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DELIVERABLE

D1.1 – Domain Landscape

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Executive Summary

The main objective of HosmartAI is to promote an effective and efficient health care system transformation using AI technological developments and robotics. HosmartAI will introduce an AI platform that will allow for core facilities to be shared and linked composing smart services for healthcare professionals, patients, information system managers, and health organisation administrations.

A total of 24 partners are collaborating on health services and technological developments of robotics and AI for the HosmartAI project. The approach will guarantee the integration of Digital and Robot technologies in the new Healthcare environments and the possibility to analyse their benefits.

The ambitions pursued in the project by the partners focus on the following targets:

- Diagnosis revolution
- Logistic efficiency
- Treatment improvement
- Surgical support
- Assistive care

This document addresses a state of play analysis on existing Healthcare procedures, Innovative AI-based and robotics systems, methods, components and tools that can be integrated into the HosmartAI services and platform backbone infrastructure.

Being an applied AI project, most of the methods and tools will be based upon the pre-existing know-how and background knowledge that the consortium partners bring into the project, including open-source tools actively supported by the corresponding communities, as well as on in-house components and tools developed by the consortium partners.

Deliverable D1.1 represents the Domain Landscape and comes from the direct outcome of Task T1.1, documenting the needs and challenges on existing Healthcare procedures. Additionally, innovative AI-based and robotics systems, methods, components and tools, pre-existing know-how and background knowledge that cope with the mentioned needs and challenges will be made explicit.

This document is structured as follows. Firstly, the needs and challenges from each Pilot are identified and described. These needs are grouped, and a set of taxonomy terms are proposed for each group when possible (see Table 15). Secondly, the updated descriptions of the background brought to the project from each of the partners are included, specifying the needs and challenges covered or solved by the corresponding background. This second part is structured according to the tasks defined for Working Package 3.

The main contribution of this document is not only the state of the play but also the discovery of some needs and challenges that are uncovered by HosmartAI. These needs are marked in **green bold letters** in the tables within Chapter 2, mainly in Table 15.

Deliverable leader:	José R. Villar (ITCL)
Contributors:	Robert Hofsink (PHILIPS) Romanin Gianluca, Pomella Alberto Antonio (VIMAR) Pauline Loygue, Khaldoun Al Agha (GC) Iwa Stefanik, Nuno Varandas (F6S) Oksana Vilne, Gintare Marine (TGLV) Arber Baraliu, Bleron Baraliu (91) Andrej Bergauer, Vojko Flis, Nina Kobilica, Tadej Kampič (UKCM), Andrea Turolla (IRCCS) Marcel Martinez-Cossiani, Jose L. Merino (FIBHULP) Marcela Chavez, Patrick Duflot (CHUL) Marianna Fotiadou (AHEPA) Evangelos Logaras, Giannis Dimaridis (AUTH) Christophe Chautems (ETHZ) Izidor Mlakar, Daniel Hari, Riko Šafarič, Suzana Uran (UM) Rosa Almeida, Raquel Losada (INTRAS) Philip Sotirades, Manos Georgoudakis (TMA) Alberto Navarro, Silvia González, Basam Musleh, Rodrigo Sedano (ITCL) Hans De Canck, Wim Vranken (VUB)
Reviewers:	Bojan Musil (UM) Francesca Stival (VIMAR)
Approved by:	Athanasios Poulakidas, Irene Diamantopoulou (INTRA)

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1.0	2021-04-27	INTRA	Final version for submission

Table of Contents

Table of Figures

List of Tables