XpanDH

Expanding Digital Health through a pan-European EHRxF-based Ecosystem

Concertation Activities Report

WP7 – Dissemination and Outreach

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What did this document aim to achieve?	It initially analyses the EEHRxF ecosystem actors and synergy projects. It describes the concertation events held – setting, topics, stakeholders involved - and extracts their key messages. It summarises activities in the XpanDH concertation structures of X-Nets and Community of Doers. It closes with lessons learnt and provides an outlook over the next steps.
Present the main methodological approaches in bullet point format	- Desk research - Stakeholder engagement - Event management - Social media analysis
What were the main findings or take-away messages? What implications does it have for the XpanDH project?	- Many concertation efforts already held, raising awareness and involving stakeholders in co-creating the format - Orientation for technical WPs on what stakeholder input to consider in second year of project
Which project stakeholder group would benefit the most from the document and why?	**Healthcare Professional**: **International Adherence Network/Initiative**: **Investors and Funding**: **Patient Organization**: **Patient/Caregiver**: **Pharma (Marketing&Sales/Medical Dept./R&D)**: **Public Authority or Policymaker**: X – Stakeholder input on format development **Regulatory body**: **Standardization Body/ Open-Source Network Researcher/Academic**: **Statutory Health Insurance Company**: **Technology & Service Provider**: **Other**:
List any relevant organizations or social media accounts for wider visibility	

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List of abbreviations

Acronym	Description
3C-3P	Co-creation Community of Patients, Professionals, and Programmers
CoD	Community of Doers
EC	European Commission
EEHRxF	European Electronic Health Record exchange format
EHDS	European Health Data Space
ERNs	European Reference Networks
EU	European Union
MS	Member States
SDOs	Standards Developing Organisations
WP	Work Package

Executive summary

This deliverable analyses and describes the actors and stakeholders in the current EEHRxF ecosystem established by XpanDH. It elaborates on their characteristics by analysing the project's LinkedIn followership by industries and the geographical locations which were reached and identifies gaps presenting opportunities for engagement. Synergies and opportunities for collaboration are also presented in this deliverable, outlining the methodology of a project mapping and presenting the resulting collaboration activities currently ongoing.

Furthermore, several concertation events in Lisbon, Rennes, Ghent, Brussels, and Athens are described. This includes a presentation of their setting, the topics which were discussed, the stakeholders which were involved, and highlights the key messages which could be extracted from the events.

This deliverable also expands on the stakeholder concertation structures which are part of the XpanDH project: the X-nets and the Community of Doers. For the X-Nets, project partners empirica and ISCTE created an X-Net engagement guide streamlining the processes and set-up of the 10 X-nets which were identified in the Grant Agreement. Furthermore, the first meetings in relation to the X-Nets are reported. Current efforts in setting up the Community of Doers is described.

Finally, the lessons learned from engaging the EEHRxF Ecosystem in the first year of the project as well as an outlook on the next steps are presented.

1 Introduction

This chapter introduces the background and scope of the Concertation Activities Report.

1.1 Background

Work Package (WP) 7 of XpanDH aims at communicating on and disseminating the project results, as well as reaching out to relevant stakeholders.

Task 7.3 on concertation activities observes the current developments to enhance XpanDH's impact in the broader ecosystem. This involves facilitating knowledge exchange, fostering collaboration, and sharing research findings. Additionally, it collects insights from the digital health ecosystem to evaluate XpanDH's relevance for the European Health Data Space (EHDS), interoperability, data intermediaries, and similar aspects at both European and national levels. This aims to establish connections, leverage synergies, and assess its market impact.

1.2 Scope and objectives

The objective of this deliverable is to outline the which efforts have been carried out during the first year to enable knowledge exchange and collaboration between different European Electronic Health Record exchange format (EEHRxF) stakeholders and to stay updated on relevant developments in the related communities.

2 EEHRxF Stakeholder Ecosystem Analysis

A solid understanding of the actors involved in the EEHRxF ecosystem and interested in XpanDH is the basis to report on and evaluate the concertation efforts so far. This EEHRxF actor analysis does not aim to replicate the stakeholder identification and mapping in *D7.1 Dissemination, Communication, Outreach and Exploitation Plan* and *D7.2 Dissemination, Communication, Outreach and Exploitation Report*. It rather builds on these efforts by describing how representatives of these stakeholder groups have been interacting with XpanDH and the EEHRxF.

To this aim, we describe the composition of the XpanDH LinkedIn followership, present a full mapping of related European Union (EU) projects and outline our synergies with them.

2.1 Stakeholder characteristics

Analysing the composition of the followers of XpanDH's LinkedIn page is one indicator as to the characteristics of stakeholders (interested in) and interacting with XpanDH and the EEHRxF.

On February 6, 2024, the LinkedIn analytics report[1] indicates that our page has a following of 885 individuals from diverse backgrounds, various countries and industries. Showing a wide geographical spread, our followers originate from 40 countries. Besides Europe, followers come from 13 non-European countries, namely Australia, Canada, Brazil, Argentina, Colombia, Singapore, Thailand, India, Ethiopia, Kenya, Morocco, Tunisia, and Egypt. Most followers were from Portugal, followed by Germany, Belgium, and the Netherlands.

Additionally, a wide variety of industries are represented, spread across very relevant sectors. Most followers affiliate with the Hospital and Health Care sector (197), followed by the IT sector (150), Research (110), Government Administration (107), and (Higher) Education (77). Seventy followers are from a Business Sector background.

Overall, we reached a wide range of individuals, however only 23 EU countries are currently represented in our LinkedIn followers. Individuals from Bulgaria, Latvia, Lithuania, and Malta are yet to follow the XpanDH project on LinkedIn. Since the EEHRxF will become essential for all EU countries, as well a requirement once the EHDS legislation is adopted, project partners should make an effort to ensure engagement by representatives from these countries and increase awareness

[1] Source: LinkedIn follower analytics, 6 January 2023 – 6 February 2024, as downloaded from the account administrator control panel.

around the exchange and ensure that they are actively ready for and involved in the adoption of the EEHRxF in the future.

Key takeaways:
- Various industries and sectors reached.
- Both EU and non-EU countries currently engaged with the LinkedIn page, the work XpanDH is doing and aware of the format.
- Efforts are needed to reach all EU27 countries and engage individuals from Bulgaria, Latvia, Lithuania and Malta.

2.2 Synergies and opportunities for collaboration

The vision of the EEHRxF cannot be realised in silos, therefore, it is important to be aware of and work with other stakeholders in the exchange format ecosystem. Creating and fostering synergies and opportunities for collaboration is a vital part of building a stakeholder ecosystem which is comprehensive, robust, sustainable and able to advance the EEHRxF vision in partnership.

XpanDH focussed on two main efforts in the first 13 months. A project mapping was created visualising the current landscape of projects and initiatives working on or related to the exchange of health data. Following this, synergies with other European projects and initiatives were established, including the liaison between the XpanDH project, the xShare project, and the joint action Xt-EHR, recognising the challenges of the three initiatives working simultaneously.

2.2.1 Mapping relevant projects

To visualise the current landscape of projects and initiatives working with health data, related to the exchange of health data or work with or on the format, project partner empirica created a project mapping between May and November 2023.

This mapping also informed the stakeholders and key contacts that were invited to the EEHRxF Expert Summit which was held on December 12 2023 in Brussels.

A CORDIS search on the key terms “EHR”, “Electronic Health Record”, “EHR exchange”, “health data exchange”, “health data standards”, “health data interoperability”, “Electronic Health Record Exchange Format” and “telehealth/telemedicine” was conducted. Results were carefully screened, and projects relating to or working with health data and which were still ongoing in mid-2023 were included in an excel sheet file. Furthermore, relevant networks and initiatives, either identified through their participation in the screened projects or through consultation with the XpanDH consortium were included in the mapping.

The information extracted to the excel list included: Project acronym, full name, type of project, EEHRxF/topic domain, project objectives, start and end dates, CORDIS

and website URL, Coordinator, industry partners involved, relevance to XpanDH (e.g., potential involvement in the X-Nets, new business cases/domains, etc.), relevance to the EEHRxF (e.g., data integration, dissemination, certification, etc.) and invitation priority to the summit, with the latter three being filled in and reviewed by several project partners.

Overall, 77 projects and 25 networks and initiatives were screened and included in the project mapping, presenting a comprehensive list of current ongoing efforts and stakeholders which are relevant to consider for the realisation of the EEHRxF. Examples of a few of the highly relevant projects and initiatives for XpanDH included are AIDAVA, eCREAM, UNICOM, GravitateHealth, POTENTIAL, and the recently launched JA09 xt-EHR. Representatives from these projects and initiatives were invited to the EEHRxF Expert Summit in Brussels and attended, with some presenting their use cases and views on the development of the exchange format and its future.

An overview of the layout of the project mapping can be seen below. The full project mapping can be found in Annex 1.

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End
AIDAVA	AI powered Data Curation & Publishing Virtual Assistant	Project - Horizon AG	patient summary, laboratory results, imaging and imaging reports	Integrated, high-quality personal health data (PHD) represents a potential wealth of knowledge for healthcare systems, but there is no reliable conduit for this data to become interoperable, AI-ready and reuse-ready at scale across institutions, at national and EU level. AIDAVA will fill this gap by prototyping and testing an AI-powered, virtual assistant maximizing automation of data curation & publishing of unstructured and structured, heterogeneous data. The assistant includes a backend with a library of AI-based data curation tools and a frontend based on human-AI interaction modules that will help users when automation is not possible, while adapting to users preferences. The interdisciplinary team of the consortium will develop and test two versions of this virtual assistant with hospitals and emerging personal data intermediaries, around breast cancer patient registries and longitudinal health records for cardio-vascular patients, in three languages. The team will work around four technology pillars: 1) automation of quality enhancement and FAIRification of collected health data, in compliance with EU data privacy; 2) knowledge graphs with ontology-based standards as universal representation, to increase interoperability and portability; 3) deep learning for information extraction from narrative content; and 4) AI-generated explanations during the process to increase users	01.09.2022	31.08.2026
eCREAM	enabling Clinical Research in Emergency and Acute care Medicine through automated data extraction	Project	exchange of health data	The only way to fill the gap between the need for clinical research and the availability of robust data is to directly extract such data from the EDs electronic health records (EHRs), avoiding dedicated data collection. Achieving this goal would enable distributed clinical research, which is now too much restricted to academic centres, and allow to leverage of clinical information to address a multitude of research questions. In this context, the EU-funded eCREAM project will fill the knowledge gap by reviewing and retrieving data from the electronic health records used by emergency departments. Bringing together eight countries (France, Greece, Italy, Poland, Slovakia, Slovenia, Switzerland and the UK) and 11 partners, eCREAM will also review and exploit other existing data sources to measure the outcome of the patients. The initiative aims to make data easy to find, interoperable and reusable for clinicians, researchers, policymakers and citizens.	01.09.2022	31.08.2027

Figure 1 Preview of XpanDH Synergy Project Mapping – Part I

CORDIS (if applicable)	Coordinator	Relevance to Xpa	Relevance to EEH	Priori	Comment	URL Website
https://cordis.europa.eu/project/id/1	Maastricht Unversity	new business use cases	data curation and EEHRxF	1	IMPORTANT CALL: HORIZON-HLTH-2021-TOOL-06; Dipak can connect, IHD is partner	https://www.aidava.eu/
https://ecreamproject.eu/						https://ecreamproject.eu/
	Istituto di Ricerche	new business use cas	automatic data extractio	1	IMPORTANT CALL: HO	

Figure 2 Preview of XpanDH Synergy Project Mapping – Part II

Key takeaways:

- A large landscape of projects and initiatives are either working with health data and the exchange thereof, or who will do so in the future.
- The landscape of projects should regularly be monitored to ensure all relevant stakeholders are engaged in the ecosystem, and aware of the developments around the EEHRxF.
- Priority contacts were engaged in activities such as the EEHRxF Expert Summit, and Workshops.

2.2.2 Current synergy efforts

Networking and seeking cooperation between European projects and initiatives in the same field is essential and has a positive impact on the visibility, uptake, and sustainability of the project and its results. Building on the project mapping described previously, interesting projects, initiatives and other collaboration opportunities could be identified XpanDH is actively engaging in the cooperation with relevant and related EU projects and initiatives aiming to:

- Generate synergies between networks, communities and stakeholders at European level,
- Accelerate the information flow and exchange of experience of the ongoing and future projects,
- Identify and address mutual drivers and barriers in the field,
- Accelerate adoption of the EEHRxF

In the past year, several collaboration efforts with other projects have already been initialised. Currently, engaged projects include:

- Gravitate Health
- UNICOM
- Lable2Enable
- AIDAVA
- ECREAM
- POTENTIAL
- EUCAIM
- xShare
- Xt-EHR

In the collaboration efforts of the project, the connection between the projects XpanDH, xShare, and the joint action Xt-EHR is important to acknowledge. The XpanDH consortium is aware of the challenges of having three initiatives working around the same topic, the exchange of health data, and subsequently the exchange format. Close collaboration is sought between the projects to avoid overlapping efforts in building the EEHRxF environment, including learning from each other's best practices and challenges and carrying each other's results further.

Furthermore, the XpanDH project seeks to extend to collaborate with other relevant projects and initiatives in the future, where appropriate.

3 Concertation events

XpanDH aimed to create an ecosystem around the EEHRxF, involving diverse stakeholders from Europe and beyond. XpanDH has used a series of international events to this aim. This chapter reports on those events that focussed on a dedicated exchange with stakeholders, giving the floor to actors from outside the project and including discussion time. Those events focussing mainly on project presentation and with less dedicated interaction time are thus not included in this chapter and reported on in *D7.2 Dissemination, Communication, Outreach and Exploitation Report*.

3.1 EEHRxF in the global context – June 2023

- Date: 7 June 2023
- Place: Hybrid session: ISCTE Lisbon and online
- Number of participants: 42 participants (27 online participants, 15 onsite participants)

The focus was to promote a panoramic understanding and exchange of insights regarding Electronic Health Records (EHRs) and Interoperability (EEHRxF) within the EU context, by digging into the digital health perspectives of Greece, the Netherlands, Canada, Singapore, South Africa, Uganda, Ethiopia, Cape Verde, Norway, Austria, and Slovakia. The event aimed to simplify knowledge-sharing on the employment of digital health technologies, AI data, and EHR systems in managing healthcare challenges and enhancing healthcare delivery.

Key takeaways:
- Also actors from outside of the EU follow developments regarding the EEHRxF

3.2 XpanDH, enhancing the European EEHRxF adoption on EHDS at the IHE Experience Days – September 2023, Rennes

- Date: 26 September 2023
- Place: Rennes, France
- Number of Participants: 16 participants

The aim was to clarify the core of XpanDH and clarify its key concepts and structures: X-Bubbles, e XpanDH readiness model, X-Nets. The moderators also introduced the concept of the Community of Doers (CoD) and guided participants on engagement,

and ways for participation. A Q&A session followed and promoted an interactive conversation on the future path of the EHRs and Interoperability (EEHRxF).

In an interactive feedback session revealed that most participants were well aware of the EEHRxF but had not worked with it yet. They clearly preferred the EEHRxF domain of Patient Summary to be prioritised in XpanDH's work. They suggested overall 12 new areas to be included as domains, as well as 10 areas in need of standardisation. They also elicited some opportunities for further EEHRxF adoption (see below). They identified decision making of national governments as one main barrier-

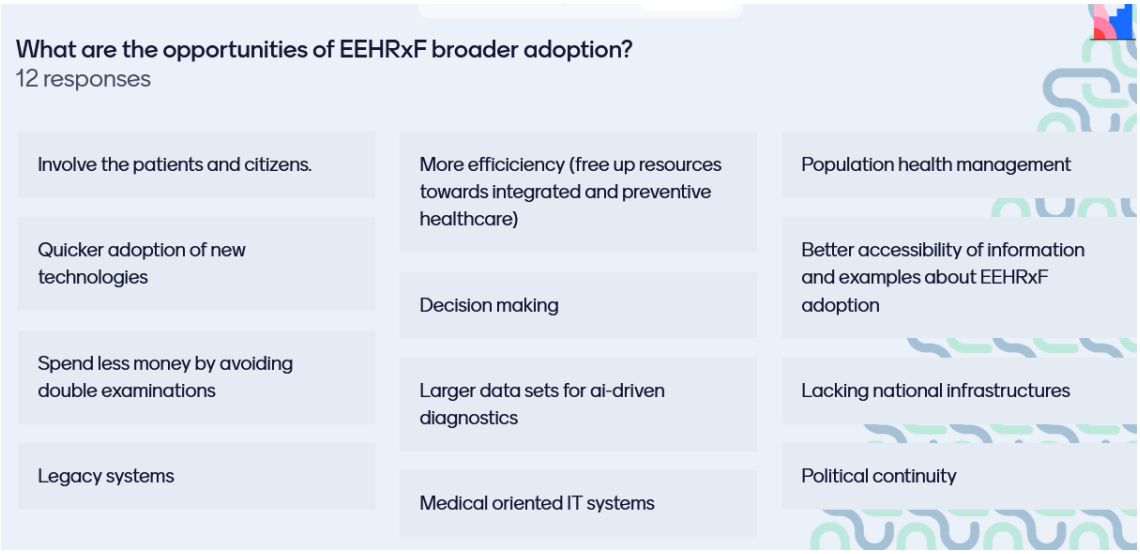

Figure 3 IHE Experience Days – XpanDH Session Participants' input on EEHRxF adoption opportunities.

During the discussion, participants aimed to explore how to build solutions based on collective intelligence. The inclusive goal was to collaborate in finding concrete and actionable solutions to enhance the adoption of the EEHRxF in Europe.[2]

[2] See, among others, public posts by https://www.linkedin.com/posts/angelica-cavalcante-galvao_sees-eehrxf-sees23-activity-7112535077066084354-P9K1?utm_source=share&utm_medium=member_desktop

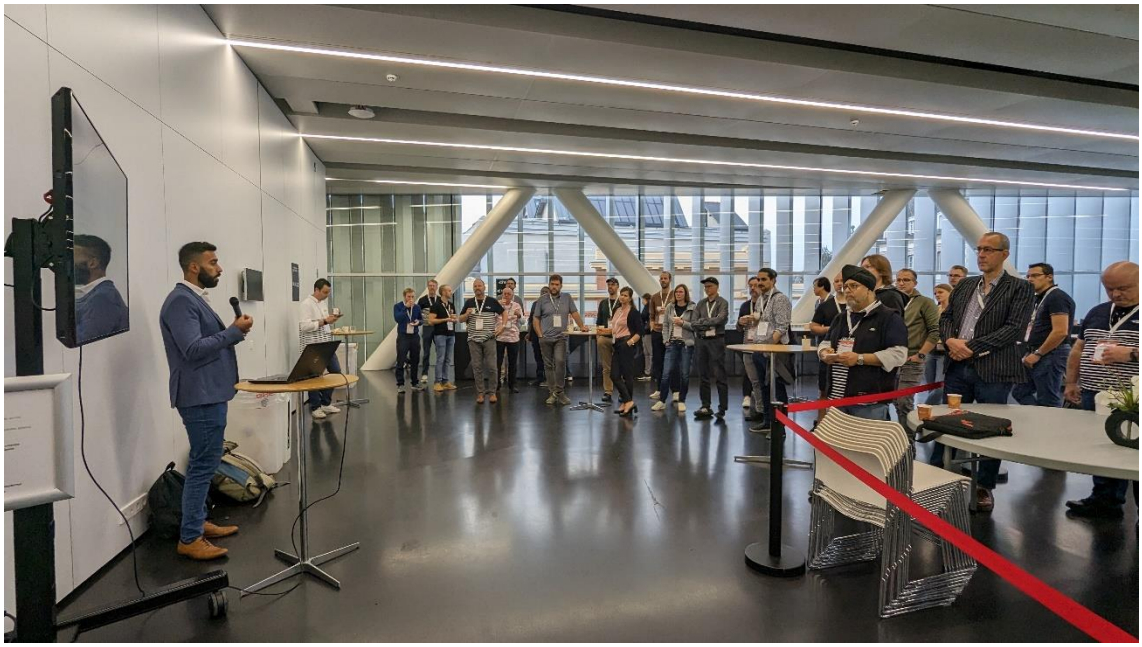

Figure 4 XpanDH speakers at the IHE Experience Days

Key takeaways:
- Good level of awareness of EEHRxF, but few practical experience outside of XpanDH
- Patient summaries are perceived as a priority domain
- Governments are perceived as major enablers and deal breakers

3.3 i~HD Annual Conference – November 2023, Ghent

- Date: 30 November 2023
- Place: Ghent, Belgium
- Number of Participants: 45 participants

This session concentrated on preparing XpanDH for the Expert Summit on 12th of December by exploring how EEHRxF-related projects could apply the EEHRxF and/or develop interoperability assets needed for implementing Digital Health use cases. The focus was to address how selected European Commission (EC) projects influence interoperability of core data sets to enhance patient care continuation, provide value to health systems, and expand data sets for reuse.

