

# THE ENTRY-EXIT SYSTEM:

## A GUIDE FOR EUROPEAN AIRPORTS



Cover photo: Hermes Airports

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## Introduction

The aim of this Guide is to provide Airport Managing Bodies with indispensable information on the Entry/Exit System (EES) legislation, with special focus on its technical architecture and its operational and financial implications. We also suggest different options for its deployment at European Airports.

The EU Entry/Exit System constitutes an instrument to modernise the EU's external border management and to contribute to combating terrorism and serious crime, alongside other important border management and security issues.

Regulation (EU) 2017/2226 aims to improve the efficiency of controls at the external borders of the [Schengen Area](#) by creating a centralised Entry/Exit System (EES) for non-EU nationals crossing the EU's external borders for a short stay.

Regulation (EU) 2017/2225 makes changes to the Schengen Borders Code as regards the use of the EES at the EU's external borders.

The EES will be an automated IT system to register all entries and exits of travellers from non-EU countries at the external borders. It will apply both to travellers who need a short-stay visa and to those that are from visa-exempt non-EU countries. The system will also register refusals of entry and calculate the authorised stay for each traveller according to EU legislation.

The EES will replace the current practice of manual stamping of passports which is time-consuming, and will facilitate the effective detection of over-stayers.

# 1.

## MAIN ASPECTS OF REGULATION (EU) 2017/2225 AND REGULATION (EU) 2017/2226



# 1. Main Aspects of Regulation (EU) 2017/2025 and Regulation (EU) 2017/2026

## 1.1 Subject

Regulation (EU) 2017/2226 creates the **EES**, a common electronic system which:

- **records and stores the date, time and the place of entry, exit and refusal of entry** of non-EU nationals crossing the EU's borders
- automatically **calculates the duration of authorised stay** of such non-EU nationals, and **generates alerts** to EU countries when the authorised stay has expired.

## 1.2 Scope

The EES applies to **travellers** subject to a visa requirement as well as those exempted from it and admitted for a short stay of up to 90 days in a 180-day period, who cross the external borders of the Schengen area. The EES will also record data of non-EU nationals whose entry for a short stay was denied.

The EES will operate at the external borders of the EU countries which apply the Schengen *acquis* in full. It will also operate at the borders of EU countries which — at the time the system will start its operations – do not yet apply the **Schengen acquis** in full, but will have successfully gone through the [Schengen evaluation procedure](#) and have obtained passive access to the VIS (Visa Information System) and full access to the [Schengen Information System \(SIS\)](#).

Please note that Switzerland, Norway, Iceland and Liechtenstein also apply Regulation (EU) 2017/2226.

## 1.3 Data storage and accessibility

The EES will store data on **identity, travel documents** as well as **biometric data**. The data will be kept for **3 years for travellers who comply with the short-stay rules**, and **5 years** for those who exceed their authorised period of stay.

The data stored will be **accessible** by border authorities, visa-issuing authorities and authorities responsible for monitoring whether a non-EU national fulfils the conditions of entry or residence. Designated law enforcement authorities and Europol may request the consultation of EES data with a view to preventing, detecting or investigating terrorist offences or other serious criminal offences.

## 1.4 Data to be registered

The following data of **each Third Country National** entering the Schengen Area will be registered in the Entry / Exit System:

- **Biometric data:**
  - Facial image
  - 4 fingerprints (for visa exempted travellers only. Children under the age of 12 shall be exempt from this requirement)
  
- **Personal data:**
  - Surname (family name)
  - First name or names (given names)
  - Date of birth
  - Nationality or nationalities
  - Sex
  
- **Data on travel document(s):**
  - The type and number of the travel document(s)
  - The three letter code of the issuing country of the travel document(s)
  - The date of expiry of the travel document(s)
  
- **Specification of the national facilitation programme if applicable**  
(Member States may establish national entry facilitation programmes on a voluntary basis for pre-vetted Third Country Nationals)

A file containing the above data will be created for each Third Country National entering the Schengen Area at least once.

In addition to this file, some specific information on each of their entry and exits from the Schengen Area, as well as entry refusals, will be registered in the EES and linked to the traveller's file. This data is as explained below.

**Third Country Nationals subject to visa regime:** As per Third Country Nationals who need a visa for short-term visits to the Schengen Area, the following information will be entered in the Entry / Exit system when these persons enter (or leave) the Schengen Area:

- **The date and time of the entry/exit**
- **The border crossing point of the entry/exit**
- **The authority that authorised the entry/exit**
- **The short-stay visa sticker number, including:**
  - The three letter code of the issuing Member State
  - The type of short-stay visa
  - The end date of the maximum duration of the stay as authorised by the short-stay visa
  - The date of expiry of the short-stay visa
  
- **The information indicating that the short-stay visa was issued with limited territorial validity (if applicable).**

**Visa-exempt Third Country Nationals:** The following information on this category of travellers to the Schengen Area will be registered in the EES:

- **The date and time of the entry/exit**
- **The border crossing point of the entry/exit**
- **The authority that authorised (or refused) the entry/exit**

In case of refusal of entry, additional information concerning the reason for refusal is also recorded, in conformity with Annex V of the Schengen Border Code.

## 1.5 Technical architecture

The EES comprises:

- a **central system** which will operate a computerised central database of biometric and alphanumeric data (a mix of letters and numbers). This central system relies on a Shared Biometric Management System (sBMS) for biometric data management
- a **national uniform interface** in each participating country (identical interfaces for all EU countries connect their border infrastructures to the EES central system)
- a **secure communication channel** between the EES central system and the central system of the VIS
- a **secure and encrypted communication infrastructure** between the EES central system and the national uniform interfaces
- a **data repository** to obtain customisable reports and statistics
- a **web service** to enable non-EU nationals to verify their remaining authorised stay.

