

EU-wide information systems for border management and security

SUMMARY

The European Union (EU) has developed a complex architecture of information systems to support its policies on external borders, migration management, and internal security. In response to recent migration and security challenges, the EU has sought to expand and upgrade its existing information systems on borders and security, as well as to establish new systems and to ensure their interconnection (interoperability). The underlying policy goal has been to 'close information gaps' on third-country nationals arriving or staying in the EU, as a means to combat irregular migration and counter security threats more effectively.

Whereas the legislative work of updating and expanding EU-wide information systems for borders and security has been rather swift, efforts are still needed to implement changes and to deploy the new information systems. The timeline for this implementation has been revised several times. It is currently envisaged that the new information architecture will become operational between 2024 and 2026.

This briefing provides an overview of EU-wide information systems for border management and security. It presents key figures on the operation of the existing information systems and discusses recent policy and technical developments. It also looks at the information systems and the interoperability framework currently under development.



IN THIS BRIEFING

- Introduction
- Schengen information system
- Eurodac
- Visa information system
- Entry-exit system
- European travel information authorisation system
- European criminal record information system for third-country nationals
- Interoperability of EU information systems



Introduction

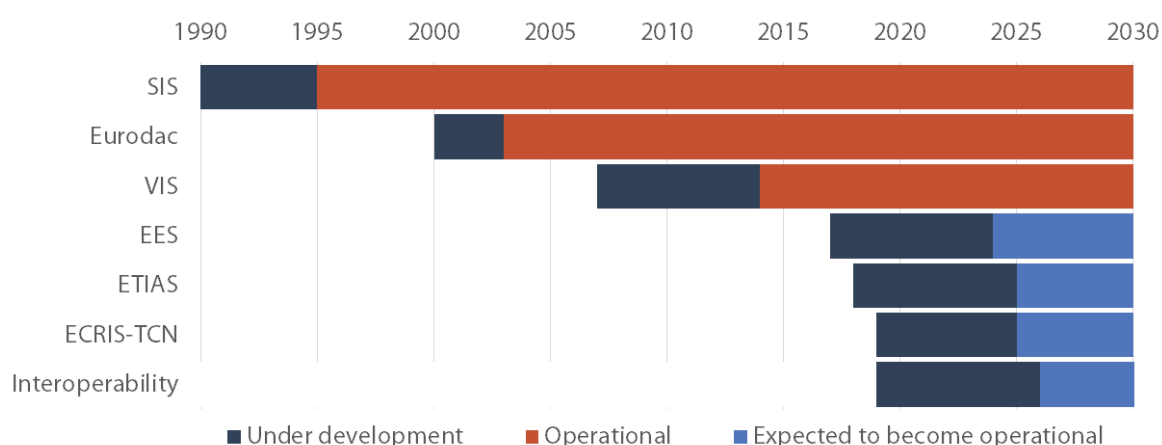
The EU-wide information systems on borders and security play a key role in the EU's renewed effort to protect its external borders, strengthen migration management, and ensure internal security. The first EU-wide centralised information system, the Schengen information system (SIS), was envisaged by the 1990 [Schengen Convention](#) as a major compensatory measure for the establishment of a Schengen area without internal borders. This was followed by the establishment of [Eurodac](#) – to support EU asylum policies, and the visa information system (VIS) – to help with the management of EU visa applications.

After 2015, the EU took steps to further develop, establish and interconnect EU-wide information systems to help cope with the increased challenges related to high volumes of irregular migration and cross-border security threats. This was driven by a need to [close the information gaps](#) related to third-country nationals entering the EU, to ensure that the relevant authorities have sufficient information to determine a person's status, assess protection claims, and identify security threats.

Between April 2016 and July 2021, 11 major proposals to develop the EU's architecture of centralised information systems were put forward and adopted (taking an average 1.9 years to adopt, per proposal). In addition to the revision of the SIS and VIS, three new information systems were established: the entry-exit system (EES) – to register the entry and exit information of third-country nationals crossing the EU's external borders; the European travel information authorisation system (ETIAS) – to check visa-exempt third-country nationals before they travel to the EU; and the European criminal record information system for third-country nationals (ECRIS-TCN) – to exchange information on non-EU nationals convicted in the EU. To ensure information availability and improve the effectiveness of information systems, the EU also established a framework for the interoperability of these systems.