Its goal was to share benefits, obstacles, and explore how current project implementations may result in expanding EEHRxF to new fields and use cases, including research.

The speakers highlighted the following recommendations for future work in XpanDH:

- Guido Bertolini (ECREAM): EHR structures are not always fit for purpose - e.g. in emergency departments.
- Isabelle de Zegher (AIDAVA): overall ontology to map EHR concepts would facilitate data curation.

Contributions by policy officer Kyriacos Hatzaras (DG CNECT) and XpanDH project manager Anderson Carmo (ISCTE) highlighted the importance of the EEHRxF, as well as its growing ecosystem, for the EHDS.

The session counted around 45 attendees, mainly from research, policy and EC, including a very active question and answer session.

Figure 5 XpanDH speakers at IHD Conference

Figure 6 XpanDH speakers at IHD Conference

Key takeaways:
- EEHRxF could potentially aid EHR structures for the emergency department
- An overall ontology to map EHR could strengthen the EEHRxF format
- Also projects not directly related to the format can contribute to it – but might not be aware of this fact

3.4 European Electronic Health Record Exchange Format (EEHRxF) Expert Summit – December 2023, Brussels

- Date: Tuesday 12 December 2023
- Place: in Brussels and online
- Number of Participants: 100 in person, xxx online

EEHRxF Expert Summit gathered influential figures to deliberate on the advancement, obstacles, and prospects of this pivotal endeavour. It sought to unite European projects, initiatives, and pertinent stakeholders in shaping the direction, evolution, and utility of EEHRxF.

The summit underscored EEHRxF's significance in fostering interoperability, enhancing patient agency, healthcare standards pan-European adoption of EEHRxF while identifying primary and secondary use cases. This summit's outcomes were determined to guide future multi-stakeholder consultations in 2024 and influence the adoption strategy and evolution of the EEHRxF. It prioritized the development and collaborative shaping of the EEHRxF format, while also strategically integrating other projects, based on the previous project mapping (see chapter 2.2.1). This allowed the event to facilitate a thorough exploration of EHR's potential, fostering a well-rounded understanding of the possibilities in the field.

The consortium is developing a detailed Summit report, jointly with the EC, which will summarise the contributions. This document, as well as the D5.1 - XpanDH Ecosystem Report, will report on the summits content and outcomes in more detail.

The table below presents a stakeholder stratification of the Summit Speakers.

Table 1 Stakeholder mapping of EEHRxF Expert Summit Speakers

Stakeholder Group	Participating Speaker, Affiliation
Policymakers	**Fulvia Raffaelli**, DG SANTE Head of Unit C1 **Kyriacos Hatzaras,** DG CNECT Unit H3 **Theresa Barry** eHealth Ireland & eHN Subgroup on Semantics **Catherine Chronaki** HL7 Europe; **Carola Schulz** Empirica **Hans Lindvall** MyHealth@EU **Klára Jiráková** Vysocina Regional Authority / MyHealth@EU **Konstantin Hyppönen** DG SANTE C1 **Christos Schizas** National eHealth Authority of Cyprus **Daniel Karlsson**, eHealth Network Subgroup on Semantics & **Konstantin Hyppönen**, DG SANTE C1 **Hynek Kruzik**

Stakeholder Group	Participating Speaker, Affiliation
	Ministry of Health of the Czech Republic & eHN Subgroup on Semantics **Daniel Karlsson**, Swedish eHealth Agency **Annika Ohlson** and **Martin Pilnik** MyHealth@EU & eHealth NCPs of Sweden and the Czech Republic **Esther Peelen** NICTIZ & eHN Medical Imaging Task Force Chair
Healthcare-related organisations	**Sara Roda** Standing Committee of European Doctors CPME **Diogo Martins Branco** Medical Oncologist, ESMO RealWorld Data and Digital Health Working Group **Dr Iztok Stotl** Slovenian Medical Chamber **Jeroen Beliën** Amsterdam UMC & Health-R
Payers (e.g. insurers)	
Technology providers (e.g. tech companies	**Antoine Praet** EarlyTracks Ltd **Alexander Berler** Gnomon
Academia	**Anne Moen** Faculty of Medicine, University of Oslo & GravitateHealth **Dipak Kalra** University College London & i~HD **Pedro José Mallol Roselló** Medical Research Institute Hospital La Fe **Zoltán Tibor Lantos** Faculty of Health Sciences, Semmelweis University **Maria Marques** Uninova & XpanDH **Henrique Martins** ISCTEIUL & XpanDH **Veli Stroetmann** Empirica & XpanDH
Society as a whole (e.g. patients, citizens)	**Milana Trucl**, European Patients' Forum
Standards Developing Organizations (SDOs)	**Jürgen Brandstätter** IHE-Europe / XpanDH **Isabelle de Zegher**, SNOMED International & AIDAVA **Giorgio Cangioli** HL7 Italy & XpanDH **Catherine Chronaki** HL7 Europe / xShare / XpanDH

Stakeholder Group	Participating Speaker, Affiliation
Industry Board Network of Digital Health Industry players (companies, and associations)	

This classification shows a wide array of contributions from different stakeholder groups, but also reveals gaps in involving industry, payers and society as a whole.

Comments on social media on the EEHRxF Expert Summit pointed out that the event played a crucial role in monitoring developments important to EEHRxF use and inclusion in the digital health ecosystem.

Participants appreciated the background information on interdependencies between interoperability, electronic product information, and patient summaries. They recognized the progress in the EEHRxF , interoperability, and cross-border solutions. Even though the progress was acknowledged, there were still highlights that there is much work to be done. while there has been a progress in these areas the summit identified gaps that are still existed and emphasized the importance of further development and improvement, by shedding the light on areas that need attention for EEHRxF integration. the participants believe that the #EEHRxFSummit23 provided a platform for stakeholders to discuss and share ideas on various aspects critical for the use and integration of EEHRxF in the digital health ecosystem. (check the footnote for more information)[3].

The box below lists preliminary insights from participants, consortium and European Commission.

3

https://www.linkedin.com/feed/update/urn:li:activity:7140281827151224832?updateEntityUrn=urn%3Ali%3Afs_feedUpdate%3A%28V2%2Curn%3Ali%3Aactivity%3A7140281827151224832%29

https://www.linkedin.com/feed/update/urn:li:activity:7140714888972128257?updateEntityUrn=urn%3Ali%3Afs_feedUpdate%3A%28V2%2Curn%3Ali%3Aactivity%3A7140714888972128257%29

https://www.linkedin.com/feed/update/urn:li:activity:7140438048395190274?updateEntityUrn=urn%3Ali%3Afs_feedUpdate%3A%28V2%2Curn%3Ali%3Aactivity%3A7140438048395190274%29

https://x.com/AIM_Healthcare/status/1734671076813099113?s=20

https://x.com/IrelandSnomed/status/1734845414421987401?s=20

Figure 7 XpanDH speakers at EEHRxF Expert Summit

Figure 8 XpanDH speakers at EEHRxF Expert Summit

Key takeaways:

- EHDS drives EEHRxF adoption.
- Integrating patients and health professionals is crucial for successful implementation.
- Challenges on health information domains relate to data quality and implementation.
- Shift from HL7 CDA to HL7 FHIR requires semantic assets and collaborative efforts.
- Close collaboration between EC, Member States (MS), industry stakeholders and the digital health community is needed to ensure EEHRxF uptake.
- Other challenges remain regarding training as well as alignment with the Digital Wallet initiative.
- XpanDH and EC need to raise more awareness about the EEHRxF.
- Many stakeholder groups have challenges that could be addressed through the EEHRxF.
- EEHRxF needs more capacity building on Member State level.
- XpanDH needs to make very concrete steps for the further development of the EEHRxF as required.
- The next EEHRxF Summit should involve more contributions from industry, payers, citizens, patients and European Reference Networks (ERNs).

3.5 Community of Doers Workshop, Athens Digital Health Week – January 2024

- Date: Thursday 18 January 2024
- Place: Abbey Hall, Royal Olympic Hotel, Athens
- Number of participants: 18 participants

The workshop was attended by a mix of professionals and students. T5.3 leader Alexander Berler, as well as coordinator Henrique Martins and WP5 leader Carola Schulz explained the progression of ecosystems, its significance in the digital health field, and the strategies for promoting collaboration in the adoption of the EEHRxF. They especially focussed on the challenges of involving patients and developers from different countries – in the X-Nets, but above all in the Community of Practice.

Then, the focus shifted to the co-creation approach with a few specific use cases. George Kapetanakis (Greek Cancer Patient Association, ELLOK) presented on patient community priorities. He focussed primarily on the communication gap between patients and healthcare providers in oncology patients considering the disease is becoming more chronic. Then, Elpida Fotiadou (IDIKA) presented on implementation of MyHealth@EU services in Greece.

Subsequently, Henrique Martins held an interactive co-creation session to shape use cases and brainstorm ideas for an operating structure for the CoD. Participants mentioned key challenges, like motivating actors to participate pro bono, inviting fitting individuals and finding an adequate governance structure.

Figure 8 XpanDH speakers at Community of Doers Workshop, Athens Digital Health Week

Figure 8 XpanDH speakers at Community of Doers Workshop, Athens Digital Health Week

Key takeaways:

- Also stakeholders who are not aware of the EEHRxF can contribute to building a useful structure for its co-creation.
- Challenges the format could help with include implementation of MyHealth@EU and communication gaps between patients and healthcare professionals

3.6 Other events

In addition to the explicit stakeholder engagement events reported in this deliverable, XpanDH held and contributed to several events/webinars focusing on project presentation. Since these events did not involve intense stakeholder interaction, they are reported on in *D7.2 XpanDH Dissemination, Communication, Outreach and Exploitation Report*.

4 Stakeholder concertation structures

This chapter reports on the efforts in XpanDH's innate stakeholder consultation structures. The first project year focussed mainly on establishing the X-Nets and the CoD.

Multi-Stakeholder focus group and X-Bubble exchange space are two concertation structures foreseen for the second year and will be reported on in *D5.1 - XpanDH Ecosystem Report* and *D7.3 – (Final) Concertation Activities Report*.

4.1 X-Nets

X Nets are networks of stakeholders within the European digital health space, united by common interests to encourage collaboration and promote the EEHRxF. There are ten established X-Nets, each representing different sectors like patient associations, healthcare providers, research organizations, and regulatory bodies.

List of X-Nets:

- Patient Association
- SDO's & Industry Board
- Hospitals-on-FHIR
- Biomedical Research
- Professionals Associations
- Citizens and Society
- Health Management & Regulators
- Innovation Hubs
- ERN and PerMed
- Health Regional Authorities

Goals of X-Nets:

X-Nets aim to promote the cross-border and cross-institutional implementation of the EEHRxF across diverse healthcare domains. This is realized through the establishment of a collaborative environment, where stakeholders from various sectors collaborate to integrate EEHRxF into clinical workflows, enhance patient access, streamline data reporting, and foster research collaborations.

Benefits of X-Nets:

- Knowledge Exchange: participating in X-Net facilitates the exchange of insights and experiences between the members to deepen the comprehension of EEHRxF.

- Problem-Solving: X-Nets provide a platform to find solutions to challenges faced in EEHRxF implementation.
- Collaborative Expansion: EEHRxF applications are expanded to new domains through collective efforts.
- Improved Collaboration: An improved understanding of each other's needs enhances collaboration within the digital health ecosystem.
- Visibility and Reputation: Members showcase good practices, elevating the profile and reputation of their organizations in the field of digital health.
- Opportunity Creation: X-Nets creates avenues for additional collaboration, including partnerships and project proposals. This fosters continuous innovation and growth in digital healthcare.

4.1.1 X-Net engagement guide

The X-Net stakeholder engagement guide aspired to standardize and enhance effective engagement, developed by partners empirica and ISCTE, to be issued by the end of July 2023. While it was not initially part of the deliverable as the coordinator and WP5 decided to voluntarily create it to streamline stakeholder engagement, it brought consortium partners with project objectives together by providing new objectives:

- Attract new X-Net members.
- Centralize engagement methods and goals.
- Highlight the value for stakeholders in engaging with X-Nets.

To this target, the guide set the methods for X-Net engagement in two ways:

1- X-Net Community Structures:
- insinuate concrete benefits of XpanDH/EEHRxF for stakeholder engagement.
- Define the types of institutions in each stakeholder group.
- Assess the influence and impact of each stakeholder group.
- Break down each group into sub-groups.
- Explain how X-Net engages with its member networks.
- Identify barriers to engagement for each group.
- Describe specific engagement methods, their rationale, and implementation.
- Explore how stakeholder groups relate to others in different X-Nets.
- List current and envisioned members for each group.

2- Project structures:
the XpanDH project involved various aspects of the EEHRxF, including technicalities (X-Bundles), organizational aspects (Readiness Model), and implementation aspects (X-Bubbles). Connecting stakeholder engagement to specific project components ensures extensive coverage. The guide would:

- lay out the work plan connections by describing relevant WPs and tasks for each stakeholder.
- Explain links to adoption domains by defining the X-Net's position between different adoption domains. This is crucial for the stakeholder-to-stakeholder exchange of health data from EEHRxF priority categories.

4.1.2 X-Net Meetings

This chapter outlines the internal and external meetings held to launch the X-Nets.

Internal X-Net cluster kick-off meetings

To properly guide the X-Net moderators in their stakeholder involvement, empirica and ISCTE conducted internal kick-off meetings, divided in three different clusters. Carola Schulz and Anderson Carmo informed leaders on the purpose of the nets, invited them to contribute to the X-Net Engagement Guide and answered their questions. Participants helped refine the X-Net concept and further steps through thoughtful questions.

X-Net cluster 1 meeting: citizens and society, patients, and Healthcare professionals

- Date: 19 October 2023
- Attendees: Carola Schulz (empirica)- Anderson Carmo (ISCTE) - George Klolostoumpis (ECPC) - Birgit Bauer (EDHA)

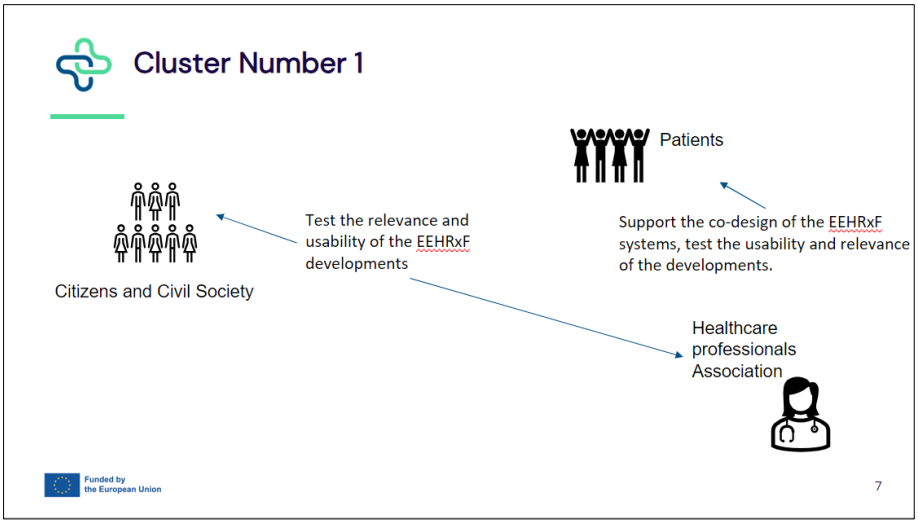

Figure 11 Slide from X-Net cluster 1 meeting, outlining envisaged contribution from each X-Net

Meeting participants advocated for a thoughtful timeline to reach out to patients/ citizens, avoiding busy periods. They also suggested to launch activities in more languages, apart from English, and leverage existing structures like European Patients Forum. They also welcomed the explicit division between a citizen and a patient group.

X-Net cluster 2 meeting: Industry, SDO, Innovation Hub, Biomedical research

- Date: 20 October 2023
- Attendees: Carola Schulz (empirica) - Anderson Carmo (ISCTE) - Jürgen Brandstätter (IHE-EUR) - Zoi Kolitsi (I~HD)- Chloe Lefevre (TechForLife)- Sofia Franconi (IHE-EUR)

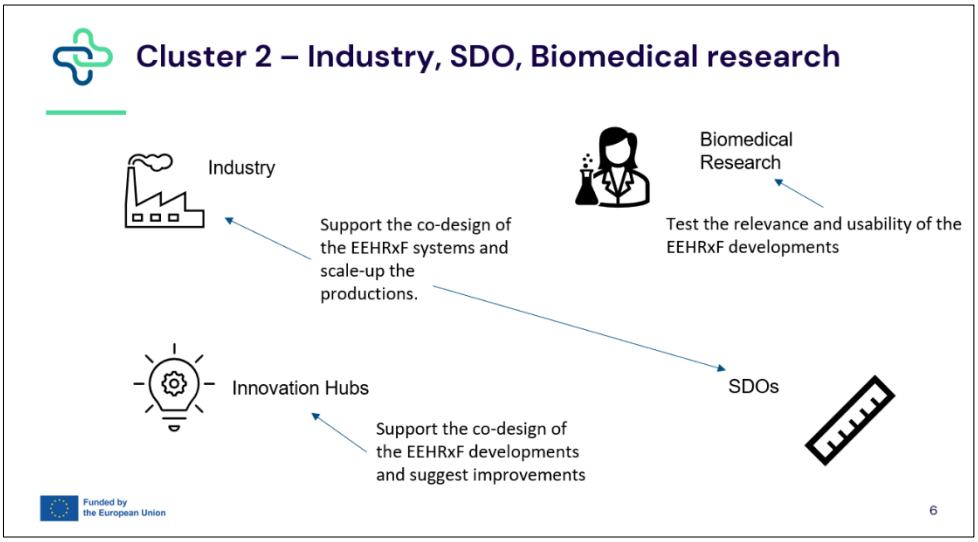

Figure 9 Slide from X-Net cluster 2 meeting, outlining contributions from each X-Net

Participants highlighted the wish to not only use the content generated in X-Nets in *WP5 – Growing Digital Health ecosystems*, but also document the results in *WP6 - Sustainability and Future Action*. They also asked for more specific information on what we wish to obtain from the X-Nets.

X-Net cluster 3 meeting: Health Regional Authorities, ERNs & PerMed, Health Management & Regulators, Hospitals on FHIR

- Date: 20 October 2023
- Attendees: Carola Schulz (empirica) - Anderson Carmo (ISCTE) - Sascha Marschang (Hope) - Giorgio Cangioli (HL7 Europe)- Evelyn Donohoe (EHMA)- Alberto Zanini (ARIA) - Luca Garbarino (ARIA)

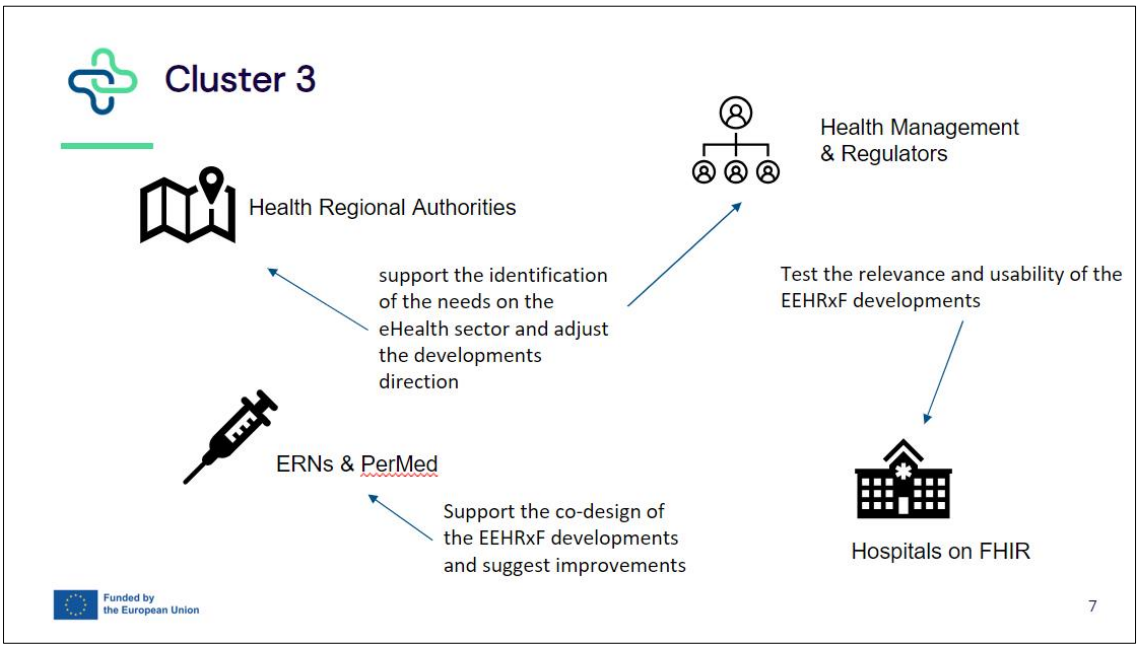

Figure 13 Slide from X-Net cluster 3 meeting, outlining contributions from each X-Net

Participants were concerned about engaging stakeholders in the project and potentially losing them due to unmet expectations. Regular communication and content creation are suggested to keep stakeholders informed and engaged.

