



# Bionic Finance Offers a Strategic Edge

By Timo Grund, Jochen Schmitz, Marc Rodt, Stephan Pierer von Esch, Matthias Krühler, and Florian Ponnath

*This is the first of two articles by Boston Consulting Group and Siemens Healthineers that discuss the benefits and challenges of digitizing the finance function. Here, we introduce the concept of bionic finance and explain how applying it helps companies achieve their strategic objectives. The next article will address how to create a bionic finance function and the challenges of implementing it at scale. The insights are derived from Siemens Healthineers' successful application of bionic finance in its global operations and BCG's experience advising finance functions across industries.*

Companies that capture the full value of digitization excel at applying technology to achieve their strategic objectives. Unfortunately, many companies lose sight of this ultimate purpose. This leads them to make several false distinctions when it comes to digitization. They distinguish offering digital products and services from digitizing internal functions and processes. They also think separately about digitizing to improve efficiency and digitizing to promote effectiveness. And they view process automation as replacing, rather than augmenting, human capabilities.

Companies can avoid making these and other false distinctions throughout their organization by transforming finance into bionic finance—integrating digital technology and human capabilities in well-designed finance processes with the clear purpose of supporting the company's strategic objectives. Applying [the principles of the bionic company](#) to the finance function gives it a holistic perspective across external and internal applications, cost optimization and value creation, and automation and

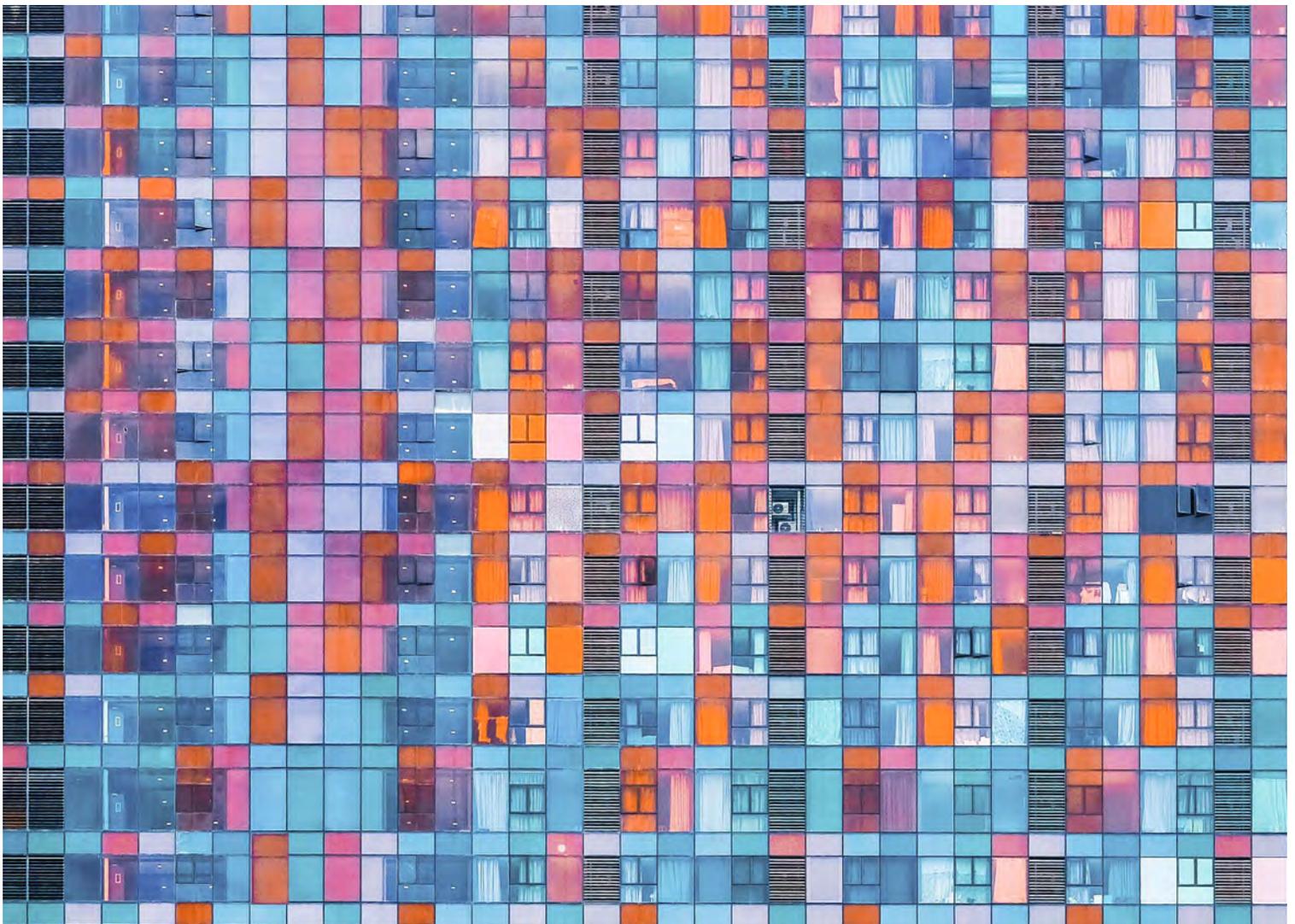
human capabilities. (See the sidebar [“The Time Is Right for Bionic Finance.”](#))

