

PANORAMA  
CONSULTING GROUP

# The 2023 ERP Report

# Introduction

Today's global challenges, whether it be inflation or talent shortages, are giving organizations even more reason to consider modernizing their enterprise software. We have seen an increasing number of organizations rethinking their current systems, scrutinizing their data for integrity, and finding opportunities to become more data-driven in their decision-making.

The data in this year's report reflects this trend, as well:

- More than three quarters of respondents significantly or moderately deployed business intelligence.
- Digital business transformation and technology-enabled business improvement were nearly as popular as ERP implementations in terms of the type of projects initiated.

Our *2023 ERP Report* examines both project outcomes and the decisions that led to them.

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# Respondent Overview

**Nov 2021 – Aug 2022**

Data Collection Timeframe

**350.5**

Median Number of Software Licenses Purchased

**183**

Number of Respondents

**59.6%**

Percentage of Multinational Organizations

**\$1.5 billion**

Median Annual Revenue

**83.6%**

Percentage That Have Had at Least One Phase Live for at Least a Year

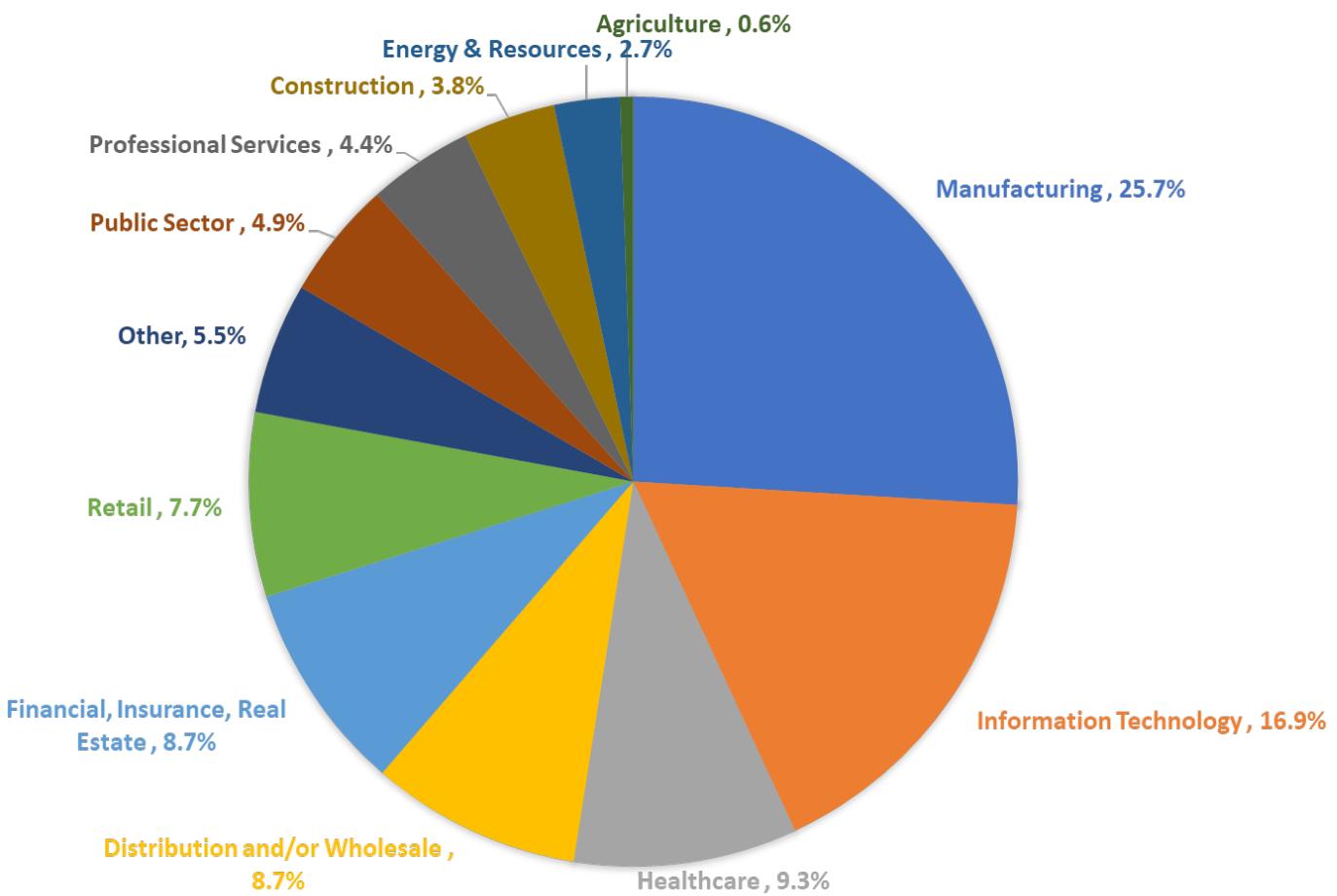
**6,500**

Median Number of Employees

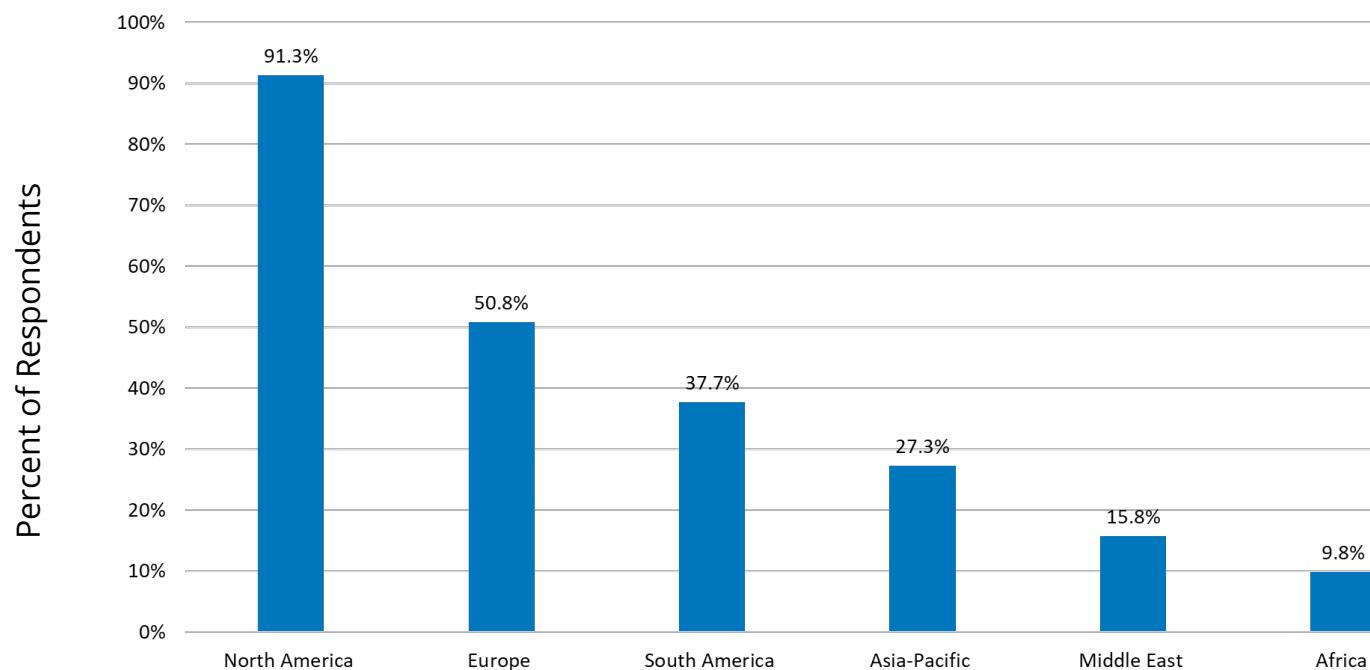
**34.4%**

Percentage of Organizations in the Manufacturing or Distribution Industry

## Industry Breakdown



## Geographies Where Companies Have at Least One Location



# SOFTWARE SELECTION & IMPLEMENTATION DECISIONS

## Understanding the Enterprise Software Vendor Landscape

Panorama Consulting categorizes ERP systems into Tiers based on factors such as target organization size, vendor revenue, target number of users, and other factors, such as functional complexity:

### Tier I

These systems are designed for enterprises with more than \$750 million in annual revenue. Most enterprises of this size are complex, either due to complex operational processes or complexity in their entity structure and consolidation needs. Tier I applications address multiple industries and scalability.

#### EXAMPLES

SAP S/4HANA, Oracle Fusion Cloud Supply Chain & Manufacturing, Infor CloudSuite

### Upper Tier II

These systems typically serve small to midsized organizations with \$250 million to \$750 million in annual revenue. Organizations of this size may encompass multiple industries and multiple business units.

#### EXAMPLES

Microsoft Dynamics 365 Finance & Operations, IFS Cloud, Sage X3, Epicor Kinetic, DELMIAworks

### Lower Tier II

These systems typically serve small to midsized organizations with \$10 million to \$250 million in annual revenue. These organizations usually represent only one industry and have a single entity to manage.

#### EXAMPLES

NetSuite, abas, SYSPRO, Acumatica, Rootstock

### Tier III

There are hundreds of software providers in this tier serving mostly smaller organizations. However, there are also some very robust point solutions with niche functionality that are often used to supplement a larger ERP system.

