

# 2023

YEAR

IN

REVIEW



# FOREWORD



2023 was a pivotal year for eu-LISA – a period of strategic recalibration to ensure the delivery of the world's most advanced border management system for the Schengen community.

Under new and proactive leadership, we realigned our strategic approach and introduced **new ways of working**. As a result, we managed to jumpstart stalled initiatives and steer our organisation back on track, restoring trust with our stakeholders in the EU's Justice and Home Affairs (JHA) community.

We also made great strides in terms of quality management, receiving the **'Effective CAF User'** certificate, and significantly improved our compliance with EU rules by closing a remarkable 87% of audit recommendations.

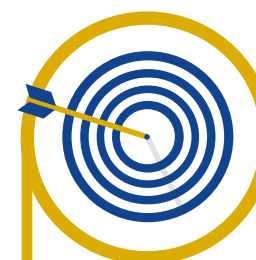
Going forward, eu-LISA is well-equipped to usher in a new era of border management and international travel by leveraging cutting-edge technologies and continuing to **drive digital transformation in the EU's JHA domain**. Throughout this process, we remain fully committed to supporting the Schengen community in maintaining the balance between enhanced security and ensuring a seamless experience for international travellers headed for Europe.

**Agnès Diallo**  
Executive Director



## VISION

We strive to provide innovative and practical solutions for the EU's evolving needs while driving digital transformation in the area of justice and home affairs



## MISSION

Our mission is to support the EU and the Member States in their effort to keep Europe open and secure through advanced technology



## CORE VALUES

Our vision and mission are translated into operational activities by applying the core values of **accountability, transparency, excellence, continuity, teamwork and first-rate customer service**



HEADQUARTERS  
Tallinn, Estonia



TECHNICAL SITE  
Strasbourg, France



LIAISON OFFICE  
Brussels, Belgium



TECHNICAL BACK-UP SITE  
St Johan im Pongau, Austria

# ACTIVITIES



**SUPPORTING THE IMPLEMENTATION OF JHA\* POLICIES**



**MANAGEMENT OF JHA SYSTEMS**



**DEVELOPMENT OF NEW SYSTEMS**



**EU INTERNAL SECURITY**



**VISA**



**MIGRATION & ASYLUM**



**JUSTICE**



**SIS**



**VIS**



**Eurodac**



**EES**



**ETIAS**



**ECRIS-TCN**



**e-CODEX**



**Interoperability**



**24/7 OPERATIONAL SUPPORT**



**USER TRAINING**



**INNOVATION & TECHNOLOGY MONITORING**



**EXPERTISE TO STAKEHOLDERS**

# KEY ACHIEVEMENTS



**Renewed SIS launched on 7 March 2023**



**Cyprus granted full access to SIS**



**Croatia connected to VIS**



**3Rs resolution strategy to reboot the development new IT systems**



**Revised Interoperability Roadmap for the gradual rollout of new IT systems for the JHA community**



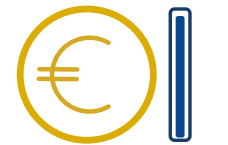
**Achieving readiness for the operational takeover of the e-CODEX system**



**European quality management certificate 'Effective CAF User'**



**87% of outstanding audit recommendations implemented**



**99.9% budget execution rate for commitments and payments**



# SCHENGEN INFORMATION SYSTEM

### AVAILABILITY



PARTIALLY ON TARGET

### RESPONSE TIME



ON TARGET

Set up in 1995 as a compensatory measure for the lifting of internal borders to facilitate free movement, SIS has become the **most widely used information-sharing system** for European law enforcement and border control authorities for exchanging alerts on wanted or missing persons and lost or stolen objects.

With the entry into operation of renewed SIS in March 2023, eu-LISA delivered the **most comprehensive system update** since 2014.