X-Net managers ISCTE and empirica used this initial feedback from X-Net leaders to refine the key messages, scope and future planning. They shared a draft email with X-Net leaders, to invite their contacts to be part of the network. It included concrete input on the benefits and the expected level of engagement.

Joint X-Net leader meeting

On January 9 2024, empirica and ISCTE held a joint X-Net leader meeting, to debrief from the EEHRxF Summit[4], check in on X-Net launch progress and plan the Multi-Stakeholder Focus Group[5].

Regarding the progress in the X-Nets, participant noted a delay in launch – partly due to the intense preparations of the EEHRxF Expert Summit. The next chapter gives a detailed report on the X-Net launch meetings. On a general level, X-Net leaders reported a lack of awareness about the EEHRxF – and its mandatory nature in the EHDS regulation. Leaders also fed back that participants seemed to be more interested in receiving updates than in providing input.

[4] See chapter 3.4 for key insights.
[5] See chapter 6 and upcoming D7.3 Final Concertation Activities Report for more details.

ISCTE and empirica also decided to reduce the initial goal of 100 members per X-Net, since it proved to be too ambitious. The new goal is to engage on average 10 members per X-Net.

Individual X-Net kick-off meetings

Four X-Net held an official kick-off in November 2023. Meetings were attended by varying numbers of participants from diverse backgrounds. Some X-Net participants showcased their participation in dedicated posts on their website and social media[6].

Remaining kick-off meetings suffered delays – also due to intense preparations for the EEHRxF Expert Summit.

Citizen and Civil Society kick-off meeting

Date: 24 November 2023

Names of Participants: Monica Sousa (Ad Elo) - Vera Hoermann (AGE Platform) - Peter Palvolgyi and Claudia Matera (All Digital)- Markaya Henderson (European Disability Forum)- Vania Putatti (Euro Health Net)- Miriam Cabrita (Shine2Europe) - Stephan Schug (DGG German eHealth Association) - Carola Schulz (XpanDH - empirica) - Tobias Hüsing (XpanDH - empirica): - Anderson Carmo (XpanDH - ISCTE): - Henrique Martins (XpanDH - ISCTE).

After a short introduction round, a concise explanation of the XpanDH project was presented, including its objective, duration, and advantages, with an emphasis on the significance of EEHRxF to the citizens.

The meeting was extended to clarify the crucial role of the X-Nets, and the accompanying benefits, why should they engage with the X-Net, and the benefits of engaging with the citizen and civil society X-Net, and a discussion about the challenges in engaging citizen organizations.

Participants suggested a number of further candidates for the X-Net and asked about the level of engagement required. They also welcomed the focus on citizen engagement and suggested taking a step further to prioritize inclusivity and equitable access.

Posterior to the meeting, European Disability Forum asked to be dropped from the X-Net, since the EEHRxF's link to the EHDS did not align with the organisation's values. While this is unfortunate, it is an important learning opportunity for XpanDH. X-Net

[6] https://ideahl.eu/all-digital-showcases-ideahl-project-at-xpandh-event-promoting-digital-health-literacy/

https://www.linkedin.com/posts/alberto-zanini-64a33345_eehrxf-interoperability-ehdsi-activity-7139024713737048064-tTLL?utm_source=share&utm_medium=member_desktop

leader empirica studied their position paper on the EHDS, to better understand why they – and other organisations – might be reluctant to engage with the X-Nets.

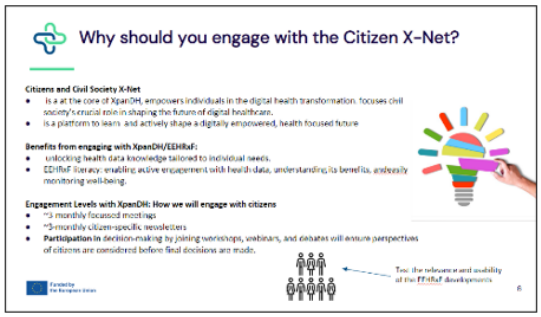

Figure 14 Citizen X-Net Kick-off meeting: Slides on engagement rationale

Health Management and Regulators kick-off meeting

- Date: 24 November 2023
- Names of Participants: Catherine Chronaki (HL7 Europe, European Federation for Medical Informatics (EFMI) - Marija Jevtic (University of Novi Sad, Serbia) - Sascha Marschang (HOPE) - Jesper Eriksen (Danish Medicines Agency) - Rui Dang (Westminister University, Uzbekistan) - Tapani Piha (FIPRA, Finland) - Anderson Carmo (XpanDH) - Teresa Magalhaes (Centro Hospital Lisboa Norte, Portugal) - Maria Hassel (Swedish eHealth Agency) - Faith Nganyi (EHMA) - Asimina Boumpaki (Ministry of Health, Greece) - Natalis Kuchenbeker (Polska Federacja Szpitali) - Evelyn Donohoe (EHMA)

After a short introduction round, a brief explanation of the XpanDH project was presented, including its objective, duration, and advantages. Furthermore, a consultation session was conducted to negotiate who should be invited to join the X-Net. The key challenge encountered in mapping stakeholders for the X-Net was the variation in agencies managing electronic health data regulation across MS. Suggestions from attendees included inviting additional entities, professionals, and organizations to the Health Managers and Regulators X-Net.

On the awareness level, most participants found the mandatory nature of using the EEHRxF to be new, emphasizing a lack of knowledge among health professionals, including managers, about upcoming EHDS obligations. Many countries lack a centralized eHealth Agency to guide meeting requirements for the forthcoming EHDS Regulation. The attendees emphasised fragmentation in this regard, with some healthcare systems already having well-established health data spaces containing various data types in specific formats. Member States are reluctant to sacrifice functionalities or lower standards due to substantial prior investments. Conversely, other countries are at the initial stages of digital health development, with limited progress to date.

Concerns have been raised about the flexibility of the EEHRxF to accommodate a variety of similar standards while still being regarded as a unified standard. This prompts questions about the technical work and investment needed to transition between standards. On the end, several tools have been proposed to raise awareness within the X-Nets like briefing papers and webinars to share success stories.

Health National and Regional authorities kick-off meeting 5 December 2023

- Date: 5 December 2023
- Names of Participants: Chiara Bellanca (Intellera Consulting) – Alberto Zainini (eHealth) – Marcello Melgara (LISPA) – Luca Garbarino (Intellera Consulting) – Nicole Genoveses (Intellera Consulting) – Giuseppe Cavallo (Promis) – Michel Silvestri (Swedish eHealth Agency) – Linn Brandt (the Norwegian e-health Directorate) – Eamonn Coyne (Department of Health Ireland) – Caitriona Wray (Department of Health Ireland) – Isabelle Zablit (French Ministry of Health & Prevention, Europe & International Director for Digital Health) – Debora Angeletti (Agenas)– Anderson Carmo (ISCTE) – Carola Schulz (empirica) – Sara Canella (Promis)

The main objective was to discover strategies for Expediting the Implementation of the EEHRxF. The editorial webinar on the anticipated collaboration between the XpanDH Project and National and Regional Health Authorities tasked with healthcare provision and planning was held last Tuesday. An insightful Q&A session highlighted the significant emphasis required on interoperability. The engagement of stakeholders at the national level throughout the EU, collaborative design, and knowledge sharing among peers serve as the foundation of this initiative.

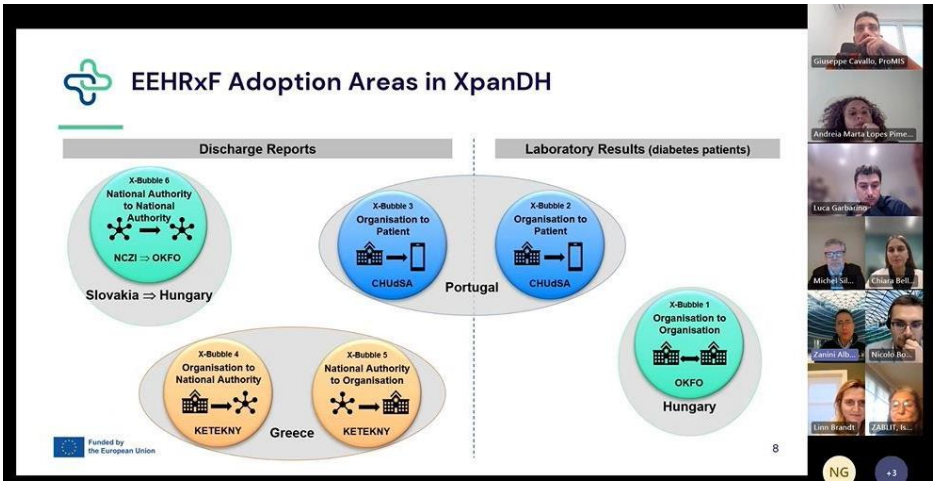

Figure 105 Health National and Regional authorities online kick-off meeting.

Industry and SDO X-Net kick-off meeting

- Date: 14 November 2023
- Names of Participants: Stéphane Spahni (CHU Geneva/IHE Europe) - Leonidas TZIMIS (EAHP)

Due to the low attendance, another meeting was held.

- Date: 23 November 2023
- Name of Participants: Stéphane Spahni (CHU Geneva/IHE Europe) - Leonidas TZIMIS (EAHP) - Charles Parisot (InteropHealth) - Andreas Klingler (Siemens Healthineers)

The meeting commenced with an explanation on what the X-Nets are, the meaning of the EEHRxF for industry and where industry could get engaged, then a thorough discussion on the type of engagement they can conduct was done. The primary takeaway from the meetings was the participants' strong desire to connect with other X-Nets and gain a comprehensive understanding of the diverse ecosystems under development. They expressed significant challenges in determining how the industry can begin participation, seeking tangible specifications and a clear timeline for involvement.

Remaining X-Nets

The remaining X-Nets have not kicked off as of February 2024. As mentioned, this was partially due to the work involved in the EEHRxF Expert Summit.

While Hospitals-on-FHIR has not explicitly kicked off an X-Net, HL7 has held various meetings and interest in sharing data for secondary use. They noted a practical need for adopting FHIR and EEHRxF, with considerations on how EHDS regulation might impact usage.

Kick-offs and other forms of engagement are planned for 2024. Creative ways are being explored to ensure exchange within and beyond specific stakeholder groups, that ensure relevant actors are involved and take into account each stakeholder group's particularities.

Plans for 2024 in this regard include:

- Launch of country-specific patient X-Net nuclei in Germany and Portugal.
- Stakeholder involvement in the multi-stakeholder focus group.

Key takeaways:

- To enhance X-Net engagement, XpanDH needs to clearly communicate what is in for participants.
- Awareness level of EEHRxF among stakeholders is low.
- It is occasionally challenging to assign organisations and individuals to the correct X-Net.
- Not all digital health stakeholder representatives want to (dedicate time and effort to) engage with the EEHRxF.
- The initial goal of X-Nets scope was too ambitious.

4.2 Community of Doers

Another concertation effort was started in project year 1 with the CoD.

It aims unite implementers and end-users of both new and existing solutions. This includes IT developers and vendors/suppliers, as well as patients and healthcare professionals, forming the 3C-3P community (Co-creation Community of Patients, Professionals, and Programmers). This community is working to adopt an open-source and collaborative approach, encouraging end-users to actively participate and support IT developers. Leveraging assets from WP2, such as implementation guides, and from WP3, like stepping stone guides, it will establish a transparent and open governance model focused on co-creating IT assets for the X-Bundle infrastructure.

Events have focussed on engaging communities on national level, designing a governance structure and online space. In September 2023, a workshop was organized in Rennes, focusing on engaging French stakeholders and exploring medical imaging advancements as a potential application for CoD collaboration. The CoD concept was presented at the EEHRxF Summit in December 2023. Further workshops were conducted in January 2024 during the Athens Digital Health Week, involving professionals, programmers, and patients. (see chapter 3.2, 3.4, 3.5). These sessions discussed two potential use cases for the CoD.

Collaborative efforts with ISCTE, EMP, and ECHA were initiated to launch the CoD on the XpanDH website. Also, another CoD event is planned for the IHE Connectathon in Trieste in June 2024.

Nest planned steps include:

- Planning of a webinar
- Planning of a workshop for IHE Connectathon in Trieste in June 2024
- Launch of a Portuguese community

Key takeaways:
- For the CoD, the initial engagement on Member State level seems to be most promising

5 Preliminary lessons learnt

This chapter provides a brief overview of the lessons learnt in concertation activities in the first project year, with concrete action suggestions for the second year. They do not replicate the key takeaways in each individual chapter but transform them into concrete action recommendations for the XpanDH team.

Lessons learnt are sub-divided into three areas. EEHRxF Promotion relates to awareness raising about the format. EEHRxF Synergies relates to ways other projects'/efforts' input can be integrated in XpanDH. Concertation Strategy relates to the way concertation efforts are organised.

Table 2 Concertation Activity Lessons Learnt

Aspect	Lesson Learnt	Suggested Action Year 2
EEHRxF Promotion		
Across stakeholder groups, low initial awareness of EEHRxF	Project team's explanation of format with language adequate to target group made stakeholders understand fast	Always present EEHRxF in adequate language to target groups
Stakeholders are not aware of embedment of EEHRxF in EHDS Regulation Proposal	Stakeholders who need to comply with EHDS Regulation become more interested when pointing out this link	For stakeholders who need to comply with future EHDS, always point out that EEHRxF is mandatory there
EEHRxF and synergies with other projects/efforts		
Many EU projects work on topics close to EEHRxF	Need to search for more synergy opportunities with the format and leverage existing ones.	Explore more concrete additional adoption domains/ contexts for the format and feed them back into concrete WPs.
Other EU projects' recommendations can enhance EEHRxF.	Not only take not of these recommendations but integrate them into XpanDH.	Find ways to integrate other projects' recommendations in WPs' work – e.g. in readiness model or X-Bubble experimentation.
Concertation Strategy		
Not all stakeholders can be easily engaged in English (e.g. patients and citizens)	Do not dismiss, per se, activities on national level and in other languages	Experiment with events in EU MS and other languages in

Aspect	Lesson Learnt	Suggested Action Year 2
Stakeholders who are critical of EHDS are sceptical about engaging with EEHRxF	Do not assume all stakeholders support EHDS	Also take into consideration the input of EHDS sceptics
Webinars reach more people, but in person events create better interaction	The mixture of online and in person events in year one worked well	Continue to aim at both in person and online events
Launch and scope of X-Nets progressed slower than anticipated	The goal of having 100 members per X-Net was too ambitious	Aim for, on average, 10 members per X-Net
Concertation results have some gaps in engaging representatives from certain MS and stakeholder groups	Disproportionately low involvement from industry, payers, citizens, patients and ERNs, and representatives from BG, LV, LT, MT	Focus explicitly on involving these groups more

6 Outlook and next steps

Throughout the second project year, Task 7.3 will continue to monitor the current developments on the EEHRxF, bring stakeholders together to exchange on the project's work and extract lessons to further expand the uptake of the format.

Work will continue in strong liaison with T5.1 and particularly focus on the following goals:

- Conduct and incorporate insights from future stakeholder exchange encounters:
    - Future X-Net meetings: e.g. Portuguese patient organisations (March 2024) and German Patient organisations, together with Data Saves Lives Germany (Mai 2024).
    - Community of Doers meeting and work results
    - Multi-Stakeholder focus group (first meeting March 2024)
    - X-Bubble exchange space
    - HIMSS24 in Rome – especially interoperability showcase (end May 2024)
    - Community of Doers workshop at IHE Connectathon 2024 in Trieste (beginning June 2024)
    - X-Bundle workshop at Madeira Digital Health Week (end June 2024)
    - Second EEHRxF Expert Summit in Lisbon (mid December 2024)
- Develop a set of recommendations for the future implementation of the EEHRxF, to feed also in the sustainability plan.
    - Considering inputs received from concertation events throughout the project.
    - Suggesting concrete action points for Xt-EHR and xShare

A final summary of these efforts will be presented in the Final Concertation Activities Report

Annexes

Annex 1 Full Project Mapping Table

Table 3 Complete Project mapping

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
AIDAVA	AI powered Data Curation & Publishing Virtual Assistant	Project - Horizon AG	patient summary, laboratory results, imaging and imaging reports	Integrated, high-quality personal health data (PHD) represents a potential wealth of knowledge for healthcare systems, but there is no reliable conduit for this data to become interoperable, AI-ready and reuse-ready at scale across institutions, at national and EU level. AIDAVA will fill this gap by prototyping and testing an AI-powered, virtual assistant maximizing automation of data curation & publishing of unstructured and structured, heterogeneous data. The assistant includes a backend with a library of AI-based data curation tools and a frontend based on human-AI interaction modules that will help users when automation is not possible, while adapting to users preferences. The interdisciplinary team of the consortium will develop and test two versions of this virtual assistant with hospitals and emerging personal data intermediaries, around breast cancer patient registries and longitudinal health records for cardio-vascular patients, in three languages. The team will work around four technology pillars: 1) automation of quality enhancement and FAIRification of collected health data, in compliance with EU data privacy; 2) knowledge graphs with ontology-based standards as universal representation, to increase interoperability and portability; 3) deep learning for information extraction from narrative content; and 4) AI-generated explanations during the process to increase users confidence.	9/1/2022	8/31/2026	https://cordis.europa.eu/project/id/101057062	Maastricht Unversity	1
eCREAM	enabling Clinical Research in Emergency and Acute care Medicine through automated data extraction	Project	exchange of health data	The only way to fill the gap between the need for clinical research and the availability of robust data is to directly extract such data from the EDs electronic health records (EHRs), avoiding dedicated data collection. Achieving this goal would enable distributed clinical research, which is now too much restricted to academic centres, and allow to leverage of clinical information to address a multitude of research questions. In this context, the EU-funded eCREAM project will fill the knowledge gap by reviewing and retrieving data from the electronic health records used by emergency departments. Bringing together eight countries (France, Greece, Italy, Poland, Slovakia, Slovenia, Switzerland and the UK) and 11 partners, eCREAM will also review and exploit other existing data sources to measure the outcome of the patients. The initiative aims to make data easy to find, interoperable and reusable for clinicians, researchers, policymakers and citizens.	9/1/2022	8/31/2027	https://ecreamproject.eu/	Istituto di Ricerche Farmacologiche Mario Negri	1
Gravitate Health	Gravitate–Health: Empowering and Equipping Europeans with health information for Active Personal	Project - RIA	ePrescription	The Gravitate-Health mission is to equip and empower citizens with digital information tools that make them confident, active, and responsive in their patient journey, specifically encouraging safe use of medicines for better health outcomes and quality of life. It is our vision that engagement of citizens in their own health can only be achieved with access to actionable, understandable, relevant, reliable and evidence-based information meets their specific needs, health context, and literacy level. This project's ambition is to provide a key piece to advance this vision: the Gravitate Lens (G-lens), which focuses (but does not conceal or filter) approved electronic product information (ePI) content, and offers a route for patients to access trustworthy, up-to-date information that better meet their individual needs. Gravitate-Health is an integrated digital health information project. The principle objective is to demonstrate how use of an integrated, digital, user-centric health information solution with two-way communication could enable tangible improvements in availability and understanding of health	11/1/2020	10/31/2025	https://cordis.europa.eu/project/id/945334	Universitetet I Oslo	1