## Orchestrating Strategic Execution

A bionic finance function helps a company achieve its strategic objectives by serving as the orchestrator of strategic execution. Bionic finance uses its digital capabilities, its access to company-wide data, and its forward-looking mindset to integrate and optimize processes across an organization and at scale.

The need for an orchestrator arises because many companies' internal digitization initiatives focus on deploying technology tools to optimize a single activity within an individual department. This siloed, technology-focused approach means that different departments' systems are not seamlessly connected. As a result, interdependent processes, such as customer demand planning and manufacturing supply planning, are often not fully aligned. Moreover, these internal initiatives are typically not designed with the goal of supporting specific customer-facing strategic objectives.

As the orchestrator, bionic finance can promote the broad adoption of digital technology across the company to enable a seamless, end-to-end information flow and data integration within and between core processes—including product life cycle management, customer relationship management, and procurement. (See [Exhibit 1.](#)) Other functions—such as corporate IT—could serve as the



## The Time Is Right for Bionic Finance

Many companies that are known for their innovative digital products and services have made only scattered efforts to digitize their internal finance processes. And these efforts typically focus on eliminating activities that don't add value and on reducing costs, rather than helping the business identify and pursue opportunities to create value. Moreover, companies often overlook opportunities to integrate automation and human capabilities in order to enhance decision making and planning.

To not only survive the coronavirus crisis but also emerge stronger, many companies will need to up their game, and many understand that now is the time. In a recent [BCG survey of CFOs](#), 87% said that they view the crisis as creating an opportunity to pursue a digital transformation. Furthermore, companies are likely to have investors'

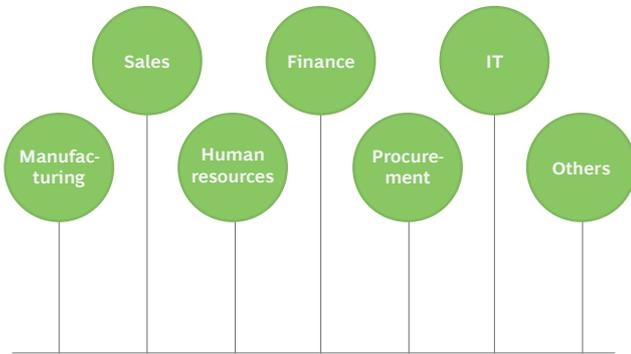
support: a [BCG survey of investors](#) across industries found that 91% want companies to use the COVID-19 crisis as an opportunity to build capabilities for long-term advantage and growth—even at the expense of earnings.

By supporting strategic execution while optimizing costs, bionic finance can play a critical role in positioning a company to thrive in the postpandemic recovery.