#### EXAMPLES

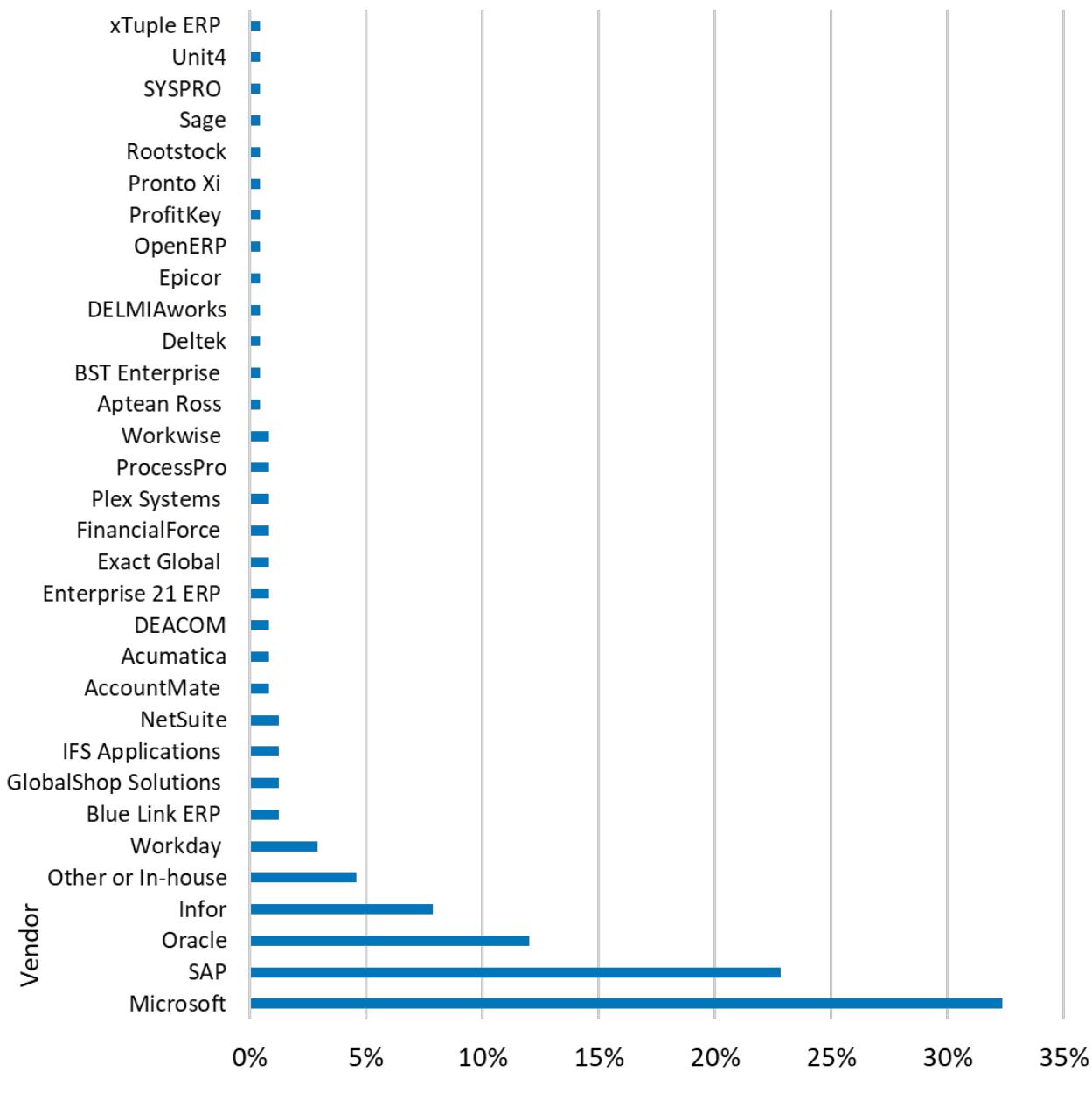
Aptean, ECI, ASC

## Software Selection Decisions

When selecting an enterprise system, you should consider what functionality your organization will need within the next five to ten years. With an understanding of your organizational goals, you can determine what systems would be a good fit in the long-term.

Below is an overview of the variety of vendors and systems selected by organizations in our study.

**Vendor Selected**



Percent of Responses

Note: Some respondents selected more than one system from the same vendor, and a response was counted for each system.



→ **The most selected systems were Microsoft and SAP systems.**

## Understand Your Needs

Enterprise software vendors have a variety of different types of solutions – some stand alone and some fully-integrated. Your choice of software will depend on what functional areas you prioritize.

The most common Microsoft system selected was Microsoft Dynamics 365, and the most common SAP system selected was SAP S/4HANA. Both of these systems are designed for organizations of all sizes, so they are attractive solutions for enterprises as well as businesses that want to scale over time.

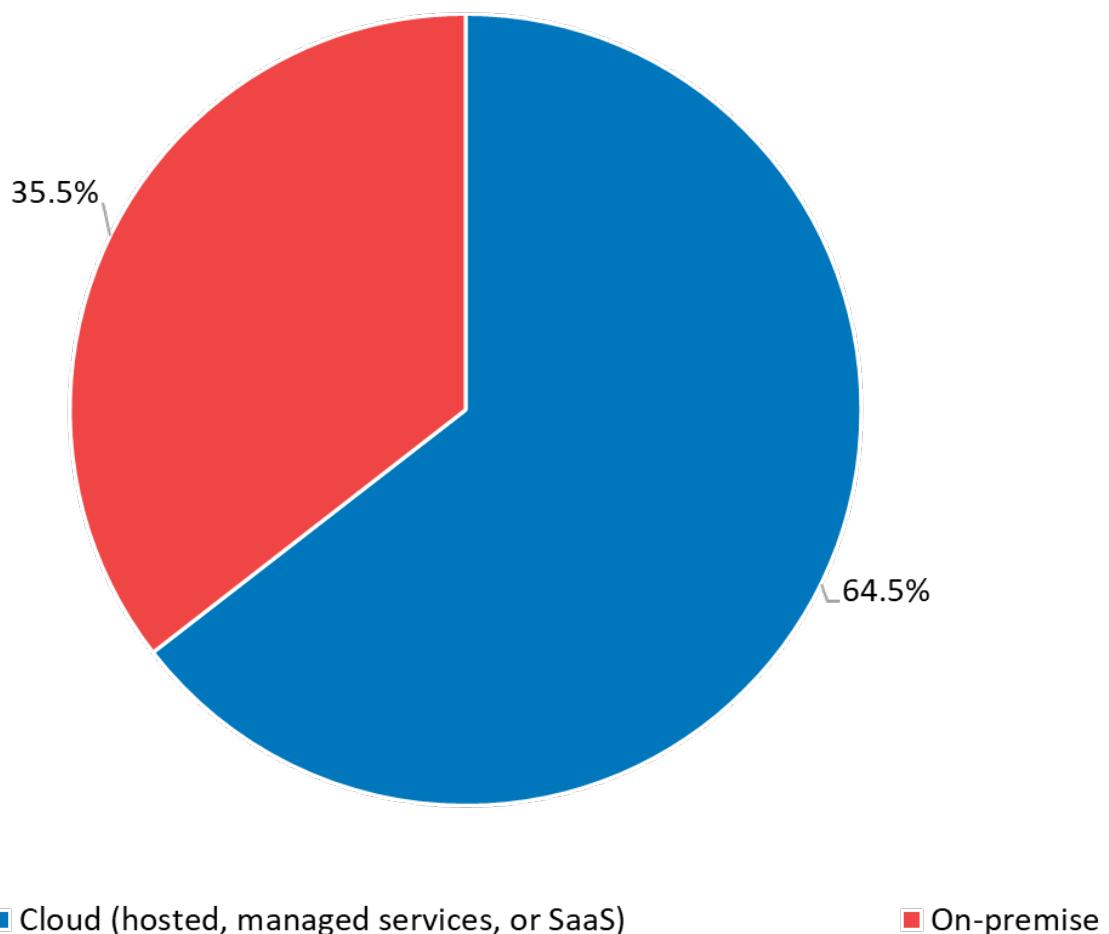
Analysis we conducted for our related report, [\*2023 Clash of the Titans\*](#), revealed that organizations implementing Microsoft or SAP systems had a strong focus on reporting and analytics functionality. Among our clients, we've seen that business intelligence is a function that many organizations are implementing, so it makes sense that Microsoft and SAP customers accounted for a large percentage of our dataset.

## Deployment & Hosting Decisions

Most ERP vendors have been increasing their focus on cloud and software as a service (SaaS) solutions. However, the cloud is not the right option for every organization.

In fact, our data show that barely over half of organizations selected cloud software instead of on-premise.

**Type of Software**

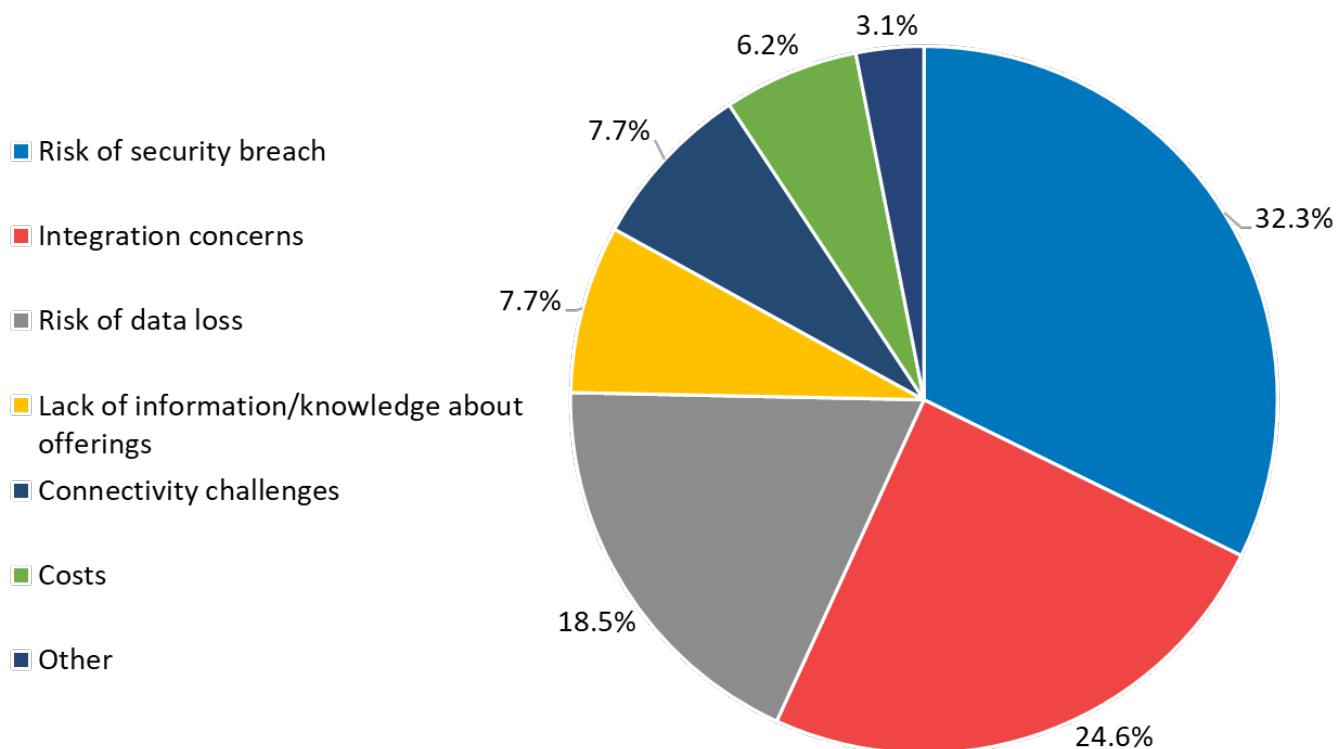


While ERP vendors would have you believe that everyone is moving to the cloud, that's just not the case. In fact, many vendors' cloud functionality isn't robust enough for some organizations so they're opting for on-premise software.

As seen in the graph below, other common reasons for staying on-premise include legacy infrastructure and security concerns.

Most cloud systems enable easy mobile accessibility, but this ease of access can come with greater security risks, especially if employees are accessing company files on their personal devices. We recommend finding an ERP vendor with strict security standards and using third-party software to audit these standards. Another option is to go with single-tenant SaaS, which is one of the most secure cloud options.

