HOSMARTAI

AI for the smart hospital of the future

Digital transformation of the healthcare system

HosmartAI – "**Hospital Smart development based on AI**" aims to make the European healthcare system more strong, efficient, sustainable and resilient.

HosmartAI **1st newsletter** brings you the information that you need to know about the HosmartAI project, its pillars, work carried out until now and the next steps to take.
Additionally, to offer a broader range of knowledge and opportunities to our dearest subscribers, the newsletter will provide you with the major news of the health and care cluster integrated projects.

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LEARN MORE ABOUT THE PROJECT

DON'T MISS OUT!

CURRENT OPERATIONS

RELATED OPPORTUNITIES

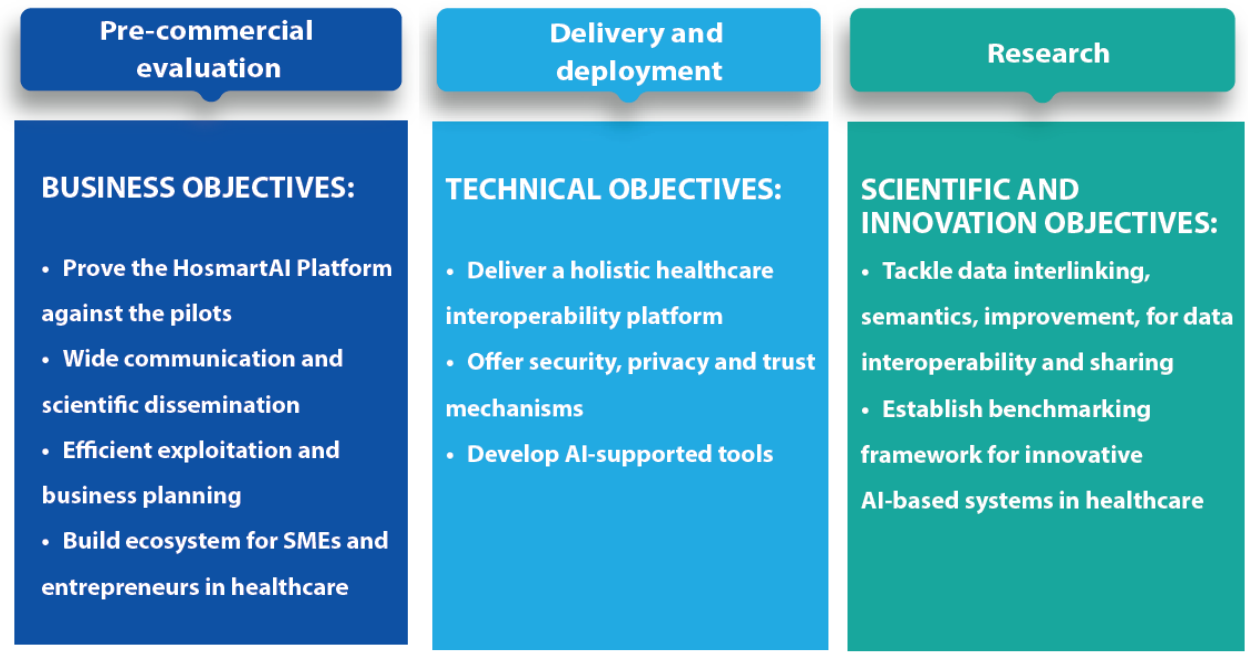
Learn more about the project

A strong, efficient, sustainable and resilient European healthcare system benefiting from the capacity to improve healthcare delivery and outcomes through the combined input of a consortium of European technology stakeholders including SMEs, industry, research centres, digital hubs and universities.

Guarantee the integration of digital and robot technologies in new healthcare environments and the possibility to analyse their benefits by providing an environment where digital healthcare tool providers will be able to design and develop AI solutions as well as a space to instantiate and deploy AI solutions.