The development of the new information systems and of the interoperability framework is ongoing. Postponed several times, the new systems are now expected to become operational by mid-2025 (see Figure 1).

Figure 1 – Timeline of EU-wide information systems for borders and security



Source: Compiled by the author from publicly available sources

The European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice ([eu-LISA](#)) is in charge of managing and developing most of the EU information systems concerned with borders and security. Established in 2011, eu-LISA's mandate was revised in [2018](#) to reflect the agency's new roles in developing and managing EU information systems, including their interoperability.

Schengen information system

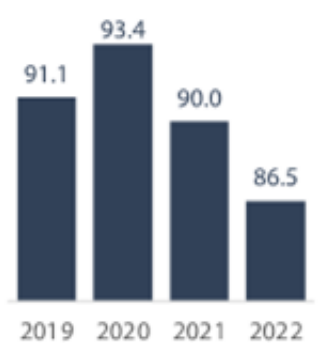
Established in 1995, the [SIS](#) was upgraded in 2013 and 2023. The system enables the competent authorities to enter or consult [alerts](#) about wanted or missing people and objects in the EU. Member States can enter, update, delete and search data into SIS via national systems and can exchange information via a supplementary network ([SIRENE](#)). Access to SIS data is granted to [competent authorities](#) responsible for border control, police, customs, visas, and vehicle registration and, by extension, to national judicial authorities, when this is necessary for the performance of their tasks.

The SIS is used by **31 countries**: 27 EU Member States and 4 Associated Countries (Iceland, Norway, Switzerland, and Liechtenstein). As of March 2021, Ireland¹ has access to SIS alerts, but cannot issue or access Schengen-wide alerts for refusing entry or stay. Bulgaria, Cyprus, and Romania currently operate SIS for the purpose of law enforcement cooperation alone (they will have full access to SIS once the decision to abolish controls at the internal borders (within the Schengen area) adopted). Within their respective mandates, the EU Agency for Law Enforcement Cooperation ([Europol](#)), the EU Agency for Criminal Justice Cooperation ([Eurojust](#)), and the European Border and Coast Guard Agency ([Frontex](#)) can access SIS. In 2013, eu-LISA took over the management of SIS.

Key figures

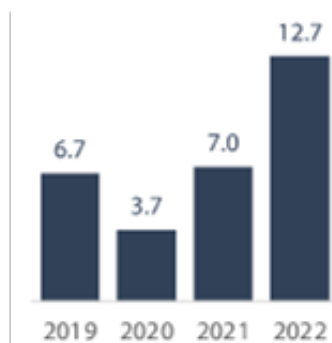
According to eu-LISA,² SIS stored **86.5 million alerts** at the end of 2022 (see Figure 2). Whereas the number of SIS alerts constantly increased in previous years, in the last two years this number has fallen, largely due to the deletion of alerts following the removal of the United Kingdom's access to the SIS (in 2021) and the removal of historical security alerts required under the new SIS legal basis (in 2022). Three Member States (Italy, France, and Germany) issued more than half of the alerts stored in SIS at the end of 2022. The majority of alerts stored in SIS are alerts on issued documents (81 % in 2022). The **alerts on persons** typically make up only a fraction of SIS alerts – they constituted 1 % of all alerts stored in SIS at the end of 2022. The majority of alerts on persons (56 %) stored in SIS at the end of 2022 concerned third-country nationals to be refused entry into or stay within the Schengen area.

Figure 2 – Alerts stored in SIS (in millions)



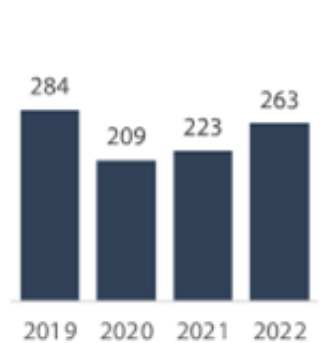
Data source: eu-LISA

Figure 3 – Searches in SIS (in billions)



Data source: eu-LISA

Figure 4 – SIS foreign hits (in thousands)



Data source: eu-LISA

In 2022, competent authorities performed **12.7 billion searches** in SIS – an increase of 82 % compared to 2021 (see Figure 3). This means that competent authorities performed about 35 million SIS searches on average per day. Four Member States (the Netherlands, Belgium, France, and Spain) carried out two thirds of all searches.

