HosmartAI, the European Project that provides solutions based on Artificial Intelligence to the Healthcare System

Early 2021 marked the beginning of HosmartAI project within the European Union's Horizon 2020 programme (Grant Agreement No 101016834). HosmartAI – "Hospital Smart development based on AI" – aims to be the most relevant player for the digital transformation of the European Healthcare sector, to make the European healthcare system more strong, efficient, sustainable and resilient.

The European healthcare system is facing challenges that are foreseen to augment in the future. There is an increasing need for more efficient and improved diagnosis and treatment, for improved efficiency in hospitals logistic, and for support in clinical procedure and in the process of caregiving or keep elderly at home for longer.

HosmartAI has been structured to attend to these challenges and to be a first seller within the reality of a European AI as an "Ecosystem of Trust and Excellence". For this purpose, HosmartAI will guarantee the integration of Digital and Robot technologies in new Healthcare environments and the possibility to analyse their benefits by providing a Platform where digital health care tool providers will be able to design and develop AI solutions as well as a space for the representation and deployment of AI solutions. In this manner, HosmartAI endorses the idea and principles of Responsible Research and Innovation (RRI) during the project's lifetime. A user-centred and cross-disciplinary approach will be applied, involving stakeholders and citizens in this methodology in order to develop a Healthcare system accepted by end-users.

For the purpose of tackling the 5 healthcare domains mentioned, HosmartAI will incorporate 8 large-scale pilots that will involve 3000 patients, 300 healthcare professionals, 600 stakeholders including healthcare managers in 5 different European regions (Belgium, Italy, Greece, Slovenia and Spain). Targeting differentiated medical aspects and manifestations such as Cancer, Gastrointestinal disorders, Cardiovascular diseases, Thoracic Disorders, Neurological diseases, Elderly Care and Neuropsychological Rehabilitation, Fetal Growth Restriction and Prematurity. Furthermore, to encourage the integration of innovative tech solutions into the HosmartAI framework and its overall application into new healthcare facilities, two open calls will be launched to the academia and research audience. These open calls will seek to invite tech startups/SMEs to solve particular HosmartAI challenges or bring new tech to be integrated in the HosmartAI platform and to develop new pilots adopting HosmartAI technologies and exploring new uses and customers.

Coordinated by INTRASOFT International, HosmartAI consortium consists of 24 leader entities in fields of research, healthcare, innovation and business, from 12 European countries. The consortium represented by Universities and Research Centres (Vrije Universiteit Brussel, Aristotle University of Thessaloniki, ETH Zürich, Univerza v Mariboru, ITCL Centro Tecnológico), SMEs (Green Communications, Telematic Medical Applications, ECLEXYS, F6S, PharmEcons, Tera

Globus, Ninety-One, EIT Health Germany), Associations (European Hospital and Healthcare Federation, European Federation for Medical Informatics), Hospitals and Healthcare Centres (UKC Maribor, San Camillo IRCCS SRL, Hospital Universitario La Paz, CHU de Liège, Panepistimiako Geniko Nosokomeio Thessalonikis AXEPA, Fundación INTRAS) and Large Enterprises (INTRASOFT International, PHILIPS, VIMAR energia positiva) will provide the background for ensuring a great impact.