American Association of Port Authorities

Alliance of the Ports of Canada, the Caribbean, Latin America and the United States

PORTS OF INDIANA

3 PORTS - 2 WATERWAYS - 1 SYSTEM

Funding for freight transportation infrastructure is urgently needed to keep U.S. economy moving

Infrastructure is the backbone of developed nations. Our ability to move raw materials and finished products between domestic and world markets is critical to economic success. Right now, the U.S. freight transportation industry is at a crossroads and infrastructure funding is urgently needed to grow our economy. In recent years, transportation infrastructure investment has lagged, impacting the flow of goods for farmers, manufacturers, workers and consumers who must have access to the global marketplace.

On May 18 in Indianapolis, during national 'Infrastructure Week,' a roundtable with 20 national and Midwest experts convened to discuss America's freight transportation needs and the critical importance of providing ongoing infrastructure funding. Representatives from manufacturers, ports, steelmaking, mining, logistics, trucking, agriculture, departments of transportation, Corps of Engineers and academia shared their concerns about the urgent need for new infrastructure funding and the catastrophic consequences if we don't act.

Following are key comments made by roundtable participants.

Infrastructure Roundtable

May 18, 2017, Indianapolis

Hosts

- Rich Cooper, CEO, Ports of Indiana, Facilitator and Co-host
- Kurt Nagle, President and CEO, American Association of Port Authorities, Co-host

Participants

- Robyn Boerstling, Vice President, Infrastructure, Innovation & Human Resources Policy, National Association of Manufacturers, Washington, DC
- Lauren Brand, Associate Administrator of Intermodal System Development, U.S. Maritime Administration (MARAD), U.S. Department of Transportation, Washington, DC
- Kevin Brinegar, President & CEO, Indiana Chamber of Commerce, Indianapolis
- Brian Burton, President & CEO, Indiana Manufacturers Association, Indianapolis
- John Crowley, Executive Director, National Association of Waterfront Employers, Washington, DC
- Tom Easterday, Senior Executive Vice President, Secretary & Chief Legal Officer, Subaru of Indiana Automotive, Inc., Lafayette, Ind.
- Doug Ellsworth, Senior Asset Management Specialist, U.S. Army Corps of Engineers, Washington, DC

- Blair Garcia, Vice President, U.S. Director-Maritime Division, WSP USA, Virginia Beach, Va.
- Dale Heinz, Senior Division Manager, Primary Operations, ArcelorMittal Steel, Burns Harbor, Ind.
- Michael Hicks, Economist, Ball State University, Muncie, Ind.
- David Holt, Vice President of Operations & Business Development, Conexus Indiana
- Lee Hutchins, Director, Freight Logistics & Planning, AECOM, Chicago, Ill.
- Gary Langston, President, Indiana Motor Truck Association, Indianapolis
- Kevin Larkin, Vice President of Market Services & Transportation, Alliance Coal, LLC, Tulsa, Okla.
- Joe McGuinness, Commissioner, Indiana Department of Transportation, Indianapolis
- Ted McKinney, Director, Indiana Department of Agriculture, Indianapolis
- Bill McLennan, CEO, Fastport, Inc., Lowell, Mass.
- Bill Stahlman, P.E., M.ASCE, Director of Engineering & Construction, America's Central Port, Granite City, Ill.

Media

- Troy Linker, Publisher/CEO, ***Northwest Indiana Quarterly***, Dyer, Ind.
- Scott L. Miley, Indiana Statehouse Reporter, ***Herald Bulletin***, Anderson, Ind.
- David Payne, Staff Economist and Reporter, ***The Kiplinger Letter***, Washington, DC
- Annie Ropeik, Economy & Business Reporter, Indiana Public Broadcasting, Indianapolis

Kurt Nagle welcomed the group, described AAPA and the importance of ports to the U.S. economy. Mr. Nagle’s formal remarks:

- Good morning. My name is Kurt Nagle and I am the president and CEO of the American Association of Port Authorities. We are thrilled to have you here in Indianapolis for this roundtable discussion to surface some of the critical infrastructure issues that inhibit the ability to keep America moving.

