FORRESTER®

Platform Engineering:
The North Star To Accelerate Time
To Market And Grow Revenue

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Internal Developer Platforms Drive Organizational Performance

Economic uncertainty is shaking up the tech industry with increased pressure on infrastructure and engineering teams to optimize costs, speed up innovation, and protect assets. At the same time, they realize progress and innovation must be accelerated as it is the key lever to create business value.

This starts with an internal developer platform (IDP) built by a platform engineering team that empowers developers with self-service capabilities without relying on operations to drive organizational performance.

In November 2022, Humanitec commissioned Forrester Consulting to conduct a study with 111 DevOps decision-makers and influencers to understand how platform engineering initiatives can help boost developer experience (DX) and productivity and their impacts on business metrics.

Key Findings

Tech leaders invest in IDPs and platform engineering teams to increase revenue through faster time to market (TTM) and improved customer satisfaction.

An IDP can not only significantly improve the developer experience, it can also have a major impact on developer productivity that drives overall organizational performance.

Improving the DX can have a significant impact on developer retention, meeting digital business initiatives success, and grow revenue in a budget-restricted environment.
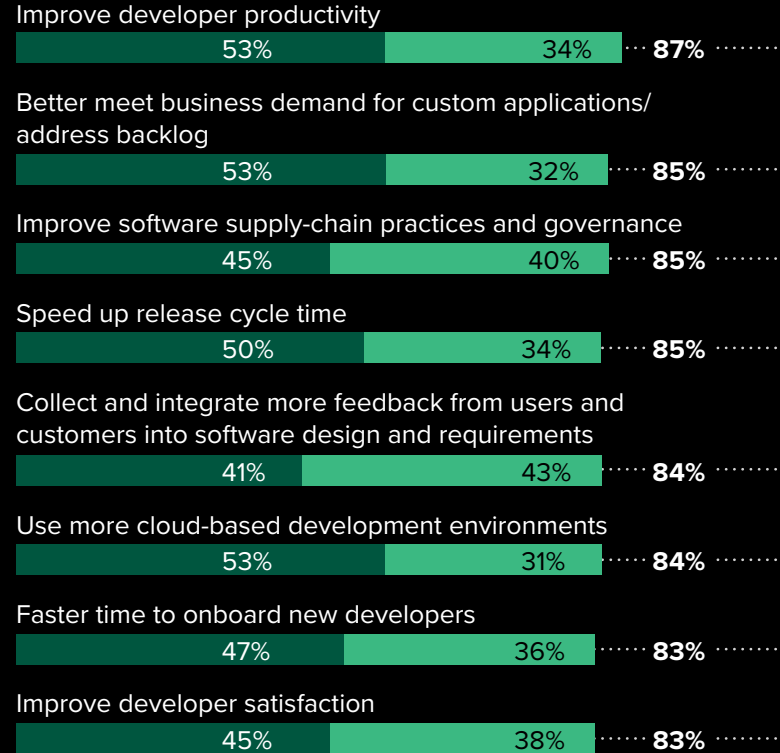
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Firms Are Focusing On Improving Developer Productivity And DX

From creating rudimentary mainframe punch cards to managing today's dazzling array of apps, developers have always been an integral part of a company's digital transformation. To keep pace, organizations realize they must enable developers to build and deliver high-quality software more efficiently. Survey respondents said improving developer productivity (87%) and satisfaction (83%) are priorities in the next 12 months.

To keep pace with continuous transformation efforts and meet customer demands, respondents' organizations are also speeding up release cycle times (85%). Other priorities include better meeting business demand for custom applications (85%), using more cloud-based environments (84%), and faster time to onboard new developers (83%).

