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Investing in transportation will move America forward

Now we must ensure that we spend every dollar effectively on the priorities of greatest value.

Our leaders in Washington appear to agree on at least one major issue facing the nation: our transportation system, long the envy of the world, is in serious need of investment to ensure public safety and quality of life, and to keep U.S. businesses competitive around the world. No doubt, there is significant debate about how the federal government should help pay for transportation improvements, and how much to emphasize direct federal funding versus leveraging of other funds or bringing private investments into the mix. Yet, every representative and senator in Congress understands that we can't let our roads, bridges, airports and rail systems keep deteriorating – because the risks and costs associated with preserving and expanding our system will only keep rising.

Cities and states feel the weight of stressed or deficient infrastructure most acutely, whether from heavy traffic congestion, transit service lapses or severe asset deterioration. One case in point: in early 2018, Mississippi closed more than 100 bridges that had been deemed unsafe after federal and state reviews. (This state isn't alone in its challenges: about 56,000 bridges in the U.S. are structurally deficient, according to the American Society of Civil Engineers.) Fortunately, in the past few years we've seen voters coast to coast approve initiatives to direct hundreds of billions in funding – from bonds, sales taxes, fuel taxes and fees – to restore or expand local or statewide transportation assets.



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If these financial commitments are bolstered by an effective new federal transportation funding bill, America will have a once-in-a-generation opportunity to address lingering deficiencies and to position our nation's infrastructure to address our future needs. The challenge will be – as it often is with public investments – to ensure that we spend the money on the most valuable priorities and in the most effective ways.

Let's consider these points as we work together to meet this challenge in the coming years:

- **Integrate transportation solutions** – By increasing collaboration among transportation agencies and across the private sector, we can revolutionize mobility for virtually every member of society while achieving much higher levels of efficiency. Integrating payment systems and smartphone apps across public and private transportation providers would be a great first step. We also need to rethink how we evolve our facilities to more efficiently transition people between modes – from airplane, to transit, to cab or ride-hailing service, and even to parking lots. If we invest in a high degree of integration, it will help to optimize performance and the return-on-investment for every mobility provider, which should translate to more transportation options for more people at a more affordable cost.
- **Reform transportation policies and dismantle silos** – In many states, there may be significant overall revenue available for transportation improvements, but the money isn't authorized to flow to where it can make the most impact. For example, there might be funding for highways and transit, but it can't be used for rail, port or airport projects as part of an integrated system, no matter

how compelling the rationale. Stove-piped organizations and funding sources also contribute to weak connection points between transportation modes.

An example of this is rising congestion and lost profits due to freight bottlenecks, which could be eased by investing in smoother transitions of goods between ports, rail systems and highways.

- **Innovate relentlessly, but prudently** – We are poised to bring to life infrastructure solutions that last longer, take less time to build and require less money to operate. What will it take? A great deal of innovation is needed, drawing on new partnerships, emerging technologies and creative approaches to increasing capacity without simply building more infrastructure. There is a lot of energy around innovation right now in the industry, and it's pushing everyone toward action. Still, we must advance these innovative technologies with the same rigor we've always demonstrated as transportation leaders, keeping public safety ever at the forefront of all we do. We should encourage innovation. Think back to innovations that have reshaped transportation, such as cruise controls, airbags and anti-lock brakes, resulting from years of testing, learning and refinements. Similarly, today we must employ the world's most dynamic and disruptive tech companies to revolutionize transportation – while doing so in a methodical, careful way.
- **Build resiliency into our mindset** – As a nation, we need only look back a few months, let alone years, to realize how critical it is to have resilient infrastructure. Massive hurricanes like Harvey, Irma and Maria; enormous wildfires out west; major flooding in the Midwest: all these events are different from what each region's infrastructure was designed to withstand. So, we must determine what we can do to improve resiliency. As a first step, each community must assess and determine their needs for resiliency for themselves. These strategies should address how they will keep supply lines open during and after a crisis, maintain public services throughout an event, and quickly restore operations of their public infrastructure. Such a "bounce-back" was achieved in Houston, which experienced a storm of biblical proportions – with homes, roads and rails under water – but was able to restore many critical transportation routes within a few hours and days. Communities should review priorities for investments in evacuation planning and routes, communication networks and systems, hardened infrastructure and other strategies.

There are many other approaches that might help us improve our transportation system while ensuring that we spend every dollar effectively on the priorities of greatest value. No doubt, there will continue to be debates in Washington and in statehouses across America as leaders strive to shape effective responses to our transportation challenges. We hope that these debates will not only lead to sustainable funding for our infrastructure, but also give transportation innovators the freedom to be more creative and innovative as they rebuild our vital systems for the challenges and opportunities that lie ahead.

About the Author

John Barton, PE, is DOT market sector leader and senior vice president for HNTB. Working in collaboration with regional/division presidents and office leaders, Barton develops and directs strategies to enhance HNTB's service to state departments of transportation across the country.

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