

NWX-DOC-NTIA-OTIA

Moderator: Jean Rice
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1:00 pm CT

Coordinator: Welcome and thank you for standing by. For the duration of today's conference all participants will be in listen-only mode. I'd like to inform all parties that today's conference is being recorded. If you have any objections you may disconnect at this time. I would now like to turn the conference over to Jean Rice. Thank you. You may begin.

Jean Rice: Thank you. Good afternoon. We're so pleased that you can join us today for Broadband USA's webinar Building Smart Cities and Communities at the Regional Level or as I like to think of it as Building Smart Regions.

I'm Jean Rice and I'm with the National Telecommunications and Information Administration BroadbandUSA program. Today's webinar will provide an overview of how regional teams are emerging, the span jurisdiction, disciplines and sectors and then working together on projects to address issues that impact the people in the entire region such as economic development, resiliency, health, public safety, connectivity, workforce development, agriculture, mobility and many more things.

To talk about smart regions today we have a terrific panel and I'm really happy to introduce Macy Morin who's the Program Coordinator for the National Association of Regional Councils, Danielle Hughes, the Capital Program Manager from the Tahoe Transportation District and Karl Darin who's the Vice President and Program Lead, Smart Regions Movement for the Greater Washington Board of Trade.

Before we begin I'd like to review logistics for today's webinar. We will open up the webinar for questions at the completion of all of the presentations. As a question comes to mind please use the question button on the right hand side of the screen and submit your questions so that we can review them later in the presentation.

Today along the - the entire presentation along with a transcript and audio recording will be available on our BroadbandUSA's website. It takes about seven days and these can be found under the Events tab. You know, please share this with stakeholders that you think might be interested in hearing it. Finally please visit our BroadbandUSA website for information about our technical assistance program.

It also has useful toolkits and information that can assist you planning, funding and implementing your broadband and smart community projects. Be sure to check out one of the newest additions to our website, the American Broadband Initiative Milestone Report which you can find in the Federal tab. Okay that's it for logistics, next slide.

Before the presenters begin I'd like to let you know that NTIA, NIST and the National Association of Regional Councils are partnering on a new smart regions initiative for the Global Cities Team Challenge or GCTC which is run by our sister agency NIST which is also part of the Department of Commerce.

The Global Cities Team Challenge brings cities, communities, industries and universities together to work on an innovative smart city and community project and through working together develop mechanisms and blueprints to share best practices. Maci Morin will describe this new regional collaborative in detail and Danielle Hughes and Karl Darin who are working with us on the collaborative with their regions will describe their exciting regional collaborations.

I want to start by giving you an overview of some of the other regions working with us as well. The Wabash Heartland Innovation Network which is comprised of ten rural counties has Perdue and Ivy Tech as major partners. The innovation network is focusing on connectivity and smart agriculture and smart manufacturing. It has also developed a detailed implementation plan which includes community engagement and innovation and adoption. Next slide please.

The next region has been fostered and spearheaded by the Pennsylvania Department of Agriculture. This region is around the food sheds serving Pittsburgh and we'll look at those overall food sheds and freight responsibilities.

After conducting the study in many stakeholders' meetings they found that the food shed region really encompasses three states and many stakeholders. Now they're working all together on this regional initiative. Next slide.

The Cascadia Innovation Center is the region that encompasses Vancouver, Portland, Seattle which provides a diverse set of opportunities for multi-sect collaboration. Leading the way are Portland State University, The University of Washington and the University of British Columbia as well as the Cascadia Innovation quarter FMM development initiative. Next slide please.

The super conductor modeling and artificial intelligence cluster for smart cities and regions will harness modeling in AI to work on urban and rural projects like resiliency and transportation. The initiative is being started by the 20 city strong Colorado Smart Cities Alliance and Innovation Quarter which includes universities, national labs, and a number of companies.

I might mention that if you have a region that is getting started in a smart area or has already been working on it we do hope you will join our collaboration. As we begin our first speaker is Maci Morin. Maci Morin is the Program Coordinator for the National Association of Regional Councils in Washington, D.C.

She covers economic and community development issues at that organization and provides information about the latest trends and best practices for regional planning organizations across the country. She co-manages her organizations newest grant program with the National Association of Counties, the USDA REDI initiative which will help several teams across the U.S. create and implement regional economic development plans.

Her previous experience includes policy and communications work for the city of San Antonio City Council and researching governmental use of data, social media and innovative online tools at the University of Texas at San Antonio. So let me now turn this over to Maci, Maci.

Maci Morin: Hello Jean. Thank you. Can you hear me okay?

Jean Rice: Yes.

Maci Morin: Perfect. Thank you so much and thanks to everybody who has joined us on today's webinar. We're really excited to be able to share more information with you about the smart regions collaborative and about some of the great projects that are going on around the country.

