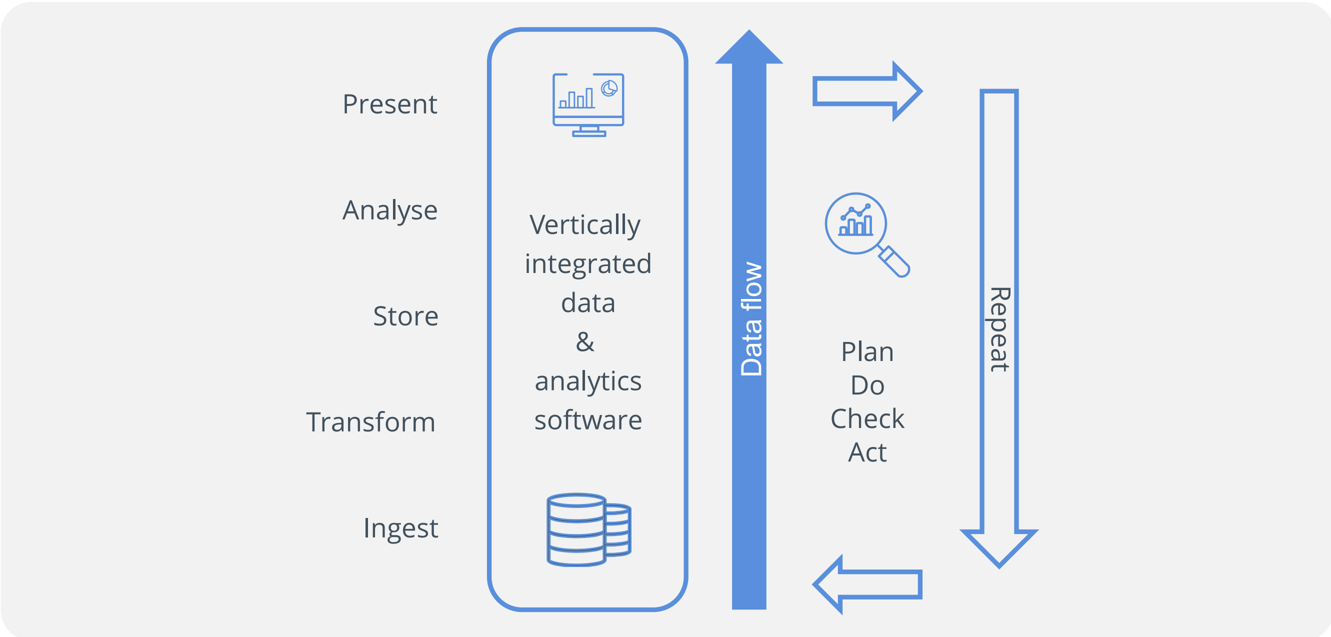
The routine preparation, use and interpretation of complicated data requires a high level of competence. Only those who can work adeptly with data and who understand its significance as well as its limitations can successfully use data for decision-making. Under the slogan “data literacy”, companies are combining their efforts to improve the data competence of their employees. Controlling is particularly challenged in these initiatives: Controllers already need a high level of data literacy for their daily work in order to effectively consider data for decision-making. As the authority over many corporate key figures and reports, controllers must help ensure that recipients understand the messages being sent. Controlling must therefore take on a pioneering role in the area of data literacy and share the knowledge gained with the entire company.

The results from forecasts and simulations must be presented in a suitable manner. Using data storytelling is key to getting across the last mile of analytics smoothly. It is important that finance and controlling act as idea providers and drive the optimisation of their systems and processes. They oversee current problems and challenges from more angles than others and must therefore actively search for new solutions and take the reins. Communicating these ideas with data storytelling helps to increase their impact on the organisation.

> *Tell me and I forget. Teach me and I remember. Involve me and I learn. - Benjamin Franklin*

03 Unified architecture for planning and analytics boosts productivity

Using a unified architecture and interfaces takes planning to the next level



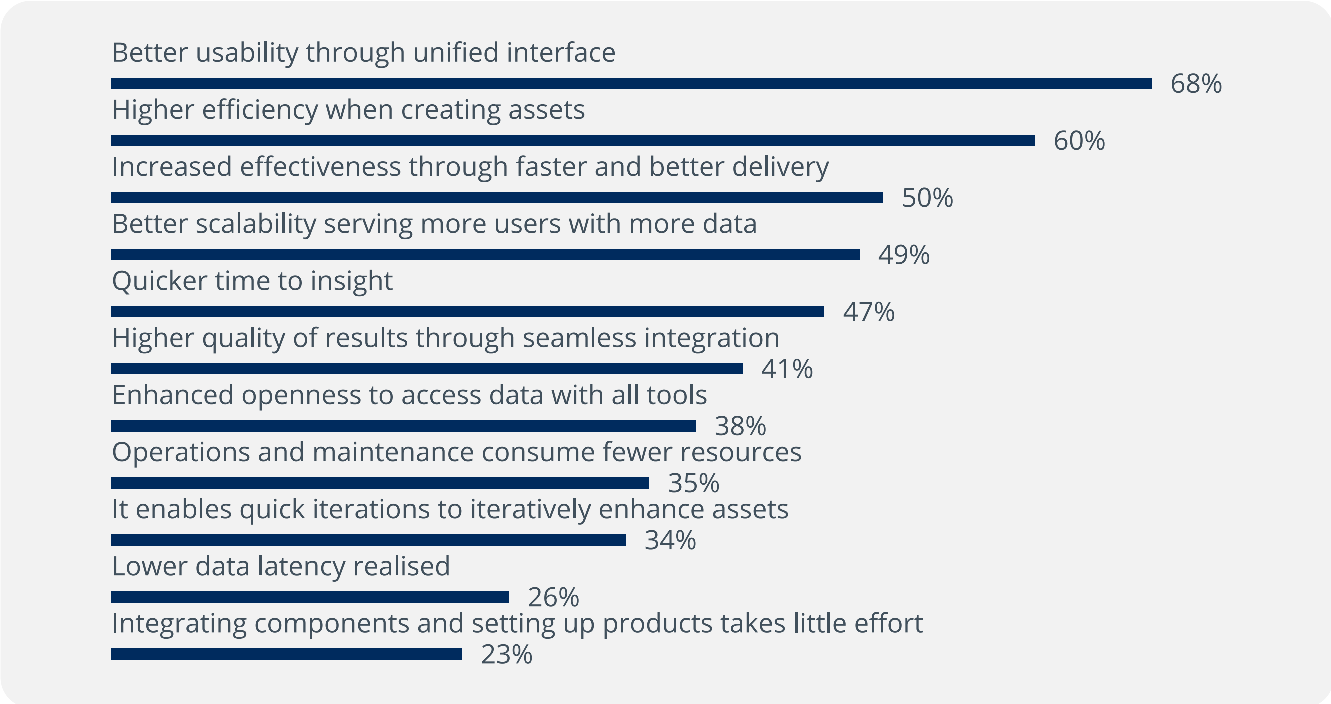
Vertical integration aligns 'plan do check act' with the data flow

