Ramona Schindelheim, WorkingNation editor-in-chief:

You're listening to Work In Progress. I'm Ramona Schindelheim, Editor-in-Chief of Working Nation. Work in Progress explores the rapidly changing workplace through conversations with innovators, educators and decision makers, people with solutions to today's workforce challenges.

You'd be hard pressed to find any industry that doesn't rely on technology. Just as tech is changing our everyday lives, it's also changing the skills needed to get jobs and build careers in these industries. Earlier this month in Las Vegas, I attended the Consumer Electronic Show, CES. I met with business and workforce development leaders who shared some ideas on how their tech innovations on display on the show floor could change the way people work and how these companies are preparing the workforce to use those evolving technologies. Laura Demarse is a Workforce Development Leader at Ford Motor Company. Her group invests in educational initiatives in communities, so the company can start to build the STEM pipeline. STEM is especially important as Ford and other carmakers invest heavily in developing electric vehicles.

Laura Demarse, Ford Motor Company:

So we have a number of programs with K through 12 districts in communities around Detroit, in Dearborn, and in other communities where Ford has a presence. We work with community colleges, university partners to support engineering, student co-ops, internships. We also support a lot of teacher professional development so that we help students and teachers be prepared for the STEM workforce with attenuated skills and curriculum. Right now, we are really interested in our EV revolution as we think about all of the skills that accompany those jobs, a lot of them are around engineering, computer science. So we're really interested in working with districts and colleges across the country where we can embed a particular skillset that helps our students develop to become well-rounded holistic employees that can support that endeavor.

Ramona Schindelheim, WorkingNation editor-in-chief:

And Ford is making sure current employees are not left behind as technology changes.

Laura Demarse, Ford Motor Company:

One of the wonderful strengths of Ford Motor Company is the really phenomenal mature workforce and people that have stayed for very long periods of time that have tremendous amount of institutional knowledge and understanding of the company, and that's such an important piece of Ford. And I think as we think about moving forward in the future, how do we help all of these people really think about what the future looks like for them? With upskilling and reskilling opportunities, we really embrace a growth mindset and people at Ford really see that opportunity and want to continue to grow and develop with the company. So it's really a company that values the workforce, that is proud of their workforce and wants to help people make the shift in the turn as we move towards EVs.

Ramona Schindelheim, WorkingNation editor-in-chief:

Ford is a manufacturer of course, but Demarse says the company should be thought of as more of an innovation hub than a factory.

Laura Demarse, Ford Motor Company:

One of the things that Ford's really focused on shifting is this perception of manufacturing jobs. Now they're really very modern and innovative and clean, and I say clean because it's a kind of innovation

space where there are accompanying jobs that require very specific skillset. So it's a really exciting and neat place to be.

Ramona Schindelheim, WorkingNation editor-in-chief:

Demarse points out that just like technology is embedded in our daily lives, it's central to the jobs at Ford.

Laura Demarse, Ford Motor Company:

So as opposed to thinking of it as this other thing, this huge barrier and not having the requisite skills and knowledge generationally to interact with it, think about how often you interact with it every day and that it's an embedded part of our experience, whether we recognize it or not. So it's not that big of a jump or a leap to say, "I work in technology or I'm interested in the technology," when it's part of our daily life. So I think really kind of breaking down the barriers and the silos so that people can understand that it's part of their daily existence and a really helpful part of life on this planet.

Ramona Schindelheim, WorkingNation editor-in-chief:

Demarse tells me that Ford, like other employers, is seeing a change in higher education and other on-ramps to employment. For one thing, the company has eliminated college degrees for certain jobs.

Laura Demarse, Ford Motor Company:

As the labor market shifts. It has an indelible imprint on how education is produced, and I think the American population at large has become a much more knowledgeable consumer of higher education. And therefore that's shifting how people interact with it, how much they're willing to pay for it, how much time they're willing to put into it, and really thinking about ROI. So I think what I see are these kind of terminal pathways to careers being very attractive, and you can do that through a stackable credential, a certificate, so you don't have to necessarily get a four-year degree or beyond.

Ramona Schindelheim, WorkingNation editor-in-chief:

I caught up with Barbara Humpton, the CEO of Siemens, at their CES booth. If you're not familiar with it, Siemens is a technology company that, as they put it, brings software to our built environment.

Barbara Humpton, Siemens CEO:

One reason Siemens loves to come to the consumer electronic show is we're not a business to consumer... a business ourselves, but all of our customers are here. And what I'm seeing all around us is this new role of technology in the work of the future. Siemens works at the nexus of both the real and the virtual world, and what you're seeing all through this exhibition hall is that marriage. You're seeing real things that are now governed by software. You're seeing new devices that are driven by artificial intelligence. The big buzzword here this time is the generative AI that where we are actually beginning to see software that can create.