The [SIRENE Bureaux](#) reported more than **263 000 hits on foreign alerts** (where the alert triggering the hit was previously created by another Member State) – an increase of 18% compared to 2021 (see Figure 4). The greatest number of hits were triggered by alerts on persons and objects for discreet or specific checks to prosecute an offence or prevent threat to public or national security

(28 %), followed by alerts on third-country nationals who are not entitled to enter into or stay in the Schengen Area (26 %).

Recent developments

In 2018, the SIS legal framework was [updated](#) (under three new SIS regulations), allowing the system to include alerts on more categories of people, process more types of data, extend access to EU agencies, and enable interoperability with other information systems. The new SIS alerts cover:

- alerts on persons who are ordered to leave the EU,
- inquiry check alerts on persons suspected of serious crime or terrorism,
- alerts on unknown wanted persons (containing the fingerprints of unknown perpetrators that are discovered at the scenes of terrorist offences or serious crimes),
- alerts on vulnerable persons (such as children at risk of abduction or potential victims of terrorism, trafficking in human beings, gender-based violence, or armed conflict/hostilities).

In 2022, another [amendment](#) allowed Europol to propose the creation of information alerts on third-country nationals in the interest of the Union, where Europol suspects that the person concerned is involved in a criminal offence, based on information obtained from third countries. The decision to create the alert is taken by the Member States, following the verification and analysis of information.

Since 2018, the automated fingerprint identification system (AFIS) allows competent authorities to perform searches solely using fingerprints. In 2022, most of the Member States (except Poland and Estonia) regularly performed AFIS searches. Currently, SIS does not yet use photograph and facial image recognition technology. The European Commission needs to provide a report on the availability, readiness, and reliability of such technology before this can be put in place. In December 2020, the Commission adopted an implementing [decision](#) specifying the minimum data quality standards and technical specifications for entering and storing photographs and dactyloscopic data in SIS.

The 2019 interoperability [regulations](#) provided for the interconnection between SIS and the other EU-wide information systems, to facilitate the correct identification of persons and contribute to fighting identity fraud. The SIS will be integrated into three (out of four) interoperability components. The implementation of this interoperability is under way (see below).

Eurodac

[Eurodac](#) was established in 2000 and became operational in 2003. The system was upgraded in 2013. Eurodac records fingerprints (data sets) of persons seeking international protection, to help determining the country responsible for examining their applications under the [Dublin Regulation](#). It allows national asylum authorities to verify whether an applicant has previously claimed asylum in another Member State and to check whether an applicant has previously been apprehended when entering the EU irregularly. Authorities may also collect (but not store) the fingerprints of persons found illegally staying in their territory to verify if they have previously applied for international protection in any Member State.

For any exchange of information concerning asylum applications, Member States must use a dedicated secure electronic communication network – [DubliNet](#). After the adoption of the recast Eurodac regulation in 2013 (effectively since July 2015), designated national law-enforcement authorities and Europol obtained the right to query Eurodac, under certain conditions, for the purpose of preventing, detecting, and investigating terrorist offences and other serious crimes.

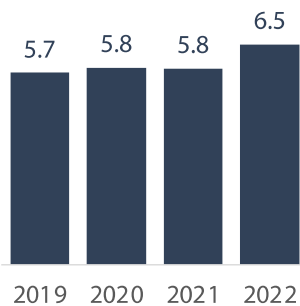
Eurodac is used by **31 countries**: 27 EU Member States and the 4 Associated Countries. Following the conclusion of separate agreements, Denmark and the Associated Countries have been able to access Eurodac for law enforcement purposes only. Europol uses the Netherlands' infrastructure and

connection to transmit data and perform searches in Eurodac. Since June 2013, eu-LISA has been responsible for the operational management of the [Eurodac Central System](#).

