Collective INTELLIGENCE
Exclusive Roundtable

Watch the video:
www.SME.org/inclusion

KARLA TROTMAN

Electro Soft CEO

How to include more people of color in management

Five experts outline ways companies can help existing racially diverse employees, actions those workers can take, ways recruiters can do better, and ways to prepare for the future

Linda S. Wallace and Brett Brune
Contributing Editor | Editor in Chief

John Martin
Illustrator

Invent the Change CEO Jay Flores brings his usual sanguine disposition to the discussion of diversity, equity and inclusion in manufacturing management: "To solve the grand challenges that this country and the world is facing in manufacturing, we need all hands on deck. There should be no unnecessary barriers" for people who are members of racial or ethnic minority groups, he said in an exclusive *Smart Manufacturing* magazine roundtable on the promise of inclusion in manufacturing management.

But barriers do exist—even for owners and other top executives who are members of minority groups: Two of the roundtable panelists shared stories of top execs overcoming racial and ethnic bias in the U.S. by making sure white people handle sales calls.

That bias against people of color who hold the ultimate management jobs is not prevalent across the globe, said Dauod Thompson, managing director at Process Intel.

His firm has not run into similar issues in Southeast Asia or Canada or Europe, he said. "We're presenting at the executive level, and it's been very well received" outside of the U.S. "I think they're more about getting a solution in the door than [having to think about] some of the bias we still struggle with within the U.S.

"There's something unique about the bias and how it reveals itself in the U.S."

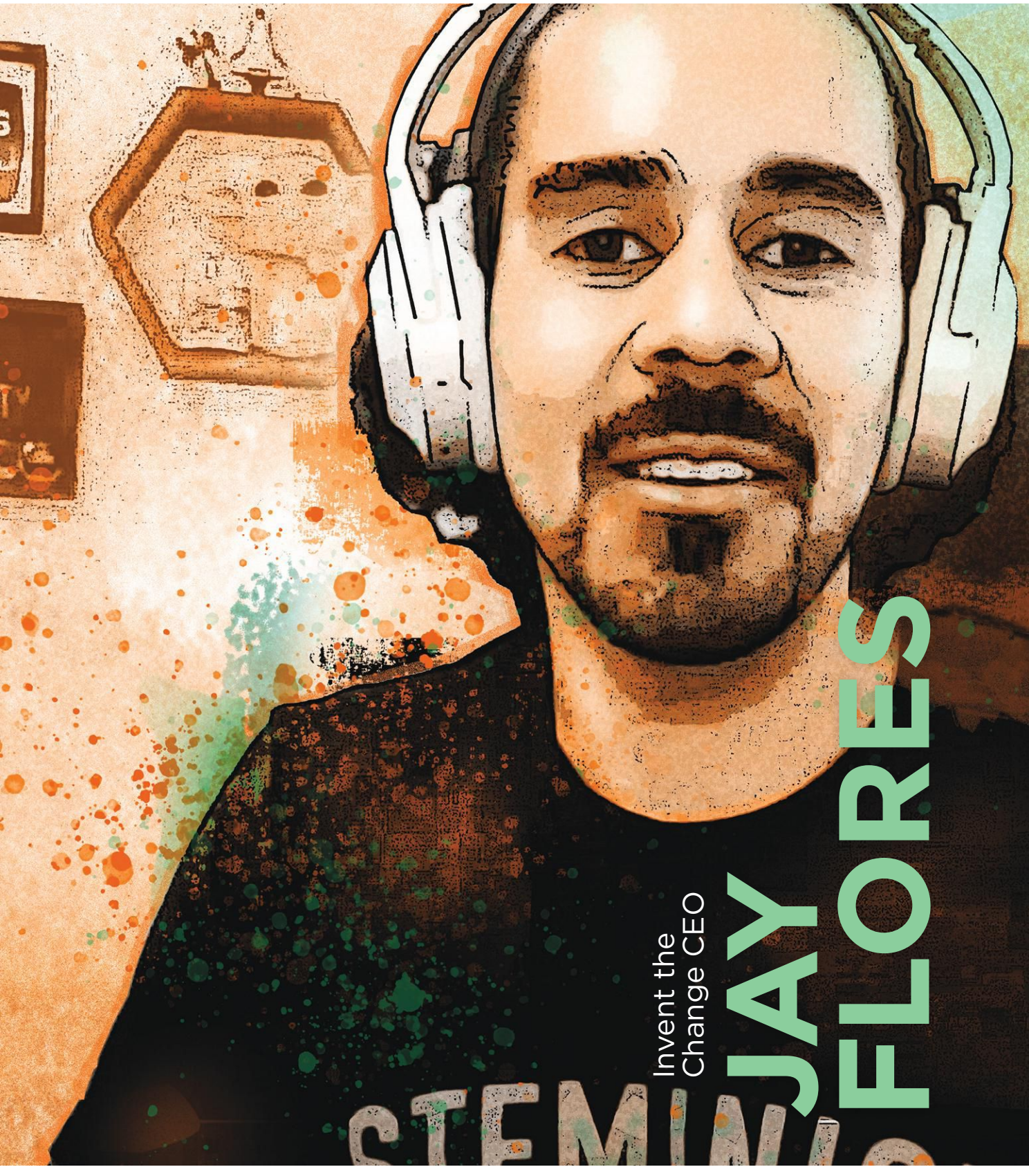
"TO SOLVE THE GRAND CHALLENGES THAT THIS COUNTRY AND THE WORLD IS FACING IN MANUFACTURING, WE NEED ALL HANDS ON DECK. THERE SHOULD BE NO UNNECESSARY BARRIERS" FOR PEOPLE WHO ARE MEMBERS OF RACIAL OR ETHNIC MINORITY GROUPS."