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
	Health Management and Adherence to Treatment			information from a set of trusted sources, starting with regulator-approved medicinal product information (e.g. package leaflet content) and EHR-IPS (International Patient Summary). The secondary objectives are to demonstrate that the improved availability and understanding of health information from trusted sources translate to higher levels of adherence to treatment, safer use of medication (Pharmacovigilance), better health outcomes and quality of life, and to develop new and deeper insights into how use of available health information can be optimized to act as effective risk minimization measures. The project allows for efficient and timely development of the G-lens, provides testing grounds for new services and an evaluation framework to test the efficiency, efficacy and safety of Gravitate-Health services. Our main outputs will be an open source digital platform supporting G-Lens functionally, demonstrated in a number of testing scenarios, and a White Paper with recommendations on realistic strategies to strengthen access, understanding and future use of digital services like ePIs as a tool for Risk Minimization. The Gravitate-Health is a public – private partnership with 41 members from Europe and the US, co-led by University of Oslo (coordinator) and Pfizer (industry lead), funded by the Innovative Medicines Initiative (IMI) – a joint undertaking of the European Commission, the European Federation of Pharmaceutical Industries and Associations (EFPIA), IMI Associated Partners.					
UNICOM	Up-scaling the global univocal identification of medicines	Project - IA	ePrescription	This innovation action will give a powerful impulse to implementation of ISO IDMP (ID of Medicinal Products) standards in EU Member States drug databases, supporting safe cross-border ePrescription/eDispensation and effective pharmacovigilance. Once EU-interoperable data on medicines taken by patients become available, further benefits will accrue through better health data for improved clinical decision support, patient empowerment, public health and clinical research. New opportunities will arise for pharma industry, software developers, SMEs providing smart apps and others, thereby fostering their innovation capacity and competitiveness. The many challenges still to be faced on this road will be tackled by a powerful consortium assembling all relevant actors, with critical mass for impact throughout the EU. After 10 years of development, the IDMP suite of standards is ready for implementation. Though some isolated implementation work has started, the time is now ripe for a more concerted effort towards large-scale implementation, contributing to this global interoperability endeavour and delivering benefits to EU citizens. Project ambition centres on conversion of key regulatory and clinical processes to use IDMP. These information value chains must be converted over their full length from data input to data repositories to data usage. Project work spans all three areas, focussing on the most challenging, the implementation of EU and national SPOR (substances, products, organisations, referentials) data bases, including establishing an EU Substance Reference System (EU-SRS). Such information is fundamental to cross-border ePrescription where safe dispensation may require reliable identification of substances in available products. 19 countries are represented, including 26 national Drug and eHealth Agencies. Stakeholders are involved through their associations. Duration is 4 years, budget € 21 m, with requested funding € 19 m.	12/1/2019	5/31/2024	https://cordis.europa.eu/project/id/875299	Empirica Gesellschaft Fur Kommunikations Und Technologieforschung Mbh	1
EHDS2	European Health Data Space (EHDS) 2 Pilot		exchange of health data	the EHDS2 Pilot consortium brought together 16 partners from all over Europe (national platforms, ERICs, research infrastructures, EU agencies and associations in the area of health) to answer the European Commission's call for projects to set up a test version of the future European Health Data Space (EHDS) for the secondary use of health data.	10/1/2022	10/1/2024		Health Data Hub	1
Label2Enable	Adopting ISO 82304-2 and a trusted EU mHealth label for a single market that enables	Project - CSA	telehealth	There is a growing recognition that health and wellness apps need to play a much stronger role in health care systems, self-care and health prevention than they do today. However, health care systems, health professionals, patients and citizens lack means to adequately assess the quality and reliability of the many apps to choose from, for every purpose, in each app store. Suppliers experience the varying national approval processes as confusing and unclear as to what is expected and the depth of evidence that is required by each approval body. We intend to break through the impasse by leveraging the golden opportunity of the publication in July 2021 of the ISO 82304?2 Technical Specification (TS) and its health app quality label. Work is now needed to turn this globally endorsed quality assessment and health app quality label into the EU assessment and EU mHealth label, embed it within the approval and reimbursement processes of European countries and foster cross-country alignment of these approval processes. The objective of Label2Enable is threefold: achieve trust, use and adoption. We	5/1/2022	4/30/2024	https://cordis.europa.eu/project/id/101057522 Academisch Ziekenhuis Leiden - Leiden University Medical Center		1

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
	patients, citizens, health professionals, systems and authorities to benefit from a healthy supply of useful apps.			will pursue: 1. trust with an EU certification scheme that results in consistent compliant inclusive app assessments 2. use with: - a more detailed health app quality report that enables health professionals to recommend apps and insurers to speed up decisions on reimbursements - supporting communication that enables all patients, citizens and carers to use the label in considering health apps - social experimentation to promote app stores, app libraries and other routinely used trusted sources that (seek to) offer health apps to effectively publish the label alongside them 3. adoption of the TS and cross-country recognition with pilots, use stories, advocacy, mass communication and targeted multi-stakeholder engagement, affordable app assessments and a sustainable non-profit entity that will maintain the scheme, accredit app assessors and promote the TS after the project.					
POTENTIAL			ePrescription	The PilOTs for EuropeaN digiTal Identity wALlet (POTENTIAL) consortium for Digital Identity unites 20 countries represented by their national ministries as well as third parties and aims to improve citizens' access to trusted and secure electronic identity means and services such as electronic signatures or attestations of attributes. This shall enable citizens to store their ID in a secure digital wallet valid across borders. The mission is to shape and realize scenarios for testing the European Digital Identity Wallet being launched by the European Commission. POTENTIAL launches six use cases in the fields of banking, mobility, health, and administration to pilot the usage of the European Digital Identity Wallet	6/1/2021	3/31/2025			1
PATHeD									1
XT-HER									1
SHAPES	Smart and Healthy Ageing through People Engaging in Supportive Systems	Project - IA	telehealth	SHAPES aims to create the first European open Ecosystem enabling the large-scale deployment of a broad range of digital solutions for supporting and extending healthy and independent living for older individuals who are facing permanently or temporarily reduced functionality and capabilities. SHAPES builds an interoperable Platform integrating smart digital solutions to collect and analyse older individuals' health, environmental and lifestyle information, identify their needs and provide personalised solutions that uphold the individuals' data protection and trust.Standardisation interoperability and scalability of SHAPES Platform sustain increased efficiency gains in health and care delivery across Europe, bringing improved quality of life to older individuals, their families, caregivers and care service providers. SHAPES Large-scale Piloting campaign engages +2k older individuals in 15 pilot sites in 10 EU Member States, including 6 EIP on AHA Reference Sites, and involves hundreds of key stakeholders to bring forth solutions to improve the health, wellbeing, independence and autonomy of older individuals, while enhancing the long-term sustainability of health and care systems in Europe. SHAPES's multidisciplinary approach to large-scale piloting is reflected across 7 themes that, together, provide a clear understanding of the reality of European health and care systems and enable the validation of cost-efficient, interoperable and reliable innovations capable of effectively supporting healthy and independent living of older individuals within and outside the home. Building an ecosystem attractive to European industry and policy-makers, SHAPES develops value-based business models to open and scale-up the market for AHA-focused digital solutions and provides key recommendations for the far-reaching deployment of innovative digital health and care solutions and services supporting and extending healthy and independent living of older population in Europe.	11/1/2019	10/31/2023	https://cordis.europa.eu/project/id/857159	National University of Ireland Maynooth	2
REBECCA	REsearch on BrEast Cancer induced chronic conditions supported by Causal	Project - RIA	exchange of health data	The EU-funded project REBECCA taps into the potential of Real-World Data to support clinical research and to improve existing clinical workflows. REBECCA moves beyond the analysis of Electronic health records (EHR), by combining it with detailed monitoring data from multiple wearable, online behaviour and registry data to monitor patients' functional, emotional and Quality of Life trajectories, with high temporal granularity. REBECCA also proposes explainable causal modelling combined with deep learning to account for observed and latent confounders in RWD analysis. The project will focus on the complex array of chronic comorbidities developed during breast cancer recovery, in particular studying the impact of primary and adjuvant cancer treatment on patients' quality of life and assessing the	7/1/2024	3/31/2025	https://cordis.europa.eu/project/id/965231	Aristotelio Panepistimio Thessalonikis	2

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
	Analysis of multi-source data			value of detailed patient monitoring as a means for improved patient care, but will also demonstrate the extensibility of REBECCA to other forms of cancer. To this end, a total of seven studies in Sweden, Norway and Spain will produce new knowledge on clinical management of cancer patients that will shape future guidelines and practices for post-cancer treatments. Best practices resulting from the REBECCA studies will be disseminated to researchers, public health and regulatory bodies throughout Europe to facilitate wider adoption of RWD in clinical research. In addition, the REBECCA platform, capable of detailed monitoring and privacy-preserving federated cross-country data analysis, will provide an infrastructure for continued progress on use of RWD beyond the end of the project. Through these activities, REBECCA aims at the mass adoption of RWD for understanding CCCs and ultimately at establishing RWD as a valuable clinical research and patient management tool.					
HumanITcare	Revolutionizing remote care of chronic disease patients – an interoperable and smart monitoring platform	Project	telehealth	Despite the recent advancements, remote patient monitoring (RPM) systems have not achieved their potential due their inability to integrate accurate data from any given medical device to the Electronic Health Records (EHRs). To cater to the urgent need of innovative monitoring systems, the HumanITcare platform is delivered; an AI-powered platform which can collect data from any given device, adapt itself for the needs of the patients and enables integration into the EHRs. HumanITcare reduces 40% of total visits and generates smart alarms and reports to inform patients and caregivers, hence contributing significantly to clinical and self-care. With its innovative software architecture, it enables security, interoperability, sustainability and scalability.	7/1/2022	7/31/2024	https://cordis.europa.eu/project/id/190127290	Followhealth Sl	2
Capacity HD	CapacityHD	Study			11/1/2022	10/31/2024	Anja	Empirica Gesellschaft Fur Kommunikations Und Technologieforschung Mbh	2
EDAH	Interconnecting innovation ecosystems for common European data space in Health	Project - CSA	exchange of health data	The aim of the project is to foster the dialogue and development towards more inclusive, dynamic, (gender) diverse and interconnected innovation ecosystems in Europe to reach the European common data space in health. The joint action plan to be developed in the context of the project is oriented at overcoming the current deployment gap of digital health in Europe and to unlock the power of health data for innovative medicine and healthcare of the future, enabling new scientific discoveries, innovative commercial health products and services, all in all resulting in more efficient prevention and treatment of illnesses and ensuring a better quality of life in Europe and globally. The consortium includes four clusters/networks, all representing broad innovation ecosystems, that have for many years been working to advance the secondary use of health data and creation of the common European Health Data Space. This includes Biocat, BioRegion of Catalonia (Biocat; coordinating country: Spain), Council of European BioRegions (CEBR; based in Belgium), Health Cluster Portugal (HCP, Portugal) and ScanBalt network (SB; Estonia). The consortium takes leadership in coordinating the project activities but a wide range of clusters, bioregions and wider ecosystem stakeholders will be engaged in the project based on the joint effort of the core partners.	9/1/2022	8/31/2024	https://cordis.europa.eu/project/id/101070811	Biocat La Fundacio Bioregio De Catalunya	3
IDEA4RC	Intelligent Ecosystem to improve the governance, the sharing and the re-use of health Data for	Project	exchange of health data	"The main objective of this project is to establish a Data Space for rare cancers (RC) that will make possible the re-use of existing multisource health data (cancer registry data, national registries, data from biobanks etc.) across European healthcare systems leveraging emerging interoperability technologies and AI approaches. The realized ""Rare Cancer Data Ecosystem"" is expected to improve the quality and the organization of RC patients care, and to increase knowledge on rare cancers advancing health research, so that all patients have equal access to high quality specialist care. The project approach will be experienced in the framework of the European reference network for rare adult solid cancers (EURACAN)."	9/1/2022	8/31/2026	https://cordis.europa.eu/project/id/101057048	Fondazione Irccs Istituto Nazionale Dei Tumori	3

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
	Rare Cancers								
EU CanImagine	A European Cancer Image Platform Linked to Biological and Health Data for Next-Generation Artificial Intelligence and Precision Medicine in Oncology	Project - RIA	Imaging	The goal of EuCanImage is to build a highly secure, federated and large-scale European cancer imaging platform, with capabilities that will greatly enhance the potential of artificial intelligence (AI) in oncology. Firstly, the EuCanImage platform will be populated with a completely new data resource totaling over 25,000 single subjects, which will allow to investigate unmet clinical needs like never before, such as for the detection of small liver lesions and metastases of colorectal cancer, or for estimating molecular subtypes of breast tumours and pathological complete response. Secondly, the cancer imaging platform, built by leveraging the well-established Euro-Bioimaging infrastructure, will be cross-linked to biological and health repositories through the European Genome-phenome Archive, allowing to develop multi-scale AI solutions that integrate organ-level, molecular and other clinical predictors into dense patient-specific cancer fingerprints. To deliver this platform, the consortium will build upon several key European initiatives in data sharing for personalised medicine research, including EUCANCAn (cancer genomics and health data sharing), euCanSHare (cardiac imaging and omics data sharing) and EUCAN-Connect (federated data analytics). Furthermore, to foster international cooperation and leverage existing success stories, the consortium comprises the coordinators of The Cancer Imaging Archive (TCIA), the US cancer imaging repository funded by the National Cancer Institute. This will allow EuCanImage to leverage a unique 10-year long experience in cancer imaging storage, anonymisation, curation and management. Finally, a close collaboration between world renown clinical, radiomics, AI and legal experts within the consortium and beyond will establish well-needed guidelines for AI development and validation named FUTURE, for delivering Fair, Universal, Traceable, Usable, Robust and Explainable decision support systems for future cancer care.	10/1/2020	9/30/2024	https://cordis.europa.eu/project/id/952103	Universitat De Barcelona	3
DHU	Uptake of digital solutions in Health and Care	Project - CSA	telehealth	The overall aim of Digital Health Uptake (DHU) is to facilitate the alignment of policies, strategies, instruments and activities to advance the uptake of digital health solutions and services in Europe. Three objectives underpin this: 1) To monitor and analyse the uptake and use of digital health and care solutions in regions, Member States and associated countries. 2) To create an environment of cooperation and active stakeholder contribution which facilitates regular exchanges between the demand and supply sides to foster cross-border scaling up of digital health solutions and services. and 3) To strengthen capacity building for implementation/ uptake by identifying and qualifying relevant tools and methods, that provide guidance, stimulating mutual learning and transferring of innovative practices between regions, Member States and associated countries to foster adoption, upscaling, large-scale deployment and capacity building.	11/1/2022	10/31/2024	https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/org-details/999999999/project/101083929/program/43152860/details	Empirica Gesellschaft Fur Kommunikations Und Technologieforschung Mbh	3
EOSC4CANCER	A European-wide foundation to accelerate Data-driven Cancer Research	Project	patient summary, laboratory results, imaging and imaging reports	Cancer complex nature requires integration of advanced research data across national boundaries to enable progress. Indeed, the Horizon Europe mission board for cancer has identified access to data, knowledge and digital services - accessible across the European Research Area through federated infrastructures - as a key enabling condition for success. The better we organise cancer data across Europe, the better and faster we can bring the fruits of new biological and technical innovations to the benefit of EU citizens/patients. EOSC4Cancer will make cancer genomics, imaging, medical, clinical, environmental and socio-economics data accessible, using and enhancing existing federated and interoperable systems for securely identifying, sharing, processing and reusing FAIR cancer data across borders, and it will offer them via community-driven analysis environments. EOSC4Cancer provision of well curated datasets will be essential for advanced analytics and computational methods to be reproducible and robust, including machine learning and artificial intelligence approaches. EOSC4Cancer use-cases will cover the patient journey from cancer prevention to diagnosis to treatment, laying the foundation of data trajectories and workflows for future cancer mission projects. EOSC4Cancer brings together a comprehensive consortium of cancer research centres, research infrastructures, leading research groups, hospitals and supercomputing centres from 14 European countries. To make the developments sustainable, these will be offered as part of the research infrastructures partners services portfolio, in connection with the EOSC ecosystem and to serve the European Cancer Mission, which will be possible via the engagement with large international	9/1/2022	2/28/2025	https://cordis.europa.eu/project/id/101058427	Barcelona Supercomputing Center Centro Nacional De Supercomputacion	3