"How much of a priority are the following software development actions for your team over the next 12 months?"
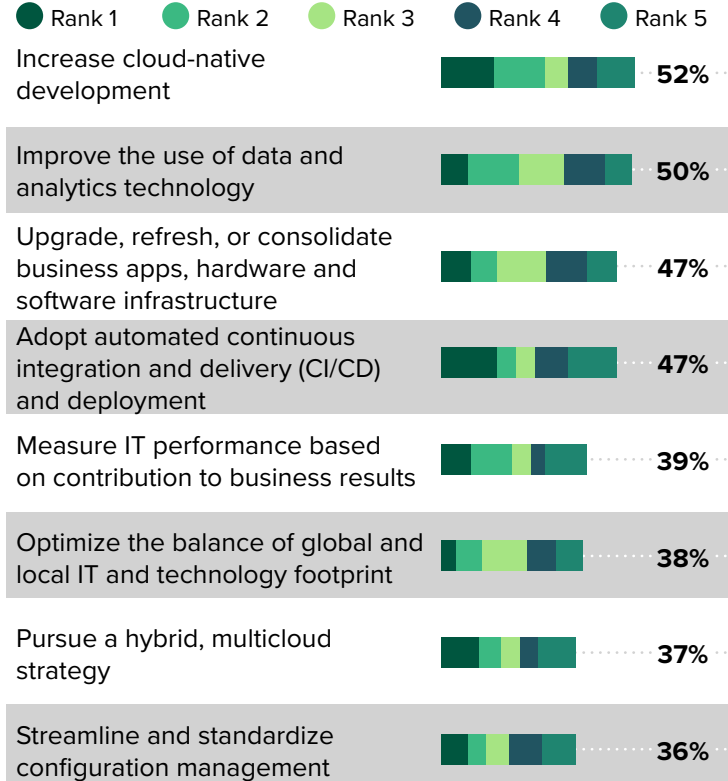
● High priority
● Critical priority

Improve developer productivity
| 53% | 34% | **87%** |

Better meet business demand for custom applications/ address backlog
| 53% | 32% | **85%** |

Improve software supply-chain practices and governance
| 45% | 40% | **85%** |

Speed up release cycle time
| 50% | 34% | **85%** |

Collect and integrate more feedback from users and customers into software design and requirements
| 41% | 43% | **84%** |

Use more cloud-based development environments
| 53% | 31% | **84%** |

Faster time to onboard new developers
| 47% | 36% | **83%** |

Improve developer satisfaction
| 45% | 38% | **83%** |

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Platform Engineering: A Powerful Discipline To Scale Cloud-Native Tools With Next-Level Elasticity

Cloud-native tools have quickly become core to modern IT infrastructure strategies thanks to the power of Kubernetes and its ability to scale up and down depending on business workload needs. But taking advantage of Kubernetes requires a full spectrum of automation starting with DevOps capabilities at the platform layer. That's why it's no surprise that for platform engineering capabilities, 52% of respondents ranked increasing cloud-native development as their top priority, followed closely by 47% of respondents who are adopting continuous integration and continuous delivery (CI/CD). The two technology domains simply go hand-in-hand. Other important platform initiatives are linked to the cloud and cloud-native capabilities such as the use of data and analytics (50%) and upgrading, refreshing, or consolidating business apps (47%).

"By order of importance, where would you like to see your organization focus its platform engineering capabilities over the next 24 months?"

● Rank 1   ● Rank 2   ● Rank 3   ● Rank 4   ● Rank 5

Increase cloud-native development — **52%**

Improve the use of data and analytics technology — **50%**

Upgrade, refresh, or consolidate business apps, hardware and software infrastructure — **47%**

Adopt automated continuous integration and delivery (CI/CD) and deployment — **47%**

Measure IT performance based on contribution to business results — **39%**

Optimize the balance of global and local IT and technology footprint — **38%**

Pursue a hybrid, multicloud strategy — **37%**

Streamline and standardize configuration management — **36%**

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Continuity Of DevOps, App Portability, And Reducing TTM Remain Top Challenges

As the world emerged out of the COVID-19 pandemic, businesses hired relentlessly to keep pace with increased consumer spending and demands. Now, with the global economy at a knife's edge and recently announced tech layoffs in the thousands, 41% of respondents said the continuity of DevOps is the biggest software development and delivery challenge during an economic downturn. With workflows disrupted, 37% said application portability challenges arise, and reducing TTM (34%) becomes increasingly challenging. Compounded with an inability to attract and maintain talent (30%) and a lack of relevant skills (22%), this places organizations in a precarious situation to meet critical business objectives.

