Sensors

Roger Grace and a grace-filled life in sensors and MEMS

By **Matt Hamblen** Aug 6, 2025 - 8:30am

His 40 years of grace and passion at Sensors events earn industry veteran Roger Grace a Lifetime Achievement Award. (Sensors Converge – Pictured here with Charlene Soucy, Senior Marketing Director, and David Drain, Show Director)

Sensors and MEMS industry veteran Roger Grace was honored for his lifetime of achievement at the 2025 Best of Sensors Awards in June. He took the awards stage at Sensors Converge and graciously recalled four decades of industry advocacy and collaboration. It was heartfelt to the core.

“Roger’s passion for the sensors space is unmatched,” remarked Charlene Soucy, head of marketing for Sensors Converge and other brands. She has worked with Grace for two decades. “He’s a trusted friend, a fierce advocate for the community and he embodies the spirit of collaboration and progress that defines our industry.”

Roger later bragged that he has attended nearly ever Sensors Expo and Sensors Converge event for the past 40 years, missing only for the deaths of close relatives and a bout with

Covid. He's widely known as a man with ideas for finding ways to promote the industry—the people and the technology.

His bio recounts a long list of accomplishments, many that don't adequately convey the depth of heart he brings. He holds BS and MS degrees in electrical engineering from Northeastern and was a Raytheon Fellow. He won Engineering Alumni of the Year in 2004. He founded Roger Grace Associates in 1982 and is well known for his MEMS Industry Commercialization Report Card. He has guided more than 40 startups, labs and government agencies and has delivered more than 70 presentations and penned more than 75 articles, co-founded MANCEF and helped shaped standards like IEEE 1451.

Fierce caught up with Roger for more insights and reflections on AI, tariffs, and electronics industry events including Sensors Converge.

Roger, can you recall an anecdote that stands out from one of your previous Sensors events?

Absolutely. It was the very first Sensors Expo at the Rosemont Exhibition Center near Chicago in the Fall of 1985. I recommended to my NovaSensor client that they attend, which they did. It was their very first trade show and we had a 10 x 10-foot booth. It was effectively our "coming out party" but without the gown, gloves and tiara.

The number of people who came by our booth was incredible and my clients-- Joe Mallon, Janusz Bryzek and Kurt Petersen-- were thrilled with the results beyond their wildest expectations. The show helped catapult NovaSensor into its position as the leading MEMS supplier in the industry, and we were only a startup. We attended all the Sensors Expo Conferences for the next decade during my marketing consultancy with NovaSensor and continued to reap the rewards of exhibiting at the shows, making presentations at the technical conference, launching new products at press conferences and, most importantly, developing new business. Sensors Expo became the core of our integrated marketing communications campaign and provided high ROI, which was critical for a startup.

You have a great ability to tell stories but I just wonder if you can describe what you think has been the most significant change over 40 years at the Sensors events, now called Sensors Converge, and with the Sensors-related industry.

I recall working with the original co-owner of Sensors Expo, Fred Favata and he became a close friend. He constantly asked me how best to grow the show. I suggested that he look at all the companies that supply components that work in conjunction with sensors , I call them "adjacent components." They needed to be his target as well, not just companies that produced sensors. At that time, the big opportunity for adjacent components were

Application Specific Integrated Circuits or ASICs which were directly connected to the sensors and acted as a critical interface to the system providing A to D conversion, amplification, filtering and other necessary electronic functions.

Additionally, other components including power supplies, networking chips, connectors and packaging became critical. I had written several articles on what I called “MEMS-based systems solutions” which addressed the concept of the integrated solution and not just the sensor. This concept continues to be relevant to this day. And as I review the exhibitors at the Sensors Converge 2025, these adjacent companies are in abundance as they should be, both hardware and software-based. I continue to look at Sensors Converge to be a “one-stop shopping headquarters” for product designers--like Stop and Shops or Kroger’s for groceries--and that is what I tell my consulting clients.

What’s your opinion about AI? What does it mean for sensors? And what does it mean for jobs? Can the sensors ecosystem and engineers in the field do anything to improve how AI can create bias?

