Project benefits story

HekDisco

AI system and smart wristband helps prevent the elderly from falling

Which problem has been addressed?

Every year, many elderly people fall and get injured. In 2017 alone, nearly 14% of people over 70 in Western Europe fell and injured themselves to the point where medical attention was required.

It is therefore much better to give a warning in advance when a person starts to develop 'fall-driven' patterns, helping to prevent possible fall accidents by informing the user, their family or nursing staff/caregivers.

What has been developed to solve this?

The use case developed by Caretronic in the ITEA project HekDisco offers patients an innovative solution that can both predict and detect falls thanks to advanced AI in a wristband. In addition, Caretronic has developed a web dashboard and a mobile app for family members and caregivers to make recommendations regarding the care needed for the patient. Within the project, Caretronic is assessing data from the wristband and combining this with clinical variables and AI algorithms that minimise the vulnerability and hence the risks of falling.

What are the benefits of this solution?

This innovation could support clinical decisions and ease the burden on family members. At the same time, a lot of money could be saved as 37.3 million falls per year are severe enough to require medical attention, with estimated healthcare costs of €1,000-10,000 per patient. Preventing 25% of falls would save approximately €46 billion in healthcare costs. And last but not least, the Caretronic solution could improve the level of the independence - and therefore the quality of life - of the elderly.