"What are the biggest software development and delivery challenges for your team in an economic downturn?"

41%
Continuity of DevOps transformation efforts with fixed headcount

37%
Application portability challenges (e.g., between clouds, Kubernetes)

34%
Maintaining and/or reducing time to market

33%
Lack of coordination between operations and lines of business (LOBs)

30%
Being adaptable

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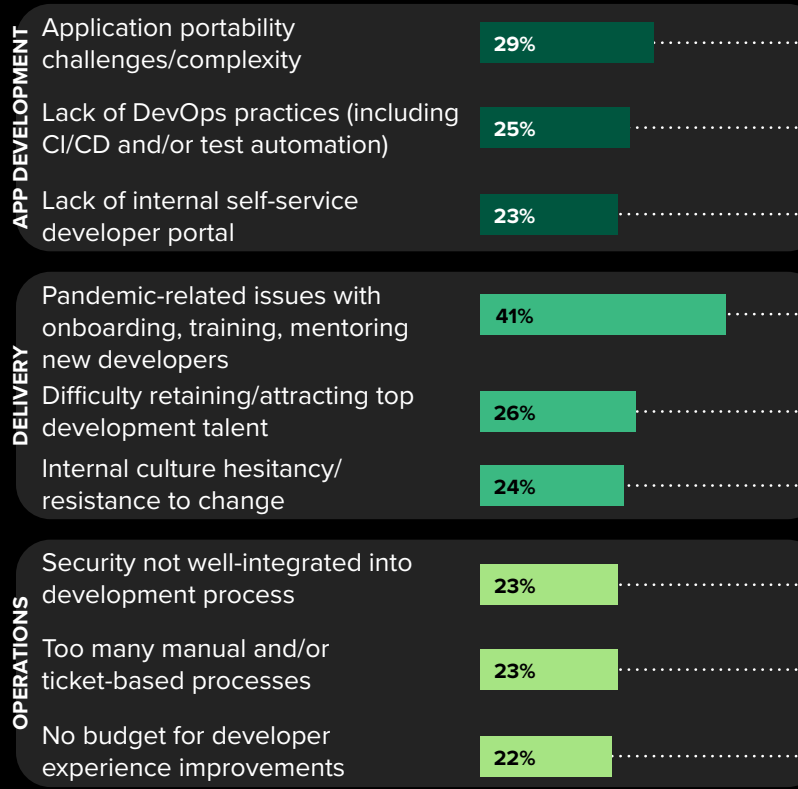**Challenges**

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Obstacles Abound When Improving Developer Productivity

Increased competition and customer expectations have made it clear that traditional methods of DevOps are not suited for the current business landscape. In other words, the continuous delivery approach isn't a one-and-done project, but rather an ongoing process of learning and tweaking.

For example, 41% of survey respondents highlighted that pandemic-related issues with onboarding, training, and mentoring new developers is a difficult hurdle in improving developer productivity and experience — especially now, when there is a more distributed workforce adding more complexity and barriers to improving developer productivity.

Other challenges hindering app development include application portability challenges (29%), lack of DevOps practices (25%), and insufficient security (23%).

"Which of the following, if any, have become significant obstacles to your developers' productivity and experience in the past 12 months?"