- AAPA is the unified and collective voice of more than 140 public port authorities in the United States, Canada, the Caribbean and Latin America. Our members also include more than 250 partner organizations, firms and individuals sharing an interest in the ports of the Western Hemisphere. The Ports of Indiana here in the Midwest, and at the heart of the Great Lakes region, is a great example of the diversity of our industry and the ports we serve.

- Ports are a critical part of the supply chain but we are only one piece of this integrated system. We’re pleased to have representatives from a number of our partners in the supply chain in the room today.

- With manufacturers, policymakers, innovators and the new Administration striving to boost the U.S. economy and create jobs, the role played by America’s ports is more critical than ever to keep freight and America moving.

- AAPA’s member ports play an important role to our economy and require a healthy and robust infrastructure system to support us. But today, while ports and their private sector partners are doing their part by investing over $31 billion a year in port infrastructure, these critical economic engines are under threat by a lack of overall infrastructure investment in and connecting to these facilities.

- We are encouraged that President Trump wants to invest $1 trillion in infrastructure improvements. It’s vital that ports are part of the conversation and part of this plan to rebuild America.

- Infrastructure delivers more than you think and investments in our nation’s port-related infrastructure pay enormous dividends. Ports are gateways to our regional and national economies. Cargo activity moving through ports accounts for 26 percent of the national economy.

- America’s ports handle approximately $6 billion worth of goods moving to and from overseas markets each weekday.

- Our port-related infrastructure connects American farmers, manufacturers and consumers to the world marketplace and facilitates the increase of American exports that are essential to our sustained economic growth.

- Most importantly, this cargo moving through America’s ports creates more than 23 million jobs. We will be able to add more jobs to this number if we make more investments.

- As another added benefit, this cargo moving through ports brings more than $320 billion annually in federal, state and local tax revenue.

- Recently we surveyed our members to get a better picture of our nation’s freight network needs, challenges and opportunities.

- Our ports are engaging in regional planning, identifying freight infrastructure investments and developing partnerships to ensure freight moves across our nation and communities safely, securely and efficiently. In addition, they are making billions of dollars’ worth of investments within their own facilities.

- In particular, the landside connections to ports, first and last mile, were identified in the survey as essential infrastructure investments that must be upgraded to connect our ports with the country’s freight infrastructure network.

- Nearly 80 percent of our port members said that a minimum investment of $10 million in their port's connectors is necessary over the next decade. About a third said that an investment of $100 million is necessary.

- Waterside connections to ports are also critical. Federal navigation channels must be fully maintained and improved to accommodate the ships that move into and out of our ports.

- There is a huge funding gap between what is collected through the harbor maintenance tax and what is invested back into our channels.

- AAPA is committed to closing that gap and providing more equity by working with Congress and the Administration through our "Hit the HMT Target" campaign. To date, Congress has established the funding targets but we need to continue to work over the next several years to make sure these targets are met.

- This roundtable is an opportunity to take a closer look at the big picture and hear from industry experts throughout the supply chain about the issues such as these that threaten our ports. We also want to be part of the solution.

- Let's come away from here with suggestions and solutions that can be woven into the efforts over the coming months to invest in America and keep it moving.

- Investments made now drastically impact our ability to meet future demands. Let's meet our current needs and plan for the future growth and success of this nation.

- Let us engage in a meaningful discussion and perhaps with the knowledge that we surface today, we can both raise awareness and create new partnerships to **keep America moving** as we forge ahead.

Rich Cooper expressed gratitude for this high-level group taking the time to meet. He described how Indiana's three ports are uniquely situated—one on Lake Michigan and two on the Ohio River—and that Mount Vernon, Ind., is the sixth largest port district in the U.S. He also noted that ports cannot be successful by only having access to water—they need highways and railroads. He mentioned that Indiana is now ranked fifth in the U.S. for business climate, but first in the Midwest.

Rich Cooper asked a question to prompt discussion: *What is the current state of our nation's infrastructure and what do we need to do to make improvements? What is the risk of doing nothing? What happens when we make investments?*

Kevin Larkin—The American Society of Civil Engineers recently gave the U.S. a D+ rating for infrastructure. There's $1.7 trillion required for infrastructure by 2020 to fulfill just the basic needs. More than 56,000 bridges were structurally deficient in 2016 but are still used daily. Most locks and dams are well beyond their design life and nearly half of all maritime vessels experience delays. This is a critical problem in the coal business. The average citizen does not understand the importance of the inland waterways and it is hard to get federal attention. We do not want to wait for a failure.