Outside of hiring white salespeople, brown and Black people who own manufacturing firms in the U.S. have mindfully kept their minority status off of their websites, said Electro Soft CEO Karla Trotman, who is Black and whose father started the family-owned company in the 1980s—with a white partner who made sales calls.

Supplier diversity programs, or "doors," have had very limited value for her company, in part because they typically do not connect minority-owned companies to the real corporate decision-makers, she said, calling the supplier diversity programs "black-hole databases."

"The goal is to have a conversation with the purchasing manager," she said. "Identify who that purchasing agent is," using websites like LinkedIn, as well as software that tracks who is viewing your website.

The roundtable focused mostly on all the ways the industry can work to move more people of color into management posts, as well as things


Invent the
Change CEO
JAY
FLORES

that brown and Black employees themselves can do to better the chances they will become managers.

Ways to help existing racially diverse employees

To up their game, employers in the U.S. that have hired Black and brown people who could become managers would do well to first become more aware of unconscious bias, which can frustrate people of color and limit development opportunities. It can come in many forms, including a slight, an offhand remark and a blind spot that keeps a supervisor from seeing an employee's management potential.

Retention of Black and brown people can be challenging, in part because "when it comes to developing talent, the biases work against you in some ways," said Montez King, executive director at the National Institute for Metalworking Skills.

To make workforce development programs work well for members of minority groups, "you've got to be aware of these trends and phenomena that happen in the workplace and to have a handle on biases," he said.

Trotman suggested manufacturers consider auditing their workplace for bias.

"There is unconscious bias in manufacturing that's held by both men and women," and it can help to "bring in an outside party to audit your organization and identify unconscious bias and other issues that you may not be aware of," she said.

Organizational culture often is represented as a massive iceberg.

That's because most aspects are submerged and hidden beneath the surface, including assumptions, values, beliefs and unconscious bias. The tip of the iceberg represents the things we can see, hear and touch—language, food, and dress.

Unconscious bias is not always on the radar, but it's there, said Allen Reid, chief human resources officer at Materion. Workers need some degree of cultural competence—the ability to communicate with, understand and work effectively with people across cultures—to understand how cultures, assumptions and experiences differ. This enables them to communicate, respond and work more seamlessly as a team.

This presents a challenge for new hires, especially people who are members of minority groups who may have difficulty reading the organization's culture and figuring out how to advance.

"There are several things you can do to help," Reid said. "Certainly, one of those is, first, taking the time to explain to employees what the opportunities are in terms of creating that cultural competency. Employees need to have true career-development plans."

He suggested that manufacturing leaders "sit down and talk with an employee one on one" about the opportunities and their aspirations. "That's really important in terms of helping to create that cultural competency, and in many ways creating networks."

Manufacturers in the U.S. will do better with regard to diversity, equity and inclusion if they create "a stakeholder environment" that goes beyond measuring trainees' performance, King said.

To help create such an environment, he developed a program he calls "synonymous training" where the overall objective is to make the success of the coach synonymous to the training.

"We normally have these dotted lines where you have separate assessments for the trainee and the coach," King said. But because part of a manufacturer's objective with any training program is to "navigate around pitfalls within the training and help trainees understand the culture," the assessment needs to be the same: The goals for the trainee need to match the goals for the coach.

Part of what synonymous training achieves is unearthing biases, conscious or unconscious, he added.