Key figures

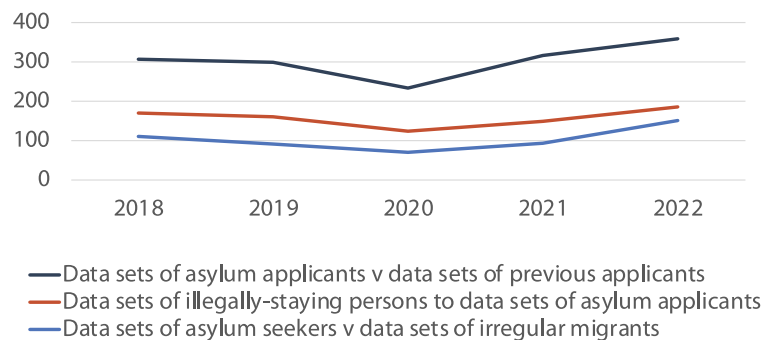
According to eu-LISA,³ by the end of 2022, the Eurodac central system was storing **6.5 million data sets** – 12 % more than at the end of 2021 (see Figure 5). In 2022, the Member States transmitted nearly 1.5 million data sets to the Eurodac central system – a 73 % increase compared to 2021. Three Member States (Germany, Italy, and France) transmitted half of all data sets. The majority of the data sets (64 %) transmitted in 2022 belonged to persons applying for international protection.

Figure 5 – Data sets stored in the Eurodac (in millions)



Data source: eu-LISA

Figure 6 – Eurodac hits resulting from comparing different types of data sets (in thousands)

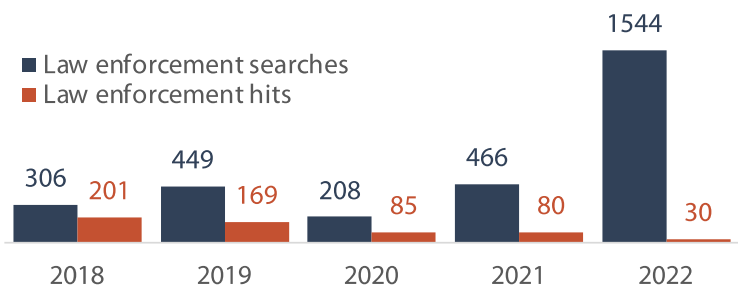


Data source: eu-LISA

Eurodac searches in 2022 resulted in about **730 000 hits** (when a data set sent for comparison matches another data set already stored in the central system) – a 20 % increase compared to 2021. About 357 000 hits resulted from searches using the data sets of **new asylum seekers** against the data sets taken from **previous asylum applicants** – a 13 % increase compared to 2021 (see Figure 6). More than two thirds of these hits were foreign hits, meaning that about 250 000 people who applied for international protection in the EU in 2022 had already requested international protection in another Member State in the past 10 years.

In 2022, the number of Eurodac hits resulting from searches using the data sets on **third-country nationals found staying illegally** in a Member State against the data sets of **asylum seekers** already recorded in Eurodac was about 184 000 – a 24 % increase compared to 2021. Under the current rules, Member States are not obliged to carry out this type of search, thus not all the Member States make systematic use of this functionality. The number of Eurodac hits resulting from searches using the data sets of **new asylum seekers** against data sets taken from persons apprehended while **irregularly crossing** the EU external borders (in the past 18 months) was about 150 000 – a 60 % increase compared to 2021. About 40 % of these were foreign hits – meaning that the matching data sets were previously transmitted by a different Member State than

Figure 7 – Use of Eurodac for law enforcement purposes



Data source: eu-LISA

the one performing the search. This means that about 61 000 persons applied for international protection in a Member State in 2022, after previously being apprehended crossing irregularly into the Schengen Area via another Member State.

In 2022, the number of searches carried out by national **law enforcement authorities and the Europol** was 1 544 – a 231 % increase compared to 2021 (see Figure 7). Germany carried out 90 % of these searches. Eurodac searches for law enforcement purposes resulted in 30 hits in 2022 (26 hits from searches against data sets of asylum applicants and 4 hits from searches against data sets of persons apprehended crossing the external borders irregularly). It is notable that, although the number of searches for law enforcement purposes has increased in recent years, the number of hits generated by these searches has fallen. If there was a 66 % chance that a search resulted in a hit in 2018, in 2022 this chance was just 2 %.