APP DEVELOPMENT

Application portability challenges/complexity — **29%**

Lack of DevOps practices (including CI/CD and/or test automation) — **25%**

Lack of internal self-service developer portal — **23%**

DELIVERY

Pandemic-related issues with onboarding, training, mentoring new developers — **41%**

Difficulty retaining/attracting top development talent — **26%**

Internal culture hesitancy/resistance to change — **24%**

OPERATIONS

Security not well-integrated into development process — **23%**

Too many manual and/or ticket-based processes — **23%**

No budget for developer experience improvements — **22%**

IDPs Boost Developer Productivity And Lead To More Value-Generating Tasks

Internal developer platforms alleviate one of the biggest pain points that's emerged from complex cloud architecture, and it has a tremendous impact on the velocity and happiness of developers. Forty-three percent of respondents said IDPs enable developer self-service so they become more independent from operations and get unblocked. This capability optimizes developer workloads so they can focus on value-creating tasks. With workforces more distributed than ever, organizations are also investing in collaboration tools to boost developer productivity (41%) and establishing clear open-source usage policies (40%).

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"Which of the following steps, if any, has your organization taken to improve the developer experience?"

43%
Establish internal developer platform or platform engineering initiative to enable developer self-service

41%
Invest in collaborative communication tools/platforms

40%
Establish a clear open-source usage policy

38%
Establish a dedicated DevOps or platform team

37%
Invest in developer training

Base: 111 DevOps decision-makers and influencers in North America who work at organizations with at least 50 developers
Note: Showing top 5.
Source: A commissioned study conducted by Forrester Consulting on behalf of Humanitec, January 2023

Investing In Tech Improves DX

If developers can't get to the support they need, no amount of additional headcount or shiny new tools will help them deliver high-quality software better or faster. DevOps is not just about tech, it's also about people. High-trust cultures perform better, and employees are more likely to endorse organizations that engage in flow-promoting DevOps practices.[1] Platform engineering establishes a separation of concern between ops and developers, where the latter can self-serve all required tools and technologies. So, it's no surprise that more than half of respondents' organizations will invest in new technologies during the next 24 months, and this includes automation (39%) to improve day-to-day job functions. To further help facilitate this major transformation, survey respondents also said they will invest in improving workforce culture with flexible work hours (38%) and by expanding remote work options (37%). Other initiatives include increasing access to training/skill development (41%) and improving transparency and business leadership (37%).

"How do you plan to improve developer experience over the next 24 months?"

51%
Invest in new technologies to help employees with their day-to-day job functions

41%
Increase business agility

41%
Increase access to training/skill development

39%
Increase automation

38%
Offer flexible work hours

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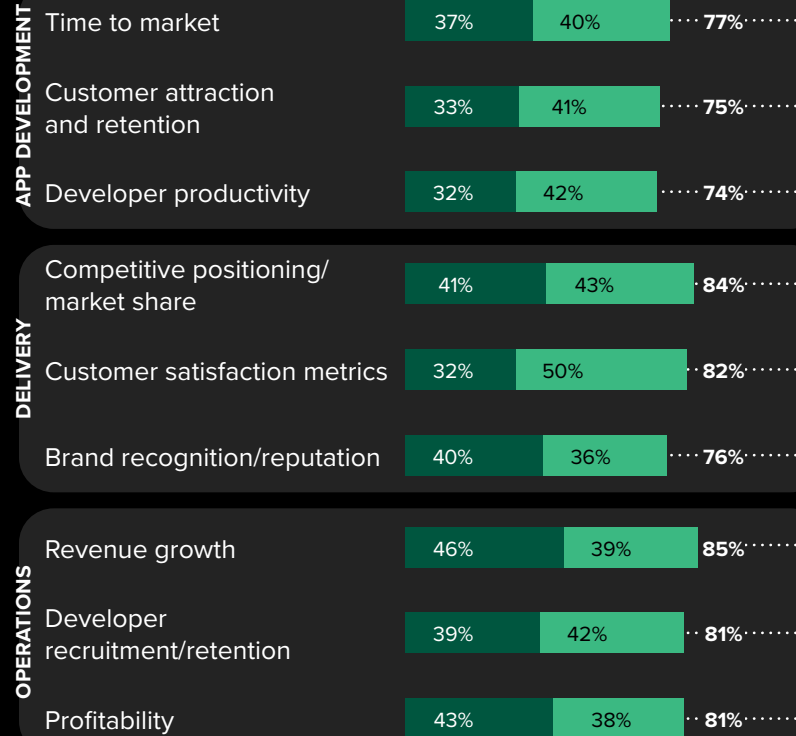# Improving DX Boosts Organizational Performance

