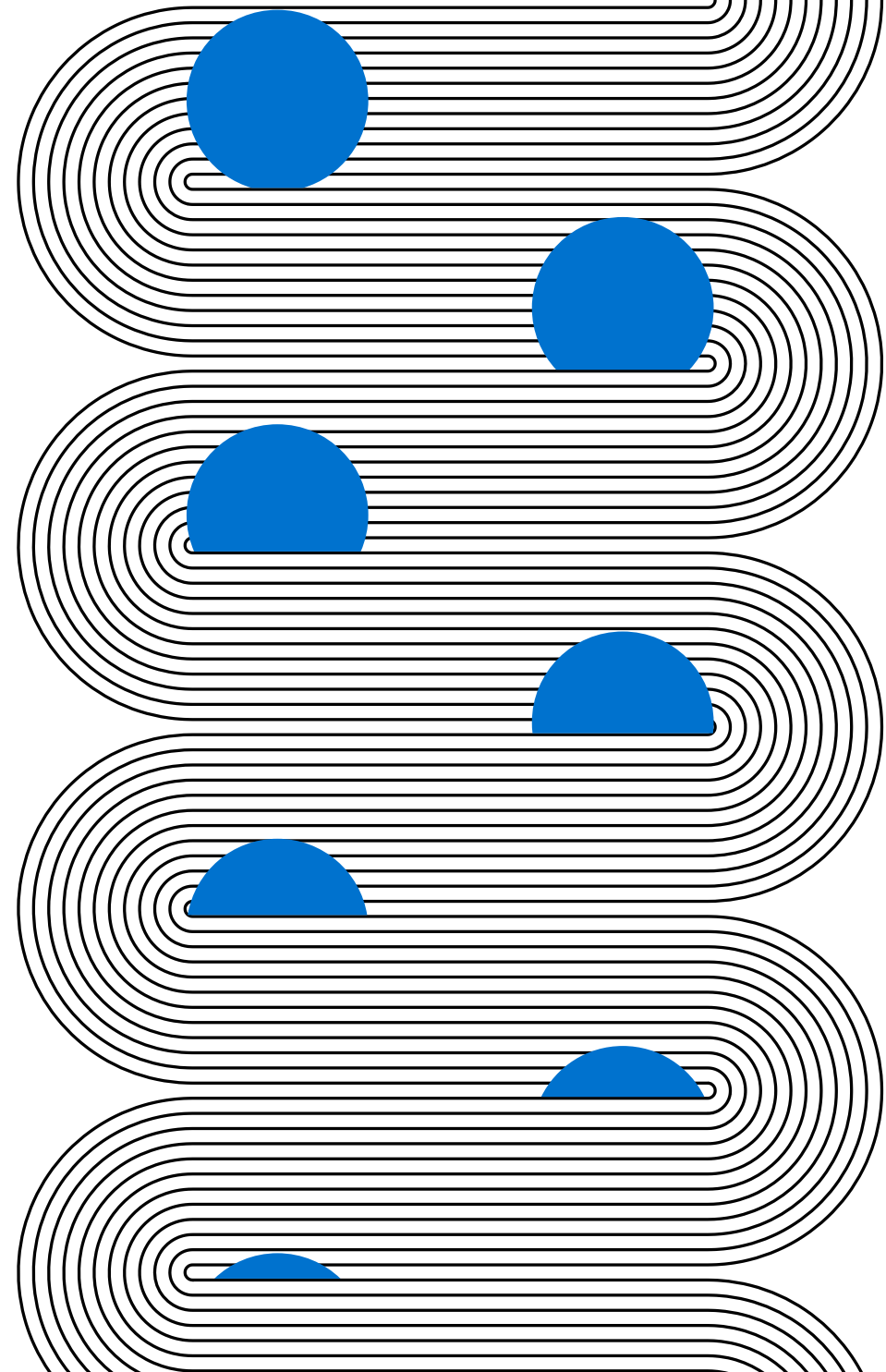


[report]

# 2023 state of process orchestration



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# executive summary

Most organizations have at least started on the road to automating their business processes – perhaps setting up a few tasks to operate without intensive human contribution. But as organizations add more automation instances, they’re finding it more and more difficult to control the automation projects they’re putting in place.