David Holt—The Poe and Olmstead locks need funding. If the Poe Lock fails, the impact on the economy will be catastrophic. Failure of the Poe Lock would require trucking goods, which is more expensive and creates traffic congestion. We also need the Harbor Maintenance Trust Fund to be used for its intended purpose. There are 12 areas on the Mississippi River that need dredging, but there just isn't enough money to do it.

Bill Stahlman—The highway system could not handle the amount of trucks needed if everything were to move by truck rather than barge. One 15-barge tow equals two 100-car unit trains or over 1,000 trucks. Think of the congestion at rail crossings or your daily commute without these barges.

Gary Langston—The average citizen sees trucks as a cause of congestion and a safety hazard. A recent American Transportation Research Institute study concluded that congestion on the U.S. National Highway System is so bad it caused over $63 billion in operational costs to the trucking industry in 2015, equaling 996 million hours of lost productivity—equivalent to 362,000 trucks sitting idle for one work year. Driver shortage is also a huge problem.

Lee Hutchins—One of the largest bottlenecks in the freight transportation system is in the Chicago region. The increase in traffic volumes has been a challenge—taxing the road and rail system beyond what they were originally designed to handle. Projects underway, such as the Jane Byrne Interchange and Indiana/Illinois Tollway Projects, will help.

Doug Ellsworth—While the Poe and Olmstead Locks may seem especially problematic, they actually have redundancy. There are many locks, however, within the Inland Marine Transportation System that do not have duplicate chambers and a shutdown at one of them could affect all traffic on an entire river, like the Mississippi River, for example.

Kevin Larkin—When the Charleroi Lock #4 on the Monongahela River in Pennsylvania is closed for repairs, there is no auxiliary chamber and that severely impacts getting coal shipments to power plants upriver.

Bill McLennan—The risk of doing nothing is a threat to our national economy. In China, infrastructure investment lifted 400 million people out of poverty. America needs a national infrastructure strategy, not a piecemeal strategy.

Robyn Boerstling—The U.S. previously was number one in infrastructure but is no longer even in the top 10. The freight industry needs to define excellence and a vision for success—it will not come from Washington.

Ted McKinney—We need improvements in infrastructure at all levels. As populations rise, we need to increase food production. Southeast Asia wants more protein and needs feed for cows and chickens. Infrastructure is key to letting people work their way out of poverty.

Tom Easterday—The automotive sector is vital to Indiana's economy. A study by the Center for Automotive Research shows that for every job created at one of Indiana's three international automakers, there are 11.4 additional jobs created. So, any long-term disruption in our supply chains due to an infrastructure failure could have a significant impact on Indiana's economy.

Dale Heinz—If a Poe Lock failure happened early in the shipping season, it would be devastating to ArcelorMittal Steel.

Lauren Brand—Since before the 1970s, the Federal Government has left transportation infrastructure investment decisions to regional public entities and industry. I see many coming to D.C. able to explain only one piece of their regional puzzle—not how that one project fits into the broader transportation system. I also see a need to focus more on the logistics needs to facilitate exports. We encourage regions to develop a comprehensive master plan for their multimodal systems.

Blair Garcia—We need to be able to make a better case on our grant applications and private investments, which is the goal of the AAPA/MARAD Port Planning and Investment Toolkit.

Kevin Brinegar—What happened in Indiana needs to happen at the federal level. In Indiana, people came together to identify needs and funding sources and to make the case for investment. Twenty states have taken matters into their own hands and increased taxes and user fees without political fallout with 98 percent of legislators re-elected after infrastructure tax increases. We need to identify the national needs, prioritize them and determine alternative resources to fill in the funding gaps. People are driving further on a tank of gas, so the federal gas tax, as it stands today, isn't enough.

Rich Cooper—David Holt, would you mind explaining some things about Conexus Indiana for those not familiar with your organization?