Platforms provide a curated set of tools, capabilities, and processes for easy consumption and execution. Improving developer experiences creates frictionless self-service experiences to manage complex systems more effectively.

Why does this matter? Because it not only improves developer productivity (74%), but developers can also make significant changes within an hour, which empowers them to get new ideas, products, and innovations to market quickly (77%). What's more: Customer satisfaction metrics and customer experience scores are positively impacted (82%), which can result in revenue growth (85%).

In other words, an organization that improves its DX will ultimately boost its performance.

"What impact are you experiencing on each business area as a result of improving developer experience?"

● Moderate positive impact
● Significant positive impact

APP DEVELOPMENT

	Moderate	Significant	Total
Time to market	37%	40%	**77%**
Customer attraction and retention	33%	41%	**75%**
Developer productivity	32%	42%	**74%**

DELIVERY

	Moderate	Significant	Total
Competitive positioning/ market share	41%	43%	**84%**
Customer satisfaction metrics	32%	50%	**82%**
Brand recognition/reputation	40%	36%	**76%**

OPERATIONS

	Moderate	Significant	Total
Revenue growth	46%	39%	**85%**
Developer recruitment/retention	39%	42%	**81%**
Profitability	43%	38%	**81%**

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Cloud-native development is moving forward, and firms realize they must move quicker and with greater precision, scale, and elasticity to run as efficiently and cost-effectively as possible.

Kubernetes creates the bridge that many enterprises need to get into the cloud. But making this shift isn't easy, which is why firms are investing to enable automated delivery at scale. And developers are at the core, which is why DX is top of mind.

Software developers are very sought after, so it's vital to maintain excellent DX. Firms that shift to platform engineering are better able to operate DevOps tools at scale, shift to cloud-native tools and Kubernetes, and deliver great DX. This results in faster time to market as new products and services boost the bottom line.

Leaders are investing in cloud-native tools, technologies, and platforms, further adopting CI/CD, and shifting more workloads to the cloud. They realize they still need to keep moving and innovating to keep their edge and customers.

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Contributing Research:

Forrester's Application
Development & Delivery
research group

Methodology

This Opportunity Snapshot was commissioned by Humanitec. To create this profile, Forrester Consulting supplemented this research with custom survey questions asked of 111 DevOps decision-makers and influencers in North America who work at organizations with at least 50 developers. The custom survey began in November 2022 and was completed in February 2023.

ENDNOTES

[1] Source: "The Future Of DevOps," Forrester Research, Inc., June 8, 2022.

ABOUT FORRESTER CONSULTING

Forrester provides independent and objective research-based consulting to help leaders deliver key transformation outcomes. Fueled by our customer-obsessed research, Forrester's seasoned consultants partner with leaders to execute on their priorities using a unique engagement model that tailors to diverse needs and ensures lasting impact. For more information, visit forrester.com/consulting.

Demographics

COUNTRIES	
Canada	**22%**
United States	**78%**

DEPARTMENT	
IT/IT operations	**67%**
Engineering	**33%**

NUMBER OF EMPLOYEES	
100 to 499	**23%**
500 to 999	**20%**
1,000 to 4,999	**17%**
5,000 to 19,999	**23%**
20,000 or more	**18%**

POSITION OF RESPONDENT	
C-level executive	**18%**
Vice president	**31%**
Director	**27%**
Manager	**24%**

Note: Percentages may not total 100 due to rounding.