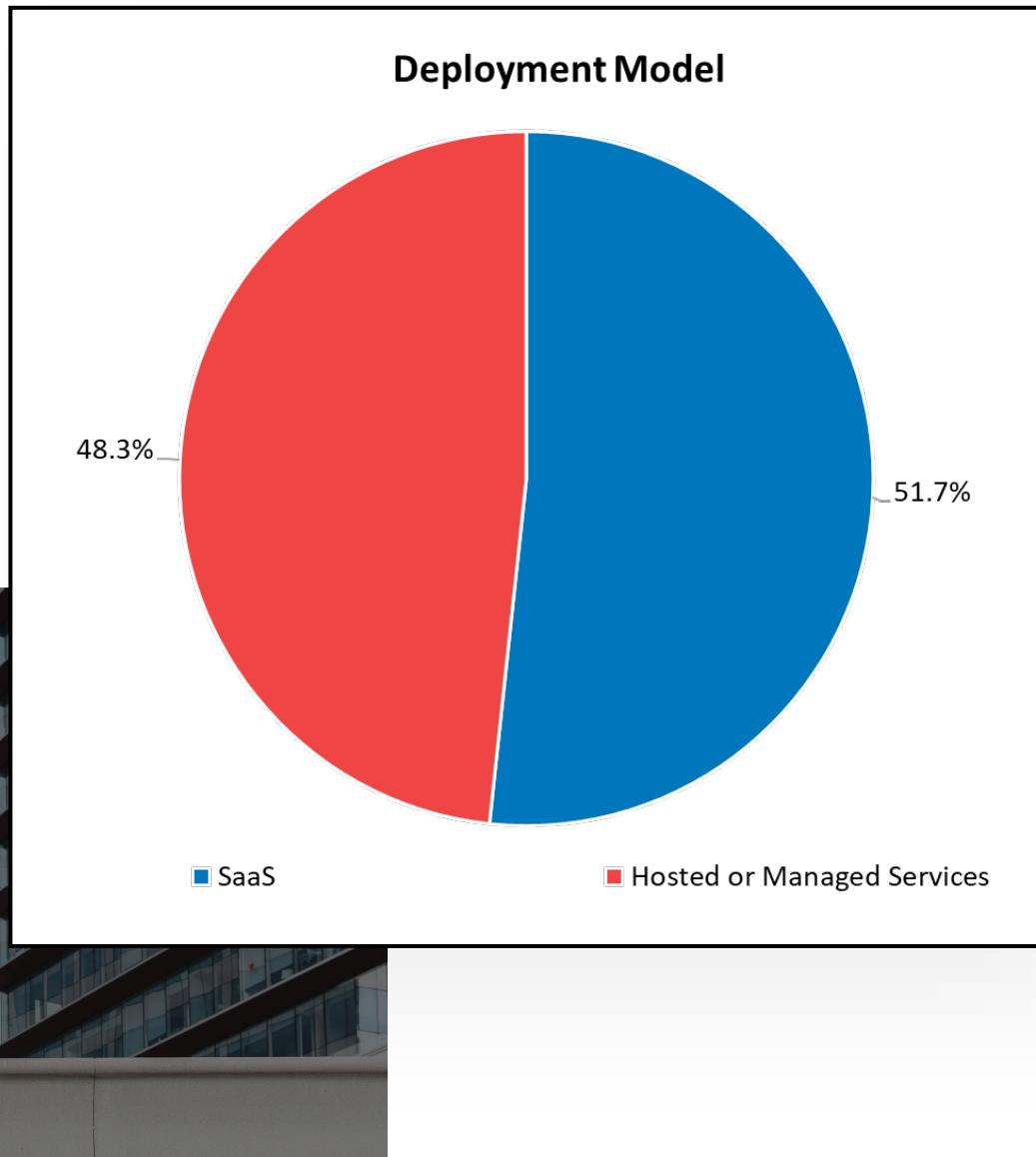
**Reasons for Not Choosing Cloud**



The least common reason for not choosing cloud was costs. Cloud costs are not really a concern for many organizations because they work with third parties to scrutinize vendors' contracts and ensure their pricing model is reasonable. So, while cloud costs may be higher in the long term, organizations at least know they are getting a fair deal – and negotiated cost savings.

## → Organizations had a Slight Preference for SaaS Deployment

Slightly more than half of organizations that selected cloud software chose a SaaS model rather than a hosted or managed services model:



The statistical difference here is negligible. Both options appear to be popular for cloud users. Organizations that are looking for an option that provides subscription pricing and the ability to adjust computing resources could benefit from either model.

The deciding factors are your desired upfront investment (hosted ERP is higher) and the amount of control you need (hosted ERP offers customizability and control over the timing of upgrades; the exception would be single-tenant SaaS, which gives you more control than multi-tenant SaaS).

## Types of Projects

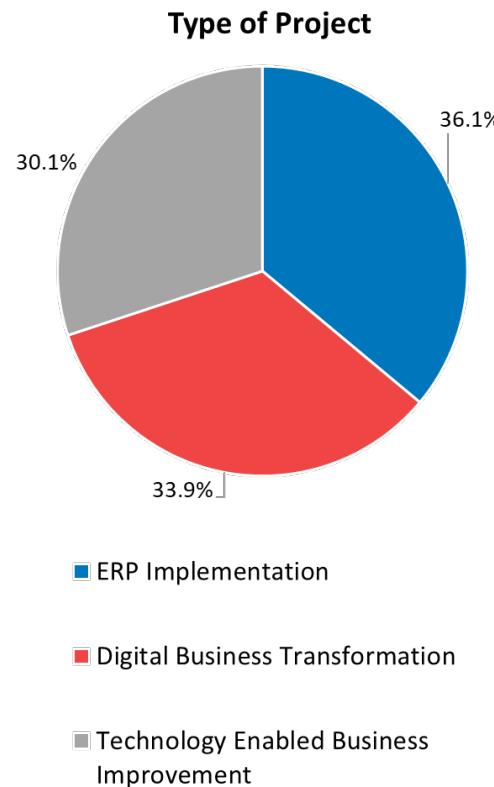
Our study focused on three different types of IT projects:

1. **Digital business transformation** refers to a variety of types of IT projects, especially those involving the creation of new digital business models.

2. An **ERP implementation** involves less significant organizational changes. In these projects, organizations typically improve their processes to fit the industry pre-configurations of their chosen enterprise system.

3. Finally, in between these two extremes lies **technology-enabled business improvement**. This is a business-focused project where the organization starts with specific business goals and then determines how technology fits into the picture.

There was almost an even distribution of organizations describing their project as an ERP implementation, digital business transformation, or technology enabled business improvement. There was a slight preference for ERP implementation.



Different industries have different amounts of pressure upon them to pursue digital transformation. Some industries may be heavily focused on digital transformation, which puts pressure on others in that industry to modernize. Other industries may be slower to innovate, but these organizations may feel pressure from various externalities that are heavily impacting their industry in particular.

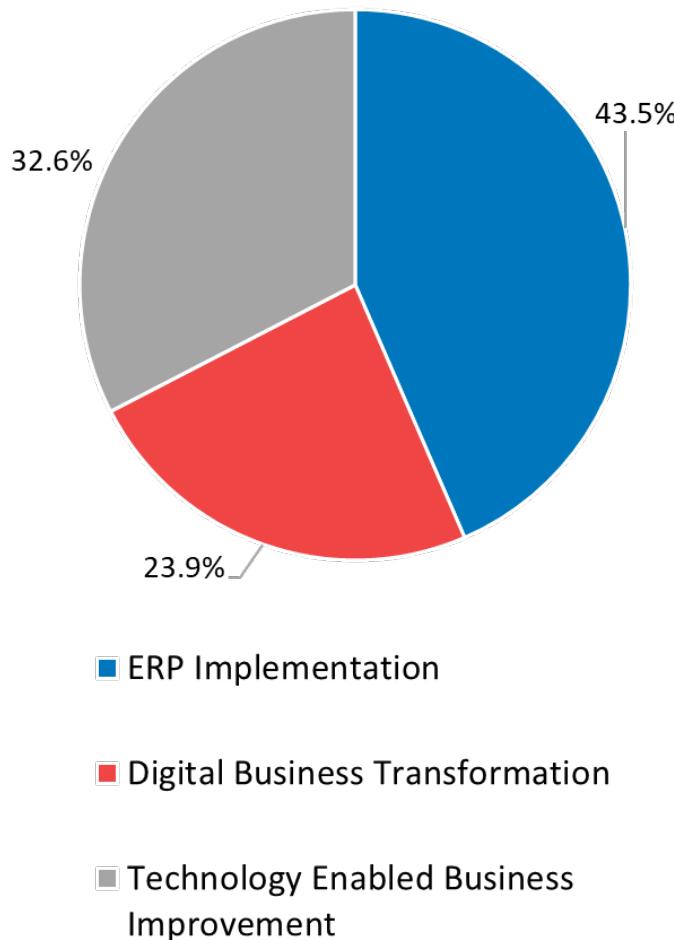
In the manufacturing industry, for example, the importance of using domestic suppliers has become apparent over the last few years, putting pressure on manufacturers to change their supplier strategies.

When a company undergoes a strategic shift like this, it often ends up on the

road to digital transformation because changing one aspect of its business naturally affects other aspects, which often leads the company to rethink its entire business model.

Interestingly, digital business transformation was the least common project type for manufacturing organizations in our study.

