



EXPERTS | 2019

HNTB expert:

Jim Barbaresso

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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 systems and senior vice president.

HNTB’s ITS capabilities include development of advanced and active traffic management systems; design and operation of transportation, toll and emergency management centers; and the latest advancements in 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 designing and building one of the first live test beds with the Michigan Department of Transportation. He was active in the 2016 Smart Cities initiative sponsored by the U.S. Department of Transportation.

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 this year. 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.

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 - present)

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

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

Member - ITS America

Associate - Transportation Research Board

Member - Institute of Transportation Engineers

Select media and appearances

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"

ITSdigest, Nov. 30, 2017 - "Meeting the Need: Transportation Technology and Smart Cities"

ITS TV, Nov. 2, 2017 - "Interview with Jim Barbaresso | ITS World Congress 2017"

Traffic & Transit, Oct. 12, 2017 - "Emerging mobility solutions"

TM&E, Aug. 16, 2017 - "How do they do that?"

ITSdigest, June 20, 2017 - "Trending: Transportation as a Service"

TM&E, May 31, 2017 - "The key to being a Smart City"

ITSdigest, April 28, 2017 - "3 Steps for Transportation Agencies to Create an ITS Program"

ITSdigest, April 5, 2017 - "Automated Vehicles and the Future of US Airports"

TM&E, Winter 2017 - "How intelligent is your transportation system?"

CNN Tech, Feb. 7, 2017 - "Your car's data may soon be more valuable than the car itself"

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

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