## KEY HIGHLIGHTS



### RENEWED SIS

**7 March 2023:** major system upgrade with new functionalities and search capabilities

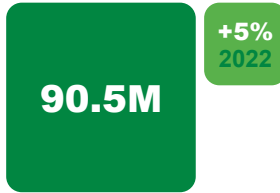


### INTEGRATION OF CYPRUS

**25 July 2023:** full access granted to Cyprus, increasing the total number of SIS users to 34

## SIS IN NUMBERS - 2023

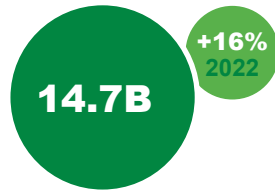
### DATA STORED



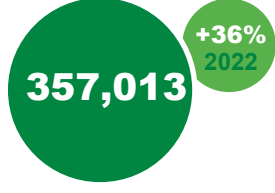
ALERTS  
IN THE DATABASE



### OPERATIONS



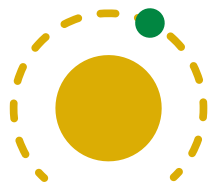
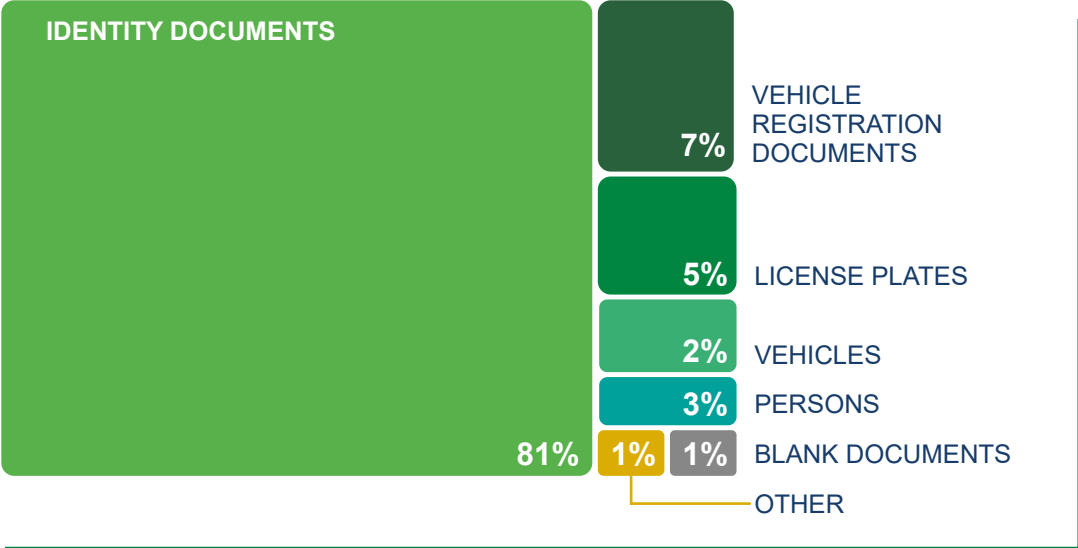
SEARCHES



HITS ON  
FOREIGN ALERTS



## SIS ALERTS BY TYPE



# VIS

## VISA INFORMATION SYSTEM

### AVAILABILITY

 **99.97%**  
TARGET ≥99.99%  
PARTIALLY ON TARGET

### RESPONSE TIME

 **99.98%**  
TARGET ≥100%  
PARTIALLY ON TARGET

Operational since 2011, VIS is used for processing **visa applications** and the management of **short-stay visas** for people travelling to or transiting through the Schengen area.

Since 2021, VIS has been undergoing a major upgrade that will expand its scope to include **long-stay visas and residence permits**, and establish connections with EES and ETIAS to enable the automated cross-checking of data on incoming travellers.

### KEY HIGHLIGHTS



#### INTEGRATION OF CROATIA

**1 January 2023:** full access granted to Croatia, making it the 27th country to officially join the Schengen area in full capacity




#### ENHANCED RESILIENCE

**5 October 2023:** security and business continuity exercise to test and further improve the system's resilience to unexpected events and disruptive incidents

### VIS IN NUMBERS - 2023

#### DATA STORED


**51.2M**  **-11%**  
2022

 **VISA APPLICATIONS**

**FINGERPRINTS**   
**46.8M**

**FACIAL IMAGES**   
**51.2M**

#### OPERATIONS

**211M**  **+36%**  
2022

 **OVERALL OPERATIONS**

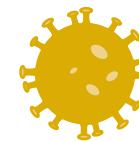
**BORDER OPERATIONS**   
**19.2M**

**BIOMETRIC SEARCHES**   
**7M**

**ALPHANUMERIC SEARCHES**   
**21.6M**

**BIOMETRIC AUTHENTICATIONS**   
**6M**

### DECLINE IN VISA APPLICATIONS AND FINGERPRINTS STORED

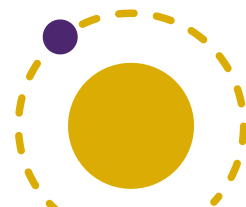


In recent years, VIS usage has been greatly affected by **COVID-19-related travel restrictions**. In 2022, the negative trend started to revert but remained below pre-pandemic levels throughout 2023. In the meantime, the volume of stored data decreased due to **automatic deletion as per VIS data retention policy** (data stored for max 5 years).

### FUTURE OUTLOOK: EU VISA DIGITALISATION



In November 2023, the Council and European Parliament adopted two regulations that will pave the way for the **digitalisation of the Schengen visa procedure**, which will entail a new task for eu-LISA – the development and subsequent management of the **online visa application platform**.



# EURODAC

## EUROPEAN DACTYLOSCOPY DATABASE

### AVAILABILITY



**99.47%**  
TARGET ≥99.99%

**BELOW TARGET**

### RESPONSE TIME



**99.98%**  
TARGET ≥99.45%

**ON TARGET**

Eurodac is the EU database of **digitalised fingerprints** for the management of asylum applications under the Dublin Regulation.