HosmartAI objectives

HosmartAI will pursue its realization through 9 objectives, divided into three (3) main categories:



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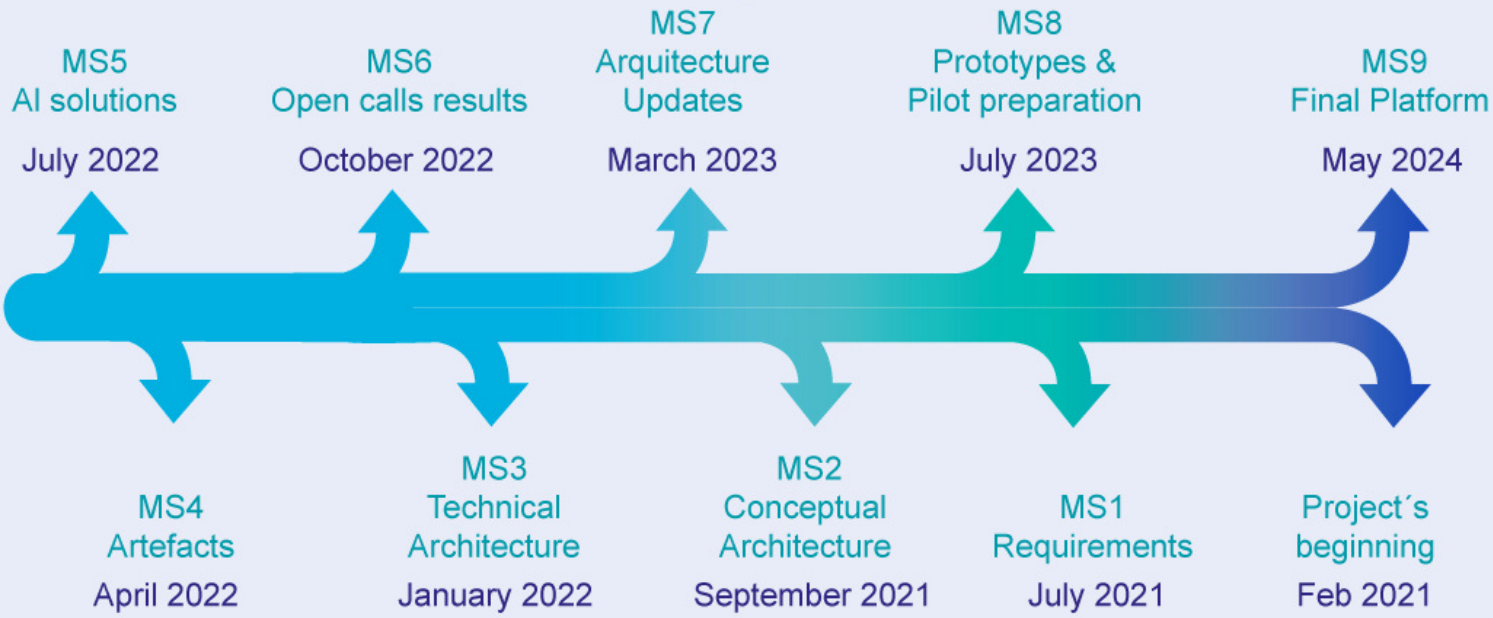
MILESTONES



MS1

Identification of HosmartAI Requirements and User Stories, Initial preparation of the Data Handling Plan, Communication roadmap.

MS2

Availability of the HosmartAI Conceptual Architecture and design of Semantic data model and of Common AI, Benchmarking and Security Pillars.

MS3

Availability of HosmartAI Technical Architecture and Open APIs specification. Availability of initial Pilot specification.

MS4

Availability of 1st Functional Prototypes of HosmartAI Artefacts - Common AI, Benchmarking and Security Pillars and design of AI-based solutions. Availability of 1st version of exploitation plan.

MS5

Availability of 1st Functional Prototypes of AI-based solutions, 1st version of HosmartAI integrated framework, of detailed Pilot specification and 1st version of business plan. Engagement of stakeholders and other visibility enhancement activities.

MS6

Update on Data Handling Plan and Open call results

MS7

Update of HosmartAI Technical Architecture and Open APIs specification. 1st version of HosmartAI Pilot results. 2nd version of exploitation plan.

MS8

Final Functional Prototypes of HosmartAI Artefacts. Availability of the 2nd version of HosmartAI integrated Platform. Final Pilot preparations for 2nd Iteration.