Another solution offered during the roundtable: Attach diversity, equity and inclusion (DEI) to one of your key performance indicators (KPIs).

"Make it a part of the goals for your management team," Trotman said. When hitting specified DEI measures is tied to getting bonuses, "you will see the change."

Additionally, Reid recommended mentorships, which pair new employees with experienced workers to share information about the job, tasks and culture.

"That's not just nice to have; it's really important, especially for employees who may not have had as much experience in the workplace," he said. "And, as you go further in your career, other opportunities, such as apprenticeships, are great in terms of creating connection."

Showing, not just telling, someone how to do something "creates cultural competency," Reid said. "If you get the recruiting and development part right, then the retention piece will be fine. And that's where, on the development side, apprenticeships and the mentoring and the other career-development opportunities come in to give people that stick-to-it-iveness to an organization—to lessen the effect of the bias we all have and give people an opportunity to flourish."

King's experience in an apprenticeship years ago gave him invaluable "life experience" concerning things like buying a house, he said. "I wanted a piece of that 'American dream' everyone spoke about. That apprenticeship told me that it was there for me."

The apprenticeship model needs to be modernized to align with operations, he said. "If you have a traditional way of thinking for your training but your operation is always geared to be profitable, then it's not modernized."

There are seven principles associated with a modernized apprenticeship program, King said, elucidating two: "The first principle is training from the end. What does it look like at the end? Whatever your product is at the end, that's what you start with. That drives everything. The last principle is called win-win. When you look at your apprenticeship, you don't look at it with what the employee will get from it or what the company will get from it. It has to be what both get from it."

A good source for additional ideas that should help with retaining brown and Black employees is the Manufacturing Institute, Trotman said.

The institute has "a diversity initiative and it states that, by 2025, manufacturers will commit 50,000 tangible actions to increase equity and parity for underrepresented communities, creating 300,000 pathways to job opportunities for people of color," she said. "So, the first thing I'd do is pick one and get that started."

In a "Beyond reskilling" report Deloitte published this year, the consultancy said "four in 10 manufacturers it surveyed have fired employees, including senior leaders, for racist, sexist or biased comments or actions. And, four in 10 have dropped business partners or suppliers for their racist, sexist or biased comments or actions."

While it noted that minorities make up 10 percent of the general manufacturing workforce, Deloitte said that "for the Black workforce, the lack of promotion opportunities and culture mismatches are two of the top reasons some are considering leaving."

Actions racially diverse employees can take

Networking is vital for people of color who are interested in management roles, Thompson said.

"Engineers have a tendency to get shy," he said. "You've got to network, and you've got to network above your level."

And when people of color reach goals, it is important to "make sure your wins, and your concerns, are communicated at a level where something can be done to address them."

TO UP THEIR GAME, EMPLOYERS IN THE U.S. THAT HAVE HIRED BLACK AND BROWN PEOPLE WHO COULD BECOME MANAGERS WOULD DO WELL TO FIRST BECOME MORE AWARE OF UNCONSCIOUS BIAS, WHICH CAN FRUSTRATE PEOPLE OF COLOR AND LIMIT DEVELOPMENT OPPORTUNITIES.

Companies are "hungry for people who give more than they take" Reid said. "Be curious, soak up everything you can" because experience is "currency."

With regard to development opportunities, Thompson, Reid and King emphasized that brown and Black employees must be proactive and share in the responsibility to improve the lot of people of color in manufacturing management.

"In some cases, there are programs that put you on the management fast track and some that put you on the executive fast track, " Thompson said. "Typically, you've had to have done something extraordinary to be put on those fast tracks, which oftentimes are really lacking diversity.

"I was fortunate enough to end up on those fast tracks while I was working in automotive manufacturing,"

he added. "But one thing I learned along the way was to set up a mentoring/coaching environment for myself."

In addition to the regular mentorship idea, Thompson said, "you've got to have a mentor who is your boss's boss. Once per quarter, send a paragraph with some of your wins, and some of your challenges that took place during the quarter. The movement of an individual employee doesn't always happen directly by their manager or director; it may happen at the executive director or vice president level that is keeping an eye on some of the new talent coming in."

Ways recruiters can do better

Increasing efforts to hire people of color is an obvious way to address the skills gap in manufacturing, the panelists suggested.

"Right now, it's taking an average of 70 days to recruit skilled production workers," Trotman said. "And you have to add to that on-the-job training. I've read that approximately six out of 10 positions go unfilled. And that forces businesses to look to alternative solutions. So, there's a dire need."