David Holt—In 2008, we created a logistics council and began identifying key infrastructure projects for all modes. By 2015, 270 projects had been identified with a cost of $32 billion. This year, Conexus and our partners' work led to a new 20-year road-and-bridge state funding plan, which will provide 1.2 billion new dollars each year. Now our job is to ensure the identified projects get completed.

Brian Burton—Of critical importance is the make-up of the economy. There are 580 machinery manufacturers and 25,000 manufacturing-related jobs in Indiana. The transportation sector is vital. If you have a bridge or lock or road section that goes down, it creates a massive transportation issue. We need to build a comfort level with the public regarding taxes so people know where the money is going and believe those taxes are spent in ways that benefit them.

David Holt—Regarding the tax on gas, people feel the money should go to roads.

Dale Heinz—If the Poe Lock were to catastrophically fail, our steel mill would be out of raw materials in two weeks and forced to shut down, idling 4,000 employees. The Poe Lock, located in Sault Ste. Marie, Mich., is part of the Soo Locks, the world's busiest canal, and is the only one capable of handling the 1,000-foot-long vessels that move millions of tons of iron ore from mines in Minnesota and northern Michigan to steel mills in northwest Indiana.

Lee Hutchins—There are four locations where railroad networks span the Mississippi River. We need to focus on resiliency—what would we do if a bridge went down?

Dale Heinz—Bridges are a no-brainer investment. Just think of the impact over the Mississippi River in the event of a catastrophic failure.

Rich Cooper—If the entrance bridge to our Burns Harbor port came down, it would shut down east/west rail lines and the port.

Michael Hicks—Four hundred fifty billion dollars needs to be spent on infrastructure. President Trump's plan would add \$100-\$110 billion a year, mostly private sector funds. Over the 20-30 year period ending in 2010, most of the production growth in the U.S. came from supply chain improvements. Since 2010, production growth is flat despite increased investment. We need to focus on four things: (1) maintenance, the least sexy investment issue, (2) congestion relief, primarily new construction, (3) telecommunications and security and how to use existing systems more effectively and (4) human capital, particularly truck driving jobs.

Bill McLennan—Registered apprenticeships are a critical employment strategy for employers wanting to attract and retain a higher skilled work force.

Our new Administration recently announced a goal to have five million apprentices in America in the next five years. That is a 10-fold increase over current numbers so you know it's important. Congress just passed a budget that included \$195 million to support the increase and acceleration of apprenticeships in America.

Registered apprenticeships have proven to increase retention and are a competitive advantage for employers wanting to hire more veterans. Veterans understand and appreciate the structure of an "earn-as-you-learn" system because it's similar to their military experience.

The U.S. Department of Labor has provided a national standard framework where all employers regardless of size can initiate or expand registered apprenticeships. FASTPORT can assist any employer in the transportation sector to initiate or expand registered apprenticeships, and we also have expertise in helping employers fill those apprenticeship opportunities with talented veterans.

Infrastructure is the most critical investment America can make for our long-term global competitiveness. Infrastructure provides the jobs that move our economy. One in 14 working Americans are working in some aspect of the transportation & logistics sector. Two employment strategies that intersect with infrastructure investment are registered apprenticeships and the hiring of veterans.

More employers need to become actively engaged in hiring the men and women that volunteer to serve our country. While much is written about veteran-hiring commitments by many employers, there are still nearly 500,000 unemployed veterans with about 200,000 veterans transitioning out of military service each year. They need jobs and the transportation sector provides great career opportunities. These men and women already have transportation industry experience because they already work for the largest supply chain company in the world: our military.

Blair Garcia—The transportation industry is very capital intensive. Asset management in the freight transportation industry is evolving and means more than maintenance—it also affects how you operate and how you are structured. In the next 10, 20, 50 years, asset management should have profound effects on freight transportation efficiency and infrastructure development.

Doug Ellsworth—Picking up on what Bill and Blair just mentioned, we are trying to align with ISO 55000 on asset management and in that ISO an asset is anything that brings value to an operation. That means it's more than maintenance, as Blair suggested, and includes the human resources that Bill mentioned. So the ISO is not just for infrastructure, but for anything that brings value—from your physical assets to people and even data itself.