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
				coalitions, e.g. ICGC-Argo, GA4GH, 1+MG/B1MG, Cancer Core Europe, European Cancer Information System, European Network of Cancer Registries, Innovative Partnership for Action Against Cancer Joint Action and patients/survivors associations.					
XpanDH	Expanding Digital Health through a pan-European EHRxF-based Ecosystem	Project		XpanDH is a CSA aimed at mobilizing and building capacity in individuals and organisations to create, adapt and explore purposeful use of interoperable digital health solutions based on a shared adoption of the European Electronic Health Records Exchange format (EEHRxF) across Europe. This pan-European effort will use a "network-of-networks" approach ensuring that digital health actors are motivated and supported by tailored guidance and real examples to help early adopters to advance to the concrete use of EEHRxF-embedded digital health solutions to add value to health and care and promote Personal and European Health Data Spaces. XpanDH pursues the main goal of maturing and accelerating a sustainable and scalable interoperability environment for digital health innovations based on the EEHRxF, around 5 Goals: 1) To develop robust technical specifications and resources for the EEHRxF building; 2) To establish the X-Bundle Readiness model; 3) To verify the usefulness of the X-Bundle in real-world with a set of early adopters grouped under selected adoption domains; 4) To mature a pan-European digital health ecosystem of solution providers and end-users, 5) To develop a framework for sustainable ecosystem. The consortium will thrive on past and ongoing eHealth interoperability projects and services, and particularly on the X-eHealth and DigitalHealthEurope projects recommendations, through digital health data activism and strong patient engagement.	1/1/2023	12/31/2024	https://cordis.europa.eu/project/id/101095594	Associacao Iscte Conhecimento E Inovacao - Centro De Valorizacao E Transferencia De Tecnologias	n/a
DataTools 4Heart	A European Health Data Toolbox for Enhancing Cardiology Data Interoperability, Reusability and Privacy	Project	all	Cardiovascular disease (CVD) remains the main cause of mortality worldwide, accounting for about a third of annual deaths. Re-use of both structured and unstructured data has the potential for major health benefits for the population suffering from CVD. Healthcare data re-use in Europe faces privacy and fragmentation issues, a high diversity in data formats and languages, and a lack of technical and clinical interoperability. DataTools4Heart (DT4H) will tackle such challenges and develop a comprehensive, federated, privacy-preserving cardiology data toolbox. This will include, in an integrated platform, standardised data ingestion and harmonisation tools providing a common data model, multilingual natural language processing, federated machine learning, differentially private data synthesis generation, and 7 language models adapted to the cardiology domain. DT4H virtual assistants will help scientists and clinicians navigate through large-scale multi-source cardiology data. These tools will be: i) implemented ensuring privacy-by-design and thorough compliance with European regulations and data standards; ii) optimised as based on multi-stakeholder user-centred requirements; and, iii) validated in 7 clinical sites across Europe. DT4H will unlock currently inaccessible health data in unstructured data and allow multi-site federated data use. Together with its toolbox, DT4H will leave the legacy of a federated learning platform with an embedded metadata catalogue and AI virtual assistants, and the CardioSynth open database of synthetic data remaining as available for further research and AI experimentation. Effective use of the federated learning platform will improve enable improved AI diagnostic and treatment tools. Deployment of regulated solutions will extend existing healthcare management paradigms to reduce disease burden. Finally, DT4H tools, systems and methodology are highly generalised and will translate well to other clinical and research areas in medicine.	10/1/2022	9/30/2026	https://cordis.europa.eu/project/id/101057849	Universitat De Barcelona	
Hosmart AI	Hospital Smart development based on AI	Project - IA	telehealth	"HosmartAI will create a common open Integration Platform with the necessary tools to facilitate and measure the benefits of integrating digital technologies (robotics and AI) in the healthcare system. A central hub will offer multi-faceted 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 Benchmarking tool will promote the adoption in new settings, while enabling a meeting place for technology providers and end-users. Eight Large-Scale Pilots will implement and evaluate improvements in medical diagnosis, surgical interventions, prevention and treatment of diseases, and support for rehabilitation and long-term care in several Hospital and care settings. The project will target different medical aspects or manifestations such as 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). To ensure a user-centred approach, harmonization in the process (e.g. regarding ethical aspects,	2/1/2021	5/31/2024	https://cordis.europa.eu/project/id/101016834	Netcompany - Intrasoft	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
				standardization, and robustness both from a technical and social and healthcare perspective), the living lab methodology will be employed. HosmartAI will identify the appropriate instruments (KPI) that measure efficiency without undermining access or quality of care. Liaison and co-operation activities with relevant stakeholders and open calls will enable ecosystem building and industrial clustering. HosmartAI brings together a consortium of leading organizations (3 large enterprises, 8 SMEs, 5 hospitals, 4 universities, 2 research centres and 2 associations) along with several more committed organizations (Letters of Support provided)."					
INCISIVE	A multimodal AI-based toolbox and an interoperable health imaging repository for the empowerment of imaging analysis related to the diagnosis, prediction and follow-up of cancer	Project	Imaging	The INCISIVE project aims to address three major open challenges in order to explore the full potential of AI solutions in cancer imaging: (1) AI challenges unique to medical imaging, (2) Image labelling and annotation and (3) Data availability and sharing. In order to do that INCISIVE plans to develop and validate: (1) an AI-based toolbox that enhances the accuracy, specificity, sensitivity, interpretability and cost-effectiveness of existing cancer imaging methods, (2) an automated-ML based annotation mechanism to rapidly produce training data for machine learning research and (3) a pan-European repository federated repository of medical images, that will enable the secure donation and sharing of data in compliance with ethical, legal and privacy demands, increasing accessibility to datasets and enabling experimentation of AI-based solutions. The INCISIVE models and analytics will utilize various cancer imaging scans, biological data and EHRs, and will be trained with 1 PB of available data provided by 8 partners within the project. INCISIVE solution will be investigated in four validation studies for Breast, Prostate, Colorectal and Lung Cancer, taking place in 8 pilot sites, from 5 countries (Cyprus, Greece, Italy, Serbia and Spain), with participation of at least 2,600 patients and a total duration of 1.5 year. INCISIVE moves beyond the state of the art, by improving sensitivity and specificity of lower cost scanning methods, accurately predicting the tumor spread, evolution and relapse, enhancing interpretability of results and "democratizing" imaging data.	10/1/2020	3/31/2024	https://cordis.europa.eu/project/id/952179	Maggioli Spa	
Instand-NGS4P	Integrated and standardized NGS workflows for Personalised therapy	PCP		Instand-NGS4P is a 65-month PCP project federating 7 leading medical centers (two are coordinating ERNs) as buyers' group with major experience in using different NGS platforms in research and routine diagnostics. Driven by patient and clinical needs, innovative NGS workflows from sample-pre-analytics to medical decision making will be developed. The modular design of the workflow will particularly enable SEMs to contribute, and provides flexibility to adopt emerging user needs and technologies. Specifications will address regulatory requirements for IVDs and refer to international standards and requests development of reference materials and implementation of EQA schemes covering the whole workflow. R&D suppliers will be selected based on a public tender all along this PCP process in 3 phases according to the best-value for money solution. At the end, this PCP will provide 2 fully integrated, standardized NGS workflows for routine diagnostics of common and rare cancers from adults to children. In order to enable broad implementation in healthcare systems throughout Europe and beyond and to increase benefit to patients a series of support activities are planned including communication and dissemination activities targeting a broad stakeholder community, development of training and education material for healthcare professionals and patients, health economic assessment and engagement with healthcare payers and policy makers.	1/1/2020	5/31/2025	https://cordis.europa.eu/project/id/874719	Medizinische Universitat Graz	
RES-Q PLUS	Comprehensive solutions of healthcare improvement based on the global Registry of Stroke	Project	hospital discharge report	RES-Q+ will build on the success of RES-Q (REgistry of Stroke Care Quality) - currently, used by many EU countries and 74 worldwide - to improve stroke care quality by collecting and analyzing hospital discharge reports. RES-Q+ will revolutionize these improvements by capturing the whole patient pathway. The solution will combine NLP with a clinically-validated semantic model to automate ingestion of hospital discharge reports in different languages and assist with audit and feedback. This will include creating a standard model for such reports and using AI to impute missing data. Further augmentations include the creation of two novel AI voice assistants, one to help patients provide feedback on their health and the other to help physicians provide high quality care. We will integrate all these tools into RES-Q+. This will be the basis for a European Open Stroke Data Platform, an open research platform for data aggregation, semantic harmonization and interoperability across European countries to promote the use and re-use of health data. We will facilitate efforts to define a standard European Stroke Hospital Discharge Report Exchange Format as a tool for better	11/1/2022	10/31/2026	https://cordis.europa.eu/project/id/101057603	Ustav Zdravotnickych Informaci a Statistiky Ceske Republiky	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
	Care Quality			secondary use of data and healthcare in general. Consortium legal partners will develop a comprehensive legal and ethical toolbox as guidance towards legal compliance. This will boost wider adoption of such novel AI-based solutions by integrating all current and proposed Union legislation. Our clinical partners will provide medical records and steer the development to maximize clinical utility and validate final solutions. RES-Q+ will be deployed globally to solidify our position as European and global leader in quality improvement. Eventually we will guarantee citizens a similar level of quality control during hospitalizations as when flying in a commercial plane.					
ESTEEM3	Enabling Science and Technology through European Electron Microscopy	Project	laboratory results	ESTEEM3 is an integrating activity for electron microscopy providing access to the leading European state-of-the-art electron microscopy research infrastructures, facilitating and extending transnational access services of the most powerful atomic scale characterization techniques in advanced electron microscopy research to a wide range of academic and industrial research communities for the analysis and engineering of novel materials in physical, chemical and biological sciences. ESTEEM3 objective is to deliver more access to more users coming from a wider range of disciplines. Transnational Access to ESTEEM3 centres is obtained through a transparent, simple peer review process based on merit and scientific priorities. Optimum service to users is supported by networking and joint research activities, which address key issues such as specimen preparation, data interpretation, treatment and automation through theory and simulation, and standardization of protocols and methodologies. Innovative activities dedicated to the dissemination of expertise, education and training in cutting-edge quantitative transmission electron microscopy techniques, such as schools, advanced workshops and webinars, are offered to the European electron microscopy users from academia, research institutes and industry. Directed research programmes involving the academic and industrial partners of the consortium focus on the further methodology development in imaging and diffraction, spectroscopy, in-situ techniques and metrology, and on advancing applied research of materials related to ICT, energy, health, and transport for the benefit of European scientists and industry. Moreover, the definition of strategic roadmaps and open access data policies aims to ensure the long-term sustainability of the consortium. In all, ESTEEM3 establishes a strategic leadership in electron microscopy to guide future developments and promote electron microscopy to the widest research community at large.	1/1/2019	6/30/2023	https://cordis.europa.eu/project/id/823717	Max-planck-gesellschaft Zur Forderung Der Wissenschaften Ev	
ConcePTION	Building an ecosystem for better monitoring and communicating of medication safety in pregnancy and breastfeeding: validated and regulatory endorsed workflows for fast, optimised evidence generation	Project	(ePrescription), laboratory results	The EU-funded ConcePTION programme aims to create a paradigm shift in studies of medication safety in pregnancy. The consortium involves experienced leaders to manage networks of public and private partnerships, connections to similar initiatives in other parts of the world, and re-evaluation of data from previous European commission projects. The project's objectives include establishing a sustainable EU-based non-proprietary ecosystem of public and private stakeholders, pregnant women, and researchers to generate and disseminate evidence on medication exposure in pregnancy and breastfeeding. Research will employ models for the prediction of drug transfer in human milk, analyses of biobank data, drug quantitation in human milk, and collection of digital data and samples directly from pregnant women.	4/1/2019	3/31/2024	https://cordis.europa.eu/project/id/821520	Universitair Medisch Centrum Utrecht	
VACCELERATE	European Corona Vaccine Trial	Project	laboratory results	The COVID-19 pandemic has underscored the need for concerted efforts towards vaccine development in Europe. The EU-funded VACCELERATE project creates a platform connecting all European vaccine development stakeholders. VACCELERATE maps clinical trial and laboratory sites across Europe and identifies the best locations for conducting Phase 2 and 3 vaccine trials. A Volunteer Registry provides	1/28/2021	1/27/2024	https://cordis.europa.eu/project/id/101037867	Klinikum Der Universitaet Zu Koeln	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
	Accelerator Platform			access to trial participants. The network coordinates laboratory support and provides standardised assays and trial protocols. VACCELERATE identifies and shares emerging public health questions, provides answers through its own clinical trials, and lends expertise and tangible support to vaccine developers from industry and academia. With these efforts, VACCELERATE partners are creating a network ready to face emerging pandemics and enhance vaccine development capacity in Europe.					
IHMCSA	International Human Microbiome Coordination and Support Action	Project		The International Human Microbiome Concertation and Support Action (IHMCSA) will tackle all necessary steps to open the perspective of managing nutrition and health of the microbial human. Involving key stakeholders representing the multiplicity of actors concerned, including citizens, IHMCSA will map existing material, delineate necessary steps and pathways for innovation and build consensus on priorities and means for the future of microbiome science and its translation. This will lead to recommendations, validated by an international Strategic Steering Committee as well as academies of medicine of the world, directed to the European Commission, international research programmes, funding and regulatory agencies and decision makers of health systems. To ensure sustainability of the proposed measures, IHMCSA will promote unified repositories for sharing standards, SOPs and data, and contribute to the structuration of the European Microbiome Centers Consortium with a role in gathering world microbiome networks of excellence. With IHMCSA, human-associated microbiomes will be recognized for their true value in contributing to secure the future of mankind.	5/1/2021	4/30/2024	https://cordis.europa.eu/project/id/964590	Institut National De Recherche Pour L'agriculture, L'alimentation Et L'environnement	
One Health EJP	Promoting One Health in Europe through joint actions on foodborne zoonoses, antimicrobial resistance and emerging microbiological hazards	Project		The One Health concept recognizes that the human health is tightly connected to the health of animals and the environment, i.e. that animal feed, human food, animal and human health, and environmental contamination are closely linked. Consistent with the "Prevent-Detect-Respond" concept, the One Health EJP aims at reinforcing collaboration between institutes by enhancing transdisciplinary cooperation and integration of activities by means of dedicated Joint Research Projects, Joint Integrative Project and through education and training in the fields of FBZ, AMR and ET. While alignment and harmonization with on-going EC-funded research project will also be considered, deliverables from the EJP activities should feed the approach of evidence based risk assessment and therefore the management of risks by the competent national authorities. Therefore, it is of utmost importance to efficiently and regularly updated the dissemination of knowledge between the research community and major International and European stakeholders, national authorities and further afield. The One Health EJP will also develop sustainable programs and projects beyond the lifetime of the EJP, through the production of a Strategic Research and Innovation Agenda (2021-2030) and a European P2P One Health Cooperative Joint Initiative.	1/1/2018	9/30/2023	https://cordis.europa.eu/project/id/773830	Agence Nationale De La Securite Sanitaire De L Alimentation De L Environnement Et Du Travail	
EPIC-XS	European Proteomics Infrastructure Consortium providing Access	Project		The European Proteomics Infrastructure Consortium providing Access (EPIC-XS) brings together a consortium of world-leading, highly innovative European proteomics facilities with the shared goal of supporting excellent life sciences research in Europe. This will be achieved by providing access to cutting-edge proteomics facilities, and by developing and implementing novel mass spectrometry based proteomics and bioinformatics approaches to shape the future life sciences research in Europe. The Transnational Access in EPIC-XS consists of around 2400 days of access to state-of-the-art proteomics facilities, corresponding to around 150 user projects, which will be evaluated by an independent review panel to ensure excellence, and to match users with the best facility for their challenging research questions. The cutting-edge Joint Research Activities in EPIC-XS are built on the extremely strong innovation track record of the consortium members, and will address bottlenecks in, and develop novel approaches for, future-oriented efforts in computational and structural proteomics, analysis of higher-order proteome organization, multi-omics integration, and translational/clinical proteomics and personalized/precision medicine. EPIC-XS will provide users with unrivalled access to world-leading facilities and expertise, while simultaneously extending Europe's leading international role in the. EPIC-XS meets the widespread current demands for user access, addresses present bottlenecks in the field and will open up entirely new perspectives in proteomics.	1/1/2019	6/30/2023	https://cordis.europa.eu/project/id/823839	Universiteit Utrecht	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
INTERVENE	International consortium for integrative genomics prediction	Project - RIA	exchange of health data, research	The aim of INTERVENE is to develop and test next generation tools for disease prevention, diagnosis, and personalised treatment utilizing the first US-European pool of genomic and health data and integrating longitudinal and disease-relevant -omics data into genetic risk scores. Resulting in unprecedented potential for prediction, diagnosis, and personalised treatments for complex and rare diseases. Some of the largest biobanks in Europe and two in the USA will be securely linked and harmonized in a GDPR-compliant repository with data from more than 1.7 million genomes. INTERVENE will demonstrate the potential and benefits of powerful AI technologies on the next generation of integrative genetic scores (IGS). The clinical and economic benefits of IGS will be evaluated in key disease areas with major public health burden. Here, the newly developed IGS will be taken into clinical environment and their real-world benefits will be evaluated together with clinical experts, European patients advocate groups and medical societies and considering regulatory and ethical implications. Thus, a framework for legally and ethically responsible translation into wider clinical practice will be developed. Moreover, the partners will develop and test the role of IGS in several rare diseases as well as COVID-19 infection and severity. Importantly, to support the application of IGS via public-private partnerships including clinical practitioners, an AI-enabled federated data analysis platform, the 'IGS4EU' platform, will be developed for automated IGS generation and interpretation for end-users. Additionally, the IGS4EU platform will allow access of the INTERVENE data and the methodology know-how to the AI community through a competition-based benchmarking environment. In the long term, the IGS4EU platform aims to grow the disease coverage and enable a wide adoption of IGS as a gold standard in clinical research and practice.	1/1/2021	12/31/2025	https://cordis.europa.eu/project/id/101016775	Helsingin Yliopisto	
Procure4Health	Healthcare Innovation Procurement Network	Project - CSA	telehealth	The objective is to create a network/community/ecosystem of procurers and relevant stakeholders in PPI. The idea is to empower all the actors involved in PPI through this network, focusing on the procurers. We need to attract both experienced procurers and not experienced procurers if we want to succeed in this. We will also need to analyse current barriers and needs of procurers, and then create and shared tools to facilitate PPI for all the actors involved.	6/1/2022	5/31/2025	https://cordis.europa.eu/project/id/101057209	Servicio Andaluz de Salud	
ROSIA project	Remote Rehabilitation Service for Isolated Areas	PCP	telehealth	Some pathologies like stroke, heart attack, COVID-19 or hip-replacement, may have a dramatic impact in the people health and well-being. Rehabilitation has the potential to reduce, and even reverse these impacts. However, it is a long, intensive in clinical resources, and painful process. Rehabilitation is already insufficiently used, and the ageing population is increasing its demand. Remote areas in some European regions face depopulation. It increases the need of age-related care, and that includes rehabilitation, while resources keep limited and inconveniences of traveling makes the treatment painful and even unfeasible. ROSIA proposes to generate a flexible and scalable value-based model of care, organized around self-management, or self-care. of rehabilitation at home, designed from a tailored integrated care model which optimizes the quality of care and the use of clinical resources. Also a strong implication of the community is needed. This model of care is extensive in its use of technology: (i) disruptive solutions at home, (ii) data driven interventions, and (iii) an open platform for third party solutions that integrates timely and effective communication. To make it feasible ROSIA plans to unlock the current market of disruptive solutions for home rehabilitation by the development of the ROSIA Innovation Ecosystem, to enable clinicians prescribing certified solutions, and facilitating to SMEs and researchers the access to health care system. Patient experience and ethics plays a main role in our methodology for development. ROSIA buyers' group represents three different European healthcare systems: SALUD, a regional authority from Spain; Coimbra Univ. Hospital from Portugal and National Rehabilitation Hospital from Ireland. Validation will take place in two shires/localities per country. ROSIA includes specialized partners in: integrated care, data management and open platforms,value-based health, patient experience, PCP, coordination and dissemination.	1/1/2021	5/30/2025	https://cordis.europa.eu/project/id/101017606	Instituto Aragones De Ciencias De La Salud	
EHDEN	European Health Data and Evidence Network	Project	exchange of health data	The European Health Data & Evidence Network (EHDEN), an IMI 2 consortium with 23 partners operating in Europe. The EU generates vast quantities of patient-related information contained in the Electronic Health Record (EHR) systems and other types of health databases in structured and unstructured data. The EU-funded EHDEN project will exploit this rich amount of data to enhance future clinical practice and individual patient results by increasing our understanding of disease and treatment methods. The project will stimulate transparent and reproducible analytics producing valid real-world evidence to improve patient care and medical research. EHDEN will also create a platform	1/1/2018	4/30/2024	https://cordis.europa.eu/project/id/806968/de	Erasmus Universitair Medisch Centrum Rotterdam	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
				to make methods and data sets findable, accessible, interoperable and reusable (FAIR) and engage a vast range of stakeholders such as health technology assessment agencies and patients.					
GenoMed 4ALL	Genomics and Personalized Medicine for all through Artificial Intelligence in Haematological Diseases	Project	patient summary, laboratory results, imaging and imaging reports	GENOMED4ALL will support the pooling of genomic, clinical data and other "-omics" health data (data EHR, PET, MRI and CT , Next Generation Sequencing, Microarray, Genome Wide Association, Copy Number Variations, DNA sequencing, RNA sequencing, including single cell, etc.) through a secure and privacy respectful data sharing platform based on the novel Federated Learning scheme, to advance research in personalised medicine in haematological diseases thanks to advanced novel AI models and standardized sharing of cross-border data. GENOMED4ALL will make use of the existing infrastructures and initiatives, including powerful High Performance Computing facilities, hospital registries, data processing tools, and pre-existing repositories. GENOMED4ALL will demonstrate the potential and benefits of trustable and explainable AI technologies, with a novel approach to AI models and algorithms using AI advanced deep learning, variational autoencoders, generative models, besides combining with advanced statistical and Machine learning processes approaches to exploit the powerful set of "-omics" data which will be at researchers' disposal. This will allow for identifying new knowledge, to support clinical research and decision making by linking Europe's relevant genomic repositories in haematological diseases, while ensuring full compliance with data protection legislation and ethical principles, and increasing the AI trust for personalized medicine.	1/1/2021	12/31/2024	https://cordis.europa.eu/project/id/101017549	Universidad Politécnica De Madrid	
YLSystem	A pioneer clinical trial management system to automatically collect, review and analyse prospective clinical trial data to prompt faster development of novel therapies	Project	patient summary, laboratory results, imaging and imaging reports	YonaLink (YL) is an Israeli company established in 2018 with the mission to disrupt the €46B clinical research market by connecting the world of Prospective Clinical Trial Data. To this end, YL is developing the YL System, a platform to migrate clinical research data saved in the patient health records, from medical centres to research database(s) in an automated, secure, validated, trusted and error-free way. The company has secured over €1.8M in the development of the YL System, reaching TRL 7 with pilot trials implementing it at Soroka MC (Clalit Health Insurance leading hospital) and in Sheba MC. The trials have confirmed the accuracy in migrating patients' de-identified data from the EHR to the trial DB. EIC support will allow YL to finish optimization and validate the YL System in a multicentre–multinational pilot, demonstrating the advantage of automatic data transfer from EHR to the prospective trial database to all the clinical trial stakeholders in the EU.	9/1/2022	8/31/2024	https://cordis.europa.eu/project/id/190171583	Yonalink Ltd	
RESPECT	Secure and Privacy-preserving Indoor Robotics for Healthcare Environments	Project	robotics	RESPECT project objective is to create a sustainable European and inter-sectoral network of organisations working on a joint research programme aiming to design and develop concrete defense strategies to ensure secure, safe, resilient and privacy-preserving operation of indoor mobile robotics solutions for logistic applications in healthcare environments. Specifically the main research objectives of the project are: (i) Explore and identify system-specific cyber-physical weaknesses posing security, privacy, and safety threats, in autonomous mobile robots operating in a healthcare environment; (ii) Analyse surfaced vulnerability issues in conjunction with projected threats and propose defence measures and mitigation strategies towards safeguarding mobile robots operation. (iii) Define and standardize a minimal set of vulnerability testing procedures and guidelines leveraging and extending the Robot Vulnerability Scoring System for safe and autonomous robotic fleet management in a "safety-critical setting". The project will be implemented through staff exchanges among different organizations with complementary expertise in cybersecurity, healthcare, cloud computing and robotics from 5 countries across EU promoting transfer of knowledge between industry and academia.	6/1/2021	4/30/2024	https://cordis.europa.eu/project/id/101007673	Universite D'orleans	
SCREEN4 CARE	Shortening the path to rare disease	Project	patient summary, laboratory results, imaging and imaging reports	The Screen4Care (S4C) consortium will leverage the genomic and digital advent to develop and pilot genetic NBS and AI-guided symptom recognition algorithms, while accounting for all relevant legal, regulatory and ethical considerations. S4C aims to harmonize the results of existing efforts in a horizon scan, by looking at the totality of the available data resources, diagnostic algorithms, and other	10/1/2021	9/30/2026	https://cordis.europa.eu/project/id/101034427	Universita Degli Studi Di Ferrara	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
	diagnosis by using newborn genetic screening and digital technologies			initiatives with similar ultimate goals. The genetic NBS will interrogate 1) currently treatable RDs (TREAT-map gene panel), 2) actionable RDs (ACT-map gene panel) in 18.000 new-borns in 3 EU countries (D, It, and Cz). Further, S4C will offer whole genome sequencing (WGS) to early symptomatic babies, tested negatively during panel-based NBS to identify known NBS-escaped RDs and novel genes/phenotypes. S4C will also provide two digital diagnosis support systems for RD on the basis of features and symptom complexes: 1) federated ML- and literature-evidence-based algorithm for continuous and automated screening of EHR and 2) meta symptom checker with virtual clinics for patients and HCP offering the possibility of increased accuracy of diagnosis and ongoing supports. Our ambitious goal is to evaluate the validity of our multi-pronged approach to shorten the time to diagnosis for all patients affect by RDs, improve value-based healthcare resource utilization, and hopefully reduce the suffering of millions of European citizens.					
MDOT	Medical Device Obligations Taskforce	Project		The new Medical Device Regulation (MDR) bears the potential to hamper Europe's innovation competitiveness since reiterated, widened testing efforts are required. Especially SMEs must plan with early exits in the face of costly clinical studies. A structural remedial action reinstates the balance between economy and safety. The MDOT working group develops a set of coordinated measures: 1) Support with mandatory conformity assessment using a database approach based on device risk class. 2) Data exchange forum: A mutual, cross-enterprise exchange of medical device testing data on a safe and transparent platform, which aims at saving costs and streamlining clinical tests as far as possible. 2) Test foundry: Joint evaluations of commonly used parts and devices. 3) Development of advanced testing methods with a focus on in vitro and in silico data. This is all performed with regulatory support taking test beds and device innovations towards the level of clinical trials (TRL 4 – 7). This platform realizes one-stop-shop processing reducing complexity and individual costs. The operability of MDOT will be demonstrated within medical product segments growing fastest and with urgent medical need. The initial consortium consists of MD industry R&D, translational institutions and networks as well as clinical research centers. It will grant open access to new clients already during the funding period. Goal of the project is to implement the platform as a meta-network to preserve MedTech innovation and economic strength, reduce animal testing, and support MDR's new level of patient safety.	1/1/2019	12/31/2023	https://cordis.europa.eu/project/id/814654	Fraunhofer Gesellschaft Zur Forderung Der Angewandten Forschung Ev	
CHAIMELEON	Accelerating the lab to market transition of AI tools for cancer management	Project - RIA	Imaging	CHAIMELEON aims to set up a structured repository for health imaging data to be openly reused in AI experimentation for cancer management. An EU-wide repository will be built as a distributed infrastructure in full compliance with legal and ethics regulations in the involved countries. It will build on partner´s experience (e.g. PRIMAGE repository for paediatric cancer and the Euro-BioImaging node for Valencia population, by HULAFE; the Radiomics Imaging Archive by Maastricht University; the national repository DRIM AI France, the Oncology imaging biobank by Pisa University). Clinical partners and external collaborators will populate the Repository with multimodality (MR, CT, PET/CT) imaging and related clinical data for historic and newly diagnosed lung, prostate and colorectal cancer patients. A multimodal analytical data engine will facilitate to interpret, extract and exploit the right information stored at the Repository. An ambitious development and implementation of AI-powered pipelines will enable advancement towards automating data deidentification, curation, annotation, integrity securing and images harmonisation, the latest being of the highest importance for enabling reproducibility of Radiomics when using large multiscanner/multicentre image datasets. The usability and performance of the Repository as a tool fostering AI experimentation will be validated, including a validation subphase by other world-class European AI developers, articulated via the organisation of Open Challenges to the AI Community. A set of selected AI tools will undergo early on-silico validation in observational (non-interventional) clinical studies coordinated by leading experts in Gustave Roussy (lung cancer), San Donato (breast), Sapienza (colorectal) and La Fe (prostate) hospitals. Their performance will be assessed, including external independent validation, on hallmark clinical decisions in response to some of the currently most important clinical end points in cancer.	9/1/2020	8/31/2024	https://cordis.europa.eu/project/id/952172	Fundacion Para La Investigacion Del Hospital Universitario La Fe De La Comunidad Valenciana	
ProCAncer-I	An AI Platform integrating imaging data and models,	Project - RIA	Imaging	In Europe, prostate cancer (PCa) is the second most frequent type of cancer in men and the third most lethal. Current clinical practices, often leading to overdiagnosis and overtreatment of indolent tumors, suffer from lack of precision calling for advanced AI models to go beyond SoA by deciphering non-intuitive, high-level medical image patterns and increase performance in discriminating indolent from aggressive disease, early predicting recurrence and detecting metastases or predicting effectiveness of therapies. To date efforts are fragmented, based on single–institution, size-limited and vendor-specific	10/1/2020	9/30/2024	https://cordis.europa.eu/project/id/952159	Idryma Technologias Kai Erevnas	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
	supportin g precision care through prostate cancer's continuu m			datasets while available PCa public datasets (e.g. US TCIA) are only few hundred cases making model generalizability impossible. The ProCAncer-I project brings together 20 partners, including PCa centers of reference, world leaders in AI and innovative SMEs, with recognized expertise in their respective domains, with the objective to design, develop and sustain a cloud based, secure European Image Infrastructure with tools and services for data handling. The platform hosts the largest collection of PCa multi-parametric (mp)MRI, anonymized image data worldwide (>17,000 cases), based on data donorship, in line with EU legislation (GDPR). Robust AI models are developed, based on novel ensemble learning methodologies, leading to vendor-specific and -neutral AI models for addressing 8 PCa clinical scenarios. To accelerate clinical translation of PCa AI models, we focus on improving the trust of the solutions with respect to fairness, safety, explainability and reproducibility. Metrics to monitor model performance and a causal explainability functionality are developed to further increase clinical trust and inform on possible failures and errors. A roadmap for AI models certification is defined, interacting with regulatory authorities, thus contributing to a European regulatory roadmap for validating the effectiveness of AI-based models for clinical decision making.					
EU-HIP	EH			For intelligence gathering and threat assessment, HERA needs support from the Member States and associated countries, and a comprehensive state-of-the-art IT system generating actionable insights for decision-making is crucial. The upcoming HERA IT platform for intelligence gathering will only be operational if Member States have strong national IT systems that are interoperable with HERA's IT system and other relevant systems. EU-HIP supports participating countries to enhance and improve national IT systems in an efficient and coordinated manner, with the objective to obtain the needed interoperability with HERA's IT platform. The aim is : - to entail developing new IT systems - to strengthen and align existing IT systems for the assessment of health threats and for intelligence gathering in the area of medical countermeasures at national level. - to promote data comparability, and streamlining reporting to different systems. EU-HIP facilitates integration of national IT systems with the HERA IT platform currently under development, and complements existing systems for early warning and response, epidemic intelligence, public health surveillance and medical countermeasures.	1/1/2023	6/30/2025			
HERA/AT HINA	(HERA): creation of the Advanced Technolog y for Health INtelligenc e and Action IT System (ATHINA)			HaDEA has launched a call for tenders "Service contract to design, develop, deliver and maintain the European Health Emergency Response Authority (HERA) Advanced Technology for Health INtelligence and Action IT System (ATHINA)EN". The contractor will: 1. Develop and maintain the platform, including a survey module and case management modules in the fields of public health (PH) and medical countermeasures (MCM); 2. Conduct functional analysis of the other ATHINA modules on information systems linking, threat assessment, simulation and analytics, and emergency response; 3. Provide market analytics on medical countermeasures and public health intelligence. Estimated budget: € 23 900 000 The tender is mostly targeted at IT companies, IT solution services, data analytics organisations, universities active in the field of public health, medical countermeasures and crisis preparedness. All interested parties are invited to send their applications by 23 June 2023 16:00 (CEST).	Some time 2023		https://hadea.ec.europa.eu/news/call-tenders-hera-creation-advanced-technology-health-intelligence-and-action-it-system-athina-2023-04-25_en		
DiHECO	Digital Healthcar	Project - CSA		Multi-sided platforms (MSPs) are all around us. They are built on today's technological advances, namely cloud computing and smartphones. As game-changers, MSPs are found in a growing number of	12/1/2020	11/30/2023	https://cordis.europa.eu/project/id/952012	Kauno Technologijos Universitetas	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
	e ECOosystem research and innovation capability building			industries. Among the best known examples of MSPs are services such as Uber, Facebook and Airbnb. The EU-funded DiHECO project will build on the capacities of Lithuania's Kaunas University of Technology (KTU) to carry out high-quality research in the field of digital healthcare management and in particular digital healthcare services' MSPs. Specifically, the project will support KTU in implementing experience-based learning through small-scale research and innovation initiatives in the field of MSPs for digital healthcare services.					
EHRA - PATHS	Addressing multimorbidity in elderly atrial fibrillation patients through interdisciplinary, tailored, patient-centered care pathways	Project - RIA		Optimization of atrial fibrillation (AF) disease management is highly needed. The AF prevalence is 7.8% above the age of 65 years and it will further increase as the population ages and predisposing factors become more prevalent. Multimorbidity (93.5%) and polypharmacy (76.5%) are very common in these patients. The mean number of comorbidities is 5.0 in those ≥65 years old. There is a great need to optimize the management of AF patients - and not only the arrhythmia - to reduce the burden on patients, society, healthcare system and the economy. The aim of the EHRA-PATHS project is to create well founded, innovative systematic care pathways to tackle multimorbidity in elderly AF patients. We hypothesize that such a well-structured, interdisciplinary, and patient-tailored care program is feasible throughout all healthcare systems in Europe, and effective to optimize outcomes. There are 5 objectives: 1. Further characterize multimorbidity, polypharmacy and sex differences in AF patients by means of clinical data registries. 2. Perform a European needs assessment study to map current clinical practice and identify unmet needs concerning multimorbid AF patient management. 3. Devise and implement new software-supported interdisciplinary, patient-centred care pathways to detect, manage, and follow-up on multimorbidity and polypharmacy in elderly AF patients with a focus on each patient's unique profile. 4. A two-part evaluation with an initial base mapping followed by a European cluster randomised controlled trial to evaluate the newly developed holistic care paths with predefined key performance indicators. A cost-utility analysis will be included. 5. Disseminate the insights, care pathways and implementation strategy from this project to patients, physicians, hospitals, other healthcare providers and regulatory authorities. The consortium combines extensive expertise from multiple specialties with the support of ESC and EHRA to impact outcomes of multimorbid AF patients.	4/1/2021	3/31/2026	https://cordis.europa.eu/project/id/945260	Societe Europeenne De Cardiologie	
EU-TRAIN	The EUropean TRAnsplantation and INnovation (EU-TRAIN) consortium for improving diagnosis and risk stratification in kidney transplant patients	Project - RIA		Rejection is the major cause of allograft failure with dramatic consequences in terms of mortality, morbidity and increased cost for the society. The field of transplantation lacks a robust assessment of risk stratification. Thus, it impairs the development of relevant clinical trials to address graft and patient outcomes. We formed the EU-TRAIN project by gathering reference kidney transplant centres in a fully operating European network including 12 partners. Our ambitious but realistic goals are: to provide clinicians with innovative and accessible tools for early prediction of individual risk of allograft rejection and transplant loss; to personalise clinical management and treatment and; to improve allograft outcomes. This project will engineer a risk stratification system applied to kidney transplant patients by analysing the integration of several layers of data (clinical, histological, immunological data as well as gene expression and novel biomarkers) - the TRAnsplant Comprehensive Evaluator of Risk (EU-TRACER). EU-TRACER will be generated and validated in 2 dedicated studies including a randomised control trial. Translation to patients will be achieved by delivering: 1) A multiplex non-invasive biomarker system for the stratification and immune monitoring of low and high risk kidney recipients; 2) A prognostic system for individual risk stratification for allograft rejection and failure that will assist decision making via an interactive web interface. The EU-TRACER, developed with our 3 industrial partners, will define a new standard of care in transplantation. The EU-TRACER will have the potential for a large implementation and diffusion in other centres in Europe and will be suitable for industrial collaboration.	1/1/2018	6/30/2024	https://cordis.europa.eu/project/id/754995	Institut National De La Sante Et De La Recherche Medicale	
DIGIPREDICT	Edge AI-deployed DIGItal Twins for PREDICTing disease	Projekt - RIA		The interplay between viral infection, host response, development of (hyper)inflammation and cardiovascular injury in COVID-19 is currently poorly understood which makes it difficult to predict which patients remain with mild symptoms only and which patients rapidly develop multi organ failure. The solution offered by DIGIPREDICT is an Edge Artificial Intelligence (AI) based, high-tech personalized computational and physical Digital Twin vehicle representing patient-specific (patho)physiology, with embedded disease progression prediction capability, focusing on COVID-19	1/1/2021	12/31/2024	https://cordis.europa.eu/project/id/101017915	Ecole Polytechnique Federale De Lausanne	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
	progression and need for early intervention in infectious and cardiovascular diseases beyond COVID-19			and beyond. DIGIPREDICT proposes the first of its kind Digital Twin, designed, developed and calibrated on i) patient measurements of various Digital Biomarkers and their interaction, ii) Organ-On-Chips (OoCs) as physical counterpart using patient blood for personalized screening and iii) integration of those physiological readouts using AI at Edge technologies. The final goal is to identify and validate patient-specific dynamic digital fingerprints of complex disease state and prediction of the progression as a basis for assistive tools for medical doctors and patients. Using and improving state-of-the-art OoCs and Digital Biomarkers (for physiology and biomarkers in interstitial fluid) we will measure detailed response to viral infection. By closely monitoring the response with wearable multi-modal Edge AI patches, we aim to predict in near real-time the progression of the disease, support early clinical decision and to propose patient-specific therapy using existing drugs. We will combine scientific and technical excellence in a highly multi- and inter-disciplinary project, bringing together medical, biological, electronical, computer, signal processing and social science communities around Europe to setup Digital Twin at Edge. We will enable an Edge-to-Cloud vision, significantly advancing current state of the art and setting up a new European community for researching and applying Digital Twins.					
EJP RD	European Joint Programme on Rare Diseases	EJP		As recognized by the Council Recommendation 2009/C 151/02, rare diseases (RD) are a prime example of a research area that can strongly profit from coordination on a European and international scale. RD research should be improved to overcome fragmentation, leading to efficacious use of data and resources, faster scientific progress and competitiveness, and most importantly to decrease unnecessary hardship and prolonged suffering of RD patients. In the specific context of the massive generation, need for reuse and efficient interpretation of data, introduction of omics into care practice and the structuration of RD care centers in European Reference Networks, it appears crucial and timely to maximize the potential of already funded tools and programmes by supporting them further, scaling up, linking, and most importantly, adapting them to the needs of end-users through implementation tests in real settings. Such a concerted effort is necessary to develop a sustainable ecosystem allowing a virtuous circle between RD care, research and medical innovation. To achieve this goal, the European Joint Programme on RD (EJP RD) has two major objectives: (i) To improve the integration, the efficacy, the production and the social impact of research on RD through the development, demonstration and promotion of Europe/world-wide sharing of research and clinical data, materials, processes, knowledge and know-how; (ii) To implement and further develop an efficient model of financial support for all types of research on RD (fundamental, clinical, epidemiological, social, economic, health service) coupled with accelerated exploitation of research results for benefit of patients. To this end, the EJP RD actions will be organized within four major Pillars assisted by the central coordination: (P1): Funding of research; (P2): Coordinated access to data and services; (P3) Capacity building; (P4): Accelerated translation of research projects and improvement outcomes of clinical studies.	1/1/2019	12/31/2023	https://cordis.europa.eu/project/id/825575	Institut National De La Sante Et De La Recherche Medicale	
H2O	H2O Health Outcomes Observatory	Project - RIA		Patients' outcomes and experience of health care can be improved through the systematic capture and use of information from their perspective. We are currently not using all the information we could gain fromPatients' outcomes and experience of health care can be improved through the systematic capture and use of information from their perspective. We are currently not using all the information we could gain from Patient-Reported Outcomes (PROs) to accurately measure value from the patient perspective. This is due to the lack of standardisation, interoperability and implementation of PRO measurement schemes. We urgently need a European scale network of outcomes data collection, analysis and evidence sharing to inform clinical practice and healthcare decisions. To tackle these issues, this public-private consortium brings together scientists, clinicians and professionals to design and set up independent, patient-centred, Health Outcomes Observatories (H2Os). With input from patients, providers and health care decision makers (health ministries, health insurers, regional health authorities, public health agencies, medicines regulators, health technology assessment agencies), these Observatories will collect data and provide information not only for individual clinical care, but also for evaluation of new technologies and for healthcare decision making. We will establish ethically and legally sound national, or regional, H2Os and run these initially in four countries for three diseases. Based on a hybrid model of federated and centralised data collection, management and analysis, these Observatories will operate under a governance model that will guarantee that data are protected under jurisdictional data protection law. H2Os will be connected to a pan-European umbrella H2O to facilitate interoperability, guide reproducibility in other countries, and promote the	10/1/2020	9/20/2025	https://cordis.europa.eu/project/id/945345	Medizinische Universitaet Wien	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
				benefit of measuring and using patient-centred outcomes at regional, national, European and global levels.					
CAPABLE	CAncer PAtients Better Life Experience	Project - RIA	telehealth	After the primary intervention, most of cancer patients are managed at home, facing long-term treatments or sequelae, making the disease comparable to a chronic condition. Despite their benefit, strong therapeutic regimens often cause toxicity, severely impairing quality of life. This may decrease adherence to treatment, thus compromising therapeutic efficacy. Also due to age-related multimorbidity, patients and their caregivers develop emotional, educational and social needs. CAPABLE will develop a cancer patient coaching system with the objective of facing these needs/issues. The time is right to fully exploit Artificial Intelligence (AI) and Big Data potentialities for cancer care and bring them to patients' home. CAPABLE will rely on predictive models based on both retrospective and prospective data (clinical data, data from unobtrusive environmental and wearable sensors, data from social media and questionnaires). Models will be integrated with existing clinical practice guidelines and made available to oncologists. Thanks to the mobile coaching system for patients, CAPABLE will allow identifying unexpected needs, and providing patient-specific decision support. This feature, together with the chance of discovering unknown adverse effects of new treatments, makes CAPABLE more than a personalised tool for improving life quality, an advance for the whole research community. Our team includes complementary partners with experience in data- and knowledge-driven AI, data integration, telemedicine, decision support. In addition, the involved patients' association gives a unique opportunity to access thousands of questionnaires on patients' needs, which will inform the system design. The project addresses EU priorities such as shifting care from hospitals to home to face scarcity of healthcare resources, facilitating patients' re-integration in the society and in the labour market, and ensuring all EU citizens to benefit from an effective, novel cancer care model.	1/1/2020	12/31/2023	https://cordis.europa.eu/project/id/875052	Universita Degli Studi Di Pavia	
Trials@Home	Trials@Home: Center of Excellence – Remote Decentralised Clinical Trials	Project - RIA	telehealth	Clinical trials increase in size, complexity and costs. This is fuelled with the need to demonstrate effects in more complex therapeutic areas, and to detect subgroups with different benefit and safety responses. Complexities, rigid clinical control, physical distance and (perceived) burden put patient engagement under pressure. (S)low recruitment and retention compromise efficiency, generalisability and validity of traditional, site-centred trials. Remote Decentralized Clinical Trials (RDCTs) and hybrid approaches address these challenges. RDCTs are an operational strategy for technology-enhanced clinical trials, which enable (semi-)continuous data collection and real-world evidence generation, increase patient recruitment and retention and decrease patient and investigator burden and costs. Trials brought to the home of patients. Paradigmatic changes in EU clinical trial design are required to fully benefit from the digital era. Yet, the feasibility of running RDCTs needs to be rigorously demonstrated together with guidance and support measures for their execution. Trials@Home brings together a very strong consortium and will reshape clinical trial design, conduct and operations, by analysing, developing and piloting standards, recommendations and tools to define and operationalize RDCTs. Trials@Home will design and run a pan-European RDCT pilot based on: a. best practices of trials with RDCT elements, b. assessment of latest technological tools, c. the regulatory and ethical framework and potential changes required to facilitate RDCTs and d. stakeholder perspectives on the change from classical RCTs to RDCTs with strong patient involvement. The results of these assessments and the pilot will drive the formulation and dissemination of recommendations and tools for the implementation of RDCTs in Europe with the ultimate goal to improve the speed, quality and efficiency of clinical trials, and improving patients' access to innovative treatment strategies.	9/1/2019	8/31/2024	https://cordis.europa.eu/project/id/831458	Universitair Medisch Centrum Utrecht	
PCAVISION	Prostate Cancer Diagnosis, Localisation and Characterisation using	Project	Imaging	Prostate cancer (PCa), is a type of cancer with the highest incidence (19%) and second mortality rate (8%) in western men. In 2018 in Europe, 140,000 male patients were newly diagnosed with PCa and over 100,000 patients have died from Prostate cancer. Numbers are rising due to the ageing EU population. The present medical diagnosis procedures are largely based on the execution of multi-biopsy procedure(s) on the patient. Each multi-biopsy procedure is invasive, painful for the patient and incurs significant risk (10%-20%) of adverse health events such as sepsis (8%). Screening programs - comparable to breast cancer screening for woman - are not possible based on biopsy.	4/1/2022	3/31/2024	https://cordis.europa.eu/project/id/101057919	Angiogenesis Analytics Bv	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
	Ultrasound			In recent years, in a few EU countries, an image-based diagnosis method has been added to the PCa diagnosis pathway: Magnetic Resonance Imaging (MRI). A dedicated MRI imaging protocol offers an additional diagnosis tool for detecting and characterising PCa tumour growth. However, MRI based PCa diagnosis has drawbacks: scarce patient access (no public healthcare coverage in multiple EU countries) and long waiting times of 35 days median, increased national healthcare cost and dependent on availability of highly trained radiologist. The gap between the need for image based diagnosis and the availability is rapidly widening. PCaVision is a novel PCa imaging diagnostic method relying on modern ultrasound imaging equipment and advanced signal processing algorithms. Advantages are: equipment costs 96% less and there is not need for a specialised radiologist; the urologist performs the diagnosis. Hence PCaVision makes broad scale access for patients possible, improves PCa healthcare and reduces national healthcare cost. With PCaVision the gap can be closed for the benefit of all EU patients. The result of the Transition project is to complete, validate, and certify the PCaVision solution enabling roll-out to 16 EU clinics for clinical long-term demonstration enabling future broad utilisation.					
Deep4MI	Deep Learning for Medical Imaging: Learning Clinically Useful Information from Images		Imaging	Medical imaging has revolutionized medicine and healthcare like no other recent technology, and is now an integral part of diagnosis, treatment planning, treatment delivery and follow-up. It provides an unparalleled ability to image anatomy and function with high spatial (and temporal) resolution. Its success has led to a dramatic increase in the number of medical imaging examinations. Despite this success, medical imaging is often stressful for patients, requires patient cooperation and is difficult in the presence of motion (e.g. patient motion or breathing motion). Furthermore, even more than 100 years after the discovery of X-rays, the interpretation of medical images relies almost exclusively on human experts. All of the above mean that there is a strong need for increased automation and quantification in order to reduce costs, increase efficiency and patient-friendliness, and provide higher diagnostic and prognostic accuracy for clinical decision making. At the same time, machine learning and deep learning techniques have made significant advances and have started to make a large impact in many real-world applications. The aim of this proposal is to exploit these advances to address the above challenges and to achieve a paradigm shift in the way information is extracted from medical images for diagnostics, therapy and follow-up. We will do this by developing a transformative and synergistic approach to medical imaging in which acquisition, reconstruction, analysis and interpretation will be tightly coupled, with bidirectional feedback between the different stages, in order to optimize the overall objective of the imaging pipeline: Extracting clinically useful and actionable information. To achieve this step change, the project aims to develop novel deep learning approaches for image acquisition, reconstruction, analysis and interpretation that can be trained in an end-to-end fashion, allowing fast and more efficient imaging.	1/1/2021	12/31/2025	https://cordis.europa.eu/project/id/884622	Klinikum Rechts Der Isar Der Technischen Universitat Munchen	
PHRASE	Personalised Health cognitive assistance for RehAbilitation SystEm			Stroke-caused cognitive and neuromotor impairment is currently an increasing burden: post-stroke deficits are commonly believed to be treated with rehabilitation. Direct medical costs of stroke are stimated to increase up to 94.3 billion USD only in US. The indirect costs, including non-healthcare costs, are estimated at 15.9 billion. The journey towards recovery includes several stages, from hospitalization to in-patient and out-patient rehabilitation and the subsequent return to home. Not everyone has access to rehabilitation programs, and the gains of them tend to deteriorate after hospital discharge. Focused stroke rehabilitation reduces long-term disability and the economic burden of stroke and supports prevention by lessening modifiable risks. The objective of PHRASE (Personalised Health cognitive assistance for RehAbilitation SystEm) is to create a workflow that integrates the best available scientific knowledge and obtain an efficient prognosis and intervention protocols for stroke and other brain-related diseases. It will not only allow to treat stroke-caused impairments better and more efficiently, but also it is a potential treatment for other neurological diseases like dementia, aphasia and PSCI, depression or multiple sclerosis. Eodyne's PHRASE will be based on RGS previous technology, developing its Technology Readiness Level. The present consortium brings together a comprehensive group of highly qualified experts. So that Eodyne can successfully produce prognosis and intervention individualized protocols, EBRAINS will be the brain database and Charit? will provide with its brain models for the combination of data brain. IBEC's SPECS-Lab will bring	4/1/2022	3/31/2025	https://cordis.europa.eu/project/id/101058240	Eodyne Systems Sl	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
				its knowledge in cognitive rehabilitation and will act as clinical coordinator, while Saddlepoint Science brings the expertise to implement the AI tools for continuous improvement of the intervention protocols.					
DRAGON	The RapiD and SecuRe AI enhAnced DiaGnosis, Precision Medicine and Patient EmpOwerment Centered Decision Support System for Coronavirus PaNdemics	Project - RIA		In this project, a multinational consortium of high-tech SMEs, academic research institutes, biotech and pharma partners, affiliated patient-centred organisations and professional societies will achieve a multi-faceted diagnostic and prognostic platform and a precision medicine approach. This consortium will together realize a patient empowerment centred decision support system that will enable multiple stakeholders to participate in improved and more rapid diagnosis and prognosis, as well as the potential of precision medicine for accelerated development of new therapies. Citizens and patients will be empowered to contribute to the efficient planning and usage of resources. The project will begin by rapidly delivering a nomogram. Data from the Chinese epidemic will be used to validate and further optimise a European scalable radiological diagnosis/prognosis solution. Existing and new data and sample collection efforts will be used to perform molecular profiling, which - using advanced AI techniques will be shaped into a precision medicine approach. These initial outputs will undergo further enhancement and assessment to evaluate the value they add to the development of a decision support system. The entire effort will be supported by the deployment of a federated machine learning system that will allow for the GDPR compliant use of multinational data resources. The various iterations of the decision support system and the federated machine learning system will be made available to other coronavirus initiatives with the intent to develop a stakeholder community that forms the basis for a highly efficient innovation ecosystem. Our proposed study will be one of the first to develop innovative machine learning, and clinical procedure improvement that will potentially make a huge socio-economic impact for the coronavirus outbreak.	10/1/2020	9/30/2023	https://cordis.europa.eu/project/id/101005122	Universiteit Maastricht	
ONCOVALUE	Implementing value-based oncology care at European cancer hospitals: An AI-based framework for assessing real-life effectiveness of novel cancer therapies in real-time	Project - RIA		ONCOVALUE will unlock the full potential of real world data (RWD) collected in European cancer hospitals and institutes to ease the decision-making of regulators on cost-effectiveness of novel cancer therapies. To achieve this, we build up data collection and processing capabilities of leading European cancer hospitals to create a high-quality clinical, quality of life, and adverse events data-sources. With the use powerful AI technologies, we will transform unstructured data originating from medical notes and medical images into structured data to enable analytics and real world evidence (RWE). This RWE will be directly available for clinicians for treatment management and for health regulatory and HTA bodies to adopt optimized data-driven methodologies for the effective assessment of medicinal products and digital health innovations. For that, we will provide an end-to-end infrastructure for RWD reporting in health regulatory and HTA decision-making and address the legal constraints in the cancer hospitals to ensure secure and legal access to RWD. Furthermore, ONCOVALUE will ensure the implementation of the developed guidelines and methodologies, by providing trainings for the collection and management of high-quality RWD in European cancer centres and for the analysis of this data by HTA and regulatory bodies. By opening the door to widespread regulatory and HTA integration of RWD, ONCOVALUE will lead to safer, more efficient, and affordable therapies, technologies, and digital solutions for (personalised) cancer care. As such, ONCOVALUE is positioned to contribute to increased cost-effectiveness and subsequent sustainability of cancer care. Systematic collection and evaluation of the patient reported outcomes will lead to improved well-being of the patients. Subsequently, on the long-term implementation of value-based cancer care at European cancer hospitals will aid in reducing the growing burden of cancer treatment in the EU and worldwide.	12/1/2022	11/30/2026	https://cordis.europa.eu/project/id/101095245	Hus-yhtyma	
MRI Twins	TWINNING OF MAGNETIC RESONANCE IMAGING RESEARCH INSTITUTES	Project - Csa	Imaging	Magnetic Resonance Imaging (MRI) is known as the most versatile and advanced medical imaging modality capable of producing tomographic images emphasizing different tissue (material) properties and hence facilitating the diagnosis of a wide range of anomalies. The complexity and the importance of MRI make it a specific research field with dedicated research centers throughout the world. Bilkent University's National Magnetic Resonance Research Center (UMRAM) in Turkey is an established MRI research center with an excellent research track record but limited access to European research networks. The HE Twinning program aims at networking research institutes from the Widening countries (such as Turkey) with their advanced counterparts in Europe to integrate Widening countries into the European research network. In order to integrate UMRAM into the European research networks, Bilkent University-UMRAM as the coordinating partner, together with German Cancer Research Center - DKFZ (Germany),	10/1/2022	9/30/2025	https://cordis.europa.eu/project/id/101078393	Bilkent Universitesi Vakif	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
				Universitätsklinikum Freiburg (Germany), and University of Nottingham (UK) as advanced partners are forming a team to conduct an EU Horizon Twinning Project (MRITwins) in the field of Magnetic Resonance Imaging. The project team's research expertise lies in the field of "MR Engineering," where novel hardware and enabling software is developed for MRI. Beyond the short-term goals of the twinning project, this team is formed to make a long-term impact on MR Engineering research by joining their complementary expertise. To initiate a long-term research collaboration between the project participants, the twinning program allows for an exploratory research component limited to 30% of the total budget. The scope of the MRITwins Project includes research work where highly credible project partners will explore the topic of "re-engineering MRI scanners with open-source hardware and software" with a specific focus on the novel gradient and radiofrequency array technologies.					
PROSCOPE	Point-of-care instrument for diagnosis and image-guided intervention of Colo-Rectal Cancer	Project - RIA	Imaging	Colorectal cancer (CRC) is the second most common cause of cancer death in Europe, yet survival rates rise dramatically when caught early. A contributing factor is that current colonoscopy, i.e. white light video or optical narrow band imaging, is inadequate for in-vivo detection and characterisation of the various types of (pre-)cancerous lesions found in the colon. Point-of-care, real-time polyp diagnosis and image guided intervention has the potential to save huge healthcare costs by enabling early onset of treatment; thus reduced recurrence rate, by improving interval screening, and by reducing pathology costs incurred during colonoscopy. A complete, reliable optical diagnosis is sensitive to morphological and biochemical changes. Unfortunately, no single optical method provides both. PROSCOPE provides unique combination of label-free, non-ionizing, proven optical imaging modalities that provides higher sensitivity and specificity compared to current colonoscopy thus enabling a step-change in point-of-care management of CRC. PROSCOPE develops and integrates recent advances in optical imaging and optical probe technology into one platform. The concept is validated in clinical settings using existing endoscopes providing minimally invasive optical imaging that fits into current clinical procedures. A leading medical device manufacturer and clinicians are involved at every stage of the development and validation. PROSCOPE is driven by unmet clinical needs in the field of gastroenterological diagnosis with a clear business case: Combination of optical imaging techniques offers the potential to vastly improve early diagnosis of CRC achieving specificity and sensitivity above 90%, reducing the number of excisional biopsies by 50%, and improving interval screening planning, thereby reducing healthcare costs drastically and benefitting patients. The consortium includes five leading academics, including hospital clinics, and four SMEs covering the entire value chain.	1/1/2020	12/31/2023	https://cordis.europa.eu/project/id/871212	Danmarks Tekniske Universitet	
SpreadMRI	Ultra-Fast, Spread-Spectrum Magnetic Resonance Imaging		Imaging	Imaging speed is a key factor to capture rapid changes at high spatial and temporal resolution. A major limitation of magnetic resonance (MR) imaging is its rather low speed compared to other modalities like ultra sound or computerized tomography. We aim to explore two novel concepts to boost MR imaging speed by another order of magnitude compared to existing techniques. SpreadMRI fundamentally steps beyond current concepts of image encoding by exploiting a spectral spin modulation that so far has not been utilized. SpreadMRI is based on the rapid and local modulation of magnetic fields produced by current loops and/or radiofrequency (RF) loops. Applied spectral modulations are in the MHz range bridging the low-frequency band of switched gradients (kHz) and the 100 MHz range of the Larmor frequency. SpreadMRI spreads the bandwidth of gradient-encoded spin frequencies using distinct carrier frequencies originating from a certain region of the object. This spatially unique information will then be used to disentangle parts of the object, and thus to drastically boost imaging speed. Approaching this intermediate frequency band requires to address several basic research questions related to image reconstruction, electromagnetic coupling, spin Physics and possible biological effects. Based on theoretical analysis and exhaustive electromagnetic simulations of dedicated current loop and RF coil arrangements, including variants of different modulation patterns, several types of SpreadMRI coils for human head imaging at 9.4T will be developed and applied for high temporal and spatial functional brain imaging. The specific approach of SpreadMRI will lead to major changes in the hard- and software environment of current MR-scanners. It will not only provide new insight within the areas covered by the proposal, but will definitely benefit conventional MR diagnostic by enabling new applications with a simultaneous reduction of motion artifacts and increased patient throughput.	9/1/2019	8/31/2024	https://cordis.europa.eu/project/id/834940	Max-planck-gesellschaft Zur Forderung Der Wissenschaften Ev	
AI4LIFE	Artificial Intelligence for Image	Project - RIA	Imaging	Machine learning (ML) has enabled and accelerated frontier research in the life sciences, but democratised access to such methods is, unfortunately, not a given. Access to necessary hardware and software, knowledge and training, is limited, while methods are typically insufficiently documented and hard to find. Furthermore, even though modern AI-based methods typically generalize well to	9/1/2022	8/31/2025	https://cordis.europa.eu/project/id/101057970	Euro-bioimaging Eric	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
	Data Analysis in the Life Sciences			unseen data, no standard exists to enable sharing and fine-tuning of pretrained models between different analysis tools. Existing user-facing platforms operate entirely independently from each other, often failing to comply with FAIR data and Open Science standards. The field of AI and ML is developing at a staggering pace, making it impossible for the non-specialist to stay up to date. To enable the life science communities to benefit from AI/ML-powered image analysis methods, AI4LIFE will build bridges, providing urgently needed services on the common European research infrastructures. We will build an open, accessible, community-driven repository of FAIR pre-trained AI models and develop services to deliver these models to life scientists, including those without substantial computational expertise. Our direct support and ample training activities will prepare life scientists for responsible use of AI methods, while contributor services and open standards will drive community contributions of new models and interoperability between analysis tools. Open calls and public challenges will provide state-of-the-art solutions to yet unsolved image analysis problems in the life sciences. Our consortium brings together AI/ML researchers, developers of popular open source image analysis tools, providers of European-scale storage and compute services and European life sciences Research Infrastructures -- all united behind the common goal to enable life scientists to fully benefit from the untapped but potentially tremendous power of AI-based analysis methods.					
TELEGRAFT	Telemonitoring of home dialysis utilizing a smart biomimetic arteriovenous graft	Project - IA	telehealth	Clinical need: 10% of the population worldwide is affected by chronic kidney disease (CKD) and millions die each year because they do not have access to treatment. Giving global shortage of kidney donors, the vast majority of patients rely on hemodialysis (HD). Over 2.6M people worldwide currently receive HD to stay alive, yet this number may only represent 10% of people needing treatment. Solution: Up to 70% of current arteriovenous grafts (AVG) fail in the first year after implantation. This is primarily due to thrombosis, luminal scar formation, and infection. In our ground-breaking new AVG, biomimicking zwitterions prevent thrombosis, drug delivery prevents scar formation and infection, and an ECM coating ensures fast tissue integration allowing early HD. Smart: TELEGRAFT comprises two diagnostic tools to monitor and prevent device complication. Pressure transmitters are used to monitor blood flow and optical sensors to detect inflammation and infections. The data is processed by AI machine learning models and displayed in an easy to understand dashboard for healthcare professionals. The data allows online telemonitoring and consultations by remote healthcare professionals. This makes home dialysis safe for patients, even in areas with poor infrastructure, where patients live far from HD clinics. Surgical implantation: The TELEGRAFT system will be demonstrated in an operational environment through a 2-stage randomized clinical trial enrolling 60 patients at 5 hospitals across Europe and through a home HD field study. Resource constrained setting: (1) In low and middle income countries, TELEGRAFT will substitute complicated and expensive kidney transplantation and allow simpler and cheap implantation of AVG for HD. (2) TELEGRAFT is the only solution with diagnostic tools allowing real-time online detection and remote monitoring of complications and device failure. This allows transition from HD at the hospital to the resource constrained home setting.	9/1/2022	2/28/2027	https://cordis.europa.eu/project/id/101057673	Syddansk Universitet	
iGame	Multi-dimensional Intervention Support Architecture for Gamified eHealth and mHealth Products		telehealth	This project investigates evidence based gamification techniques for eHealth and mHealth and develops a multi-dimensional intervention support architecture/platform in order to improve the efficacy of gamified eHealth products (web-based health tools and health apps). The project will develop advanced game production techniques with ready-to-use toolkits to accelerate the innovation process for eHealth and mHealth products. This will help digital industry (games, IoT and ICT) to innovate new products and services with science and technology underpinnings. It addresses fundamental issues of gamification for eHealth interventions including its development process and evaluation methods for measuring its efficacy. The outcomes of the project, manifested as gamification Toolkits, an integrated ICT Platform, and clinical assessment Methodologies as whole as a framework, will greatly accelerate the pace and scale of eHealth innovation by transforming and increasing its quality and efficiency through advanced technology tools, frameworks and methodologies. By using gamified physical activity engagement as a clinical intervention case study, the proposed framework will be evaluated and tested within patients in primary care settings, who are identified as physical inactive and at risk for their conditions due to sedentary behaviours. However,	1/1/2019	6/30/2024	https://cordis.europa.eu/project/id/823871	Bournemouth University	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
				the gamification framework remains flexible and portable to other contexts of digital health interventions. The project presents two key innovation components: • An innovative collaborative R&D programme in collaboration with industry, focus on delivering solutions to address challenges in the development process of gamified eHealth products i.e. productivity and efficacy. • A strong and sustainable model of collaboration with digital industry and other relevant stakeholders fully integrated to develop the innovation capacity in SMEs in eHealth products, specifically gamified eHealth products and services.					
SMILE	Providing digitalised prevention and prediction support for ageing people in smart living environments		telehealth	Drawing on practical situations that older people face in daily living, SMILE will create SMart Inclusive Living Environments (SLE) with novel eHealth solutions enabling ageing in place. There are 6 main objectives: 1. Identify the needs and preferences of older people while living in their home environments. 2. Undertake co-creation of easy to use digital solutions with older people and novel methods to involve people with dementia. 3. Develop a smart AI-based system (Digital Care Facilitator and Conversational Agent) to proactively support older people in daily living. 4. To provide acceptable digital solutions when these solutions are introduced into older peoples lives 5. Evaluate the SMILE package to assess replicability and scalability in enhancing living spaces supporting independent, active and socially inclusive living for older people. 6. Build Europe-Canada cooperation in replicating, scaling and extending the results of SMILE to benefit the very heterogeneous populations of older people in our societies. These objectives will be achieved by 3 workstreams based on trans disciplinary research: co-creative design and evaluation; digital care facilitator and conversational agent; SMILE SLE ecosystem and digital solutions. Our targeted breakthroughs for smart living environments supporting independent and active living are: a participatory SLE ecosystem model; the 'Digital Care Facilitator', an AI-based system [TRL6]; a conversational agent as an everyday intermediary enhancing social participation [TRL6]; personal mHealth apps, and eHealth monitors and devices [TRL5-8]. We will demonstrate that SMILE works for a very heterogeneous group with different needs and preferences: older people with severe dementia, Chronic Obstructive Pulmonary Disease (COPD) and care transitions during post-surgery recovery. With this combined package and related service improvements SMILE will go beyond state of the art in ways that are sustainable, scalable and exploitable.	1/1/2021	12/31/2023	https://cordis.europa.eu/project/id/101016848	Sykehuset Innlandet Hf	
EMPOWER	European platforM to PromOte Wellbeing and HEalth in the woRkplace		telehealth	EMPOWER is a multidisciplinary research and innovation effort aiming to developing, implementing, evaluating and disseminating the effectiveness and cost-effectiveness of a modular eHealth intervention platform to promote health and well-being, reduce psychological distress, prevent common mental health problems and reduce their impact in the workplace. In collaboration with stakeholders, we will adapt existing effective interventions focused on different components (awareness and stigma, workplace conditions and psychosocial factors, stress, common mental health symptoms, early detection, comorbidity, lifestyle, and return to work) to created a combined online modular platform feasible in various workplace settings by culturally and contextually adapting it. The intervention will be implemented through a randomized controlled trial directed to employees and employers of small and medium sized enterprises and public agencies from three European countries (Spain, Finland and Poland). Both qualitative and quantitative methods will be used in the evaluation of the individual health outcomes, cost-effectiveness (from a social, economical, employer and employees perspective), and implementation facilitators and barriers. Implementation strategies relevant to the uptake of the EMPOWER intervention will be identified, including a realistic appraisal of barriers to uptake as well as evidence-based solutions to these barriers. Through scaling-up pre-existing effective and cost-effective interventions, EMPOWER is aimed at addressing the overarching challenges from different perspectives, including individual level (e.g. addressing stigma, mental health, well-being and lifestyles, taking into account legal, cultural and gender issues) and organizational level. The main outcomes effort will help employees, employers and policymakers in decision processes of new legal and contractual framework at EU and national level covering the new economy landscape.	1/1/2020	6/30/2024	https://cordis.europa.eu/project/id/848180	Fundacio Privada Per a La Recerca I La Docencia Sant Joan De Deu	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
CY-BIOBANK	Biobanking and the Cyprus Human Genome Project			The genetic investigation of diseases and eHealth are a priority of the Smart Specialization Strategy of Cyprus. The strategy can best be served by creating a Centre of Excellence (CoE) with two pillars: a) A contemporary Biobank research infrastructure that incorporates eHealth; b) a state-of-the-art research facility to support the Cyprus Human Genome Project and drive translational research, focused on genetic diseases, thus enhancing the European Research Area. Biobanks are organized collections of medical records and biospecimens, aimed to support biomedical research, serving as repositories and distribution centers. Biobanking and genomics infrastructures in Cyprus are lagging behind of European levels, thus limiting the prospects for research and innovation potential. The CY-Biobank shall upgrade the existing infrastructure, implementing high standard procedures and quality management systems for safeguarding data and material of the highest trustworthiness, for downstream investigations. The CoE will embrace the entire research community of Cyprus and serve as an incubator for innovative ideas and as a tertiary medical and educational institute for the rare monogenic and frequent complex disorders, aimed at better patient care and precision medicine. The CY-Biobank will adopt a patient-centric approach showing respect to sensitive ethical, legal and social issues, with the involvement of all stakeholders in the medical and patients' communities. The CoE aspires also to play a broader role by forming the MediEuro Network with countries in the Mediterranean and the Middle East, thus complementing efforts for bridging EU to this part of the world. The Advanced Partners are the Medical University of Graz that coordinated the preparatory phase of the project for Biobanking & BioMolecular resources Research Infrastructure (BBMRI) and its subsequent European Research Infrastructure Consortium, BBMRI-ERIC, which represents the largest family of Biobanks in Europe.	10/1/2019	9/30/2026	https://cordis.europa.eu/project/id/857122	University of Cyprus	
miGut-Health	Personalised blueprint intestinal health		telehealth	The miGut-Health consortium aims to develop a personalized blueprint of intestinal health to predict and prevent inflammatory bowel disease. The overall goal is to deliver interdisciplinary solutions (molecular, nutritional, eHealth and patient engagement/empowerment level) for health promotion and disease prevention that would enable active patient engagement in health and self-care management. Taking on this mission, miGut-Health pursues the following strategic goals: - To integrate state-of-the-art omics (molecular, clinical, nutrition, social and environmental) for identification of actionable biomarkers, risk and health promoting factors linked to health-to-disease transition in the general population, IBD high risk persons, as well as IBD patients. - To perform systems-level analyses of chronic inflammation by applying integrative models from omics and clinical data to predict risk for health-to-disease transition in IBD. - To perform a proof-of-concept controlled clinical trial studying a nutrient elimination diet (here: gluten-free diet) and its impact on intestinal inflammation in IBD patients and high-risk individuals. - To exploit the impact of microbiome-derived diet-associated metabolites on gut inflammation reversion and restoration of barrier integrity and function using an innovative co-culture system of primary human intestinal organoids and sorted immune cell subsets. - To develop and apply novel technologies (sensors, mobile apps) to dynamically monitor individual nutrition as well as physical activity and principal health status. - To implement a patient-centered approach for personalized health and self-care engagement targeted at IBD patients, individuals at risk for IBD and the general population as well as tools for health-care professionals.	1/1/2023	12/31/2026	https://cordis.europa.eu/project/id/101095470	Universitatsklinikum Schleswig-holstein	
TIMELY	A patient-centered early risk prediction, prevention, and intervention platform to support the continuum of care	Project - RIA	telehealth	Coronary artery disease (CAD) remains the leading cause of disease burden globally. CAD develops slowly, usually over decades, and depends on multiple (often modifiable) risk factors and their interactions. Self-management and patient activation are of rising importance as current restrictions in healthcare budgets impose great difficulties to enable the provision of qualitative secondary prevention to all cardiac patients in an era facing a huge cardiovascular disease epidemic. The main hypothesis in the patient-centered TIMELY pathway, is that a modular, collaborative eHealth platform, supported by Artificial Intelligence (AI) for the continuous and in-time prediction of cardiac risks and complications and the induction of targeted behavioural change interventions, can be effective and cost-efficient for the secondary prevention of CAD by limiting the physiological and psychological effects of the disease and improving risk factor and symptom management. Improvements in patients' self-care and empowerment and clinicians' efficiency are also expected. Along the continuum of the disease, prediction of the individual risk for disease progression, including physical impairment and severe events, is mandatory for timely intervention. TIMELY is a platform that provides AI-powered apps and dashboards and decision support tools assisting patients and clinicians	1/1/2021	9/30/2024	https://cordis.europa.eu/project/id/101017424	Universiteit Van Amsterdam	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
	in coronary artery disease (CAD) using eHealth and artificial intelligence			to personalize healthcare based on risk evaluation, outcome prediction and tailored interventions. The platform will be developed based on a functional platform for Interoperability with electronic health records and security mechanisms, to ensure information completeness and continuity and to simplify data sharing. AI in TIMELY, built with big retrospective datasets of >23.000 CAD patients, will constantly monitor and evaluate risks and will indicate any deviation from defined therapy goals or unfavorable changes as well as propose proper interventions.					
PHArA-ON	Pilots for Healthy and Active Ageing		telehealth	Pharaon's overall objective is to make a reality smart and active living for Europe's ageing population by creating a set of integrated and highly customizable interoperable open platforms with advanced services, devices, and tools including IoT, artificial intelligence, robotics, cloud computing, smart wearables, big data, and intelligent analytics. Platform interoperability will be implemented within Pharaon ecosystems and platforms, as well as other standardised platforms within health and other domains (energy, transport and smart cities). Pharaon will consider relevant standards and will contribute to them with the help of the two standardisation bodies of the consortium. Data privacy, cybersecurity, interoperability and openness will be key design principles to pursue through the requirements generated by Pharaon experts. Pharaon will be built upon mature existing state-of-the-art open platforms and technologies/tools provided by the partners, which will be customised and will implement cloud technologies, AI techniques and traditional algorithms for big data intelligent analytics. A user-centric approach will be followed. Pharaon will evolve based on the user feedback and the results from a MAFEIP framework that will be implemented for impact assessment. Both inputs will be used to find innovative solutions through two "open calls": (1) single solutions, and (2) solutions to be demonstrated in small-scale pilots. Pharaon's integrated platforms will be validated in two stages: pre-validation and large-scale pilots (LSPs), in six different pilot sites: Murcia and Andalusia (Spain), Portugal, The Netherlands, Slovenia and Italy. A team of partners in each pilot will ensure its right development. A set of development tools will be created and made publicly available to simplify the customisation and integration. These tools and the results of dissemination will spread the generated knowledge to promote the development of new solutions similar to Pharaon.	12/1/2019	11/30/2023	https://cordis.europa.eu/project/id/857188	Universita Degli Studi Di Firenze	
REALMENT	Using real-world big data from eHealth, biobanks and national registries, integrated with clinical trial data to improve outcome of severe mental disorders			Mental disorders represent one of the largest burdens for the European Health Care system, due to large number of patients and a lack of efficient treatment options. Today, drug treatment of mental disorders is characterized by severe adverse effects and suboptimal response in more than a third of the patients. Optimizing treatment is based on a trial-and-error approach, which combined with frequent multi-morbidities, often leads to polypharmacy and poor outcome. Due to limited understanding of the disease mechanisms that underlie mental disorders, new drugs with novel therapeutic targets are lacking, and existing treatments are ineffective for many people. It is therefore urgent that cutting-edge research approaches are deployed to develop innovative tools to individualize treatments using available psychiatric medication, and thus improve clinical outcomes and reduce costs for health care systems. The main goal of the multidisciplinary REALMENT project is to optimize treatment of mental disorders through novel precision medicine strategies based on current pharmaceutical options. REALMENT includes world leading research institutes and pharmaceutical industry at the very forefront of mental disorder research. REALMENT will achieve its objectives by exploiting population-scale Real-World Data (RWD) in combination with Randomized Clinical Trial (RCT) data available to the partners. Big data from populations (Nordic registries), cohorts (European biobanks), and eHealth samples (medical records), including whole genome genotypes (n=1.9 million), will be analysed in an EU-wide sustainable infrastructure using artificial intelligence and machine learning to develop prediction and stratification tools (precision psychiatry). These algorithms will be validated in large RCT data (n=10k) and re-phenotyping projects, and implemented in a clinical management platform (4MENT), which will be made available to provide decision support to clinicians to optimize therapeutic effects.	6/1/2021	5/31/2025	https://cordis.europa.eu/project/id/964874	Universitetet I Oslo	

