

Welcome to the InfraTalk podcast, brought to you by Infrastructure Ventures. The InfraTalk podcast is a program of InfraTalk America. InfraTalkAmerica.com is a multimedia platform designed to bring attention to advancing innovations in transportation infrastructure. The InfraTalk Podcast invites experts in the transportation and infrastructure industry to discuss how we can advance policies more efficiently and effectively. Policies that make us work smarter, like digital delivery, e-ticketing, composite bridges and work zone safety. Because we know we can do better.

GREG:

Hello, I'm Greg Nadeau, host of the InfraTalk Podcast. Today I'd like to share with you a conversation with Shanté Hastings, deputy secretary and chief engineer at the Delaware Department of Transportation. Shanté has played a pivotal role in positioning DelDOT as a national leader in the implementation of e-Ticketing and as co-chair of the AASHTO innovation initiative. Listen in as we discuss how technology is revolutionizing project delivery.

So, Madam Deputy Secretary, now you're Deputy Secretary of DelDOT and Chief Engineer.

SHANTEE:

Yes.

GREG:

Which is a little unusual. So, the scope of your responsibilities are rather broad?

SHANTEE:

Yes, they are.

GREG:

Your history at DelDOT. 22 years. First job out of school, rising to Deputy Secretary and Chief Engineer. Can you sort of tell me what that journey was like? And the role you're playing today?

SHANTEE:

Sure. Happy to. So, I actually interned for DelDOT the summer before my senior year at University of Delaware in construction. I had a great experience. I knew after that experience that I didn't want to be in construction, but that I wanted to work for DelDOT. And I was fortunate enough to get offered a full-time opportunity the spring of my senior year, and I decided to take them up on it.

So, I started out actually in the division of planning, doing concept designs and things of that nature. The department had a reorganization in 2002, and so I moved to the new Division of Transportation Solutions, which was more the project development side of the house. So, I did that for a while. Moved on to the Division of Maintenance Operations. Worked there for a couple of years, and that's when I came in contact with our then Cabinet Secretary, Shailen Bhatt during a hurricane situation.

And a few months later, he kind of called out of the blue, asked me to come to his office and asked me to lead the performance management initiative for the department. So that was something new to me. I was a little apprehensive about it and didn't know exactly why he wanted me to do that, but tested it out and really liked it.

And so, I worked in the Office of Secretary for a little while. Went back to Transportation Solutions, worked as a deputy there, and was fortunate enough to be selected as Chief Engineer in 2019. I did that for about a year and then our Cabinet secretary at the time decided to retire. And so, our deputy Secretary was nominated to be secretary.

And when she and I chatted, I said, "Well, I haven't really gotten to do all the things I want to do as chief engineer because I've only been doing it for a year." Because she wanted me to be the deputy and she said, "Oh, well, you can do both." And it's like, Okay, great, best of both worlds for me.

So, under that role, as chief engineer, I'm overseeing all of the capital program that we have in the department. We have about 450 staff in my division that work on project delivery, whether it be the design teams, traffic management, environmental right of way utilities, all the components of project development. So, I do that piece of the work and then as Deputy Secretary focused on policy.

So, work on legislation within our state, work on constituent relations with legislators. So, any project questions that they have, fielding those, getting those out to my team and getting them responses and then also get to work a lot on the national transportation front through AASHTO, another organization. So, a variety of opportunities to lead in different spaces.

GREG:

Extraordinary and of course at a time when we have a historic investment in infrastructure all over the country. And I'm sure that's adding a few levels of challenge to your enterprise and your personal responsibility for it.

SHANTEE:

It certainly is trying to deliver on all of the new infrastructure funding and programs. Working with the team, we actually created a new division, transportation resiliency and sustainability, to oversee a lot of the protect funds, resiliency funds, all of those aspects. Delaware is the lowest lying state in the nation, and so we face a lot of challenges in that space.

And so, we're excited to have the opportunity from the federal side with funding to be able to have this division that's really focused on that.

GREG:

That's fascinating. And the objective of that division are not only to implement, you know, IJJA [Infrastructure Investment and Jobs Act], but it will clearly impact behavior, operational priorities at a time and in an area that is, you know, critically important and more so. And the general public is beginning to really embrace that. And I've been amazed at the level of commitment that industry has brought and a serious commitment and one based on their realization that it's good for America and it's good for business.

