



## Press Release

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# HOSMARTAI PILOTS SUCCESSFULLY VALIDATED THE TECHNOLOGY!

The project reached its final evaluation stage and results are promising. HosmartAI can be called a success!

The HosmartAI project targeted the following medical aspects or manifestations: Cancer (Pilot #1, #2 and #8); Gastrointestinal (GI) disorders (Pilot #1); cardiovascular diseases (Pilot #1, #4, #5 and #7); Thoracic Disorders (Pilot #5); Neurological Diseases (Pilot #3); Elderly Care and Neuropsychological Rehabilitation (Pilot #6); Fetal growth restriction (FGR) and prematurity (Pilot #1) which were included among the challenge linked to the aging population and chronic conditions.

Here's the results of each pilot to show how they contributed to the project.

- **Pilot 1** presented 4 different scenarios. In the Coronary Computed Tomography Angiography and Obstetrics scenario, the multilayer models were evaluated in new, unseen datasets. Additionally, Pilot 1 showed that the AI helped to make a more accurate diagnosis. The video capsule endoscopy (VCE) scenario showed that the AI could detect suspicious findings. Finally, the usability of both Echocardiography and VCE tools was assessed, showing satisfactory results.
- **Pilot 2** partners co-created a software to schedule radiotherapy appointments aligned with (1) radiotherapy protocols, (2) other patient appointments, (3) patient timeslot preferences, (4) caregivers' work hours, and (5) machines availability. This software was much faster than hospital staff.
- **Pilot 3** study demonstrated that the innovative setting provided by HosmartAI technologies allowed the increasing of productivity while maintaining the same clinical efficacy in the motor treatment of patients diagnosed with neurological diseases. No problems were found and the patients and doctors liked it.
- **Pilot 4** study showed that magnetic navigation could make surgeries quicker. In the experiments, magnetic navigation reduced procedure durations by about 30%. It also improved the time to reach certain ablation targets, demonstrating better performance for difficult-to-reach targets.

- **Pilot 5** validated a Socially Assistive Robot and a Clinical Decision Support system. This helped patients, improved their care, and made them feel better. It also increased nurses' self-efficacy. Finally, the study showed that these technologies are cost-effective and have long-term benefits. This makes them suitable for use in clinical settings.
- **Pilot 6** results show that the virtual coach system was well-received and useful when applied in the dwelling. The Grador tool was used frequently by people in their dwellings, which supports the high usability score of the system.
- **Pilot 7** evaluated a Quantitative Coronary Assessment application in a reader study. The interventional cardiologists were impressed with its ability to perform vessel segmentations and contour delineations. The digital application for co-creation was highly appreciated and allows for large-scale data collection for cardiovascular and other clinical applications.
- **Pilot 8** results show that the study is making progress in understanding and treating glioblastoma. The research team used data to understand the different parts of the tumor and how they work. The study also showed that it is possible to detect tumor heterogeneity using imaging, which could lead to new non-invasive diagnostic methods in the future.

The HosmartAI pilots showed that AI can help doctors treat patients better and faster. The pilots showed that AI/robotic interventions improve patient outcomes and the cost-effectiveness of the healthcare system. They also show promise for integration into clinical practice. Also, people like these new technologies. They are useful in real-world healthcare. As these AI-based solutions are improved, they will help doctors to make better decisions and save time, which will benefit patients and society.

