

## EIT DIGITAL PILOTS COVID-19 TRACING WITH PHYSICAL TOKENS IN STADIUMS, HOSPITALS, SCHOOLS, AND CONCERT HALLS

LINK: <https://www.eitdigital.eu/newsroom/news/article/eit-digital-pilots-covid-19-tracing-with-physical-tokens-in-stadiums-hospitals-schools-and-c...>

EIT Digital partners in four European regions are testing the application of COVID-19 tracing with physical tokens in real-life settings addressing events and situations crucial for opening essential parts of Europe's economy. Football stadiums, hospitals, high schools, factories, concerts and opera houses are among the settings for testing the practical use of physical tokens to trace contagion and spread of COVID-19. EIT Digital supports four teams in the Nordics, Benelux, Italy and the UK as part of its initiatives to mitigate the impact of COVID-19 on our societies and economies with the help of digital technology. Pilots are launched in September. Token systems are easy to use, secure, privacy preserving and operate independently of mobile phones. Physical contact tracing tokens complement app-based tracing solutions. Contact tracing is an important method to contain the spread of COVID-19. Many countries launched smartphone app solutions. EIT Digital complements the smartphone-based approach with solutions

based on physical tokens. Following a public call, EIT Digital received more than 60 expressions of interest. Based on this response, four European teams were established to work on concrete pilots. C-DETECT token by UK partner Sentinel C-DETECT token by UK partner Sentinel. All pilots have one thing in common: anonymity. Device wearers are anonymously notified if they have been in contact with a fellow wearer that - potentially or confirmed - has been infected with COVID-19. In such case, the wearers are asked to self-isolate and where possible take a test. As of mid-October, the UK pilot device C-Detect will be validated in several clinics in the UK and on construction sites. This COVID-19 early warning system can both track and trace contagion. The device is attached to a wristband and checks every 10 minutes the wearer's respiration rate, oxygen saturation, heart rate and body temperature. Exceeding normal limits in any of the above may indicate a Coronavirus infection. In such case, C-Detect prompts the wearer

to take a test and therefore limit spreading. Beta version of TokenMe wristband device with PSV Eindhoven branding. Beta version of TokenMe wristband device with PSV Eindhoven branding. The Benelux pilot TokenMe uses a solution resembling a wristwatch. The devices detect proximity and exchange IDs anonymously via broadcast radio. The bracelet system will be tested in two settings: football games in the Philips Stadium of Dutch club PSV Eindhoven and large-scale events like concerts. In both cases, visitors will upon entry be offered to take and wear the device. The notification of other users in case of infection will remain voluntary. Likewise, the Italian pilot IprotectEU makes use of a token system resembling a bracelet. The team intends running the pilot in four stages and scenarios with increasing numbers of users. The initial stage will be run in an Italian high school, followed by a factory plant, then an opera house, and finally a large concert venue. The Nordic team will apply a hybrid solution, combining hardware tokens with a

smartphone-based app that assists all tokens in proximity to save their battery. These companion apps are not personal and their use not mandatory for token owners. The pilot is intended to be run in hospital environments and on construction sites. The teams will create startups that will run the pilots and, following successful completion, be responsible for market introduction, production upscaling and commercial distribution. The four pilot teams The UK team is led by Sentinel Biosensor, supported by global infrastructure and mobility services expert Ferrovial and Ci3, Centre for the Innovation of Smart Infrastructures. The Benelux team is jointly led by Dutch broadcasting specialists ItoM and wireless solutions expert Sostark. Further partners are Dutch Signify (fmr. Philips Lighting), the market leader in LED lighting systems. The Italian team is led by digital transformation specialist **Engineering**, in collaboration with Spanish Internet of Things experts HOP Ubiquitous, smart components and appliances developer Elettrotecnica Rold, and Integrated Systems Design and Development, specialising in the design and manufacture of medical

devices. The Nordic team is led by the Technical Research Centre of Finland VTT. They partner up with Finnish IoT experts Mativation, Machine Learning Reply (consulting firm Reply's specialists in Artificial Intelligence), spatial-aware platform provider Nagoon and product design experts Moviemall, both from Sweden. Author - Peter Stempel