### Manufacturing Industry: Type of Project



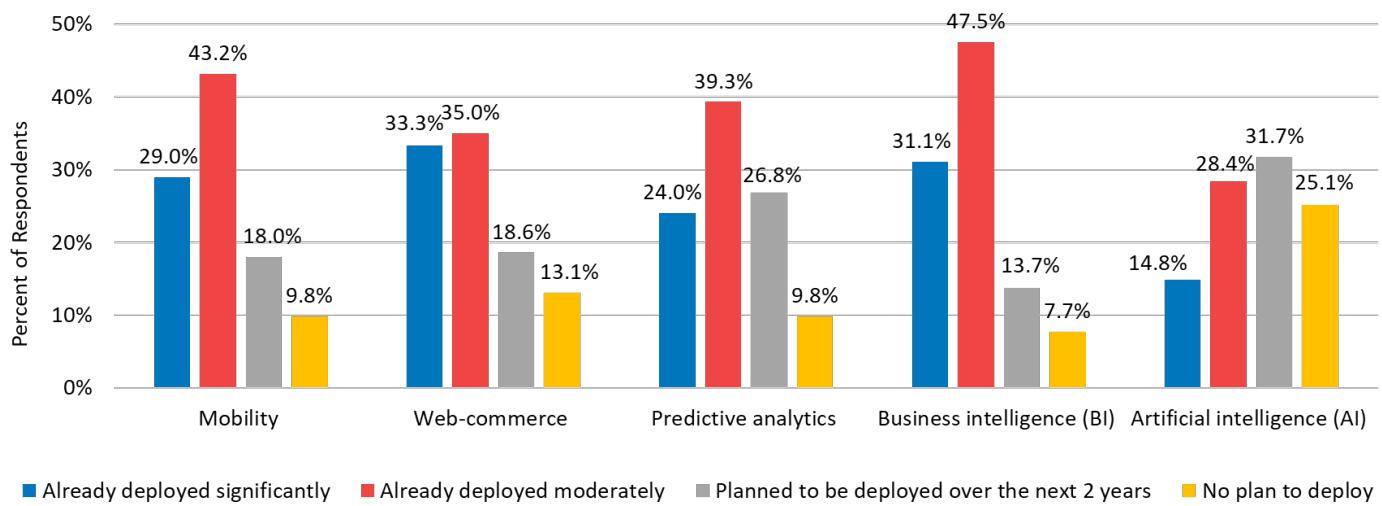
The reason for this could be that these organizations are facing some of the common hurdles to manufacturing modernization, which include legacy infrastructure, lack of digital expertise, and strong change resistance among employees. These hurdles are often enough to discourage manufacturers from pursuing large-scale projects, like a digital transformation.

## → Business Intelligence was a Popular Digital Initiative

Regardless of the type of project they were pursuing, we asked respondents which initiatives they had deployed (or were planning to deploy) as part of that project.

As seen below, organizations were most likely to deploy or plan to deploy business intelligence.

**Focus on Various Digital Initiatives**



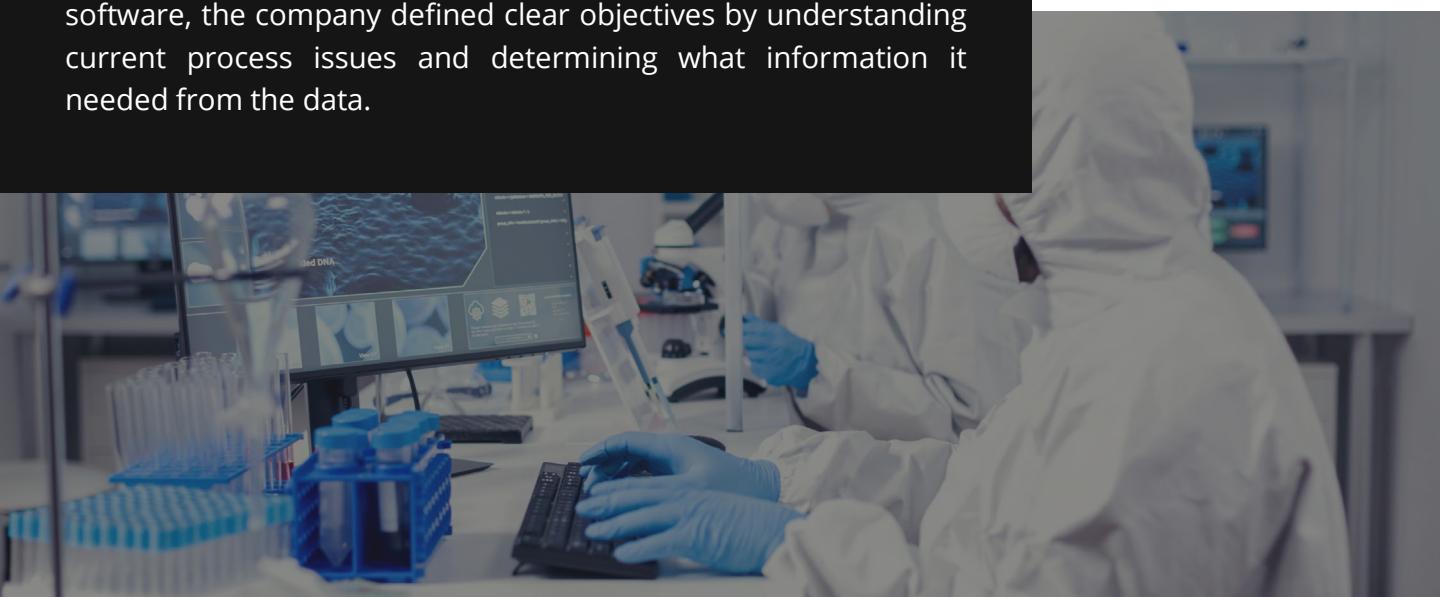
We're finding that clients are very interested in learning how to lay the groundwork for making smart, data-driven decisions. One piece of this puzzle is implementing modern business intelligence (BI). While some of our clients are purchasing BI modules and integrating them with their ERP systems, others are purchasing ERP systems with built-in BI capabilities.

Why are so many of our clients and so many survey respondents implementing BI? It's because recent developments in the enterprise software industry are making it easier than ever for organizations to build a strategy and infrastructure that supports data-driven decision-making. Some of these developments include AI and analytics as a service, low-cost sensors, the ability to collect data at the point of transaction, and the explosion in the volume and kinds of data an organization can collect.

If your organization is considering implementing BI technology, we recommend starting by establishing a data-driven culture and defining clear objectives.

### Case Study: Objectives Matter

One of our clients is a bioscience manufacturing company. We helped the company implement a single data analytics platform to break down data silos and enable employees to access ad hoc reports without involving the IT department. Before selecting this software, the company defined clear objectives by understanding current process issues and determining what information it needed from the data.



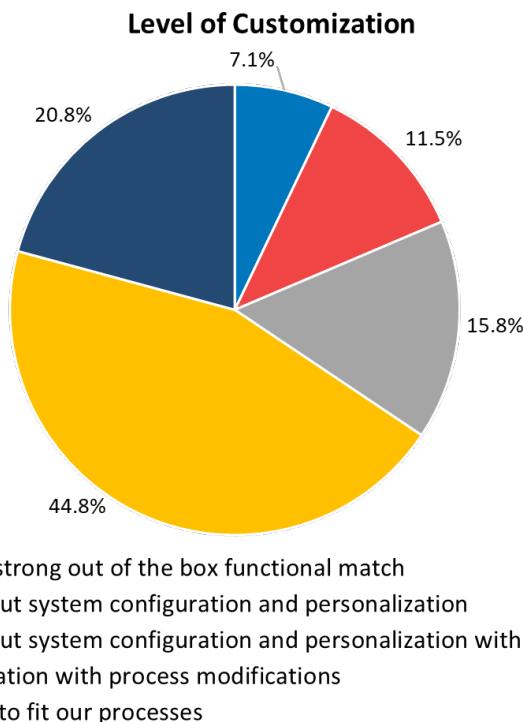


## Implementation Approach

Before an enterprise software project, organizations not only need to determine their rollout strategy, but they need to determine how much software customization they will undertake. Our analysis reviewed both decision points.

### → Customization is not a Mandate

More than a quarter of organizations implemented their software without any customization.



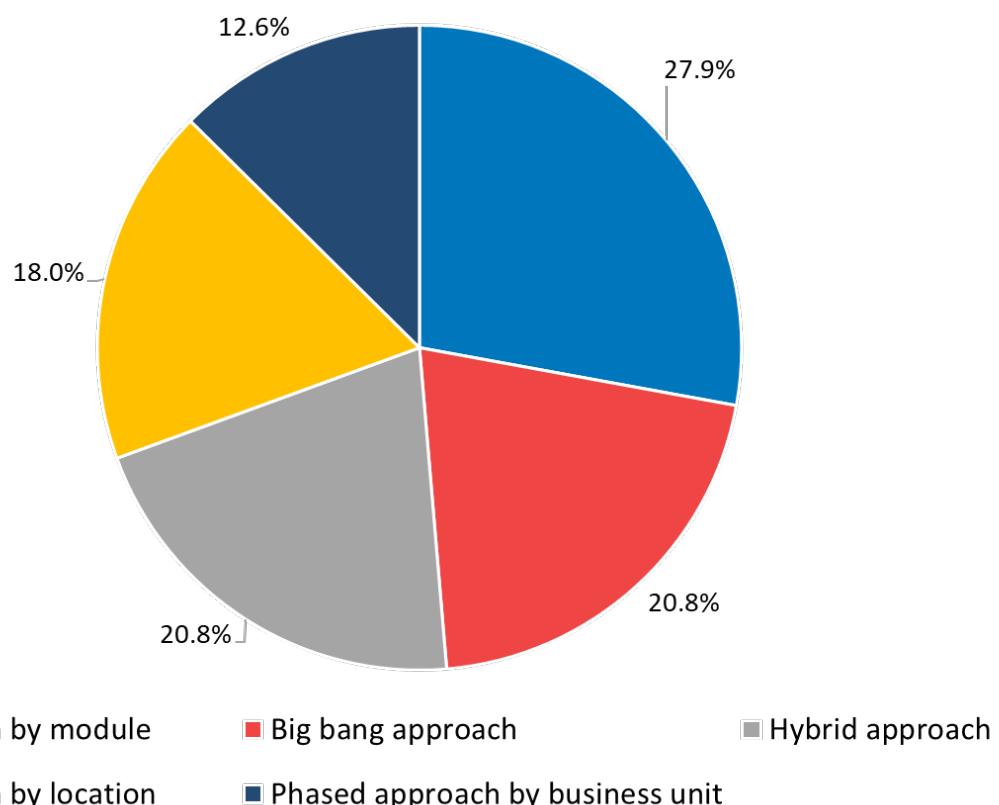
This lack of customization is possible because vendors' pre-built industry best practices are becoming much more tailored to the unique needs of certain industries. Also, vendors are making configuration easier, lessening the need for customization.

## → Taking it Slow

Less than a quarter of organizations used a big bang implementation approach.

In a big bang implementation, the organization goes live with all modules and offices at the same time. This is a common approach for implementations involving only one or two business units. It is too risky for most organizations, especially enterprise-sized organizations like those in our study.