For those of you that aren't familiar with the National Association of Regional Councils it is a membership association that serves hundreds of regional planning organizations across the U.S. You may know them by some of the names that they go by as metropolitan planning organizations, councils of government, economic development districts and more. And depending on how they're established they take on many activities in their regions.

These bodies really provide a form for member communities and stakeholders within a region to convene and to work together across jurisdictional boundaries to effectively address local challenges and collectively plan for the future. And I really think that this idea working across city and county lines is why the idea of smart regions is gaining traction.

Challenges that our communities are facing today and this includes those related to economic development and resiliency, healthcare, mobility, et cetera, they just don't stop at community or a city border they tend to spill into the suburban and the rural areas as well and I think that this idea really combats the myth that, you know, transformative technologies are just reserved for urban cores. When there is collaboration and coordination between a variety of regional stakeholders the public, private, nonprofit, smart connective technologies can also reach these other areas that lie outside urban areas.

And this - this collaboration and this working together really helps entire regions address common challenges bringing a mixture of financial and societal benefits to all. Next slide please?

I won't spend too much time on this slide but this just sort of gives you an overview of the great team that we're starting off, of course the principle of partners that Jean mentioned, NTIA and NIST and us at the National Association of Regional Councils and some of the non-bureau regions that are joining us. I know Jean mentioned a few of them already and our great speakers Danielle and Karl will be following up with more details about their particular smart regions projects so next slide please.

So just to go a little bit more into the value of - of our smart regions collaborative through the Global Cities Team Challenge. We had a great annual conference last week where we had a smart regions conversations and talking about data and technology and of our sponsors, HGR, brought up three tiers that I really think sort of encompasses why a - this theme that GCTC is pursuing this year's important.

I think that a smart region program, you know, they target regional. As I said it encompasses the urban areas. It encompasses suburban and rural and really brings them all to the table to start having conversations about how they can all work together, share tools and share ideas and sort of bring these technologies to everyone so they can benefit fully.

The second is collaboration. So again bringing together folks from the public sector and from the private sector and from non-profits together and also people from different disciplines that have different knowledge areas that can really contribute to these conversations that - about technology and about where we want to go from here and how do we address the growth in our

regions and the challenges that are - are popping up across jurisdictional boundaries.

And finally integration, I think something that regional councils especially are well aware of because they are the planning bodies of their areas, is that these different topics are all integrated together. So, you know, for example workforce. You have to think about transportation with workforce because you know, to get people to jobs you have to realize that the system, the transportation system needs to be comprised of conversations and that it is all interrelated.

So the great thing about our smart regions collaborative is that it sort of encompasses and encourages all these different kinds of tiers and make sure that, you know, all type of communities are included in these kinds of programs underneath our collaborative. It talks - they make sure that no matter what area or common challenge that you're pursuing, whether that's mobility or resiliency that you are included in this program and really that just - that you're trying to be inclusive and not leave anybody out if they're a critical piece of the puzzle. So with that next slide please.

So this is sort of what we hope to accomplish over the next year or so with the smart region collaborative. Really to - the first thing is of course do, like the other GCTC super clusters to create a blueprint and ours of course would be to empower local regional and tribal leaders to build out their own smart region strategies. I know sometimes it's really hard to begin. You don't know really where to start so hopefully this will be a resource for folks that are trying to get their feet wet and trying to think about how they can bring their community, their region together to start pursuing these kinds of projects.

And of course I know with experience of our organization, people really like to hear from one another. Those that are sharing the same sort of opportunities and challenges and to really learn from them so I think the peer to peer networking part will be really critical in this new collaborative and of course linking participants to information, the technical assistance and to others who we think could really help push their project to the next level. And then finally holding regular discussions about topics that come up to challenges.

I know this can be everything from funding mechanisms, how the scale of initiatives and how to get more stakeholders involved. So you know, it's going to be a really great project. I know we joined NIST and NTIA with how excited we are to be a part of it and next slide please.

Yes. If you are interested in learning more about the collaborative I did forget to put my email address on here unfortunately but it is my name. It's Maci.Morin@narc -- at NARC -- dot org. Feel free to email me with any questions or if you just want more information about how to join. And I know our moderator Jean Rice will be there to answer your questions as well if you would like to reach out to her and with that Jean I think I'm going to turn it back over to you.

Jean Rice: Thanks Maci. What a great overview and I have to say we're really delighted to work with you and your team at National Association of Regional Councils on this and you bring a great breadth of knowledge. I was just going to ask it seems to me that a lot of the regional councils kind of are used to doing database decision making and trying to bring in stakeholders.

So from their perspective how do you think it - how do they bring in this element of the smart and connected community?

