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PRESS RELEASE

A COVID-19 immunity passport secured by blockchain to enable deconfinement

As the coronavirus crisis continues to wreak havoc on the lives of citizens and the economies of more than 190 countries, one of the challenges for governments and local authorities is to manage deconfinement effectively and the progressive return to normal life, as well as preventing further waves of infection. Several different technological solutions are envisaged, notably movement documents and traceability apps, but all are vulnerable to fraud and falsification and may impact on basic liberties, be discriminatory or be socially unacceptable. The introduction of an immunity passport or other highly secured health document would help manage the health status of the population in real time, respecting ethical standards and protecting personal data whilst guaranteeing the issuance, use and verification of certified data which is secured and anonymised.

It is against this background that three companies have partnered to propose the "Covid-19 secured immunity passport", a health passport which will contribute to allowing rapid and safe deconfinement: OpenHealth, French leader in managing health data for official health authorities and stakeholders in industry, research and the public at large; the Swiss SICPA Group, global leader in providing authentication and secured traceability technologies; Guardtime, supplier of the KSI® Blockchain timestamping, the first blockchain-based trust service certified under the EU's eIDAS framework.

The proposed solution aims to issue and manage immunity passports ("Covid-19 immunity passport") which would serve as the basis for real-time monitoring of the population's state of immunity. The KSI® Blockchain will make it impossible to falsify and the immunity data on these certificates will be used by the OpenHealth platform to follow the evolution of deconfinement and management of the crisis, following the model of flu pandemics.

SICPA's Certus[™] technology, provided to the French government in the framework of a call for projects launched by the Defence Ministry to combat Covid-19, aims to allow all consenting persons who have had an approved test to detect the virus or antibodies, to receive a certificate from an authorised body showing the result of the test, in a digital, but printable, format which cannot be falsified and is universally verifiable. A simple smartphone app or a computer is all that is required for the verification, including in offline mode, with all personal data about the person tested being anonymised. The tool is interoperable and works without a central database. Furthermore, the passport can be updated in real-time (creation, expiration, renewal, cancellation) according to medical test results. The rules for use being defined by the appropriate competent authorities.

In addition to enabling social and economic activity to restart in accordance with the conditions determined by the state, this technology could also allow public authorities to control access to critical or sensitive facilities, such as hospitals and retirement homes, schools, government offices, companies and businesses, taking account of the remaining uncertainties about the virus, evolving health policies and the reliability of tests. The solution once implemented can support health authorities to measure the efficiency of the deconfinement plan and to monitor in real-time the progressive acquisition of mass immunity.

Looking beyond the crisis, the immunity passport secured by blockchain can help better prepare for the future and serve as a tool to manage any new wave or seasonal reoccurrence of the epidemic. It could also be the cornerstone of a future secured digital vaccination record.

The "Covid-19 secured immunity passport" is designed to meet the highest level of protection of personal data, in accordance with the GDPR, thus assuring both the protection of populations and the respect of the right to privacy.

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The consortium brings together the expertise of three companies to implement the 'Covid-19 immunity passport" secured by blockchain:

SICPA, for its experience in secured authentication, notably for official documents;

Founded in Lausanne in 1927, **SICPA** provides secured authentication, identification and traceability solutions and services, integrating material-based covert features and digital technologies. At the forefront of research and innovation, operating on five continents, SICPA inks and special features protect the majority of the world's banknotes, security and value documents. Every day, governments, companies and millions of people rely on us to protect the integrity and value of their currency, personal identity, products and brands. SICPA has developed a range of products in the Health field, including Genesis® (serialization and aggregation stations for pharma manufacturers and distributors) as well as security labels for brand protection using Quazar® technologies. (www.sicpa.com)

Guardtime, for its KSI® Blockchain, deployed for a decade to secure citizen data in Estonian official databases, including health data; KSI® Blockchain Timestamping Service is compliant with the eIDAS regulation and included in the European Trusted List;

Guardtime is the world leader of integrity platforms based on the KSI® Blockchain that is used to create solutions for a wide range of industry sectors (healthcare, telecommunications) or governments. The company was founded in 2007 in Estonia, where its products are used since 2008 to strengthen the Estonian digital environment.

Examples of solutions developed by the company, in collaboration with industry partners, include service-based GDPR compliance, counterfeiting, maritime insurance data exchange, supply chain traceability, digital content management, cyber security, software lifecycle management, critical infrastructure protection and health, as well as e-Administration and e-Government.

OpenHealth, for its expertise in bulk data management for public health, working with other health agencies in France (ANSM) and with international monitoring projects.

OpenHealth is a French company specialized in the aggregation and processing of multisource health data for research and analysis

The data collected are strictly anonymous in the trusted OpenHealth environment and kept in our on-line platform 'The Hub' which uses best in class data exploitation and visioning tools.

OpenHealth has always been focused on providing its expertise and infrastructure to public health services:

- Our platform 'The Hub' is used daily by the ANSM for monitoring consumption of medicines in France;
- Our platform also hosts the international GIHSN network for flu monitoring (collection and processing of data from 100 hospitals in 23 countries) relevant for the Covid context;
- We are also the operator of a recently launched initiative by the department of Morbihan in France to undertake a retrospective study of prevalence of SARS-CoV2 in the Morbihan population which was affected early by the epidemic;
- "Measuring prevalence at a moment in time (a 'photo') and over time (the 'film') are the foundations for understanding the flow of the epidemic. The retrospective study of prevalence in the Morbihan on the basis of preserved samples from hospitals, clinics and labs in the area is a 'first'" Dr Patrick GUERIN