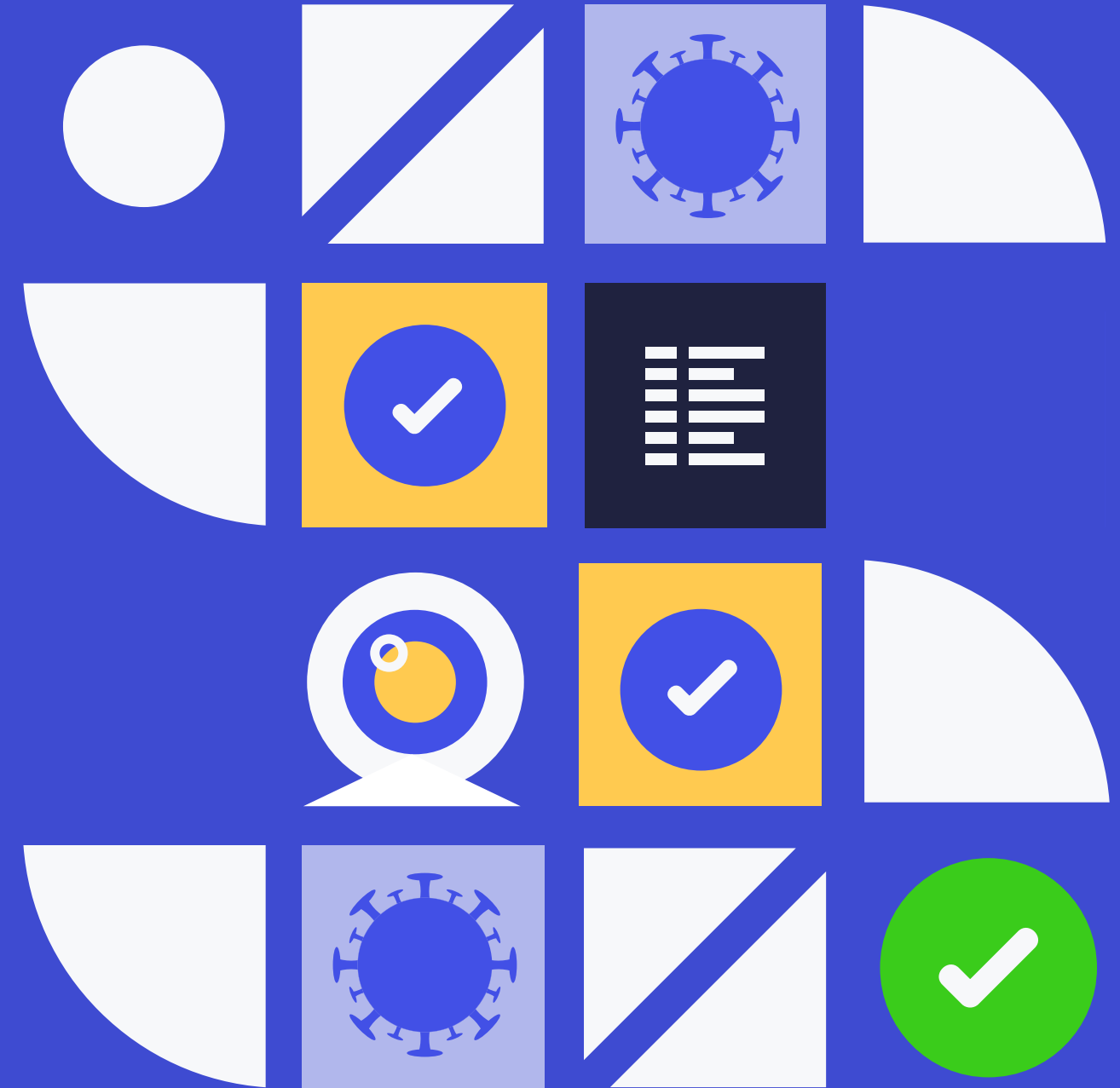




State of Development Recruitment Report 2021



Introduction

The COVID-19 pandemic gave the world a chance to introspect, and as a result, the inevitable was accelerated. Developers and organizations alike have re-calibrated their priorities, and now, the challenge is to reconcile these differences so that productive and future-ready engineering teams can be assembled in this new, post-pandemic paradigm.

In the face of this challenge, however, I am buoyed by the fact that HR and Engineering teams are now more aligned than ever. To me, that's Step #1 towards building great tech teams. Further, there is increased adoption of DEI-friendly practices and greater advocacy of company culture, among many other notable measures to ensure that companies are hotspots for technical excellence.

Adapting to the pandemic was hard enough, but companies are already faced with the prospect of re-tooling developer recruitment strategies. That is precisely why we surveyed over 2000 HR and Engineering personnel from across various industries and geographies for this survey report. We hope that this brand new 2021 edition of the HackerEarth Developer Recruitment Survey lets you see the bigger picture and chart the course to bigger successes.



Sachin Gupta

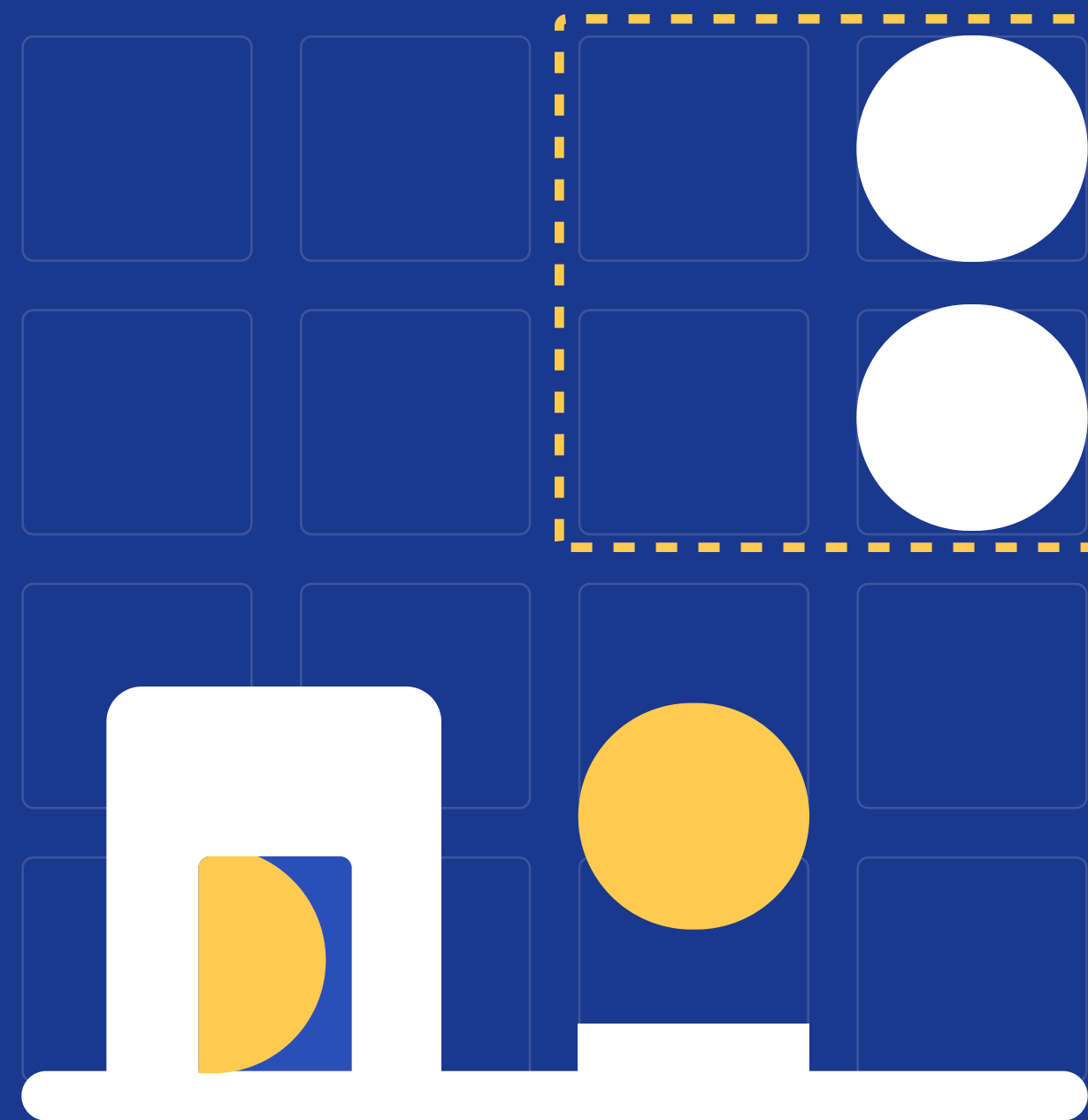
Co-Founder and CEO, HackerEarth



PRELUDE

Understanding the Hiring Outlook for 2021-22

If 2020 was the year of sluggish growth, 2021 was the year recruiters raced to fill up open roles. We thought it prudent to begin the survey by asking our respondents the most important question of all - were they hiring at scale again, and if yes, then what is the number by which they are looking to grow their tech teams?





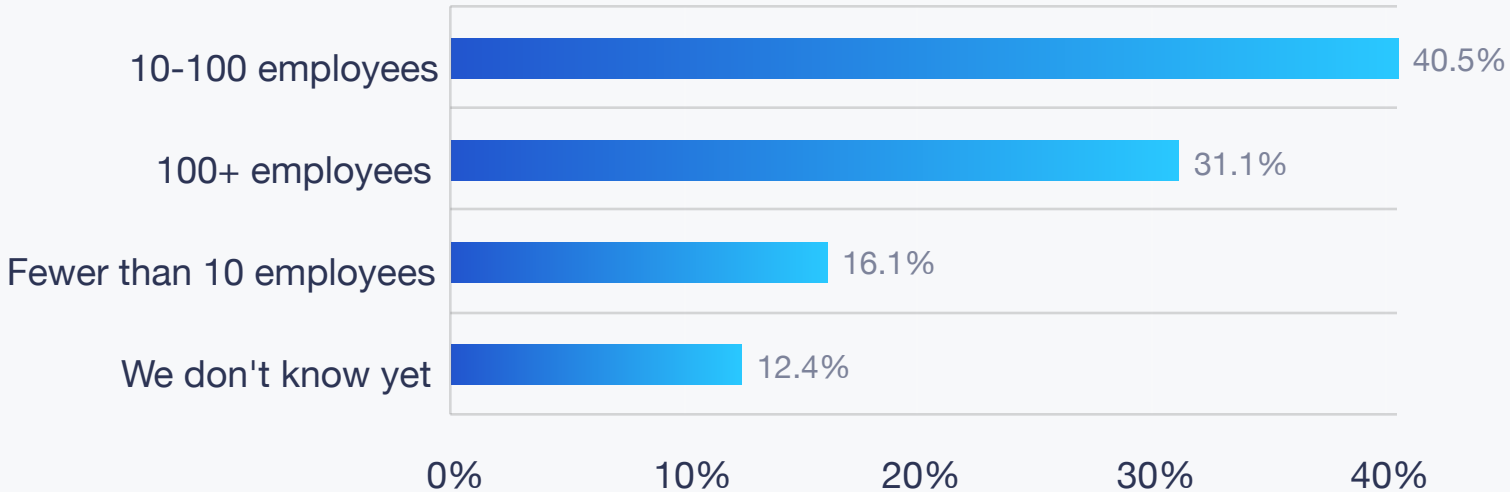
PRELUDE: UNDERSTANDING THE HIRING OUTLOOK FOR 2021-22

Tech Teams to Grow Considerably, with Backend Developers in Demand

With over 30% of respondents reporting that they are expecting to hire over 100 developers, we think it's settled: 2021-22 is going to be a candidate's market! Backend engineers are the most in demand, with Frontend engineers, AI/ML experts, DevOps engineers and Data Scientists also being in relatively high demand.

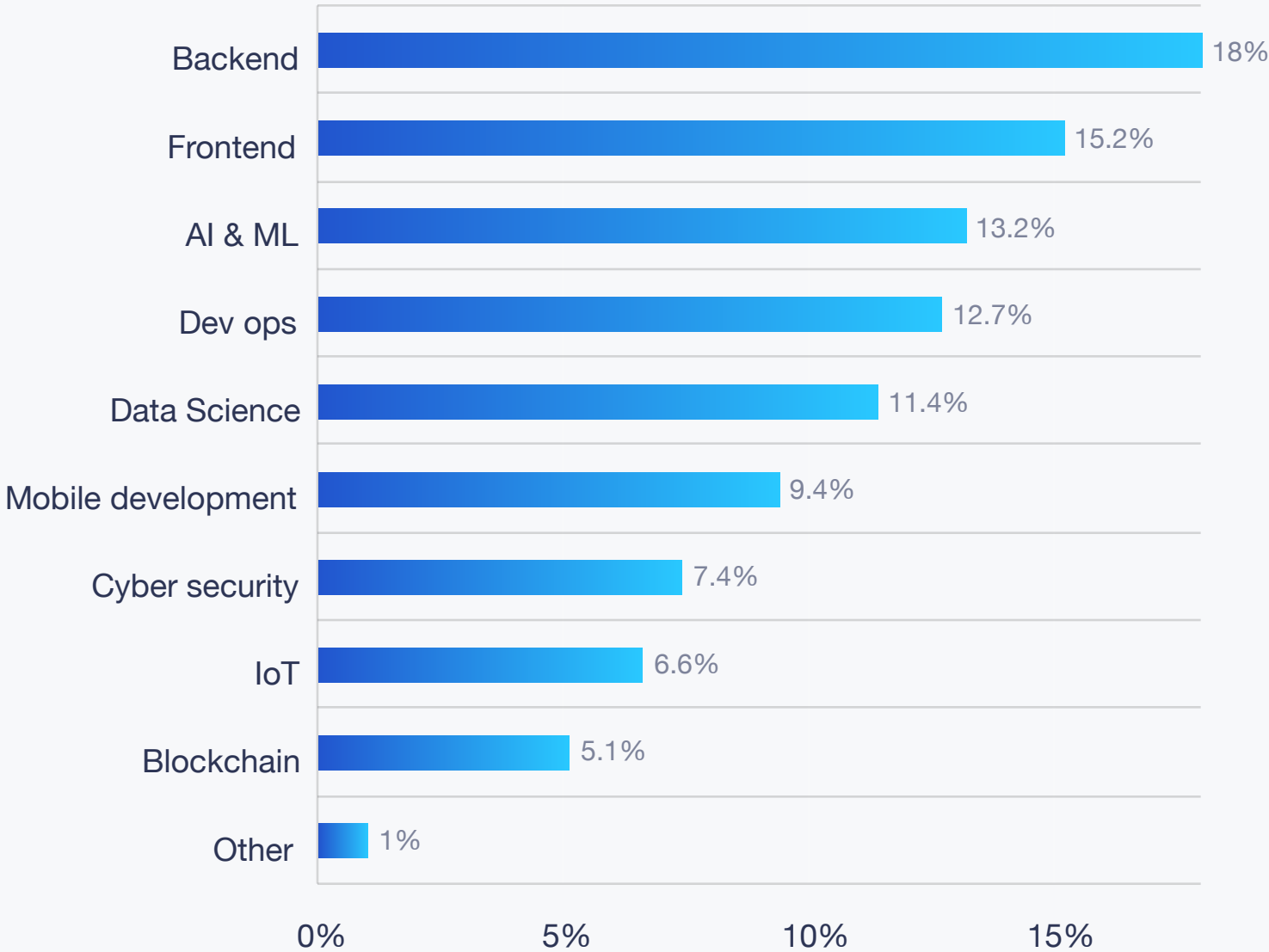
HR

Projected growth



ENGINEERING

In-demand roles





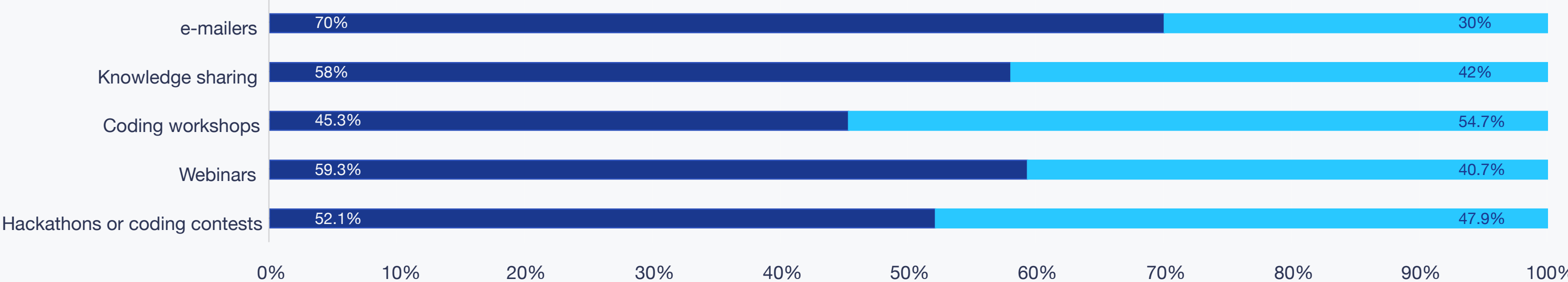
PRELUDE: UNDERSTANDING THE HIRING OUTLOOK FOR 2021-22

Knowledge Sharing is Important for Engaging the Tech Community

This year saw an upsurge in hiring, and candidate demands have also gone up. This is by no means the 'ideal' hiring situation, so we were curious to know what would make the cut - skills or diversity? In an ideal world, over 30% of the recruiters who took the survey said they would never compromise on candidate quality to fill a role. Compare this with 35% of engineering managers who said they would make the compromise to hire faster.