I consider the proliferation and acceptance of AI to be a major benefit to the sensors community. This is due primarily to the fact that AI needs massive amounts of data to be able to work effectively. And how does an AI-based system acquire the data? Sensors! As sensors, especially MEMS, have become mature based on a recent survey I have conducted, their costs have come down dramatically, their performance has increased and these factors make them suitable for incorporating many sensors into a design and possibly creating sensor arrays.

In the early days of Sensors Expo, data acquisition companies were major exhibitors. They created systems that would take inputs from an array of sensors and manipulate the data and provide results. Several companies, including one of my clients, Pressure Systems Incorporated, used this approach. I consider AI to be an extension of this early data acquisition process. When AI jobs loss is assessed, I believe that the people who could possibly lose their jobs could possibly be retrained in a vocational school and be able to land jobs in AI at much higher and safer jobs.

Do you want to comment on tariffs? All US based companies depend heavily on sensors from all over and the world encourages capitalism with the ability to freely decide on suppliers of sensors and sensor components no matter where they are produced in order to lower costs.

In my humble opinion, I am not a major advocate of imposing tariffs on imports. I believe that the imposition of tariffs will only increase the cost of the finished product, especially automobiles. For companies to look for US-based suppliers to displace foreign suppliers,

that will be a very costly and lengthy process because of the need to properly qualify the new suppliers.

In recent news the current administration has negotiated a 15% tariff on imported goods from the EU--details to be worked out. This approach excludes semiconductor manufacturing equipment, which is good news for ASML, SUSS Microtec and EVG Group to name a few. However, 15% is a far cry from the previous 2.5 % and then the recent 25%, but does include 15% on imported EU automobiles as well as components for automobiles. Major MEMS suppliers will be affected including Bosch based in Germany and ST Microelectronics headquartered in Switzerland which has a 39% duty in recent activity. ST Microelectronics manufactures their MEMS sensors primarily in Italy.

The way import duties will be levied is very complex due to product value chains. Additionally, the variability of the actual tariff level has been one of inconsistency and details from the administration are partly yet to be disclosed. I equate the current tariff situations to that of the New England weather: If you do not like it, wait and it will change.

About the Sensors event: Do you foresee a long life? Will the community always value the ability to be together?

I hope to be around for many more years to be able to actively participate in future Sensors Converge events. I believe that the show has done an excellent job in attracting adjacent component suppliers as I had suggested to Fred Favata several decades ago. Among the areas that I would like to see Sensors Converge focus on is startups…and they are beginning to address this.

Also, there needs to be a closer relationship with Sensors Converge and academia. I know through my efforts with my alma mater, Northeastern University, that this is beginning to happen. With the plethora of world class universities in the Northern California area, especially Stanford, UC Berkeley, San Jose State, Cal Poly and now Northeastern Oakland, there are many professors and students that have/will find the information provided at Sensors Converge and the opportunity to present of great value, including for job seekers. I always include someone from the academic world or research institute be a keynote at my printed/functional fabric sensor pre-conference sessions. I consider the work they do to be at the beginning of a commercialization process.

Additionally, having been in the sensors community for over 40 years and having had many clients over that period, I look forward to meeting up with these colleagues at Sensors Converge. Many of them came by my booth at Sensors Converge 2025 to say hello. And as I tell my sensor marketing consulting clients and commented during the Lifetime Achievement Award event, “Sensors Converge is the only game in town.”

I have experienced significant and positive growth in Sensors Converge formerly known as Sensors Expo. The marketing group, headed by Charlene Soucy, has done a superb job in promoting the event. The overall organization of the current Sensors Converge is headed by David Drain and working with David has been a total pleasure. He is a man of action, an excellent leader, with great ideas and inclusiveness. Both Charlene, the previous show director, and David have created many new activities at Sensors Converge, making it more compelling to exhibit in and attend. It is all-inclusive, including in its reach to academia and students, which is certainly an excellent approach since this is the future. The technical program continues to evolve and to effectively address emerging sensors technologies and applications including my PRECON on Printed and Functional Fabric Sensors.

I wish Sensors Converge many more years of success in informing and educating the worldwide sensors community. May it last *cent'anni* --100 years in Italian.