**Implementation Approach**



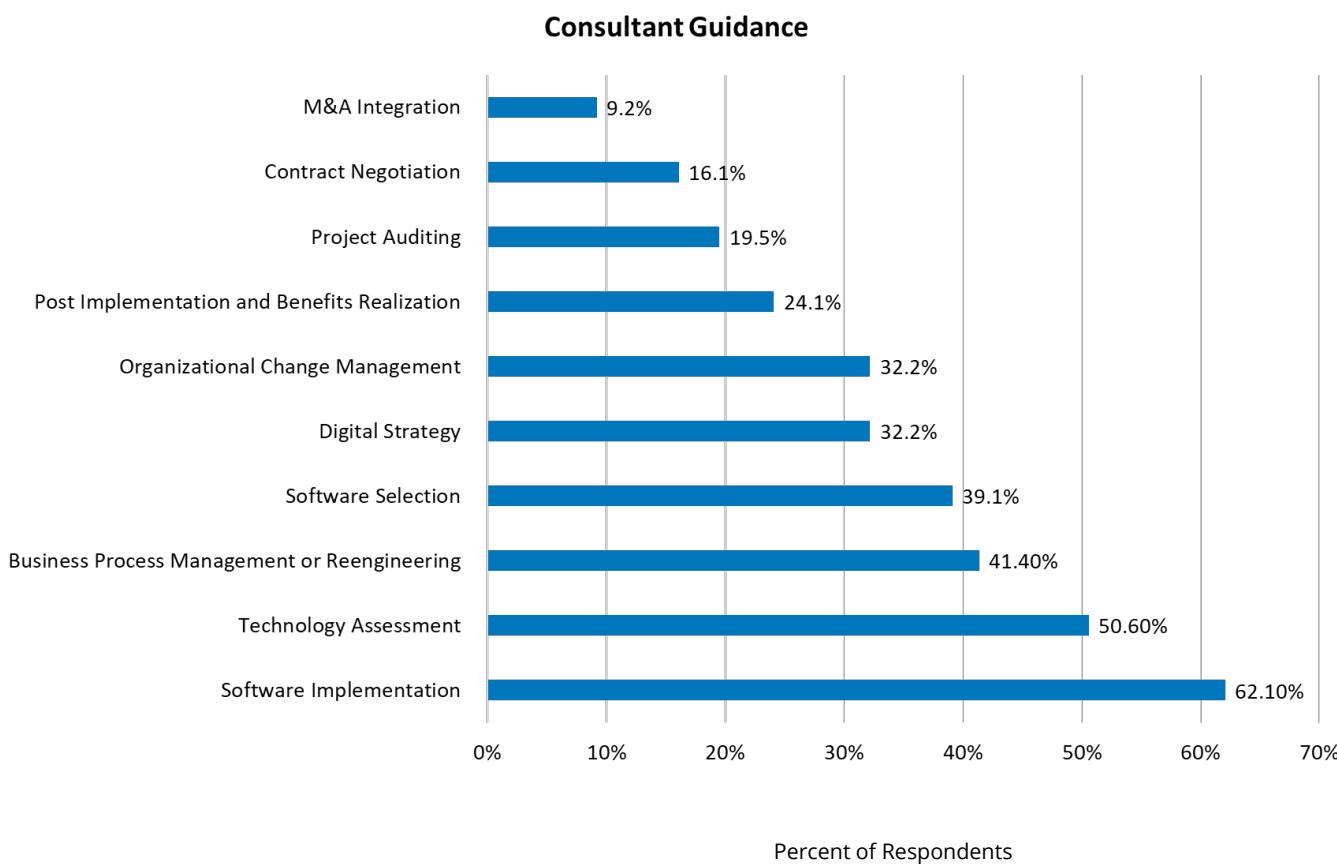
In a phased implementation, employees move to the new system in a set of predetermined steps. This is not only less risky from a technical perspective, but it is less risky from an organizational perspective – users have more time to learn the new system.

A hybrid approach combines several different rollout strategies based on an organization's unique needs. This approach makes sense for organizations with certain business units that can handle a big bang approach and other departments that are too large and complex for this approach.

## Third-Party Guidance

Often, the best way to find software implementation, process improvement, or change management expertise is by engaging a third-party.

Of those who sought third-party guidance, the most common type of guidance sought was implementation guidance.



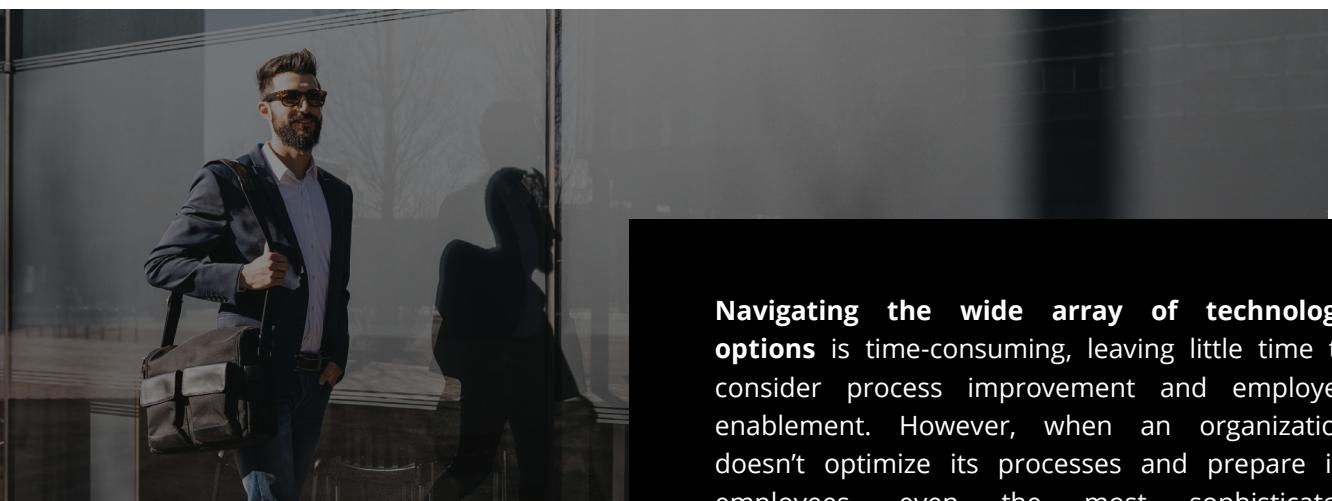
Implementation guidance is typically the most extensive guidance a consulting firm can provide, as an implementation has multiple phases, each with multiple deliverables. It's a highly complex process that requires both project management experience and technical expertise, so it's understandable that it was the most common type of guidance sought among respondents.

The least common type of guidance sought was post-implementation guidance. Failing to conduct a post-implementation audit means you have little understanding of how well your ERP system is fitting with the business. We typically recommend the following post-implementation activities, at minimum:

- Setting baseline and post-implementation KPIs
- Identifying ongoing training needs
- Identifying continuous improvement opportunities



# PEOPLE & PROCESS DECISIONS

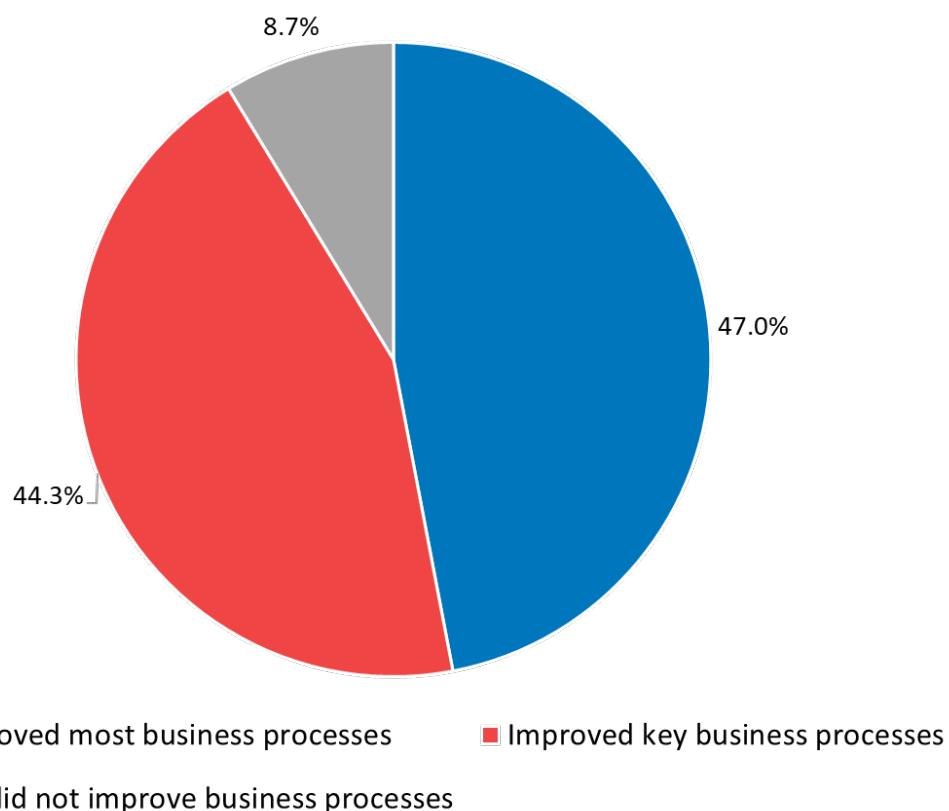


**Navigating the wide array of technology options** is time-consuming, leaving little time to consider process improvement and employee enablement. However, when an organization doesn't optimize its processes and prepare its employees, even the most sophisticated technology will fail to deliver expected benefits.

## Business Process Management

Almost half of organizations improved most of their business processes as opposed to key processes or no processes.

**Focus on Business Process Management**



Of those organizations that improved most of their processes, digital business transformation was the most common project type. This makes sense since this is the most extensive type of project among the options provided in our survey.

Considering that most of the organizations in our study were enterprise-sized, these transformations were likely multiple phases where different functional areas were improved in different phases.

Process improvement is especially important for BI implementations. For example, in the manufacturing industry, you need optimized processes for collecting data from the shop floor and sending data to the shop floor. While data collection is typically automated, you still need to optimize the end-to-end workflows within your supply chain.

Process improvement should be an ongoing effort that continues after implementation. For instance, using your new BI system, you can run simulations that help you determine the best way to run your shop floor.

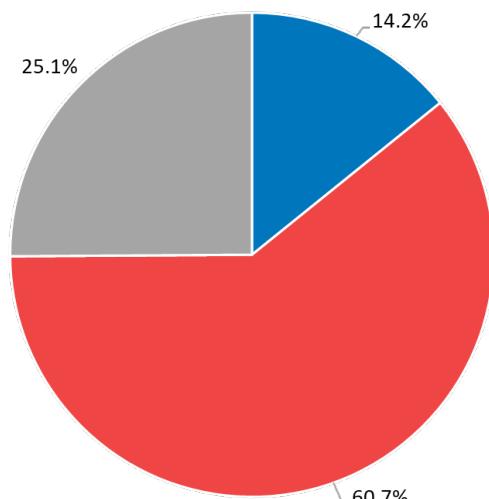
## Organizational Change Management

Any time an organization experiences a major shift, some employees will be eager to embrace the change, while others will be hesitant to let go of the familiar.

How do you get everyone on the same page? The answer is organizational change management. This is the recommended approach for preparing employees and other stakeholders for new processes and technology.

Only a quarter of organizations in our study had an intense focus on change management.

### Focus on Organizational Change Management



- Very little or no focus on change management
- Moderate focus on change management
- Intense focus on change management

Any amount of organizational change management can seem intense to the inexperienced or understaffed organization, so it's likely that many of these respondents still lacked some of the essential change management components that we include in our client engagements.