These frustrations have been spelled out clearly in the State of Process Automation (SOPA) reports published in 2020 and 2022. While IT leaders validated the importance of process automation to their business success, they pointed to the need for more coordination of siloed and disjointed processes operating within their organizations.

The drive to manage increasing levels of automation chaos has elevated process orchestration as an emerging market category.

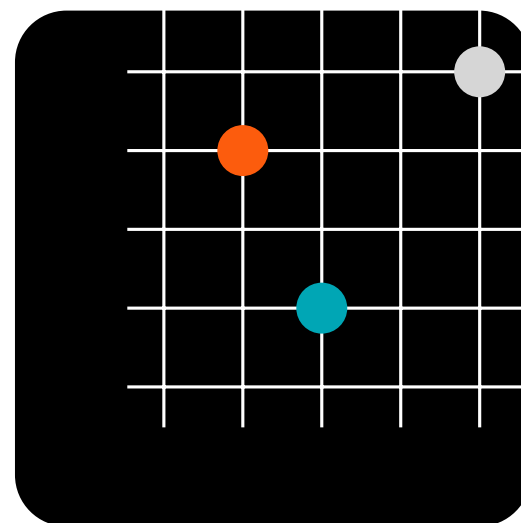
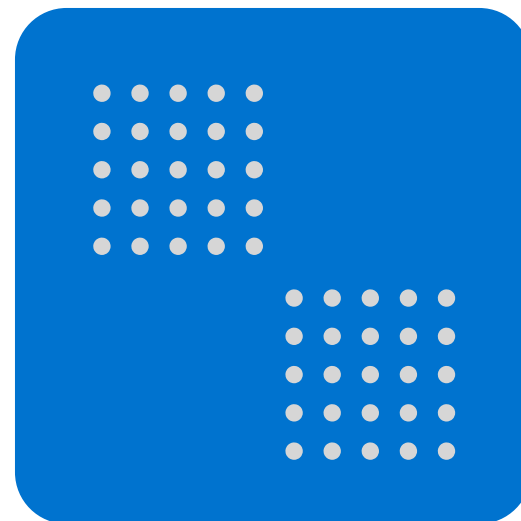
Orchestration and automation are separate but related concepts. Orchestration brings all the automated processes within your organization together. Orchestration plays the role of a conductor in a symphony orchestra. It connects the musicians (automated and human tasks) together, tracks the progress across the piece, keeps the tempo, and enables open communication between the players. While automation sets the symphony (or physical process) in motion, process orchestration is the strategy that coordinates its actions.



## executive summary [cont.]

End-to-end process orchestration matters because it streamlines the use of multiple sets of automation tools, offering common capabilities and extensibility. It gives the organization the ability to integrate components, processes and people. Rather than rely on monolithic legacy systems for automation, organizations can integrate any technology. Without orchestration tools to manage processes, automation initiatives cannot keep up pace with the rate of change in today's organizations.

In past years, we answered questions relating to the state of process automation. This year we're looking at processes from a different angle – aiming to better understand the state of process orchestration and how it affects corporations' automation agendas. Like in past years we surveyed IT decision makers to understand how important process automation is to their overall success, how effectively they're implementing process automation concepts and how so many of their organizations wound up with disconnected processes. We also took leaders' pulse on how the evolution of automation has introduced the next era of digital transformation – one which cannot be successful without process orchestration.



# process automation: companies see the value more than ever

Process automation continues to grow in popularity among organizations as digital transformation journeys evolve and new demands from both customers and developers spearhead initiatives. Last year, results of the SOPA survey showed that organizations were actively using process automation to facilitate a wide range of tasks. But, as business goals change, dependence on process automation has intensified, and with increased commitment for business operations, new complexities previously unnoticed have surfaced.

Companies are still facing challenges with digital transformation. More than three in five decision makers described digital transformation as being difficult to achieve. They cited a series of issues that are getting in their way. Roadblocks included integration issues (44%), lack of resources (28%), working in silos (26%), not having enough budget (25%), and not ranking digital transformation as a high enough priority in the organization (15%). Despite facing headwinds, process automation continues to be a popular solution.

