Commission Implementing Decision (EU) 2019/329 of 25 February 2019 laying down the specifications for the quality, resolution and use of fingerprints and facial image for biometric verification and identification in the Entry/Exit System (EES)

COMMISSION IMPLEMENTING DECISION (EU) 2019/329

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laying down the specifications for the quality, resolution and use of fingerprints and facial image for biometric verification and identification in the Entry/Exit System (EES)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) 2017/2226 of the European Parliament and of the Council of 30 November 2017 establishing an Entry/Exit System (EES) to register entry and exit data and refusal of entry data of third-country nationals crossing the external borders of the Member States and determining the conditions for access to the EES for law enforcement purposes and amending the Convention implementing the Schengen Agreement and Regulation (EC) No 767/2008 and Regulation (EU) No 1077/2011[(1)], and in particular points (a) and (b) of Article 36 first paragraph thereof,

Whereas:

(1) Regulation (EU) 2017/2226 established the Entry/Exit System (EES) as a system which registers electronically the time and place of entry and exit of third-country nationals admitted for a short stay to the territory of the Member States and which calculates the duration of their authorised stay.

(2) The EES aims to improve the management of external borders, to prevent irregular immigration and to facilitate the management of migration flows. The EES should, in particular, contribute to the identification of any person who does not fulfil or no longer fulfils the conditions of the authorised stay on the territory of the Member States. Additionally, the EES should contribute to the prevention, detection and investigation of terrorist offences and of other serious criminal offences.

(3) As quality and reliability of biometric data are key success factors for EES to reach its full potential, it is necessary to lay down the specifications for the quality, resolution and use of both fingerprints and facial image for biometric verification and identification in the EES, including where taken live or extracted electronically from the electronic Machine Readable Travel Document (eMRTD). As the quality of registered fingerprints will have impacts years after registration on the proper functioning of the EES, environmental and operational factors of fingerprint quality registration should be closely monitored on the long run.

(4) This decision does not create any new standards; it is coherent with ICAO standards.

Changes to legislation: *There are currently no known outstanding effects for the Commission Implementing Decision (EU) 2019/329. (See end of Document for details)*

(5) Based on those measures, the European agency for the operational management of large-scale information systems in the area of freedom, security and justice should then be able to define the design of the physical architecture of the EES including its Communication Infrastructure, as well as the technical specifications of the system and to develop the EES.

(6) In this framework, it is thus necessary to adopt specifications for the quality, resolution and use of fingerprints and facial image for biometric verification and identification in the Entry/Exit System (EES).

(7) This Decision is without prejudice to the application of Directive 2004/38/EC of the European Parliament and of the Council[(2)].

(8) In accordance with Articles 1 and 2 of Protocol No 22 on the position of Denmark, annexed to the Treaty on European Union and to the Treaty on the Functioning of the European Union, Denmark did not take part in the adoption of Regulation (EU) 2017/2226 and is not bound by it or subject to its application. However, given that Regulation (EU) 2017/2226 builds upon the Schengen *acquis*, Denmark, in accordance with Article 4 of that Protocol, notified on 30 May 2018 its decision to implement Regulation (EU) 2017/2226 in its national law. Denmark is therefore bound under international law to implement this Decision.

(9) This Decision constitutes a development of the provisions of the Schengen *acquis* in which the United Kingdom does not take part, in accordance with Council Decision 2000/365/EC[(3)]; the United Kingdom is therefore not taking part in the adoption of this Decision and is not bound by it or subject to its application.

(10) This Decision constitutes a development of the provisions of the Schengen *acquis* in which Ireland does not take part, in accordance with Council Decision 2002/192/EC[(4)]; Ireland is therefore not taking part in the adoption of this Decision and is not bound by it or subject to its application.

(11) As regards Iceland and Norway, this Decision constitutes a development of the provisions of the Schengen *acquis* within the meaning of the Agreement concluded by the Council of the European Union and the Republic of Iceland and the Kingdom of Norway concerning the latter's association with the implementation, application and development of the Schengen *acquis*[(5)], which fall within the area referred to in Article 1, point A of Council Decision 1999/437/EC[(6)].

(12) As regards Switzerland, this Decision constitutes a development of the provisions of the Schengen *acquis* within the meaning of the Agreement between the European Union, the European Community and the Swiss Confederation on the Swiss Confederation's association with the implementation, application and development of the Schengen *acquis*[(7)], which fall within the area referred to in Article 1, point A of Decision 1999/437/EC, read in conjunction with Article 3 of Council Decision 2008/146/EC[(8)].

(13) As regards Liechtenstein, this Decision constitutes a development of the provisions of the Schengen *acquis* within the meaning of the Protocol between the European Union, the European Community, the Swiss Confederation and the Principality of

Liechtenstein on the accession of the Principality of Liechtenstein to the Agreement between the European Union, the European Community and the Swiss Confederation on the Swiss Confederation's association with the implementation, application and development of the Schengen *acquis*[(9)] which fall within the area referred to in Article 1, point A of Decision 1999/437/EC read in conjunction with Article 3 of Council Decision 2011/350/EU[(10)].

(14) As regards Cyprus, Bulgaria, Romania and Croatia, the operation of the EES requires the granting of passive access to the VIS and the putting into effect of all the provisions of the Schengen *acquis* relating to the SIS in accordance with the relevant Council Decisions. Those conditions can only be met once the verification in accordance with the applicable Schengen evaluation procedure has been successfully completed. Therefore, the EES should be operated only by those Member States which fulfil those conditions by the start of operations of the EES. Member States not operating the EES from the initial start of operations should be connected to the EES in accordance with the procedure set out in Regulation (EU) 2017/2226 as soon as all of those conditions are met.