Engagement Methods

■ We do this ■ We want to do this





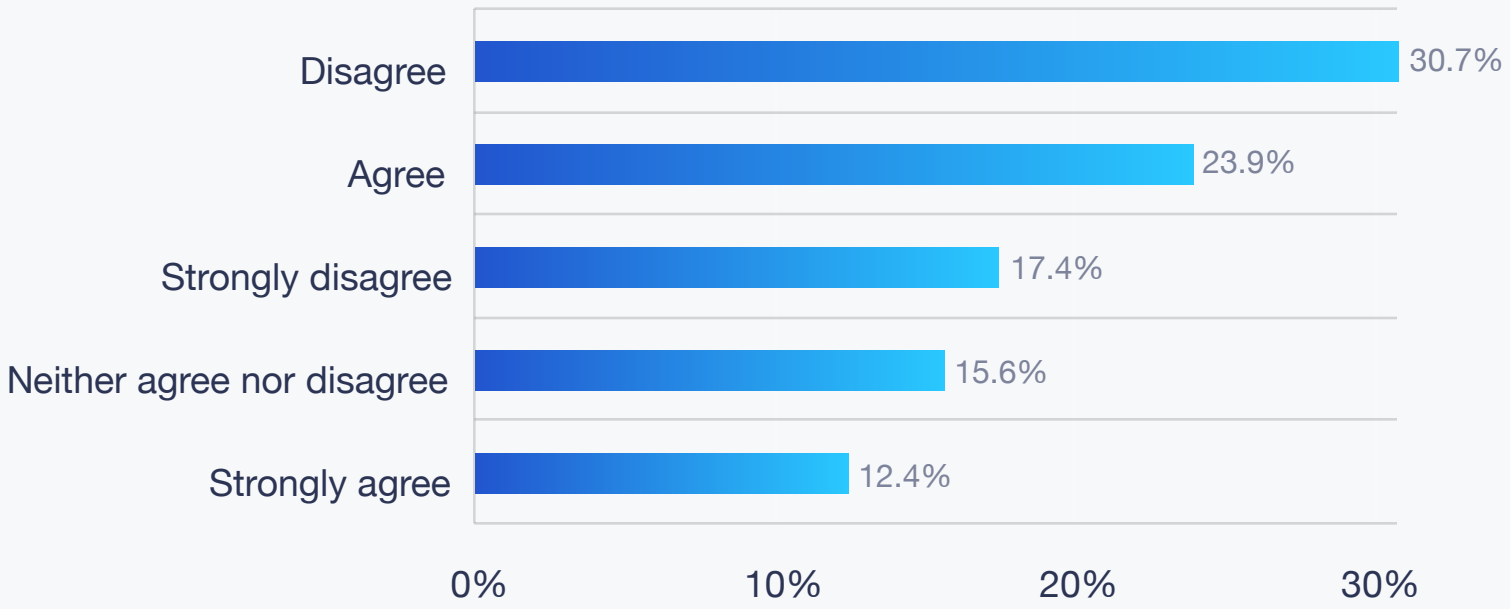
PRELUDE: UNDERSTANDING THE HIRING OUTLOOK FOR 2021-22

Quality Hires Are a Priority, but Diversity Takes a Backseat in Crunch Situations

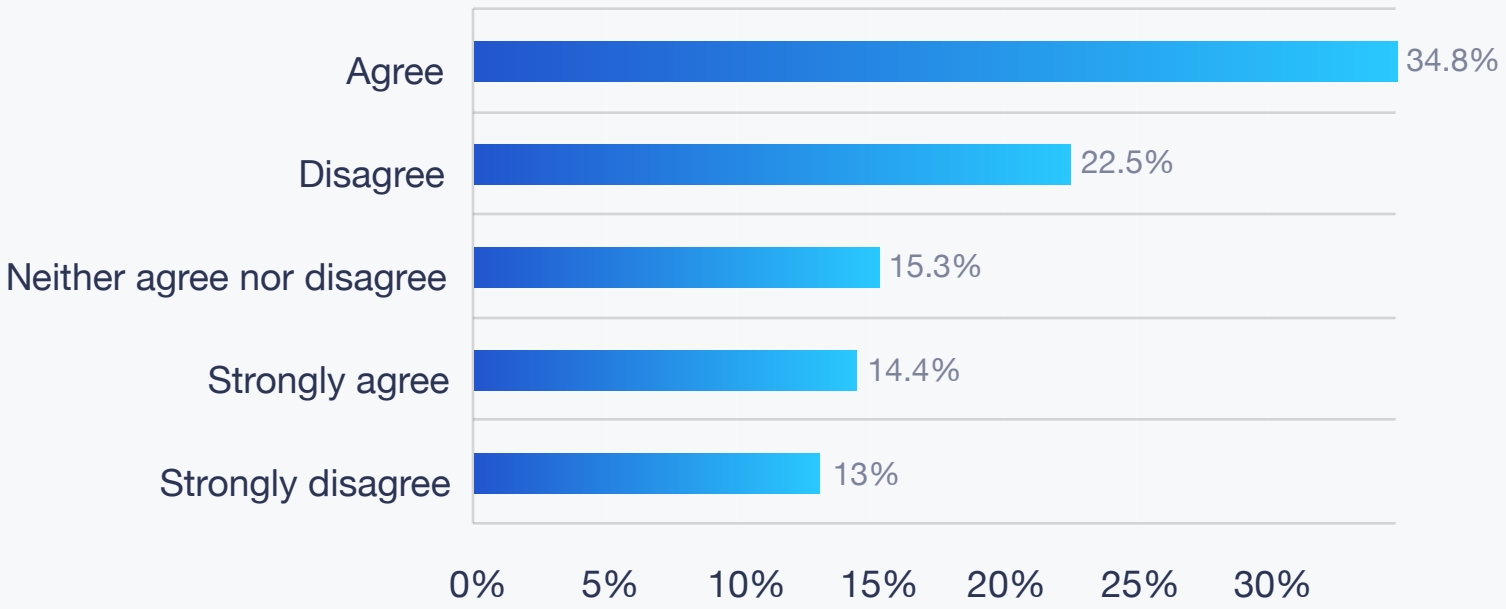
This year saw an upsurge in hiring, and candidate demands have also gone up. This is by no means the 'ideal' hiring situation, so we were curious to know what would make the cut - skills or diversity? In an ideal world, over 30% of the recruiters who took the survey said they would never compromise on candidate quality to fill a role. Compare this with 35% of engineering managers who said they would make the compromise to hire faster.

We would compromise on candidate quality to fill an opening quickly

HR



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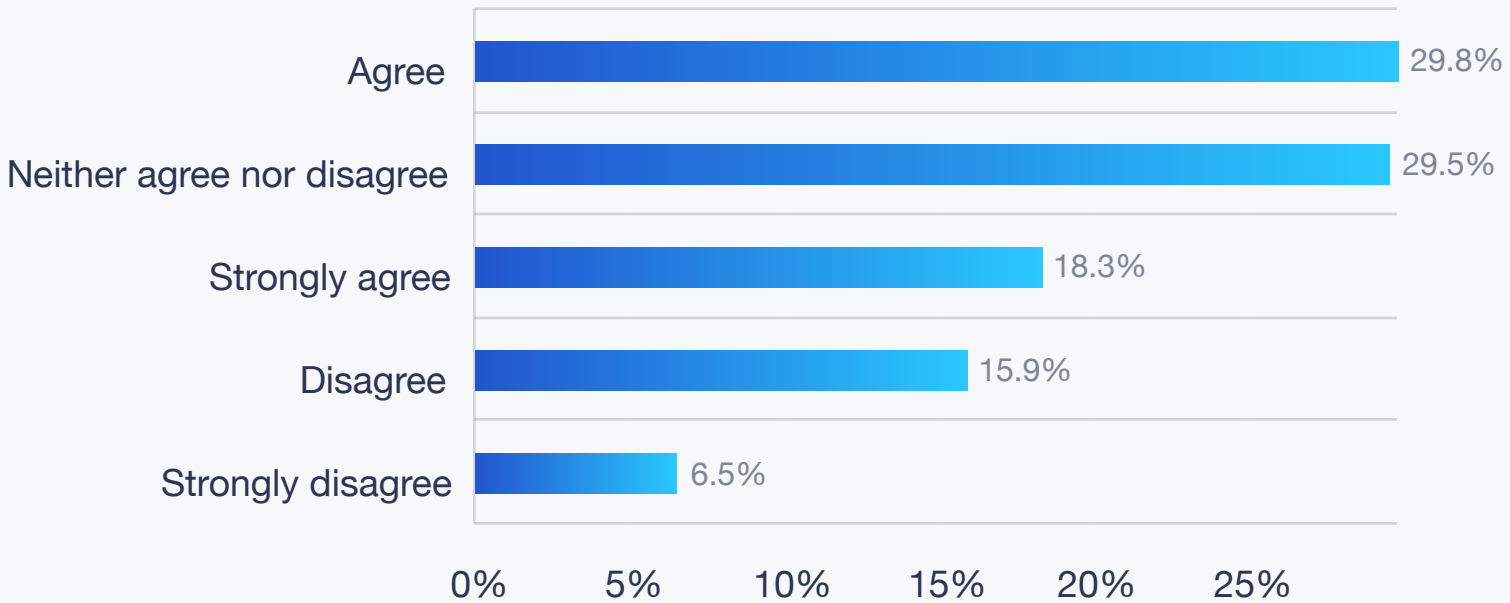
PRELUDE: UNDERSTANDING THE HIRING OUTLOOK FOR 2021-22

When it comes to diversity though, recruiters are slightly split between wanting to hire diverse candidates and filling roles early. An overwhelming number of engineering managers, though, care more about shipping code than building diverse teams.

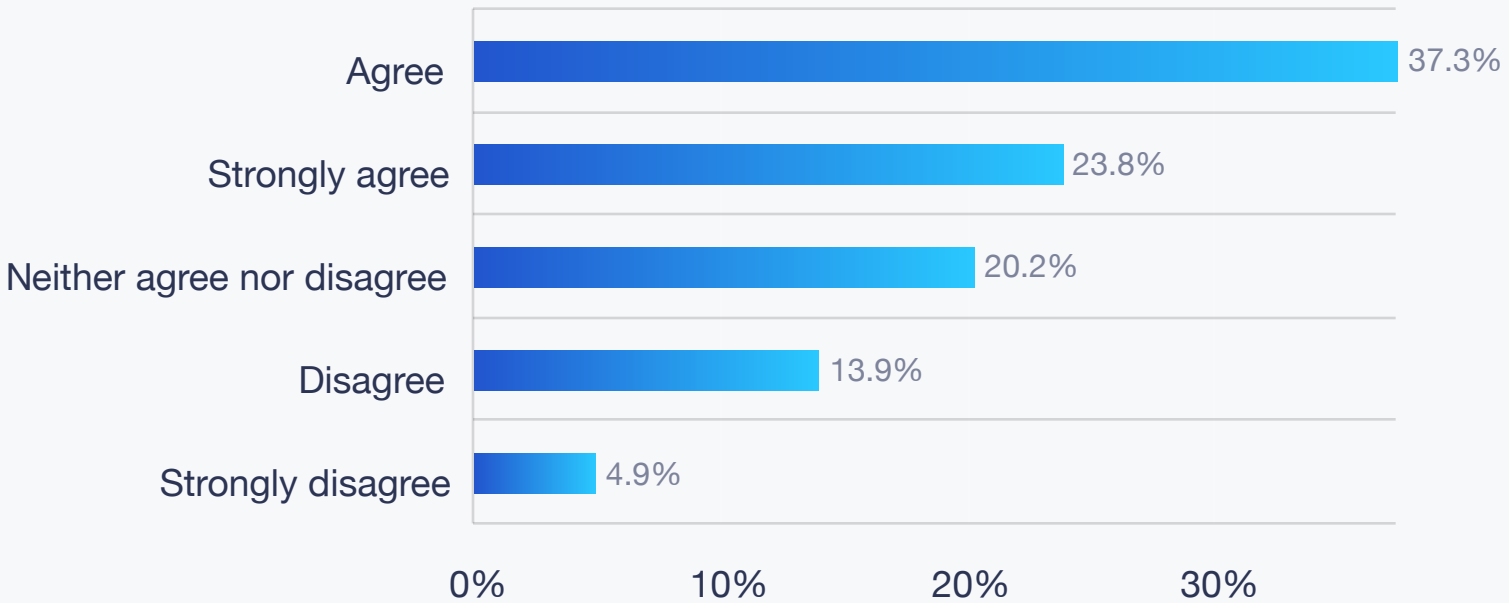
We've always called the HR function the 'gatekeepers of company culture', and now we know why. This also throws up the fact that in the face of the Great Resignation, there's far too much demand for the average qualified developer. The priority is hiring someone, over hiring that perfect diverse candidate. Diversity as a criterion might just be an added burden in the current recruiting process.

I would rather hire a skilled non-diverse person than an moderately skilled person from a diverse background

HR



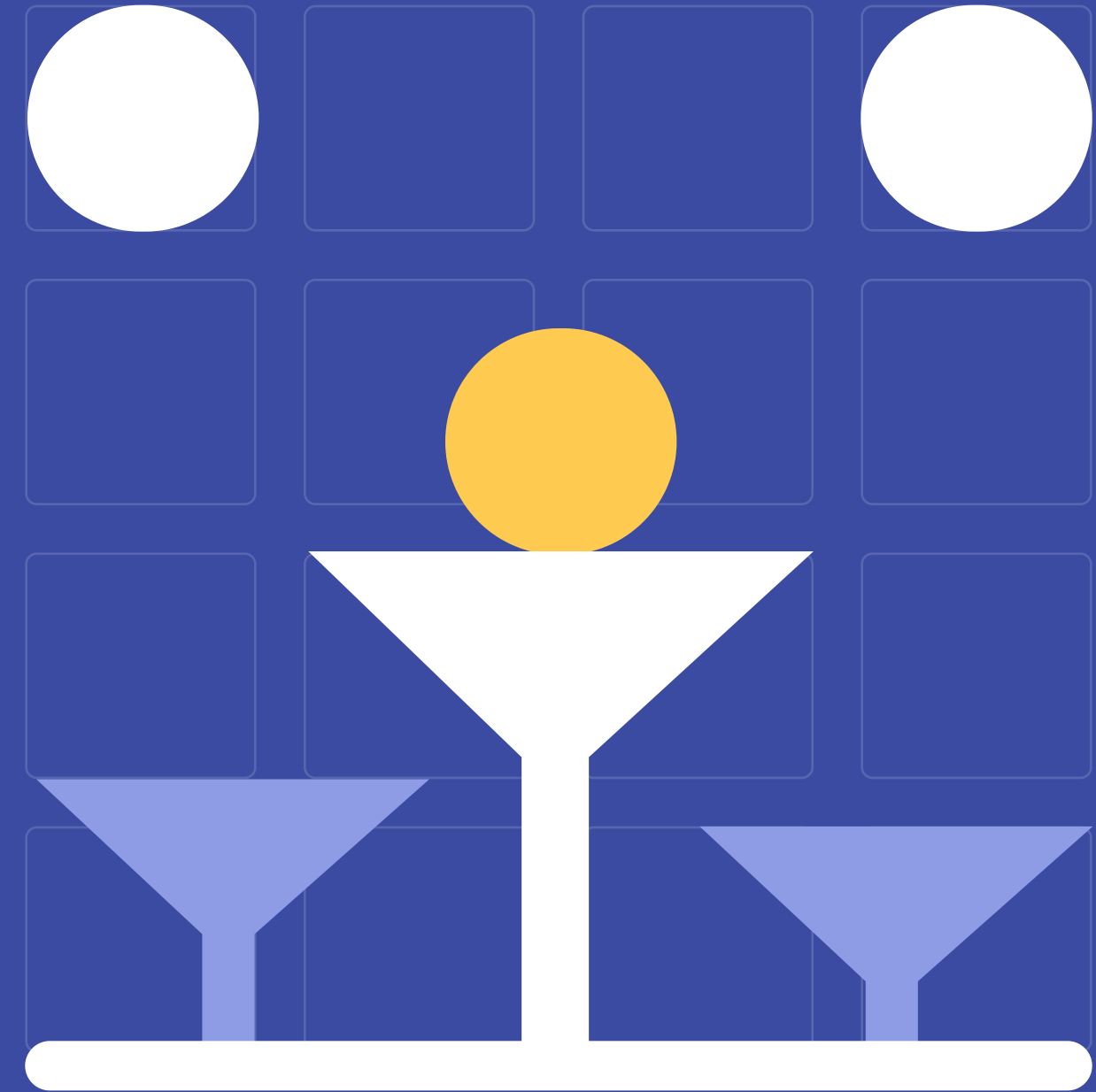
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CHAPTER 1

Sourcing Top Talent

Hiring is P0 for most companies, so we wanted to understand how sourcing top talent has evolved. As it turns out, while the whole world has changed, sourcing still happens on traditional channels. Further, recruiters have leaned into showcasing company culture on social channels to help with sourcing.