Maci Morin: I think it's just being - again I think they're really great as having an eye towards the future. They're always thinking 10, 20 years ahead so any time they do some sort of long term planning, data and analysis it's just naturally going to be a part of that. And I know a lot of what they do is from input from their member communities. As you know technology is turning so quickly. We're hearing about things like drones and autonomous vehicles and connected vehicles so people are asking them, you know, how do we plan for this?

How do we plan for the future? These things are on the horizon. How do we get our communities ready for tomorrow essentially? So I know this is something that they think about every day and they're just really good at it and they are always thinking ten steps ahead.

Jean Rice: Well that's great and also they're a resource for others so that's wonderful. Okay thanks. Just one more reminder if you've got questions please type them in for us. I'm really happy to introduce our next speaker Danielle Hughes who is the Capital Program Manager at the Tahoe Transportation District. It's a congressionally enacted by state special district responsible for providing transit and facilitating and implementing safe and environmentally positive multi-modal transportation plans, programs and projects for the Lake Tahoe Basin, California and in Nevada.

She works on cross jurisdictional solutions and a cooperative environment embracing advanced solutions and climate technology, information communication technology and a whole host of modes of transportation. And she's doing this to address the increasing visitation to Lake Tahoe area which is one of the most globally recognized national resource areas we have. So Danielle I know you're also partnering on not only transportation but looking

at public safety. So let me turn it over to you and tell them about your great regional initiative.

Danielle Hughes: Thank you Jean. Thanks for having me and Maci thanks for that great introduction to the program. I think it really sets the stage well for what we're doing here in Lake Tahoe. So as Jean mentioned right now we're currently focused on regional next gen 911 dispatch center and sort of a traffic management center as well as looking at an end warning system.

As Jean mentioned we see about 24 million visitors here annually based on some of the sales data that we have recently looked at from a visitor movement and traffic management standpoint. And so we are also in an area that has six lanes or six routes outside of Lake Tahoe therefore and we can on a weekend such as 4th of July really see you know, over a million visitors here at once that are not familiar with our road networks.

So under the you know, because we are a by state agency we kind of have to start at that regional level and thinking of this system and really how to manage the influx of visitation that we have so next slide. So you know, I mean, the question that everybody has seen in the news over the last year, California has had a significant number of wildfires and we just - at our region in California are asking, you know, who's next and you know, is Tahoe paradise?

In many ways it is and that's what attracts visitors to Lake Tahoe, is the beautiful environment that we have and the recreation elements that we have to, you know, provide visitors with the experience here that is like no other in our country. And you know, we are trying to think of solutions that could potentially solve some of the challenges that we have with climate adaption, you know are seeing - we expect more people coming from the mega regional

areas that spans from San Francisco through Sacramento and over to Reno, Nevada.

We would expect to see a significant number of additional visitors that come up to Lake Tahoe to get out of the heat and enjoy the weather that we have here. So how do we handle this in the future? We are a rural area. We are in granite bedrock and we have a large lake that you know, our populous areas surround. So we're really having to look at solutions across jurisdictions and building out and strengthening our network. Next slide please.

So you know, we're trying to not reinvent the wheel. We are trying to look because we have so many jurisdictions. We've got two DOTs - state DOTs. We've got our local jurisdiction. We're 80% federal land and we also have several state parks that are in the basin. So we're trying to look at how we can partner together, leverage the infrastructure and the land resources that we have and really build off of recent successes.

In southern Nevada back when the - the shootings occurred in southern Nevada at Mandalay Bay they had recently implemented a solution - a software system solution called Waycare where - and that was actually implemented within only a month when that happened. That's what made them able to respond so fast. Within three months of implementing the system they were actually able to reduce incident response time by approximately 12 minutes.

They were able to do that by integrating multiple data sources into their existing system, recognizing the social media elements and information like waze and in rec and such and actually be notified of incidents that were occurring in that region before they even got into the 911 system.

We felt that this solution could really benefit Lake Tahoe especially when it comes to the risks that we have in wildfire. However we were really missing a key element. Again that rural area and we don't have the communication network in-house so with that we're actually looking at a solution to look at smart streetlights to be integrated with that that can help build out that network and provide not only that network but two-way communication, information to the end user such as the visitor and also be able to put in a siren system that can connect in the event of a large catastrophic event.

As people know we often sleep without our cell phones on and we still need to get notifications out to people. So this was kind of the way that we felt that the solution would work here in Lake Tahoe, next slide please.

So you know, we have as I said this is a continual problem. Climate change is not going to necessarily increase so many of the risks. We have extreme events here already. We have avalanches on a regular occurrence. We probably had 20 people caught in avalanches just this winter.