SHANTEE:

Yes.

GREG:

So that's brilliant. That's a very interesting initiative. And one of the contributing factors from a solution standpoint is clearly becoming technology.

SHANTEE:

Yes.

GREG:

And one of the specific technology initiatives that we wanted to speak with you about because of the leadership role that DelDot has been playing, really nationally, is called e-Ticketing.

SHANTEE:

Yes.

GREG:

And to most people, I have to confess, I mean, I've spent years as a deputy commissioner of a state DOT, and obviously my years in federal highway. And I have to confess, I didn't know a whole lot about it as a policy person, not an engineer. I didn't have a lot of exposure to it.

And I just became fascinated with the ability to transform this, you know, rather discrete part of the project delivery continuum and the impact it could have. Clearly, DelDot saw that very early on because you're clearly one of the leading states in the country in terms of implementation. So, can you just talk about e-Ticketing as sort of this discrete element?

SHANTEE:

Sure.

GREG:

Obviously, Every Day Count Six Initiative has highlighted e-Ticketing. And by the way, 43 states have adopted the initiative, which is an Every Day Counts record, which is very dear to my heart. Can you just give us a sense of, kind of, where that initiative, the impetus for it?

SHANTEE:

Sure.

GREG:

And then how it sort of came about?

SHANTEE:

Sure, happy to. You know, it's funny, I talked about being an intern for DelDot and working in construction. So, I very vividly remember being out on a paving project. 4th of July weekend in 1999 and it being high 90s, low 100-degree temperatures and we're paving and I was tasked with collecting every ticket from every hot mixture that delivered asphalt to the project.

GREG:

You lived it.

SHANTEE:

I remember that. And so, you know, we've been doing our paving operations that way for a really long time. And e-Ticketing really kind of revolutionizes that and says we're not going to have a driver deliver this paper ticket that they're giving to the inspector that hopefully makes it into the proper place for payment, for tracking information. Now, we can kind of automatically transfer that information.

We have all of the information about that load of hot mix. I know the time that it was put on that truck, know the exact tonnage, have all of that information. And really materials are so important to our projects in terms of the longevity. And we can go back and see, okay, did we have an issue with a load of hot mix that's there? And that's why this pavement is failing a little prematurely. So, having all of that

data in a, you know, a system approach, it provides efficiencies on so many different levels. Whether it be the person that had been collecting those tickets all the way down to kind of the asset management that the department is involved in. And so, it really is going to revolutionize how we how we do business in that space.

GREG:

Well as part of our role with the National Ticketing Task Force, we produced, we call them info docs. They're basically documentaries now and only about a seven-minute piece. And in that I was part of the folks that were interviewed just trying to help articulate and explain what e-Ticketing meant and what, you know, what it was, what it meant and what it could be.

And in that conversation, I said something to the effect that paper tickets are where data go to die. And then our brilliant videographer, when he was, you know, collecting content for the piece, there was this in the in the producer of the plant that we were using who were so kind and so effective in helping us understand it.

They had a, you know, four or five of these freight containers sitting in this sort of back part of the lot. And there was a drone shot coming in and a picture of these four or five freight containers opened the door and they loaded ten high with boxes of tickets, and they zoomed in on the box and it said, "Destroy 2025."

SHANTEE:

Right.

GREG:

So, literally the visual manifestation of where paper, where data go to die. And you know, transition, transform to a digital based system for the entire supply chain delivery system in our industry. And the benefits are staggering from the data that you're now going to have to utilize, probably for applications we don't even yet know.

SHANTEE:

Right.

GREG:

But certainly, in asset management and the efficiencies that it brings to the operational considerations for both the owner and the contractor and the producer. So, I mean, we've been so impressed with the commitment and support of National Asphalt Pavement Association [NAPA], the aggregate industry. It's really a terrific example of collaboration and all of us seeing the benefit.

And as a result, I've been prognosticating that in 2 to 3 years it'll become standard operating procedure, which is lightning speed for technology in our industry. So, with that sort of backdrop to how has your experience been with the relationship with the industry at all levels? And how important was that collaboration in getting you where you are today?

