



Sound of Vision



Funded by the European Union

AWARD FOR RESEARCH RECEIVED AT ICT 2018



Info World was a proud participant to the award winning Sound of Vision research project, which created a smart wearable device to help the blind and visually impaired navigate indoor and outdoor environments without assistance. Funded by the European Union's Horizon 2020 programme between 2015 and 2018, the project resulted in a fruitful collaboration between partners from Iceland, Poland, Italy, Hungary and Romania. Sound of Vision received the *Tech for Society* award during the [ICT 2018: Imagine Digital](#), a research and innovation event focused on the European Union's priorities in the digital transformation of society and industry.

The project created a smart device that consists of a headgear, a haptic vest and a wearable control unit. The headgear includes a number of advanced cameras that scan the environment. They relay visual information to the processing unit, which uses software developed as part of the project to identify surrounding objects, as well as any dangers such as stairs, potholes or obstacles at head-level. This information is transformed into an audio and haptic representation, which is conveyed to the visually impaired person using small speakers mounted on the headgear and using haptic vest vibration. Devices in use are connected to a central server to which they send anonymized information about device operation, settings and usage patterns. This allows us to continually improve the system and send automated software updates. The system was extensively tested using visually impaired as



well as blind users and works both indoors and outdoors in a variety of weather conditions.

As a key project partner, our company used its experience in the fields of software development, eHealth, as well as expertise gained by coordinating and participating to previous European research projects for key contributions to Sound of Vision's success. Over the course of the three years covered by EU funding, Info World contributed to establishing the device's software architecture and fail-safe mechanisms, development and testing of its core software modules, elaborating and improving the end-user experience, as well as ensuring that the hardware and software employed are in accordance with EU regulations regarding product safety and data privacy. Info World was fully responsible for creating and maintaining the central server used for device software management and analysis of device reliability and usage patterns.

The vision behind the project is one where technology can be leveraged to vastly improve the quality of life for the 30 million blind and visually impaired people living in Europe, and help them attain and maintain the desired level of autonomy. In addition to its main goal, the project also resulted in an important new body of theoretical knowledge via over 40 scientific publications in prestigious academic journals and conferences, available for download on the [project's website](#). To learn more, get in touch with us by following us on Facebook or reach out using @SovProject on twitter.