The **eu-LISA agency** has the **responsibility for developing and operating the system**, including for adapting the VIS so as to ensure the **interoperability** between the EES central system and the VIS central system.

Each Member State shall develop and deploy its national solution (the EES-NS) to manage entry and exit controls in accordance with the regulation and in conformity with eu-LISA requirements in terms of data quality, process and interfaces. In particular, each Member State shall acquire the Third Country Nationals' alphanumeric and biometric data (face and fingerprints), properly provide them to the EES, VIS, SIS and Interpol for checking, collect results and transmit the movement information to the EES.

Each Member State is free to put in place the architecture of its own system, provided it meets the requirements in terms of management of system availability, in particular the capability of temporarily registering all movements data in case of unavailability of the NUI (National Uniform Interface).

## 1.6 Amendment of the Schengen Borders Code

Regulation (EU) 2017/2225 makes changes to the Schengen Borders Code as regards the use of the EES at the EU's external borders. These changes are:

- every entry, exit and refusal of entry of Third Country Nationals is recorded in real time in the EES, allowing a full traceability of movements and so removing the need to stamp travellers' passports
- where provided expressly by its national law, a Member State may continue to stamp Third Country Nationals' travel documents if they hold a residence permit or long-stay visa issued by that Member State
- Third Country Nationals must **provide biometric data** to create their individual EES file or to carry out border checks
- the **identity** and **nationality** and the **authenticity and validity** of the non-EU nationals' **travel document** for crossing the border are **verified**
- Member States may establish national **entry facilitation** programmes on a voluntary basis for pre-vetted Third Country Nationals
- Member States may decide whether and to what extent to make use of technologies such as **self-service systems for non-EU nationals to pre-enroll or update data in the EES, e-gates and automated border control systems**, as long as an appropriate level of security is ensured, that their use is supervised and that border guards have access to the result of such border checks.

## 1.7 Entry into force

Both regulations have been applicable since 29 December 2017.

## 1.8 Start of the operations

The European Commission shall decide when the Entry/Exit System will start operations once the technical aspects are defined and completed by the agency eu-LISA and all concerned Member States have submitted their declaration of readiness (Art. 66 of the Regulation). This date was postponed several times. Estimations in December 2019 refer to February 2022. Please note that this date is not official.

During a 180-day transition period, the competent border authorities will check the stamps in the travel documents, in addition to the entry-exit data recorded in the EES. In case of a discrepancy, the stamp will prevail (Art. 22 of the Regulation).

An EES-ETIAS (European Travel Information and Authorisation System) Advisory Group meets regularly and will convene until the entry into force of ETIAS (a system enabling visa-exempt travellers to obtain a travel authorisation based on an online alphanumeric declaration), the final step after the EES. The Advisory Group provides technical expertise and is composed of national project managers and chaired by eu-LISA.

More information on the Advisory Group including a list of national experts may be found here: <https://www.eulisa.europa.eu/About-Us/Organisation/ees-etias-advisory-group>

## 1.9 Contents of Regulation 2017/2226 on EES for an easier access to the information

Please see Annex 1.

**Chapter One** lays down the subject matter of the Regulation, the scope, the definitions relevant for the purpose of the Regulation, the set-up and the purpose of the EES, the technical architecture of the EES, the interoperability with the VIS, access to the EES for entering, amending, deleting and consulting data, the general principles, the automated calculator and obligation to inform Third Country Nationals on the remaining authorised stay, the information mechanism to identify records for which the maximum authorised stay has been exceeded and the web service.

**Chapter Two** details the procedures to enter the data in the EES, the personal data for visa holders, visa exempt and Third Country Nationals who have been refused entry, the data to be added where an authorisation to stay is revoked, cancelled or extended and in case of rebuttal of the presumption that the person does not fulfil the conditions of duration of stay, the fall-back procedures in case of technical impossibility to enter data or failure of the EES, the provisions concerning the transitional period and the use of data for verification at the external borders.

**Chapter Three** is dedicated to the entry and use of EES data by other authorities to examine and decide on visa applications, to examine applications for access to national facilitation programmes, for verification within the territory and for identification.

**Chapter Four** lays down the procedure and conditions for access to data stored in the EES for law enforcement purposes.

**Chapter Five** lays down the rules for the retention, amendment and advance data deletion of the data stored in the EES.

**Chapter Six** specifies the implementing measures to be adopted by the Commission prior to development and the rules concerning the development and operational management by eu-LISA. It also lays down the responsibilities of Member States and the responsibilities for the use of the data and data security. It includes rules on the keeping of records and for keeping data in national systems, for communication of data to third countries, international organisations and private parties, liability, self-monitoring and penalties.

**Chapter Seven** concerns rights and supervision on data protection. Whereas Directive 95/46/EC and Regulation (EC) No 45/2001 fully apply for this Regulation, the provisions of this chapter clarify certain points related to right of information, the information campaign accompanying the start of operations of the EES. It also refers to the safeguard of the rights of data subjects to access, correction and deletion and the remedies, the roles of the national supervisory authorities and the European Data Protection Supervisor including the cooperation between national supervisory authorities and the European Data Protection Supervisor and the protection of personal data for law enforcement purposes including rules on logging and documentation.