# Exhibit 1 | The Bionic Finance Function Orchestrates Strategic Execution

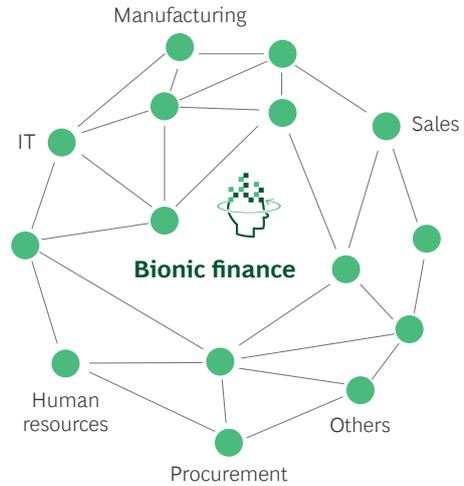
## Typical approach to digitization in many organizations

Silos with imperfect connections



## Bionic finance as the orchestrator

End-to-end information flow and seamless data integration



Source: BCG and Siemens Healthineers analysis.

orchestrator; however, the finance function’s access to company-wide data and its deeply engrained focus on value creation make it ideally suited to fulfill the role successfully.

To illustrate how bionic finance can serve as an orchestrator and support a business in achieving its strategic objectives, we draw upon the success at Siemens Healthineers.

### Four Examples of Success

Digital is in the DNA of Siemens Healthineers as a leading medical technology company. To keep pace with the rapid evolution of the health care industry, the company must apply digital technology to continually develop new offerings and deploy new business models.

In developing its new strategic plan, the company saw that it could not pursue customer-facing digital initiatives independently of the internal digital initiatives that would support them. The company’s leaders recognized that they needed to consider external and internal digitization holistically. So they implemented a bionic finance function that would help them achieve their strategic objectives.

Importantly, the company did not regard its internal digital transformation as merely an enabler of its strategy, but rather as part of it. The strategic plan included enhancing the company’s three business areas (imaging, diagnostics, and advanced therapies), entering new growth markets, increasing revenue from its largest customers, and implementing a digital transformation.

The company also established clear objectives for the digital transformation itself. It needed to enable the company to accomplish three strategic objectives:

- Outgrow the competition
- Maintain a sustainable cost base
- Attract digital talent

The following examples show four ways that the bionic finance function is supporting Siemens Healthineers’ strategic execution.

## **DRIVING THE IMPLEMENTATION OF A NEW BUSINESS MODEL**

Imaging is an area in which Siemens Healthineers wants to outgrow the competition. Its imaging business has traditionally used a transaction model: the company sells equipment and an extended service agreement to health care providers. As part of its long-term growth strategy, the company introduced a new digital solution: a subscription model. Providers pay a fee (for example, a set monthly fee or one based on usage) to receive images as a service. This model provides additional value to customers and could generate a significant recurring revenue stream for the company in the future.

Internally, the subscription model differs from the transaction model in important aspects, including smaller payments, varying volumes, frequent service upgrades and downgrades, conversions from free to premium services, and distinctive accounting rules. As a result, quotation, order-to-cash, and other back-office processes differ radically from those for a transactional business model. However, the company's legacy IT systems, such as the enterprise resource planning (ERP) system, lacked the capabilities to support these distinctive processes.

The finance function is orchestrating the efforts of several functions—including sales, business model innovation, and IT—to proactively close the capability gaps so that the business can offer the subscription model and achieve its strategic growth objective. For example:

- To provide the required technical support for new back-office processes—including tax calculation, accounting, invoicing, and license management—the finance function has added a new system layer to its IT backbone. This new layer has reduced the number of manual process steps by more than 60% and shortened the processing time by about 75%, exemplifying the opportunities to unlock hidden productivity and provide the foundation for scaling up efficiently in the future.
- To support the business in steering the long-term success of the subscription model, the finance function has instituted new leading KPIs, such as the number of active users, premium conversion rates, and churn rates.
- To track performance against goals for top-line growth, the finance function is using traditional lagging KPIs, such as customer acquisition cost, annual recurring revenue, and customer lifetime value.

These actions entail not only the application of new technical capabilities but also a new, forward-looking mindset that measures success in terms of achieving strategic objectives.

## **OPTIMIZING THE PRICES OF STRATEGIC DEALS**

As part of its growth strategy, Siemens Healthineers wants to offer premium products to its customers. Pricing would be optimized on the basis of the perceived value to the customer, rather than calculated using a simple cost-plus model.

