BLOCKCHAIN

MyHealthMyData

Medical data is generally stored in separate locations, and is not always easily accessible to patients and research institutions. It can be vulnerable to security breaches and identity theft – and at the same time scientists do not always have access to data for biomedical research and the development of new treatments. My Health My Data (MHMD) aims to use blockchain technology to enable medical data to be stored and transmitted safely and effectively. MHMD project is centred on the connection between organisations and individuals, encouraging hospitals to start making anonymised data available for open research, while prompting citizens to become the ultimate owners and controllers of their health data.

MyHealthMyData will create a platform relying on the blockchain system, a digital ledger where data transactions are visible to the entire network of stakeholders, minimizing any possibility of fraudulent usage. A dynamic consent interface will allow users to grant, deny or revoke consent to data access for different uses according to their preferences. The project will explore the feasibility of applications leveraging the value of large clinical datasets, particularly advanced data analytics, medical annotation retrieval engines and patient-specific models for physiological prediction.

Project in brief

- **Total budget:** EUR 3 455 190 funded by the EU's Horizon 2020 research and innovation programme
- **Period:** 11/2016 – 10/2019
- **Countries involved:** Italy (coordinator), Austria, France, Germany, Greece, Romania, Switzerland and the UK (hospitals, universities and private companies)

KEY FIGURES IN THE EUROPEAN UNION

150 exabytes of data is stored by the healthcare industry worldwide every year

More than 193 million personal records were open to fraud and identity theft in 2015

Medical records are worth up to ten times more on the black market than other information

POLICY CONTEXT

The Digital Single Market creates opportunities for new start-ups and allows technological development of existing companies in a market of over 500 million people. The digital transformation brought by the Big data will give to the EU businesses and society an enormous growth potential. Blockchain is the best known distributed ledger technology. Blockchain is the best known distributed ledger technology. A ledger is a database which keeps a final and definitive record of transactions. Records, once stored, cannot be tampered without leaving behind a clear track. Blockchain enables a ledger to be held in a network across a series of nodes, which avoids one centralised location and the need for intermediaries' services. This is particularly helpful for providing trust, traceability and security in systems that exchange data or assets. There is a lot of potential for blockchain to be used in many different areas such as financial services, supply chains or healthcare.

More info: www.myhealthmydata.eu/