

European Digital Green Certificate (DGC)

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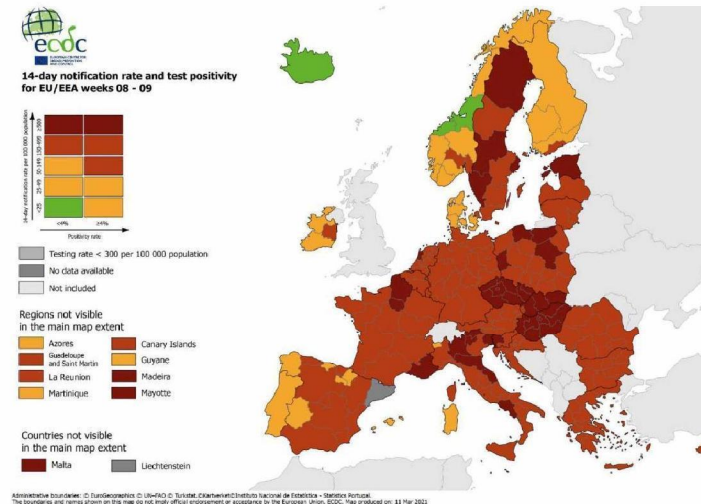
15 april 2021



Huidige situatie



- Verschillende bewegingsvrijhedenrestricties in de EU.
- De EU-lidstaten vereisen verschillende typen document om het land binnen te komen (medische certificaten, test resultaten).
- Er zijn geen afspraken tussen de EU-lidstaten over het gebruik van certificaten, maar sommige landen hebben gevaccineerde/herstelde personen al uitgezonderd van restricties (of zijn van plan dit te doen).
- Ontbreken van gestandaardiseerde en veilige formats zijn reden voor acceptatie en fraude problemen.



EU Digital Green certificate



- Idee om iets te doen met vaccinatiecertificaten ontstond in december 2020 net voordat de EU-lidstaten begonnen met hun vaccinatie campagnes.
- Het eHealth Netwerk begon eerst met het ontwikkelen van een Guideline voor vaccinatie certificaten voor medische doeleinden eind januari was deze aangenomen.
- Politiek waren wij en andere landen nog niet zover om het idee van vaccinatie certs te gebruiken bij reizen.
- Op 12 januari deed Griekenland een dringende oproep aan de EC om iets te doen met vaccinatie certs om het vrij verkeer van personen te herstellen.
- Stroomversnelling in februari
- eHealth Netwerk (Semantische en Technische subgroep) hard gewerkt aan minimale datasets (vaccinatie, test, herstel certificaten) en Trust Framework.
- Publicatie van de concept Verordening European Digital Green Certificate

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on a framework for the issuance, verification and acceptance of interoperable certificates on vaccination, testing and recovery to facilitate free movement during the COVID-19 pandemic (EU COVID Card/Digital Green Certificate)

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,
 Having regard to the Treaty on the Functioning of the European Union, and in particular Article 21(2) thereof,
 Having regard to the proposal from the European Commission,
 Acting in accordance with the ordinary legislative procedure,
 Whereas:

- (1) Citizenship of the Union confers on every citizen of the Union the right to move and reside freely within the territory of the Member States, subject to the limitations and conditions laid down in the Treaties and by the measures adopted to give effect to them. Directive 2004/38/EC of the European Parliament and of the Council¹ lays down detailed rules as regards the exercise of that right.
- (2) On 30 January 2020, the Director-General of the World Health Organization (WHO) declared a public health emergency of international concern over the global outbreak of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which causes

Europese principes en waarden




- Vrij verkeer van personen in de EU
- Geen vaccinatieplicht
- Non-discriminatoire bij vrij verkeer van personen.
- Alternatieven: test, vaccinatie en herstel certificaten
- Fundamentele rechten mbt privacy

Waar staan we nu (legal)



Politiek proces:

- Publicatie van de Verordening 17 maart 2021.
- PT Voorzitterschap heeft Verordening urgente status gegeven (snelle/prioritaire behandeling).
- Ad-hoc Raadswerkgroepen (alle lidstaten) opgericht om te onderhandelen over de inhoud en doet voorbereiding mandaat en instructies voor de EU Raad in de triloog.
- EU parlement is nu zijn eigen opmerkingen aan het opstellen.
- De COREPER (alle ambassadeurs van lidstaten) geeft finale akkoord op instructies en mandaat EU Raad op 14 april
- Start van triloog (EU Raad, Europese Commissie, Europees Parlement) vanaf 21 april
- Afronding van de triloog en akkoord op Verordening medio juni.