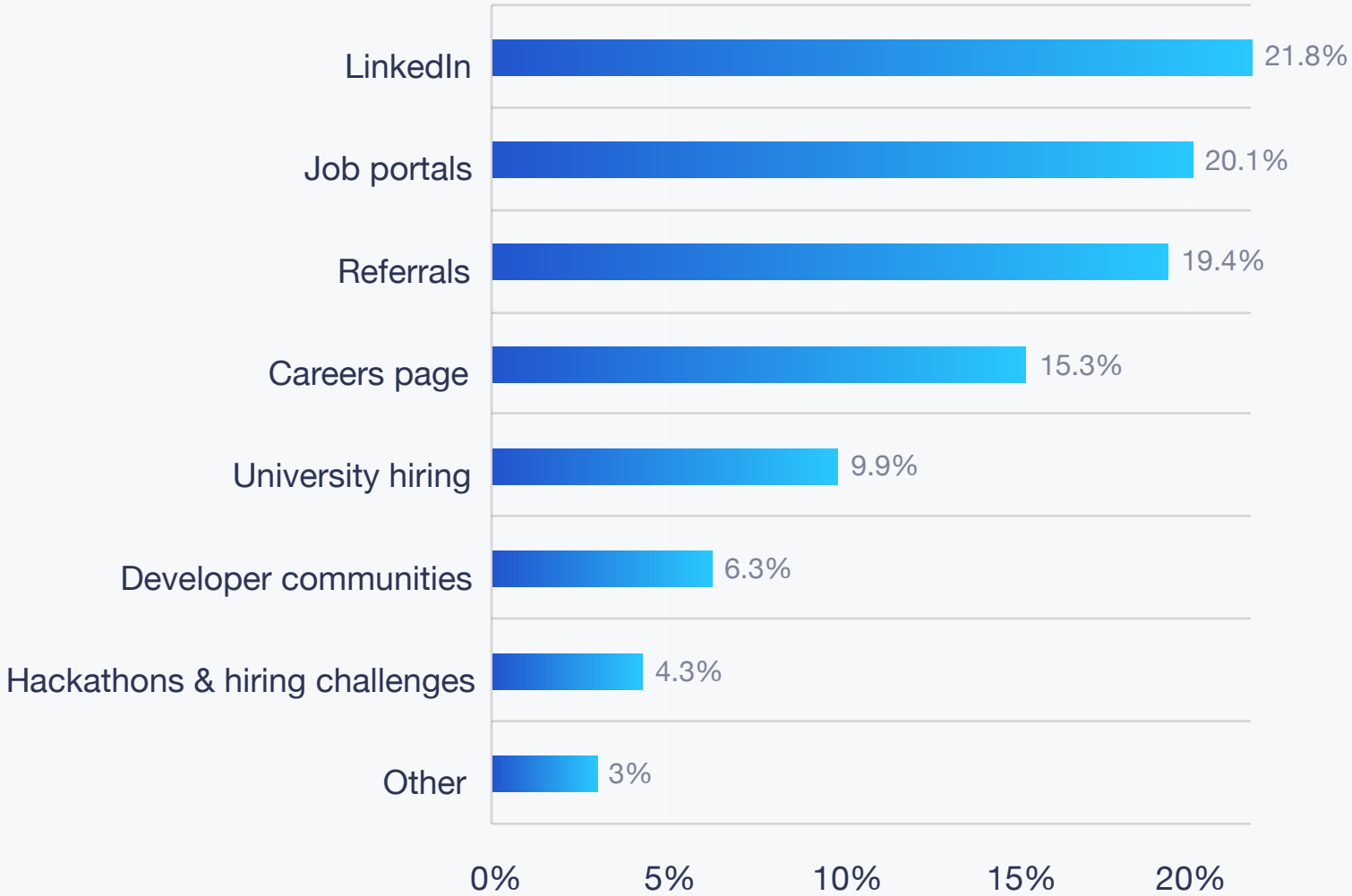
CHAPTER 1: SOURCING TOP TALENT

Traditional Sourcing Channels Still Dominate

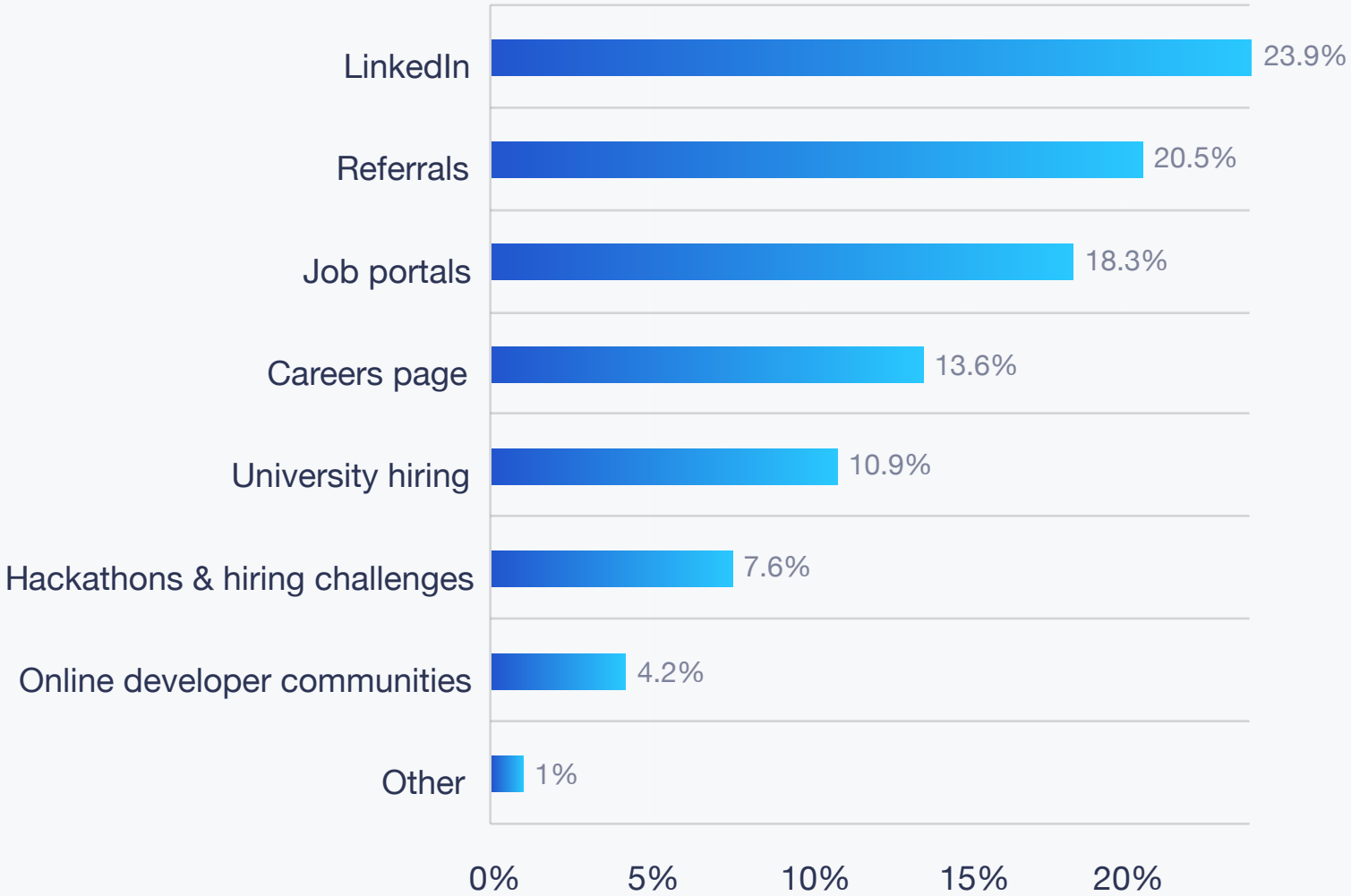
While the pandemic has changed many aspects of technical hiring, companies still look to traditional channels like LinkedIn, internal referrals, and online job boards to source candidates. More engineers than recruiters believe that hackathons are good for sourcing, which is predictable. While university hiring has not been a priority this year, the fact that recruiters are communicating with online developer communities augurs well for the future.

We would compromise slightly on candidate quality to fill an opening quickly

HR



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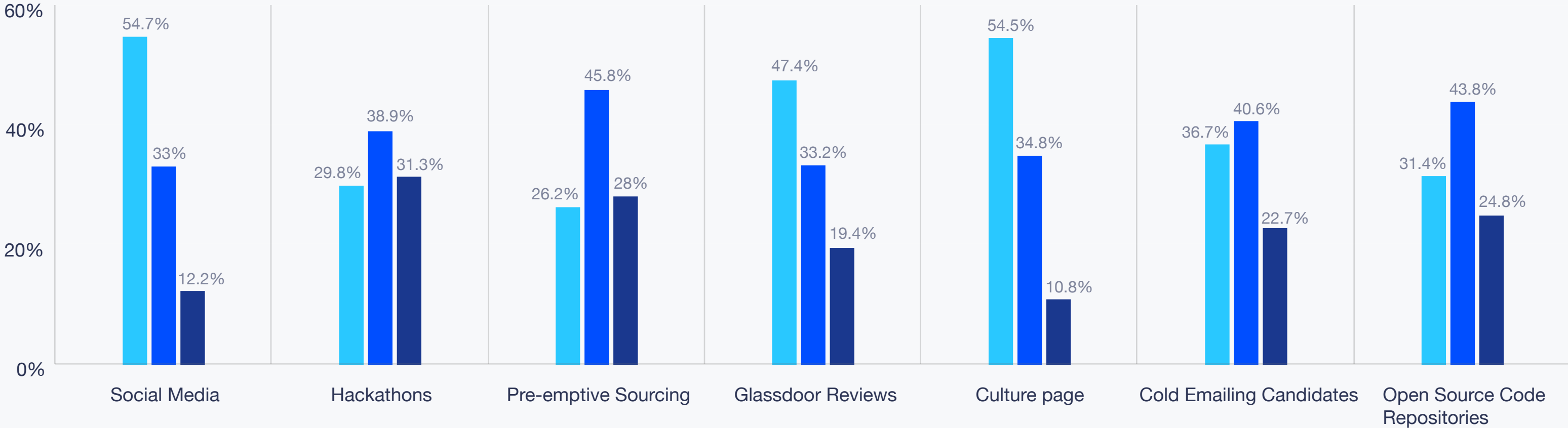
CHAPTER 1: SOURCING TOP TALENT

Showcasing Company Culture via Social Channels Is a Must

Given that companies still leverage traditional sourcing channels, it makes sense that recruiters believe in outreach initiatives, online reviews of the workplace, and underscoring company culture via social channels. This echoes the trend we saw in our [2021 Developer Survey](#), where respondents said they cared about ESOPs, Glassdoor reviews, and upskilling initiatives when choosing a company.

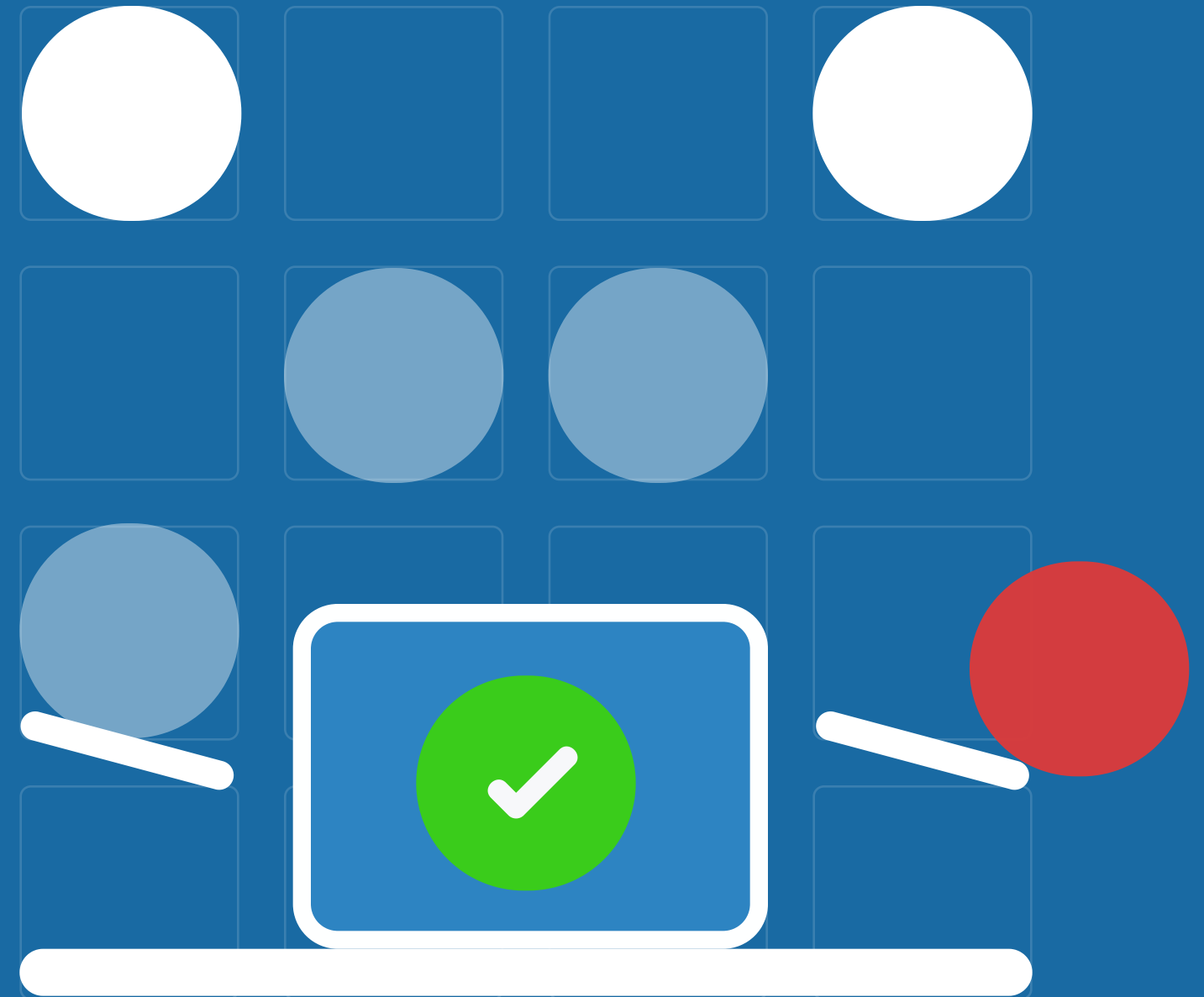
Culture Measures and Their Impact on the Sourcing Funnel

High impact Medium impact Low impact



Assessing Developers in the Remote World

When recruiters talk of assessments, they are talking of ways to handpick the best fit from the vast pool of candidates they have sourced. At HackerEarth, we have always believed that ‘Skills Trump Everything Else’. While there are companies that still use manual means to assess developers, there is an upward trend in the adoption of skill-first tools for tech hiring.





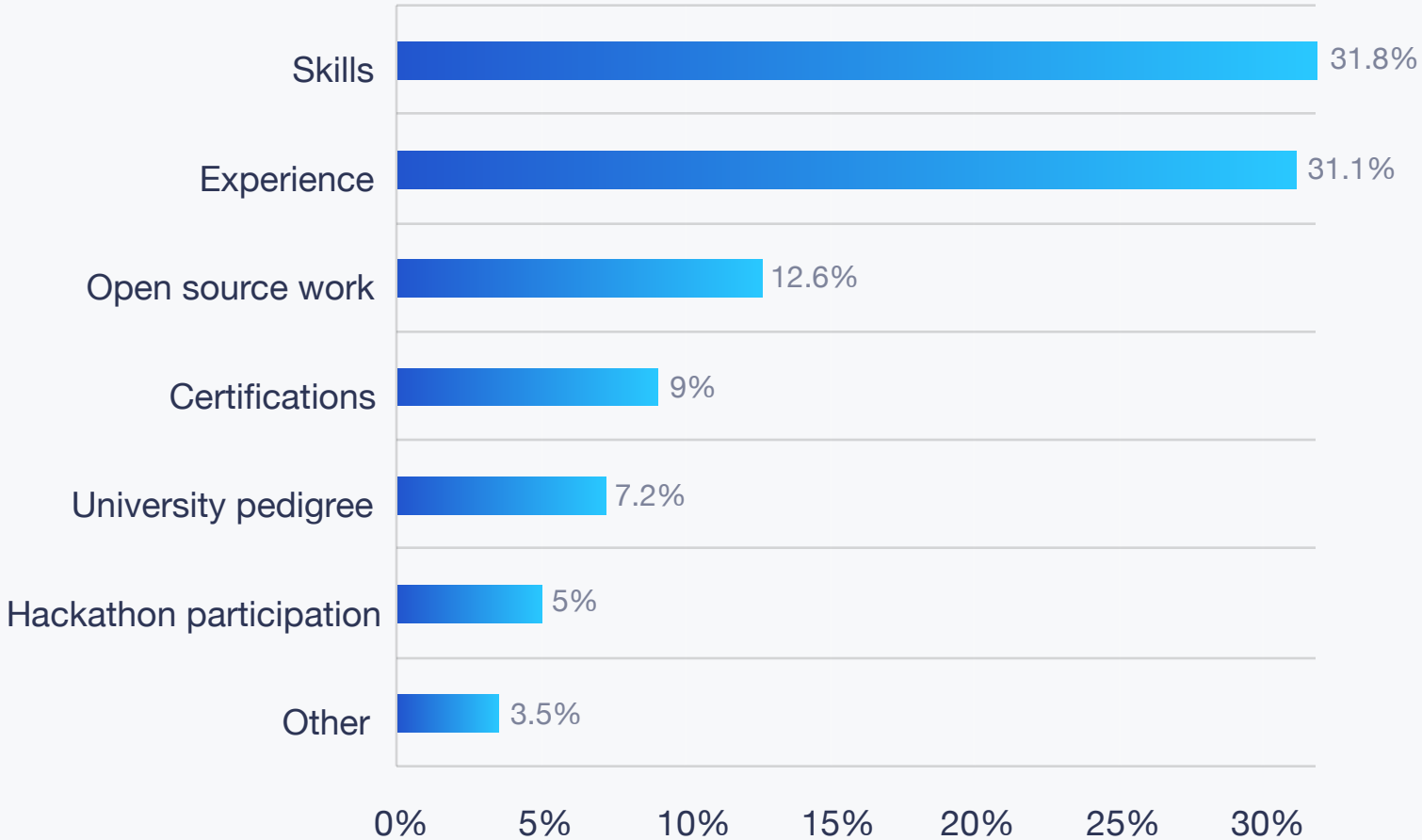
Skills and Experience, Please

Both engineering managers and recruiters look for the best skill fit when hiring candidates. More recruiters than hiring managers also think that experience is a good way of filtering candidates, signaling that they still use some traditional indicators of choosing suitable candidates.

