

Low-code is a cultural transformation

Democratized low-code development creates value – this is how to do it right





FILE EDIT VIEW SENSORS SIMULATE HELP WINDOW

AVX: **Enabled**

SF Node: **Enabled** eF Node: **Disabled**

Sector S3

Local Attributes

Graphs and charts showing system performance metrics.

Gate: 20010100
IP: 20010100
IP: 20010100
IP: 20010100



Logs

```
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cc 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000  
cc 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000  
cc 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000  
00000000 (0000) 00000000 00000000 00000000 00000000 00000000 00000000 00000000  
cc 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000  
cc 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
```

Frequency: **12.75 GHz**
Trackers: **57691**

Utilization: **92 %**
Data Compression: **1/72**

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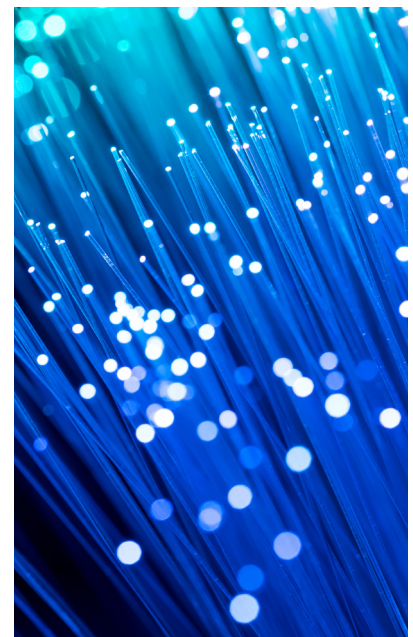
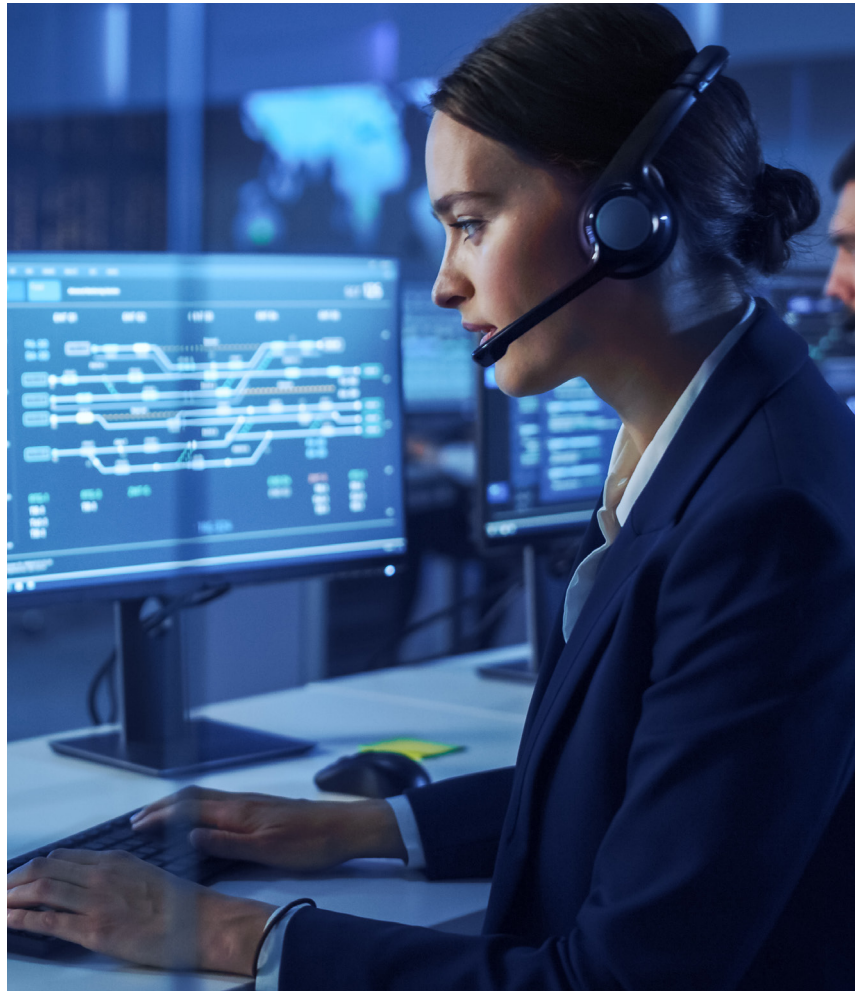
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CIOs can create business value using low-code solutions, but technology alone is not enough

Part 2 of 2

In **Part 1: Begin your low-code journey by getting your teams working together from the start**, we told CIOs that as technology leaders they could involve more of their organization in creating value for their customers through the planned adoption of low-code.