Throughout 2023, eu-LISA continued with critical **system upgrades** in anticipation of the forthcoming Pact on Migration and Asylum that will significantly expand Eurodac's scope, transforming it into a fully-fledged asylum and migration database.

## SYSTEM UPGRADES



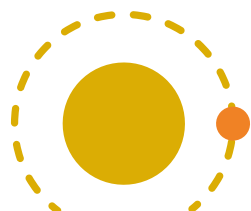
### CAPACITY UPGRADE PROJECT

**July 2023:** storage capacity expanded from 7 to 9 million records, and daily throughput capacity from 15,000 to 24,000 transactions



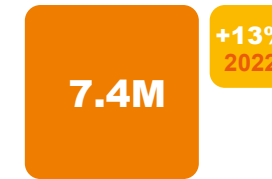
### MINIMAL UPGRADE PROJECT

**Ongoing:** upgrading the biometric matcher, database management system, synchronisation mechanism, and replacing hardware components



## EURODAC IN NUMBERS - 2023

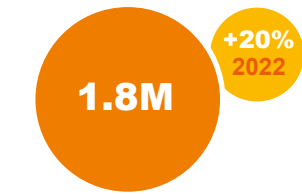
### DATA STORED



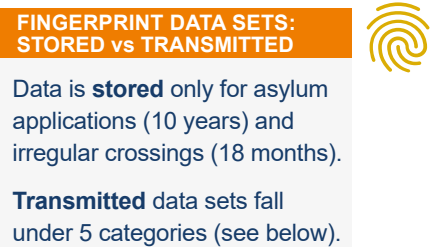
### DATA SETS STORED



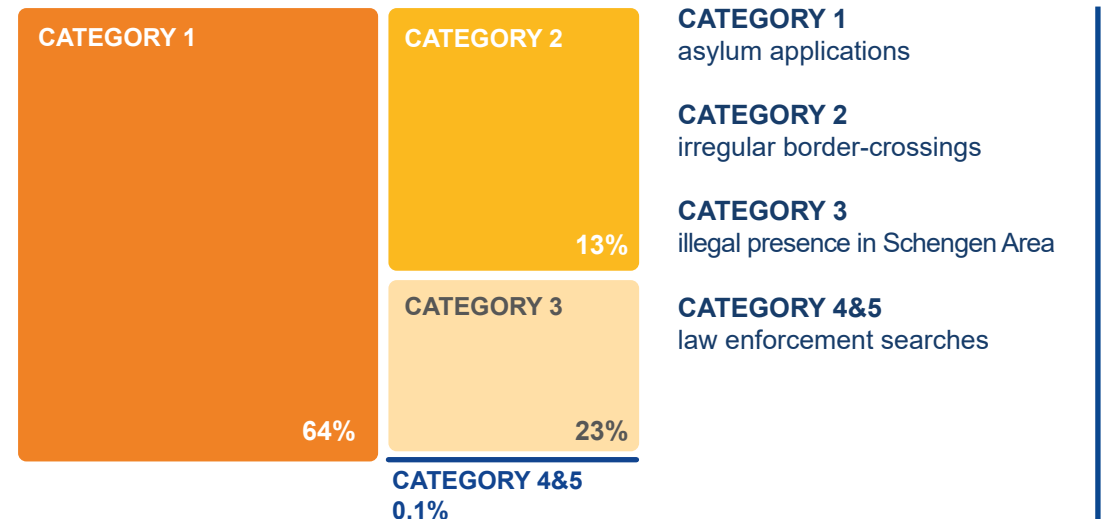
### OPERATIONS



### DATA SETS TRANSMITTED



## FINGERPRINT DATA SETS TRANSMITTED



# NEW SYSTEMS IN DEVELOPMENT

The effective management of Europe's external borders and internal security relies upon efficient data sharing and information exchange. Since its establishment in 2012, eu-LISA has managed three IT systems that constitute the cornerstones of the **Schengen architecture**: **SIS**, **VIS**, and **Eurodac**.

In 2018, the Agency was tasked with the development of several new IT systems, together with the **interoperability architecture** for the EU's justice and home affairs (JHA) domain. Once operational, this overarching systems interoperability will enable **more efficient data sharing and information exchange**, providing law enforcement authorities single-point access to comprehensive information.

