



Ms Ursula Von der Leyen  
President of the European Commission

Brussels, 03/12/2020

Validity mechanism for COVID-19 tests and related vaccinations through Blockchain technology.

Dear Ms President,

Following your appeal on October for acceptance of the need of COVID-19 checks among member-states but also the discussion at the Commission a few days ago in the same spirit, we submit to the European Commission the proposal for the creation of a mechanism assuring the validity of COVID-19 tests but also of the forthcoming vaccinations.

The private sector is already planning the next day, whose *sine non qua* will be safeguarding the security of the citizens thus making the need for absolute liability, regarding the health certificates, a prerequisite. The Chinese President, Xi Jinping, proposed the use of QR code for this matter, but the European Union needs to move forward with the technology of the future in which it has already invested.

We propose the utilization of Blockchain technology to create an absolutely secure validity mechanism that will contribute significantly to restoring the trust between member-states at a cross-border level. This mechanism will eradicate the scourge of fake tests at the cross-border controls and the restriction of rapid tests only for extraordinary occasions, thus leading to a normalisation of movement. With the spread of vaccinations, the need for valid certificates becomes even more imperative.

Consequently, we propose to the Commission to put forward the creation of a database with the use of blockchain technology, which in combination with a standardized pan-European model of organized governance, will offer a rapid economic and fully secure solution to the problem that troubles all EU governments.

The implementation of the proposal could be assigned to the European Centre for Disease Prevention and Control and at a later stage incorporated as a model solution to the recent EU initiative on European Blockchain Services Infrastructure.

With that tool, we will be in position to deliver our goal in a secure and prompt way and at a relatively low cost. Blockchain technology secures that COVID-19 tests or the vaccination certificates could be verified in real time as to their origin (labs), as to their subject (civilians, travellers etc.) and as to the result (test outcome).

A centralized, completely secure knowledge database equipped with data that will be updated in real time from all the official laboratories responsible for COVID-19 tests and vaccines for all EU countries, and third countries at a later stage, will enable national organizations to create a blockchain for the exchange of information based on agreed protocols.

Each laboratory will be known and credible inside the blockchain through its own digital certificate. The organisations will share a ledger registry of transactions, with each test result representing a transaction and consequently a registration. The ledger will be maintained through a network of nodes that will be provided from the organizations, as each one of them will have a completely updated copy of the ledger through blockchain technology. This technology guarantees complete protection from malware attacks, much more resilient than any other digital firewall. It is not a coincidence that cryptocurrencies, worth of billions of euros, are built utilizing this impenetrable, by its nature, technology.

Madame President, the EU ought to prepare now for the next day.  
We believe that our proposal will contribute decisively towards this direction.

Most respectfully,

Georgios Kyrtos, MEP

Maria da Graça Carvalho, MEP