SHANTEE:

Yes. So, in Delaware, we call it the "Delaware way." How we kind of collaborate across different spaces. And so, it's very important for us to get buy-in whenever we, DelDOT, are going to do anything that is a small change, or large changes, to how everyone does business. And so, working with the Delaware Contractors Association [DCA] and making sure they knew what we were trying to do. Piloting it with them, working with the Delaware Asphalt Paving Association, DAPA, and talking through it with them.

We don't do anything here without kind of having that consensus. And we do a lot of piloting because that's a great way to learn and a great way to maybe innovate in a less scary space because we're not fully committing to something. "Hey, we're going to try this. We're going to see how it works." And if it works and we can, you know, truly show the benefits, then we're going to move forward.

And so, we 100% collaborated early on and often. And happy to say that on the asphalt side of the house, you know, we're full bore. And now we're starting to look at concrete. And so, for us, it's been a great process, a great learning process. We are also changing how we do, you know, all of our construction documentations. So, e-Construction.

So, we, you know, the program that we're using for that, e-Ticketing, is being folded into all of that and it's just helping us be more efficient, having all the information in one space, helping us, you know, you talk about industry, you know, being able to pay for that asphalt that got delivered. It's all going directly into our system and being part of our cost estimate, monthly cost estimate process that happens. And so, it's been a really good experience for our department.

GREG:

In the Info Doc I mentioned, it was clear in terms of something as simple as billing that one of the testimonials from one of the private sector players was weeks, it took often, to get to the point where they could build. And that's you know from a private sector side that's critical. If you're building efficiently out of the gate, as opposed to waiting two or three weeks for the tickets to catch up...

SHANTEE:

Yep.

GREG:

...it's an extraordinary advantage to the industry side. And I imagine the efficiencies garnered significant benefit to the owners. You have a much better handle on what's going on.

SHANTEE:

Yes.

GREG:

So, and that collaboration clearly was essential to getting to where you are today. One of the other elements of this issue that have come up and not strictly related to e-Ticketing, but sort of the BIM [Building Infrastructure Model] for infrastructure movement, digital as-builts, the whole evolution toward digitizing..

SHANTEE:

Yes.

GREG:

...the project delivery system, which is what you know, what I'm particularly excited about. I mean, Every Day Counts [EDC], in its origin, was all about how we deliver projects more efficiently and effectively. And so clearly, in 2010 was the first initiative. It was on 3D [three-dimensional] modeling, and that's when I first began to really educate myself about it.

SHANTEE:

Yes.

GREG:

And the extraordinary potential that that had. Fast forward three more, three initiatives over six years collaborating with states and then of course, the current initiative, EDC-6. So, there's been a real investment of time and effort by states and Federal Highway. You mentioned the nominee for the Federal Highway Administrator, Shailen Bhatt, an old friend and colleague of mine. Talk to me about the role of Federal Highway and the extent to which that collaboration has also contributed to your success. And again, you're sort of ahead of the game, but EDC-6 was clearly part of your journey.

SHANTEE:

Yes.

GREG:

So, give me a sense of how important it is that Federal Highway has established such a leadership role.

SHANTEE:

Yes, definitely. I think to your point, every day does count. We're doing projects that are safety driven, that are capacity driven, multimodal. And the quicker that we can get things done and the more efficient that we can be and the more information we know about our system just helps us deliver faster. And so, you know, having the focus through EDC is really important.

Having the stick innovation funds that, I believe we did use them for e-Ticketing in Delaware. And so, having that collaboration and really that support from a funding resource and also being able to connect it to other states throughout the nation to see what they're doing has been really important for us. We value our partnership with Federal Highway, with our local office, as well as the resources at that at the headquarters level in this space.

But yes, definitely collaborated with our local division office about what we were doing, how we were going to do it. They had a lot of good input and feedback again as we were collaborating with the industry as well.

GREG:

Terrific.

Why not sort of shift gears a little bit and talk to you about workforce and challenges that every DOT in the country is facing? Every contractor in the country, every producer. And, you know, we have this sort of generational shift going on. The baby boomers, and particularly in the civil engineering sector, are rapidly retiring. And that's creating a host of challenges for everyone involved in this industry.

So, if you're a 25-year-old and you're looking for a career opportunity, how do you leverage this commitment to technology, or are you leveraging this commitment to technology as part of an effort to recruit and retain that critical workforce coming up? And of course, within the civil engineering community, we're not producing as many engineers as we have retiring.