Unified solutions with high usability fuel decentralised planning, forecasting and simulations. To be precise, vertical integration is essential for pervasively integrated planning. Vertical integration aligns the respective processes, such as planning and forecasting or analytics based on plan data, with the data flow. The goal is primarily to enhance flexibility and the flow itself. Flexibility is elevated if all requirements of a distinct business area – here finance and controlling – can be met with a unified and easy-to-use yet powerful software. Having all relevant data in one place and having one tool to analyse and enter data is beneficial in many ways. Namely, business users only need to master a single software and data does not need to be transferred between different tools. This makes adapting and changing models much easier as much less coordination is required, and data can be analysed and presented immediately after applying changes to forecasts or plans.

With forecasting being carried out more frequently, this shift becomes more important for companies. It empowers them to get the results they need faster. And with a clearer view of the data they are using, vertically integrated tools boost collaboration between controlling, business and decision-makers in management. The increased transparency underpins this collaboration and together they support trust in data and information that supports their decisions. Separating data entry, analysis and presentation in distinct tools, often supported by multiple teams, means introducing unnecessary obstacles in the plan-do-check-act cycle, which is poisonous to collaboration and trust. Vertically integrated end-to-end tools empower business users to be more efficient and effective by cutting out intermediaries and delivering better results faster.

03 Unified architecture for planning and analytics boosts productivity

Vertical integration tackles fundamental challenges towards integrated models



What benefits does your company gain by using an integrated data and analytics software?

Companies realise lots of benefits when deploying vertically integrated planning tools. The number one improvement for companies of all sizes is better usability. While fundamental for vertically integrated software, intuitive, lean and unified front ends for planning, forecasting and analytics are not commonplace. Tools that tightly integrate and bring functions for data preparation, data storage and the means to enter and present data through a unified interface allow users to interact quicker with data to analyse and enhance data iteratively. Especially what-if scenarios, increasingly valuable in a dynamic market environment, benefit from this integration of forecasting with analytics. Results can be analysed in detail and presented without requiring extensive and maintenance-intensive data transfers. Additionally, the analytics capabilities introduced into forecasting in planning support automated projections, for example, via time series to validate data or to calculate scenarios much quicker.

Higher usability and efficiency ultimately lead to quicker time to insight, and therefore support the crucial agility companies are searching for in these volatile times. In the BARC survey *"Analytics Unchained"*, nearly half of the companies surveyed achieved this benefit by purchasing and implementing the right tool. Removing the need to use multiple tools with often limited metadata integration helps analytics experts to produce results with higher quality.

03 Unified architecture for planning and analytics boosts productivity

The cloud supports high performance, integration and scalability

With modern software for planning and forecasting, even large amounts of data can be processed with high performance. This is necessary because companies no longer want to access just a few data sources for better forecasts and simulations. Instead, they require comprehensive data that is of high quality and can be augmented with additional and external data. This allows important signals to be processed reliably. To this end, many solutions are leveraging the capabilities of the cloud as an easy means to dramatically increase the scope of forecasting and planning. For example, scenarios might also factor in sensor data for insights into potential machine repair costs based on algorithmic analyses of prior and expected repair data. This ability to predict when a company will need to make repairs will reduce unplanned downtime and ultimately save money.

In the BARC survey "*Sound Decisions in Dynamic Times*", more than half of all respondents confirmed the need to introduce new software or update their current software to adequately support their planning and forecasting requirements. The study also found an increasing need for the integration of operational with financial planning, as well as the integration of planning with analytics. The goal is always to make well-founded decisions based on trusted data and relevant insights. And of course, the use of predictive technologies and algorithms to automate forecasting and relieve the pressure on planners is gaining significance in many organisations. Again, the cloud offers the scalability required to store the data and provide the computing power needed to calculate machine learning models that are often used for automated forecasts.

Concerns regarding security and data privacy with the cloud are still common, but the discussions about migration today often revolve around the commercial advantages such as reducing the burden of maintenance. Simply lifting and shifting effective forecasting and planning solutions to the cloud is neither common nor is it recommended. To maximise the benefits gained from cloud deployments, solutions should be modernised when migrated. Often, planning solutions follow the strategic approach of companies, which entails a 'cloud-first' policy in an increasing number of cases. This leads a growing share of companies to leverage cloud solutions for new implementations in corporate performance management – especially if customers have elevated requirements in terms of scalability.

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