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Launch of FrailSafe: A new EU project to delay frailty among older persons by bridging health data and new technologies

The FrailSafe project was launched on 1st January 2016 and includes partners from Greece, Spain, Italy, Belgium, France and Cyprus. The aim is ambitious: delaying frailty by developing a set of measures and tools, together with recommendations to reduce its onset. To achieve these objectives, FrailSafe will combine state of the art information technologies and data mining techniques with high-level expertise in the field of health and ageing. The project is funded by the European Research programme Horizon 2020 and will last three years.

Ageing population is increasing worldwide to reach an estimated two billion people aged over 65 years by 2050. While the increasing life expectancy is a positive outcome due to long-lasting health and social improvements, there is still much to do to improve the Healthy life years indicator i.e. the number of years without disability.

Frailty is a syndrome characterized by diminished strength, endurance, and reduced physiologic function that increases an individual's vulnerability for developing increased dependency, and/or death. Frailty is also related to multiple pathologies: weight loss, and/or fatigue, weakness, low activity, slow motor performance, and balance and gait abnormalities. It makes older persons more vulnerable to stressors and has major health care implications, which in turn have an impact on the planning and delivery of health and social services.

Frailty together with functional decline and disability are common conditions among older people, and are increasing with ageing. However, frailty is a dynamic and not an irreversible process; it seems preventable, may be delayed, or reversed.

FrailSafe, an international partnership of nine partners from six countries, decided to join forces to find solutions to delay the onset of frailty. Partners include: the University of Patras (Greece, coordinator), Brainstorm (Spain), Smartex and Gruppo SIGLA (Italy), CERTH and Hypertech (Greece), INSERM (France), AgeCare (Cyprus) and AGE Platform Europe (Belgium).

FrailSafe aims to:

- better **understand frailty** and its relation to other health conditions;
- **identify** quantitative and qualitative **measures of frailty through advanced data mining approaches** and use them to predict short and long-term outcome and risk of frailty;

- develop **real life sensing** and an **intervention** platform;
- provide a **digital patient model of frailty** sensitive to several dynamic parameters, including physiological, behavioural and contextual;
- create "**prevent-frailty" evidence-based recommendations** for older persons;
- strengthen the motor, cognitive, and other "anti-frailty" activities through the delivery of **personalised treatment programmes**, monitoring alerts, guidance and education;
- achieve the above through a **safe, unobtrusive and acceptable system** for the ageing population while reducing the cost of health care systems.

Partners met on 19-20 January in Patras, Greece, to set up the first project steps. Activities already started by designing guidance on the interventions and on real life sensing. The project will also perform clinical studies and technological breakthroughs.

Further details could be found on the project website: http://frailsafe-project.eu/.

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