Recent developments

The large influx of migrants and refugees in 2015 caused significant shortcomings in implementation of the Eurodac Regulation, with many [frontline countries](#) allowing asylum-seekers to pass through their territory without properly registering them, as required by the Eurodac Regulation. In 2016, the Commission [proposed](#) to amend the Eurodac Regulation to reinforce its role in the fight against irregular migration. Although the Parliament and the Council reached a [partial agreement](#) on the proposal in June 2018, progress stalled due to disagreement on other files.

In 2020, the Commission put forward an [amended](#) Eurodac proposal as part of the new pact on migration and asylum. The proposed changes (including those maintained from the previous proposal) concern the possibility to collect alphanumeric identity data to enable applicants (not just applications) to be counted, the inclusion of new categories of persons (disembarked following search and rescue operations), and the collection of new categories of data (facial image). The proposal also seeks to lower the age for fingerprinting (from 14 to 6 years). The amended proposal is currently [under examination](#) by the co-legislators.

Visa information system

Established in 2004, the [VIS](#) became operational in 2011 (the system became fully accessible worldwide in all Schengen country consulates in 2016). The VIS contains information about applications for short-stay (Schengen) visas and, since 2021, data on long-term visas and residence permits issued in the Schengen area. The VIS facilitates visa checks at external border-crossing points and supports Member States' consular authorities in the management of applications for short-stay visas when visiting or transiting through the Schengen Area. Asylum authorities also have access to search the VIS to determine the EU country responsible for the examination of an asylum application. Since 2013, competent national [law enforcement authorities](#) and Europol can, under certain conditions, access VIS data for the purpose of preventing, detecting, and investigating terrorist offences or other serious criminal offences. Member States can exchange information on visa applications through [VISMail](#) – a dedicated communication system.

The VIS is used by **27 countries**: 23 EU Member States and the 4 Associated Countries. Since July 2021, Romania and Bulgaria have [read-only access to VIS](#). By 2021, Cyprus was not yet connected to the VIS. Ireland does not participate in the VIS.

Key figures

According to eu-LISA,⁴ the VIS stored **62 million visa applications** at the end of September 2021 – a decrease of 15 % from 2020 (see Figure 8). The number of new visa applications registered in the VIS fell from 17.1 million in 2019 to 3 million in 2020 – mainly due to the wide-ranging travel restrictions adopted by the EU in response to the outbreak of the coronavirus pandemic.

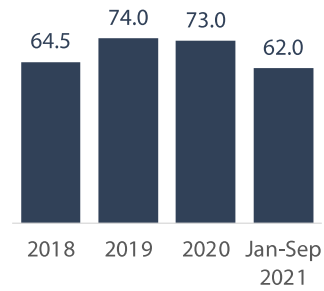
The number of **VIS searches at the border** (visa verifications and identifications at the border) decreased dramatically from 43 million in 2019 to 11 million in 2020. The competent authorities performed 4.9 million VIS searches at the border in the first three quarters of 2021 (see Figure 9).

The number of **VIS searches within the territory** (to verify visa holder's identity or whether they fulfil the conditions for entry to, stay or residence on the territory of the Member State) decreased from 2.8 million to 2.4 million between 2019 and 2020. About 1.9 million VIS searches within the territory were performed in the first three quarters of 2021.

The number of **VIS searches for asylum purposes** (for determining the responsibility for asylum applications and for examining asylum applications) decreased from 1.4 million to 1.1 million between 2018 and 2020. About 950 000 such searches were performed in the first three quarters of 2021. The use of the VIS for asylum purposes differs greatly among the Member States. Whereas 94 % of the searches for asylum were carried out by four Member States (Belgium, Germany, Netherlands, and Sweden), eight Member States (Bulgaria, Estonia, Greece, Liechtenstein, Lithuania, Poland, Romania, and Slovakia) reported zero searches or provided no data.