However, sales teams are already facing challenges during price negotiations with customers. Because the company has set limits on their negotiating authority, certain strategic deals have to be evaluated and approved by a team at headquarters. The approval process is highly manual and time consuming, and decision makers lack an integrated view of all relevant KPIs.

To accelerate and improve deal evaluation, the finance function is implementing an automated and intelligent workflow process. With the help of artificial intelligence (AI), the workflow analyzes relevant KPIs (including historical buying behavior) together with the company's ambitions for market share and profitability. It then generates recommendations for the best offerings for the deal under negotiation.

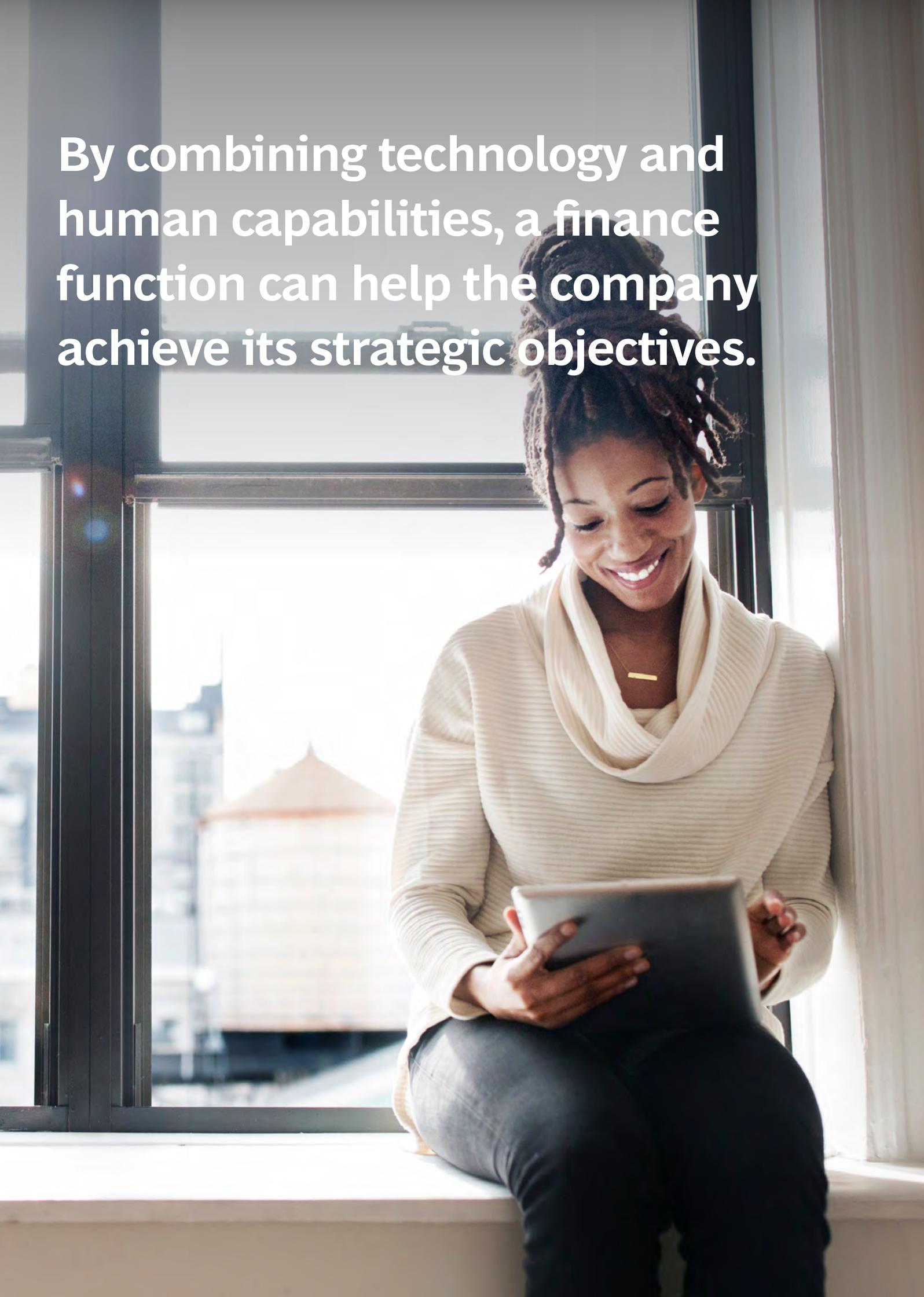
The AI insights augment human decision making, enabling the sales teams in the regions and at headquarters to optimize the deal's pricing and to expand the offering to include supplementary products and value-added services. By freeing up the teams from nuts-and-bolts aspects of deal evaluation, the automated workflow allows it to spend more time applying the insights to create value for the company. The cost-savings opportunity is also significant: the new process requires approximately 25% less time and automates approximately 4,000 hours of manual work per year.