**Chapter Eight** contains the amendments to other Union instruments, more specifically the amendments to the Convention implementing the Schengen Agreement, to Regulation (EC) No 767/2008 concerning the Visa Information System and the exchange of data between Member States (VIS Regulation) and to Regulation (EU) No 1077/2011 establishing a European Agency for the operational management of large-scale IT systems in the area of freedom, security and justice.

**Chapter Nine** covers the final provisions, which includes the use of data for reporting and statistics, the costs of the EES, the start of operations, the set-up of a Committee to assist the Commission when adopting implementing measures, the set-up of an Advisory group, the necessary trainings, the monitoring and evaluation of the EES, the production of statistics, and the entry into force and the applicability of this Regulation.

# 2.

## IMPACTS FOR EUROPEAN AIRPORTS



## 2. Impacts for European Airports

### 2.1 Operational

The operational implications of the EES will be significant for air carriers and Airport Managing Bodies with significant numbers of non-Schengen flights.

The EES entails biometrics capture, biometrics reconciliation through the central system as well as the duration of previous stays obtained from the central system. This means that border authorities will access the EES European central system through the National Uniform Interface in real time.

It also entails the enrolment of all the accurate identity data, both biometrics and alphanumeric, for the creation of the Third Country National's individual file on first arrival in the Schengen Area within 3 years. As per the regulation, this may be done through a supervised self-service system to be placed next to (in the vicinity of) the border control area.

Consequently, existing systems need to be adapted and the additional data capture and controls will imply additional equipment and process time. Depending on the configuration of the airport premises, additional space may also be needed.

Several Member States have undertaken impact assessments, should the controls be undertaken at the border control booth. These impact assessments show that process time at entry could be multiplied by 1,5 to 3, depending on the assumptions made.

The impact will also depend on flight schedules since the EES applies to Third Country Nationals only. Should the controls remain manual, the processing time for a flight with a significant proportion of Third Country Nationals entering the Schengen Area for the first time could cause significant delays and block the border for subsequent flights.

Airport Managing Bodies should also take into account their foreseen traffic increase when planning the additional infrastructure changes to comply with the EES requirements.

The border control area, equipment and process will therefore have to be adapted in order to process optimally all the different categories of travellers and avoid long waiting lines. Space will also be an issue to consider as many airports face physical constraints in extending their border area.

## 2.2 Financial

The Schengen Border Code (Regulation 2016/399 and its successive modifications) lays down the rules governing the border control of persons crossing the external borders of the Member States of the Union and provides rules for the absence of border control of persons crossing the internal borders between the Member States of the Union. In order to achieve these goals, article 15 establishes that:

***“Member States shall deploy appropriate staff and resources in sufficient numbers to carry out border control at the external borders, in such a way as to ensure an efficient, high and uniform level of control at their external borders”.***

It is therefore specifically underlined in the framework regulation that border control is the Member States' responsibility. Member States are obliged to provide staff and resources (including equipment) to comply with the obligation inherent to their role in border control.

Regulation 2017/2226 on the Entry-Exit System establishes that costs will be borne as follows:

### Art 64

- Costs incurred in connection with the operation of the EES Central System, the communication infrastructure, the NUI, the web services and the data repository: General Budget of the EU
- Costs incurred by the central access points and connection to the NUI and EES: **Each Member State** and Europol
- Set up and maintenance of the technical infrastructure necessary: **Each Member State** and Europol

The legislation is clear: **Member States shall bear the costs of the technical infrastructure to be deployed at airports (or other crossing points) and needed to implement the EES.**

In the multiannual financial framework 2014-2020, the European Commission provided €2.7 billion for Member States from the Internal Security Fund and Borders and Visa Programme. Of that amount, €1.1 billion was allocated for *“investment in the development of existing or new IT systems that support the management of migration flows across the external borders”*. Despite of our requests, no information has been provided on how Member States used these funds.

### ISF Borders and Visa – Basic allocation per country (2014-2020)

AUSTRIA	14 162 727
BELGIUM	17 519 321
BULGARIA	40 366 130
CROATIA	35 609 771
CYPRUS	34 507 030
CZECH REPUBLIC	14 381 484
DENMARK	10 322 133
ESTONIA	21 781 752
FINLAND	36 934 528
FRANCE	84 999 342
GERMANY	51 753 437
GREECE	166 814 388
HUNGARY	40 829 197
IRELAND	Does not participate
ITALY	156 306 897
LATVIA	15 521 704
LITHUANIA	24 704 873
LUXEMBOURG	5 400 129
MALTA	53 098 597
NETHERLANDS	30 609 543
POLAND	49 113 133
PORTUGAL	18 900 023
ROMANIA	61 151 566
SLOVAKIA	10 092 525
SLOVENIA	30 669 103
SPAIN	195 366 875
SWEDEN	11 518 706
UNITED KINGDOM	Does not participate
ICELAND	5 326 980
LIECHTENSTEIN	5 000 000
NORWAY	14 317 819
SWITZERLAND	18 920 284
<b>TOTAL</b>	<b>€2.76bn</b>

In the context of the multiannual financial framework 2021-2027, an Integrated Border Management Fund (IBMF) will be created in order to continue the support to Member States in the managing of the EU's common external borders, replacing the current Borders and Visa programme. A fourfold increase is proposed from the current €2.7 billion (2014-2020) up to €9.3 billion (+241%).