96% of respondents believe that process automation is critical to achieving their digital transformation goals

Companies are relying on process automation to tackle these challenges. Overall, 96% of respondents believe that process automation is critical to achieving their digital transformation goals. This number continues to grow, year by year. The fact that it's four points higher than it was in 2022 shows that companies are putting a higher priority than ever on process automation's role in their business success.

process automation:  
companies see the value more than ever

they're not only giving process automation a high degree of respect – they're continuing to invest in it

- 91% say they have invested more in process automation over the past year
- 91% say their organization plans to increase investment in process automation in the next 24 months, up slightly from 88% answering the same question last year.

This higher level of commitment to process automation is a significant development, considering that, by some measures, the economy [entered a recession](#) in mid-2022. [Consumer confidence dropped steadily](#) through most of 2021 and 2022, and many businesses across the globe are cutting back investments in technology. Despite facing headwinds, process automation continues to be a popular solution.

companies also say they are getting value out of their process automation investments

- 95% of IT respondents are seeing increased business productivity due to process automation over the past year
- 93% are seeing increased business growth due to process automation over the past year
- And for critical business processes, 89% say automated processes are flowing smoothly within their organization

# new era of automation: processes become tangled in complexity

Process automation has already helped organizations enhance their business operations and improve upon their customer experience. So much so that now organizations are looking for ways to increase which business processes can be automated to continue their success. What was previously a controlled environment for task automation has turned into an expansive landscape and, in turn, process automation has grown increasingly difficult to maintain and monitor. As organizations look to automate more tasks, a number of factors have made it more difficult to achieve true end-to-end process automation.

enterprises are  
looking to automate  
more tasks to solve  
business problems

- 95% say automation has helped their organizations achieve operational efficiency
- 94% say automation has helped their organizations improve customer experiences

But increases in automation create more challenges for organizations to navigate.

## challenges process automation faces today

- Integration of multiple systems
- Long running processes
- Lack of skilled labor
- Effective communication between IT + business leaders
- Lack of visibility into business processes
- Fear of change / unsure of where to start



two of the biggest challenges stem from increases in **endpoint diversity** and **process complexity**

## 01 endpoint diversity

Every process consists of tasks. In order to execute the process, you need to coordinate the processing of individual tasks. Tasks are executed by endpoints, which can be people, software systems, or physical devices.

On average, survey respondents say they use 5.68 different components, or endpoint types, in a typical process automation implementation. This creates many places for processes to break down.

here are the most common components in automation implementations

- Half (51%) of all respondents' companies are using connected devices (IoT)
- Almost half are using websites/customer portals (47%), APIs (46%) and packaged enterprise applications (46%)
- Over two in five (42%) are using AI/ML algorithms
- Two in five (40%) are using mobile applications
- Over one-third of IT decision makers are using RPA bots (38%) and various types of business chatbots (37%)
- One-third are using decision management (34%) and user-facing front applications (33%)
- Smaller numbers are using manual/human tasks (31%), microservices (30%), custom build or home-grown systems (28%), telco-voice interaction (25%) and business rules (24%) as part of a typical process automation implementation

two of the biggest challenges stem from increases in endpoint diversity and process complexity

## 02

### process complexity

As processes become more complex, they make it more difficult to align stakeholders and scale processes.

Overall, 72% of the survey respondents agree that real-world, mission-critical processes are becoming more complex to maintain. And as more tasks become automated to meet customer experience demands, 69% say it is harder to visualize end-to-end processes.

Increased complexity leads to miscommunications and disconnects between teams. This can have disastrous effects. Every miscommunication introduces the risk that the wrong thing is built and rolled out to customers. **Nearly three-quarters of respondents (74%) say disconnects between teams cause wrong things to be built and rolled out, leading to more customer churn.**

**the survey showed process automation needs more overarching management**

of those surveyed, the following percentages say the top reasons for process automation complexity include

- Having to span multiple systems (45%)
- Having to deal with human logic (38%)
- Systems are legacy and difficult to connect to (36%)
- Branching and/or conditional logic that spans complex business rules (36%)
- Their systems are home-grown and difficult to connect to (31%)
- Sub-process or system involved being owned by another team (26%)

Four in five IT decision makers/business leaders (79%) say the time it takes to design and agree upon process changes is a bottleneck at their organization while almost three-quarters (73%) say much of their process design is locked behind proprietary languages and/or tooling.