The Southeastern Pennsylvania Manufacturing Alliance, an industry partnership with manufacturers of which Trotman is a co-chair, created a boot camp.

"EVERYONE HAS BIAS, NO MATTER WHAT YOUR BACKGROUND. AND PEOPLE TEND TO HAVE A BIAS TOWARD OTHERS WHO LOOK LIKE THEMSELVES. SO, IT'S REALLY IMPORTANT IN THE RECRUITMENT PROCESS TO BRING IN PEOPLE WITH DIFFERENT EXPERIENCES, DIFFERENT BACKGROUNDS, DIFFERENT POINTS OF VIEW."

The alliance includes about 70 manufacturers that were struggling to fill jobs. "So, we've created our own career pathways and a boot camp," she said. "And we found the training provider. We've invested money."

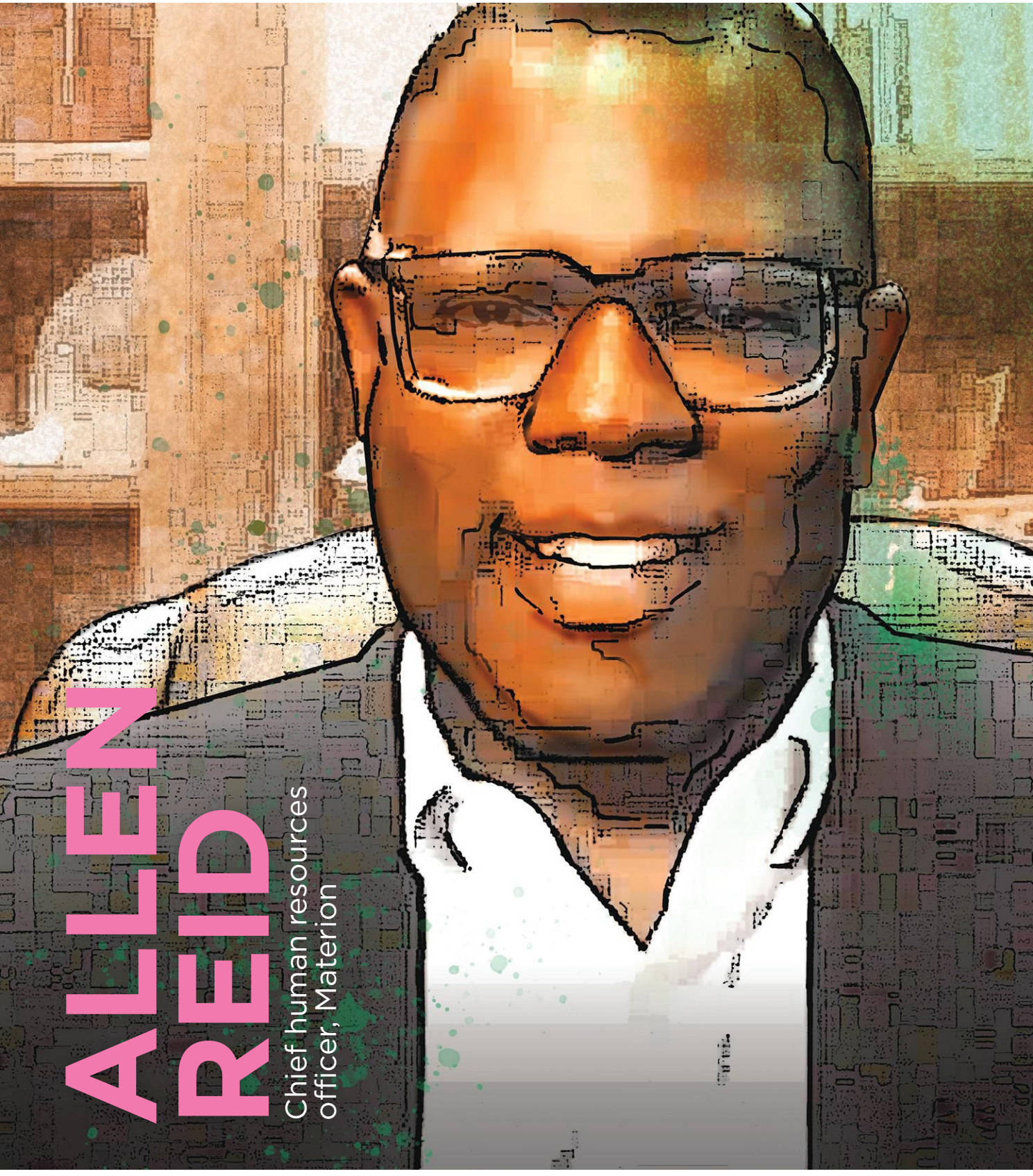
The program recently graduated a fifth group of people "who at least have a foundation in manufacturing when they walk in the door," Trotman said. "A lot of people assume manufacturing is this hot, crazy environment with sparks flying all over. But it's not like that. We need to change the face of the industry. We've been successful with our boot camps: About 80 percent of the people who complete it are hired, and we're looking to have more people complete the program in different areas of the city and the suburbs. So, if you're sitting at home and you want to build things, call me."