We have - we have large wildfires in Lake Tahoe. We've had them during the busiest weekends of visitation that we have. So we know these things occur. We're going to be seeing additional people here so how do we get that information out to people that are not familiar with our area and may not even be familiar with how to get information such as code red or other warning systems that are emergency managers have available to them.

So we're looking at also including an end application that will include getting information about parking management systems, about alternative modes of transport, about our beach access and information so people can really have one location to get information not only in the event of a large disaster but day to day occurrences that happen here at Lake Tahoe.

We also look at the benefits that could potentially come along with that including, you know, getting people out of their cars, reducing the traffic congestion that we have, creating additional fuel efficiencies and decreasing accidents and secondary incidents as well as decreasing our capital costs that we have in our road networks. We're not going to be increasing our road networks in Lake Tahoe due to the environmental constraints that we have. We really do not expand our road networks.

So with that we - next slide please. Sorry. So with that we're starting with a study with Homeland Security and that's to really do a technical assessment that looks at the feasibility of setting up this shared system. And that shared system, we're kind of looking both from the technology standpoint but also facility that would be kind of modeled after the southern Nevada RTC system which is integrated traffic management center and they also have dispatch for Nevada Highway Patrol.

And we're also looking at something similar to what was done in Red River which is a bi-state and under a JPA so it allows for both law enforcement, medical response and fire. So we're modeling off of those. We also plan to include a ferry system in the near future and how that court system could actually help with the evacuation during a large event because of limited road network.

In the Santa Rosa wildfires 370 people were actually rescued by transit. So we recommend here in this region, we really needed to work together to find a solution, next slide.

So where are we at with this? You know, we're just starting. There's a lot of questions as Maci kind of talked about. The collaboration and trying to get

information from others, what people have learned through these processes we're really kind of there. Assessing how we do this from a procurement process, how we do this from sharing data across jurisdictional - jurisdictions, what the operational boundaries within the solution would be. We are five counties in this region but we are also even looking how to expand beyond those five counties.

We're trying to assess gathered data such as our population data, our visitor data and assess what the vulnerability areas and where our risk lie within the system. We're also trying to assess existing agency roles and responsibilities, gather the baseline data available to really look at the feasibility. We're also looking at how these technologies could be incorporated into other planning efforts as well as policy and actually specific projects.

We see that this is really just part of the system as a whole and that we need to really look at this in everything we do. We're looking at what types of subcommittees we need to consider, whether it be associated with maritime evacuation and land based evacuation. We're looking at - we're looking at different agreements and through that it'll probably be a package of agreements whether it's just existing MOUs to look at the planning together as one, whether it's different operational and maintenance agreements and go ahead and move to the next slide.

And then we're going to use that information to really develop this larger strategy and look at ITS, the communication with both dates since we have a large lake in between both states need infrastructure on each other's side of the lake. We're looking at various SOPs that may need to be developed, how we expand the system and what types of KPIs and what kinds of monitoring are we going to use with the system.

We also are kind of looking at the big - the scaling of this and what type of personnel training, logistical factors we need to consider and then really kind of how we would share that data and then hopefully how we can fund this because this is not a small event that we're trying to and we recognize this is really a long term solution. So we really want to have a strategic outline on how to proceed with implementation. So that's kind of where we're at. Next slide.

And you know, I would be happy if anyone had any questions. I'm always willing to be available for conversations about this. I think we all need to learn from each other and you know, feel free to reach out at any time.

Jean Rice:

Great thank you so much Danielle and I should mention if you do have questions right now feel free to put it in the box and we'll catch them at the end. And thank you for offering to - to chat with people about this. I think that's one of the best things about the collaborative, is that people are - like interests. You know, we're trying to put them together.

Danielle one of the things I really enjoyed about your presentation is you were talking about what is the end, trying to reduce accidents, time response and other things and when I look at what largest regions can do I really feel like they can improve people's lives through all the new technology whether it's AI or big data and sensors. So I think you know, that's really a goal and I - I call it people centered design but I was just wondering how do you try to get all of the - the two states. You got multiple fire and police from different ones. How do you have all of them working on what is the end goal? What is the - the things that will improve people's lives if they should work it? How do you talk about that?

Danielle Hughes: Well I think we're just starting to map that out. I think you know, this is very new. I think our kickoff is July 2nd to really get everyone involved in deciding what are our priorities. I think there's, you know, like Maci was saying, it's all connected so you tend to want to kind of you know, tie in all of the solutions for the best answers of your community. But I think we've got to focus here and it's really for us, you know.

We've got to build out the network first and foremost. We've got to be priority number one because none of these solutions are going to work until we get that network strengthened. So I think we all recognize that that is first and foremost, the first step to making these solutions happen and then we can build from there.