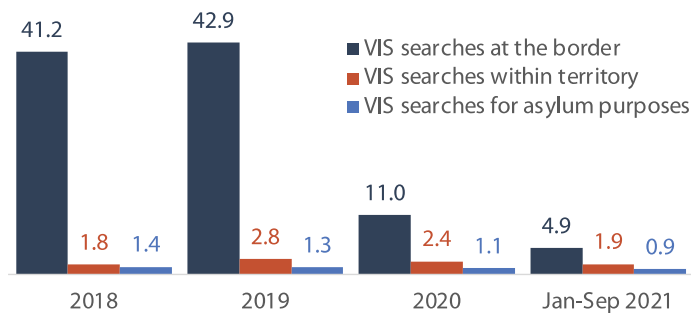
The number of **VIS searches for law enforcement purposes** increased considerably – from about 7 100 in 2018 to more than 16 000 in 2019 and 2020 (see Figure 10). The competent law-enforcement authorities performed about 12 100 searches in the VIS in the first three quarters of 2021. As reported,⁵ the majority of searches were carried out by four countries: Slovakia (29 %), Spain (22 %), Czechia (16 %) and Germany (11 %).

Figure 8 – Visa applications stored in VIS (in millions)



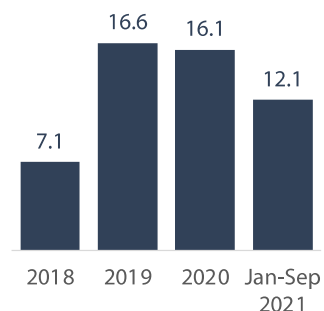
Data source: eu-LISA

Figure 9 – VIS searches at the border, within territory, and for asylum purposes (in millions)



Data source: eu-LISA

Figure 10 – VIS searches for law enforcement purposes (in thousands)



Data source: eu-LISA

Recent developments

In October 2019, eu-LISA completed the integration process to allow the Europol's connection to the Central VIS. Once Europol's access is completed on its side, Europol will have access to Central VIS to query the database.

In 2021, the VIS Regulation was [amended](#) to expand the scope of VIS and add new functionalities. The revised VIS allows more thorough background checks on visa applicants and to close security information gaps through better information exchange between Member States. It broadens the system to include data on applicants and holders of long stay-visas and residence permits. The minimum age for taking fingerprints from applicants was lowered to 6 years, to tackle the risk of

abduction and trafficking of children. The update also introduced the possibility to enrol and match live facial images in the VIS, and for the incorporation of a list of recognised travel documents. The VISMail mechanism for consultations was integrated into VIS, to streamline the exchanges between the VIS central system and the national systems. According to the revised VIS Regulation, by the end of 2023, the Commission should adopt a decision setting the date on which the new features of VIS will become operational.

The new VIS Regulation also seeks to ensure the interoperability between VIS and other EU information systems for borders and internal security. According to the Commission's February 2023 [report](#), the implementation of the revised VIS was on track. However, delays in the implementation of the revised EU IT architecture might affect the upgrade of the VIS.

In April 2022, after running a pilot [project](#) to test the feasibility of an EU online visa application platform, the Commission presented a [proposal](#) to digitalise the Schengen visa procedures. The proposal seeks to establish a new EU digital platform for submitting and processing visa applications. This platform would be developed as a new functionality in the VIS. The proposal also provides for the establishment of a gateway to allow read-only access to VIS data for external service providers dealing with visa applications. When a visa is granted, data will be transferred from the VIS to the EES. The digital visa would be recorded in the VIS. The Commission envisages that the new visa platform would be developed by 2025, and that all visa applications would have to be lodged through this platform by 2028. The visa digitalisation proposal is in the [final stages](#) of the legislative process, after the co-legislators reached a compromise in June 2023.

Entry-exit system

Established in 2017, the [EES](#) is currently **under development**. The new information system will allow digital recording of the entry and exit (and refusal of entry) of short-stay visa holders and visa-exempt travellers who seek to cross the EU's external borders. The EES will store the person's name, the type of travel document, biometric data (fingerprints and facial images), and the date and place of entry and exit. It will allow the duration of a person's authorised stay to be calculated automatically (information accessible via a website), and alerts to Member States to be generated when the authorised stay expires. National law enforcement authorities and Europol will be able to access the EES, under certain conditions, to prevent, detect, and investigate terrorist offences or other serious crimes.

The EES will be used by **29 countries**: all EU Member States except for Cyprus and Ireland, and the 4 Schengen Associated Countries.

Recent developments

Although initially [expected](#) to launch in 2020, the EES is not yet operational. According to a eu-LISA reply to a [parliamentary question](#), the delay in the implementation of the EES is due to a failure by the contractor to deliver the system. According to the [revised timeline](#) endorsed by the Council in October 2023, the EES roll-out should take place in **autumn 2024**.