It is important to include people of color on recruiting and selection panels, Reid said. "Everyone has bias, no matter what your background. And people tend to have a bias toward others who look like themselves. So, it's really important in the recruitment process to bring in people with different experiences, different backgrounds, different points of view."

That lookalike tendency has been borne out in companies recruiting from historically white colleges and universities more than from historically Black colleges and universities (HBCUs), panelists said.

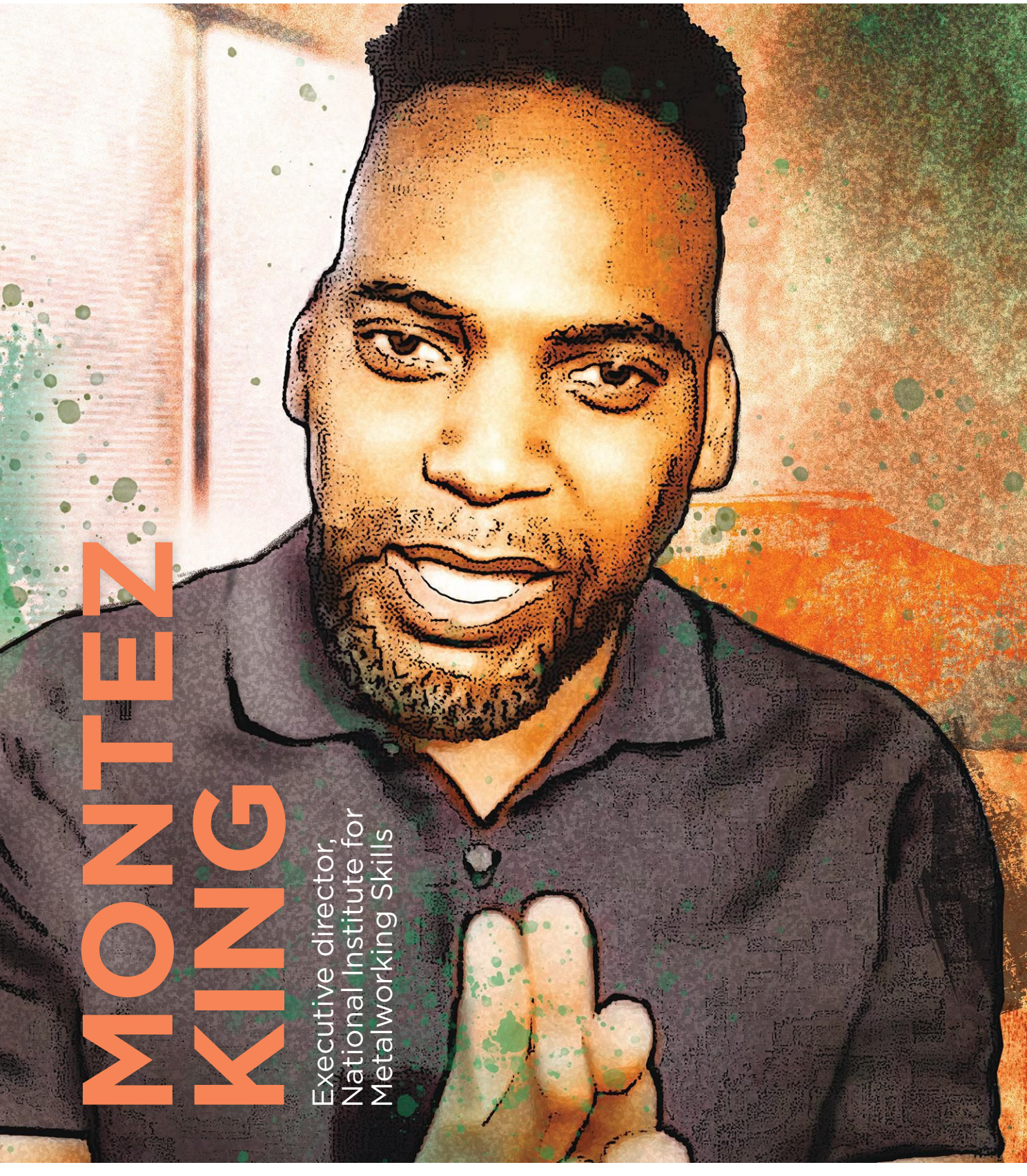
"There's such a heavy allegiance, particularly when you're talking about engineering and manufacturing, that everybody wants to have a bias and recruit from their alma mater," Thompson said. "So quite often you see them pulling in the exact same pipeline that looks like them," meaning white engineers.