Ted McKinney—With scarce resources, it's important to prioritize and identify what infrastructure is critical. Some bridges are on their last legs and we should pressure-test bridges to prioritize. We need to carefully prioritize what infrastructure to replace.

Gary Langston—I can't remember ever talking about railroads and ports together in a forum like this. As Lauren said, don't go to policy makers and talk in silos—we need to talk about the system as a whole. We need to come together as a group to explain what we need for transportation efficiency. It's more than just trucks.

Lauren Brand—The FAST Act requires that all states prepare freight plans and submit them to the Federal Highway Administration. Once received, the Highway Administration is sharing these with the U.S. Maritime Administration, MARAD. The Maritime Administration will look at them to make sure they are multimodal and have addressed inclusion of navigable waterways that may be within the State's plan area. If not, we will have them sent back with a recommendation to reconsider such inclusion. Freight plans are due in October. The result will be a national freight map, showing our national corridors. It is my opinion that we need to plan beyond today's needs. Infrastructure that's being planned today, once funded, will take five to six years to be operational, and should then last for another 40 to 50 years. What was built 40 years ago is now worn out and we didn't save enough to pay for replacing it. Driverless cars and other changes will have an impact. This time we need to build with a vision for what our grandchildren's children will need.

Joe McGuinness—We need to understand what transportation will look like in the future. And not just in Indiana—planning and funding should at least be regional. We worked across modal lines in the last Indiana legislative session and companies supported the concept of a user pays model to make the investments necessary to improve and maintain what we have and build for the future. The Legislature wanted data and a list of priority needs. The result is an average of

1.2 billion new dollars per year over 20 years. The State embraced a user pays model to ensure that those who use our infrastructure have skin in the game for maintenance and improvements. A mix of fuel tax changes, Bureau of Motor Vehicles fees and fees for electric and hybrid vehicles ensure equity and sustainable investment.

Robyn Boerstling—But what is the federal role, Joe?

Joe McGuinness—The answer is partnerships. It's been a long, hard struggle and we had 92 counties in Indiana providing data on infrastructure needs. All told, there's $1.2 billion per year in average need over the next 20 years. The State's gas tax is being adjusted by 10 cents to recoup purchasing power lost since the last adjustment in 2003. Yearly increases are tied to the consumer price index but capped at one cent for the next seven years. The State also intends to shift the sales tax on gas to 100 percent dedicated to road construction in the next six years. An electric vehicle user fee was created, but we won't collect as much as we do from an average gas vehicle, about $150 per year per electric vehicle. There are still 23 states in this country without any tolling. Tolling is a green-lighted study now in Indiana. Locals know their needs better but access to federal funding is critical.

Bill McLennan—A common voice on identified priorities would be most effective.

Joe McGuinness—Now that funds are becoming available, everyone wants money. It helps to have the data as to why some projects get priority. What we build is the true catalyst of our redevelopment and drives what kind of business we attract and the kinds of jobs we create. States in the interior, like Indiana, are "stranded states." All states have to come together to create a better national economy and increase international competition. All the data to determine what we need to build and replace is being gathered, but what are we going to do with it? Conexus Indiana will put the data together.

David Holt—We'd be happier if Indiana could keep all the highway taxes collected in this state and get rid of federal regulations—there's really no need to cycle funds through D.C.

Lauren Brand—D.C. is looking for this kind of input right now.

Brian Burton—We need to change attitudes. Long term planning is key, but election cycles are short and people are thinking short term. The next generation is my concern. We need to get legislators to look long-term. We have a workforce issue. Where are the workers?

Michael Hicks—A vast increase in public infrastructure investment is challenging, especially increasing taxes. Most investment will be from the private sector. Should there be a four percent tax increase allocated to maintenance and alleviating congestion? Tolling is a model here that fixes something that's been ignored for a long time.

Bill McLennan—There are many unemployed veterans—200,000 transitioning out of the military every year. We should look to recruit our veterans in transportation hiring.

Ted McKinney—If we don't find a way to get more truck drivers, at least for moving agriculture, we're in trouble. It's critical. We need to keep America moving, but issues like the opioid epidemic create challenges.