The EES is part of the interoperability of EU information systems for borders and security. Within this framework, the EES will be interconnected with the VIS, allowing border authorities to retrieve visa-related information from the VIS and import them into the EES, and allowing visa authorities to consult the EES from the VIS when examining visa applications. Following the start of operations under the revised SIS, the EES is the next fundamental building block in the implementation of interoperability. However, delays in the development of the EES triggers further delays in the implementation of other information systems and the rollout of interoperability components.

The EES Regulation obliges transport carriers to query the EES to verify if a third-country national travelling to the EU with a short-stay, single or double-entry visa has already used the number of entries authorised by their visa. To facilitate the carriers' preparation for the implementation of their

obligations, eu-LISA established a [Working Group for Carriers](#) – which brings together eu-LISA, the Commission, Frontex and carrier associations.

European travel information authorisation system

Established in [2018](#), the [ETIAS](#) is currently **under development**. The ETIAS will allow for the pre-registration of visa-exempt visitors travelling to the Schengen area to assess the potential security or irregular migratory risks posed by these persons in a timely manner. The applications submitted online by applicants ahead of their arrival at the borders will be checked against EU and relevant Interpol databases, a dedicated ETIAS watch-list, and specific ETIAS risk indicators.

The **ETIAS watchlist** will contain data on people suspected of having committed or taken part in a terrorist offence or other serious criminal offence, or persons regarding whom there are factual indications or reasonable grounds, based on an overall assessment of the person, to believe that they will commit a terrorist offence or other serious criminal offence. Before a person's data is added to the watchlist, the authorities must check whether it corresponds to an alert in the SIS – and if this is the case, they should not enter the data into the list. All visa and travel authorisation applications will be checked against the watchlist. The ETIAS applications will be checked against the **ETIAS screening rules**, created on the basis of [specific risk indicators](#) corresponding to previously identified security, illegal immigration or high epidemic risks.

The ETIAS will be used by **30 countries**: all EU Member States (except for Ireland) and the 4 Associated Countries.

In charge of developing ETIAS, including the ETIAS watchlist, eu-LISA will also be responsible for the creation of a public website and a mobile app for ETIAS applications. The ETIAS watchlist will be established on the basis of information related to terrorist offences or other serious criminal offences provided by Europol and the Member States. Frontex will host the ETIAS Central Unit and will define the specific risk indicators, based on risks related to security or illegal immigration or a high epidemic risk defined by the Commission.

Recent developments

Although initially [expected](#) to launch in 2020, the ETIAS is not yet operational. This delay is caused by the failure to implement the EES. The ETIAS relies on data provided by the EES for the identification of risks, such as security, irregular migration, or high epidemic risks. The entry into operation of the ETIAS can only take place five to six months after the EES' entry into operation. According to the [revised timeline](#) endorsed by the Council in October 2023, the ETIAS should become operational in **spring 2025**.

In November 2021, the Commission adopted two [decisions](#) defining security, illegal immigration or high epidemic risks, to be used when establishing the ETIAS screening rules. According to the ETIAS regulations, carriers will have to query the ETIAS and receive answers regarding the status of travellers. Once the ETIAS enters into operation, carriers will have to verify, prior to boarding, that their visa-exempt passengers have a valid travel authorisation.

European criminal record information system for third-country nationals

Currently **under development**, the [ECRIS-TCN](#) was [established](#) in 2019. The centralised system enables EU Member States to exchange information on the criminal records of third-country nationals (including EU citizens who also hold the nationality of a third country) convicted in the EU. The ECRIS-TCN will complement the European criminal record information system (ECRIS), which allows national competent authorities to obtain information on previous convictions of EU nationals from the Member State of that person's nationalities. The ECRIS-TCN searches could be made using biometric data, such as fingerprints, and possibly facial images. In the event of a hit, national judicial

authorities could contact the corresponding Member State bilaterally for more details, using the ECRIS. National authorities will be entitled to query the ECRIS-TCN for the purposes of both criminal and non-criminal proceedings (e.g., when processing applications for a residence permit). Europol, Eurojust and the European Public Prosecutor's Office will have access to the ECRIS-TCN, within their respective mandates.