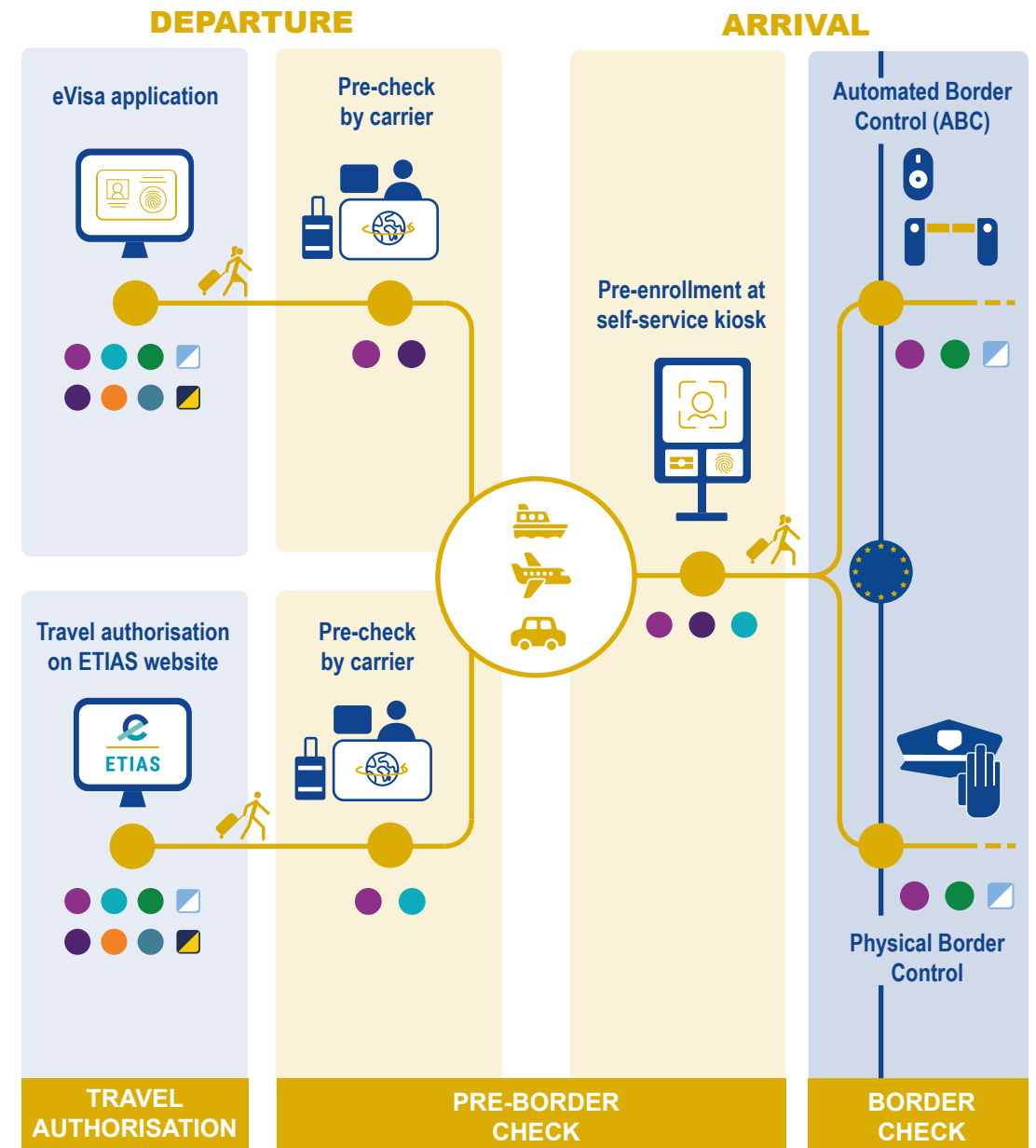
In the coming years, eu-LISA is scheduled to launch **three new systems**: **EES**, **ETIAS**, **ECRIS-TCN**. These systems will further improve the management of Schengen external borders and reinforce internal security while also delivering a more **seamless experience for international travellers** headed for the EU.

In addition, eu-LISA is also set to increase its contribution to the **EU's justice domain** by taking over the operational management of the **e-CODEX** system, a digital platform that facilitates cross-border judicial proceedings.

The **traveller continuum infographic** outlines the traveller journey from the perspective of third-country nationals planning a short-stay visit to the Schengen area. The figure presents the **integrated management of the EU's external borders** and the different checks operated automatically by systems and on databases at each step.



## THE TRAVELLER CONTINUUM



Systems and databases checked at different steps

- EES
- ETIAS
- SIS
- Interpol databases
- VIS
- Eurodac
- ECRIS-TCN
- Europol database

# 3Rs STRATEGY

In May 2023, eu-LISA adopted the **3Rs Resolution Strategy**, to break the long-standing deadlock with the development of new systems. This strategy is based on **three pillars: Remobilise, Resolve, Renew**



## REMOBILISE service providers

restart dialogue and engage with contractors on all levels, including daily interaction and progress monitoring



## RESOLVE operationally

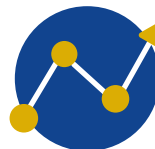
resolve system complexities and address the most difficult technical challenges to enable Member States to proceed with preparations



## RENEWED ways of working

adopt best industry practices with stronger collaboration across teams, using agile methodology to deliver at a faster pace