So that creates a whole 'nother set of challenges. So, just generally, are you leveraging technology as part of your recruitment and retention efforts?



SHANTEE:

Certainly. So, we are doing all that we can to recruit and retain staff, and innovation is a big part of that. You know, if you if you tell a millennial that you're going to go and stand by a truck and grab a ticket and then you're going to take these tickets and, you know, do all these things with them. They're looking at you like you're crazy because that it seems like a waste of time.

GREG:

So antiquated

SHANTEE:

And that there are better ways to do things. And so, you know, I think having a culture of innovation at the Department has helped us. We have a great internship program for both high school and college students to let them know about different facets of transportation.

We have several that are interning either in maintenance or construction, you know, out on those road type projects. So, they're seeing the benefits of some of these innovations that we've been implementing. But, yes, it's really important not only for recruitment and retention, but again, just for being more efficient. You know, spending our dollars wisely. And so it's, you know, things like e-Ticketing are very helpful in that space.

But yes, we are very similar to a lot of other DOTs and private sector in terms of having, you know, higher vacancy rates than usual. And so, doing all that we can to show that we are a place that innovates, that we're open to new ideas and that we are putting our money where our mouth is and really investing in these different innovations.

And in Delaware, it's really great. You know, we're such a small state that we're able to innovate pretty quickly and we're okay with even failing sometimes. As long as you're learning from that and pivoting to something new. And so, it's been, it's helpful for us because we have a smaller group of people that, you know, have to gain consensus with and can pilot things very easily.

GREG:

My, you know, my often, my philosophy, if you would, as we were back in the time that I served with Victor Mendez, it was, you know, our philosophy was top down, bottom up. Meaning you needed the buy-in and the leadership of the top levels of an agency, but you couldn't do it without the front-line troops engaging, getting their buy-in and making their level of commitment.

And that's sort of the secret sauce to advancing innovation. You're obviously a big part of that leadership solution, but I assume Secretary Majeski is also. So, it's important that your top leadership, including the Secretary, to be that committed. So, the sort of general commitment to advancing technology, is that something that was, you know, a commitment made at the top influencing the front-line troops or did the ideas and the impetus and the, you know, the commitment emanate from those folks on the front line, those technical experts, those, you know, unsung heroes of, and I call them champions of change, that are so critical to the success of advancing innovation. So..

SHANTEE:

Sure.

GREG:

...talk a little bit about kind of what came first, the chicken or the egg.

SHANTEE:

So, I think it's both.

GREG:

Yeah.

SHANTEE:

I mean, when you talk specifically about e-Ticketing, it definitely was an idea generated by really our construction folks and saying like, "Hey, we want to try this," and having the space from a leadership standpoint to be like, "Yep, let's go ahead, let's see what funding we can allocate." And then sometimes we'll go to different conferences, you know, national events and hear something and say like, "Hey, I heard about this idea, are we doing this?"

And if we're not doing this, who can be the champion for it? And so, I think it comes from both directions really. But we are committed from Secretary Majeski down to, you know, putting funding towards it, putting time and effort. It takes time and resources to be able to innovate. And so, giving folks the space to be able to do that, bringing on resources when we need to.

But yes, I think we've, you know, over the last decade or more have really focused on having a culture of innovation and, you know, through doing innovation fairs. And we have an innovation station that we had online where people could submit ideas. Really being open, I think leadership needs to be open to that and be supportive. But a lot of those ideas really come from staff who are in the field doing it, doing the work day by day and saying, "Hey, can we, you know, do this in a different manner?"

GREG:

A good way to sum it up, there is a quote I read in a story in the Federal Highway's *The Innovator*, their innovation publication, and the quote was putting consistent, clear information at our field personnel's fingertips is a benefit. Using the data that these systems collect in an intelligent way is what we see as the ultimate goal. And the quote was from Billy Sweeney...

SHANTEE:

Yes.

GREG:

...DeIDOT's project controls coordinator.

SHANTEE:

Yes.

GREG:

So, what you just described is exactly sort of the view from the front lines...

SHANTEE:

Yes.

GREG:

...that I read and I was quite impressed with. The story as a whole was pretty good. So, if you, if we sort of look at the broader technology objectives, the whole BIM for Infrastructure Movement, digital as-builts, is that also an area that DeIDOT is pursuing and committed to evolving?