(15) The European Data Protection Supervisor delivered an opinion on 27 July 2018.

(16) The measures provided for in this Decision are in accordance with the opinion of the Smart Borders Committee,

HAS ADOPTED THIS DECISION:

Article 1

1 The specifications relating to the quality, resolution and use of fingerprints for biometric verification and identification in the EES are set out in the Annex

2 The specifications for the quality, resolution and use of the facial image for biometric verification and identification in the EES, including where taken live or extracted electronically from the eMRTD are set out in the Annex.

Article 2

This Decision shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

Done at Brussels, 25 February 2019.

For the Commission

The President

Jean-Claude JUNCKER

Changes to legislation: *There are currently no known outstanding effects for the Commission Implementing Decision (EU) 2019/329. (See end of Document for details)*

ANNEX

1. QUALITY

1.1. **Thresholds**

1.1.1. *Fingerprints*

Enrolment

At the moment of enrolment, the version 2.0 (or newer version) of the Fingerprint Image Quality (NFIQ) metric[(11)] defined by the National Institute of Standards and Technology (NIST) shall be used for verifying that the quality of the captured fingerprint data respects the thresholds that shall be specified in the technical specifications referred to in Article 37(1) of Regulation (EU) 2017/2226.

For the purpose of enrolment, the quality of fingerprint data shall be assessed:

— at national level by Member States at the time of capture prior to their transmission to the EES Central System (CS-EES), optionally with the support of a tool provided, maintained and updated by eu-LISA, and,

— at central level.

Verification

For the purpose of verification, it is recommended to assess the quality of fingerprints data by Member States at the time of capture prior to their transmission to the CS-EES either by using version 2.0 (or newer version) of the NIST Fingerprint Image Quality (NFIQ) metric or, where technically impossible, by using another metric which should preferably be correlated with the NFIQ version 2.0 (or newer version). The correlation shall be derived a priori. If a NFIQ version 2.0 (or newer version) quality metric is obtained, it has to be sent at the same time as the fingerprint data to the CS-EES.

1.1.2. *Facial images*

The quality of the facial images, including near infrared ones, shall comply with the thresholds specified in the technical specifications referred to in Article 37(1) of Regulation (EU) 2017/2226 and with the image requirements of ISO/IEC 19794-5:2011 Frontal image type. The quality of the facial image shall be assessed at national level by Member States at the time of capture prior to their transmission to the CS-EES, optionally with the support of a tool provided, maintained and updated by eu-LISA. The facial quality algorithm shall be comprehensible in terms of the ISO/IEC 19794-5:2011 criteria.

The quality threshold for the facial images shall be fixed using a facial image quality assessment algorithm based on the quality measures outlined in ISO 19794-5 and provide quality checks analogous to those implemented at the CS-EES[(12)].

1.2. **Performance values for biometric accuracy**

Definitions

The performance values for biometric accuracy defined in Article 3 of Regulation (EU) 2017/2226 are:

(29) “Failure To Enrol Rate” (FTER) means the proportion of registrations with insufficient quality of the biometric enrolment;

(30) “False Positive Identification Rate” (FPIR) means the proportion of returned matches during a biometric search which do not belong to the checked traveller;

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(31) "False Negative Identification Rate" (FNIR) means the proportion of missed matches during a biometric search even though the traveller's biometric data were registered.

The 'biometric search' referred to in points (30) and (31) is the same as a biometric identification or '1 to N' search

In compliance with Article 36 first paragraph point (g) of Regulation (EU) 2017/2226 the opportunity is left to the implementing act to define additional values of biometric performance.

The False Match(ing) Rate (FMR) is the proportion of impostor attempts that are falsely declared to match a template of another object (a person's biometric template).

The False Non-Match(ing) Rate (FNMR) is the proportion of genuine attempts that are falsely declared not to match a template of the same object.

A genuine attempt is a single attempt by a user to match his/her own stored template. An impostor attempt is the opposite — a user's template is matched against someone else's template.

1.2.1. *Failure To Enroll Rate*

The target value for the Failure To Enroll Rate is zero. Member States shall take care to avoid such cases by using a quality-focused enrolment process.

1.2.2. *Accuracy of biometric verification*

The maximum values of the False Non-Matching Rate (FNMR) at a False Matching Rate (FMR) = 0,05 % (5 per 10 000) are:

Type	**FMR**	**FNMR**
Fingerprint	0,05 %	< 0,5 %
Facial Image	0,05 %	< 1 %

1.2.3. *Accuracy of biometric identification*

The maximum values of the False Negative Identification Rate at a False Positive Identification Rate = 0,1 % (1 per 1 000) are:

Type	**FPIR**	**FNIR**
Fingerprint	0,1 %	< 1,5 %
Facial Image and Fingerprint (multi-modal)	0,1 %	< 1 %

1.3. **Monitoring of biometric accuracy performance**

Biometric accuracy performance shall be measured on the actual data captured by each Member State based on a representative sample of cases on a daily basis at border crossing points of choice. The measurement is managed centrally, fully automated and does not require the access to personal data by the operator.

The measurement of biometric performance does not need to be done continuously: it may be disabled or enabled but shall be carried out by eu-LISA on a regular basis (at least monthly).