The total of €9.3 billion under the Integrated Border Management Fund is split as follows:

- €4.8 billion in long-term funding to support Member States' border management measures and visa policy (this includes an initial funding allocation to Member States (50%, €4 billion) and an adjustment at the mid-term to take account of new or additional pressures (10%, €0.8 billion)
- €3.2 billion for a "thematic facility" devoted to targeted support for Member States, as well as EU-level projects and to address urgent needs (40%) which will be allocated throughout the funding period
- €1.3 billion for the Customs Control Equipment Instrument

The funding allocated to Member States will specifically reflect Member States' needs.

At the start of the programming period, each Member State will receive a fixed sum of €5 million, with the remainder distributed based on the workload, pressure and threat level at external land borders (30%), external sea borders (35%), **airports (20%)** and consular offices (15%).

Beyond this, their individual allocations will be based on an assessment of where the funds are needed most. This assessment will be repeated at mid-term.

For each Member State, this will take into account:

- The length and the workload (based on the number of crossings and the number of refused entries) at any section of the EU's external land and sea borders they manage, and factoring in the threat level (based on a vulnerability assessment by the European Border and Coast Guard Agency)
- **The workload (based on the number of crossings and the number of refused entries) at airports in that country**
- The number and workload (based on the number of visa applications) of consular offices of that country

Calculations will be based on statistical data collected by Eurostat, the European Border and Coast Guard Agency and Member States going back 3 years (36 months) before the new budget enters into application.

In addition, Member States will, on top of their allocations and in line with the calculations mentioned above, throughout the programming period, receive additional targeted funding for thematic priorities or as a response to urgent needs. This funding will come from the 'thematic facility'.

Since the next long-term budget is intended to cover the period from 2021 onwards, it is not possible to predict today what the future data will show. A breakdown based on today's data would provide a skewed picture and not reflect what the actual allocations will be.

**Despite their obligations stemming from the legislation in force and the European funding allocated, some Member States require Airport Managing Bodies to finance border control infrastructure (Automated Border Control (ABC) for instance). We strongly encourage you to liaise with your national authority on this matter. ACI EUROPE will continue to work with European regulators on this topic.**

# 3.

## IMPACTS FOR AIR CARRIERS



### 3. Impacts for Air Carriers

The operational impact of the EES will be new to air carriers: they will need to verify the status of Third Country Nationals holding short-term Schengen visas prior to boarding but not earlier than 48 hours before the scheduled time of departure. In order to achieve this, they will need to be connected to a web interface. They also need to put in place the necessary physical access control mechanisms and authentication procedures to ensure that only authorised staff have access to the interface.

It should be noted that the EES-Carrier interface is very similar to an Interactive API type process. Many carriers operating across the Schengen border are already used to working with iAPI through their engagements with countries such as Australia, South Africa, UAE, UK or the USA. It remains unclear how the EU will develop this interface and if they will consider utilising existing iAPI type processes.

The information available through the portal does not concern all categories of passengers: it is limited to short-term visa holders. For all other categories of travellers (visa exempt, long-term visa holders, residents, etc.) no information will be available. This is the reason why the carrier will have the final say on whether to board the passenger or not. An operational process will have to be developed.

Communication with the passenger will be a key success factor.

# 4.

## IMPACTS FOR PASSENGERS



## 4. Impacts for Passengers

The EES will create a unified information system to record data on the entry and exit movements of short stay of Third Country Nationals crossing the external borders of the Schengen Area. In principle it should improve the quality and efficiency of the checks and controls in the Schengen Area while reinforcing security, the fight against fraud and serious crime.

At the same time, the Schengen Border Code forbids discrimination against persons on grounds of sex, colour, ethnic or social origin, genetic features, language, religion or belief, disability, age or sexual orientation (Art 7).

Once the EES starts operations, there will be no EU website or enhanced visa process to help the passenger anticipate the EES border control by providing data in advance (to create the individual file for the Third Country National arriving for the first time). Everything will take place within the airport premises.

The level of preparation of the Airport Managing Body and the border police, the available infrastructure and the procedures in place will determine waiting time at border control. As stated before, a clear communication and interaction with passengers through different means (signage, panels, airport personnel to assist travellers, website) will be key to ensure the success of the new procedures, which might cause confusion at the level of passengers, especially for non-frequent travellers, and/or during the initial few months.

# 5.

## SUGGESTED SYSTEM LAYOUT



## 5. Suggested System Layout

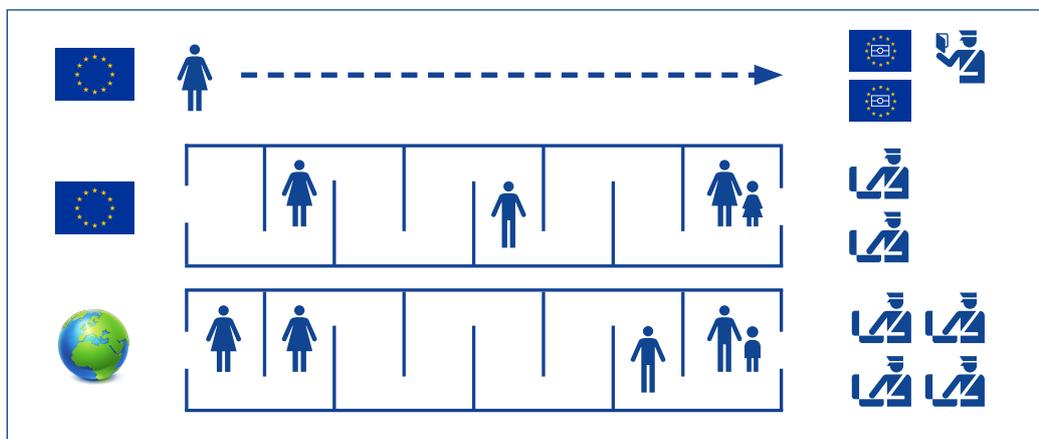
### 5.1 Scenarios/Options

Based on the EES requirement analysis and benchmark, several border control configurations may be considered:

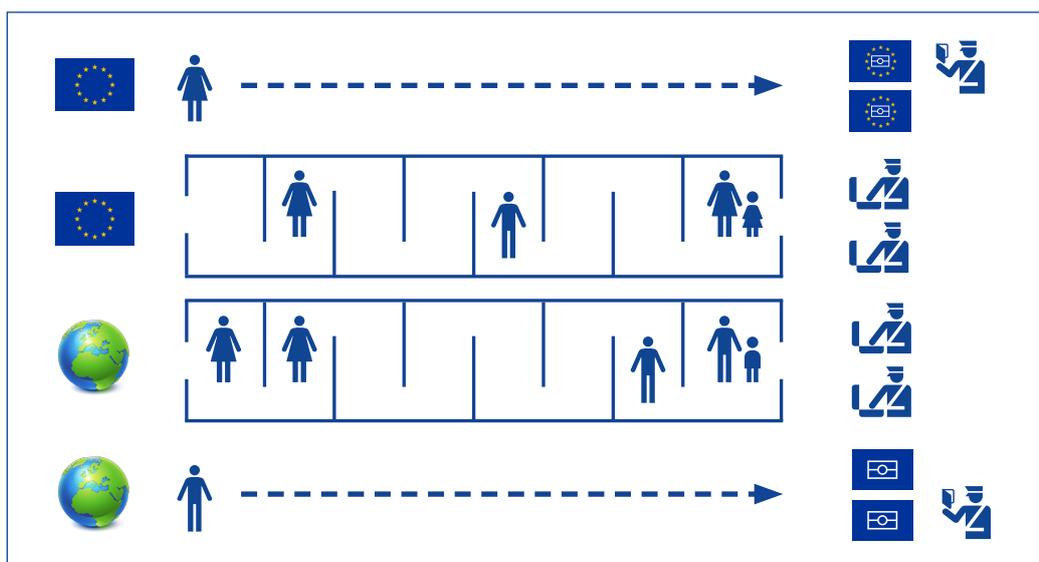
- **Maintain a classic border control configuration**

EU nationals' process remains unchanged: the passenger is controlled at the booth or through an ABC gate if available and when eligible.

Third Country Nationals' process is also unchanged: the passenger is controlled at the booth or through an ABC gate if available and when eligible.



When they exist, ABC gates for Third Country Nationals should be adapted to comply with the EES.



This configuration is adapted for airports with limited non-Schengen traffic. It is also considered at departures by some European countries (Iceland for instance).

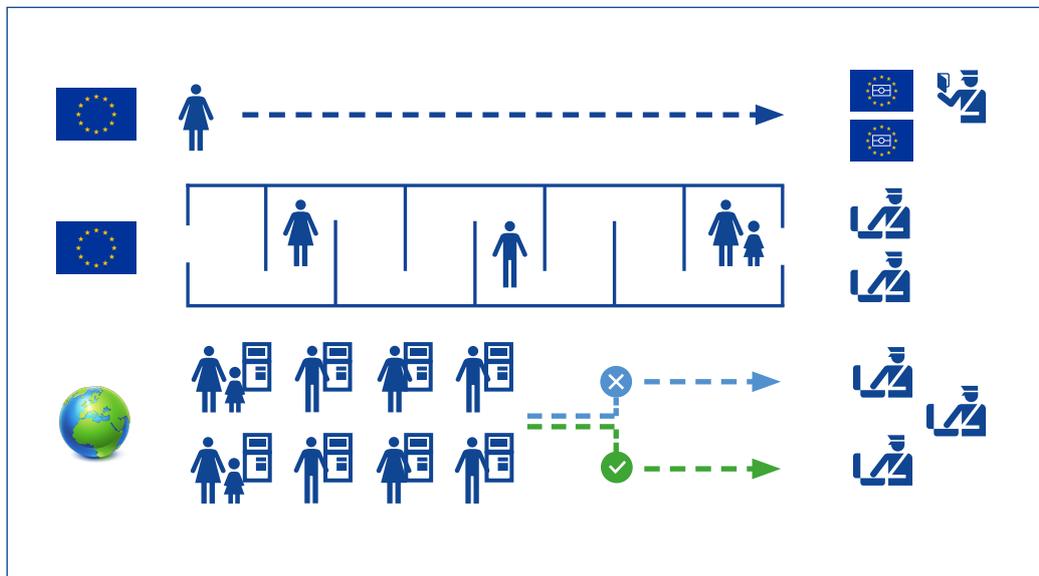
- **Develop a pre-check process configuration<sup>1</sup>**

EU Nationals' process remains unchanged: these passengers are controlled at the booth or through an ABC gate if available and when eligible.

Third Country Nationals' process is different: the passenger prepares the control at a self-service kiosk in his own language and finalises it at a booth with a border guard.

Several passengers proceed to the control preparation process in parallel. Some of the controls that can be anticipated and automated are realised at the kiosk and the border guard finalises the controls.

The kiosk would provide an access to a border police application, to collect identification and biometrics data.



