

PIMAS Collaborates with Cerence and HARMAN to Deliver SAM, a Unique Driving Aid for Hearing Impaired Drivers

VAULX-EN-VELIN, France, August 28, 2024 – PIMAS today launched the first prototypes of [SAM \(Smart Assistant Monitor\)](#), a unique driving aid for the hearing impaired. This new solution features technologies from automotive technology leaders Cerence and HARMAN, including an in-car communication system as well as emergency vehicle and horn detection, that enable drivers to be aware of their surroundings.

The launch follows a new French regulation enabling people with profound and severe deafness to take on professional driving jobs (trucks drivers, taxi drivers, ambulances, etc.). SAM has already been installed on several trucks from AFTRAL, France's largest driving school for transport and logistic drivers, with more than 300 000 trainees and 11 000 apprentices per year, successfully enabling several trainees with hearing impairments to secure their professional driving license.

SAM is a visual device, placed in the driver's field of vision, that facilitates communication while driving. Using voice recognition and leveraging microphones placed inside the vehicle, SAM recognizes more than 150 instructions in several languages. It transcribes instructions in real time, using highly intuitive and universal icons, inspired by road signs and field tested with users. The placement of the on-screen display in front of the driver means the driver can concentrate on driving without looking away. For example, when a passenger (an instructor, a customer, etc.) asks the driver (a student taking a driving lesson, a taxi driver, etc.) to turn right, the driver no longer needs to turn their head to lip-read and instead receives the information visually and instantly on the screen.

Powered by [Cerence Emergency Vehicle Detection \(EVD\)](#) and HARMAN microphones placed outside the vehicle, SAM recognizes sounds from approaching emergency vehicles – up to 1,500 different sirens – or honking horns up to 800 meters away. This enables the driver to be visually alerted to high-risk situations instantly via the screen. Cerence EVD supports all relevant siren types that are used throughout the world: multitone, wail, yelp, phaser/piercer, warble, and whoop. This robust technology, already installed for several car manufacturers, including [BMW](#), offers a very low false alarm rate and enables hearing impaired drivers to react promptly as emergency vehicles approach.

HARMAN external microphones, with an acoustic sensor capable of seamless vehicle integration and detection of any exterior sound, allow the sensor to withstand direct environmental exposure with a unique Conical Grille and Protective Membrane, while offering exceptional acoustic performance amid external noise factors on the road.

“SAM leverages state-of-the-art technologies used by the world's leading automakers to deliver never-before-seen solutions for the special car adaptation industry. PIMAS, Cerence, and HARMAN are proud to collaborate to support a more inclusive job market and enable the many people with hearing impairment to pursue their careers and passions freely. This was all made possible thanks to AFTRAL and Agefiph who supported the project since day one and helped drive its deployment throughout France,” said Pascal Masapollo, PIMAS Chairman.

To learn more about SAM, check out [this video, and visit the PIMAS booth \(F52\) at REHACARE International](#), the leading trade fair for rehabilitation, prevention, integration and care, taking place in Düsseldorf from September 25-28, 2024.

About PIMAS

PIMAS offers people with reduced mobility and driving schools a wide range of mobility solutions and develops, thanks through its expertise in embedded systems, very innovative products in the field of driving aids and automotive teaching tools. With a network of 60 professionals all around France and several importers in Europe, PIMAS has been a leading actor in its market since 1978. The company is ISO9001 : 2015 certified, is an official Renault and Stellantis converter and works closely with major automotive OEMs.

About Cerence Inc.

Cerence (NASDAQ: CRNC) is the global industry leader in creating unique, moving experiences for the mobility world. As an innovation partner to the world's leading automakers and mobility OEMs, it is helping advance the future of connected mobility through intuitive, AI-powered interaction between humans and their vehicles, connecting consumers' digital lives to their daily journeys no matter where they are. Cerence's track record is built on more than 20 years of knowledge and 500 million cars shipped with Cerence technology. Whether it's connected cars, autonomous driving, e-vehicles, or two-wheelers, Cerence is mapping the road ahead. For more information, visit www.cerence.com.

ABOUT HARMAN

HARMAN (harman.com) designs and engineers connected products and solutions for automakers, consumers, and enterprises worldwide, including connected car systems, audio and visual products, enterprise automation solutions; and services supporting the Internet of Things. With leading brands including AKG®, Harman Kardon®, Infinity®, JBL®, Lexicon®, Mark Levinson® and Revel®, HARMAN is admired by audiophiles, musicians and the entertainment venues where they perform around the world. More than 50 million automobiles on the road today are equipped with HARMAN audio and connected car systems. Our software services power billions of mobile devices and systems that are connected, integrated and secure across all platforms, from work and home to car and mobile. HARMAN has a workforce of approximately 30,000 people across the Americas, Europe, and Asia. In March 2017, HARMAN became a wholly-owned subsidiary of Samsung Electronics Co., Ltd.

About Agefiph

Agefiph (Association de gestion du fonds pour l'insertion professionnelle des personnes handicapées) is the reference actor for employment and disability. It builds and finances solutions to compensate for the consequences of disability at work; supports actors in employment, training and health at work and businesses so that the specific needs of people with disabilities are taken into account; through its employment and disability observatory, it analyses the inclusion of disability in the employment, training and health sectors at work and in companies; and finally, to accelerate developments in compensation and inclusion, Agefiph supports research and innovation. In 2023, Agefiph financed and carried out more than 200,000 interventions for people with disabilities, and nearly 74,000 for businesses.

More information on www.agefiph.fr/ follow Agefiph on X @Agefiph_

About AFTRAL

As the leading training organization in the Transport and Logistics sector in France and Europe, AFTRAL trains nearly 300,000 people each year. Its highly diversified offering is structured around two main areas :

Continuing Education : Freight transport, passengers transport, sanitary transport, hazardous materials - logistics, handling and warehousing - safety prevention - moving - management and administration.

Initial Training leading to various levels of qualifications : Driving - Maintenance - Operations - Management.

Thanks to its extensive territorial network, AFTRAL is in direct proximity to its clients with 128 continuing education centers, a network of 35 higher education schools.

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