So I think we've all kind of prioritized that. And then it's how do we recognize that there are processes - existing processes and procedures in place that we need to work within but how can we improve those. So you know, yes I think it's just trying to gather that information and provide input and listen and try to come up with what makes sense with your region because I do think it's different whether you're in a place such as Sacramento or San Francisco or here in Lake Tahoe. I think that your solution's a little bit unique on your geographical location.

Jean Rice: Great thank so much. Now I'm going to turn to our final speaker Karl Darin. He is the program lead for the smart region movement at the Greater Washington Board of Trade. Karl works with over - has 25 years of experience in management and technology consulting specializing in delivery of large complex critical infrastructure and business transformation programs. Most recently, Karl has managed and enabled programs that use large scale cloud technologies delivering benefits, agility, speed innovation and lower total cost of ownership.

Karl specializes in program management office operations, technology solutions delivery, business process management, stakeholder engagement and human performances. Karl's complex delivery experience includes integrated mergers with strategic asset acquisition and utility sector. Karl and the Board of Trade have just put together and announced not that long ago that their new smart regions movement and so Karl I'd like to hear a lot more about that from you. Thanks.

Karl Darin: Great thank you Jean and greetings everybody. Like Jean said my name is Karl Darin and I'm the Program Lead of the Smart Region Movement at the Greater Washington Board of Trade.

I'm really excited to share some details with you today about what we're doing in this region across Washington D.C, Northern Virginia and Maryland. And if we take a look at the next slide in defining the smart region movement with the Board of Trade looked at three key regional challenges in Greater Washington.

The first one is fragmentation. This region is made up of 24 local city and county jurisdictions across D.C, Virginia and Maryland and that has really become both a key challenge as well as our primary opportunity to put together the smart region movement and framework. Secondly, inequality, we have some of the most affluent and most socioeconomically challenged communities adjacent to one another are here in the region which is - which is just an interesting dynamic and you know, additionally in a short bicycle ride you can cross jurisdictions here in the region that go from life expectancies that vary from 65 to 85 years.

So to have that kind of disparity socioeconomically as well as in life expectancy is a significant inequality challenge that we want to address and then lastly technology adoption. Simply put technology has gotten ahead of society and society needs to catch up. And so to address these challenges we're working to help the public sector, the private sector and academia come together to get ahead of technology and to help residents and visitors live better, to live more prosperously and really to work more effectively in the region.

And so the Board of Trade formed the Greater Washington Smart Region Movement really to shape a robust and responsible strategy to establish greater Washington as the nation's leading digitally enabled region. And that is our mission.

So if you look at the next slide let me give you an overview of what we're doing with the smart region movement. First of all, our objective is to establish a regional/digital infrastructure for delivering smart technology solutions at scale. And so what do we mean by that? You can think of this digital infrastructure kind of like your smart phone operating system whether it's iOS or Android. That operating system or infrastructure, once it's in place with the standard for interoperability and so forth enables developers to create applications and solutions all day long.

And so that's - that's really our focus to getting this regional/digital infrastructure in place, to enable the delivery of those solutions at scale and when we say infrastructure what we think of it is it's really in two main components. There's hard infrastructure which is the physical component that many of us are familiar with including the communications network and so forth but there's also soft infrastructure as well which are the enabling capabilities and services like planning, policy and regulation.

So you know, in - in developing our values then for the movement we really identified three key stakeholder groups, the community which is - includes residents and visitors, academia and nonprofit, the private sector which is industry including the financial community and the public sector: local, state, the District of Columbia and federal government as well.

And so as we look at that we're really focusing primarily on the residents and community before the private sector and public sectors. They're all important but residents and the community and the people take prime (unintelligible). That's a key theme that we've heard so far here on the webinar as well and it certainly fits for us. Things that we're doing specifically for that, we want to enable small businesses to grow economically and we want to improve the lives of the daily worker and the daily commuter as well as visitors to the region.

So as we think about outcomes and benefits that we think to achieve we were thinking about this. If industry is left to its own industry will drive an effective commercial answer. And that's an important and a good thing but we want to drive a comprehensive societal answer that is inclusive. And so you know, for that reason we believe industry alone cannot dictate the terms for the deployment of additional infrastructure and smart technology solutions. It needs to be done in a public/private manner.

With that said if it doesn't work for industry then they won't come to the table. So what we're doing is we're working to find an answer that's good for all parties involved that - that provide equal benefits to society. And you know, one of the key outcomes that you can see here and benefits that we're focusing on is narrowing the digital divide. We have a connectivity brawl initiative that's one way that we're doing this.

We're seeking to make high quality broadband access available and affordable to all, you know, so that we can connect individuals to services and resources and other opportunities as needed. One of the specific ways that we're doing that technology is finding the launch of Wi-Fi enabled kiosks this year which will provide high speed connectivity and also feature localized content that includes real time access to city services, neighborhood business specials, local events, maps and other relevant information to residents and visitors.