It all may be moving too fast, as almost two-thirds of ITDM/business leaders (64%) say automation initiatives cannot keep pace with the rate of change in today's organizations.

# process orchestration makes it all work

To meet the evolving nature of process automation, a new market category has emerged: process orchestration. Automation was once easy to maintain when leveraged for small, siloed tasks, but as organizations' dependency on automation grows, multiple business processes are taking on more automated roles and there now must be a way to ensure cohesion and continuity between all automated tasks – regardless of who or what is owning these processes.

## process orchestration

### definition

Process orchestration coordinates the various moving parts (or endpoints) of a business process, and sometimes even ties multiple processes together. Process orchestration helps you work with the people, systems, and devices you already have – while achieving even the most ambitious goals around end-to-end process automation.

process orchestration makes it all work

users plan to invest in technologies that will reduce complexity at a high level

- Technologies that improve connectivity for processes that span people, systems and devices (97%)
- Technologies that are scalable and enable guaranteed availability for high-throughput workloads (97%)
- Technologies that have standards-based modeling for collaboration between business and IT users (95%)

business pressures are steering enterprises toward investments in process orchestration

Overall, 97% believe a well-defined workflow that offers connectivity for processes that span people, systems, and devices would help eliminate these complexities. The need for connectivity, standards and scale is driving 94% to consider tools that streamline integrations either through APIs and/or direct integrations and 92% want tools to help orchestrate and coordinate tasks across diverse process endpoints (microservices to legacy systems, RPA, cloud, OS, etc.) And more than nine in 10 identify having the capacity to adapt quickly to technological changes (95%), economic changes (94%), regulatory changes (93%), and marketplace changes (91%) as being increasingly more important.

# barriers to and benefits of process orchestration

Organizations are already anticipating the needs that process orchestration meets, but to fully embrace the benefits and return on investment of process orchestration, industries have to overcome several barriers. These include outdated process automation and a disconnect between IT and business leaders. When these barriers are removed, organizations can begin to see the benefits of process orchestration.

# barriers to achieving process orchestration

## **maintaining an outdated approach to process automation**

- 64% agree that automation initiatives cannot keep up pace with the rate of change in today's organizations

## **the continued disconnect between IT and business leaders**

- 73% say their process design is locked behind proprietary languages or tooling
- 79% agree time it takes to design and agree upon process changes is a bottleneck

## **other challenges include**

- Having to integrate multiple systems (44%)
- Long-running processes (35%)
- Lack of skilled labor (34%)
- Fear of change (28%)
- Lack of visibility into business practices (28%)
- Not having effective communication between IT and business leaders (23%)
- Uncertainty of where to start (18%)
- Not a priority for company leadership (15%)

## barriers to and benefits of process orchestration

Surprisingly, barriers aren't necessarily created by a lack of knowledge and awareness of process orchestration as a concept. Of the decision makers surveyed, 81% say they know what process orchestration is, and when provided with a definition of it, nine in 10 (90%) say their organization is practicing process orchestration with half (49%) saying they definitely are.

While automation is the tactic used to get things done, process orchestration is the strategy that governs its coordinated and efficient execution.

Meanwhile, IT leaders cited a long list of benefits that they believe process orchestration can provide.

## benefits of process orchestration

- Decreases the risk of not being able to implement new platforms and tools
- Ensures systems are always ready for new technologies
- Improves SLA execution
- Manages RPA
- Provides quick data-driven insights to optimize decision making
- Reduces complexity by coordinating and consolidating disparate tools
- Increases resiliency by reducing the need for custom scripts
- Improves mean time to resolution (MTTR) by centralizing the monitoring and logging of processes
- Simplifies compliance by managing audit and credential requirements from a single location
- Integrates new tools and technologies with a single orchestration platform instead of multiple, siloed applications

# moving forward with process orchestration

Recognizing the evident value of process automation, 91% of respondents to our survey say their organization plans to increase investment in it over the next 24 months. This is compared with the 88% that planned to increase investment when asked the same question in the 2022 report and 84% in the 2020 report.