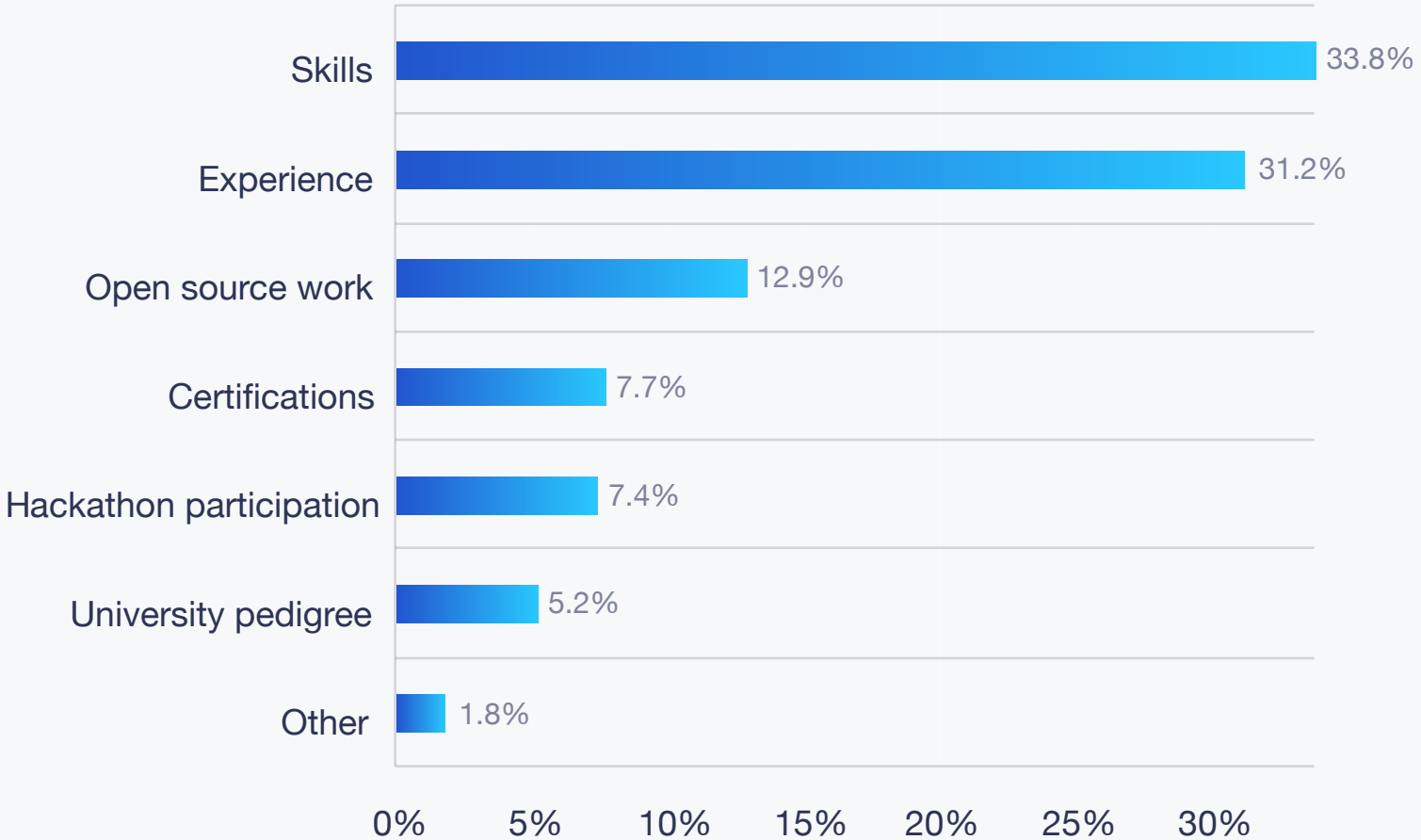
As a developer-first company that believes in skills over everything else, this really makes us smile!

What Do You Look for in a Developer?

HR



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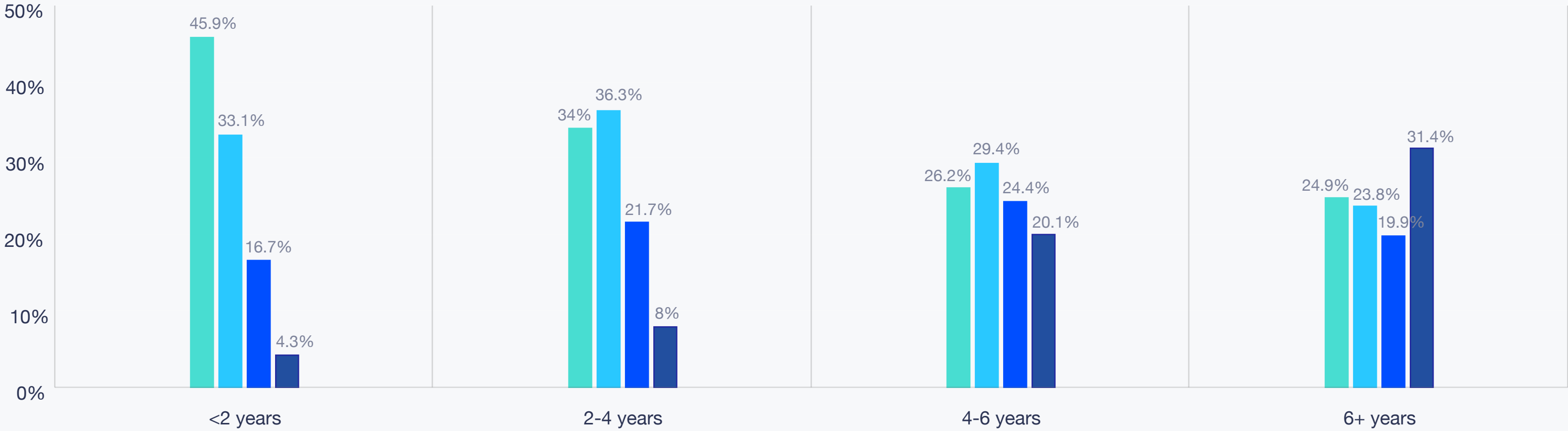
CHAPTER 2: ASSESSING DEVELOPERS IN THE REMOTE WORLD

Problem-solving Ability Is a Must for Freshers

For fresher candidates, a proven capability to solve problems is necessary for landing jobs. Candidates with over 4 years of experience must be adept at Systems Architecture Design and be able to write clean code.

What Do You Look for Across Experience Levels?

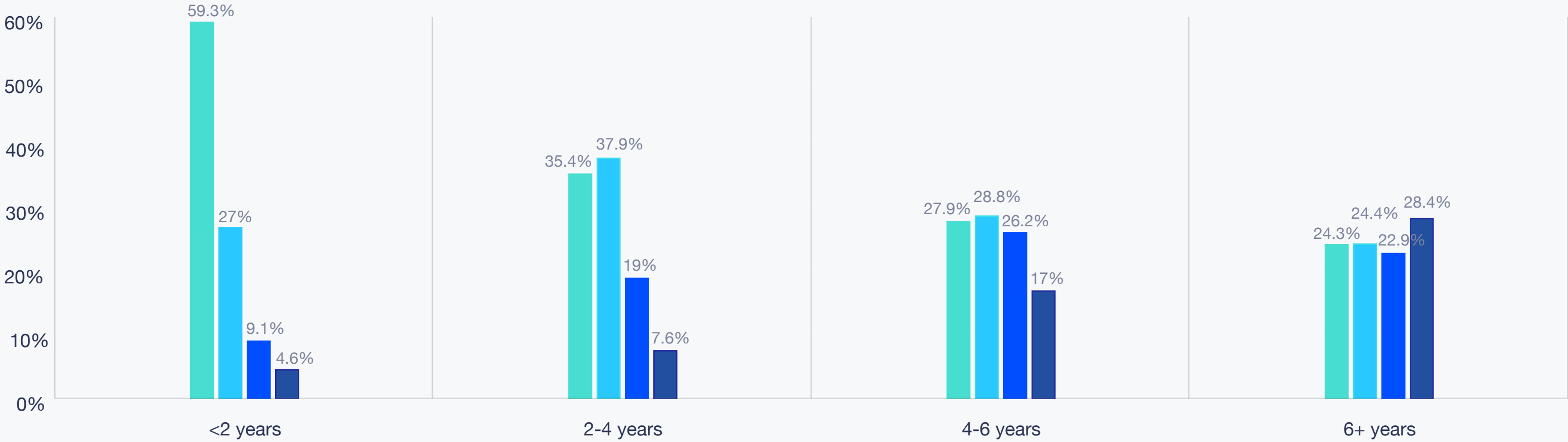
Problem solving Code quality Lowlevel system design System architecture design



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What Do You Look for Across Experience Levels?

Problem solving Code quality Lowlevel system design System architecture design

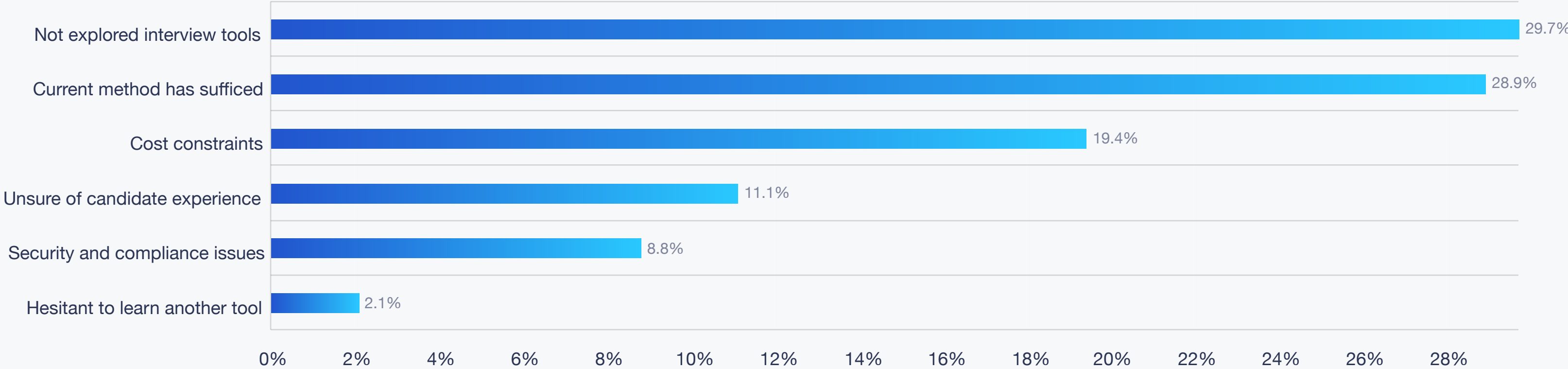




Conventional Assessment Methods Still Haunt the System

Despite the changes brought about by remote/hybrid work, there is still some resistance to adopting new hiring methods. About 28.9% of our respondents who don't use an assessment tool said that they feel their oft-used methods are effective, proving that technical assessments aren't as commonplace as initially estimated.

Culture Measures and Their Impact on the Sourcing Funnel

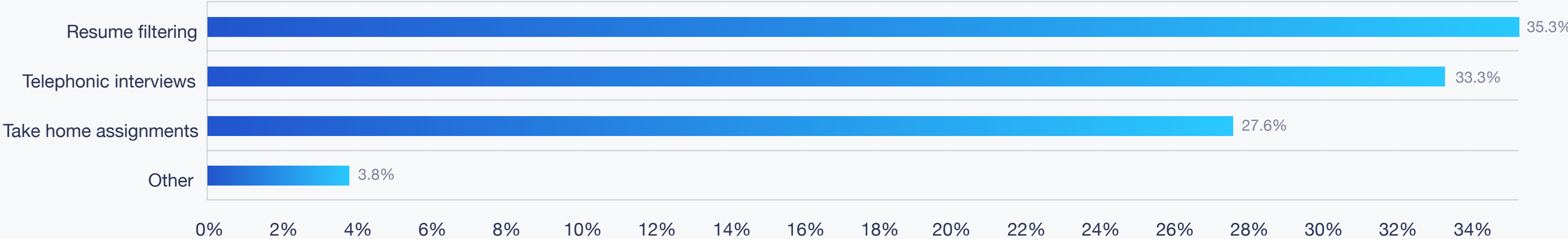




In Absence of Dedicated Tools, Recruiters Use Resumes to Assess Candidates

Of the respondents who said they do not use an assessment tool, most believe that sorting candidates via resumes or telephonic conversations is enough to move them to the interview round. While take-home/coding assignments are still in play, they are used less often than other methods.

Screening Methods Employed by Non-users





Companies That Use Assessment Tools Align Better on Hiring Criteria

In comparison with non-users, companies that use assessment tools for their tech hiring report a more standardized process. The process is also more objective, and more accurate. Neither engineering managers nor recruiters seem to be paying much mind to the fact that technical skill assessment software can also reduce TTH and CTH; proving that in most cases they care more about the bigger picture than immediate gains.

PRO TIP: Using an automated assessment platform can streamline tech hiring by helping you choose the right candidate in a faster, unbiased manner. Manual selection is fraught with issues, and using a platform like HackerEarth Assessments can help you get rid of these easily. [Know more](#)

Biggest Shortcoming of Current Assessment Tool

HR



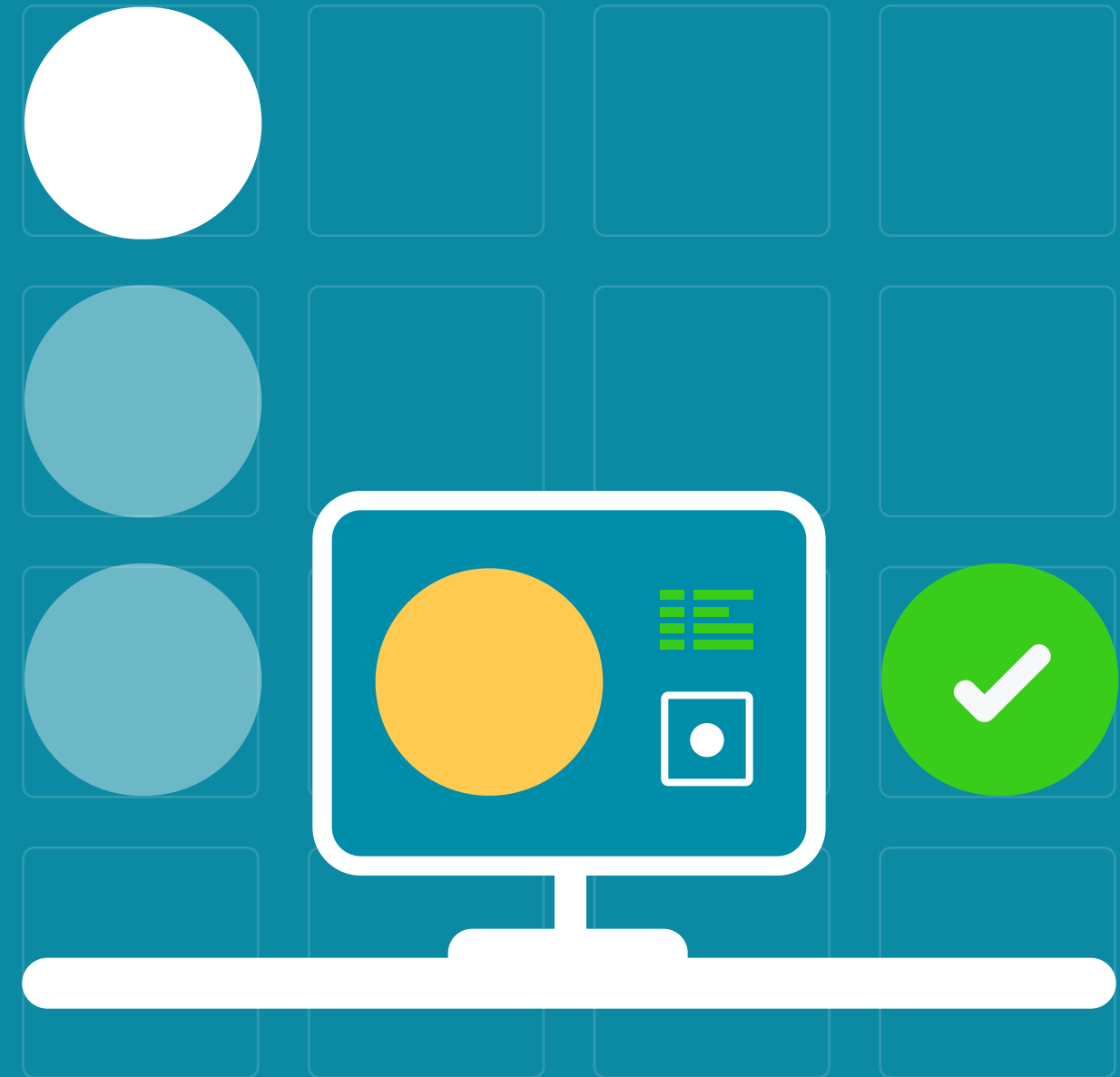
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CHAPTER 3

All About Interviews

Interviews are the first step in the tech hiring process where engineering managers interact with developers. Some managers do find it hard to judge culture and skill fit online, but there is growing awareness among engineering managers about the need for better tools and interview processes.