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WILLEM	WILLEM: AI to Reduce Cardiovascular Diseases			WILLEM is the first 100% automated cloud platform for electrocardiogram (ECG) analysis, designed to comprehensively identify and diagnose all types of arrhythmias and predict Cardiovascular Diseases (CVDs) behaviour at 6 months since its detection. WILLEM communicates users and hospitals-in real time through a unique Cloud Platform, integrable with any other eHealth platform as part of the clinical workflow. WILLEM provides the best prospective and labelled ECG database and, as a hardware-agnostic platform, it uses breakthrough Artificial Intelligence (AI) models to transform raw ECG signals from any monitoring device into a medical grade ECG report. Today, WILLEM's AI classifies 73 arrhythmias of the 288 known cardiac patterns, more than 90% of the cases, and it is the only solution that predicts Atrial Fibrillation. The goal is to classify every arrythmia present in human biology and to predict the 6 most prevalent heart diseases in an automatic and non-supervised way to reduce CVDs.	11/1/2022	10/31/2024	https://cordis.europa.eu/project/id/190173745	Idoven 1903 Sl	
eCAP	eCAP - Ehealth CAPsule for digestive disease diagnostics and therapy			eCAP aims to deliver a novel medical device which combines a smart capsule with an e-health platform for better diagnostics, patient empowered disease management and hence, improved outcomes for patients with gastrointestinal (GI) diseases. Our project will create a modular and implantable capsule with multi-sensing capacity that enables GI physiology monitoring for a controlled time period, leveraging the minimally invasive surgical approach of flexible endoscopy. eCAP will use a worldwide ubiquitous smartphone communication standard, together with cloud computing technology and application interfaces to integrate, process and interpret longitudinal physiological data collected by the capsule. The digital platform is designed to improve the accuracy and clinical usefulness of standard test data by incorporating patient reported outcome measures. The clinician is able to personalize the test for the patient and receive accurate and meaningful results from this multi-stream data input with interpretation aided by Artificial Intelligence. The universality of the eCAP solution will allow dissemination of advanced GI disease diagnostics to patients and doctors worldwide, including low resource environments. During the project, we will demonstrate eCAP?s clinical value and cost savings using gastroesophageal reflux disease (GERD), a worldwide, common, and extremely costly problem, as a clinical target. Clinical evaluation with health-economics analysis will be conducted in France, Ukraine and Kenya, and a specific education program will be developed to train practitioners to use the novel technology. eCAP builds on several years of R&D by our consortium in the field of implantable capsules for GI disease diagnostics. Its ambition is to facilitate a shift in GI diagnostics from its current unscalable analogue version to a patient centered e-health tool and to make Europe the leader in the rapidly growing field of connected medical devices for remote patient monitoring.	5/1/2022	4/30/2026	https://cordis.europa.eu/project/id/101057525	Fondation De Cooperation Scientifique	
MyPath	Developing and implementing innovative Patient-Centred Care Pathways for cancer patients	Project - RIA	patient summary, laboratory results, imaging and imaging reports	In the EU, 2.7M people were diagnosed with and 1.3M died of cancer in 2020. Over 12M people have survived cancer, thanks to advances in early detection and new therapies. With higher cure rates and more patients living longer with cancer, access to patient-centred care consisting of optimal supportive, palliative, survivorship and end-of-life care becomes increasingly important. However, cancer care still has silos, and to this day, there is no technical support available that is suitable for different cultures, settings and environments. Several randomised controlled trials have provided evidence that the integration of patient-centred care in standard oncology care results in better patient and caregiver outcomes. As yet, these findings have not translated into clinical routine. In this project, we will develop technology-enhanced and evidence-based patient-centred care pathways, called MyPath, to be merged with tumour-centred treatments across supportive, palliative, survivorship and end-of-life care. MyPath integrates patient-reported outcomes of the OUS Eir software, to be further advanced with contributions of renowned European oncologists, ethicists, psychologists and sociologists. It will be configurated on the eHealth platform of our SME partner DNV Imatis. Its effectiveness and sustainability will be assessed in an implementation science study in 9 clinical centres across Europe. With the support of leading cancer care professional associations ESMO and EAPC, and the cancer patient organisation ECPC, we are committed to delivering the right care to the right person at the right time by the right persons. We hypothesise that MyPath can significantly improve the quality of and access to treatment and care, reduce variations in clinical practice, and optimise resources in family, community, and hospital care settings. This will ultimately reduce the physical, emotional, and ultimately economic burden linked to cancer.	9/1/2022	8/31/2027	https://cordis.europa.eu/project/id/101057514	Oslo Universitetssykehus Hf	