## **IDENTIFYING AN AUTOMATION OPPORTUNITY AND SCALING THE SOLUTION**

To help Siemens Healthineers achieve its strategic objective of maintaining a sustainable cost base, the finance function is identifying opportunities for productivity improvements or reductions in input costs. Digital technologies play a key role in allowing the function to gain greater visibility into the cost base, such as by finding patterns in data or identifying weaknesses in finance's processes.

For example, the function deployed third-party process-mining software to identify common weaknesses in order-to-cash processes across the company's global organization in approximately 60 countries. The software, which is connected to the core ERP system, analyzes dispersed data points that human observers would regard

**By combining technology and human capabilities, a finance function can help the company achieve its strategic objectives.**



as unrelated. The analysis identified a major automation opportunity relating to a step within the order-to-cash process, which was manual in all but one country.

With this opportunity identified, it was up to human decision makers to determine in which countries to automate the step, considering local stakeholders' needs or customer behavior. In the countries where the company decided to automate the step, the finance function is making it happen by using optical character recognition technology from a third-party provider. The technology deployment has enabled the business to reduce order processing time by more than 60% and automate approximately 30,000 hours of manual work to date.

### **BOOSTING AUDIT QUALITY WITHOUT RAISING COSTS**

To enhance its support of strategic execution, the finance function must focus on performing traditional finance tasks more efficiently. A case in point is better managing risk through the routine audit process. Historically, an accurate audit has required a large sample size and a resource-intensive, manual review of all, or a large number, of the documents under consideration. In recent years, companies have started to digitize the sampling process, using a data-driven analysis of risk patterns to focus on the most representative documents to review.

The finance function applied a digitized approach when it audited the company's collaboration contracts for compliance with the data protection and privacy regulations of the European Union (EU). The function used text mining and intelligent search software to analyze more than 1,300 EU-based collaboration contracts for keywords and phrases that indicate the potential for patient data exchange and the degrees of contractual protections for the company. To establish the algorithm's accuracy, the finance function manually verified the findings for more than 50 contracts. The text-mining approach enabled a high level of assurance regarding regulatory compliance. Achieving the same level of assurance using a manual approach would have required an equivalent of 21,840 hours of work.

## **An Ongoing Journey to Excellence**

Although Siemens Healthineers' transformation program is still in the early stages, clear performance improvements are already visible. We gauged the improvements using BCG's CFO Excellence Index, a comprehensive self-assessment of the finance function's performance, including its bionic finance capabilities. Performance is benchmarked against more than 500 finance functions in the underlying database.

Siemens Healthineers' finance executives perceived clear improvements across all dimensions relative to the function's performance at the starting point of the transformation roughly two years ago. (See [Exhibit 2](#).) However, the transformation to excellence is an ongoing, multiyear journey. To complete the journey, the bionic finance function will need to build on its clearly defined purpose and transformation roadmap, such as by making greater use of advanced analytics and AI and its data assets.