In this companion report, HFS expands on interviews with some of Europe's largest firms and highlights how democratizing application development, governance, and communities of practice play an essential role in adopting, deploying, and maximizing low-code investments.

Focus on these three things to drive better outcomes for your low-code efforts:

- **Understand COP versus COE:** Define your community of practice (COP) and your center of excellence (COE) separately. The COP should encourage experimenting and using tools to create business value and results. The COE ensures your organization can effectively implement, support, and optimize policy and live software as its adoption grows.
- **Build for democratized development:** Frame the adoption of low-code as a joint effort by the business and technology teams. Presenting the ability to leverage skills and knowledge from both teams to democratize development will raise the likelihood of success for everyone.
- **Recognize the mindset shift:** Technology-savvy business users and customers are changing how IT supports efforts to create value and differentiation in the market. Don't hold on to governance models that are designed to manage legacy ways of working. Realize that unleashing creativity is an opportunity, and plan for new models that work in parallel with development efforts to avoid constraints to linear modes of thinking.

Low-code continues to accelerate users' capabilities to convert applications and data into actionable business assets

Low-code's attraction is the promise of enabling teams to develop applications faster, co-innovate with technology teams on complex projects, and improve upon experiences across the firm and with customers. However, before technology leaders release low-code to the masses, they need to inform them of the mindset shift they need to co-create with their business partners, create a culture of co-development, and modernize governance of development and implementation efforts.

To provide context to how a CIO might start or regain control of low-code programs in their company, HFS has gathered insights from leaders across banking, pharmaceutical, retail, and manufacturing. These leaders shared that building communities of practice, modernizing governance models, and fostering a democratized development model are crucial to creating sustainable low-code programs.

Build communities of practice to link business needs with low-code-driven innovation

Many firms have gone through a similar journey with process automation tools. End-users and technologists began experimenting with **integrated automation platforms** to modernize their business processes. These process automation initiatives quickly expanded across the organization, allowing for the automation of task-based efforts, complex cross-enterprise workflows, and business processes.



Our low-code journey was more like two forks that unexpectedly converged. The digital products team needed to improve task-based automation for users and departments while the core technology efforts were going with RPA.

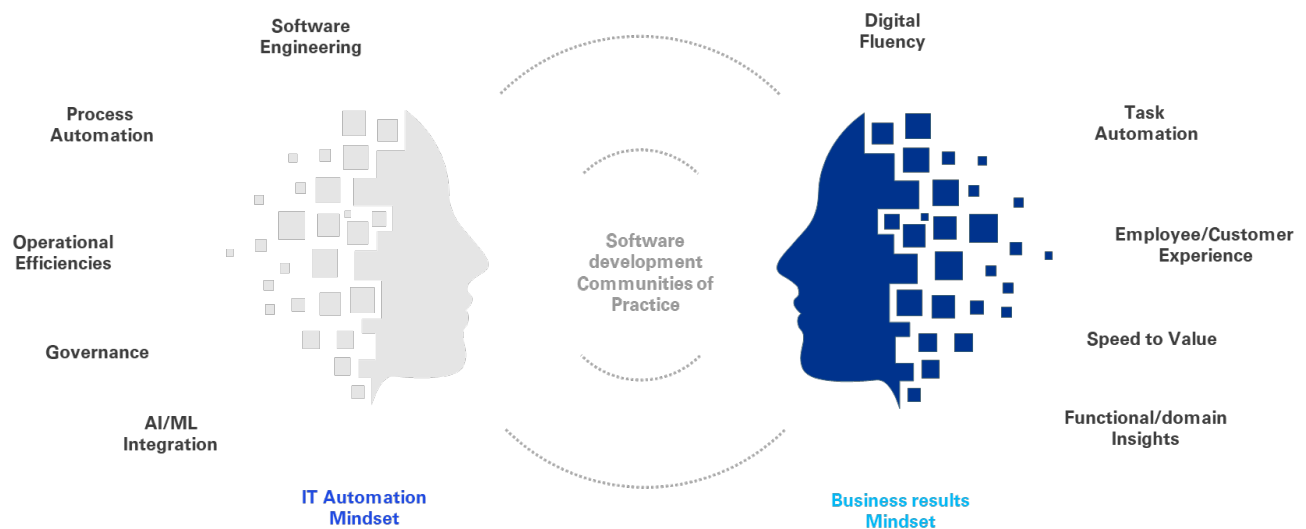
Gerald Pullen,
Director at Gobeyond Partners,
former Intelligent Automation Product
Owner, Lloyds Banking Group

While many firms leaned on their partners, developed COEs, and leveraged their software vendors to develop these practices, real benefits emerged once they put COPs in place. These same learnings must be part of your low-code journey.