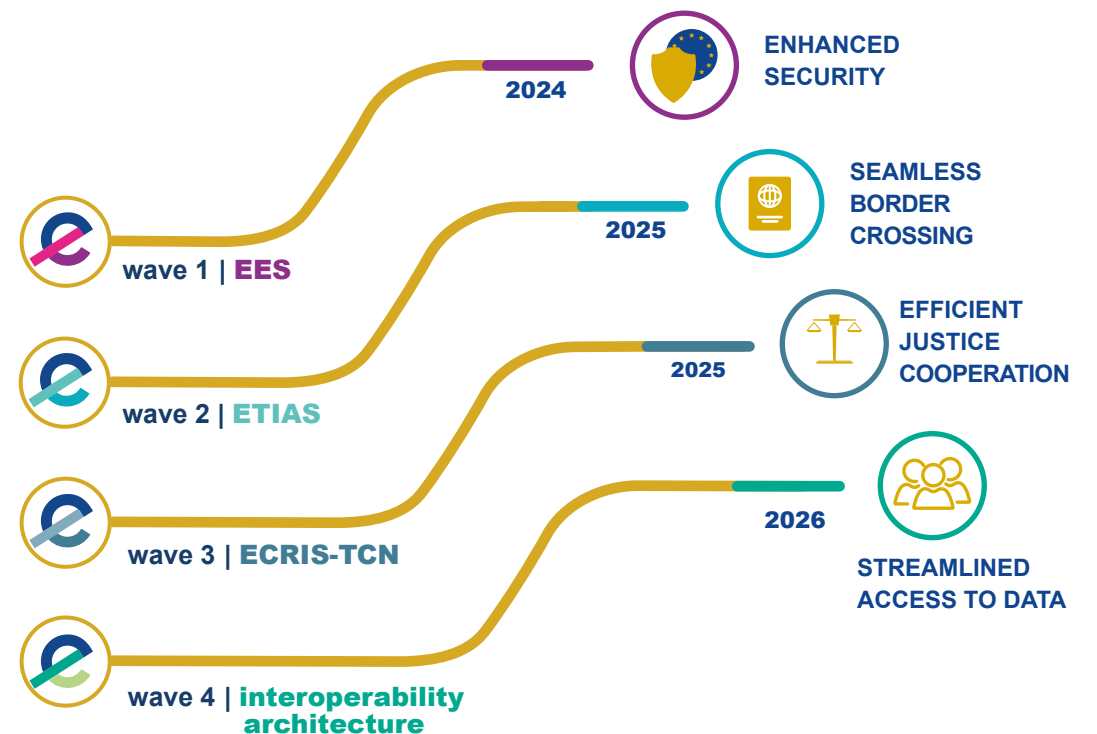
This new approach delivered positive results in a matter of months, **speeding up the development of new systems** by enabling Member States to conduct test campaigns and progress with necessary preparations



# NEW ROADMAP FOR INTEROPERABILITY

To ensure the successful delivery of new JHA systems and the overarching interoperability architecture, eu-LISA proposed a revised timeline for the **gradual rollout of new systems** – the new Interoperability Roadmap, which was endorsed by the JHA Council on 19 October 2023.

From 2024 to 2026, eu-LISA will deliver new systems in **four successive waves of deployment**, with each wave focusing on the technical readiness of one key system and accompanying services:



Once operational, this overarching systems interoperability will enable **seamless data exchange between all JHA systems** managed by eu-LISA, ushering in a new era of excellence in border management and internal security for the EU.





# ENTRY/ EXIT SYSTEM

EES is one of two new IT systems that is set to **modernise the EU's border control** processes by replacing the current practice of manual stamping of passports with the electronic registration of all third-country nationals entering and exiting the Schengen area. The system will include an online **interface for passenger carriers**, enabling them to verify the right of entry to the Schengen area prior to boarding.

In recent years, EES development faced serious challenges, having a knock-on effect on the timely delivery of all other systems. In 2023, eu-LISA took decisive action by adopting the **3Rs resolution strategy to break the long-standing deadlock**.

## KEY HIGHLIGHTS



### PROGRESS UNLOCKED

**3Rs strategy:** accelerating EES development and delivering **three new releases**, enabling Member States to continue with testing and necessary preparations

## NEXT STEPS



# EUROPEAN TRAVEL INFORMATION AND AUTHORISATION SYSTEM



ETIAS is an **online pre-screening system** for visa-exempt third-country nationals, which will **introduce travel authorisation as a new condition** for entry to the Schengen area. The system will be launched together with a dedicated **web interface and mobile application for travellers**.

ETIAS travel authorisations will be checked by air, sea and land carriers prior to boarding and later also by border guards. In addition to **facilitating border-crossing**, ETIAS will contribute to the EU's internal security by enabling the **identification of potential security, migration and public health risks**.