MS9

Final HosmartAI Platform. Final HosmartAI Pilot results and evaluation. Engagement of stakeholders and other visibility enhancement activities. Final HosmartAI exploitation and business plan.

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24 PARTNERS | 12 EUROPEAN COUNTRIES

- 3 LARGE ENTERPRISES
- 8 SMES
- 5 HOSPITALS
- 4 UNIVERSITIES
- 2 RESEARCH CENTERS
- 2 ASSOCIATIONS

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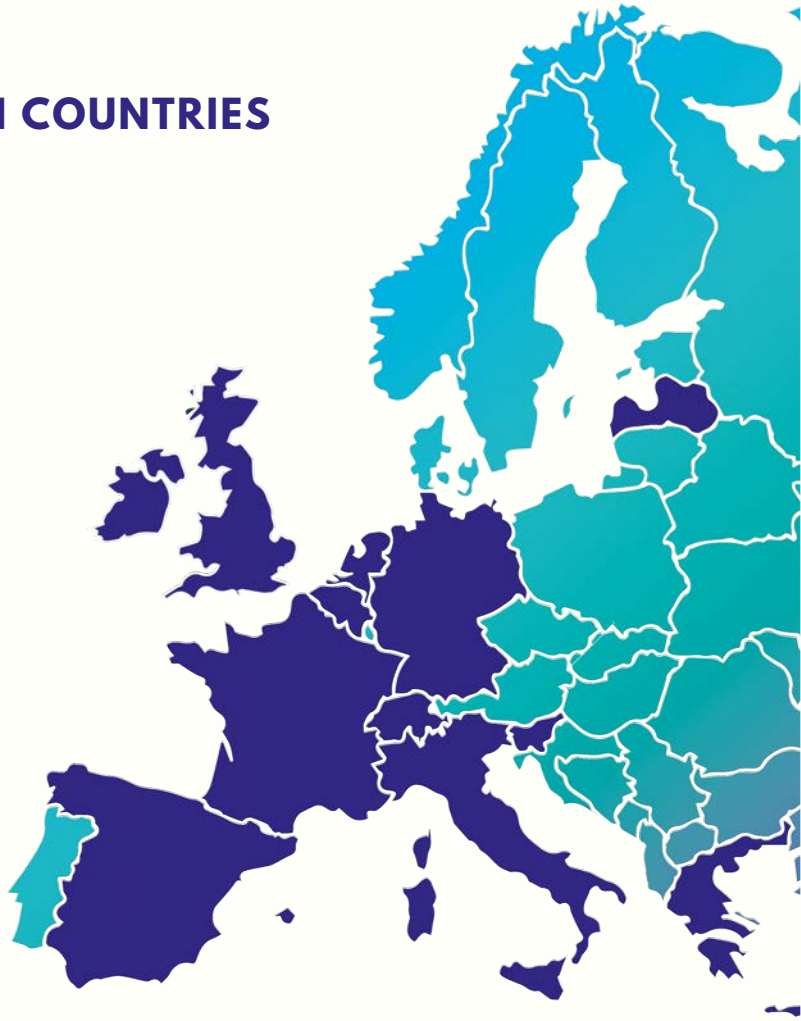

24	12	H2020	Duration
partners	European countries	€10 million fund	2021-2024

Ambitions in Healthcare

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5 healthcare domains identified

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.

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Technologies

AI

- Explainable AI
- Deep learning
- Reinforcement learning
- Convolutional neural networks
- Clustering
- Natural Language Processing