 Council of the European Union

Brussels, 9 April 2021
(OR_en)

7673/21

Interinstitutional Files: 2021/0068(COD) 2021/0071(COD)	LIMITE COVID-19 130 JAI 371 AG 30 FRONT 133 FREMP 84 IPCR 41 VISA 73 MI 238 SAN 192	TRANS 197 COCON 22 COMIX 200 CODEC 498 SCHENGEN 27 AVIATION 72 PHARM 58 RELEX 285 TOUR 18
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NOTE

From: Presidency
 To: Ad hoc Working Party on the proposals for a Digital Green Certificate
 No. Clon doc.: 7129/21 + ADD 1, 7129/21
 Subject: Digital Green Certificate (DGC)

- Proposal for a Regulation of the European Parliament and of the Council on a framework for the issuance, verification and acceptance of interoperable certificates on vaccination, testing and recovery to facilitate free movement during the COVID-19 pandemic
- Proposal for a Regulation of the European Parliament and of the Council on a framework for the issuance, verification and acceptance of interoperable vaccination, testing and recovery certificates for third country nationals legally residing in the Schengen area to facilitate free movement during the COVID-19 pandemic
- Examination of Presidency compromise text

Delegations will find in the Annex a Presidency compromise text on the above-mentioned proposals for further discussion at the Ad Hoc Working Party on the proposals for a Digital Green Certificate on 12 April 2021.

Changes compared to the Commission proposal are marked in **bold/underline** for additions and in ~~strike through~~ for deletions. New changes compared to the previous version are also **grey shaded**.

The Presidency kindly asks delegations to focus on main issues, in particular on newly introduced

Waar staan we nu (alignment)



Proces:

- **Specificaties:** eHN SG on Technical Interoperability
 - eHN – 27 MS – specialisten, samen met
 - EC - SANTE, CNCT, MOVE, JUST, JRC, HOME, ..

- **Afstemming met:**
 - WHO – data set, PKD, QR code (in progress)
 - ICAO – nog open issues over QR
 - Airlines: KLM, Lufthansa, A4E, ACI, IATA
 - Airports – Schiphol, Roma, Paris
 - Data minimisation: HSC, ECDC
 - Implementation: SAP/T-systems
 - Standardisation: HL7 – FHIR (logical model)
 - Testen: SAP, IHE

Waar staan we nu (deliverables)



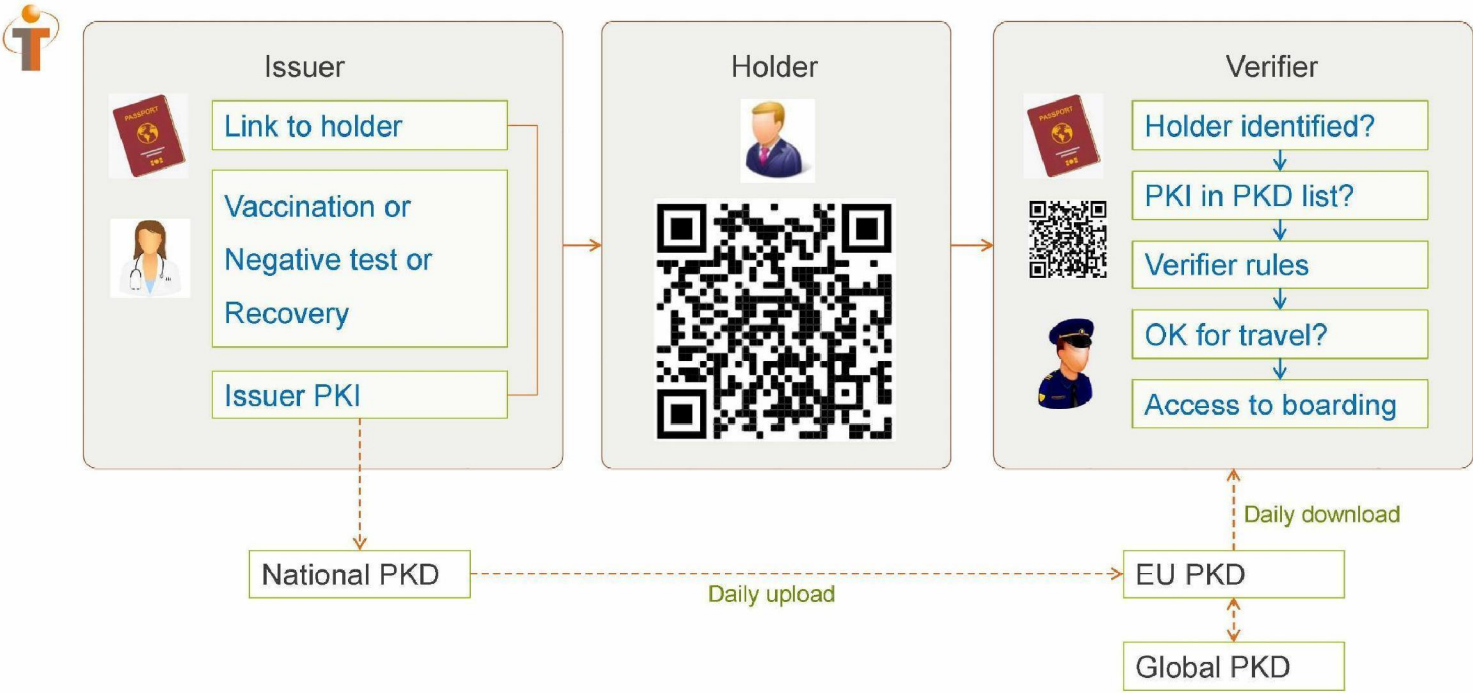
16 april:

- **Minimal Data Set** – eHN SG on Semantics
 - Data set
 - Value set (including dynamic value sets)
- **Trust Framework** – eHN SG on Technical Interoperability
 - DGC Gateway – daily download of
 - Public keys list - PKD
 - Value sets updates
 - Rules (acceptance by countries of destination)
 - QR code (JSON-CBOR-COSE-Zlib-QR)

Worden ter adoptie worden voorgelegd aan het eHN.

Datum: asap

Trust Framework functional components



Offline verification

1

Proof of vaccination for medical purposes 



Name [redacted] 5.1.2e
 Date of Birth [redacted] 5.1.2e
 Adm. gender Male
 Passport number [redacted] 5.1.2e
 National health ID [redacted] 5.1.2e
 Certificate issued [redacted] 5.1.2e

Dose 1/2		Dose 2/2	
Type	C19-mRNA	Type	C19-mRNA
Date	2021-02-03	Date	2021-02-24
Brand	Comirnaty	Brand	Comirnaty
MAH	Pfizer Oy	MAH	Pfizer Oy
Batch	AB123CD	Batch	EF456GH
Adm. centre	Hospital 1	Adm. centre	Health centre 2

Country Middle Earth
 Issued by National health service
 Signature Digitally signed

Online verification: npsme.health/c19verify
 Scan to open verification page: [redacted] 5.1.2e Enter cert ID and verification code: HFGT-HETS-POZ3-BS12-ABSC

Paper cert

ME-telecom

Proof of vaccination



Name [redacted] D*** J***
 Date of Birth [redacted] **8*_*_*_5
 Certificate issued 2021-06-02

Vaccination
 Agent SARS-CoV-19
 Cycle completed Yes

Wallet app

ME-telecom



Name [redacted] D*** J***
 Date of Birth [redacted] **8*_*_*_5
 Certificate issued 2021-06-02