**91% of respondents to the survey say their organization plans to increase investment in process automation over the next 24 months.**

While the trend line continues to point up, it's clear that organizations understand the need to do a much better job managing all the automation they're weaving into their business processes. process orchestration can help them optimize their automation investments.

Process orchestration isn't achieved overnight. Like any strategic initiative it is, in a word, a process. It needs to be developed and built upon over time. But organizations can get started on a path to success.

based on survey responses focusing on critical needs, here are four paths to follow to get on the road to successful process orchestration

- Assess your process automation strategies
- Upgrade your process tools
- Establish a holistic view
- Get business and IT on the same page



## assess your process automation strategies



As organizations invest more in process automation initiatives, they need to step back and evaluate where they are and where they're going. In the survey, 54% of IT leaders say their process automation is beginning to become outdated. That makes sense. Many automation initiatives start out as one-off implementations designed to optimize technologies or processes that likely have evolved over time.

Organizations looking to execute process orchestration plans should do a comprehensive assessment of all the automation projects in house. Who controls each one? How does each one align to overall business goals? What underlying dependencies does each one utilize? Strategies need to be continuously evaluated and updated to ensure they're serving the needs of the organization at the time.

## upgrade your process tools



Strategies are critical, but so are the tools themselves. IT leaders drove this point home when 86% responded that they feel they need to have better tools to manage how their processes all intersect. This is process orchestration at its core. Tools that automate processes can take you only so far. Tools that orchestrate those processes at a higher level can generate higher levels of value – but only if they're aligning to the tech stack currently in place.

Organizations should evaluate their tech stacks and automation tools and determine if they're positioned to optimize the automation initiatives they have planned. Are legacy systems holding them back? Do the tools enable APIs, microservices and instances of RPA? Are there static or fragile points of connection in systems and processes that won't necessarily grow with the organization? Identify which tools can play a role in the ongoing process orchestration strategy and ensure that they will drive the value the organization expects.

## establish a holistic view



While enterprises clearly have a lot of process automation under their roofs, 68% of IT leaders in the survey say they don't have a good way to see all the processes in one place. This can be accomplished by establishing a center of excellence focused on process orchestration initiatives. Adding more automation without a cohesive plan and a resource to manage it could just create more automation sprawl. A center of excellence can be designed to control automation across the organization. It can coordinate the technology resources and ensure that process orchestration is a cross-functional responsibility that has oversight across multiple departments.

## get business and IT on the same page



If the key stakeholders from business and IT aren't aligned, process orchestration initiatives will fall flat.

In past surveys an overwhelming majority of respondents agreed that collaboration is critical to automation initiatives going forward. This year 68% say they see a disconnect between IT and business leaders around their processes.