## KEY HIGHLIGHTS



### MAKING HEADWAY

**3Rs strategy:** success with EES allowed eu-LISA to progress with ETIAS development, and the system is on track to achieve **technical readiness by mid-2025**

## NEXT STEPS

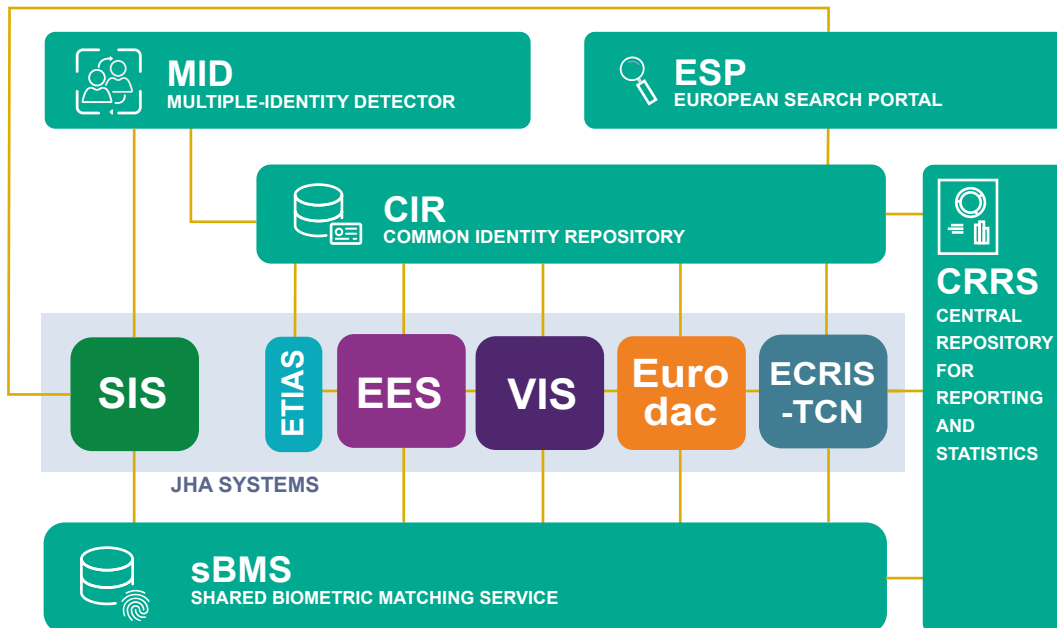


# INTEROPERABILITY

Interoperability is the capability of interconnected systems to share data and exchange information. eu-LISA has been tasked with developing the new **interoperability architecture for the EU's JHA domain** to improve the efficient management of Europe's external borders, internal security and migration.

This overarching systems interoperability will be enabled by dedicated components that will make it easier for European law enforcement authorities to **search and exchange information across all JHA databases and systems** managed by the Agency: SIS, VIS, Eurodac, EES, ETIAS, and ECRIS-TCN.

## JHA INTEROPERABILITY ARCHITECTURE



## INTEROPERABILITY COMPONENTS



the **European search portal (ESP)** enables authorised users to conduct single searches and receive results from all JHA information systems they are authorised to access



the **common identity repository (CIR)** is a database of biographical information on third-country nationals to ensure reliable identification



the **multiple-identity detector (MID)** enables the detection of multiple identities linked to the same biometric data across all JHA systems



the **shared biometric matching service (sBMS)** for cross-matching of identity data with biometric identifiers across all JHA systems



As a separate component, the **central repository for reporting and statistics (CRRS)** will provide cross-system statistical data and analytical reporting on all systems for policy, operational and data quality purposes.

## ROLLOUT OF INTEROPERABILITY COMPONENTS



# e-CODEX

## e-Justice Communication via Online Data Exchange

The e-CODEX system provides the digital infrastructure for the secure transmission of electronic content in **cross-border judicial proceedings**. The system serves as the key technological enabler for the digitalisation of the EU's justice domain, ensuring a more efficient process for citizens and businesses across Europe. eu-LISA is set to take over the system's operational management in 2024.

### KEY HIGHLIGHTS



#### READY FOR TAKEOVER

**8 December 2023:** joint request by eu-LISA and the e-CODEX Consortium submitted to the Commission to declare the successful completion of the handover and takeover process

# ECRIS-TCN

## European Criminal Records Information System on third-country nationals and stateless persons

Under EU law, national courts must consider previous convictions when passing sentences in criminal cases. ECRIS was set up to facilitate **information exchange on the criminal records** of European citizens. ECRIS-TCN will supplement the existing system with information on criminal records of third-country nationals and stateless persons convicted in the EU.

### KEY HIGHLIGHTS



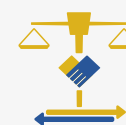
#### READY FOR TESTING

eu-LISA delivered **two integrated simulators**, combining the central system, interface software, and the European search portal simulator

## DIGITALISATION OF JUSTICE

In 2020, the European Commission launched the initiative for the digitalisation of justice with the aim of **improving cooperation between European judicial authorities**, while also providing better access to justice for citizens and businesses across the EU.

