



EXPERTS | 2019

HNTB expert:

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“Society is just beginning to witness transformative changes in transportation as we enter an age of automation and connectivity between vehicles, infrastructure, organizations and people. This transformation will not only impact how transportation systems are designed and managed, but also how transportation services are funded and delivered.”

Jim Barbaresso is national practice leader, Intelligent Transportation and Emerging Mobility Solutions.

HNTB offers the full spectrum of ITS and Transportation System Management and Operations capabilities and the latest advancements in emerging mobility solutions, including connected and automated transportation technologies.

Barbaresso and HNTB have been involved in a growing number of projects related to the national Connected Vehicle initiative, including the Safety Connected Vehicle Pilot and the Tampa Connected Vehicle Pilot. He was active in the 2016 Smart Cities initiative sponsored by the U.S. Department of Transportation and was a contributor to the winning proposal for Smart Columbs.

Barbaresso, who is based in Detroit, has more than three decades of industry experience. Having worked with transportation clients across the country, he has successfully planned, implemented and managed everything from small ITS feasibility studies to some of the largest and most visible ITS programs in the nation.

Barbaresso is a regular contributor to many mainstream news media outlets throughout the U.S.

Barbaresso can address the future of surface transportation and ITS trends, including:

• **What to expect from the car of the future**

Traffic tie-ups and fender benders may one day be a thing of the past. Many of today's vehicles already feature advanced sensor systems that involve video, radar and Lidar, a laser-based technology that continually and accurately scans and maps the environment around the vehicle. In fact, consumers can now buy vehicles that, within a few years' time, will receive software updates equipping them to be on the roads without drivers. It is widely believed there will be fully autonomous vehicles on America's roads within the next decade. For transportation planners, critical changes lie ahead that will impact how our transportation systems are designed, operated and funded.

• **What the future holds for transportation infrastructure**

Soon, new managed lanes concepts will emerge where automated vehicles will operate in platoons and electric vehicles will be charged wirelessly as they drive. Corridor management will take place through connectivity of vehicles and infrastructure, and active traffic management functions, like speed harmonization, will be automated. Smart phones will become toll tags, but also will be used to pay for parking and transit fares. Our roads, intersections, freeways and transit systems of tomorrow will look and operate quite differently than what we see today.

- **Moving toward zero traffic fatalities**

It can be easy to overlook the evolution America has experienced as its transportation priorities have shifted to a more safety-oriented culture. Technology holds the promise of further reducing, and perhaps someday eliminating, motor vehicle deaths. Connectivity and automation will play a huge role in reducing crashes, but engineering, enforcement and education will continue to be necessary components of the evolving safety culture.

- **Improving the environment**

Technological advances in transportation will have a positive impact on the environment. Air quality will be improved with new connected vehicle applications and eco-driving capabilities. Carbon-based fuel consumption will decrease as our "smart cities" look toward new energy and mobility options.

- **Reshaping mobility**

The future of mobility is automated, connected, electric and shared. It is also multi-modal. Seamless connectivity among modes of travel will be required, and common payment solutions will be needed. The future of mobility is not just about moving people – it also involves freight. New delivery methods, involving automation and aerial modes will reshape how goods are moved.

## **Education**

Master of Science in transportation planning, 1978, University of Iowa

Bachelor of Science in sociology, 1975, University of Iowa

## **Professional affiliations**

Member and Past President – Intelligent Transportation Society of Michigan board of directors (1996 - 2017)

Member – Traffic Improvement Association of Michigan board of directors (2004-present)

Member – Traffic Improvement Association of Michigan Executive Committee (2004-present)

Member – ITS America

Transportation Research Board

Member – Institute of Transportation Engineers

## **Select media and appearances**

*Roads & Bridges*, Aug. 1, 2019 - "Getting infrastructure ready for the rising generation of vehicles means rethinking from the ground up"

*U.S. News & World Report*, June 6, 2019 - "Poll Finds Americans Are Divided on Self-Driving Cars"

*Axios*, June 5, 2019 - "Electric vehicles are outstripping the supply of charging stations"

*Automotive News*, May 5, 2019 - "Precarious pivot point looms for connected-car technology"

*Axios*, March 20, 2019 - "Cities are experimenting with ways to reduce traffic ahead of AVs"

*ITS Digest*, Jan. 23, 2019 - "Autonomous vehicles: Where are they taking us next?"

*Axios*, Jan. 4, 2019 - "How to prevent AV curbside chaos"

*Axios*, November 2018 - "As AV technology advances, infrastructure needs to catch up"

*Seattle Business Magazine*, September 2018 - "Self-Driving Vehicles May Be the Answer to Seattle-Area Traffic Problems"

*METRO*, August 6, 2018 - "Partnerships, Perseverance Propel Smart Cities Movement"

*ITSdigest*, June 27, 2018 - "Autonomous Vehicles: Changing the World We Live In"

*The Washington Post*, June 4, 2018 - "Most people expect driverless cars to become common, and they worry about it"

*The Real Deal*, April 23, 2018 - "Will self-driving cars accelerate development?"

*Bloomberg News*, March 13, 2018 - "Robot Rides Are Going to Deliver Pizza and Parcels before People"

*Fortune*, March 13, 2018 - "Why Self-Driving Vehicles Are Going to Deliver Pizzas Before People"

To schedule an interview with Jim Barbaresso and for more information, contact:

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