A community of practice is a group of people sharing a common concern, problem, or endeavor and collaborating to fulfill individual and group goals. COPs

focus on creating new knowledge and developing best practices to advance skillsets. These are based on enrollment (people choosing to contribute) rather than enforcement (people being assigned a task). Thus, firms leverage COPs to foster digital communities, relevant cross-technology, and business practices and informally roll these out to the broader organization.

Figure 1. :
Communities of practice link process automation and low-code efforts to innovate at scale



Source: HFS, KPMG, 2023

A COP can play multiple roles in low-code adoption, deployment, and governance. This cross-functional group links the efforts of other programs, like process automation and DevOps, across a continuum of automation and discovery to support and documentation, domain skills, and low-code tools. With many similar principles applied in automation efforts, these communities play important roles early and throughout your low-code journey by facilitating the democratization of developing relevant, impactful solutions.

Low-code is about engagement; once teams see how they can work faster to drive customer value, they are all in



Although governance is one of the key pillars of successful low-code deployment, less than one-third of companies already using low-code has both guidelines and governance in place.

Rui Gonçalves,
Partner, KPMG in Portugal

By implementing a community, your firm can increase its chance of success by soliciting feedback to identify gaps in processes, tools, and data. For example, a global bank shared that its experience of adopting low-code revealed early on that “to use anything at scale, whether it is low-code or not, they had to control their data.” Because of this, the bank unified its low-code and automation efforts to better understand where inefficiencies and redundancies lay across data architecture, software, and support. As a result, it reduced redundancy and rationalized its investments. COPs allow software development teams to create environments that democratize data, applications, and integrations—all essential to processes and workflows. The proper environments lead to cultural shifts around co-creating with a mutual understanding of desired business outcomes and software code design.

Adopt a governance model to aid in technical sustainability and the long-term value of democratized low-code development practices

Even with a thriving community of practice, oversight and documentation remain important as employees create additional solutions. In addition, as multiple parties use low-code, the need for governance frameworks and policies remains a high priority. There must be a clear message that without a governance program, low-code will cause challenges in the long run.



Low-code challenges from the lack of governance clearly link to all the required data, integrations, and applications. A proper governance model can help parse individual, business, and corporate efforts and promote engagement from essential stakeholders. For instance, a module that ensures GDPR compliance will likely be a no-no for a citizen developer but okay for someone on the DevOps team working closely with finance.

In our interviews, we came across several firms that developed modernized governance models connecting automation tools, DevOps, and low-code efforts.

Through trial and error, these firms learned where freedom of user-based creation was acceptable and where cross-silo and core system integration triggered a need for more documentation, support, and oversight.

As Exhibit 2 shows, leaders need to consider how low-code frees up the ability for experimentation without creating shadow IT or programs that possibly require ongoing investments. We have developed this decision tree to help others frame their governance programs for illustrated purposes.

Figure 2. :

Start with a framework that defines actions as you deploy low-code to address task-based automation to global business process entanglement

	User or developer	Center of excellence	Technology and DevOps
Audience	Task automation Process automation		
Scope	Individual Team Organization		
Business impact	FE only FE+ API req'ts Multi-BE and FE		
Systems impact	Siloed task data Across LOB/BU Enterprise		
Security impact	Yes Mixed/No		
Standardized components	Project requirements, Agile development methods, automation or AI elements, process components		
Documentation	Well documented operation parameters, architecture, hardware, data, workload requirements		
Scalability	Local BU Global		
Integration complexity	Isolated Medium High		
Implementation costs	<\$2.5K \$5K-\$25K >\$25K		
Support costs	<\$2.5K <\$10K >\$15K		
Benefit	Time saved <5 FTE >5 FTE		

FE = Front-end; BE = Back End; API = Application Programming Interface; FTE = Full-time employee; SDLC = software development lifecycle; AI = Artificial Intelligence; LOB = Line of business; BU = Business unit; GRC = Governance Risk Compliance