Robotics

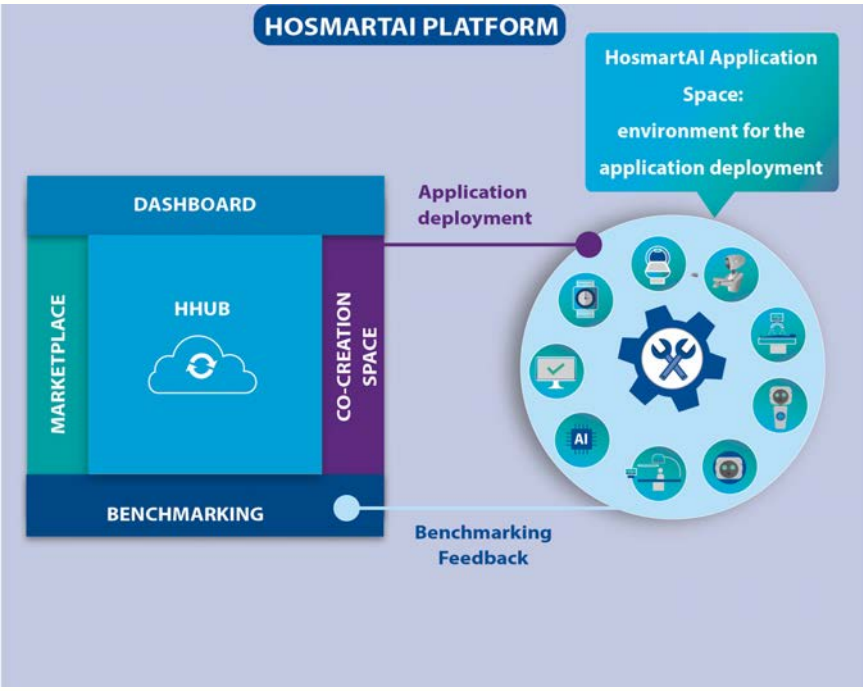
- Conversational robots
- Robotic and sensor-based devices
- Remote surgical navigation systems

HosmartAI Platform

Common open integration platform

The HosmartAI Hub (HHub) will offer multifaceted lasting functionalities (Marketplace, Co-creation space, Benchmarking) to healthcare stakeholders, combined with a collection of methods, tools and solutions to integrate and deploy AI-enabled solutions.

The project is then particularly focused on the creation of a platform that will offer multifaceted functionalities – Marketplace, Co-creation space, Benchmarking – to healthcare stakeholders (SMEs, Research centers, Digital Hubs and Universities), combining a collection of methods, tools and solutions to integrate and deploy AI-enabled solutions. This Platform will be a crucial vehicle to continuously involve stakeholders in a co-creation methodology, in order to develop a Healthcare system accepted by end-users.



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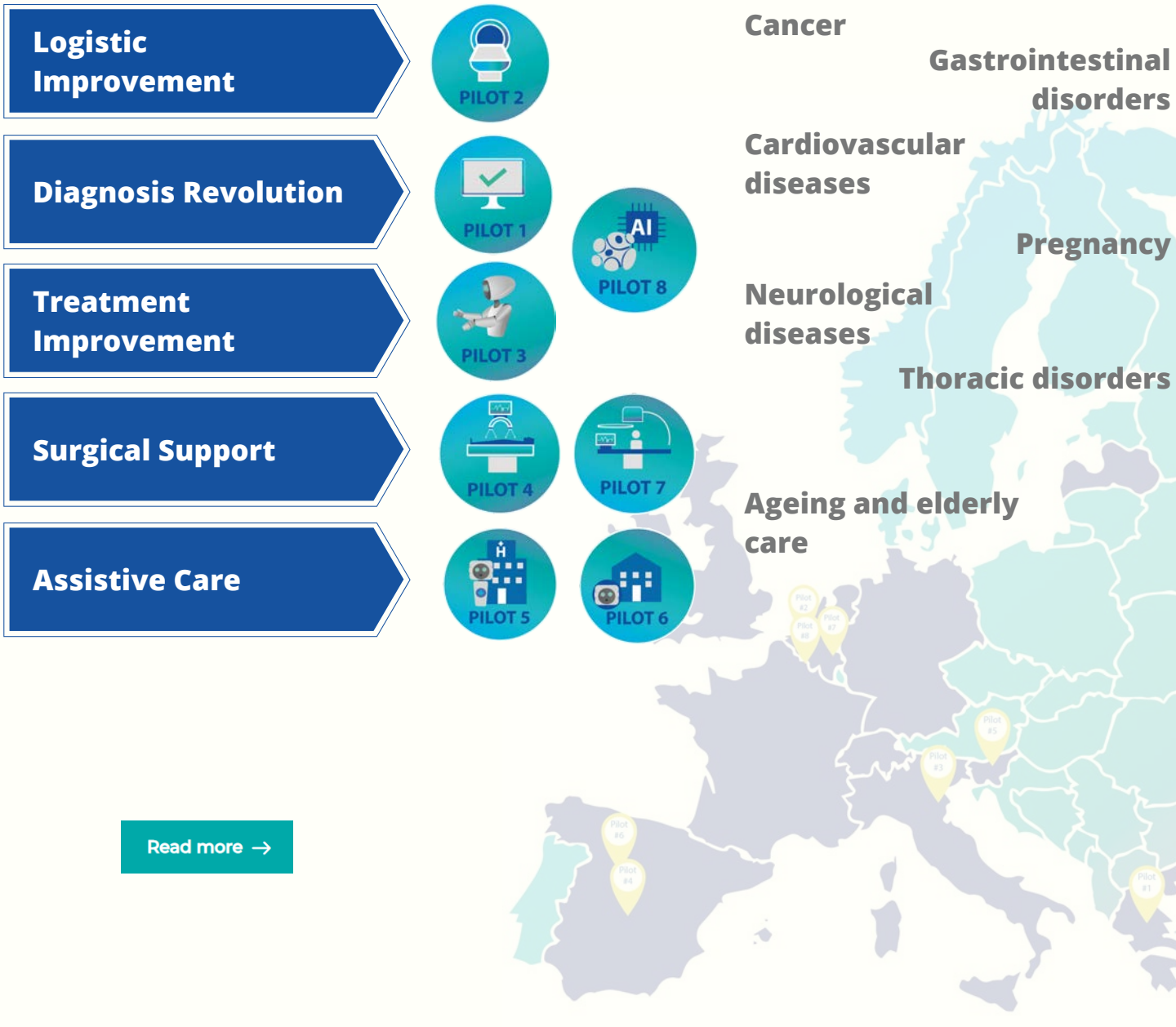
Pilots

