Your health data available and shareable when and where you need

InteropEHRate

EHR in people's hands across Europe

www.interopehrate.eu

interopehrate

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 826106.

Europe needs to shift from closed technological "walled gardens" inhabited by national healthcare organisations, to a global ecosystem based on an open health platform, where software vendors, institutions and citizens of different countries may securely collaborate, to improve healthcare and medical research, thanks to common technologies.

Our **key goal** is to complement and integrate the current interoperability infrastructures with new technologies for health data exchange centred on the person, based on a bottom-up approach that does not require the coordination by a superior authority and that leaves more control of health data to the people.

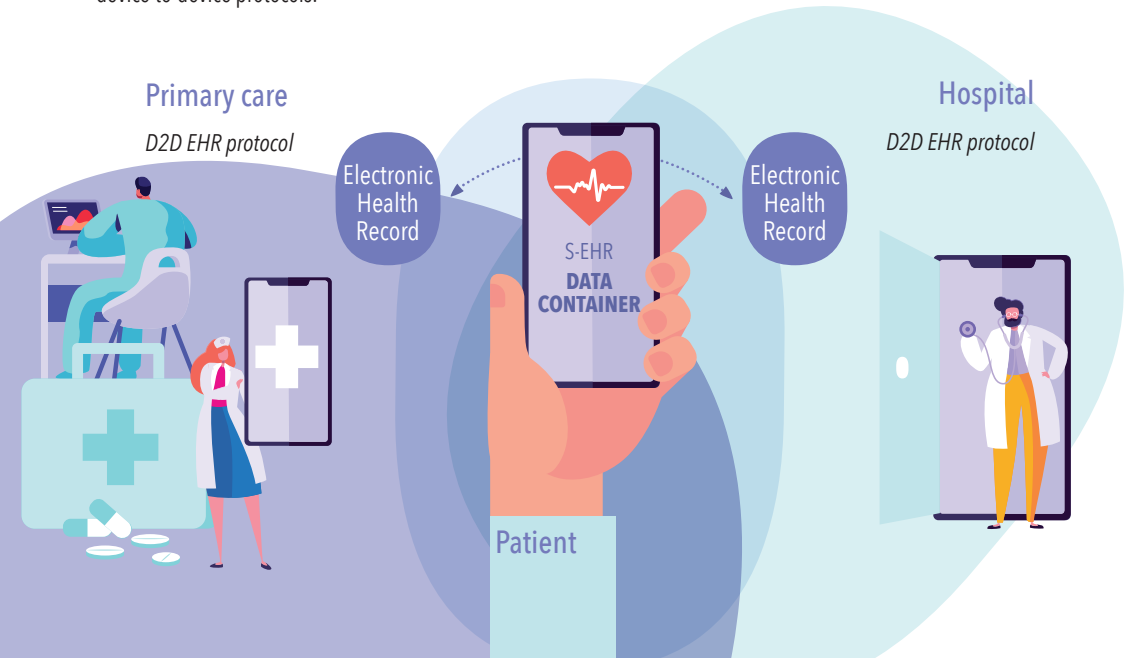
Project Aim

InteropEHRate aims to support peoples' health by opening them up to new ways to make health data available whenever and wherever needed. To make this possible, key health data is managed in "patients' hands", i.e. through Smart Electronic Health Records (S-EHR) on mobile devices. Data is always transferred via highly secure channels including a direct device-to-device (D2D) communication. Patients are in full control of their data and its routes.

InteropEHRate is developing open interchange protocols supporting patient-centred exchange of health records between patients, healthcare actors and researchers. Thus, the project will contribute to the next steps in the follow-up of the February 2019 EC recommendation C(2019) 800 and help to pave the way towards an open European Electronic Health Record (EHR) exchange format and process. It will specifically add a decentralised, patient-driven bottom-up approach as an alternative method to the top-down approach of exchanging patient data exclusively via the national contact points for eHealth.

Core functionalities of InteropEHRate (I)

Patients are in control of all personal health data and can collect, see and share it with healthcare professionals, researchers or whoever they want.
People are hence mediators for health data exchange that can also be transferred privately and securely through device-to-device protocols.



InteropEHRate technical approach

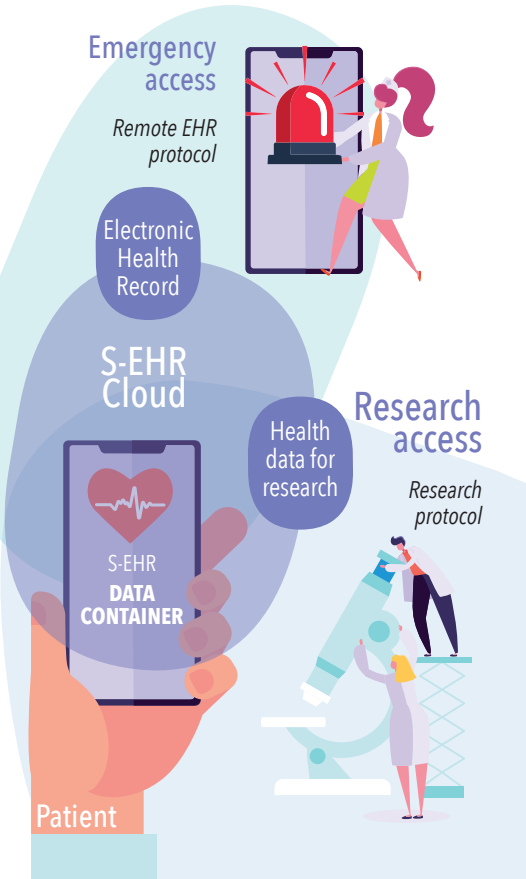
The project will release an open specification to securely exchange health data using the InteropEHRate protocols between different persons' S-EHRs, and different applications of researchers and healthcare professionals of different countries. To facilitate the creation of a new ecosystem of applications based on this open specification, InteropEHRate will also release a reference implementation of the following key elements:

- **S-EHR mobile app (Data container)**
  Prototype able to store securely any health data about a single citizen, generated by the citizen itself or by the healthcare professionals. The S-EHR mobile app will be able to exchange health data with healthcare professionals and researchers of different countries using the InteropEHRate protocols.
- **S-EHR cloud**
  Prototype of a service managed directly by the citizen, able to store on the cloud the personal health data collected by the S-EHR mobile app. Citizens may choose to use the S-EHR mobile app without using the corresponding S-EHR cloud storing data only on the smartphone.
- **InteropEHRate Health Services (IHS)**
  A set of service components reusable by any healthcare organization, offering the implementation of the InteropEHRate protocols for the exchange of health data between citizens' S-EHRs and healthcare professionals Apps. IHS will exploit existing infrastructures for cross-border identification of citizens and will assure the respect of strong security requirements.
- **Electronic Health Record (health professional access)**
  Application exploiting the IHS and used by healthcare professionals to read from and write any relevant health data on the S-EHR of the patients who have given their consent.
- **InteropEHRate Research Services (IRS)**
  A set of service components reusable by any research centre offering the implementation of the InteropEHRate protocols for requesting to the citizens and receiving from their S-EHRs health data donated for research purposes.

Core functionalities of InteropEHRate (II)

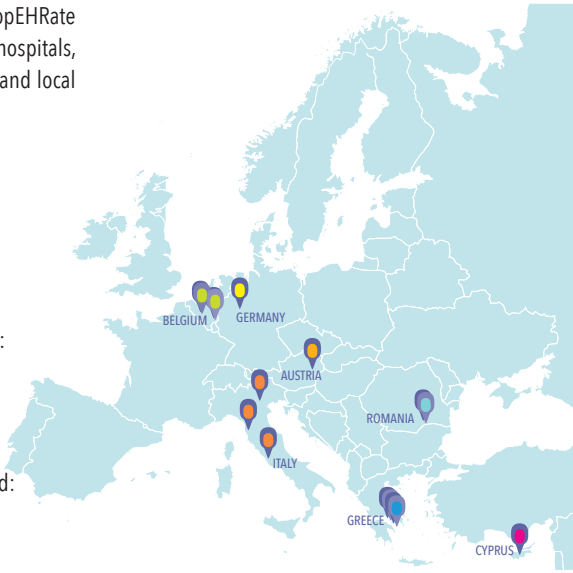
The patient is not locked with one vendor and may change the S-EHR app or move data between cloud storages.
The S-EHR app and cloud vendors may be different.
The cloud storage can be used for emergencies, like a national EHR.

InteropEHRate will define vendor-independent protocols for direct communication with patients and vendor-independent criteria to be fulfilled by the apps and service providers for secure storage of health data on mobile and on cloud.



About the project

The InteropEHRate project is funded by the European Union for 42 months and is implemented by a unique consortium of experienced institutions and qualified experts. InteropEHRate partners represent healthcare solution providers, hospitals, universities and research centres as well as European and local stakeholder associations.



InteropEHRate Consortium

InteropEHRate consortium is composed of 16 partners: industrial (2), small and medium enterprises (3), non-government organisations (2), hospitals (2), research centres (6) and public organisation (1).

Geographically, the following countries are represented: Austria (1), Belgium (4), Cyprus (1), Germany (1), Greece (4), Italy (3), Romania (2)

- Engineering - Ingegneria Informatica S.p.A. (Italy)
- A7 Software (Belgium)
- EHTEL - European Health Telematics Association (Belgium)
- DTCA Hygeia – Diagnostic and Therapeutic Centre of Athens (Greece)
- University of Trento (Italy)
- University of Vienna (Austria)
- EFN - European Federation of Nurses Associations (Belgium)
- FTGM - Toscana Gabriele Monasterio per la Ricerca Medica e di Sanità Pubblica (Italy)
- CHU de Liège - Centre Hospitalier Universitaire de Liège (Belgium)
- UBITECH Limited (Cyprus)
- UPRC - University of Piraeus Research Center (Greece)
- SCUBA - «Bagdasar-Arseni» Clinical Emergency Hospital of Bucharest (Romania)
- SIVECO Romania S.A. (Romania)
- Fraunhofer ISST - Institute for Software and Systems Engineering (Germany)
- ISA - Iatrikos Syllogos Athinon (Greece)
- Byte Computer S.A. (Greece)

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