Source: HFS, 2023

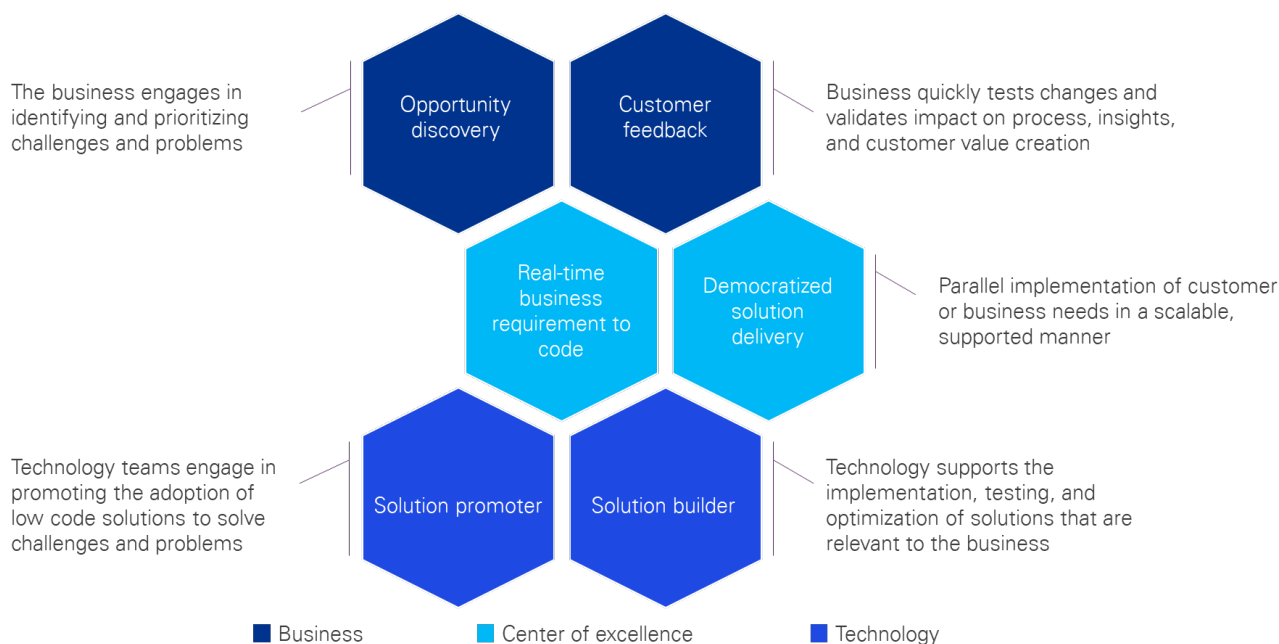
Foster democratized development as part of how you develop software that delivers high business and customer value

Early in your low-code journey, you need to stop dividing developers into citizen developers or software developers. Instead, focus on establishing how collaboration brings customer needs to the focus of both business and technology. Low-code’s role is to speed up how the organization delivers; it’s not just about technology or business users savvy enough to write code.

Consider these three important factors when making low-code a solution used by non-technical team developers:

- **Visibility:** Surface standard components, data, or application interfaces that already exist and show what they do.
- **Access and storage:** The technology team should be involved in cloning many common components so users can leverage them and experiment without breaking features that others rely on.
- **Low-code COE:** Create a central place for new ideas or requirements. Likely, this will take the form of a COE. More than just an enforcement body, this organization reduces duplication and files and promotes the solution to others.

Figure 3. : **Rethink development in a democratized format where teams work in parallel**



Source: HFS, 2023

First, educate your citizen developers on data. Citizen analysis is a skill that will help people understand when a problem is solved rather than automated. Understanding the data and what to do with it can make the average citizen developer a much more competent contributor.

Modernize your center of excellence to support the cultural shift resulting from low-code

Controlling low-code is a challenge. IT still sees it as visual scripting. However, many firms are creating low-code developer resources, COEs, markets, or libraries to fulfill all the demands of every function that low-code may touch.

A low-code COE can coordinate efforts across the business, partners, and software vendors. Rather than blocking or restricting ideas and innovation, the COE should act as a guide for preventing work replication, promoting good ideas, and channeling low-code investments to the most appropriate group.

The COE can also oversee training. Again, investing in training is part of building the right culture. People who know you are investing in them are less likely to worry about their jobs being automated. Instead, you are investing in how the business expects them to contribute. This role applies to the DevOps team as much as to any citizen developer programs your firm offers.



The Bottom Line: Adopting low-code can lead to game-changing benefits for a business. However, successful adoption is often the result of proactively establishing communities of practice and governance models that enhance democratized development benefits of low-code efforts rather than inhibit them.

Build on a theme of democratizing the development of solutions to encourage participation through a community of practice. This creates an environment for business and technology teams to co-create and determine which projects can have a broad impact. Once this environment is established, a firm can evolve its center of excellence to govern the implementation, integration, and long-term support of game-changing solutions based on low-code.

All these factors can combine to evolve the operations and culture of your firm using software and data to bring value to your employees and customers.



We used our CoE to drive an awareness of what the capabilities of the tools are within our business. We are working to increase the knowledge across the whole business relating to our automation capability, to create a pull for engagement and then to partner with the technology function to support and co-create.

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