



## About AWOS Technologies

**AWOS Technologies** is a Montreal-based auto tech start-up that develops non-destructive vehicle escape technologies for the automotive sector. It currently offers a dedicated technical solution that automatically lowers side electric windows when the vehicle detects submersion using proprietary sensor technology. It is a reliable, automated, rapid, non-destructive solution which provides occupants an exit from the vehicle instead of being trapped in a sinking vehicle or in rising flood waters.

AWOS Technologies is a member of the **Automotive Safety Council** and was competitively selected by Canada's Trade Commissioner Service to participate in the **2021-22 Canadian Technology Accelerator program** with the German Auto Tech sector, in partnership with the **Munich Network** for collaborative innovation. AWOS Tech was also the 2021 winner of **La Grand-Messe Tech Pitch** in Montreal, Canada.

# About The Technology

*AWOS automatic vehicle escape system **prevents entrapment and drowning in passenger vehicles** by lowering the side electric windows. Automatic and rapid window lowering is the only viable solution to **prevent submersion-related injury and fatality** for drivers and other occupants, including vulnerable children. This must become a **standard safety feature** because submersion events are extremely rapid and allow little to no room for human error.*

- **Reliable and ultra-rapid water detection***
- **Non-destructive to windows and doors***
- **Smart sensor detects upright and inverted submersion***
- **All window types (tempered, laminated and polycarbonate)***
- **Compatible with conventional, hybrid and electric vehicles***
- **Automatic emergency calling such as eCall and OnStar***

# Facts about Vehicle Submersion and Vehicles in Flood Water:

- *Vehicle submersion is the deadliest form of single vehicle accident and accounts for 10% of all drowning deaths in North America, because **occupants have at most 1 minute to exit the vehicle**. Submersion can also occur due to rising flood waters, a trend that is currently on the rise and is anticipated to increase dramatically due to global climate change.*
- *350-400 fatalities per year in North America and according to statistics from the World Health Organization, vehicle submersion drownings claim the lives of 2,000 to 5,000 individuals annually in industrialized nations.*
- *Occupants have **60 seconds** to exit the vehicle through the side windows but waste time on the wrong actions due to panic like calling 911 for help, kicking the window, or even doing nothing at all. EMS simply won't get to them in time as the average EMS response time in North America is greater than 8 minutes.*
- *Modern cars rely increasingly on electronic systems, which fail early in water, trapping occupants.*
- *In response, **Euro NCAP** has tasked car makers with new requirements to address vehicle submersion by 2023.*

# Facts about Vehicle Submersion and Vehicles in Flood Water: (cont.)

- *Modern windows (laminated and polycarbonate) are shatter-resistant and can trap occupants in the vehicle during submersion. Since 2018, approximately 33 percent of new vehicles sold in the US have laminated glass side windows, a trend that is expected to increase.*
- *The **American Automobile Association (AAA)** tested the six leading manual tools available to the public, and all six tools failed to break laminated glass, reinforcing the need to open windows automatically.*
- *Operation ALIVE (Automobile submersion: Lessons In Vehicle Escape) founded by **Dr. Gordon Giesbrecht**, University of Manitoba has conducted over 100 human vehicle submersions and published 10 technical papers in peer reviewed journals. The facts are simple: shortly after impact with water, the doors can't be opened due to hydrostatic pressure, and the same will occur to the side windows after approximately 60 seconds. Therefore, occupants have at most 60 seconds to exit through the side windows, while they are still above the water line. Occupants definitely should NOT attempt to open the doors. To educate people on what to do, they created the acronym SWOC: Seatbelts off; Window(s) open; Out immediately; Children first.*

# Speaking Engagements

- *May 18, 2022 presenting at **Carhs Safety Week** on “Vehicle Submersion and the Need for Industry Solutions”, Würzburg, Germany*
- *In March 2022, presented at the Euro NCAP Rescue meeting (virtual)*
- *In March 2022, presented at the **Automotive Safety Council** meeting in Florida, USA*

# Testimonials

*“As the world looks for ways to reach the vision zero goal in automotive safety, previously over looked fatality causes are now coming to light. Vehicle submersion fatalities is one such cause. Submersion fatalities occur more than 300 times a year in the United States alone with many more globally and have not been a priority or understood. This issue is now beginning to be addressed in the Euro NCAP Rescue protocol section as a start and I'm pleased to see new technologies emerging in vehicle submersion fatality reduction that can save even more lives.”*

- **Douglas Campbell**, President Automotive Safety Council

*“I've been studying vehicle submersion for over 15 years. I believe AWOS will save many lives by automatically providing occupants with an exit.”*

- **Dr. Gordon Giesbrecht**, University of Manitoba and Founder of Operation ALIVE

# About AWOS Founders

*Shawn-Patrick Percher is President and co-founder of AWOS Technologies, has over 15 years of experience in business development and sales, and worked for some of Canada's largest corporations, including Royal Bank of Canada, Thomson Reuters, and Bell Canada. In helping to found a tech startup in the automotive sphere, he was thrilled to be part of a team that would develop solutions that would save lives and bring a new dimension of safety to the global automotive community.*

*Sabrina Percher is co-founder and leads business development at AWOS Technologies, with over 15 years experience in sales, marketing, and corporate events. Sabrina and her husband **Dr. Aram Amassian**, were inspired to lead AWOS when many lives were claimed due to vehicle submersion in Jeddah during the **2009 floods** while they were working abroad. Sabrina credits modern automotive safety technology for saving her own life in 2015 when she experienced a major car accident and is devoting her career to saving others through innovative life saving technologies.*

## Contact

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