### JOINT INVESTIGATION TEAMS COLLABORATION PLATFORM



eu-LISA's next major development project for the EU's justice domain will provide secure electronic information exchange for **cross-border criminal investigations and prosecutions**.

# RESEARCH AND INNOVATION

As a **driver of digital transformation** in the JHA domain, eu-LISA monitors research and technology innovation to provide **state-of-the-art expertise** to its stakeholders. In addition, the Agency engages in pilot testing novel solutions to address specific operational challenges and capability gaps.

This role includes support for the **EU Framework Programme for Research and Innovation**, and active participation in the **EU Innovation Hub for Internal Security**. To support JHA systems interoperability, eu-LISA contributes to the **development of international standards**, and compiles progress reports on the **EU Roadmap for Standardisation for Data Quality Purposes**.

## BIOMETRICS



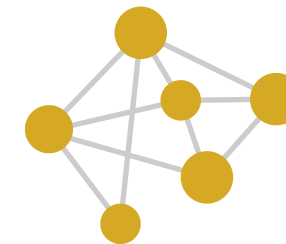
- **Scientific paper:** [↗](#)  
'Fingerprint quality per individual finger type: A large-scale study on real operational data'
- **EU Innovation Hub for Internal Security:**  
chairing the Hub's biometrics cluster
- **EU Innovation Hub report on encryption:** [↗](#)  
contributing a chapter on biometric data
- **ISO Sub-Committee 37 on biometrics:**  
hosting working group meetings in Tallinn
  - **Facial images:** contribution to the development of Open Source Face Image Quality (**OFIQ**) software
  - **Fingermarks:** initiated new international standard and development of new quality metric

## INDUSTRY ROUNDTABLES



- June 2023 in Stockholm, Sweden  
**Looking Ahead. Ensuring the cyber resilience of the EU's IT systems against emerging threats** [↗](#)
- October 2023 in Madrid, Spain  
**Digitalisation of Justice: Turning Challenges into Opportunities** [↗](#)

## ARTIFICIAL INTELLIGENCE



- **eu-LISA Working Group for Artificial Intelligence (WGAI)**
- **Internal pilot project:** AI-based solution for predictive analytics to improve infrastructure availability and reduce downtime

## JHA SYSTEMS TRAINING TO MEMBER STATES

eu-LISA has expanded its offering of e-learning courses and revamped its **online learning platform** to provide **round-the-clock remote access** to training resources, significantly boosting participation rates.

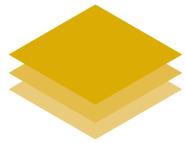


- **41** Training Activities
- **4112** Participants
- **88%** Satisfaction rate

# INFRASTRUCTURE AND NETWORK

All information systems managed by eu-LISA are hosted in data centres, whereas the connectivity between the systems and their end-users is enabled by the communication infrastructure running on the core network.

## INFRASTRUCTURE AND DATA CENTRES



### INFRASTRUCTURE DEVELOPMENT

**Common shared platform:** scalable and standardised infrastructure platform for providing the underlying technical services needed to run all IT systems managed by eu-LISA

**'Smart Hosting' initiative:** launched to streamline IT systems hosting through cloud technologies and providing a container platform to improve deployment efficiency



### DATA CENTRE CAPACITY INCREASE

Ongoing preparations for future **modular data centre** in Strasbourg to provide additional capacity for new systems

## NETWORKS

Communication infrastructure for secure and reliable data transfer between the JHA systems and end-users

### AVAILABILITY



**>99.99%**

wide-area network (WAN) for SIS and VIS

### INTERNET REGISTRY



**May 2023:** eu-LISA designated as a local internet registry (LIR)

# DIRECT SUPPORT TO OPERATIONS

## SUPPORT TO OPERATIONS

eu-LISA Service Desk provides **24/7 support to end-users** to ensure uninterrupted provision of high-quality services.



**1404**

Service requests

**2336**

Incidents

**100%**

Performance indicator\*

**97.3%**

Customer satisfaction

\*Based on:

- Time to respond to notification from end-users
- Time to resolve the issue

## SECURITY AND BUSINESS CONTINUITY

Ensuring the security of the EU's JHA information systems and the safety of the sensitive data hosted are among the Agency's highest priorities:



- enhanced monitoring of the **security threat landscape** in the context of Russia's war of aggression against Ukraine
- **cyber security:** reinforcing eu-LISA's defensive readiness posture in collaboration with CERT-EU
- **October 2023:** VIS disaster recovery exercise

# PARTNERSHIP WITH OTHER EU AGENCIES



Areas of Cooperation



Main focus for 2023

## EUROPOL

Access to IT systems, training and administrative cooperation

Implementation of renewed SIS; EES/ETIAS implementation;