### → Expertise Matters

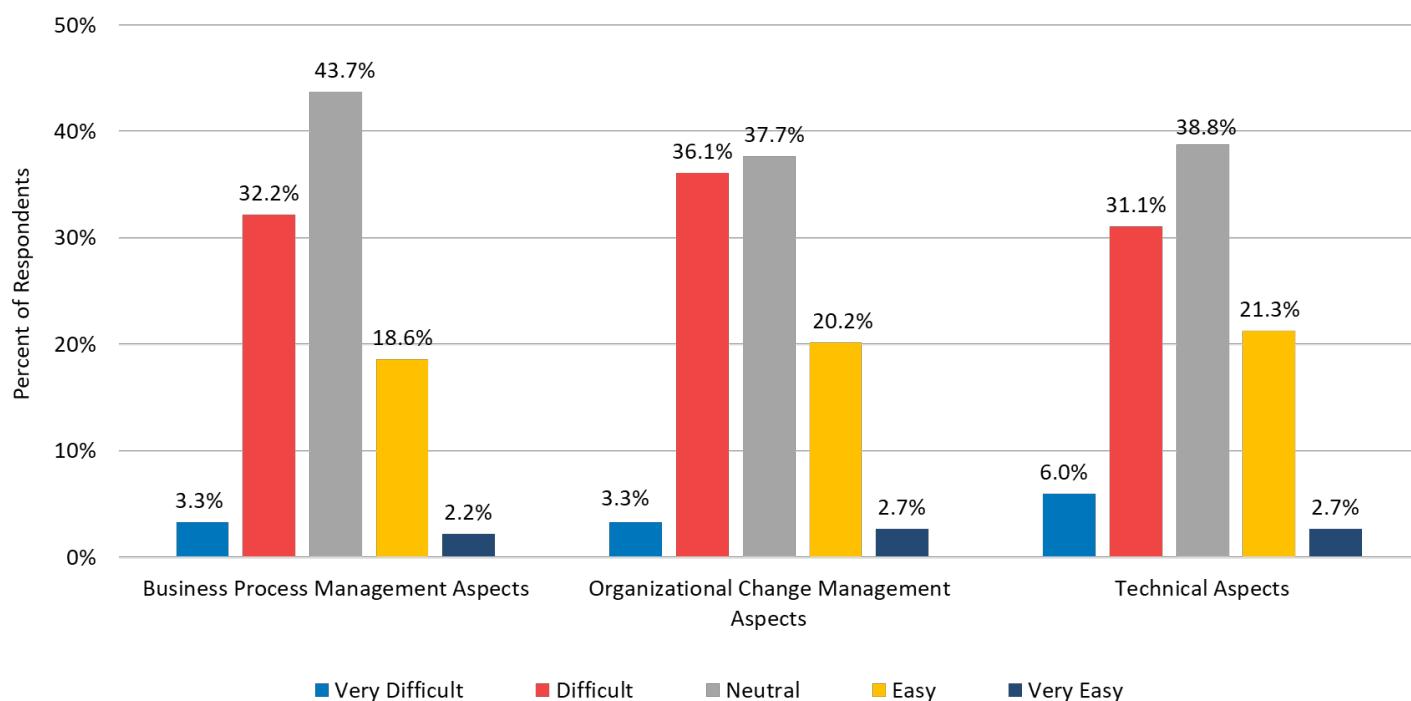
Earlier in the report, we found that 32% of organizations sought change management guidance, so considering that only 25% of organizations had an intense change management focus, it appears that some of the consultants that organizations worked with didn't recommend an intense focus on change management. This could be because the project involved small-scale change or because the consultant claimed to have extensive change management expertise but actually was more of a technical expert.



## Putting it All Together

You managed to implement your new ERP system while focusing on your people and processes. However, it wasn't easy. The data show that concurrently focusing on people, processes, and technology can be a challenge.

**Difficulty of Various Project Aspects**



There were quite a few more organizations that thought the technical aspects of their projects were “very difficult” than thought the process or change management aspects were “very difficult.”

Often, technical issues are the issues that organizations pay most attention to. They are the “canary in the coal mine,” so to speak. Most technical issues actually have a people or process-related root cause, so while people and process aspects were not thought to be as difficult, there may have been people and process issues under the surface that manifested as technical issues.



# PROJECT RESULTS

### So far, we've found . . .

- A strong interest in digital initiatives involving business intelligence
- A tendency to seek third-party implementation guidance over other types of third-party guidance
- A variety of different approaches to the people, process, and technology aspects of the project

In addition to looking at how organizations approached their projects, we also wanted to understand what kind of results they saw. The results of these projects are discussed below.

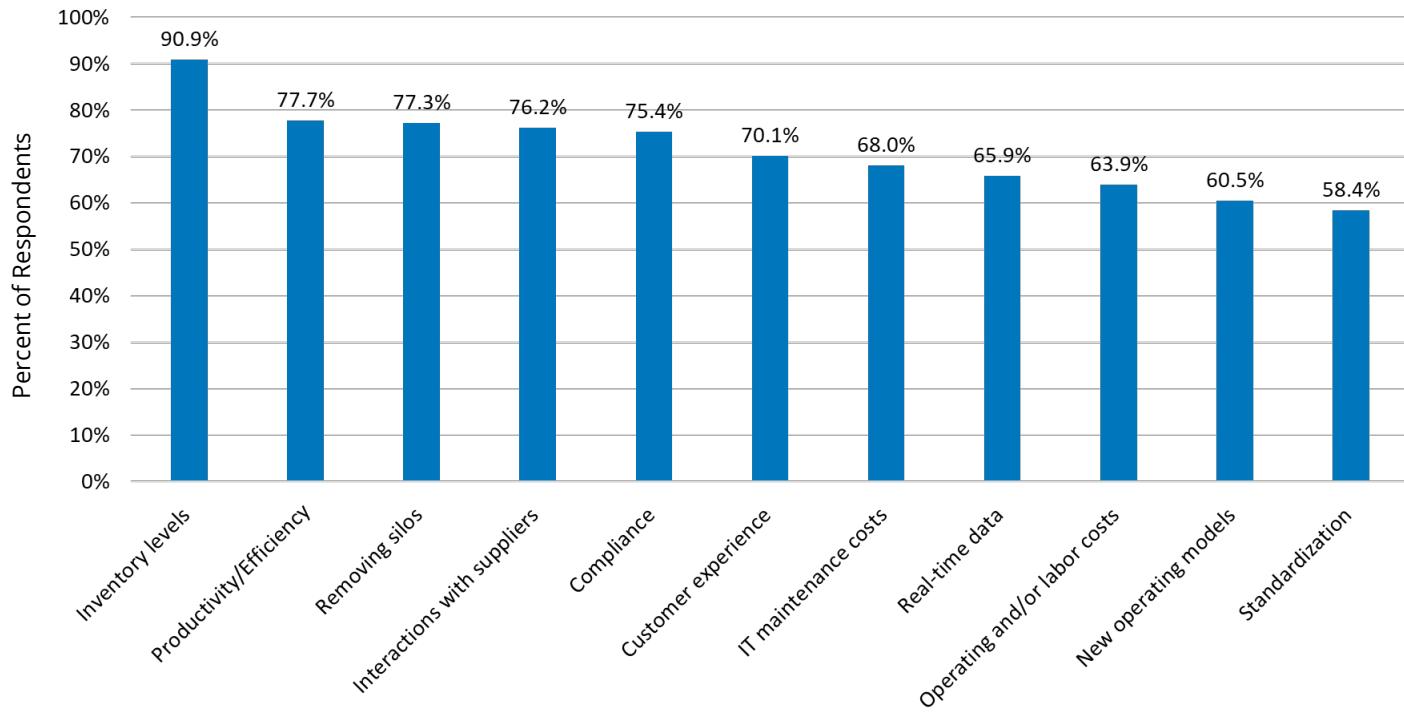
## Benefits Realization & ROI

When you quantify how you expect new technology to improve your business, you have the groundwork necessary to track performance metrics throughout the project and ensure your efforts stay on track.

Ultimately, achieving business benefits is about achieving return on investment (ROI). Of those that performed an ROI analysis prior to their project and have been live for at least a year, 83% said their project met their ROI expectations.

This makes sense considering that every benefit category in our survey was attainable to well over half of the respondents who anticipated such benefits (see the graph on the following page). This was true of everything from compliance-related benefits to benefits related to operating and labor costs.

## Organizations That Realized Expected Benefits



### → Optimized Inventory Levels

Of the respondents that have had at least one phase live for at least a year, the expected benefits that were most commonly realized to the extent expected were those related to inventory levels.

Optimizing your inventory levels requires full inventory visibility, which is a benefit that many business intelligence solutions provide.

### Case Study: Reducing Obsolete Inventory

One of our clients is a chemical products manufacturing company. We helped the company implement a single ERP system and a BI platform. This enabled the company to standardize its processes and realize more value from its current data. These data insights resulted in a variety of benefits, including the ability to align production with customer demand, which reduced obsolete inventory.

## → Struggling With Standardization

Among these same respondents, the expected benefits that were least commonly realized to the extent expected were those related to standardization.

Standardization can be particularly difficult for large global organizations. Locations often have their own ways of doing things and are resistant to changing local financial or legal requirements. This hinders the standardization of processes throughout the project.

BI implementations can create standardization challenges when organizations rush through data cleansing or begin data migration too late in the project. This results in a lack of data standardization across locations, as well as a lack of process standardization.





### → Improving Interactions With Suppliers

Companies in the manufacturing industry had the strongest benefits realization when it came to benefits related to interactions with suppliers. Ninety percent of respondents realized this type of benefit to the extent expected.

Realizing this type of benefit is probably top of mind for most manufacturers these days. Increasing supplier diversification as a consequence of supply chain disruption has been the name of the game. This has introduced communication challenges for organizations without the right technology.

Communicating with external stakeholders can be time-consuming and frustrating when you don't have a modern supplier portal to automate tasks and ensure data reliability. It's understandable that so many organizations in our study ensured that their new software effectively improved interactions with suppliers.

### → Struggling to Improve the Customer Experience

The manufacturing industry had relatively low benefits realization when it came to benefits related to the customer experience. Forty-six percent of respondents realized these benefits to the extent expected.

The relationship between a manufacturer and its customers is typically a business-to-business (B2B) relationship. While B2B relationships are often carried out face-to-face,

business-to-consumer (B2C) relationships are more often facilitated by digital technology. This is due to the nature of the relationship as well as the rapid pace at which B2C companies have adopted modern CRM technology compared to B2B companies.