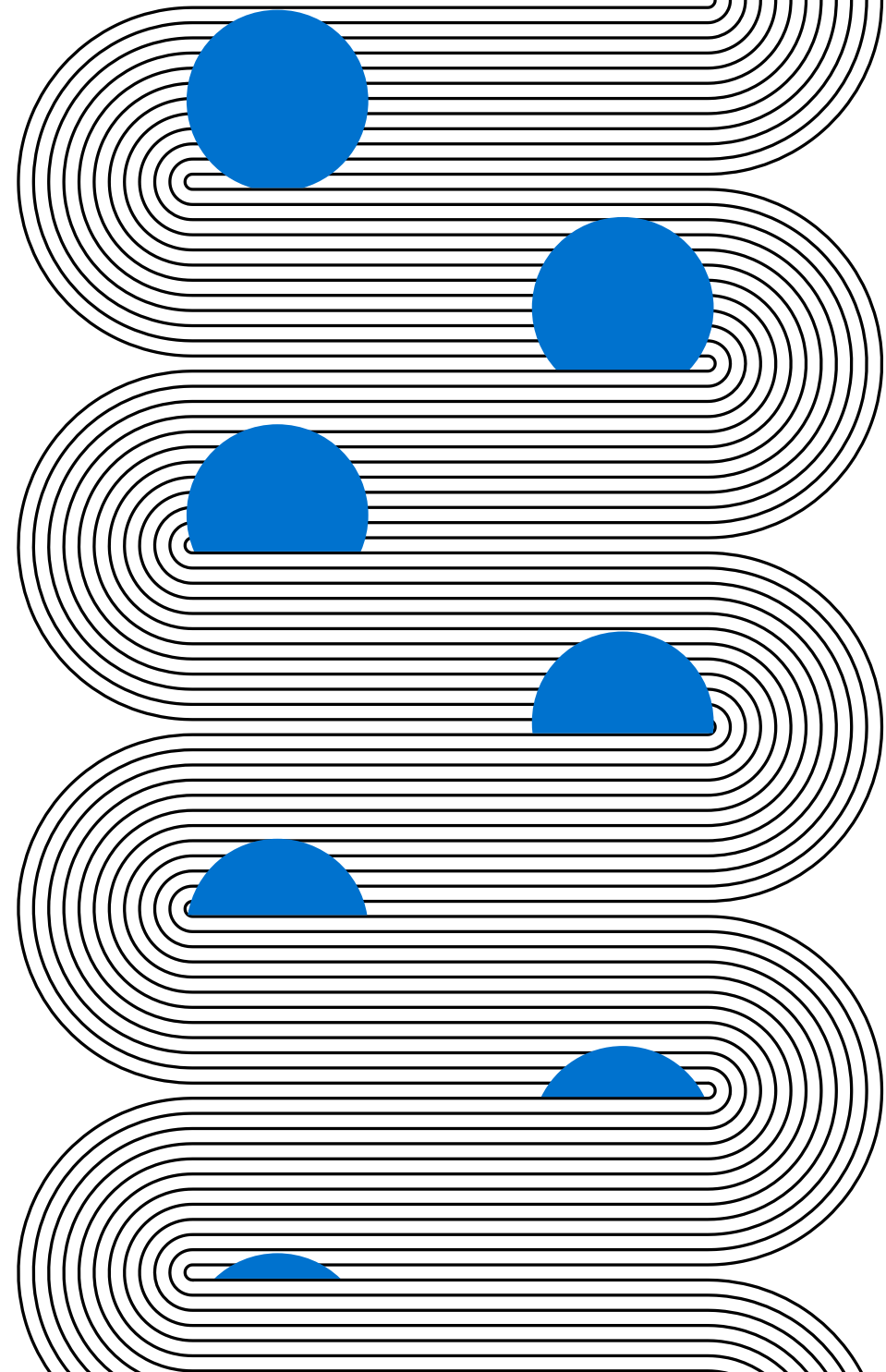
This has to change. If an organization hasn't fostered a culture that optimizes communication and collaboration, it needs to take immediate steps to do so. Stakeholders need to agree on a set of priorities and a level of engagement that will bring the organization forward. For process orchestration projects to move ahead, it will be critical for both sides to take a seat at the table and start communicating.

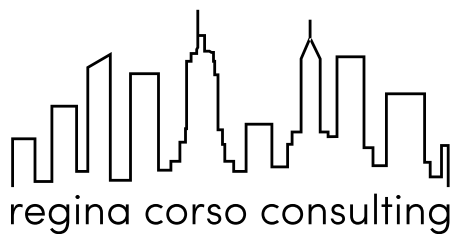
# **CAMUNDA**

To learn more about how to orchestrate and automate complex processes in a new way, visit [camunda.com](https://camunda.com)

## about camunda

Camunda is the leader in process orchestration software. Our software helps orchestrate complex business processes that span people, systems, and devices. With Camunda, business users collaborate with developers to model and automate end-to-end processes using BPMN-powered flowcharts that run with the speed, scale, and resiliency required to compete in today's digital-first world. Hundreds of enterprises such as Atlassian, ING, and Vodafone design, automate, and improve mission-critical business processes with Camunda to drive digital transformation. To learn more visit [camunda.com](https://camunda.com).





## about the study

Camunda commissioned Regina Corso Consulting to conduct a survey among IT Decision Makers to understand the state of process automation. Some questions are trended from previous surveys on the same topic. This survey included responses from 755 IT decision makers from the U.S., U.K., Germany and France. All respondents are at least somewhat involved in process automation at their company with at least 250 employees. The survey was conducted online from September 28 to October 11, 2022.