Controls at the kiosks could include:

- Passport scan
- Passport validity check
- Biometrics capture
- Trigger police files check (if authorised by national legislation)
- Trigger VIS check (and ETIAS when it starts operations)
- Trigger EES central database check
- Questions on travel purpose and conditions in the passenger language

<sup>1</sup> Germany, Cyprus, Norway, Greece are considering this process for entry. ITS, SITA, VisionBox, Secunet and other companies provide such solutions, though without the EES. Idemia also deployed similar pre-check kiosks in Australia to streamline the border process.

Controls at the kiosks could include:

- Identity check
- Results of the police file check
- Results of the VIS check (and ETIAS once it starts operations)
- Results of the EES check
- Results of the questions
- Ask additional questions
- Proceed to EES biometrics capture
- Create EES Third Country National individual file for first entries
- Create EES entry/exit record file

- **Develop a smart border configuration**

The benefit of the smart border configuration compared to the pre-check configuration lays in the control at a booth for a limited number of passengers.

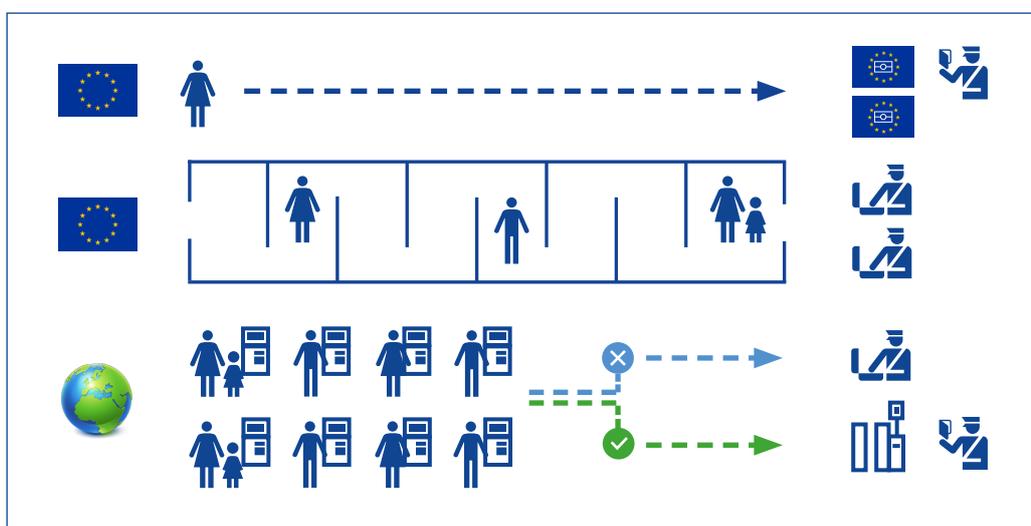
EU nationals' process remains unchanged: the passenger is controlled at the booth or through an ABC gate if available and when eligible.

Third Country Nationals' process differs from the classic border configuration: these passengers undergo the border controls at a self-service kiosk in their own language. They are granted a token and cross the border line.

Several passengers proceed to the control process in parallel.

All controls take place at the kiosk. When all parameters comply, the passenger is sent to the border line with a token (paper token or facial recognition token). At the border line a border guard checks the token and grants entry. A supervised e-gate could do the same. When not all controls are OK, the passenger is sent to a booth where a border guard proceeds to further analysis.

The kiosk provides an access to a border police application, to collect identification and biometrics data and perform a set of controls.



Controls at the kiosks could include:

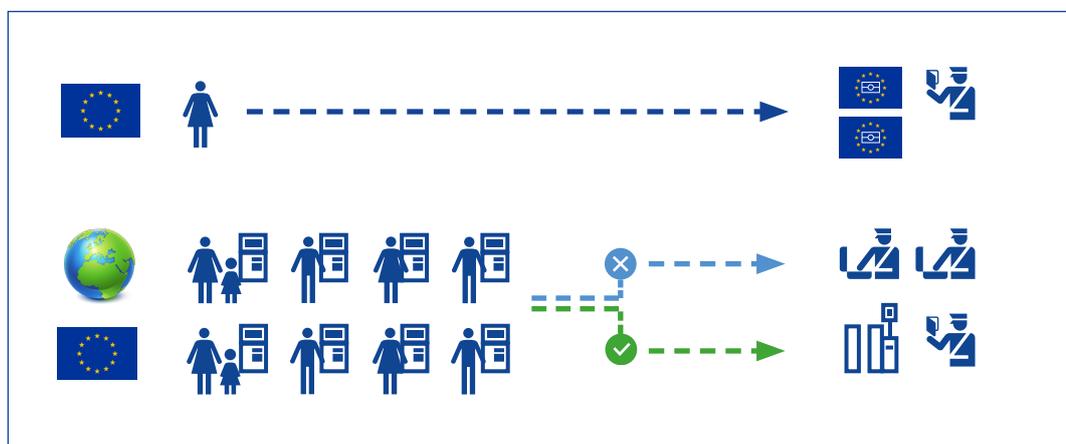
- Passport scan
- Passport validity check
- Facial biometrics capture
- Identity check
- Police files check (if authorised by national legislation)
- VIS check (or ETIAS when it starts operations)
- EES central database check
- Questions on travel purpose and conditions in the passenger language
- For first entries: create EES Third Country National individual file and capture fingerprints for VISA exempt Third Country National on a temporary database
- For all: create EES entry/exit record file on a temporary database

Controls at the podium or the e-gate

- Check token (facial or paper)
- Police file checks
- Trigger creation of the individual file from the temporary database to the central database
- Trigger creation of the Entry/Exit record from the temporary database to the central database

Another option would consist of extending the process to EU nationals.