## EIGE

Cooperation on cybersecurity, resilience and business continuity

Best practices in the area of diversity and inclusion

## FRA

Joint training courses and research on biometrics and human rights implications of JHA systems

Expert advice to ensure that JHA systems adhere to fundamental rights standards

## FRONTEX

Data centre hosting services, statistics, IT security, trainings, research and development

Implementation of EES/ETIAS; preparations for integration to SIS

## EUROJUST

Administrative cooperation and access to IT systems

e-CODEX takeover and ECRIS-TCN implementation

## ENISA

Cybersecurity legislation, business continuity and administrative cooperation

Service level agreement renewed in June 2023, support to eu-LISA security exercises

## EUAA

Data centre hosting services (disaster recovery site), DubliNet, asylum statistics

Renewal of DubliNet security certificates

## CEPOL

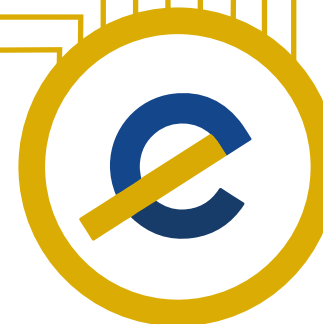
Trainings for the EU's JHA community, incl. joint courses

Joint EES/ETIAS training courses with Frontex

## EASA

Support the implementation of EES and ETIAS Regulations

Information exchange with air carriers on registration for EES/ETIAS web services



# GOVERNANCE AND COMPLIANCE

The governance function ensures that eu-LISA operates in compliance with the EU regulatory framework by applying sound and transparent administrative practices.

## GOVERNANCE



### 'EFFECTIVE CAF USER' CERTIFICATE

May 2023: 'Effective CAF user' label awarded, making eu-LISA the only EU agency with a valid CAF certificate



### AUDIT RECOMMENDATIONS

Closing outstanding audit recommendations: significant progress made, with 87% implementation rate

## CORPORATE SUPPORT



- Budget execution for commitments and payments: close to 100%
- Notable increase in the occupancy rate: 94.2%

## DATA PROTECTION



- Working closely with the **European Data Protection Supervisor (EDPS)** to ensure high-level data protection
- Drafting data protection impact assessments (DPIAs)
- DPO Annual Work Report 2022 [📄](#)

# FINANCIAL AND HUMAN RESOURCES



TOTAL EXPENDITURE  
**291.29 M**



STAFF EXPENDITURE  
**41.22 M**

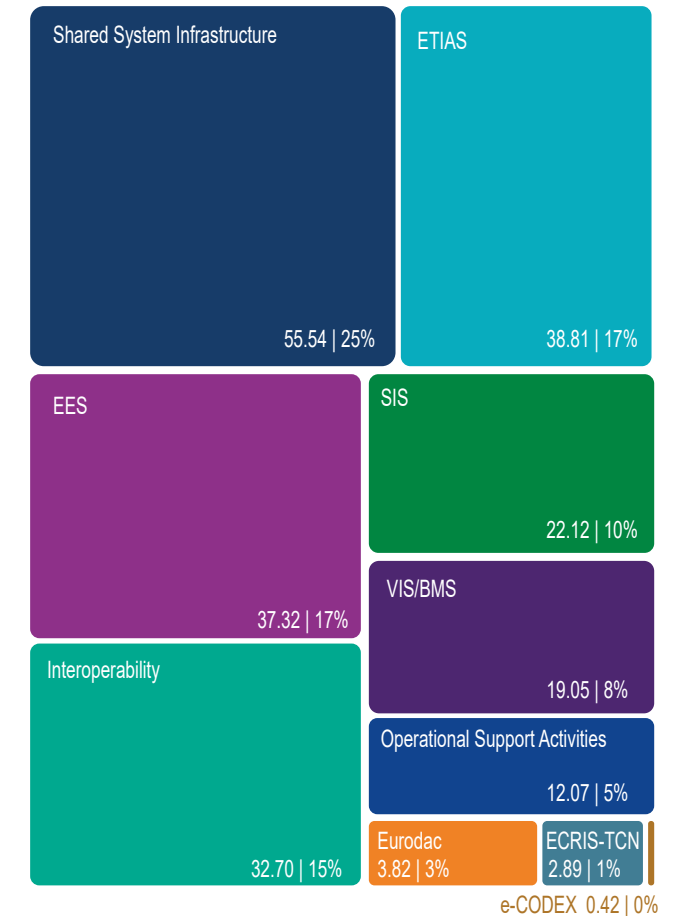


INFRASTRUCTURE and OPERATING EXPENDITURE  
**25.49 M**



OPERATIONAL EXPENDITURE  
**252.93 M**

## OPERATIONAL EXPENDITURE BREAKDOWN (in million EUR)



## STAFF BY LOCATION

**342**  
STAFF



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First Edition.

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