So that's an overview of - of the smart region movement. If we go to the next slide this outlines the partnership strategy that we put in place. And the partnership strategy begins with the Board of Trade. The Greater Washington Board of Trade is the regional business authority for Greater Washington that represents about 40% of the commercial workforce in the region and the Board of Trade also collaborates with local Chambers of Commerce, nonprofits and other associations.

So we at the Board of Trade went to the Metropolitan Washington Council of Government which represents 24 local governments that I spoke about initially as well as representation from the Maryland to Virginia Legislatures and U.S. Congress. We entered into an agreement that puts the industry and public sectors together in a large scale collaboration by joining the Board of Trade and COG.

And then once we did that we went to the consortium of universities of the Washington metropolitan area. That represents 17 colleges and universities that are headquartered here in the region and we entered into a MOU with them that bound together public, private and academia to inform the big ten. And that is why we call this a movement, because we're bringing together industry, government, academia for the good of the local residents.

And so the Board of Trade, COG and the consortium as Jean alluded to in the introduction along with our Department of Commerce friend Jean and Dr. Reed from NIST, we all formally announced the launch of the movement in March. And as you can see these are the three founding members and then after that was launched in March we went to the Washington Metropolitan Transit Authority which is WMATA.

WMATA is a single authority that operates regionally in D.C., Virginia and Maryland by running the train system which is called Metro as well as bus transit systems. And WMATA has authority, rights of way and extensive digital assets that are already in place across the region. So we entered into a strategic partnership with them to collaborate on the movement as well. And then now we're working with a variety of individual partners to bring this comprehensive solution together.

And one example at the top of the list, you know, for federal government agencies is the Department of Homeland Security and specifically there's you know, cybersecurity and infrastructure security agency which has a cybersecurity integration center right here in the region. We're working with them to determine the appropriate federal government participation in this movement because today we have 24 different cyber offices across all of those jurisdictions and believe that having 24 independent cybersecurity functions as an example is not an optimal solution, you know, comprehensively, you know, across the region.

So that's the partnership strategy that we put in place to define, you know, what this movement can and should be. And then if you look at the next slide, you know, we are - we're very focused on social inclusion. And I wanted to

emphasize that we're looking at this broader - more broadly than the traditional definition of inclusivity.

We're focused for inclusion on the perspective and the personas that would influence the smart region design. So if you think of a couple of examples like the aging populations how do we design for the elderly who are not adept at using technology. That is a key focus and question that we are addressing for - from an inclusivity perspective in the smart region design.

You know, a little bit more to the left on here disabilities. We think about persons with disabilities in general. We're working with an organization on putting together an energy star like certification like you know for appliances for disabilities in our smart region design. And that's another - that's another key example. And then finally maybe a little bit provocatively you see in the lower right that we have a machine.

We've actually seen that in foreign markets, some of the city planners are planning for more than 50% of the residents to be robots. So the human machine interface with artificial intelligence is also part of an important part of our smart region design as well. So that's - that's an overview of what we're doing. We're very excited about the breadth and the comprehensive nature of the strategy that we're putting together here to - to really lead in Greater Washington for our smart regions and we think this is - we think is going to be a really good answer and solution.

So if we go to the next slide that wraps up the overall summary and I appreciate any questions that you have and it's been great to join here and share some of what we're doing.

Jean Rice: Great thanks so much Karl. It's amazing what a great kind of industry, university and public sector government that you have put together and I think it's stronger and that we do see that throughout GCTC and a lot of the smart city and community projects is that they have that kind of element of partnerships with those three sectors. I think that bodes well as you go forward.

I want to say also that NTIA encourages all smart projects within a regional or a local to think about civic engagement and inclusion. And I'm really happy to see that that is kind of a major part of what you're doing with the smart region movement here for the Greater Washington area. So if you could tell us on inclusion, I mean, are you thinking that demand aggregation for the use of kind of the broader spectrum will help with inclusion, thoughtful planning? What are the things that you think will be key to making your smart region inclusive?

Karl Darin: Yes. I think certainly the - certainly the collaboration and doing things at scale I think is really going to facilitate inclusion. So I mean, if you take for example the rollout of broadband technology that's something that, you know, I mentioned with the connectivity for all example that through the public/private academia collaboration and we can work with the - the public sector jurisdictions and the private sector to think through approaches for how - for how that part of the infrastructure can be rolled out to all different areas, not just the ones that have the highest demand or the most profitability initially.

And so I think, you know, that's one example Jean of where this - smart region approach can help impact inclusion and diversity. And you know, some of the other examples that you know, we spoke about or that I spoke about on - on inclusion with the integration with association, take like the

National Institute of Blind for example. They're an organization that - that we're working with if you about geo-sensing technology in a smart region program.