Acronym	Full Name	Type	Topic Domain	Project Objectives	Start	End	CORDIS (if applicable)	Coordinator	Priority
TeleRehaB DSS	TeleRehabilitation of Balance clinical and economic Decision Support System	Project - RIA	telehealth	TeleRehaB DSS targets the promotion of AI adoption in everyday clinical practice for balance rehabilitation training. An AI-based decision support system (DSS) will be developed expanding upon the existing Augmented Reality (AR) rehabilitation training platform, with its balance exercises, exergames, cognitive training and remote patient monitoring with wearables and IoT devices from HOLOBALANCE project (TL6), to provide suggestive feedback for experts through the entire clinical rehabilitation pathway. The first component of AI models of TeleRehaB DSS will assess prognostic factors for risk of falls, treatment effectiveness, outcomes and side effects at baseline level, using a high volume of retrospective data for initial training. The other AI pillar of TeleRehaB DSS will introduce automated balance intervention planning and management functionality. The DSS will provide for each patient an optimal set of personalised rehabilitation activities, considering the best clinically effective treatment in conjunction with socio-economic effectiveness, and eHealth literacy. The later will be evaluated with a quick and easy to use tool with simple tasks to assess patient's level of technological awareness (i.e. use of smart devices, AR and IoT equipment), in order to predict if this is going to affect compliance and adherence with interventions that rely on the use of such novel technologies. Finally, the most beneficial use of AI in TeleRehaB DSS will consist of automated remote patient monitoring with wearables and IoT sensing devices, allowing rehabilitation training programs to be performed at home. The DSS will evaluate in real-time patient performance, symptoms occurrence with virtual AR physio's providing corrective and motivational feedback as activities are performed. These performance evaluation measures will be fed back to the DSS to support experts with their most time and effort-consuming activities of day-to-day patient management.	12/1/2022	11/30/2025	https://cordis.europa.eu/project/id/101057747	Erevnitiko Panepistimiako Institouto Systimaton Epikoinonion Kai Ypologiston	
VALUECARE	VALUE-BASED METHODOLOGY FOR INTEGRATED CARE SUPPORTED BY ICT	Project - IA	telehealth	Healthy ageing along with independent living have become key challenges for Europe as countries are experiencing growth in the number of older persons in their population. Several international organisations have stressed the importance of the independence, participation and autonomy of older people to remain healthy and, consequently, to ensure their quality of life. VALUECARE will deliver efficient outcome-based integrated (health and social) care to older people facing cognitive impairment, frailty and multiple chronic health conditions in order to improve their quality of life (and of their families) as well as the sustainability of the health and social care systems in Europe. It will also take into account the job satisfaction and the wellbeing of the health and social service providers, thus moving from the “Triple” to the “Quadruple Aim”. The project’s vision of integrated value-based care will be supported by a robust, secure and scalable digital solution that will be tested and evaluated in 7 large-scale pilots in Europe following a sound methodology developed by the project partners together with the end-users. VALUECARE proposes greater efficiency in the use of resources and coordination of care in a setting that ensures trust of users and policy makers about data access, protection and sharing and standardisation that can be replicated in EU. The consortium, made up of 17 partners from 8 EU countries, led by the Erasmus Medical Centre, has been built to guarantee the full coverage of the scientific, technological, clinical and social competencies, and to gather the viewpoint of different actors necessary to develop, test and evaluate the concepts, paradigms, protocols and interventions related to VALUECARE. The project’s multidisciplinary consortium includes stakeholders from the whole supply chain of the digital health and social care environment in order to maximize its chances of success.	12/1/2019	5/31/2024	https://cordis.europa.eu/project/id/875215	Erasmus Universitair Medisch Centrum Rotterdam	
ODIN	Leveraging AI based technology to transform the future of health care delivery in Leading Hospitals in Europe	Project - IA		Hospitals must increase their efficiency and productivity and boost quality and safety, while containing and reducing costs. This cannot be an untaught linear reduction. For instance, the number of ICU beds per million of EU habitants was reduced of 75% in the past 30 years, also in response to the unneglectable need to invest on territory healthcare services in response to democratic challenges. This left EU Hospitals completely unprepared to the COVID-19 pandemics, proving that hospital budget cuts must be complemented with major organizational restructuring, making use of innovative technologies. We have identified 11 hospital critical challenges, which ODIN will face combining robotics, Internet of Things (IoT) and Artificial Intelligence (AI) to empower workers, medical locations, logistics and interaction with the territory. ODIN will deploy technologies along three lines of intervention: empowering workers (AI, cybernetics and bionics), introducing autonomous and collaborative robots and enhancing medical locations with IoT. These areas of intervention will be piloted in six hospitals (in Spain, France, Italy, Poland, The Netherland, Germany), via seven use cases, spanning from clinical to logistic, including patient management, disaster preparedness and hospital resiliency.ODIN pilot will be a federation of multicentre longitudinal cohort studies, demonstrating the safety, effectiveness and	3/1/2021	8/31/2024	https://cordis.europa.eu/project/id/101017331	Medtronic Iberica Sa	

