

Ramona Schindelheim, WorkingNation editor-in-chief:

You are listening to Work in Progress. I'm Ramona Schindelheim, editor-in-chief of WorkingNation. Work in Progress explores the rapidly changing workplace through conversations with innovators, educators and decision-makers, people with solutions to today's workforce challenges. At the massive CES tech show in Las Vegas last month, I got a firsthand look at some of the ways technology is shaping the way we work. AI was a huge part of the show and it is definitely being incorporated into every aspect of the workforce, including how we are finding careers and being trained for all jobs. Check out the last couple of episodes of the Work in Progress podcast to see what I mean. Global giant Siemens is one of the companies using AI and other new tech to transform its own business and the work it does with its partners.

Barbara Humpton, CEO of Siemens USA walked me through their CES booth showing me the company's latest innovations, including the AI-generated smart city and a partnership that is making clean water more accessible. Barbara and I start with a look at Siemens collaboration with aviation startup JetZero on its groundbreaking, almost futuristic, blended-wing airplane that is expected to be airborne in the next few years. Siemens helped with the engineering and design of the jet, which will be built in the U.S, creating an estimated 10,000 jobs.

Barbara Humpton, Siemens USA CEO:

What we're featuring in our booth again this year is Siemens work through others and JetZero is a fantastic example of a customer who's using our digital tools to support their manufacturing, but not just the digital side. This is where the digital and the real world come together. So JetZero chose Siemens, frankly in their words because it was the best. The best to support their early startup, the engineering, the design, and then to transition into the manufacturing. What we'll be announcing in just a few months is a location for a new Greenfield manufacturing site where this team will take the digital twin of this fantastic aircraft and actually begin production. And that production's going to ramp up quickly because there's going to be huge demand for this. This is a plane that's built to a, you see a blended-wing design?

Ramona Schindelheim, WorkingNation editor-in-chief:

I'm looking at it as we talk about it. Yeah.

Barbara Humpton, Siemens USA CEO:

This blended-wing design. Think about the airplanes we all ride in today. It's a tube with wings attached and the engines hanging off. There's a tail in the back to give stability and all of that causes drag. Here with a blended-wing, the air flows smoothly over the body. It has inherent stability. The amazing thing is you can reduce the emissions of the aircraft by 50%. That's before you even start to work with alternative fuels like hydrogen or other sustainable aviation fuels. So this is the future of aviation.

Ramona Schindelheim, WorkingNation editor-in-chief:

What's really cool about this is what I understand is that this is going to be built in the United States.

Barbara Humpton, Siemens USA CEO:

Yes.

Ramona Schindelheim, WorkingNation editor-in-chief:

State to be announced soon, but it's going to create jobs. Are those jobs going to be different than the ones that we do now?

Barbara Humpton, Siemens USA CEO:

Yeah, Ramona, what we're expecting is that as more automation gets deployed into factories, we're going to give more people the opportunity to take those high end jobs that used to require years of training, years of education. So imagine a factory where there is a job of programming the automation that's in there. It used to be you had to go study for that. Now, with the use of AI and co-pilots, we can interact in natural language describing what we want our automation to do, and having the AI translate that into the code that runs the automation equipment.

Ramona Schindelheim, WorkingNation editor-in-chief:

And speaking of pilots in a different sense, you're probably going to have to train pilots differently around the country to be able to fly one of these planes.

Barbara Humpton, Siemens USA CEO:

Probably the biggest thing about JetZero is this is a data platform. This is an airplane, yes. But what's going on is everything has been connected. There are sensors throughout and it's providing lots of data back, yes, to the pilot, but also providing the pilot with a lot of assistance. But meanwhile, it's also telling us that the people who are working on the technology that's continuing to manufacture these, how is it performing in operations? What needs to change? But Ramona, maybe the most exciting thing is the different business models you can get. Maybe airlines don't need to go buy their own aircraft. Maybe this is an opportunity for the manufacturer to own a fleet and to be able to provide transportation as a service.

Ramona Schindelheim, WorkingNation editor-in-chief:

And so you're working with JetZero to design that for [inaudible 00:04:59] finish on what your model for your manufacturing will be, and then do you build it yourselves or are you partnering on it? How does that work?

Barbara Humpton, Siemens USA CEO:

We provide the technology that enables the design and the manufacturing and ultimately the operations. It's really interesting because Tom O'Leary, the CEO of JetZero was chatting with us the other night and he said, "People are coming to us all the time saying, what are you doing with AI? What are you doing with AI?" And he said, "We're not focused on that right now we're focused on building the airplane, but we're partnered with Siemens because Siemens is figuring out how AI makes the design process more efficient and makes manufacturing more capable."

Ramona Schindelheim, WorkingNation editor-in-chief:

So we're going to look for the announcement coming in a few months.

Barbara Humpton, Siemens USA CEO:

Yeah.

Ramona Schindelheim, WorkingNation editor-in-chief:

They're going to start building. When do we expect to see this plane in the air?

Barbara Humpton, Siemens USA CEO:

2030 is when. By 2030 we're expecting to see these planes. You know what's going on though? Here's a big challenge, you know that aircraft, any of our flight needs to be certified and we've got regulatory agencies like the FAA. Here's the cool thing about this. JetZero is working very closely with the FAA, so they get access to all that data as the design work is going on, as manufacturing is going on, it can shorten the certification processes as well.