That is something that will help individuals who have impaired vision or are blind to be able to navigate around a smart city or region with technology assisting what the leader dog is providing them today. So those are just a couple examples of - of you know, enabling factors that drive inclusion.

Jean Rice: Well great. Let me go one of the questions from the audience which is what kind of best practices would you give regarding stakeholder engagements. Let me start with you Danielle and then Maci and then Karl.

Danielle Hughes: Yes thank you. So I think right now it's really about trying to make sure for us we're starting with the stakeholder - the technical stakeholders so the different agencies within the region and some of the more - the nonprofits that are involved with implementing some of the solutions already because there are I think many people really trying to drive some of these systems forward such as the broadband and the communication network or you know, changing to a more connected system with mobility as a service type system for our transit providers within the region.

So I think it's really trying to engage them, recognize what they are already doing and how do we help facilitate those - those efforts further. And then you know, I think that our next step is really try and make sure that we understand what our community members need here to make these systems work and engage - get a variety of those - those stakeholders involved. And for us which is a little bit harder and I - I'll be honest. I haven't really figured out how to do it.

How do we actually get the visitors to get the information? I think getting people that are not necessarily here all the time or come here once in a lifetime, that's going to be the real challenge.

Jean Rice: Thank you. Maci?

Maci Morin: Yes. That was a great answer. I'm trying to think of what to add on because I don't have the practical experience Danielle and Karl have. But something that did come to mind that I think might be helpful is just reaching out early and often so I mean, as soon as you know, your organization wants to pursue this kind of thing or that it comes up. Just make sure to bring people to the table as early as possible to start talking this through and sort of hearing their ideas and sharing thoughts with one another. That way you can all become champions of whatever comes out from that.

And just connecting with them as often as you can, as things progress or things come up or there is questions about challenges or opportunities, just making sure that you're connecting with stakeholders in the region as much as you can to keep them involved. If they feel like this is their baby too and that they have a stake in this I think they're much more likely to be participants and to want to see this project come to a success.

Jean Rice: I think that's a really good point and I think that the whole idea that the early and often and that you can develop champions. We find the broadband champions and smart city champions are key to getting the word out in various sectors. I think that's a real key point. Karl, do you want to add?

Karl Darin: Yes. I think stakeholder engagement is a critically important question. It's a great one and I think Danielle and Maci hit the nail on the head. What we're doing with the smart region movement is we actually defined solution group.

There's 18 of them actually across capabilities like the policy and regulations one that I mentioned and also industry, you know, solution categories that we put in place. And we've got about 250 people involved from 120 organizations across the 18 solution groups and they're meeting on a, you know, every two to three week basis over the next few months to help inform our strategy and bring to us ideas on outcomes and solutions and considerations.

So given that we've cast such a broad net to create this big ten partnership that's - that's what we put in place as to make sure that we're getting a broad base of stakeholder engagement informing our design.

Jean Rice: That's great. I think this really does emphasize how important stakeholder engagement is and I have to say that not just engagement but as you go forward you know, stakeholder alignment on the goal is very important. Okay let me move on to the next question.

There are a lot of public/private partnerships in the smart cities and communities area. How important do you think that's going to be in your projects and projects that you have seen and are there any key elements that you think about when you are doing - looking at PPPs so let's see. Let's start with you Karl and then we'll go to Danielle and Maci.

Karl Darin: Yes. Public/private partnerships are - are going to be key to this. It's fundamental for the approach that we - that we describe and outline here. I think you know, I think some of the key considerations are you know, first getting you know, getting that formal, you know, public/private and even academia.

I would add in there collaboration. That's something that we think differentiates ourselves here that we've formalized that collaboration through MOUs and agreements but then you know, as you look at the - as we look down the road at the different projects I think that you know, we're starting to evaluate the types of projects where you know, public and private partnerships would be good models and constructs to be able to - to structure finance and deliver them going forward. So I think that's another area that is going to be really important in terms of - in terms of the P3 model.

And not every, you know, not every project is ideal for that kind of construct but - but certainly there's some of them that are and right now we're working to define, you know, what that criteria is.

Jean Rice: Great thanks. Danielle?

Danielle Hughes: Public/private partnerships are a key element I would say of most everything that we hear do and just because a lot of our infrastructure and our resources are related to resorts that operate on public lands. And so I think it's an important element of how we set the stage for this I think on the communications element.

You know, I'm putting in some of the infrastructure but it's really to just help facilitate some of the challenges that they've had trying to put that infrastructure in themselves with our - our environmental regulations that we have here in the basin. It makes costs go up significantly for private investment so I think partnering with a public agency can help decrease those costs as well as you know, how do we look at co-location infrastructure like a fiber network in our - in our roadways to help facilitate and bring that into our communities as a key element of what we're doing here.