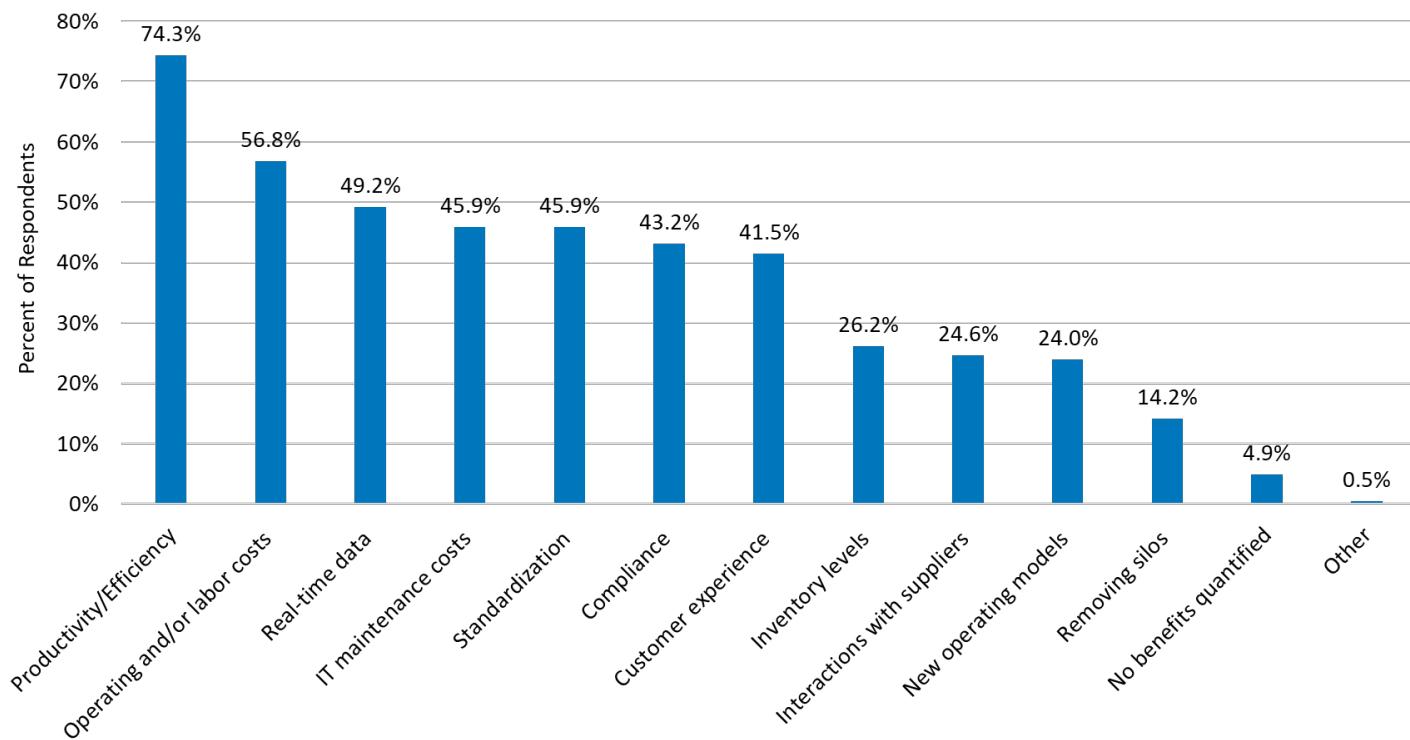
Today, B2B companies are facing increased pressure to modernize the customer experience because customers are coming to expect the same experience regardless of the nature of the relationship.

Many of the manufacturing organizations in our study expected to realize benefits related to the customer experience, but less than half realized such benefits. This could be because manufacturers are newer to the idea of modern CRM systems since they are B2B companies that are still grappling with meeting these new customer expectations.

## → Quantifying Expected Benefits is Half the Battle

The first step to realizing benefits is quantifying them before software selection and implementation. As seen in the graph below, the most common benefits organizations quantified were those related to productivity/efficiency.

**Organizations That Quantified Expected Benefits**



While the primary goals of digital business transformation are typically to improve customer engagement and create new operating models, the primary goal of an ERP implementation is typically to improve operational efficiency and productivity. An ERP implementation was the most common type of project among respondents, so it makes sense that productivity/efficiency was the most common type of expected benefit.

Also, productivity/efficiency is a common-sense goal for organizations implementing BI because they know that the data insights they'll gain access to will enable them to make decisions that optimize resource utilization, reduce cycle times, forecast sales, and more.

## → Few Organizations Expected Benefits Related to Real-Time Data

Less than half of respondents expected benefits related to real-time data.

(Granted, there is some overlap between the specific benefits you might consider productivity/efficiency-related and the specific benefits you might consider real data-related, but for our purposes, each type of benefit we outlined in this question was meant to be mutually exclusive with the expectation that organizations would select more than one option if it applied.)

As mentioned earlier, the majority of organizations deployed business intelligence to some degree, so why didn't all of them expect real-time data benefits? In our experience, many organizations jump into BI without clear objectives.

You should know what your top pain points are so you can determine what kind of data you need to address those pain points.

The specific type of data each organization needs will differ, but what is true of all organizations is that they need both historical and real-time data.

## → Few Organizations Wanted to Address Organizational Silos

The least common benefits organizations hoped to realize were those related to removing silos.

Many organizations that have moved to a hybrid work model have done so by implementing digital collaboration platforms and other modern technology. Ironically, becoming more digital made many of these companies more siloed because hybrid work environments can create silos between in-office and remote employees.

For example, remote employees are sometimes forgotten when in-office employees have impromptu strategy sessions.

ERP software expands the possibilities of hybrid work, so organizations in our study may have anticipated this and weren't sure if the data integration benefits of ERP would counteract the silo risks of remote work.

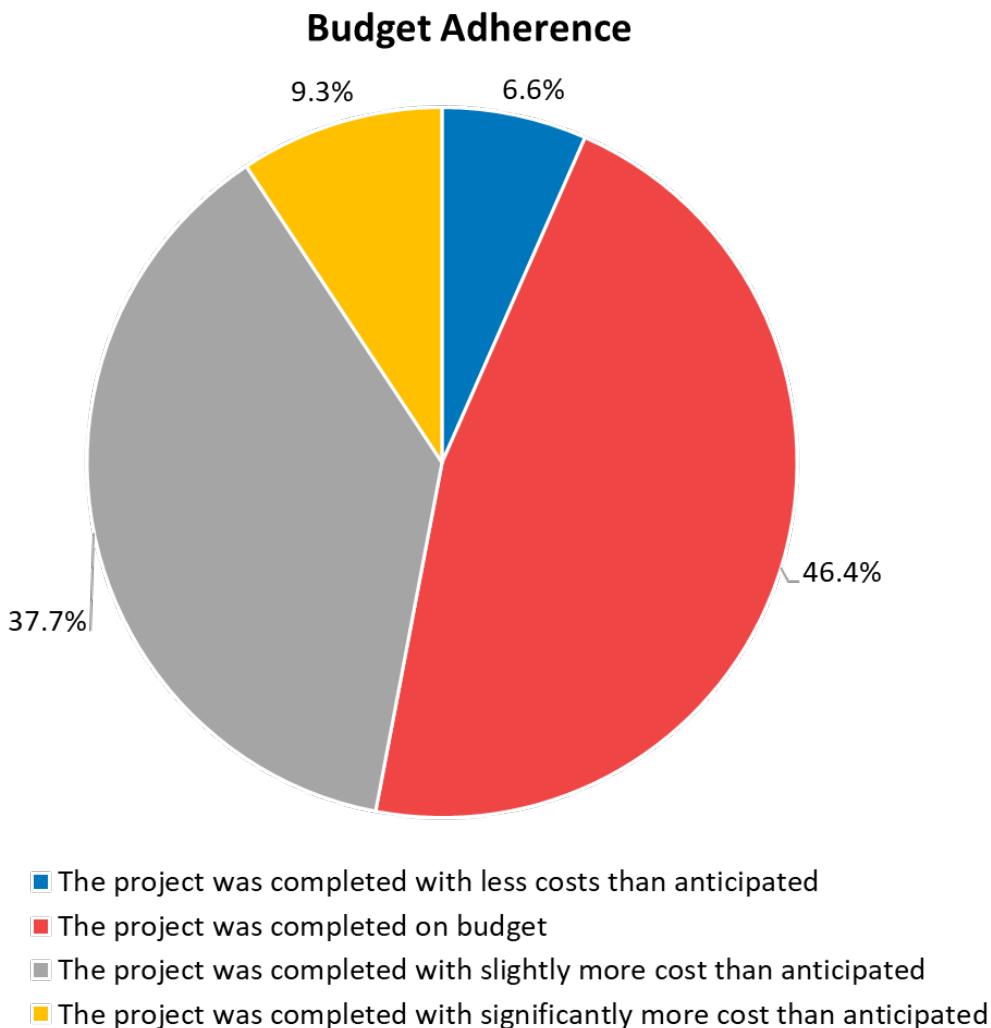
As it relates to business intelligence, organizations should be avidly focused on removing silos because you can't have reliable data insights if you have siloed data sources.

Most organizations undergoing BI projects have at least some legacy systems that are limiting their data integration capabilities.

## Project Cost

The cost of an enterprise software project can be difficult to estimate. There are many activities organizations overlook, which can lead to unexpected costs and budget overruns.

Only slightly more than half of organizations in our study stayed within their expected budget. The median project cost was \$625,000.