SHANTEE:

Yes, definitely. So, we've put together over the last year or so a digital delivery team to really start looking through all of you know, there's a wide swath of..

GREG:

Huge.

SHANTEE:

...things that you can be working on and you kind of have to take them often in bites. And so, our team is kind of understanding what other states are doing, what technology is available, trying to figure out how that ties into what we do.

And I think that the greater emphasis on asset management is really, the key to all of that is that at the end of the day, you want to know exactly what you have and having digital as-builts, you know, delivering your projects digitally to the contractors, all of that ties in to having that information so that the next time we have something, that we know all of the information upfront.

GREG:

Right.

SHANTEE:

And so, yes, we are making a concerted effort. Don't have any specific, you know, time frame goals on when we want to be fully digital. But you know, going through using kind of a stepwise approach to getting there.

GREG:

Which you're already doing it. You're already preparing that groundwork.

SHANTEE:

We are.

GREG:

About a year ago, Federal Highway published basically a BIM for infrastructure roadmap, and it was very well researched, very well written, very well done. But the conclusion, basically, based on their measure of the current state of practice...

SHANTEE:

Sure.

GREG:

...and models that they utilize to provide that estimate. They were estimating ten years before we achieve state of practice.

SHANTEE:

Mm-hmm.

GREG:

And, one of the, sort of one of our missions is to accelerate that.

SHANTEE:

Right.

GREG:

Very much like what sort of the Every Day Counts' sort of objective [is]. So, we, you know, so I've looked at that and we coined the #WeCanDoBetter because I don't think it's appropriate to be critical of that inclusion.

SHANTEE:

Sure.

GREG:

It was a very well-researched document that reached a conclusion that was based on objective analysis.

But I've talked to several federal highway officials about that very subject, including people who have been directly involved in doing the study. And my question to them was, can we do better?

SHANTEE:

Right.

GREG:

And it comes down to only if state DOTs talk about the frontlines of something, make the level of commitment necessary to do it. And it's you know, it's a combination of resources. But more importantly, the focus and priority.

SHANTEE:

Right.

GREG:

Because you've got 100 priorities a week you've got to juggle.

SHANTEE:

Mm-hmm.

GREG:

And crises every other week that you're going to deal with. So, DOTs have this massive, you know, set of responsibilities, as you know, that are the most. So, our goal is to just keep asking that question.

SHANTEE:

Sure.

GREG:

And then keep looking at opportunities to do better.

SHANTEE:

Yes.

GREG:

And your sense of what more it will take...

SHANTEE:

Mm-hmm.

GREG:

I think the reality is there are a bunch of states who are really committed to this and...

SHANTEE:

Yes.

GREG:

...and really invested their time and effort...

SHANTEE:

Definitely.

GREG:

in innovation. And other states, not as much. But like in our business, and one of the great values of AASHTO, is that opportunity to collaborate with each other...

SHANTEE:

Yes.

GREG:

...to learn from each other. And as states, advance and move more effectively toward that goal. I think it's quite possible to certainly get there before ten years.

SHANTEE:

Oh, definitely.

GREG:

When you look at some estimates, 15 to 20% savings off the cost of projects. If you have a standard comprehensive approach to digital delivery.

SHANTEE:

Sure.

GREG:

So, your thoughts?

SHANTEE:

Yeah. So, I think, you know, again, for us, collaboration is important. So, our first, I would say kind of major step into digital delivery is very recently, within the last few months, we've started releasing our 3D models for projects that we have 3D models for because we don't have them for every project but releasing those as part of the bid documents.

So, previously you didn't get those until you were the successful bidder. And we heard from the contracting community that it would be helpful to have that information during bidding because they were basically taking our plans and putting it into whatever system to do some of their, you know, estimating. And so, we took that first step. You know, there's a lot of a lot of pieces to that, you know, a lot of hesitation sometimes from staff saying, "Well, then I feel like it has to be 100% perfect. And is it going to take me longer to design to make sure that I've dotted every g and crossed every T?"



And so, trying to get people over that fear and then also, you know, understanding kind of when you shift to say the digital as-built, you know, what technology are we going to use? All the contractors have, you know, different resources and is there going to be a cost to them that they're not willing to take on?

And so, it takes time, I think, to have those conversations. And then, you know, any time you're trying to kind of standardize a process, it's getting that consensus around.

GREG:

Yeah.