Ramona Schindelheim, WorkingNation editor-in-chief:

Excellent. So walk with me. We're going to walk this way and we're going to go and check out something else you've got going over here. So part of what you are doing here at the Siemens booth at CES is highlighting customer case studies. Tell us about this one.

Barbara Humpton, Siemens USA CEO:

Yeah, what's one of the biggest problems we're going to deal with as a planet in the coming years? Access to fresh water, and Wayout is a company that has a new approach. They're using technology that enables them to purify water and make this readily available in water-distressed areas. And the cool thing about it is, once again, they're deploying those same tools. What can you do with a digital twin? What can you do as you simulate and prepare for the manufacturing? Wayout is a great example where suddenly that technology sounds wonky. What? This is IT-related things. And now here it is applied to the real world. And I just love to say it, this is AI for real.

Ramona Schindelheim, WorkingNation editor-in-chief:

And it's also AI for good, right?

Barbara Humpton, Siemens USA CEO:

This is having true impact on the way we're going to live in a water-distressed world.

Ramona Schindelheim, WorkingNation editor-in-chief:

And in the past, I think people would've said, "Siemens, you're just a manufacturing company." But I think over the last few years, as we've talked about all of this, it's very clear you're a tech company.

Barbara Humpton, Siemens USA CEO:

Ramona, we're actually forging the path for a new tech sector. Think about industrial AI, and I know there's a lot of chatter going on about the impact of AI around the world and the way it's affecting our personal lives, the way we get entertained, the way we shop, the way we interact with computers on our desktops. What's really cool is you take those same tools and apply them to these real world problems, suddenly you're able to solve issues that frankly were impossible to solve before simply because there was this proliferation of data. How do you make sense of all the data that's out there? Well, AI is the perfect answer to that.

Ramona Schindelheim, WorkingNation editor-in-chief:

So let's talk about sustainability and this is a sustainable idea, but also over here we have the smart city that you guys are doing, which is really pretty incredible. So why don't you tell us a little bit about what's going on here?

Barbara Humpton, Siemens USA CEO:

Siemensstadt. You may know, and I don't know how many of your viewers know, that Siemens was actually born in Berlin. We like to say it would've been a garage startup if garages had been invented. But actually it was born in stable in Berlin. Wernher von Siemens and his brother began with a workshop behind their home. And over the years, Berlin was a really important location for the company. In fact, there was a section of the city, a very industrial section that was called Siemensstadt. And over the years its use had changed and things have fallen into a bit of decline. And the big question was, what do we do now? What do we do next? Siemens stepped forward and said, "This is a perfect opportunity to demonstrate the power of the smart city." So here you can see first a digital twin of the city to be constructed. There are going to be mixed use residences as well as workplaces, manufacturing co-located within a very urban area, very connected transportation within the whole city. This is a perfect example of the way we can live and work in the future.

Ramona Schindelheim, WorkingNation editor-in-chief:

So sustainability has been a theme that we had talked about over these years too, and this is one of those examples. The water is an example. How important is it that you're creating green spaces, green jobs?

Barbara Humpton, Siemens USA CEO:

Yeah. A lot of people actually ask that with a bit of maybe criticism of, oh, green, what is that all about? Well, the fact is we do have problems that need to be solved, access to water, access to enough electricity, the power that we need to really make our modern lives run. Siemens has been working on solutions to those problems now for decades. So we continue to do that Digitalization, the ability to model and think and try and experiment in the digital world before starting to build things in the real world means that we can test out lots of permutations.

Ultimately, when that city is built, we know that we've got a good chance of meeting our power needs, our water needs, and this is the way we're going to work from here on out. Things are going to be more connected, we'll be able to take advantage of that. And maybe the most powerful thing about all of this is it unleashes the next century of economic growth. Particularly here in the United States, within leaders every industrial revolution has, there's been huge opportunity for American workers. Is there disruption As new things start to come in? Yes, but the people who lean forward and say, "I'm curious. I want to know what's going on with these new tools and technologies," they're the ones who then step into the forefront and help shape that economy as it grows.

Ramona Schindelheim, WorkingNation editor-in-chief:

So what's next, Barbara, for Siemens?

Barbara Humpton, Siemens USA CEO:

Siemens is totally focused on building out this industrial AI sector, and you're going to see it in the work we do in cities, in smart infrastructure, in our transportation. And then you'll also see it as manufacturing continues to evolve in the United States. The thing I'm most excited about is bringing

these new tools into the manufacturing environment. We're doing it in our own operations and we're working with customers all across the country. This is going to be an exciting time for the resurgence of manufacturing in the US.

Ramona Schindelheim, WorkingNation editor-in-chief:

And I think what's interesting is it's also going to be freeing people up, as she said, to do these higher paying or check jobs, if you automate a little bit and then you add in these new tools.

Barbara Humpton, Siemens USA CEO:

A lot of people say, "Isn't automation going to take jobs away?" Well, the fact is, we don't have enough people to fulfill all of the jobs that are available today. The automation that we're introducing now, think of it as democratizing technology, bringing people from the sidelines. I'm hoping that people are getting a second and third career are opportunity because they know that they have the skills they need to join in. If they can use their iPhone today, they can be proactive in the manufacturing organization tomorrow.

Ramona Schindelheim, WorkingNation editor-in-chief:

That was my interview with Barbara Humpton, CEO of Siemens USA, at CES 2025 in Las Vegas. I'm Ramona Schindelheim, editor-in-chief of WorkingNation. Thanks for listening.