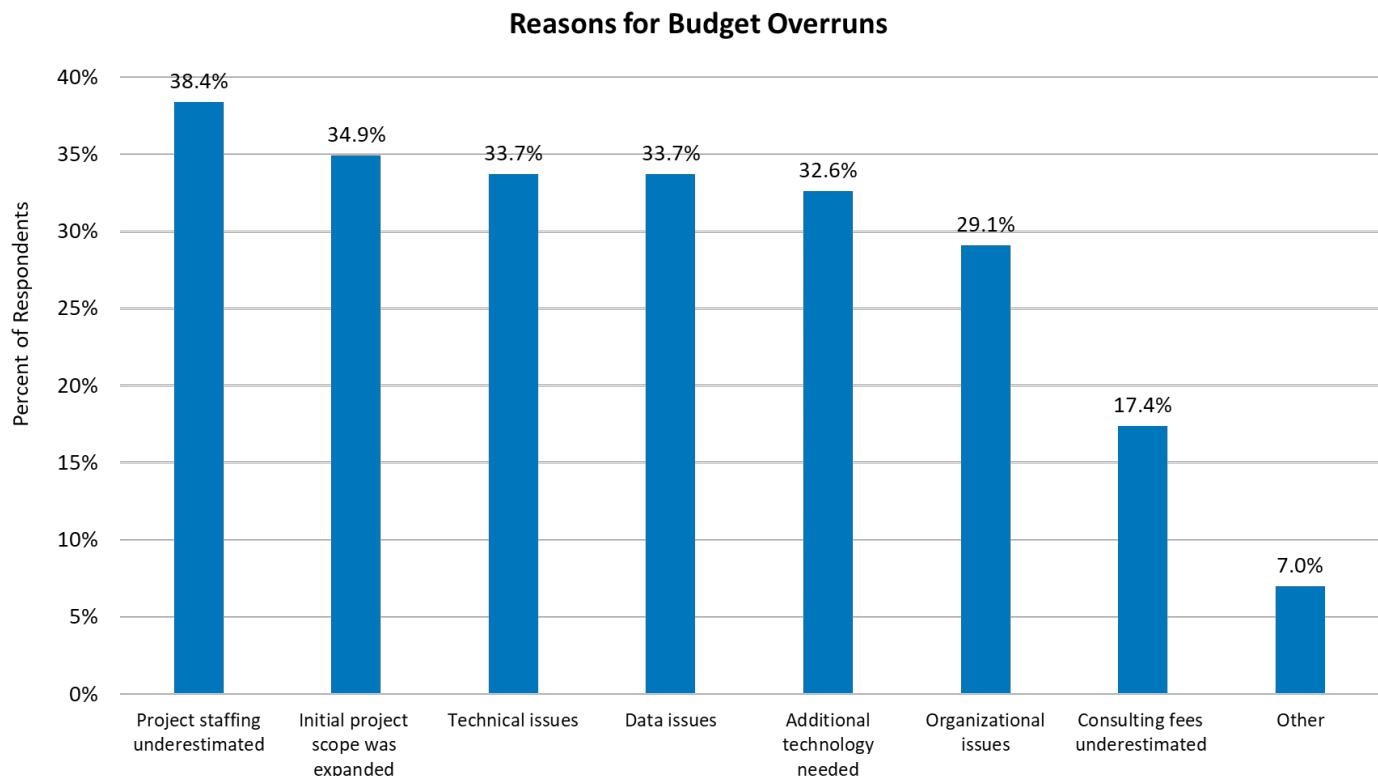


It's important to seek third-party guidance, especially implementation guidance.

In our implementation engagements, we help organizations set realistic expectations. If we were also engaged with the organization for software selection, we set these expectations even earlier to ensure sufficient funds are in place to cover initiatives like organization change management, which should occur from project initiation through post go-live.

## → Project Staffing Contributed to Budget Overruns

Of those who were over budget, the most common reason was underestimating project staffing.



One of the most common questions clients ask us is, “How many internal resources will we need?” The prevalence of this question could be reflective of a lack of clarity from ERP vendors when it comes to outlining roles and responsibilities. Often, organizations don’t realize just how many internal resources they need until the project begins, at which point they must rush to backfill these resources, leading to cost overruns.

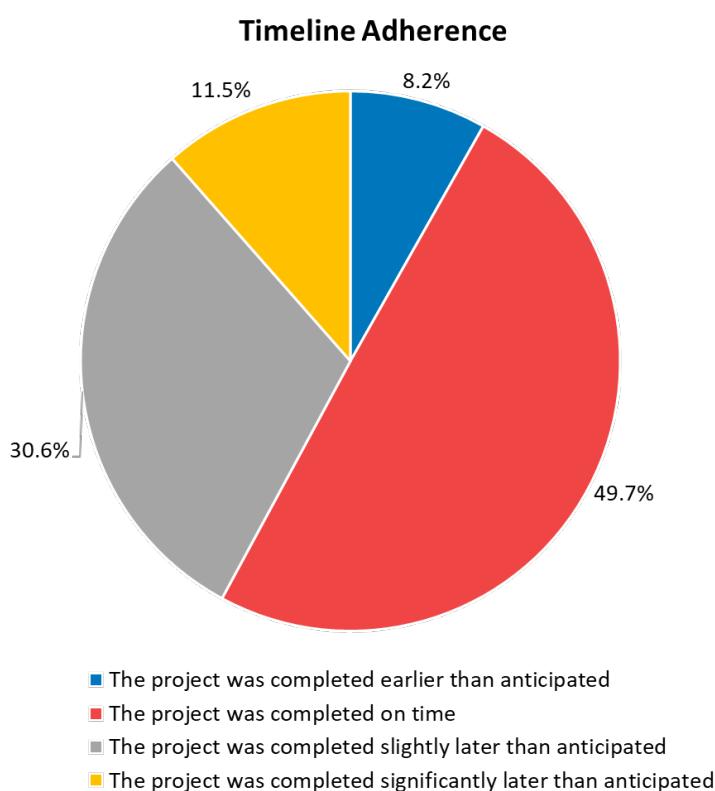
The least common reason for being over budget was underestimated consulting fees. It appears that many organizations worked with trustworthy consultants who were transparent about their billing model and their expectations for the responsibilities of the client.



## Project Duration

A project timeline is dependent on many factors, such as the number of modules implemented or the amount of software customization.

Only slightly more than half of organizations in our study completed their project within their expected timeline. The median project timeline was 15.5 months.

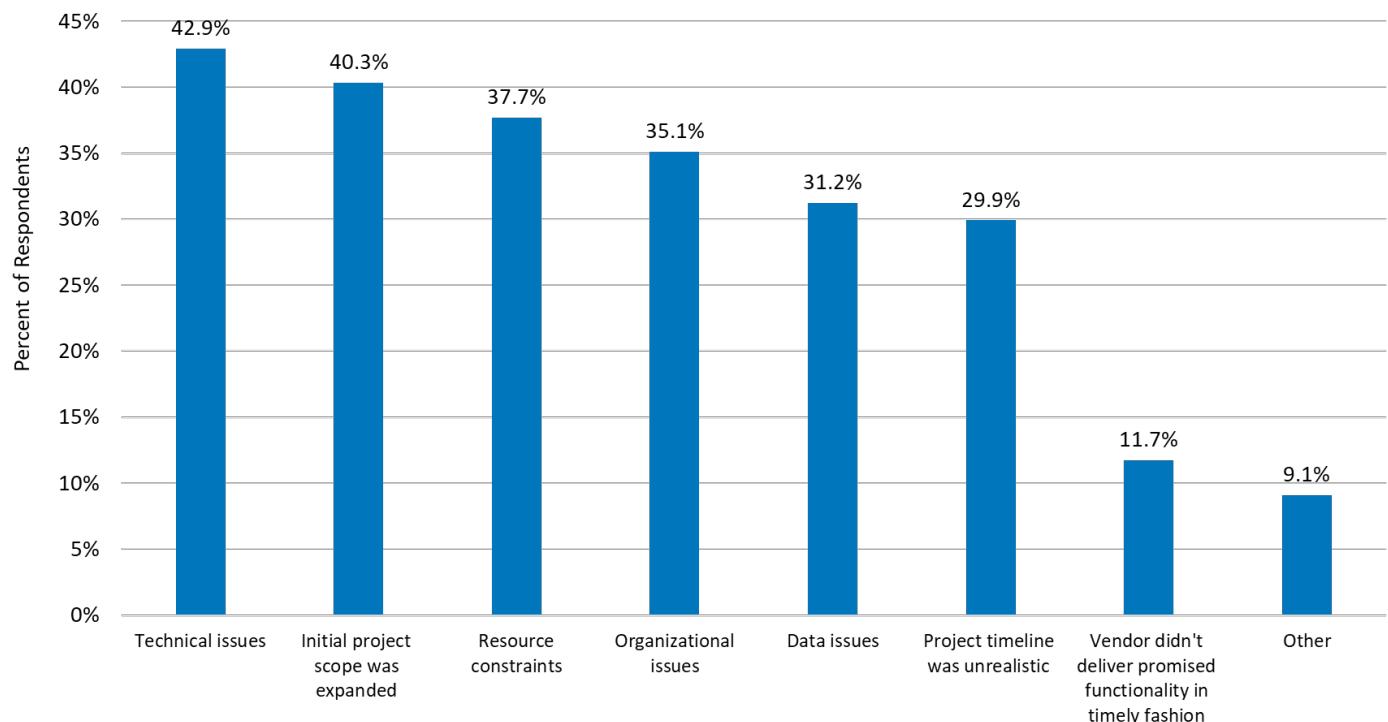


This lack of timeline adherence could indicate that many organizations had unrealistic expectations about how much impact certain factors would have on their timeline. In other words, they didn't understand their project attributes and organizational attributes, which meant they couldn't estimate a realistic project timeline.

## → Technical Issues Led to Timeline Overruns

Of those who were over schedule, the most common reason was technical issues. These can include issues regarding hardware, databases, scalability, systems integration, and more.

**Reasons for Timeline Overruns**



Why were technical issues so prevalent? This could be because only 20% of respondents used project auditing services when working with a consultant.

Our project auditing services focus on both the organizational and technical components of the project. In terms of technical components, some of the common areas of risk we see include:

- Configuration practices
- Test strategy, test planning, and test execution
- Deployment and go-live planning
- Data quality and data migration strategy

In terms of data migration, this can have the most impact on the project schedule when the organization is implementing BI. Waiting until the last minute to develop a data migration strategy is simply not an option in such cases because siloed data wreaks more havoc on BI implementations than any other type of implementation.

# CONCLUSION

In the face of global uncertainty, organizations are doubling down on their technology investments. For many organizations, these investments are enabling the agility and innovation required for a changing world.

While almost all respondent organizations said their project met their ROI expectations, many respondents started off with a limited understanding of the data-related goals they wanted to achieve. So, how did these organizations realize a decent ROI without orienting their project around one of the most important types of business benefits? It's likely that they made smart decisions in other areas. For example, our report revealed that . . .

- Most organizations sought implementation guidance.
- Most organizations ensured a moderate to intense focus on OCM.
- Most organizations improved at least some of their processes.

Regardless of this unexpected success, it's still important to quantify the specific business benefits you hope to realize in the area of real-time data. This will give you an even higher ROI because you'll be more likely to realize benefits such as:

- The ability to make data-driven decisions, like determining an optimal pricing model for each of your products
- The ability to predict future outcomes and proactively address potential issues
- Assurance that remote and dispersed teams are accessing the same up-to-date data
- Immediate knowledge of every market fluctuation
- The ability to personalize customer experiences with relevant recommendations as well as fast and accurate answers

Such benefits are all relevant to current market pressures, whether you're talking about inflation, changing customer demands, or supply chain complexities. In short, you can't afford not to aim for real-time data access, and you absolutely must define the specific data-related benefits you intend to achieve.

# About Panorama Consulting Group

Panorama Consulting Group is an independent, niche consulting firm specializing in business transformation and ERP system implementations for mid- to large-sized private- and public-sector organizations worldwide. One-hundred percent technology agnostic and independent of vendor affiliation, Panorama offers a phased, top-down strategic alignment approach and a bottom-up tactical approach, enabling each client to achieve its unique business transformation objectives by transforming its people, processes and technology.

## Panorama's Services

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