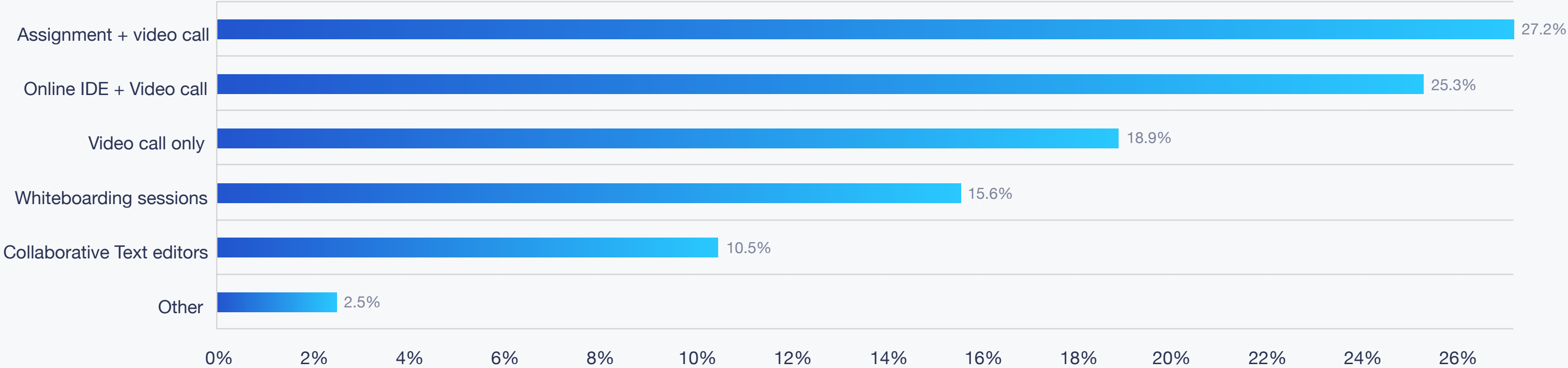


Many Interviewers Use Multiple Online Tools to Conduct a Single Interview

The pandemic has ensured that whiteboard interviews are on their way out, but the replacement is not ideal either. Of the respondents who do not use a dedicated interview tool, 27.2% said they use a video tool and ask candidates to explain take-home assignments. About 25% said they use a video platform in collaboration with an online IDE.

This is in stark contrast to our findings from our annual Developer Survey, where over 40% of coders said that they would like to be interviewed via dedicated interview platforms.

How Non-users Interview Candidates





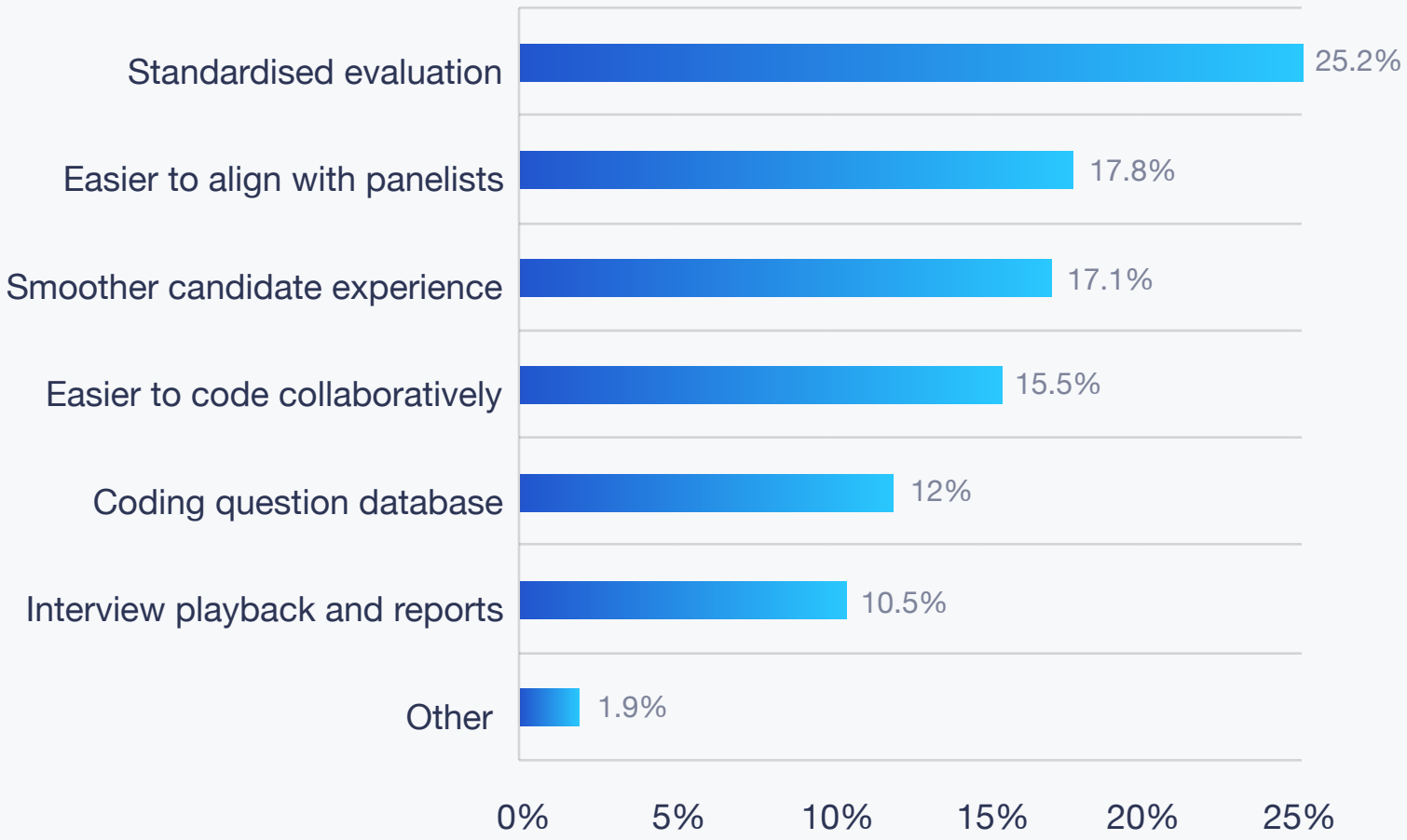
Tech Interview Tools Offer Standardization and Improve Candidate Experience

Of the respondents who use a dedicated tool to conduct tech coding interviews, the recruiters (25.2%) said they enjoyed the standardized evaluation process. The engineering managers (24%) ranked smooth candidate experience over other benefits.

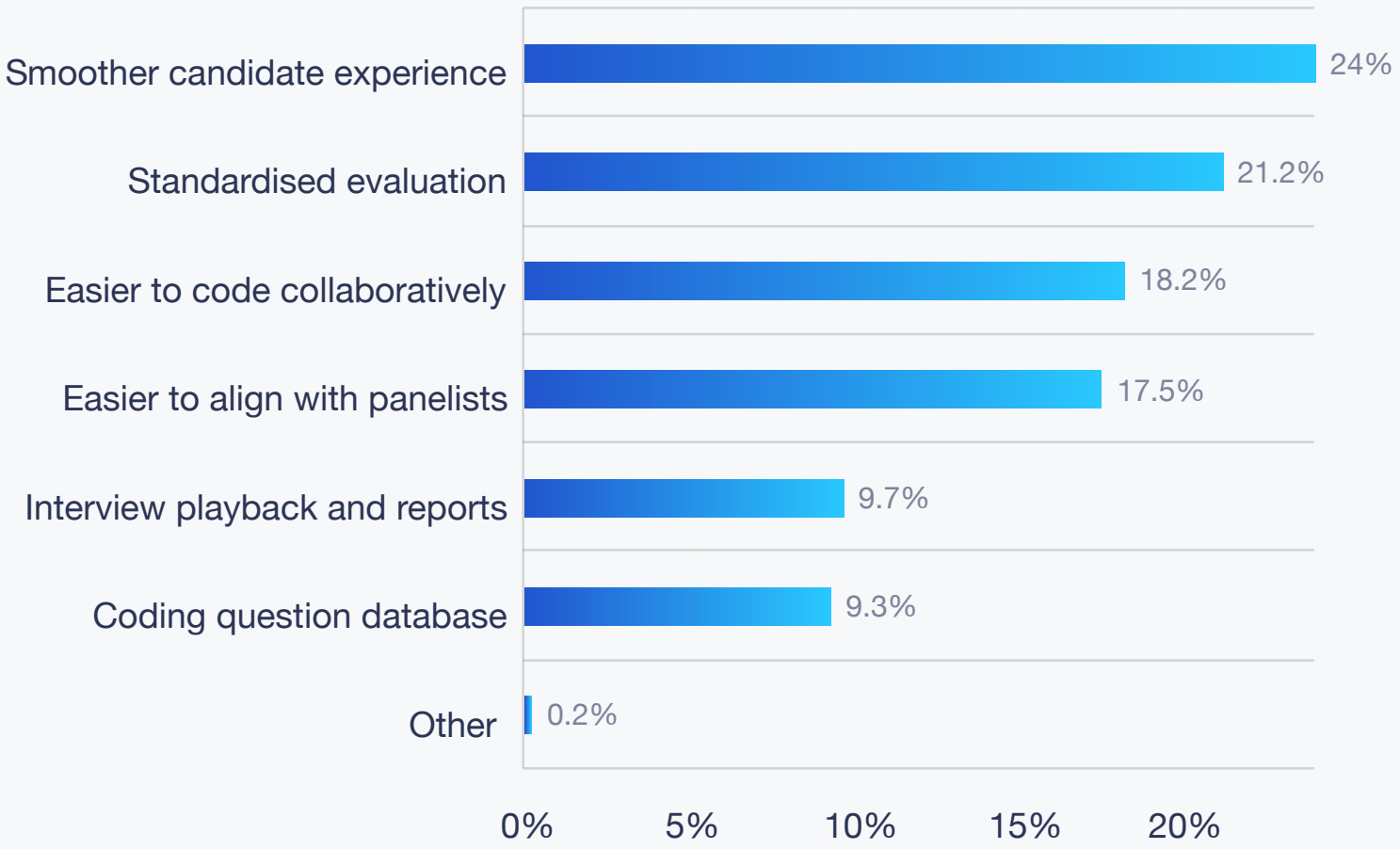
It is clear that companies that have taken the initiative to use tech hiring tools in their processes see the benefits in a more homogeneous, and equitable hiring environment. Using coding interview tools also helps provide a better candidate experience for developers and ties in with their expectations from interviewers.

Benefits of Coding Interview Tools

HR



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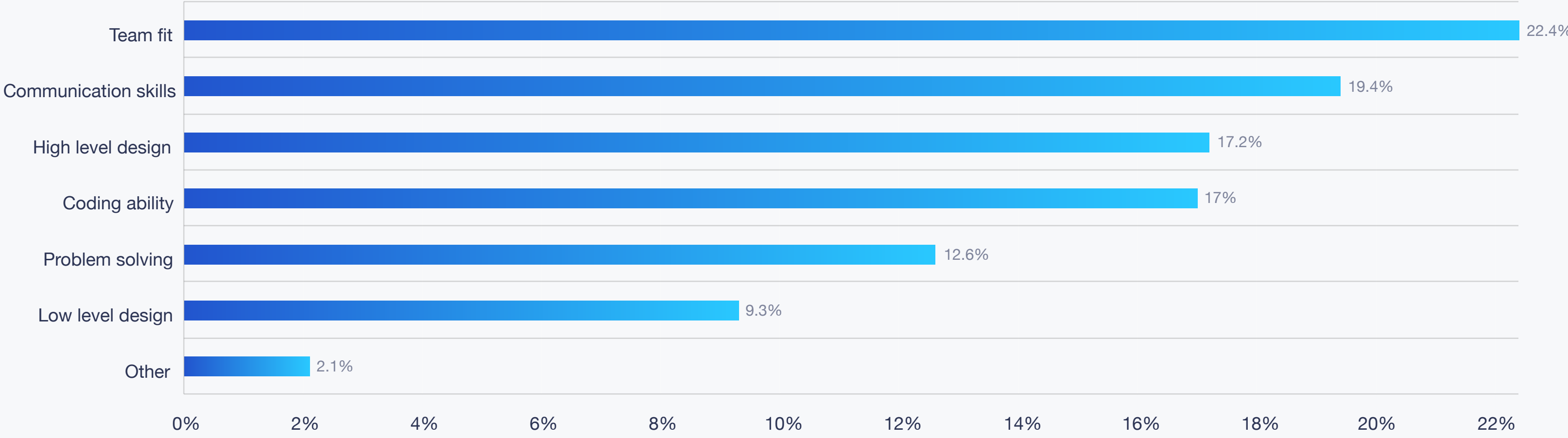


Gauging Team-fit in Virtual Interviews Is Still a Hurdle for Managers

Even those engineering managers who use dedicated interview tools believe that gauging team-fit without an in-person meeting can be a challenge. About 19.4% of this cohort said that they find judging communication skills hard. The ability to code well, solve design problems and critical thinking are other skills that interviewers find hard to evaluate.

PRO TIP: Our findings underscore the need for behavioral and process changes in the way online tech interviews are conducted. For instance, pair-programming interviews can be used to judge communication and collaboration skills. This can be done via HackerEarth FaceCode. Automated assessments with benchmarked results can help highlight candidates' coding skills. HackerEarth platforms also offer custom interview questions which can help interviewers judge skills accurately. [Know more](#)

What Is Tough to Gauge Without In-person Interviews?





Most Teams Would Use Interview Tools for On-site Interviews Post Pandemic

A trend that makes both hiring managers and candidates smile :) 43% of our survey respondents are currently using a tech interview tool - a number that we foreshadow to rise. Most recruiters and the majority of engineering managers from this pool say that they will continue to use these tools even post-pandemic. This reaffirms the premise that it isn't just remote interviews that are broken, but coding interviews as a whole. Hence, the teams that shifted to using dedicated interview tools in the pandemic year, will continue to do so to keep reaping the benefits.