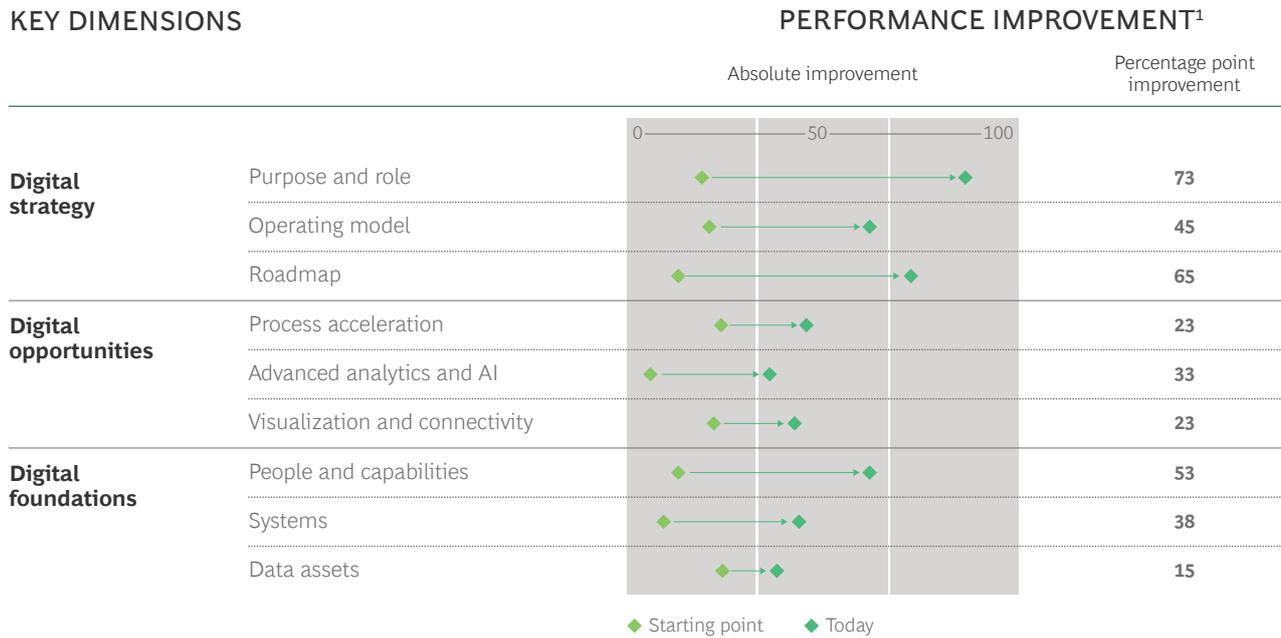
## **Tackling the Challenges of Deployment at Scale**

Building a bionic finance function sustainably and at scale entails significant effort and resources. For example, some companies may need to use a brownfield approach in which they seek to update legacy systems and processes. Other companies, typically newer ones, are able to apply a greenfield approach in which they implement entirely new systems and processes. Companies often underestimate the challenges associated with both approaches.

As a result, companies end up getting stuck in the piloting phase, focusing on one aspect of what needs to be a multifaceted approach that includes establishing organizational prerequisites, improving digital competencies, upgrading data and systems, and promoting innovation in finance. Cultural challenges also impede full-scale deployment, because functions and individuals must adapt to technology-enabled ways of working across organizational silos.

The solution is to implement all aspects of the multifaceted approach and let the visible improvements promote the required cultural changes. In the next article in the series, we will discuss the approach and how companies can design and implement the bionic finance function successfully.

# Exhibit 2 | Siemens Healthineers Has Improved Performance Across All Aspects of Bionic Finance



Sources: BCG's CFO Excellence Index; Siemens Healthineers.

Note: AI = artificial intelligence.

<sup>1</sup>Measured using BCG's CFO Excellence Index. Finance executives' self-reported performance on a scale of 0 to 100.

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## About Siemens Healthineers

Siemens Healthineers AG (listed in Frankfurt, Germany: SHL) is shaping the future of Healthcare. As a leading medical technology company headquartered in Erlangen, Germany, Siemens Healthineers enables healthcare providers worldwide through its regional companies to increase value by empowering them on their journey towards expanding precision medicine, transforming care delivery, improving the patient experience, and digitalizing healthcare. Siemens Healthineers is continuously developing its product and service portfolio, with AI-supported applications and digital offerings that play an increasingly important role in the next generation of medical technology. These new applications will enhance the company's foundation in in-vitro diagnostic, image-guided therapy, and in-vivo diagnostics. Siemens Healthineers also provides a range of services and solutions to enhance healthcare providers' ability to provide high-quality, efficient care to patients. In fiscal 2019, which ended on September 30, 2019, Siemens Healthineers, which has approximately 52,000 employees worldwide, generated revenue of €14.5 billion and adjusted profit of €2.5 billion. Further information is available at [www.siemens-healthineers.com](http://www.siemens-healthineers.com).

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