The controls at the kiosks for them would be limited to passport check, identity check and police file checks.



This process is already in place at a number of Canadian and US airports through the APC Kiosk solution provided by Innovative Travel Solutions (ITS), SITA, Vision-Box, Secunet and other companies provide such solutions, though without the EES.

It was mentioned by the European Commission's Directorate-General for Migration and Home Affairs (DG HOME) as a configuration to accelerate and facilitate border control with EES.

The ITS solution, initially developed for Vancouver Airport, has been operational since 2016 at Paphos and Larnaca airports in Cyprus.

The smart borders solution has been in place for several years at Ben Gurion Airport in Israel.

The ITS solution is currently in pilot phase with EES at Reykjavik and the SITA solution is in trial phase with Eurostar/PAF at Gare du Nord.

Iceland (Arrivals), Finland, Spain, Portugal, Switzerland and Italy are considering this process for arrivals.

Most countries consider different configurations at arrivals and departures: while pre-check or smart border processes are planned at arrivals with some self-service kiosks implemented, ABC gates, when available for Third Country Nationals, are expected to be used at departures with no self-service kiosk. This combination is made possible with the EES first entry process at arrivals and the passport stamp being automated with the EES exit file.

Several countries consider the pre-check configuration as a step towards smart border configuration.

## 5.2 Technical overview

The resolution and accuracy of the biometric details recorded for EES are extensively documented in the 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.

As stated in the implementing decision, the primary objective of the definition of quality criteria is to ensure a certain level of FNIR/FPIR<sup>2</sup> in the transverse biometric engine of the sBMS (Secure Border Management System) solution. This decision does not create any new standard, it is coherent with ICAO standards through the same reference to ISO-19794. It lays down the specifications for the quality, resolution 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). The implementing decision act states that image quality has to be monitored: 100% compliance with the norm is not required, but a quality criterion has to be computed and a threshold has to be defined to decide on the acceptability of an image.

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2. FNIR: False Negative Identification Rate. The proportion of missed matches during a biometric search even though the traveller's biometric data were registered.

FPIR: False Positive Identification Rate. The proportion of returned matches during a biometric search which do not belong to the checked traveller.

As the quality of registered fingerprints and face 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 in the long run.

What is more open to variance and consideration at specific airports are the tools for biometric registration and verification, and particularly the use of self-service technologies such as kiosks and/or eGates.

### **5.3 Wayfinding/Signage/Queue management**

The orientation of the passenger through the airport premises is a key factor for customer satisfaction. This will depend on the configuration of the terminal and the border.

As the border control process becomes more and more complex from a technical point of view, relying exclusively on signage and queue management will not be enough to enhance the passenger experience. Some passengers have difficulties identifying a biometric passport or understanding whether their nationality is eligible for an ABC gate, let alone knowing whether their file within the EES central system needs an update.

The use of border control kiosks open to all passengers can facilitate their orientation by providing customised information. Past passport scanning, the interface could route the passenger to a zone A or a zone B.

The kiosk could also allow interaction with the passenger in his own language.

The annex of the EES regulation specifies the new signage to be used:

**1. Automated border control lanes for EU/EEA/CH citizens**

Stars are not required for Switzerland, Liechtenstein, Norway and Iceland.



**2. Automated border control lanes for Third Country Nationals**



**3. Automated border control lanes for all passports**



The regulation also allows a separate line for travellers benefiting from the national facilitation programme.

# 6.

## FINAL REMARKS & RECOMMENDATIONS



## 6. Final Remarks and Recommendations

The Schengen Border Code lays down rules governing border control of persons crossing the external borders of the Member States of the Union (Art. 1).

Border control is the activity carried out at a border, in accordance with and for the purposes of the Schengen Borders Code, in response exclusively to an intention to cross or the act of crossing that border, regardless of any other consideration, consisting of border checks and border surveillance (Art. 2.10).

Border control shall be conducted uniquely by border guards. Furthermore, “Member States shall deploy appropriate staff and resources in sufficient numbers to carry out border control at the external borders, in such a way as to ensure an efficient, high and uniform level of control at their external borders” (Art. 15).

**Border control is a specific process that takes place within the airport premises. Hence, depending on the Member State concerned, the Airport Managing Bodies’ responsibility could vary from providing space and electricity for a fee to providing and financing the equipment. From a legislative point of view, this remains a Member States’ responsibility. We encourage ACI EUROPE’s member airports to remind their authorities of their obligations stemming from the European legislation.**

Sufficient European funding was and will be available for Member States to comply with their obligations.

A review of the border control configuration at an airport requires the agreement of the national authorities (Home Affairs Ministry or equivalent). The key to success according to all airports involved in the preparation of the EES implementation is a close cooperation with national and European authorities (in this case through the eu-LISA agency);

**Key aspects that Airport Managing Bodies should raise with their national authorities:**

- **Co-managed projects (run pilots in close cooperation)**
- **Process time assessment, taking flight schedules into consideration**
- **Procurement planning, depending on each Member States’ national legislation**

In order to smooth the process and enhance the passenger experience, anticipating the EES initial enrolment remains crucial. The foreseen enhancement of the Visa Information System will include a facial image capture, which is expected to facilitate the implementation of EES.