Ramona Schindelheim, WorkingNation editor-in-chief:

AI is increasingly in the news and it has many applications, but Humpton promises that AI is not taking jobs away from professionals, such as reporters and writers like me.

Barbara Humpton, Siemens CEO:

These won't take your job away. The really critical thing is that we need people to steer and guide the work. What you're seeing here is that computers are going to take those repetitive tasks off of our plates and give us the opportunity to really express our own creativity. And of course, again, we'll keep working on automation that will take, I'll say the drudgery out of work and keep us focused on the things that matter, like caring.

Ramona Schindelheim, WorkingNation editor-in-chief:

And this is in all industries. Humpton says the company's goal is to use technology tools to train the future workforce and make the future more accessible to them.

Barbara Humpton, Siemens CEO:

What if learning how to work in a manufacturing environment was more like playing a video game? Those immersive experiences are going to be great training environments for our future workforce. Look right behind me. I'm in the Siemens booth and we're using our technology to help customers in such diverse fields as space travel and vertical farming. Two examples that couldn't be more different, and yet the underlying technology that's in use here is precisely the same. The underlying technology is the digital twin. We now have the ability to create digital renderings of physical objects. So for instance, Space Perspective right behind me wanted to model out the physics of taking a balloon right to the edge of space. They were able to do all of that virtually. Of course, what would it cost to actually build something and experiment? They've been able to experiment digitally using all kinds of different parameters, and now they have a working approach and strategy, and within two years, you, too could be able to have cocktails in space.

Ramona Schindelheim, WorkingNation editor-in-chief:

Beyond having cocktails in space, or virtual space, you might use technology to, say, automate farming.

Felecia Pryor, John Deere Company:

What better place to be than for John Deere to be here at CES? We are a transformational, evolving company. We have great technology, we have great products, and we have a real purpose.

Ramona Schindelheim, WorkingNation editor-in-chief:

Felecia Pryor is the Chief People Officer at John Deere. She explains how tech drives the process of taking food from the seed to the table.

Felecia Pryor, John Deere Company:

We're 186 year old company. Manufacturing has been our long heritage, and it continues to be, but we're evolving and transforming like every other industry. And so we're leaning into AI and technology, and we do this all in service of agriculture, feeding the world. We do this all in service of construction. Construction helps us to feed the world. So when you think about what we do and our whole purpose is we run so that life can leap forward. There's a lot of technology and manufacturing, and so making sure that we capture the hearts and minds of people foundationally grounded in our purpose, but understanding how they can continue to help us shape and change the world through manufacturing as well as AI and the technology.

And so there's manufacturing, technology, there's all the automation and software technology that we're doing, and there's just a lot to be a part of. And so we're bringing even our existing employees

along on the journey because we don't want to leave them behind. We want to be able to show that you're here and you're still relevant. You're as relevant today as you were yesterday. And so helping them to upscale and raise their level of capability to be able to engage with a lot of the software and the tech that we have in our manufacturing plants is equally as important as those that we attract from the open marketplace.

Ramona Schindelheim, WorkingNation editor-in-chief:

Pryor emphasizes that technology is about making farmers more productive, not putting them out of business.

Felecia Pryor, John Deere Company:

We want our farmers to be way more productive in their everyday work, and so with technology like See and Spray and Exact Emerge and Exact Shot, this helps them right with the autonomy that we've put in our machines, that helps them think about it with the autonomy. If you have a machine like this that can drive itself, it allows them to go do other things and it makes them more productive. So it helps them with their workforce, it helps them with their cost. We are so committed to our employees and we don't want them to have fear. For us to really meet our ultimate aspiration, we have to be in it together.

So we have to do our best to take away any stigma or fear that technology is here to replace them. No, it's a partnership. It's a partnership between the human and it's a partnership between the machines, and ultimately that partnership is in service of our aspiration, our leap ambitions and all that we're trying to do to make the world a better place. So no, we lean into it, and I wish you could see firsthand example of our hourly employees talking to me about our software, talking to me about how they've leveraged technology to make their lives better in our factories. That's what it's all about.

Ramona Schindelheim, WorkingNation editor-in-chief:

Laura Demarse of Ford, Barbara Humpton of Siemens, and Felecia Pryor of John Deere echo what I heard repeatedly on the CES floor throughout the show, technology is changing the way we work. Over the next few weeks on the Work in Progress podcast, you'll hear more on how that is taking shape, particularly in healthcare and digital medicine. And we'll also be discussing how tech is being used to expand access to work for people with disabilities, and to expand diversity and inclusion in the workplace. I'm Ramona Schindelheim, Editor-in-Chief of Working Nation. Thanks for listening.