SHANTEE:

What exactly is it? How are we going to do X, Y or Z, especially if there's five ways to do it? And so, I think that's really the timing piece.

I think we all buy into the end result is going to be great, but making sure you do it well, going along that path. And then again, especially with our contracting community, making sure that we're communicating and collaborating and understanding their needs is really important to making sure that it's assessable in the end.

GREG:

So important. Well said.

Last sort of you know, part of the conversation I wanted to raise is in addition to everything we've just discussed in your role here at DeLDOT, you're also chair of the AASHTO Innovation Initiative, which has been around a long time.

SHANTEE:

Yes.

GREG:

And has really evolved and I think is playing an increasingly important role in helping states really drive innovation. Can you sort of talk about that role and maybe one or two of the priorities and what you're most excited about...

SHANTEE:

Sure.

GREG:

...in terms of where the initiative is going?

SHANTEE:

Yes, happy to. So, I became chair, gosh, what? It's 2022, right?

GREG:

Yeah.

SHANTEE:

It's always hard to remember.

GREG:

In the middle of Covid.

SHANTEE:

Yes, in the middle of Covid I was asked to chair the Innovation Initiative and so my co-chairs are Dara Wheeler from California...

GREG:

A great innovation leader.

SHANTEE:

and Rod McDaniel from Utah. And so, they are amazing. We have a great team. We're all kind of learning together about the history of A.I.I. [Alliance for Innovation and Infrastructure] and really having that forward looking perspective of what do we want it to be. And so, A.I.I. basically has funding every year to select about two, what we call, focus technologies and two or three additionally selected technologies.

And the whole goal is really to provide almost like a marketing kit, if you will, for these innovations so that state DOTs understand what they are, understand the benefits, you know, how to roll them out, if

there were any challenges, etc. And so, they're, you know, four or five are selected each year to get kind of that whole package.

It can be peer exchanges, conferences, you know, websites, you name it, to just get the information out about great work that states are doing and how they're innovating in different spaces. And so, I think the biggest thing I'll touch on that we're excited about is developing this national innovation platform where you basically have a database of all the innovations that states are doing. A great resource to all the state DOTs and others.

And so, we're working with a variety of different entities to make that a reality. And, you know, with that, trying to figure out what A.I.I. looks like once we have something like that, because right now, again, we're able to highlight four or five, you know, innovations and we're getting, you know, 40 or 50 submitted. And so, there are ones that aren't even getting attention.

And so, this innovation platform would be a way for us to even get more information on innovations that are happening within state DOTs and, you know, be searchable by different keywords, different, you know, is it a construction thing? Is it a safety thing? Is it maintenance? And so, we're really excited to be part of that process of developing that because we really think that's going to help kind of transfer, transform how states are able to innovate and how they're able to get information about different innovations.

GREG:

One of the great challenges for innovators is engaging with state DOTs at a level where they're able to advance those innovations in a commercial sense.

SHANTEE:

Mm-hmm.

GREG:

And one of the great challenges, and I call it the Federal State Highway Program System, which is 52 individual...

SHANTEE:

Yes.

GREG:

...DOTs. And under federal law, the Federal Highway Program is described as a state administered but federally assisted.

SHANTEE:

Yes.

GREG:

And that's a policy framework that goes back decades. So, the decision as to what innovations to use...

SHANTEE:

Yes.

GREG:

...what contracting methods to employ. All of those things are clearly made at the state level...

SHANTEE:

Mm-hmm.

GREG:

...with federal guidance and oversight.

SHANTEE:

Sure.

GREG:

But principally those decisions are made. So, you literally have to go door to door to 52 DOTs who have 52 ways of assessing these things. In one state, it might be a manufacturer getting a manufacturing certification...

SHANTEE:

Sure.

GREG:

...for a project and another state is getting on their products list. And NTPEP [National Transportation Product Evaluation Program]...

SHANTEE:

Yep.

GREG:

...and AASHTO, there's an infrastructure to do that. And I remember one of the first things I did after I retired from government, at the time, Federal Highway Administrator, was proprietary products and an effort that one of the trade organizations, ARTBA [American Road and Transportation Builders Association] led an effort to repeal and they did successfully. So, you basically had a clean slate.

SHANTEE:

Mm-hmm.

GREG:

And an opportunity to really do a better job at.. What you just described sort of got me thinking about it.