HBCUs enroll about 10 percent of African American students in the country and produce roughly 25 percent of African American graduates with STEM degrees, according to the United Negro College Fund.



ALLEN REID

Chief human resources officer, Materion



MONTEZ KING

Executive director, National Institute for Metalworking Skills

Reid, who graduated from an HBCU, "had the opportunity to also go to large, predominantly white universities, as well," he said. "There's a perception that an engineering program at an HBCU is not as good as an engineering program at another university—and that's not true. I think it goes back to the bias of wanting to have people who have had your same experience, who have your same background and thinking that other people who come from different places are not as capable or qualified. We have to change that."

Thompson, who also graduated from an HBCU, said the schools "produce really good engineers, folks who seem to move into corporate, assimilate well and then move up the corporate ladder.

"Look at Procter & Gamble and how many [managers] have come from Tuskegee," he said. "Look at Ford and places like that where you see that pipelines work pretty well. They are getting something right."

MANUFACTURERS IN THE U.S. WILL DO BETTER WITH REGARD TO DIVERSITY IF THEY CREATE "A STAKEHOLDER ENVIRONMENT" THAT GOES BEYOND MEASURING TRAINEES' PERFORMANCE. "THE GOALS FOR THE TRAINEE NEED TO MATCH THE GOALS FOR THE COACH."

An attitude adjustment is needed by some HR departments at manufacturers, Trotman said: "They often say they are 'hiring for fit into the culture.' But if we really want to have a more robust organization from the top down, we should be hiring for enhancement, as opposed to fit. You hire for fit and you'll get the same thing you've always gotten. You hire for enhancement and your company will grow."

Ways to prepare for the future

Manufacturers that plan to be around for decades need to increase efforts to promote STEM careers to Black and brown children and foster mutually beneficial relationships in their communities, Flores said. "We need to make sure we are inspiring people from all different groups, in all different areas" to consider careers in manufacturing "because you never know which one of those students is going to be the one who is going to change the world."

But focusing mostly on kids in college, and sometimes in high school, is ill advised, Flores said:

"A lot of energy and time is put into the area where the students have already decided that they're going to be in this field. If we really want to move the needle, we need to reach them in younger, formative years when they're deciding whether science is a thing for them or not, when they're really confused in math and they're saying, 'Why would I ever use this again in my life?' We need to be there to help answer those questions and show some really good examples of how they can apply these subjects to the real world.

"Oftentimes, teachers will reach out to the students who have the best math scores and say, 'You might want to consider becoming an engineer.' But the real basis for innovation is around curiosity. So even if your math and science grades aren't the best right now, we want to inspire that curiosity to change the world. It's later on when you decide, 'Okay, I'm passionate enough about solving this problem that I'll go and learn the hard math and science to be able to do it.' It's not the equations that matter; it's what you can do with those equations."

Trotman agreed—and noted her work with Nepris (www.nepris.com/home/v4), which sets up career days across the U.S.: "In the past few months, I've spoken to hundreds of students who are interested in business and manufacturing and entrepreneurship. It has been very impactful, and I didn't even have to leave my desk. The greatest thing, though, is I'm talking to [brown and Black] students in the Great Plains area, where I don't have business, and they're asking me questions because they can't find anyone near them who does what I do. And that is inspirational to a lot of them."

To encourage Black and brown kids to consider working in manufacturing, the industry needs to increase its presence in the neighborhoods where the kids live, Flores said.

"One of the keys is starting very young with the messaging and the work that you're doing in the

community—providing opportunities for people from all backgrounds in your backyard to understand what the opportunities are and the education that's required to pursue a career in this space," he said.

Flores grew up in Rockwell Automation's backyard and as he passed the company's global headquarters on his way to school every day in Milwaukee, he imagined it was either a military facility or a jail, he said, chuckling.

He ended up working there for eight years—first as an engineer and then as a STEM ambassador. "But if it wasn't for their outreach into the community, I never would have made my way there," he said.

It is also a good idea to provide "opportunities for those students to engage with current engineers within the organization," Flores said. "Reaching out into the community is absolutely important: Even if those students don't start working for you, they could become a customer, and they could become a future client. And that experience is going to help them think of you first when it comes to certain opportunities in the future."

