



# EU Digital COVID Certificate

European Commission presentation for the 2<sup>nd</sup> Joint ITU/WHO Workshop on Digital COVID-19 Certificates

**Session 1:** Experience, best practices and solutions of digital COVID-19 certificates and certificate-based services

*9 November 2021*




# What is the EU Digital COVID Certificate?

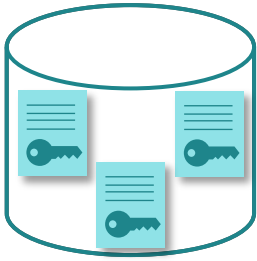


- Digital proof that a person has either**
- been vaccinated against COVID-19
  - received a negative test result
  - recovered from COVID-19

- What does it entail?**
- Data is encoded, compressed and digitally signed in interoperable barcode
  - Paper or digital format, easy to read
  - Free of charge
  - Bound to an EU citizen: 1 certificate, 1 holder
  - Europe-wide validity
  - Signature validation key exchange is done via an EU Gateway

# Outline technological architecture

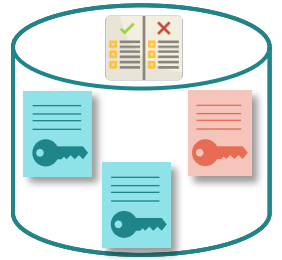
-  private key
-  public key(s)
-  business rules



EU Digital COVID Certificate



Verifying



verifier app *offline verification*

**Country B (verifier)**



Signing

**Country A (issuer)**



Third country issued digital certificate

# Datasets in the EU DCCs

	Vaccination	Test	Recovery
<b>Personal data</b>	<ul style="list-style-type: none"> <li>name: surname(s) and forename(s)</li> <li>date of birth</li> </ul>	<ul style="list-style-type: none"> <li>name: surname(s) and forename(s)</li> <li>date of birth</li> </ul>	<ul style="list-style-type: none"> <li>name: surname(s) and forename(s)</li> <li>date of birth</li> </ul>
<b>Clinical data</b>	<ul style="list-style-type: none"> <li>disease or agent targeted: COVID-19 (SARS-CoV-2 or one of its variants)</li> <li>COVID-19 vaccine or prophylaxis</li> <li>COVID-19 vaccine product name</li> <li>COVID-19 vaccine marketing authorisation holder or manufacturer</li> <li>number in a series of doses as well as the overall number of doses in the series</li> <li>date of vaccination, indicating the date of the latest dose received</li> <li>Member State or third country in which the vaccine was administered</li> </ul>	<ul style="list-style-type: none"> <li>disease or agent targeted: COVID-19 (SARS-CoV-2 or one of its variants)</li> <li>the type of test</li> <li>test name (optional for NAAT test)</li> <li>test manufacturer (optional for NAAT test)</li> <li>date and time of the test sample collection</li> <li>result of the test</li> <li>testing centre or facility (optional for rapid antigen test)</li> <li>Member State or third country in which the test was carried out</li> </ul>	<ul style="list-style-type: none"> <li>disease or agent from which the holder has recovered: COVID-19 (SARS-CoV-2 or one of its variants)</li> <li>date of the holder's first positive NAAT test result</li> <li>Member State or third country in which test was carried out</li> <li>certificate valid from</li> <li>certificate valid until (not more than 180 days after the date of first positive NAAT test result)</li> </ul>
<b>Metadata</b>	<ul style="list-style-type: none"> <li>certificate issuer</li> <li>unique certificate identifier</li> </ul>	<ul style="list-style-type: none"> <li>certificate issuer</li> <li>unique certificate identifier</li> </ul>	<ul style="list-style-type: none"> <li>certificate issuer</li> <li>unique certificate identifier</li> </ul>

# How are DCCs used?

51

Countries connected to the EU DCC Gateway

30

EU27+EEA



21

Third countries



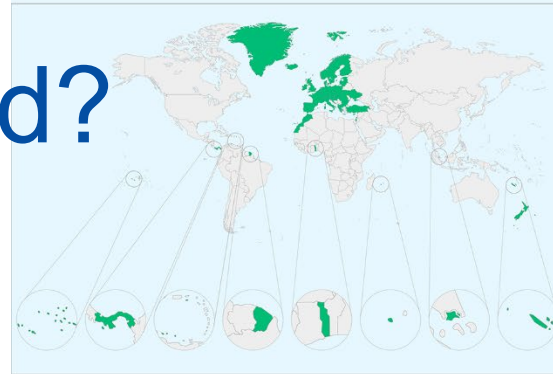
30

In the pipeline

Countries from across 5 continents whose applications are still under assessment

20

Member States using EU DCC for domestic purposes



666m+

Issued certificates

474m

vaccination certificates



74m

PCR test certificates



107m

rapid antigen test certificates



11m

recovery certificates



# Key success factors and challenges

**Overall, the EU Digital Covid Certificate has been a big success**

- **Success factors:** political will, clear objectives, teamwork and trust, flexibility, funding, early implementation of EU DCC Gateway
- Challenges:
  - Time constraints
  - Heterogeneity of EU Member State healthcare systems
  - Initial agreement on use purpose
  - Data protection
  - Public expectations
  - Evolving epidemiological situation

**These challenges have not been show-stoppers, making the EU Digital Covid Certificate system a success story**

# Decentralised identity and the EU DCC

- Proposal on European Digital Identity (June 2021)
- Establish common toolbox to include technical architecture, standards and guidelines for best practices (September 2022)
- Digital wallets that link their national eIDs with proof of other personal attributes
- Lack of interoperability between national eIDs
- Use case: healthcare to be included

# Thank you



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