European airports take the view that the European legislator should go one step further, by promoting the following measures:

- **Complete EES enrolment through the VIS process and**
- **A European smart-phone application to help passengers complete their enrolment before they arrive at the airport.**

ACI EUROPE and its Task Force on Border Control will continue liaising with the European authorities and to provide guidance on this subject.

# ANNEX - RELEVANT LEGISLATION



## Relevant and Related Legislation

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 Regulations (EC) No 767/2008 and (EU) No 1077/2011 (OJ L 327, 9.12.2017, pp. 20-82).

Successive amendments to Regulation (EU) 2017/2226 were incorporated into the original document. This [consolidated version](#) is of documentary value only.

Regulation (EU) [2017/2225](#) of the European Parliament and of the Council of 30 November 2017 amending Regulation (EU) 2016/399 as regards the use of the Entry/Exit System (OJ L 327, 9.12.2017, pp. 1-19).

[Corrigendum](#) to Regulation (EU) 2017/2225 of the European Parliament and of the Council of 30 November 2017 amending Regulation (EU) 2016/399 as regards the use of the Entry/Exit System (OJ L 327, 9.12.2017).

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) [2018/1547](#) of 15 October 2018 laying down the specifications for the connection of the central access points to the Entry/Exit System (EES) and for a technical solution to facilitate the collection of data by Member States for the purpose of generating statistics on the access to the EES data for law enforcement purposes.

Commission Implementing Decision (EU) [2019/326](#) of 25 February 2019 laying down measures for entering the data in the Entry/Exit System (EES).

Commission Implementing Decision (EU) [2019/328](#) of 25 February 2019 laying down measures for keeping and accessing the logs in the Entry/Exit System (EES).

To be published:

Commission Implementing Decision (EU) .../... of XXX laying down the specifications and conditions for the data repository of the Entry/Exit System (EES).

Commission Implementing Decision (EU) .../... of XXX laying down measures for the establishment and the high level design of interoperability between the Entry/Exit System (EES) and the Visa Information System (VIS).

Commission Implementing Decision (EU) .../... of XXX laying down performance requirements of the Entry/Exit System (EES).

Commission Implementing Decision (EU) .../... of XXX laying down the specifications and conditions for the web service of the Entry/Exit System (EES) including specific provisions for the protection of the data where provided by or to carriers.

## Related Legislation

Regulation (EU) [2019/817](#) of the European Parliament and of the Council of 20 May 2019 on establishing a framework for interoperability between EU information systems in the field of borders and visa and amending Regulations (EC) No 767/2008, (EU) 2016/399, (EU) 2017/2226, (EU) 2018/1240, (EU) 2018/1726 and (EU) 2018/1861 of the European Parliament and of the Council and Council Decisions 2004/512/EC and 2008/633/JHA (OJ L 135, 22.5.2019, pp. 27-84).

Regulation (EU) [2018/1726](#) of the European Parliament and of the Council of 14 November 2018 on the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA), and amending Regulation (EC) No 1987/2006 and Council Decision 2007/533/JHA and repealing Regulation (EU) No 1077/2011 (OJ L 295, 21.11.2018, pp. 99-137).

Commission Implementing Decision (EU) [2018/1548](#) of 15 October 2018 laying down measures for the establishment of the list of persons identified as overstayers in the Entry-Exit System (EES) and the procedure to make that list available to Member States (OJ L 259, 16.10.2018, pp. 39-42).

Regulation (EU) [2018/1240](#) of the European Parliament and of the Council of 12 September 2018 establishing a European Travel Information and Authorisation System (ETIAS) and amending Regulations (EU) No 1077/2011, (EU) No 515/2014, (EU) 2016/399, (EU) 2016/1624 and (EU) 2017/2226 (OJ L 236, 19.9.2018, pp. 1-71).

Regulation (EU) [2016/399](#) of the European Parliament and of the Council of 9 March 2016 on a Union Code on the rules governing the movement of persons across borders (Schengen Borders Code) (OJ L 77, 23.3.2016, pp. 1-52).

Successive amendments to Regulation (EU) No 2016/399 have been incorporated into the original document. This [consolidated version](#) is of documentary value only.

Regulation (EC) No [767/2008](#) of the European Parliament and of the Council of 9 July 2008 concerning the Visa Information System (VIS) and the exchange of data between Member States on short-stay visas (VIS Regulation) (OJ L 218, 13.8.2008, pp. 60-81).

See [consolidated version](#).

Regulation (EC) No [1987/2006](#) of the European Parliament and of the Council of 20 December 2006 on the establishment, operation and use of the second generation Schengen Information System (SIS II).

Regulation (EU) [2018/1861](#) of the European Parliament and of the Council of 28 November 2018 on the establishment, operation and use of the Schengen Information System (SIS) in the field of border checks, and amending the Convention implementing the Schengen Agreement, and amending and repealing Regulation (EC) No 1987/2006.

[The Schengen acquis – Convention implementing the Schengen Agreement](#) of 14 June 1985 between the Governments of the States of the Benelux Economic Union, the Federal Republic of Germany and the French Republic on the gradual abolition of checks at their common borders (OJ L 239, 22.9.2000, pp. 19-62).





ACI EUROPE is the European region of Airports Council International (ACI), the only worldwide professional association of airport operators. ACI EUROPE represents over **500 airports** in 46 European countries. Our members facilitate over 90% of commercial air traffic in Europe: **2.3 billion passengers, 21.2 million tonnes of freight** and **25.7 million aircraft movements** in 2018. In response to the Climate Emergency, in June 2019 our members committed to achieve **Net Zero** carbon emissions for operations under their control **by 2050**, without offsetting.

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