Blair Garcia—There are rapid technological advances in the industry that are also creating challenges—we need to be flexible. When I started in this business, most books were found in libraries and the average container ship capacities were in the 2,500-TEU range. Now we have vessel orders beyond 20,000-TEUs and you can fit the contents of a library into your smart phone.

Kevin Larkin—Re-asset management—do the modes compliment or compete with each other? Are railroads trying to take business from barge lines? We need to optimize intermodal modes on roads and rivers.

Bill Stahlman—Class 1 Railroads seem to have changed their business model—they are more focused on the line haul service and unit train service. The last mile connection to our ports and terminals is increasingly being made by the shortline industry.

Media questions:

Reporter Annie Ropeik—How are transportation strategies coordinated across state lines?

Joe McGuinness—Achieving growth and prosperity in the global economy is equal parts competition and collaboration. For all of us to win, we need to focus on embracing partnerships and innovation to fix and enhance our existing infrastructure and build the water, air, rail and road networks needed to support the growth and emerging technologies of the future. Meetings and conversations like this one help, as do entities such as Conexus. Conexus may be the missing link to keep us connected and inspired. They bring all the stakeholders to the table. This is the future of where we're going. Togetherness. Collaborativeness. Like the dual management of the Saint Lawrence Seaway.

Dale Heinz—For the St. Lawrence Seaway, there is joint management between the U.S. and Canada.

Rich Cooper—In 2016, Indiana helped the Conference of Great Lakes and St. Lawrence Governors and Premiers put together a regional strategy to double maritime trade in the Great Lakes.

Kevin Brinegar—There needs to be a convener at the federal level to get people in the room talking with each other. We need to develop one package that can be put before Congress.

Kurt Nagle—The 2015 FAST Act was a positive step with development of state freight plans. It has a national freight strategy with dedicated funding for freight.

John Crowley—The FAST Act is a good example. There is no better time than now for infrastructure needs to be pitched to Washington and seek federal support. Secretary Chao is very well informed, can work both sides of the aisle and the Congressional Committees are receptive. Having her as Transportation Secretary is an opportunity not to be missed. Supply chain and trade associations aren't the ones that can rationalize funding, it's Congress. However, associations and supply chain organizations can help bridge the gap across state lines. Congress and the Administration need states to provide good proposals backed by good data and drive the decisions. We as an industry need to pitch our solutions the loudest.

Bill McLennan—I would volunteer to bring a voice for veterans to the conversation.

Robyn Boerstling—It's a generational opportunity to have the President of the United States talking about investing in America's infrastructure. The mood is good but the legislative calendar is crowded and other priorities like health care and tax reform are up first. It's helpful to keep transportation a non-partisan issue.

David Holt—The process took eight to nine years in Indiana to create and implement a model for an infrastructure bill.

John Crowley—We must rely on the U.S. Department of Transportation to come up with a strategy for a decision-making model. Ideas will come from the state level. But we have to rely systematically on groups like this to get the word up to the federal level.

Reporter Annie Ropeik—How do you collaborate across modes and across states where those involved are competitors?

Brian Burton—A rising tide lifts all boats. As different states, we compete but we are also interrelated—workforce, supplier base, etc. We understand that what works better in one state might work better elsewhere, too. CEOs from the various states are talking about workforce development and infrastructure investments at the federal level.

Reporter David Payne—Are there any current developments other than politics that will affect business in Indiana, such as carrier alliances?

Rich Cooper—Though ports in Indiana or on the Great Lakes handle very little container cargo, we appreciate Fednav, which is building ships that are highly specialized that can navigate the Great Lakes and the 15 locks from the Seaway to Indiana. Fednav is adding 15 new ships with the latest ballast water technology. Fednav is a Canadian company that sees the value of America's heartland. Continued significant investment in America's heartland is helpful nationwide.

John Crowley—I agree about Fednav. Whether or not ocean-going container ships will come into the Great Lakes, the area will still be affected—maybe not at the port but on the roads and rail. Ballast water exchange is a national issue. Also environmental technology issues, like cold ironing vessels. Hybrid and electrification of prime movers across marine terminals are all things that will keep ports operating. These advancements are real and they don't get enough attention.