SHANTEE:

Yeah.

GREG:

It's sort of a national clearinghouse platform where innovators can come and, you know, go through the due diligence.

SHANTEE:

Right.

GREG:

And that's basically what NTPEP does. And I think there's an issue, I think there's a possibility of expanding that role.

SHANTEE:

Sure.

GREG:

And providing is really a resource question. So, my advocacy after, and I told the folks when I decided to support the repeal on the condition that we're all committed to working with AASHTO going forward, they have an infrastructure, they have a system. But perhaps industries, financial support from the industry, opposed to paying for the process and the services of NTPEP. But a bigger commitment so that we have the capacity to do more and faster.

SHANTEE:

Sure.

GREG:

So, that's not so much a question...

SHANTEE:

Right.

GREG:

...as true confessions from my standpoint. But do you think we can do better, particularly in what you're describing as sort of the objectives of A.I.I. and it sounds like a very similar strategic objective.

SHANTEE:

Sure.

GREG:

So, it'd be great if we could sort of expand that and really get industry.

SHANTEE:

Right.

GREG:

Because it's a resource question, I think to some degree.

SHANTEE:

Mm-hmm.

GREG:

Your thoughts?

SHANTEE:

We can always do better. There's always room for improvement.

GREG:

Thank you for that. Put a hashtag on that.

SHANTEE:

And yeah, I mean I think that the collaboration is important. Sometimes it makes sense to combine efforts and sometimes it doesn't. So, I think further discussions on that would be interesting. But yeah, I think, you know, we owe it to, you know, folks that use transportation to do all that we can to, you know, make things better and better means different things in different spaces.

But I think we're all committed to innovating and a difference so that people can get where they need to go in the best way possible.

GREG:

And with the level of investment that the Biden administration and Congress have made possible, and in four and a half years, four years closer...

SHANTEE:

Yes.

GREG:

...we're going to be doing it again. And a lot of confidence that we need to make a similar investment.

SHANTEE:

Certainly.

GREG:

This was a down, not quite a down payment. I give it a lot more credit than that, but it was a significant investment that has to be replicated in five years.

SHANTEE:

Yes.



GREG:

So, the extent to which we can demonstrate to the public and to Congress that we have done you know, we have executed innovation. We meaning the big we. That the industry, the obviously the owners, the more we can demonstrate that commitment and that these technologies, these innovations, these systems are reducing costs...

SHANTEE:

Yes.

GREG:

...and getting more bang for their buck...

SHANTEE:

Mm-hmm.

GREG:

...is always a critical...

SHANTEE:

It's huge.

GREG:

...important factor.

So, leaders like you that are making it happen in state DOTs are the, it's ground zero of an effort to really impress everyone involved. That these investments are going to go as further than that than they can and the historical perspective

SHANTEE:

Right.

GREG:

So, DelDOT is leading and a lot of other states are as well. And I think this a real turning point for technology and what we do.

SHANTEE:

Yes.

GREG:

So, and again, the big we.

SHANTEE:

Yes, yes. And I would be remiss if I didn't say it's our team that does all of this. So, you know, from the person that's out in the field to those who are in the office all the way up to leadership, we all play a role in in making sure that we deliver on those on those commitments to infrastructure.

And so, it's exciting to be in this time and have the resources to be able to do what we need to do to make a difference. But it's definitely a huge team effort here.

GREG:

And I know from my own experience that effort is only successful if the leadership is open to it and that collaboration with your own team makes it possible. So, congratulations on being that leadership team or part of that leadership team that makes it happen. But it's important to underscore what you just did. It's the frontline troops who are in the trenches, who are really learning and experiencing what works, what doesn't.

And clearly that's, I think that's growing. And I think you're seeing an impact of this generational shift in terms of that understanding and commitment to technology as a solution.

SHANTEE:

Yes.

GREG:

So, the timing, it's just an extraordinary time to be involved in in transportation infrastructure and in the context of attracting that workforce we're talking about, I think it's going to be critically important and everybody's focused on that.

SHANTEE:

Yes.

GREG:

And I think technology will be a big part of that solution.

Madam Deputy Secretary, thank you so much...

SHANTEE:

Thank you.

GREG:

...for taking the time to have this conversation and please continue and keep up the good work.

SHANTEE:

Thank you so much.

GREG:

Thank you

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