To tackle the 5 healthcare domains, 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. 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.



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Don't miss out!

Interested in equity-free funding?

One of the key features of HosmartAI is to stimulate the development and integration of new AI health-tech products/services, and the demonstration of their value to the health entities. The role of third parties in this process will be essential - besides enlarging the ecosystem, the outreach, technology, and the value proposition of the HosmartAI platform, third parties will validate the HosmartAI concept, approach, and market value. The HosmartAI marketplace will be empowered by a unique multi-sided market platform that will enable the participation of both supply-side and demand-side stakeholders.

Take your innovative idea to the next level

The project will engage new potential users of promoted technologies between January 2022 and 2023 with **€800 000** to directly finance startups & SMEs as well as healthcare entities to join HosmartAI. **Two Open Calls** will be launched to attract applicants:

- The first call - **Call for Tech** – will aim to enlarge a pool of Health-interoperable technologies by engaging tech startups & SMEs towards the integration of their solutions in the HosmartAI ecosystem/ platform.
- The second call - **Call for Pilots** – will target to deploy geographic distributed small-scale pilots that demonstrate the impact and potential of the HosmartAI approach towards a next-generation digital platform.

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Open Call 1 soon – stay tuned!

Open Call 1 will be launched at the **beginning of 2022** welcoming innovative AI Startups and SMEs with individual applications to solve HosmartAI challenges or bring new tech to be integrated into the HosmartAI platform. In total **€200 000** funding is waiting for the applicants' proposals of 6 months projects ensuring a fast pace and quality of the deployment.

Follow us on Twitter, LinkedIn and Youtube and register to F6S HosmartAI profile for the latest news on the upcoming open call.