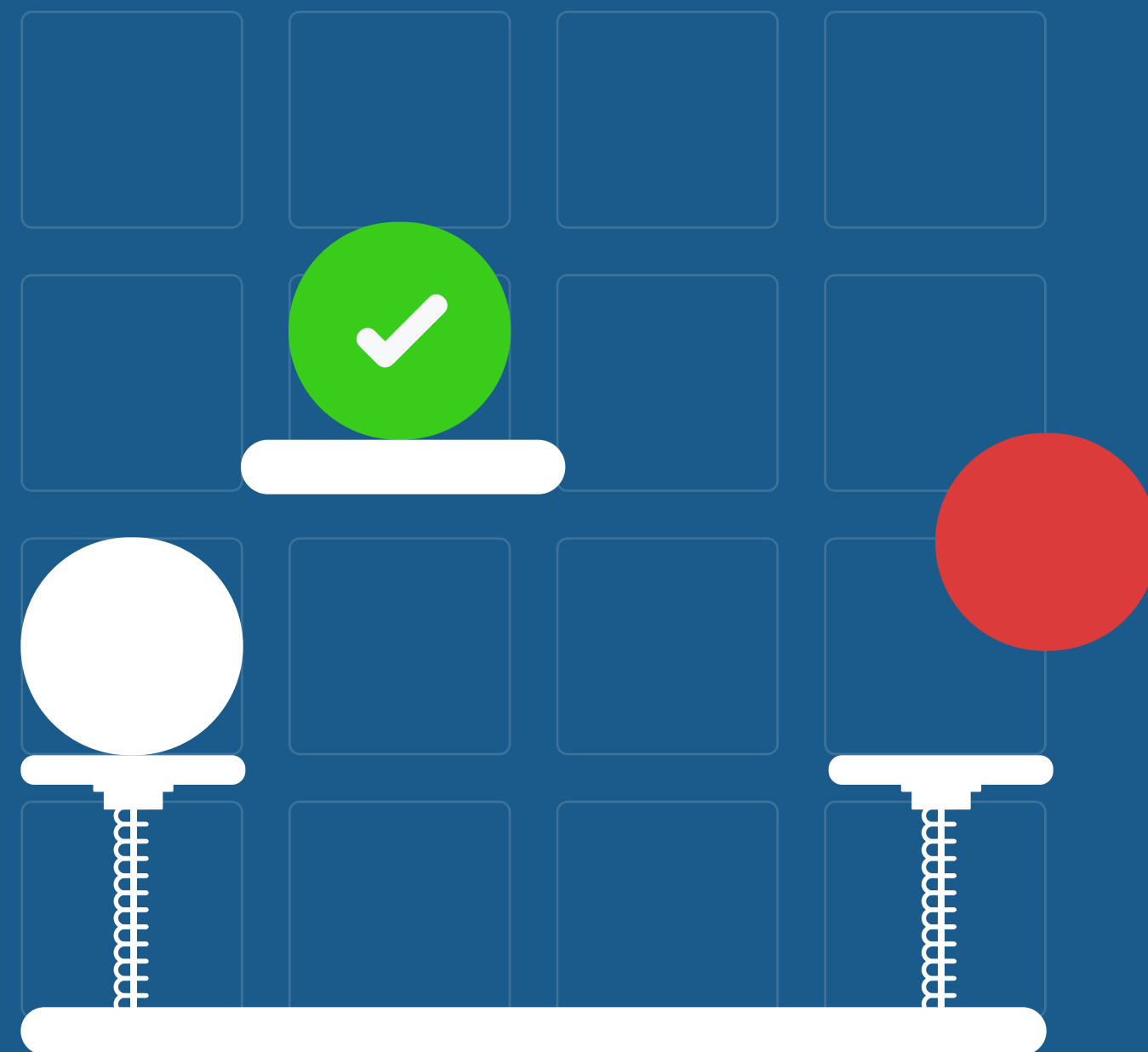
8 out of 10 engineering managers say they will continue use coding interview tools even after in-person interviews return



CHAPTER 4

The Challenges of Tech Hiring

When it comes to hiring coders, there is no one size fits all. Collaboration between recruiters and hiring managers has always been a source of friction, but we wondered if the pandemic year has created newer challenges. In this section we look at the top 3 hiring challenges that tech teams face today.





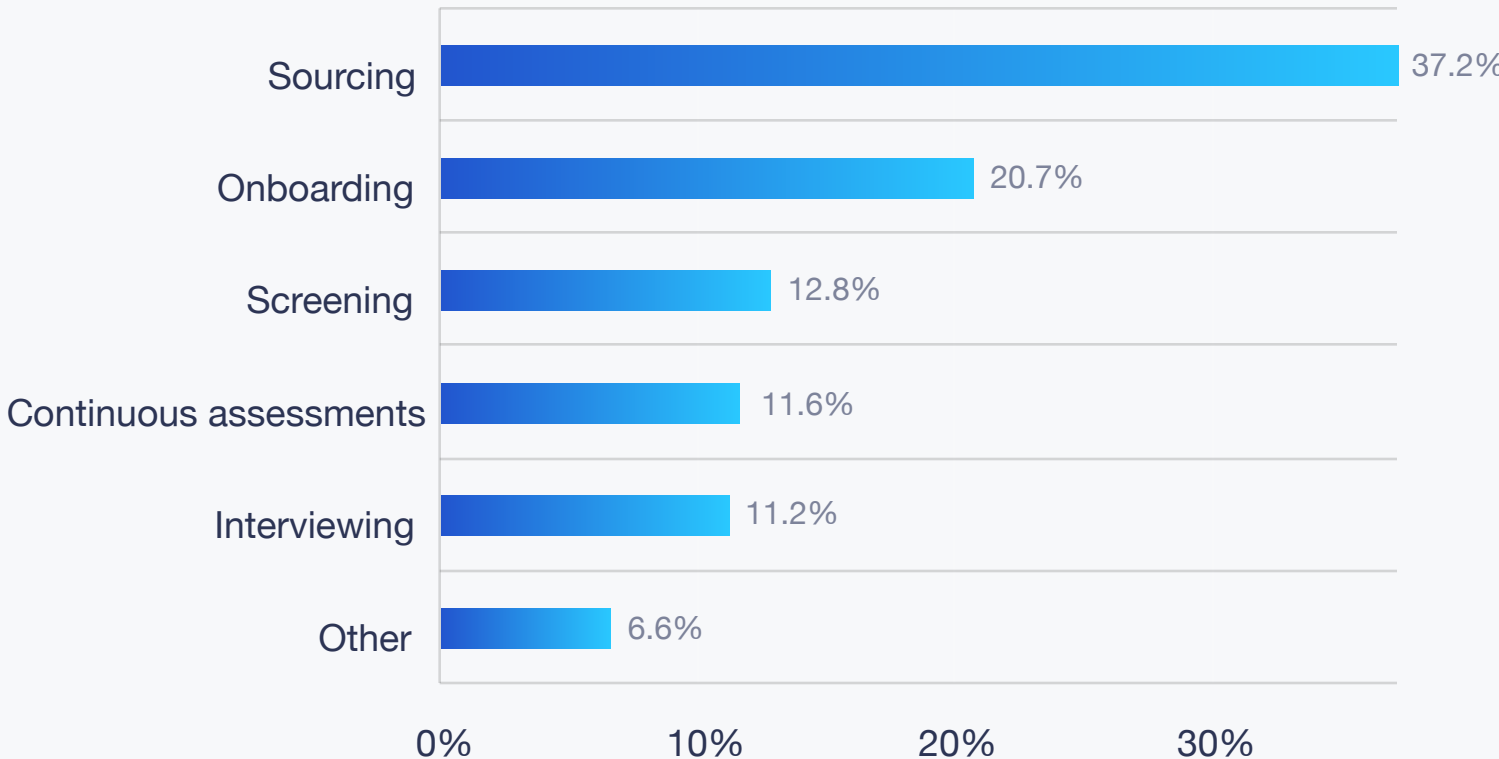
CHAPTER 4: THE CHALLENGES OF TECH HIRING

Recruiters Find Sourcing Tough; Engineering Managers Worry about Upskilling

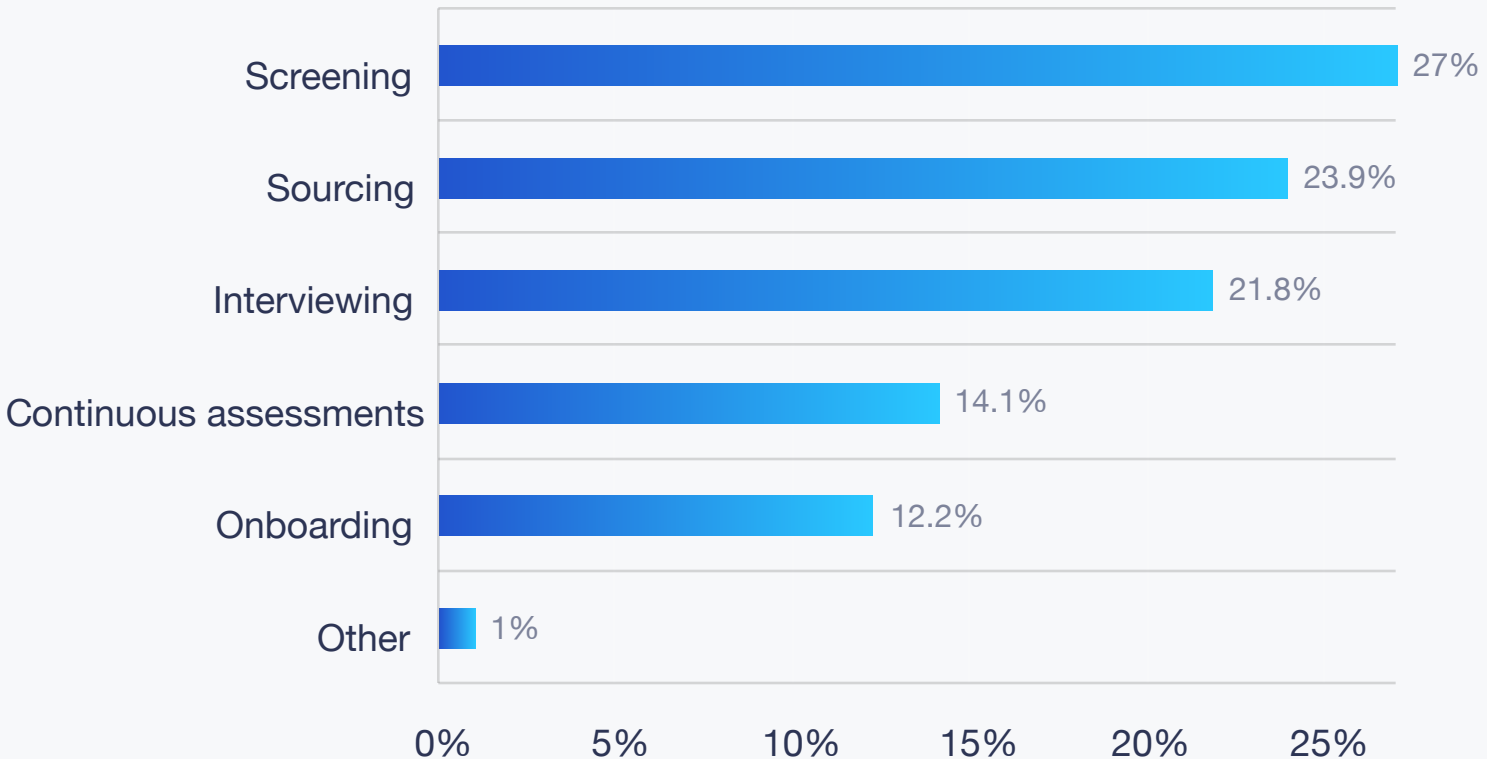
With companies opening up hiring, it is predictable that keeping the funnel flush with top talent would be a recruiter's top concern. For most engineering managers, however, screening talent is a struggle, closely followed by upskilling teams for future needs.

Biggest Challenges in Hiring Pipeline

HR



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CHAPTER 4: THE CHALLENGES OF TECH HIRING

Teams Have Adapted to Remote Tech Hiring, and Align Better on Skills Requirements

In a major shift from our previous edition, the number of recruiters and engineering managers who align well on skill requirements has increased. Both functions agree that candidate quality and deadlines are important pain points of the process that need to be solved.

Pain Points in Developer Recruiting

Low difficulty Medium difficulty High difficulty



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Pain Points in Developer Recruiting

Low difficulty Medium difficulty High difficulty





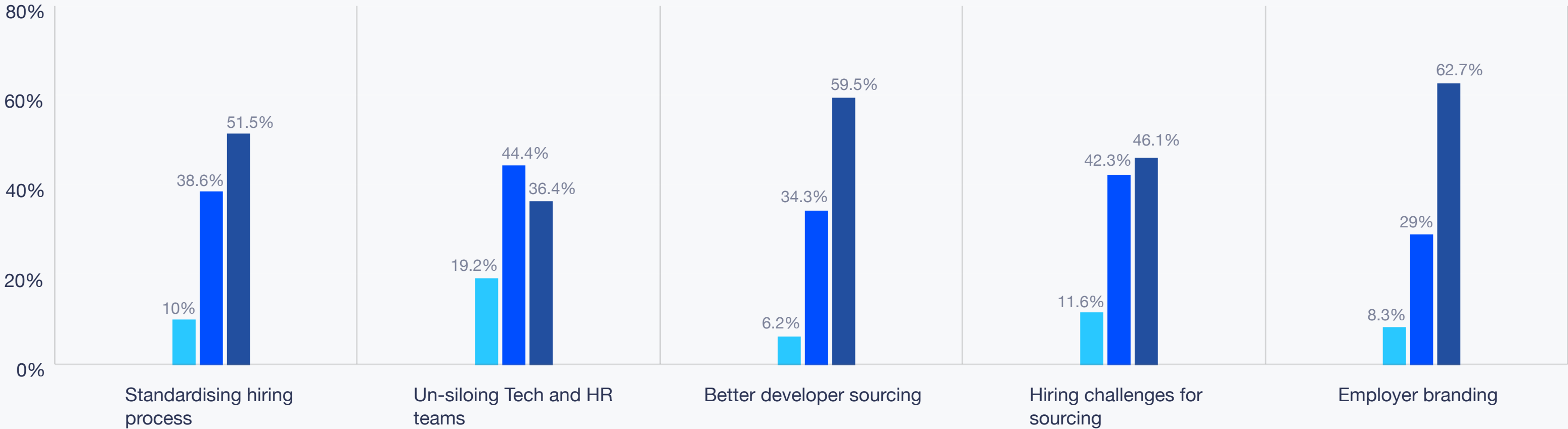
Employer Branding + Hiring Challenges = Improved Tech Hiring

Both the cohorts see the need for amping up employer branding activities in the wake of the pandemic. It is also heartening to see engineering managers own their role in improving tech hiring. A large chunk of managers have also said that un-siloing tech hiring is important; echoing the fact that both functions need to collaborate more in order to hire the best. We expect that this trend will only improve in the future as the lessons from the year of remote work are carried forward.

PRO TIP: Developers want to learn and grow. HackerEarth's Learning and Development platform can help you custom craft your upskilling opportunities and make your tech teams resilient for future challenges. [Know more](#)

Impact of Key Changes on the Recruiting Funnel

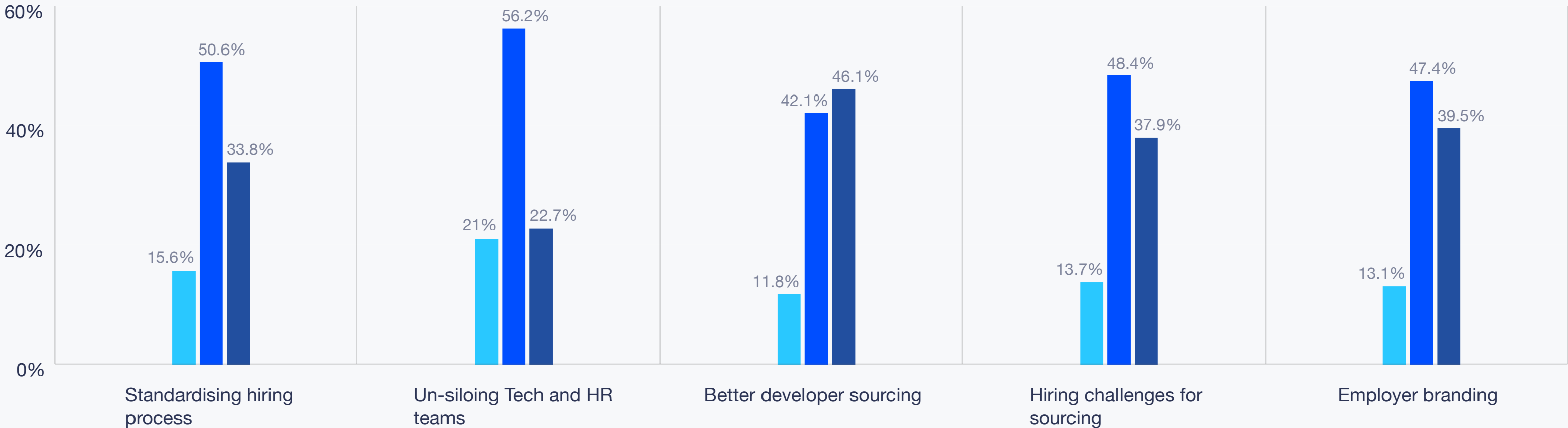
Low impact Medium impact High impact



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Impact of Key Changes on the Recruiting Funnel