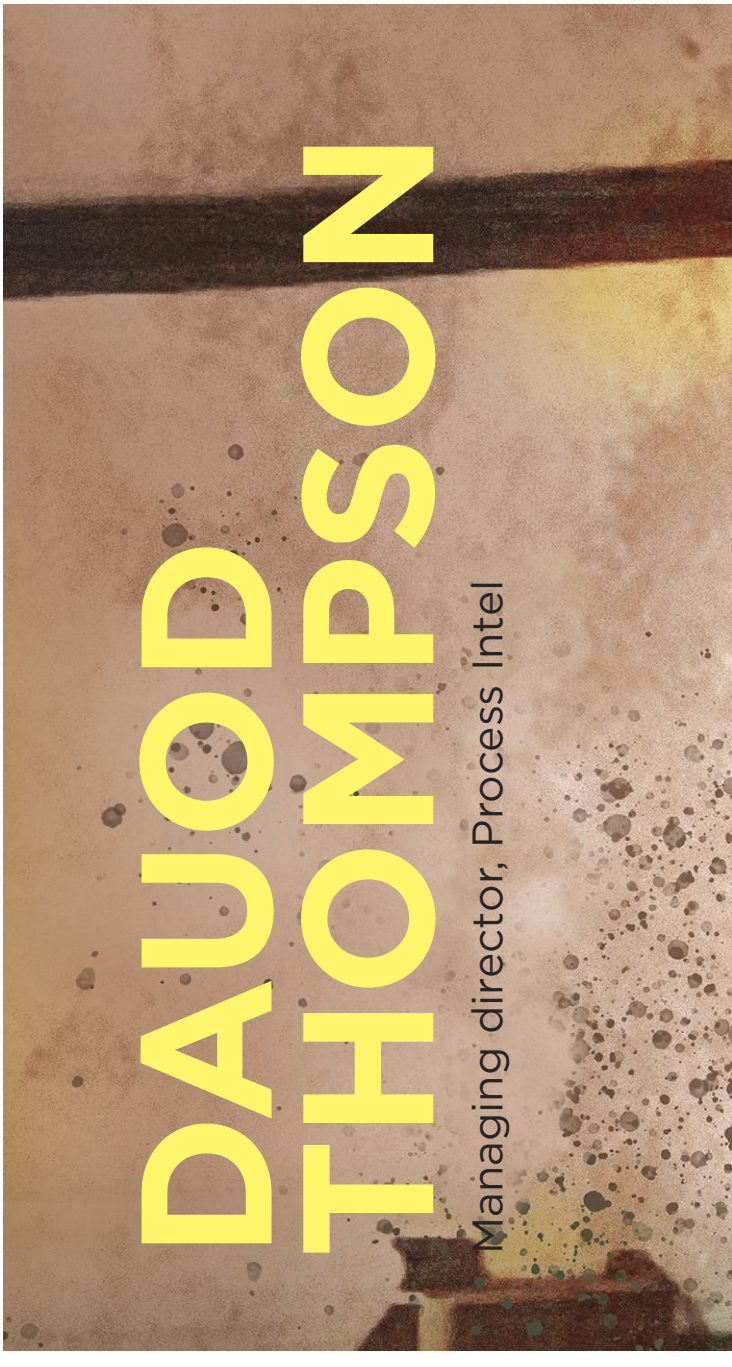
"IN FOOTBALL TERMS, WE'RE NOW COMPETING IN THE SUPER BOWL AGAINST CHINA, AGAINST VIETNAM, AGAINST INDIA. THEIR TEAMS ARE WELL-ORGANIZED, EXPERT LEVEL, AND WE HAVE A TEAM THAT IS PARTIALLY DIVIDED."

Individuals who have fulfilling careers in manufacturing can also take it upon themselves to reach out to young people to demystify manufacturing, Reid said:

"There is this old saying: 'Each one, reach one.' You really can change the course of someone's life."