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				cost-effectiveness of ODIN technologies for the enhancement of hospital safety, productivity and quality. Use-case protocols will be approved by the local hospital ethical committees, in order to assure the highest quality of the study, while providing a pragmatic solution for the scaling-up of the ODIN technological solutions and business models in a variety of local ecosystems. ODIN vision is that as Evidence Based Medicine revolutionized medicine with data-driven procedures, so data-driven management (enabled by Industry 4.0 tech) can revolutionise hospital management					
SHIFT-HUB	Smart Health Innovation & Future Technologies Hub	Project - CSA	telehealth	SHIFT-HUB aims to establish a pan-European Smart Health Innovation Hub bringing together a rich network of multidisciplinary stakeholders across the dimensions of the quadruple helix, with the mission to facilitate the development, ensure the promotion and foster the uptake of Smart Health technologies and services. SHIFT-HUB will develop and test with the community a complete service offer, integrating networking and matchmaking, identification of partners and support for procurement, guidance for access to funding, research infrastructures and scientific expertise. In complement to a complete service offer based on JRC's guidelines for the establishment of DIH's, SHIFT-HUB's differentiating factors consist in: 1) an immersive approach to involve patients and citizens in the co-creation process based on the Living Lab methodology, coupled to an on-line gamification based e-learning journey allowing to raise awareness, increase literacy and foster the adoption of Smart Health solutions. 2) an approach based open innovation to foster a collaborative, demand-driven and SME-inclusive development and uptake of Smart Health solutions [in a ecosystem of multidisciplinary stakeholders]. 3) a technical platform pilot including a Health Data Hub, a Smart Health Apps Repository and an on-line Marketplace to support the experimental development based on a secure and interoperable access to data and showcase a portfolio of solutions developed by the community members. SHIFT-HUB will identify a pool of 100 high potential Smart Health apps, that will be assessed by at least 300 patients and citizens during 5 Living Lab events, 1500 users on-line and will be connected to at least 50 Healthcare organizations for further uptake.	1/1/2023	12/31/2025	https://cordis.europa.eu/project/id/101095720	Steinbeis 2i Gmbh	
AIDPATH	Artificial Intelligence-driven, Decentralized Production for Advanced Therapies in the Hospital	Project -IA		AIDPATH (Artificial Intelligence-driven, Decentralized Production for Advanced Therapies in the Hospital) is a high-energy EU consortium, dedicated to enable and to augment the next-generation of personalized medicine at EU hospitals through the use of AI tech-nology. The exemplary embodiment of gene-engineered immune cells in AIDPATH will be T cells expressing a synthetic chimeric antigen receptor (CAR-T). These cells are already a revolutionary novel treatment in hematology and oncology, and will also be useful for treating infections and autoimmune diseases. Conventional CAR-T therapy is complicated by complex logistics from centralized manufacturing facilities, inflexible manufacturing and clinical use schemes that disregard patient and cell characteristics, thus limiting patient access and therapeutic outcome. AIDPATH will apply top-notch AI technology to integrate patient-specific data and biomarkers in CAR-T therapy, and apply flexible manufacturing schemes to obtain CAR-T cell products with optimal fitness and anti-tumor potency. AI technology will be applied in pre- and in-process controls to reduce cost and hospital resource utilization and to augment patient access. AIDPATH will establish a role model that integrates the hospital in a smart manner, incorporating aspects of logistics, capacity planning, data management and cybersecurity by design. The project is designed to enable smart 'bedside' provision of personalized treatments and to accomplish end-to-end automation of hospital-based CAR-T manufacture. A key deliverable in AIDPATH will be an integrated cyberphysical infrastructure for rapid dissemination of the 'smart CAR-T manufacturing and clinical use' concept to hospitals throughout the EU. AIDPATH brings together a world-class consortium to address these challenges, consisting of key opinion leaders in science and translational medicine, innovative SMEs and commercial partners, patient advocates, policy makers and regulatory experts.	1/1/2021	12/31/2024	https://cordis.europa.eu/project/id/101016909	Fraunhofer Gesellschaft Zur Forderung Der Angewandten Forschung Ev	