



# Supporting Alzheimer's patients

VISION Localization Systems delivers solutions to prevent Alzheimer's sufferers from getting lost, with Vodafone IoT.

The future is exciting.

**Ready?**





# Location tracking for society's most vulnerable

VISION Localization Systems is a Spanish company specialising in the research, design and sale of personal location trackers. Since its creation in 2005, the company has focused on developing a service to aid people with a high risk of getting lost, including the mentally ill. VISION's breakthrough product, Keruve, was created specifically for Alzheimer's sufferers. Vodafone IoT technology underpins the Keruve solution.

## The challenge

### Prevent Alzheimer's sufferers from getting lost

Alzheimer's is a neurodegenerative disease that manifests itself in cognitive deterioration and behavioural disorders. It is incurable and terminal.

There are an estimated 800,000 people with Alzheimer's in Spain, affecting 6% of over 65s and 10% of over 85s. Throughout the world, there are over 35 million people who suffer from the disease.

Caring for people with Alzheimer's at home is a difficult and, for many families, an exhausting job. One of the biggest difficulties faced by carers is keeping victims safe. A common symptom of the first phase of the illness is spatial disorientation. This can happen even in places the person with Alzheimer's is already familiar with, such as their neighbourhood or the surrounding area. Without warning, victims may become disoriented and wander off. Preventing them from getting lost and risking their life is a major concern for family members.

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Abilio Caetano, CEO,  
VISION Localization Systems

## The solution

### Express location information at the touch of a button

The Keruve device has been designed to eliminate the risk of patients getting lost, and allow people with Alzheimer's to continue to lead as normal a life as possible. “Recent studies show it is possible to slow down the advance of Alzheimer's through physical exercise, contact with others and the prevention of stress,” explains Abilio Caetano, CEO of VISION Localization Systems. “Keruve means that people in the early stages of the disease can continue to go out on a daily basis and have contact with other people, while reducing stress levels at home.”

The Keruve location device comprises a discrete GPS watch, equipped with a safety lock, Vodafone SIM and battery. It is worn by the person with dementia, and is coupled to an easy-to-use portable receiver for family members. The carer need only press the “locate” button on the receiver and in less than 30 seconds they will receive the exact position of the Alzheimer's sufferer displayed on a map. There are no limits on distance. The device is equipped with four positioning systems (SBAS-GPS, Vindoor, V-Cellid, T-GSM) and is able to send an alert to family members if the person goes out of a predefined safe area or when the battery is running low.

VISION has also developed a web-based application that allows family members to receive location information on any device that has access to the Internet, including PCs, tablets and smartphones. “This can be achieved using SMS, our web application or via our receiver. It gives family members and carers the assurance that comes with being able to locate Alzheimer's sufferers at all times,” explains Caetano.

Although the product was initially marketed in Spain, the reach of online consumers has given VISION access to markets and opportunities throughout the world. The company began by testing communications suppliers in each of the countries where it had an opportunity to establish a presence. It soon realised that the complications of searching for and analysing local suppliers in each individual market made this approach unfeasible.

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The decision to work with Vodafone was quick and easily adopted. “Vodafone has a team of IoT specialists that listened to our needs, made suggestions and went out of their way to help us,” comments Caetano. “There were other options but none were truly global or provided the service we needed, be it in terms of price, technology, coverage, or the ability to work together in the development of our products. Nor did they offer the same reliability and guarantees that come with Vodafone.

“The Vodafone Managed IoT Connectivity Platform makes the centralised management of SIM cards straightforward, allowing integration with our systems. Our devices are pre-configured, which means the only thing our users need to worry about is keeping the battery charged. Monitoring is extremely simple. This is important because the majority of carers are also over 50 and, in many cases, unfamiliar with new technology,” adds Caetano.

## The future

### **Revolutionising care with localisation**

“At VISION Localization Systems, we are passionate about developing products to help people, and working together with suppliers and partners who share this passion,” explains Caetano. “This is true of Vodafone, in whom we have found the support and understanding of a partner.

“Our sole objective is to improve the quality of life of people with Alzheimer's and their families. By working together with leading Alzheimer's associations and listening to our thousands of customers in over 20 countries, we've built up a clear understanding of what is needed. We believe Keruve creates peace of mind and confidence in the everyday lives of those affected by the disease,” adds Caetano.

“Advances in technology create new possibilities for solving problems that affect our everyday lives. In this respect, we have also launched Pikavú, a specialised locator for children, which allows their parents to know where they are and make sure they are safe,” remarks Caetano. “Now that localisation is starting to revolutionise our society, we are well placed to respond to the needs of customers in other sectors, always backed by the support of companies like Vodafone.”

## The bottom line

- Improves the quality of life of Alzheimers patients and their family members, reduces the burden on carers and relatives
- Vodafone's network coverage and roaming service guarantees uninterrupted service in any location
- Vodafone provides easy integrated management of the full IoT service that has been implemented, all with a single point of contact
- The use of a single cost structure for all countries enables simple and transparent management

### **About VISION Localization Systems**

- The world leader in the innovation of specialised locators for people with Alzheimer's
- Designs, develops and markets miniature locators for people at high risk of getting lost, improving the quality of life of these people and their families
- Thousands of customers throughout the world, selling its solutions via the Internet in over 20 countries

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