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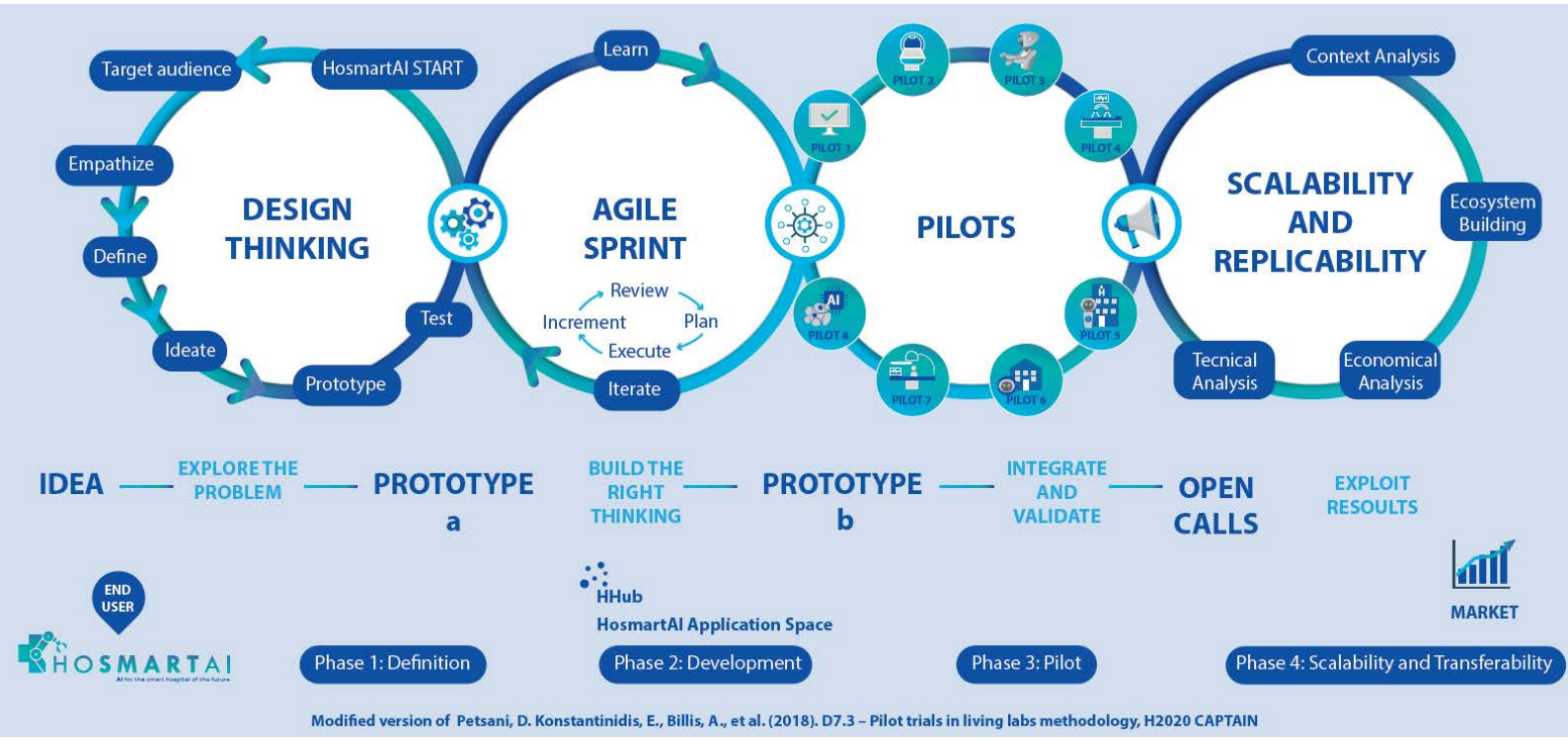
Methodology

Hybrid Methodology: Design thinking, Lean and Agile/Scrum

An adaptation of the **hybrid approach** of **design thinking, agile, lean start-up methodology**, that has been designed and tested in a distributed consortium of the CAPTAIN H2020 project, will accompany the core phases of the HosmartAI project.

A user-centered approach is being implemented with the application of participatory research methods throughout the Project's lifetime. Using this method will enable the creation of HosmartAI solutions that are **both scientific and practical to the end-user**, to the benefit of both parties.



Modified version of Petsani, D. Konstantinidis, E., Billis, A., et al. (2018). D7.3 – Pilot trials in living labs methodology, H2020 CAPTAIN

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Current operations

(And next steps to come)

The work done within HosmartAI project is carried out under 9 Work Packages (WP):

WP1

Co-creation with stakeholders and citizens is the only way to develop a viable healthcare system accepted by end-users...