U.S. manufacturing can improve its global standing

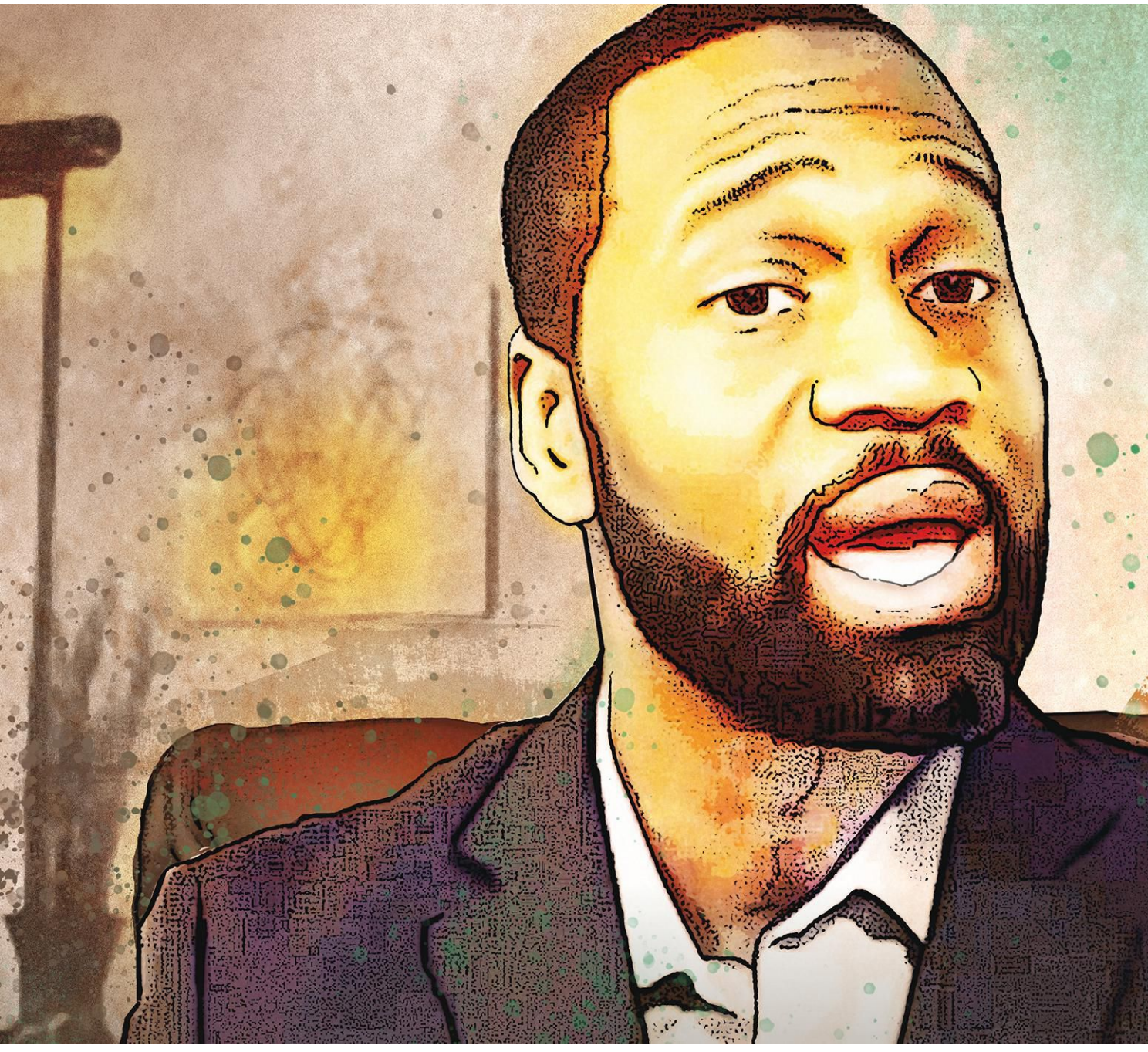
Imagine a manufacturer that is prospering, powered by a diverse workforce that is able to investigate business opportunities objectively, solve complex problems with dispatch and build new and better products. This is a place where managers review how well workers perform—and also recognize that, while



talent is essential, a learning culture, lived experiences and shared knowledge build a winning team.

In the sports world, think the New England Patriots of yesteryear.

U.S. manufacturing is not this picture of health at the moment: America's deep and sometimes race-related political divisions, along with U.S. manufacturers' failure to promote significant numbers of non-white



workers to management posts, are holding the sector back in global markets, Thompson said.

"In football terms, we're now competing in the Super Bowl against China, against Vietnam, against India," he said. "Their teams are well-organized, expert level, and we have a team that is partially divided. So, if you have a team that's partially divided taking the field, and you're going against the world's best, I don't think you're going to achieve everything that you hope to achieve. That's where we are right now: The U.S. is a divided team going against the world's best—and they're not divided."

King echoed Flores' "all hands on deck" comment: "We need everyone's boots on the ground. We've got to work together. And apprenticeships are a good way to bring us in so the U.S. can compete in the Super Bowl—because we want that win."