I think there's many other pieces as well that I think you need to really assess what is there for a partnership to launch this - these types of technologies.

Jean Rice: Great thanks, okay Maci?

Maci Morin: I really don't have too much more to add to that. I think you know Danielle and Karl covered it really well, just thinking of an example. I know if you check out - if you're interested in this there's the Denver mobility choice blueprint.

I know that one of the things they were working on is - was trying to establish a new public/private partnership mobility entity to pursue mobility technology implementation and I know the themes that they were focusing on were like, human experience and funding and finance, infrastructure, governance. So I know that this was something that they've worked on.

I definitely recommend that you check that out and see how their pilot projects are going but I know the public/private partnership was a critical piece of the puzzle for them working on this mobility choice blueprint and I know I think as Karl said, you know, it doesn't fit for maybe every regional project that's out there but it's something that definitely should be looked at and should be considered as you're looking at your own sort of smart regions initiative.

Jean Rice: I think that's right and I think that maybe you made the point for the smart regions collaborative too which is, you know, Maci just gave us a great lead for something to look at and I'm sure others who are on the phone, our smart regions who are joining us will have ideas that we can all kind of share and learn from and our hope is that you know, through the collaborative we can have discussions on stakeholder engagement and procurement and BTP. So

kind of like I think it's a great form for these looking at things and how to go forward.

Let me just ask each of you to think about you know, we have a lot of regions that are starting up. We have regions that may have already been developed and have not really looked that much at smart technology or broadband. We have to give them one or two pieces advice what would it be and I'll go with Danielle, Karl and Maci so Danielle?

Danielle Hughes: Yes so I think it's, you know, see who is actively working in this - in technology and reach out. I think we're all asking some of the same questions and learning as we go so I think, you know, I constantly reach out to City of Las Vegas too.

I've reached out to Denver and others to try and ask what kind of struggles they're coming across, what lessons they've learned. And I think the one thing I really like about what you guys are doing with the regional program is really kind of having that information available to others and tracking that and building that network for different regions to utilize so that they're not starting from square one. But I think we're all in the same question so just reach out.

Jean Rice: Great. Karl?

Karl Darin: Yes I think going back to the public/private collaboration I would say that the one thing that I would advise is that we're very focused on is that - that collaboration can be a key accelerator. And so - and I think that's particularly important in forming the smart region movement because technology moves at a much faster pace than traditional infrastructure. So when you think about digital infrastructure it's just much more fast paced and accelerated and

changing than - than you know, the traditional bridges and roads and that kind of thing.

So as you're thinking about those collaborations it's important to keep in mind and to look for those enabling factors like fast trading - fast tracking licensing and permitting and that kind of thing through those collaborations whether you set policy and legislative priorities within your region.

Jean Rice: That's great. I'm glad you brought up the policy legislative initiative and priorities for regions because you know, a lot of cities and states have long term plans and it's always good to take a look at those too and see how your project fits in and they go forward. Okay Maci?

Maci Morin: Thanks. Well I think you both said are spot on especially Danielle. I know just talking about our members really I feel like what hits home for them most is being able to talk to one another and look at what things could potentially work or don't work and maybe bring it back home to try in their own regions. But I guess one other thing I'd add on is just the start - start having the conversation really in your region. Start bringing folks together from different communities like connecting with the Chambers of Commerce, the universities which was a great point that Karl brought up and the nonprofits and see what others are thinking when it comes to smart regions initiatives.

I know like for example in Ohio regional training commission they recently created a smart region task force where they're exploring potential benefits and unintended consequences of smart infrastructure investments and they're looking at generating regional policies and guidelines that'll lead to what they hope to be the creation of the smart region that encompasses the Columbus area.

So just looking at...

Jean Rice: Maci we're running out of time so I hate to say...but you just had a great point which is there are these great things in regions coming and emerging and we have a lot to talk about. Hopefully it's just the start of the conversation. Please join us if you can with the smart region collaborative.

I want to say also from BroadbandUSA we want to invite you to join us for our next webinar which is on July 19. It's going to be Firstnet deployment and it's about the public safety and a broadband infrastructure that they're working on on a national level. I want to thank all the speakers today not only for this but for the several months of work you've done with us on the collaborative.

And I also want to thank Elaine Sloan for doing her behind the scenes work for us at Broadband USA. I'm just going to remind you that the presentation will be available on the Web site within seven days and please reach out to us at our link here. You can reach me, anyone else from NTIA and on anything you'd like to hear about technical assistance, whether it's on connectivity, smart communities, promoting inclusion and broadband adoption.

So please visit our website and take advantage of our publications and please do reach out to us if we can be of any assistance. And thanks again to everyone for participating. Thank you.

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