



Current Positions

- Member, Advisory Board and Consultant, Kitson & Partners
- Consultant, Goodyear Tire and Rubber Company
- Member, Board of Directors, Wejo
- Member, Board of Directors, Niron Magnetics
- Member, Advisory Board, Nanoramic Laboratories
- Executive Advisor, Neural Propulsion Systems

Career Highlights

Senior Executive: From 1998-2009, General Motors Corporate Vice President of Research & Development and Planning/Strategic Planning, reporting to CEO/President. Member of top decision boards for global operations and products. Responsible for advanced technology development, product portfolio planning, capacity planning and strategic planning. From 1988-1997, held wide range of leadership positions in GM operations, including industrial engineering, quality, production control, product/manufacturing/business planning, and product program management.

Other Positions:

- From 2010 to 2021 Consultant, Waymo (Previously Google Self-Driving Cars)
- From 2009 to 2014, Senior Advisor to the CEO, Hess Corporation
- From 2010 to 2015, Professor, Engineering Practice, University of Michigan
- From 2010 to 2013, Director of the Program for Sustainable Mobility, Columbia University
- From 2010 to 2013, Vice Chairman of Board of Directors, MRIGlobal
- From 2010 to 2016, Member, Advisory Council, Greentech Capital Advisors
- From 2010 to 2014, Member, CleanTech Advisory Council, VantagePoint Capital Partners
- From 2013 to 2016, Consultant, Allstate
- From 2015 to 2016, Advisor, Securing America's Future Energy (SAFE)
- From 2016 to 2017, Consultant, IHS Markit Ltd.
- From 2016 to 2020, Member, Board of Directors, Peloton Technology Inc.

Innovator: Major voice for the “reinvention of the automobile” and the diversification of transportation energy. Championed vehicle electrification, “connected” vehicles, driverless vehicles, fuel cells, bio-fuels, advanced batteries, innovative concept vehicles, and operations research. Leading advocate for design and technology innovation focused on the total customer experience.

Technical Expert: Member, National Academy of Engineering and ITS America Hall of Fame. Deep knowledge of transportation systems, energy systems, “connected & driverless” vehicles, advanced manufacturing, operations research, product portfolio management, business strategy, collaborative partnering, and alliance management. Ph.D., Civil Engineering, University of California, Berkeley, 1978. M.S., Engineering/Public Policy, University of Michigan, Ann Arbor, 1975. B.S., Mechanical Engineering, General Motors Institute (now Kettering University), Flint, MI, 1975.

R&D Leader: Expanded GM R&D to a global organization with science labs, science offices, and collaborative research labs located throughout the world. Quadrupled the number of patents issued to GM researchers and increased intellectual property publications fivefold. Closely aligned GM R&D with core business operations and increased partnering, especially with universities, governments and energy companies.

Communicator: Highly sought-after speaker in areas of expertise. Made over 500 keynote, conference and media presentations since 1998, including broadcast news programs and investor conferences. Covered and cited in major newspapers and magazines around the globe. Author of ***Autonomy: The Quest to Build the Driverless Car—And How It Will Reshape Our World*** (HarperCollins/Ecco, August 2018) and *Reinventing the Automobile: Personal Urban Mobility for the 21st Century* (MIT Press, January, 2010).