Vaccination
 Agent SARS-CoV-19
 Cycle completed Yes

Verifier app

Minimum dataset

ADOPTED AND PUBLISHED

Section	Data element	Description	Preferred Code System
Person identification	Person name	The legal name of the vaccinated person	
	*Person identifier (optional, repeatable)	An identifier of the vaccinated person, according to the policies applicable in each country. It should be captured what type of identifier is used. Examples: citizen ID card or identifier within the health system/IIIS/e-registry.	
	Sex (optional)	Administrative gender	
	Person date of birth (conditional)	Vaccinated person's date of birth. Mandatory if no Person identifier is provided.	Complete date, without time, following the ISO 8601.
	Disease or agent targeted (optional)	Disease or agent that the vaccination provides protection against	CD-10 or SNOMED CT (GPS). In the future ICD-11.
	Vaccine / prophylaxis	Generic description of the vaccine/prophylaxis or its component(s) Example: J07BX03 covid-19 vaccines (temporary code, to be implemented in ATC 2022) 1119349007 COVID-19 mRNA vaccine 1119305005 COVID-19 antigen vaccine	SNOMED CT and ATC Classification (J07 therapeutic subgroup); In the future substances from the ISO IDMP Implementation-EU-SRS system
	Vaccine medicinal product	Medicinal product name Example: COMIRNATY concentrate for dispersion for injection	For the time being, this should be the name of the medicinal product as registered in the country. In the future the information on the medicinal product can incorporate the identifiers from the implementation of the ISO IDMP Standards and the medicinal package's unique identifier
	Marketing Authorization holder	Marketing Authorisation Holder Example: Pfizer BioNTech	EMA's Organisations System data (SPOR)
	Number in a series of vaccinations / doses	Order in the vaccination course Example: 1/2	
	Batch/lot number (optional)	A distinctive combination of numbers and/or letters which specifically identifies a batch	
Vaccination event information <i>* implies that the whole section may be repeated</i>	Date of vaccination		Complete date, without time, following ISO 8601
	Administering centre	Name/code of administering centre or a health authority responsible for the vaccination event	
	Health Professional identification (optional)	Name or health professional code responsible for administering the vaccine or prophylaxis	
	Country of vaccination	The country in which the individual has been vaccinated	ISO 3166 Country Codes
	Next vaccination date (optional)	Date on which the next vaccination should be administered	Complete date, without time, following ISO 8601
	Certificate issuer	Entity that has issued the certificate (allowing to check the certificate)	
	Certificate identifier	Unique identifier of the certificate (UVC), to be printed (human readable) into the certificate; the unique identifier can be included in the IIS	See next slide
	Certificate valid from (optional)	Certificate valid from (required if known)	Complete date, without time, following ISO 8601
Certificate issuance minimum dataset	Certificate valid until (optional)	Certificate valid until (validity can differ from the expected immunisation period)	Complete date, without time, following ISO 8601
	Certificate schema version	Version of this minimum dataset definition - currently set at 1.0.0	Semantic versioning (ISO, https://semver.org/ or new European Commission



	ICAO-MRZ	ICAO-VDS	WHO	ICAO-VDS-NC	eHN early draft	eHN proposed
Expected implementation time	Deployed	Deployed	asap?	9m+??	< 3m	< 3m
Which			Vacc	Vac (but others fine)	Vacc/test/rec	Vac/test/rec
Primary stated usecase						
Surveillance	Store possible	Store possible	Central tracking	Store possible	Store possible	Store possible
Minimal dataset	Na	Na				
Taxonomy/Terminology			Just ICD-11	Likely follows eHN or WHO	Mix - tbd	Mix - tbd
UVCI concept			Tied to paper	Tied to ...		
charset	A-Z / 0-9 + Transliterations	A-Z, 0-9 (ASCII like)		UTF8	UTF8	UTF8
Structure	<< / length	Tag Length Value		i-JSON <small>Full essay to read key names</small>	JSON <small>(short key names)</small>	JSON <small>(short key names)</small>
Packaging	< 7 bits	8 bit raw		--	CBOR	CBOR
Signature	None (only checksum)	Plain sign		Plain sign Put 'in' json	COSE	COSE
Signing certificate or signing key identifier		Key Reference number		X509 keyID / Cert	X509 keyID / Cert / 8byte version	First 8 bytes of sha256 of certificate
Trust root and PKD design, Xfer format & governance		ICAO master list	ICAO Separate Health list	Existing eMRTS CSCA list (but no DSC anymore)	Separate ICAO 'like' master list	Simplified 'like' DSC list (i.e. cscs==dsc also allowed)
Online/offline	na	offline	online & reveal UVCI	offline only dsc revoke	offline only dsc revoke	offline revoking bit harder If dsc==cscs @MS
Compression (esp for of utf8/snomed/11 urls)	No	No - but format optimized		no	ZLib	Zlib
Protection against broken readers	Readersafe	8bit raw Unsafe		UTF8 (8 bit) Usually ok	Base45 Readersafe	Base45 Readersafe
Rendition as a 2D barcode	Plain	Qr	Qr	Qr/DataMatrix/Aztec	Qr / DataMatrix /Aztec	Qr / DataMatrix /Aztec