Lauren Brand—There is lots of focus on container cargo but not enough about the need for a variety of ports to handle America's needs—bulk, breakbulk, Ro-Ro, etc. We need to preserve our port capacity to handle all types of cargo, not just containers.

Robyn Boerstling—The whole system is particularly important to manufacturers—moving bauxite to Point Comfort, Texas, refining it to alumina and then taking the product to manufacturing facilities in the interior U.S. via inland waterways is just one example of how what happens far away affects us here.

Bill McLennan—As other countries have made significant investments in infrastructure, the U.S. is falling behind.

Dale Heinz—Another significant factor is oil prices.

Lee Hutchins—Also trade pattern changes—more traffic coming from southeast Asia into the east coast of the U.S. As more ship traffic moves through the Suez Canal, ports on those routes are growing. These trends are pushing the infrastructure needs of the east coast.

Bill McLennan—What's the cost of freight, labor and transportation together? These are the keys.

Reporter Troy Linker—What technology changes will cause disruptions and affect transportation planning in the next 50 years?

David Holt—Elon Musk's hyperloop concept, plastic roads, Amazon drones, autonomous barges, cars, trucks and railcars…these are all disruptor technologies.

Kevin Larkin—Another disruptor technology is implementation of positive train controls, though they are very expensive. Class 1 railroads are starting to use them but short lines are not. Positive train controls could minimize or eliminate the possibility of derailments and collisions.

Joe McGuinness—Connected trucks may help move freight faster, but it's concerning if they hold up traffic due to congestion, such as from a train. This technology will allow a lead truck with driver followed by driverless trailers.

Michael Hicks—We are conducting a study on the impact of automation on jobs. Automation could help eliminate congestion problems and cars could be bumper-to-bumper. Automation also affects where you build facilities and may invite private sector investment. Job losses would affect low income workers the most, creating pressure for job creation/training.

Blair Garcia—The traditional relationships between transportation providers is changing. Ports are becoming more involved in services provided inland.

Reporter Troy Larkin—What are the risks of America becoming more of an importer? At least in states like Indiana, we're focused on agriculture, which is export-oriented by design. That's what we can produce here.

Ted McKinney—Trading partners may want more finished products.

Michael Hicks—Our balance of trade is dependent on foreign investment. We're likely to see more foreign trade in and out of Indiana in the future. The U.S. has had a negative trade balance for 37 years and we may see more cross-borders trade in the next two to three decades.

Rich Cooper—To summarize, what are the next steps? What are some infrastructure solutions?

Bill Stahlman—As engineers, we need to plan with market changes in mind and build for the future. Designs need to incorporate resiliency and use long-term planning so that projects are prioritized in a manner that give preference to the largest public benefit.

Kevin Brinegar—We need action now. We need to collectively encourage that convening occur at the federal level. We need to communicate with and educate the general public why convening needs to occur.

Joe McGuinness—It's important to show how you are helping yourself and using the tools you are given. We should highlight success stories. We need to implement ideas and use Indiana as a case study of success in taxes, user fees, in prioritizing projects, in innovation and value engineering, in speed and quality. We need to help lawmakers understand at both the state and federal level the value of ports and waterways and what they do for our transportation system.

Gary Langston—Members of Congress and other decision-makers need to hear support from the general public. The benefits of user fees need to be explained for our quality of life.

Rich Cooper—As I said earlier, a port with just water is a non-starter but a port with water, rail and highway connections is the trifecta. In Indiana, we are lucky to have all modes. We need to bring all the modes together and speak with one voice. It will give our needs more balance, strength and priority. Ports are traffic exchange points, but we need to speak with one voice for all modes.

Kevin Larkin—That is challenging.

Bill McLennan—We need a neutral convener, a sponsor, a process owner.

Tom Easterday—The National Association of Manufacturers' "Building to Win" report makes the case for investments.

Kurt Nagle—We need to address all of the modes under a common theme of collaboration and partnership, working together on advocacy in D.C. We have a great example in the Freight Stakeholders Coalition. This Coalition includes rail, trucking and ocean carrier organizations as well as a number of shipper groups. We partner to advocate for policies and programs to enhance freight transportation. We appreciate all of you taking the time to participate in today's discussion and look forward to continuing the dialogue to advance our common challenges and priorities. Thank you!