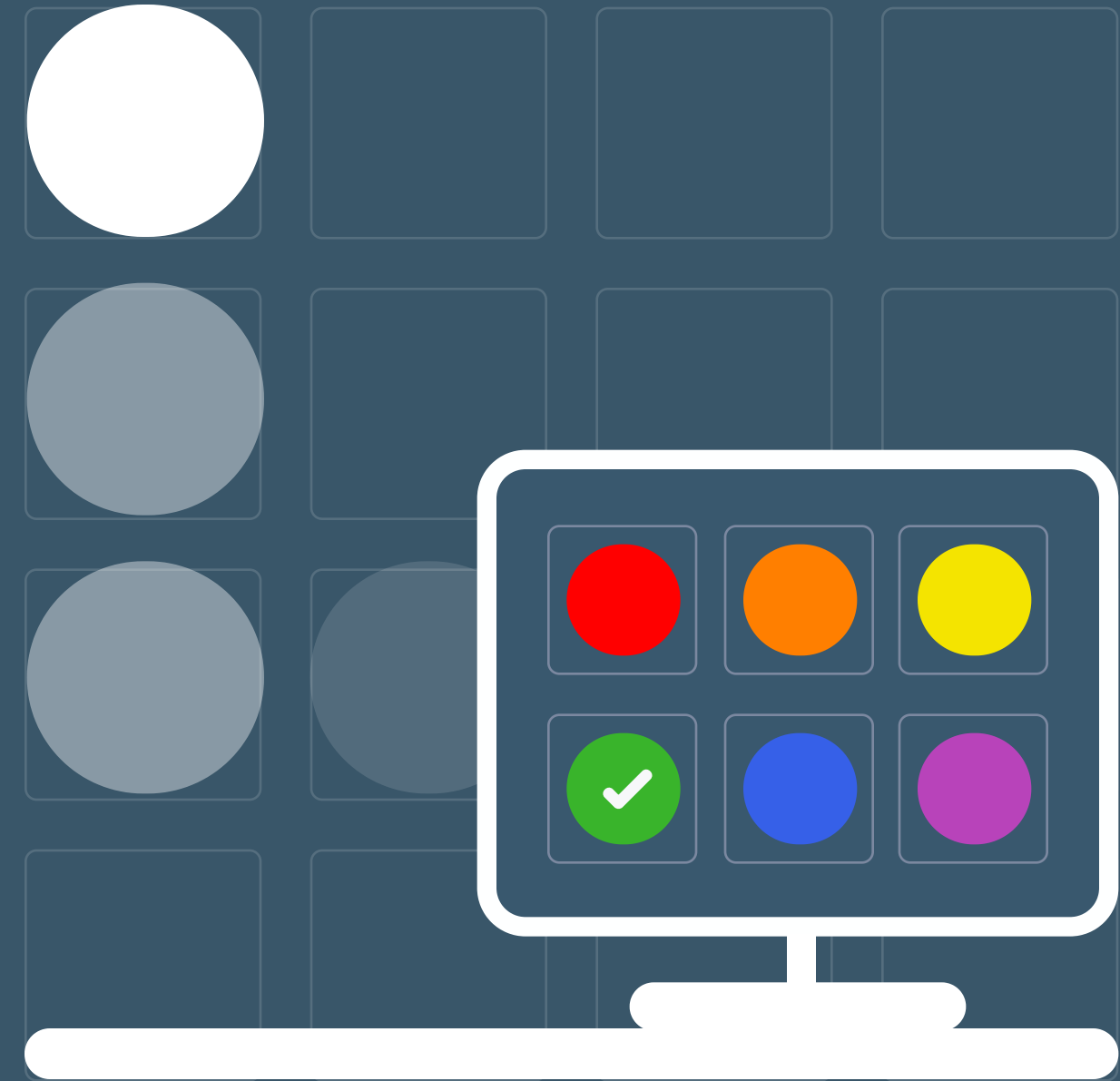
Low impact Medium impact High impact



CHAPTER 5

Keeping Culture Alive

Remote work has its perks. It also has redefined the meaning of a much-used phrase - 'work culture'. What was once the domain of the HR department, has now become everyone's mandate. From changing gender pronouns to using hackathons for collaboration, we look at how culture has changed for tech teams across the globe.





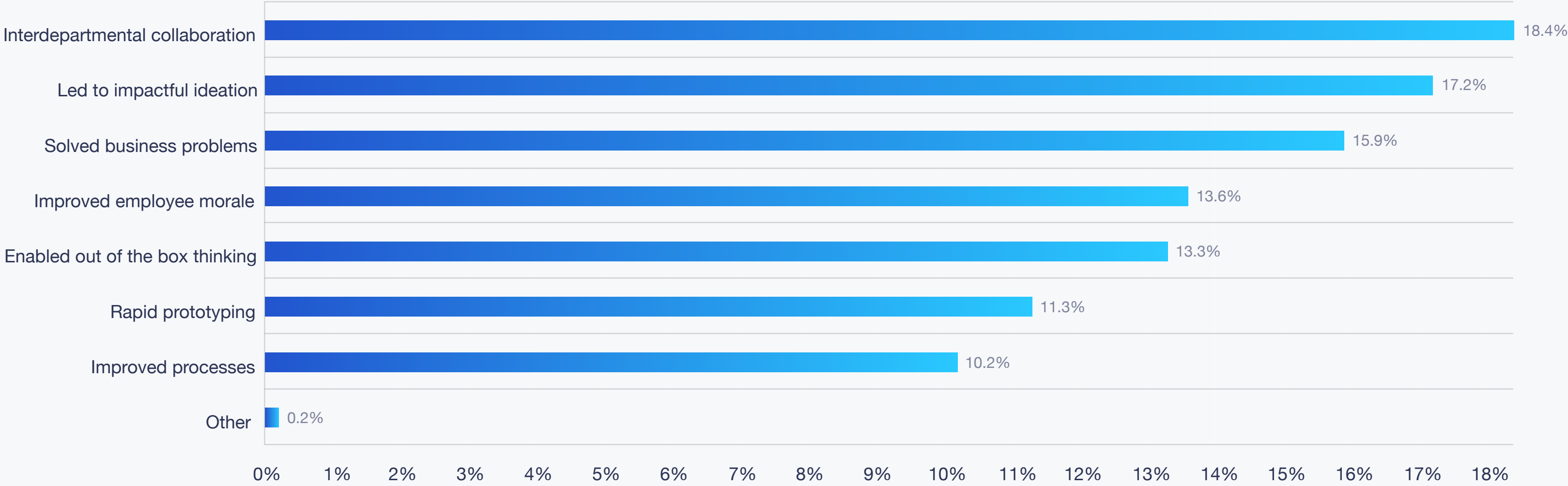
Internal Hackathons Are Becoming Part of Tech Team ‘Culture’

While hackathons have often been touted as an exemplary method of engaging and sourcing from the tech community, they are also becoming integral as inter-team collaboration activities. About 43.5% of our respondents said they had organized an internal hackathon this year, and found that it improved ideation and cross-team functioning.

8 out of 10 engineering managers say they will continue use coding interview tools even after in-person interviews return



Benefits of Internal Hackathons





Company Culture Is an Important Part of Sourcing Activities

Almost all our respondents from the HR function believe that promoting the company culture helps in sourcing candidates. In order to do so, they have included gender-neutral pronouns in all brand communiques and made sure to add LGBTQIA+ inclusive policies as part of their brand campaigns. Perks like upskilling opportunities, remote work processes, flexible working hours are some of the top EVPs that recruiters like to talk about when recruiting.

98%

of respondents think promoting culture helps sourcing efforts

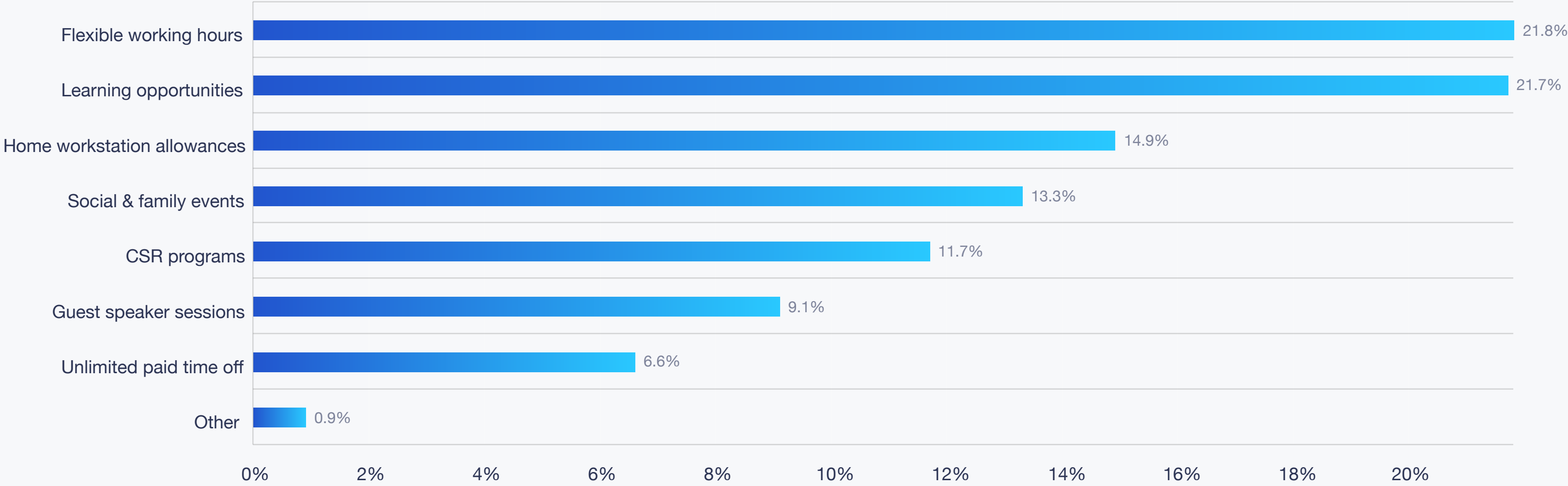


7 of 10 companies use gender neutral pronouns in their job descriptions



6 of 10 companies have enacted LGBTQIA+ inclusive policies

Perks



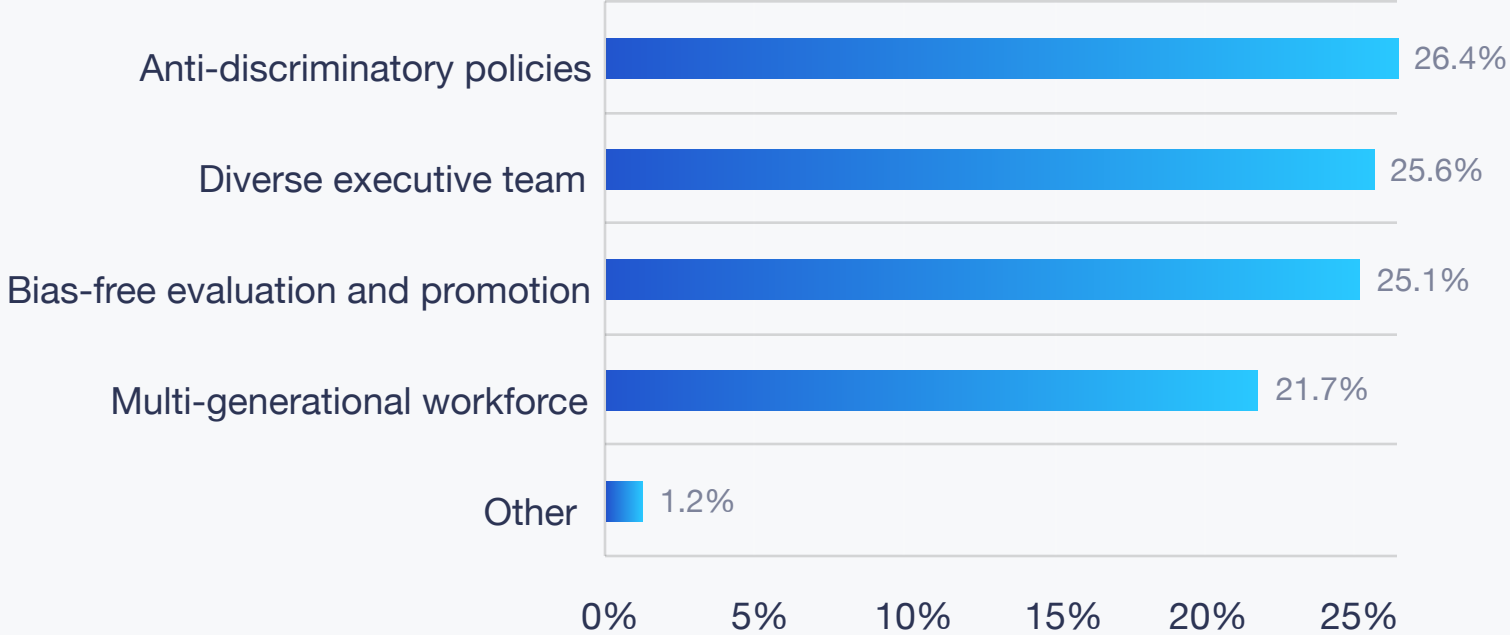


CHAPTER 5: KEEPING CULTURE ALIVE

More Branding and Outreach Programs to Increase Diversity and Representation

Our survey shows us that D&I may have to take a backseat at times so that open roles can be filled faster. However, companies are still working hard to ensure they have the right policies in place to fend off biases. About 25.6% of our HR respondents believe having a diverse executive team, and improving connections with grassroots student communities can improve their diversity pipeline.