The ECRIS-TCN will be used by **26 countries**: all EU Member States except for Denmark and Ireland. Development and operational management of the new system will be carried out by eu-LISA.

Recent developments

Although initially [expected](#) to launch in 2022, the ECRIS-TCN is not yet operational. In December 2022, the Commission adopted an [Implementing Decision](#), laying down measures necessary for the technical development and implementation of the ECRIS-TCN.

The ECRIS-TCN is part of the EU interoperability framework. To ensure to a high level of security, the VIS and the ETIAS will check whether any correspondence exists between data in VIS and ETIAS application files and the data stored in the ECRIS-TCN, regarding which Member States hold information on third-country nationals convicted in the previous 25 years of a terrorist offence, or in the previous 15 years of any other criminal offence listed in the Annex to the ETIAS Regulation.

Interoperability of EU information systems

In 2019, the EU adopted the legal framework on the interoperability of EU-wide information systems in the [borders and visa](#) and [police and judicial cooperation, asylum and migration](#) fields. This framework should enable the interconnection of EU information systems to facilitate the correct identification of persons and contribute to fighting identity fraud.

The interoperability covers the three existing centralised systems (SIS, VIS and Eurodac), and the three systems under development (EES, ETIAS, and ECRIS-TCN). Interoperability will also enable direct consultations from the VIS to the EES and vice versa.

The interoperability regulations provide for four main interoperability components:

- The **European search portal** (ESP) will allow competent authorities to search multiple systems using both biographical and biometric data. The ESP will enable simultaneous queries of the EU centralised systems, the Europol information system, and the Interpol system.
- The **shared biometric matching service** (sBMS) will facilitate the identification of an individual who is registered in the SIS, Eurodac, the VIS, the EES, and the ECRIS-TCN. The sBMS will store biometric templates (not the actual data) from the systems (logically separated) in one single location and will facilitate cross-system comparisons using biometric templates.
- The **common identity repository** (CIR) will facilitate the correct identification of persons by establishing individual files containing alphanumeric identity data, biometric data, and travel document data on all individuals registered in the EES, the VIS, the ETIAS, Eurodac and the ECRIS-TCN.
- The **multiple identity detector** (MID) will create and store links between data in the different systems to detect incorrect, incomplete or fraudulent identity data or travel document data.

The interoperability framework also includes a **common repository for reporting and statistics** (CRRS), providing cross-system statistical data and analytics for policy, operational and data quality purposes.

Recent developments

Although initially expected to be operational in 2023, the interoperability framework has not yet been established. In February 2023, following delays in the implementation of the information systems (especially the EES), the Commission [expected](#) operation of the interoperability

components to start progressively by June 2024. According to the Council's [revised timeline](#), the new interoperability architecture should be deployed from **mid-2024 until the end of 2026**.

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ENDNOTES

- ¹ According to the Schengen [Protocol](#), attached to the Amsterdam Treaty, Ireland may take part in all or some of the Schengen arrangements, subject to unanimous approval by the Council. Ireland has so far requested to participate only in certain Schengen areas, covering mainly police and judicial cooperation as the SIS.
- ² eu-LISA, [SIS II 2022 annual statistics](#), February 2023; eu-LISA, [SIS II 2021 annual statistics](#), March 2022; eu-LISA, [SIS II – 2020 statistics report](#), March 2021; and eu-LISA, [SIS II 2019 – statistics report](#), March 2020.
- ³ [Eurodac 2022 annual report](#), August 2023; eu-LISA, [Eurodac 2021 annual report](#), December 2022; eu-LISA, [Eurodac 2020 annual report](#), November 2021; and eu-LISA, [Eurodac – 2019 Annual Report](#), July 2020.
- ⁴ eu-LISA, [Report on the technical functioning of the Visa information System \(VIS\)](#), August 2022 (covering October 2019 to September 2021; and eu-LISA, [Report on the technical functioning of the Visa Information System \(VIS\)](#), August 2020 (covering October 2017 to September 2019). According to eu-LISA, some Member States provided only a partial set of statistical data for the 2022 report.
- ⁵ According to eu-LISA's 2022 VIS report, the collection of Member State data on use of the VIS for law enforcement purposes was 'very time-consuming and the data received was extremely fragmented'.

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