Read more →

WP2

WP that aims to design and develop some key components of the HosmartAI platform...

Read more →

WP3

It is focused on the development of the AI based solution and smart components...

Read more →

WP4

Aims at handling the tools and mechanisms for integration of algorithms, AI components and security pillars into a platform...

Read more →

WP5

Its goal is to showcase how technological advances, designed under the umbrella of HosmartAI, are used in practice...

Read more →

WP6

Stretching from the communication strategy to Ecosystem Building, takes care of Standardization...

Read more →

WP7

Identify technologies, services and any innovative achievement produced by the partnership that has an added value for the healthcare system...

Read more →

WP8

The main goal is to ensure that all pilots are operated according to the recognized legal and ethical norms, and specifically...

Read more →

WP9

The Project Management ensures the smooth operation of the project in terms of strategic and day-to-day management and interfacing with the EC...

Read more →

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Knowledge material

Welcome to HosmartAI knowledge base

In our knowledge base, you can find the communication materials produced within the HosmartAI project. Any material can be downloaded on HosmartAI website.

#1 Press release

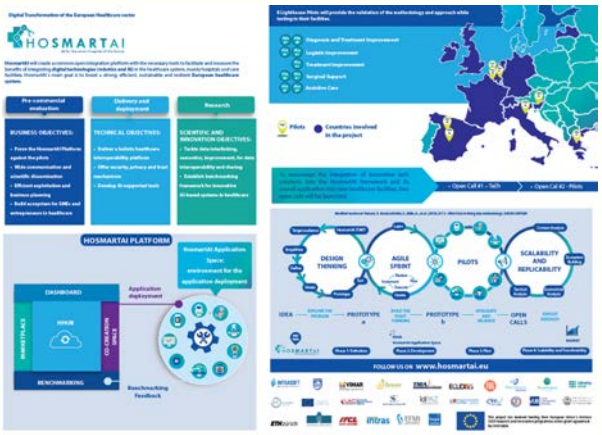
HosmartAI, the European Project that provides solutions based on Artificial Intelligence to the Healthcare System

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.

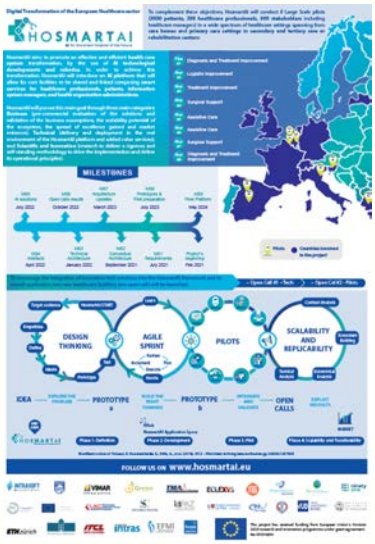
The European healthcare system is facing challenges that are foreseen to augment in the future. There is an increasing need for more efficient and improved diagnosis and treatment, for improved efficiency in hospitals logistic, and for support in clinical procedure and in the process of caregiving or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

Poster



#1 Factsheet



Public deliverables

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Related opportunities

Open Dei healthcare sector

The HosmartAI project joined the Health and Care Cluster. In this section, you can find the projects included in the H&C Cluster and the active opportunities offered!

FAITH Event

The FAITH project organises a healthcare stakeholders' engagement event, called "AI Framework for Patient Well-being – A Healthcare and Technical Perspective". In this public event, designed to maximise impact of the project results, FAITH will demonstrate a prototype of its solution for supporting cancer patients' mental health and collect feedback from key stakeholders. Save the date for January 27-28, 2022, and visit FAITH for updates.

InteropEHRate

A citizen-centric data sharing approach is possible today. Innovative solutions to increase access and control of health data are needed. InteropEHRate aims to unleash health data from local silos and offer more power to citizens in managing their health data across different health providers and countries, facilitating care and accelerating research.

Download the White Paper "Unleashing personal health data for care and research" to learn how it works.

Pharaon Open Calls

Pharaon will open calls for ready to be used digital solutions that can be integrated in the Pharaon systems - link: https://www.pharaon.eu/open-calls/

The call opens on October 1st and will close on December 31st, 2021.

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