Methods to Improve Representation



Measures to Improve Diversity



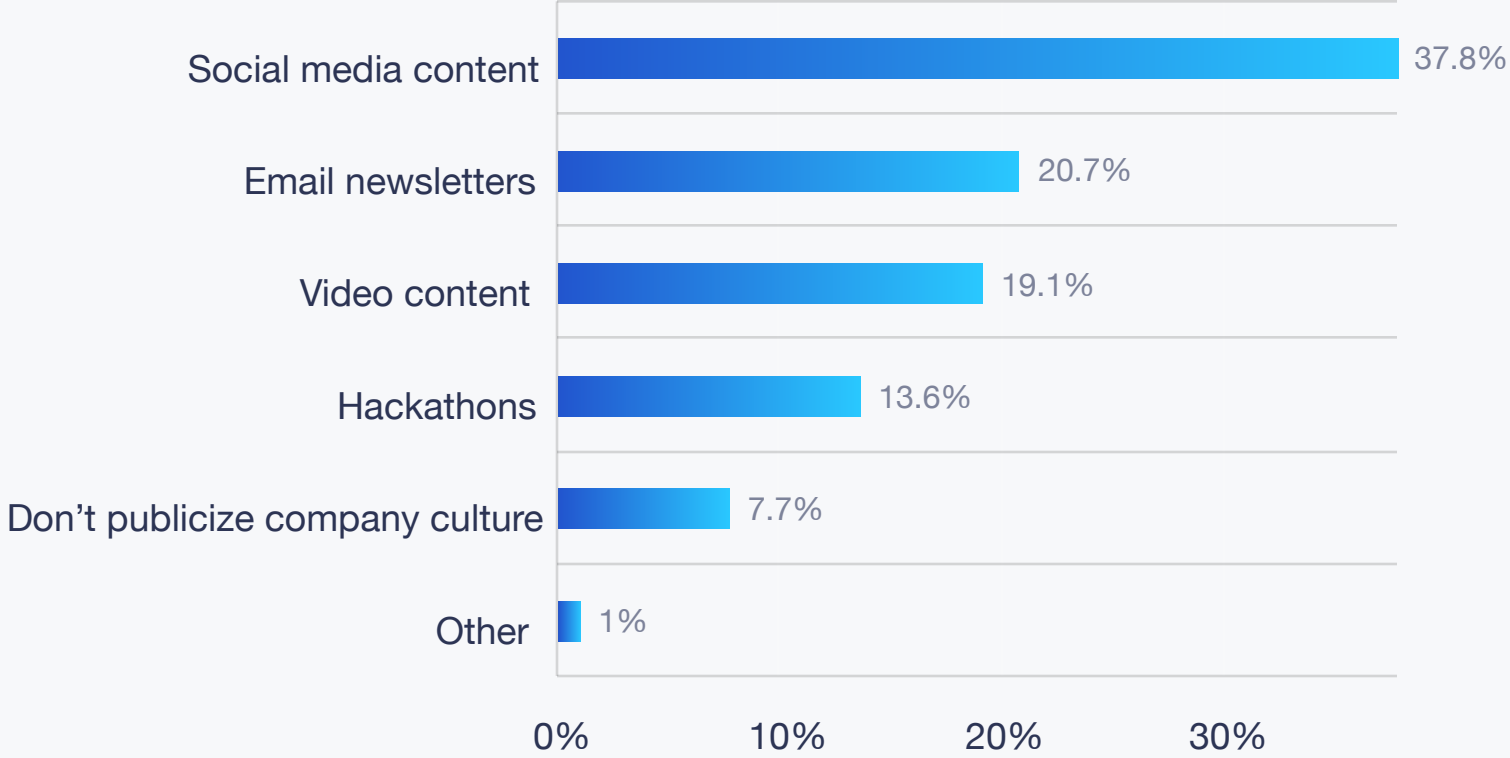


CHAPTER 5: KEEPING CULTURE ALIVE

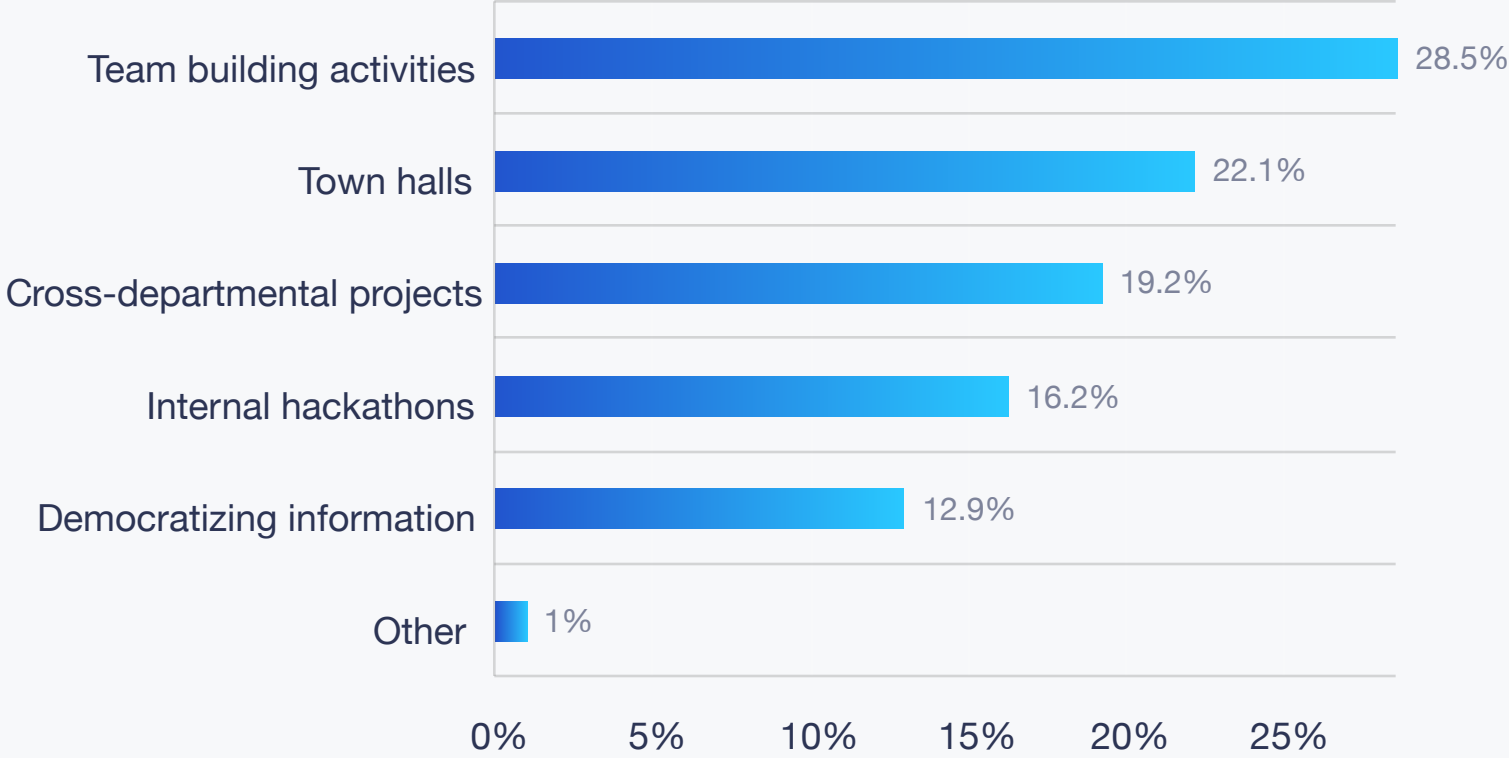
Social Media for Promoting Culture and Hackathons for Fostering Communication

What do recruiters use to promote their company's values? Social media platforms win hands down - whether it is via personal branding initiatives, or through the company's handles. Internal hackathons are also currying favor as a great way to break silos within teams and foster communication during the times of remote.

Publicizing Company Culture



Breaking Silos



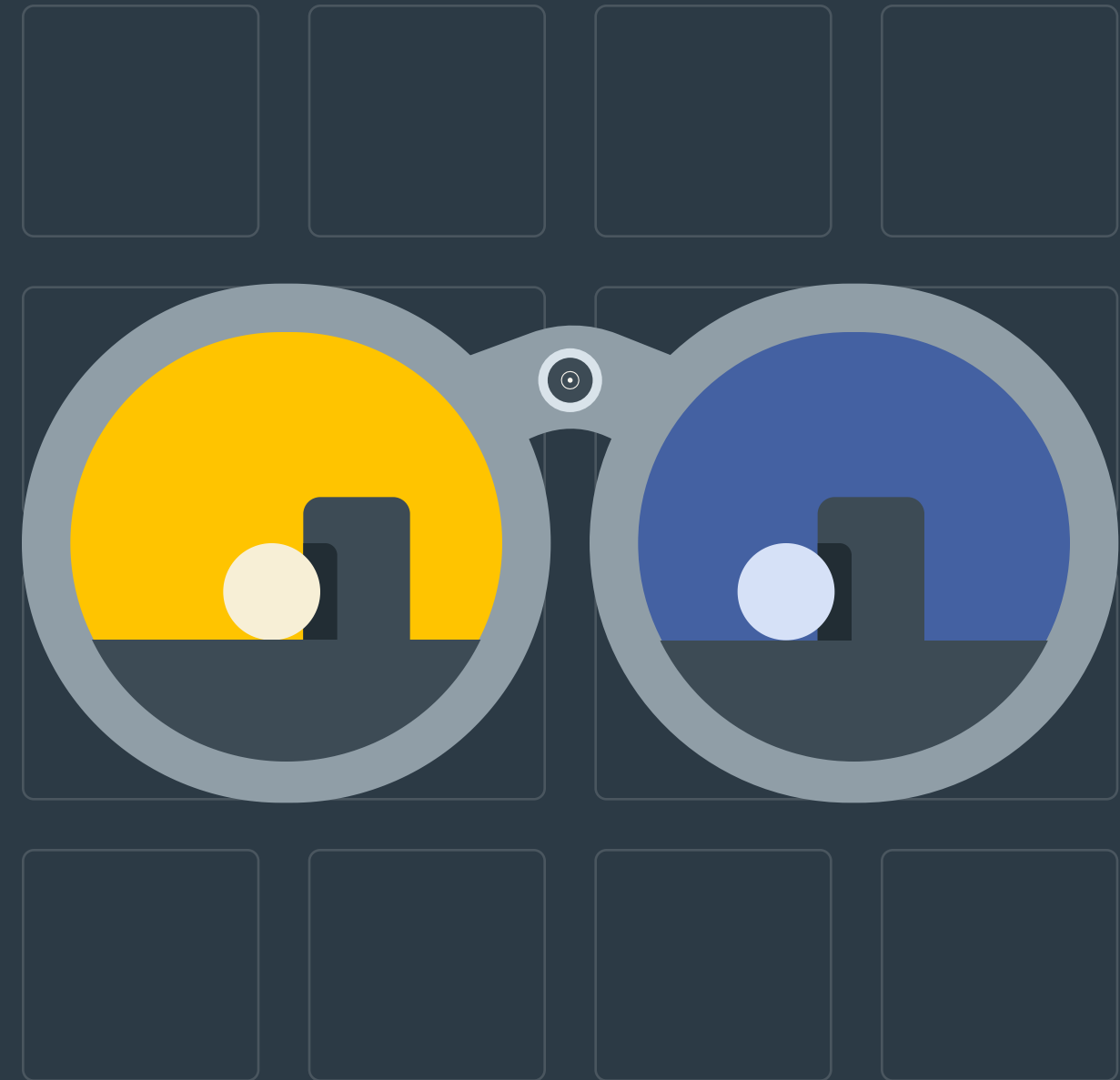
CHAPTER 6

Looking Ahead

2020 changed norms.

2021 cemented the new mores into place.

Engineering managers have found a new approach to building tech teams to fit changing business needs. So, we asked our respondents to tell us their predictions for the future of tech and tech hiring, and distilled the top 3 in this section.



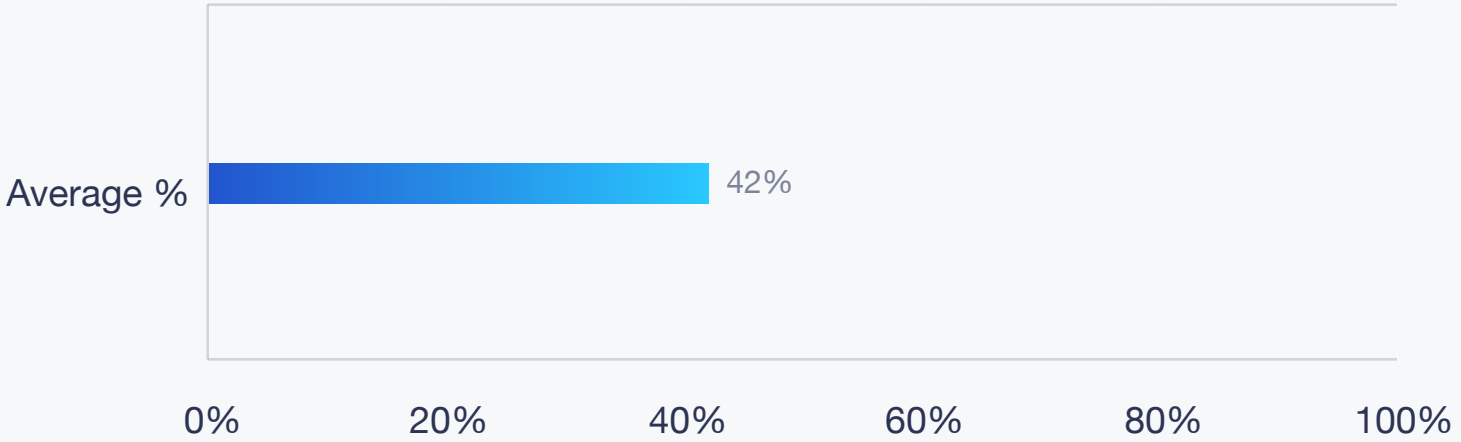


CHAPTER 6: LOOKING AHEAD

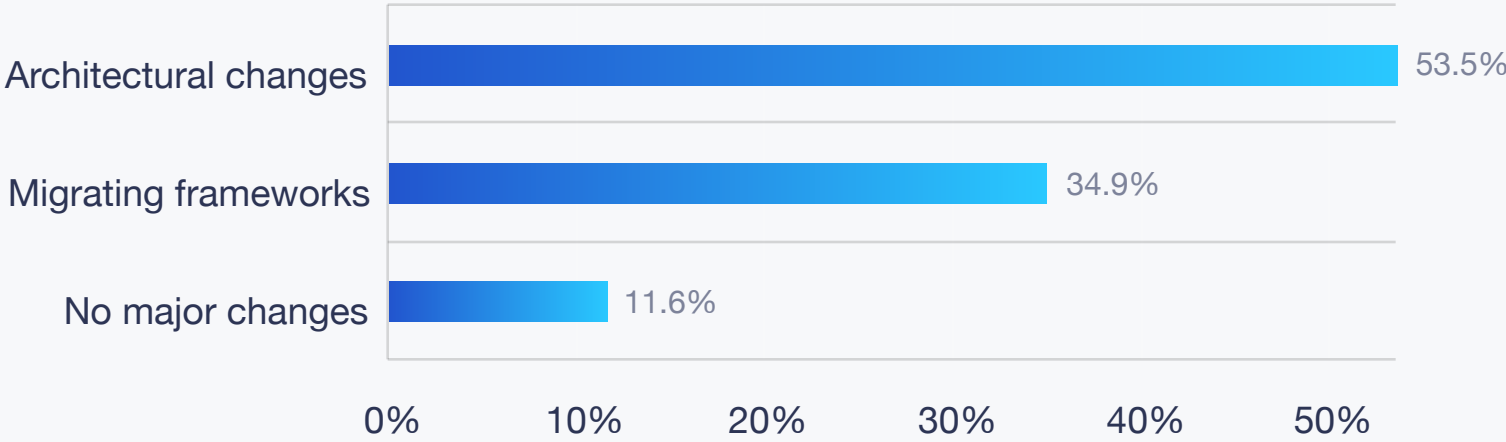
Changing Legacy Tech Stacks Is Important for Future-proofing Business

On average, about 42% of their tech stack is legacy, say our respondents. This leaves businesses vulnerable to rapid technological and process changes such as the one we saw in 2020. In order to future-proof their business, many companies are looking to make architectural changes in their tech stack which could also be one of the reasons why hiring top talent is so crucial in the coming year.

Tech Stack Legacy Quotient



Degree of Changes to the Tech Stack



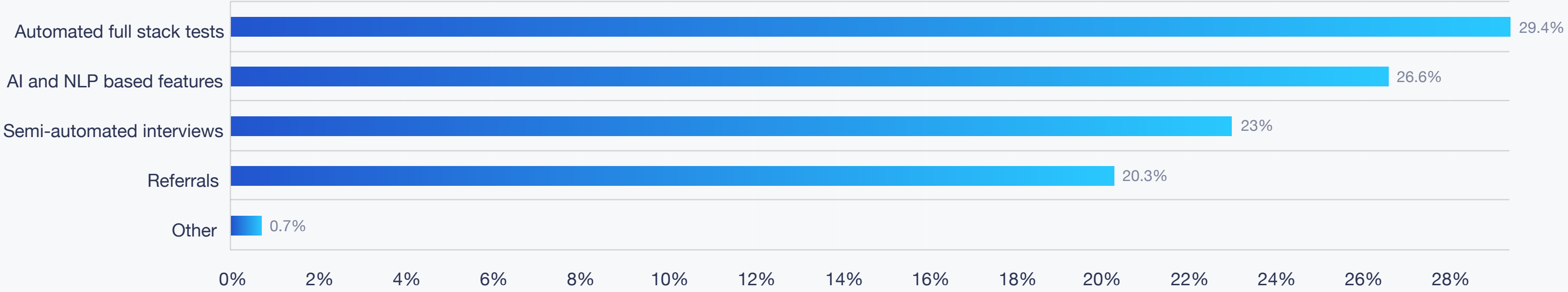


CHAPTER 6: LOOKING AHEAD

Automation Is the Future of Assessments

Given the hiring spree, we wanted to know what our respondents think the assessment tool of the future will look like. Automated features like fully automated full-stack coding tests and AI and NLP-based features are the ones most in demand.

Most Requested Features on Assessment Tools



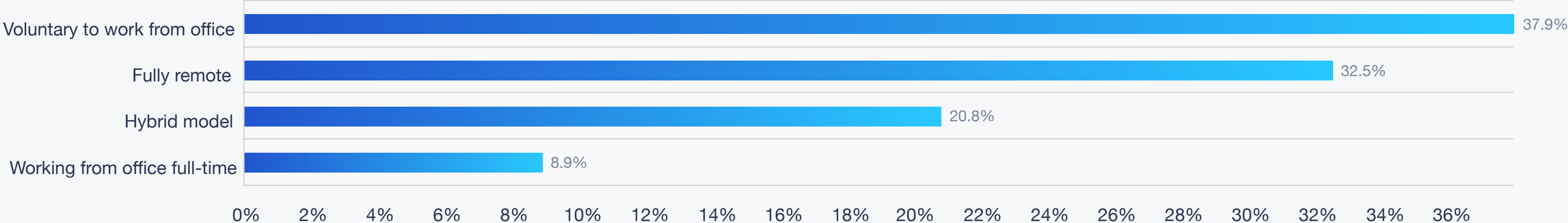


CHAPTER 6: LOOKING AHEAD

The Future of Work IS Hybrid, Mostly

We ended the survey with the question that is on top of everyone's minds - are we going back to the office in 2022? About 37.9% of our respondents said working from the office will be voluntary in the coming future, with 32.5% saying that they plan to be completely remote.

Future Working Models



Outro

Two years (almost) of remote work has fundamentally changed the industry we work in. We began this survey with a few assumptions, and we are glad to have been proven right on most accounts.

Remote work has mandated that tech hiring become a more collaborative process, and expedited the adoption of tech hiring platforms. What was a forced necessity last year, has now proven its worth. As the war for talent heats up, we expect to see more tech companies move away from their over-reliance on manual recruiting methods.

We also see that the themes that were center stage in 2021 continue to hold ground. Recruiters are more aware of branding and 'cultural' values, D&I has a better seat at the table, and there is a growing focus on a skill-first economy. As companies move forward into a changing work environment, they are doing so with renewed hope, empathy, and heart.

We are excited to see where this takes us in the coming year.
We hope you are too



Methodology

The HackerEarth State of Developer Recruitment Report 2021 is a comprehensive insight into technical recruitment post-pandemic. Comprised of inputs and insights from nearly 2500 engineering managers and HR professionals from 79 countries, the 2021 edition of the HackerEarth Developer recruitment survey aims to give recruiters and engineering managers a clear look at technical recruiting in a post-pandemic world.



We surveyed HR and Engineering professionals from

Industries



Technology



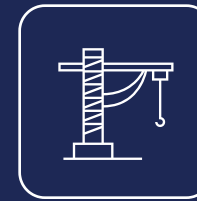
Pharmaceutical



Retail



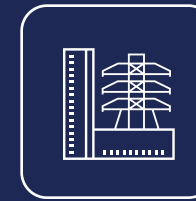
Automobile



Construction



Banking



Media



Finance



Insurance

Organization size



Early stage
startup



Growth stage
startup



Mid Market



Enterprise

They had the following designations

Engineering



Technical
Lead



Engineering
Manager



VP of
Engineering



CXO

HR



Tech
Recruiter



HR
Manager



Head of
Recruiting



CXO

HackerEarth for Enterprises

Assessments

Screen thousands of developers in seconds

FaceCode

Conduct coding interviews on a real-time code editor

Community Hackathons

Engage the developer community through open innovation

Internal Hackathons

Engage a global workforce by fostering innovation

Continuous Assessments

Identify skill gaps and continuously benchmark tech teams

Resources

[How to run a perfect virtual hackathon](#)

[Top Creative Sourcing Techniques to Leverage Today](#)

[How You Can Leverage Candidate Experience To Attract Top Talent](#)

[4 Reasons Why Coding Interviews Are Broken](#)